COUNTY OF WASHINGTON, VIRGINIA

C. WAYNE STEVENS, JR. PUBLIC SAFETY FACILITY

HIGHLANDS BUSINESS PARK – OWENS DRIVE

GLADE SPRING, VIRGINIA 24340

CIVIL — COMMONWEALTH OF VIRGINIA — MATTHEW R. LANE — Lic. No. 34173 — 1/30/26 — PROFESSIONAL ENGINEER

STRUCTURAL — COMMONWEALTH OF VIRGINIA — JOHN L. JACOBS — Lic. No. 16810 — 01/30/2026 — PROFESSIONAL ENGINEER

ARCHITECTURE — COMMONWEALTH OF VIRGINIA — D. MICHAEL WEAVER — LIC. NO. 9031 — 01-30-2026 — ARCHITECT

MECHANICAL — COMMONWEALTH OF VIRGINIA — DERWIN EUGENE CARTMEL — Lic. No. 31491 — 1/30/26 — PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA — JOE W. RIGGS — Lic. No. 022741 — 1-30-26 — PROFESSIONAL ENGINEER

FIRE PROTECTION — COMMONWEALTH OF VIRGINIA — Lic. No. 68421 — 01-30-2026 — PROFESSIONAL ENGINEER

GENERAL PROJECT INFORMATION

PROJECT DATA

PROJECT
C. WAYNE STEVENS, JR. PUBLIC SAFETY FACILITY
HIGHLANDS BUSINESS PARK
OWENS DRIVE
GLADE SPRING, VIRGINIA 24340

OWNER / DEVELOPER
COUNTY OF WASHINGTON, VIRGINIA
DEPARTMENT OF EMERGENCY MANAGEMENT
1 GOVERNMENT CENTER PLACE, SUITE A
ABINGDON, VIRGINIA 24210

OWNER CONTACT PERSON
KEVIN HILL, GENERAL SERVICES DIRECTOR

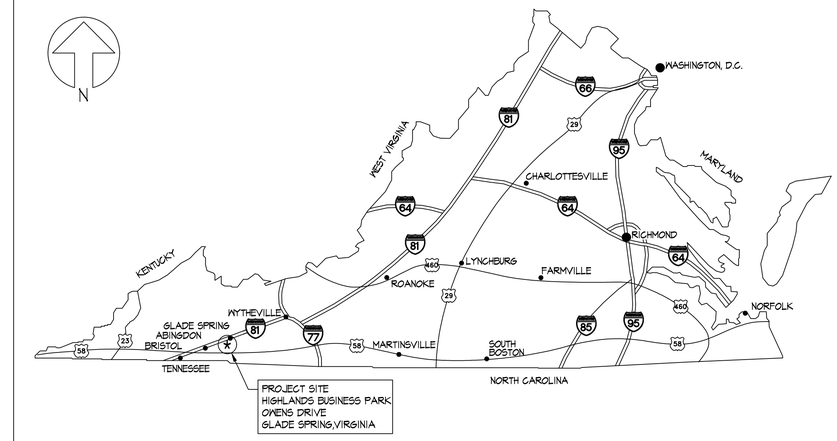
TELEPHONE NO.: 276-525-1355
EMAIL: khill@washcova.com

DESIGNERS OF RECORD

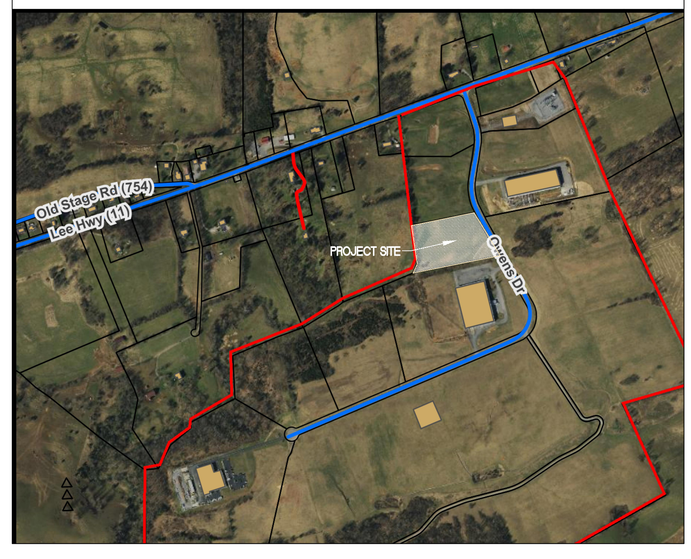
DISCIPLINE	NAME	LICENSE NO.	TELEPHONE NO.
ARCHITECT	MICHAEL WEAVER, AIA	VA. 009031	276-206-8571
CIVIL ENGR.	MATTHEW LANE, P.E.	VA. 034173	276-206-8571
STRUCTURAL	JOHN L. JACOBS, P.E.	VA. 016810	423-787-7828
PLUMBING	DERWIN E. CARTMEL, P.E.	VA. 031491	423-926-5491
HVAC	DERWIN E. CARTMEL, P.E.	VA. 031491	423-926-5491
SPRINKLER	DERWIN E. CARTMEL, P.E.	VA 031491	423-926-5491
ELECTRICAL	JOE W. RIGGS, P.E.	VA 022741	423-926-5491
FIRE ALARM	JOE W. RIGGS, P.E.	VA 022741	423-926-5491

DRAWING INDEX

DRAWING INDEX



STATE MAP



PROJECT

COUNTY OF WASHINGTON, VIRGINIA

C. WAYNE STEVENS, JR PUBLIC SAFETY FACILITY

HIGHLANDS BUSINESS PARK
OWENS DRIVE
GLADE SPRING, VA 24340

TLG PROJECT NO. 2515

TITLE SHEET

DRAWING INDEX

LOCATION INFORMATION

T-100

Date 01-30-2026

the LANE GROUP | engineering architecture environmental
310 Valley Street N W
Abingdon, VA 24210
276.206.8571 - office
Abingdon I Big Stone Gap I Galax

USDA Rural Development
U.S. DEPARTMENT OF AGRICULTURE

WASHINGTON COUNTY VIRGINIA

ABBREVIATIONS

&	AND
@	At the Rate of (refers to spacing)
AB	Anchor Bolt
ABV	Above
ADJ	Adjustable
AFF	Above Finish Floor
AHU	Air Handling Unit
ALT	Alternative, Alternate
ALUM	Aluminum
APPROX. ~	Approximately
ARCH	Architect, Architectural
ASPH	Asphalt
BD	Board
BLDG	Building
BLKG	Blocking
BLW	Below
BM	Beam
BRK	Brick
BTU	British Thermal Unit
BUR	Built-up Roofing
CFM	Cubic Feet Per Minute (Air Flow)
CG	Corner Guard
C.I.P.	Cast-In-Place
CJ	Control Joint
℄	Center Line
CLO	Closet
CLG	Ceiling
CLR	Clear
CMU	Concrete Masonry Unit
CO	Cleanout
C.H.	Coat Hook
COL	Column
CONC	Concrete
CONT	Continuous
CONTR	Contractor
CORR	Corridor
CPT	Carpet
C.S.	Concrete Sealer, Concrete Stain
C.T.	Ceramic Tile
CTB	Ceramic Tile Base
CTR	Center
CW	Cold Water
DEMO	Demolish, Demolition
DET	Detail
DF	Drinking Fountain
DIA	Diameter
DIF	Determine in Field
DIFF	Diffuser
DIM	Dimension
DISCH	Discharge
DN	Down
DO	Ditto
DR	Door
DI	Drop Inlet
DRN	Drain
DS	Downspout
DW	Dishwater
DWG	Drawing
DWR	Drawer
E	East
EA	Each
EW	Exhaust Fan or Each Face
EUH	Electric Unit Heater
EJ	Expansion Joint
EL	Elevation
ELEC	Electric, Electrical
ELEV	Elevator
EMER	Emergency
ENGR	Engineer
EOS	Edge of Slab
EP	Epoxy Paint
EQ	Equal
EQUIP	Equipment
EW	Each Way
EWC	Electric Water Cooler
EXH	Exhaust
EXIST	Existing
EXP	Exposed
EXT	Exterior
F	Fahrenheit
FCU	Fan Coil Unit
FD	Fire Damper or Floor Drain
FE	Fire Extinguisher
FEC	Fire Extinguisher Cabinet
FFE	Finish Floor Elevation
FF&E	Finishes, Fixtures, & Equipment
FHC	Fire Hose Cabinet
FIN	Finish, Finished
FLUOR	Fluorescent
FR	From
FRGWB	Fire-Rated Gypsum Wallboard
FT	Feet
FTG.	Footing
FURR	Furring
GA	Gauge
GAL	Gallon
GALV	Galvanized
G.B.	Grab Bar
G.C.	General Contractor
GHM	Galvanized Hollow Metal
GPM	Gallons Per Minute
GRV	Gravity Roof Ventilator
GWB	Gypsum Wallboard
HC	Handicapped
HDWR	Hardware
HDWD	Hardwood
HM	Hollow Metal
HORIZ.	Horizontal
HP	Horse Power / Heat Pump
HR	Handrail
HT	Height
HTG	Heating
HTR	Heater
HVAC	Heating / Ventilating / Air Cond.
HW	Hot Water
HWD	Hardwood
IN	Inches
INCL	Included, Inclusive
INSUL	Insulation
INT	Interior
JAN	Janitor
JT	Joint

KIT	Kitchen
KW	Kilowatts
L	Length, Lintel
LAM	Laminated
LAV	Lavatory
LBS	Pounds
LF	Linear Feet
LKR	Locker
LT	Light
MAS	Masonry
MATL	Material
MAX	Maximum
MECH	Mechanical
MFG	Manufacturer
MIN	Minimum
MIR	Mirror
MISC	Miscellaneous
MO	Masonry Opening
MRGWB	Moisture Resistant Gypsum Wallboard
MTD	Mounted
MTL	Metal
MTR	Motor
MUL	Mullion
N	North
N/A	Not Applicable
NIC	Not in Contract
NO., #	Number
NOM.	Nominal
NR	Non-Rated
NRCA	National Roofing Contractors Association
NTS	Not to Scale
OC	On Center
O.H.	Overhead
O.H.E.	Overhead Electric
OPNG	Opening
OPP.	Opposite
OSB	Oriented Strand Board
P	Paint
PC	Precast
PEMB	Pre-Engineered Metal Bldg.
PH	Phase
PL	Plate
PLAM	Plastic Laminate
PLAS	Plaster
PP	Power Pole
PNL	Panel
POLYISO.	Polyisocyanurate
PROJ	Projection, Project
PRT	Pre-cast Resilient Terrazzo Tile
PSI	Pounds Per Square Inch
PT	Porcelain Tile, Pressure Treated
PTD	Painted or Paper Towel Dispenser
PWD	Plywood
QT	Quarry Tile
R	Radius
RA	Return Air
RB	Rubber Base, Resilient Base
RC	Resilient Channel
RD	Roof Drain
REF	Reference
REFRIG	Refrigerator
REINF	Reinforced, Reinforcement
REQD	Required
RET	Return
REV	Revise / Revised
RM	Room
R.O.W.	Right of Way
RO	Rough Opening
RPM	Revolution Per Minutes
RTU	Roof Top Unit
S	South
SATC	Suspended Acoustical Tile Ceiling
SCH	Schedule
SD	Smoke Damper or Soap Dispenser
SECT	Section
SF	Square Foot (feet)
SHT	Sheet
SHT MTL	Sheet Metal
SIM	Similar
SPECS	Specifications
SQ	Square
SS, S/S	Stainless Steel
STD	Standard
STL	Steel
STOR	Storage
STRUCT	Structure or Structural
SUSP	Suspended
SV	Sheet Vinyl
T/	Top of
T/CONC	Top of Concrete
T/STL	Top of Steel
T/W	Top of Wall
T&G	Tongue and Groove
TBD	To Be Determined
TEL	Telephone
TEMP	Temperature
TH	Thermometer
THK	Thickness)
THOLD	Threshold
TLT	Toilet
TPD	Toilet Paper Dispenser
TSTAT	Thermostat
TV	Television
TYP	Typical
UC	Undercut
UG	Underground
UH	Unit Heater
UL	Underwriters Laboratory
UR	Urinal
V	Volts
VA	Virginia
VAV	Variable Air Volume
VCT	Vinyl Composition Tile
VERT	Vertical
VEST	Vestibule
VHDA	Virginia Housing Development Authority
VIF	Verify in Field
VOL	Volume
VT	Virginia Tech (Go Hokies!)
VTR	Vent Thru Roof
VWC	Vinyl Wall Covering

MATERIALS & SYMBOLS

ACOUSTICAL TILE

BATT INSULATION

CARPET

CAST STONE

CERAMIC TILE

CMU

CONCRETE

EARTH

FACE BRICK

FOAM INSULATION

GLASS BLOCK

GRAVEL

MARBLE

STEEL

STONE

STRUCTURAL CLAY TILE

STRUCTURAL STEEL

PLYWOOD

RIGID INSULATION

TERRAZZO

WOOD FINISH

WOOD BLOCKING

WOOD ROUGH FRAMING

DETAIL TAG (2 / A102 | A402)

EXTERIOR ELEVATIONS (A / A201)

SECTION "CUT" LINE (2 / A301)

INTERIOR ELEVATIONS (A, B, C, D) A401

DETAIL (2 / A402) — SCALE, DWG IDENTIFICATION

INTERNATIONAL SYMBOL OF ACCESSIBILITY

PROJECT NORTH (NORTH)

DOOR TAG (25)

WINDOW TAG (A)

DEMOLITION KEY NOTE LETTER (C)

NEW WORK KEY NOTE NUMBER (4)

PARTITION TYPE TAG (2)

ROOM SIGNAGE TAG (2)

ELEVATION DESIGNATION

SPOT ELEVATION (+20.00") (distance above (+) or below (-) main floor level)

BREAK LINE

REVISION TAG (2)

ROOM NAME / 100 — ROOM IDENTIFICATION

DETAIL AREA

W	West, Width
W/	With
W/O	Without
WC	Water Closet
WD	Wood
WH	Water Heater
WT	Weight
WTR	Water
WWF	Welded Wire Fabric

MISC. PROJECT NOTES

THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL WORK REQUIRED FOR THE SUCCESSFUL COMPLETION OF THE PROJECT. ALL WORK LISTED, SHOWN, OR IMPLIED ON THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE EXTENT IT IS REASONABLE TO INFER THE WORK NECESSARY TO PRODUCE THE INTENDED RESULT.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING PERMITS, WORK, AND MATERIALS IN ACCORDANCE WITH ALL CODES, ORDINANCES, AND REGULATIONS APPLICABLE AT THE PROJECT LOCATION.

USE OF THE WORD "PROVIDED" IN CONNECTION WITH ANY ITEM SHOWN SHALL MEAN FURNISHED, INSTALLED, AND CONNECTED, UNLESS NOTED OTHERWISE.

THESE DRAWINGS ARE INTENDED TO PROVIDE SUFFICIENT INFORMATION TO OBTAIN A BUILDING PERMIT AND TO CONVEY GENERAL DESIGN INTENT TO THE CONTRACTOR. ADDITIONAL TECHNICAL ADVICE AND DETAILING MAY BE REQUIRED FOR SUCCESSFUL COMPLETION OF THIS PROJECT AND IS THE CONTRACTOR'S RESPONSIBILITY.

CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT ALL WORK IS BUILDABLE, AS INDICATED, BEFORE PROCEEDING WITH CONSTRUCTION OR THE FABRICATION OF ANY ITEM TO BE INSTALLED IN THE PROJECT.

DO NOT SCALE DRAWINGS! USE ONLY THE DIMENSIONS INDICATED ON THE DRAWINGS. IF DIMENSIONS ON THE DRAWINGS ARE AT VARIANCE WITH ACTUAL CONDITIONS, SUCH THAT WORK CANNOT PROCEED AS INDICATED, REQUEST CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH CONSTRUCTION AND / OR FABRICATION OF ANY ITEM SCHEDULED FOR INSTALLATION.

CONTRACTOR IS RESPONSIBLE FOR THE MEANS, METHODS, AND TECHNIQUES OF CONSTRUCTION, SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK, AND FOR THE ACTS OR OMISSIONS OF SUBCONTRACTORS.

INSTALL ALL MANUFACTURED ITEMS, MATERIALS, AND EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDED SPECIFICATIONS.

UNLESS NOTED OTHERWISE, DIMENSIONS ARE FACE TO FACE OF METAL STUDS OR FACE TO FACE OF CMU.

EXTERIOR DIMENSIONS ARE FACE TO FACE OF FINISHED MATERIAL (i.e., FACE OF CONCRETE, FACE OF MASONRY, ETC.).

ELEVATIONS AND LEVELS ARE SHOWN TO TOP OF FINISHED HARD SURFACES (i.e., TOP OF CONCRETE FLOOR SLAB, ETC.). THIN-SET FINISH MATERIALS, SUCH AS CERAMIC TILE, ETC. ARE IN ADDITION TO THE DIMENSION INDICATED.

ALL VERTICAL PIPING SHALL BE FURRED AND FINISHED TO MATCH ADJACENT WALLS. EXCEPTIONS ARE IN MECHANICAL / ELECTRICAL ROOMS WHERE PIPING MAY REMAIN EXPOSED.

ALL ELECTRICAL CONDUITS SHALL BE CONCEALED WITHIN CMU WALLS. NO VISIBLE CONDUITS ARE PERMITTED, EXCEPT WITHIN THE ELECTRICAL ROOM.

CEILING ACCESS PANELS SHALL BE PROVIDED IN OTHERWISE NON-ACCESSIBLE CEILINGS BELOW THE FOLLOWING MECHANICAL AND PLUMBING DEVICES:

A. VALVES
B. FLOW MEASURING DEVICES
C. MIXING BOXES
D. POWER OPERATED DAMPERS
E. ACCESS PANELS IN DUCTWORK
F. VOLUME AND BALANCING DEVICES
G. WATER FLOW SWITCHES
H. SPRINKLER SYSTEM DRAINS AND TEST CONNECTIONS
I. PRESSURE SWITCHES

ITEMS MARKED "NIC" ARE NOT-IN-CONTRACT. THESE ITEMS ARE INCLUDED IN THE CONTRACT DOCUMENTS FOR REFERENCE AND MAY REQUIRE CONTRACTOR COORDINATION FOR CONSTRUCTION.

DETAILS MARKED "TYPICAL" OR "TYP." SHALL APPLY IN ALL CASES, UNLESS OTHERWISE NOTED.

DETAILS MARKED "SIMILAR" OR "SIM." SHALL HAVE COMPARABLE CONDITIONS TO THAT INDICATGED.

CONTRACTOR SHALL CLEAN UP CONSTRUCTION DEBRIS ON A DAILY BASIS. CONSTRUCTION DEBRIS SHALL BE STORED IN A DUMPSTER OR OTHER SUITABLE CONTAINER THAT WILL FACILITATE LEGAL DISPOSAL.

ENERGY CONSERVATION

PER THE VIRGINIA ENERGY CONSERVATION CODE, CHAPTER 3, SECTION 301, "CLIMATE ZONES", THIS PROJECT SITE FALLS WITHIN ZONE 4A.

IN ACCORDANCE WITH THE VIRGINIA ENERGY CONSERVATION CODE, CHAPTER 4, TABLE C402.1.3, , "OPAQUE THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS, R-VALUE METHOD", AND TABLE 402.1.4, "OPAQUE THERMAL ENVELOPE ASSEMBLY MAXIMUM REQUIREMENTS, U-FACTOR METHOD", THE FOLLOWING MINIMUM INSULATION REQUIREMENTS APPLY TO ZONE 5A:

CODES & ORDINANCES

2021 - VIRGINIA CONSTRUCTION CODE
(VIRGINIA UNIFORM STATEWIDE BUILDING CODE)
2021 - VIRGINIA EXISTING BUILDING CODE
2021 - VIRGINIA ENERGY CONSERVATION CODE
2021 - VIRGINIA PLUMBING CODE
2021 - VIRGINIA MECHANICAL CODE
2020 - NATIONAL ELECTRICAL CODE
2010 - ADA STANDARDS FOR ACCESSIBLE DESIGN

USE AND OCCUPANCY

MIXED USE OCCUPANCY
1,666.41 GSF - OCCUPANCY TYPE S-1
2,870.09 GSF - OCCUPANCY TYPE S-2
2,511.29 GSF - OCCUPANCY TYPE B / CONCENTRATED LOAD
1,546.96 GSF - OCCUPANCY TYPE B / ACCESSORY SLEEPING QUARTERS

TOTAL OCCUPANT LOAD

5 OCCUPANTS - OCCUPANCY TYPE S-1
9 OCCUPANTS - OCCUPANCY TYPE S-2
(57 OCCUPANTS - OCCUPANCY TYPE S-2 WHEN CONVERTED TO OCCUPANCY TYPE B FOR EMERGENCY OPERATIONS CENTER USE)
50 OCCUPANTS - BUSINESS OCCUPANCY / CONCENTRATED LOAD
10 OCCUPANTS - BUSINESS OCCUPANCY / ACCESSORY SLEEPING QUARTERS

122 MAXIMUM OCCUPANCY PER CODE. 40 OCCUPANTS MAXIMUM EXPECTED.

CONSTRUCTION TYPE

TYPE III (VCC SECTION 602.3)
(EXTERIOR WALLS OF NONCOMBUSTIBLE MATERIALS AND THE INTERIOR BUILDING ELEMENTS OF ANY MATERIAL PERMITTED BY CODE).

HIGH PERFORMANCE BUILDING ACT

THIS BUILDING IS GREATER THAN 5,000 GROSS SQUARE FEET AND, THEREFORE, MUST MEET THE DESIGN REQUIREMENTS OF HB2001, VIRGINIA HIGH PERFORMANCE BUILDING ACT.

FIRE PROTECTION

AN AUTOMATIC SPRINKLER SYSTEM IS PROVIDED.
A FIRE ALARM SYSTEM IS PROVIDED.

BUILDING HEIGHT / AREA

1 STORY ACTUAL / 6 STORIES ALLOWED BY CODE.
8,600.75 GROSS SQUARE FEET ACTUAL / 114,000 ALLOWED BY CODE.

AREA INCREASE NOT REQUIRED.

TABULATION OF PLUMBING FIXTURES.

MAXIMUM OCCUPANCY 122 PERSONS - 61 MEN AND 61 WOMEN

3 WATER CLOSETS REQUIRED / 5 PROVIDED.
3 LAVATORIES REQUIRED / 5 PROVIDED.

1 HIGH / LOW DRINKING FOUNTAIN REQUIRED / 2 PROVIDED.
1 SERVICE SINK REQUIRED / 1 PROVIDED.

TABULATION OF PARKING SPACES.

A TOTAL OF 25 PARKING SPACES ARE PROVIDED, INCLUDING ONE (1) VAN ACCESSIBLE PARKING SPACE, ONE (1) REGULAR ACCESSIBLE PARKING SPACE, AND THREE (3) ELECTRIC VEHICLE READY PARKING SPACES.

INTERIOR FINISHES

FLAME SPREAD RATING SHALL BE IN ACCORDANCE WITH ASTM E84 AND GROUPED IN THE FOLLOWING CLASSES:

CLASS A: FLAME SPREAD 0-25, SMOKE-DEVELOPED 0-450.
CLASS B: FLAME SPREAD 26-75, SMOKE-DEVELOPED 0-450.
CLASS C: FLAME SPREAD 76-200, SMOKE-DEVELOPED 0-450.

THE RATINGS FOR THIS PRIMARILY GROUP "B" OCCUPANCY SHALL BE IN ACCORDANCE WITH THE "SPRINKLERED" PORTION OF THE VIRGINIA CONSTRUCTION CODE, TABLE 803.13, INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY.

EXIT ENCLOSURES AND PASSAGEWAYS: B
CORRIDORS: C
ROOMS AND ENCLOSED SPACES: C

ENERGY CONSERVATION

ABOVE DECK ROOF INSULATION:	R-30, CONTINUOUS
WALLS AND ABOVE GRADE INSULATION:	R-20
UNHEATED SLABS ON GRADE:	R-10 FOR 24" BELOW GRADE
SECTIONAL OVERHEAD DOORS	U-0.13
SWINGING OPAQUE DOORS:	U-0.37
SWINGING ENTRANCE DOORS:	U-0.30
WINDOWS (FIXED)	U-0.22
WINDOWS (OPERABLE)	U-0.30
FENESTRATION SHGC	0.40
FENESTRATION % OF EXTERIOR WALL	20%

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

PROJECT INFORMATION

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
1	
2	
3	

SHEET: G100

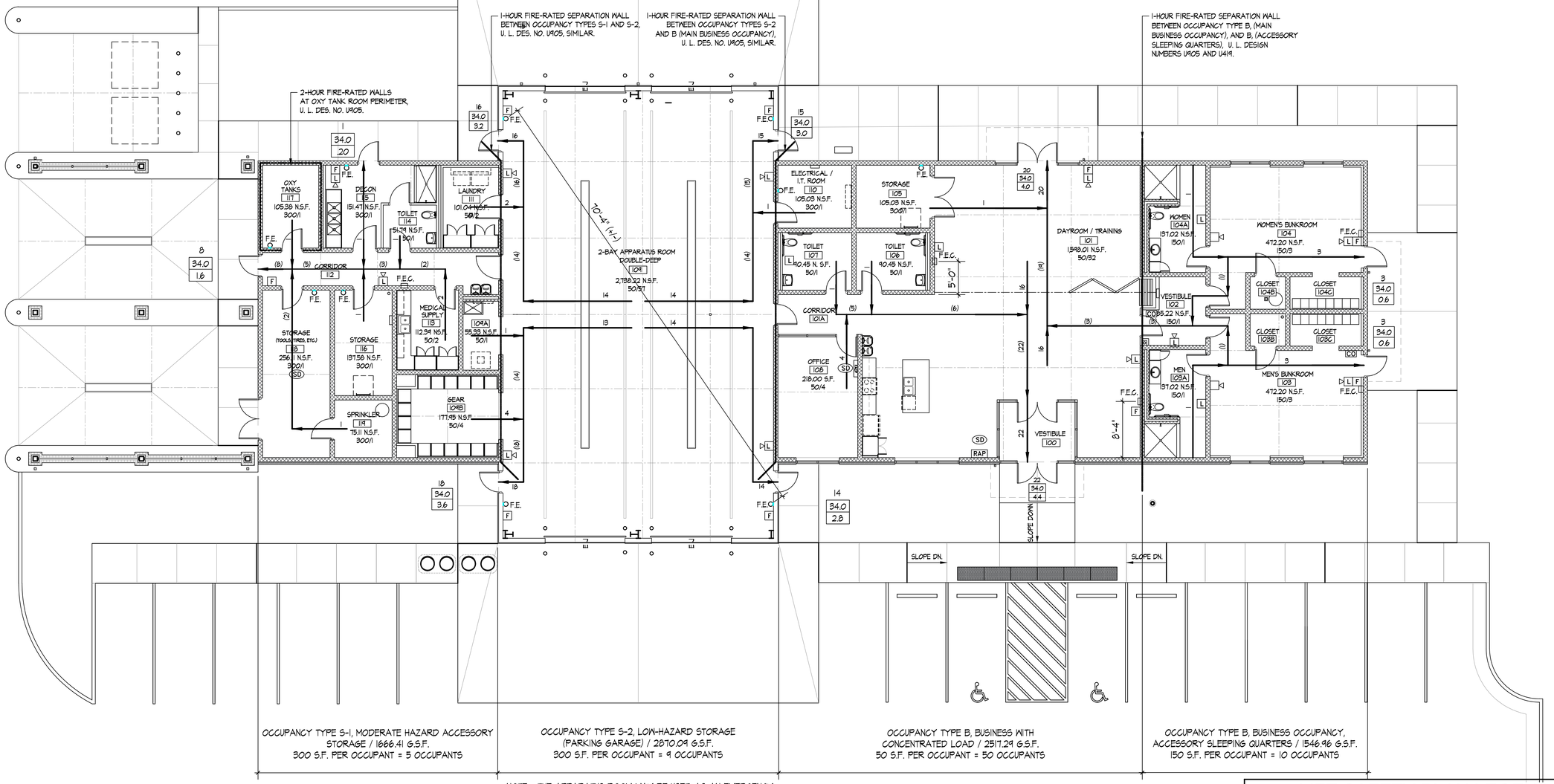
DRAWN BY: DMW | CHECKED BY: MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.

FIRE EXTINGUISHER NOTES

1. THE FIRE EXTINGUISHER IN ELECTRICAL / I.T. ROOM # 110 SHALL BE A CLEAN AGENT OR CARBON DIOXIDE TYPE EXTINGUISHER. BASIS OF DESIGN EXTINGUISHER SHALL BE LARSEN MP20 DRY CHEMICAL TYPE OR ARCHITECT APPROVED EQUAL.
2. ALL OTHER FIRE EXTINGUISHERS SHALL BE ABC DRY CHEMICAL TYPE, 20 LBS.
3. BASIS OF DESIGN FOR FIRE EXTINGUISHER CABINETS (FEC) SHALL BE MODEL #2712-RA SEMI-RECESSED CABINET, WITH ADA COMPLAINT HANDLE, AS MANUFACTURED BY LARSEN'S MANUFACTURING COMPANY. FIRE EXTINGUISHER CABINETS ARE LOCATED IN ROOMS DAYROOM / TRAINING ROOM #101 AND BUNKROOMS # 103 AND 104. ALL OTHER EXTINGUISHERS SHALL BE BRACKET HUNG.



NOTE: THE APPARATUS ROOM MAY BE USED AS AN EMERGENCY OPERATIONS CENTER. IN THAT EVENT, THE OCCUPANCY SHALL BE BUSINESS OCCUPANCY (CONCENTRATED USE) AND SHALL BE COMPUTED AS 50 S.F. PER OCCUPANT = 57 OCCUPANTS.

LIFE SAFETY PLAN NOTES

1. REFER TO DRAWING G100, "PROJECT INFORMATION", FOR CODE SUMMARY.
2. FIRE EXTINGUISHERS SHALL BE PROVIDED BY THE CONTRACTOR. TRAVEL DISTANCE BETWEEN EXTINGUISHERS SHALL NOT EXCEED 75'-0". SEE FIRE EXTINGUISHER NOTES ON THIS SHEET.
3. THIS BUILDING IS FULLY SPRINKLERED. LONGEST TRAVEL ROUTE ALLOWED BY CODE IS 300'-0" IN THE BUSINESS OCCUPANCY PORTION OF THE BUILDING, 250'-0" IN THE S-1 PORTION, AND 400'-0" IN THE S-2 PORTION, PER VCC TABLE 1017.2, "EXIT ACCESS TRAVEL DISTANCE." LONGEST TRAVEL ROUTE IN THIS BUILDING IS 70'-4" (+/-).
4. ELECTRICAL / I.T. ROOM, STORAGE ROOMS, AND ACCESSORY SPACES ARE COMPUTED AT 300 SQUARE FEET PER OCCUPANT.
5. PER VCC PARAGRAPH 1005.3.2, EGRESS DOORS SHALL HAVE A CAPACITY OF 0.2 INCH PER PERSON.
6. LOSS OF ANY EGRESS DOOR DOES NOT REDUCE THE OVERALL EGRESS CAPACITY BY MORE THAN 50%.

LIFE SAFETY PLAN

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

0 4' 8' 16'

8602.84 GROSS SQUARE FEET

NORTH

LIFE SAFETY PLAN LEGEND

AT EGRESS DOORS
- 160 — CUMULATIVE OCCUPANT LOAD
- 34.0 — EGRESS WIDTH PROVIDED (EXISTING CAPACITY)
- 32.0 — EGRESS WIDTH REQUIRED

CONFERENCE ROOM — ROOM NAME
118 — ROOM NUMBER
15/31 — NUMBER OF OCCUPANTS IN ROOM
AREA FACTOR PER OCCUPANT

F.E — FIRE EXTINGUISHER (BRACKET MOUNTED)
F.E.C — FIRE EXTINGUISHER CABINET
APPROXIMATE EGRESS PATH
LONGEST EGRESS PATH

the LANE GROUP
engineering architecture environmental
310 Valley Street NW
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Abingdon | Big Stone Gap | Galax
www.thelanegroupinc.com

NEW EMS FACILITY FOR
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LIFE SAFETY PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
1	*
2	
3	

SHEET: G101

DRAWN BY DMW | CHECKED BY MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.

SECURITY FLOOR PLAN NOTES + LEGEND

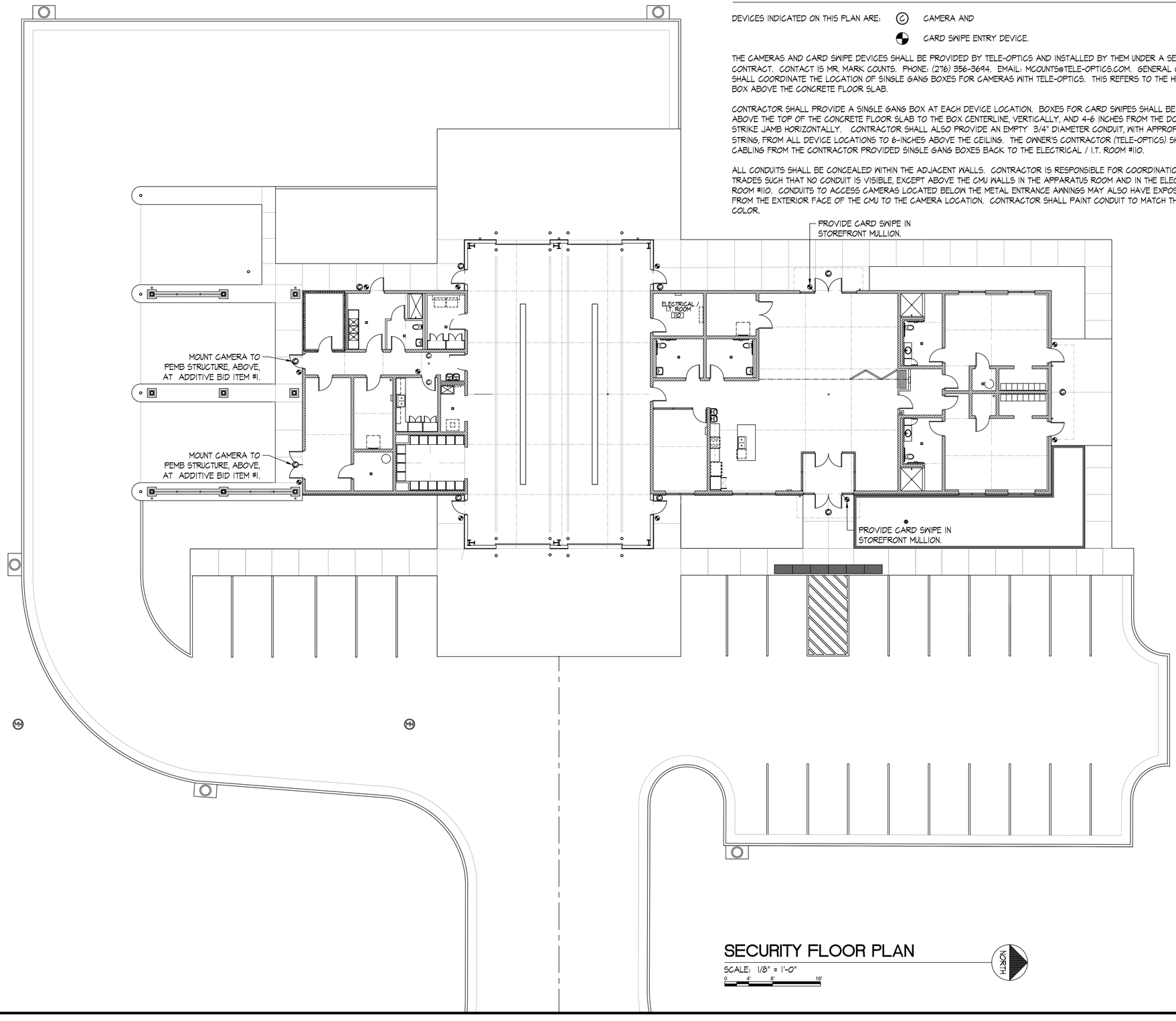
DEVICES INDICATED ON THIS PLAN ARE: Ⓒ CAMERA AND

CARD SWIPE ENTRY DEVICE.

THE CAMERAS AND CARD SWIPE DEVICES SHALL BE PROVIDED BY TELE-OPTICS AND INSTALLED BY THEM UNDER A SEPARATE CONTRACT. CONTACT IS MR. MARK COUNTS. PHONE: (276) 356-3694. EMAIL: MCOUNTS@TELE-OPTICS.COM. GENERAL CONTRACTOR SHALL COORDINATE THE LOCATION OF SINGLE GANG BOXES FOR CAMERAS WITH TELE-OPTICS. THIS REFERS TO THE HEIGHT OF THE BOX ABOVE THE CONCRETE FLOOR SLAB.

CONTRACTOR SHALL PROVIDE A SINGLE GANG BOX AT EACH DEVICE LOCATION. BOXES FOR CARD SWIPES SHALL BE MOUNTED 48" ABOVE THE TOP OF THE CONCRETE FLOOR SLAB TO THE BOX CENTERLINE, VERTICALLY, AND 4-6 INCHES FROM THE DOOR FRAME STRIKE JAMB HORIZONTALLY. CONTRACTOR SHALL ALSO PROVIDE AN EMPTY 3/4" DIAMETER CONDUIT, WITH APPROPRIATE PULL STRING, FROM ALL DEVICE LOCATIONS TO 6-INCHES ABOVE THE CEILING. THE OWNER'S CONTRACTOR (TELE-OPTICS) SHALL INSTALL CABLING FROM THE CONTRACTOR PROVIDED SINGLE GANG BOXES BACK TO THE ELECTRICAL / I.T. ROOM #110.

ALL CONDUITS SHALL BE CONCEALED WITHIN THE ADJACENT WALLS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION AMONG TRADES SUCH THAT NO CONDUIT IS VISIBLE, EXCEPT ABOVE THE CMU WALLS IN THE APPARATUS ROOM AND IN THE ELECTRICAL / I.T. ROOM #110. CONDUITS TO ACCESS CAMERAS LOCATED BELOW THE METAL ENTRANCE AWNINGS MAY ALSO HAVE EXPOSED CONDUITS FROM THE EXTERIOR FACE OF THE CMU TO THE CAMERA LOCATION. CONTRACTOR SHALL PAINT CONDUIT TO MATCH THE METAL AWNING COLOR.



SECURITY FLOOR PLAN

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

0 4' 8' 16'

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SECURITY FLOOR PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
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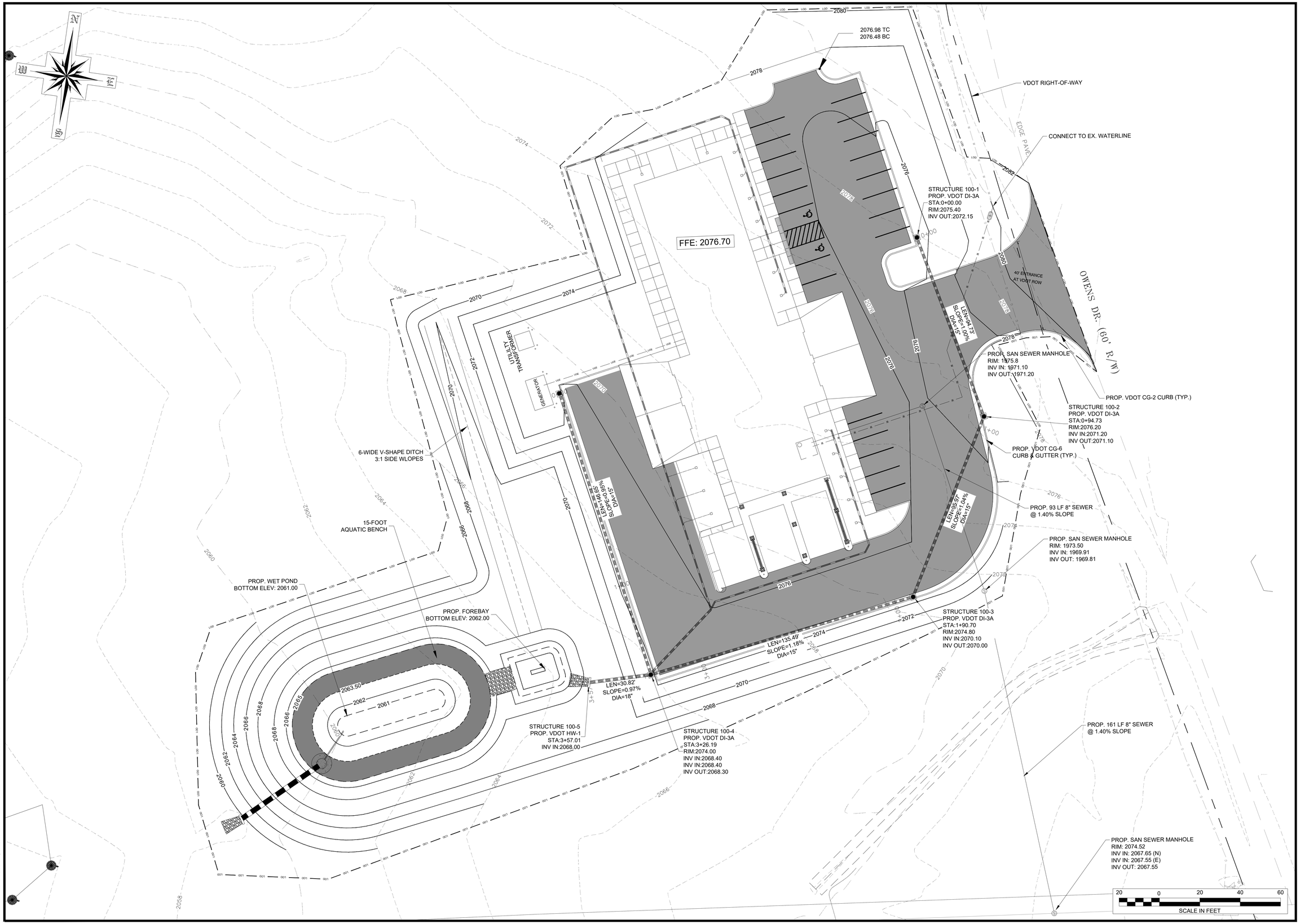
SHEET: G102

DRAWN BY: DMW | CHECKED BY: MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.



File: F:\WASHINGTON COUNTY, VIRGINIA\EMS FACILITY GLADE SPRING\SITE DESIGN\GLADE SPRING EMS SITE DESIGN.DWG

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NEW EMS FACILITY FOR WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUISNESS PARK
OWENS DRIVE
GLANDE SPRING, VA 24340

SITE/GRADING PLAN

COMMONWEALTH OF VIRGINIA
MATTHEW R. LANE
Lic. No. 34173
01.30.2026
PROFESSIONAL ENGINEER

DATE:	01-30-2026
NO.	REVISION DATE
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SHEET: C101

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MPH	MRL

PROJECT NO. TLG-2515

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NOTE: THE TWO 22'-0" WIDE X 30'-0" DEEP RESTOCKING AND MAINTENANCE BAYS ARE BASE BID. BASE BID INCLUDES CONCRETE PAVEMENT AND CONCRETE CURBS. THE CONCRETE PAVEMENT SHALL BE MONOLITHIC AND SHALL SHEET FLOW TO THE NEAREST DROP INLET. (NOT AS DRAWN - - THE TRENCH DRAINS INDICATED ARE NOT BASE BID).

AT THESE TWO BAYS, THE BRICK PIERS, SCREEN WALLS, STEEL PIPE BOLLARDS, STEEL COLUMNS, ROOF STRUCTURE AND ROOF PANELS ARE ADDITIVE BID ITEM #1. THE TWO 10'-0" LONG TRENCH DRAINS INDICATED ARE ALSO ADDITIVE BID ITEM #1.

BASE BID = NO ROOF STRUCTURE AND PAVEMENT TO SHEET FLOW TO NEAREST DROP INLET.

ADDITIVE BID ITEM #1 = ROOF COVERING AND TRENCH DRAINS. SLOPE CONCRETE TO TRENCH DRAINS AT 1/4" PER FOOT.

GENERATOR
15'-0"
UTILILTY TRANSFORMER
CURB INLET AND CATCH BASIN.
146'-3"
CURB INLET AND CATCH BASIN.
12'-0"
24'-0"
VDOT CG-6 CURB & GUTTER, TYP.
ASPHALT PAVEMENT, TYP.
EDGE OF ASPHALT PAVEMENT. SEE DRAWING C101.
26'-0"
27'-0"
36'-0"
54'-3"
3'-0"
EL. 2076.20'
VDOT MS-1, SIMILAR.
VDOT CG-2.
24'-0"
16 SPACES @ 6'-0" = 96'-0"
7 SPACES @ 6'-0" = 42'-0"
6 SPACES @ 6'-0" = 36'-0"
29'-4"
32'-0"
1'-8"
13'-5½"
6'-0"
5'-4"
12' WIDE X 40' LONG TRENCH DRAINS, CENTERED FRONT TO BACK.
16'-0"
30'-0"
48'-0"
12" WIDE X 10' LONG TRENCH DRAINS, CENTERED.
7'-5½"
2'-0"
3 SP. @ 6'-0" = 18'-0"
11'-4"
24'-0"
46'-0"
74'-8"
16'-0"
16'-0"
1'-8"
11'-6"
54'-6" (+/-)
3'-0"
27'-9"
DOWN
51'-5½"
4'-10½"
3 SP. @ 6'-0" = 18'-0"
CURB INLET AND CATCH BASIN.
VDOT CG-6 CURB & GUTTER, TYP.
OIL / WATER SEPARATORS BENEATH CONC. APRON & SIDEWALK. CAREFULLY COORDINATE LOCATION SUCH THAT LIDS ARE CENTERED ON SIDEWALK AND FLUSH WITH TOP OF CONCRETE.
25' HIGH CLEAR ANODIZED ALUMINUM FLAG POLE.
R20'-5" (+/-)
R3'-0"
EL. 2076.20'
6 SPACES @ 9'-0" = 54'-0"
54'-3"
10'-5"
10 SPACES @ 9'-0" = 90'-0"
8'-0"
60'-0"
SEE DRAWING C101, TYP. OF 2.
R46'-5"
CENTERLINE VEHICLE BAYS
CENTERLINE SITE ENTRANCE
VDOT CG-6 CURB & GUTTER, TYP.
ASPHALT PAVEMENT, TYP.
20'-0"
20'-0"
R3'-9" (+/-)
R20'-0"
10'-0"
CURB INLET AND CATCH BASIN.
40'-0"
17'-6" (+/-)
9 SPACES @ 10'-0" WIDE EACH = 90'-0"
CURB INLET AND CATCH BASIN.

SIDEWALK / PARKING LAYOUT

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

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NEW EMS FACILITY FOR
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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SIDEWALK / PARKING LAYOUT

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

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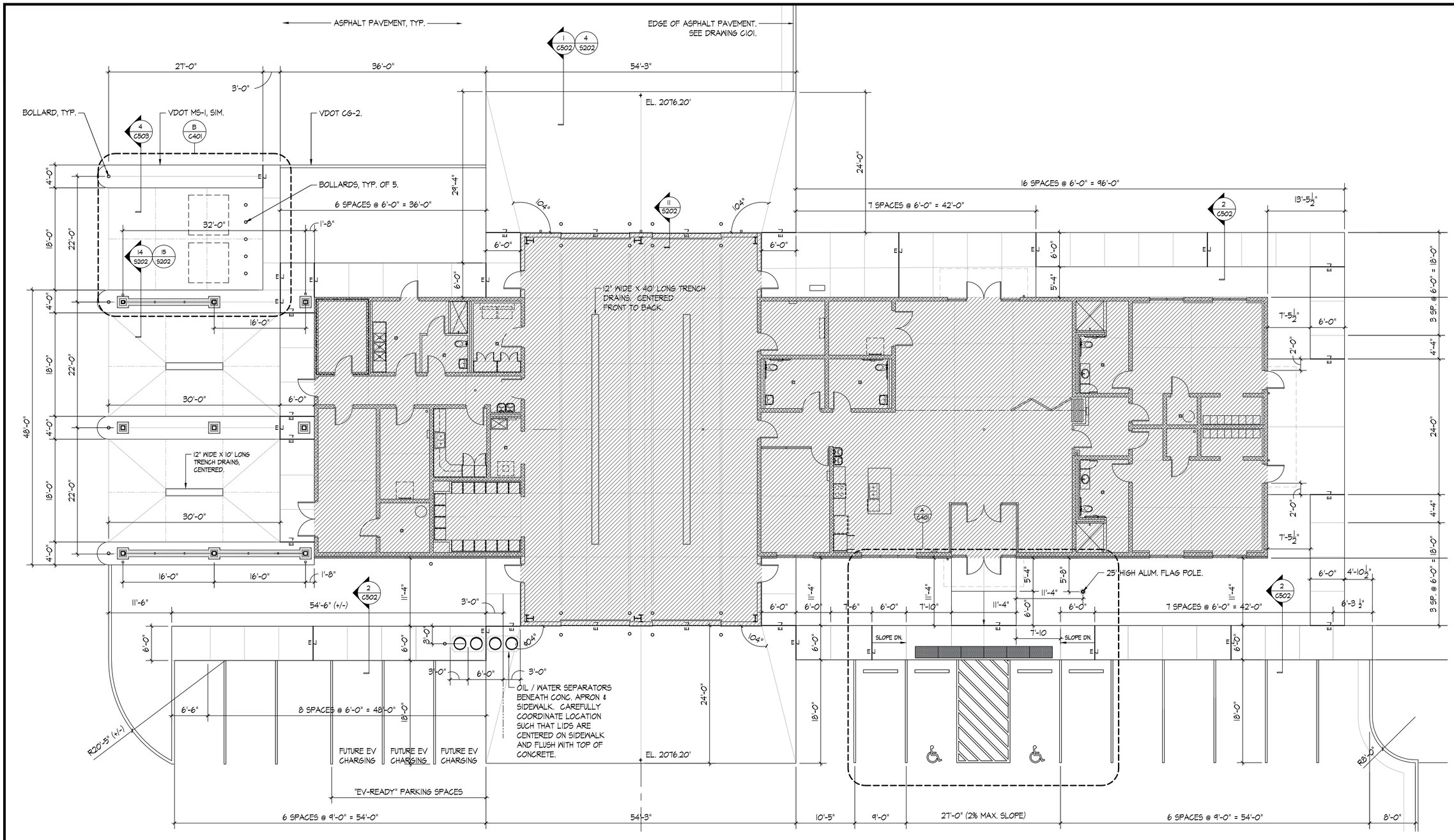

SIDEWALK LAYOUT PLAN

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

0 4' 8' 16'

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SIDEWALK LAYOUT PLAN

COMMONWEALTH OF VIRGINIA
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PROJECT NO.: TLG-2515

THE LANE GROUP INC.

SEE DRAWING C101 FOR STORM DRAIN CONTINUATION TO DAYLIGHT.

SLOPE 1/4" PER FOOT.

3" ROOF DRAIN LEADER.

PEMB DOWNSPOUT TO PVC ADAPTER, TYP. OF 3.

FIELD DETERMINE PIPE SIZE TRANSITION LOCATION, TYP.

3" ROOF DRAIN LEADER.

2" ROOF DRAIN LEADER.

2" ROOF DRAIN LEADER.

CONNECT TRENCH DRAINS TO OIL/ WATER SEPARATOR.

SEE DRAWING P101.

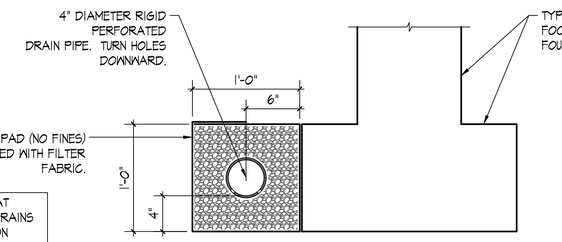
12" WIDE X 10' LONG TRENCH DRAINS ARE ADDITIVE BID ITEM #1.

METAL CANOPY DOWNSPOUT. CONNECT TO STORM DRAIN.

FLAGPOLE

9" x 9" NDS PLASTIC CATCH BASINS, TYP. OF 16, WITH NO. 970 BLACK NDS PLASTIC GRATES. SET BASINS AT 12'-0" ON CENTER AND EQUAL DISTANCE BETWEEN THE BUILDING FACE AND THE INSIDE EDGE OF THE CONCRETE SIDEWALK.

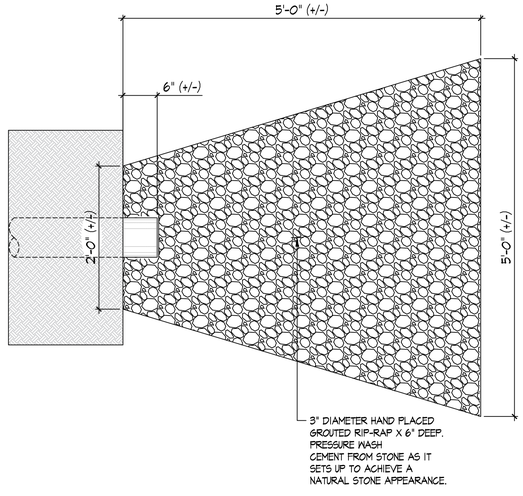
FOUNDATION DRAIN DETAIL IS TYPICAL AT BUILDING PERIMETER. TIE FOUNDATION DRAINS INTO STORM DRAIN AT APPROX. 25'-0" ON CENTER. FOUNDATION DRAIN LATERAL SHALL SLOPE DOWNWARD TO STORM DRAIN ELEVATION AT APPROXIMATELY 1/8" PER FOOT.



TYPICAL FOUNDATION DRAIN DETAIL

SCALE 1 1/2" = 1'-0"

1 / C104



A / C104 STORM DRAIN TERMINATION DETAIL

SCALE 1" = 1'-0"

STORM DRAIN LAYOUT PLAN

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

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NEW EMS FACILITY FOR WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
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STORM DRAIN LAYOUT PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

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THE LANE GROUP INC.

SEE DRAWING C101 FOR STORM DRAINAGE LINE LOCATIONS.

NATURAL GAS FUELED MOTOR GENERATOR (BY CONTRACTOR). CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR TRANSFORMER THAT HAS A FOOTPRINT 12-INCHES LARGER THAN THE TRANSFORMER ON ALL SIDES. SEE DETAIL 5/C502.

ELECTRICAL TRANSFORMER (BY UTILITY). CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR TRANSFORMER THAT HAS A FOOTPRINT 6-INCHES LARGER THAN THE TRANSFORMER ON ALL SIDES. SEE DETAIL 5/C502.

EXTERIOR BOLLARDS AS REQUIRED TO PROTECT TRANSFORMER FROM MOWER. SEE DETAIL 2/C503.

NATURAL GAS LINE TO METER LOCATION (BY UTILITY). DIRECTION MAY VARY. COORDINATE OTHER UNDERGROUND UTILITIES WITH GAS UTILITY.

PROVIDE A NATURAL GAS SUPPLY AND METER FOR THE GENERATOR AND CONNECT 2" MIN.) LOW PRESSURE GAS PIPING TO THE GENERATOR. PER NFPA 54 AND MANUFACTURER'S RECOMMENDATIONS. LOCATE METER IN COORDINATION WITH GAS UTILITY AND COORDINATE WITH ELECTRICAL CONTRACTOR.

PROTECT METER WITH BOLLARDS.

PROVIDE 1" CONDUIT AS INDICATED ON DRAWING E102 FOR GENERATOR CONTROLS.

PARALLEL RUNS OF 4" CONDUIT AS INDICATED ON THE ELECTRIC SERVICE RISER DIAGRAM. SEE DRAWING E104.

MAIN DISTRIBUTION LOCATION. SEE DRAWINGS E102 AND E104.

ELECTRICAL / I.T. ROOM 110

GAS PIPING PLAN

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

0 4' 8' 16'

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GAS PIPING PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
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PROJECT NO. TLG-2515

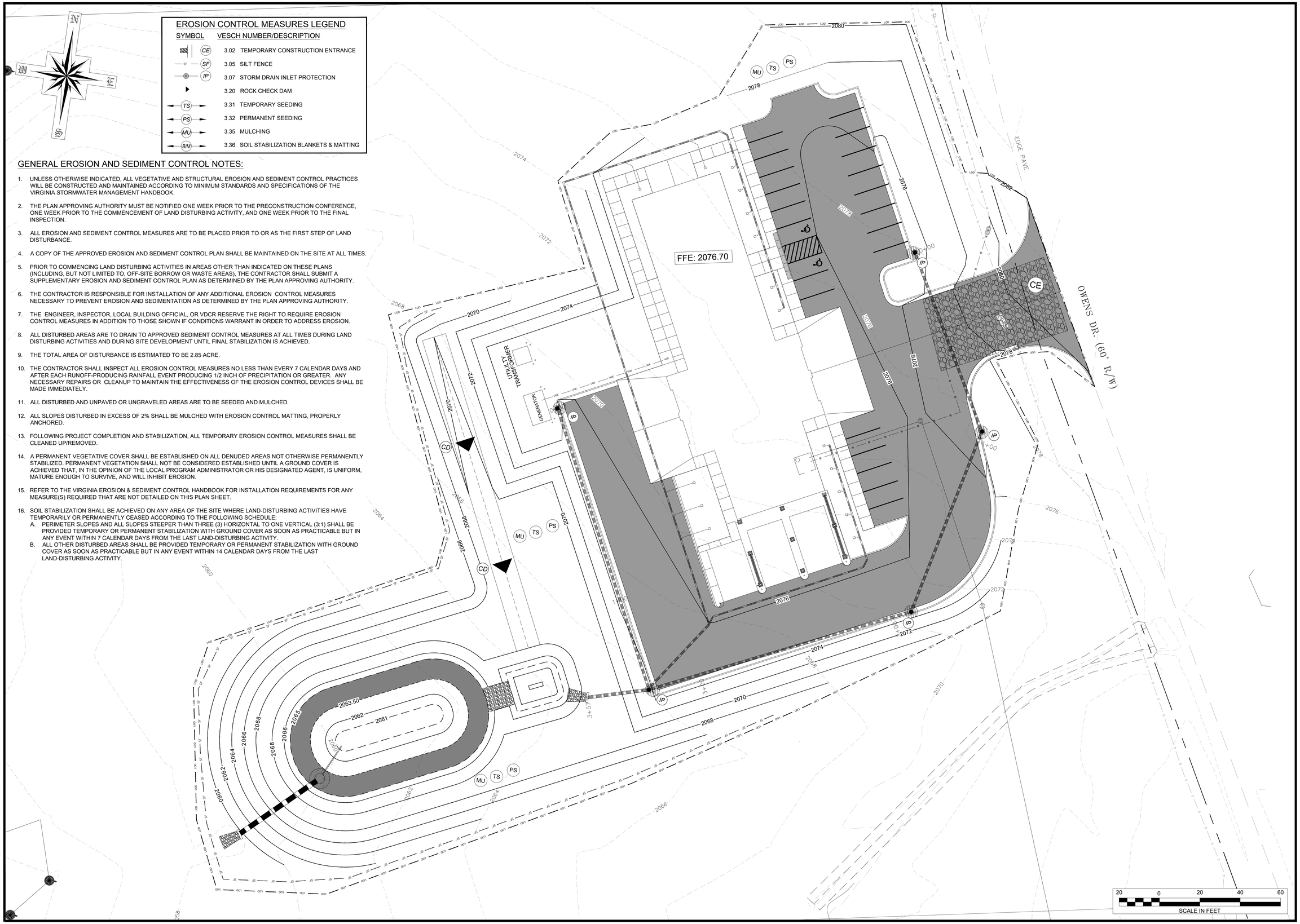
THE LANE GROUP INC.

EROSION CONTROL MEASURES LEGEND

SYMBOL	VESCH NUMBER/DESCRIPTION
CE	3.02 TEMPORARY CONSTRUCTION ENTRANCE
SF	3.05 SILT FENCE
IP	3.07 STORM DRAIN INLET PROTECTION
	3.20 ROCK CHECK DAM
TS	3.31 TEMPORARY SEEDING
PS	3.32 PERMANENT SEEDING
MU	3.35 MULCHING
B/M	3.36 SOIL STABILIZATION BLANKETS & MATTING

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP OF LAND DISTURBANCE.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. THE ENGINEER, INSPECTOR, LOCAL BUILDING OFFICIAL, OR VDCR RESERVE THE RIGHT TO REQUIRE EROSION CONTROL MEASURES IN ADDITION TO THOSE SHOWN IF CONDITIONS WARRANT IN ORDER TO ADDRESS EROSION.
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. THE TOTAL AREA OF DISTURBANCE IS ESTIMATED TO BE 2.85 ACRE.
10. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES NO LESS THAN EVERY 7 CALENDAR DAYS AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT PRODUCING 1/2 INCH OF PRECIPITATION OR GREATER. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
11. ALL DISTURBED AND UNPAVED OR UNGRAVELED AREAS ARE TO BE SEEDED AND MULCHED.
12. ALL SLOPES DISTURBED IN EXCESS OF 2% SHALL BE MULCHED WITH EROSION CONTROL MATTING, PROPERLY ANCHORED.
13. FOLLOWING PROJECT COMPLETION AND STABILIZATION, ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE CLEANED UP/REMOVED.
14. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR HIS DESIGNATED AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION.
15. REFER TO THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK FOR INSTALLATION REQUIREMENTS FOR ANY MEASURE(S) REQUIRED THAT ARE NOT DETAILED ON THIS PLAN SHEET.
16. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF THE SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
    A. PERIMETER SLOPES AND ALL SLOPES STEEPER THAN THREE (3) HORIZONTAL TO ONE VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
    B. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.



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NEW EMS FACILITY FOR WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUISNESS PARK
OWENS DRIVE
GLADE SPRING, VA 24340

EROSION & SEDIMENT CONTROL PLAN AND NOTES

COMMONWEALTH OF VIRGINIA
MATTHEW R. LANE
Lic. No. 34173
01.30.2026
PROFESSIONAL ENGINEER

DATE:	01-30-2026
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PROJECT NO.	TLG-2515

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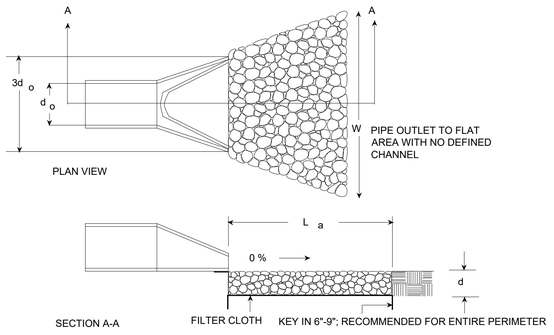
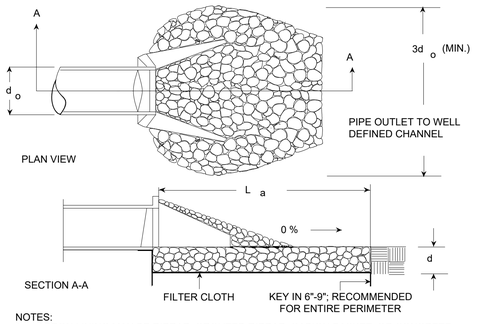
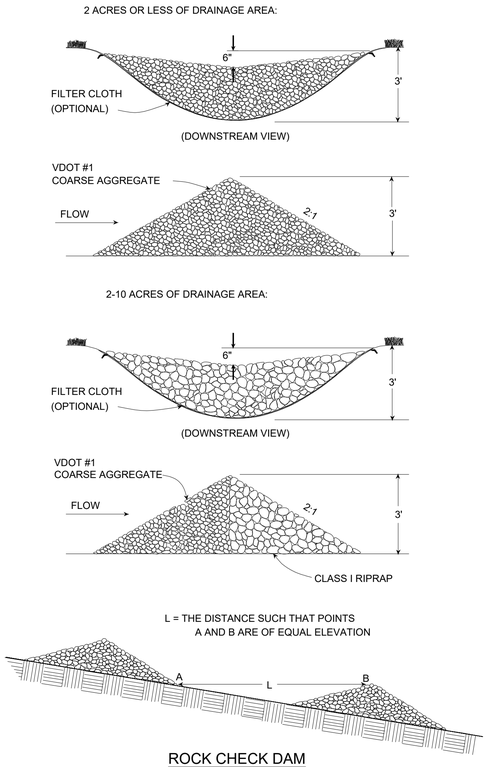


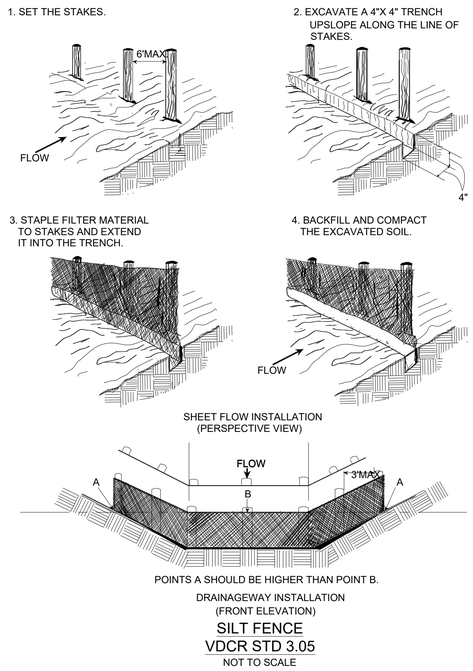


NOTES:
1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, GABION BASKET, OR CONCRETE.
2. La IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.18-3 AND 3.18-4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.

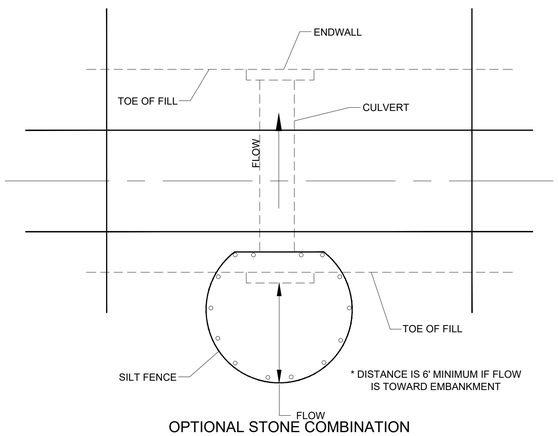
CULVERT OUTLET PROTECTION
VDCR STD. 3.18
NOT TO SCALE



ROCK CHECK DAM
VDCR STD 3.20
NOT TO SCALE



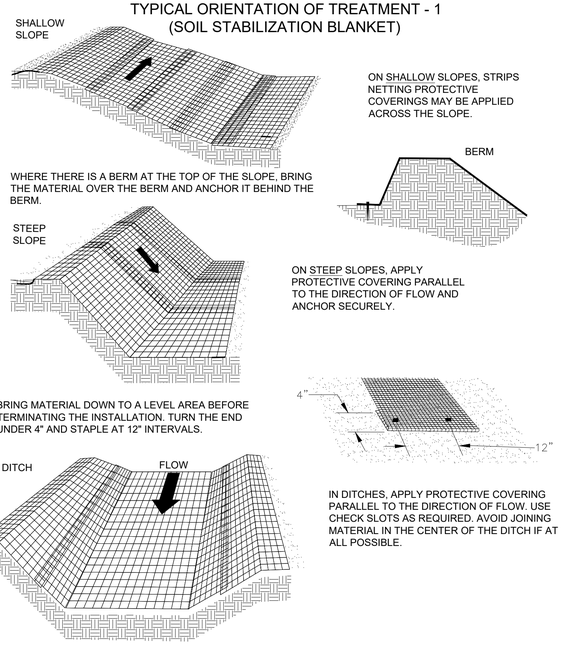
SILT FENCE
VDCR STD 3.05
NOT TO SCALE



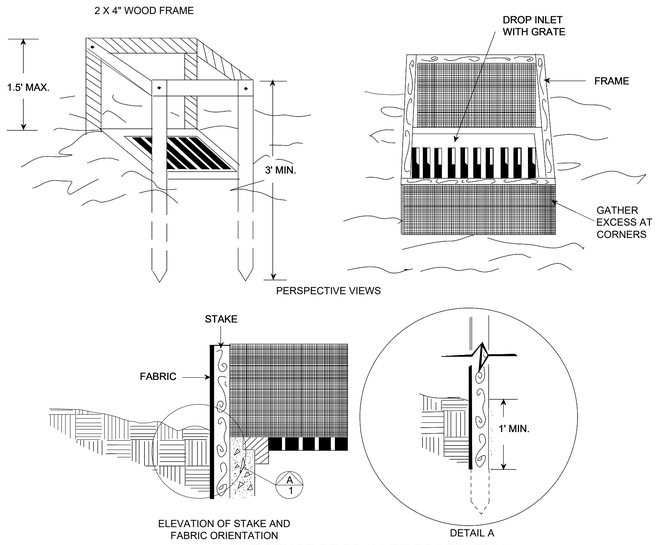
* VDOT #3, #357, #5, #56 OR #57 COARSE AGGREGATE TO REPLACE SILT FENCE IN "HORSESHOE" WHEN HIGH VELOCITY OF FLOW IS EXPECTED

SILT FENCE CULVERT INLET PROTECTION
VDCR STD. 3.08
NOT TO SCALE

TYPICAL ORIENTATION OF TREATMENT - 1
(SOIL STABILIZATION BLANKET)



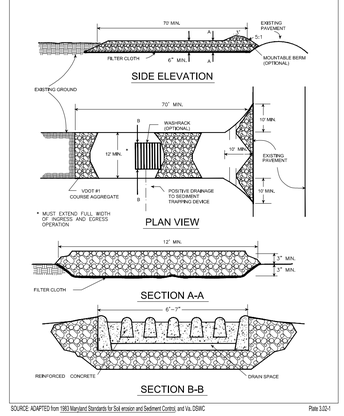
NETTING AND MATTING INSTALLATION
VDCR STD. 3.36
NOT TO SCALE



SILT FENCE DROP INLET PROTECTION
VDCR STD. 3.07
NOT TO SCALE

SPECIFIC APPLICATION: THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

STONE CONSTRUCTION ENTRANCE



SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC Plate 3.02-1

CONSTRUCTION ENTRANCE
VESCH STD. 3.02
NOT TO SCALE

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

PLANTING DATES	SPECIES	RATE (LBS/ACRE)
SEPT 1-FEB 15	50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) & CEREAL (WINTER) RYE (SECALE CEREALE)	50-100
FEB 16-APR 20	ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	60-100
MAY 1-AUG 31	GERMAN MILLET (SETARIA ITALICA)	50

SEEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION WITH TACKIFIED STRAW, IN ACCORDANCE WITH VA E&S STD 3.35.

TEMPORARY SEEDING SCHEDULE
SPECIFICATION 02710

TEMPORARY SEEDING
VESCH STD. 3.31
NOT TO SCALE

GENERAL SLOPE (3:1 OR LESS)	TOTAL LBS PER ACRE
KENTUCKY 31 FESCUE	200 LBS.
KENTUCKY BLUEGRASS	10 LBS.
RED TOP GRASS	10 LBS.
SEASONAL NURSE CROP	30 LBS.
WHITE CLOVER	2 LBS.
	252 LBS.
SEASONAL NURSE CROP	
MARCH, APRIL THROUGH MAY 15	ANNUAL RYE
MAY 16 THROUGH AUGUST 15	FOXTAIL MILLET
AUGUST 16 THROUGH SEPTEMBER,OCTOBER	ANNUAL RYE
NOVEMBER THROUGH FEBRUARY	WINTER RYE

LIME AND FERTILIZER NEEDS SHALL BE DETERMINED BY SOIL TESTS.

SEEDINGS TO BE MULCHED AT THE RATE OF 2 TONS PER ACRE WITH TACKIFIED STRAW, IMMEDIATELY UPON COMPLETION OF SEED APPLICATION, IN ACCORDANCE W/ VA E&S STD 3.35.

PERMANENT SEEDING SCHEDULE
SPECIFICATION 02710

PERMANENT SEEDING
VESCH STD. 3.32
NOT TO SCALE

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUISNESS PARK
OWENS DRIVE
GLANDE SPRING, VA 24340

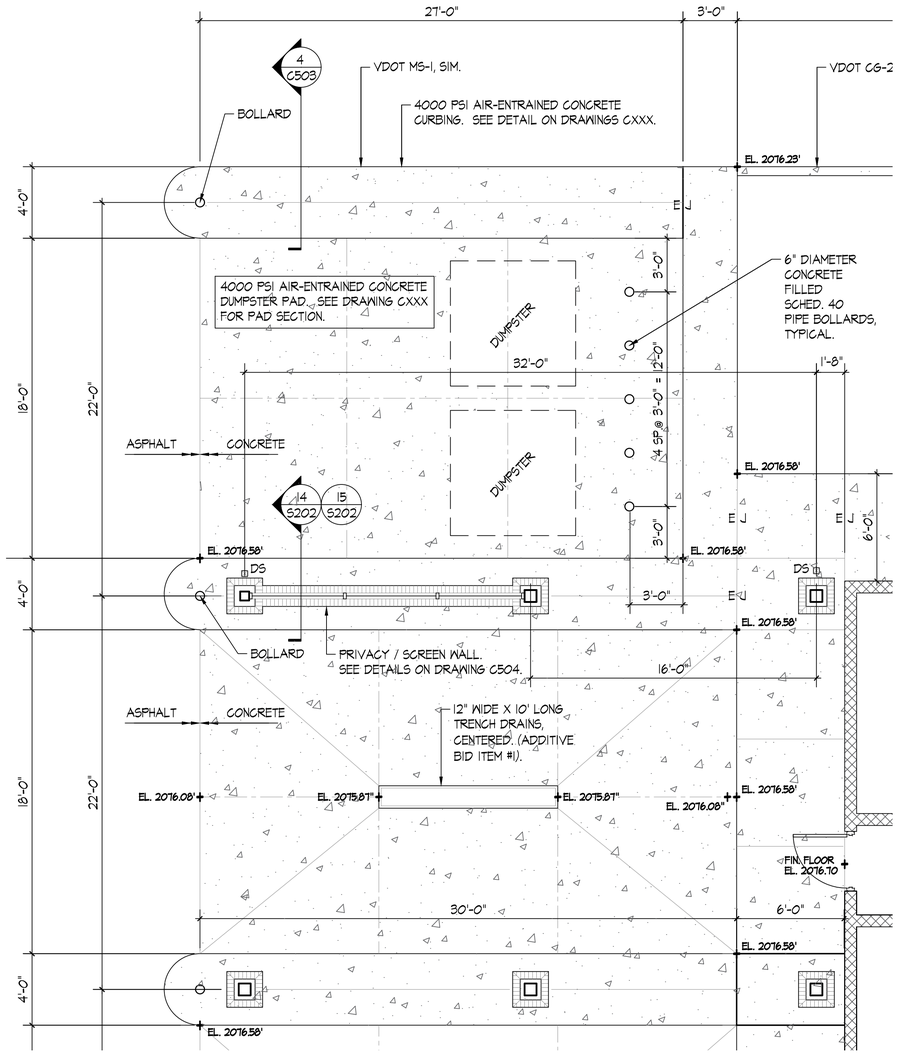
EROSION & SEDIMENT CONTROL DETAILS

COMMONWEALTH OF VIRGINIA
MATTHEW R. LANE
Lic. No. 34173
01.30.2026
PROFESSIONAL ENGINEER

DATE:	01-30-2026
NO.	REVISION DATE
1	
2	
3	
SHEET:	C202
DRAWN BY	MPH
CHECKED BY	MRL
PROJECT NO.	TLG-2515

THE LANE GROUP INC.

File: F:\WASHINGTON COUNTY_VIRGINIA\EMS FACILITY GLADE SPRING\SITE DESIGN\GLADE SPRING EMS SITE DESIGN.DWG

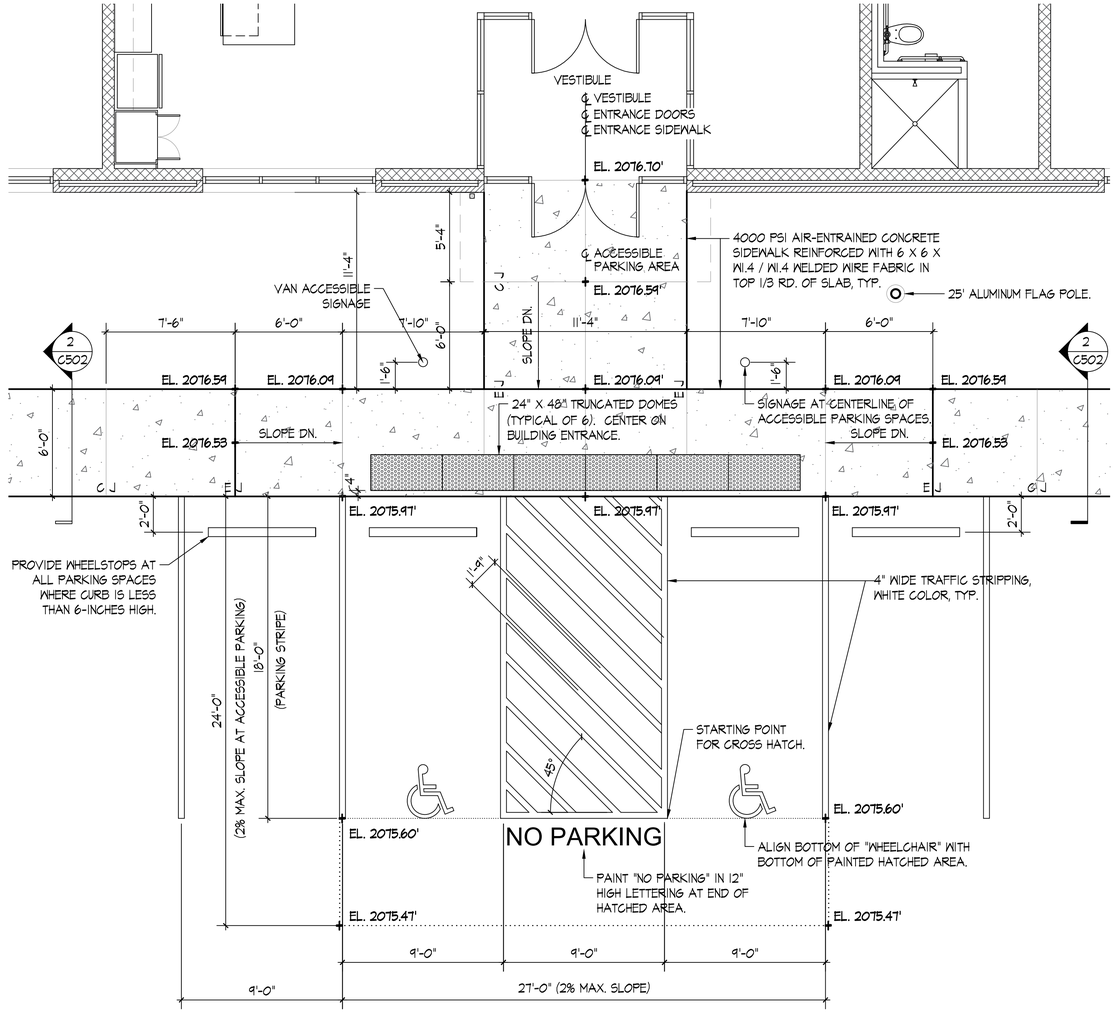


B C401 **DUMPSTER PAD LAYOUT**

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

0 2' 4' 8'

NORTH



A C401 **ACCESSIBLE PARKING LAYOUT**

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

0 2' 4' 8'

NORTH

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NEW EMS FACILITY FOR WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

ENLARGED SITE LAYOUTS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
1	*
2	
3	

SHEET: C401

DRAWN BY: DMW | CHECKED BY: MRL

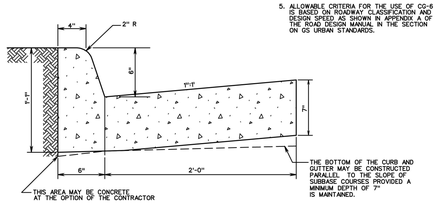
PROJECT NO. TLG-2515

THE LANE GROUP INC.

CG-6

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER. THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.

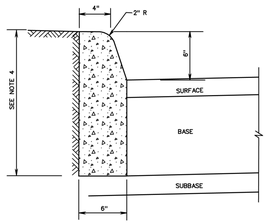


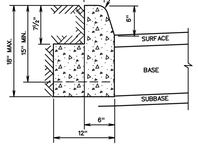
SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 201.03 SHEET 1 OF 1

CG-2

NOTES:

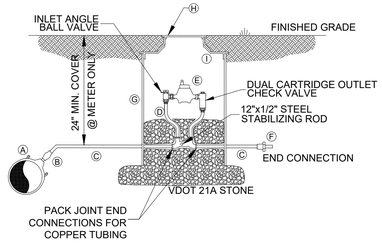
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB.
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 2" (2" DEPTH OR INCREASED AS MUCH AS 2" (2" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 90° AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
5. CG-2 IS TO BE USED ON ROADWAYS MEETING THE REQUIREMENTS FOR CG-6 AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL, IN THE SECTION ON GS URBAN STANDARDS.





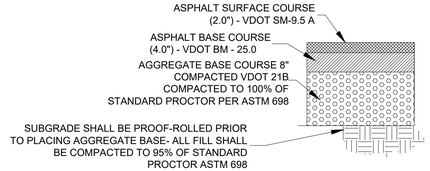
ACCEPTABLE ALTERNATIVE IF CURB IS EXTRUDED

SPECIFICATION REFERENCE	STANDARD 6" CURB	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 201.01 SHEET 1 OF 1

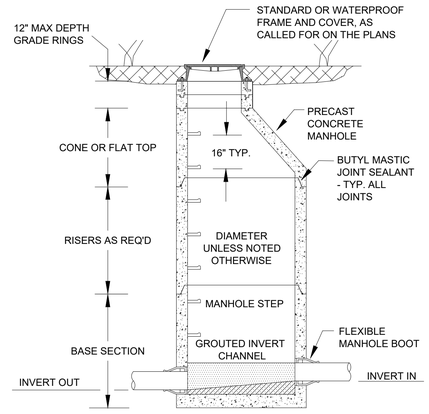


TYPICAL 1" WATER METER DETAIL

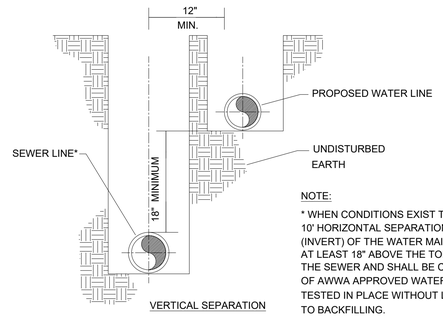
	MNFR.	SIZE	MODEL NO.	DESCRIPTION
A	MUELLER	AS REQ'D	SS SERIES	SERVICE SADDLE
B	MUELLER	5/8", 3/4" OR 1"	H-15008	GROUND KEY CORP. VALVE
C		5/8", 3/4" OR 1"	TYPE K	COPPER SERVICE LINE
D	MUELLER	5/8", 3/4" OR 1"	B-2404-2A	METER SETTER
E	SENSUS	5/8", 3/4" OR 1"	SR-II	WATER METER
F	MUELLER	5/8", 3/4" OR 1"	H-14227	SERVICE END CONNECTION
G	MIDSTATE	18"x30"	POLYETHYLENE	METER BOX
H	FORD	18"	TYPE X	METER BOX LID



TYPICAL PAVED PARKING SECTION
NOT TO SCALE



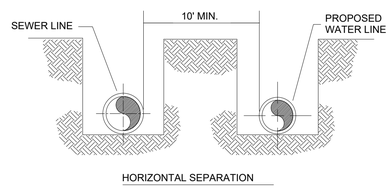
TYPICAL SANITARY MANHOLE



VERTICAL SEPARATION

NOTE:

* WHEN CONDITIONS EXIST THAT PREVENT 10' HORIZONTAL SEPARATION, THE BOTTOM (INVERT) OF THE WATER MAIN SHALL BE AT LEAST 18" ABOVE THE TOP (CROWN) OF THE SEWER AND SHALL BE CONSTRUCTED OF AWWA APPROVED WATER PIPE, PRESSURE TESTED IN PLACE WITHOUT LEAKAGE PRIOR TO BACKFILLING.



HORIZONTAL SEPARATION

TYPICAL WATER & SEWER SEPARATION DETAIL

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NEW EMS FACILITY FOR
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HIGHLANDS BUISNESS PARK
OWENS DRIVE
GLADE SPRING, VA 24340

CONSTRUCTION DETAILS

COMMONWEALTH OF VIRGINIA
MATTHEW R. LANE
Lic. No. 34173
01.30.2026
PROFESSIONAL ENGINEER

DATE:	01-30-2026

NO.	REVISION DATE
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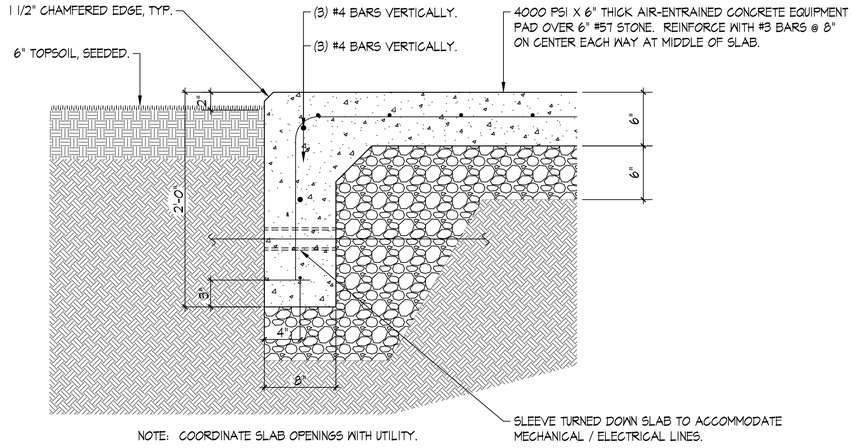
MPH	MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.

File: F:\WASHINGTON COUNTY - VIRGINIA\EMS FACILITY GLADE SPRING\SITE DESIGN\GLADE SPRING EMS SITE DESIGN.DWG



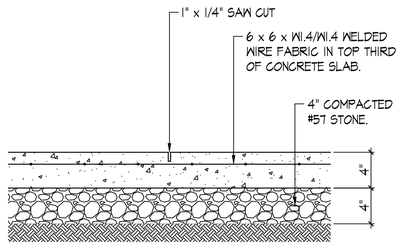
NOTE: COORDINATE SLAB OPENINGS WITH UTILITY.

TRANSFORMER & GENERATOR PAD DETAIL

5 / C502

SCALE 1 1/2" = 1'-0"

0 1/2" 1' 1 1/2"



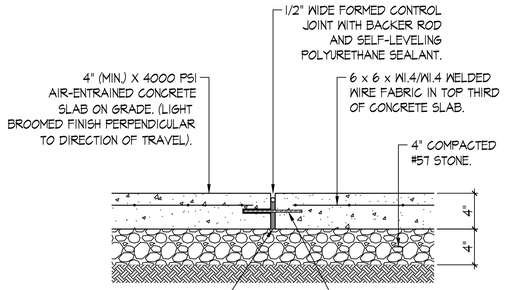
SAW JOINT IN CONCRETE AS SOON AS POSSIBLE WITHOUT RAVELING AGGREGATE FROM THE CONCRETE.

TYP. SIDEWALK SAW JOINT DETAIL

4 / C502

SCALE 1 1/2" = 1'-0"

0 1/2" 1' 1 1/2"

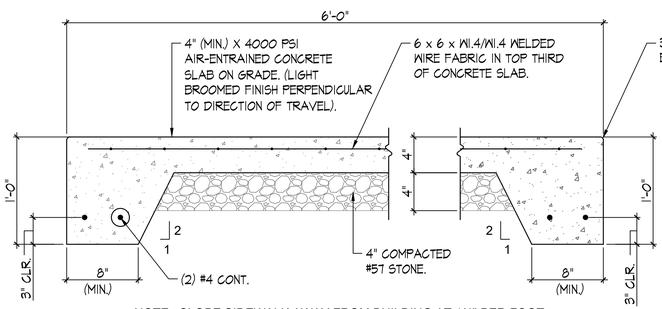


TYP. SIDEWALK CONST. JT. DETAIL

3 / C502

SCALE 1 1/2" = 1'-0"

0 1/2" 1' 1 1/2"



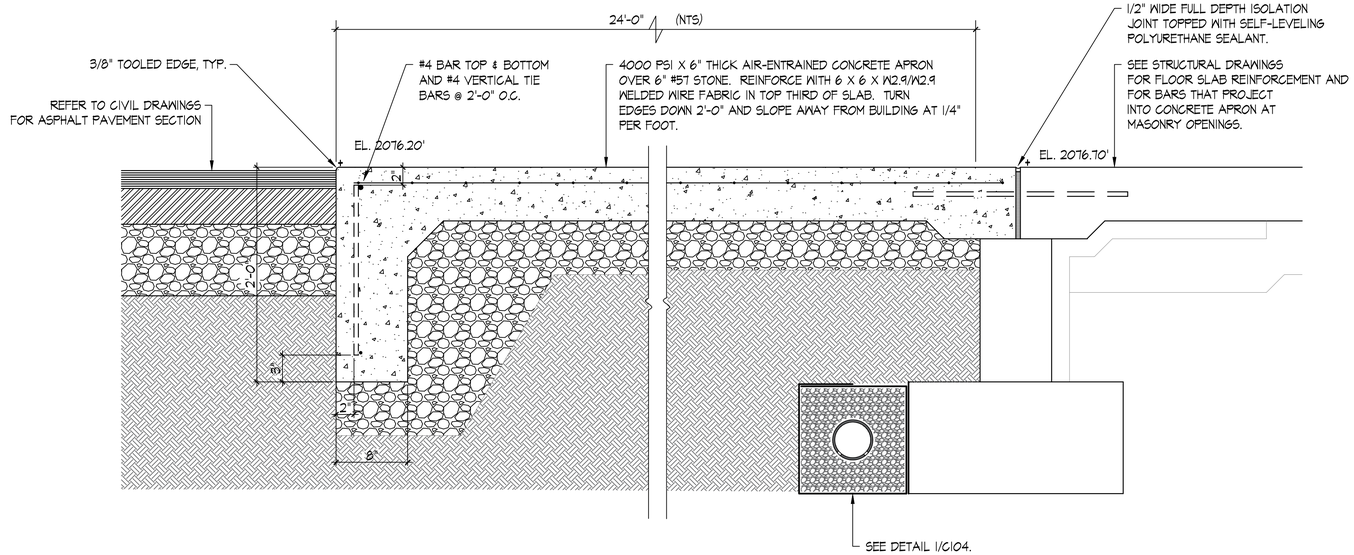
NOTE: SLOPE SIDEWALK AWAY FROM BUILDING AT 1/4" PER FOOT.

TYPICAL SIDEWALK DETAIL

2 / C502

SCALE 1 1/2" = 1'-0"

0 1/2" 1' 1 1/2"



APPARATUS BAY CONC. APRONS DETAIL

1 / C502

SCALE 1 1/2" = 1'-0"

0 1/2" 1' 1 1/2"

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NEW EMS FACILITY FOR
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CONCRETE SIDEWALK AND CONCRETE SLAB DETAILS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
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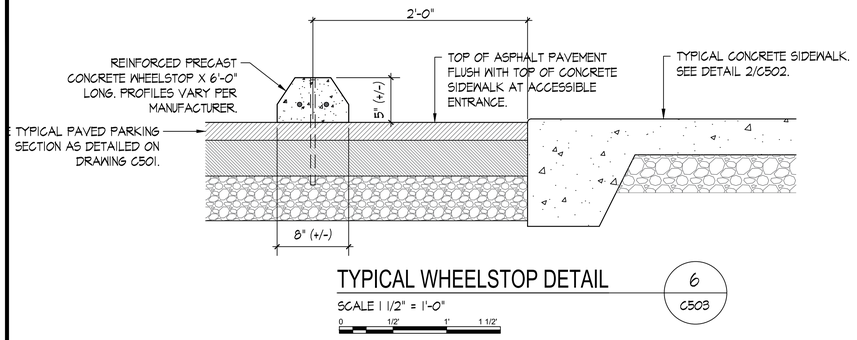


TYPICAL WHEELSTOP DETAIL

6 / C503

SCALE 1 1/2" = 1'-0"

0 1/2" 1" 1 1/2"

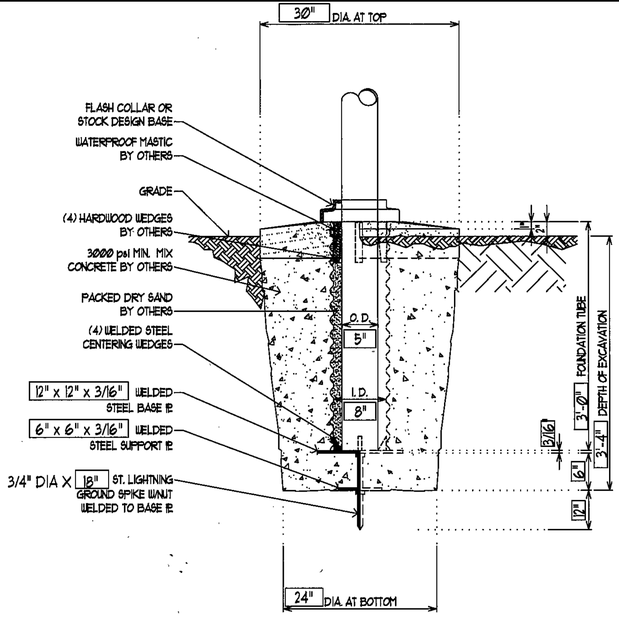
NOTE: PROVIDE A TOTAL OF FOUR (4) PRECAST CONCRETE WHEELSTOPS AT THE ACCESSIBLE PARKING LOCATIONS WHERE TOP OF SIDEWALK IS LESS THAN 6" ABOVE THE ASPHALT PAVEMENT.

1. PLACE WHEELSTOPS IN EXACT POSITION. USE ITS PRECAST HOLES AS A TEMPLATE TO MARK THE ANCHOR LOCATIONS ON THE ASPHALT WITH CHALK OR PAINT.
2. DRILL PILOT HOLES WITH A MASONRY BIT AT EACH MARKED LOCATION.
3. CLEAR THE DRILLED HOLES OF ANY LOOSE DEBRIS OR DUST.
4. APPLY A LIBERAL AMOUNT OF EPOXY ADHESIVE INTO EACH DRILLED HOLE.
5. INSERT A REBAR #4 X 1'-0" LONG SPIKE INTO EACH HOLE, ALIGNING IT WITH THE WHEELSTOPS OPENING. USE A HEAVY HAMMER TO DRIVE THE SPIKE THROUGH THE WHEELSTOP AND INTO THE ASPHALT UNTIL IT IS FLUSH WITH OR SLIGHTLY BELOW THE SURFACE OF THE WHEELSTOP. AVOID OVER-DRIVING THE SPIKES AS THAT CAN CRACK OR DAMAGE THE SURROUNDING ASPHALT.
6. AFTER DRIVING ALL ANCHORS, DOUBLE-CHECK THAT THE WHEELSTOP REMAINS STRAIGHT AND PROPERLY ALIGNED.

FLAGPOLE FOUNDATION NOTE

THE FLAGPOLE FOUNDATION DETAIL SHOWN ON THIS DRAWING IS A RECOMMENDED DETAIL FOR A 5" DIAMETER X 25'-0" HIGH FLAGPOLE AS MANUFACTURED BY THE ACME / LINGO FLAGPOLE COMPANY. ACTUAL FOUNDATION DESIGN SHALL BE PROVIDED BY CONTRACTOR BASED UPON RECOMMENDATIONS OF THE FLAGPOLE COMPANY WHOSE PRODUCT HE INTENDS TO PROVIDE.

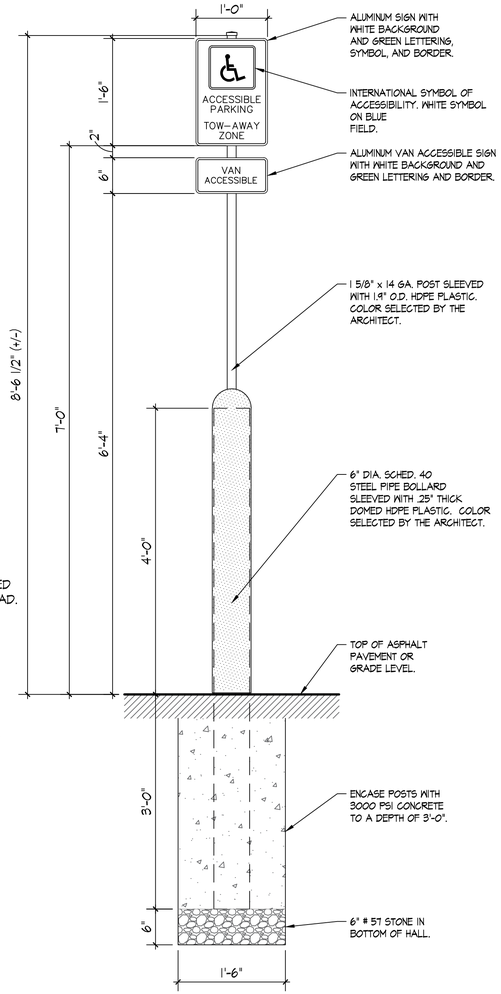
EXERCISE CARE IN SETTING THE TUBE PLUMB AND LEVEL IN FORMS AND SECURE FIRMLY IN PLACE SO IT DOES NOT SHIFT WHILE PLACING CONCRETE.



FLAGPOLE FOUNDATION DETAIL

5 / C503

SCALE: 1" = 1'-0"

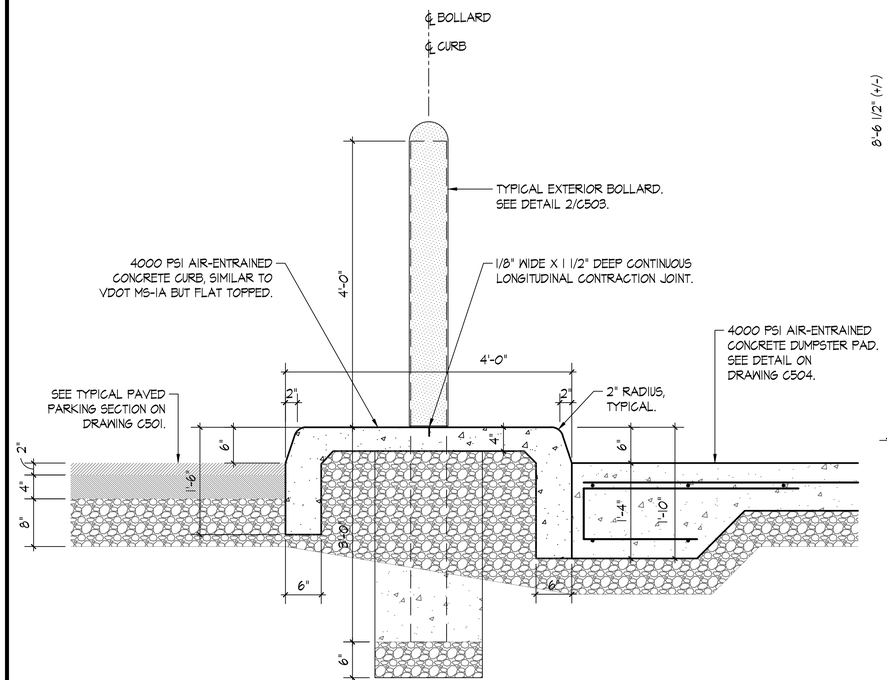


ACCESSIBLE PARKING SIGN

3 / C503

SCALE: 1" = 1'-0"

0 1/2" 1" 2"

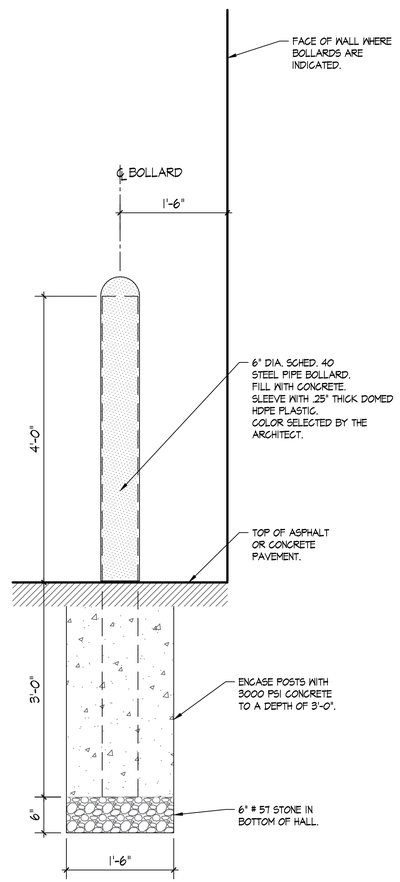


MAINTENANCE BAY CURB DETAIL

4 / C503

SCALE: 1" = 1'-0"

0 1/2" 1" 2"

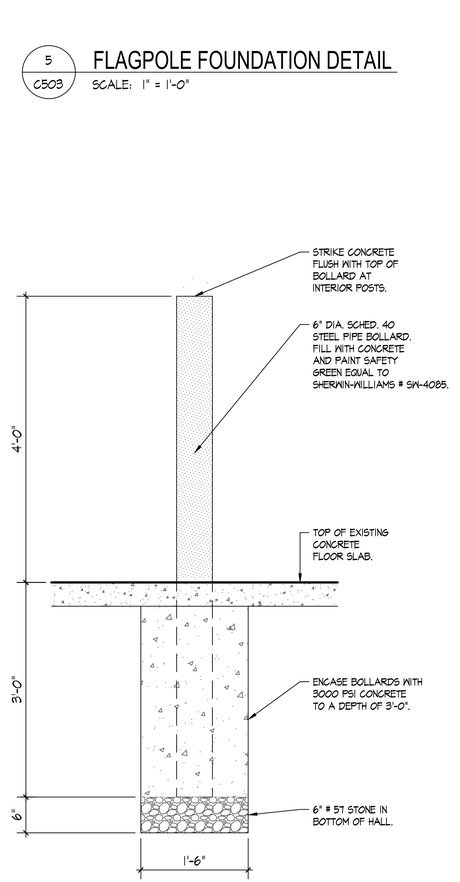


EXTERIOR BOLLARD

2 / C503

SCALE: 1" = 1'-0"

0 1/2" 1" 2"



INTERIOR BOLLARD

1 / C503

SCALE: 1" = 1'-0"

0 1/2" 1" 2"

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SITE AMENITY DETAILS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
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DMW	MRL

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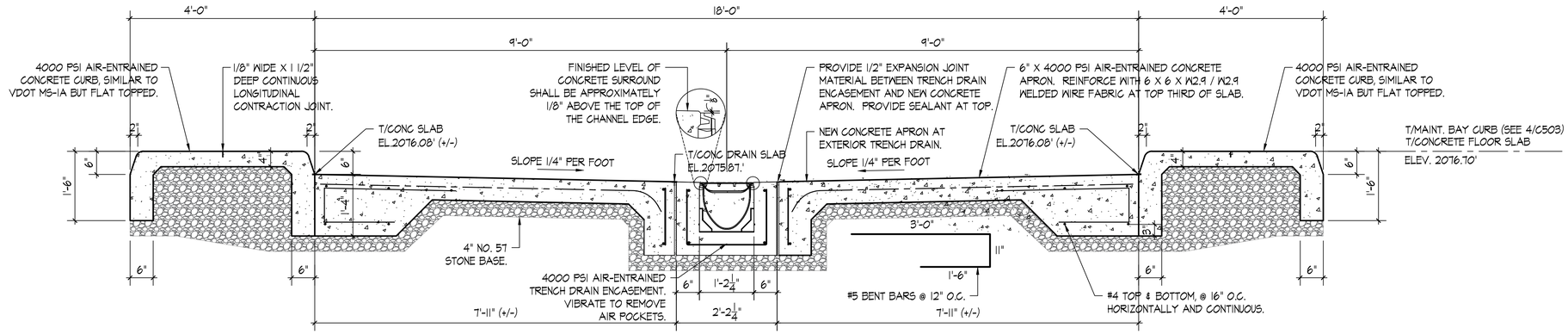
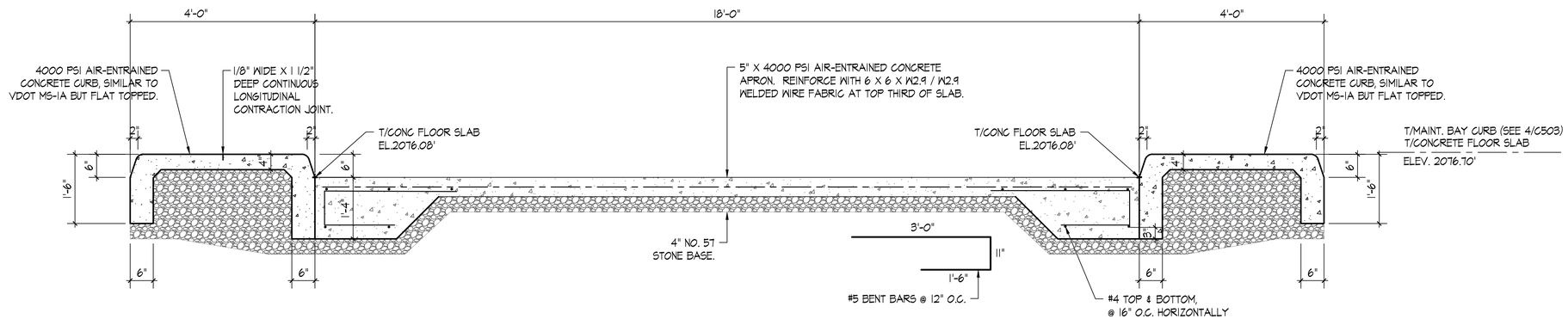


BASIS OF DESIGN TRENCH DRAIN IS "PERMA-TRENCH" WITH 12-INCH NOMINAL INTERNAL WIDTH, AS MANUFACTURED BY ZURN. PROVIDE HEAVY DUTY ADA COMPLIANT DUCTILE IRON GRATES (LOAD CLASS "E"). REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

2 / C504 **TYPICAL MAINTENANCE BAY SECTION - ADDITIVE BID ITEM #1**

SCALE: 3/4" = 1'-0"



NOTE: IF THE RESTOCKING AND MAINTENANCE BAYS ARE NOT ROOF COVERED (i.e., BASE BID), THE CONCRETE SLAB WILL SHEET FLOW FROM THE SIDEWALK ON THE SOUTH END OF THE BUILDING TO ABUT WITH THE ASPHALT PAVEMENT. SEE DRAWING C101 FOR SPOT ELEVATION AT CONCRETE APRON / ASPHALT PAVEMENT ABUTMENT.

1 / C504 **TYPICAL MAINTENANCE BAY SECTION - BASE BID**

SCALE: 3/4" = 1'-0"

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NEW EMS FACILITY FOR
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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

RESTOCKING AND MAINTENANCE BAYS CONCRETE DETAILS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
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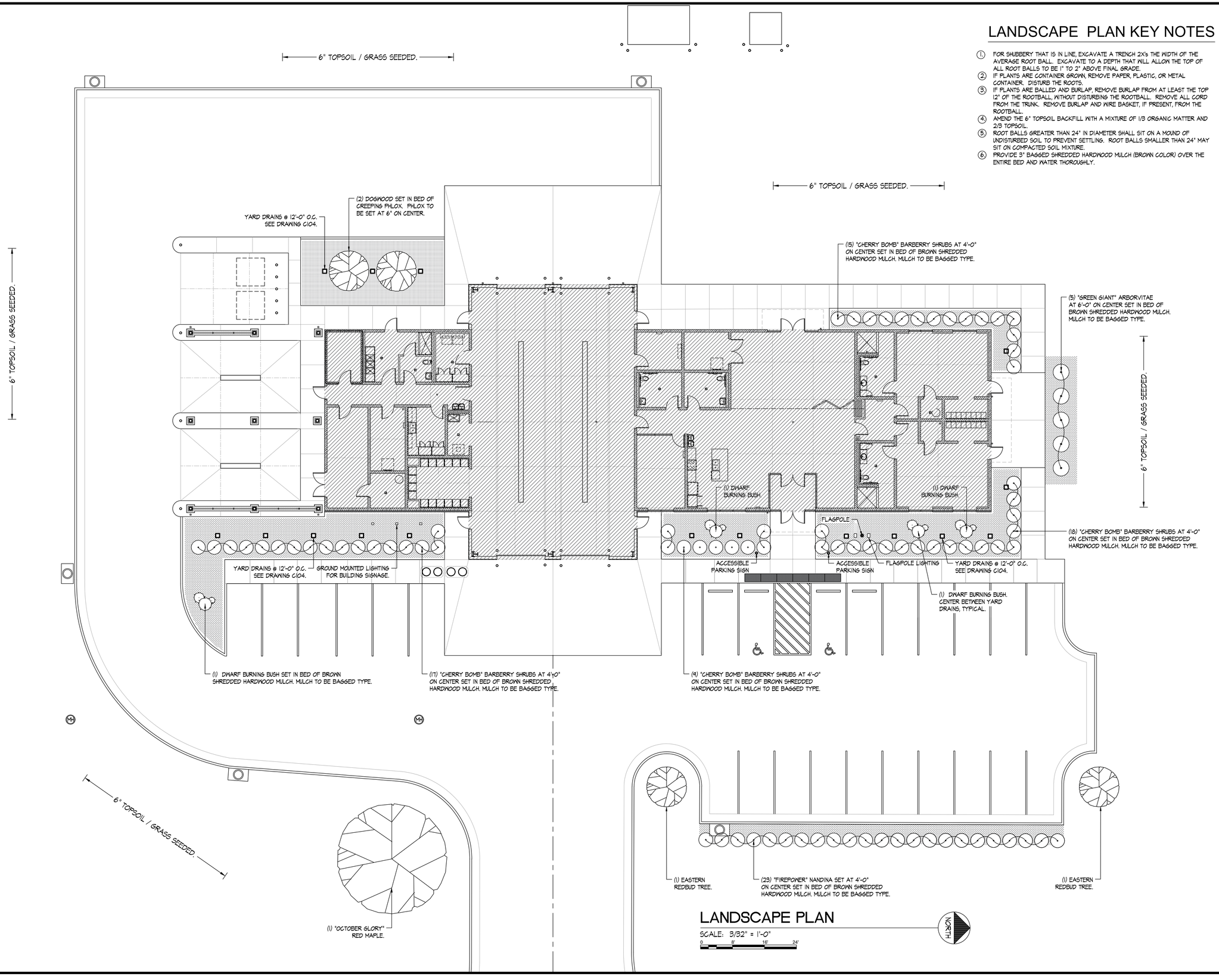
PROJECT NO. TLG-2515

THE LANE GROUP INC.

LANDSCAPE PLAN KEY NOTES

1. FOR SHUBBERY THAT IS IN LINE, EXCAVATE A TRENCH 2X's THE WIDTH OF THE AVERAGE ROOT BALL. EXCAVATE TO A DEPTH THAT WILL ALLOW THE TOP OF ALL ROOT BALLS TO BE 1" TO 2" ABOVE FINAL GRADE.
2. IF PLANTS ARE CONTAINER GROWN, REMOVE PAPER, PLASTIC, OR METAL CONTAINER. DISTURB THE ROOTS.
3. IF PLANTS ARE BALLED AND BURLAP, REMOVE BURLAP FROM AT LEAST THE TOP 12" OF THE ROOTBALL, WITHOUT DISTURBING THE ROOTBALL. REMOVE ALL CORD FROM THE TRUNK. REMOVE BURLAP AND WIRE BASKET, IF PRESENT, FROM THE ROOTBALL.
4. AMEND THE 6" TOPSOIL BACKFILL WITH A MIXTURE OF 1/3 ORGANIC MATTER AND 2/3 TOPSOIL.
5. ROOT BALLS GREATER THAN 24" IN DIAMETER SHALL SIT ON A MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING. ROOT BALLS SMALLER THAN 24" MAY SIT ON COMPACTED SOIL MIXTURE.
6. PROVIDE 3" BAGGED SHREDDED HARDWOOD MULCH (BROWN COLOR) OVER THE ENTIRE BED AND WATER THOROUGHLY.



LANDSCAPE PLAN

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

NORTH

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NEW EMS FACILITY FOR
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LANDSCAPE PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
NO.	REVISION DATE
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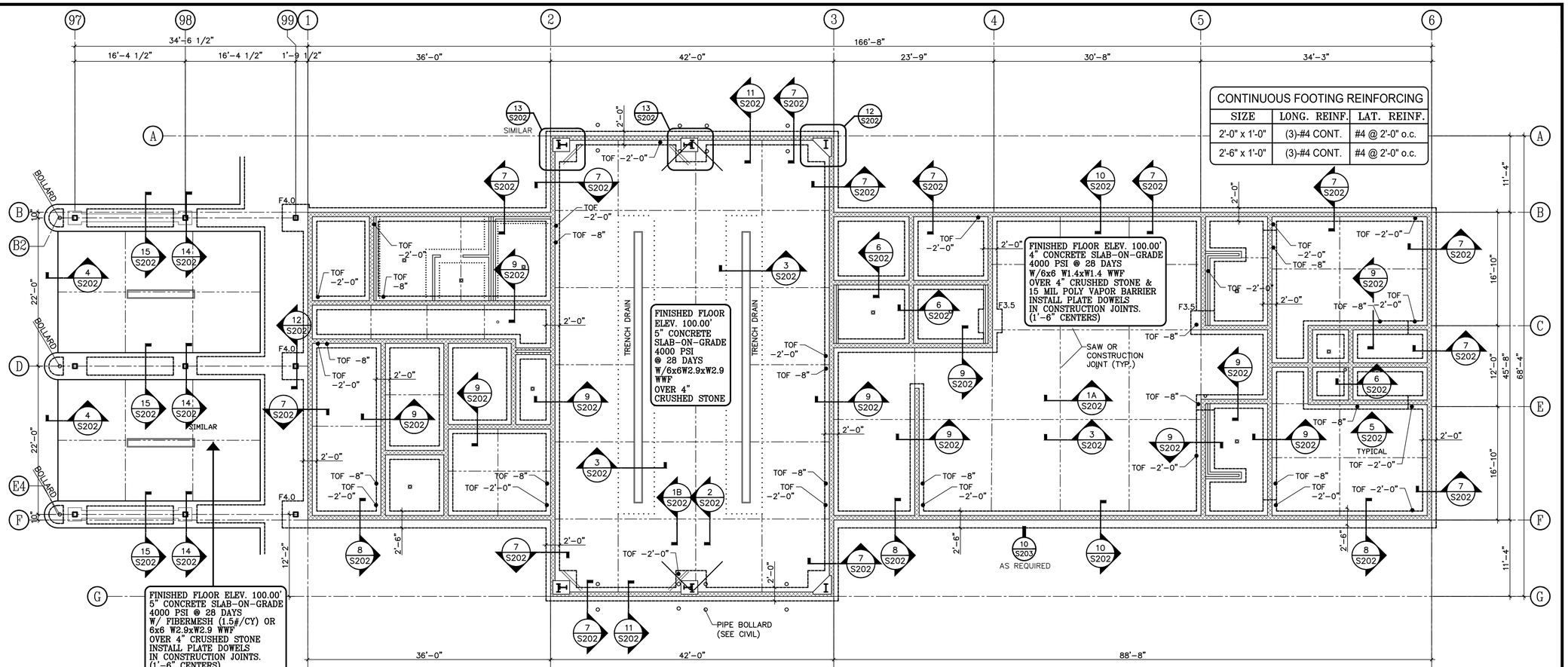
DMW	MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.



CONTINUOUS FOOTING REINFORCING		
SIZE	LONG. REINF.	LAT. REINF.
2'-0" x 1'-0"	(3)-#4 CONT.	#4 @ 2'-0" o.c.
2'-6" x 1'-0"	(3)-#4 CONT.	#4 @ 2'-0" o.c.

CONCRETE FLOOR FINISHING:

SEE CONCRETE FLOOR FINISHING NOTE ON SHEET S201

CONTRACTOR SHALL USE THE ANCHOR BOLT LAYOUT PLAN, PRODUCED BY THE METAL BUILDING MANUFACTURER FOR THE LOCATION OF ALL ANCHOR BOLTS.

PROVIDE ALL DISCREPANCIES TO THE ENGINEER FOR REVIEW.

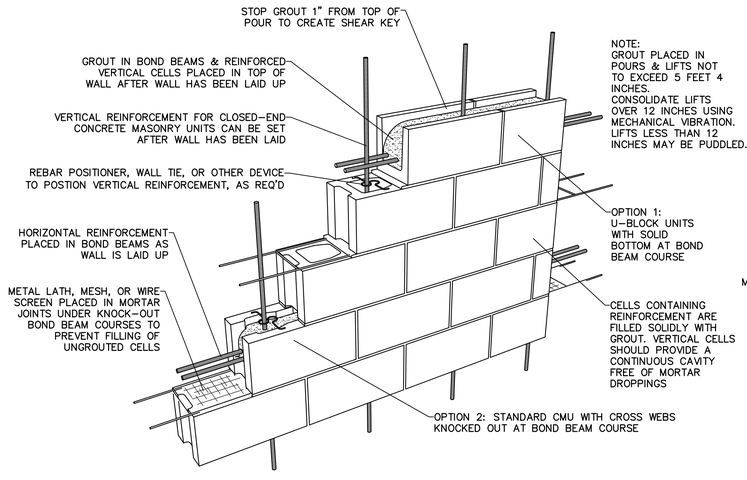
TOF = TOP OF FOUNDATION ELEVATION
(TAKEN FROM FINISHED FLOOR ELEVATION)

FOUNDATION SCHEDULE		
MARK	SIZE	REINFORCING
F4.5	4'-6"x4'-6"x1'-0"	5-#5 E.W.
F3.5	3'-6"x3'-6"x1'-0"	4-#5 E.W.

VERTICAL WALL REINFORCING		
	REBAR LAP SPLICE LENGTH	ALL REINFORCING SHALL EXTEND FROM FOOTING TO TOP OF WALL
#4 @ 4'-0" o.c.	2'-0"	WALLS SHALL BE REINFORCED IN ACCORDANCE WITH MASONRY NOTES ON SHEET S201, GROUTING METHOD DETAILS 2,3 AND CMU WALL REINFORCING DETAIL 4 THIS SHEET.
EXTERIOR WALLS AND INTERIOR WALLS IN GROUTED CORE, CENTER IN CORE		

1/S101 FOUNDATION PLAN

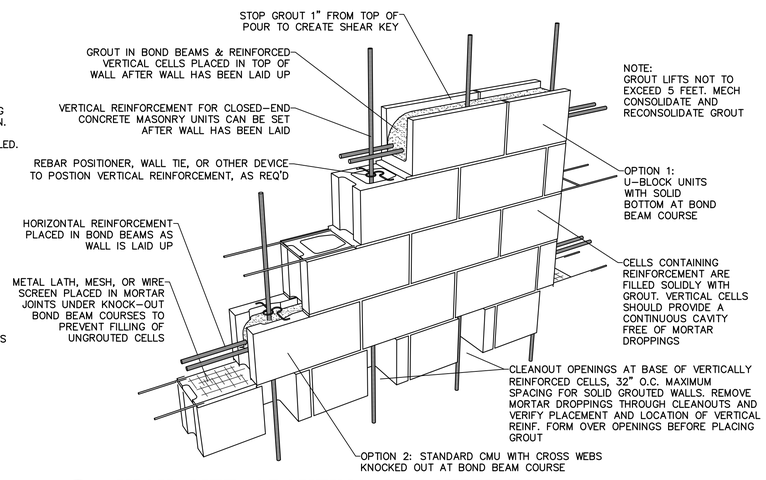
1/8" = 1'-0"



2/S101 LOW LIFT GROUTING PROCEDURES

GROUT POUR HEIGHT < 5'-4"

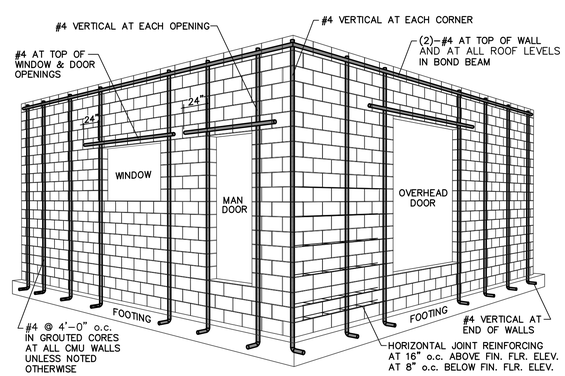
N.T.S.



3/S101 HIGH LIFT GROUTING PROCEDURES

GROUT POUR HEIGHT > 5'-4"
(Reference: TMS 402: Figure SC-20)

N.T.S.



4/S101 CMU WALL REINFORCING DETAIL

TYPICAL DETAIL

N.T.S.

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA

FOUNDATION PLAN

COMMONWEALTH OF VIRGINIA
JOHN L. JACOBS
Lic. No. 16810
01/30/2026
PROFESSIONAL ENGINEER

DATE: 01-30-2026

NO.	
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SHEET: S101

DRAWN BY: ST | CHECKED BY: JLJ

PROJECT NO. TLG-2515

THE LANE GROUP INC.

PLOT DATE 4/22/2026
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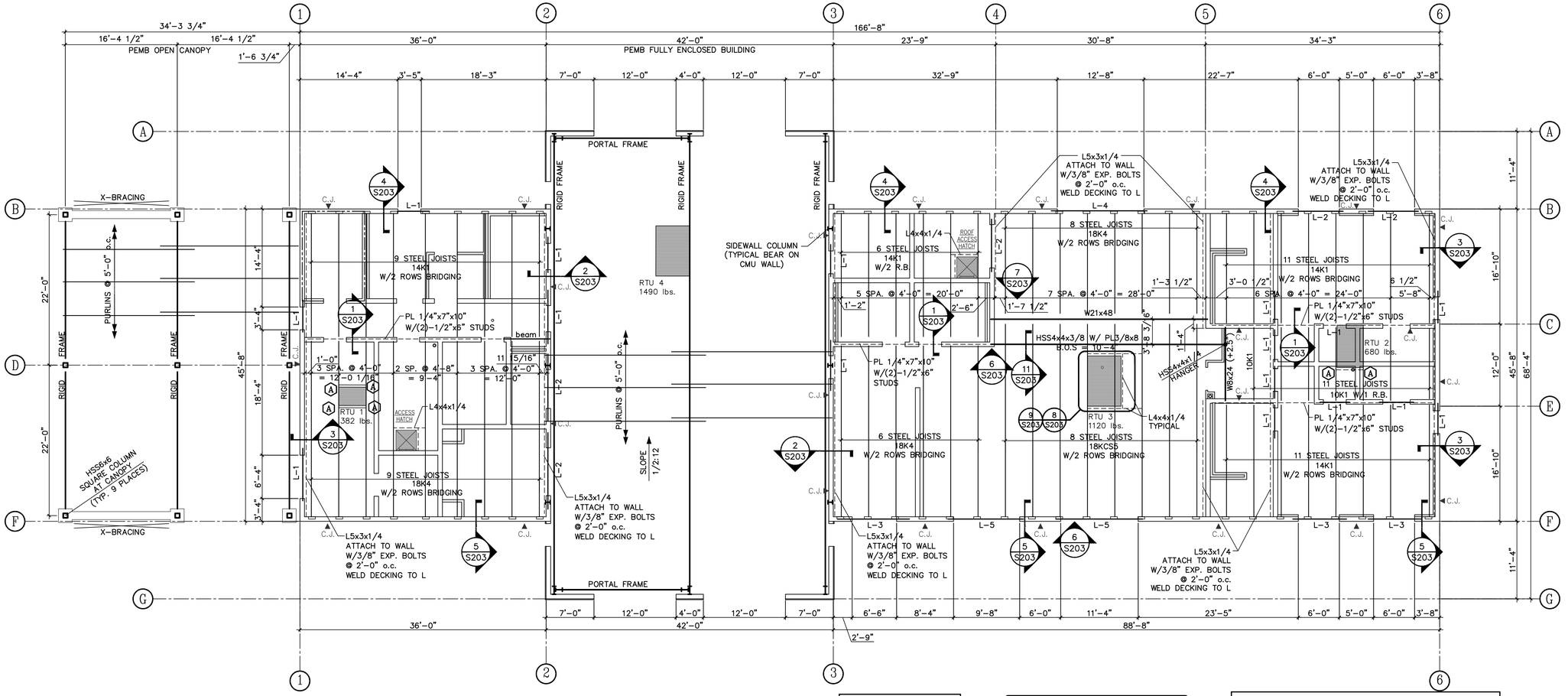


MASONRY CONTROL JOINT: ◄C.J.
SEE 2/S102 3/S102 AND 4/S102

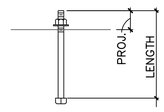
STEEL JOIST BEARING ELEVATION: 12'-0 1/4" AFF

1/S102 ROOF FRAMING PLAN

1/8" = 1'-0"

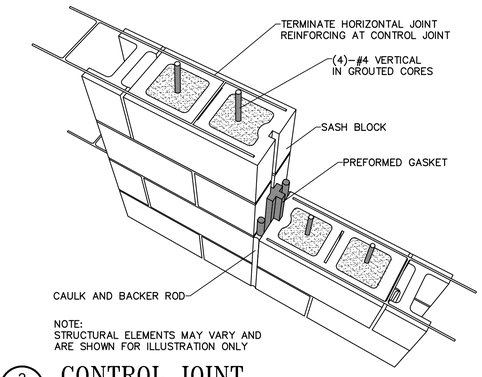
SPECIAL STEEL JOIST LOADS	
MARK	LOAD (lbs.) (each joist)
A	250
B	400
STEEL JOIST AND JOIST GIRDER CAPACITIES SHALL BE INCREASED BY SPECIAL STEEL JOIST LOADS.	

ANCHOR BOLTS		
DIAMETER	LENGTH	PROJECTION
5/8"	12"	2"
3/4"	16"	3 1/2"



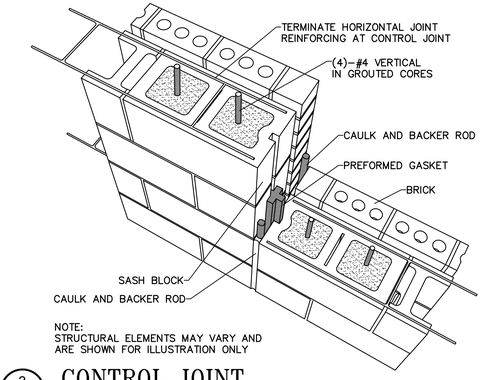
LINTEL SCHEDULE			
MARK	SHAPE	MEMBER	BEARING (EACH END)
L-1		8" BOND BEAM W/2-#4 REBAR	24"
L-2		8" BOND BEAM W/2-#5 REBAR & GROUTED BLOCK ABOVE	24"
L-3		8" BOND BEAM W/2-#5 REBAR & GROUTED BLOCK ABOVE & L5x3 1/2x3/8	24" 8"
L-4		HSS12x4x1/2 W/PL3/8x7 & 1/2"x6" STUD @ 4'-0" o.c.	8"
L-5		HSS12x4x1/2 W/PL3/8x15 & 1/2"x6" STUD @ 4'-0" o.c.	8"

INSTALL LINTELS OVER ALL WALL OPENINGS.
LINTELS NOT IDENTIFIED SHALL BE CONSIDERED TYPE L-1 or L-3.



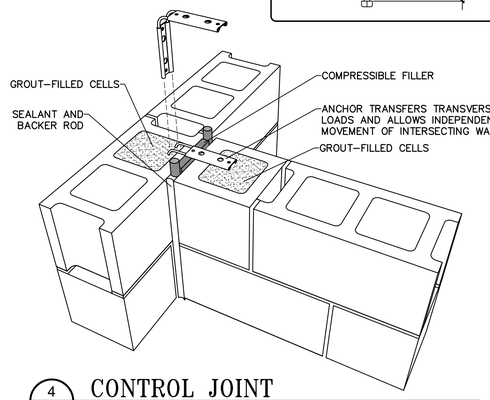
NOTE:
STRUCTURAL ELEMENTS MAY VARY AND ARE SHOWN FOR ILLUSTRATION ONLY

2/S102 CONTROL JOINT
CMU WALL — N.T.S.



NOTE:
STRUCTURAL ELEMENTS MAY VARY AND ARE SHOWN FOR ILLUSTRATION ONLY

3/S102 CONTROL JOINT
CMU WALL WITH BRICK — N.T.S.



4/S102 CONTROL JOINT
AT CMU WALL JOIN — N.T.S.

PLOT DATE 4/22/2026
J:\JRS\2501901\S1

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WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
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ROOF FRAMING PLAN

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DATE:	01-30-2026
NO.	
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SHEET:	S102
DRAWN BY	ST
CHECKED BY	JLJ
PROJECT NO.	TLG-2515

THE LANE GROUP INC.

Statement of Special Inspections

Design Professional in Responsible Charge: Michael Weaver

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This Statement of Special Inspections encompass the structural discipline.

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: Monthly

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- [X] Soils and Foundations
- [X] Cast-in-Place Concrete
- [ ] Precast Concrete
- [X] Masonry
- [X] Structural Steel
- [X] Cold-Formed Steel Framing
- [ ] Spray Fire Resistant Material
- [ ] Wood Construction
- [ ] Exterior Insulation and Finish System
- [ ] Mechanical & Electrical Systems
- [ ] Architectural Systems
- [ ] Special Cases

Special Inspection Firms will be selected before the beginning of Construction.

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category: C

Quality Assurance Plan Required: No

Description of seismic force resisting system and designated seismic systems:
Reinforced Masonry Shear Walls

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust): 119 MPH

Wind Exposure Category: B

Quality Assurance Plan Required: No

Description of wind force resisting system and designated wind resisting components:
Reinforced Masonry Shear Walls

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the Agency Number on the Schedule.

PE/SE Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT Concrete Field Testing Technician – Grade 1
ACI-CCI Concrete Construction Inspector
ACI-LTT Laboratory Testing Technician – Grade 1&2
ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI Certified Welding Inspector
AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI Structural Masonry Special Inspector
ICC-SWSI Structural Steel and Welding Special Inspector
ICC-SFSI Spray-Applied Fireproofing Special Inspector
ICC-PCSI Prestressed Concrete Special Inspector
ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT Concrete Technician – Levels I, II, III & IV
NICET-ST Soils Technician - Levels I, II, III & IV
NICET-GET Geotechnical Engineering Technician - Levels I, II, III & IV

Soils and Foundations

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report. Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill
2. Controlled Structural Fill	PE/GE	Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922) Verify extent and slope of fill placement.

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
3. Reinforcement Installation	ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
6. Anchor Rods		Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
8. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.

Masonry

Required Inspection Level: 2

Item	Agency # (Qualif.)	Scope
2. Mixing of Mortar and Grout	ICC-SMSI	Inspect proportioning, mixing and retempering of mortar and grout.
3. Installation of Masonry	ICC-SMSI	Inspect size, layout, bonding and placement of masonry units.
4. Mortar Joints	ICC-SMSI	Inspect construction of mortar joints including tooling and filling of head joints.
5. Reinforcement Installation	ICC-SMSI AWS-CWI	Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.
7. Grouting Operations	ICC-SMSI	Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.
7. Weather Protection	ICC-SMSI	Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.
9. Evaluation of Masonry Strength	ICC-SMSI	Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).
10. Anchors and Ties	ICC-SMSI	Inspect size, location, spacing and embedment of dowels, anchors and ties.

Structural Steel and Pre-engineered Metal Building

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures ☐ Fabricator Exempt	AWS/AISC-SSI ICC-SWSI	Review shop fabrication and quality control procedures.
3. Open Web Steel Joists		Inspect installation, field welding and bridging of joists.
4. Bolting	AWS/AISC-SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.
5. Welding	AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds.
7. Structural Details	PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck	AWS-CWI	Inspect welding and side-lap fastening of metal roof.

GRADING NOTES:

1. Topsoil and other unsuitable materials shall be stripped from the site a distance of 10 feet outside cuts, fills and building limits.
2. Proofroll areas to receive fill, as well as final subgrade areas. Use dump truck weighing at least 20 tons. Any area that rut or pump shall be undercut to firm bearing soils and backfilled with well-compacted soil.
3. Fill soil shall have a minimum dry unit density of 90 pounds per cubic foot, a maximum plasticity index (PI) of 30 or less and be free of topsoil, debris or trash. Place soil fill in 8" loose lifts to 98 percent of the standard proctor maximum dry density within plus or minus two percentage points of its optimum moisture content in accordance with ASTM D698. Test at rate of 1 test per 2500 sq. ft. per lift.

CONCRETE NOTES:

1. All foundation and pier concrete shall be 3000 PSI @ 28 days (W/C<49). Interior slab-on-grade and exterior concrete shall be 4000 PSI @ 28 days (W/C<46). All exterior concrete shall be air entrained (6 percent). Fly ash shall be limited to 25 percent of cementitious materials in exterior slabs. Fly ash shall not be used in interior slabs. Slump: 4-6". Concrete mix shall not exceed 85 degrees at time of placement.
2. Reinforcing steel shall be A615, grade 60.
   Concrete cover: Foundations - 3"
   Piers- 2"
   Slabs - 1"
3. All work shall be performed in accordance with ACI 301 and 117.
4. Tool, or chamfer, all exposed corners.
5. Floor surfaces shall receive steel trowel finish to receive a polished finish. Exterior flat surfaces shall receive light broom finish. At a minimum, flatwork concrete shall be sprayed/rolled with a membrane forming curing compound or densifier. Coordinate application with floor covering and polishing contractor.
6. Reinforcement at foundation steps shall be continuous with 24" bar laps.
7. Base plate grout shall be non-metallic, non-shrink, 6,000 psi minimum @ 28 days.
8. Concrete shall be tested in accordance with ACI 318:
   a. At least once a day for each strength used that day.
   b. At least once for each 150 c.y. of concrete.
   c. At least once for each 5,000 sq. ft. of surface area of slabs or walls.
   Four (4) cylinders shall be taken for each test. Cylinders shall be tested at 7 and 28 days.
   Results shall be reported to Designer. Acceptance shall be in accordance with ACI 318.
9. Vapor barrier shall be 15 mils thick, tensile strength >45 lb/inch, puncture resistance = 2200 grams, with taped edges.

MASONRY NOTES:

1. One core of concrete masonry units at exterior building corners shall be filled with grout from the foundation to the bond beam. Core shall have 1 - #5 rebar full depth.
2. Cores below lintel and beam bearing points shall be grouted from foundation to top of wall. Each core shall have 1 - #5 rebar full depth.
3. Roof levels and top of all masonry walls shall have reinforced, grouted bond beam with 2 - #4 continuous. Reinforcement shall be continuous (lapped 20") at corners and intersections.
4. Fully grout all foundation block cores located below slab-on-grade elevation.
5. Attach masonry to all steel columns with masonry anchors at 16" centers. Anchors shall be located on all sides of the column that are in the wall plane.
6. Block cores at all wall intersections shall be filled with grout and 1 - #4 rebar from foundation to bond beam. One block core in each wall at intersection shall be filled.
7. Install horizontal reinforcing at 16" centers full height of wall. Install brick ties in a 16" x 24" pattern.
8. All masonry grout shall be portland cement grout with 3/8" aggregate, 2,000 psi minimum compressive strength, 8"-11" slump.
9. Install vertical control joints as shown of framing plan. Joints shall extend from foundation to top of wall.
10. Masonry net area compressive strength (f'm) = 1500 psi.
11. All block mortar shall be Type M or S. Brick mortar shall be Type N.
12. Load bearing intersecting walls shall be bonded in an overlapping masonry bonding pattern or by steel connectors (1/4x1 1/2x24 W/2" bent-up ends) at 4'-0" centers. Horizontal joint reinforcing shall be continuous through the intersection.
13. Non-load bearing intersecting walls shall be bonded with continuous joint reinforcing or 1/4" mesh galvanized hardware cloth at 16" centers.

STEEL NOTES:

1. All structural steel W, C and MC shapes shall be A-992 (Fy = 50 Ksi). Plates and angles shall be A-572 Grade 50. Hollow structural shapes shall be A-500, Grade C. Pipe shall be A53, Grade B.
2. All work shall be in accordance with AISC Code of Standard Practice for Steel Buildings and Bridges.
3. Shop prime steel with one coat alkyd primer.
4. Frame all roof openings for mechanical equipment and roof drains with L4x4x1/4 unless noted otherwise.
5. All structural steel bolted connections shall be 3/4", ASTM F3125 Gr. A325 - N type. Bolted connections shall be inspected in accordance with RCSC-2020 (Specification for Structural Joints Using High Strength Bolts).
6. All structural welded joints shall conform to the provisions of AWS D1.1, Structural Welding Code by American Welding Society. Proof of welder certification shall be available at the job site during times of inspection.
7. Connections shall be selected, by an experienced steel detailer, to support one-half the total uniform load capacity shown in Maximum Total Uniform Load tables, AISC Manual, Sixteenth Edition, Part 3, (ASD method).
8. All anchor rods shall be ASTM F1554, Grade 36, headed bolts with nuts and washers. Provide double nuts for leveling during erection.
9. All exposed structural and miscellaneous steel shall be considered Architecturally Exposed Structural Steel.

STEEL JOIST NOTES:

1. Joist chords are not designed for concentrated loads. If load cannot be placed over panel point, field weld L2x2x1/4 from point of load to nearest panel point on opposite chord.
2. Roof joists shall be designed for a net uplift force of 15 psf.
3. Furnish bridging and bridging anchors as required for complete installation.
4. Coordinate location of joists, as well as point loads of equipment, with mechanical contractor. All point loads shown on drawings are based on ASD.
5. Shop drawings shall be submitted for review.
6. Roof joist live load deflection: L/240
7. Extend joist bottom chord where contact ceiling occurs.
8. At completion of manufacture, steel joist manufacturer shall submit a Certificate of Compliance to the Architect for submittal to the Building Official.

STEEL DECKING:

1. Roof decking shall be 1 1/2", 20 gauge., galvanized, B-type. Attach with 5/8" puddle welds, #12 Teks screws or Hilti X-HSN 24 or X-ENP-19 PAF at 36/4 pattern and side laps fastened with #10 TEKS screws. Other equivalent brands and products may be used. The attachment method shall provide a minimum allowable diaphragm shear strength of 300 lbs./lin. ft.
2. Roof decking penetrations:
   6" Diameter- No reinforcing required
   7" – 13" Diameter- 0.057" plate (min.)
   Greater than 13"- Steel angle reinforcing
   Provide sump pans at all roof drains.

WOOD FRAMED CONSTRUCTION:

1. Sill plates shall be anchored to masonry wall with 1/2" bolts at 4' - 0" centers with 7" embedment, or equivalent.
2. Sill plates in contact with steel, masonry or concrete shall be #2 SYP pressure treated. All 1/2" bolts anchoring these treated sill plates shall be hot-dipped galvanized.
3. Double plates shall lap a minimum of 4'-0". Laps shall be located over studs.
4. All 2x lumber (shall conform to dressed sizes in Standard PS20) shown on drawings shall be #2 SPF or #2 SYP or better with moisture content less than 19 percent.

DESIGN LOADS:

2021 Virginia Construction Code & ASCE 7-16
Roof Live Load (conventional): 30 psf
PEMB: 20 psf
Collateral: 5 psf
Roof structure is designed for non-ballasted roofing system.
Risk category: IV
Ultimate Design Wind Speed: 119 mph
Nominal Design Wind Speed: 92 mph
Exposure Category: B
Internal pressure coefficients: +/-0.18
Components and cladding: In accordance with ASCE 7-16 Chapter 30.
Snow Load (ground): 30 psf Importance factor: 1.2
(flat roof): 21 psf Snow exposure factor: 1.0
Thermal factor: 1.0
100 Year, Rainfall: 3.46 inches/hour
Handrailings: 200 lb. horiz. or vert. load
or: 50 plf horiz. or vert.
Soil Bearing Pressure: 2000 psf

SEISMIC DESIGN DATA:

Importance factor	1.5
Risk category	II
Spectral response acceleration, Ss	.27
Spectral response acceleration, S1	.08
Site class	D
Spectral response coefficient, SDS	.287
Spectral response coefficient, SD1	.132
Seismic design category	C
Basic seismic-force resisting system	Ordinary reinforced masonry Shear Walls
Response modification factor, R	25
Seismic response coefficient, Cs	.216
Design base shear (kips) (ASD)	13.9
Analysis procedure	Equivalent Lateral Force Procedure

PRE-ENGINEERED METAL BUILDING DESIGN LOADS:

Roof Live Load: 20 psf
With UL 90 Uplift Rating
Tributary load reduction is not allowed.
Collateral Load: 5 psf
Roof supported mechanical equipment loads and sprinkler system loads shall be added to the collateral load. Coordinate loads and locations with mechanical contractor.

CONCRETE FLOOR FINISHING

For Locations: See Room Finish Schedule.

Interior concrete floor finishing shall be completed prior to partition framing to simplify the polishing process. The floor finishing process shall be a five (5) step process as follows:

1. Finish the concrete floor to a smooth trowel finish. Soft cut control joints. Clean concrete of any dirt, residue, or soft cut saw debris. Allow surface to dry.
2. Apply Prosoco "Consolideck LS" concrete sealer/hardener/densifier to concrete surface. Use a clean microfiber pad to spread the "Consolideck LS" product evenly and to ensure uniform wetting. Avoid spreading after drying begins. Do Not Allow "Consolideck LS" to puddle on the floor surface. Allow treated surface to dry. Diamond grind and polish concrete floor to equivalent of #200 grit resin diamonds. Clean floor with a floor-scrubbing machine and fresh water. Allow surface to dry.
3. Use a low-pressure sprayer with conical spray pattern to apply Prosoco "Gemtone" stain over "Consolideck LS". Provide "Serpentine" green color. Apply three (3) thin coats rather than one heavy coat with a minimum or 1-hour drying time between coats. Do not walk on freshly stained floor.
4. Using a clean low-pressure sprayer fitted with a 0.5 GPM conical or fan spray tip, spray-apply Prosoco "Polish Guard" protective sealer, working from one control joint to another. Machine polish to a high-gloss finish.
5. Using a clean low-pressure sprayer, working from one control joint to another, apply Prosoco "Concrete Protector SB" over the "Polish Guard" to protect against food/oil stains. Use a damp microfiber pad to maintain a wet edge. Allow treated surfaces to dry tack-free, typically 60-90 minutes. Once dry, burnish using a high-speed burnisher fitted with "Consolideck Heat Burnishing Pad" or 1500 to 3000 grit diamond polishing pad suitable for use on high-gloss finishes. Protect concrete floor slab throughout remainder of construction.

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NOTES AND
SPECIAL INSPECTIONS

COMMONWEALTH OF VIRGINIA
JOHN L. JACOBS
Lic. No. 16810
01/30/2026
PROFESSIONAL ENGINEER

DATE: 01-30-2026

NO.	
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SHEET: S201

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PROJECT NO. TLG-2515

THE LANE GROUP INC.

PLOT DATE 4/22/2026
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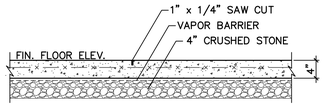
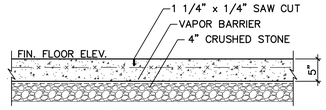


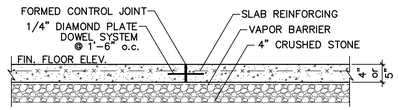
SAW JOINT AS SOON AS POSSIBLE WITHOUT RAVELLING AGGREGATE FROM CONCRETE

1A S202 **SAW JOINT DETAIL**
4" SLAB 3/4" = 1'-0"



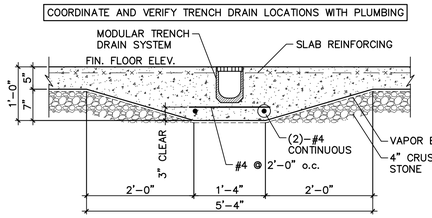
SAW JOINT AS SOON AS POSSIBLE WITHOUT RAVELLING AGGREGATE FROM CONCRETE

1B S202 **SAW JOINT DETAIL**
5" SLAB 3/4" = 1'-0"

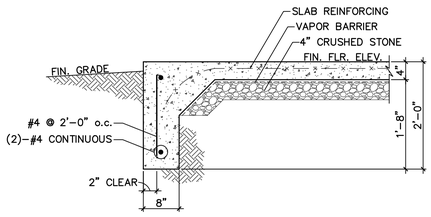


USE DETAIL AT CONSTRUCTION STOPS IN SLAB POURS.

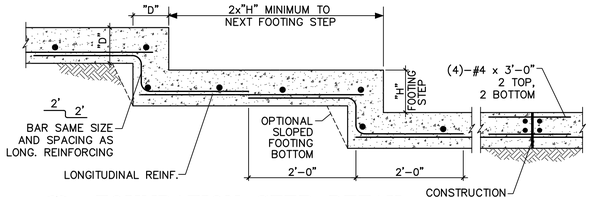
2 S202 **CONSTRUCTION JOINT DETAIL**
3/4" = 1'-0"



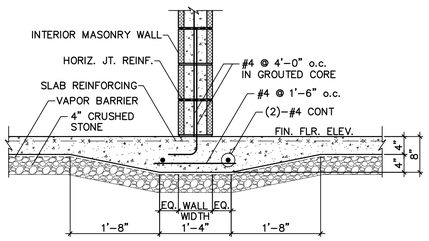
3 S202 **THICKENED SLAB SECTION**
AT TRENCH DRAINS 3/4" = 1'-0"



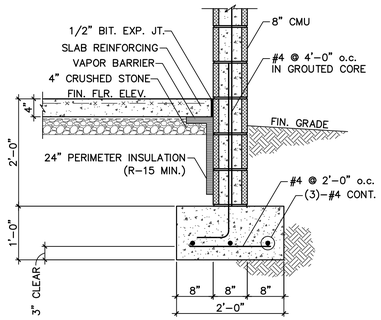
4 S202 **TURN-DOWN SLAB SECTION**
3/4"=1'-0"



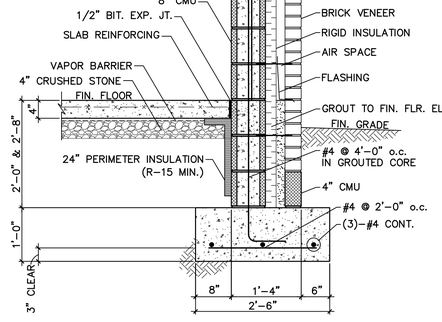
5 S202 **FOUNDATION STEP DETAIL**
3/4" = 1'-0"



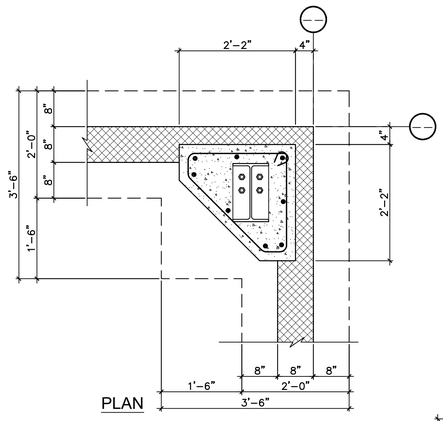
6 S202 **THICKENED SLAB SECTION**
3/4" = 1'-0"



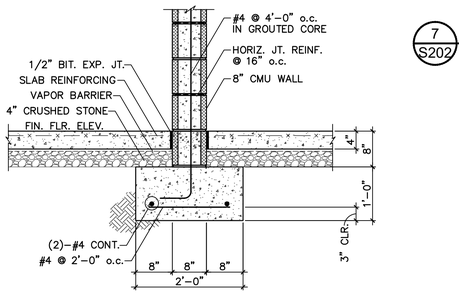
7 S202 **FOUNDATION WALL SECTION**
3/4" = 1'-0"



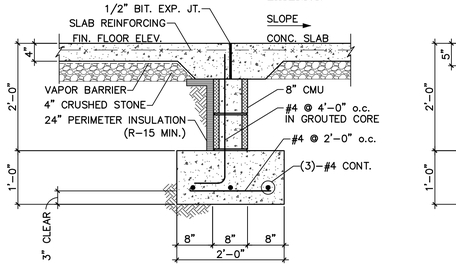
8 S202 **CONTINUOUS FOOTING SECTION**
3/4" = 1'-0"



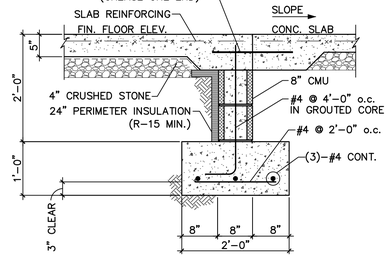
PLAN



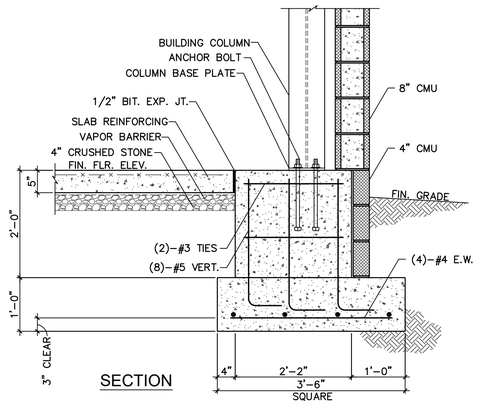
9 S202 **INTERIOR CMU WALL FOUNDATION**
3/4" = 1'-0"



10 S202 **FOUNDATION WALL DETAIL**
AT MAN-DOOR OPENINGS 3/4" = 1'-0"

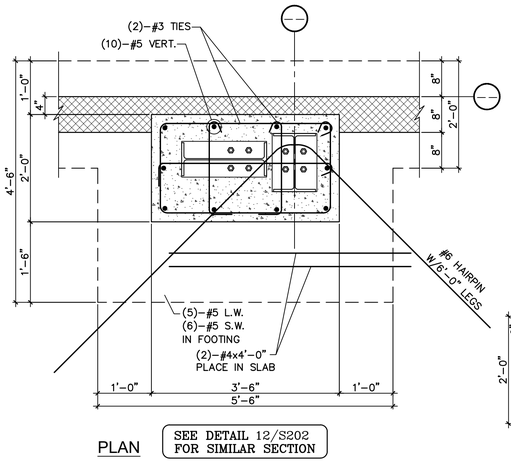


11 S202 **FOUNDATION WALL DETAIL**
AT OH DOOR OPENINGS 3/4" = 1'-0"



SECTION

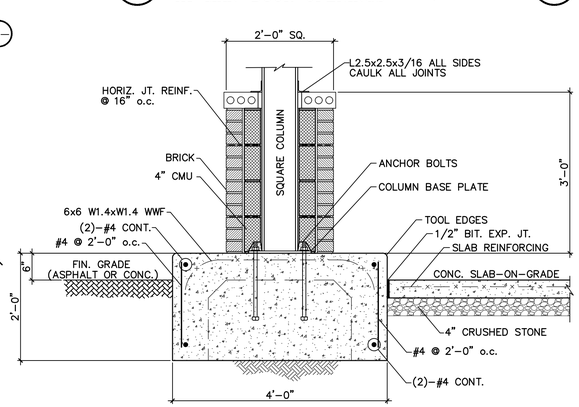
12 S202 **CORNER COLUMN FOUNDATION**
3/4" = 1'-0"



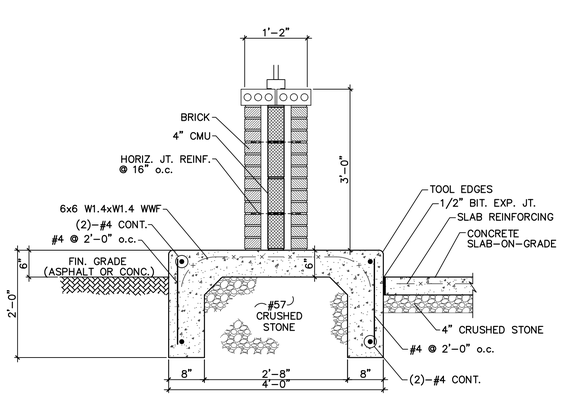
PLAN

SEE DETAIL 12/S202 FOR SIMILAR SECTION

13 S202 **COLUMN FOUNDATION**
AT PORTAL FRAM 3/4" = 1'-0"



14 S202 **SECTION AT CANOPY COLUMN**
3/4" = 1'-0"



15 S202 **SECTION AT CANOPY**
3/4" = 1'-0"

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA

FOUNDATION DETAILS

COMMONWEALTH OF VIRGINIA
JOHN L. JACOBS
Lic. No. 16810
1/30/2026
PROFESSIONAL ENGINEER

DATE:	01-30-2026
NO.	
1	
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SHEET:	S202
DRAWN BY: ST	CHECKED BY: JLJ
PROJECT NO.	TLG-2515

THE LANE GROUP INC.

J.L. Jacobs & Associates
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PLOT DATE 4/22/2026
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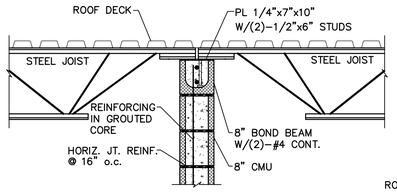
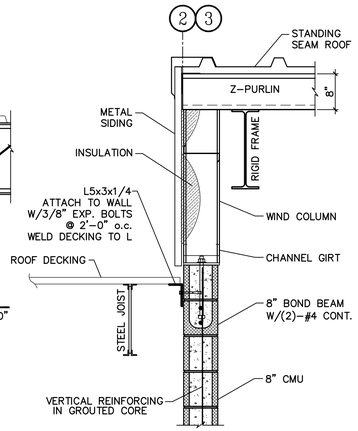
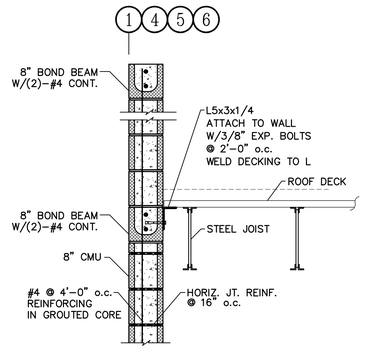


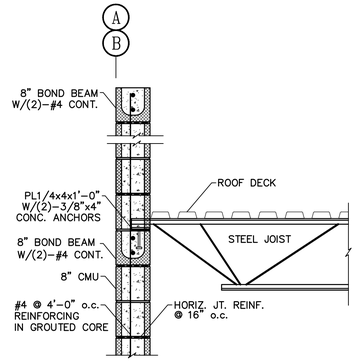
1 S203 **JOIST BEARING DETAIL**
INTERIOR CMU WALL 3/4" = 1'-0"



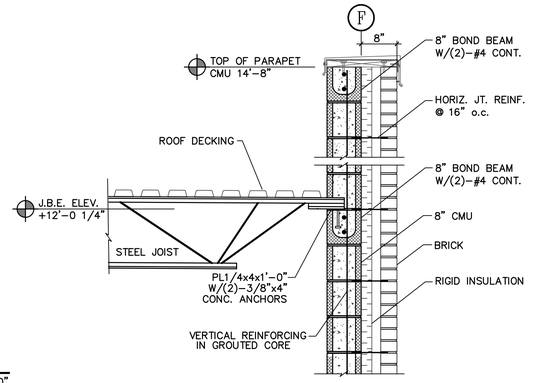
2 S203 **WALL SECTION AT ROOF**
3/4" = 1'-0"



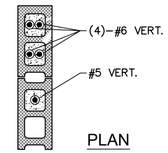
3 S203 **WALL SECTION AT ROOF**
3/4" = 1'-0"



4 S203 **JOIST BEARING DETAIL**
3/4" = 1'-0"

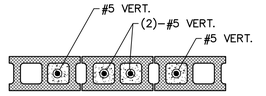


5 S203 **JOIST BEARING DETAIL**
AT ROOF 3/4" = 1'-0"



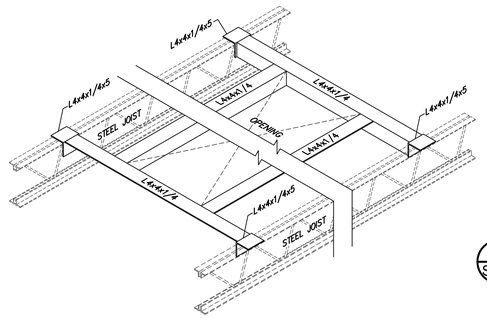
GROUT ALL CORES
FROM FOUNDATION TO TOP OF WALL

TYPICAL BEAM BEARING PILASTER BEAM PARALLEL

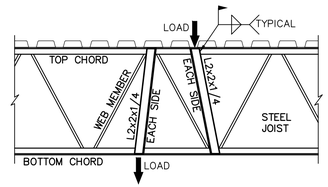


GROUT ALL CORES FROM
FOUNDATION TO TOP OF WALL

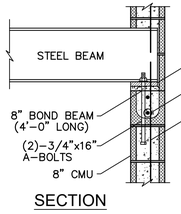
TYPICAL BEAM BEARING PILASTER BEAM PERPENDICULAR



8 S203 **TYPICAL REINFORCED OPENING**
AT ROOF N.T.S.



9 S203 **STEEL JOIST POINT LOAD DETAIL**
AT ROOF N.T.S.

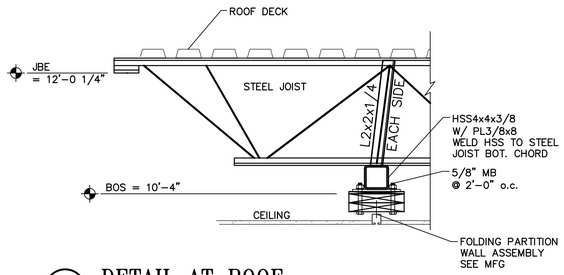


SECTION

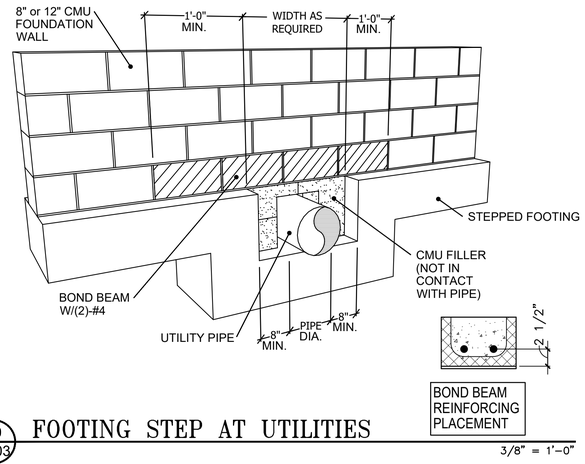
6 S203 **BEAM BEARING DETAIL**
AT CMU WALL 3/4" = 1'-0"

SECTION

7 S203 **BEAM BEARING DETAIL**
AT CMU WALL 3/4" = 1'-0"



11 S203 **DETAIL AT ROOF**
FOLDING PARTITION SUPPORT 1" = 1'-0"



10 S203 **FOOTING STEP AT UTILITIES**
3/8" = 1'-0"

PLOT DATE 4/22/2026
J:\JRS\JS0190\S1

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA

STRUCTURAL DETAILS

COMMONWEALTH OF VIRGINIA
JOHN L. JACOBS
Lic. No. 16810
1/30/2026
PROFESSIONAL ENGINEER

DATE: 01-30-2026

NO.	
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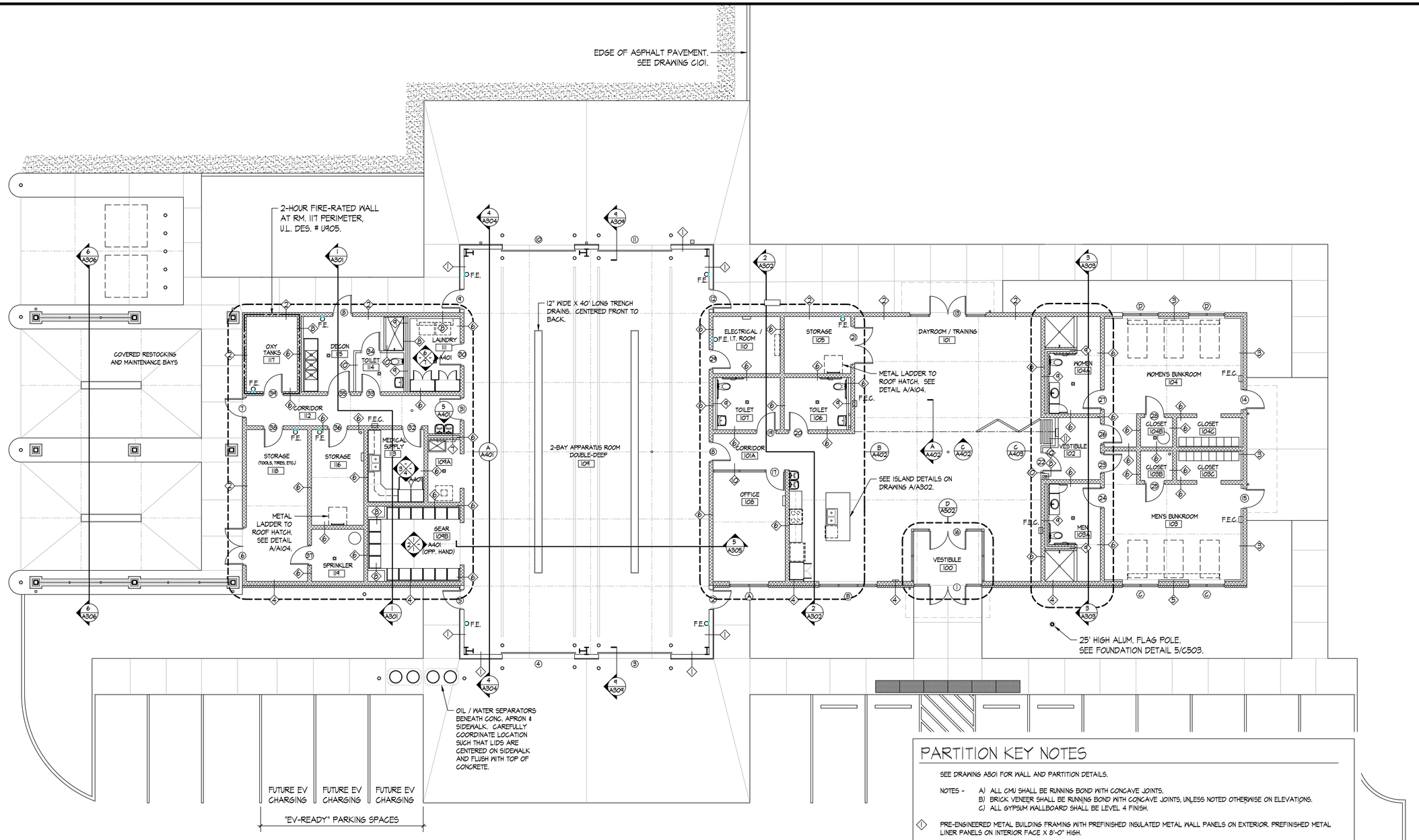
SHEET: S203

DRAWN BY ST | CHECKED BY JLJ

PROJECT NO. TLG-2515

THE LANE GROUP INC.

J.L. Jacobs & Associates
Consulting Engineering
511 Tusculum Boulevard
Greeneville, Tennessee 37745
(423) 787-7828
www.jljengineering.com



EXTERIOR MAINTENANCE BAY NOTES

THE TWO 22'-0" WIDE X 30'-0" DEEP RESTOCKING AND MAINTENANCE BAYS ARE BASE BID. BASE BID INCLUDES CONCRETE PAVEMENT AND CONCRETE CURBS. THE CONCRETE PAVEMENT SHALL BE MONOLITHIC AND SHALL SHEET FLOW TO THE NEAREST DROP INLET. (NOT AS DRAWN --THE TRENCH DRAINS INDICATED ARE NOT BASE BID).

AT THESE TWO BAYS, THE BRICK PIERS, SCREEN WALLS, STEEL PIPE BOLLARDS, STEEL COLUMNS, ROOF STRUCTURE AND ROOF PANELS ARE ADDITIVE BID ITEM #1. THE TWO 10'-0" LONG TRENCH DRAINS INDICATED ARE ALSO ADDITIVE BID ITEM #1.

BASE BID = NO ROOF STRUCTURE AND PAVEMENT TO SHEET FLOW TO NEAREST DROP INLET.

ADDITIVE BID ITEM #1 = ROOF COVERING AND TRENCH DRAINS. SLOPE CONCRETE TO TRENCH DRAINS AT 1/4" PER FOOT.

FLOOR PLAN
PARTITION TYPES + NOTATIONS

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

0 4' 8' 16'

FOR INTERIOR SIGNAGE LOCATIONS, SEE DRAWING A603

PARTITION KEY NOTES

SEE DRAWING A501 FOR WALL AND PARTITION DETAILS.

NOTES - A) ALL CMU SHALL BE RUNNING BOND WITH CONCAVE JOINTS.
B) BRICK VENEER SHALL BE RUNNING BOND WITH CONCAVE JOINTS, UNLESS NOTED OTHERWISE ON ELEVATIONS.
C) ALL GYPSUM WALLBOARD SHALL BE LEVEL 4 FINISH.

1. PRE-ENGINEERED METAL BUILDING FRAMING WITH PREFINISHED INSULATED METAL WALL PANELS ON EXTERIOR. PREFINISHED METAL LINER PANELS ON INTERIOR FACE X 8'-0" HIGH.
2. 8" REINFORCED CMU EXTERIOR WALL. FOAMED INSULATION IN UNGROUTED CELLS.
3. 8" REINFORCED CMU EXTERIOR WALL. FOAMED INSULATION IN UNGROUTED CELLS. INTERIOR FURRED WITH 3 5/8" METAL STUDS. UNFACED BATT INSULATION BETWEEN STUDS. 5/8" GNB ON INTERIOR FACE. GNB WITH LEVEL 4 FINISH.
4. 8" REINFORCED CMU EXTERIOR WALL. FOAMED INSULATION IN UNGROUTED CELLS. BRICK VENEER ON EXTERIOR FACE.
5. 8" REINFORCED CMU EXTERIOR WALL. FOAMED INSULATION IN UNGROUTED CELLS. BRICK VENEER ON EXTERIOR FACE. INTERIOR FURRED WITH 3 5/8" X 20 GA. METAL STUDS WITH UNFACED BATT INSULATION BETWEEN STUDS. 5/8" GNB ON INTERIOR FACE. GNB WITH LEVEL 4 FINISH.
6. 8" REINFORCED CMU INTERIOR WALL.
7. 4" CMU WET WALL.
8. 3 5/8" X 20 GA. METAL STUDS WITH 5/8" GNB ON ONE SIDE. UNFACED SOUND ATTENUATION BLANKETS BETWEEN STUDS. GNB WITH LEVEL 4 FINISH.
9. 3 5/8" X 20 GA. METAL STUDS WITH 1/2" CEMENTITIOUS BACKER BOARD ON ONE SIDE, UNFACED SOUND ATTENUATION BLANKETS BETWEEN STUDS. FINISH WITH 3" X 12" WHITE HORIZONTAL SUBWAY TILE.
10. 3 5/8" X 20 GA. METAL STUDS WITH 5/8" GNB ON BOTH SIDES. UNFACED SOUND ATTENUATION BLANKETS BETWEEN STUDS. GNB WITH LEVEL 4 FINISH.
11. 6" X 20 GA. METAL STUDS WITH 5/8" GNB ON BOTH SIDES, UNFACED SOUND ATTENUATION BLANKETS BETWEEN STUDS. GNB WITH LEVEL 4 FINISH.

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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

FLOOR PLAN
PARTITION TYPES & NOTATIONS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
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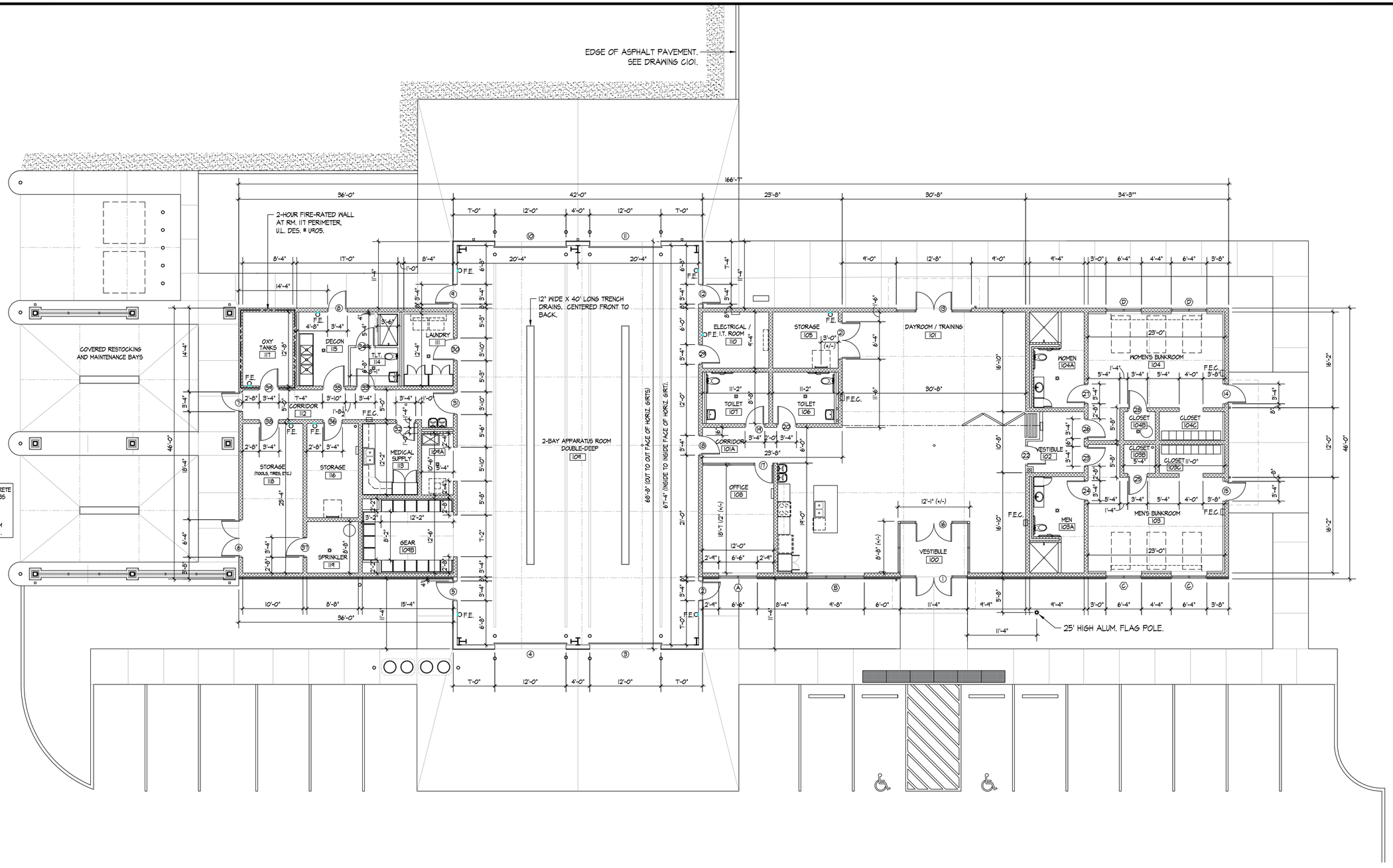
SHEET: A101

DRAWN BY: DMW | CHECKED BY: MRL

PROJECT NO. TLG-2515



FLOOR PLAN - DIMENSIONS

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

0 4' 8' 16'

NORTH

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

FLOOR PLAN
DIMENSIONS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
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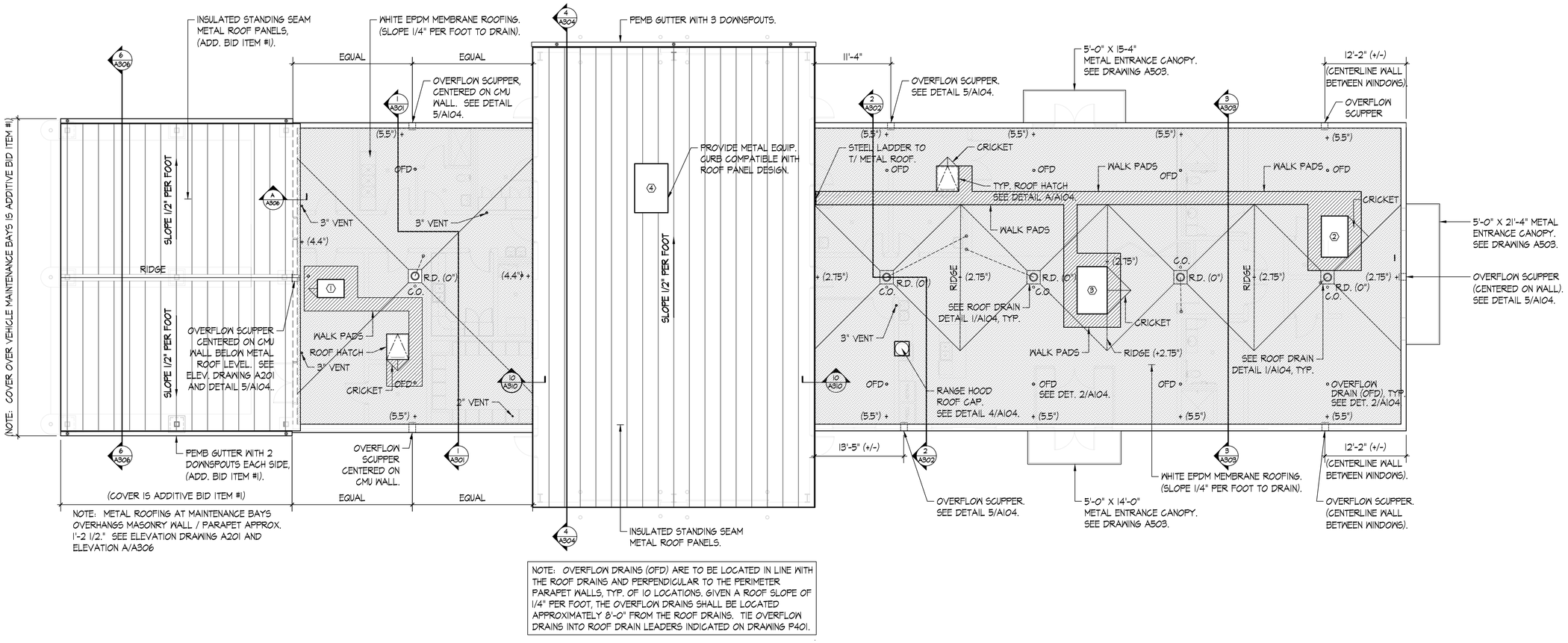
SHEET: A102

DRAWN BY: DMW
CHECKED BY: MRL
PROJECT NO.: TLG-2515

THE LANE GROUP INC.



NOTE: OVERFLOW DRAINS (OFD) ARE TO BE LOCATED IN LINE WITH THE ROOF DRAINS AND PERPENDICULAR TO THE PERIMETER PARAPET WALLS, TYP. OF 10 LOCATIONS. GIVEN A ROOF SLOPE OF 1/4" PER FOOT, THE OVERFLOW DRAINS SHALL BE LOCATED APPROXIMATELY 8'-0" FROM THE ROOF DRAINS. TIE OVERFLOW DRAINS INTO ROOF DRAIN LEADERS INDICATED ON DRAWING P401.

ROOF PLAN

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

0 4' 8' 16'

NORTH

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NEW EMS FACILITY FOR
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OWENS DRIVE - GLADE SPRING, VA 24340

ROOF PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
NO.	REVISION DATE
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3	

SHEET: A103

DRAWN BY	CHECKED BY
DMW	MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.

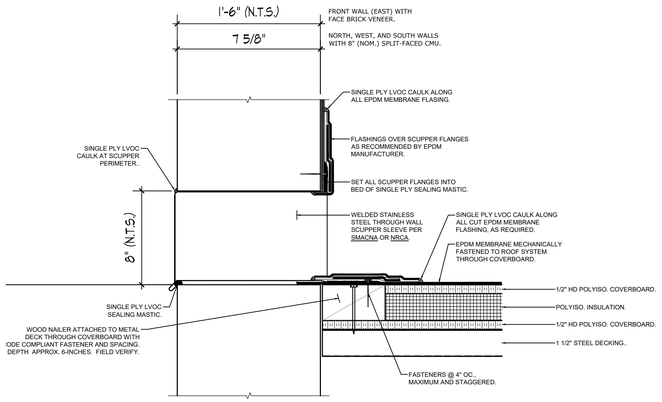
ROOF MEMBRANE NOTES

BASIS OF DESIGN PRODUCT FOR ROOFING MEMBRANE IS JOHNS MANVILLE 60 MIL. WHITE EPDM. THIS IS NOT MEANT TO BE PROPRIETARY. DETAILS INDICATED ARE BASED UPON JOHNS MANVILLE STANDARD SINGLE-PLY MEMBRANE INSTALLATIONS. CONTRACTOR SHALL REFER TO JOHNS MANVILLE WEBSITE (www.jm.com) FOR MOST UP-TO-DATE INFORMATION / DETAILING.

IF A DIFFERENT MEMBRANE MANUFACTURER IS UTILIZED, CONTRACTOR SHALL SUBMIT DETAILS OF THAT MANUFACTURER AS REQUIRED TO OBTAIN THE SPECIFIED ROOF WARRANTY.

SEE SINGLE-PLY FLASHING SPECIFICATIONS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQUIREMENTS WHICH ARE CONSIDERED A PART OF THESE DETAILS.

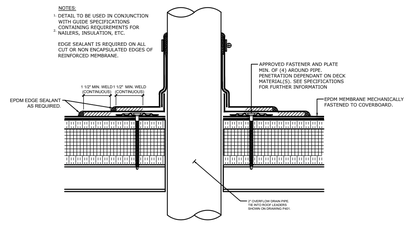
EPDM TAPE PRIMER MUST BE APPLIED ON ALL SURFACES THAT WILL BE IN CONTACT WITH PEEL AND STICK FLASHINGS.



5 / A104 TYP. OVERFLOW SCUPPER DETAIL

SCALE: 3" = 1'-0"

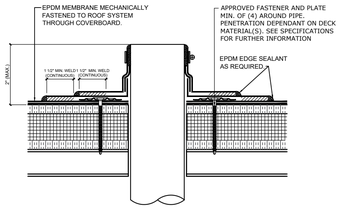
0 3" 6" 9"



3 / A104 TYP. VENT THRU ROOF DETAIL

SCALE: 3" = 1'-0"

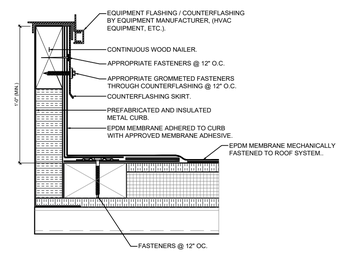
0 3" 6" 9"



2 / A104 TYP. ROOF OVERFLOW DRAIN DETAIL

SCALE: 3" = 1'-0" (+/-)

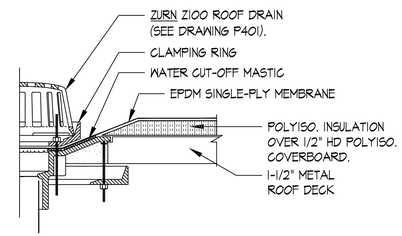
0 3" 6" 9"



4 / A104 TYP. PREFAB. EQUIP. CURB DETAIL

SCALE: 3" = 1'-0"

0 3" 6" 9"



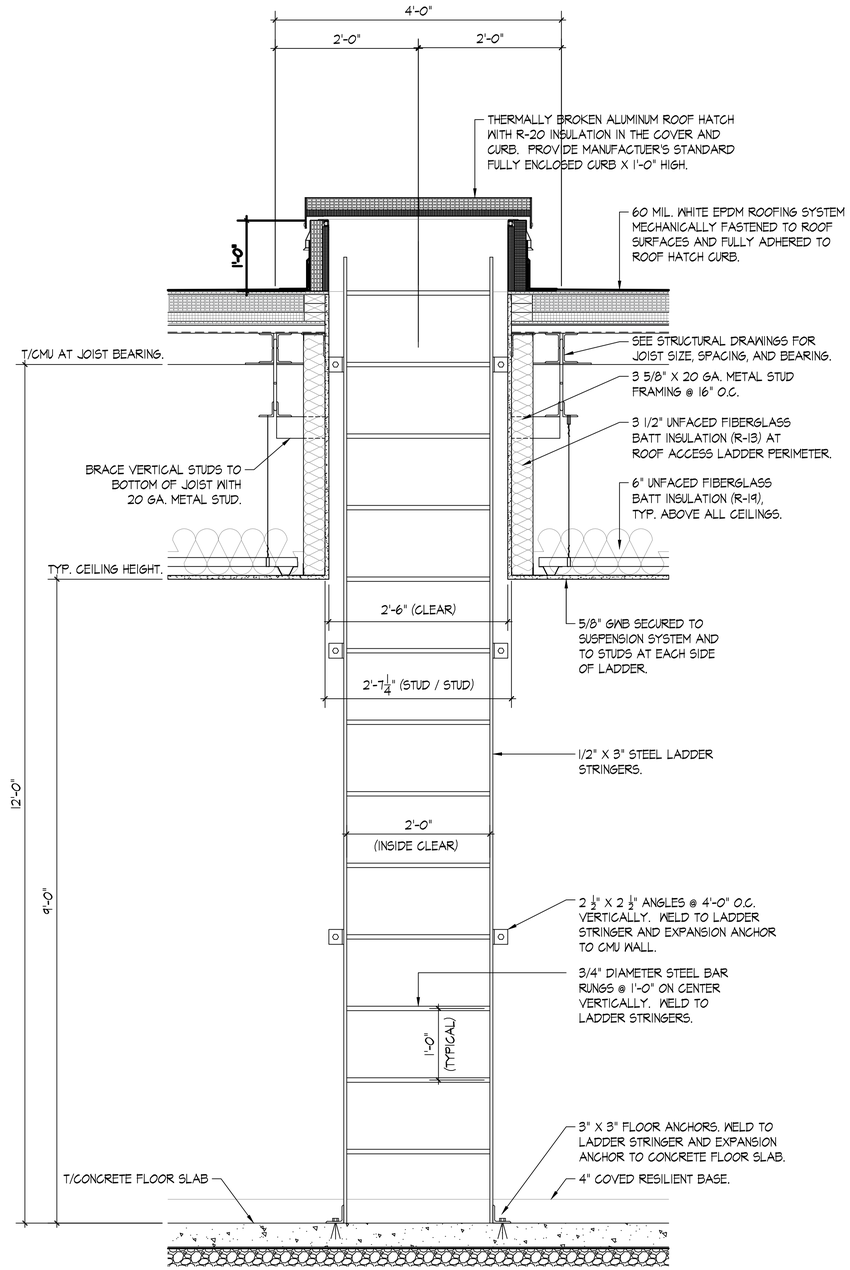
NOTES:

1. ALL BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
2. CUT THE MEMBRANE SO IT EXTENDS A MIN. OF 1/2 INCH FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
3. HOLE IN MEMBRANE MUST EXCEED SIZE OF DRAIN PIPE.
4. INSULATION TAPER SHALL NOT BE STEEPER THAN 6" (VERTICAL) IN 12" (HORIZONTAL).

1 / A104 TYP. ROOF DRAIN DETAIL

SCALE: 3" = 1'-0"

0 3" 6" 9"



A / A104 TYP. ROOF HATCH AND ACCESS LADDER DETAIL

SCALE: 1" = 1'-0"

0 1/2" 1" 2"

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ROOF DETAILS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

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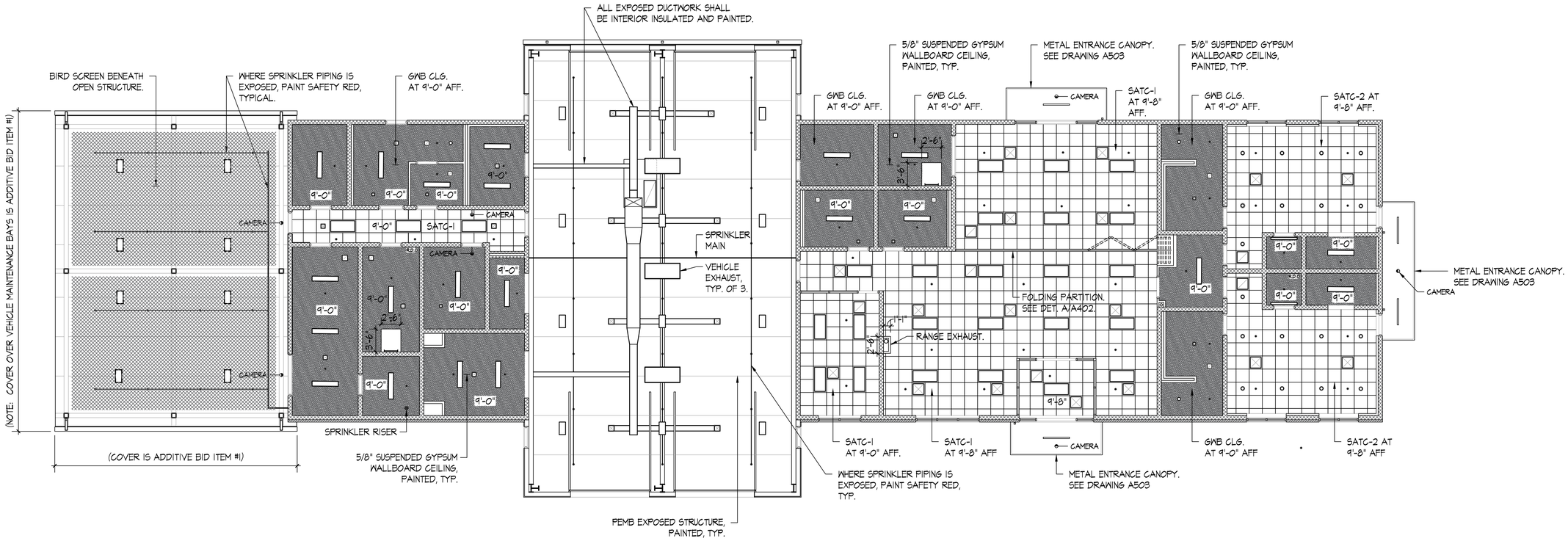
PROJECT NO. TLG-2515



NOTE: MAINTAIN 14'-0" MINIMUM CLEARANCE BETWEEN TOP OF CONCRETE FLOOR SLAB AND ALL LIGHTING, DUCTING, DIFFUSERS, VEHICLE EXHAUST DEVICES, SPRINKLER PIPING, ETC.

NOTE: IN THE APPARATUS ROOM, ALL CONDUITS SHALL BE CONCEALED WITHIN THE CMU WALLS. CONDUIT MAY BE EXPOSED, AND PAINTED, AT PEMB WALLS AND AT THE PEMB ROOF / CEILING STRUCTURE.

REFLECTED CEILING PLAN

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

0 4' 8' 16'

NORTH

REFLECTED CEILING PLAN NOTES

BASIS OF DESIGN PRODUCTS ARE AS MANUFACTURED BY THE US GYPSUM CORPORATION, (USG). THIS IS NOT MEANT TO BE PROPRIETARY. PRODUCTS BY OTHER MANUFACTURERS WHO REGULARLY ENGAGE IN THE MANUFACTURE OF SIMILAR PRODUCTS WILL BE GIVEN CONSIDERATION AS EQUAL.

5/8" GYPSUM WALLBOARD CEILINGS (GNB) SHALL BE SUSPENDED WITH A USG "DRYWALL SUSPENSION SYSTEM". DRYWALL SHALL BE FINISHED TO "LEVEL 4" QUALITY IN ACCORDANCE WITH THE GYPSUM ASSOCIATION'S GA-214, "LEVELS OF FINISH FOR GYPSUM PANEL PRODUCTS" AND PAINTED.

SUSPENDED ACOUSTICAL TILE CEILING #1 (SATC-1) SHALL BE USG "RADAR HIGH NRC" ACOUSTICAL PANELS, 0.70 NRC, 35-40 CAC, LR 0.84. SUSPENSION SYSTEM SHALL BE DONN BRAND "CENTRICITE" DXT/DXLT, 9/16" ACOUSTICAL SUSPENSION SYSTEM. PANELS SHALL BE 24" X 24" FLAT WHITE (050) WITH "SHADOWLINE" TAPERED EDGES.

SUSPENDED ACOUSTICAL TILE CEILING #2 (SATC-2) SHALL BE USG "RADAR HIGH NRC" ACOUSTICAL PANELS, 0.70 NRC, 35-40 CAC, LR 0.84. SUSPENSION SYSTEM SHALL BE DONN BRAND "FINELINE" DXT/DXLT, 9/16" ACOUSTICAL SYSPENSION SYSTEM. PANELS SHALL BE 24" X 24" FLAT WHITE (050) WITH "SHADOWLINE" TAPERED EDGES.

CONTRACTOR SHALL PROVIDE FOUR (4) KUSSMAUL POWER CORD REELS, MODEL # 14545 12 33, AS MANUFACTURED KUSSMAUL ELECTRONICS. PHONE: 800-3436-0857. EMAIL: SALES@KUSSMAUL.COM. SECURE POWER CORD REELS TO STRUCTURE ABOVE. SEE DRAWING E102 FOR CONNECTION LOCATIONS.

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OWENS DRIVE - GLADE SPRING, VA 24340

REFLECTED CEILING PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
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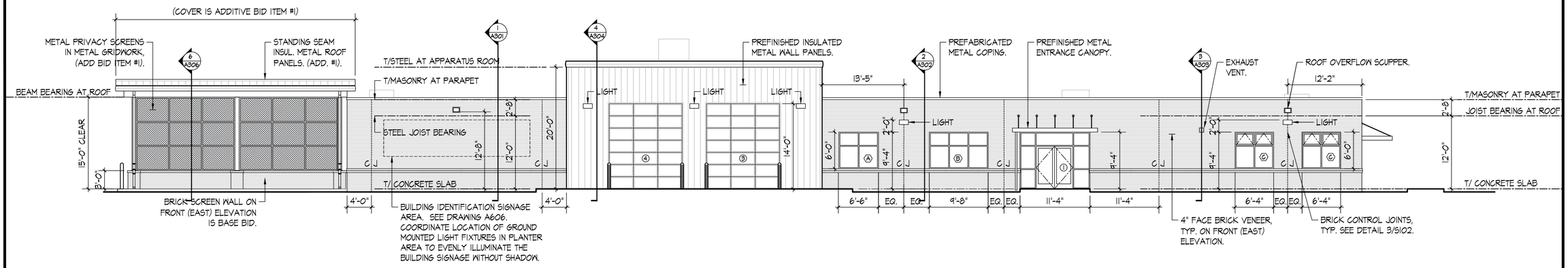
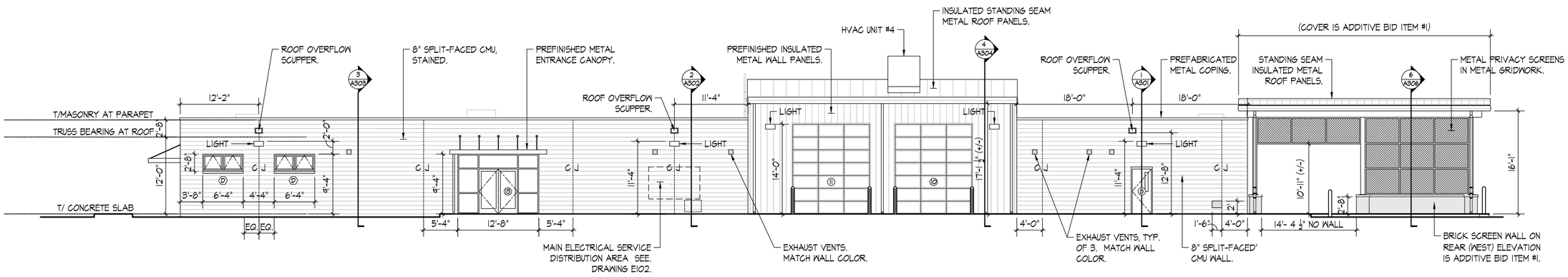
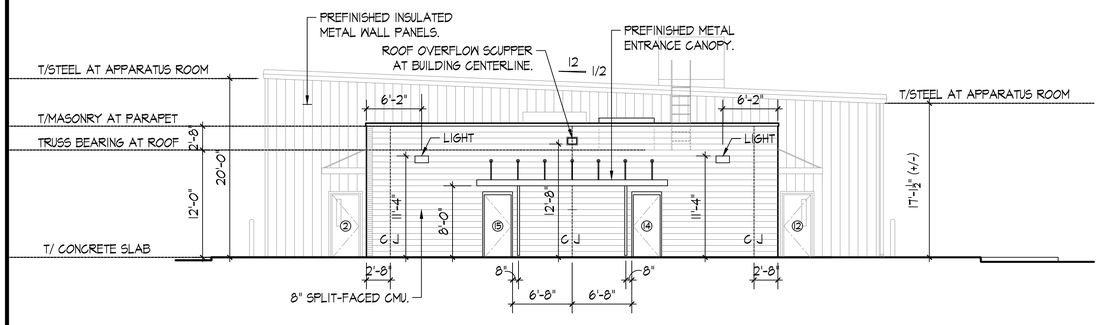


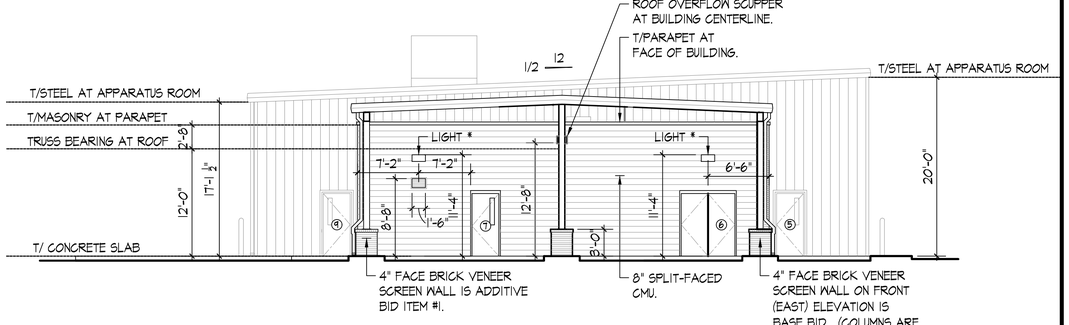
FRONT ELEVATION (EAST)



REAR ELEVATION (WEST)



END ELEVATION (NORTH)



END ELEVATION (SOUTH)

NOTE: ADDITIVE BID ITEM #1 CONDITION IS SHOWN. LIGHT FIXTURES ON THE SOUTH ELEVATION THAT ARE NOTED WITH AN ASTERISK (*) ARE BASE BID ONLY. AT ADDITIVE BID ITEM #1, PROVIDE EIGHT (8) TYPE "A" FIXTURES SUSPENDED FROM THE ROOF STRUCTURE. SEE DRAWING E101.

BUILDING ELEVATIONS

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

0 4' 8' 16'

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OWENS DRIVE - GLADE SPRING, VA 24340

ELEVATIONS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

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PROJECT NO. TLG-22125

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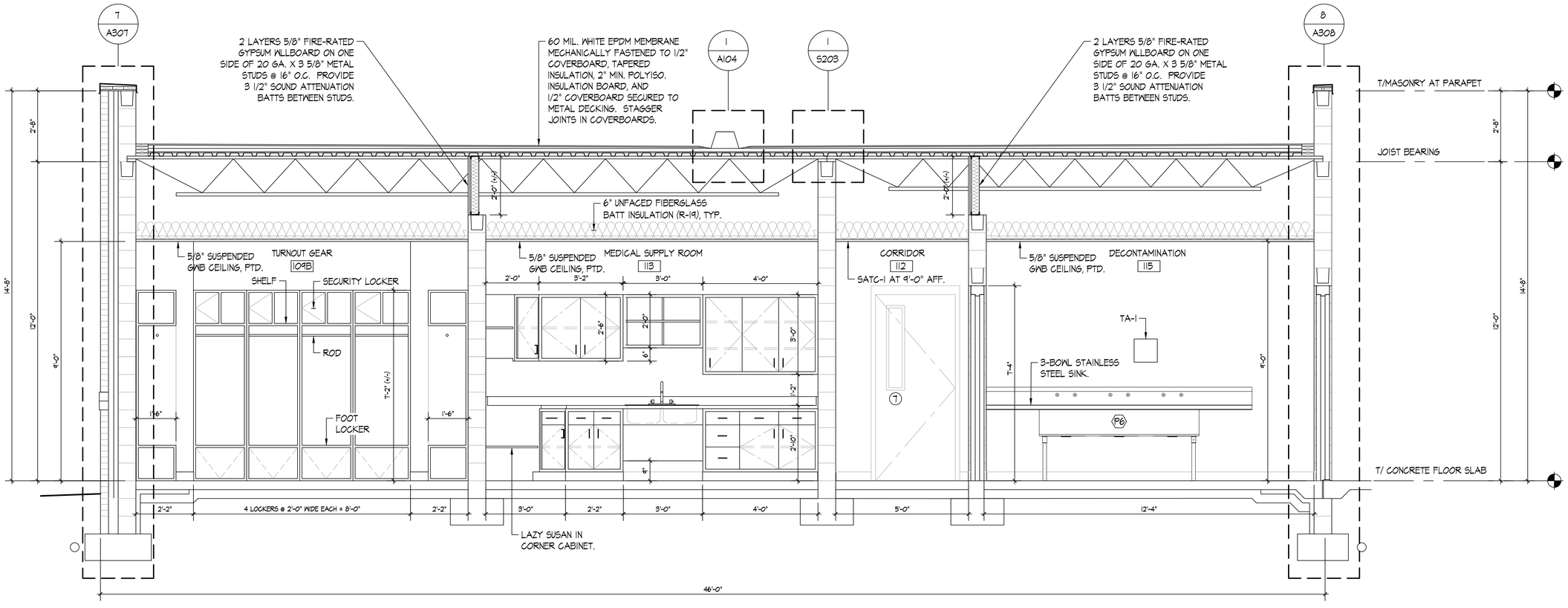

1 A301 **BUILDING SECTION - SOUTH**

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

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BUILDING SECTION - SOUTH

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

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DMW	MRL

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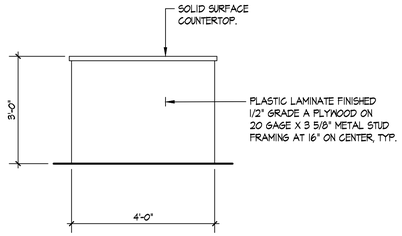
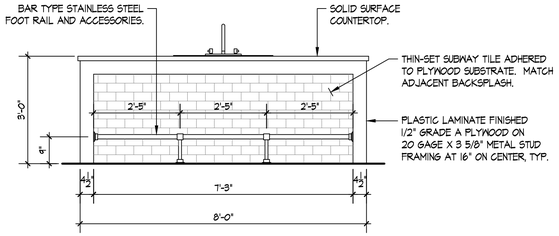


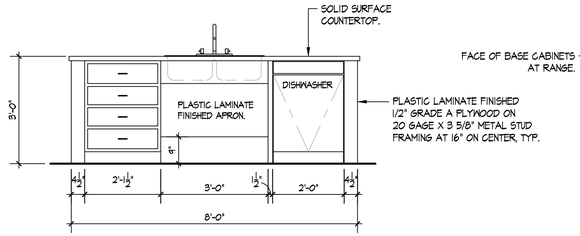
D A302 **ISLAND ELEVATION**

SCALE: 1/2" = 1'-0"



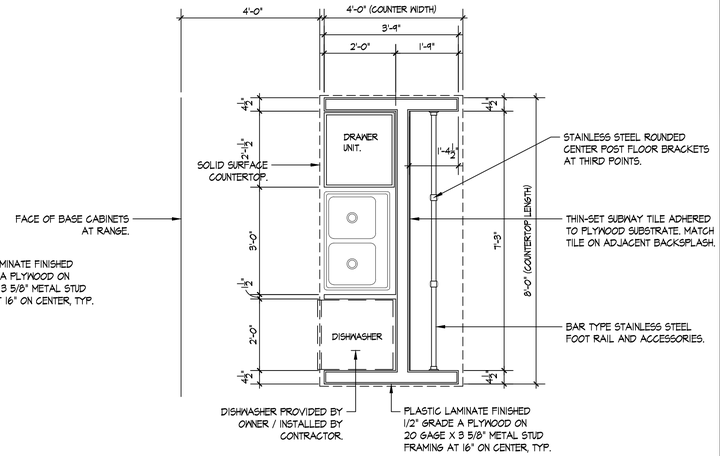
C A302 **ISLAND ELEVATION**

SCALE: 1/2" = 1'-0"



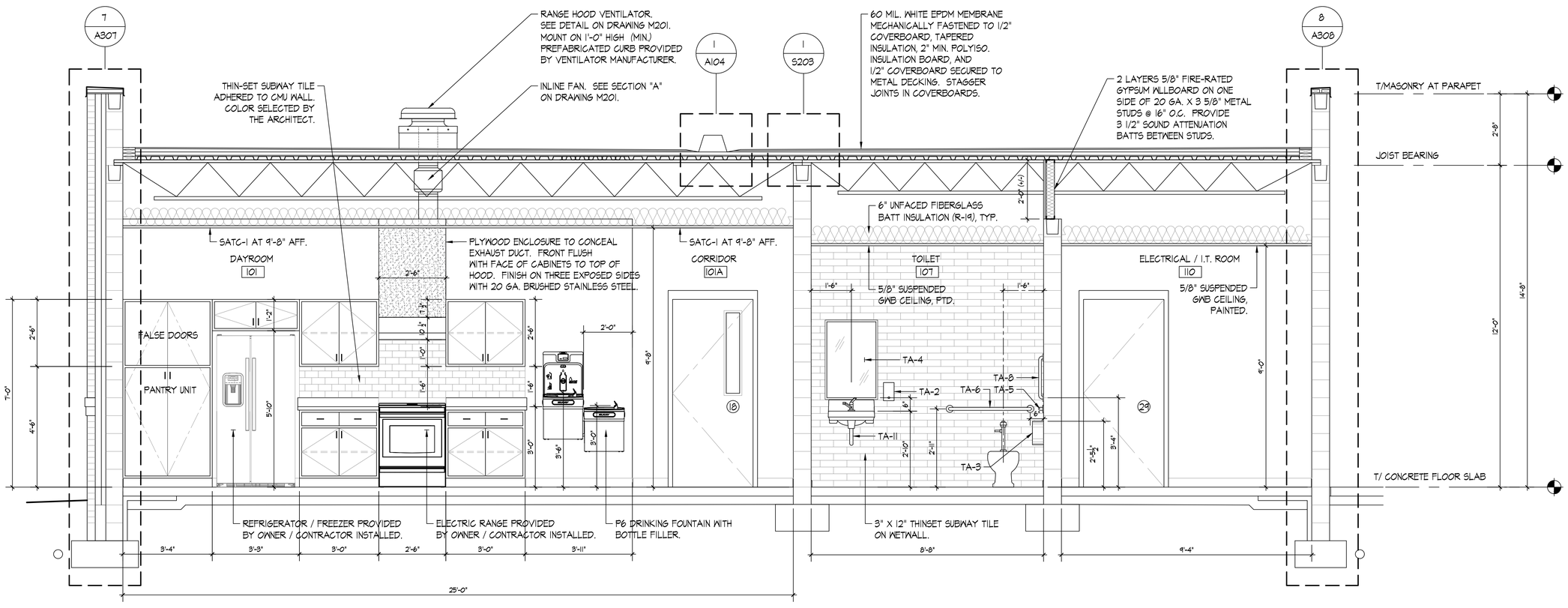
B A302 **ISLAND ELEVATION**

SCALE: 1/2" = 1'-0"



A A302 **CASEWORK ISLAND PLAN DETAIL**

SCALE: 1/2" = 1'-0"



2 A302 **BUILDING SECTION - OFFICE AREA**

SCALE: 1/2" = 1'-0"

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BUILDING SECTION - OFFICE AREA

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

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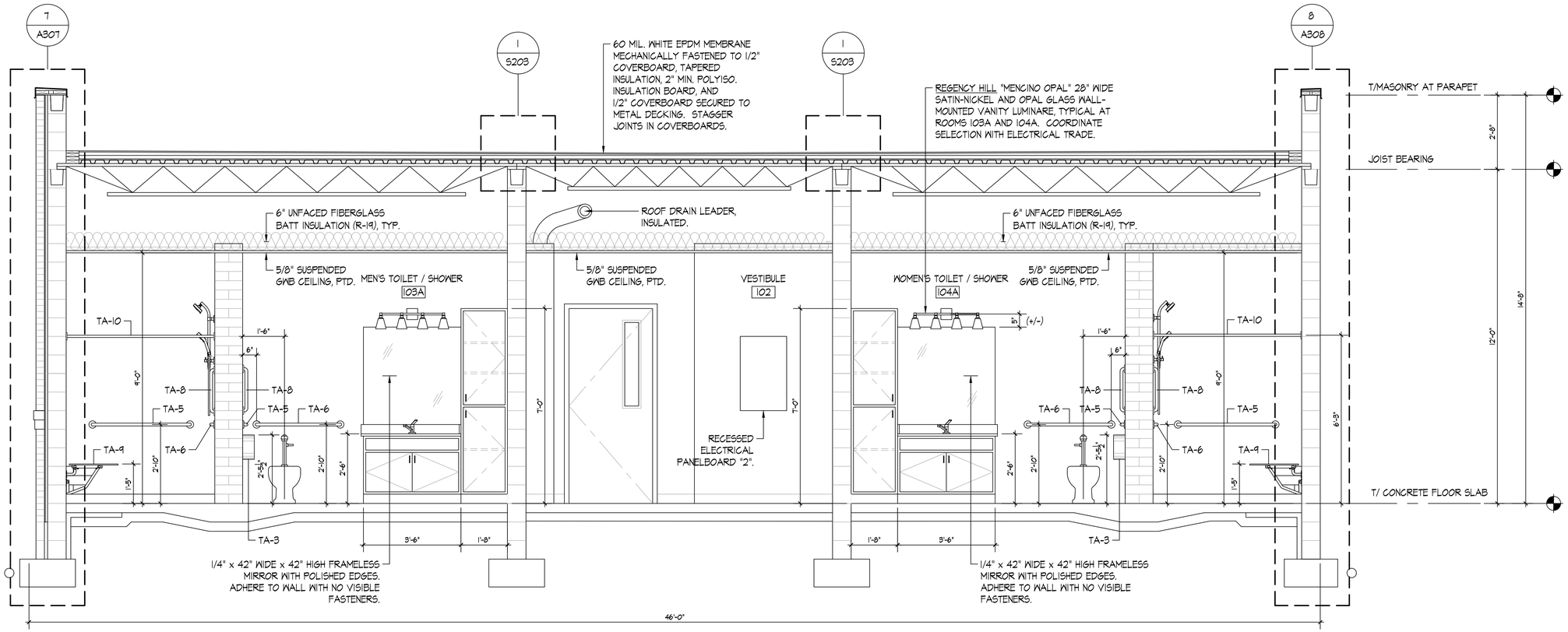

3 / A303 — BUILDING SECTION - NORTH

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

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BUILDING SECTION - NORTH

COMMONWEALTH OF VIRGINIA
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1. BASIS OF DESIGN FOR INSULATED METAL PANELS (IMP) FOR BOTH WALLS AND ROOFING ARE AS MANUFACTURED BY METAL SPAN. THIS IS NOT MEANT TO BE PROPRIETARY. OTHER MANUFACTURERS WHO REGULARLY ENGAGE IN THE MANUFACTURE OF SIMILAR PRODUCTS SHALL BE GIVEN CONSIDERATION AS EQUAL PRODUCTS.

2. BASIS OF DESIGN FOR INSULATED METAL WALL PANELS SHALL BE "CF ARCHITECTURAL VERTICAL WALL PANELS - ARCHITECTURAL FLAT / MESA STYLE" AS MANUFACTURED BY METAL SPAN. PANELS SHALL BE 2" THICK X 24" WIDE, R-17.5. THE EXTERIOR METAL PANEL FACE SHALL BE 22 GAGE AND THE INTERIOR METAL PANEL FACE SHALL BE 24 GAGE.

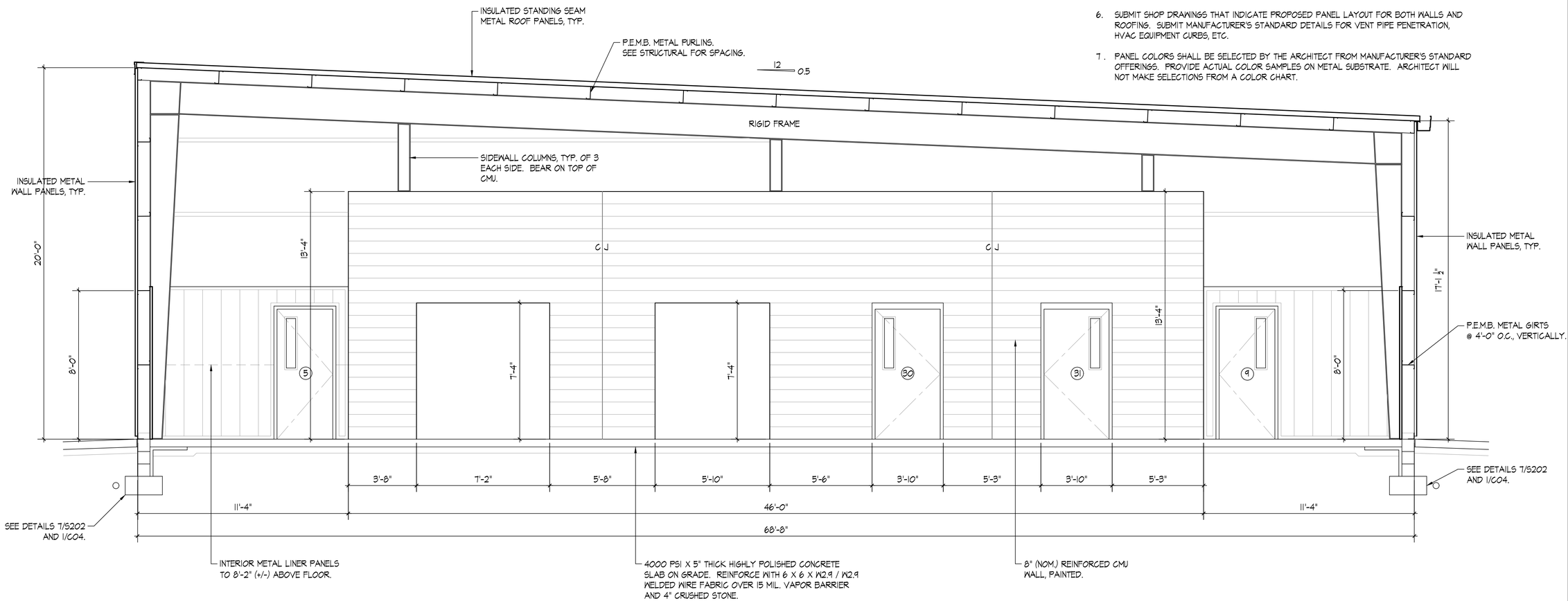
3. BASIS OF DESIGN FOR INSULATED STANDING SEAM METAL ROOF PANELS SHALL BE "CFR STANDING SEAM METAL ROOF PANELS" AS MANUFACTURED BY METAL SPAN. PANELS SHALL BE 3" THICK X 36" WIDE, R-26.2. THE EXTERIOR METAL PANEL FACE SHALL BE 22 GAGE AND THE INTERIOR METAL PANEL FACE SHALL BE 24 GAGE.

4. ALL HIGH EAVE TRIM, LOW EAVE TRIM, RAKE TRIM, GUTTER SECTION, CORNER TRIM, DOOR TRIM, ETC. SHALL BE THE SIMPLEST PROFILE OFFERED BY THE MANUFACTURER. ARCHITECT SHALL SELECT FROM MANUFACTURER'S STANDARD PROFILES.

5. ALL PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. WHERE THE MANUFACTURER'S STANDARD DETAILS INDICATE MATERIALS "NOT BY PANEL MANUFACTURER", (FOR EXAMPLE, EXPANDABLE FOAM INSULATION), PROVIDE SAME FOR A COMPLETE INSTALLATION.

6. SUBMIT SHOP DRAWINGS THAT INDICATE PROPOSED PANEL LAYOUT FOR BOTH WALLS AND ROOFING. SUBMIT MANUFACTURER'S STANDARD DETAILS FOR VENT PIPE PENETRATION, HVAC EQUIPMENT CURBS, ETC.

7. PANEL COLORS SHALL BE SELECTED BY THE ARCHITECT FROM MANUFACTURER'S STANDARD OFFERINGS. PROVIDE ACTUAL COLOR SAMPLES ON METAL SUBSTRATE. ARCHITECT WILL NOT MAKE SELECTIONS FROM A COLOR CHART.



4 / A304 BUILDING SECTION - APPARATUS BAY

SCALE: 3/8" = 1'-0"

0 2" 4" 6"

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BUILDING SECTION
APPARATUS BAY
(EAST TO WEST)

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

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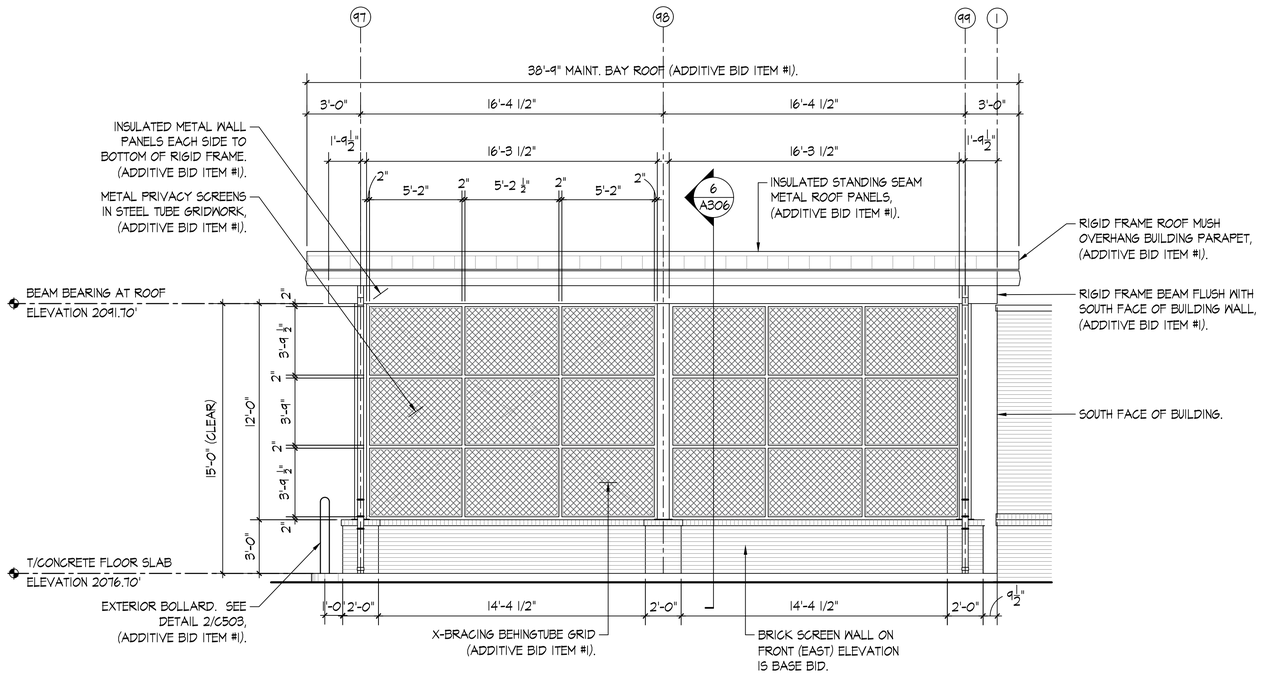
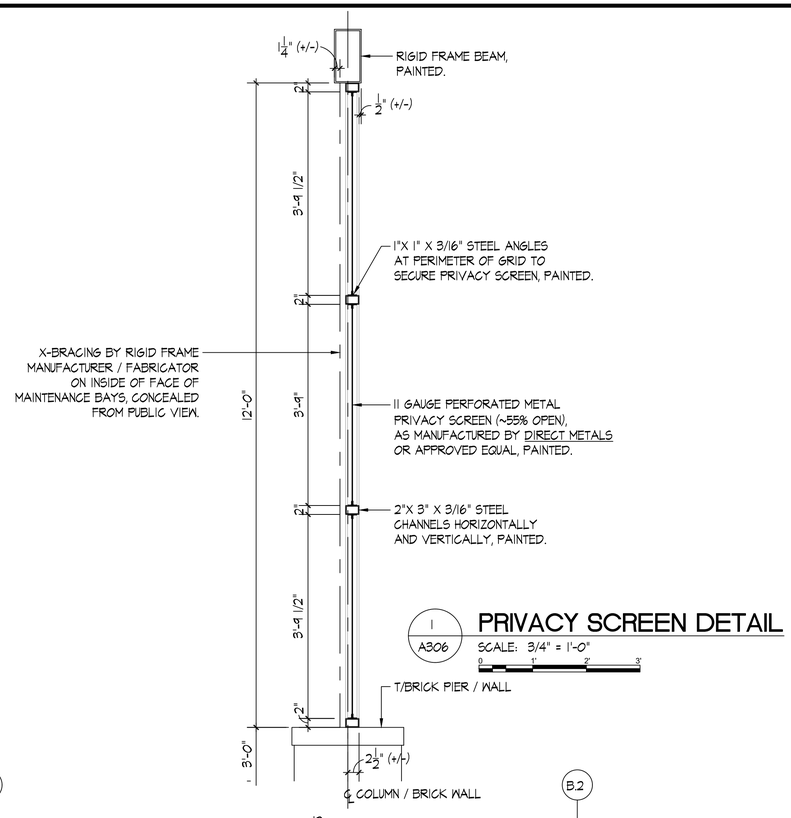


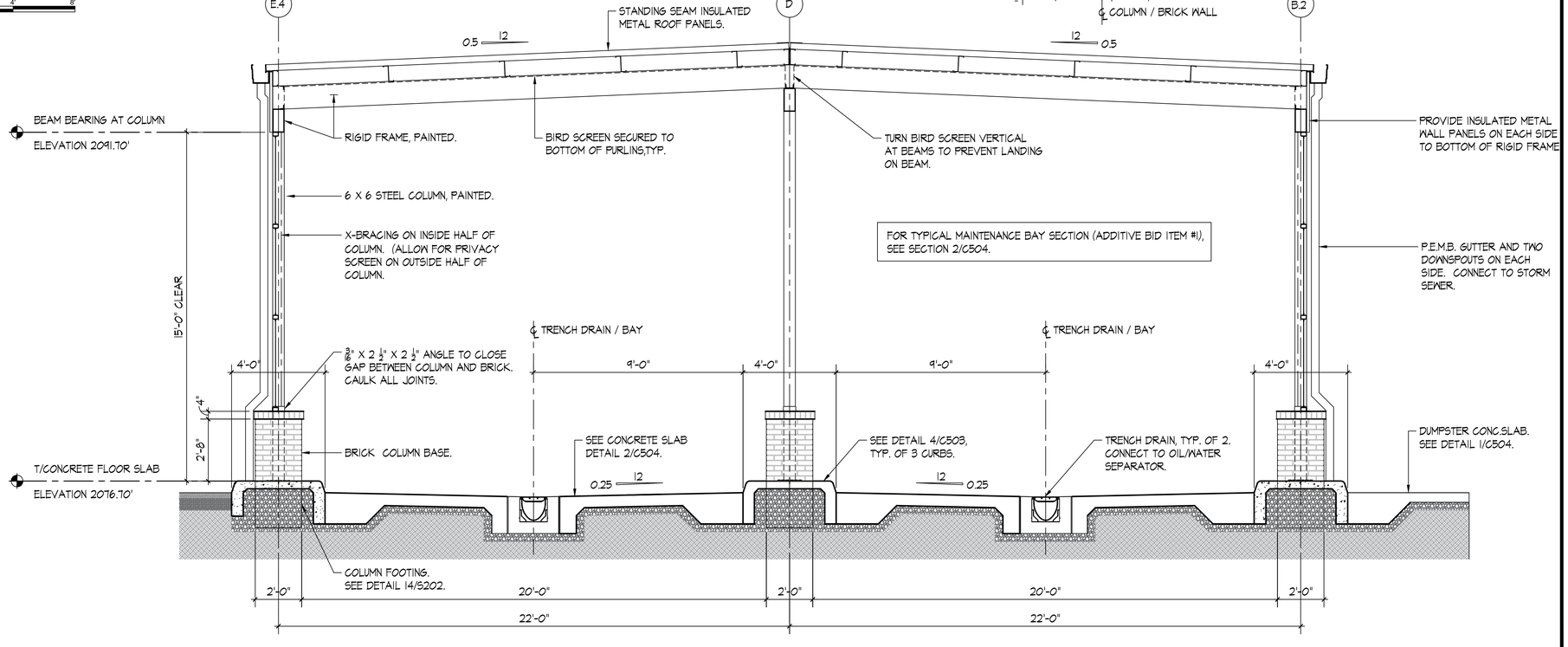
A / A306 **MAINTENANCE BAY - EAST SIDE ELEVATION (WEST SIMILAR)**

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



I / A306 **PRIVACY SCREEN DETAIL**

SCALE: 3/4" = 1'-0"



6 / A306 **MAINTENANCE BAY SECTION (ADDITIVE BID ITEM #1)**

SCALE: 3/8" = 1'-0"

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MAINTENANCE BAY SECTION
MAINT. BAY EAST ELEVATION
(ADDITIVE BID ITEM #1).

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
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PROJECT NO. TLG-22125

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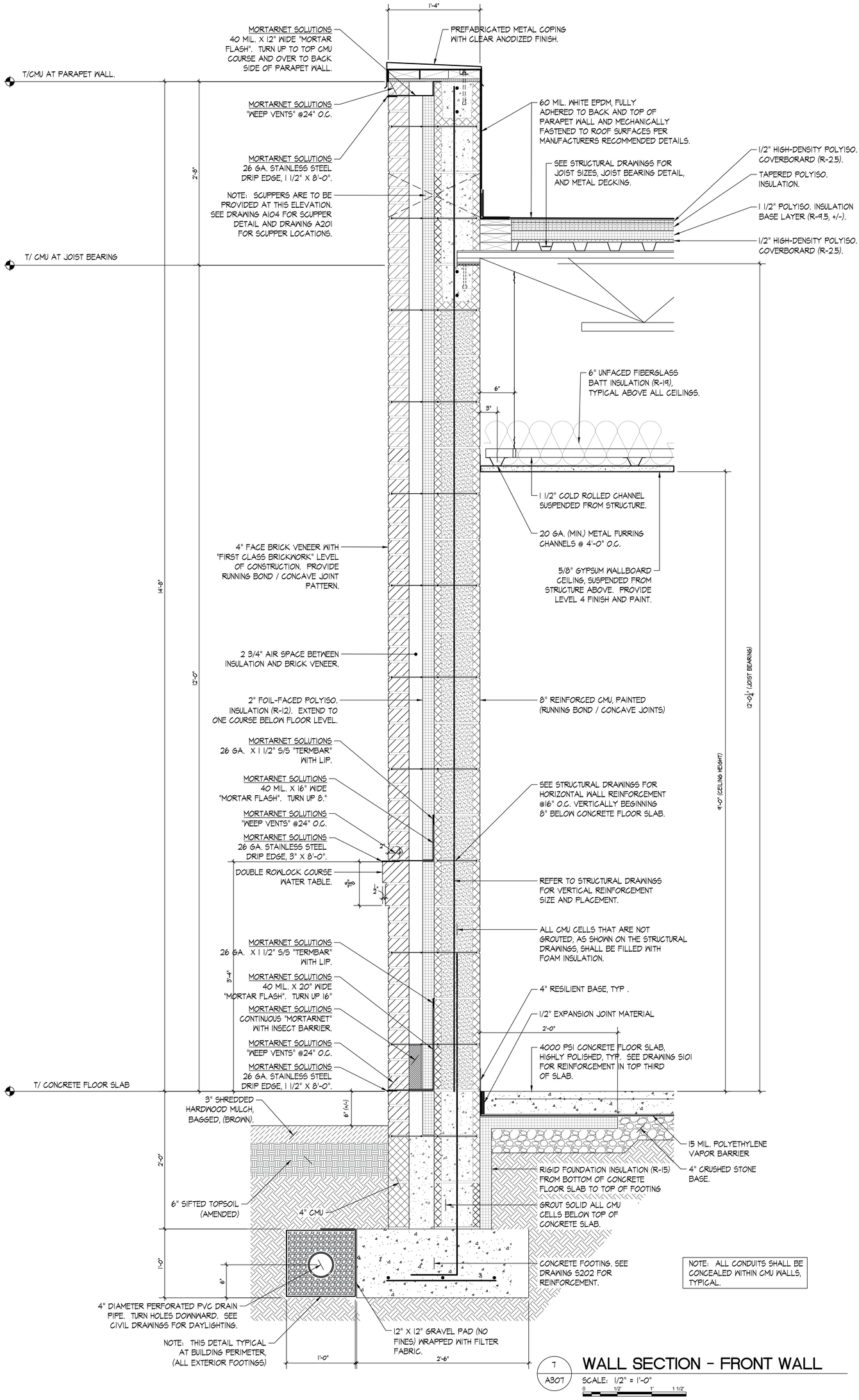

1 / A307 WALL SECTION – FRONT WALL

SCALE: 1/2" = 1'-0"

1 / A307 WALL SECTION – FRONT WALL

SCALE: 1/2" = 1'-0"

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COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9051
01-30-2026
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WALL SECTION - FRONT WALL

NEW EMS FACILITY FOR
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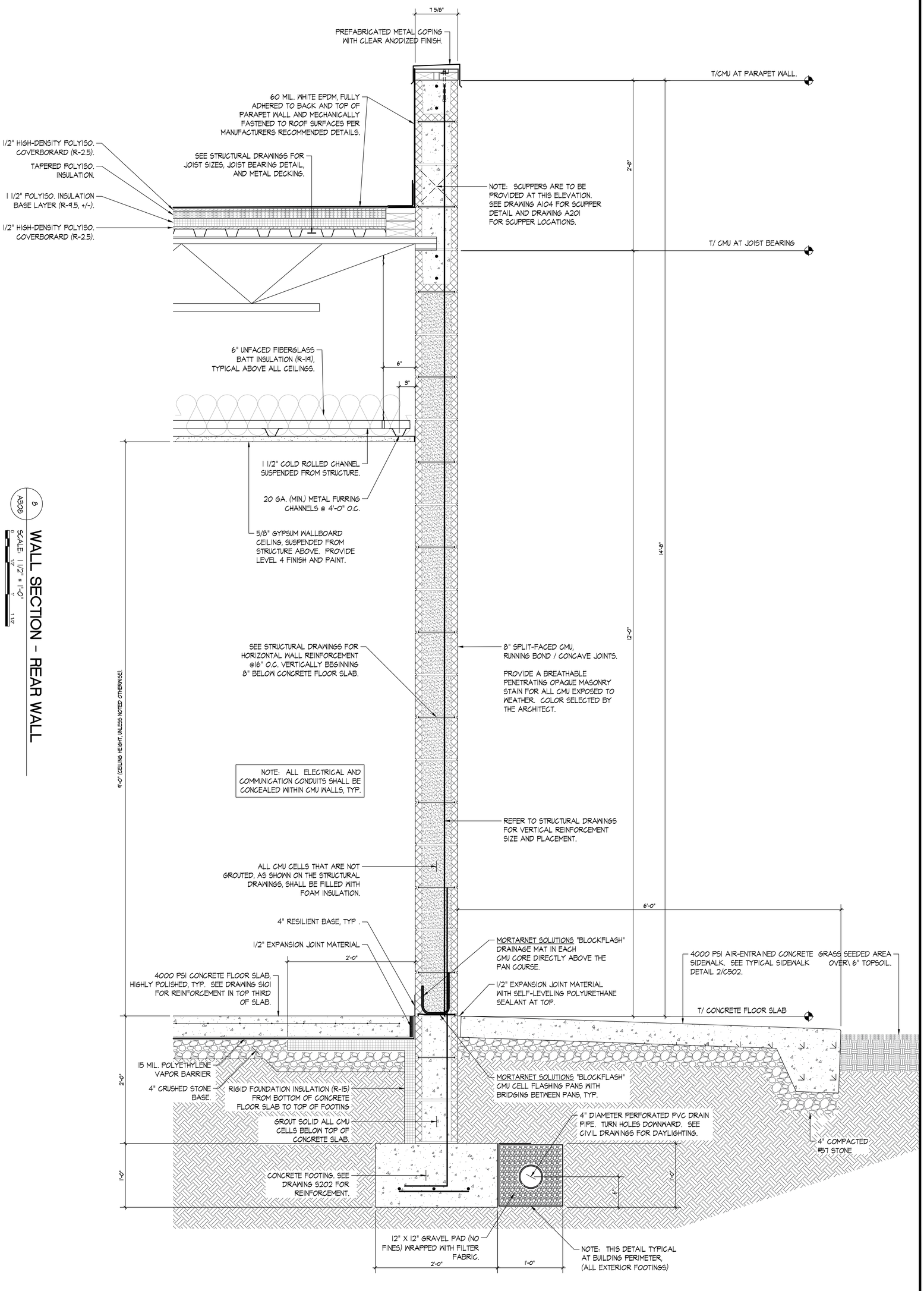

B / A308 WALL SECTION - REAR WALL

SCALE: 1 1/2" = 1'-0"

0 1/2" 1" 1 1/2"

PROJECT NO.	TLG-2515
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COMMONWEALTH OF VIRGINIA
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LIC. NO. 9051
01-30-2026
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WALL SECTION - REAR WALL

NEW EMS FACILITY FOR WASHINGTON COUNTY, VIRGINIA

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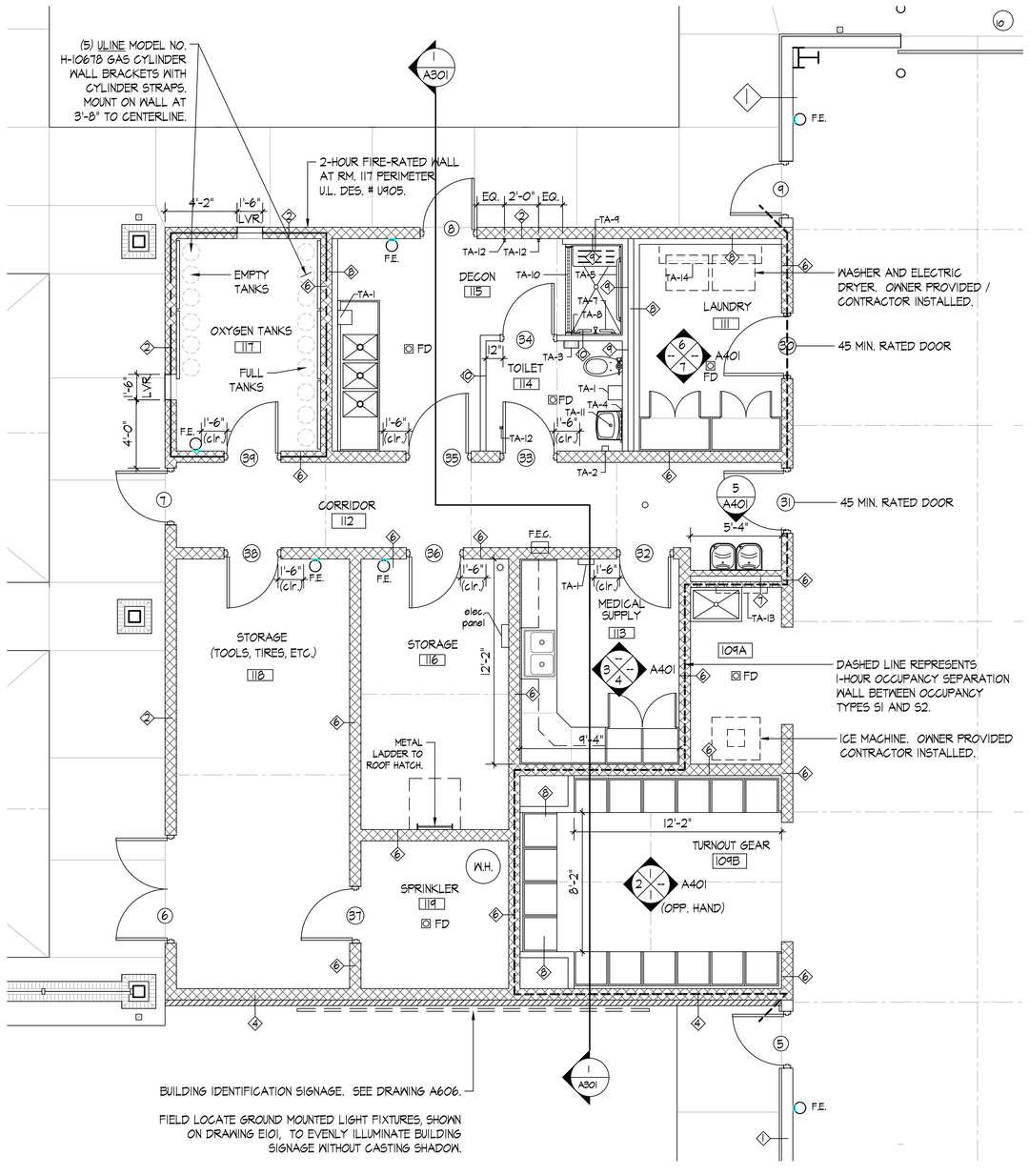
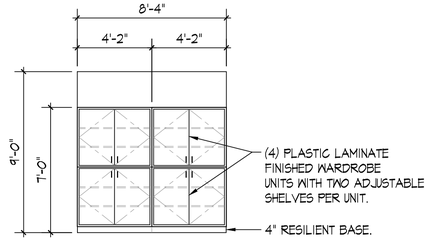


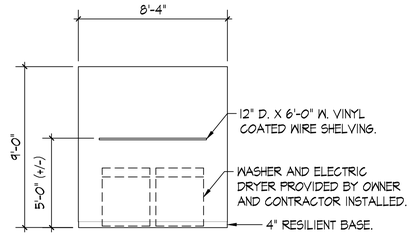
ENLARGED FLOOR PLAN - SERVICE AREA

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



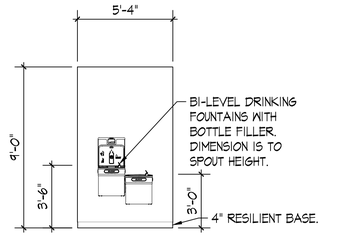
LAUNDRY ELEVATION (7 / A401)

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



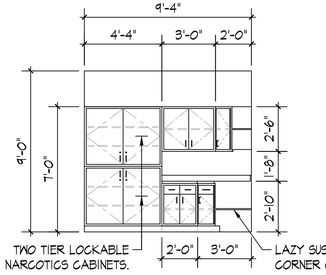
LAUNDRY ELEVATION (6 / A401)

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



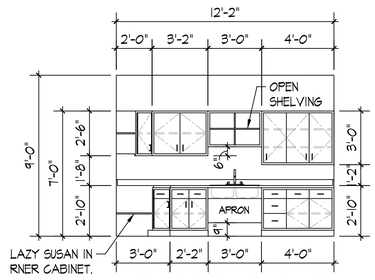
INTERIOR ELEV. (5 / A401)

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



MED. SUPPLY ELEV. (4 / A401)

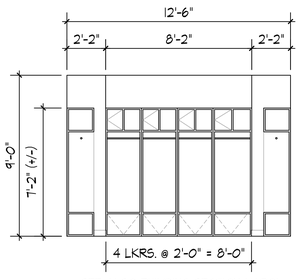
SCALE: 1/4" = 1'-0"



SEE ALSO BUILDING SECTION 1/A301.

MED. SUPPLY ELEV. (3 / A401)

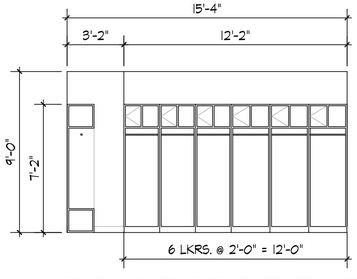
SCALE: 1/4" = 1'-0"



SEE ALSO BUILDING SECTION 1/A301.

TURNOUT GEAR ELEVATION (2 / A401)

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



TURNOUT GEAR ELEVATION (1 / A401)

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

NOTE: BASIS OF DESIGN FOR TURNOUT GEAR LOCKERS SHALL BE "STADIUM FULLY FRAMED LOCKERS" AS MANUFACTURED BY PENCO PRODUCTS, INC. STYLE SHALL BE KNOCKED DOWN TYPE WITH SHELF, SECURITY BOX, AND FOOTLOCKER. SIZE SHALL BE 24" WIDE X 18" DEEP X 7'-2" HIGH. COLOR SHALL BE CHOSEN BY THE ARCHITECT.

THIS IS NOT MEANT TO BE PROPRIETARY. OTHER MANUFACTURERS WHO REGULARLY ENGAGE IN THE MANUFACTURE OF SIMILAR PRODUCTS SHALL BE GIVEN CONSIDERATION AS EQUAL PRODUCTS.

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NEW EMS FACILITY FOR
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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SERVICE AREA
ENLARGED FLOOR PLAN / INTERIOR ELEVATIONS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
NO.	REVISION DATE
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SHEET: A401

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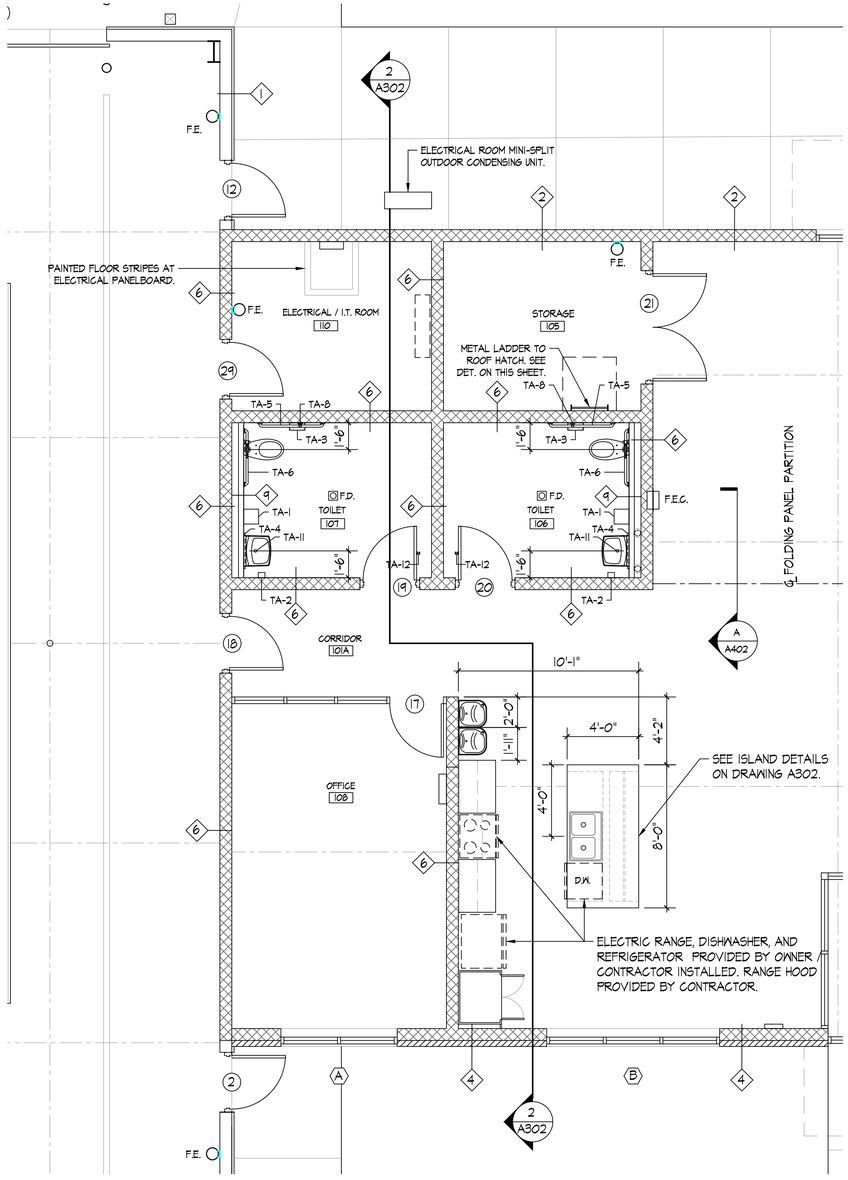
DMW	MRL

PROJECT NO. TLG-2515

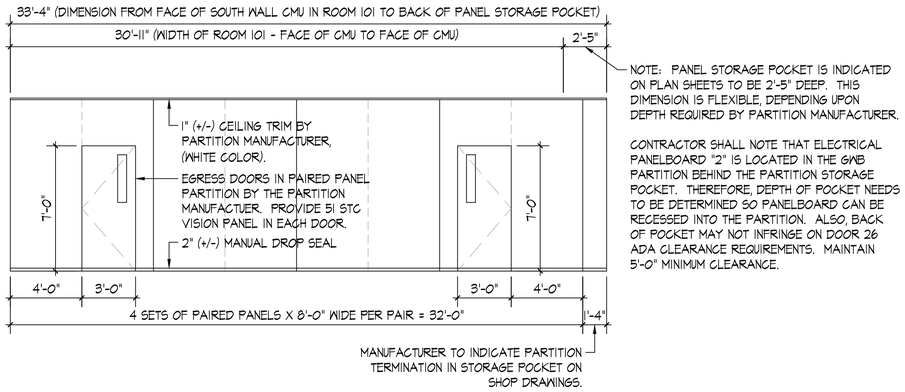


B
A402

ENLARGED FLOOR PLAN - OFFICE / DAYROOM AREA

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

0 2' 4' 8'

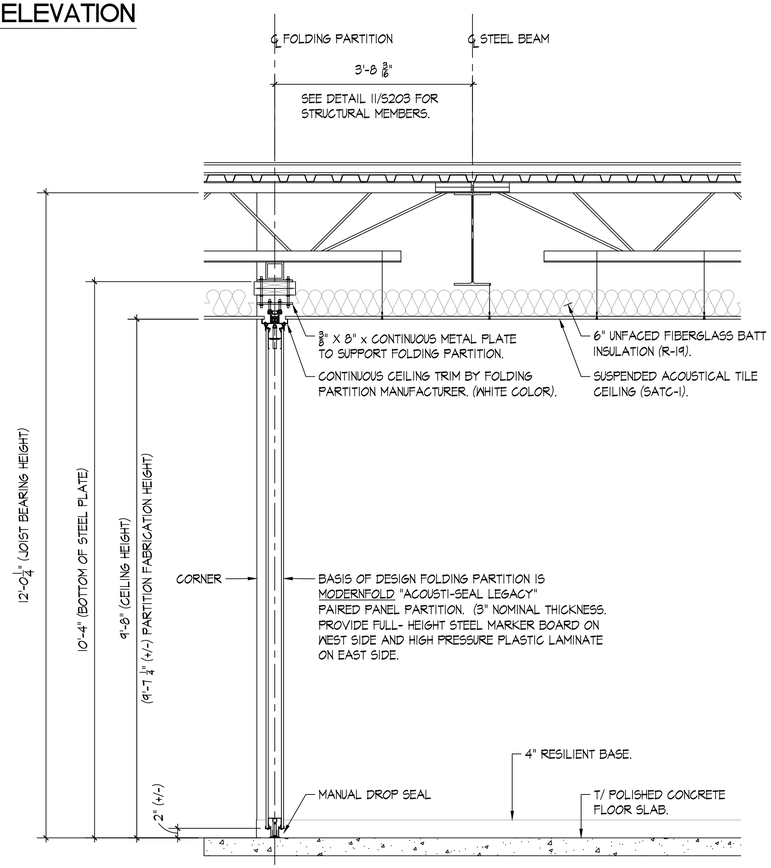


C
A402

FOLDING PANEL PARTITION ELEVATION

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

0 2' 4' 8'



A
A402

FOLDING PANEL PARTITION DETAIL

SCALE: 3/4" = 1'-0"

0 1' 2' 3'

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OFFICE / DAYROOM AREA ENLARGED FLOOR PLAN / INTERIOR ELEVATIONS

COMMONWEALTH OF VIRGINIA
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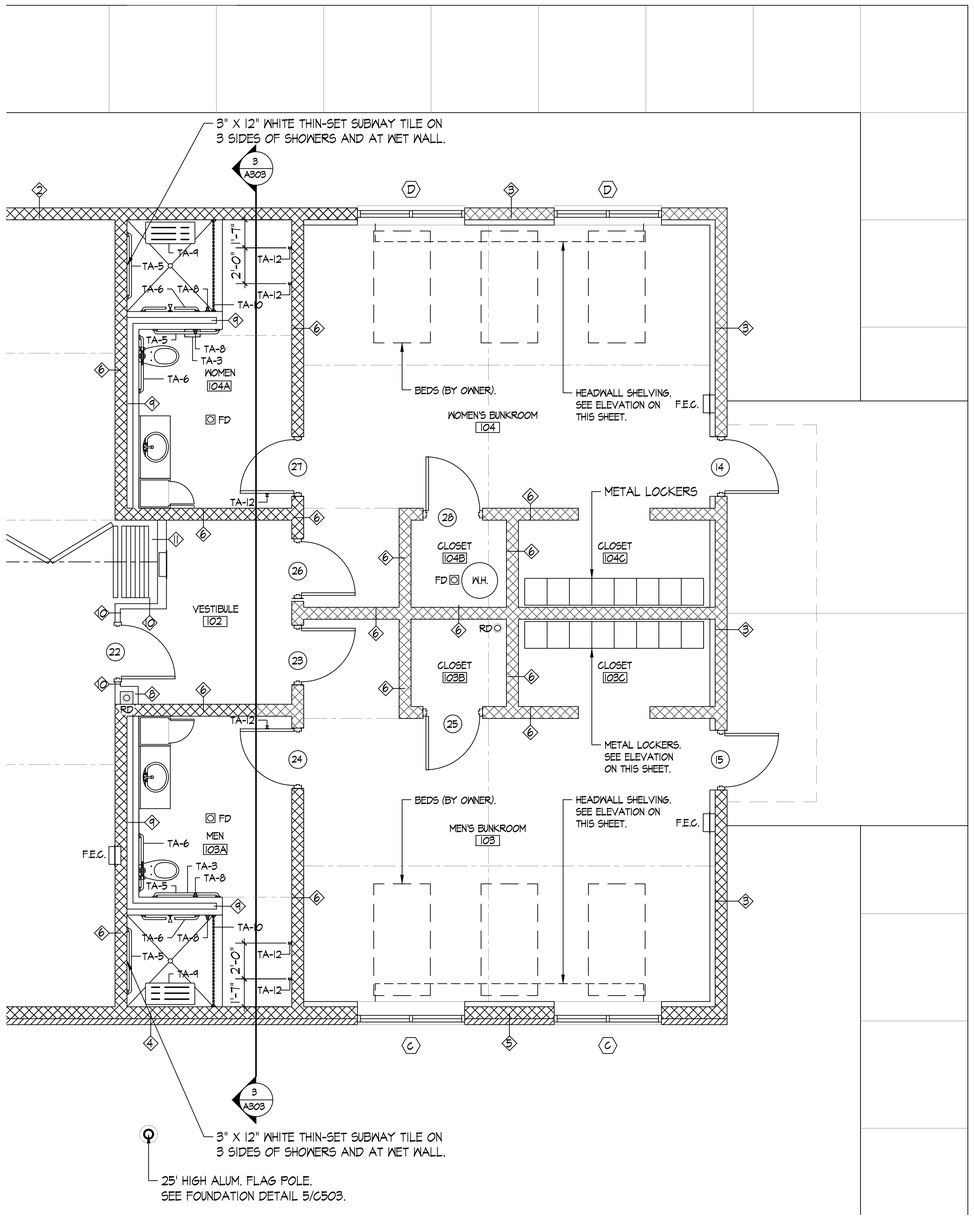

C A403 ENLARGED FLOOR PLAN - BUNKROOM AREA

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

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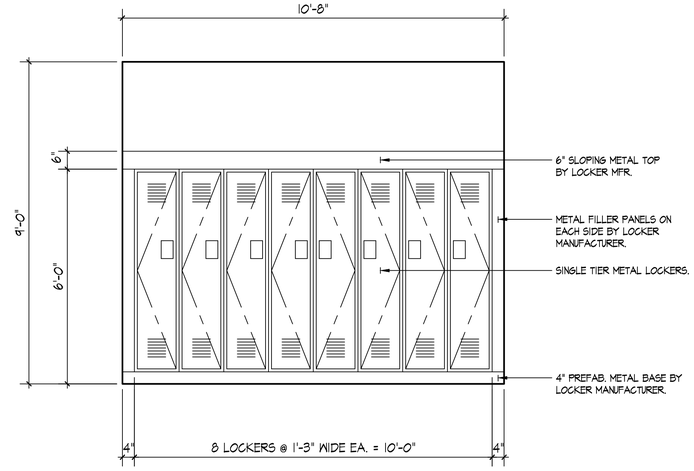
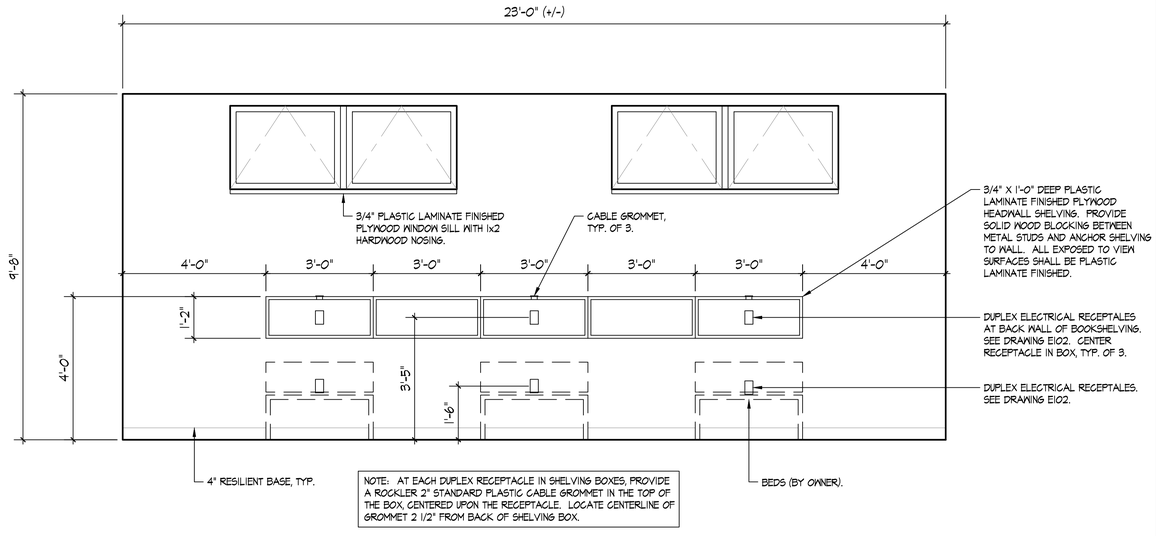


B A403 BUNKROOM LOCKER ELEVATIONS

SCALE: 1/2" = 1'-0"

0 1' 2' 4'



A A403 BUNKROOM HEADWALL ELEVATIONS

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

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BUNKROOM AREA
ENLARGED FLOOR PLAN /
INTERIOR ELEVATIONS

COMMONWEALTH OF VIRGINIA
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CHECKED BY: MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.

DOOR SCHEDULE

MARK	FROM ROOM	TO ROOM	DOORS							FRAMES					FIRE RATING	HARDWARE SET NO.	DOOR SCHEDULE REMARKS
			WIDTH	HEIGHT	THK.	MATERIAL	TYPE	FINISH	GLASS	MATERIAL	FINISH	JAMB	HEAD	ELEV.			
1	VESTIBULE 100	EXTERIOR	2 / 3'-0"	7'-0"	1 3/4"	CLEAR ANODIZED ALUMINUM	D-1	KYNAR	G-1	CLEAR ANODIZED ALUMINUM	KYNAR	J-1	H-1	F-4	--	HW-1	--
2	APPARATUS RM. 109	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-2	PAINT	G-1	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-3	H-3	F-1	--	HW-2	1, 2
3	APPARATUS RM. 109	EXTERIOR	12'-0"	14'-0"	1 3/4" to 2"	CLEAR ANODIZED ALUMINUM	D-6	KYNAR	G-1	CLEAR ANODIZED ALUMINUM	KYNAR	J-7	J-7	--	--	---	4
4	APPARATUS RM. 109	EXTERIOR	12'-0"	14'-0"	1 3/4" to 2"	CLEAR ANODIZED ALUMINUM	D-6	KYNAR	G-1	CLEAR ANODIZED ALUMINUM	KYNAR	J-7	J-7	--	--	---	4
5	APPARATUS RM. 109	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-2	PAINT	G-1	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-3	H-3	F-1	--	HW-2	1, 2
6	STORAGE 118	EXTERIOR	2 / 3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-4	PAINT	G-1	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-4	H-4	F-3	--	HW-3	1, 2
7	CORRIDOR 112	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-2	PAINT	G-1	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-4	H-4	F-2	--	HW-4	1, 2
8	DECON 115	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-3	PAINT	--	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-4	H-4	F-2	--	HW-4	1, 2
9	APPARATUS RM. 109	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-2	PAINT	G-1	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-3	H-3	F-1	--	HW-2	1, 2
10	APPARATUS RM. 109	EXTERIOR	12'-0"	14'-0"	1 3/4" to 2"	CLEAR ANODIZED ALUMINUM	D-6	KYNAR	G-1	CLEAR ANODIZED ALUMINUM	KYNAR	J-7	H-7	--	--	---	4
11	APPARATUS RM. 109	EXTERIOR	12'-0"	14'-0"	1 3/4" to 2"	CLEAR ANODIZED ALUMINUM	D-6	KYNAR	G-1	CLEAR ANODIZED ALUMINUM	KYNAR	J-7	H-7	--	--	---	4
12	APPARATUS RM. 109	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-2	PAINT	G-1	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-3	H-3	F-1	--	HW-2	1, 2
13	DAYROOM 101	EXTERIOR	2 / 3'-0"	7'-0"	1 3/4"	CLEAR ANODIZED ALUMINUM	D-1	KYNAR	G-1	CLEAR ANODIZED ALUMINUM	KYNAR	J-1	H-1	F-5	--	HW-1	--
14	BUNKROOM 104	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-3	PAINT	--	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-4	H-4	F-2	--	HW-4	1, 2
15	BUNKROOM 105	EXTERIOR	3'-0"	7'-0"	1 3/4"	GALVANIZED HOLLOW METAL - INSULATED	D-3	PAINT	--	GALVANIZED HOLLOW METAL, LVL. 2.	PAINT	J-4	H-4	F-2	--	HW-4	1, 2
16	DAYROOM 101	VESTIBULE 100	2 / 3'-0"	7'-0"	1 3/4"	CLEAR ANODIZED ALUMINUM	D-1	KYNAR	G-2	CLEAR ANODIZED ALUMINUM	KYNAR	J-2	H-2	F-4	--	HW-1 (SIM.)	--
17	CORRIDOR 101A	OFFICE 108	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-6	H-5	F-6	--	HW-5	1, 3
18	APPARATUS RM. 109	CORRIDOR 101A	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-2	PAINT	G-3	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	45 MIN.	HW-6	1, 2
19	TOILET 107	CORRIDOR 101A	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	--	HW-7	1, 3
20	TOILET 106	CORRIDOR 101A	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	--	HW-7	1, 3
21	STORAGE 105	DAYROOM 101	2 / 3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-5	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-3	--	HW-8	1, 3
22	DAYROOM 101	VESTIBULE 102	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-2	FACTORY STAINED	G-3	HOLLOW METAL, LEVEL 1	PAINT	J-6	H-6	F-1	--	HW-9	1, 3
23	VESTIBULE 102	MEN'S BUNKROOM 103	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	20 MIN.	HW-10	1, 3
24	MEN'S BUNKROOM 103	MEN'S BATH 103A	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	--	HW-7	1, 3
25	CLOSET 103B	MEN'S BUNKROOM 103	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	--	HW-14	1, 3
26	VESTIBULE 102	WOMEN'S BUNKROOM 104	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	20 MIN.	HW-10	1, 3
27	WOMEN'T BUNKROOM 104	WOMEN'S BATH 104A	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	--	HW-7	1, 3
28	CLOSET 104B	WOMEN'S BUNKROOM 104	3'-0"	7'-0"	1 3/4"	PREFINISHED SOLID CORE WOOD	D-3	FACTORY STAINED	--	HOLLOW METAL, LEVEL 1	PAINT	J-4	H-4	F-2	--	HW-14	1, 3
29	APPARATUS RM. 109	ELECTRICAL RM. 110	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-3	PAINT	--	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	45 MIN.	HW-11	1, 2
30	APPARATUS RM. 109	LAUNDRY 111	3'-6"	7'-0"	1 3/4"	HOLLOW METAL	D-2	PAINT	G-3	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	45 MIN.	HW-12	1, 2
31	APPARATUS RM. 109	CORRIDOR 112	3'-6"	7'-0"	1 3/4"	HOLLOW METAL	D-2	PAINT	G-3	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	45 MIN.	HW-6	1, 2
32	CORRIDOR 112	MEDICAL SUPPLY 113	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-2	PAINT	G-3	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	--	HW-13	1, 2
33	CORRIDOR 112	TOILET 114	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-3	PAINT	--	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	--	HW-7	1, 2
34	TOILET 114	DECON 115	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-3	PAINT	--	HOLLOW METAL, LEVEL 2	PAINT	J-6	H-6	F-1	--	HW-7	1, 2
35	CORRIDOR 112	DECON 115	3'-6"	7'-0"	1 3/4"	HOLLOW METAL	D-3	PAINT	--	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	--	HW-6	1, 2
36	CORRIDOR 112	STORAGE 116	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-2	PAINT	G-3	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	--	HW-14	1, 2
37	SPRINKLER RM. 119	STORAGE 118	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-3	PAINT		HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	--	HW-14	1, 2
38	CORRIDOR 112	STORAGE 118	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-5	PAINT	G-3	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	--	HW-14	1, 2
39	CORRIDOR 112	OXY. TANK STOR. 117	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	D-3	PAINT	--	HOLLOW METAL, LEVEL 2	PAINT	J-4	H-4	F-2	1-HOUR	HW-11	1, 2

DOOR SCHEDULE REMARKS:

1. HOLLOW METAL FRAMES: LEVEL 2 - HEAVY DUTY, 16 GAUGE, SHOP-PRIME/FIELD PAINT, FACE WELDED, THREE ANCHORS (MIN.) PER JAMB. PREPARE AND REINFORCE FRAMES FOR MORTISE TEMPLATE AND SURFACE MOUNTED HARDWARE. SHOP PRIME AND FIELD PAINT. PROVIDE IN ACCORDANCE WITH ANSI/SD1 A250.8. (FRAMES MAY BE LEVEL 1 - STANDARD DUTY, 20 GAUGE, AT PREFINISHED SOLID CORE WOOD DOOR LOCATIONS).

   FOR FRAMES TO BE INSTALLED IN MASONRY OPENINGS, PAINT THROAT OF FRAMES WITH AN ASPHALTIC PAINT AND GROUT FRAMES SOLID.

2. FLUSH HOLLOW METAL DOORS: DOOR MODEL 2 (SEAMLESS DESIGN), 18 GAUGE FACE STEEL SHEET, GALVANIZED, POLYURETHANE CORE AT EXTERIOR OPENINGS, MINIMUM HARDWARE REINFORCING TO COMPLY WITH TABLE 4 OF ANSI/ADI A250.8.

3. SOLID CORE WOOD DOORS SHALL BE PREFINISHED. COLOR CHOSEN BY THE ARCHITECT.

4. ALUMINUM / GLASS OVERHEAD SECTIONAL DOORS SHALL BE FABRICATED FROM 6061-T6 ALUMINUM WITH A KYNAR FINISH. GLASS SECTIONS SHALL BE DARK GRAY TINTED INSULATING GLASS.

   NOTE: SEE DRAWING A602 FOR DOOR AND FRAME ELEVATIONS AND FOR DOOR DETAILS.

GLAZING SCHEDULE

G-1: GLAZING TYPE G-1 SHALL BE A 1-INCH GREY TINTED INSULATING GLASS WITH A LOW-E COATING ON THE #3 SURFACE.

G-2: GLAZING TYPE G-2 SHALL BE A 1-INCH CLEAR INSULATING GLASS WITH A LOW-E COATING ON THE #3 SURFACE.

G-3: GLAZING TYPE G-3 SHALL BE 1/4-INCH CLEAR TEMPERED GLASS.

G-4: GLAZING TYPE G-4 SHALL BE 1/4" GREY TINTED SPANDREL GLASS THAT MATCHES THE COLOR OF G-1.

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DOOR SCHEDULE
GLAZING SCHEDULE

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

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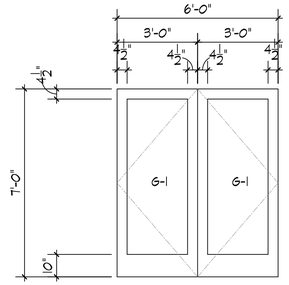
CHECKED BY: MRL

PROJECT NO. TLG-2515

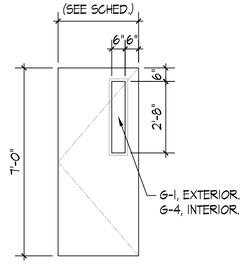
THE LANE GROUP INC.

DOOR ELEVATIONS

SCALE: 1/2" = 1'-0"



D-1



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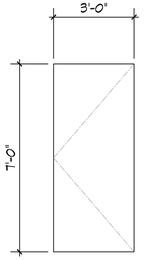

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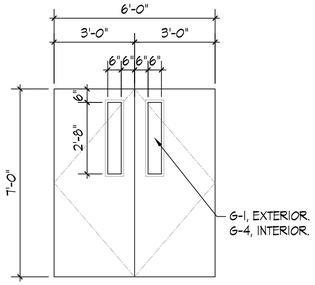
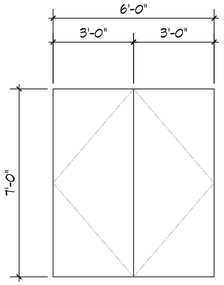


D-4



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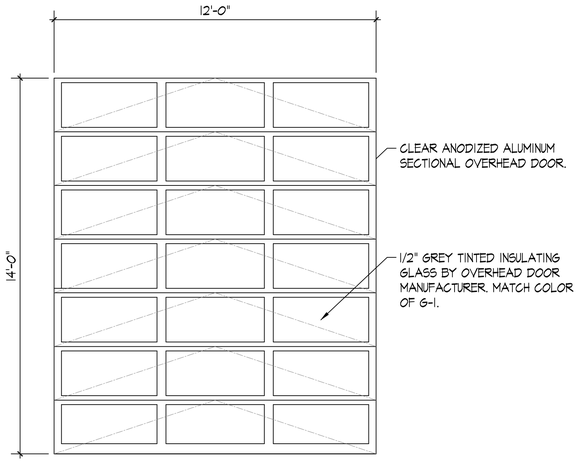
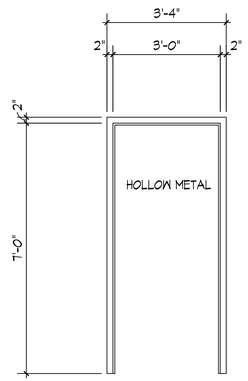
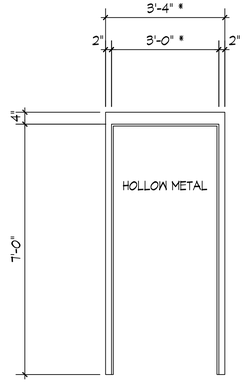


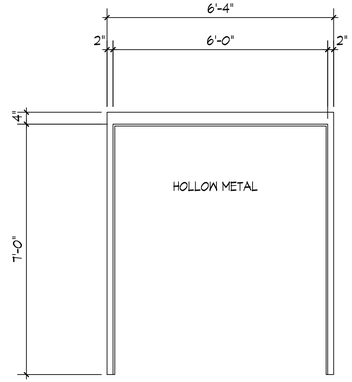
D-6



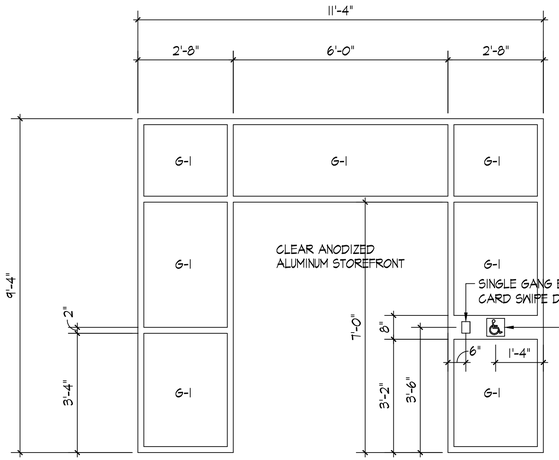
F-1



F-2



F-3



F-4

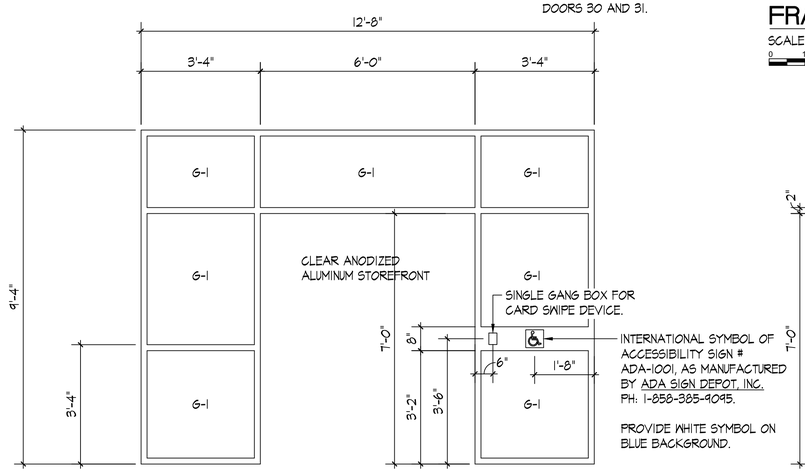
FRAME ELEVATION, AS SHOWN, IS PERTINENT TO DOOR #1 ONLY WHERE A CARD SWIPE DEVICE IS REQUIRED.

FRAME AT VESITIBULE DOOR #16 SHALL HAVE A 2" HORIZONTAL MULLION ON EACH SIDE BECAUSE A CARD SWIPE DEVICE IS NOT REQUIRED.

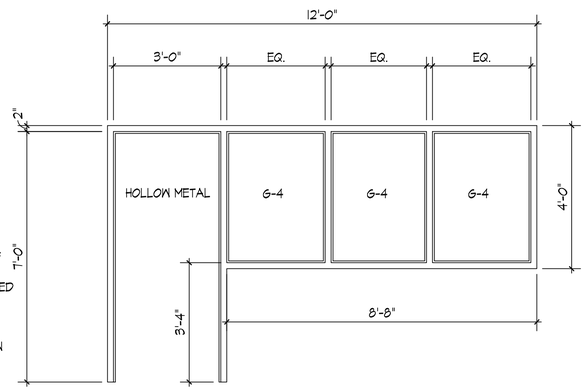
* DOOR WIDTH 3'-6" AND FRAME WIDTH 3'-10" AT DOORS 30 AND 31.

FRAME ELEVATIONS

SCALE: 1/2" = 1'-0"



F-5



F-6

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

DOOR AND FRAME DETAILS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
1	*
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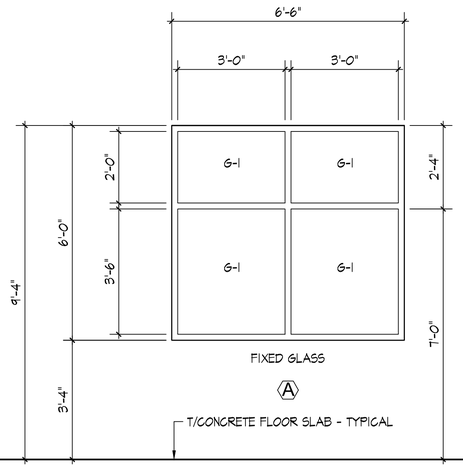
SHEET: A602

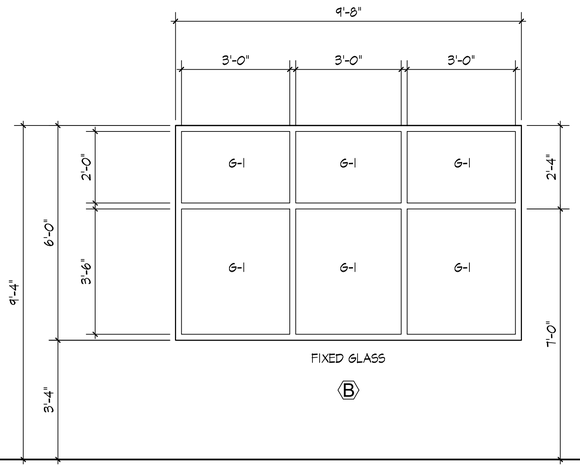
DRAWN BY: DMW
CHECKED BY: MRL

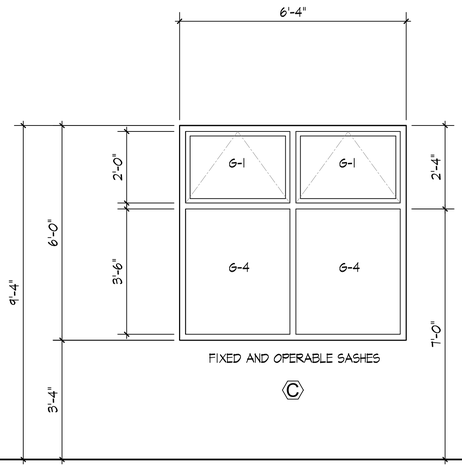
PROJECT NO. TLG-2515

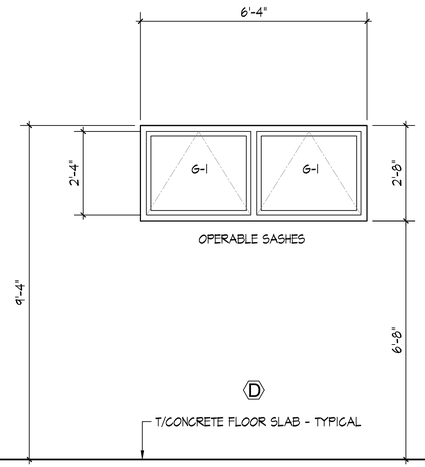
WINDOW SCHEDULE

MARK	DESCRIPTION	M.O. DIMENSION (WxH)	TYPE	REMARKS
Ⓐ	THERMALLY BROKEN ALUMINUM FRAME / CLEAR ANODIZED FINISH.	6'-6" x 6'-0"	FIXED WINDOW	GLAZING TYPE G-1.
Ⓑ	THERMALLY BROKEN ALUMINUM FRAME / CLEAR ANODIZED FINISH.	9'-8" x 6'-0"	FIXED WINDOW	GLAZING TYPE G-1.
Ⓒ	THERMALLY BROKEN ALUMINUM FRAME / CLEAR ANODIZED FINISH.	6'-4" x 6'-0"	FIXED AND AWNING COMBINATION WINDOW	GLAZING TYPES G-1 AND G-4. ADA COMPLIANT OPERATING HANDLE. PROVIDE INSECT SCREEN IN OPERATING UNITS.
Ⓓ	THERMALLY BROKEN ALUMINUM FRAME / CLEAR ANODIZED FINISH.	6'-4" x 2'-8"	AWNING WINDOW	GLAZING TYPE G-1. ADA COMPLIANT OPERATING HANDLE. ADA COMPLIANT OPERATING HANDLE. PROVIDE INSECT SCREEN IN OPERATING UNITS.









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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

WINDOW SCHEDULE
WINDOW DETAILS

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
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2	
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SHEET: A603

DRAWN BY: DMW
CHECKED BY: MRL
PROJECT NO.: TLG-2515

THE LANE GROUP INC.

FINISH SCHEDULE

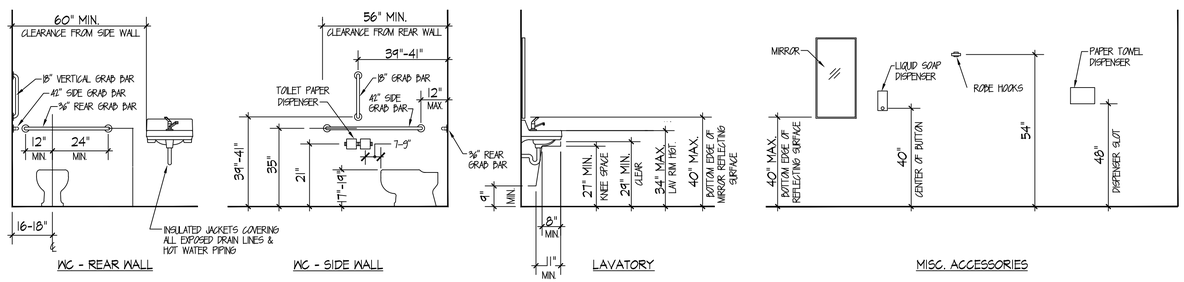
ROOM NO.	ROOM DESCRIPTION	FLOOR		BASE TRIM		WALL		CEILING		CEILING HEIGHT	FINISH SCHEDULE REMARKS
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH		
100	VESTIBULE	POLISHED CONCRETE	CONCRETE SEALER	ALUM. STOREFRONT	KYNAR	ALUM. & GLASS	KYNAR FINISHED ALUMINUM & GLASS	2' X 2' SUSPENDED ACOUSTICAL PANELS, TYPE 1.	--	9'-8"	-
101	DAYROOM / TRAINING	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	2' X 2' SUSPENDED ACOUSTICAL PANELS, TYPE 1.	--	9'-8"	1
101A	CORRIDOR	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	2' X 2' SUSPENDED ACOUSTICAL PANELS, TYPE 1.	--	9'-8"	-
102	VESTIBULE	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	GWB	PVA PRIMER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
103	MEN'S BUNKROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	2' X 2' SUSPENDED ACOUSTICAL PANELS, TYPE 2.	--	9'-8"	-
103A	MEN'S BUNKROOM BATH	POLISHED CONCRETE	CONCRETE SEALER	3" PORCELAIN	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	2, 3
103B	CLOSET	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
103C	CLOSET	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
104	WOMEN'S BUNKROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	2' X 2' SUSPENDED ACOUSTICAL PANELS, TYPE 2.	--	9'-8"	-
104A	WOMEN'S BUNKROOM BATH	POLISHED CONCRETE	CONCRETE SEALER	3" PORCELAIN	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	2, 3
104B	CLOSET	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
104C	CLOSET	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
105	STORAGE	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
106	WOMEN'S TOILET	POLISHED CONCRETE	CONCRETE SEALER	3" PORCELAIN	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	2
107	MEN'S TOILET	POLISHED CONCRETE	CONCRETE SEALER	3" PORCELAIN	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	2
108	OFFICE	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
109	APPARATUS ROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU / PEMB	CMU SEALER & LATEX ACRYLIC PAINT	PEMB EXPOSED STRUCTURE.	PAINTED	VARIES	-
109A	WET AREA	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
109B	TURNOUT GEAR	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
110	ELECTRICAL / I.T. ROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
111	LAUNDRY	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
112	CORRIDOR	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	2' X 2' SUSPENDED ACOUSTICAL PANELS, TYPE 1	--	9'-0"	-
113	MEDICAL SUPPLY	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
114	TOILET	POLISHED CONCRETE	CONCRETE SEALER	3" PORCELAIN	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	2
115	DECONTAMINATION ROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
116	STORAGE	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
117	OXYGEN TANK ROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
118	STORAGE	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-
119	SPRINKLER RISER ROOM	POLISHED CONCRETE	CONCRETE SEALER	4" RUBBER	--	CMU	CMU SEALER & LATEX ACRYLIC PAINT	5/8" GYSPUM WALLBOARD.	LEVEL 4 / PAINTED	9'-0"	-

FINISH SCHEDULE REMARKS:

1. PROVIDE 3" X 12" THINSET PORCELAIN SUBWAY TILES AS A BACKSPLASH ABOVE COUNTERTOPS. SET TILES HORIZONTALLY IN A RUNNING BOND PATTERN. COLOR OF TILE AND GROUT SELECTED BY THE ARCHITECT. SEE INTERIOR ELEVATION 2/A302.
2. PROVIDE 3" X 12" THINSET PORCELAIN SUBWAY TILE FLOOR TO CEILING ON WETWALL AND IN THE SHOWER. SET TILES HORIZONTALLY IN A RUNNING BOND PATTERN. COLOR OF TILE AND GROUT SELECTED BY THE ARCHITECT.
3. IN BUNKROOM TOILETS 103A AND 104A, PROVIDE SUBWAY TILE ON EACH SIDE AND ON THE EXPOSED END OF THE 12" WIDE PARTITION THAT SEPARATES THE SHOWER FROM THE TOILET AREA.
4. PORCELAIN SUBWAY TILE BASE, IN ROOMS INDICATED, SHALL BE 3" X 12" WITH A BULLNOSE TOP WHERE IT IS A WALL BASE ONLY AT THE ROOM PERIMETER. BOTTOM OF TILE SHALL BE STRAIGHT (NOT COVED).
5. 4" RUBBER BASE, WHERE INDICATED, SHALL BE COVED TYPE.

TOILET ACCESSORY SCHEDULE

MARK	ITEM	MOUNTING LOCATION
TA-1	PAPER TOWEL DISPENSER	48" AFF TO DISPENSER SLOT
TA-2	LIQUID SOAP DISPENSER	40" AFF TO DISPENSER OPERATOR
TA-3	TOILET TISSUE DISPENSER	29" TO TOP OF UNIT.
TA-4	24"x36" SURFACE MOUNTED MIRROR	40" AFF TO BOTTOM OF REFLECTING SURFACE
TA-5	42" HORIZONTAL GRAB BAR	35" AFF TO CENTERLINE OF BAR
TA-6	36" HORIZONTAL GRAB BAR	35" AFF TO CENTERLINE OF BAR
TA-7	24" HORIZONTAL GRAB BAR	35" AFF TO CENTERLINE OF BAR
TA-8	18" VERTICAL GRAB BAR	40" AFF TO BOTTOM OF BAR
TA-9	SHOWER SEAT	17" TO 19" FROM FLOOR TO TOP OF SEAT
TA-10	CURTAIN ROD WITH CURTAIN & HOOKS	75" AFF TO CENTERLINE OF BAR
TA-11	INSULATED PIPE WRAP	LAVATORY P-TRAP
TA-12	ROBE HOOK	54" AFF TO CENTERLINE OF HOOK
TA-13	MOP RACK	MOUNT AT HEIGHT FIELD DIRECTED.
TA-14	VINYL COATED WIRE SHELF	5'-0" (+/-) TO TOP OF SHELF.



TYPICAL ACCESSIBLE MOUNTING HEIGHTS

SCALE: 3/8"= 1'-0"

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

FINISH SCHEDULE
TOILET ACCESSORY SCHEDULE

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
NO.	REVISION DATE
1	*
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SHEET:	A604
DRAWN BY: DMW	CHECKED BY: MRL
PROJECT NO.	TLG-2515

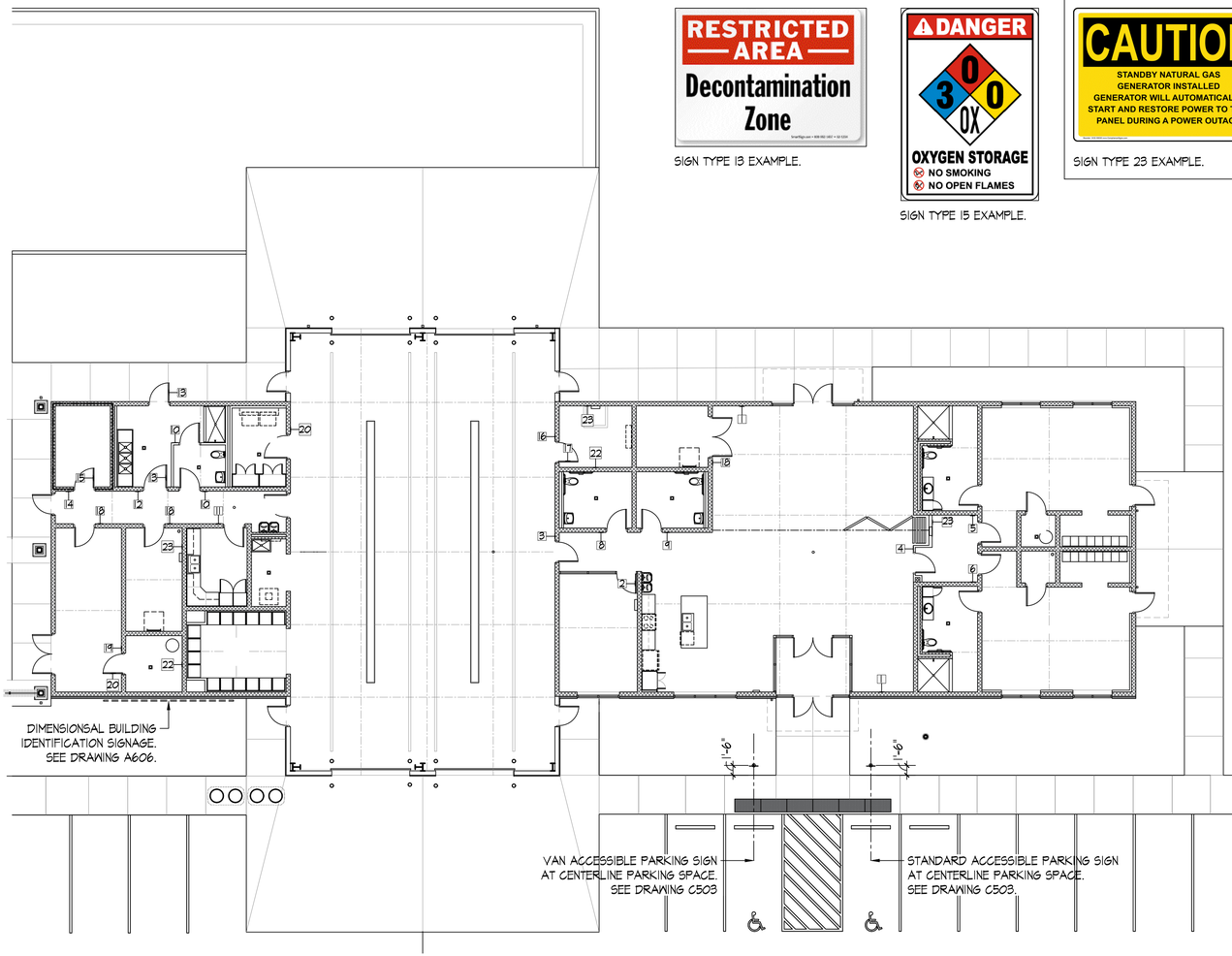
THE LANE GROUP INC.

SIGNAGE SCHEDULE

MARK	DESCRIPTION	NOTES
1	DAYROOM OCCUPANCY CAPACITY	1, 2
2	OFFICE	1
3	OFFICE / DAYROOM	1
4	BUNK ROOMS	1
5	WOMEN'S BUNKROOM	1
6	MEN'S BUNKROOM	1
7	*	1
8	MEN'S RESTROOM	1
9	WOMEN'S RESTROOM	1
10	TOILET	1
11	MEDICAL SUPPLY / RESTRICTED ACCESS	1
12	DECONTAMINATION ROOM / RESTRICTED AREA	1, 3
13	DECON REGULATION SIGN	1, 3
14	OXYGEN TANK STORAGE	1
15	OXY. TANK STORAGE REGULATION SIGN	1, 4
16	ELECTRICAL / I.T. ROOM	1
17	ELECTRICAL ROOM REGULATION SIGN	1,5
18	STORAGE	1
19	SPRINKLER RISER	1
20	SPRINKLER ROOM REGULATION SIGN	1, 6
21	LAUNDRY	1
22	NO STORAGE PERMITTED.	1
23	GENERATOR REGULATION SIGN	1, 7

SIGNAGE SCHEDULE NOTES

1. INTERIOR SIGNAGE SYSTEM SHALL COMPLY WITH ALL CURRENT AND APPLICABLE ADA REQUIREMENTS, INCLUDING THOSE REGARDING WHICH SIGN TYPES REQUIRE PICTOGRAMS AND/OR BRAILLE / TACTILE FEATURES. CHARACTER HEIGHTS, COLOR CONTRAST, INSTALLATION LOCATIONS, AND MOUNTING HEIGHTS SHALL BE ADA COMPLIANT.
2. DAYROOM OCCUPANCY FOR SIGN TYPE "1" = 32.
3. THE DECONTAMINATION REGULATION SIGN SHALL BE IN ACCORDANCE WITH OSHA, EPA, AND STATE HEALTH DEPARTMENT REQUIREMENTS. SEE EXAMPLE ON THIS SHEET.
4. THE OXYGEN TANK STORAGE ROOM REGULATION SIGN SHALL BE IN ACCORDANCE WITH OSHA AND NFPA REQUIREMENTS. SEE EXAMPLE ON THIS SHEET.
5. THE ELECTRICAL / I.T. ROOM REGULATION SIGN SHALL BE IN ACCORDANCE WITH OSHA AND NFPA REQUIREMENTS. SEE EXAMPLE ON THIS SHEET.
6. THE SPRINKLER ROOM REGULARTION SIGN SHALL BE IN ACCORDANCE WITH IFC / NFPA REQUIREMENTS. SEE EXAMPLE ON THIS SHEET.
7. PROVIDE A GENERATOR CAUTION SIGN AT EACH ELECTRICAL PANELBOARD. SEE EXAMPLE ON THIS SHEET.



SIGNAGE PLAN

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

NORTH

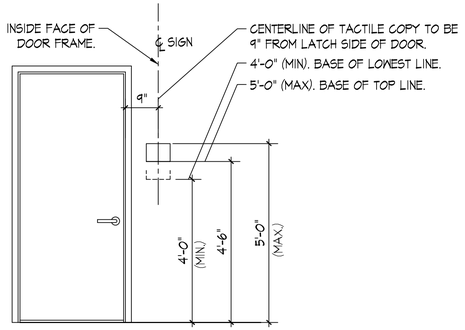
SIGN TYPE 13 EXAMPLE.

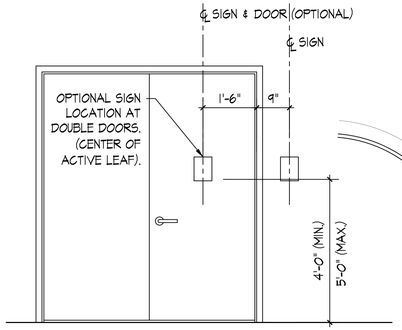
SIGN TYPE 15 EXAMPLE.

SIGN TYPE 23 EXAMPLE.

SIGN TYPE 20 EXAMPLE.

SIGN TYPE 17 EXAMPLE.





1. THE 4'-0" (MIN.) MOUNTING HEIGHT IS TO THE BOTTOM OF THE BRAILLE TEXT, NOT THE BOTTOM OF THE SIGN.
2. TO COMPLY WITH BOTH MIN. & MAX. REQUIREMENTS, MOUNT BOTTOM OF TEXT AT 54" ABOVE THE FLOOR.
3. ROOM SIGNAGE AT DOUBLE DOORS MAY ALSO BE MOUNTED AT THE DOOR CENTERLINE.

ADA COMPLIANT SIGN MOUNTING HEIGHTS

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SIGNAGE PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
NO.	REVISION DATE
1	*
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SHEET: A605

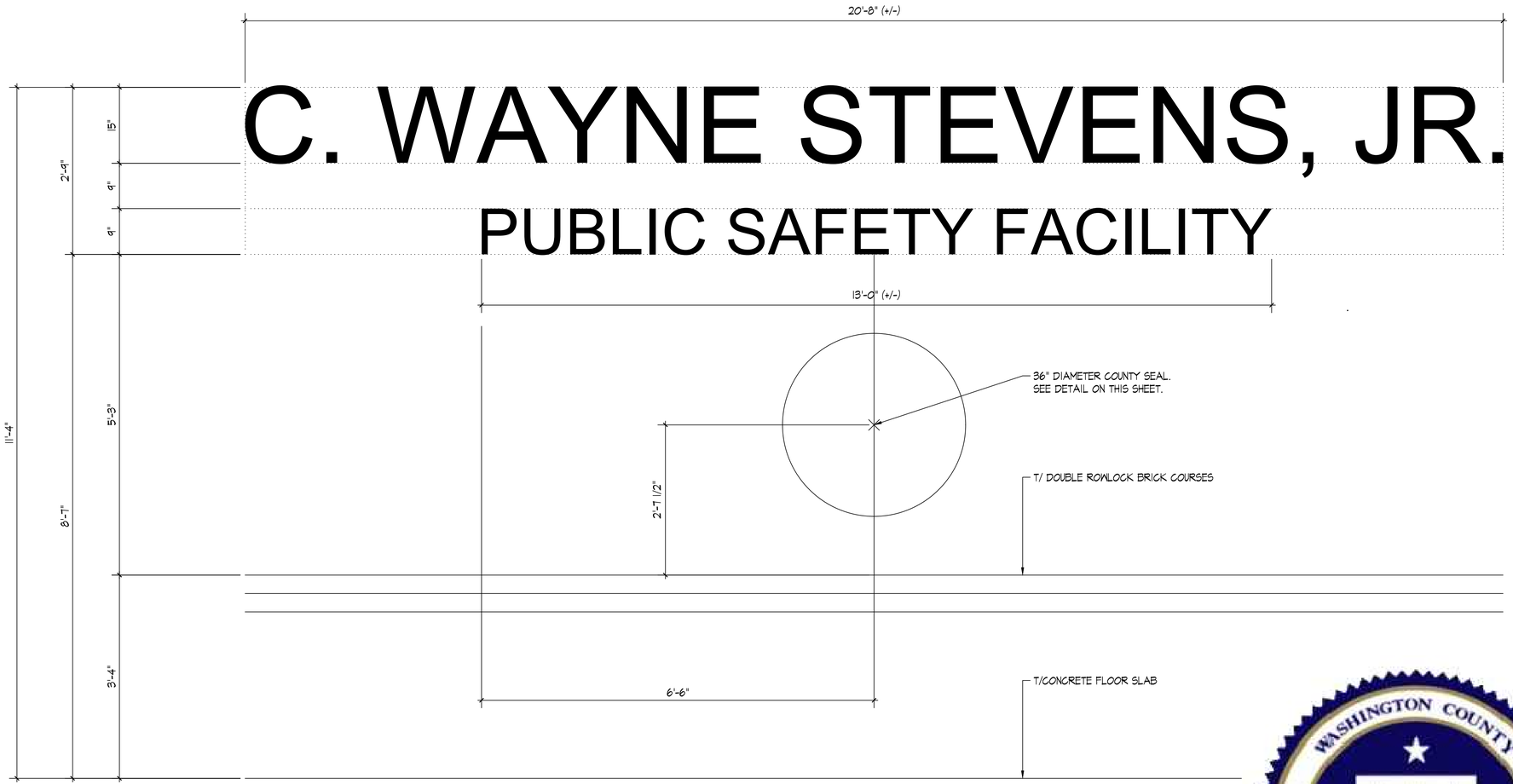
DRAWN BY: DMW | CHECKED BY: MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.

C. WAYNE STEVENS, JR.

PUBLIC SAFETY FACILITY



B
A606

BUILDING IDENTIFICATION SIGNAGE

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

0 2' 4' 8'

NOTE: BASIS OF DESIGN SIGNAGE IS INDIVIDUAL CAST ALUMINUM LETTERING AS MANUFACTURED BY GEMINI, INC. LETTERING SHALL HAVE A PAINTED FINISH SELECTED BY THE ARCHITECT. FOR BIDDING PURPOSES, ASSUME A METALLIC SILVER, #8886 FINISH.

SIGN LETTERING SHALL BE PROJECTED JAM NUT MOUNTED. PROVIDE A HELVETICA FONT FOR ALL LETTERING.

NAMING GEMINI, INC. AS A BASIS OF DESIGN PRODUCT IS NOT MEANT TO BE PROPRIETARY. MANUFACTURERS WHO REGULARLY ENGAGE IN THE MANUFACTURE OF SIMILAR PRODUCTS SHALL BE GIVEN CONSIDERATION AS EQUAL PRODUCTS.

THE WASHINGTON COUNTY SEAL SPECIFICATIONS ARE AVAILABLE FROM THE COUNTY REPRESENTATIVE NOTED ON DRAWING T100. SEAL ON THE BUILDING SHALL BE 36" IN DIAMETER.

A
A606

WASHINGTON COUNTY SEAL

NOT TO SCALE

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

BUILDING IDENTIFICATION
SIGNAGE LAYOUT

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE: 01-30-2026

NO.	REVISION DATE
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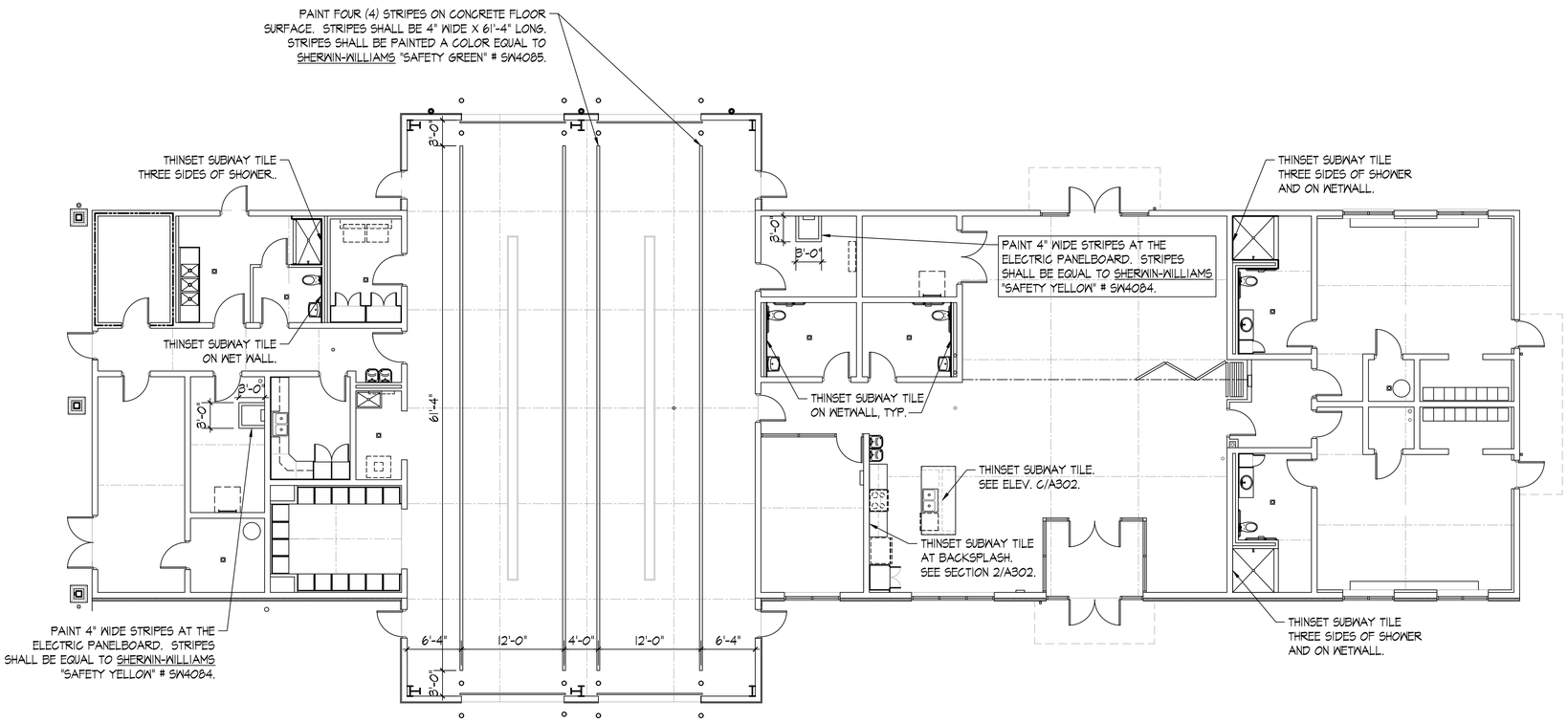
SHEET: A606

DRAWN BY: DMW | CHECKED BY: MRL

PROJECT NO. TLG-2515

THE LANE GROUP INC.



FINISHES FLOOR PLAN

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

0 4' 8' 16'

NORTH

FLOOR FINISH NOTES

1. ALL CONCRETE FLOORS SHALL BE HIGHLY POLISHED. TO AVOID GRINDING OFF THE PAINTED STRIPES, PAINT THE STRIPES AFTER INITIAL GRINDING, BUT BEFORE THE FINAL HIGH-GRIT POLISHING.
2. PROVIDE A TOPICAL CLEAR COAT OF SEALER THAT IS SPECIFICALLY DESIGNED FOR COMPATIBILITY WITH BOTH THE PAINT AND THE POLISHING EQUIPMENT.
3. PROVIDE TWO THIN COATS OF A CLEAR SPECIALIZED URETHANE, LIKE NATIONAL POLYMER 321 TO CHEMICALLY BOND THE STRIPES TO THE CONCRETE SURFACE.
4. ALLOW PAINTED STRIPES TO CURE FOR 24-48 HOURS BEFORE APPLYING SEALER.
5. BEFORE APPLYING SEALER, ENSURE THE PAINTED SURFACES ARE FREE OF DUST OR OILS USING A TSP CLEANER.
6. APPLY THE SEALER IN TWO THIN COATS RATHER THAN ONE THICK LAYER TO PREVENT BUBBLING OR CLOUDING.
7. ENSURE THE SEALER IS FULLY CURED, TYPICALLY 72 HOURS, BEFORE BEGINNING THE FINAL POLISHING STEPS.

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

FINISHES FLOOR PLAN

COMMONWEALTH OF VIRGINIA
D. MICHAEL WEAVER
LIC. NO. 9031
01-30-2026
ARCHITECT

DATE:	01-30-2026
NO.	REVISION DATE
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PROJECT NO. TLG-2515

THE LANE GROUP INC.

ELECTRICAL & MECHANICAL GENERAL PROVISIONS

GENERAL: The General Conditions and Supplemental General Conditions are part of this division. The Contractor shall and hereby agrees that he will read carefully all paragraphs and be bound by their conditions.

WORK DESCRIPTION: Provide all labor, equipment, material, (tools, services), etc. required to complete installation specified herein and/or shown or scheduled on the drawings. This section supplements all sections of this Division and shall apply to all phases of work hereinafter specified, shown on the drawings or required to provide a complete installation of systems shown. The specifications and drawings are complementary and are for the complete interpretation of the work. Unless noted or modified by specific notation to the contrary, the modification and/or description of any item in the documents carries with it the instruction to furnish, install and connect same. It shall be understood that the intent governs the work, regardless of whether or not this instruction is explicitly stated. No exclusion from, or limitation in the drawings or specifications, for the work shall be the reason for omitting the appurtenances or accessories necessary to complete any required system or item of equipment.

SPECIAL CONDITIONS: By the act of submitting a bid, this Contractor agrees that all of the "Contract Documents" in each of the Divisions of the complete specifications have been reviewed and studied and all requirements and coordination resulting therefrom are included in his proposal. The Contractor further acknowledges that he has visited the site to become familiar with existing conditions. In the Mechanical Division, the word "Contractor" means the Mechanical/Plumbing Contractor. In the Electrical Division, the word "Contractor" means the Electrical Contractor. The word "provide" means furnish, install and connect. Do not scale drawings having 1/4" or smaller scale. Because of small scale, it is not possible to indicate all offsets, fittings and accessories; provide such as are required for complete installation. The right is reserved to move any element as much as ten (10) feet at no increase in cost provided the Contractor is notified before work in question is started. The Contractors shall coordinate between trades responsible for determining and verifying the characteristics of electrical current available to operate all the mechanical and plumbing equipment prior to ordering such equipment.

RELATED WORK SPECIFIED ELSEWHERE: Foundations and pads required for equipment furnished under this Division of the Specifications are specified elsewhere. Field painting, except such painting as is required to maintain shop coat painting and factory finish painting are specified elsewhere. Flashing of conduits into roofing and outside walls are specified elsewhere. Heating, ventilating, and air-conditioning equipment are specified elsewhere. Plumbing equipment is specified elsewhere.

REGISTRATION: Contractors and Sub-Contractors furnishing and installing work under the Mechanical and Electrical divisions of these specifications shall be registered in the Commanwealth of Virginia whether they are bound by legal contracts with the Owner of the project, with the General Contractor or another Sub-Contractor.

CODES AND STANDARDS: The intent is that the complete installation shall comply with applicable laws and ordinances, utility company regulations, and applicable requirements of the latest editions of the following:

1. International Building Code, Plumbing Code, Mechanical Code, Gas Code.
2. NFPA: National Fire Protection Association.
3. AGA: American Gas Association.
4. FM: Association of Factory Mutual Fire Insurance Company.
5. ASME: American Society of Mechanical Engineers.
6. ASTM: American Society of Testing Materials.
7. NSF: National Sanitary Foundation.
8. PDI: Plumbing Drainage Institute.
9. UL: Underwriters Laboratories.
10. NEC: National Electrical Code.
11. NEMA: National Electrical Manufacturer's Association.
12. SMACNA: Sheet Metal and Air Conditioning Contractors National Association.
13. ARI: American Refrigeration Institute.
14. PFMA: Power Fan Manufacturer's Association.
15. MSS: Manufacturer's Standard Society of Valve and Fittings Ind.
16. ANSI: American National Standard Institute.
17. ASHRAE: American Society of Heating, Refrigerating and Air Conditioning Engineers.
18. ADA: Americans with Disabilities Act.
19. NESC: National Electrical Safety Code.
20. OSHA: Occupational Safety and Health Act.

Where the contract documents exceed minimum requirements, the contract documents take precedence. Comply with all requirements for permits, licenses, fees and codes. Permits, licenses, fees, inspections and arrangements required for the work under this contract shall be obtained at the completion of the work unless otherwise specified. Comply with the requirements of the applicable utility companies serving this work. Make all arrangements with the utility companies for proper coordination of the work. Pay all charges required by the utility.

COORDINATION OF WORK: Plan all work so that it proceeds with a minimum of interference with other trades. Inform all parties concerned, of the openings required for equipment or conduit in the building construction for work and provide all special frames, sleeves, inserts, supports, anchor bolts, etc. as required. Coordinate the work with all tradesmen. Conceal all work where possible. All work shall be installed as neatly as possible in the locations shown but shall be subject to such deviations, modifications and relocations as may be necessary to conform to the requirements of the architectural drawings and as necessary to avoid interferences with the structural work and the work of other trades, and interferences between the various trades. This shall be done at no cost to the Owner. No work or equipment shall be installed which would require ceilings to be lower than required by drawings, unless approval is obtained from the Architect. It is the responsibility of the General Contractor to coordinate the work of his subcontractors. To this end, the General Contractor shall require that the various subcontractors carefully examine and familiarize themselves with the architectural and structural drawings and drawings covering all other trades so that the work may be coordinated. If necessary to coordinate and expedite the work, the Contractor shall prepare "interference drawings" and submit them to the Architect for approval. Such drawings shall shown the work of the various trades involved, illustrate proposed details of construction and arrangement of equipment and apparatus, and clearly indicate any deviations from contract requirements.

EXECUTION OF THE WORK: Prior to installation, submit certified prints and/or descriptive brochures for all major electrical and mechanical pieces of equipment, fixtures, materials, etc. Submittals shall show: manufacturer's catalog number, finishes, optional features and modifications. When work in accordance with manufacturer's recommendation is specified, a copy of recommendations will be kept in the job office. Reference shall be made to drawing schedules and details for: manufacturer, model, catalog number, size, capacity, performance, installation, etc. of equipment, fixtures and materials. Equipment of manufacturers other than those named will be acceptable provided, in the opinion of the Engineer, it is of equal substance, function, performance and appearance.

CHOICE OF MATERIALS AND EQUIPMENT: In submitting substitutions, bidders should note the following minimum considerations:

1. Capacities shown are absolute minimum and must be equaled.
2. Physical size limitations for space allotted.
3. Structural properties.
4. Static and dynamic weight limitation.
5. Noise level.
6. Interchange ability.
7. Vibration generation.
8. Accessibility for maintenance and replacement.
9. Compatibility with other materials, assemblies and equipment.
10. Similar items shall be same manufacturer and style, etc. except where specifically exempted.

All material and equipment, for which a UL Standard, a NEMA Standard, an AGA approval, or an ASME requirement is established, shall be so approved and labeled or stamped. Label or stamp shall be conspicuous and not covered, painted or otherwise obscured from visual inspection. Adhesives are not acceptable as a mounting, supporting, or assembling technique. The Contractor shall pay any costs added to the total contract as a result of any substitutions. Equipment, etc. shall not be purchased without the Engineer's written approval (shop drawings).

EXISTING SERVICES: No service shall be interrupted without permission of the Owner. When encountered in work, protect existing active: sewer, water, gas, electric, other utility service, structures; when required for proper execution of work, relocate them as directed. If existing active services are not indicated, request Engineer for instructions. When encountered in work, whether or not indicated, cap or plug or otherwise discontinue existing inactive: sewer, water, gas, electric, other utility services, structures which interfere with work execution. Notify the Engineer of action taken. If removal is required, request instructions.

DRAWINGS: Drawings are diagrammatic. The Contractor shall install the work in such manner that the equipment, piping, vents, conduit, panels, ductwork, etc. will fit in space provided, maintain head room, and if in finished areas, be neatly installed and as "out-of-the-way" as physically possible. All equipment, piping, ductwork, conduits, etc., shall be installed to provide needed maintenance and passage space.

FEES: The Contractor shall pay for fees and inspections as may be required for electric, gas, H.V.A.C., plumbing, etc and all other systems requiring inspections by agencies having jurisdiction.

COMPLETION ITEMS: Provide all labor, equipment, materials, etc. required to complete installation specified herein and/or shown on the scheduled drawings.

EQUIPMENT OPERATION: This Division is responsible for: proper rotation, observing that lubricating has been properly performed, motors operate within nameplate limits, overload heater elements properly sized, and reporting observed discrepancies to the Engineer. Operate all motors for at least one hour. At the end of this hour's run, check for motor temperature. On equipment furnished by other sections, if lubricating is not correct, or if motors do not operate within proper limits, this Division is responsible for notifying the General Contractor as to the deficiencies and for leaving the piece of equipment involved in a locked "OFF" condition.

OPERATING INSTRUCTIONS: Furnish to the Owner written operating and maintenance instructions for each system and each piece of equipment. Include in the equipment data binder specified above, instructions to start and stop each piece of equipment, itemized maintenance schedule and submittals. When systems are completely adjusted, furnish personnel for one full day to instruct the Owner's operators.

CUTTING AND PATCHING: All cutting of surfaces will be by the General Contractor except for minor cutting for piping, conduit, etc. which shall be accomplished by these contractors. All major patching back will be by the General Contractor. Minor patching for piping, etc. shall be by these contractors. It will be the contractor's responsibility to advise the General Contractor of all locations and to size all openings. The contractors shall coordinate with the General Contractor for the best routing of piping and ductwork to clear existing construction. The contractors shall provide sleeves where required. The contractors shall coordinate with the General Contractor prior to bid and advise the General Contractor of anticipated requirements for cutting and patching so that the General Contractor may include these in his bids.

BACKFILLING: For earth backfill, remove from spaces to be filled all unsuitable material, including all rubbish, trash, refuse, and other debris. Place no backfill until foundations are braced and have cured sufficiently to develop adequate strength to withstand pressures of backfilling operations. Trenches shall not remain open for extended periods of time during set weather. Secure approval of the Local Authority prior to commencing this work. Material for backfill shall be clean and unfrozen, free from substance subject to rot, corrosion, or termite attack and rock. If fill is required on both sides of a wall, it shall be brought up simultaneously and evenly on both sides. Backfilling around piping shall be by hand and for a depth of one foot above the pipe, taking care not to disturb the pipe or injure pipe coatings. Deposit backfill in horizontal layers not to exceed 6" depth, measured loose, compacting each layer thoroughly by approved mechanical devices. Work shall be at once discontinued if damage to waterproofing, piping or other construction occurs, and such damage shall be satisfactorily repaired before work is resumed. Bring all backfill to required subgrades. Unless otherwise noted on the drawings or in the Specifications, see paragraph "COMPACTION" below, backfill to be compacted by suitable mechanical means in 6" layers to be at least 95% maximum density at optimum moisture content as determined by Standard Proctor Density Test. (A.S.T.M. Designation D-1557-58T).

COMPACTION: Fill material at optimum moisture content shall be placed in uniform horizontal layers not more than 6" thick, measured loose, over the fill areas involved. Compact each layer fully and uniformly at optimum moisture content to a minimum density in percentage of Standard Proctor Maximum As determined by ASTM D-698 or AASHO Standard Method T-99 as follows:

1. Top two (2) feet of fill under roadways, and fill below footings of buildings supported on compacted earth fill............................100%
2. Fill under floor slabs and surfaced areas such as walks, steps, concrete paving, parking bays, curbs, etc., and remainder of fill under roadways.. 98%
3. Fill under lawn and planted areas.. 85%

Fill material shall be allowed to air dry to proper moisture content as each layer is placed, if necessary, prior to compaction. For the guidance of the Contractor: The following method is suggested as procedure for achieving the specified degree of compaction. Compact each layer of fill material fully and uniformly by making continuous runs over material with a sheeps foot roller containing teeth not less than 7" long and having an end area of not less than 5 square inches each. The sheeps foot roller weight should impose a load upon each tooth between 1000 and 2200 pounds. Sheeps foot rollers should be made of not less than two sections, operated side by side and mounted in such a manner that each section may oscillate independently of the other. Continue rolling until the teeth of the roller penetrate a maximum of 3/4" over the entire surface of each lift. The moisture content of the fill material must be rigidly controlled during compaction by additional wetting to obtain a ratio to within 2% of the optimum as determined by the field tests. Material containing excessive moisture must be permitted to dry to proper moisture content before being rolled. If soil classification is proper for its use, a 10 ton vibrating type roller may be used for compaction of fill to obtain required degree of compaction, subject to approval by the Local Authority of such equipment.

GUARANTEE AND WARRANTY: Provide all labor, equipment, material, etc. required to complete installation specified herein and/or shown or scheduled on the drawings. Each piece of equipment shall meet performance specifications after one (1) year actual operation. The Contractor shall replace or make good any defect due to faulty workmanship or material which shall develop within one (1) year from date of acceptance. This guaranty shall cover both materials and labor. For the first year after final acceptance, the Contractor shall provide, at no cost to the Owner, any required maintenance and service necessary to assure the proper operation of the system. Date of acceptance shall be that date on which the contract has been satisfactorily completed in accord with contract documents and verified by the Engineer. If a whole or partial system, or equipment, is put into use for benefit of any party, other than the Contractor, and with prior written permission of the Owner, this agreed date shall become the "date of acceptance".

END OF SECTION

MECHANICAL PROVISIONS

GENERAL PROVISIONS: See the Electrical and Mechanical General Provisions which are a part of this specification Division.

SCOPE: Furnish and install all labor, materials and equipment shown on the mechanical drawings and as specifications herein pertain, including all items and specialties required for complete working systems whether specified or not. Power wiring and connections required for this work will be furnished and installed under the electrical work.

SHEET METAL WORK AND AIR DISTRIBUTION: Install sheet metal work of galvanized steel erected according to details and standards as follows. Cross break all rectangular sheet metal work, install transitions with side angles not over 30 degrees from run, and turns and elbows with centerline radius equal to 1-1/2 times duct width unless factory built turning vanes are installed. Provide vibration isolator hangers and fireproof flexible duct connections at fans and air handling units.

All sheet metal installations shall meet the following standards:

1. ASHRAE Guide and Data Book - Equipment, current chapter on duct construction.
2. ADC Standard 1062R2, Air Diffusing Equipment Test Code.
3. ADC Standard 1062:GRD-84, Test Code for Grilles, Registers and Diffusers.
4. ADC Test Code FD 72-R1, Flexible Air Duct Test Code.
5. AMCA Standard 210, Test Code for Air Moving Devices.
6. ASHRAE Standard 70-72, Method of Testing for Rating the air flow performance of outlets and inlets.
7. NFPA 90-A, Standard for the installation of Air Conditioning & Ventilating Systems, 1980 edition
8. NFPA 101
9. SMACNA Publications as follows:
   a. High Pressure Duct Construction Standards, 3rd edition, 1975
   b. Low Pressure Duct Construction Standards, 5th edition, 1976
10. SMACNA HVAC Duct Construction Standard - Metal & Flexible, First Edition,1985
11. Fire and Smoke Rating Test Standard: ASTM E84, NFPA 255 and UL 723
12. All duct sizes given are clear outside sizes.

Seal all ductwork joints("S" locks, drives, etc.) with Durkee-Atwood "insta-seal" class I; Hardcast #P301; Tremco 440; or United Mcgill, Uni-Cast Tape.

For all ducts with longest side 24 IN and over: Construct using the Ductmate: Nexus: Quicduc: Traverse Duct Connection(TDC) or Pyramid-Lok duct connection systems.

A. Seal flanged ends with pressure sensitive, high density, closed cell, neoprene or polyurethane tape gasket or "tremco 440".
B. For smaller duct sizes:Above systems are optional.
C. For smaller duct sizes(longest side 23 IN or less): Above systems are optional.

All ductwork hangers & supports must be in accordance with SMACNA HVAC duct construction standard section IV.

Install registers and air diffusers in accordance with schedule and with opposed blade volume control and sponge rubber gaskets for each unit. A certified Independent Balancing Contractor shall balance air flows according to drawings reporting on AABA forms - See equipment start up. Duct sizes given on drawings are "clear outside" sheet metal sizes.

Externally insulate supply, return, and outside air ductwork with 2" thick fiberglass 25/50 foil faced duct wrap per UL 723. All seams shall be stapled 6" on centers with outward clinching staples then sealed vapor tight with foil tape in strict accordance with the manufacturer's recommendations. See legend.

All ductwork exterior to the building served by H.V.A.C. unit shall be weather proof insulated. Provide 2.5" thick (R-8 minimum) closed-cell flexible elastomeric insulation, which shall be adhered directly to the duct surface with manufacturer recommended adhesive (Insulation shall be "Armaflex" insulation as manufactured by Armacell, or approved equal.). Provide this insulation with a weather barrier which shall consist of an aluminum weathering surface adhered to a self-healing rubberized bitumen membrane, for a complete weatherproofing system. (Weather barrier shall be "Alumaguard", as manufactured by Polyguard Products, or approved equal."

ROOF MOUNTED PACKAGED HEAT PUMP UNITS: Outdoor, roof mounted, electrically controlled, heating and cooling unit utilizing a hermetic scroll compressor for cooling duty and heat pump for heating duty. Factory assembled, single piece heating and cooling roof mounted unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field startup. Unit shall use environmentally safe refrigerant. Unit shall be installed in accordance with the manufacturer's instructions. Unit must be selected and installed in compliance with local, state, and federal codes.

INSULATION - Evaporator fan compartment: Interior cabinet surfaces shall be insulated with a minimum 1/2-in. thick, minimum 1 1/2 lb density, flexible fiberglass insulation bonded with a phenolic binder, neoprene coated on the air side. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

INSULATION - Electric heat compartment: Aluminum foil-faced fiberglass insulation shall be used. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

QUALITY ASSURANCE: Unit meets ASHRAE 90.1-2004 minimum efficiency requirements. Unit shall be rated in accordance with AHRI Standards 210/240 and 340/360. Unit shall be designed to conform to ASHRAE 15, 200I. Unit shall be UL-tested and certified in accordance with ANSI Z2I.47 Standards and UL-listed as a total package for safety requirements. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117. Unit casing shall be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 5000-hour salt spray.

Unit shall be designed in accordance with ISO 9001:2000, and shall be manufactured in a facility registered by ISO 9001:2000. Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory, and must be available upon request. Unit shall be designed in accordance with UL Standard 1995, including tested to withstand rain. Unit shall be constructed to prevent intrusion of snow and tested to prevent snow intrusion into the control box up to 40 mph. Unit shake tested to assurance level 1, ASTM D4169 to ensure shipping reliability. High Efficient Motors listed shall meet Section 313 of the Energy Independence and Security Act of 2007 (EISA 2007).

DELIVERY, STORAGE, AND HANDLING: Unit shall be stored and handled per manufacturer's recommendations. Lifted by crane requires either shipping top panel or spreader bars. Unit shall only be stored or positioned in the upright position.

OPERATING CHARACTERISTICS: Unit shall be capable of starting and running at 115°F (46°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 208/240 at ± 10% voltage. Compressor with standard controls shall be capable of operation from 25°F (-4°C), ambient outdoor temperatures. Provide winter start kit for mechanically cooling at ambient temperatures below 25°F (-4°C). Unit shall be capable of simultaneous heating duty and defrost cycle operation when using accessory electric heaters.

Unit shall discharge supply air horizontally as shown on contract drawings. Unit shall have horizontal return inlet.

ELECTRICAL REQUIREMENTS: Main power supply voltage, phase, and frequency must match those required by the manufacturer.

UNIT CABINET: Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre painted baked enamel finish on all externally exposed surfaces. Unit cabinet exterior paint shall be: film thickness, (dry) 0.003 inches minimum, gloss (per ASTM D523, 60øF). Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 208/240 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum I/2-in. thick, 1 lb density, flexible fiberglass insulation, neoprene coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the heat compartment.

Base Rail: Unit shall have base rails on a minimum of 2 sides. Base rail shall be a minimum of 16 gauge thickness.

Condensate pan and connections: Shall be a sloped condensate drain pan made of a non-corrosive material. Shall comply with ASHRAE Standard 62. Shall use a 3/4-in. -14 NPT drain connection, possible either through the bottom or end of the drain pan. Connection shall be made per manufacturer's recommendations.

Top panel: Shall be a single piece top panel.

Electrical Connections: All unit power wiring shall enter unit cabinet at a single, factory prepared, knockout location.

Component access panels (standard): Cabinet panels shall be easily removable for servicing.
Unit shall have one factory-installed, tool-less, removable, filter access panel. Panels covering control box, indoor fan, indoor fan motor, and compressors shall have molded composite handles. Handles shall be UV modified, composite. permanently attached, and recessed into the panel. Screws on the vertical portion of all removable access panel shall engage into heat resistant, molded composite collars. Collars shall be removable and easily replaceable using manufacturer recommended parts.

COILS: Standard Aluminum/Copper Coils: on all models. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed. Evaporator coils shall be leak tested to 150 psig, pressure tested to 450 psig, and qualified to UL 1995 burst test at 1775 psig. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.

REFRIGERANT COMPONENTS: Refrigerant circuit shall include the following control, safety, and maintenance features: Fixed orifice metering system shall prevent mal-distribution of two-phase refrigerant by including multiple fixed orifice devices in each refrigeration circuit. Each orifice is to be optimized to the coil circuit it serves. Refrigerant filter drier. Service gauge connections on suction and discharge lines. Pressure gauge access through a specially designed access port in the top panel of the unit. Suction line accumulator to provide protection in all operating modes from cooling, heating and reverse cycle switching.

There shall be gauge line access port in the top of the rooftop, covered by a black, removable plug. The plug shall be easy to remove and replace. When the plug is removed, the gauge access port shall enable maintenance personnel to route their pressure gauge lines. This gauge access port shall facilitate correct and accurate condenser pressure readings by enabling the reading with the compressor access panel on. The plug shall be made of a leak proof, UV-resistant, composite material.

Compressors: Unit shall use one fully hermetic, scroll compressor for each independent refrigeration circuit. Models shall be available with single compressor designs on 04 and 06 models, plus additional 2 compressor (stage) models for 12 sizes. Compressor motors shall be cooled by refrigerant gas passing through motor windings. Compressors shall be internally protected from high discharge temperature conditions. Compressors shall be protected from an over temperature and over-amperage conditions by an internal, motor overload device. Compressor shall be factory mounted on rubber grommets. Compressor motors shall have internal line break thermal, current overload and high pressure differential protection. Crankcase heaters shall be utilized on all models to protect compressor with specific refrigerant charge.

FILTER SECTION: Filters access is specified in the unit cabinet section of this specification. Filters shall be held in place by a pivoting filter tray, facilitating easy removal and installation. Shall consist of factory-installed, low velocity, throw-away 2-in. thick fiberglass filters. Filters shall be standard, commercially available sizes. Only one size filter per unit is allowed.

EVAPORATOR FAN AND MOTOR: Evaporator fan motor: Shall have permanently lubricated bearings. Shall have inherent automatic-reset thermal overload protection or circuit breaker. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required.

Belt-driven Evaporator Fan: Belt drive shall include an adjustable pitch motor pulley. Shall use sealed, permanently lubricated ball-bearing type. Blower fan shall be double inlet type with forward curved blades. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.

CONDENSER FANS AND MOTOR: Condenser fan motors: Shall be a totally enclosed motor. Shall use permanently lubricated bearings. Shall have inherent thermal overload protection with an automatic reset feature. Shall use a shaft down design on 04 to 14 models.

Condenser Fans: Shall be a direct driven propeller type fan. Shall have aluminum blades riveted to corrosion resistant steel spiders and shall be dynamically balanced.

Evaporator fan motor: Shall have permanently lubricated bearings. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating. Shall be Variable Frequency duty and 2-speed control. Shall contain motor shaft grounding ring to prevent electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground.

Standard Integrated Economizers (Factory installed on 3 phase models only). Integrated, gear driven opposing modulating blade design type capable of simultaneous economizer and compressor operation.

Independent modules for vertical return configuration shall be available. Vertical return modules shall be available as a factory installed option.

Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.

Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.

Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.

Standard leak rate shall be equipped with dampers not to exceed 2% leakage at 1 in. wg pressure differential.
Economizer controller on the electromechanical units shall be Honeywell W7212 that provides:

- Combined minimum and DCV maximum damper position potentiometers with compressor staging relay.
- Functions with solid state analog enthalpy or dry bulb changeover control sensing.
- Contain LED indicates for:
  when free cooling is available,
  when module is in DCV mode,
  when exhaust fan contact is closed.

Shall be capable of introducing up to 100% outdoor air. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air and contain seals that meet ASHRAE 90.1 requirements.

Shall be designed to close damper(s) during loss of power situations with spring return built into motor.

Dry bulb outdoor air temperature sensor shall be provided as standard. Enthalpy sensor is also available on factory installed only. Outdoor air sensor setpoint shall be adjustable and shall range from 40° to 100°F. Additional sensor options shall be available as accessories.

The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.

Dampers shall be completely closed when the unit is in the unoccupied mode.

Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.

Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.

Head Pressure Control Package: Controller shall control coil head pressure by condenser fan speed modulation or condenser fan cycling and wind baffles. Shall consist of solid state control and condenser coil temperature sensor to maintain condensing temperature between 90°F (32°C) and 110°F (43°C) at outdoor ambient temperatures down to -20°F (-29°C).

Condenser Coil Hail Guard Assembly: Shall protect against damage from hail. Shall be louvered design.

Time Guard: Shall prevent compressor short cycling by providing a 5-minute delay (ñ2 minutes) before restarting a compressor after shutdown for any reason. One device shall be required per compressor.

Electric Heat: Heating Section: Heater element open coil resistance wire, nickel-chrome alloy, 0.29 inches inside diameter, strung through ceramic insulators mounted on metal frame. Coil ends are staked and welded to terminal screw slots. Heater assemblies are provided with integral fusing for protection of internal heater circuits not exceeding 48 amps each. Auto reset thermo limit controls, magnetic heater contactors (24V coil) and terminal block all mounted in electric heater control box (minimum 18 ga galvanized steel) attached to end of heater assembly.

Hinged Access Panels: Shall provide easy access through integrated quarter turn latches. Shall be on major panels of: filters, control box, fan motor and compressor.

Electric and Electronic Control System for HVAC Units: Shall be complete with self-contained low voltage control circuit protected by a resettable circuit breaker on the 24-v transformer side. Transformer shall have 75VA capability. Shall utilize color-coded wiring. Shall include a central control terminal board to conveniently and safely provide connection points for vital control functions such as: motorized damper, smoke detectors, phase monitor, thermostat, loss of charge, freeze switch, high pressure switches. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.

Shall include integrated defrost system to prevent excessive frost accumulation during heating duty, and shall be controlled as follows: Defrost shall be initiated on the basis of time and coil temperature. A 30,60,90,120 minute timer shall activate the defrost cycle only if the coil temperature is low enough to indicate a heavy frost condition. Defrost cycle shall terminate when defrost thermostat is satisfied and shall have a positive termination time of 10 minutes.

Defrost system shall also include: Defrost Cycle Indicator LED. Dip switch selectable defrost time between 30,60,90 and 120 minutes. Factory set at 30 minutes, molded plug connection to insure proper connection.

Safeties:
Compressor overtemperature, overcurrent.

Loss of charge switch. Units with 2 compressors shall have different sized connectors for the circuit 1 and circuit 2 low and high pressure switches. They shall physically prevent the cross-wiring of the safety switches between circuits 1 and 2. Loss of charge switch shall use different color wire than the high pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the unit.

High pressure switch. Units with 2 compressors shall have different sized connectors for the circuit 1 and circuit 2 low and high pressure switches. They shall physically prevent the cross-wiring of the safety switches between circuits 1 and 2. High pressure switch shall use different color wire than the low pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.

Freeze protection thermostat, evaporator coil.

Automatic reset, motor thermal overload protector.

Panel Air Filters: Shall consist of factory-installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes. Unit shall use only one filter size. Multiple sizes are not acceptable. Filters shall be accessible through an access panel with "no-tool" removal as described in the unit cabinet section of this specification.

EXHAUST FANS: Exhaust fans shall be equal to Acme sizes as indicated on schedule; approved equivalents will be acceptable. Provide starters as a part of this section or as shown on the drawings. Air deliveries shall be as indicated; units shall bear the AMCA Certified Performance Ratings Seal, AMCA Certified Sones Rating Seal and U.L. Label. Wheels shall be of centrifugal, forward curved design and shall be statically and dynamically balanced. Generally, all fans shall be provided with back draft dampers. For cabinet type, above ceiling fan housings shall be reinforced phosphatized steel construction; interior surfaces shall be finished in a dark color and grille for ceiling-installed fans shall be white metal with three-dimensional grid and shall have symmetrical, finished appearance. Grille screws shall be concealed from view. Grids shall have a minimum of 80% free area. Electrical connections - see Electrical Provisions of the Specifications & electrical drawings.

Exhaust Fans: Exhaust fan on/off controls by electrical tradesmen.

EQUIPMENT START-UP: Initial start-up and service, including heat balance, of all operating equipment, together with any components factory-furnished, shall be done by service employees of equipment manufacturer according to the printed service and installation manuals for the equipment. A written report of start-up and service data, together with copies of the service and installation manuals, will be required by the designer prior to Final Inspection. During such start-up, a Certified Independent Contractor must balance the systems. After start-up, install clean air filters throughout and furnish owner with two (2) full sets of filters or filter media.

CONTROLS: Except as noted, install under this division heating and air conditioning controls as described and as detailed with all wiring, conduit, control devices, connections, calibration, check-out and adjustment for a complete working system and with installation according to the electrical work specifications. Prior to final inspection, install an "As Built" diagram and description of controls, including operating instructions in the maintenance manuals. Whether field or factory installed, install relays and contactors equal to ASCO, electric controls equal to Mercoid & Honeywell and breakers and starters equal to Square D.

Each HVAC system shall be furnished and installed with programmable thermostats equal to Honeywell PRO 8000, with sub-bases which shall be wall mounted in locations as shown on the drawings. Programmable thermostat assemblies shall provide staged heating and cooling, automatic changeover, fan control with programming to operate all HVAC blower fans continuously during occupied schedules, day/night programmable schedules, holiday schedules, etc. Time guard circuit to prevent compressor short cycling as a result of a change in the thermostat setting. Also, automatically prevents compressor restart at least 5 minutes after shutdown. Each unit controller shall include a display and key pad for 7-day programming. Each unit controller to maintain space temperature and humidity set point control capabilities. Dehumidification reheat control capabilities shall signal H.V.A.C. unit to activate 1st stage of electric heat simultaneously with one stage of cooling. Each unit controller shall have reheat dehumidification capabilities to operate space conditions at 50%± relative humidity. Controller to be capable of opening motorized outdoor air dampers during occupied periods and close when unoccupied.

Control wiring between the remote thermostat and the unit will be required and must be installed in conduit continuously.

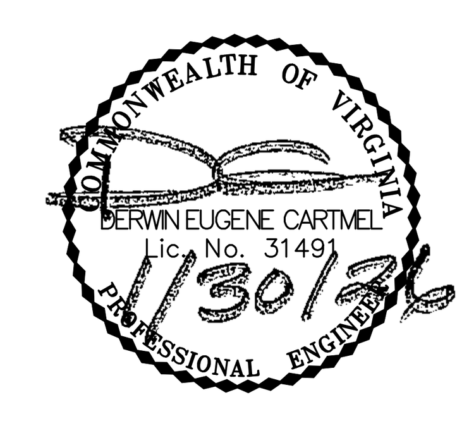
Units require connection between thermostat and outdoor section. Provide all interlocking controls. Install duct detectors supplied by Fire Alarm contractor, in return ductwork to shut down units in alarm conditions. Coordinate shut down requirements with equipment manufacturer.

DUCT MOUNTED SMOKE DETECTORS: Provided by Mechanical Contractor and installed by Mechanical Contractor.

FIELD TOUCH UP PAINTING: Field touch up painting of all equipment furnished must maintain factory shop coat painting and factory finish painting as required per equipment manufacturers recommdations.

END OF SECTION

SEE SHEET MPE102 FOR CONTINUATION OF SPECIFICATIONS



MECHANICAL ENGINEER

ELECTRICAL ENGINEER

HE HOLSTON ENGINEERING, INC.
301 MONTGOMERY ST., SUITE #4, JOHNSON CITY, TN 37604 (423)926-5991 holston.engineering@holsteng.com

PLOT DATE: 1/27/2026 HE PROJECT # 25-010

the LANE GROUP
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310 Valley Street NW
Abingdon, VA 24210
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NEW EMS FACILITY FOR WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

MECHANICAL, PLUMBING, AND ELECTRICAL SPECIFICATIONS

DATE: 01-30-2026

NO.	REVISION DATE
1	
2	
3	

SHEET: MPE101

DRAWN BY: TRM | CHECKED BY: DEC/JWR

PROJECT NO.: TLG-2515

THE LANE GROUP INC.

PLUMBING PROVISIONS

RELATED DOCUMENTS: Drawings and general provisions of contract, including General Conditions and General Requirement sections, apply to work of this Section. General Conditions apply to work of this Section.

SCOPE – PLUMBING: Furnish and install all labor, materials, and equipment shown on the Plumbing Drawings and specified herein, including all items and specialties required, whether specified or not, for complete working systems. In general, the Plumbing Work consists of the following:

1. Sanitary soil, waste, and vent piping systems and related items with connections as shown on the drawings.
2. Domestic hot and cold water piping and and related items with hot and cold water connections as shown on the drawings.

WORK UNDER OTHER SPECIFICATIONS: All electrical connections required for plumbing work will be furnished and installed under the Electrical Work Specifications. Electrical Contractor to furnish all power wiring required for the equipment except as shown or noted. Under this work, rough out any additional items of equipment furnished under other sections of work. Coordinate closely with the Owner's representative.

VALVES, DRAINS AND SPECIALTIES – GENERAL PLUMBING: Approved equivalents by Walworth, Powell, Crane, Josam, Wade and Zurn acceptable as they apply. Valves and strainers shall be full size of pipe run; install valve stems vertical up.

1. Check Valves: Crane #36 threaded and #1342 solder.
2. Escutcheons: Split, chrome plated brass with deep recess where required for sleeves extending above finished floor. Install at sleeves in finished areas.
3. Gate Valves: Crane #424 threaded 2–1/2" and smaller; #7–1/2E flanged 3" and larger; and #1334 solder. Jenkins #32A and #1100R ball type acceptable except as noted.
4. Pipe Cleanouts: Zurn Supremo, Series 1400, with cast iron ferrule, all bronze plug and with nickel bronze covers to match surrounding finish.
5. Pipe Hangers: Either adjustable trapeze type, ring type, clevis type or "auto–grip" with minimum 1/4" hanger rod. Install copper plated hangers for uninsulated copper piping. Size hangers to clear insulation on pipework; no cutting of insulation is permitted. See a detail on the drawings for piping supports above new ceilings, where the detail is applicable.
6. Pipe Sleeves: Galvanized Schedule 40 steel pipe set flush with surface for horizontal and 1" above finish floor for sleeves through upper floors. Sleeves will not be required where openings are core drilled. Size sleeves to clear insulation on pipework; no cutting of insulation is permitted. Fire seal all piping extending through fire walls with 3M, or equal, Fire Barrier Penetration Sealing System #CP 25N/S for 2 hour penetrations. Submit the UL Assembly shop drawings for approval.
7. Pipe Unions: Crane ground joint brass–to–iron seat type through 1–1/2" size and flanged 2" and larger, except dielectric unions equal to EPCO shall be installed where different pipe materials join and at each water heater on both cold water and hot water piping.
8. Support Points: Inserts, ramsets, expansion shields, or anchors equal to Phillips Redhead. Power drive is permissible.

PIPE, FITTINGS AND JOINTS: Pipe and fittings to be according to ASTM Standards for the duty and use. Where piping materials are noted on the plans other than specified herein, make up joints according to manufacturer's directions. Install according to use as follows:

1. Domestic Water: Type "L" ASTM B88 hard drawn copper with wrought solder fittings, except piping exterior of the building, under slabs–on–grade shall be Type "K" soft drawn copper without joints. Clean joint surfaces to bright finish and make up with non–acid flux and no lead #95–5 solder. 50–50 solder will not be allowed. All piping under slabs on grade shall be encased with 1/2" Armaflex insulation. PEX as specified below will be acceptable alternate for copper.
2. Sanitary Soil, Waste and Vent: Schedule 40 P.V.C. with long sweep elbows except through fire rated walls or ceilings provide metal pipe.
3. Natural Gas Piping: Schedule 40 ASTM A53 black steel with screwed joints made up with Teflon tape for sizes 1–1/2" and smaller and welded 2" and larger. All underground piping paper wrapped and coated as per NFPA 54.

DOMESTIC WATER PIPING HOT AND COLD POTABLE WATER DISTRIBUTION:
REFERENCES:

A. ASTM International
ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
ASTM F876 Standard Specification for Cross–linked Polyethylene (PEX) Tubing
ASTM F877 Standard Specification for Cross–linked Polyethylene (PEX) Plastic Hot and Cold Water Distribution Systems
ASTM F1807 Standard Specification for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross–linked Polyethylene (PEX) Tubing
ASTM F2159 Standard Specification for Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross–linked Polyethylene (PEX) Tubing

B. National Sanitation Foundation (NSF)
Standard 14 Plastics Piping System Components and Related Materials
Standard 61 Drinking Water System Components – Health Effects

C. International Code Council (ICC)
International Mechanical Code
International Plumbing Code

D. International Association of Plumbing Officials (IAPMO)
Uniform Plumbing Code
Uniform Mechanical Code

E. Plastic Pipe Institute (PPI)
Technical Report TR–3 Policies and Procedures for Developing Recommended Hydrostatic Design Stresses for Thermoplastic Pipe Materials
Technical Report TR–4 Recommended Hydrostatic Strengths and Design Stresses for Thermoplastic Piping and Fitting Compounds

F. Zurn PEX Inc.
Plumbing Installation Guide

SYSTEM DESCRIPTION

A. Design Requirements:
Standard Grade hydrostatic pressure ratings from the Plastic Pipe Institute in accordance with TR–3 and listed in TR–4. The following three standard–grade hydrostatic ratings are required;
1. 200 degrees F at 80 psi
2. 180 degrees F at 100 psi
3. 73 degrees F at 160 psi

Tubing tested in general accordance with ASTM E84 for a flame spread/smoke developed index of 25/50 or less for the following PEX tube sizes encased with 1/2 inch fiberglass insulation;
1. 1–1/4 inch
2. 1–1/2 inch
3. 2 inch

Tubing tested in general accordance with ASTM E84 for a flame spread/smoke developed index of 25/50 or less for the following PEX tube sizes;
1. 3/8 inch
2. 1/2 inch
3. 5/8 inch
4. 3/4 inch
6. 1 inch

B. Performance Requirements: To provide a PEX tubing hot and cold potable water distribution system, which is manufactured, fabricated and installed to comply with regulatory agencies and to maintain performance criteria stated by the PEX tubing manufacturer without defects, damage or failure
1. Comply with NSF Standard 14
2. Comply with NSF Standard 61
3. Show compliance with ASTM F877

QUALITY ASSURANCE

A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity and possesses the skills and knowledge to install a PEX potable water distribution system. Installer will utilize skilled workers holding a trade qualification license or equivalent or apprentices under the supervision of a licensed tradesperson

DELIVERY, STORAGE AND HANDLING

A. Delivery – Deliver materials in manufacture's original, unopened, undamaged containers with identification labels intact until ready for installation

B. Storage and Protection – Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Store PEX tubing indoors, in cartons or under cover to avoid dirt or foreign material from entering the tubing.

Do not expose PEX tubing to direct sunlight for more than six months. If construction delays are encountered, cover the tubing that is exposed to direct sunlight.

WARRANTY
Manufacturer's Warranty: Shall cover the repair or replacement of properly installed tubing and fittings proven defective as well as incidental damages

Warranty period for PEX tubing and subsequent system shall be 25 year non–prorated warranty against failure due to defect in material or workmanship, beginning with the date of installation.

It is the installer's responsibility to avoid mixing fittings manufactured by others as it will reduce the owner's warranty

HOT AND COLD POTABLE WATER DISTRIBUTION SYSTEM: All products, components, etc. specified herein are manufactured by and/or are available from Zurn PEX, Inc. tubing manufacturer

PRODUCT SUBSTITUTION: No substitutions are permitted

MATERIALS

A. Tubing
1. Cross–linked polyethylene (PEX) manufactured by the Silane method
2. Non barrier type
   a. Shall have a pressure and temperature rating of 160 PSI at 73°F, 100 PSI at 180°F and 80 PSI at 200°F
   b. Tubing shall have a minimum of 6 months UV protection
3. Manufactured in accordance with ASTM F876 and ASTM F877 and tested for compliance by an independent third–party agency
4. Must have Pex 5006 chlorine designation
5. Plenum tested in accordance with ASTM E84
6. Must have a 25 year non–prorated warranty

B. Fittings: Fittings shall be manufactured by Zurn PEX Inc, identified by the letters "Q" or "Z".

Manufactured in accordance with ASTM F1807 or ASTM F2159 and/or comply with ASTM F877 system standard as identified on the fitting

C. Crimp Systems
Qickclamp: Listed to ASTM F877, identified as a Zurn PEX Inc, Qickclamp by the "Qickclamp" and "Q" marking.

Copper Crimp Ring: Listed to ASTM F1807 and/or ASTM F877, black in color and identified as a Zurn PEX Inc, ring by the letter "Q."

D. Tools
Qickclamp tools shall be supplied by the PEX tubing manufacturer, identified by the name "Zurn" on the tool.

Copper Crimp Ring tools shall be supplied by the PEX tubing manufacturer or approved by the PEX tubing manufacturer for use.

E. Manifold
1. QickPort Preassembled Manifold
2. Copper Manifold System
3. CR Manifold
4. Multi Port Fittings
5. Copper Manifold Header

F. Valves: Shall be of the plastic or metal type, meeting the requirements of ASTM F877, identified as such with the appropriate mark on the product

MANUFACTURER'S INSTRUCTIONS: Comply with manufacture's product data, including product technical bulletins, technical memo's, installation instructions and design drawings, including; Zurn PEX Plumbing Installation Guide

EXAMINATION:

A. Site Verification of Conditions

Verify that site conditions are acceptable for the installation of the PEX potable water system

Do not proceed with installations of the PEX potable water system until unacceptable conditions are corrected

INSTALLATION

A. Install Zurn PEX tubing in accordance with tubing manufacturer's recommendations and as indicated in the Zurn PEX Plumbing Installation Guide

B. Do not install PEX tubing within 6 inches of gas appliance vents or within 12 inches of any recessed light fixtures

C. Do not solder within 18 inches of PEX tubing in the same waterline. Make sweat connections prior to making PEX connections

D. Ensure no glues, solvents, sealants or chemicals come in contact with the tubing without prior permission from the tubing manufacturer

E. Do not expose PEX tubing to direct sunlight for more than 6 months

F. Use grommets or sleeves at the penetration for PEX tubing passing through metal studs

G. Use a PEX manufacturer recommended fire stop sealant manufacturer

H. Protect PEX tubing with sleeves where abrasion may occur

I. Use nail plates where PEX tubing penetrates wall stud or joists and has the potential for being struck with a screw or nail

J. Allow slack of approximately 1/8 inch per foot of tube length to compensate for expansion and contraction

K. Minimum horizontal supports are to be installed not less than 32 inches between hangers in accordance with model plumbing codes and the Zurn PEX Plumbing Installation Guide

L. Pressurize Zurn PEX tubing in accordance with applicable codes or in the absence of applicable codes, test pressure shall be at least equal to normal system working pressure, but not less than 40 PSI water or air and not greater than 225 PSI water, 125 PSI air

M. Refer to other sections listed in Related Sections paragraph herein for related products installation

FIELD QUALITY CONTROL

A. Site Tests

To ensure system integrity, pressure test the system before covering tubing in concrete and after other trades have worked in the vicinity of the tubing

Repair and replace any product that has been damaged according to manufacturer's recommendation

PROTECTION: Protect installed work from damage due to subsequent construction activity on the site

PLUMBING FIXTURES: Fixtures and trim shall be American–Standard, Crane, Eljer or Kohler according to Schedule. Install fixtures and trim of one make and design in each area or location and with Zurn chair carriers, Josam Bulldog Carriers or Smith for fixtures at chases and for all lavatories, urinal and water coolers. Where walls supporting plumbing fixtures without chases are built of steel studs, install fixture carriers with block bases in the wall for same. Set the block bases flush with or below the finished floor line and connecting minimum of three (3) studs with steel plates for support of fixture. Install minimum 1/2" water supplies with stops to fixtures. Install P–traps at any fixture of 17 gauge semi–cast brass with cleanouts. P–traps below floor shall be cast iron. Plumbing fixture trim shall be chrome plated.

INSTALLATION – PLUMBING PIPING: Cut pipe square, ream, and thread with sharp dies for threaded fittings. Install piping straight, plumb, without sags and parallel with building elements, maintaining minimum 1/4" per foot grade on gravity systems. Install hangers on maximum centers of 5' for cast iron pipe, 6' for other pipes 1–1/2" and smaller, 10' for other pipes 2" and larger and at elbows or as recommended by the manufacturer for the material. Support stacks at base. Fill space between pipe and sleeves through floor slabs on grade with poured compound. Install cleanouts on sewer within the building line at a minimum distance of 50'–0" and set flush with finished floor materials. Install unions and manual valves, whether shown or not, at each side of operating equipment, maintenance points, water heaters, and as shown in details. Install shut–off valves in water supplies to groups of fixtures. Where required for valves, install Milcor aluminum access panels inside primed paint grade where ceiling system is not accessible.

TESTS: After complete erection of piping systems and before installation of fixtures or equipment completely test piping, check for and stop leaks. No caulking or peening–over of leaking fittings shall be permitted. After completion of tests piping systems shall be flushed as indicated herein and domestic water piping system sterilized as specified herein. Tests may be made in sections, but flushing and sterilization shall be accomplished after complete erection. Where state code specifies method of test, such code shall take precedence over the test specified herein.

1. Sanitary, Soil, Waste and Vent: Isolate or close with test plugs and fill with water for minimum 5 PSIG (10'–0" foot head) hydrostatic pressure placed on the highest joint for minimum of 24 hours. No exfiltration allowed.
2. Domestic Water and Treated Water: Water test with water furnished for the service at 150 PSIG for domestic and 50 PSI for treated for minimum of 24 hours, flushing before and after test. No exfiltration allowed.

DOMESTIC WATER PIPING STERILIZATION: Flush out the pipe lines until the water runs clear. This shall be done after the pressure test and before disinfection. Drain and clean strainers and dirt pockets. After the domestic piping system has been tested and cleaned, the system shall be sterilized in accordance with the State Department of Public Health by the following methods:

1. Introduce HTH solution, chlorine gas, or similar chlorination agent in sufficient quantity to produce a residual of 50 ppm of chlorine as determined by residual chlorine tests at the ends of the lines, and allow to stand for not less than 24 hours. Fill the lines slowly and open and close all valves while the chlorine is being introduced into the system. Operate valves, pumps, etc. at least 5 times, or 5 minutes.
2. After the disinfecting solution has been left standing for 24 hours, flush out the system until chlorine content is less than 1.0 ppm and/or water is comparable to that supplied by the water utility. If after flushing out the system, bacteriological samples are not satisfactory, repeat the disinfection process until satisfactory bacteriological samples can be obtained.

Disinfection of new supply mains shall be performed before these mains are connected to the existing water supply mains. Where connecting into the existing mains and it is not practical to include the connection pieces (i.e. pipe, fittings and valves) in normal disinfecting process, these connecting pieces shall be swabbed with chlorine solution containing not less than 100 ppm available chlorine prior to making connection. Have samples obtained from the end of the longest piping run, analyzed by the water utility chemist and submit a copy of the test to the Engineer.

END OF SECTION

INSULATION PROVISIONS

RELATED DOCUMENTS: Drawings and general provisions of contract, including General Conditions and General Requirement sections, apply to work of this Section.

SCOPE – INSULATION SYSTEMS: Furnish and install all labor, materials and equipment shown on the mechanical drawings and as specified herein, including all items and specialties required, whether specified or not, for complete systems of pipe insulation. External ductwork insulation specified in other sections of this DIVISION are not a part of this section and will be furnished and installed under other sections of this DIVISION. In general, the insulation work consists of the following work:

1. Insulation of domestic hot and cold water piping systems.

INSULATION: HOT AND COLD PIPING: Install molded fiberglass insulation with vapor–barrier jacket and butted solidly together with joints and seams staggered. Cover fittings with molded insulation sections. For hot piping, seal joints and flaps with Lagtone and cover fittings with 8 oz. canvas jacket over Lagtone sealer and sealed on with Lagtone, sealing off insulation ends with jacket and Lagtone. For cold piping, seal joints and flaps with adhesive, sealing off insulation ends with mastic. Cover insulated fittings with 0.002" thick aluminum foil sealed on with adhesive and cover with 8 oz. canvas jacket and coat of mastic. Fitting covers equal to one piece PVC "Zeston" covers shall be used.

Install insulation thickness on piping as follows:

1. Domestic Water Systems and Condensate Piping ..... 1/2"

Equal materials, mastic, adhesives, and sealers made by Manville, Gustin–Bacon, Foster, Armstrong and PPG Industries are acceptable when labeled and/or listed. Adhesives, mastics and insulation materials used shall be Underwriter's labeled and/or listed for a maximum rating of 25 for flame and 50 for smoke.

INSTALLATION – INSULATION SYSTEMS: Install this work using mechanics experienced in the trade. Systems shall be completely erected and tested and all surfaces shall be clean and dry prior to application of insulation. For insulation, install saddles between support and insulation at all piping support points equal to Fee & Mason, Figure 171, for hot piping and minimum 20 gage galvanized steel saddles 18" long for cold piping. Install rigid insulation sections in cold piping insulation at saddles, sealing the rigid section to the run of insulation. Install insulation continuous through sleeves or core drilled holes for cold piping. Stapling of pipe insulation on cold water is not acceptable unless all staples are vapor sealed with mastic to the Engineer's satisfaction. No duct tape will be allowed on any insulation system. A continuous vapor barrier seal will be required on all cold water systems. Failure to maintain this barrier will not be allowed.

END OF SECTION

ELECTRICAL PROVISIONS

RELATED DOCUMENTS: Drawings and General Provisions of Contract, including General Conditions and Division 1 General Requirement Sections, apply to work of this section.

DESCRIPTION OF WORK: Furnish and install all labor, materials, and equipment shown on the drawings and specified herein, including all items and specifications required, whether specified or not, for complete working systems. In general, the Electrical Work consists of the following:

1. Secondary distribution with connections as detailed up to service.
2. Wiring and equipment for lighting and power, together with lighting fixtures and devices.
3. Wiring and connecting equipment of other trades.
4. Power service shall be 3 phase 4 wire 208Y/120 volts.

CONNECTION TO OTHER SPECIFICATION WORK: Under this work division, furnish and install all labor and materials, together with the required switches, for connecting power to heating, air conditioning and ventilation, plumbing, and Owner–supplied equipment.

SECONDARY WIRE AND CABLE: Except as noted, install minimum #12 AWG 600–volt copper Type THHN/THWN or as noted on the drawings. Install solid conductors for #10 size and smaller. No aluminum wire will be allowed. #8 wire and larger shall be stranded copper. Although not necessarily shown, provide a complete "green" ground throughout bonded and grounded as per NEC.

RACEWAYS: Install conduit, wireways and surface metal raceways of malleable steel material and with electric or hot dip galvanized or rust resistant finish. Use no aluminum conduit. Conceal all raceways where possible. Install liquid–tight "Greenfield" with grounding conductors in outdoor, or wet locations and at all motor connections and other points subject to vibration. Install rigid conduit with threaded fittings as required by the National Electrical Code on service conduits to above the building floor line or as noted. Other conduit runs may be electric metallic tubing with malleable steel compression or set screw type connectors. Bushings for conduit 2" and smaller shall be plastic. Bushings for conduit 2–1/2" and larger shall be equal to Appleton Efcor Series 55 or OZ type "B" with metal ring and insulator as an integral part of the bushing.

BOXES, CABINETS, SUPPORTS AND SPECIALTIES: Install of galvanized malleable steel alloy. Install cabinets with grey baked finish on exposed surfaces and removable trim with hinged doors and flush locks, all keyed alike. Install boxes underground, for exterior outlets and as required by the National Electric Code with threaded cast hubs and gasketed covers attached with screws. Pressed boxes will not be allowed. Unless noted otherwise, install other switches, receptacles, and lighting outlets of pressed steel box with proper cover and size and with ears and studs where required. Ceiling outlet boxes shall be minimum 4" octagon 2–1/8" deep and with extension rings where additional volume is required. Single gang wall boxes shall be minimum 4" high X 2–1/8" wide X 2–1/8" deep except boxes in masonry shall be 2–1/2" deep. Boxes shall be equal to Steel City, Appleton or Raco. Use solid gang box for two gangs or more.

PANELBOARD & BREAKERS: Install safety dead front breaker type, surface mounting as required and shown. All breakers quick–make and quick–break with trip free handles, thermal–magnetic trip. Two/three pole breakers shall have a common trip. All breakers ambient compensated and all interiors with integrated capacity bussing. All branch breaker handles shall operate in the same plane. Furnish all "spare" breakers. All H.V.A.C. equipment breakers shall be H.A.C.R. rated. See the plans for schedules indicating number of branch circuits, ratings, arrangements, etc. Provide neutral bars for all system feeders isolated from the panel box. Provide separate "ground" bars installed with lugs or connectors on the bar grounded to the panel box. Bus bars shall be of sequence phase type arranged for the specified service. All circuits shown as common neutral shall be installed as per N.E.C. Where relays, time clocks or contactors are called for, provide panelboard with oversized can for installation. Separate cans adjacent to the panelboard, and mounted same as the panelboard, are acceptable.

SAFETY SWITCHES: Install safety switches of heavy duty rating, and with dual element, time lag, cartridge type fuses. Except as noted, install all units with general purpose enclosures inside or NEMA 3R outside. Furnish owner with 1 set of "spare" fuses in addition to all required fuses.

LIGHTING FIXTURES: Install according to schedule and complete with lamps and any hangers, plaster frames and other accessories. Verify ceiling systems for recessed fixture trim. Ceiling system suspension shall not be used for Luminaire suspension. All Luminaires shall be independently hung by wire or other approved means./ Guarantee ballast replacement for 12 months after final acceptance of project. Support all lay–in type fixtures from structure above with wire hangers. LED fixtures shall have 120 volt input and meet UL8750, LM–85, LM–79, LM–88 standards. Incandescent lamps shall be inside frosted and rated for 130 volt service unless otherwise specified. Lamps shall be as manufactured by Sylvania or equal.

AUTOMATIC TRANSFER SWITCH: Provide and install an Automatic Transfer Switch equal to ASCO #H–3AD–TS–A–3–800–C–G–M rated for 800 amps, 3 pole, solid neutral, 208 volts, 60 Hz. The ATS switch shall meet all cataloged standards. The automatic transfer shall consist of an inherently double throw power transfer switch mechanism and a microprocessor controller to provide automatic operation. The transfer switch shall be electrically operated and mechanically held with double throw construction, and operated by a momentarily energized solenoid–driven mechanism. The switch shall be positively locked and unaffected by momentarily outages, so that contact pressure is maintained at a constant value. All main contacts shall be silver composition. The ATS shall be furnished in a NEMA 3R enclosure. All standard door mounted switches and indicating LEDs shall be integrated into a flush–mounted, interface membrane or equivalent in the enclosure door for easy viewing & replacement. Voltage (all phases) and frequency on both normal and emergencies sources shall be continuously monitored. The controller shall be capable of sensing the phase rotation of both the normal and emergency sources. A contact closure shall be provided for a low–voltage engine start signal. Auxiliary contacts shall be provided consisting of a minimum of two contacts, closed when the ATS is connected to the normal source and two contacts closed, when the ATS is connected to the emergency source. Terminals shall be provided for a remote contact which opens to signal the ATS to transfer to emergency and for remote contacts which closes to inhibit transfer to emergency and/or retransfer to normal. An in–phase monitor shall be a standard feature in the controller and enabled/disabled through the communications interface port or USB.

ENGINE GENERATOR: Provide and install natural gas fueled motor generator equal to a Kohler 250REZXB. The unit shall conform to all cataloged standards. The generator set shall be furnished with a 4UA13 alternator and shall provide 325 kVA and 260 kW when operating at 208Y/120 volts, 60 Hz, 0.80 power factor. The generator set shall be capable of a 130øC Standby rating while operating in an ambient condition of less than or equal to 77 øF and a maximum elevation of 2500 ft above sea level. The standby rating shall be available for the duration of the outage. The engine shall be EPA certified with a Level 2 Nema 3R enclosure from the factory, and the generator shall accept the system load in one step. Vibration isolators shall be provided between the engine–alternator and heavy–duty steel base. The minimum 14.6 liter displacement engine shall deliver a maximum of 402 BHP at a governed engine speed of 1800 rpm, and shall be equipped with all cataloged features. The alternator shall be salient–pole, brushless, 2/3–pitch, with 4 bus bar provision for external connections, self–ventilated, with drip–proof construction and amortisseur rotor windings, and skewed for smooth voltage waveform. The insulation shall be class H per UL1446 and the varnish shall be a vacuum pressure impregnated, fungus resistant epoxy. Temperature rise of the rotor and stator shall be limited to 130øC Standby. The PMG based excitation system shall be of brushless construction controlled by a digital, three phase sensing, solid– state, voltage regulator capable of maintaining voltage within RO.25% at any constant load from 0% to 100% of rating with <0.5% drift due to temperature variation. The alternator shall have dual maintenance–free bearings, designed for 40000 hour B10 life. The generator shall be inherently capable of sustaining at least 300% of rated current for at least 10 seconds under a 1–phase symmetrical short circuit without the addition of separate current–support devices. The generator set shall be capable of supplying 990.00 Peak Motor Starting KVA for starting motor loads with a maximum instantaneous voltage dip of 35%, as measured by a digital RMS transient recorder in accordance with IEEE Standard 115.

DATA/VIDEO/PHONE SERVICE: Coordinate with owner for all service requirements.

INSTALLATION: Install gear with operating handles maximum 6–feet from floor and trims in line. Provide typed directory for panelboard and engraved laminated plastic labels for switches and main service breakers. Install raceways parallel or perpendicular to building members. Close conduit runs during construction. Apply waterproofing compound to joints in rigid conduit runs. Install fittings and supports of same material and finish as conduit. Support raceways with brackets, hangers, or other approved devices. Use no perforated strap or wire hangers. Install pull boxes or points for maximum 200' run and 3 quarter bends in wiring conduit runs and 100' of run and 2 quarter bends in signal and communications conduit runs. Install long sweep elbows in signal and communications conduit runs. Use expansion fittings for crossing building expansion joints. Except for terminations in threaded hubs, lock conduit in place with proper fittings and install bushing. Leave bare copper pull wires in all empty conduit runs. Bond and ground all systems in accordance with N.E.C. As required or as shown on plans, install boxes and devices on surface or flush with building finish, with units rigidly fastened in pi properly aligned. Box extensions may be used. Verify door swings prior to roughing for lighting switches. Install a plate for all devices, including blank plates over blank boxes, plates to be in continuous contact with building finish and not to support box. Pull wire only after areas are cleaned and pull with proper lubricants and continuous between boxes without splice. Make up splices in Wire #10 or smaller with Ideal "Wing Nuts" and in larger wire with approved mechanical connectors and tape. After installation, megger electrical work for grounds and shorts and correct as required.

TESTING: In conjunction with his work, the Contractor shall do the following:

1. Check outlets for proper polarity and correct as required.
2. Megger all motor and solenoid windings before connection for insulation resistance and record readings. If found low, advise supplier so that steps may be taken to dry out insulation or otherwise raise insulation resistance to an acceptable value.
3. Check running currents of all motors and if there is any major unbalance or variation from rated, determine the cause.

END OF SECTION

END OF ELECTRICAL & MECHANICAL PROVISIONS

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CARTMELL
Lic. No. 31491
1-30-26
PROFESSIONAL ENGINEER

MECHANICAL ENGINEER

COMMONWEALTH OF VIRGINIA
JOE W. RIGGS II
Lic. No. 22741
1-30-26
PROFESSIONAL ENGINEER

ELECTRICAL ENGINEER

HE HOLSTON ENGINEERING, INC.
301 MONTGOMERY ST., SUITE #4, JOHNSON CITY, TN 37604 (423)926-5991 holston.engineering@holsteng.com

PLOT DATE: 1/27/2026 HE PROJECT # 25-010

the LANE GROUP
engineering architecture environmental
310 Valley Street NW
Abingdon, VA 24210
276.206.8571 - office
Abingdon | Big Stone Gap | Galax
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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

MECHANICAL, PLUMBING AND ELECTRICAL SPECIFICATIONS

DATE: 01-30-2026

NO.	REVISION DATE
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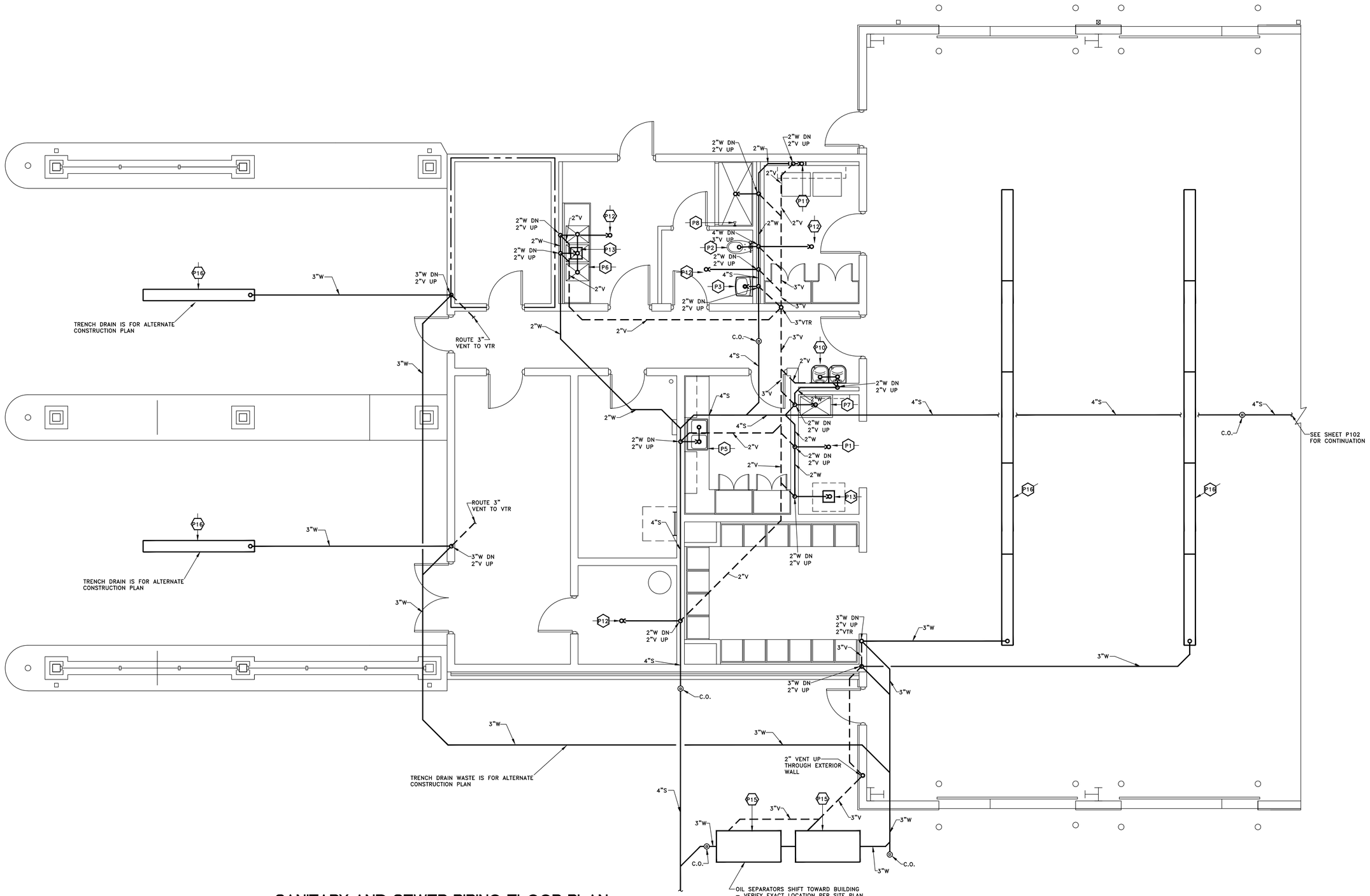
SHEET: MPE102

DRAWN BY: TRM | CHECKED BY: DEC/JWR

PROJECT NO.: TLG-2515

THE LANE GROUP INC.



SANITARY AND SEWER PIPING FLOOR PLAN

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

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301 MONTGOMERY ST., SUITE #4, JOHNSON CITY, TN 37604 (423)926-5991 holston.engineering@holsteng.com

PLOT DATE: 01/30/2026 HE PROJECT # 25-010

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SANITARY SEWER, & VENT PIPING FLOOR PLAN

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CARTMEL
Lic. No. 31491
PROFESSIONAL ENGINEER
1/30/26

DATE:	01-30-2026
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DJH	DEC

PROJECT NO. TLG-2515

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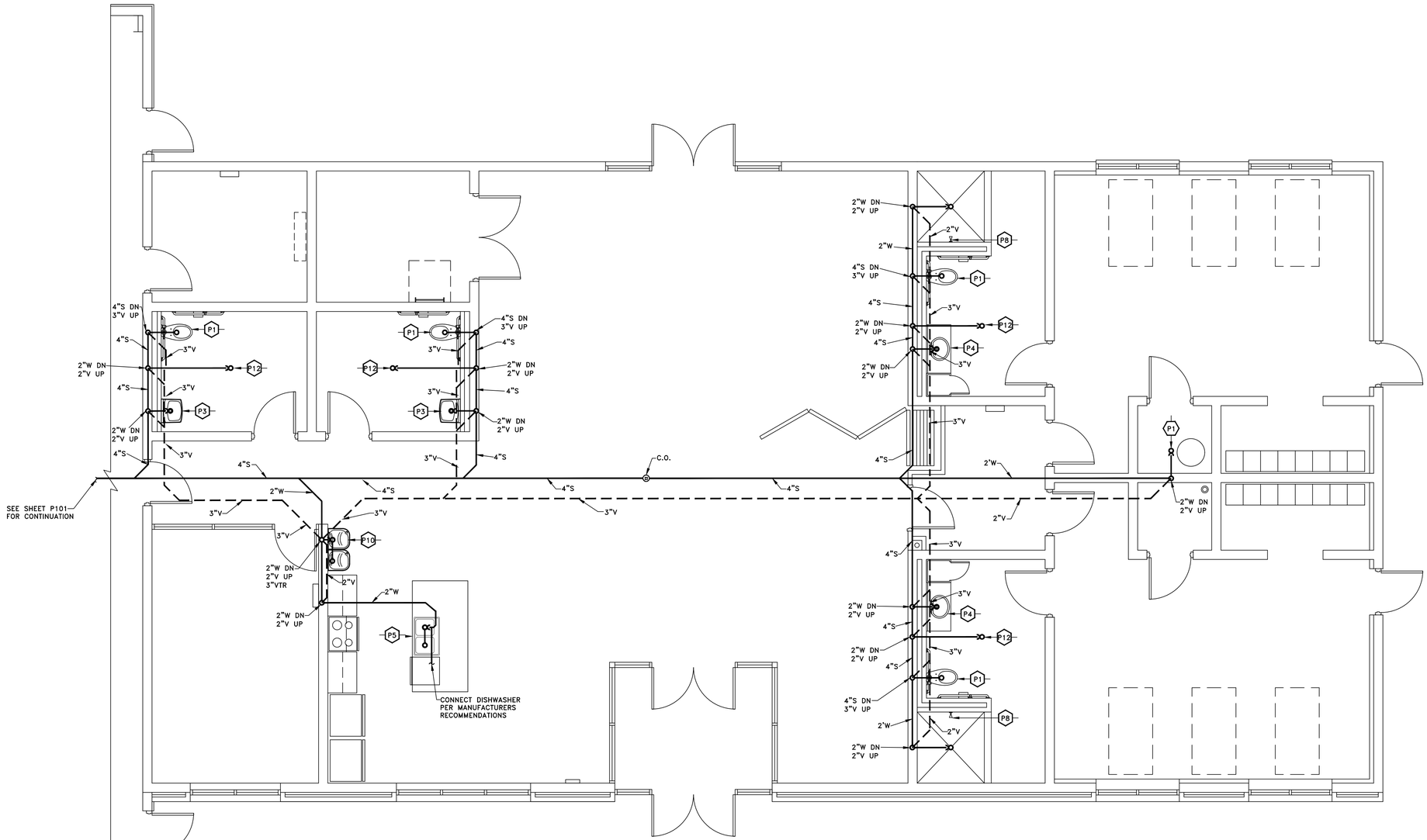

SANITARY AND SEWER PIPING FLOOR PLAN

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

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NEW EMS FACILITY FOR
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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

SANITARY SEWER ,
& VENT PIPING
FLOOR PLAN

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CARTMEL
Lic. No. 31491
PROFESSIONAL ENGINEER
1/30/26

DATE:	01-30-2026

NO.	REVISION DATE
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SHEET: P102

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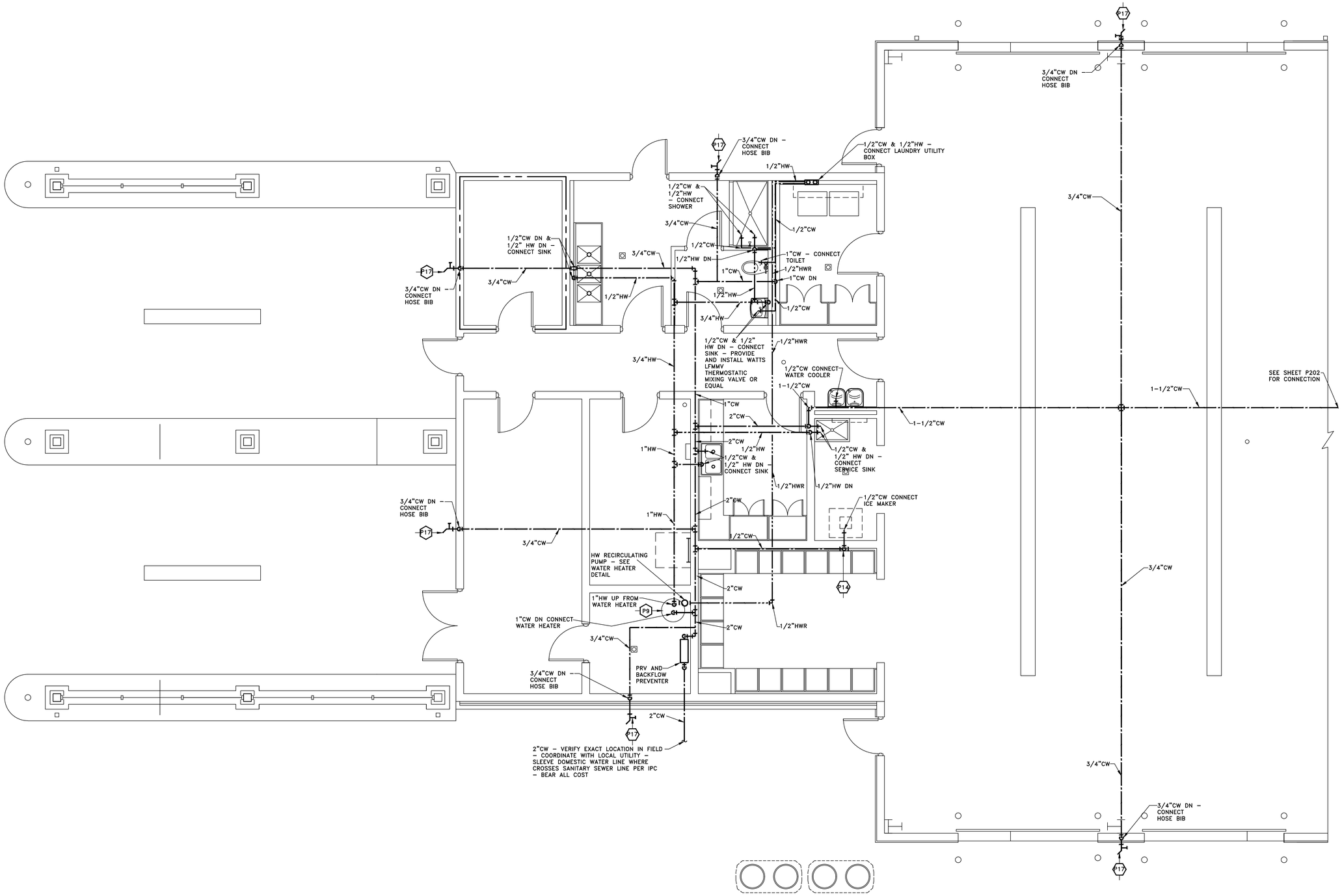
PLOT DATE: 01/30/2026 HE PROJECT # 25-010



DOMESTIC WATER PIPING FLOOR PLAN

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

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PLOT DATE: 01/30/2026 HE PROJECT # 25-010

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NEW EMS FACILITY FOR
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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

DOMESTIC WATER PIPING PLAN

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CARTMEL
Lic. No. 31491
PROFESSIONAL ENGINEER
1/30/26

DATE:	01/30/2026
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SHEET:	P201
DRAWN BY: DJH	CHECKED BY: DEC
PROJECT NO.	TLG-2515

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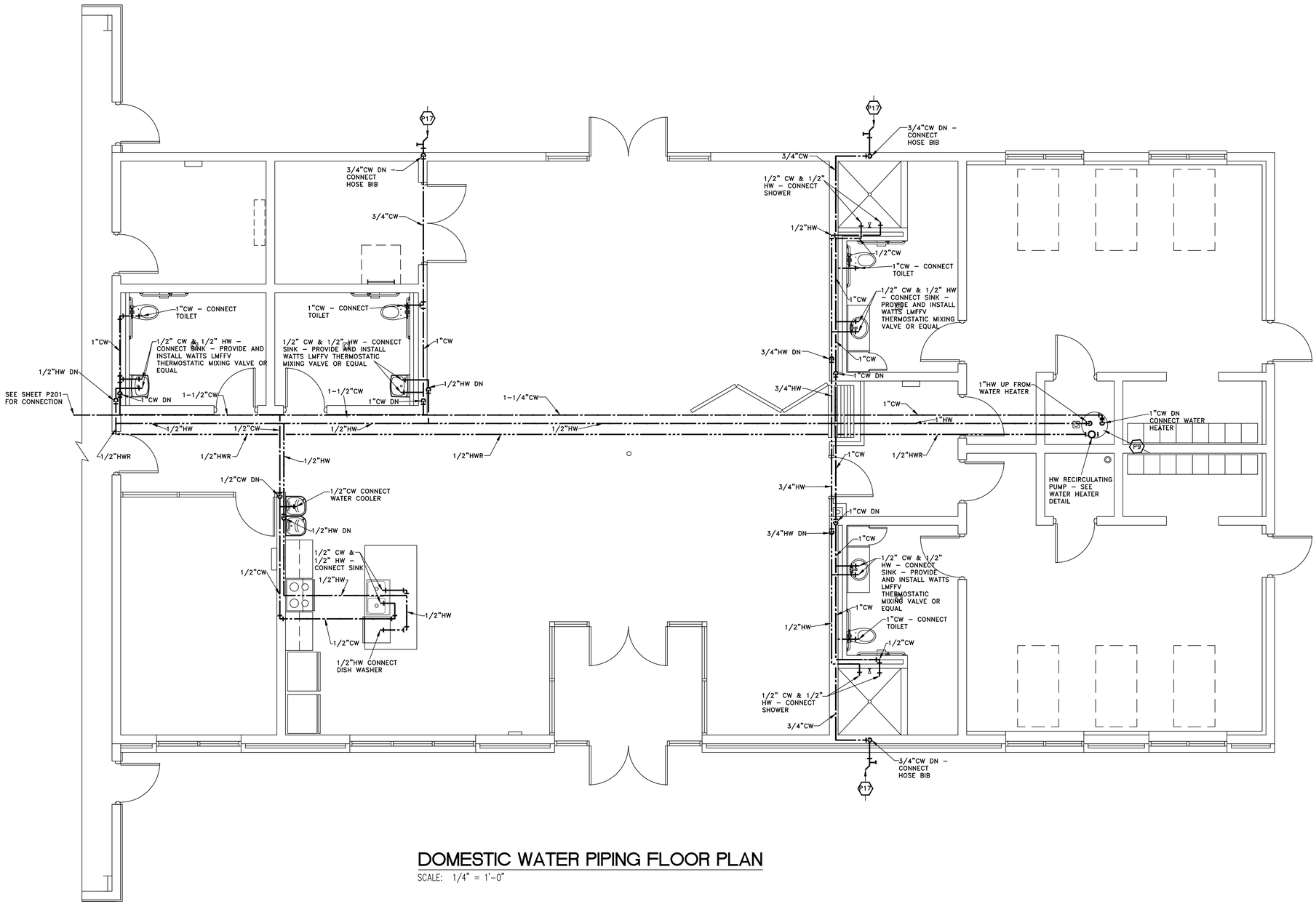

DOMESTIC WATER PIPING FLOOR PLAN

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

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PLOT DATE: 01/30/2026 HE PROJECT # 25-010

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NEW EMS FACILITY FOR
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HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

DOMESTIC WATER PIPING PLAN

COMMONWEALTH OF VIRGINIA
DAVID EUGENE CARTMELL
Lic. No. 31491
1/30/26
PROFESSIONAL ENGINEER

DATE:	01/30/2026
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SHEET: P202

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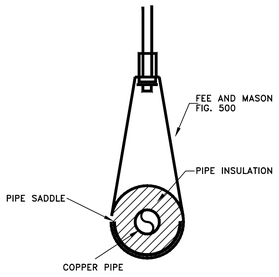
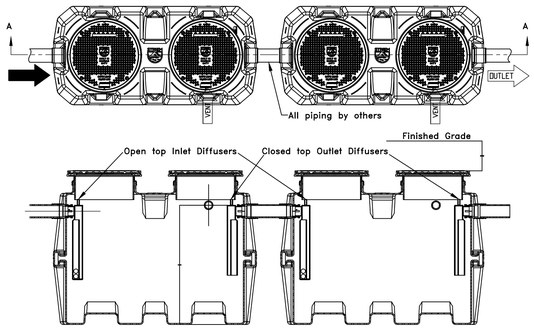


PIPE SUPPORT DETAIL
NO SCALE



GREASE INTERCEPTOR DETAIL
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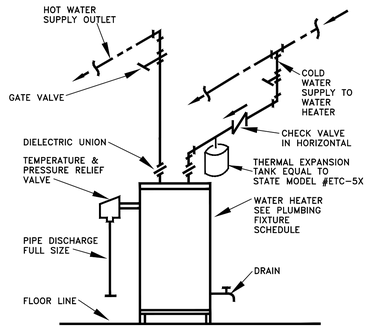
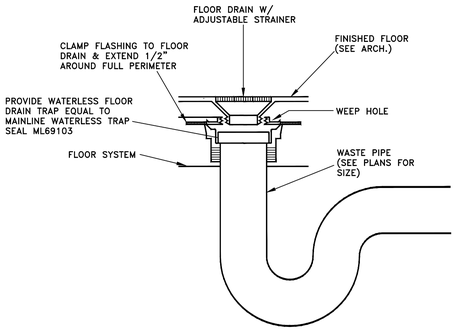
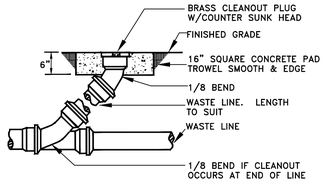


NOTE: SEE FLOOR PLANS FOR PIPE SIZES.

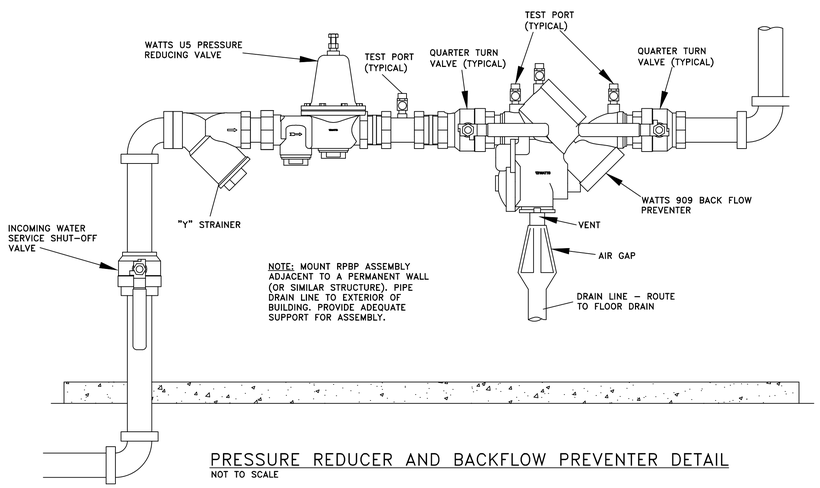
TYPICAL WATER HEATER DETAIL
NO SCALE



TYPICAL FLOOR DRAIN DETAIL
NO SCALE



CLEANOUT TO GRADE
NO SCALE



PRESSURE REDUCER AND BACKFLOW PREVENTER DETAIL
NOT TO SCALE

PLUMBING LEGEND

	CW	COLD WATER SUPPLY PIPING
	HW	HOT WATER SUPPLY PIPING (110°F MAX)
	HWR	HOT WATER RETURN PIPING (110°F MAX)
	S&W	SANITARY SOIL & WASTE PIPING
	V	SANITARY VENT PIPING
		GATE OR BALL VALVE
	FD	FLOOR DRAIN WITH P-TRAP AND WATERLESS TRAP PRIMER
	FCO	FLUSH CLEANOUT
	VTR	VENT THRU ROOF
P1		PLUMBING FIXTURES - SEE PLUMBING FIXTURE SCHEDULE
		PIPE ELBOW AND TEE IN PLANE
		PIPE ELBOW AND TEE TURNED DOWN
		PIPE ELBOW AND TEE TURNED UP

PLUMBING FIXTURE SCHEDULE

NO.	TYPE	SIZE	REMARKS	MAKE	MODEL
P1	WATER CLOSET HANDICAPPED	16-½" H.	EVERCLEAN FLOOR MOUNTED, ELONGATED BOWL, SIPHON JET, WITH ZURN FLUSH VALVE Z6000AV-WS1 EXPOSED FLUSH VALVE, WHITE MOLTEX LID AND SEAT WITH OPEN FRONT. CONNECT 1-1/2" COLD WATER AND 4" SOIL. 1.6 GALLON FLUSH	AMERICAN STANDARD	3461.001
P2	WATER CLOSET	RIM 15-1/4" HEIGHT A.F.F.	EVERCLEAN FLOOR MOUNTED, ELONGATED BOWL, SIPHON JET, WITH ZURN FLUSH VALVE Z6000AV-WS1 EXPOSED FLUSH VALVE, WHITE MOLTEX LID AND SEAT SEAT WITH OPEN FRONT. CONNECT 1-1/2" COLD WATER AND 4" SOIL. 1.6 GALLON FLUSH	AMERICAN STANDARD	3451.001
P3	WALL-HUNG LAVATORY HANDICAPPED	20"X18"	VITREOUS CHINA, WALL-HUNG WITH #7385.043 SINGLE LEVER FAUCET ON 4" CENTERS WITH INTEGRAL GRID DRAIN AND AERATOR FOR 2-1/2 GPM FLOW. CONNECT 1/2" HOT AND COLD WATER, 1-1/4" WASTE. MOUNT 34" ABOVE FINISHED FLOOR. NEATLY INSULATE ALL EXPOSED PIPING WITH FACTORY INSULATION KIT EQUAL TO "LAV-GUARD 2" BY TRUEBRO INC. MODEL #102 E-Z (WHITE). PROVIDE CHAIR CARRIER.	AMERICAN-STANDARD	0355.012
P4	BUILT-IN OVAL LAVATORY HANDICAPPED	20"X17"	VITREOUS CHINA, SELF-RIMMING WITH #7385.043 SINGLE LEVER FAUCET ON 4" CENTERS WITH INTEGRAL GRID DRAIN AND AERATOR FOR 1-1/2 GPM FLOW. CONNECT 1/2" HOT AND COLD WATER, 1-1/4" WASTE. MOUNT 34" ABOVE FINISHED FLOOR. NEATLY INSULATE ALL EXPOSED PIPING WITH FACTORY INSULATION KIT EQUAL TO "LAV-GUARD 2" BY TRUEBRO INC. MODEL #102 E-Z (WHITE).	AMERICAN-STANDARD	0476.028
P5	DOUBLE COMPARTMENT SINK	33"X19-1/2"	18 GAUGE STAINLESS STEEL, BUILT-IN SELF RIMMING WITH TWO #LK-35 STRAINERS AND ONE #LK-4301-F SINGLE LEVER FAUCET WITH RETRACTABLE SPRAY AND AERATOR FOR 4-HOLE INSTALLATION. CONNECT 1/2" HOT AND COLD WATER, 1-1/2" WASTE.	ELKAY	LR-3319
P6	THREE COMPARTMENT SINK	106"X 29-13/16"	THREE-COMPARTMENT SCULLERY SINK, 16 GAUGE STAINLESS STEEL, SQUARE CORNERS, POLISHED SATIN FINISH, SUPPORTED BY FOUR 1-5/8" O.D. STAINLESS STEEL TUBULAR LEGS WITH ADJUSTABLE BULLET SHAPED FEET. TWO #LK-810T08L2 SWING SPOUT FAUCETS, THREE #LK-35 STRAINERS, AND ONE #LK-76 END OUTLET CONTINUOUS WASTE CONNECTION. CONNECT 1/2" HOT AND COLD WATER TO EACH OF TWO FAUCETS AND 1-1/2" WASTE.	ELKAY	14-3C18X24-2-24X
P7	RECTANGULAR MOP SINK	36"X24" 10" DEEP	MOLDED STONE, ONE PIECE; WITH SPEAKMAN #SC-5811-RCP FAUCET WITH TOP BRACE, HOSE, HOSE BRACKET, AND MOP HANGER. CONNECT 1/2" HOT AND COLD WATER, 2" WASTE.	FIAT	MSB-3624
P8	INDIVIDUAL SHOWER FITTING WATER-SAVER HANDICAPPED		SYMMONS #1-117-FS-X HANDICAPPED SHOWER ASSEMBLY WITH #4-295-2 WALL MOUNT SHOWER HEAD FOR 2 GPM FLOW AND FLOW RESTRICTOR IN HAND SPRAY UNIT FOR 2 GPM FLOW. FITTING WITH INTEGRAL STOPS, ADJUSTABLE SPRAY PATTERN, SAFETY-MIX NON-SCALD PRESSURE BALANCING VALVE AND TEMPERATURE LIMITING STOPS SET AT 115°F. CONNECT 1/2" HOT AND COLD WATER. INSTALL WITH 6"X6" DURA-COATED CAST IRON SHOWER DRAIN WITH ADJUSTABLE COLLAR WITH "TYPE S" POLISHED BRONZE SQUARE ZURN Z-415	SYMMONS	1-117-FS-X
P9	ELECTRIC WATER HEATER	80 GAL	FOAM INSULATED WITH 3 YEAR GUARANTEE, FACTORY INSTALLED AUTOMATIC RESETTING RELIEF VALVE WITH WASTE TO DRAIN. DIELECTRIC UNIONS GATE VALVES ON EACH WATER CONNECTION AND DRAIN VALVE. SEE DETAIL FOR INSTALLATION. MAKE 1-1/4" WATER CONNECTIONS. 240 VOLTS, SINGLE PHASE, 100AMP, 24 KW	STATE	CBS 82 24 IFE
P10	WATER COOLER DUAL LEVEL BARRIER FREE		DUAL LEVEL, BARRIER-FREE, WALL HUNG, AIR COOLED, WITH STAINLESS STEEL TOP, HEAVY GAUGE, GALVANIZED STEEL FRAME, NO LEAD DESIGN, CONTINUOUS FLOW BUBBLER, 3 TOUCH PAD, AUTOMATIC STREAM REGULATOR, STRAINER IN COLD WATER SUPPLY, 5 YEAR GUARANTEE AND WALL CARRIER. CONNECT 1/2" COLD WATER AND 1-1/2" WASTE - PROVIDE CHAIR CARRIER.	ELKAY	EZSTL8C
P11	FIRE RATED WASHING MACHINE BOX		HEAVY DUTY STEEL UNIT WITH A WHITE POWDER COATED FINISH FOR 1/2" TOP SUPPLY HOT AND COLD WATER, AND 2" BOTTOM OUTLET DRAIN PIPE.	GUY GRAY	82573
P12	FLOOR DRAIN W/ WATERLESS TRAP		FLOOR DRAIN WITH TYPE "B" STRAINER, DEEP SEAL TRAP, POLISHED NICKEL STRAINER. WITH MAINLINE WATERLESS TRAP SEAL ML69020	ZURN	Z415
P13	SANI-FLOOR RECEPTOR (FLOOR SINK)	12"X12"	CAST IRON, WHITE ACID-RESISTING ENAMEL BODY INTERIOR, NICKEL-BRONZE FRAME, ALUMINUM ANTI-SPLASH INTERIOR DOME STRAINER. CONNECT 2" WASTE.	ZURN	ZN-1902-1
P14	ICE MAKER CONNECTION BOX		ICE MAKER CONNECTION BOX WITH COVER, HIGH IMPACT PLASTIC. BOTTOM SUPPLY. FURNISHED WITH 1/2" FIP INLET ANGLE VALVE.	IPS	87967
P15	GREASE TRAP		STRIEM OIL RESERVE SEPARATOR MODEL OS-500 SHALL BE LIFETIME GUARANTEED AND MADE IN USA OF SEAMLESS, ROTATIONALLY-MOLDED MEDIUM DENSITY POLYETHYLENE. SEPARTATOR SHALL BE FURNISHED FOR ABOVE OR BELOW GRADE INSTALLATION, WITH FIELD ADJUSTABLE RISER SYSTEM, BUILT-IN FLOW CONTROL, AND VENT CONNECTIONS.	STRIEM	OS-500
P16	TRENCH DRAIN		12" WIDE DRAIN WITH 9-1/4" THROAT - MODULAR CHANNELS MADE OF HIGH DENSITY POLYETHYLENE - STANDARD DUCTILE IRON GRATES - 3" NO-HUB BOTTOM OUTLET	ZURN	Z882
P17	WALL HYDRANT		AUTOMATIC DRAINING, FREEZELESS WALL HYDRANT. CONNECT 1/2" COLD WATER. MOUNT 24" ABOVE FINISHED GRADE	WOODFORD	65

HE HOLSTON ENGINEERING, INC.
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PLOT DATE: 01/30/2026 HE PROJECT # 25-010

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

PLUMBING SCHEDULE AND DETAILS

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CARTMEL
Lic. No. 31491
11/30/26
PROFESSIONAL ENGINEER

DATE: 01/30/2026

NO.	REVISION DATE
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SHEET: P301

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PROJECT NO.: TLG-2515

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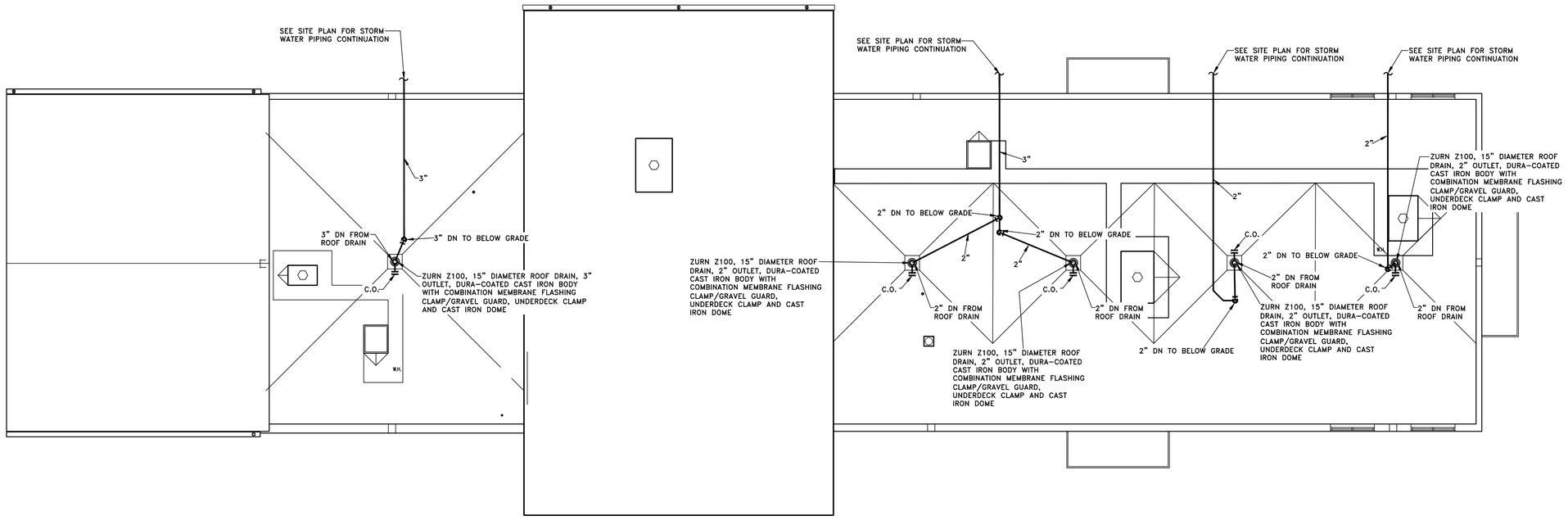

ROOF DRAIN PLAN

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

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NEW EMS FACILITY FOR
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OWENS DRIVE - GLADE SPRING, VA 24340

ROOF DRAIN
FLOOR PLAN

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CASTMEL
LICENSED
PROFESSIONAL ENGINEER
1/30/26

DATE: 01/30/2026

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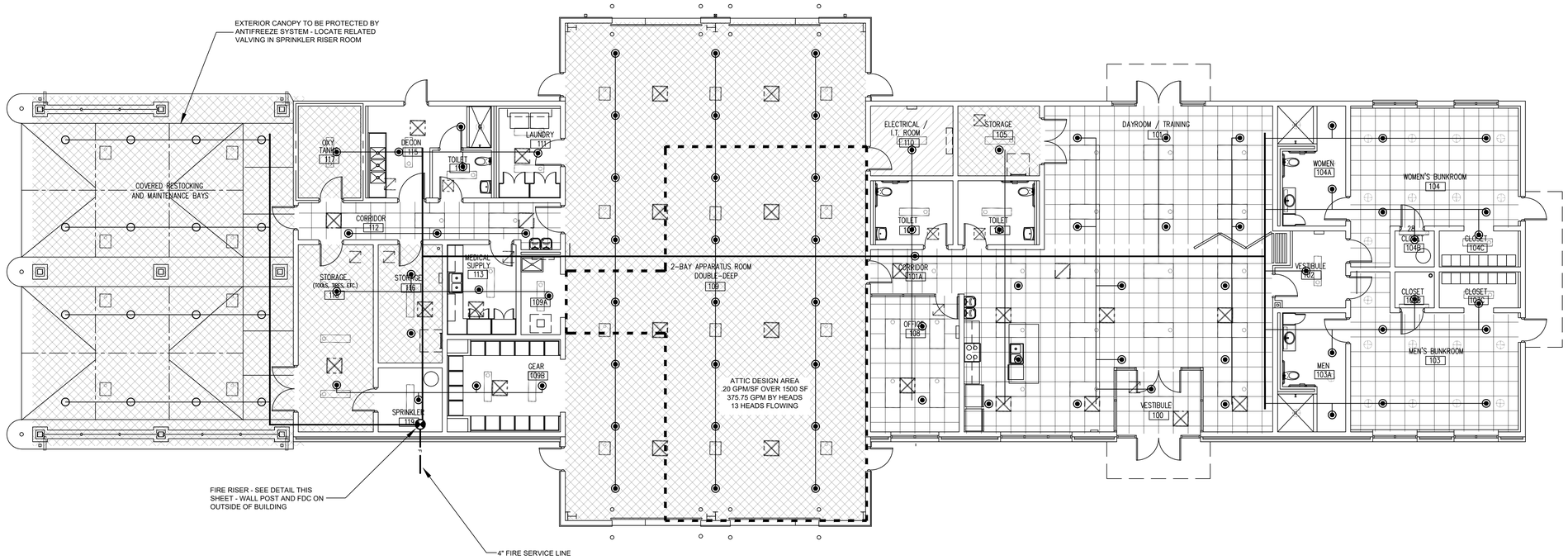
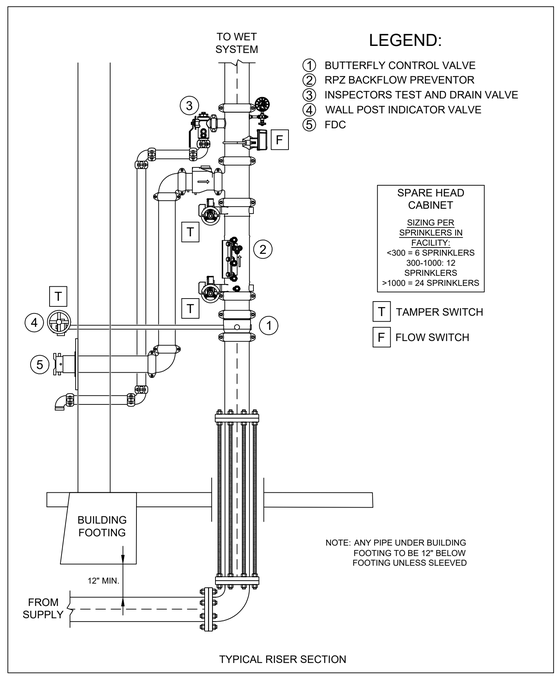
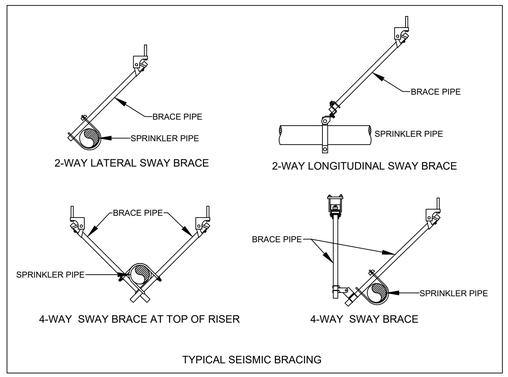


FIRE PROTECTION FLOOR PLAN

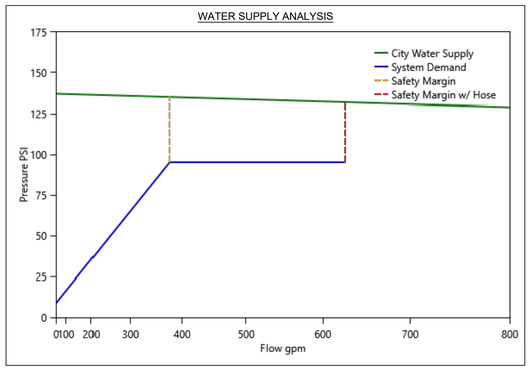
SCALE: 1/8" = 1'-0"



TYPICAL RISER SECTION



TYPICAL SEISMIC BRACING



DESIGN INFORMATION	
OCCUPANCY CLASSIFICATION:	ORDINARY GROUP 2
DENSITY:	0.20 GPM/SF
AREA OF APPLICATION:	1500 SF
COVERAGE PER SPRINKLER:	130 SF
NO. OF SPRINKLER CALCULATED:	13
SYSTEM DEMAND:	375.75 GPM
SYSTEM PRESSURE:	95.22 PSI
SUPPLY PRESSURE:	135.02 PSI
SAFETY MARGIN:	39.8 PSI
HOSE ALLOWANCE:	250 GPM
TOTAL DEMAND:	625.75 GPM
TOTAL REQUIRED PRESSURE:	95.22 PSI
TOTAL SUPPLY PRESSURE:	131.92 PSI
SAFETY MARGIN w/ HOSE:	36.7 PSI

SPRINKLER HEAD KEY				
SYMBOL	TYPE	COVERAGE	RESPONSE	K
◉	PENDANT	STANDARD	QUICK	5.6
○	UPRIGHT	STANDARD	QUICK	5.6

NOTE: (1) ABOVE HEADS USED FOR SPRINKLER DESIGN INTENT AND CALCULATIONS. SPRINKLER CONTRACTOR RESPONSIBLE FOR FINAL LAYOUT AND SELECTION OF SPRINKLER HEADS.

FIRE PROTECTION DESIGN CRITERIA

- .10 GPM/FT² OVER 1500 FT² LIGHT HAZARD WET SYSTEM
- .15 GPM/FT² OVER 1500 FT² ORDINARY HAZARD GROUP 1 WET SYSTEM
- .20 GPM/FT² OVER 1500 FT² ORDINARY HAZARD GROUP 2 WET SYSTEM

FIRE PROTECTION SYMBOLS KEY

EXIST MAIN		PIPE HANGAR	
EXIST BRANCH LINE		SEISMIC SWAY BRACING	
NEW MAIN		HYDRAULIC NODE POINT	XX
NEW BRANCH LINE		REMOTE AREA	
FIRE RISER		AREA OF NO WORK	

HOLSTON ENGINEERING, INC.
301 MONTGOMERY ST., SUITE #4, JOHNSON CITY, TN 37604 (423)926-5991 holston.engineering@holsteng.com

PLOT DATE: 01/30/2026 HE PROJECT # 25-010

the LANE GROUP
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310 Valley Street NW
Abingdon, VA 24210
276.206.8571 - office
Abingdon I Big Stone Gap I Galax
www.thelanegroupinc.com

NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA

HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

FIRE PROTECTION DESIGN INTENT

COMMONWEALTH OF VIRGINIA
Noah A. Lane
Lic. No. 66421
01-30-2026
PROFESSIONAL ENGINEER

DATE: 01-30-2026

NO.	REVISION DATE
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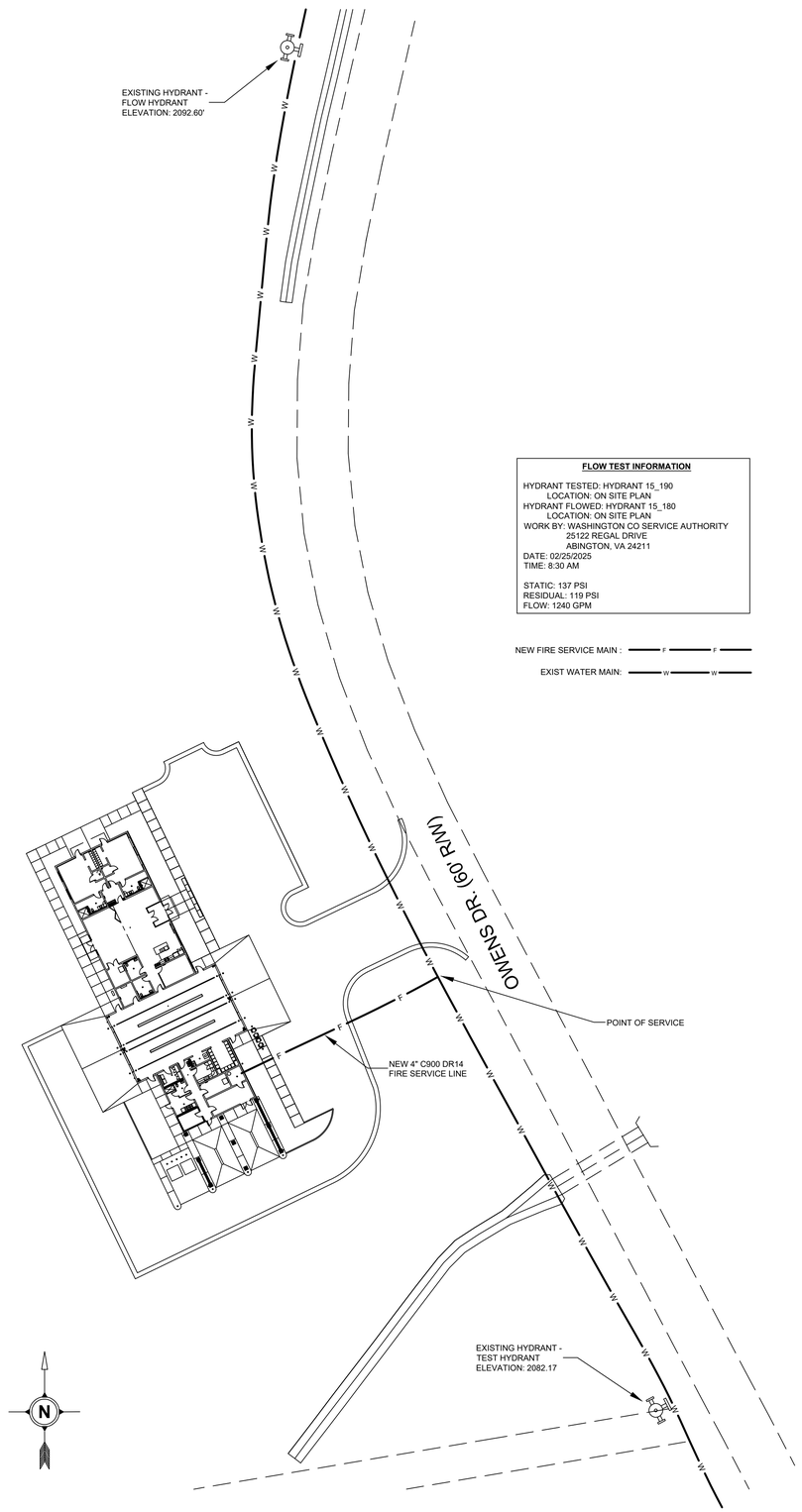
SHEET: FP101

DRAWN BY: NAL | CHECKED BY: NAL

PROJECT NO. TLG-2515

THE LANE GROUP INC.



FLOW TEST INFORMATION

HYDRANT TESTED: HYDRANT 15_190
LOCATION: ON SITE PLAN
HYDRANT FLOWED: HYDRANT 15_180
LOCATION: ON SITE PLAN
WORK BY: WASHINGTON CO SERVICE AUTHORITY
25122 REGAL DRIVE
ABINGTON, VA 24211
DATE: 02/25/2025
TIME: 8:30 AM

STATIC: 137 PSI
RESIDUAL: 119 PSI
FLOW: 1240 GPM

NEW FIRE SERVICE MAIN : —— F —— F ——

EXIST WATER MAIN: —— W —— W ——

FIRE PROTECTION SITE PLAN

SCALE: 1" = 40'-0"

FIRE PROTECTION NOTES

1. A TENNESSEE REGISTERED FIRE PROTECTION SPRINKLER CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE AND WORKING WET AUTOMATIC SPRINKLER SYSTEM FROM THE "POINT OF SERVICE" AND COVERING ALL OF THE EXISTING BUILDING, DESIGNED, INSTALLED AND DOCUMENTED PER NFPA 13. THE SPRINKLER HEAD LAYOUT SHOWN ON THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC. SUBMIT SPRINKLER SHOP DRAWINGS SHOWING ALL PIPING, SPRINKLER HEADS AND CALCULATIONS FOR REVIEW & APPROVAL PRIOR TO INSTALLATION. DETAILED DESIGN DRAWINGS AND SHOP DRAWINGS SHALL BE SUBMITTED BY A TENNESSEE REGISTERED FIRE PROTECTION SPRINKLER CONTRACTOR. DRAWING INFORMATION IS GENERALLY A STIPULATION ON THE PLANS APPROVAL. ALL SHOP DRAWINGS INCLUDING DETAIL DESIGNS AND ALL CUT SHEETS FOR ALL MATERIALS MUST BE SUBMITTED TO ENGINEER OF RECORD AND APPROVED PRIOR TO SUBMITTAL TO AHJ.
2. SYSTEM DESIGN PER NFPA 13
REFER TO DRAWINGS FOR DESIGN CRITERIA FOR THIS PROJECT
3. BUILDING(S) SEISMIC DESIGN CATEGORY
SEISMIC DESIGN CATEGORY C
IF BUILDING IS IN SEISMIC DESIGN CATEGORY A OR B NFPA 13 SEISMIC DESIGN CRITERIA DO NOT APPLY PER ASCE 7 11.7 AND ASCE 7 13.1.4. IF BUILDING IS IN SEISMIC DESIGN CATEGORIES C, D, E, OR F CONTRACTOR TO INSTALL SYSTEM USING ALL NFPA 13 SEISMIC DESIGN CRITERIA. SEISMIC DESIGN CRITERIA TO BE INCLUDED IN SHOP DRAWINGS TO BE APPROVED BY ENGINEER OF RECORD.
4. THE FIRE PROTECTION SYSTEM SHALL CONFORM TO ALL REQUIREMENTS OF NFPA 13, 14 AND 20 AS WELL AS ALL LOCAL, COUNTY AND STATE REQUIREMENTS.
5. THE CONTRACTOR SHALL INSTALL ALL FIRE PROTECTION PIPING IN ACCORDANCE WITH ALL APPLICABLE CODES. ANY MINOR ADJUSTMENTS TO MEET THESE REQUIREMENTS SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY COMPANY FOR THE REQUIREMENTS CONCERNING METERING DEVICES, FIRE ALARM SYSTEM, VALVE PITS, BACKFLOW PREVENTION, ETC. SUBMIT TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO SUBMITTING TO AUTHORITIES HAVING JURISDICTION.
6. THE CONTRACTOR SHALL COMPLETE HYDRAULIC CALCULATIONS TO PROVE MODIFICATIONS TO EXISTING SYSTEM WILL WORK WITH EXISTING FLOW AND PRESSURE. ALLOW A 10% PRESSURE LOSS SAFETY FACTOR ON DEMAND CURVE CALCULATIONS FOR FLUCTUATION OF WATER PRESSURE. THE APPLICABLE HOSE STREAM ALLOWANCE SHALL BE ADDED TO THE SPRINKLER SYSTEM REQUIREMENTS AT THE POINT OF CONNECTION TO THE SYSTEM. SUBMIT CALCULATIONS TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO SUBMISSION TO AUTHORITIES HAVING JURISDICTION. SYSTEM MUST BE DESIGNED TO BE ABLE TO USE AVAILABLE WATER PRESSURE AND FLOW WITH NO PUMPS. IF SYSTEM DESIGN IS NOT POSSIBLE WITH EXISTING CONDITIONS FIRE PROTECTION CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD IMMEDIATELY UPON DISCOVERY.
7. BEFORE AND THROUGHOUT THE ENTIRE PROJECT, THE CONTRACTOR SHALL COORDINATE ALL PHASES OF HIS WORK INCLUDING EXACT LOCATIONS OF ALL PIPING AND SPRINKLER HEADS WITH THE ARCHITECT AND ALL OTHER TRADESMAN.
8. THE CONTRACTOR SHALL FURNISH MORE OR LESS HEADS AS REQUIRED BY NFPA 13. THE CONTRACTOR SHALL COORDINATE CLOSELY WITH OTHER TRADESMEN ON THE LOCATIONS OF SPRINKLER HEADS.
9. THE CONTRACTOR SHALL PROVDE ADDITIONAL SPRINKLER HEADS TO PROTECT UNDER OBSTRUCTIONS OVER 4' IN WIDTH OR RELOCATE HEADS TO MAINTAIN A MINIMUM 3' CLEARANCE BETWEEN SPRINKLER HEADS AND THE TOP OF PILES OF COMBUSTIBLE FIBERS.
10. THE CONTRACTOR SHALL INTSALL SYSTEM TO ALLOW ALL PIPE AND FITTINGS TO BE DRAINED BY METHOD WHERE LEAD-IN TERMINATES AT A POINT LOWER THAN GRADE.
11. THE CONTRACTOR SHALL PROVDE CLEARANCE AROUND ALL PIPING EXTENDING TROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING UNLESS NFPA 13 EXCEPTIONS ARE MET. DIAMETER OF HOLE TO BE 2" LARGER THAN PIPE FOR PIPES SIZED 1"- 3.5" AND 4" LARGER THAN PIPE FOR PIPE 4" AND LARGER.
12. THE CONTRACTOR SHALL INSTALL ALL GAUGES AND VALVES IN A MANNER THAT LEAVES THEM ACCESSIBLE FOR OPERATION, INSPECTION, AND MAINTENANCE.
13. THE CONTRACTOR SHALL COORDINATE THE WIRING OF THE VARIOUS ZONES, TAMPER AND FLOW SWITCHES WITH THE ELECTRICAL CONTRACTOR.
14. THE CONTRACTOR SHALL COORDINATE ANY DISCREPANCIES IN THE REPRESENTATION OF THESE DRAWINGS AND/OR THE SPECIFICATIONS IMMEDIATELY WITH THE ARCHITECT AND ENGINEER OF RECORD.
15. THE CONTRACTOR SHALL INSTALL FIRE DEPARTMENT CONNECTION PER NFPA 13 - SEE TYPICAL RISER DETAIL.
16. NEW FIRE HYDRANTS MUST BE VERIFIED SO THAT ANY PORTION OF THE BUILDINGS EXTERIOR IS WITHIN 600 FEET HOSE LAY OF A HYDRANT MEASURED ALONG VEHICLE ACCESS ROUTE, (NFPA 24) CHECK WITH LOCAL CODE AUTHORITIES AS SOME JURISDICTIONS REQUIRED CLOSER SPACING. COORDINATE WITH ARCHITECT.
17. UNDERGROUND WATER MAINS AND HYDRANTS, IF NEEDED, ARE TO BE PROVIDED. THEY MUST BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO BUILDING OCCUPANCY. (NFPA 24)
18. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION ON A SITE PLAN TO BE APPROVED BY ENGINEER OF RECORD.
    18.1. FROM POINT OF SERVICE TO BUILDING SHOW: ISOLATION VALVE LOCATION AND TYPE, UNDERGROUND PIPING MATERIAL, SIZE AND DEPTH OF BURY, VALVE PIT, TRENCH DETAIL, AND THRUST BLOCK SIZE AND LOCATION.
    18.2. SHOW IF REDUCED PRESSURE BACKFLOW PREVENTER AND METER IS PRESENT DUE TO OTHER AUTHORITIES AND VERIFY THAT IT IS LISTED FOR FIRE PROTECTION SERVICE (NFPA 13 AND NFPA 24).
    18.3. FIRE DEPARTMENT CONNECTION LOCATIONS TO BE ON THE STREET SIDE OF THE BUILDING, UNLESS APPROVED OTHERWISE BY AHJ, FULLY VISIBLE AND RECOGNIZABLE WITHOUT OBSTRUCTING ACCESS TO BUILDING FOR OTHER FIRE APPARATUS. IF EXISTING BUILDING FDC NOT FULLY VISIBLE AN APPROVED SIGN IS TO BE ADDED ON STREET SIDE OF BUILDING. FDC LOCATION TO BE INCLUDED IN SHOP DRAWING TO BE APPROVED BY ENGINEER OF RECORD.
19. ALL PIPE TO BE TESTED AT 200 PSI FOR 2 HOURS.
20. RISER DETAIL SHOWN IS GENERIC AND UNSIZED. SPRINKLER CONTRACTOR RESPONSIBLE FOR CHOOSING CORRECT RISER LAYOUT AND SIZING AS NEEDED FOR HYDRAULIC AND NFPA 13 REQUIREMENTS.
21. NO WET PIPING TO BE LOCATED WITHIN EXTERIOR WALLS. ANY WET PIPING FOR DRY HEADS TO BE LOCATED WITHIN INTERIOR HEATED WALL, EXPOSED PIPING WITHIN INTERIOR, SOFFIT WITHIN HEATED ROOM, OR SUBSTITUTE HEAD FOR DRY FLEX HEAD WITH CONNECTION WITHIN HEATED SPACE.
22. THE CONTRACTOR SHALL CHOOSE PIPE AND FITTINGS THAT MEET NFPA 13 REQUIREMENTS AND ARE LISTED FOR SPRINKLER SERVICE BASED UPON SYSTEM TYPE AND HAZARD CLASSIFICATION. PIPE AND FITTING SELECTION TO BE INCLUDED IN SHOP DRAWINGS TO BE APPROVED BY ENGINEER OF RECORD.
23. SPRINKLER PIPING SHALL BE SUPPORTED AT THE CORRECT HANGAR DISTANCES AND MOUNTING METHODS DEPEDNANT UPON PIPE TYPE, SIZE, AND BUILDING STRUCTURE PER NFPA 13 REQUIREMENTS. PIPE SUPPORT DETAILS AND HANGAR SPACING TO BE INCLUDED IN SHOP DRAWINGS TO BE APPROVED BY ENGINEER OF RECORD.
24. SEPARATE PERMITS ARE REQUIRED FOR UNDERGROUND FIRE SERVICE LINE FROM TAP TO BASE OF RISER AND FOR ABOVEGROUND PORTION OF SYSTEM.

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FIRE PROTECTION
DESIGN INTENT

COMMONWEALTH OF VIRGINIA
NOAH A. LEWIS
Lic. No. 68421
01-30-2026
PROFESSIONAL ENGINEER

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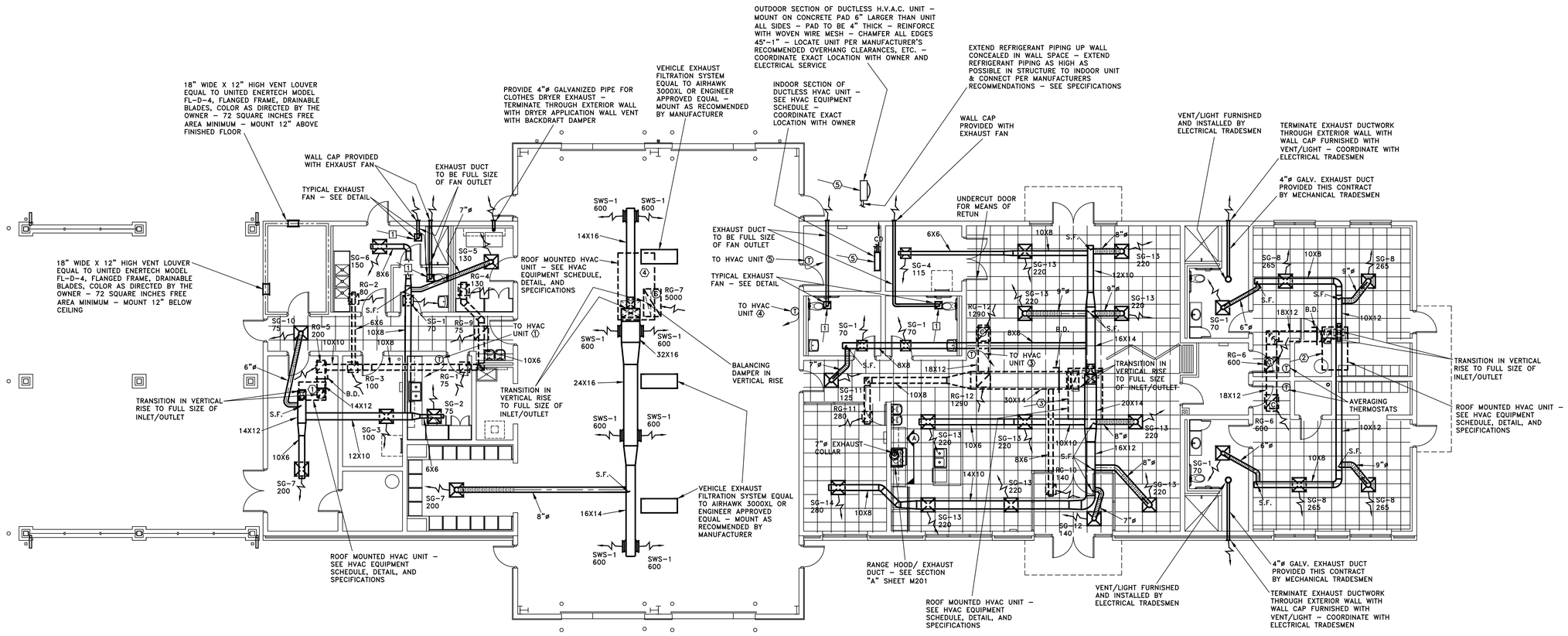
PROJECT NO. TLG-2515

THE LANE GROUP INC.



MECHANICAL FLOOR PLAN

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

NOTE: SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING TYPES AND COORDINATE GRILLE FRAME TYPE

H.V.A.C. EQUIPMENT SCHEDULE

UNIT DESIGNATION	①	②	③	④
TYPE UNIT	PACKAGED ROOF MOUNTED HEAT PUMP	PACKAGED ROOF MOUNTED HEAT PUMP	PACKAGED ROOF MOUNTED HEAT PUMP	PACKAGED ROOF MOUNTED HEAT PUMP
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL #	50NT-B24---31	50FEQA04A2A5	50FEQM08A2A5	50FEQM14A2A5
TOTAL AIR FLOW	800	1200	3000	5000
EXTERNAL STATIC PRESSURE IN H20 AFTER WET COIL	1.0" W.C.	1.25" W.C.	1.5" W.C.	1.5" W.C.
HEATING 47°	24,000	34,000	84,000	133,000
C.O.P.	3.8	3.6	3.4	3.3
HEATING 17°	12,400	18,000	45,000	75,000
C.O.P.	2.2	2.1	2.25	2.05
TOTAL COOLING CAPACITY BTUH	22,200	35,000	86,000	145,000
SENSIBLE COOLING CAPACITY BTUH	16,800	25,900	63,900	105,800
SEER2/EER	13.4 SEER2	13.4 SEER2	11.2 EER	10.6 EER
SYSTEM KW	1.9	3.0	7.7	13.4
AUX. ELEC. HEAT	7.5 KW @ 208V/1ø	12 KW @ 208V/3ø	18.8 KW @ 208V/3ø	37.6 KW @ 208V/3ø
ELEC. CHARACTER	208V/1ø	208V/3ø	208V/3ø	208V/3ø
MCA	64.1 A	64 A	102 A	193 A
MOCP	70 A	70 A	110 A	200 A
OUTSIDE AIR	140 CFM MIN. SET POINT	140 CFM MIN. SET POINT	275 CFM MIN. SET POINT	385 CFM MIN. SET POINT

NOTES:
1. ALL HVAC UNITS TO HAVE HOT GAS REHEAT FOR HUMIDITY CONTROL.
2. PROVIDE BUILDING CONTROL SYSTEM TO PROVIDE CONTROL OF ALL UNITS INCLUDING HUMIDITY CONTROL, CO2 CONTROL, ECONOMIZER CONTROL, AND REHEAT CONTROL. PROVIDE COMPUTER WITH 5 YEARS OF SOFTWARE SUPPORT FOR INTERFACE WITH CONTROL SYSTEM.
3. HVAC UNITS TO BE EQUIPPED WITH ECONOMIZERS AND BAROMETRIC RELIEF CAPABLE OF INTAKE AND RELIEF OF 100% OUTSIDE AIR ON ENTHALPY CONTROL.
4. HVAC UNITS TO BE EQUIPPED WITH HAIL GUARDS.
5. PROVIDE VIBRATION ISOLATION ROOF CURB.

DUCTLESS SPLIT SYSTEM HEAT PUMP EQUIPMENT SCHEDULE

UNIT DESIGNATION	⑤
MANUFACTURER	MITSUBISHI
INDOOR MODEL #	MSZ-JP09WA
CFM	300
VOLTAGE	115V/1ø
M.C.A.	1.4 A
OUTDOOR UNIT MODEL #	MUZ-JP09WA
TOTAL COOLING	9,000
HEATING 47°	10,900
C.O.P.	3.55
HSPF	9.0 BTUH/h/W
HEATING 17°	6,700
C.O.P.	2.71
S.E.E.R.	17.0
VOLTAGE	115V/1ø
M.C.A.	12 A
D.E.F./HACR BREAK	15 A

H.V.A.C. LEGEND

- SUPPLY DUCTWORK WITH 2" EXTERNAL INSULATION
- RETURN DUCTWORK WITH 2" EXTERNAL INSULATION
- FLEXIBLE DUCTWORK EQUAL TO GENFLEX 1L-1
- ROUND DUCTWORK WITH 2" EXTERNAL INSULATION
- Ⓣ ROOM THERMOSTAT – SEE CONTROL SPECIFICATION
- H.V.A.C. UNIT – SEE SCHEDULE AND DETAILS
- AIR DISTRIBUTION OUTLET – SEE SCHEDULE
- EXHAUST FAN – SEE SCHEDULE AND DETAIL
- S.F. SPIN-IN FITTING WITH AIR SCOOP
- B.D. BALANCING DAMPER – SEE DETAIL
- —CD— CONDENSATE DRAIN PIPING
- (DSD) DUCT MOUNTED SMOKE DETECTOR – TIE INTO H.V.A.C. UNIT FAN CIRCUIT FOR EMERGENCY SHUT DOWN CONTROL
- Ⓢ REMOTE RETURN AIR SENSOR
- Ⓒ CO^2 SENSOR

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MECHANICAL FLOOR PLAN

COMMONWEALTH OF VIRGINIA
DERWIN EUGENE CARTMELL
Lic. No. 31491
PROFESSIONAL ENGINEER
1/30/26

DATE: 01-30-2026

NO.	REVISION DATE
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PROJECT NO.: TLG-2515

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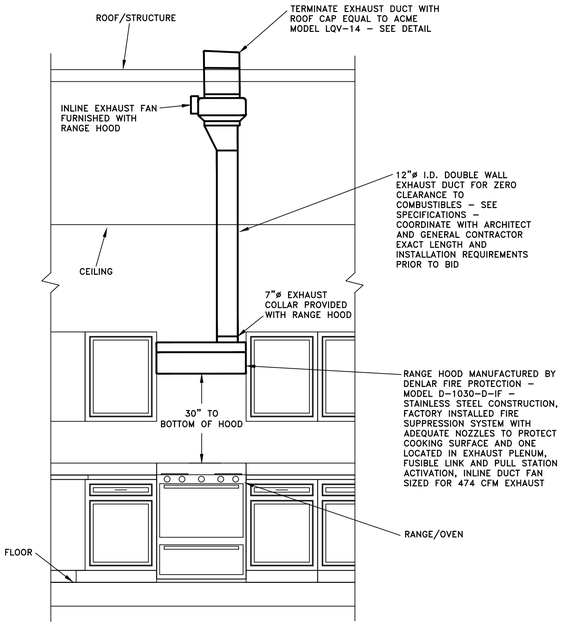

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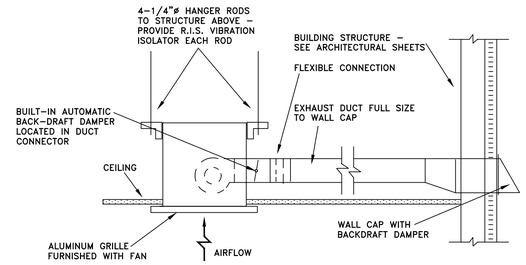
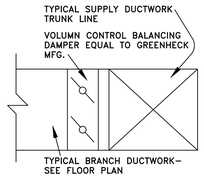


TYPICAL TOILET EXHAUST FAN DETAIL
NO SCALE

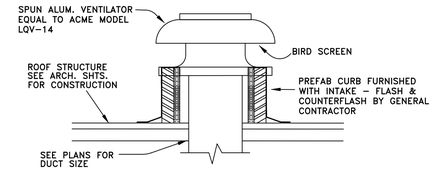
FAN NO.	MFG.	MODEL	CFM	S.P.	WATTS	PH/V.
1	ACME	VQ090ESα	70	1/4"	32	1ø/120

AIR DISTRIBUTION SCHEDULE

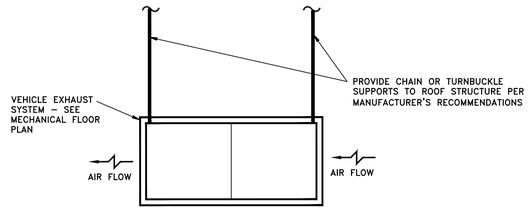
MARK	MANUFACTURER & MODEL NO.	SERVICE	SIZE	C.F.M.	F.P.M.	DESCRIPTION	MATERIAL	FINISH	ACCESSORIES & FEATURES
SG-1	KRUEGER SHPC-04	SUPPLY	6X6	70	280	FOUR WAY THROW DIFFUSER	STEEL	WHITE	FULLY ADJUSTABLE WITH AIR
SG-2			6X6	75	300	WITH FLANGED FRAME			PATTERN CONTROLLERS AND
SG-3			6X6	100	400				OPPOSED BLADE DAMPER
SG-4			6X6	115	460				WITH FLANGED FRAME
SG-5			9X9	130	235				
SG-6			9X9	150	270				
SG-7			9X9	200	355				
SG-8			9X9	265	470				
SG-9	NOT USED								
SG-10	KRUEGER SHPC-04	SUPPLY	6X6	75	400	FOUR WAY THROW DIFFUSER	STEEL	WHITE	FULLY ADJUSTABLE WITH AIR
SG-11			9X9	125	225	T-BAR LAY-IN APPLICATION			PATTERN CONTROLLERS AND
SG-12			9X9	140	250				OPPOSED BLADE DAMPER
SG-13			9X9	220	395				T-BAR LAY-IN APPLICATION
SG-14			12X12	280	280				
SG-15	NOT USED								
SWS-1	KRUEGER 880	SUPPLY	18X12	600	400	SIDEWALL SUPPLY GRILLE	STEEL	COLOR BY ARCHITECT	OPPOSED BLADE DAMPER
SWS-2	NOT USED								DOUBLE DEFLECTION
									BLADES SET TO 22.5° FOR MAXIMUM THROW
RG-1	KRUEGER S580	RETURN	6X6	75	300	RETURN GRILLE WITH	ALUMINUM	WHITE	HORIZONTAL BLADES ANGLED
RG-2			6X6	80	320	FLANGED FRAME			TO PREVENT SEE THROUGH
RG-3			6X6	100	400				AND OPPOSED BLADE DAMPER
RG-4			10X6	130	310				WITH FLANGED FRAME
RG-5			12X6	200	400				
RG-6			16X16	600	340				
RG-7			48X30	5000	500				
RG-8	NOT USED								
RG-9	KRUEGER S580	RETURN	6X6	75	300	RETURN GRILLE – T-BAR	ALUMINUM	WHITE	HORIZONTAL BLADES ANGLED
RG-10			10X6	140	335	LAY-IN APPLICATION			TO PREVENT SEE THROUGH
RG-11			12X8	280	420				AND OPPOSED BLADE DAMPER
RG-12			24X24	1290	325				T-BAR LAY-IN APPLICATION
RG-13	NOT USED								



BALANCING DAMPER
NO SCALE



EXHAUST PENTHOUSE DETAIL FOR RANGE HOOD
NO SCALE



VEHICLE EXHAUST SYSTEM
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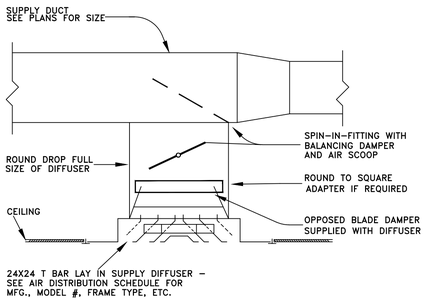

CEILING SUPPLY DIFFUSER CONNECTION DETAIL
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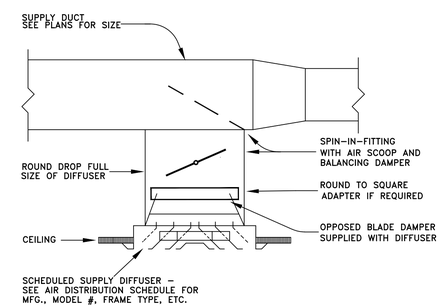

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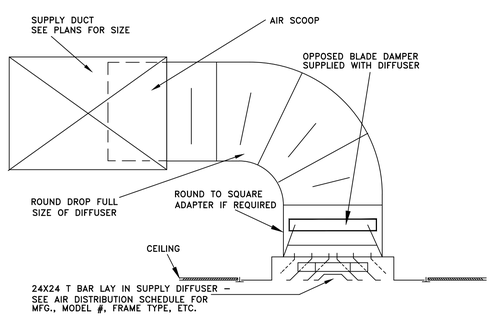

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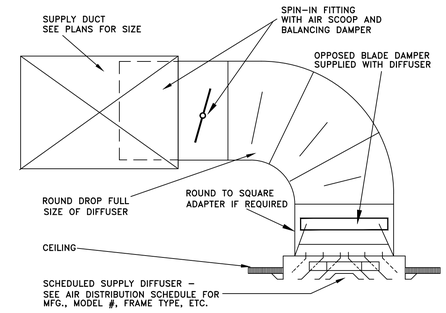

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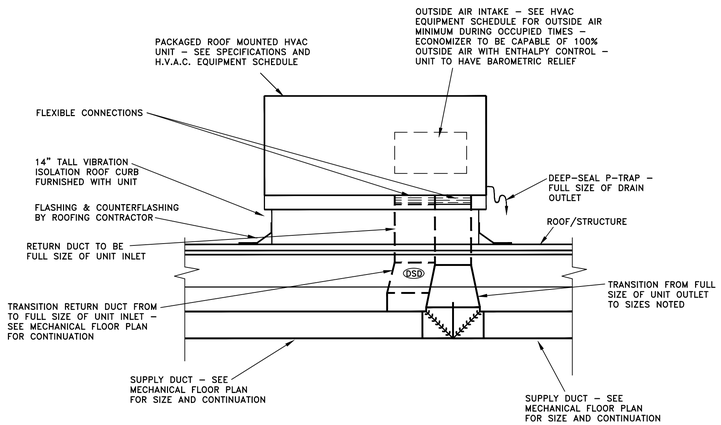
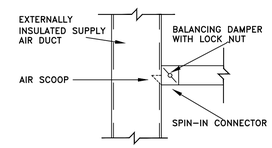


TYPICAL H.V.A.C. UNIT DETAIL
NO SCALE



TYPICAL SPIN-IN-FITTING
NO SCALE

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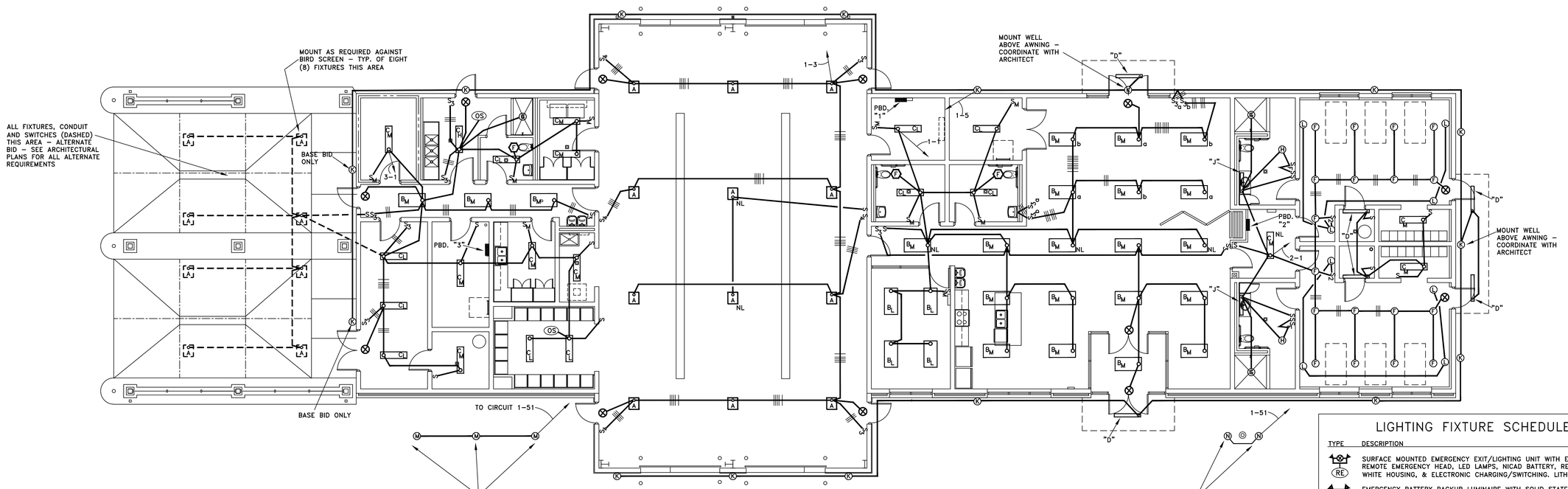
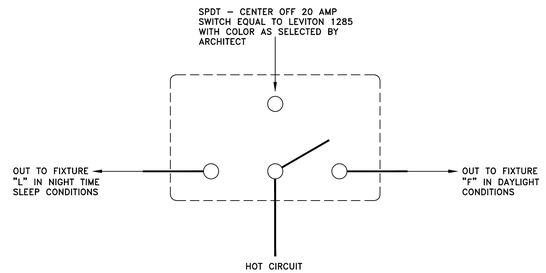


LIGHTING FLOOR PLAN

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

NOTE: ALL DEVICES SHOWN SHALL BE RECESSED MOUNTED IN ARCHITECTURAL CONSTRUCTION UNLESS OTHERWISE NOTED.



NIGHT TIME LIGHTING CIRCUIT IN SLEEPING AREAS

NO SCALE:

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION
RE	SURFACE MOUNTED EMERGENCY EXIT/LIGHTING UNIT WITH EXTERIOR REMOTE EMERGENCY HEAD, LED LAMPS, NICAD BATTERY, RED FACE, WHITE HOUSING, & ELECTRONIC CHARGING/SWITCHING. LITHONIA–ECRG
	EMERGENCY BATTERY BACKUP LUMINAIRE WITH SOLID STATE CHARGING & SWITCHING AND ALL CATALOGUED FEATURES LITHONIA–ERE
A	LED HIGH BAY WITH 15,000 LUMENS, 4000K COLOR TEMP, & DAMP LOCATION RATING – CABLE SUSPENSION AT 16' A.F.F. UNLESS OTHERWISE NOTED [103 WATTS] LITHONIA–CPHB–AL013–MVOLT–SWW9–DWH
$B_{H/M/L}$	2'X4' RECESSED GRID LED FLAT PANEL WITH ADJUSTABLE LUMEN PACKAGE, 4000K COLOR TEMP, & 120 VOLTS LITHONIA–CPX–2X4–AL08–SWW7–M2 –SUBSCRIPT "H" DENOTES HIGH LUMEN SETTING [6563LM/49 WATTS] –SUBSCRIPT "M" DENOTES MED LUMEN SETTING [5009LM/35.6 WATTS] –SUBSCRIPT "L" DENOTES LOW LUMEN SETTING [4033LM/28.1 WATTS]
$C_{H/M/L}$	4' SURFACE–MOUNTED LED WRAPAROUND WITH ADJUSTABLE LUMEN PACKAGE, 4000K COLOR TEMP, & 120 VOLTS LITHONIA–TRUN–48–AL06–FMP–8SWW2–ZT–MVOLT –SUBSCRIPT "H" DENOTES HIGH LUMEN SETTING [6000LM/53 WATTS] –SUBSCRIPT "M" DENOTES MED LUMEN SETTING [5000LM/41.5 WATTS] –SUBSCRIPT "L" DENOTES LOW LUMEN SETTING [4000LM/35 WATTS]
D	LED STRIP LIGHT WITH 4,000 LUMENS, 4000K COLOR TEMP, 80 CRI, & 120V [35 WATTS] LITHONIA–CSS–L48–4000LM–MVOLT–40K–80CRI
E	LETTER NOT USED
F	6" ROUND LED DOWNLIGHT WITH 2,500 LUMENS, 4000K COLOR TEMP, CLEAR MATTE DIFFUSE RELECTOR, & 120 VOLTS [28.2 WATTS] LITHONIA–LDN6–40/25–L06–AR–MVOLT
G	6" ROUND LED DOWNLIGHT WITH 1,000 LUMENS, 4000K COLOR TEMP, CLEAR MATTE DIFFUSE RELECTOR, 120 VOLTS, & WET LABEL RATING [10.5 WATTS] LITHONIA–LDN6–40/10–L06–AR–MVOLT
H	EXHAUST FAN VENT/LIGHT AS SELECTED BY OWNER [60 WATTS MAX]
I	THIS LETTER NOT USED
J	VANITY LED AS SELECTED BY OWNER [60 WATTS MAX]
K	SURFACE MOUNTED LED WEDGE WALL PACK, 120 VOLT INPUT, WET LABEL (IP65), 8500 LUMENS, TYPE 3 DISTRIBUTION, COLOR AS SELECTED BY ARCHITECT. [59 WATTS] LITHONIA #WDGE3–P2–50K–80CRI–R3–MVOLT–COLOR
L	WALL MOUNTED LED LUMINAIRE WITH COLOR AS SELECTED BY ARCHITECT, POWDER COATED 18 GAUGE, CRS HOUSING, INTERNAL LOUVER, 120 VOLT, HIGH LUMEN OUTPUT, [1.1 WATT] KENALL #MSL;R–H–L–O–XX–U–WHL–120–3
M	GROUND MOUNTED LED FLOOD WITH 2500 LUMENS, WET LABEL, DARK BRONZE FINISH, KNUCKLE MOUNTING AND ALL GASKETING. LITHONIA QTE–LED–P1–40K–120–THK–DDB
N	FLAG POLE MOUNTED LED FLOOD LIGHT WITH 120 VOLT POWER SUPPLY, WET LABEL, COLOR AS SELECTED BY ARCHITECT, 4100 DEG K COLOR TEMP, FULL GLARE SHIELD, AND MEDIUM FLOOD DISTRIBUTION. HYDRELL TPS3–15C0B–WHT41K–MVOLT–MFL–FGS–COLOR

NOTE: SUBSCRIPT "NL" DENOTES A NIGHT LIGHT FIXTURE INTENDED TO BURN 24/7

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PLOT DATE: 01/30/2026 HE PROJECT # 25-010

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

LIGHTING FLOOR PLAN

COMMONWEALTH OF VIRGINIA
JOE W. RIGGS
Lic. No. 22741
1-30-26
PROFESSIONAL ENGINEER

DATE:	01-30-2026
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PWM	PWM

PROJECT NO. TLG-2515

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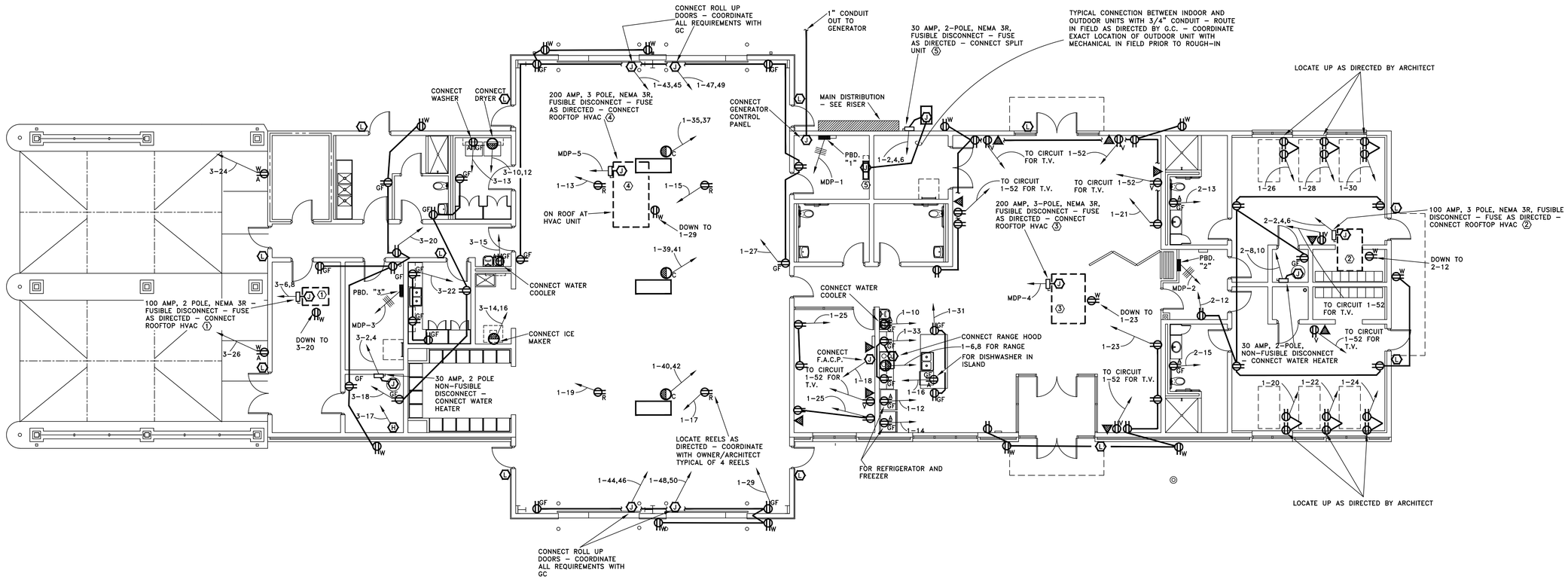

POWER AND COMM. FLOOR PLAN

SCALE: 1/8" = 1'–0"

NOTE: ALL DEVICES SHOWN SHALL BE RECESSED MOUNTED IN ARCHITECTURAL CONSTRUCTION UNLESS OTHERWISE NOTED.

ELECTRIC LEGEND

- LIGHTING OUTLET LED. INSERT IS TYPE.
- EXIT LIGHTS, WITH ARROW AND REMOTE EMERGENCY HEAD WHERE NOTED. SEE LIGHTING FIXTURE SCHEDULE.
- DUPLEX 20 AMPERE WEATHERPROOF GROUND–FAULT CONVENIENCE OUTLET. BRYANT #GFR53FT WITH #GFRWPV WEATHERPROOF COVER.
- DUPLEX 15 AMPERE CONVENIENCE OUTLET WITH GROUND. BRYANT #5262–I. SUBSCRIPT "A" INDICATES 20 AMPERE SIZE.
- DUPLEX 15 AMPERE GROUND–FAULT CONVENIENCE OUTLET. BRYANT #GFR52FT–I.
- SINGLE 20 AMP 120V RECEPTACLE CEILING MOUNTED, LOCKING BRYANT# 70520FR LOCATE IN CEILING – PROVIDE AND INSTALL CORD REEL ADJACENT TO RECEPTACLE WITH MATCHING LOCKING PLUG EQUAL TO REELCRAFT #L3030–123X – INSTALL OWNER–PROVIDED VEHICLE RECEPTACLE AS REQUIRED – COORDINATE
- DUPLEX 15 AMPERE CONVENIENCE OUTLET WITH GROUND. BRYANT #5262–I. SUBSCRIPT "V" INDICATES FOR T.V'S, MOUNT UP AS DIRECTED BY ARCHITECT.
- SINGLE PHASE, 250 VOLT, 30 AMP, 3 WIRE SINGLE OUTLET WITH GROUND EQUAL TO BRYANT #9630FR WITH #9630–ANPNP PLUG
- JUNCTION BOX OUTLET. CONNECT POWER. VERIFY LOCATION AND SERVICE PRIOR TO ROUGH–IN.
- FAN OUTLET. CONNECT POWER. VERIFY LOCATION AND SERVICE PRIOR TO ROUGH–IN.
- ELECTRIC WALL HEATER EQUAL TOO MARKEL E3313TS–RP WITH BUILT IN DISCONNECT SWITCH, PROVIDE BACKBOX FOR WALL MOUNTING, 1500 WATTS, 120 VOLT.
- ELECTRIC DOOR POWER AND DATA CONNECTIONS – PROVIDE & INSTALL 3/4" CONDUIT & #12 CONDUCTORS TO CIRCUIT 1–9 AND CONNECT – COORDINATE WITH GC & ARCHITECT FOR ALL REQUIREMENTS.
- WALL MOUNTED DATA OUTLET WITH STAINLESS STEEL PLATE WITH OPENING AS REQUIRED BY OWNER/VENDOR. EXTEND 3/4" CONDUIT TO ABOVE CEILING SEE NOTES ON PLAN FOR OTHER WORK REQUIRED
- FUSIBLE SAFETY DISCONNECT SWITCH.
- BRANCH CIRCUIT PANELBOARD.

- S — SINGLE POLE, QUIET ACTION, 20 AMPERE TOGGLE SWITCH – BRYANT #4901–I.
- S_3 S_4 — 3 AND 4 WAY QUIET ACTION 20 AMPERE TOGGLE SWITCHES. BRYANT #4903–I AND #4904–I.
- S_M — WALL–MOUNTED MOTION DETECTOR SWITCH WITH TIME DELAY OFF SETTING AND MANUAL ON/OFF SWITCH. SENSOR SWITCH WSX PDT
- OS — OCCUPANCY SENSOR
- CONDUIT CONCEALED. GROUND NOT SHOWN BUT REQUIRED.
- CONDUIT AND 3 WIRES. NO MARKS INDICATE 2 WIRES. GROUND NOT SHOWN BUT REQUIRED.
- 1–1,3 — CONDUIT AND WIRE HOME RUN. NUMBERS INDICATE PANELBOARD AND CIRCUIT NUMBERS. GROUND NOT SHOWN BUT REQUIRED.

1. INSTALL SWITCHES 48"± ABOVE FINISHED FLOOR AND RECEPTACLES AND PHONE/LAN OUTLETS 18"± ABOVE FINISHED FLOOR AND 8"± ABOVE COUNTERS UNLESS NOTED OTHERWISE. ALL DEVICES FLUSH MOUNTED UNLESS OTHERWISE REQUIRED.
2. ALL SWITCH AND DEVICE PLATES SATIN FINISH STAINLESS STEEL.
3. EQUAL SPEC GRADE DEVICES OF BRYANT, HUBBELL, P & S, LEVITON, AND GENERAL ELECTRIC MAKE ACCEPTABLE. NONE OTHER ACCEPTABLE, EXCEPT WITH WRITTERN PERMISSION.

NOTE: ALL CONDUIT SHALL BE CONCEALED IN WALLS (MASONRY OR STUD) IN ALL SPACES.

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POWER & COMM FLOOR PLAN

COMMONWEALTH OF VIRGINIA
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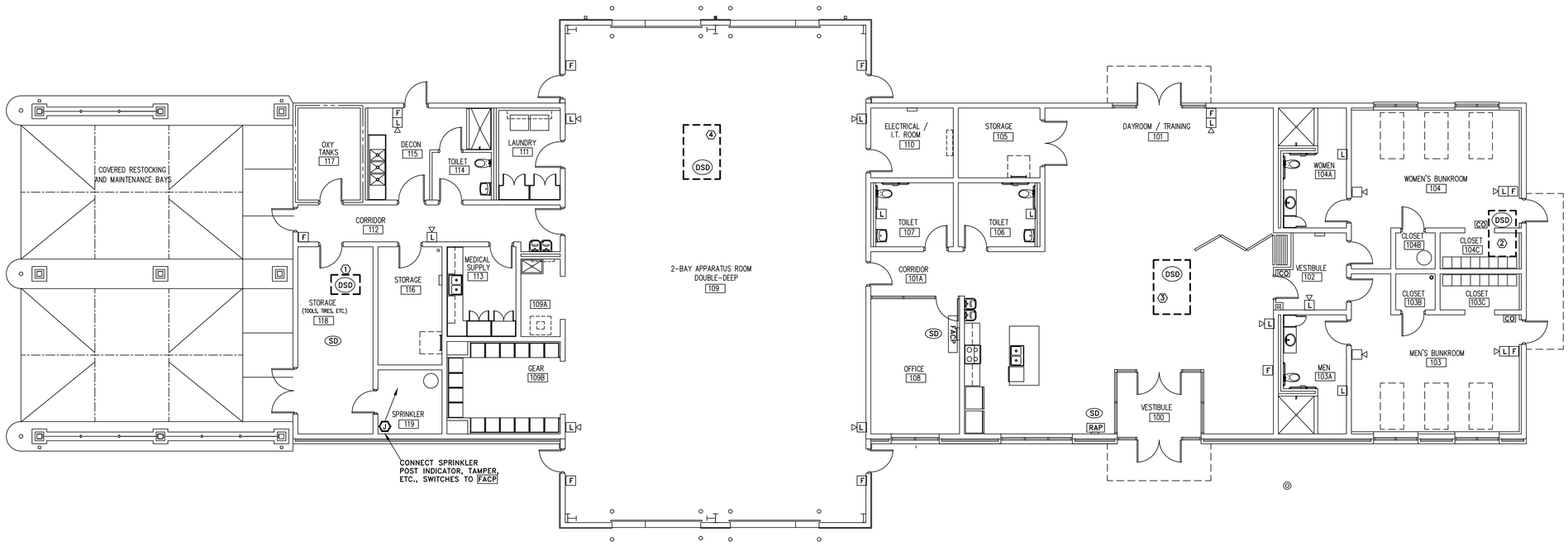

FIRE ALARM FLOOR PLAN

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

NOTE: ALL DEVICES SHOWN SHALL BE RECESSED MOUNTED IN ARCHITECTURAL CONSTRUCTION UNLESS OTHERWISE NOTED.

FIRE ALARM LEGEND

SD	SMOKE DETECTOR
DSD	DUCT MOUNTED HEAT DETECTOR
F	FIRE ALARM SYSTEM PULL STATION
L	FIRE ALARM SYSTEM VISUAL INDICATOR
L	FIRE ALARM SYSTEM AUDIBLE/VISUAL INDICATOR
	SLEEPING AREA 520 HZ. LOW FREQ. ALARM
RAP	REMOTE ANNUNICATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
CO	CARBON MONOXIDE DETECTOR/ALARM EQUAL TO DEFENDER CA6150 – UNIT SHALL BE UL TESTED AND BE NFPA 720 AND ASHRAE COMPLIANT

FIRE ALARM SYSTEM: Furnish and install a complete voice evac fire alarm system consisting of the manual fire alarm stations, horn light signal units, automatic detectors, and the central control annunciator unit. The facilities shall be approved by Underwriter's Laboratories, Inc. and meet the requirements of the State and Local Codes and installed per NFPA 72. Acceptable manufacturer's are Simplex, Notifier, and Silent Knight. All systems shall meet A.D.A. requirements. Smoke detectors where used to operate in connection with the central fire alarm system shall be photoelectric type. Provide duct mounted smoke detectors with duct sensing tubes and detector chamber in the inlet and outlet of each HVAC unit. The master control unit shall have built-in 24-volt batteries and battery charger, communications dialer system and necessary electronics for a complete and functional system. The signal zones and trouble zones shall be annunciated independently on the central control unit annunciator. The equipment shall have necessary auxiliary contacts and remote devices that can be used for fan shutdown, external fire alarm station connection and other essential needs. Furnish system with communications unit and connect to owner leased phone line. Include coupler cords for connection to the telephone company's phone jack. The system shown on the drawings is not necessarily shown to completion. All systems and accessories shall be in strict conformance with all applicable codes and regulations. Color code all conductors and use No. 14 AWG copper conductors. Conform to the equipment manufacturer's recommendations. Color code conduit containing fire alarm conductors with a red band to identify the conduit run for future recognition. Include with bid a years onsite warranty and pricing for extended warranty and include the most recent published price list for all devices for the system.

All required documentation regarding the design of fire detection, alarm, and communications systems and the procedures for maintenance, inspection, and testing of fire detection, alarm, and communications systems shall be maintained at an approved, secured location for the life of the system per IFC 901.6.2.

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FIRE ALARM FLOOR PLAN

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PROJECT NO. TLG-2515

THE LANE GROUP INC.

MAIN DISTRIBUTION BOARD					COPPER			PHASE LOADING–KW		
DESC.	FEEDING	AMPS	POLES	FRAME	WIRE	GND	COND.	A	B	C
0	MAIN BREAKER	800	3		SEE RISER					
1	PBD "1"	200	3		3#3/0	6	2	18.4	15.6	16.0
2	PBD "2"	200	3		3#3/0	6	2	12.7	11.6	9.7
3	PBD "3"	200	3		3#3/0	6	2	14.8	8.1	12.3
4	RTU ④	110	3		3#2	6	1–1/4	19.3	19.3	19.3
5	RTU ④	200	3		3#3/0	6	2	23.2	23.2	23.2
6	SPARE	200	3		–	–	–	–	–	–
7	SPARE	100	3		–	–	–	–	–	–
8	SPACE	–	–		–	–	–	–	–	–
9	SPACE	–	–		–	–	–	–	–	–
10										
							TOTALS	86.9	76.3	79.0

FURNISH AND INSTALL A DISTRIBUTION SWITCHBOARD EQUAL TO SQUARE D I–LINE WITH 800 AMP RATING WITH MAIN DISCONNECTING MEANS. BOARD SHALL BE FOR 3ø 4W 208/120 VOLTS. THE PANEL SHALL BE UL LISTED AND MEET ALL APPLICABLE NEMA STANDARDS AND FEDERAL SPECIFICATIONS.

BUSS BARS SHALL BE PLATED AND OF SUFFICIENT CROSS SECTIONAL AREA TO CONTINUOUSLY CARRY RATED FULL LOAD CURRENT AT A MAXIMUM TEMPERATURE RISE OF 65°C ABOVE AMBIENT OF 40°C. BUSS BARS SHALL BE BRACED FOR A MINIMUM OF 100,000 RMS SYMMETRICAL AMPERES AT 208 VOLTS.

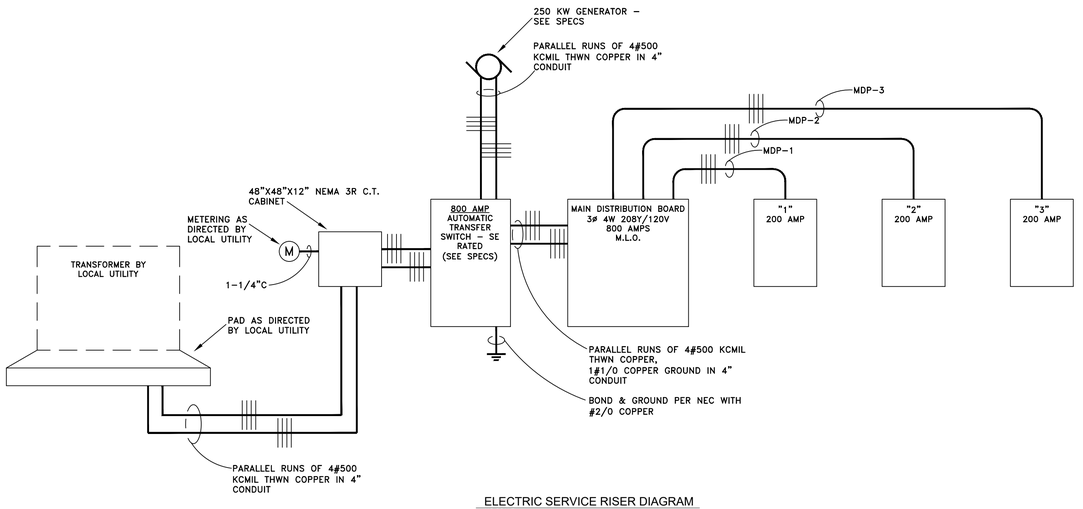
CIRCUIT BREAKERS SHALL BE MOLDED CASE TYPE OF THE FRAME SIZE AS SCHEDULED AND BE TRIP FREE. CIRCUIT BREAKERS SHALL HAVE AN INTERRUPTING RATE OF NOT LESS THAN _____ AMPERES AT RATED VOLTAGE.

MAIN BREAKER SHALL BE 800 AMP CIRCUIT BREAKER.

DESIGN DATA

SERVICE CHARACTERISTICS 3ø 4W 208Y/120 VOLTS
CONNECTED LOADS:

LIGHTS	7.4 KW
HVAC	160.9 KW
WATER HEATER	9.0 KW
MISC. POWER	58.4 KW
TOTAL ESTIMATED CONNECTED LOAD	235.7 KW
ESTIMATED DEMAND	150.0 KW
ESTIMATED FUTURE LOAD	UNKNOWN
SERVICE CAPACITY	800 AMPS



ELECTRIC SERVICE RISER DIAGRAM
NO SCALE

BRANCH CIRCUIT PANELBOARDS

PANELBOARD NO. 1

FEEDING	WIRE	CIRCUIT AMPS	CIRCUIT NO.	PBD.	CIRCUIT NO.	CIRCUIT AMPS	WIRE	FEEDING	PHASE LOADING–KW A	B	C
LIGHTS DAYROOM	12	20	1		2	15	12	HVAC ⑤	2.5		
LIGHTS GARAGE			3		4					2.6	
LIGHTS WALLPACKS			5		6	50	8	RANGE			5.0
LIGHTS SITE			7		8				5.0		
ELECTRIC DOORS			9		10	20	12	WATER COOLER		2.2	
RECEPTICAL			11		12			REFRIGERATOR			1.2
CORD REEL			13		14			FREEZER	2.0		
			15		16			DISHWASHER		2.2	
			17		18			F.A.C.P.			1.5
			19		20			RECEPTACLES	1.8		
RECEPTACLES			21		22					2.6	
			23		24						1.6
			25		26				1.4		
			27		28					2.0	
			29		30						1.2
			31		32			BATTERY CHARGER	0.4		
			33		34			CONTROL PANEL		0.4	
EXHAUST VENT	10	30	35		36	20	12	BLOCK HEATER			1.3
			37		38				1.3		
EXHAUST VENT	10	30	39		40	30	10	EXHAUST VENT		2.6	
			41		42						2.6
ROLL UP DOOR	12	20	43		44	20	12	ROLL UP DOOR	2.0		
			45		46					2.0	
ROLL UP DOOR	12	20	47		48	20	12	ROLL UP DOOR			2.0
			49		50				2.0		
FLAG/SIGN LIGHTS	12	20	51		52	20	–	T.V.'S		0.5	
SPARE	–		53		54		–	SPARE			–
	–		55		56		–		–		
	–		57		58		–			–	
	–		59		60		–				–
				CCC				PANELBOARD LOADING	18.4	17.1	16.4

LOCATION	SEE PLANS	MAINS	225 AMP WITH 200 AMP MAIN BREAKER
MOUNTING	SURFACE	TYPE	NQ
SERVICE	3ø 4W 208Y/120 VOLTS	TOTAL LOAD	51.9 KW

NOTES:
1. COORDINATE WITH GC FOR ALL ROLL UP DOOR REQUIREMENTS
2. PROVIDE & INSTALL ELECTRONIC 7 DAY ASTRONOMICAL TIME CLOCK WITH PHOTOCELL INPUT & BATTERY BACK UP FOR CONTROL OF CIRCUITS 1–5, 1–51. PROVIDE & INSTALL PHOTOCELL.
3. PROVIDE AND INSTALL RED BREAKER LOCK FOR FACP – CIRCUIT 1–18

PANELBOARD NO. 2

FEEDING	WIRE	CIRCUIT AMPS	CIRCUIT NO.	PBD.	CIRCUIT NO.	CIRCUIT AMPS	WIRE	FEEDING	PHASE LOADING–KW A	B	C
LIGHTS	12	20	1		2				9.4		
SPARE			3		4	70	3#4	RTU ②		8.3	
			5		6						8.3
			7		8	30	10	WATER HEATER	2.3		
			9		10					2.3	
			11		12	20	12	RECEPTACLE			1.4
RECEPTACLE			13		14	–	–	SPACE	1.0		
RECEPTACLE			15		16	–	–			1.0	
SPACE	–	–	17		18	–	–				–
	–	–	19		20	–	–		–		
	–	–	21		22	–	–			–	
	–	–	23		24	–	–				–
	–	–	25		26	–	–		–		
	–	–	27		28	–	–			–	
	–	–	29		30	–	–				–
	–	–	31		32	–	–		–		
	–	–	33		34	–	–			–	
	–	–	35		36	–	–				–
	–	–	37		38	–	–		–		
	–	–	39		40	–	–			–	
	–	–	41		42	–	–				–
				CCC				PANELBOARD LOADING	12.7	11.6	9.7

LOCATION	SEE PLANS	MAINS	225 AMPS WITH 200A MAIN BREAKER
MOUNTING	RECESSED	TYPE	NQ
SERVICE	3ø 4W 208Y/120 VOLTS	TOTAL LOAD	34.0 KW

PANELBOARD NO. 3

FEEDING	WIRE	CIRCUIT AMPS	CIRCUIT NO.	PBD.	CIRCUIT NO.	CIRCUIT AMPS	WIRE	FEEDING	PHASE LOADING–KW A	B	C
LIGHTS	12	20	1		2	30	10	WATER HEATER	3.8		
SPARE	–		3		4					2.3	
	–		5		6	70	4	RTU ①			6.5
	–		7		8				6.5		
	–		9		10	30	10	DRYER		2.5	
	–		11		12						2.5
WASHER	12		13		14	20	12	ICE MAKER	2.7		
WATER COOLER			15		16					2.7	
HEATER			17		18	20	12	RECEPTACLES			2.3
SPACE	–	–	19		20				0.8		
	–	–	21		22					0.6	
	–	–	23		24						1.0
	–	–	25		26				1.0		
	–	–	27		28	–	–	SPACE		–	
	–	–	29		30	–	–				–
	–	–	31		32	–	–		–		
	–	–	33		34	–	–			–	
	–	–	35		36	–	–				–
	–	–	37		38	–	–		–		
	–	–	39		40	–	–			–	
	–	–	41		42	–	–				–
				CCC				PANELBOARD LOADING	14.8	8.1	12.3

LOCATION	SEE PLANS	MAINS	225 AMPS WITH 200A MAIN BREAKER
MOUNTING	SURFACE	TYPE	NQ
SERVICE	3ø 4W 208Y/120 VOLTS	TOTAL LOAD	35.2 KW

NOTES:
1. PROVIDE & INSTALL ELECTRONIC TIMECLOCK FOR CONTROL OF ALL EXTERIOR LIGHTING CIRCUIT(S)
2. PROVIDE & INSTALL ARC FAULT BREAKERS IN ALL 15 AND 20 AMP CIRCUITS IN ALL AREAS OF RESIDENTIAL CONSTRUCTION EXCLUDING BATHROOMS, GARAGES, AND OUTSIDE AREAS. COMBINATION ARC FAULT/GROUND FAULT CIRCUIT BREAKERS MAY BE USED WHERE REQUIRED TO HAVE BOTH SAFETY FEATURES IN LIEU OF AN ARC FAULT BREAKER PROTECTING A GFCI RECEPTACLE

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SCHEDULES AND DETAILS

COMMONWEALTH OF VIRGINIA
JOE W. RIGGS
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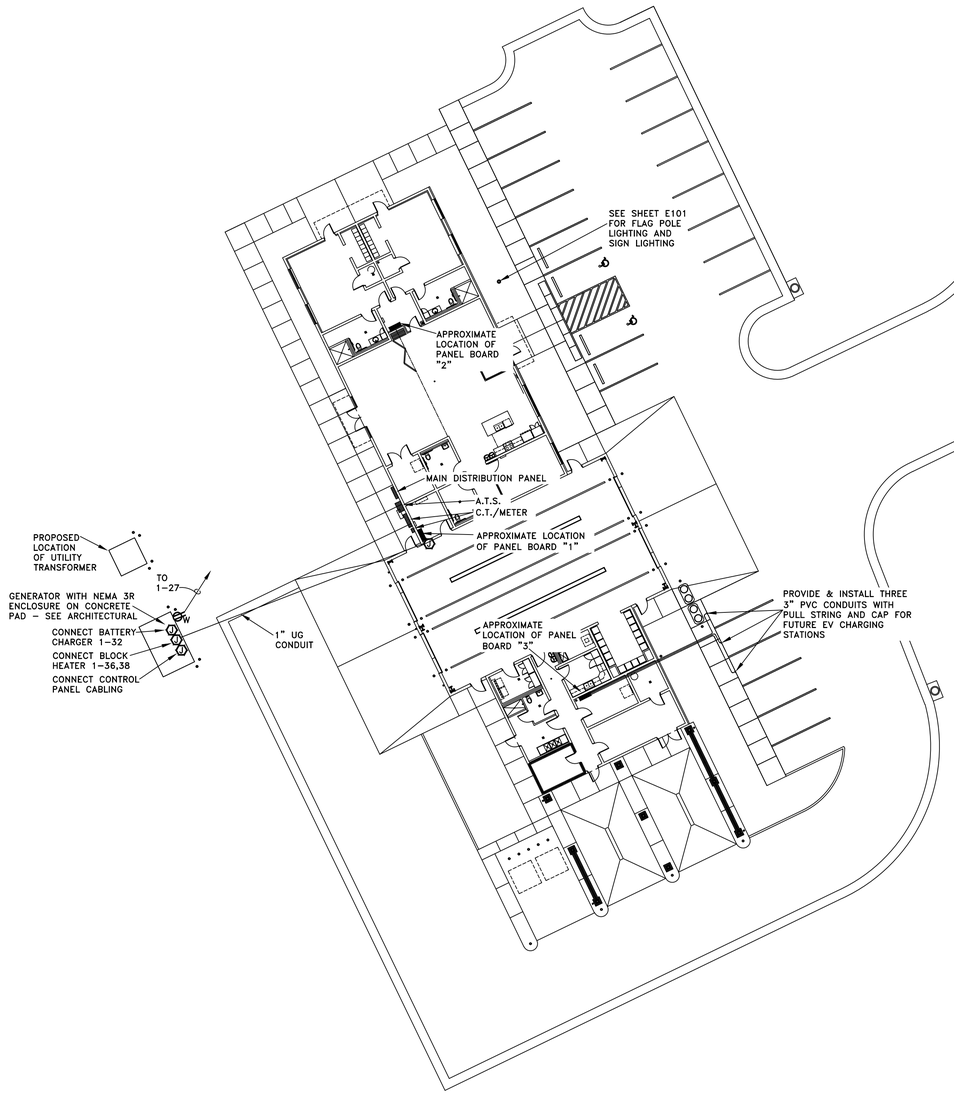

ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

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ELECTRICAL SITE PLAN

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SHEET: E105

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THE LANE GROUP INC.