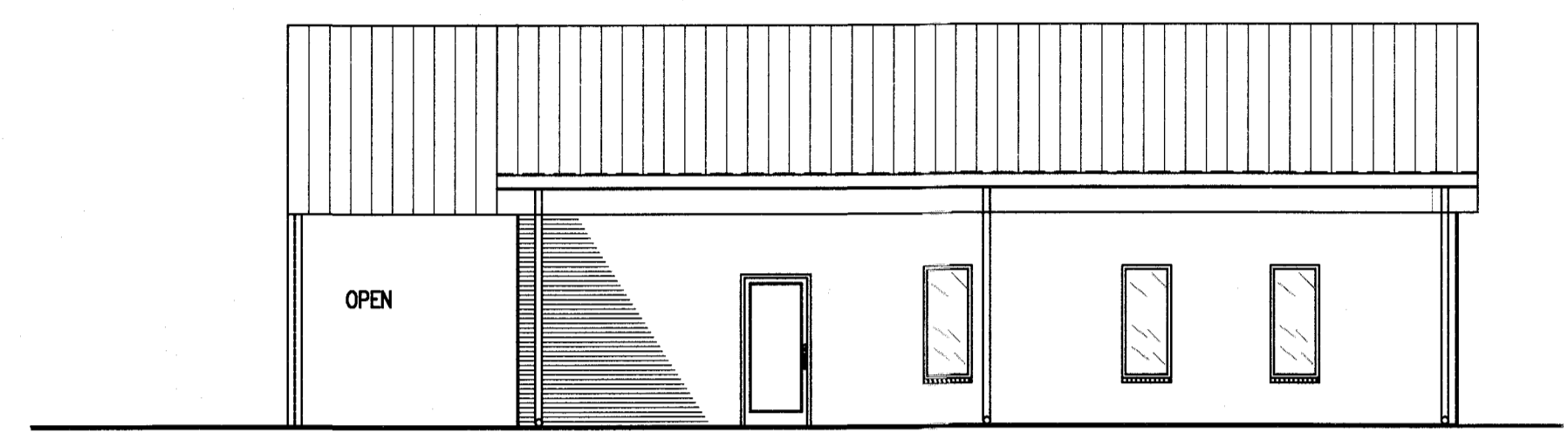


SHEET INDEX:

- CS COVER SHEET & INDEX TO DRAWINGS
- BCS BUILDING CODE SUMMARY
- S-1 FOUNDATION PLAN
- S-2 ANCHOR BOLT PLAN
- LS-1 BUILDING LIFE SAFETY – EGRESS PLAN
- LS-2 LIFE SAFETY & EGRESS PLAN-BLDG 2
- SP1 EXISTING SITE PLAN
- SP2 NEW SITE PLAN
- G1 EXISTING FLOOR PLAN AND DEMOLITION NOTES
- G2 INTERIOR RENOVATIONS, CALLOUTS & DIMS.
- G3 BUILDING-2 DIMENSIONED PLAN
- G4 ADA ACCESSORIES/RESTROOM DETAIL
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- E4 ELECTRICAL – BLDG-2 DATA/POWER/LIGHTING
- P1 PLUMBING SCHEDULES AND NOTES
- P2 PLUMBING –EX. BLDG 1 WATER/WASTE PLAN
- P3 PLUMBING –NEW BLDG 1 WATER/WASTE PLAN
- P4 PLUMBING – BLDG 2 WATER/WASTE PLAN

PROJECT:

BUILDING PLANS for: FLAT BRANCH VFD INTERIOR RENOVATIONS & ADMINISTRATION BUILDING



2098 ELLIOTT BRIDGE RD
BUNNLEVEL, NORTH CAROLINA, 28323

PROJECT TEAM:

BUILDING DEPARTMENT:
HARNETT COUNTY PLANNING &
ZONING DEPARTMENT
420 MCKINNEY PKWY
LILLINGTON, NC 27546
910-893-7525

PROJECT DESIGNER:
JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NC
BUDDY JENKINS, PE KELLY DODSON, PE
1606 MCARTHUR ROAD
FAYETTEVILLE, NC 28311-1002
910-822-1724

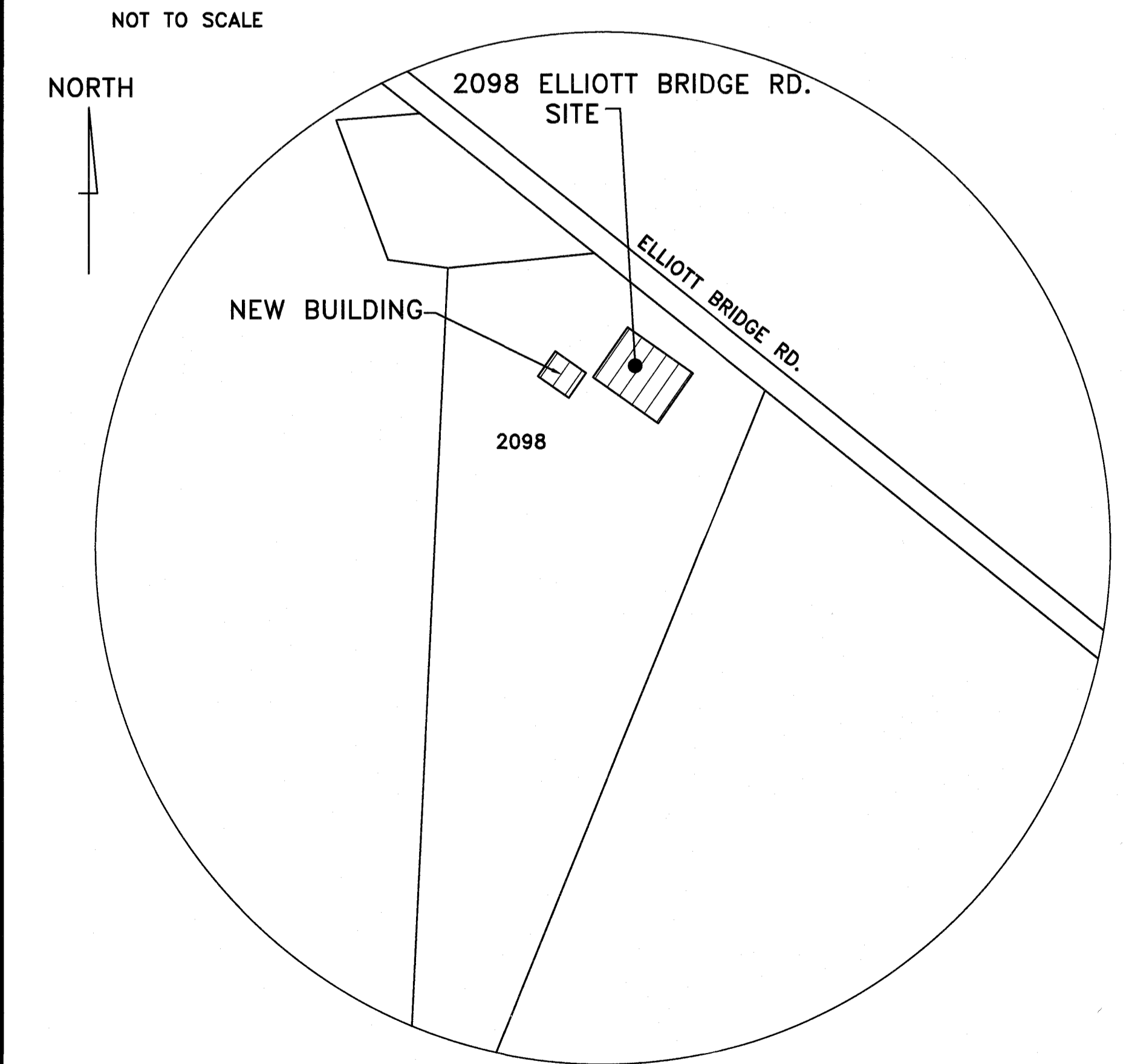
CODE REVIEW:

APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- NORTH CAROLINA STATE BUILDING CODE: BUILDING CODE 2018
- NORTH CAROLINA STATE BUILDING CODE: PLUMBING CODE 2018
- NORTH CAROLINA STATE BUILDING CODE: MECHANICAL CODE 2018
- 2017 NATIONAL ELECTRICAL CODE
- 2009 STANDARD & COMMENTARY ICC/ANSI A117.1-2009 on ACCESSIBILITY

- NORTH CAROLINA STATE BUILDING CODE: ENERGY CONSERVATION CODE 2018
- NORTH CAROLINA STATE BUILDING CODE: FIRE PREVENTION CODE 2018
- THE 2018 EDITION OF THE LIFE SAFETY CODE NFPA 101
- NORTH CAROLINA STATE BUILDING CODE: EXISTING BUILDING CODE 2018

VICINITY PLAN



BUILDING DATA:
THE PROJECT IS TO CONSTRUCT A NEW BUILDING FOR USE AS AN ADMINISTRATIVE OFFICE FOR THE VOLUNTEER FIRE DEPARTMENT AND TO RENOVATE INTERIOR SPACES OF THE EXISTING FIRE STATION



DESIGNED BY: K. DODSON
DRAWN BY: JDL, MJ
PROJECT #: 2023-05-19
DATE: 8 JAN 2024

NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

COVER SHEET & INDEX TO DRAWINGS

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
SHEET: COVER SHEET & INDEX TO DRAWINGS

CS

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 646c23-10.dwg 4" SCALE: 1/8" = 1'-0"
 Plotted by: Michaelu 2024-06-08 09:23:00
 Plotted Date: Jun 08, 2024 - 9:23:00

REINFORCING STEEL
 ALL REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO A.S.T.M. A615, GRADE 60.
 ALL REINFORCING STEEL SHALL BE MANUFACTURED, DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH A.C.I. 318R AND A.C.I. SP 66.
 WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A185, IN AS LONG A LENGTH AS IS PRACTICAL. WELDED WIRE FABRIC SHALL BE LAPPED AT LEAST ONE GRID WIDTH PLUS 2". REINFORCEMENT SHALL BE BENT COLD AND SHALL NOT BE WELDED.

SPLICES:
 REINFORCEMENT IN CONCRETE AND MASONRY SHALL HAVE LAP LENGTHS AS FOLLOWS, UNLESS OTHERWISE SPECIFIED ON DRAWINGS:
 BAR SIZE: IN CONCRETE: IN MASONRY:
 #3 1'-6" 2'-0"
 #4 2'-0" 2'-6"
 #5 2'-6" 3'-0"

PLACEMENT:
 REINFORCEMENT SHALL BE ACCURATELY PLACED AND SUPPORTED BY CONCRETE, METAL CHAIRS, SPACERS OR TIES, AND SECURED AGAINST DISPLACEMENT DURING CONCRETE OR GROUT PLACEMENT.

EXCEPT WHERE OTHERWISE NOTED, REINFORCEMENT SHALL HAVE CONCRETE COVER AS FOLLOWS:
 CONCRETE DEPOSITED AGAINST EARTH 3"
 FORMED CONCRETE AGAINST EARTH 2"
 EXTERIOR FACES OF WALLS 1"
 TO TOP OF SLABS-ON-GRADE 3/4"

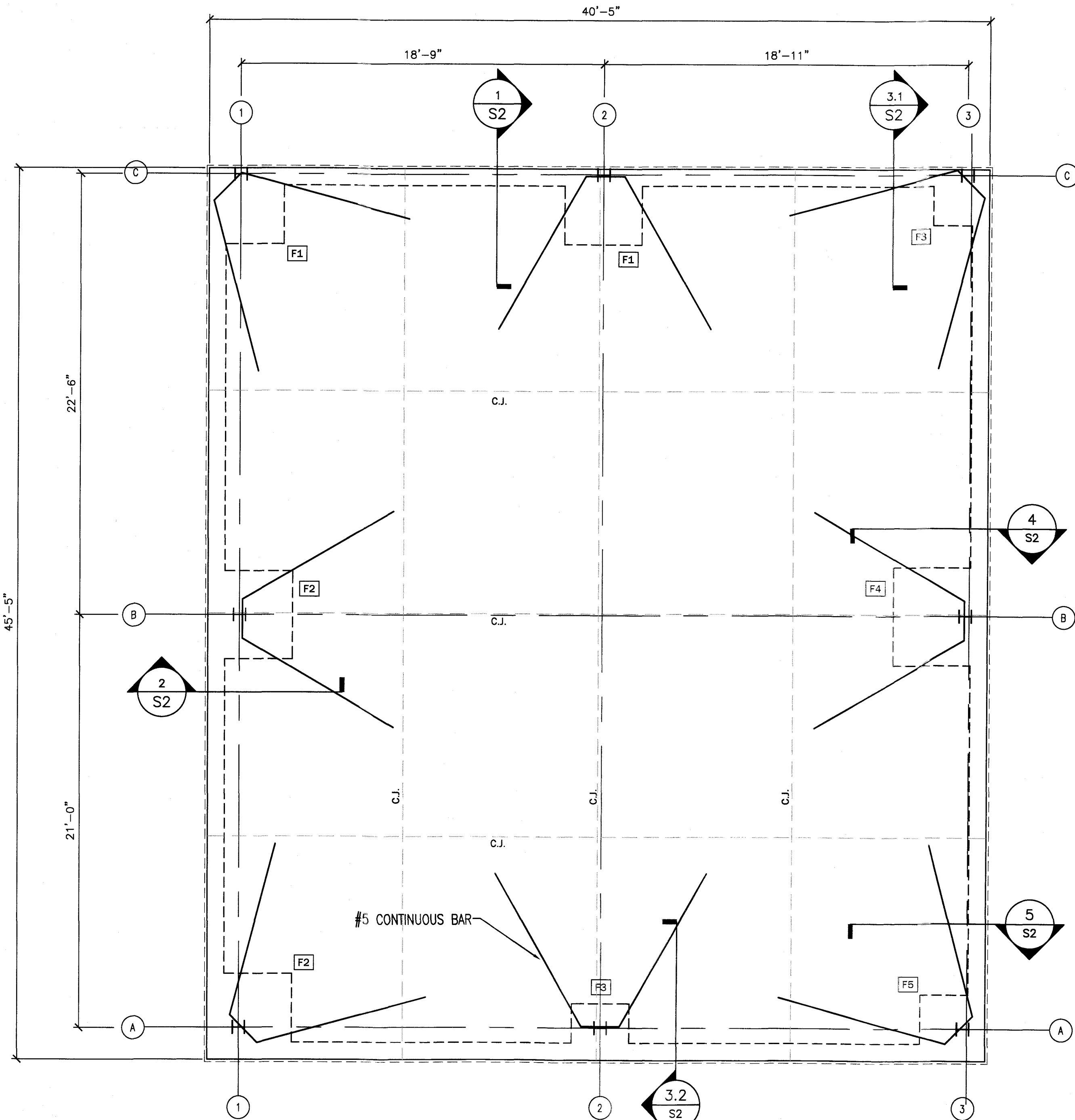
ALL SCALES, LOOSE RUST, GREASE OR DIRT SHALL BE REMOVED FROM THE REINFORCING BEFORE IT IS PLACED.
 PROVIDE #5 "HAIRPIN" X 20' LONG AT EXTERIOR COLUMN LINES.
 ANCHOR BOLTS SHALL BE (A-3077) HIGH STRENGTH.

SOIL TREATMENT:
 ADMINISTRATION AS ACCEPTABLE

GENERAL CONDITIONS
 THE GENERAL CONTRACTOR SHALL MAKE ADEQUATE SANITARY PROVISIONS.
 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SAFETY AND COMPLIANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT AS IT MAY REGARD ANY PHASE OF THE WORK ON THIS PROJECT.

SOIL COMPACTION AND TESTING
 THE GENERAL CONTRACTOR SHALL OBTAIN THE SERVICES OF A TESTING LABORATORY, SUCH AS SAME OR LAW ENGINEERING FOR THE PURPOSE OF DETERMINING THE SUITABILITY OF THE SUBSURFACE CONDITIONS AND THE BEARING CAPACITIES OF ALL AREAS BELOW CONCRETE (2000psf ASSUMED).. THE SOIL AND BEARING REPORT SHALL BE SUBMITTED PRIOR TO EXCAVATING, WHERE POSSIBLE, BUT PRIOR TO PLACEMENT OF ANY REINFORCING AND CONCRETE.

CONCRETE WORK
 1. ALL CONCRETE FOR THE PROJECT SHALL BE "READY MIX" AND SHALL COMPLY WITH ASTM C-94. ALL SECTIONS OF THE CONCRETE WORK SHALL COMPLY WITH ALL A.S.T.M. AND A.C.I. REQUIREMENTS.
 2. FORM WORK - ALL FORMS TO BE CAREFULLY BUILT AND SECURED IN PLACE IN SUCH A MANNER AS TO HAVE SUFFICIENT STRENGTH TO CARRY THE DEAD WEIGHT OF THE CONSTRUCTION AS A LIQUID, WITHOUT DEFLECTION OR VIBRATION. FORMS TO BE BUILT TIGHT, TRUE TO POSITION AND DIRECTION, THOROUGHLY BRACED, WIRED AND SPIKED OR OTHERWISE FASTENED TOGETHER.
 3. CONCRETE - MINIMUM OF 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM OF FIVE SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, MAXIMUM OF 4" SLUMP.
 4. FINISHING - IN ACCORDANCE WITH THE LATEST A.C.I. CODE, PLUMB, LEVEL, TRUE IN LINE, FREE OF HONEYCOMB. BUILDING SLAB SHALL HAVE A HARD STEEL TROWEL FINISH. WALKS SHALL HAVE BROOMED FINISH AND EXPANSION JOINTS AT APPROXIMATELY 50'-0" O.C. AND DUMMY JOINTS AS SHOWN ON THE SITE PLAN.
 5. REMOVAL OF FORMS - FORMS SHALL BE CAREFULLY REMOVED SO AS NOT TO IMPAIR THE FACE OF THE CONCRETE. IMMEDIATELY AFTER THE FORMS ARE REMOVED ALL DAMAGE OF IMPERFECT WORK SHALL BE PATCHED IN A NEAT AND WORKMANLIKE MANNER OR IF BADLY DAMAGED, IN THE OPINION OF THE OWNER, THE WORK SHALL BE REBUILT. THE MINIMUM TIME BEFORE ANY FORMS CAN BE REMOVED IS SEVEN (7) DAYS FOR SUCH MEMBERS AS ARE SUBJECT TO BENDING STRESSES, SUCH AS SLABS.
 6. CURING - USE MEMBRANE CURING METHOD. USE MFG. RATE, SPRAY IMMEDIATELY FOLLOWING FINISHING. PROTECT FROM FREEZING WEATHER, CURE A TOTAL OF 28 DAYS USING A.C.I. METHODS.



PLAN NORTH
 TRUE NORTH
 2 FOUNDATION PLAN
 1/4" = 1'-0"

STRUCTURAL DESIGN
DESIGN LOADS:
 Importance Factors: Snow (Is) 1.20
 Seismic (Ie) 1.50
 Live Loads: Roof 20 psf
 Mezzanine (Equipment Platform) N/A psf
 Floor 100 psf
 Ground Snow Load: 10 psf
 Wind Load: Ultimate Wind Speed 132 mph (ASCE-7)
 Exposure Category B

SEISMIC DESIGN CATEGORY: A B C D
 Provide the following Seismic Design Parameters:
 Risk Category (Table 1604.5) I II III IV
 Spectral Response Acceleration SS 14 %g S1 6.70 %g
 Site Classification (ASCE 7) A B C D E F
 Data Source: Field Test Presumptive Historical Data
 Basic structural system: Bearing Wall Dual w/Special Moment Frame
 Building Frame Dual w/Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum
 Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
 Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind
SOIL BEARING CAPACITIES:
 Field Test (provide copy of test report) N/A psf
 Presumptive Bearing capacity 2,000 psf
 Pile size, type, and capacity N/A

PRE-ENGINEERED BUILDING:

1. MATERIALS

	ASTM DESIGNATION	
STRUCTURAL STEEL PLATE	A529 OR A572 OR A570 OR A607	GRADE 50
COLD FORMED LIGHT GA. SHAPES	A570 OR A607	GRADE 55
BRACE RODS	A572	GRADE 65 U.O.N.
HOT ROLLED MILL SHAPES	A36 OR A572	Fy=36KSI OR GRADE 50
ROOF AND WALL SHEETS	A653 OR A792	GRADE 50
BOLTS	A307 AND A325	A307,U.O.N.

2. A325 BOLT TIGHTENING REQUIREMENTS:
 ALL HIGH STRENGTH BOLTS ARE A325-N UNLESS SPECIFICALLY NOTED OTHERWISE. STRUCTURAL BOLTS SHALL BE TIGHTENED TO THE TURN-OF-THE-NUT METHOD IN ACCORDANCE WITH THE NINTH EDITION, ASG USPECIFICATION FOR STRUCTURAL UNITS USING ASTM A325 OR A490 BOLTS. PER SECTION 4D.1, A325 BOLTS MAY BE INSTALLED HILTHOUT HASHERS INHEN TIGHTENED BY THE TURN-OF-THE-NUT METHOD. ALL HIGH STRENGTH BOLTS, EXCEPT AS NOTED OTHERWISE, ARE SUBJECT TO DIRECT TENSION AND MAY REQUIRE INSPECTION AS DEFINED BY THE APPLICABLE BUILDING CODE OR STANDARD. IT IS THE RESPONSIBILITY OF THE ERECTOR TO ASSURE PROPER TIGHTNESS.

- 3. FOUNDATION DESIGN AND CONSTRUCTION ARE NOT THE RESPONSIBILITY OF THE METAL BUILDING MANUFACTURER
- 4. THE BUILDING REACTION DATA REPORTS THE LOADS WHICH THIS BUILDING PLACES ON THE FOUNDATION.
- 5. ANCHOR BOLTS SHALL BE ACCURATELY SET TO A TOLERANCE OF ±1/8" IN BOTH ELEVATION AND LOCATION.
- 6. COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED A BEARING PRESSURE OF 1125 POUNDS PER SQUARE INCH.
- 7. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE DESIGN ENGINEER AT JENKINS CONSULTING ENGINEERS. THIS REVIEW IS FOR DESIGN CONTENT ONLY AND DOES NOT REMOVE RESPONSIBILITY FOR THE FABRICATOR OR THE ERECTOR TO PROVIDE MATERIAL IN ACCORDANCE WITH THESE PLANS.

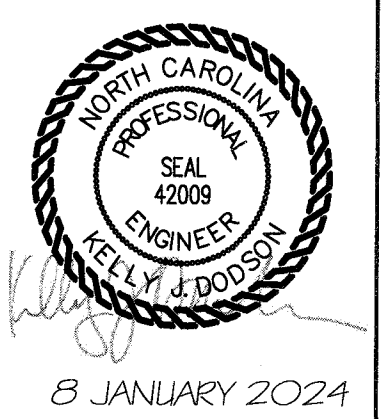
!!! IMPORTANT !!!
 THIS FOUNDATION PLAN IS FOR BIDDING AND ESTIMATING PURPOSE ONLY. SUCCESSFUL BIDDER SHALL SUBMIT METAL BUILDING SHOP DRAWINGS WITH REACTIONS FOR JENKINS CONSULTING ENGINEERS FOR FINAL FOUNDATION DESIGN PRIOR TO CONSTRUCTION.

ANCHOR BOLT EMBEDMENT SCHEDULE

FOOTING TAG	ANCHOR BOLT #"	MIN. EMBEDMENT DEPTH
F1	5/8"	10"
F2	3/4"	12"
F3	5/8"	10"
F4	3/4"	12"
F5	3/4"	12"



JENKINS CONSULTING ENGINEERS, PA
 OFFICE: 1000 MARTIN RD., FAYETTEVILLE, NC 28311-1002
 PHONE: 810.838.8800 FAX: 810.838.8800
 LICENSE NUMBER: C-3070



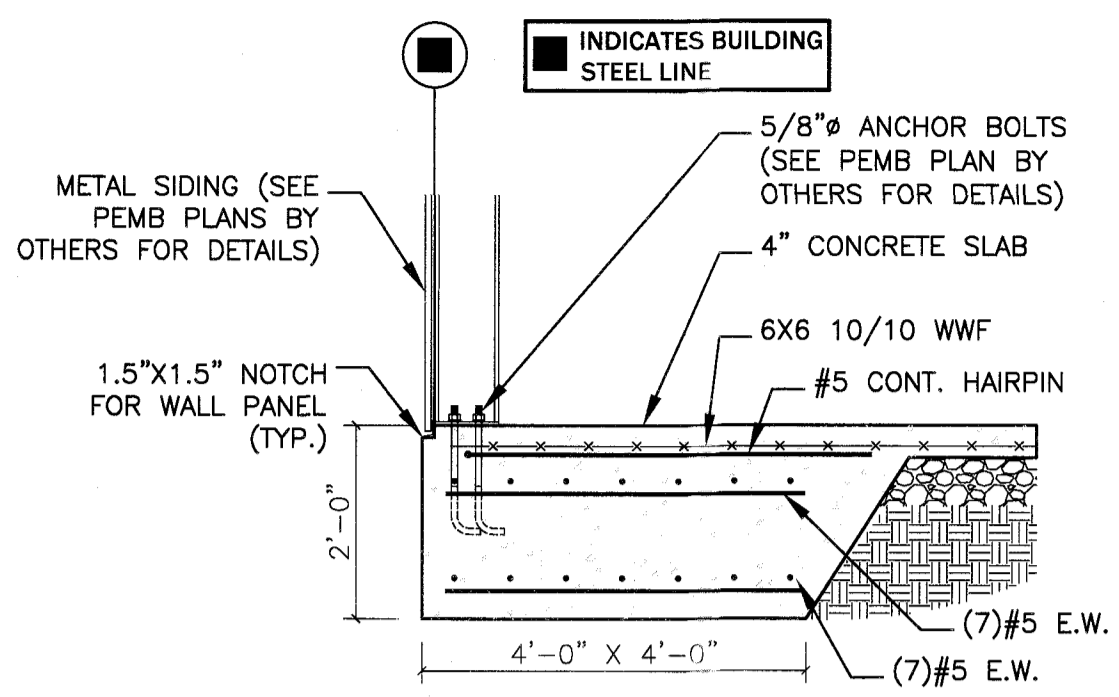
DESIGNED BY: K. DODSON
 DRAWN BY: JDL, MJ
 PROJECT #: 2023-05-19
 DATE: 8 JAN 2024

FINAL DRAWING FOR REVIEW PURPOSES ONLY
 PRELIMINARY FOR DESIGN DEVELOPMENT ONLY
 FINAL DRAWING FOR CONSTRUCTION
 OWNER/TENANT: FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD., BUNNLEVEL, NC 28523
 CONTRACTOR/BUILDER:

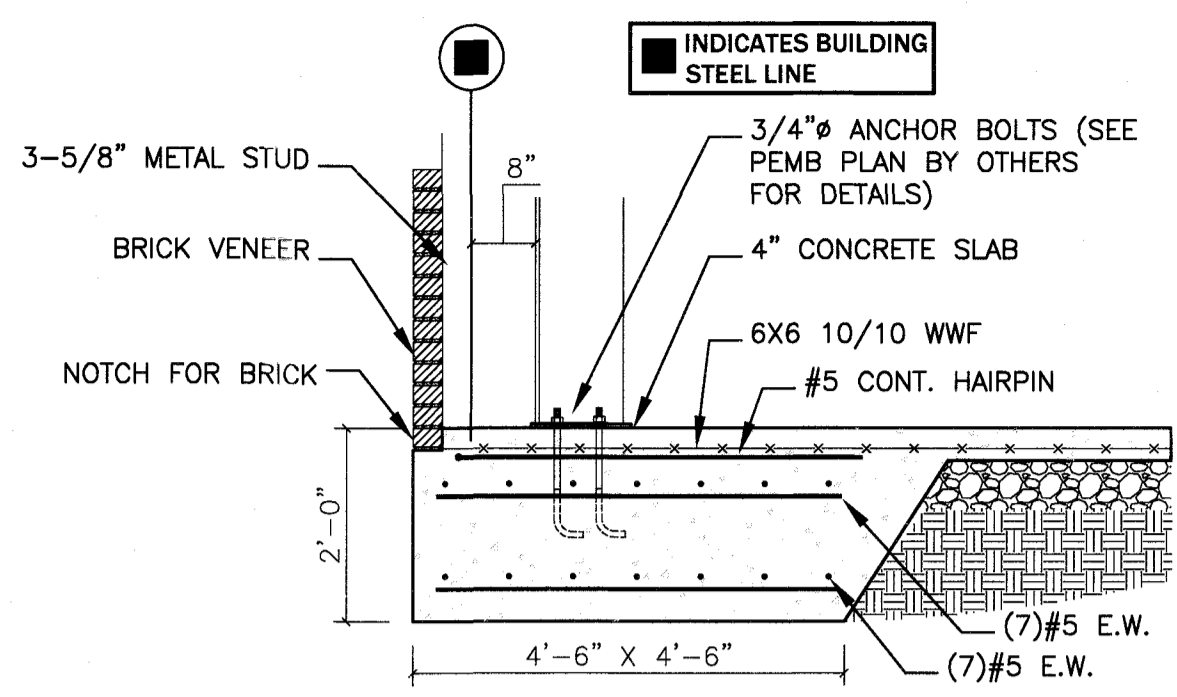
PROJECT: **NEW ADMIN BUILDING & INTERIOR RENOVATION**
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET: **PRELIMINARY FOUNDATION PLAN**

S1

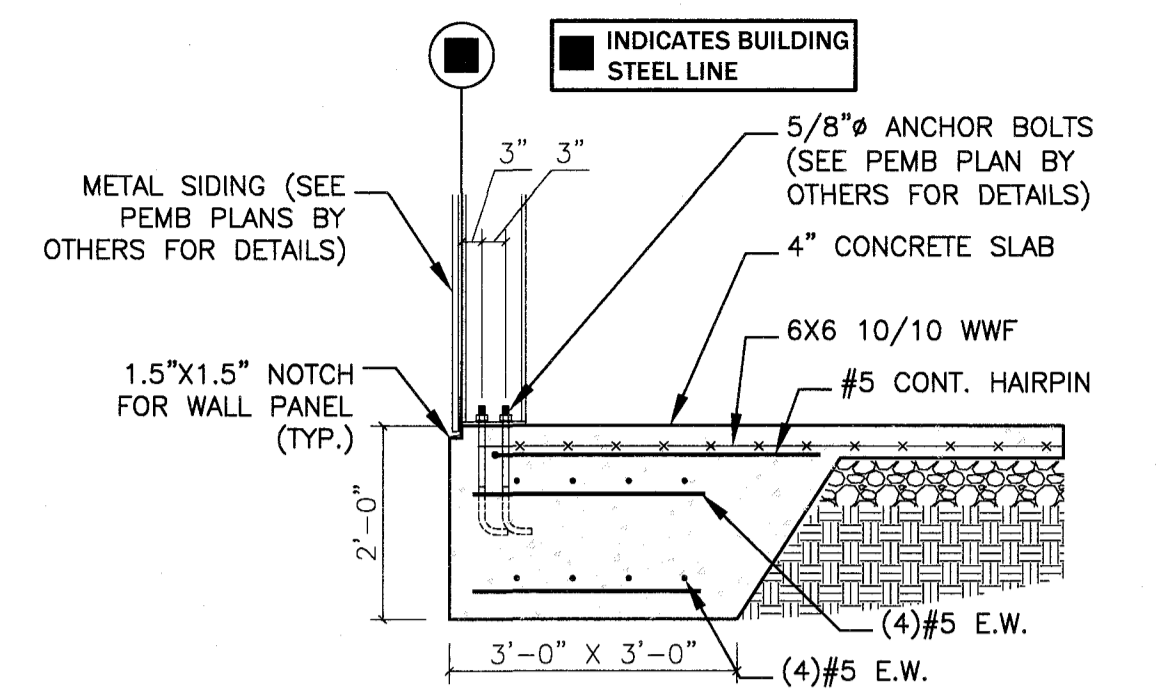
1'-4"
8"
4"
2'-0" 0 4"
1'-0"
SCALE: 1-1/2" = 1'-0"
6"
1'-0"
4"
2'-0" 0 4"
1'-0"
SCALE: 1" = 1'-0"
8"
1'-4"
4"
2'-0" 0 4"
1'-0"
SCALE: 3/4" = 1'-0"
0 4"
2'-0" 0 4"
1'-0"
SCALE: 1/2" = 1'-0"
8"
1'-4"
4"
2'-0" 0 4"
1'-0"
SCALE: 1/4" = 1'-0"
10'-0" 8"
1'-0"
SCALE: 3/16" = 1'-0"
0 4"
2'-0" 0 4"
1'-0"
SCALE: 1/8" = 1'-0"
8"
1'-4"
4"
2'-0" 0 4"
1'-0"
SCALE: 3/16" = 1'-0"
0 4"
2'-0" 0 4"
1'-0"
SCALE: 1/8" = 1'-0"



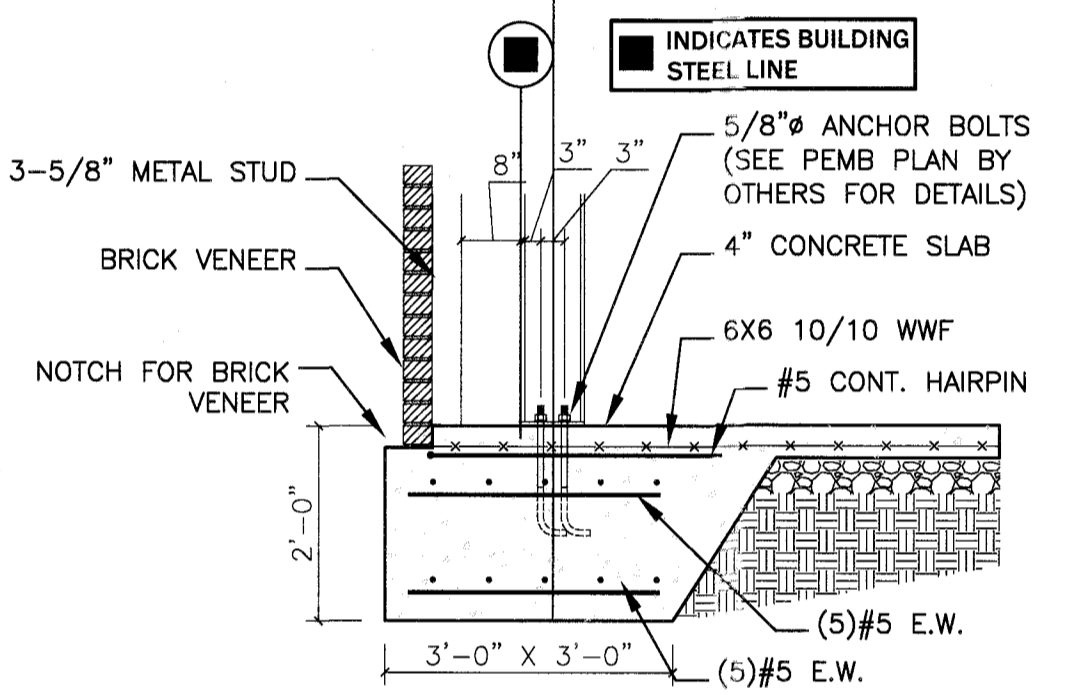
1 FOOTING DETAIL - F1
S2 1/2" = 1'-0"



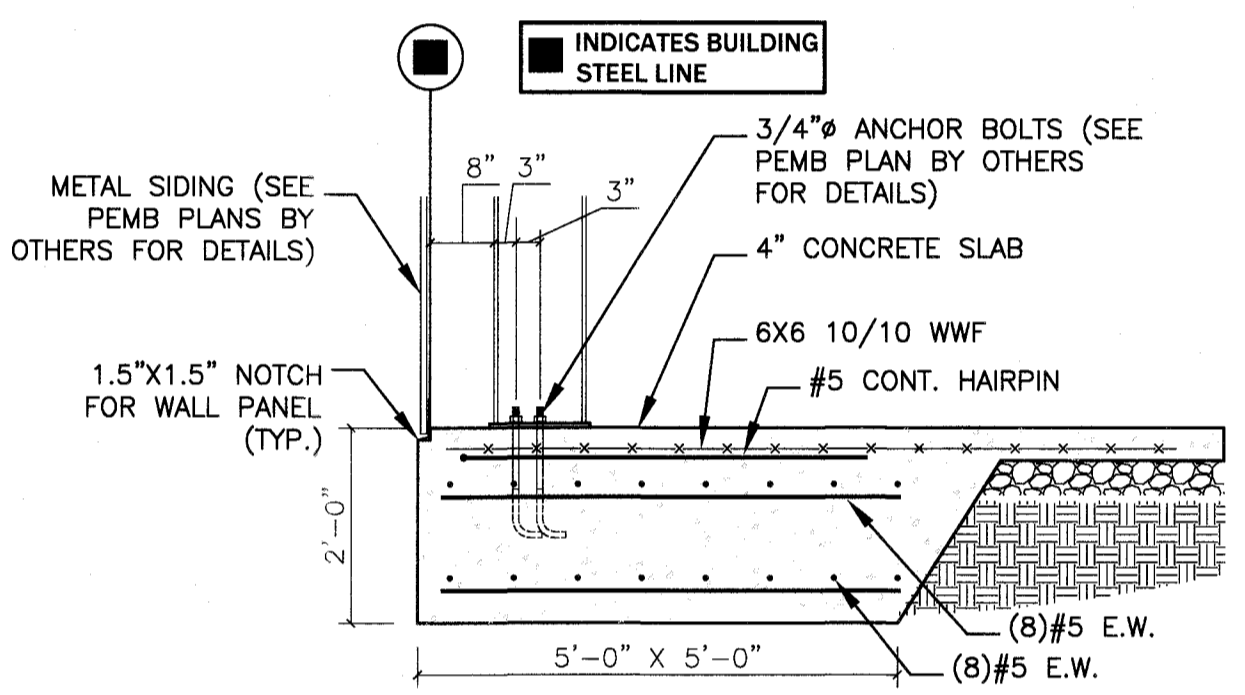
2 FOOTING DETAIL - F2
S2 1/2" = 1'-0"



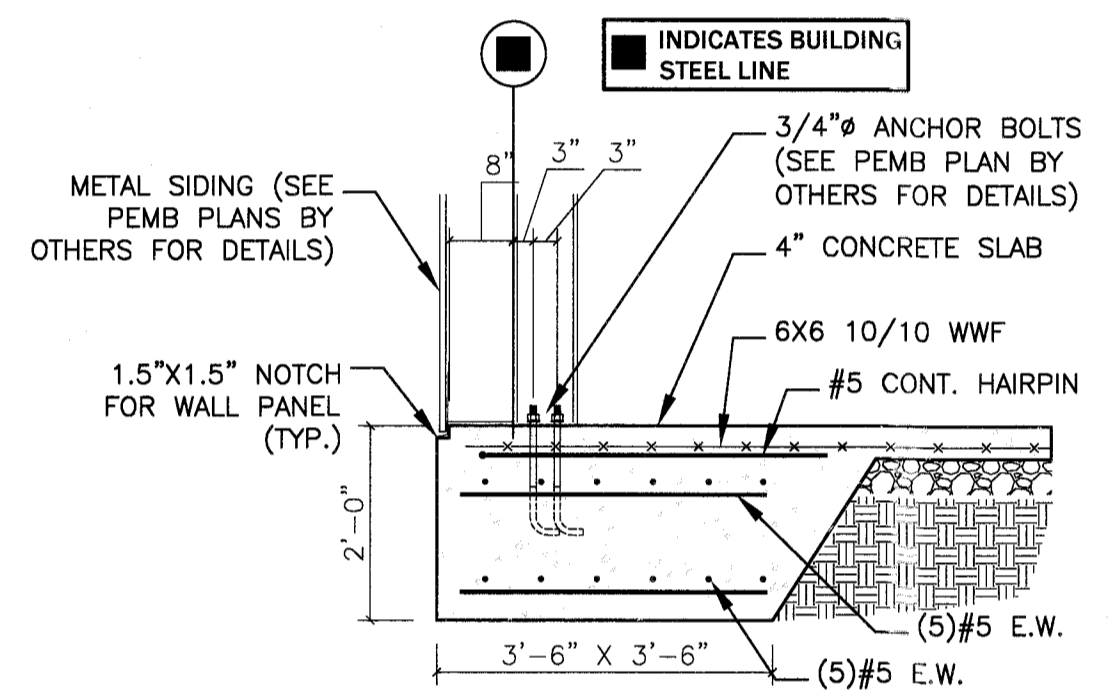
3.1 FOOTING DETAIL - F3
S2 FLUSH GIRT



3.2 FOOTING DETAIL - F3
S2 BYPASS GIRT



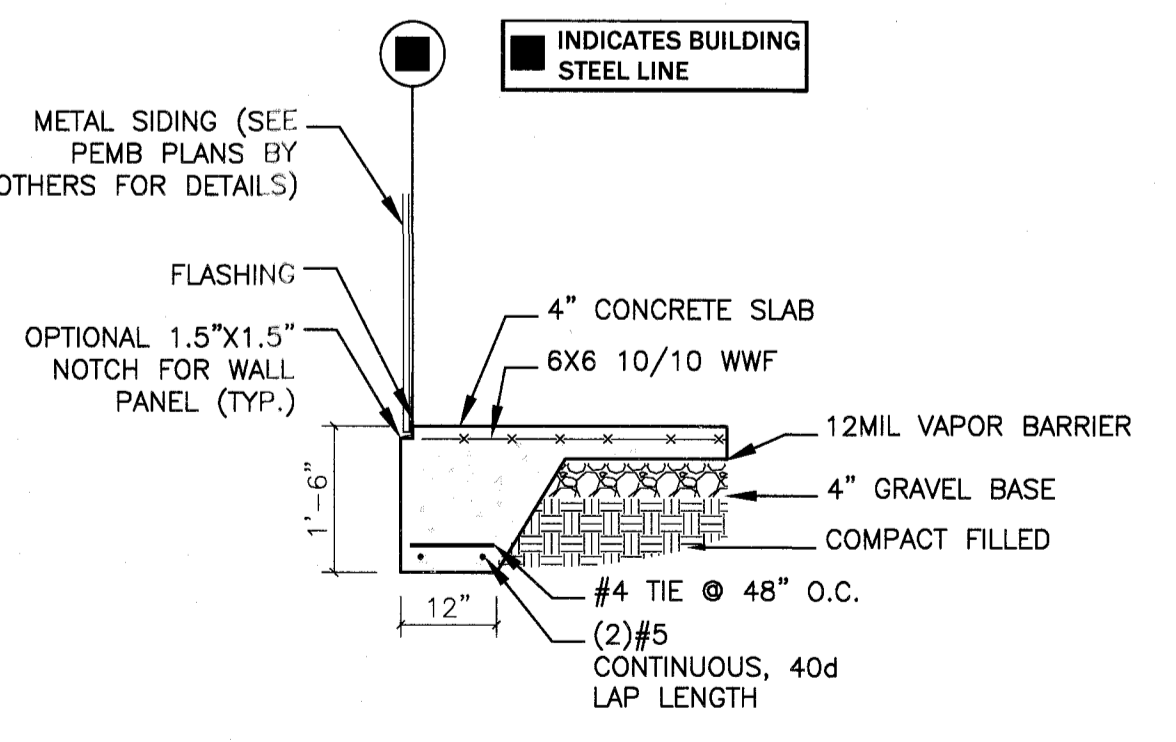
4 FOOTING DETAIL - F4
S2 1/2" = 1'-0"



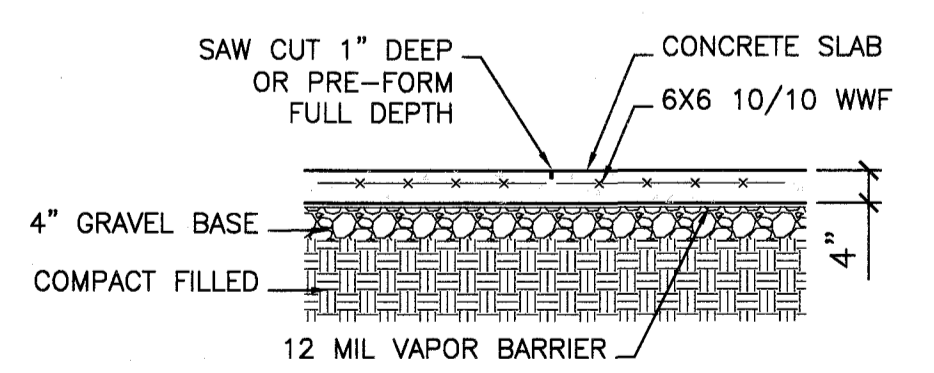
5 FOOTING DETAIL - F5
S2 1/2" = 1'-0"

!!! IMPORTANT !!!
THIS FOUNDATION PLAN IS FOR BIDDING AND ESTIMATING PURPOSE ONLY. SUCCESSFUL BIDDER SHALL SUBMIT METAL BUILDING SHOP DRAWINGS WITH REACTIONS FOR JENKINS CONSULTING ENGINEERS FOR FINAL FOUNDATION DESIGN PRIOR TO CONSTRUCTION.

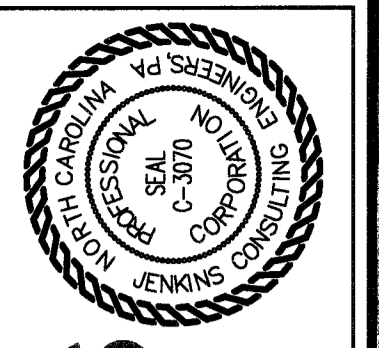
ANCHOR BOLT EMBEDMENT SCHEDULE		
FOOTING TAG	ANCHOR BOLT #"	MIN. EMBEDMENT DEPTH
F1	5/8"	10"
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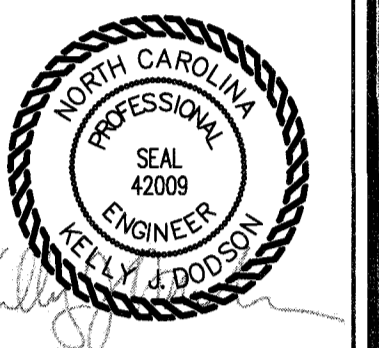
6 FOOTING DETAIL-PERIMETER
S2 1/2" = 1'-0"



7 CONTROL JOINT DETAIL
S2 1/2" = 1'-0"



JENKINS CONSULTING ENGINEERS, P.A.
CONSULTING ENGINEERS, NORTH CAROLINA
OFFICE IN EUREKA SPRINGS, NORTH CAROLINA
1008 MARTIN RD., FAYETTEVILLE, NC 28411-0002
CORPORATION NUMBER C-3070 Bldg # 3000
P.O. BOX 1124
FAYETTEVILLE, NC 28403-0124



8 JANUARY 2024

DESIGNED BY: K. DOBSON
DRAWN BY: JDL, MJ
PROJECT #: 2023-05-19
DATE: 8 JAN 2024

FINAL DRAWING FOR REVIEW PURPOSES ONLY
PRELIMINARY FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING FOR CONSTRUCTION

OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
PRELIMINARY FOUNDATION DETAILS

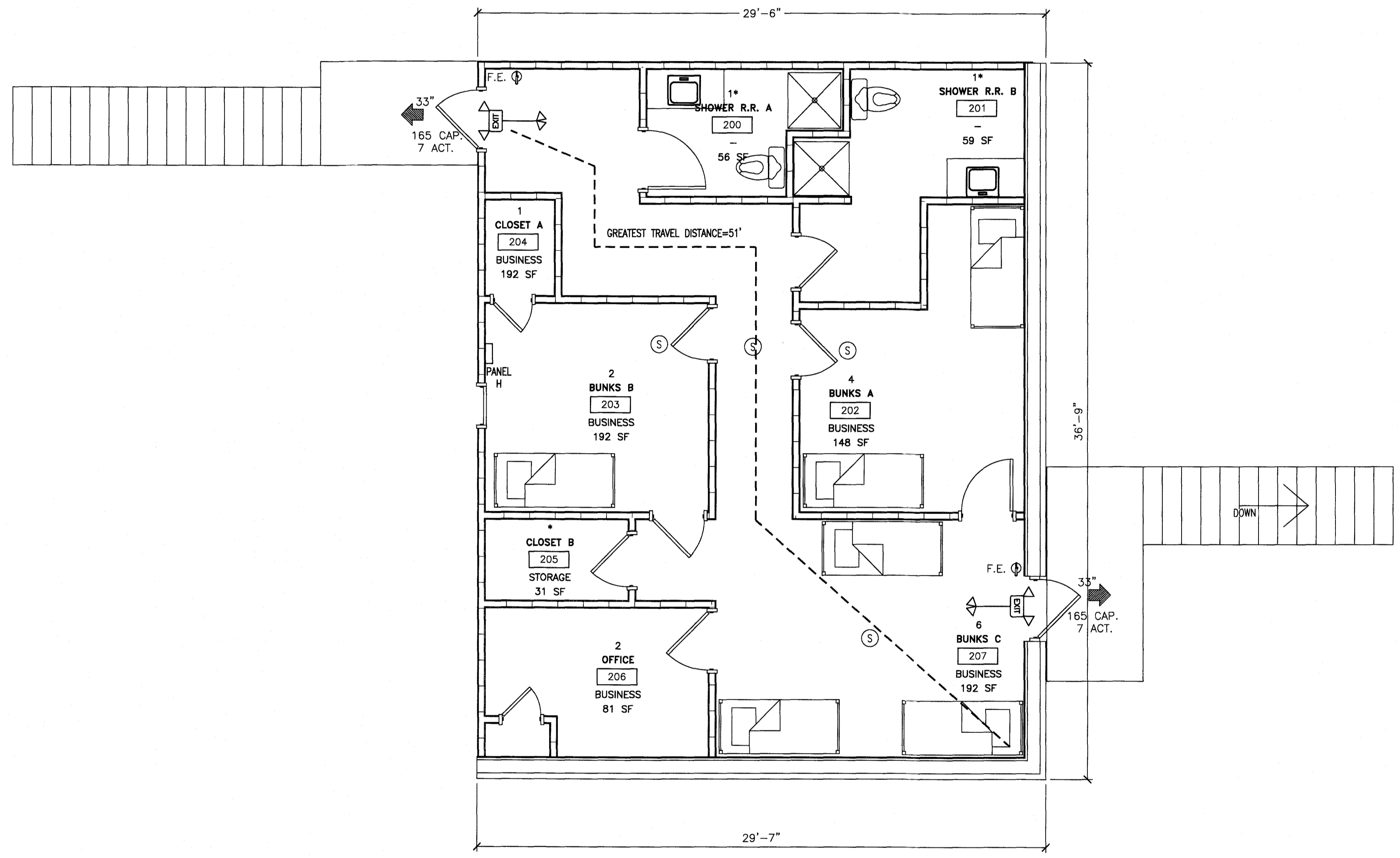
S2

Drawing File: H:\2023\Flet Branch VFD #2023-05-19\DWG\Flet Branch VFD Edhec23-10.dwg
Plot Date: Jun 08, 2024 - 9:23am

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
 Plotted by: JoshL
 Plotted Date: Nov 15, 2023 - 3:45pm

OCCUPANCY CLASSIFICATION per TABLE 1004.1.2						
SPACE NUMBER	CURRENT SPACE USE	FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	ROOM AREA (NET SF)	A CALCULATED EGRESS OCCUPANCY TOTAL (BY AREA)	B ACTUAL BUILDING OCCUPANT TOTAL (ANTICIPATED USE)
200	SHOWER R.R. A	-	-	56	1*	1*
201	SHOWER R.R. B	-	-	59	1*	1*
202	BUNKS A	SLEEPING AREA	120 GROSS	148	2	4
203	BUNKS B	SLEEPING AREA	120 GROSS	124	2	2
204	CLOSET A	STORAGE	100 GROSS	18	1*	1*
205	CLOSET B	STORAGE	100 GROSS	31	1*	1*
206	OFFICE	BUSINESS	100 GROSS	81	2	2
207	BUNKS C	SLEEPING AREA	120 GROSS	195	2	6
THE OCCUPANT COUNT FOR SPACE & EGRESS CAPACITY				712	8	14

THE EGRESS CAPACITY SHALL BE BASED UPON OCCUPANT LOAD OF 14 PERSONS
 (*) DENOTES OCCUPANT NUMBER ACCOUNTED FOR IN OCCUPANT TOTAL



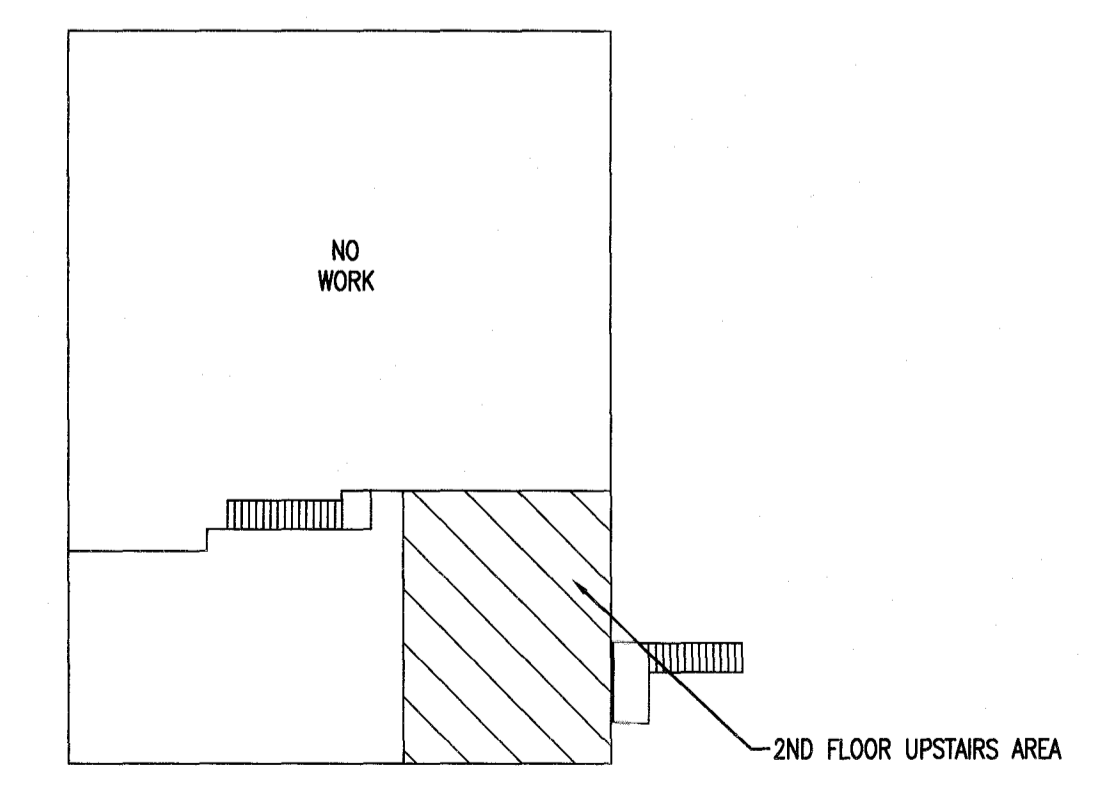
BUSINESS OCCUPANCY:
 GROSS SQUARE FOOTAGE OF SPACE 1087 SQ. FT.
 TYPE OF CONSTRUCTION: III-B
 SPACE IS TO BE USED AS A LOUNGE AREA FOR VOLUNTEER FIRE DEPARTMENT

OCCUPANT LOAD FOR CALCULATING EGRESS CAPACITY (USE WORST CASE):
 SPACE OCCUPANCY BY FUNCTION OF SPACE
 BUSINESS : 1087 GSF / 100 = 11
 TOTAL OCCUPANCY BY FUNCTION = 8
 TOTAL OCCUPANCY BY AREA (COLUMN A) = 8
 TOTAL OCCUPANCY BY ANTICIPATED USE (COLUMN B) = 14
 (SEE TABLE ON THIS SHEET FOR INDIVIDUAL SPACE TOTALS)
 CALCULATED EGRESS OCCUPANCY AREA TOTAL = 8 PERSONS
 ACTUAL OCCUPANT LOAD BY AREAS = 14 PERSONS

GREATEST TRAVEL DISTANCE SHOWN: 51 FEET. (PER 1017)
 MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200 FEET (PER TABLE 1017.2)
 THE COMMON PATH OF TRAVEL IS LESS THAN 75 FEET. (PER 1029.8)
 THERE ARE NO DEAD END CORRIDORS OVER 20 FEET. (PER 1020.4)

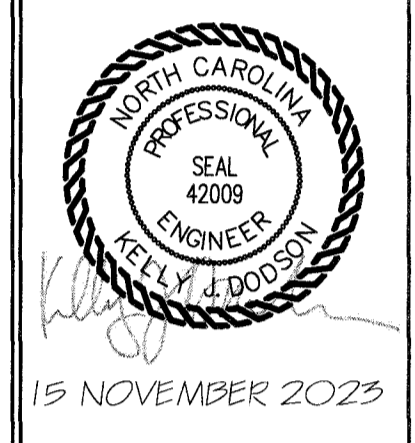
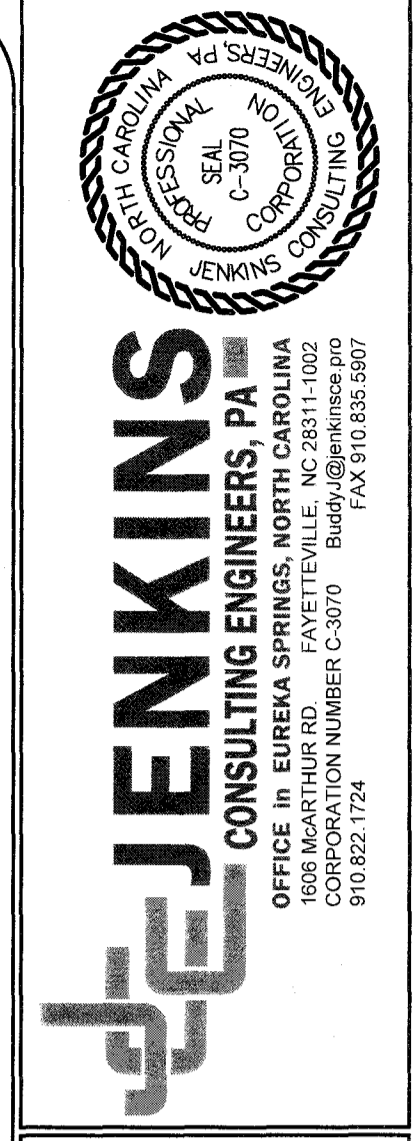
BUILDING EXIT WIDTH CALCULATIONS:
 14 PERSONS * 0.2' / OCCUPANT = 2.8" REQUIRED, 66 INCHES TOTAL PROVIDED. (PER 1005.1)
 MIN. NO. OF EXITS REQUIRED: ONE (1) (PER TABLES 1006.1 AND 1006.3.2)
 NUMBER OF EXITS PROVIDED: TWO (2)
 EGRESS DOORS DO NOT REQUIRE PANIC HARDWARE. (PER 1010.1.10)
 DOORS DO NOT HAVE DELAYED EGRESS LOCKS (PER 1010.1.9.7)
 DOORS DO NOT HAVE ELECTROMAGNETIC EGRESS LOCKS (PER 1010.1.9.9)
 DOORS DO NOT HAVE HOLD OPEN DEVICES.
 THERE ARE NO EMERGENCY ESCAPE WINDOWS (PER 1030)
 THE FIRE AREA SQUARE FOOTAGE IS: 712 SQUARE FEET (PER 902)
 THERE ARE BUNK/LOUNGE ROOMS (SMOKE COMPARTMENTS) (PER 408.6.1)
 THIS BUILDING IS NOT PROTECTED BY FIRE SPRINKLERS
 THERE IS NO FIRE ALARM SYSTEM.
 LOCK BOX FOR KEY IS INSTALLED AT FRONT ENTRANCE. (AS REQ'D.)
 DUCT DETECTORS ARE INSTALLED IN AHU. AN AUDIBLE AND VISIBLE DEVICE IS PROVIDED FOR UNIT. (AS REQ'D.)
 NO. OF FIRE EXTINGUISHERS PROVIDED: TWO (2) FIRE EXTINGUISHER:
 TWO (2) ABC FIRE EXTINGUISHERS
 FIRE EXTINGUISHER FOR CLASS A FIRE HAZARDS REQUIRE NO GREATER THAN 75 FT OF MAXIMUM TRAVEL DISTANCE IN LOW, ORDINARY AND EXTRA HAZARD OCCUPANCY.
 SMOKE DETECTORS ARE INSTALLED IN EACH BUNK/LOUNGE ROOM.

LEGEND	
SYMBOL	DESCRIPTION
F.E. Ⓞ	ABC FIRE EXTINGUISHER SUGGESTED LOCATION
---	GREATEST TRAVEL DISTANCE
33"	EXIT WIDTH, 36" - 3 = 33" CLEAR WIDTH.
165 CAP. 7 ACT.	EXIT CAPACITY (NUMBER OF PERSONS) ACTUAL OCCUPANT LOAD FOR EXIT DOOR
EXIT	EXIT SIGN
S	SMOKE DETECTOR
36"	AISLE WIDTH WHERE SHOWN
EXIT SIGN WITH EMERGENCY LIGHTING	EXIT SIGN WITH EMERGENCY LIGHTING
ROOM LABEL	DESCRIPTION
10	OCCUPANT TOTAL
RETAIL	ROOM NAME
1	ROOM NUMBER
MERCANTILE	FUNCTION TYPE
100 SF	SPACE AREA



EXISTING BUILDING AREA OF WORK-2ND FLOOR
 N.T.S.

PLAN NORTH
 TRUE NORTH
 1 LS-1
 LIFE SAFETY - BUILDING NO. 1 2ND FLOOR EGRESS PLAN
 1/4" = 1'-0"



DESIGNED BY: K. DODDSON
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

FINAL DRAWING [] FOR REVIEW PURPOSES ONLY
 PRELIMINARY [] FOR DESIGN DEVELOPMENT ONLY
 FINAL DRAWING [X] FOR CONSTRUCTION

OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28523

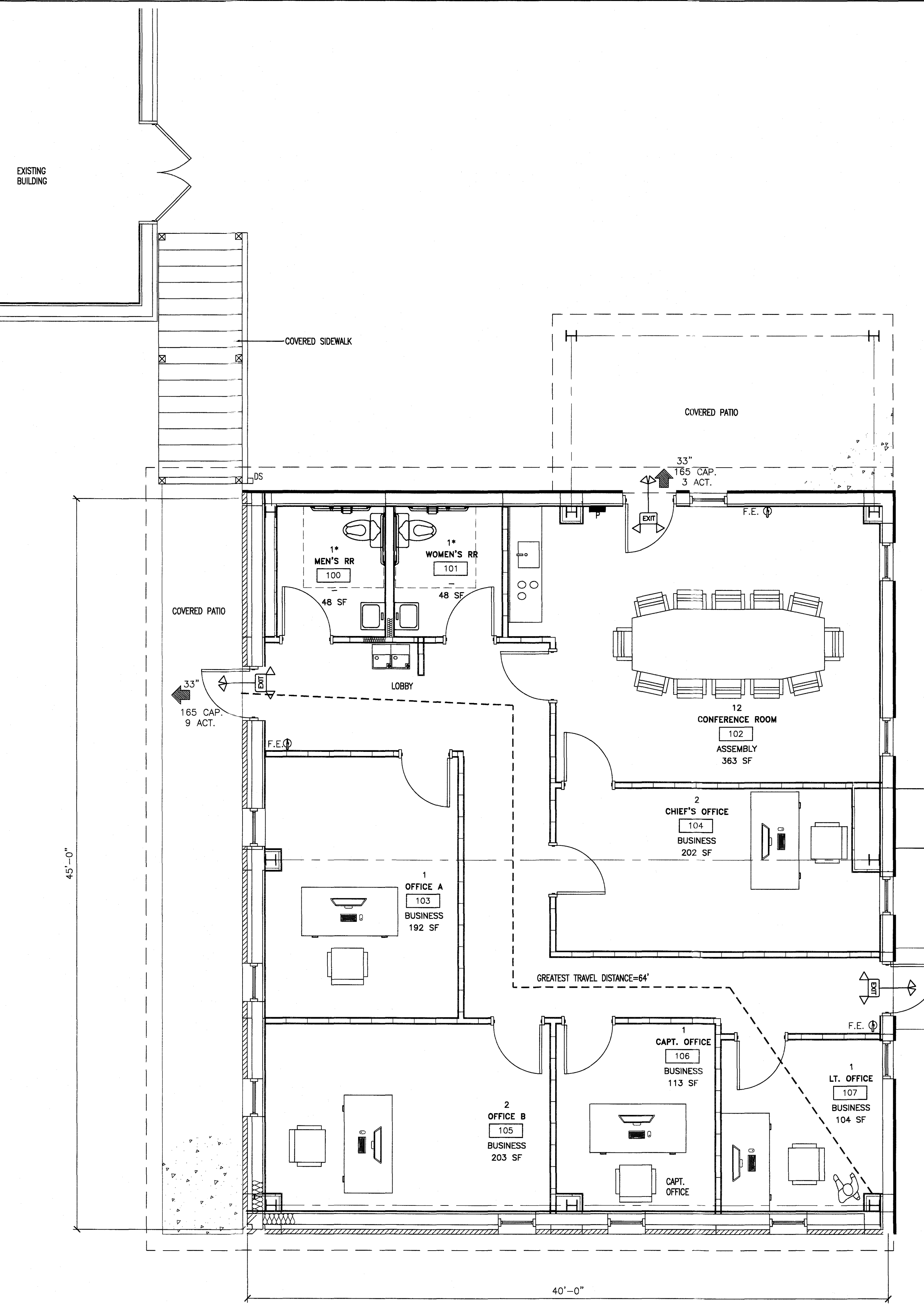
CONTRACTOR/BUILDER:

PROJECT:
 NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523

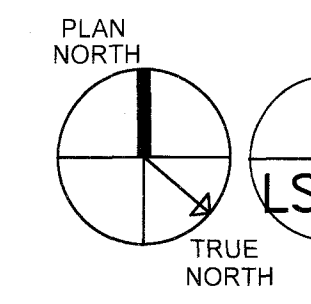
SHEET:
 LIFE SAFETY & EGRESS PLAN-BLDG 1

LS-1

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg 4' 3:46pm
 Plotted by: JoshL
 Plotted Date: Nov 15, 2023



NOTE: FURNITURE IS SHOWN FOR ILLUSTRATION PURPOSES ONLY & PROVIDED BY OWNER



LIFE SAFETY - BUILDING 2 EGRESS PLAN

1
LS-2 1/4"=1'-0"

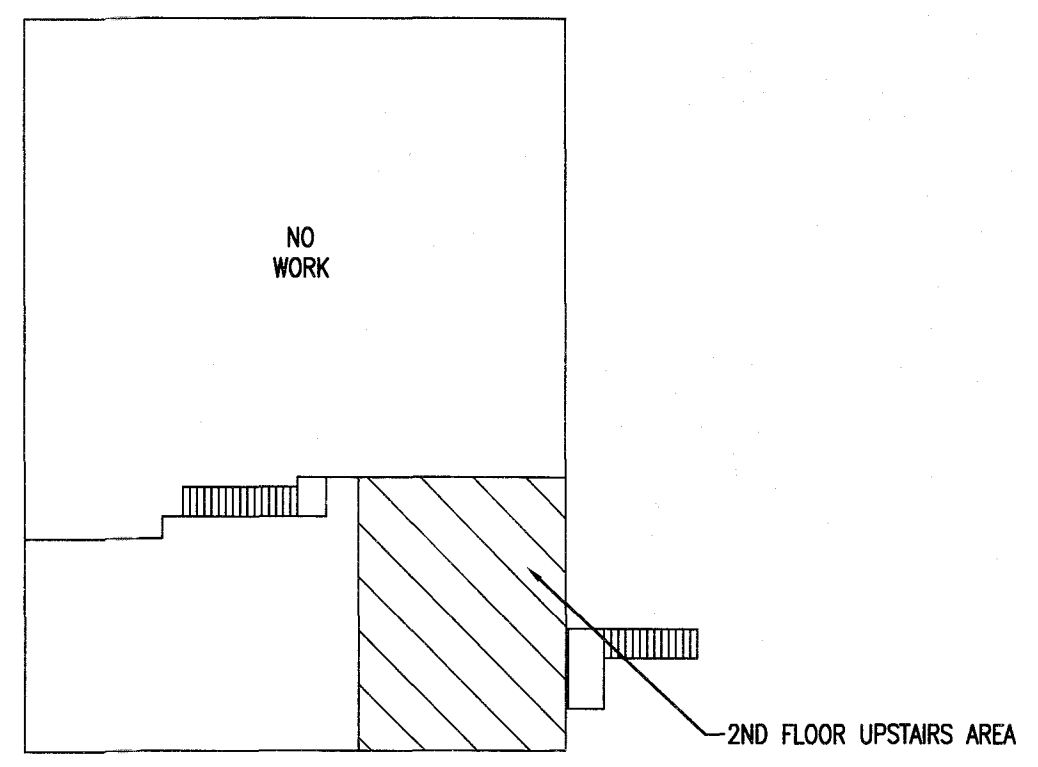
OCCUPANCY CLASSIFICATION per TABLE 1004.1.2						
SPACE NUMBER	CURRENT SPACE USE	FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	ROOM AREA (GROSS SF)	A CALCULATED EGRESS OCCUPANCY TOTAL (BY AREA)	B ACTUAL BUILDING OCCUPANT TOTAL (ANTICIPATED USE)
100	MEN'S RR	-	-	48	1*	1*
101	WOMEN'S RR	-	-	48	1*	1*
102	CONFERENCE ROOM	BUSINESS	100 GROSS	363	4	12
103	OFFICE A	BUSINESS	100 GROSS	192	2	1
104	CHIEF'S OFFICE	BUSINESS	100 GROSS	202	3	1
105	OFFICE B	BUSINESS	100 GROSS	203	3	1
106	CAPT. OFFICE	BUSINESS	100 GROSS	113	2	1
107	LT. OFFICE	BUSINESS	100 GROSS	104	2	1
THE OCCUPANT COUNT FOR TENANT SPACE & EGRESS CAPACITY				1273	16	17

THE EGRESS CAPACITY SHALL BE BASED UPON OCCUPANT LOAD OF 19 PERSONS
 (*) DENOTES OCCUPANT NUMBER ACCOUNTED FOR IN OCCUPANT TOTAL

BUSINESS OCCUPANCY:
 GROSS SQUARE FOOTAGE OF SPACE 1,857 SQ. FT.
 TYPE OF CONSTRUCTION: III-B
 SPACE IS TO BE USED AS A BUSINESS OFFICE FOR VOLUNTEER FIRE DEPARTMENT

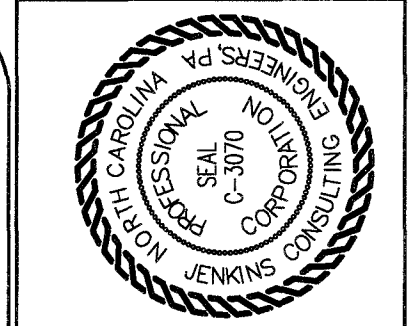
OCCUPANT LOAD FOR CALCULATING EGRESS CAPACITY:
 SPACE OCCUPANCY BY FUNCTION OF SPACE
 BUSINESS : 1,857 GSF / 100 = 19
 TOTAL OCCUPANCY BY FUNCTION = 19
 TOTAL OCCUPANCY BY AREA (COLUMN A) = 16
 TOTAL OCCUPANCY BY ANTICIPATED USE (COLUMN B) = 17
 (SEE TABLE ON THIS SHEET FOR INDIVIDUAL SPACE TOTALS)
 GREATEST TRAVEL DISTANCE SHOWN: 64 FEET. (PER 1017)
 MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200 FEET (PER TABLE 1017.2)
 THE COMMON PATH OF TRAVEL IS LESS THAN 75 FEET. (PER 1029.8)
 THERE ARE NO DEAD END CORRIDORS OVER 20 FEET. (PER 1020.4)

BUILDING EXIT WIDTH CALCULATIONS:
 19 PERSONS * 0.2"/OCCUPANT = 3.8" REQUIRED, 99 INCHES TOTAL PROVIDED. (PER 1005.1)
 MIN. NO. OF EXITS REQUIRED: ONE (1) (PER TABLES 1006.1 AND 1006.3.2)
 NUMBER OF EXITS PROVIDED: THREE (3) ACCESSIBLE
 EGRESS DOORS DO NOT REQUIRE PANIC HARDWARE. (PER 1010.1.10)
 DOORS DO NOT HAVE DELAYED EGRESS LOCKS (PER 1010.1.9.7)
 DOORS DO NOT HAVE ELECTROMAGNETIC EGRESS LOCKS (PER 1010.1.9.9)
 DOORS DO NOT HAVE HOLD OPEN DEVICES.
 THERE ARE NO EMERGENCY ESCAPE WINDOWS (PER 1030)
 THE FIRE AREA SQUARE FOOTAGE IS: 1,800 SQUARE FEET (PER 902)
 THERE ARE NO SLEEPING AREAS (SMOKE COMPARTMENTS) (PER 407.2)
 THIS BUILDING IS NOT PROTECTED BY FIRE SPRINKLERS
 THERE IS NO FIRE ALARM SYSTEM.
 LOCK BOX FOR KEY IS INSTALLED AT FRONT ENTRANCE. (AS REQ'D.)
 DUCT DETECTORS ARE INSTALLED IN AHU. AN AUDIBLE AND VISIBLE DEVICE IS PROVIDED FOR UNIT. (AS REQ'D.)
 NO. OF FIRE EXTINGUISHERS PROVIDED: THREE (3) FIRE EXTINGUISHER:
 THREE (3) ABC FIRE EXTINGUISHERS
 FIRE EXTINGUISHER FOR CLASS A FIRE HAZARDS REQUIRE NO GREATER THAN 75 FT OF MAXIMUM TRAVEL DISTANCE IN LOW, ORDINARY AND EXTRA HAZARD OCCUPANCY.



EXISTING BUILDING AREA OF WORK-2ND FLOOR
N.T.S.

LEGEND	
SYMBOL	DESCRIPTION
F.E. Ⓢ	ABC FIRE EXTINGUISHER SUGGESTED LOCATION
—	GREATEST TRAVEL DISTANCE
33"	EXIT WIDTH, 36" - 3 = 33" CLEAR WIDTH.
165 CAP. 22 ACT.	EXIT CAPACITY (NUMBER OF PERSONS) ACTUAL OCCUPANT LOAD FOR EXIT DOOR
EXIT	EXIT SIGN
Ⓢ	SMOKE DETECTOR
36"	AISLE WIDTH WHERE SHOWN
EXIT SIGN WITH EMERGENCY LIGHTING	EXIT SIGN WITH EMERGENCY LIGHTING
ROOM LABEL	DESCRIPTION
10	OCCUPANT TOTAL
RETAIL	ROOM NAME
1	ROOM NUMBER
MERCANTILE	FUNCTION TYPE
100 SF	SPACE AREA



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 CORPORATION NUMBER C-3070 BUSINESS ADDRESS
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15 NOVEMBER 2023

DESIGNED BY: K. DODSON
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

FINAL DRAWING FOR REVIEW PURPOSES ONLY
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OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

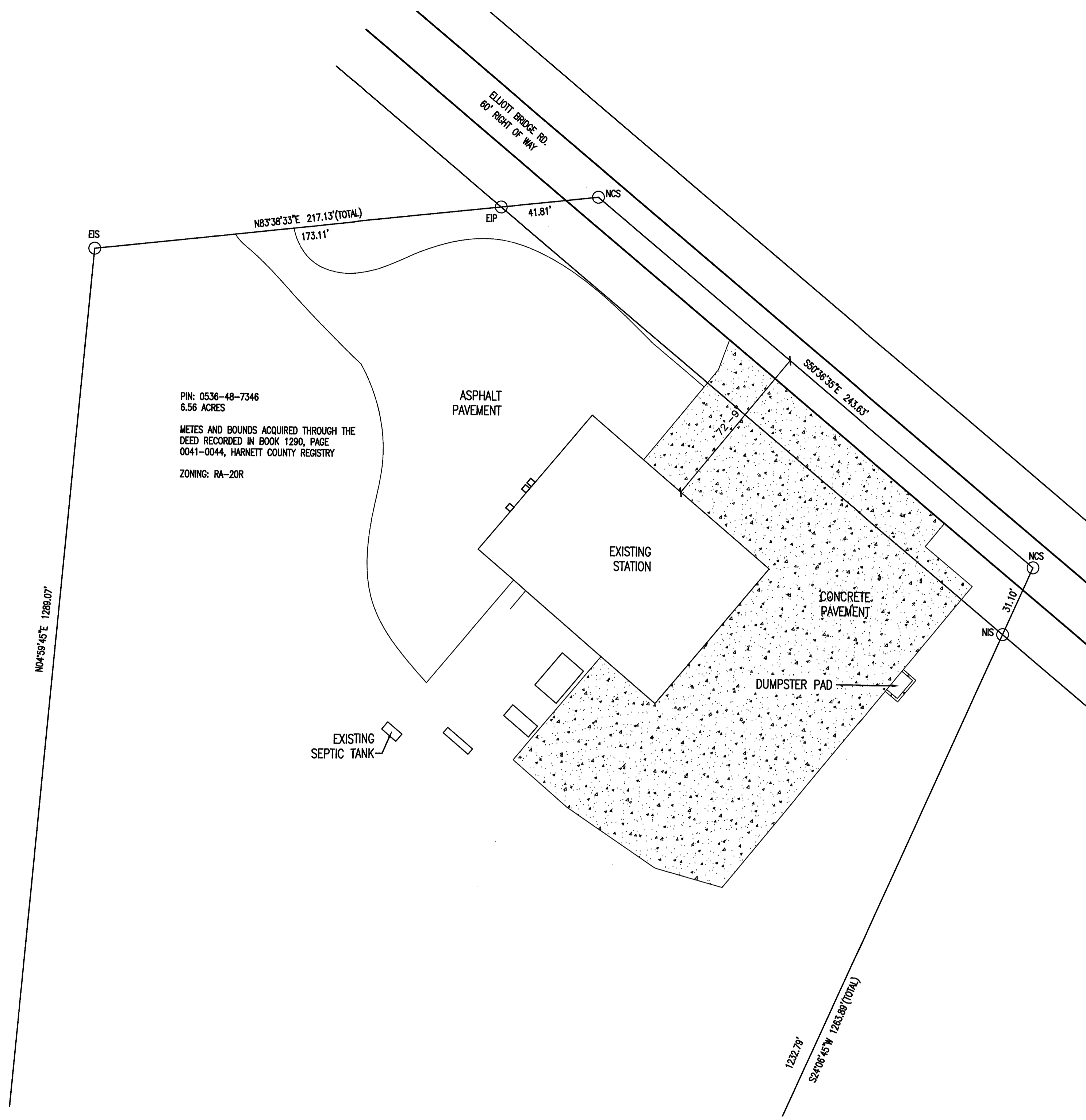
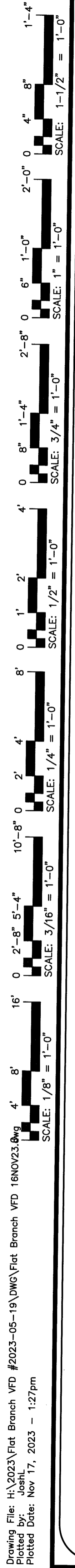
CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

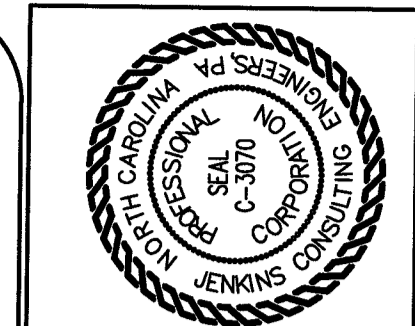
SHEET:
LIFE SAFETY & EGRESS PLAN - BLDG 2

LS-2

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
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1 EXISTING SITE PLAN
 SP1 1"=30'



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 OFFICE IN EUREKA SPRINGS, NORTH CAROLINA
 500 MANTHORP RD. FAYETTEVILLE, NC 28511-1002
 PHONE NUMBER: 910.822.1724 FAX: 910.822.8607



15 NOVEMBER 2023

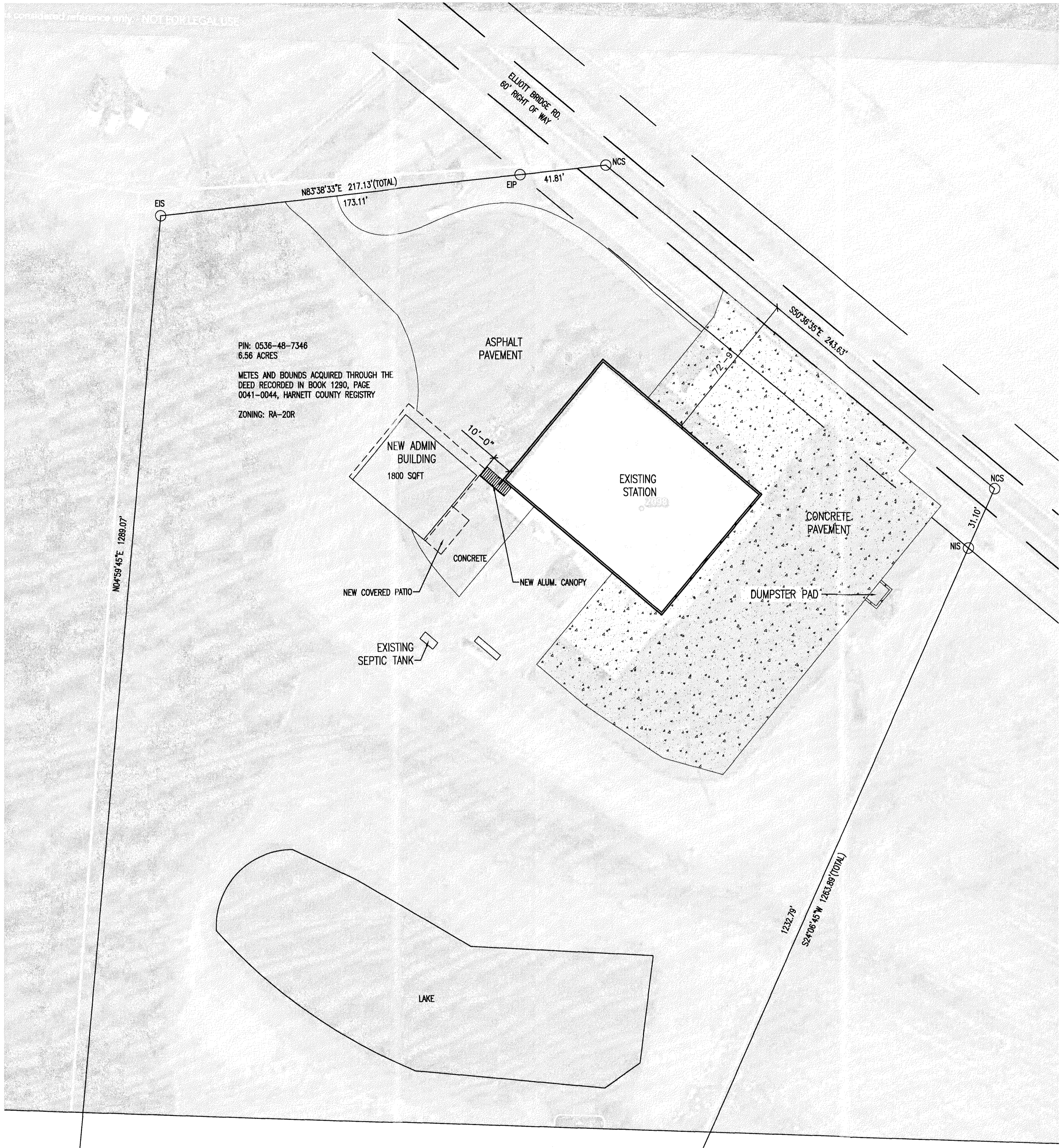
DESIGNED BY: **K. DODSON**
 DRAWN BY: **JDL**
 PROJECT #: **2023-05-19**
 DATE: **15 NOVEMBER 2023**

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 OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

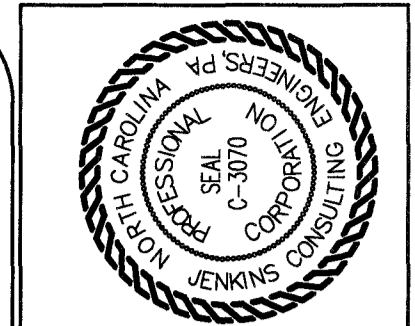
PROJECT: **NEW ADMIN BUILDING & INTERIOR RENOVATION**
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET:
EXISTING SITE PLAN

SP1

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1 ADDITION SITE PLAN
 SP2 1"=30'



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 608 MARSHUR RD. FAYETTEVILLE, NC 28411-1002
 910.822.1724
 910.822.1724



15 NOVEMBER 2023

DESIGNED BY: K. DODSON	JDL
DRAWN BY:	
PROJECT #:	2023-05-19
DATE:	15 NOVEMBER 2023

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 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

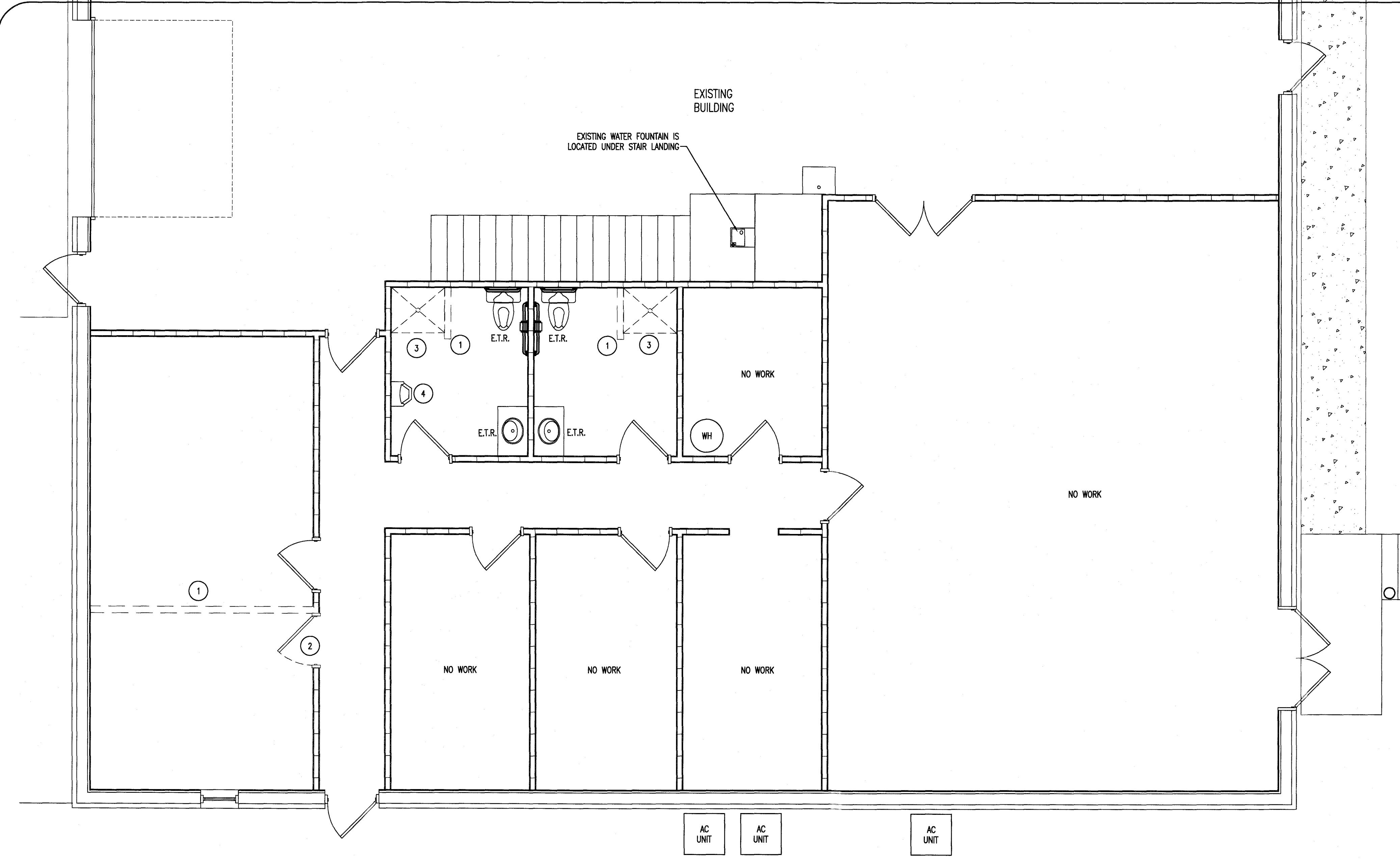
CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

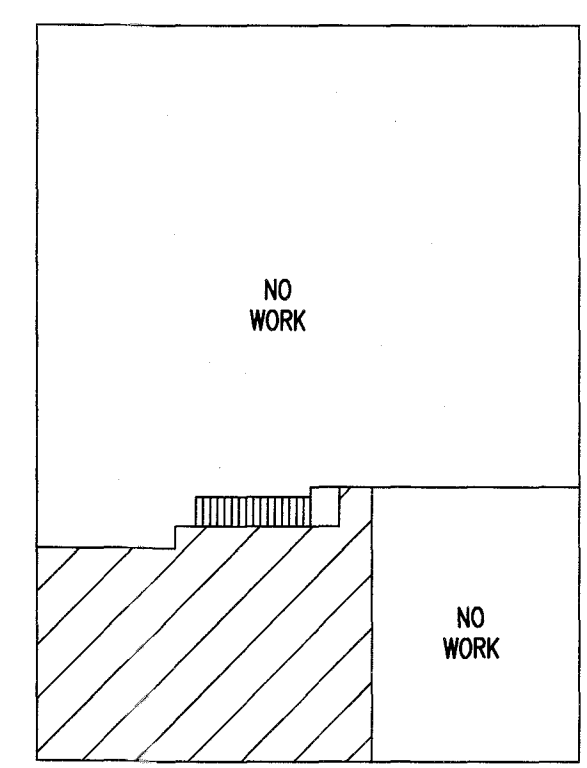
SHEET:
NEW SITE PLAN

SP2

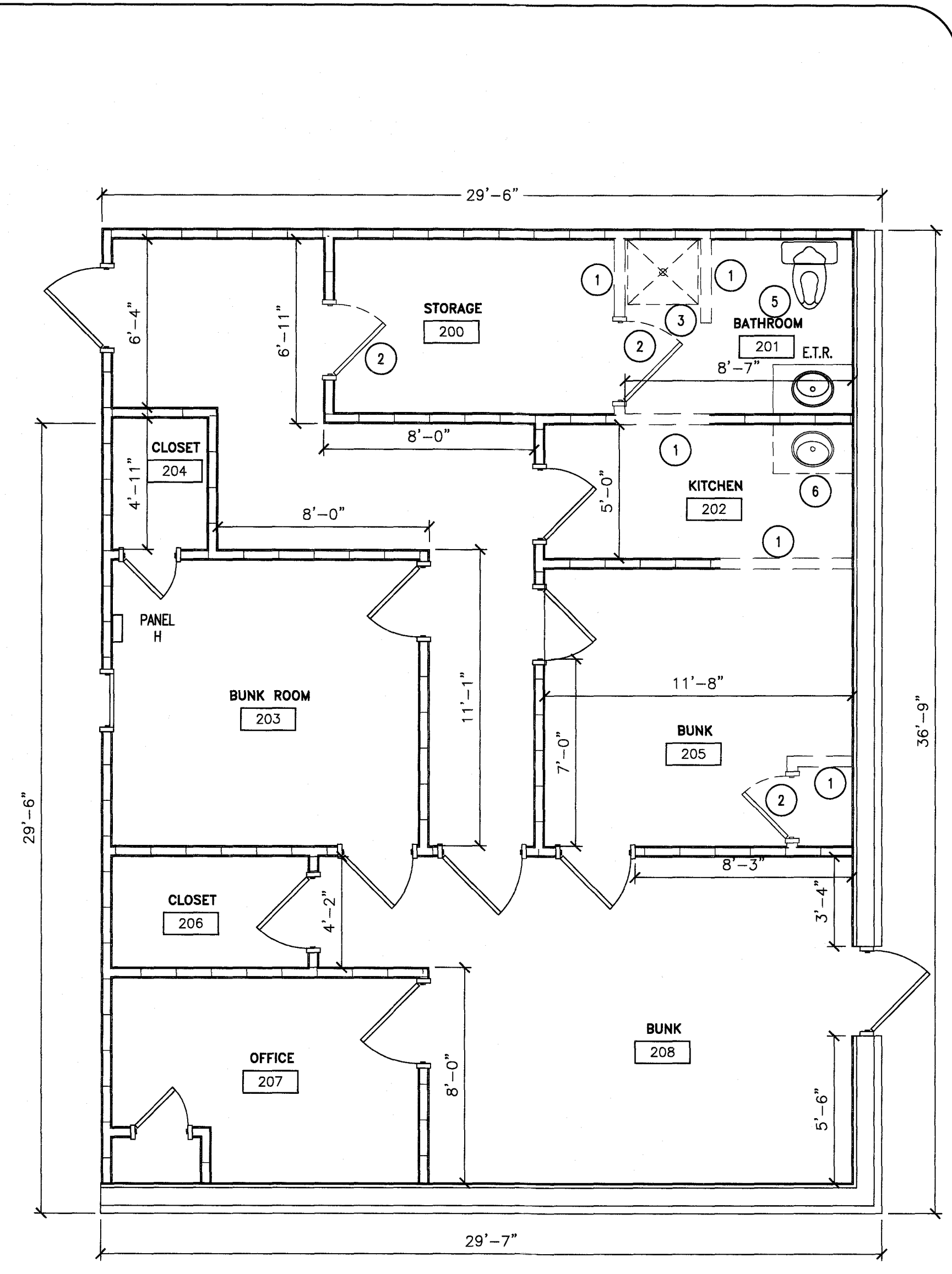
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1
 G1
 1/4" = 1'

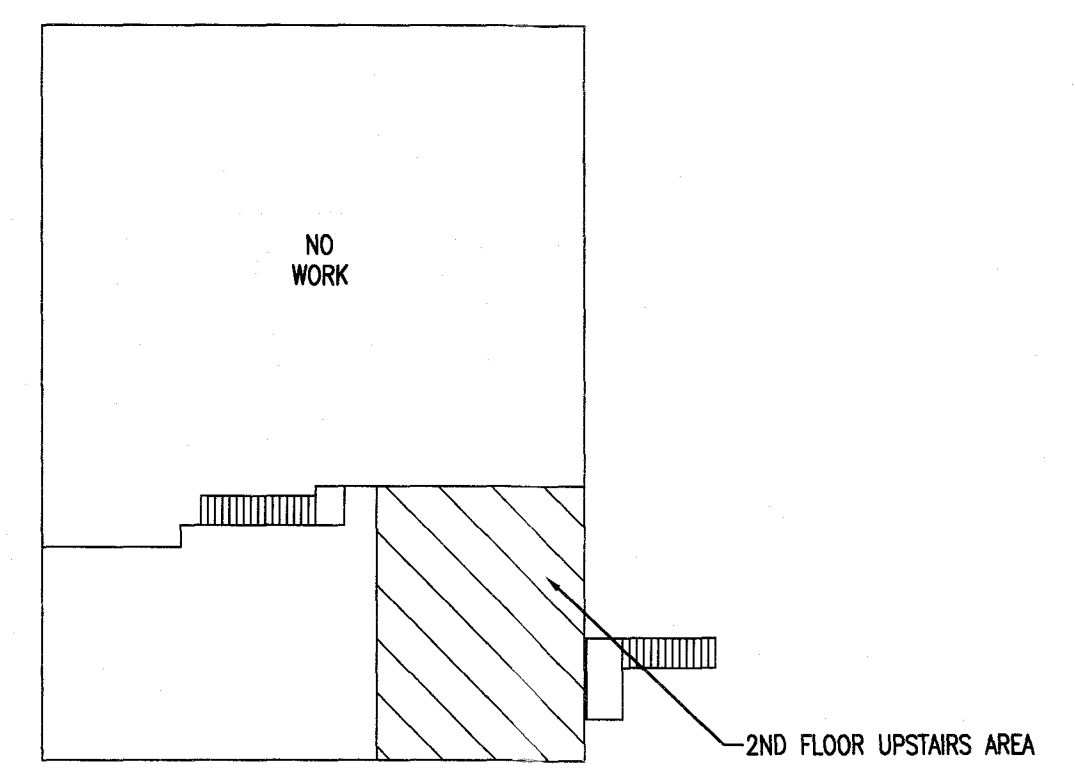


EXISTING BUILDING AREA OF WORK-1ST FLOOR
 N.T.S.



2
 G1
 1/4" = 1'-0"

- EXISTING FLOOR DEMOLITION KEYED NOTES:**
- 1 REMOVE EXISTING WALL
 - 2 REMOVE EXISTING DOOR
 - 3 REMOVE EXISTING SHOWER
 - 4 RELOCATE EXISTING URINAL
 - 5 RELOCATE EXISTING TOILET
 - 6 REMOVE EXISTING SINK/VANITY



EXISTING BUILDING AREA OF WORK-2ND FLOOR
 N.T.S.

J. JENKINS
 CONSULTING ENGINEERS, P.A.
 OFFICE IN EUREKA SPRINGS, NORTH CAROLINA
 508 W. WILSON RD., EUREKA SPRINGS, NC 28311-1002
 PAVETTAVILLE, NC 28311-1002
 SEPARATION NUMBER C-5191 TEL: 910.822.1724 FAX: 910.822.5627

DESIGNED BY: **K. DODDSON**
 DRAWN BY: **JDL**
 PROJECT #: **2023-05-19**
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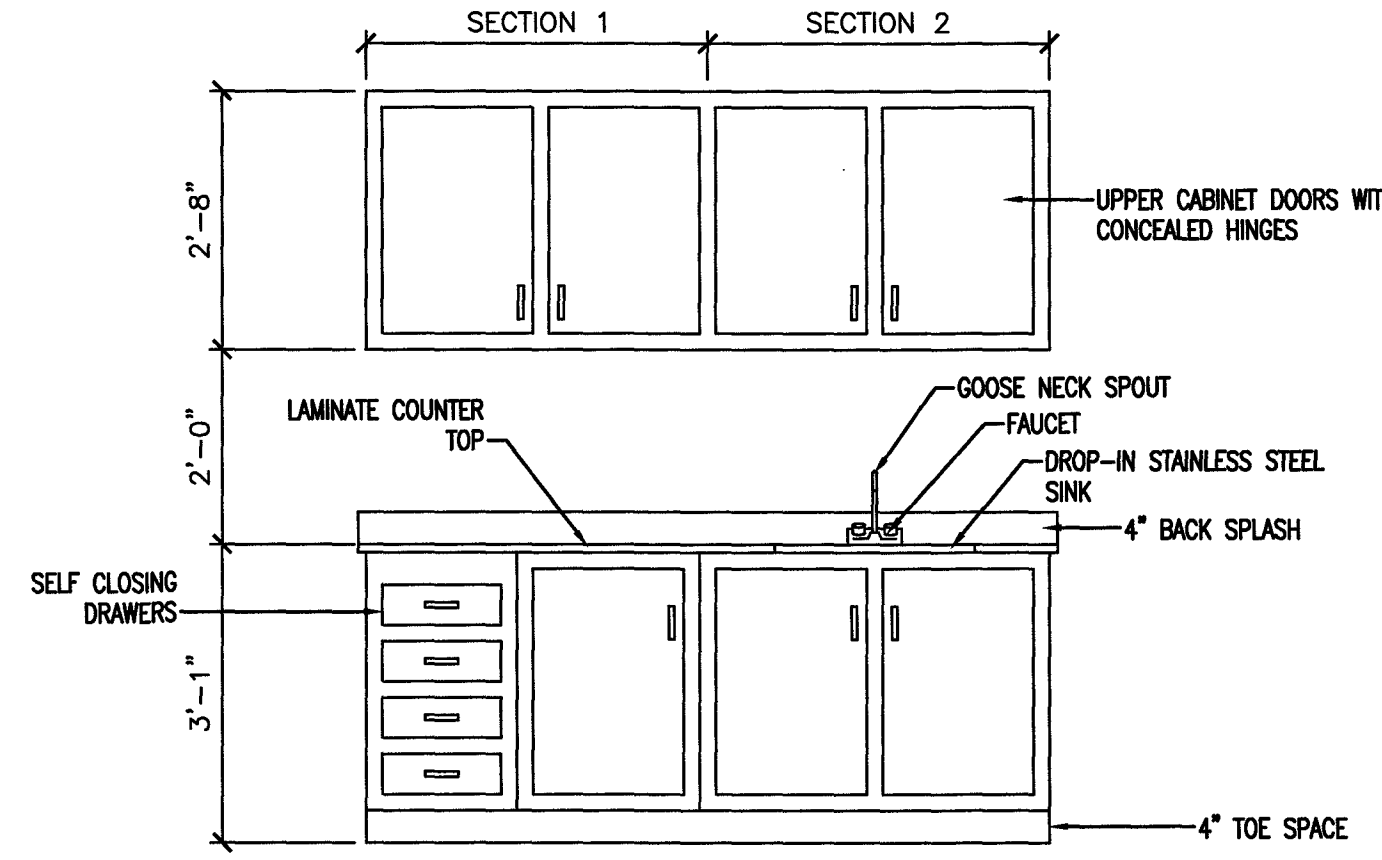
CONTRACTOR/BUILDER:

PROJECT: **NEW ADMIN BUILDING & INTERIOR RENOVATION**
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: **EXISTING FLOOR PLAN AND DEMOLITION NOTES**

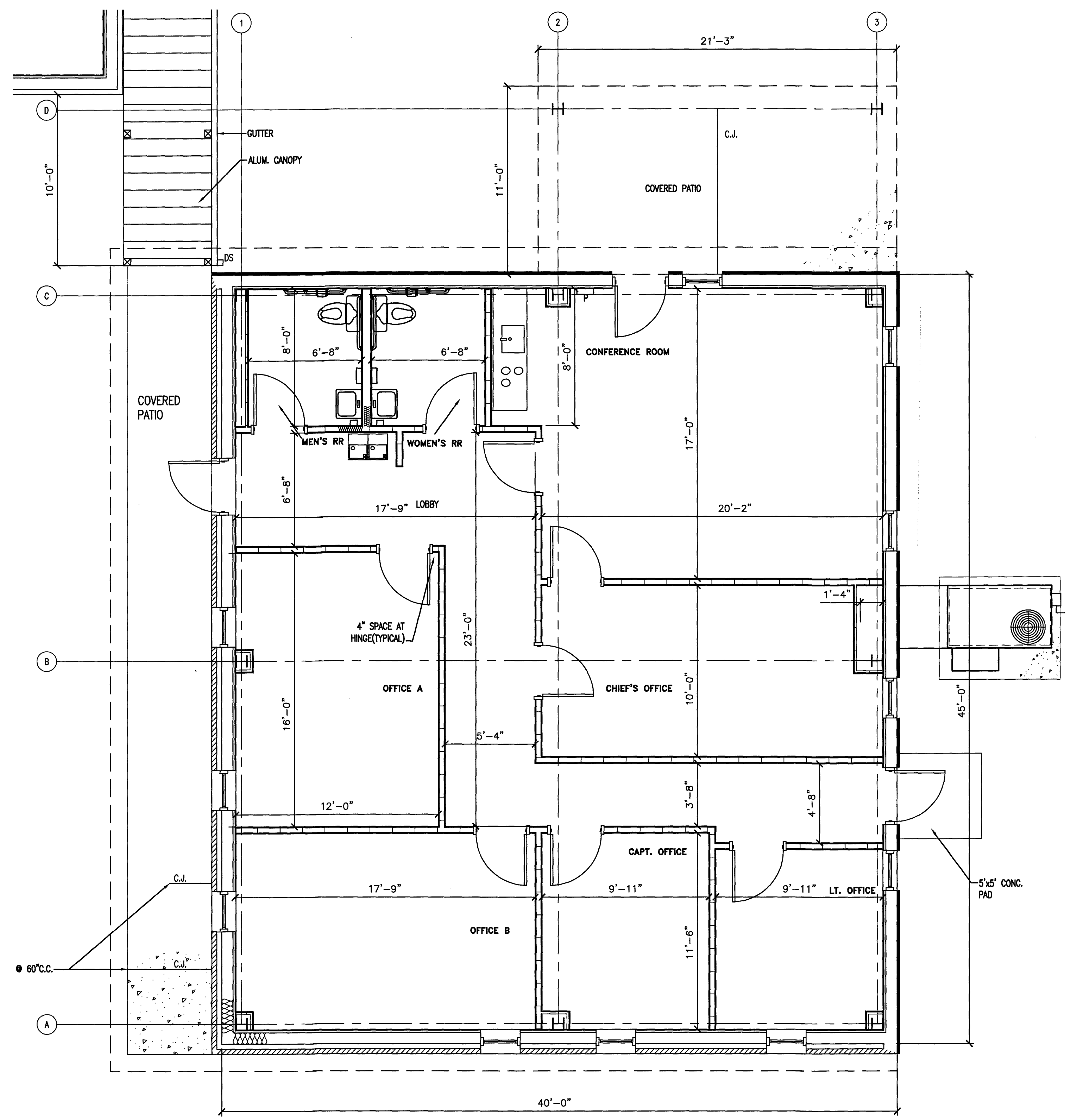
G1

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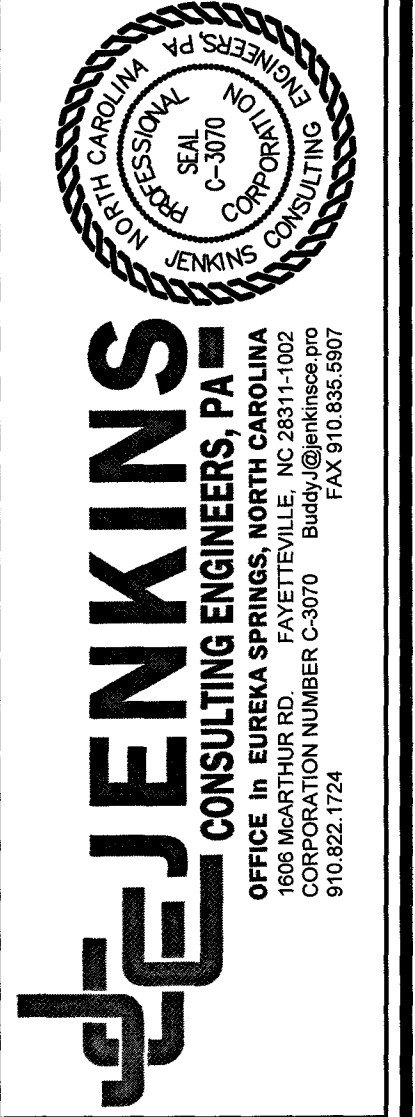
NOTE: CONTRACTOR SHOULD SUBMIT CABINET DETAILS PRIOR TO FABRICATION FOR APPROVAL.
 NOTE: CABINETS SHALL BE COMMERCIAL GRADE WITH LAMINATED INTERIOR & EXTERIOR FACES & LAMINATED COUNTERTOP & DOORS WITH CONCEALED HINGES.

PLAN NORTH
 TRUE NORTH
1 CABINET ELEVATION
 G3
 SCALE: 1/2" = 1'-0"



PLAN NORTH
 TRUE NORTH
2 BUILDING-2 DIMENSIONED PLAN
 G3
 SCALE: 1/4" = 1'-0"

SEE SHEETS G5 FOR CALLOUTS
 NOTE: COORDINATE WITH METAL BUILDING PLANS FOR LOCATIONS OF X-BRACING AND WALL GRIDS



15 NOVEMBER 2023

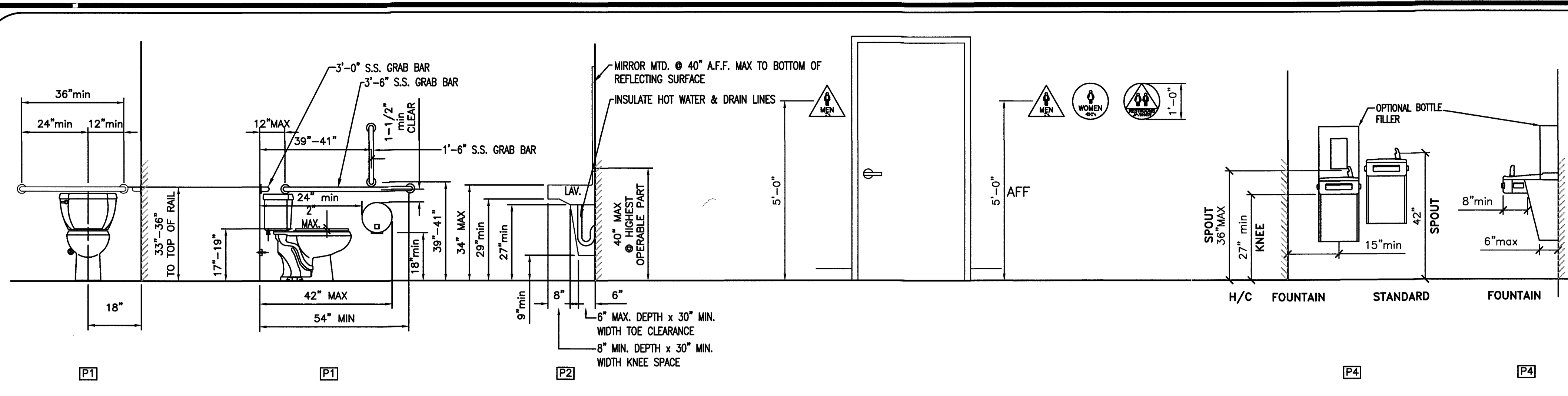
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 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET: BUILDING-2 DIMENSIONED PLAN

G3

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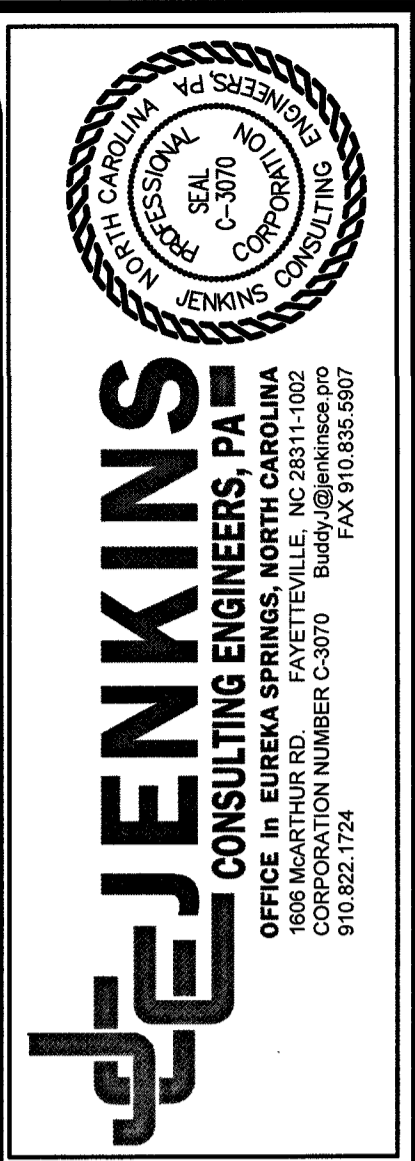
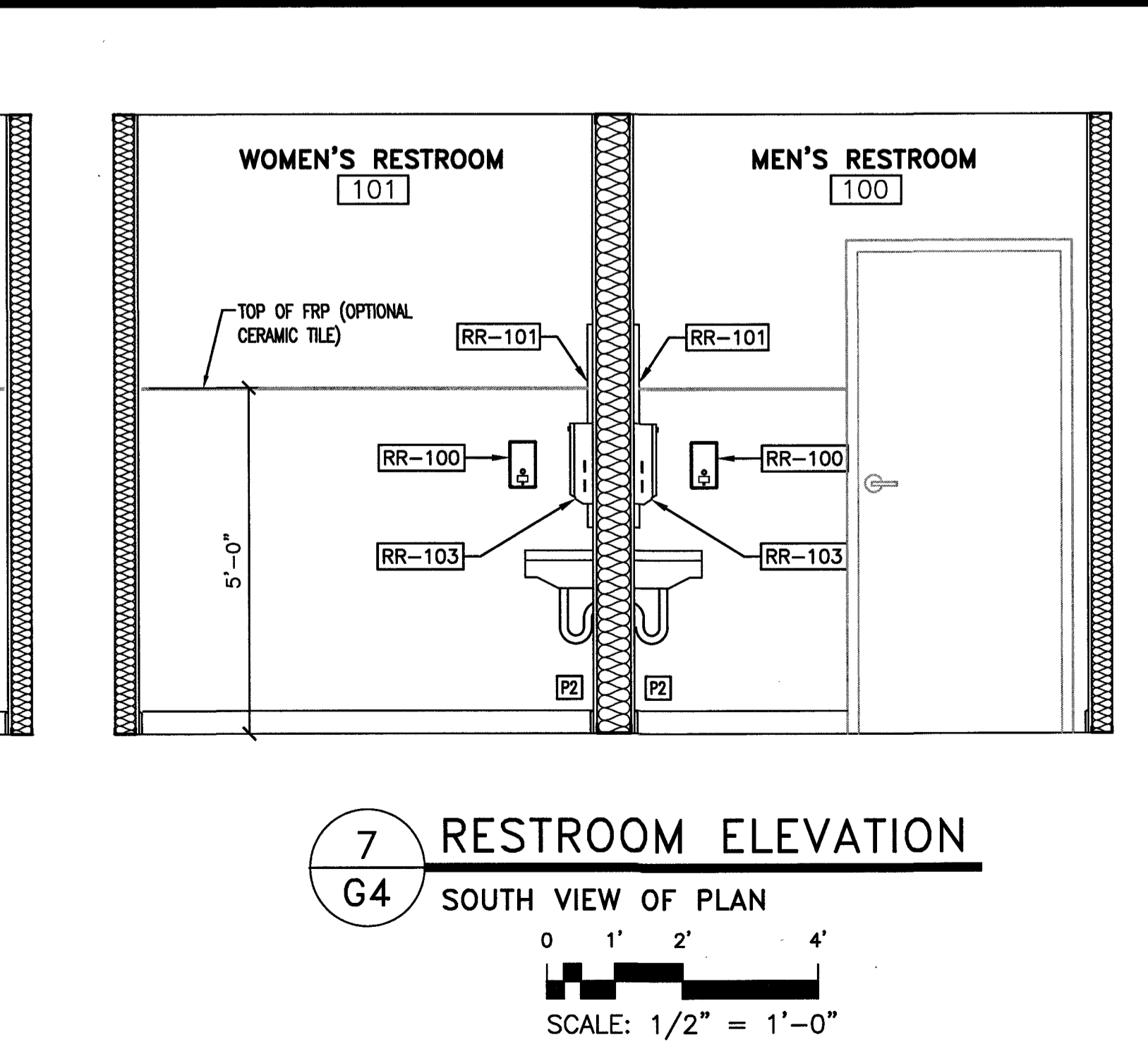
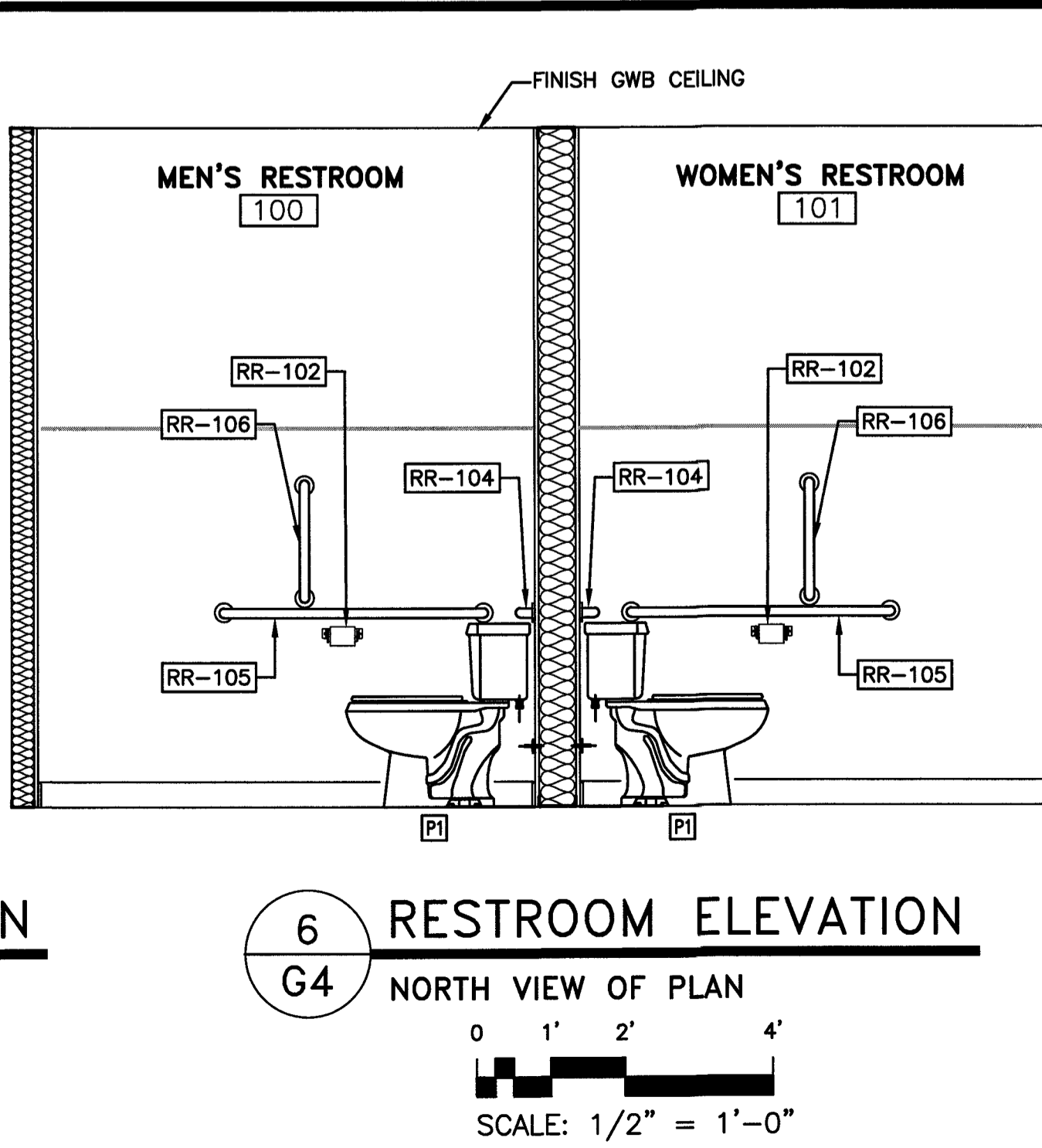
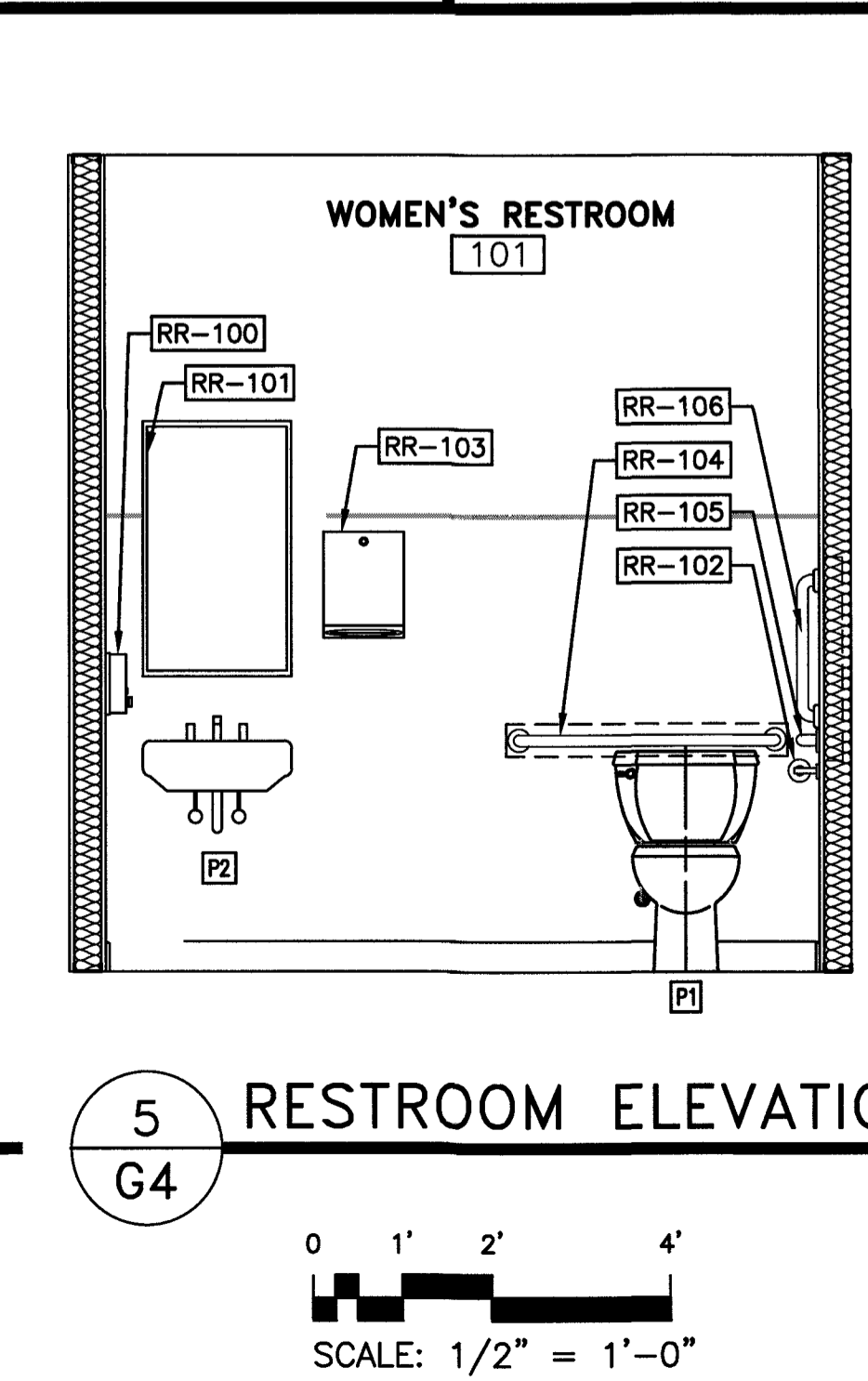
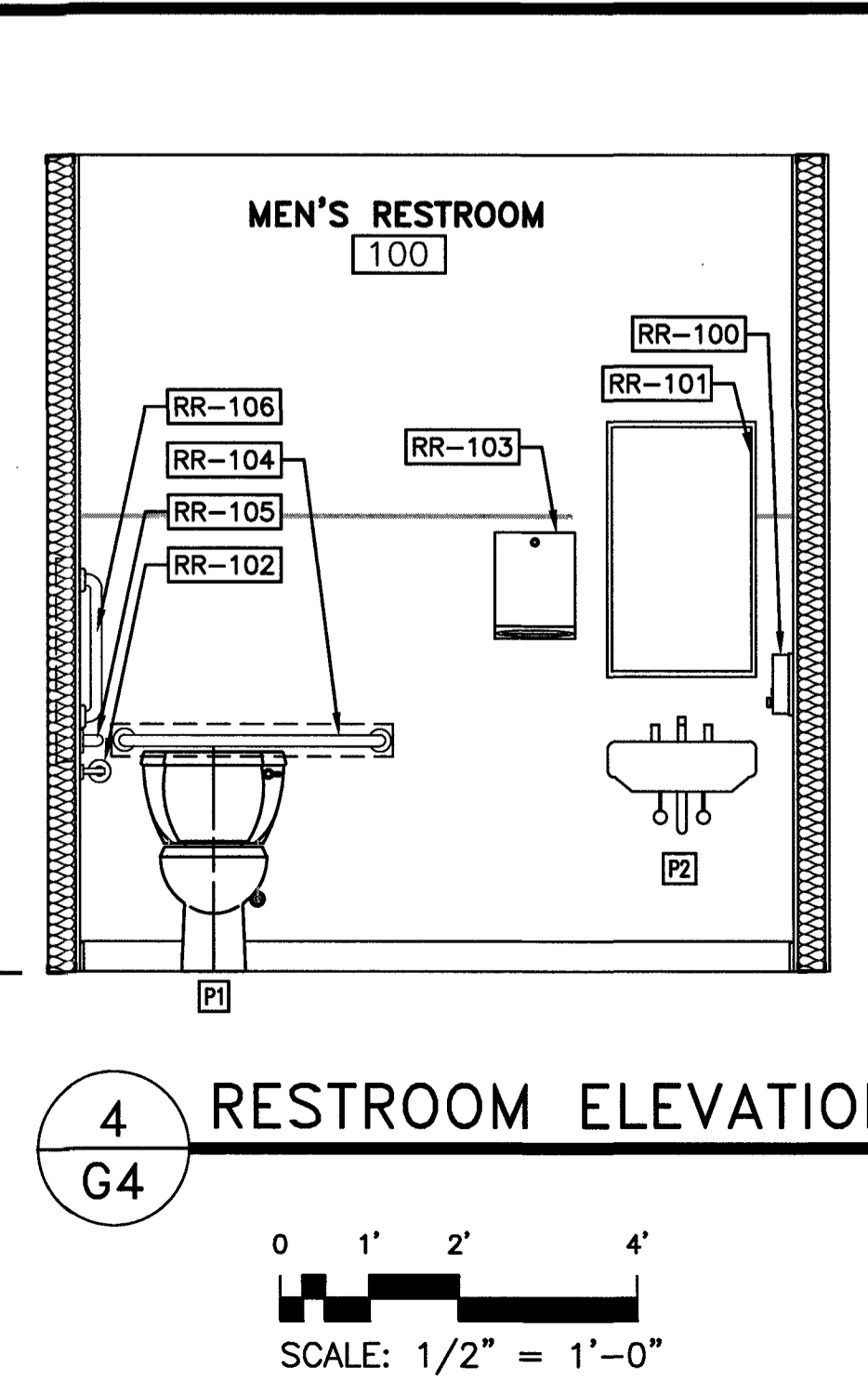
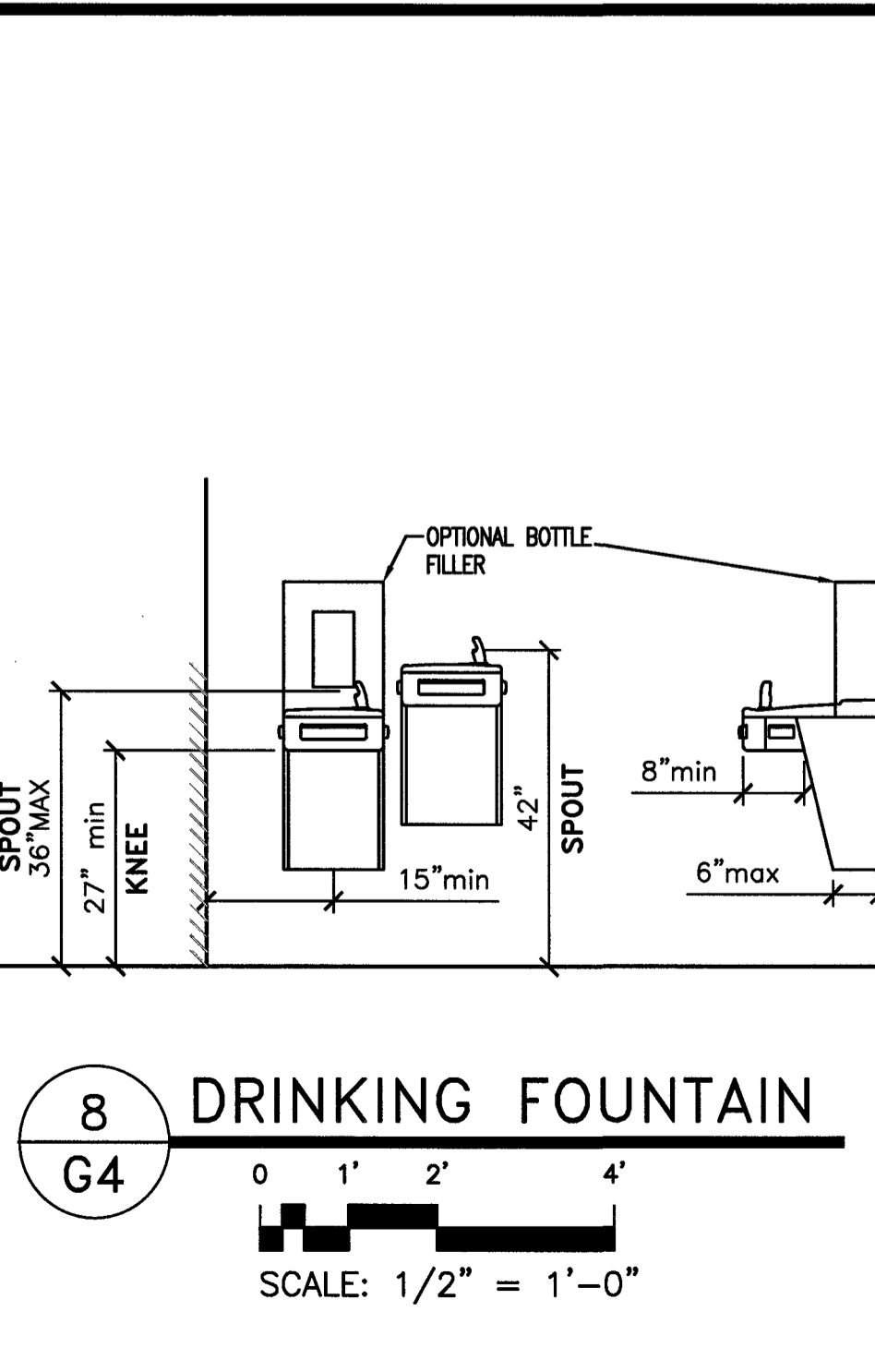
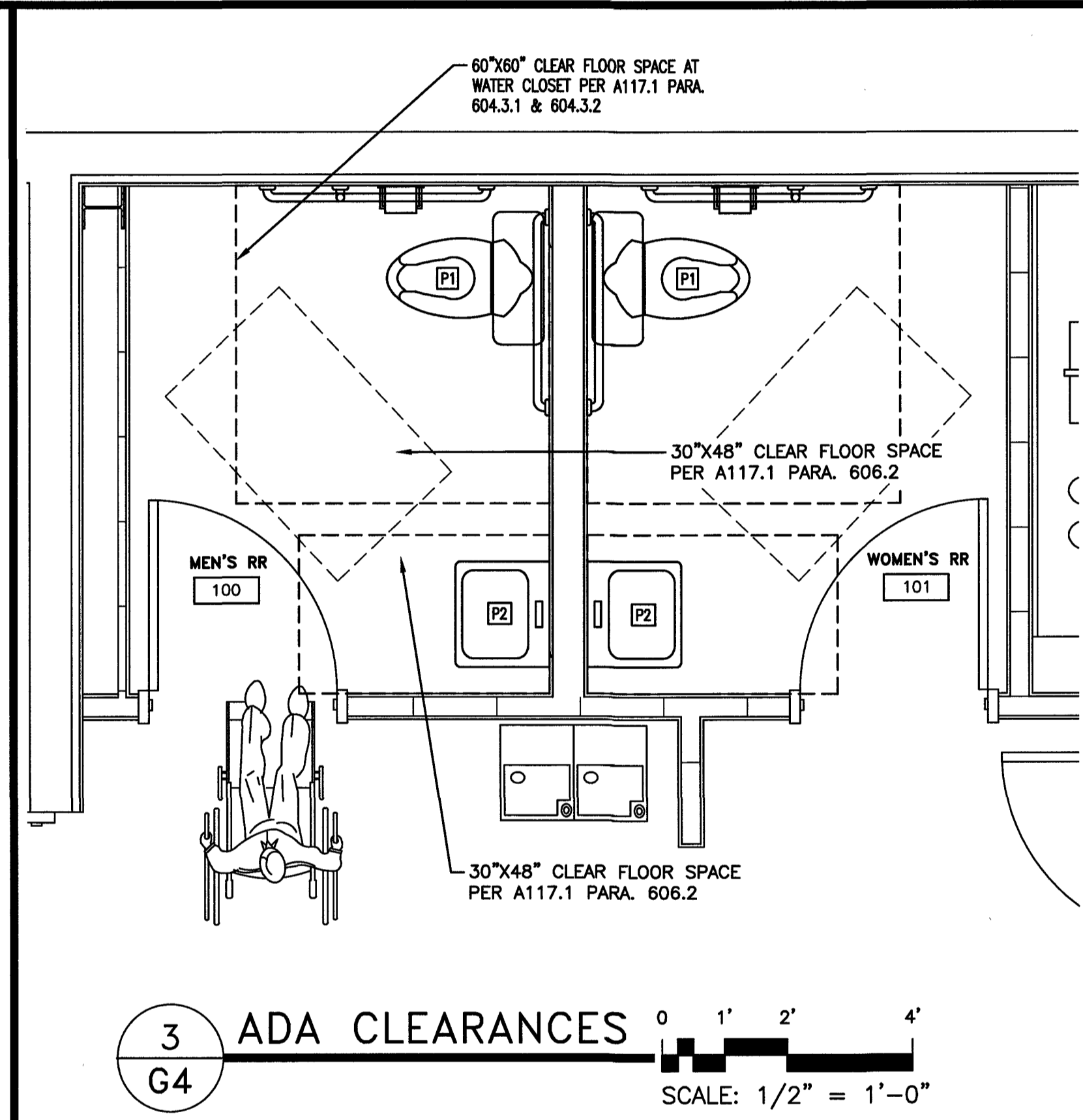
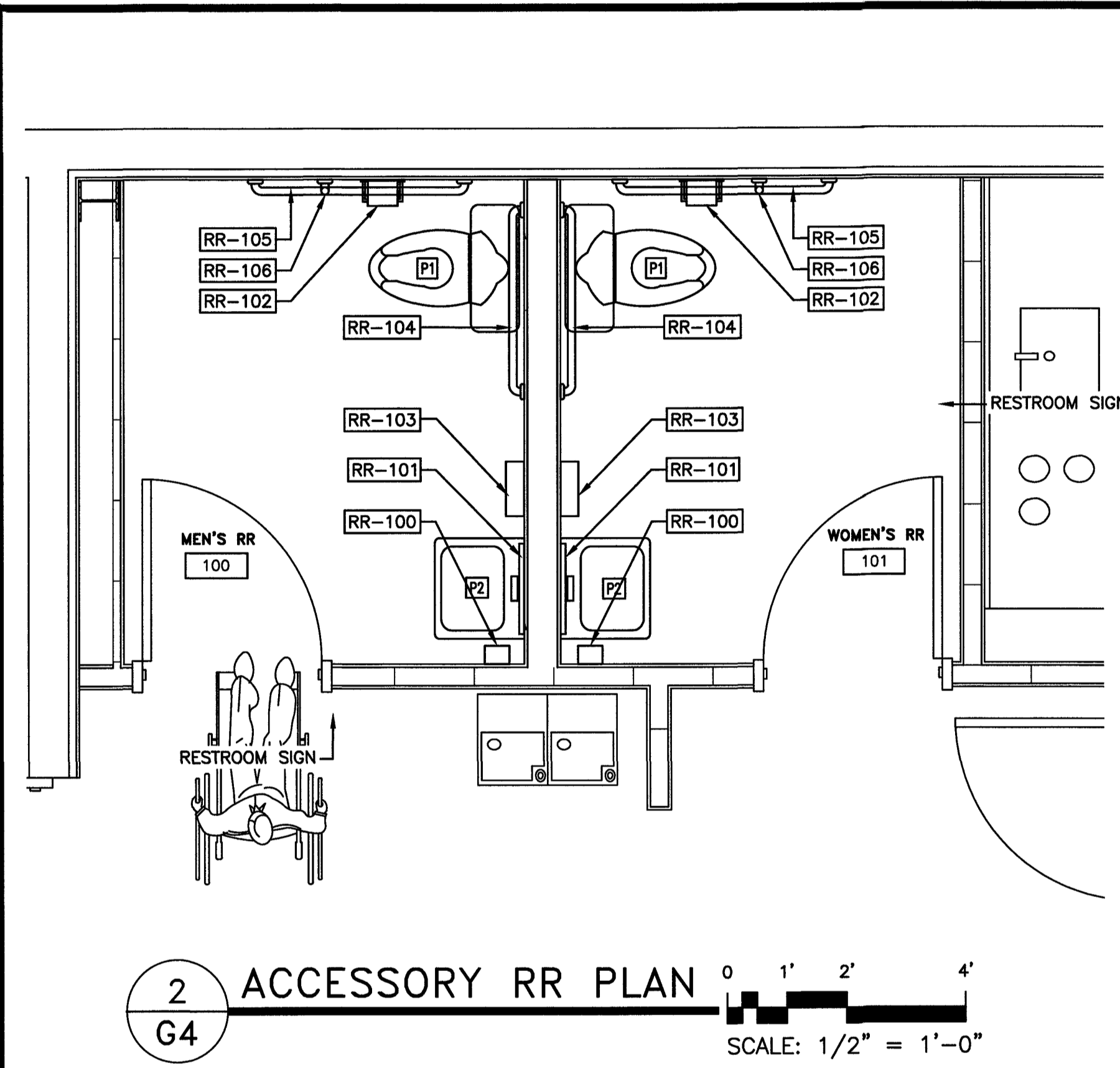
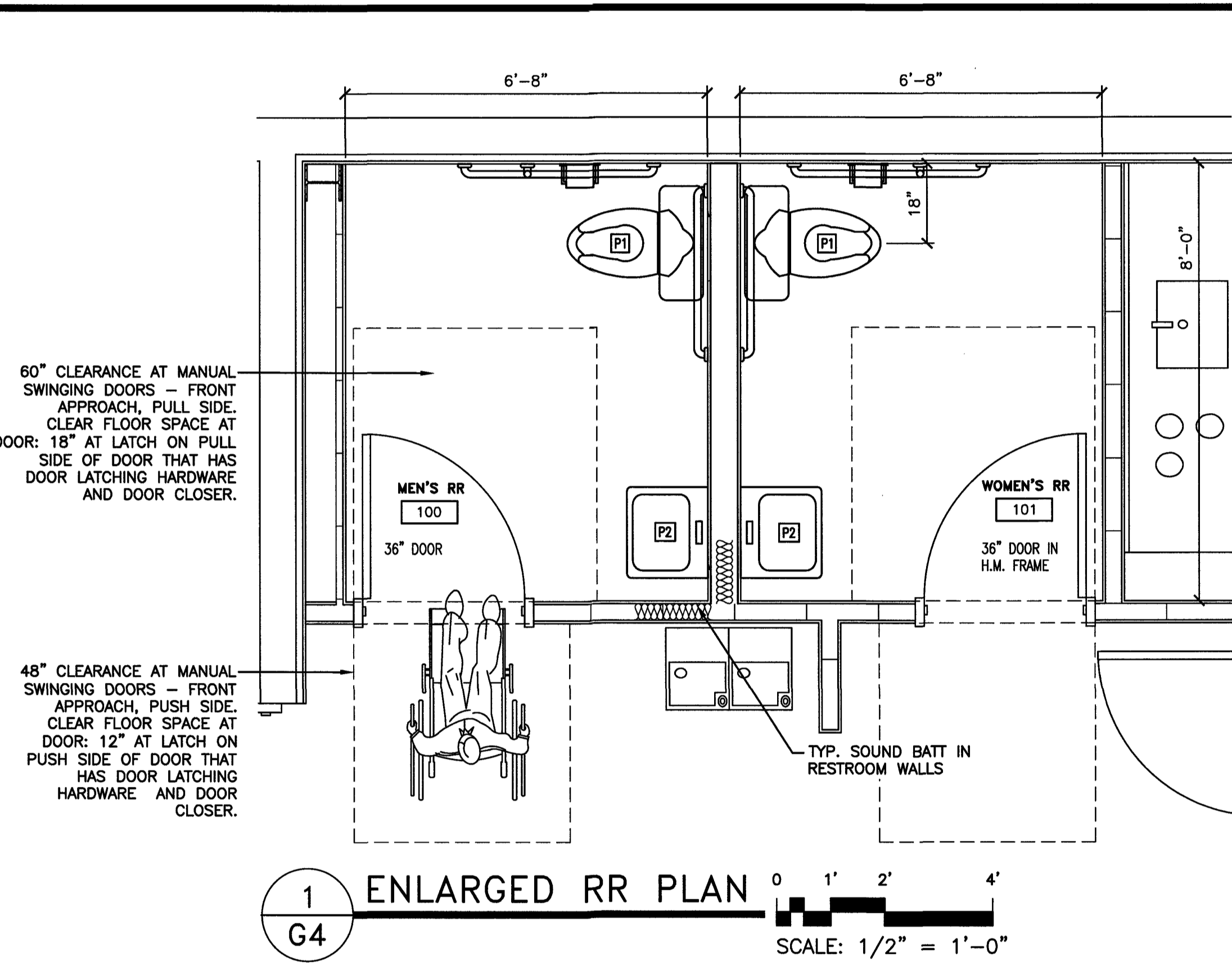


ACCESSORY LEGEND

NO.	QTY	G.C.INST.	ITEM DESCRIPTION	MODEL #	MANUFACTURER
RR-100	2	X	SOAP DISPENSER (WALL MOUNT)	B-2111	BOBRICK
RR-101	2	X	MIRROR, 18" X 36"	B-165 1836	BOBRICK
RR-102	2	X	TOILET PAPER DISPENSER	B-273	BOBRICK
RR-103	2	X	PAPER TOWEL DISPENSER	B-2620	BOBRICK
RR-104	2	X	GRAB BAR 1-1/2" DIA X 36" S.S. FIN.	B-5806 X 36	BOBRICK
RR-105	2	X	GRAB BAR 1-1/2" DIA X 42" S.S. FIN.	B-5806 X 42	BOBRICK
RR-106	2	X	GRAB BAR 1-1/2" DIA X 18" S.S. FIN.	B-5806 X 18	BOBRICK
RR-107	-	X	RESTROOM SIGNAGE	RR-120-DCTS	COMPLIANCE SIGNS

ACCESSORY NOTES:
 1. PROVIDE BLOCKING AT ALL WALL MOUNTED ACCESSORIES.
 2. GRAB BARS, FASTENERS AND MOUNTING DEVICES SHALL BE INSTALLED PER ADA REQUIREMENTS.
 3. INSTALL AT LOCATIONS REQUIRED AND AS SHOWN ON DRAWINGS.
 4. ALL TOILET ACCESSORIES TO BE SELECTED BY OWNER
 5. ALL TOILET ACCESSORIES TO BE INSTALLED BY CONTRACTOR
 6. ALL LAVATORIES & SINKS SHALL HAVE PROTECTIVE COVERING ATTACHED TO THE SUPPLY & DRAIN LINES BELOW THE FIXTURES.

SEE SHEET P1 FOR PLUMBING FIXTURE SCHEDULE.
 GYPSUM WALL BOARD SHALL BE MOISTURE RESISTANT IN RESTROOM.
 INSTALL CONCRETE BACKER BOARD IF CERAMIC WALL TILE OPTION IS INCLUDED

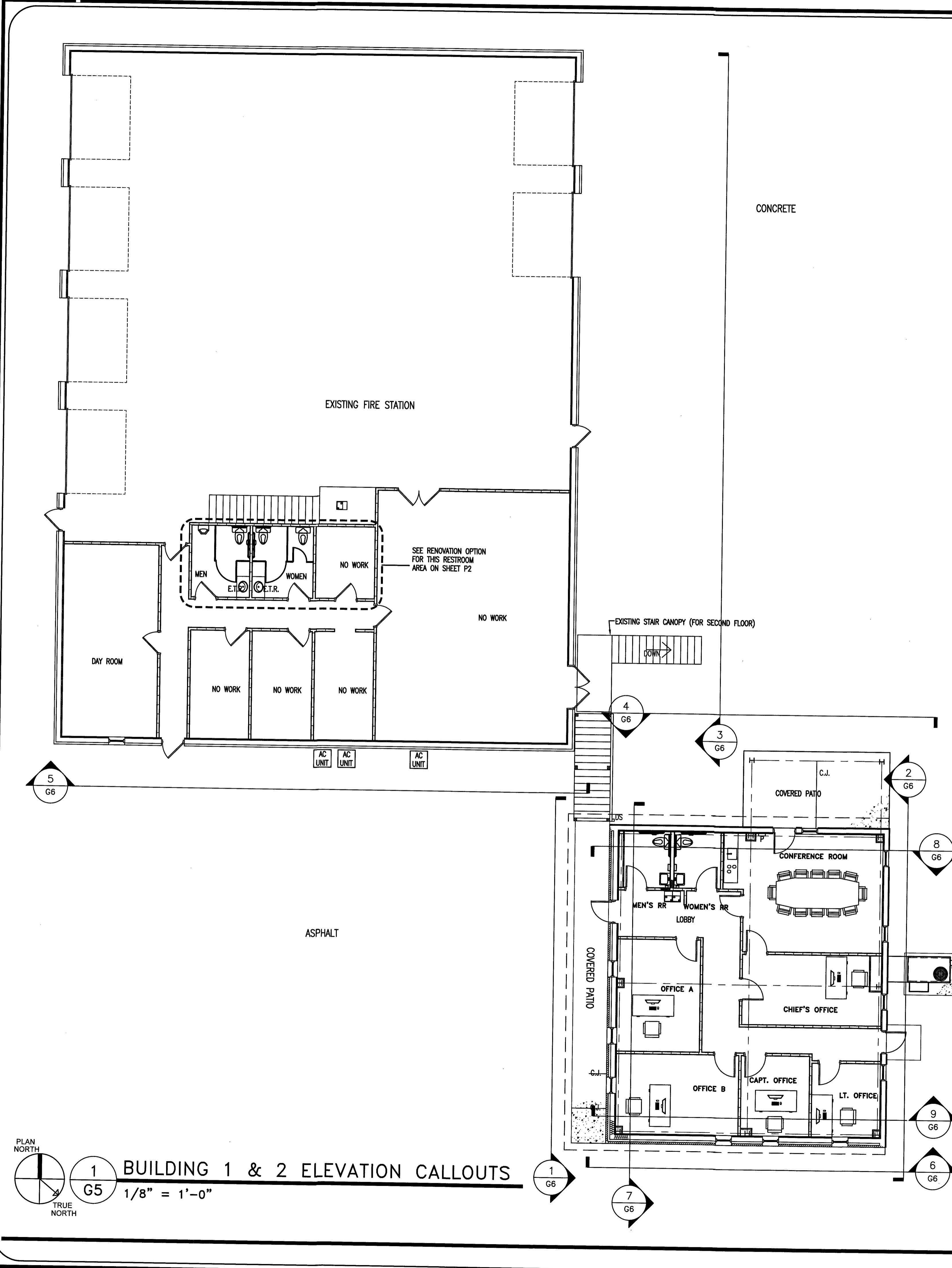


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 DRAWN BY: JDL
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 DATE: 15 NOVEMBER 2023
 FINAL DRAWING [] FOR REVIEW PURPOSES ONLY
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 FINAL DRAWING [x] FOR CONSTRUCTION
 OWNER/TENANT: FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28523
 CONTRACTOR/BUILDER:

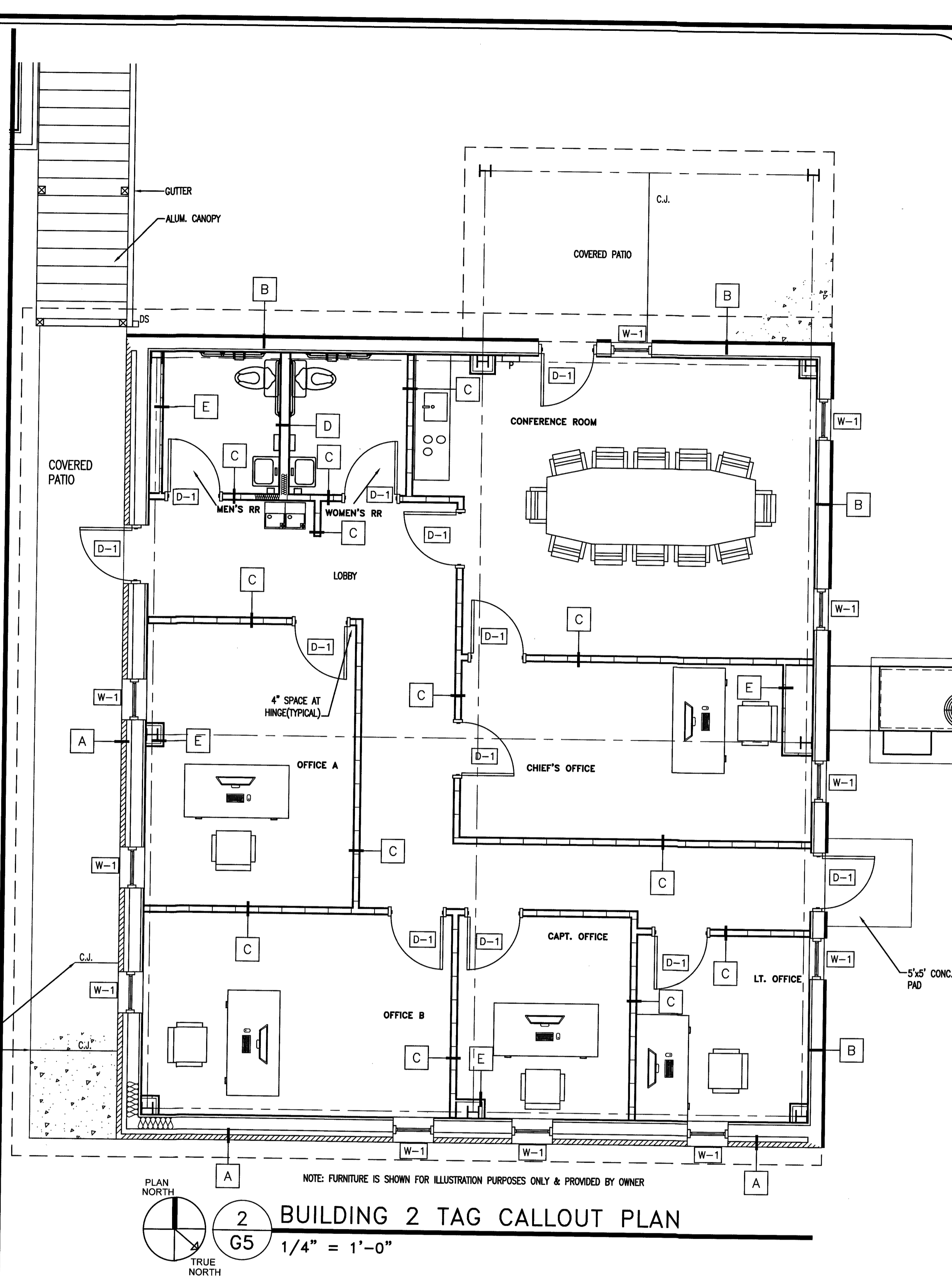
PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET: ADA ACCESSORIES/RESTROOM DETAIL

G4

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
 Plotted Date: Nov 16, 2023 - 1:54pm
 Scale: 1/8" = 1'-0"



1 BUILDING 1 & 2 ELEVATION CALLOUTS
 1/8" = 1'-0"
 PLAN NORTH
 TRUE NORTH



2 BUILDING 2 TAG CALLOUT PLAN
 1/4" = 1'-0"
 PLAN NORTH
 TRUE NORTH

KEYED NOTES - NEW WORK

KEY	DESCRIPTION
D-1	36"W x 84"H SINGLE HINGED DOOR
W-1	28"W x 64"H WINDOW

CALLOUT LEGEND:
 [Symbol] WALL TAG
 NOTE: SEE SHEET G7 FOR REFLECTIVE CEILING PLAN

WALL TAG LEGEND:

A	BRICK VENEER EXTERIOR WALL
B	8" METAL GIRT & WALL PANEL
C	STUD-3.625" GWB-0.625" ON EACH SIDE
D	STUD-6" GWB-0.625" ON EACH SIDE
E	STUD-1-1/2" GWB-0.625" ON ONE SIDE

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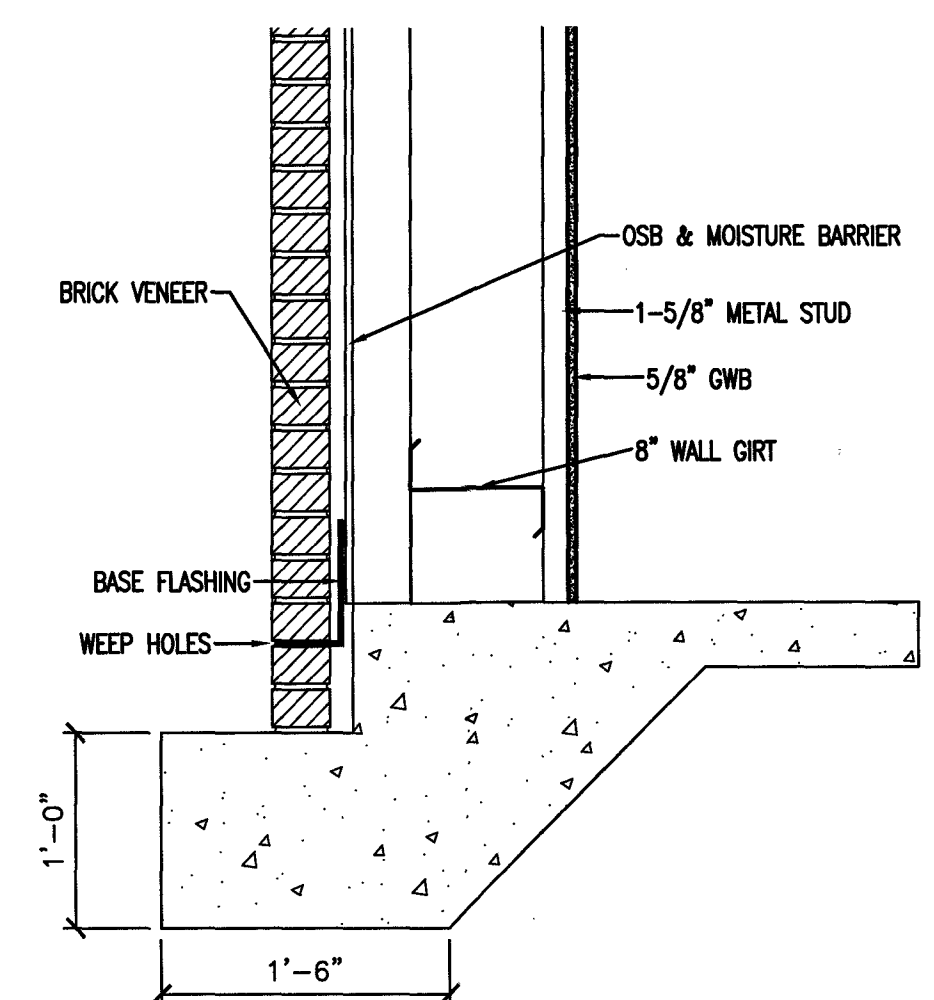
DESIGNED BY: K. DOBSON
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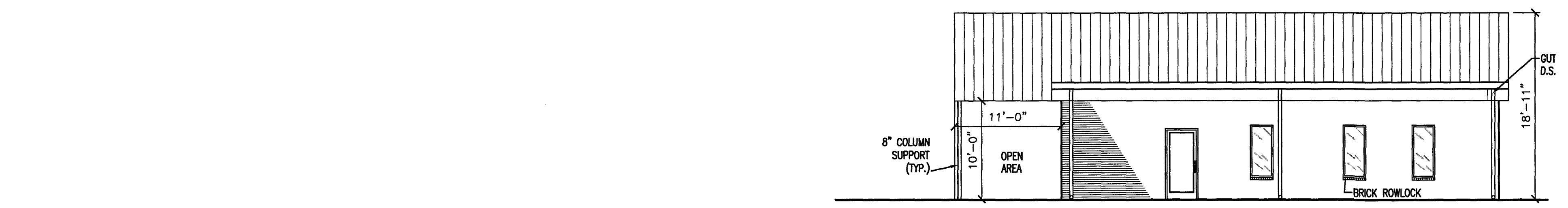
OWNER/TEWANT: FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET: **BUILDING 1 & 2 CALLOUT PLAN**
G5

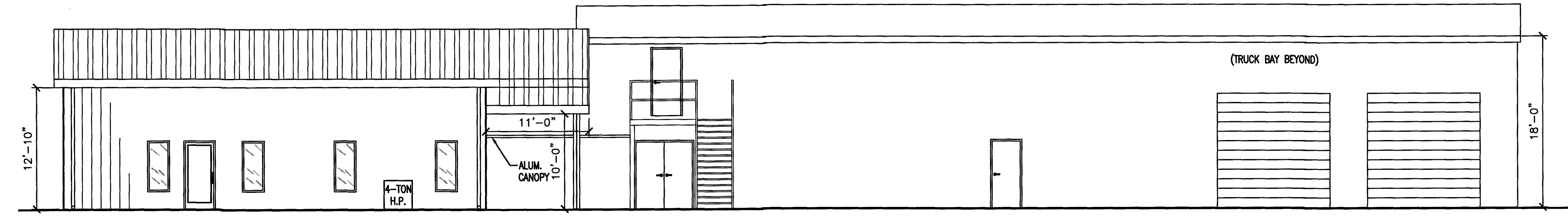
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 SCALE: 1/2" = 1'-0" (0, 2, 4, 6, 8, 10, 12, 14, 16)
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 SCALE: 1" = 1'-0" (0, 2, 4, 6, 8, 10, 12, 14, 16)
 SCALE: 1-1/2" = 1'-0" (0, 2, 4, 6, 8, 10, 12, 14, 16)
 SCALE: 1" = 1'-0" (0, 2, 4, 6, 8, 10, 12, 14, 16)
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 SCALE: 1" = 1'-0" (0, 2, 4, 6, 8, 10, 12, 14, 16)



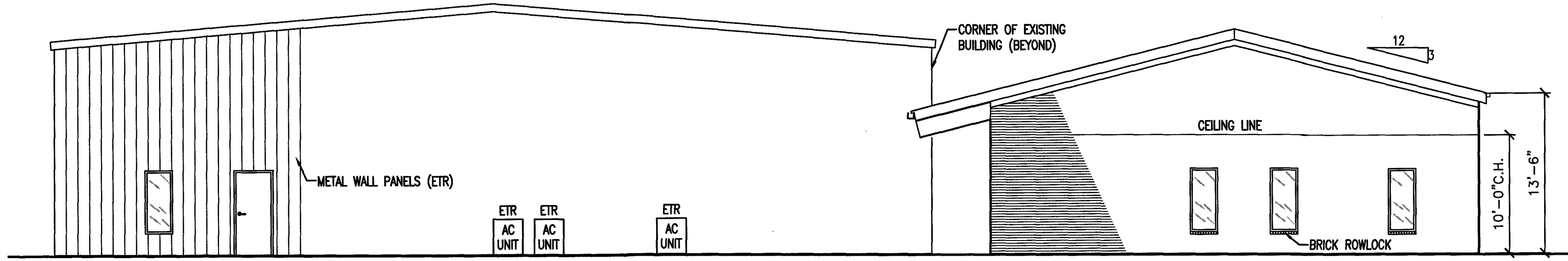
10 WALL SECTION
G6 1"=1'



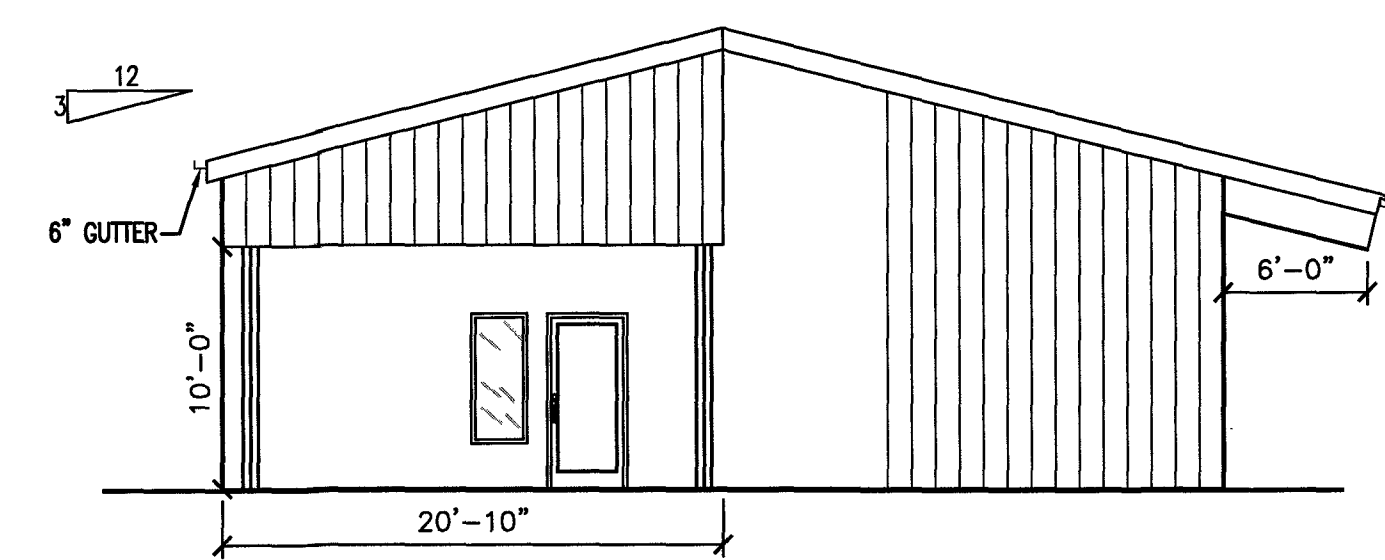
1 NEW BUILDING FRONT ELEVATION
G6 1/8"=1'



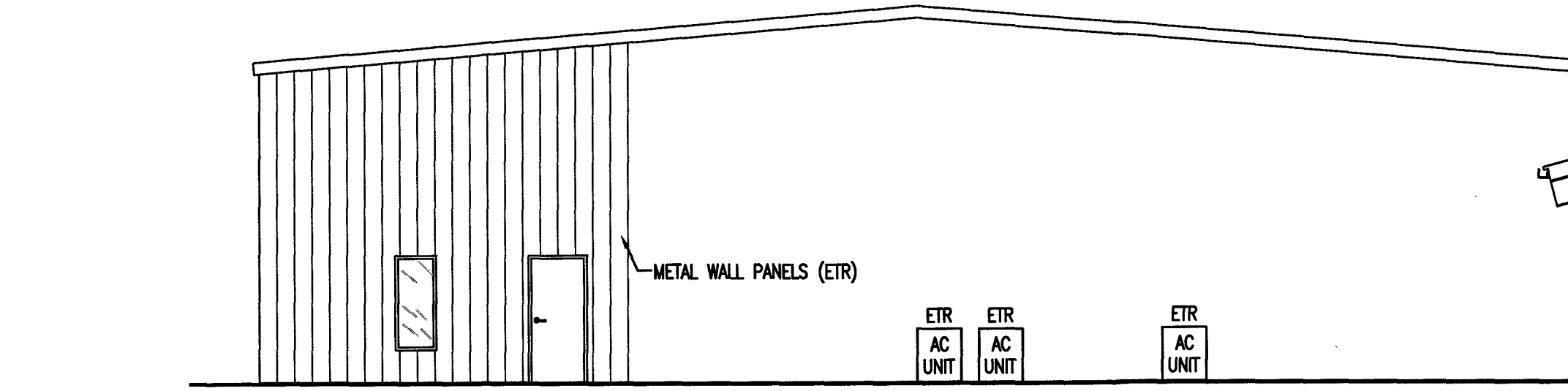
2 NEW BUILDING REAR ELEVATION
G6 1/8"=1'



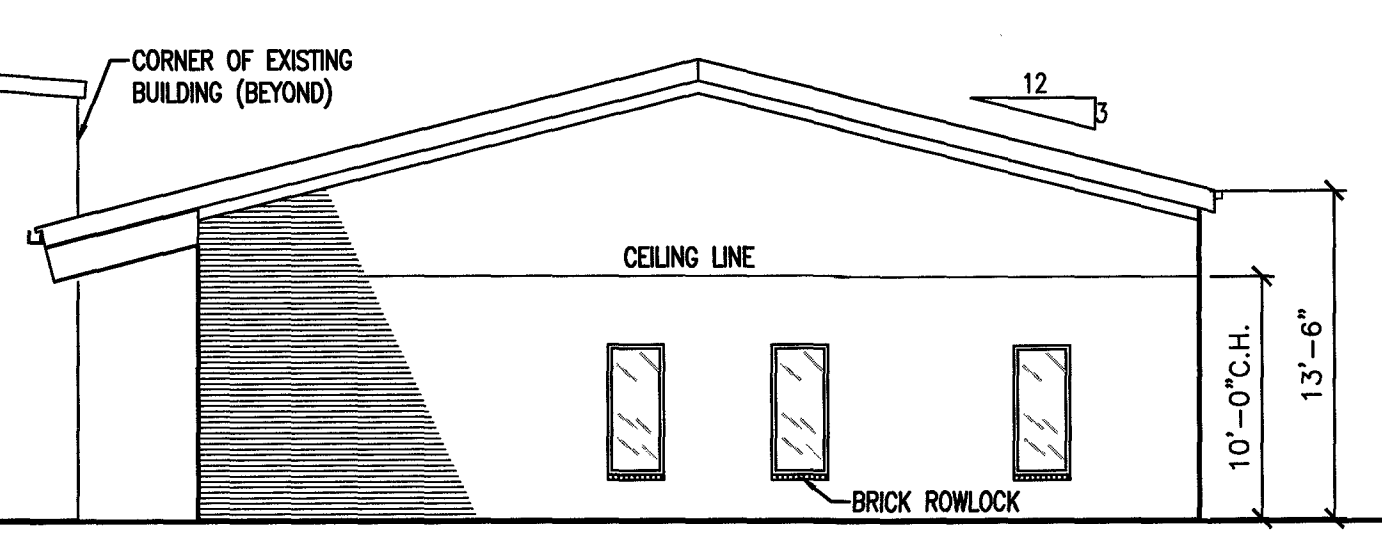
3 EXISTING BUILDING REAR ELEVATION
G6 1/8"=1'



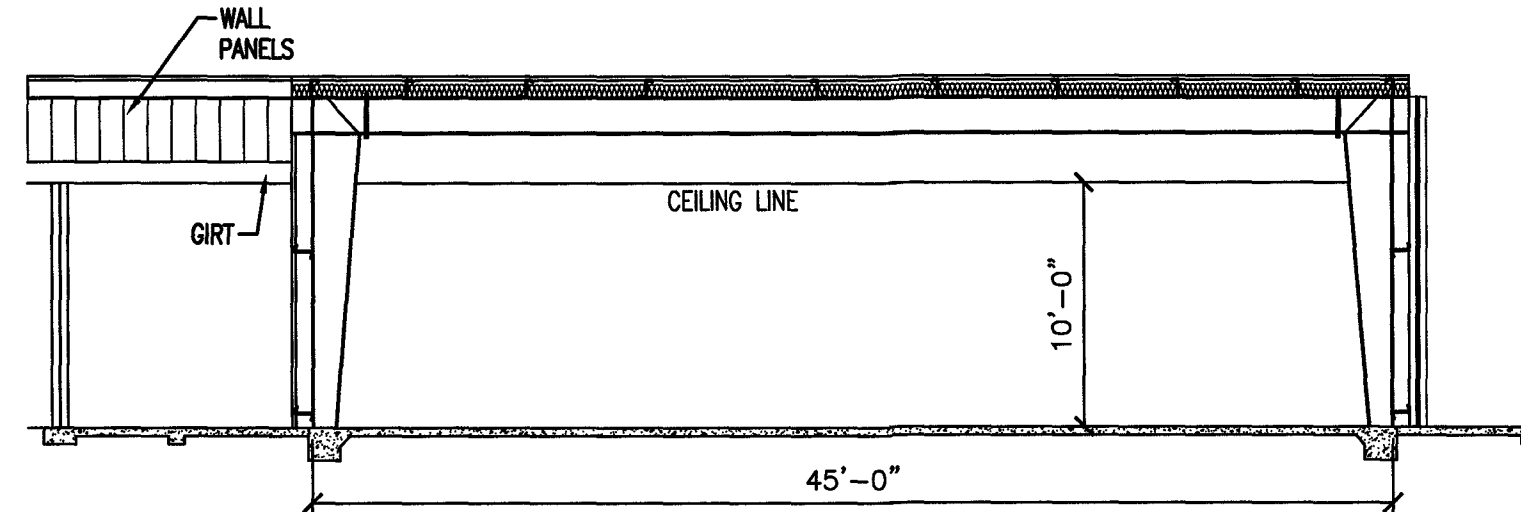
4 NEW BUILDING LEFT SIDE ELEVATION
G6 1/8"=1'



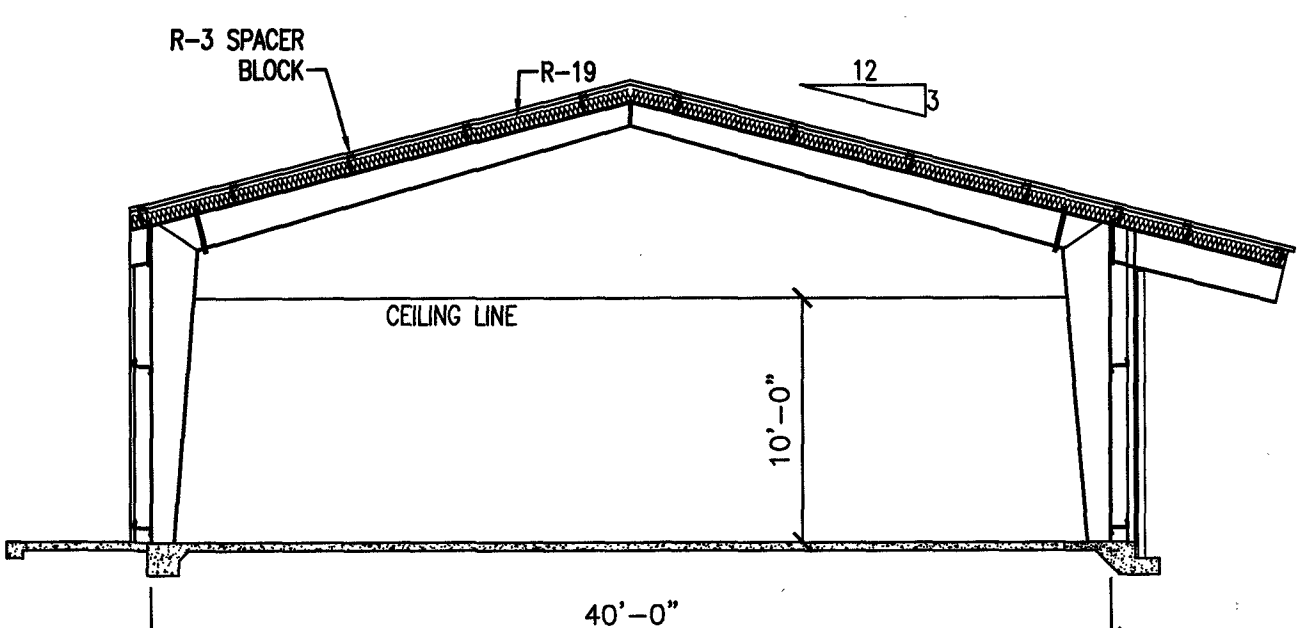
5 EXISTING BUILDING SIDE ELEVATION
G6 1/8"=1'



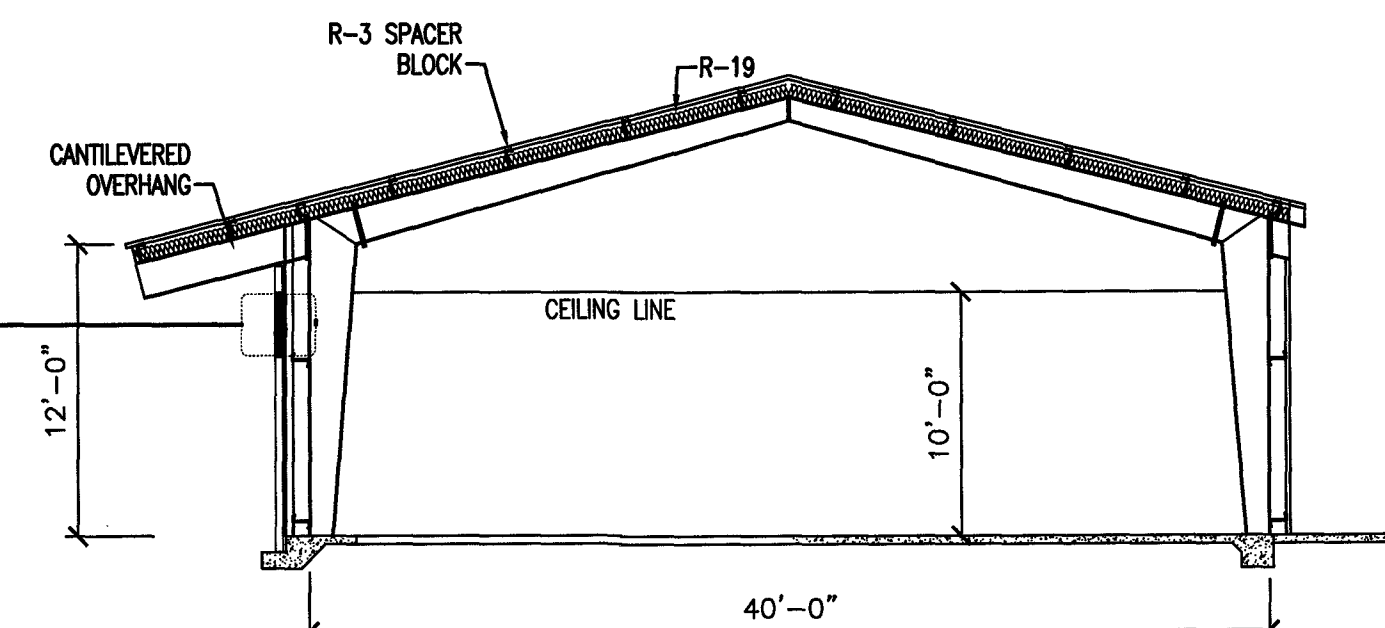
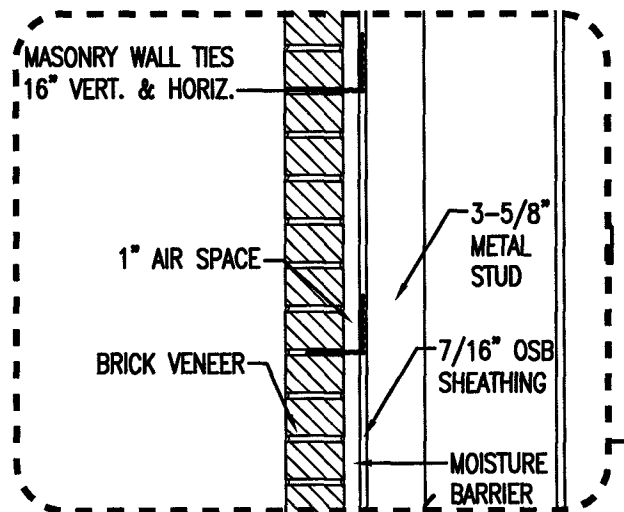
6 NEW BUILDING RIGHT SIDE ELEVATION
G6 1/8"=1'



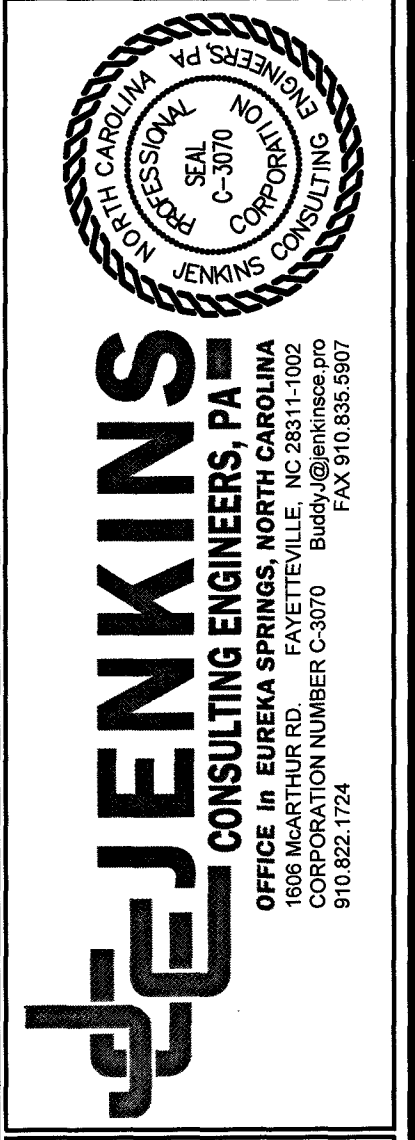
7 NEW BUILDING FRONT SECTION DETAIL
G6 1/8"=1'



8 NEW BUILDING LEFT SIDE SECTION DETAIL
G6 1/8"=1'



9 NEW BUILDING RIGHT SIDE SECTION DETAIL
G6 1/8"=1'



15 NOVEMBER 2023

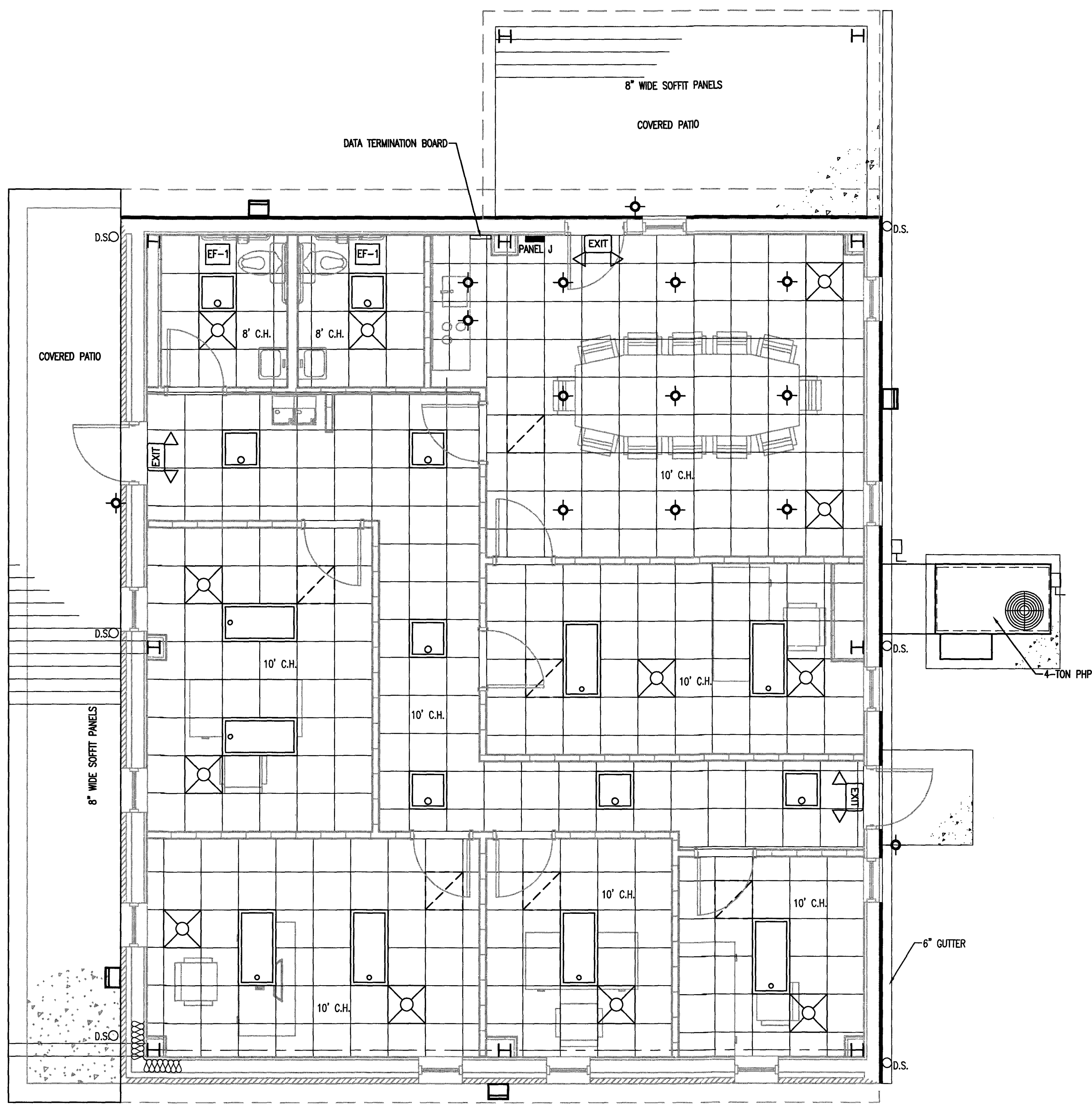
DESIGNED BY: K. DODSON
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

FINAL DRAWING FOR REVIEW PURPOSES ONLY
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 FINAL DRAWING FOR CONSTRUCTION
 OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28523
 CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET:
EXISTING/ADDITION ELEVATIONS PLAN

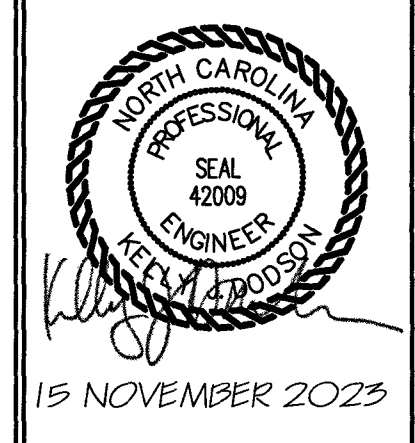
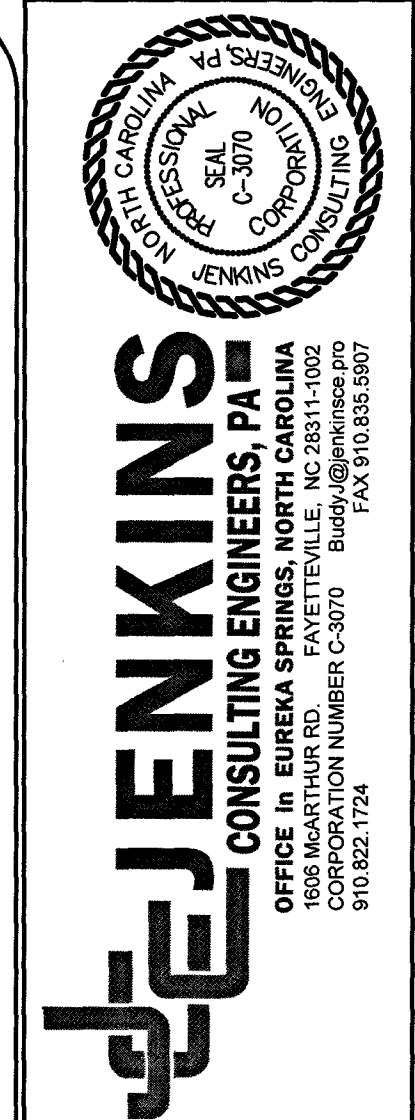
G6

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
 Plotted by: JoshL
 Plotted Date: Nov 15, 2023 - 3:52pm
 Scale: 1/8" = 1'-0" (0' to 16')
 Scale: 3/16" = 1'-0" (0' to 10'-8")
 Scale: 1/4" = 1'-0" (0' to 4')
 Scale: 1/2" = 1'-0" (0' to 2')
 Scale: 3/4" = 1'-0" (0' to 1'-4")
 Scale: 1" = 1'-0" (0' to 2'-8")
 Scale: 1-1/2" = 1'-0" (0' to 2'-0")
 Scale: 1" = 1'-0" (0' to 1'-4")



PLAN NORTH
 TRUE NORTH
 1
 G7
 BUILDING-2 REFLECTED CEILING PLAN
 1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	24 X 24 LAY-IN CEILING		EXTERIOR WALL PACK
	2X4 LAY-IN LIGHT FIXTURE 2X2 LAY-IN LIGHT FIXTURE		RECESSED CAN LIGHT
	SUPPLY AIR DIFFUSER		EGRESS LIGHT
	RETURN AIR GRILLE		8" SMOOTH CEILING PANELS



DESIGNED BY: K. DODSON
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

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 OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET: REFLECTED CEILING PLAN

G7

APPENDIX B MECHANICAL DESIGN 2018 BUILDING CODE SUMMARY

PROJECT NAME: **FLAT BRANCH VFD ADDITION & RENOVATION**

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
METHOD OF COMPLIANCE
PREScriptive ENERGY COST BUDGET

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE: **ZONE 3 NORTH CAROLINA**
WINTER DRY BULB: **17.0° F**
SUMMER DRY BULB: **97.0° F**

INTERIOR DESIGN CONDITIONS
WINTER DRY BULB: **68°**
SUMMER DRY BULB: **78°**
RELATIVE HUMIDITY: **50%**

BUILDING HEATING LOAD: **45,500 BTU'S**
BUILDING COOLING LOAD: **48,000 BTU'S**

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY

DESCRIPTION OF UNIT: **PACKAGE HEAT PUMP (1) 4 TON**
HEATING EFFICIENCY: **9.0 HSPF** (8.2 HSPF MINIMUM STANDARD EFFICIENCY, TABLE C403.2.3 (2))

COOLING EFFICIENCY: **14.0 SEER** (14.0 SEER MINIMUM STANDARD EFFICIENCY, TABLE C403.2.3 (2))

SIZE CATEGORY OF UNIT: **(1) 1** (≤ 65,000 BTU/H)

BOILER

SIZE CATEGORY: IF OVERSIZED, STATE REASON: _____

CHILLER

SIZE CATEGORY: IF OVERSIZED, STATE REASON: _____

LIST EQUIPMENT EFFICIENCIES: _____

DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE. THE HVAC UNIT QUALIFIES AS MORE EFFICIENT MECHANICAL EQUIPMENT DESCRIBED IN THE CODE.

SIGNED: Buddy Jenkins
NAME: **BUDDY JENKINS**
TITLE: **ENGINEER**

DESCRIPTION AND SEQUENCE OF OPERATION OF HVAC SYSTEM

THE HVAC SYSTEM CONSISTS OF:

(1) 4 TON HEATPUMP UNIT WHICH PROVIDES CONSTANT VOLUME HEATING/COOLING/VENTILATION TO ALL BUSINESS AREAS.

(1) EXISTING WASTE OIL HEATERS SHALL PROVIDE HEATING TO SERVICE BAY

OCCUPIED OPERATION

THE SUPPLY FANS SHALL RUN CONTINUOUSLY TO PROVIDE THE REQUIRED VENTILATION RATE. IN THE COOLING MODE, A RISE IN TEMPERATURE BEYOND SET POINT OF PROGRAMMABLE T-STAT WILL RESULT IN ACTIVATION OF DX COOLING CYCLE UNTIL DESIRED TEMPERATURE IS REACHED. IN HEATING MODE, A SIGNAL FROM T-STAT WILL ACTIVATE THE HEAT PUMP TO DELIVER HEATING TO SPACES. IF OUTSIDE TEMPERATURE FALLS BELOW SET POINT, HEAT STRIPS WILL ACTIVATE TO BRING TEMPERATURE TO DESIRED SET POINT AT WHICH TIME THE HEAT STRIPS WILL TURN OFF AND HEAT PUMP SHALL BE USED TO MAINTAIN DESIRED SPACE TEMPERATURE.

PROVIDE HEAT STRIP LOCKOUT CONTROLS TO PREVENT HEAT STRIP OPERATION BETWEEN 35° AND 40° F PER ENERGY CODE PARAGRAPH 503.2.4.1.1.

UNOCCUPIED OPERATION

THE SUPPLY FAN SHALL BE INDEXED OFF AND MOTORIZED OUTSIDE AIR DAMPER SHALL BE CLOSED. PROGRAMMABLE THERMOSTATS SHALL PROVIDE CONTROL OF EACH UNIT.

EXHAUST FAN OPERATION

THE SERVICE BAYS REQUIRE MINIMUM OF 4 AIR CHANGES PER HOUR AND IS OBTAINED BY THE CONTINUOUS OPERATION OF THE WALL EXHAUST FANS (EF-3) DURING OPEN HOURS AND SERVICE USE.

THE RESTROOM EXHAUST FANS SHALL BE SWITCHED WITH LIGHTING FOR TOILET.

PACKAGED HEATPUMP SCHEDULE

EQUIPMENT INFO				COOLING CAPACITIES				HEATING CAPACITIES				INDOOR FAN SECTION				COMPRESSOR/CONDENSER SECTION				ELECTRICAL INFORMATION				MFG & MODEL				
TAG	TYPE	LOCATION	UNIT WEIGHT	NOM. TONS	GROSS COOLING	MIN. SEER	MIN. EER	MIN. IEER	MIN. HSPF	NET HEATING	HEAT STRIPS	MIN. COP	SUPPLY CFM	OA CFM	ESP IN WG	FAN TYPE	FAN HP	FAN FLA	NO. OF COMPR.	COMPRESSOR AMPS RLA	CONDENSER FAN AMPS FLA	NO. OF FANS	UNIT VOLTS	UNIT PHASE	MCA	MOCP	WIRE SIZE (CU. 75 C)	MFG & MODEL
PU-1	PACKAGED HEAT PUMP	EQUIP. PAD	485	4.0	48,000	14.0	11.0	N/A	N/A	45,500	7.0 KW	3.6	1600	200	0.50	DIRECT	3/4	5.8	1	21.8	1.4	1	240	1	71	80	#4	GOODMAN / GPH1448M41A

REMARK: 1. PROVIDE ELECTRICAL HEAT AS NOTED. 2. PROVIDE C/D DRAIN PIPE. 3. PROVIDE 7 DAYS PROGRAMMABLE THERMOSTAT. 4. PROVIDE VIBRATION ISOLATORS. 5. PROVIDE EQUIPMENT PAD FOR UNITS. 6. PROVIDE INSULATED WEATHERPROOF DUCT. 7. PROVIDE MANUFACTURER'S ACCESSORY HAIL GUARDS TO PROTECT COIL FROM HAIL DAMAGE.

OUTSIDE/EXHAUST AIR CALCULATION

UNIT	OCCUPANCY TYPE	NET SF (Az)	CEILING HEIGHT (CigHt)	VOLUME (CF) (Az*CigHt)	SUPPLY AIR (CFM)	AIR CHANGES PER HOUR (ACH75)	OCCUPANT DENSITY #/1000	OCCUPANTS (Pz)	O.A. CFM PER PERSON (Rp)	O.A. CFM PER SF (Ra)	(RpPz)	(RaAz)	O.A. CFM REQUIRED (Vbz) (RpPz + RaAz)	ZONE O.A. AIR FLOW (Ez) ²	ADJUSTED O.A. Voz = $\frac{Vbz}{Ez}$	EXHAUST CFM REQUIRED		
PHP-1	MEN'S RR	48	8'-0"	384	50	7.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.8	N/A	(1) FLUSHING X 70	70	
	WOMEN'S RR	48	8'-0"	384	50	7.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.8	N/A	(1) FLUSHING X 70	70	
	CONFERENCE ROOM	363	10'-0"	3630	300	4.96	50	12	5.0	0.06	60.0	21.78	81.78	0.8	102			
	OFFICE A	192	10'-0"	1920	300	9.38	5	1	5.0	0.06	5.0	11.52	16.52	0.8	21			
	CHIEF'S OFFICE	202	10'-0"	2020	300	8.91	5	1	5.0	0.06	5.0	12.12	17.12	0.8	21			
	OFFICE B	203	10'-0"	2030	300	8.87	5	1	5.0	0.06	5.0	12.18	17.18	0.8	21			
	CAPTAIN'S OFFICE	113	10'-0"	1130	150	7.96	5	1	5.0	0.06	5.0	6.78	11.78	0.8	15			
LIUTENANT OFFICE	104	10'-0"	1040	150	8.65	5	1	5.0	0.06	5.0	6.24	11.24	0.8	14				
(MIN MAKEUP AIR) USE LARGEST (A OR B) VALUES (LOUVER)															194	B=140		
* = 1956.25 CFM x 60 = 117375 CFM/HOUR, 117375 / 28080 = 4.18 AIR CHANGES PER HOUR																		
															MIN. OUTSIDE AIR CFM REQUIRED	194	TOTAL EXHAUST CFM REQUIRED	140
															TOTAL OUTSIDE AIR CFM PROVIDED	200	TOTAL EXHAUST CFM PROVIDED (EF-1,2)	140

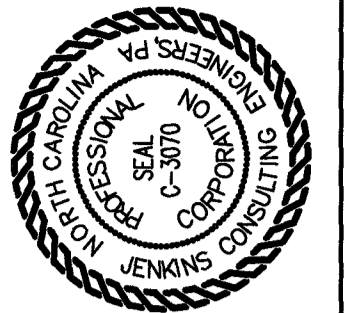
(SERVICE BAY REQUIRES MINIMUM 4 AIR CHANGES PER HOUR (NEC 511))

GRILLE/RETURN SCHEDULE

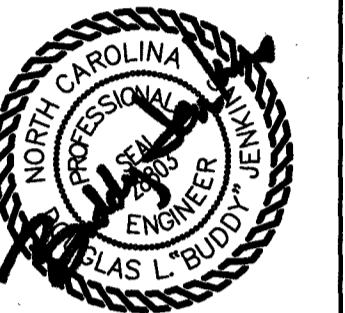
TAG	CFM	AIR PATTERN	FACE SIZE	NECK SIZE	SERVICE	MFG & MODEL	REMARKS
(A)	50-220	LOUVERED	24X24	10X6	SUPPLY	TITUS 300R OR EQUAL	SURFACE; OFF WHITE; ALUM. PAS
(B)	200-300	4-WAY	24X24	10X10	RETURN	TITUS 300R OR EQUAL	SURFACE; OFF WHITE; ALUM. PAR

EXHAUST FAN SCHEDULE

EQUIPMENT INFO			FAN INFORMATION					ELECTRICAL INFORMATION							MFG & MODEL		
TAG	TYPE	LOCATION	EXHAUST CFM	AREA SERVED	ESP IN WG	FAN DRIVE	SONES	RPM	FAN FLA	FAN HP	FAN WATT	UNIT VOLTS	UNIT PHASE	MOCP	MCA	WIRE SIZE (DU. 75 C)	MFG & MODEL
EF-1, EF-2	EXHAUST	RECESSED	70	RESTROOMS	0.125	DIRECT	0.9	900	-	-	18.6	120	1	-	-	#12	GREENHECK / SP-B80-QD



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1608 MARTIN RD. EUREKA SPRINGS, NC 28541-0027
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15 NOVEMBER 2023

DESIGNED BY: **JENKINS**
DRAWN BY: **JDL**
PROJECT #: **2023-05-19**
DATE: **15 NOVEMBER 2023**

FINAL DRAWING FOR REVIEW PURPOSES ONLY
PRELIMINARY FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING FOR CONSTRUCTION
OWNER/TENANT: **FLAT BRANCH FIRE DEPT.**
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER:

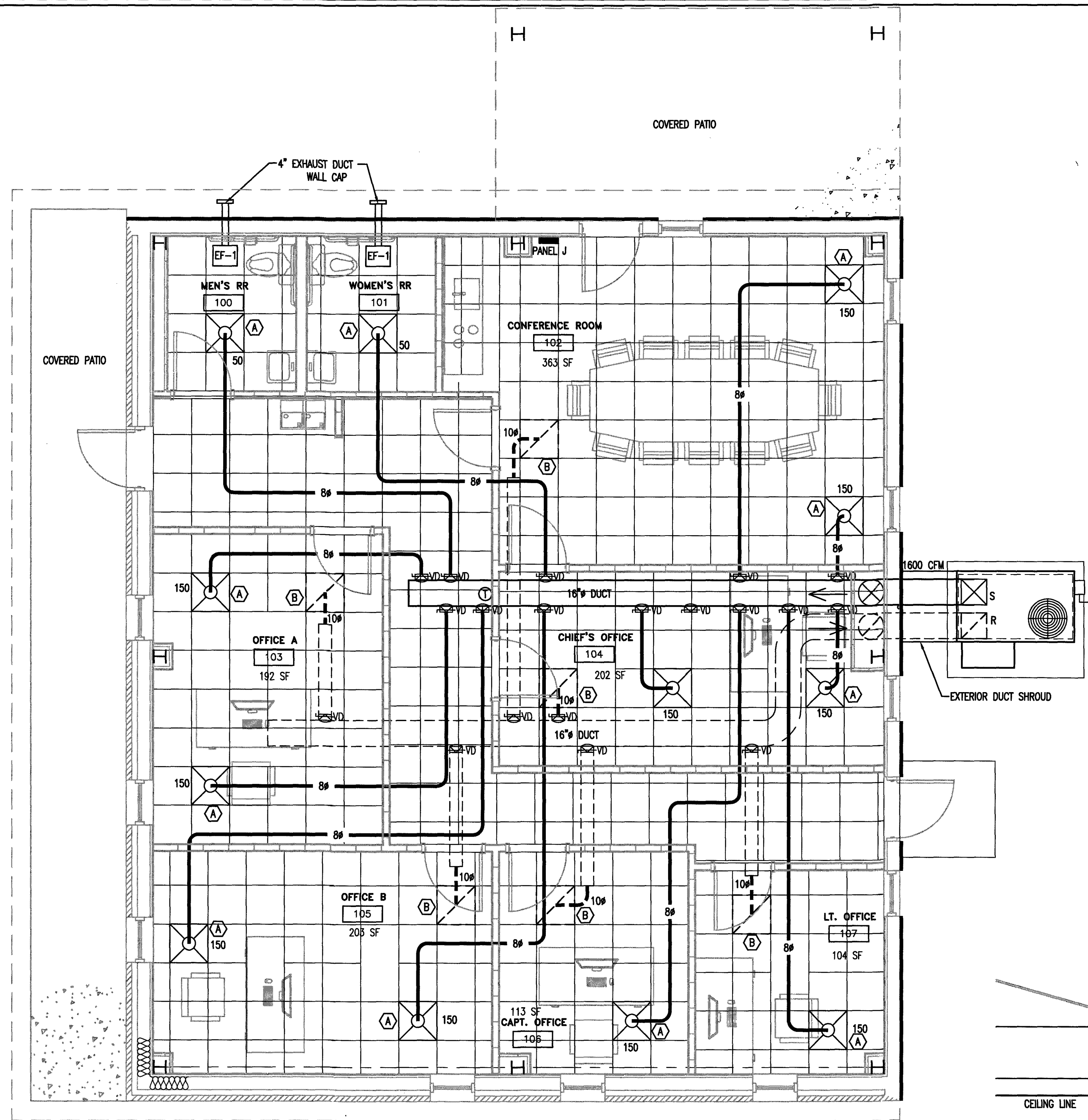
PROJECT: **NEW ADMIN BUILDING & INTERIOR RENOVATION**
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
SHEET: **MECHANICAL SCHEDULES AND NOTES**

M1

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
Plotted by: **JoehL**
Plotted Date: **Nov 16, 2023 - 6:27pm**

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
 Plotted by: Joah
 Plotted Date: Nov 15, 2023 - 3:54pm
 Scale: 1/8" = 1'-0"
 Scale: 1/4" = 1'-0"
 Scale: 3/16" = 1'-0"
 Scale: 1/2" = 1'-0"
 Scale: 3/4" = 1'-0"
 Scale: 1" = 1'-0"
 Scale: 1-1/2" = 1'-0"
 Scale: 2" = 1'-0"
 Scale: 4" = 1'-0"
 Scale: 8" = 1'-0"
 Scale: 16" = 1'-0"

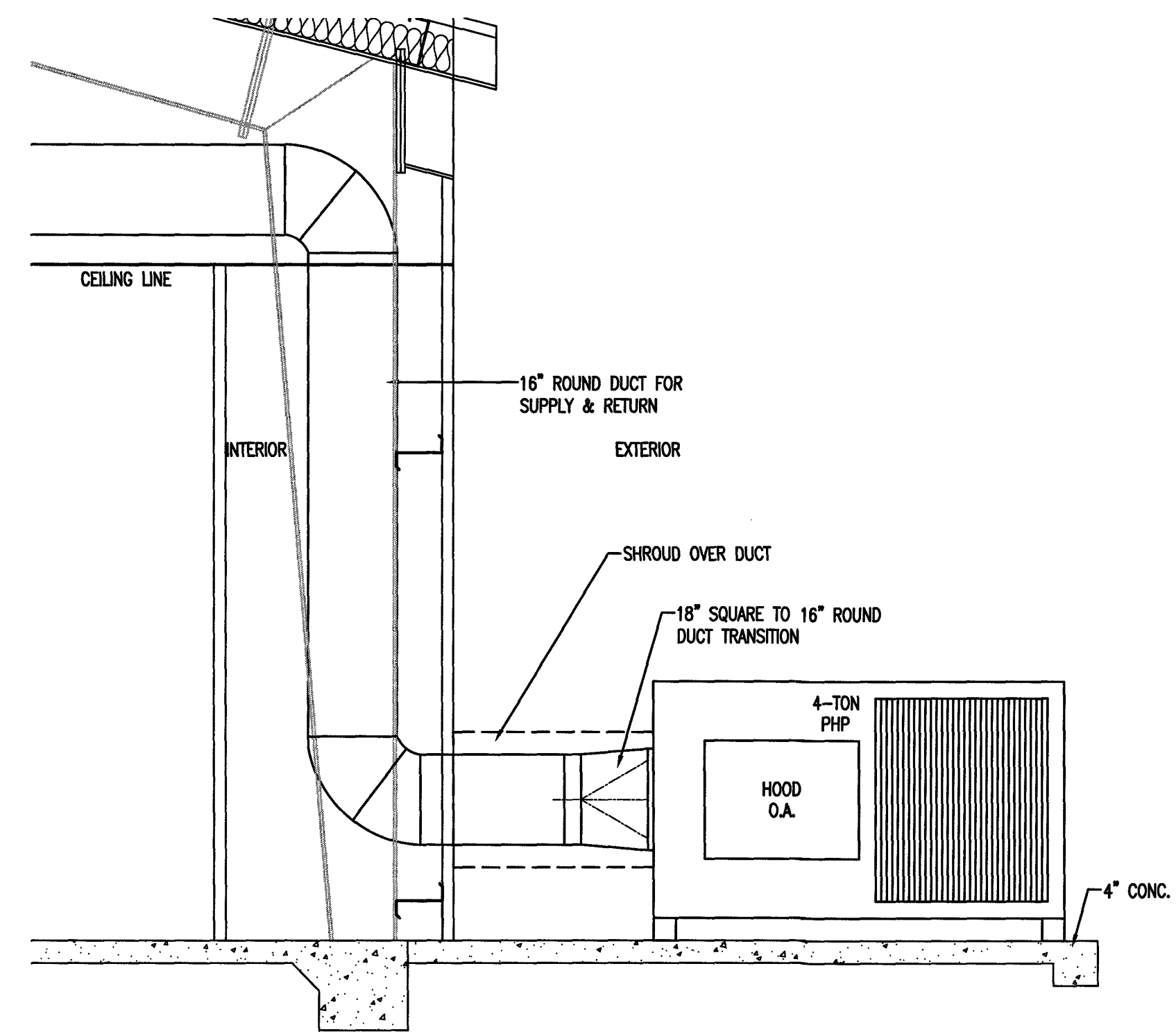
SUPPLY/RETURN					
ROOM NUMBER	ROOM NAME	TOTAL CFM	CEILING HEIGHT (ClgHt)	NUMBER OF SUPPLIES	NUMBER OF RETURNS
100	MEN'S RESTROOM	50	8'-0"	1	-
101	WOMEN'S RESTROOM	50	8'-0"	1	-
102	CONFER. ROOM	300	10'-0"	2	1
103	OFFICE A	300	10'-0"	2	1
104	CHIEF'S OFFICE	300	10'-0"	2	1
105	OFFICE B	300	10'-0"	2	1
106	CAPTAIN'S OFFICE	150	10'-0"	1	1
107	LIEUTENANT OFFICE	150	10'-0"	1	1



MECHANICAL SYMBOLS:

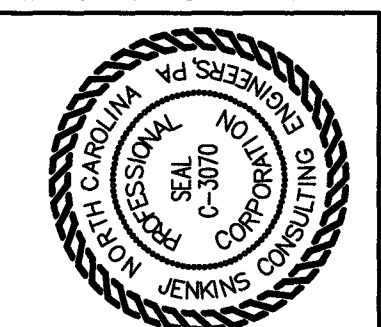
- NEW SUPPLY DIFFUSER
- NEW RETURN GRILLE WITH FILTER FRAME & HINGED DOOR. 16"x16" FILTERS
- THERMOSTAT PROGRAMMABLE, 7 DAYS
- 8" FLEX-SUPPLY, SUPPORT EVERY 5 LINEAR FEET
- 10" FLEX-RETURN (MAXIMUM 5FT)
- VOLUME DAMPER
- 10" HARD DUCT

NOTE: PROVIDE REQUIRED OFFSETS & TRANSITIONS TO AVOID BUILDING MAIN FRAMES

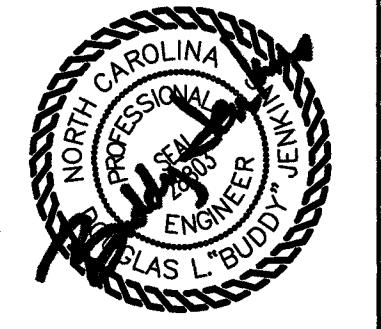


PLAN NORTH
 TRUE NORTH
1 BUILDING 2 HVAC (WITH CEILING GRID)
 M2 1/4"=1'

2 HVAC PHP SIDE ELEVATION
 M2 1/2"=1'



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 1606 MARTIN RD. FAYETTEVILLE, NC 28111-0022
 PHONE: 910.438.8800 FAX: 910.438.8800
 BUSINESS NUMBER C-3070 BULBON NUMBER C-3070



15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

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 OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET: HVAC PLAN WITH CEILING GRID

M2

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
 Plotted by: JDL
 Plotted Date: Nov 15, 2023 - 3:54pm

ELECTRICAL LEGEND

	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.
	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.; TAMPER RESISTANT
	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX RECEPTACLE; WEATHERPROOF/GROUND FAULT CIRCUIT INTERRUPTER
	QUAD RECEPTACLE; MOUNT AT 18" A.F.F.
	2 POLE 208/240V RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	SINGLE POLE POWER/LIGHTING HOMERUN
	2-POLE POWER HOMERUN
	3-POLE POWER HOMERUN (3 PHASE)
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED VOICE (TELEPHONE) OUTLET
	WALL MOUNTED VOICE/DATA OUTLET
	TIMECLOCK
	TELEVISION OUTLET
	DISCONNECT
	JUNCTION BOX
	POWER PANEL
	SWITCH
	3-WAY SWITCH
	4-WAY SWITCH
	OCCUPANCY SENSOR WITH MANUAL OVERRIDE
	LAY-IN/SURFACE MOUNTED LED LIGHT FIXTURE
	LAY-IN/SURFACE MOUNTED LED; NIGHT LIGHT; WITH TAG
	PENDANT LIGHT
	CAN LIGHT
	EMERGENCY LIGHT
	EXIT/EMERGENCY COMBO
	EXIT LIGHT
	REMOTE HEAD FOR EXIT LIGHTING
	EXTERIOR MOUNTED WALL PACK

ELECTRICAL NOTES:
 ALL WORK SHALL BE IN ACCORDANCE WITH 2020 NEC.

WIRE AND CABLE SHALL BE INSULATED, TYPE THHN, 600 VOLTS, WITH COPPER CONDUCTORS. CONDUCTOR SIZES NO. 8 AWG AND LARGER MAY BE STRANDED. CONDUCTOR SIZES NO. 10 AWG AND SMALLER MAY BE SOLID OR STRANDED. RMXC CANNOT BE USED IN THIS PROJECT.

EMT SHALL BE GALVANIZED STEEL TUBING 1/2-INCH MINIMUM SIZE, EQUAL TO ELECTRONIC BRAND OR APPROVED AND USED ONLY WITH HEXAGONAL ALL-STEEL COMPRESSION FITTINGS. NO CABLE MAY BE SUBSTITUTED FOR CONDUIT RACEWAYS WHERE PERMITTED BY THE CODE AND APPROVED BY OWNER.

PLASTIC CONDUIT SHALL BE RIGID, 3/4-INCH MINIMUM, NONMETALLIC, HEAVY DUTY, POLYVINYLCHLORIDE (PVC) TYPE I. IT WILL BE USED FOR CONCRETE ENCASUREMENT. FITTINGS SHALL BE THE SAME MATERIALS AND MANUFACTURER AS THE PLASTIC CONDUIT.

FLEXIBLE METAL CONDUIT SHALL BE 1/2-INCH MINIMUM SINGLE STRIP, STEEL, HOT DIPPED GALVANIZED INSIDE AND OUTSIDE. MAXIMUM LENGTH OF 72 INCHES FOR LIGHTING AND 36 INCHES FOR MOTORS. FLEXIBLE METAL CONDUIT SHALL BE LIQUID TIGHT OR WATER TIGHT WITH PVC JACKET WHERE USED IN DAMP, WET, OR OUTSIDE AREAS, AND LIQUID TIGHT OR WATER TIGHT CONNECTORS SHALL BE USED.

NO RECEPTACLES OR TELEPHONE OUTLETS ARE TO BE MOUNTED BACK TO BACK, KEEP AT LEAST 1 1/2 INCHES BETWEEN RECEPTACLES AND TELEPHONE OUTLETS. ALL CONDUCTORS SHALL BE COPPER WITH A MINIMUM SIZE OF #12 AWG EXCEPT FOR FIRE ALARMS. THESE CONDUCTORS SHOULD COMPLY WITH NFPA REQUIREMENTS.

THE ELECTRICAL CONTRACTOR SHALL ALIGN ALL FIXTURES, SMOKE DETECTORS, CEILING DEFUSERS, ETC. AS REQUIRED TO PROVIDE A UNIFORM PRESENTATION. FOLLOW THE REFLECTED CEILING PLAN IF PROVIDED.

CIRCUIT BREAKERS AND WIRE ARE SIZED FOR SPECIFIC EQUIPMENT. BEFORE ORDERING WIRE, BREAKERS, FIXTURES, CONDUIT, AND ETC. FOR THIS PROJECT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS ON THE JOB AND VERIFY THE ELECTRICAL DATA FOR THE EQUIPMENT THAT WILL BE ACTUALLY INSTALLED, RECOMPUTE WIRE AND BREAKER SIZES IF REQUIRED BY THE NEC.

THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE GENERAL CONTRACTOR AND OWNER PRIOR TO INSTALLATION FOR USE WITH ACTUAL EQUIPMENT.

ALL LIGHT SWITCHES, RECEPTACLES, WALL PLATES, TELEPHONE/COMPUTER OUTLET BOXES, AND CABLE OUTLET BOXES SHALL BE WHITE.

EACH CONTRACTOR WILL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED IN HIS CONTRACT AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE ELECTRICAL CONTRACTORS EXPENSE.

THE ELECTRICAL CONTRACTOR SHALL REFER TO THE DRAWINGS FOR FLOOR PLAN AND BUILDING ELEVATION DIMENSIONS.

THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE. THINK OF OTHER CONTRACTORS AND THEIR REQUIREMENTS IN VERTICAL CHASES AND WALL MOUNT SPACE. ALL CONTRACTORS TO FOLLOW THIS ORDER OF PRIORITY:

- STORM AND SANITARY SEWER LINES
- DUCTWORK AND HVAC SYSTEMS
- HOT AND COLD WATER LINES
- RIGID CONDUIT
- CABLE

THE ELECTRICAL CONTRACTOR TO ORGANIZE HIS CONDUIT, WIRE AND CABLE RUNS IN ATTIC SPACES AND ABOVE CEILINGS, MAKE RUNS PARALLEL, PERPENDICULAR AND GROUPED TOGETHER WHERE POSSIBLE. LOCATE MAJOR GROUPINGS OVER HALLWAYS AND AREAS OF PUBLIC ACCESS. FREE RUNS OF PHONE, TELEVISION, SECURITY, ALARM AND OTHER CABLES IS NOT ACCEPTABLE.

ALL DISCONNECT SWITCHES AND BREAKER SIZES SHOWN FOR MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AND ETC. SHALL BE VERIFIED BEFORE PURCHASE AND INSTALLATION OF SAID EQUIPMENT WITH THE EQUIPMENT SUPPLIER AND MECHANICAL CONTRACTOR.

WHERE EQUIPMENT PENETRATES EXTERIOR WALLS OR ROOF, THEY SHALL BE PROPERLY SEALED. EXHAUST FANS ARE TO BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR AND ELECTRICAL WIRING BY THE ELECTRICAL CONTRACTOR.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE NAMEPLATES FOR IDENTIFICATION OF ALL EQUIPMENT, SWITCHES, PANELS, ETC. THE NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT AND BACK WITH WHITE CORE. WHITE ENGRAVED LETTERS (1/4 INCH MINIMUM) ETCHED INTO THE WHITE CORE. NAME TAGS TO BE MOUNTED WITH SELF-TAPPING SHEET METAL SCREWS.

THE ELECTRICAL CONTRACTOR IS NOT TO SCALE THE DRAWINGS FOR RECEPTACLES AND LIGHT FIXTURES TO BE INSTALLED. THE DRAWINGS ARE FOR DIAGNOSTIC PURPOSES ONLY TO SHOW GENERAL LOCATION. THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT LOCATION OF RECEPTACLES AND LIGHT FIXTURES WITH THE GENERAL CONTRACTOR AND/OR CASWORK DRAWINGS.

ALL LIGHT SWITCHES AND RECEPTACLES SHALL BE RATED FOR 20 AMP UNLESS NOTED OTHERWISE.

APPENDIX B ELECTRICAL DESIGN 2018 BUILDING CODE SUMMARY

PROJECT NAME: **FLAT BRANCH VFD ADDITION & RENOVATION**

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT
 METHOD OF COMPLIANCE:
 ENERGY CODE: X PRESCRIPTIVE PERFORMANCE
 ASHRAE 90.1: PRESCRIPTIVE PERFORMANCE

LIGHTING SCHEDULE (EACH FIXTURE TYPE)
 LAMP TYPE REQUIRED IN FIXTURE LED
 NUMBER OF LAMPS IN FIXTURE (SEE FIXTURE SCHEDULE)
 BALLAST TYPE USED IN THE FIXTURE LED
 NUMBER OF BALLASTS IN FIXTURE 1
 TOTAL WATTAGE PER FIXTURE VARIES PER FIXTURE
 TOTAL INTERIOR WATTAGE SPECIFIED VERSUS ALLOWED (WHOLE BUILDING) 1,523 ALLOWED - 729 SPECIFIED
 TOTAL EXTERIOR WATTAGE SPECIFIED VERSUS ALLOWED (TABLE C405.1(2)) 500 ALLOWED - 237 SPECIFIED

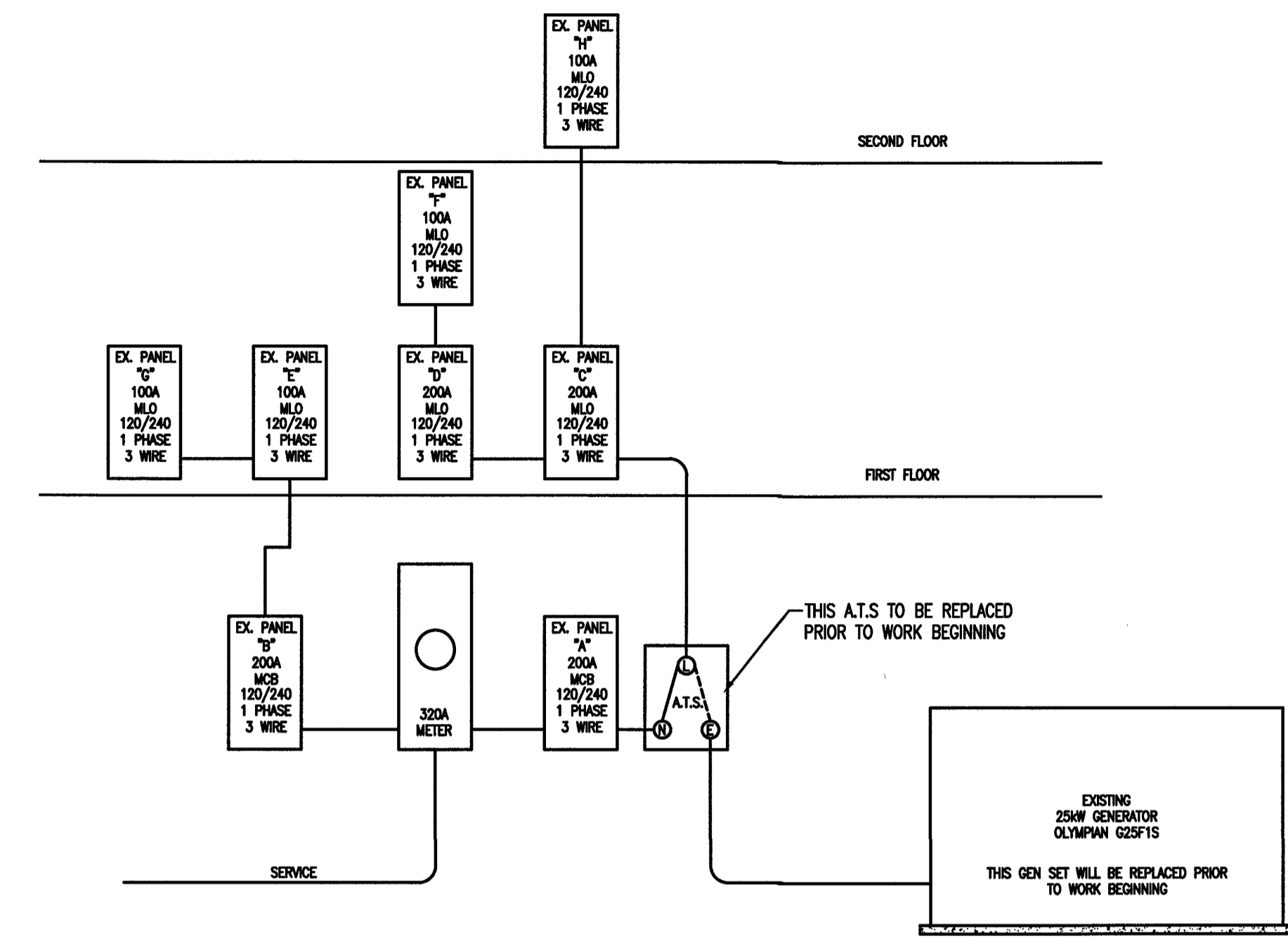
SECTION C406 ADDITIONAL EFFICIENCY PACKAGE OPTIONS

C406.1 BUILDINGS SHALL HAVE AT LEAST ONE OF THE FOLLOWING PRESCRIPTIVE COMPLIANCE (REQUIRED FOR NEW BUILDINGS, OPTIONAL FOR EXISTING BUILDINGS)

- MORE EFFICIENT MECHANICAL EQUIPMENT PER C406.2
- REDUCED LIGHTING POWER DENSITY PER C406.3
- ENHANCED LIGHTING CONTROL SYSTEMS PER C406.4
- ON-SITE SUPPLY OF RENEWABLE ENERGY PER C406.5
- DEDICATED OUTDOOR AIR SYSTEM PER C406.6
- HIGHER EFFICIENCY SERVICE WATER HEATING PER C406.7

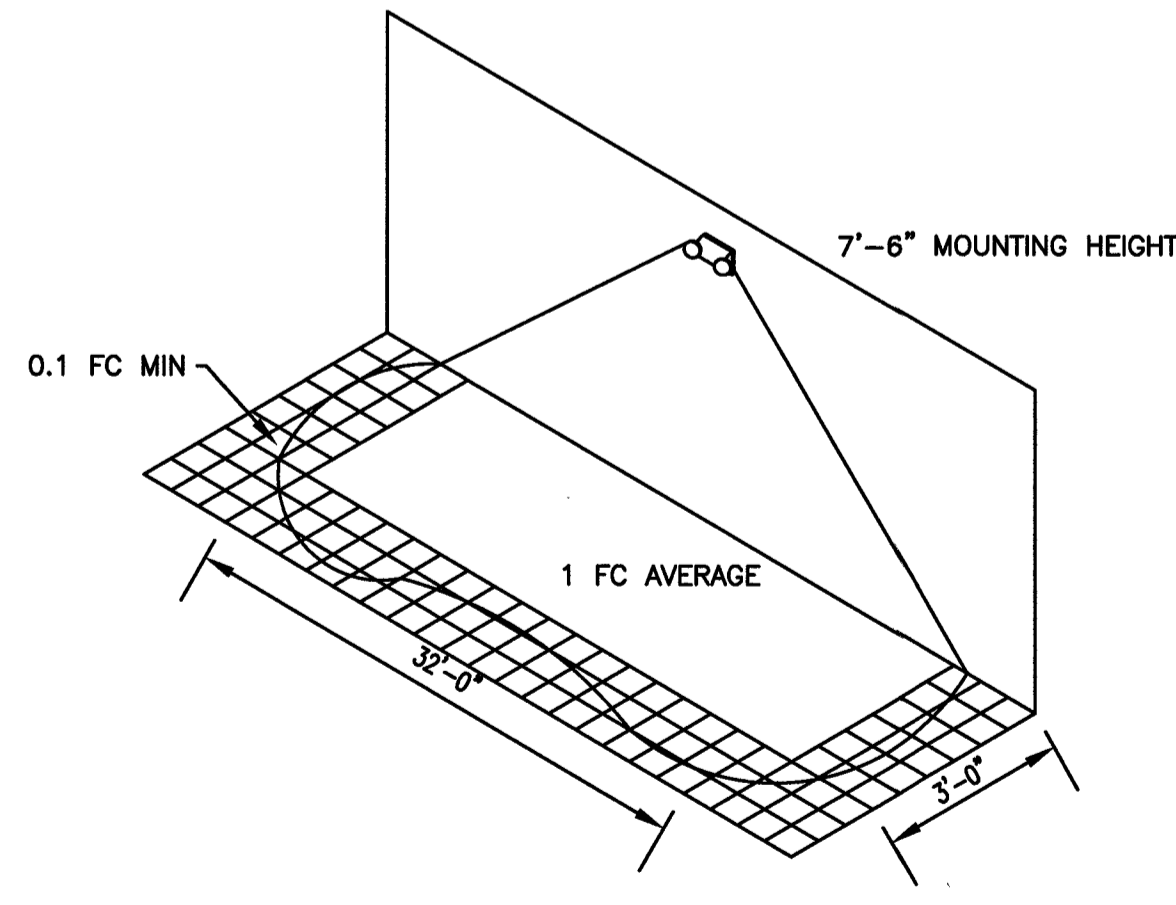
DESIGNER STATEMENT:
 TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE 2018 NC ENERGY CONSERVATION CODE.

SIGNED: *Buddy Jenkins*
 NAME: BUDDY JENKINS
 TITLE: PROFESSIONAL ENGINEER



EXISTING POWER RISER DIAGRAM (BUILDING ONE)

NOT TO SCALE



ASSUMES OPEN SPACE WITH NO OBSTRUCTIONS, MOUNTING HEIGHT; 7'-6"; 9'-0" CEILING HEIGHT, AND REFLECTANCES 80/50/20

EMERGENCY LIGHT FIXTURE PERFORMANCE

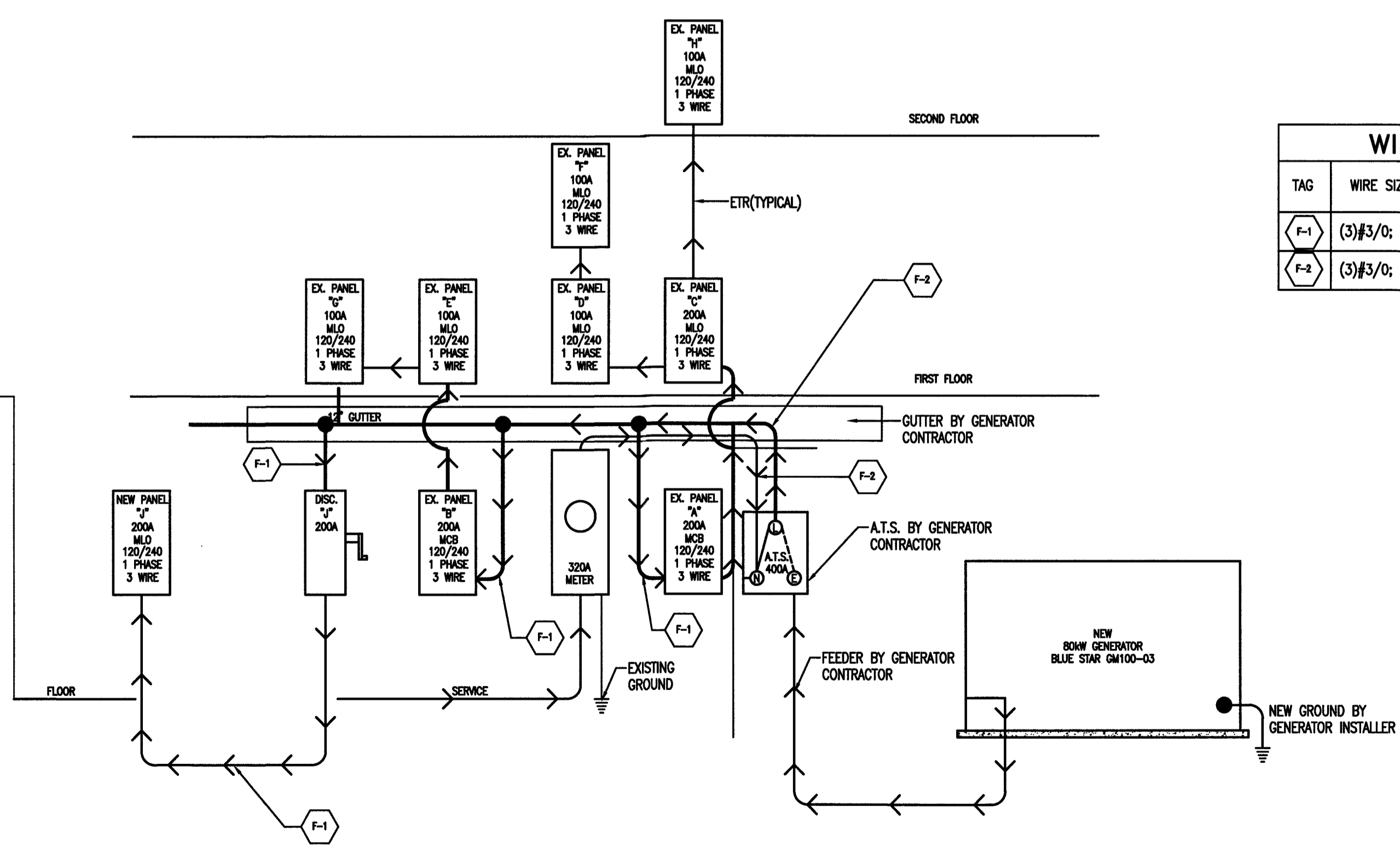
3'-0" WIDE PATH OF EGRESS

CENTER TO CENTER SPACING (MULTIPLE FIXTURES) 35'-0"

SINGLE UNIT COVERAGE 32'-0"

EMERGENCY LIGHT

NOT TO SCALE



NEW POWER RISER DIAGRAM (BUILDING ONE & TWO)

NOT TO SCALE

WIRE FEEDER SCHEDULE	
TAG	WIRE SIZE DESCRIPTION
F-1	(3)#3/0; (1)#6 GND IN 2" CONDUIT
F-2	(3)#3/0; (1)#3 GND IN EA OF 2(2)" CONDUIT



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 606 BARTHOLOMEW RD. PAVETTAVILLE, NC 28311-002
 PHONE NUMBER: 704-979-0070 FAX: 910-833-5907
 P.O. BOX 1724



DESIGNED BY: B. JENKINS
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

FINAL DRAWING [] FOR REVIEW PURPOSES ONLY
 PRELIMINARY [] FOR DESIGN DEVELOPMENT
 FINAL DRAWING [X] FOR CONSTRUCTION

OWNER/TEENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
ELECTRICAL RISER & NOTES

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
 Plotted by: Joah
 Plotted Date: Nov 16, 2023 - 1:59pm
 Scale: 1/8" = 1'-0" (0 to 16 feet)
 Scale: 1/4" = 1'-0" (0 to 8 feet)
 Scale: 1/2" = 1'-0" (0 to 4 feet)
 Scale: 3/4" = 1'-0" (0 to 2 feet)
 Scale: 1" = 1'-0" (0 to 1 foot)
 Scale: 1 1/2" = 1'-0" (0 to 8 inches)
 Scale: 2" = 1'-0" (0 to 6 inches)
 Scale: 3" = 1'-0" (0 to 4 inches)
 Scale: 4" = 1'-0" (0 to 3 inches)
 Scale: 6" = 1'-0" (0 to 2 inches)
 Scale: 12" = 1'-0" (0 to 1 foot)

EXISTING PANEL "A"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MCB
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
1.92	RECP.-UNDER PANEL	R	#12	20/1	1			1.92	
1.44	RECP.-UNDER PANEL	R	#12	15/1	3			1.44	
1.92	RECP.-UNDER PANEL	R	#12	20/1	5			1.92	
	SPACE				7				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 8 SPACES

EXISTING PANEL "B"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MCB
 TYPE NEMA 3R MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
	SHED FUEL PUMP	H	#10	30/2	3				
	SPARE				5				
	SPARE				7				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 8 SPACES

EXISTING PANEL "C"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MLO
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
1.92	LIGHTING - HALL & BATH AREA	C	#12	20/1	1			1.92	
1.92	RECP.-MEN'S RESTROOM	R	#12	20/1	3			1.92	
1.92	RECP.-WOMEN'S RESTROOM	R	#12	20/1	5			1.92	
1.92	LIGHTING - CHIEF AREA/TV/SIGN	C	#12	20/1	7			1.92	
1.92	LIGHTING - EMERGENCY & EXIT	C	#12	20/1	9			1.92	
1.92	LIGHTING - KITCHEN/SLEEPING AREA	C	#12	20/1	11			1.92	
1.92	RECP.-TV ROOM & RADIO BAY	R	#12	20/1	13			1.92	
1.92	RECP.-TRAINING RM/HALL/REHAB	R	#12	20/1	15			1.92	
1.92	LIGHTING - SECURITY LIGHTS	C	#12	20/1	17			1.92	
0.512	WASHER	N	#12	20/1	19			0.512	
1.92	RECP.-UTILITY	R	#12	20/1	21			1.92	
1.40	DRYER	N	#10	30/2	23			1.40	
					25				
	PANEL "D"	C	#8	100/2	27				
					29				
1.20	DISHWASHER	N	#12	20/1	31			1.20	
	SPACE				33				
	SPACE				35				
	SPACE				37				
	PANEL "H"	C	#14	100/2	39				
					41				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 42 SPACES

EXISTING PANEL "D"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
0.15	COKE MACHINE/EXIT LIGHT	C	#12	20/1	1			0.15	
	GARAGE DOORS 1 & 3	R	#12	20/1	3				
	GARAGE DOORS 2 & 4	R	#12	20/1	5				
	GARAGE DOORS 5 & 6	R	#12	20/1	7				
	BAY AREA GAS HEATERS	C	#12	20/1	9				
1.92	LIGHTING-BAY AREA ROW 2	R	#12	20/1	11			1.92	
1.92	LIGHTING-BAY AREA ROW 4	R	#12	20/1	13			1.92	
0.60	BAY AREA FREEZER	R	#12	20/1	15			0.60	
	RECP.-UNDER PANEL	R	#12	20/1	17				
	SPACE				19				
	SPACE				21				
	SPACE				23				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 24 SPACES

EXISTING PANEL "E"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MLO
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
1.40	PANEL "C"	N	#6	60/2	1			1.40	
	SPACE				3				
	SPACE				5				
	SPACE				7				
	SPACE				9				
	SPACE				11				
	SPACE				13				
	SPACE				15				
	SPACE				17				
	SPACE				19				
	SPACE				21				
	SPACE				23				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 24 SPACES

EXISTING PANEL "F"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
 TYPE NEMA 3R MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
	SPACE				1				
	SPACE				3				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 4 SPACES

EXISTING PANEL "G"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
1.40	DRYER	C	#6	60/2	3			1.40	
	SPACE				4				
	SPACE				5				
	WASHING MACHINE	C	#12	20/1	6				
	SPACE				7				
	SPACE				8				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 8 SPACES

EXISTING PANEL "H"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
	CONDENSING UNIT	H	#12	20/2	1				
					3				
1.92	REC-LIGHT	C	#12	20/1	5			1.92	
1.92	REC-LIGHT	C	#12	20/1	7			1.92	
1.92	REC-LIGHT	C	#12	20/1	9			1.92	
	SPACE				11				
	SPACE				13				
	SPACE				15				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
 TOTAL OF 16 SPACES

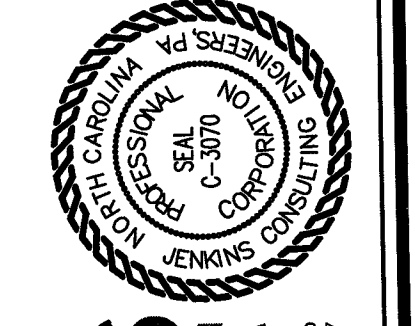
NEW PANEL "J"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MLO
 TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
 SHORT CKT. RATING - RMS SYM.
 GROUND TERMINAL BAR NEUTRAL TERMINAL BAR

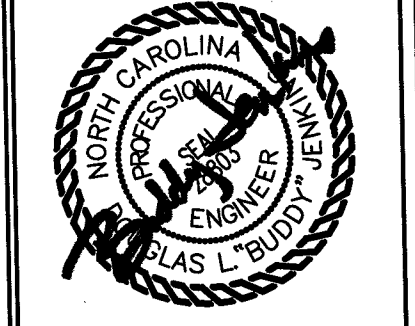
PHASE LOADING	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	A	B	PHASE LOADING	
A	B							A	B
0.384	LIGHTING-FRONT HALF	C	#12	20/1	1			0.384	
0.345	LIGHTING-BACK HALF	C	#12	20/1	3			0.345	
0.237	LIGHTING-EXTERIOR	C	#12	20/1	5			0.237	
	SPACE				7				
	SPACE				9				
	SPACE				11				
	SPACE				13				
	SPACE				15				
	SPACE				17				
	SPACE				19				
	SPACE				21				
	SPACE				23				
	SPACE				25				
	SPACE				27				
	SPACE				29				
SUB-TOTAL (VA)									

C CONTINUOUS LOAD E ESTIMATED LOAD
 H HVAC LOAD
 N NON-CONTINUOUS LOAD
 R RECEPTACLE LOAD
 K KITCHEN LOAD

TOTAL CONNECTED LOAD = 25.2 KVA AMPS = 105
 TOTAL OF 30 SPACES



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 CORPORATION NUMBER C-3070 FAX #704.853.9697

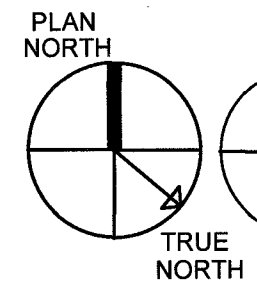


15 NOVEMBER 2023
 DESIGNED BY: J. JENKINS
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

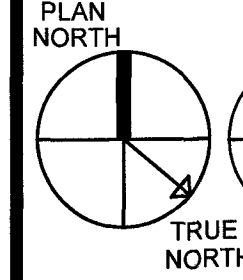
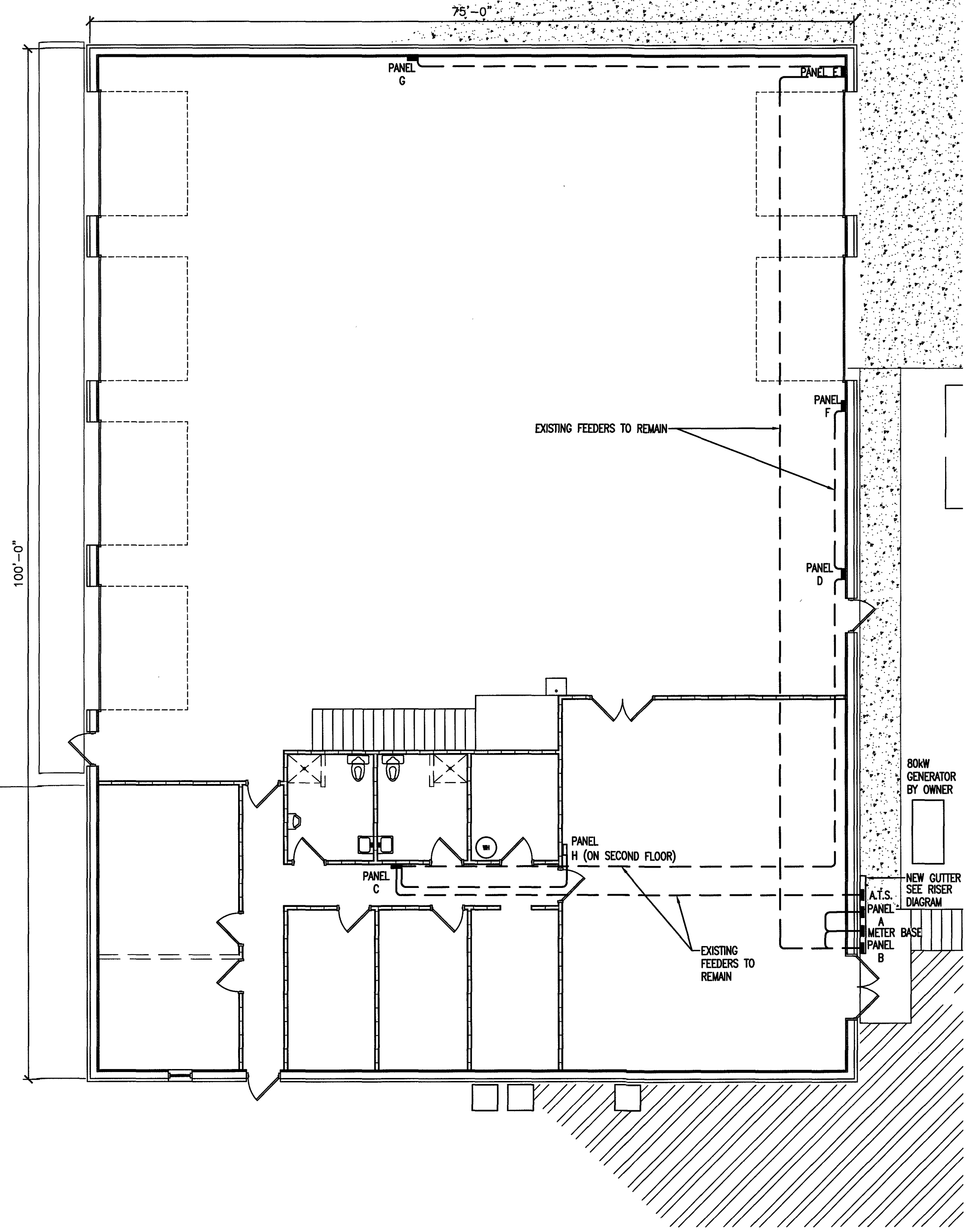
FINAL DRAWING [] FOR REVIEW PURPOSES ONLY
 PRELIMINARY [] TOP-DESIGN DEVELOPMENT ONLY
 FINAL DRAWING [] FOR CONSTRUCTION
 OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET:
ELECTRICAL PANEL SCHEDULE & NOTES

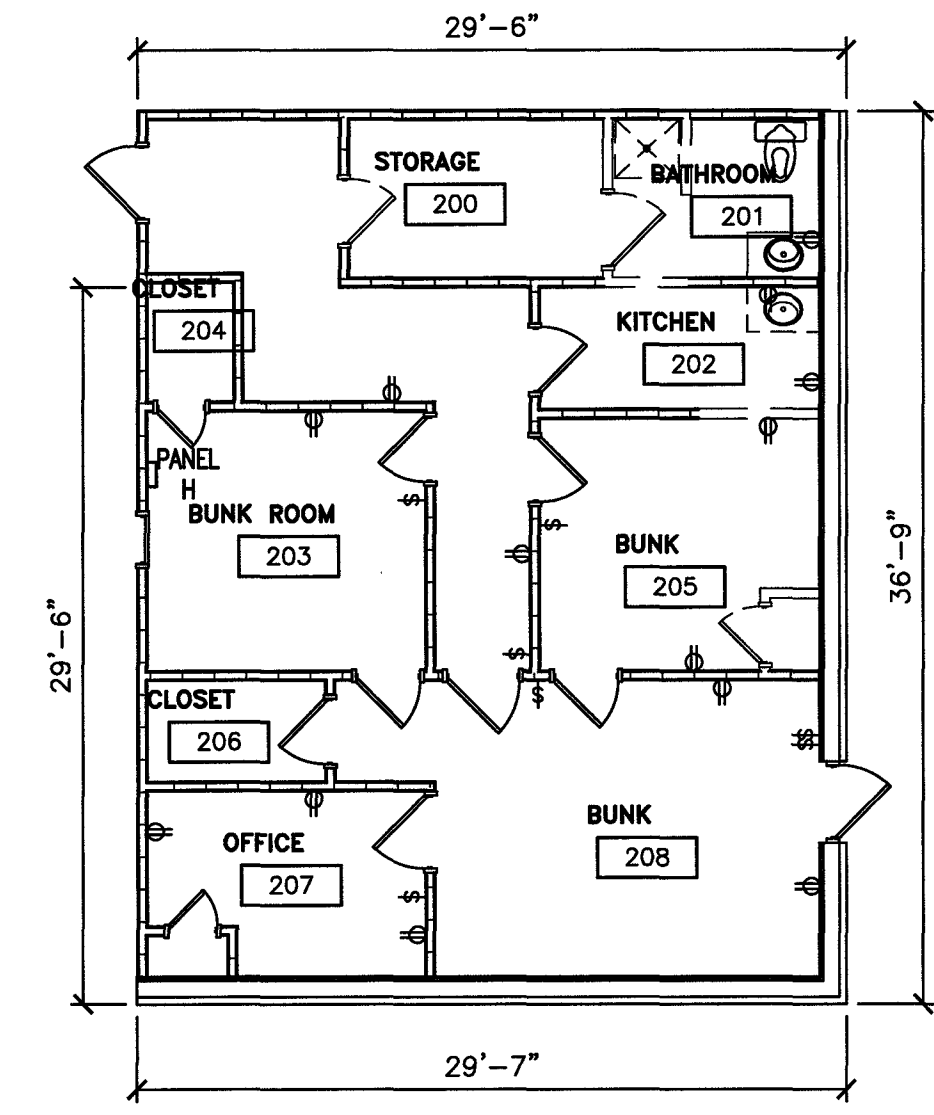
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 Plotted Date: Nov 15, 2023 - 3:55pm
 Scale: 1" = 1'-0"



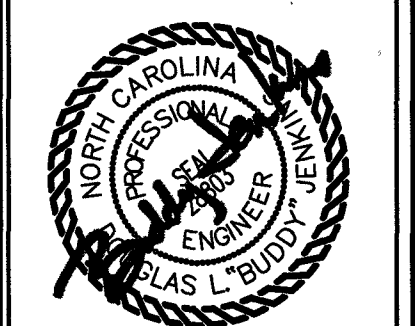
1 EXISTING BLDG. 1 1ST FLOOR - PARTIAL POWER PLAN



2 EXISTING BLDG. 1 2ND FLOOR - PARTIAL POWER PLAN



B. JENKINS
 CONSULTING ENGINEERS, P.A.
 OFFICE IN EUREKA SPRINGS, NORTH CAROLINA
 CORPORATION NUMBER C-3070 Bussy@jenkinspe.com
 910.822.1724 FAX 910.835.5907



15 NOVEMBER 2023

DESIGNED BY: **B. JENKINS**
 DRAWN BY: **JDL**
 PROJECT #: **2023-05-19**
 DATE: **15 NOVEMBER 2023**

FINAL DRAWING FOR REVIEW PURPOSES ONLY
 PRELIMINARY DESIGN DEVELOPMENT ONLY
 FINAL DRAWING FOR CONSTRUCTION
 OWNER/TEENANT: **FLAT BRANCH FIRE DEPT**
 2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28523
 CONTRACTOR/BUILDER:

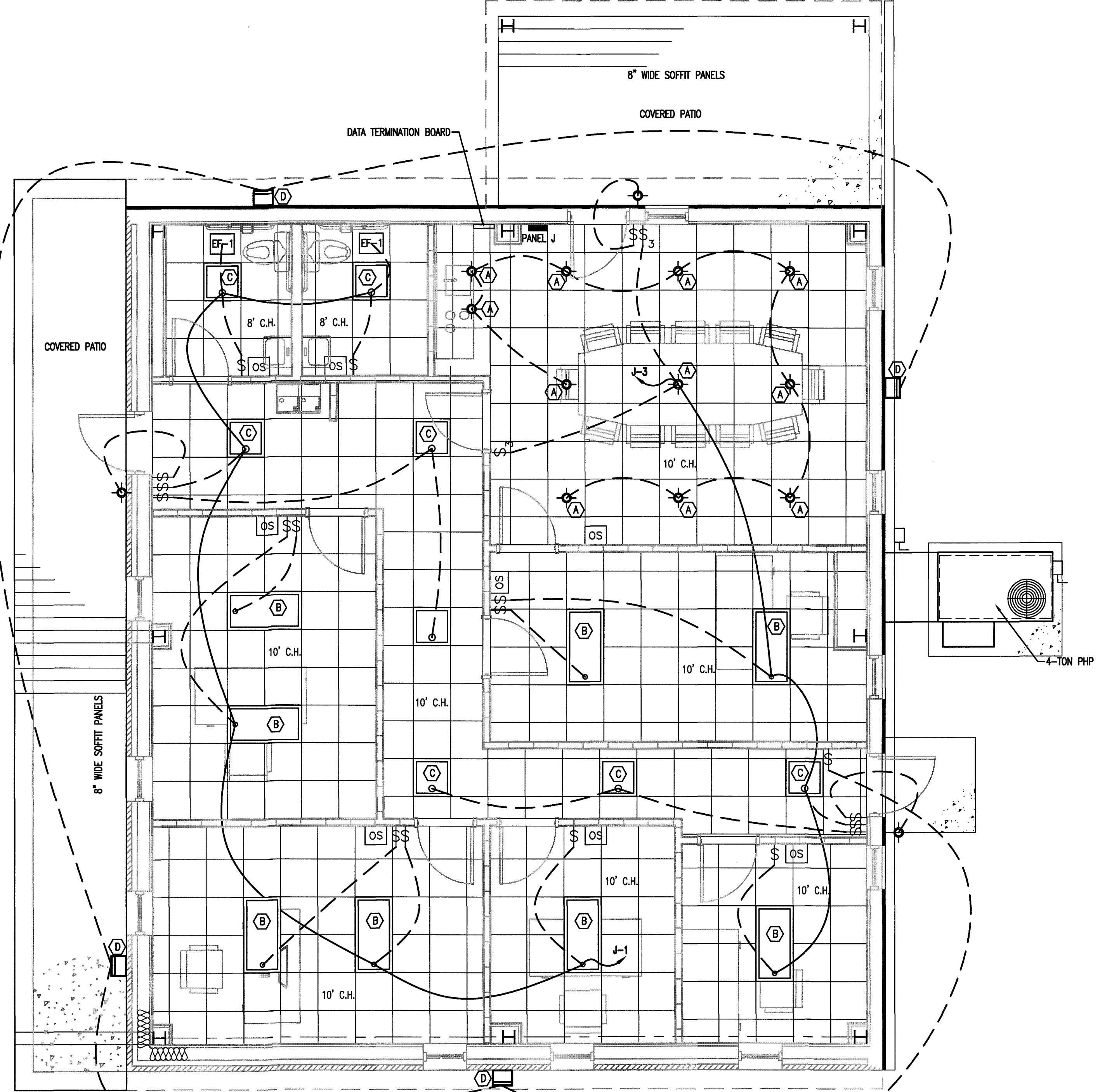
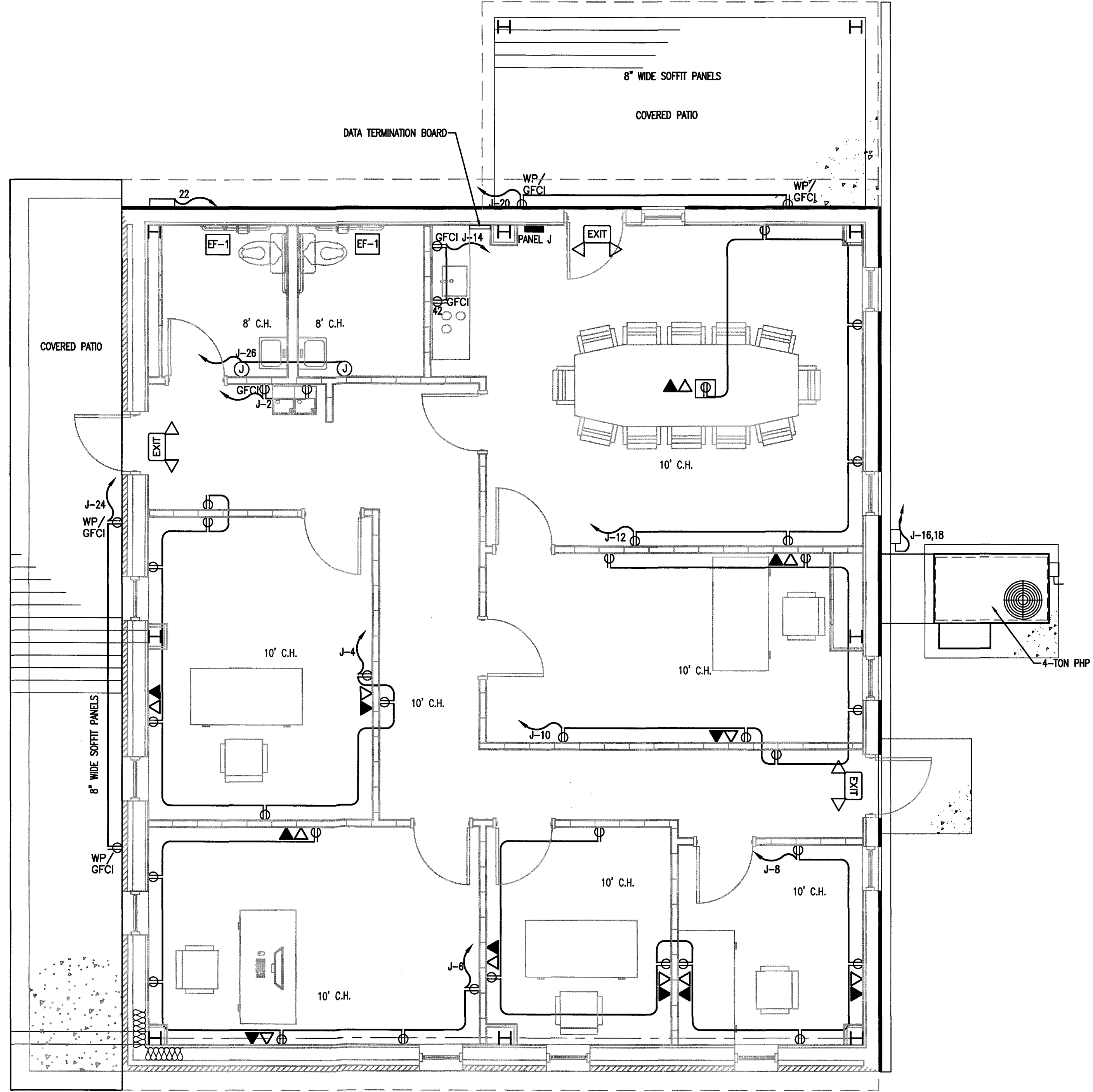
PROJECT: **NEW ADMIN BUILDING & INTERIOR RENOVATION**
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET: **ELECTRICAL - EXISTING BLDG 1 POWER PLAN**

E3

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
 Plotted by: JnoHL
 Plotted Date: Nov 15, 2023 - 3:56pm

ELECTRICAL POWER LEGEND	
	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.
	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX RECEPTACLE; WEATHERPROOF/GROUND FAULT CIRCUIT INTERRUPTER
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED VOICE (TELEPHONE) OUTLET
	SINGLE POLE POWER HOMERUN
	2-POLE POWER HOMERUN
	DISCONNECT
	JUNCTION BOX

LIGHT FIXTURE SCHEDULE													
TAG	DESCRIPTION	SIZE	MOUNTING	LENS	COLOR	LUMENS	BULB	BALLAST TYPE	HOUSING	VOLTAGE	WATTAGE	MANU/MODEL NUMBER	REMARKS
(A)	LED RECESSED DOWNLIGHT	6"	RECESSED	N/A	5000 K	1200	LED	LED DRIVER	STEEL	120	15	LITHONIA NO. WF6 LED 50K OR EQUAL	
(B)	LED FLAT PANEL	24" X 48"	LAY-IN	N/A	5000 K	4000	LED	LED DRIVER	STEEL	120	38.9	LITHONIA NO. CPX 2X4 4000LM 50K	
(C)	LED FLAT PANEL	24" X 24"	LAY-IN	N/A	5000 K	3200	LED	LED DRIVER	STEEL	120	31.5	LITHONIA NO. CPX 2X2 3200LM 50K	
(D)	EXTERIOR LED WALL PACK	13" X 9"	SURFACE	N/A	4000 K	VARIES	LED	LED DRIVER	STEEL	120	48	LITHONIA NO. WPX2 LED 40K MVOLT OR EQUAL	
EM	EMERGENCY	N/A	WALL	N/A	N/A	N/A	(2) LAMPS	ELECTRONIC	POLYCARBONATE	120/240		LITHONIA ELM4L OR EQUAL LITHONIA EU2L OR EQUAL (FOR RESTROOMS/UTILITY ROOMS)	6 VOLT NICAD BATTERY TEST SWITCH, POWER INDICATOR
EXL	EXIT SIGN	N/A	WALL	SINGLE	N/A	N/A	LED LIGHT	LED DRIVER	POLYCARBONATE	120/240		LITHONIA LHQM S W 3 R 120/240 EL N OR EQUAL	6 VOLT NICAD BATTERY, (2) REMOTE HEADS
EX	EXIT SIGN	N/A	WALL	SINGLE	N/A	N/A	LED LIGHT	LED DRIVER	POLYCARBONATE	120/240		LITHONIA LQM 120/240 OR EQUAL	6 VOLT NICAD BATTERY

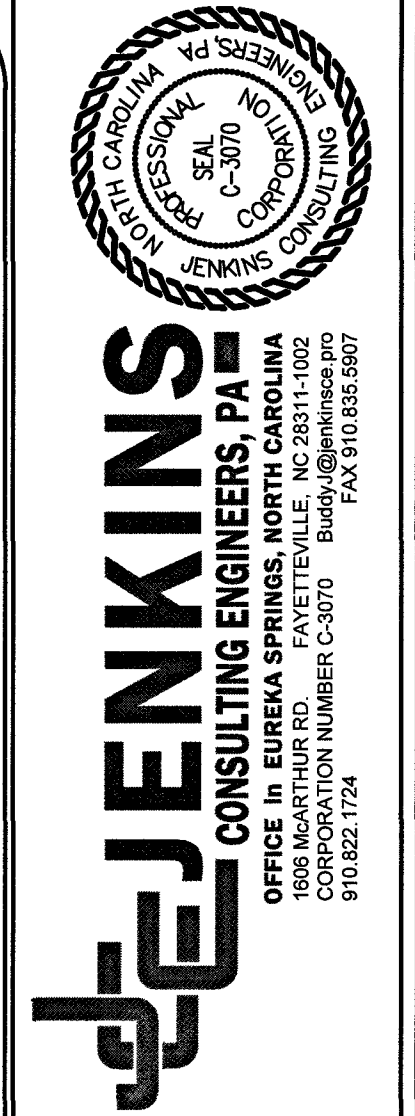


PLAN NORTH

1 BUILDING 2 ELECTRICAL - POWER/DATA PLAN
 E4
 1/4"=1'0"

PLAN NORTH

2 BUILDING 2 ELECTRICAL - LIGHTING PLAN
 E4
 1/4"=1'0"



DESIGNED BY: B. JENKINS
 DRAWN BY: JDL
 PROJECT #: 2023-05-19
 DATE: 15 NOVEMBER 2023

FINAL DRAWING FOR REVIEW PURPOSES ONLY
 PRELIMINARY FOR DESIGN DEVELOPMENT ONLY
 FINAL DRAWING FOR CONSTRUCTION
 OWNER/TENANT:
 FLAT BRANCH FIRE DEPT.
 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28523
 CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET:
ELECTRICAL - BLDG-2 DATA/POWER/LIGHTING PLAN

E4

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 Plotted by: Joah
 Plotted Date: Nov 15, 2023 - 3:57pm

PLUMBING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	MODEL #	FIXTURE DESCRIPTION	FIXTURE MOUNTING	ACCESSORIES	SUPPLY	WASTE	VENT	ELECTRICAL	REMARKS
P1	AMERICAN STANDARD	CADET ADA/ 215AA.104	ELONGATED BOWL; FLUSH TANK TOILET	FLOOR MOUNTED	SEAT: AMERICAN STANDARD / 5901.100	3/4" C.W.	3"	2"		SUGGESTED MODEL # OR EQUAL
P2	AMERICAN STANDARD	LUCERNE/ 0355.012	LAVATORY	WALL MOUNTED	DELTA 501-WFHGMHDF FAUCET	1/2" C.W. & H.W.	2"	2"		SUGGESTED MODEL # OR EQUAL
P3	ELKAY	EZSTLBWSLK	2 STATION WATER COOLER (REFRIGERATED)	WALL MOUNTED	BI-LEVEL WATER COOLER	1/2" C.W.	2"	2"		SUGGESTED MODEL # OR EQUAL
P4	GLACIER BAY	HDSB252264	KITCHEN SINK SINGLE COMPARTMENT	COUNTER	KITCHEN FAUCET BY DELTA #	1/2" C.W. & H.W.	2"	1-1/2"		SUGGESTED MODEL # OR EQUAL
P5	AMERICAN STANDARD	2950SWT32.011	SHOWER	FLOOR MOUNTED	MIXING VALVE	3/4" C.W. & H.W.	3"	2"		SUGGESTED MODEL # OR EQUAL
WH	RHEEM	XE10P06PU2000	10 GALLON ELECTRICAL WATER HEATER	RESTROOM PLATFORM	EXPANSION TANK, DRAIN PAN	1" C.W. & H.W.			120V 2KW	EXTEND PRESSURE RELIEF DRAIN TO DRAIN PAN AND EXTEND DRAIN PAN DRAIN TO OUTSIDE BUILDING
	WATTS	WATT/ 909 RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTOR							SUGGESTED MODEL # OR EQUAL

PLUMBING GENERAL NOTES:

PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA PLUMBING CODE 2018 EDITION AND LOCAL CODES.

ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE GENERAL CONTRACTOR AND OWNER TO SUIT THE OWNER'S OPERATING CONDITIONS.

PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE GENERAL CONTRACTOR OF ANY DEVIANCIES FROM THE CONTRACT DRAWINGS PRIOR TO STARTING ANY WORK.

THE PLUMBING CONTRACTOR SHALL COORDINATE WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE. THINK OF OTHER CONTRACTORS AND THEIR REQUIREMENTS IN VERTICAL CHASES AND WALL MOUNT SPACE. ALL CONTRACTORS TO FOLLOW THIS ORDER OF PRIORITY:

1. STORM AND SANITARY SEWER LINES
2. DUCTWORK AND HVAC SYSTEMS
3. HOT AND COLD WATER LINES
4. RIGID CONDUIT
5. CABLE

THE PLUMBING CONTRACTOR TO ORGANIZE HIS PIPING IN ATTIC SPACES, CRAWL SPACES, AND ABOVE CEILINGS. MAKE RUNS PARALLEL, PERPENDICULAR, AND GROUPED TOGETHER WHERE POSSIBLE. LOCATE MAJOR GROUPINGS OVER HALLWAYS AND AREAS OF PUBLIC ACCESS IF POSSIBLE. FREE RUNS OF PIPING IS NOT ACCEPTABLE.

THE PLUMBING CONTRACTOR SHALL LAY OUT AND INSTALL HIS WORK IN ADVANCE OF POURING CONCRETE FLOORS OR WALLS. HE SHALL FURNISH ALL SLEEVES TO THE GENERAL CONTRACTOR FOR OPENINGS THROUGH POURED MASONRY FLOORS, OR WALLS, ABOVE GRADE REQUIRED FOR PASSAGE OF ALL PIPES TO SUPPORT HIS EQUIPMENT.

HORIZONTAL DRAINAGE AND WASTE PIPE SHALL HAVE A MINIMUM SLOPE OR FALL OF 1/8 INCH PER FOOT. ALL CHANGE OF HORIZONTAL DIRECTIONS IN SOIL WASTE PIPE SHALL BE MADE WITH LONG RADIUS FITTINGS WITH Y" BRANCHES AND 1/8 OR 1/16 BENDS.

COLD AND HOT WATER PIPING ABOVE GRADE SHALL CAN BE CAN BE PEX PIPING (WITH OWNERS APPROVAL).

ALL HOT WATER PIPING SHALL BE INSULATED WITH 1 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE.

ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE.

SANITARY HORIZONTAL WASTE, VENT PIPING, AND FITTINGS ABOVE GRADE SHALL BE SCHEDULE 40 PVC-DWV PIPE-CELLULAR CORE FROM CHARLOTTE PIPE AND FOUNDRY COMPANY OR APPROVED EQUAL, AND MUST MEET OR EXCEED THE REQUIREMENTS OF ASTM F-891, NSF STANDARD NO. 14, AND IAPMO UPC.

ALL WASTE STACK PIPING SHALL BE CAST IRON AND INSULATED FOR SOUND IN WALLS.

ALL WASTE AND STORM PIPING ABOVE CEILING, VERTICAL CHASES, WALLS SHALL BE INSULATED WITH 1/2 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE. NO INSULATION REQUIRED IN CRAWL SPACE OR BELOW FLOOR SLAB OF ANY WASTE AND STORM PIPING.

IN LIEU OF FIBERGLASS INSULATION, THE PLUMBING CONTRACTOR IS ALLOWED TO USE CLOSED CELL INSULATION, 1/2 INCH THICK ARMSTRONG/ARMAFLEX II ON ALL COLD WATER PIPES. RIGID URETHANE FOAM INSULATION, 1 INCH THICK ARMSTRONG/ARMAFLEX II ON ALL HOT WATER PIPING.

ALL PLUMBING EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

ALL FIXTURES, DRAINS, TRAPS, ETC. SHALL BE SET PLUMB AND LEVEL.

ALL HANDICAPPED FIXTURES AND TRIM SHALL BE INSTALLED IN ACCORDANCE WITH THE NORTH CAROLINA PLUMBING CODE 2018 EDITION.

CHROME PLATED ESCUTCHEONS SHALL BE PROVIDED AT EACH WALL PENETRATION.

ESCUTCHEONS SHALL BE CHROME PLATED, SPRING TYPE, ON ALL PIPES PASSING THROUGH WALLS AND CEILINGS IN FINISHED AREAS. FLOOR ESCUTCHEONS SHALL BE CAST BRASS, CHROME PLATED, WITH SET SCREW.

ESCUTCHEONS SHALL BE OF SUFFICIENT SIZE TO COVER OUTSIDE DIAMETER OF THE PIPE OR THE INSULATION OF THE PIPE.

FLASHING FOR VENTS THROUGH THE ROOF SHALL BE TWO-PIECE TYPE, 16 OUNCE COPPER COUNTER FLASHING AND BASE FLASHING, OR A TWO-PIECE TYPE, 4 POUND LEAD COUNTER FLASHING AND BASE FLASHING. THE BASE FLASHING SHALL BE INSTALLED BY THE GENERAL CONTRACTOR WITH THE ROOF SYSTEM.

VENT FLASHING SHALL EXTEND DOWN AT LEAST 4 INCHES FROM THE TOP OF THE PIPE. FLASHING SHALL EXTEND AT LEAST 12 INCHES IN ALL DIRECTIONS FROM THE PIPE AND SHALL BE PARALLEL TO THE ROOF LINE.

ALL EQUIPMENT AND INSTALLED MATERIALS SHALL BE THOROUGHLY CLEAN AND FREE OF ALL DIRT, OIL, GRIT, GREASE, AND ETC.

ALL PLUMBING SYSTEMS AND EQUIPMENT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE BUILDING FROM THE OWNER.

WATER CALCULATIONS

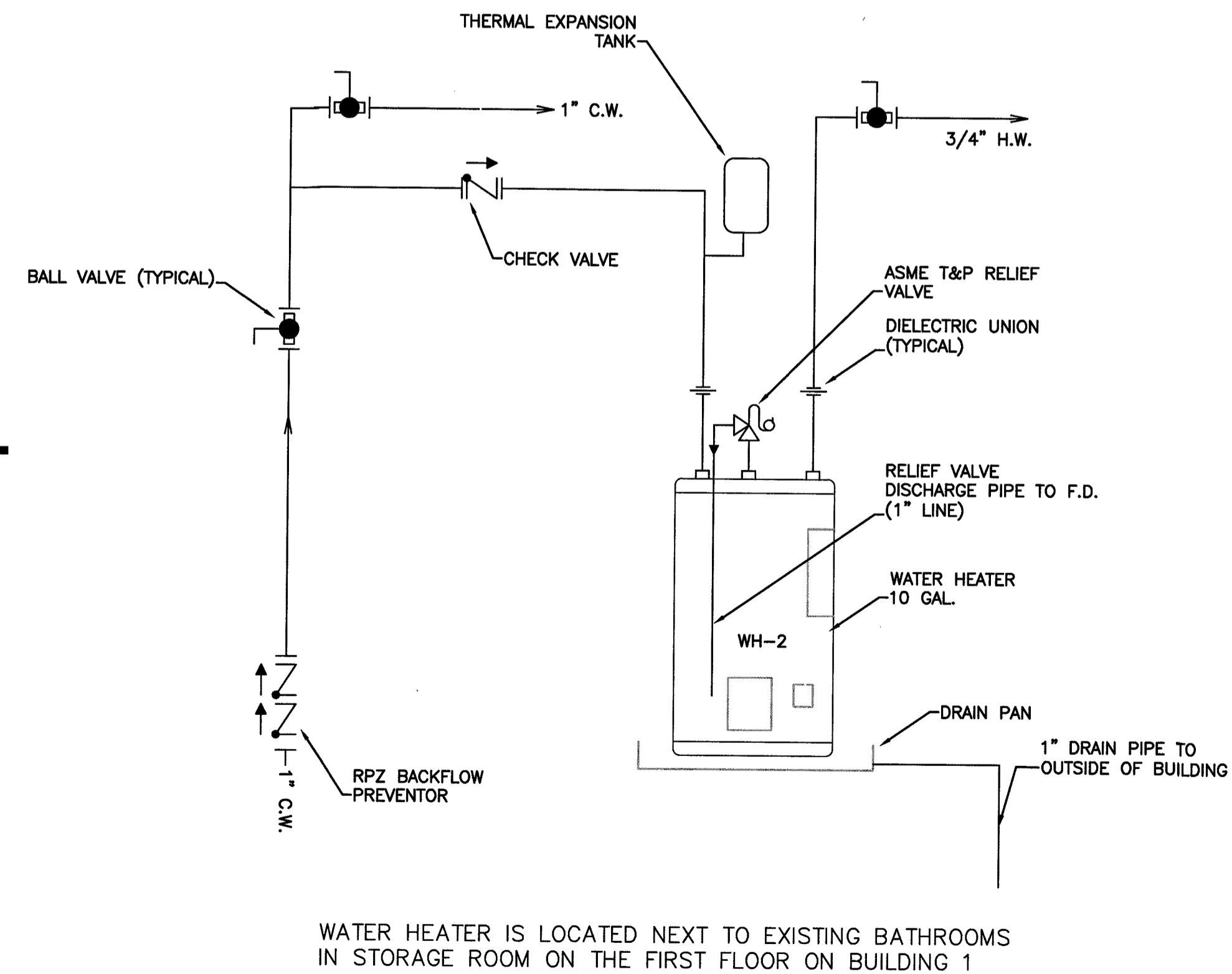
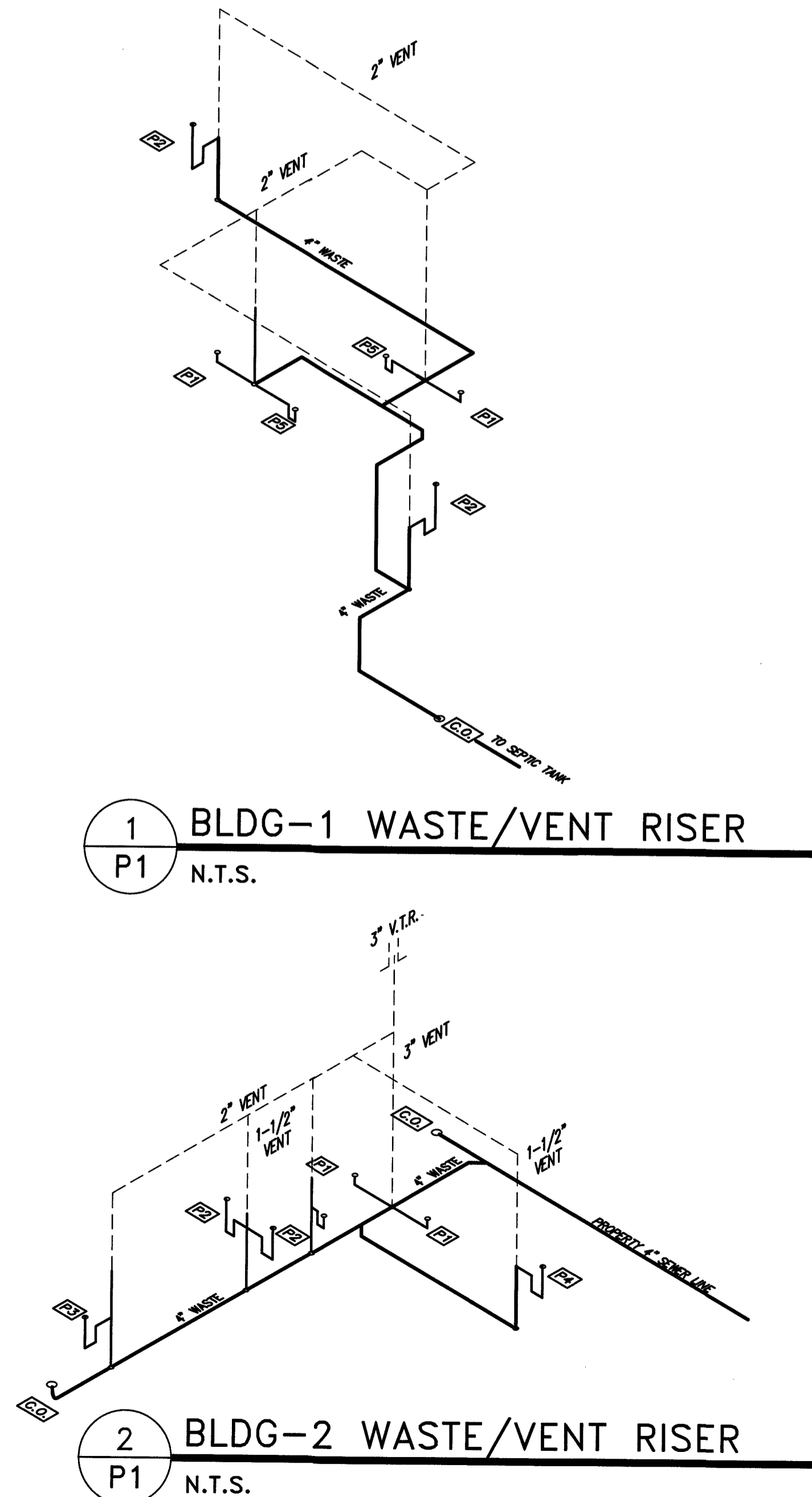
QTY.	ITEM	C.W. FIXTURE UNITS	WATER SUPPLY FIXTURE UNITS EACH	WATER SUPPLY FIXTURE UNITS TOTAL
1	SINK	-	-	-
8	WATER CLOSET	5.0	5.0	40.0
6	LAVATORY	1.5	2.0	12.0
3	DRINKING FOUNTAIN	0.25	0.25	0.75
1	UTILITY SINK	0.25	0.25	0.25
2	SHOWER	-	-	-
TOTAL WATER SUPPLY FIXTURE UNITS				17.5

DRAINAGE CALCULATIONS

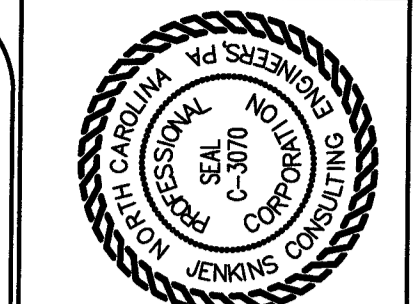
QTY.	ITEM	DRAINAGE FIXTURE UNITS	DRAINAGE FIXTURE UNITS TOTAL
1	SINK	-	-
2	WATER CLOSET	4.0	8.0
2	LAVATORY	1.0	2.0
2	DRINKING FOUNTAIN	0.5	1.0
TOTAL DRAINAGE FIXTURE UNITS			13.0

PLUMBING SYMBOL LEGEND

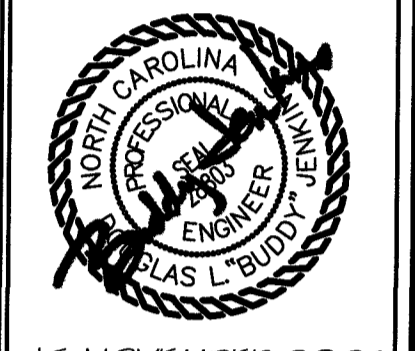
—	HOT WATER LINE
---	COLD WATER LINE
○	PIPE TURNS UP
∩	PIPE TURNS DOWN
⊥	SHUT OFF VALVE
—	SANITARY WASTE
---	VENT LINE



WATER HEATER IS LOCATED NEXT TO EXISTING BATHROOMS IN STORAGE ROOM ON THE FIRST FLOOR ON BUILDING 1



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 OFFICE IN EUREKA SPRINGS, NORTH CAROLINA
 CORPORATION NUMBER C-3070 Phone: 910.835.5607
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15 NOVEMBER 2023

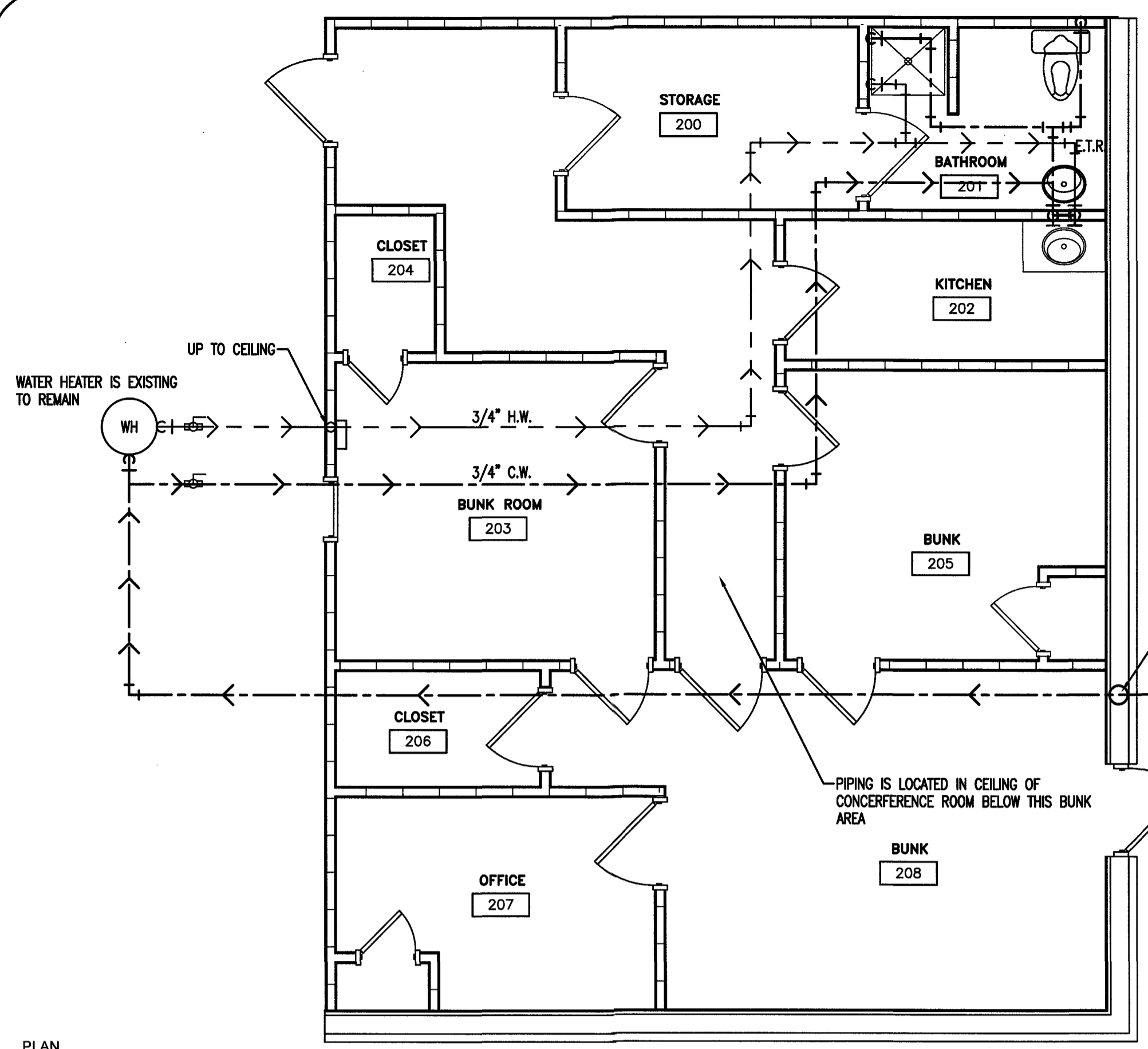
DESIGNED BY: **B. JENKINS**
 DRAWN BY: **JDL**
 PROJECT #: **2023-05-19**
 DATE: **15 NOVEMBER 2023**

FINAL DRAWING FOR REVIEW PURPOSES ONLY
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 OWNER/TENANT: **FLAT BRANCH FIRE DEPT.**
 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323
 CONTRACTOR/BUILDER:

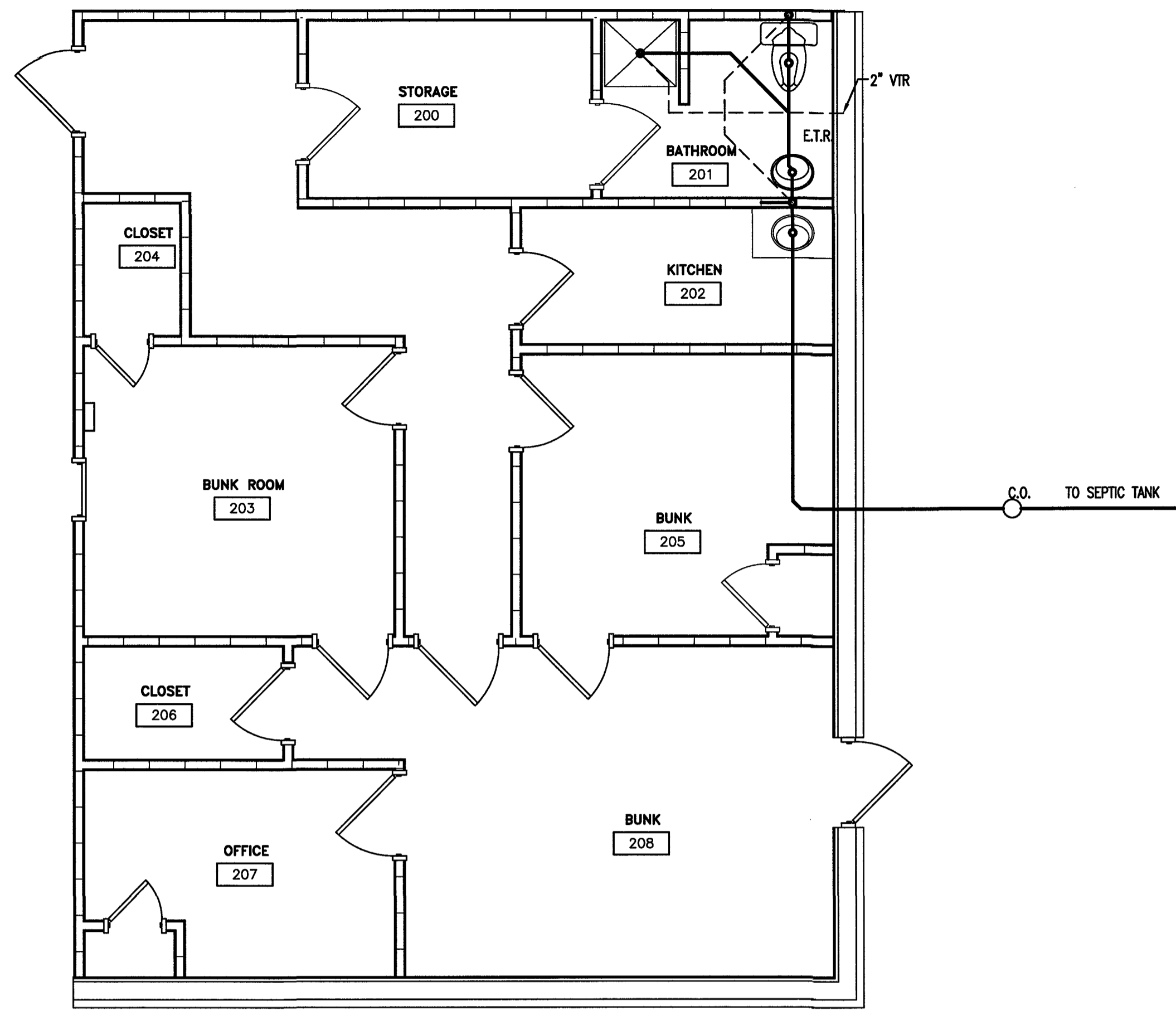
PROJECT: **NEW ADMIN BUILDING & INTERIOR RENOVATION**
 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
 SHEET: **PLUMBING SCHEDULES AND NOTES**

P1

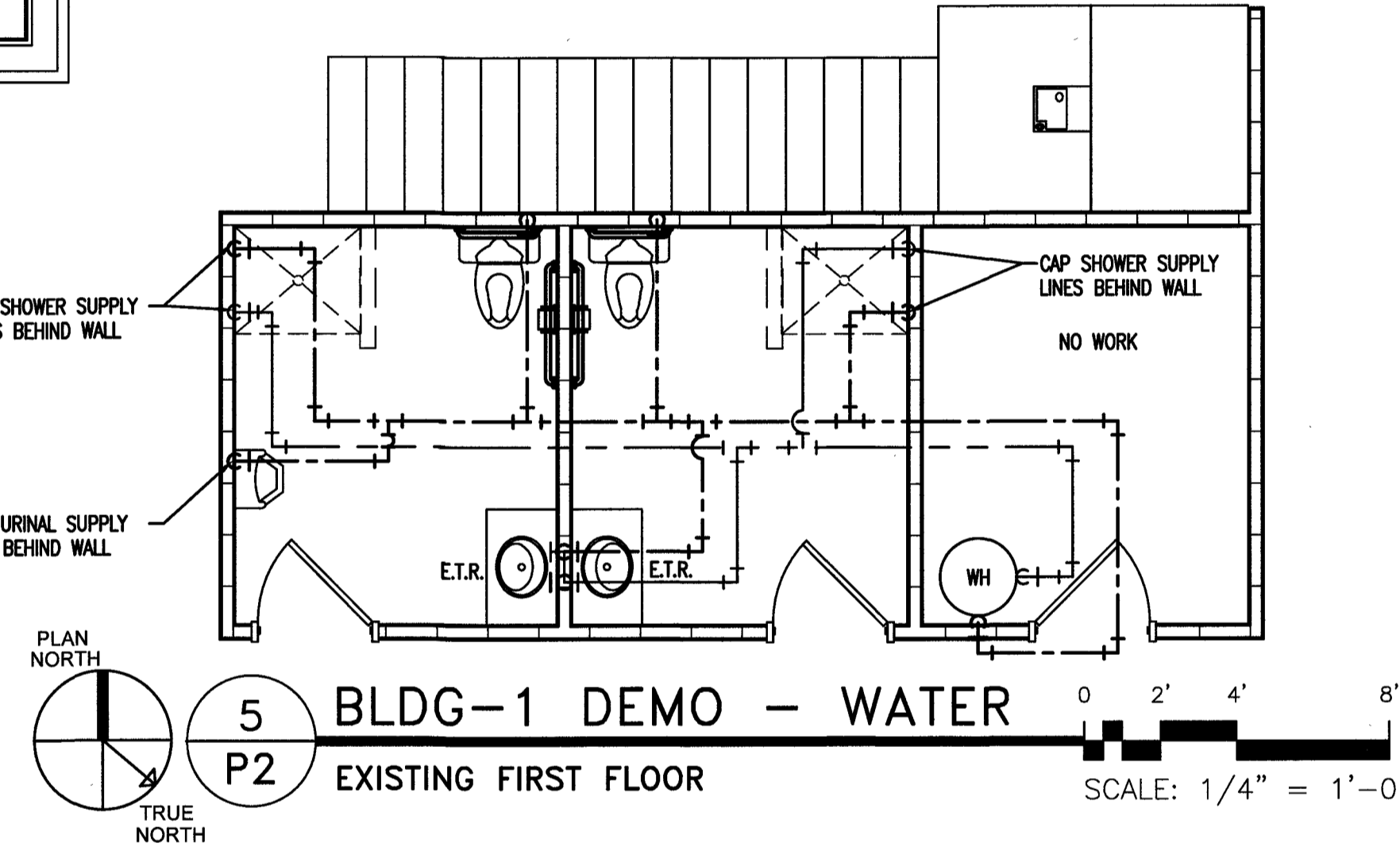
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 Plotted Date: Nov 16, 2023 - 7:11pm
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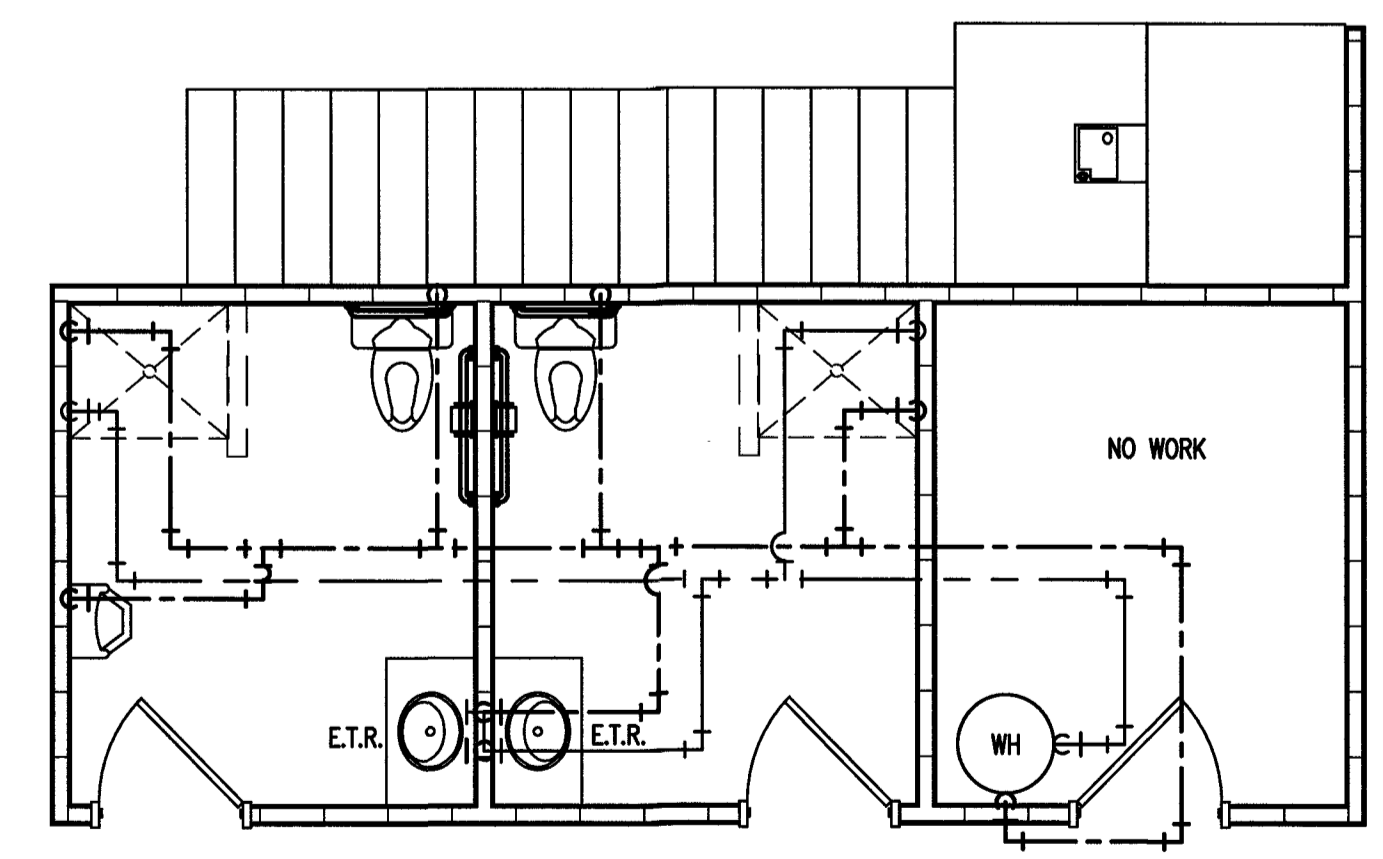
PLAN NORTH
4 BLDG-1 PLUMBING - WATER
 P2 EXISTING SECOND FLOOR
 SCALE: 1/4" = 1'-0"



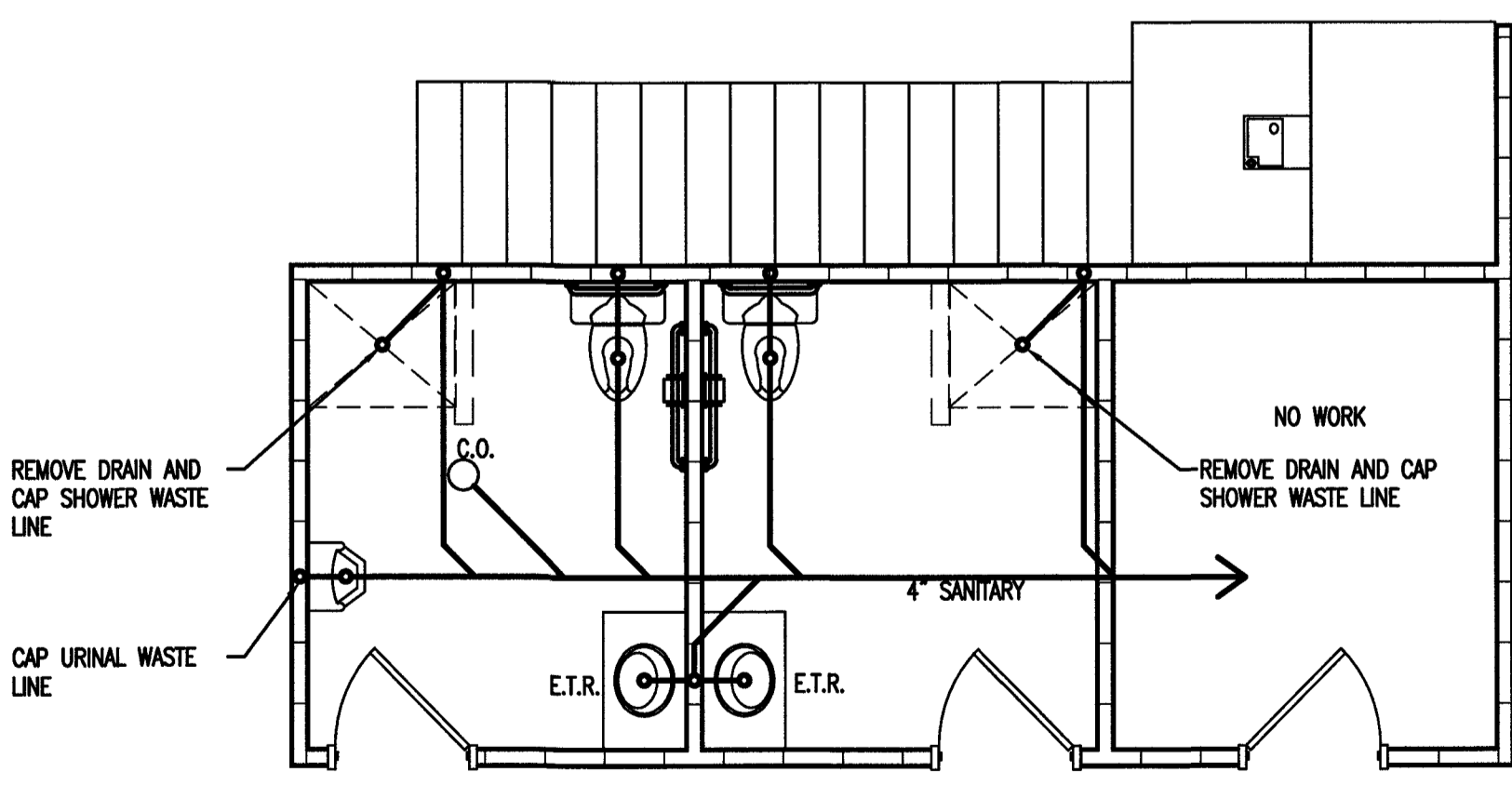
PLAN NORTH
6 BLDG-1 PLUMBING - WASTE/VENT
 P2 EXISTING SECOND FLOOR
 SCALE: 1/4" = 1'-0"



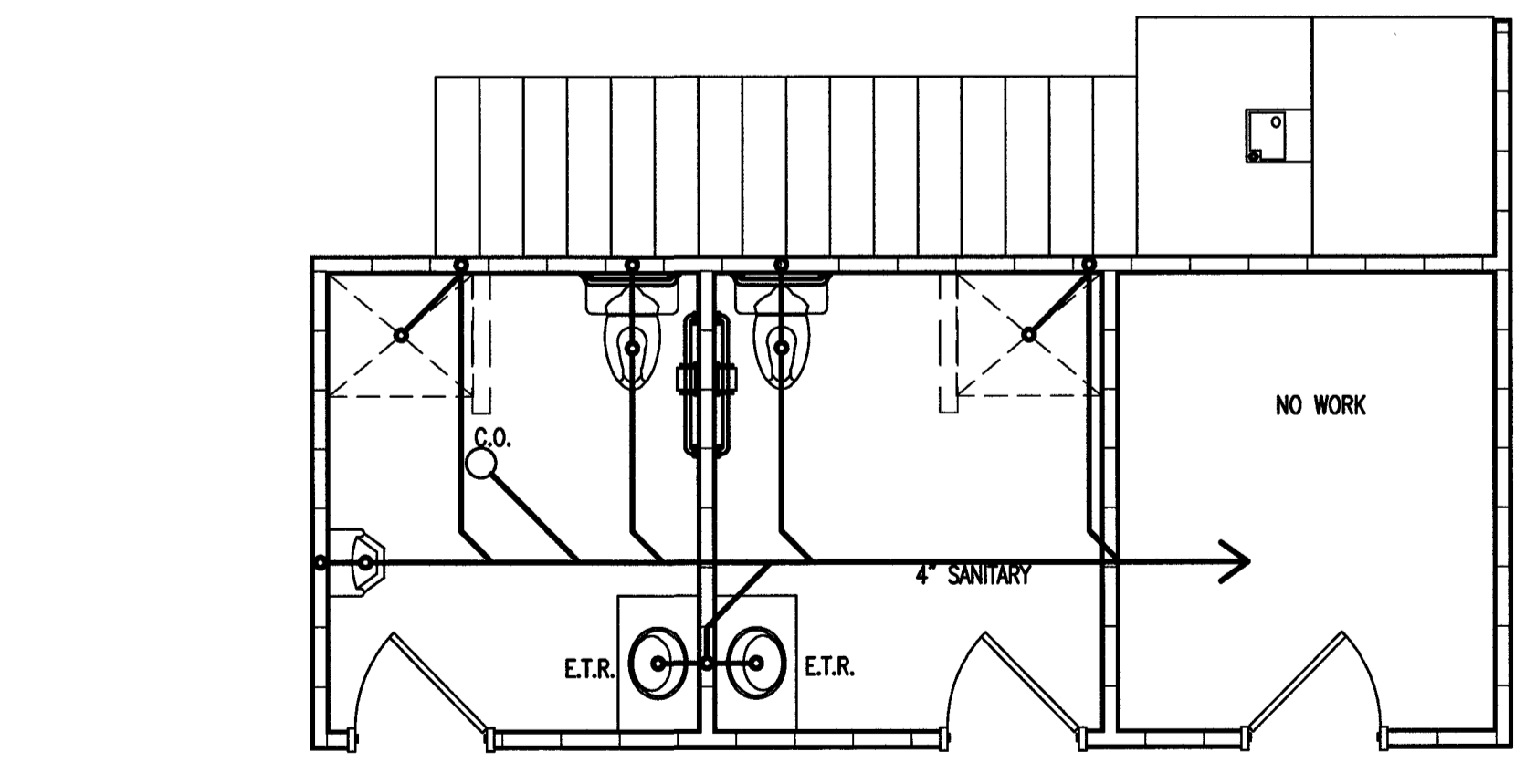
PLAN NORTH
5 BLDG-1 DEMO - WATER
 P2 EXISTING FIRST FLOOR
 SCALE: 1/4" = 1'-0"



PLAN NORTH
1 BLDG-1 PLUMBING - WATER
 P2 EXISTING FIRST FLOOR
 SCALE: 1/4" = 1'-0"



PLAN NORTH
2 BLDG-1 DEMO - WASTE
 P2 EXISTING FIRST FLOOR
 SCALE: 1/4" = 1'-0"



PLAN NORTH
3 BLDG-1 PLUMBING - WASTE/VENT
 P2 EXISTING FIRST FLOOR
 SCALE: 1/4" = 1'-0"

NOTE: PLUMBING WORK IN MEN'S AND WOMEN'S RESTROOM SHALL BE BID AS ALTERATION WORK.
 OPTION 1 INCLUDES DEMOLITION OF SHOWERS, URINAL, & CAPPING PIPING BEHIND FINISHED WALL SURFACES.
 OPTION 2 INCLUDES DEMOLITION OF SHOWERS & RELOCATION OF URINAL & INSTALLATION OF SECOND TOILET IN WOMEN'S RESTROOM & INCLUDE INSTALLATION OF TOILET PARTITIONS.

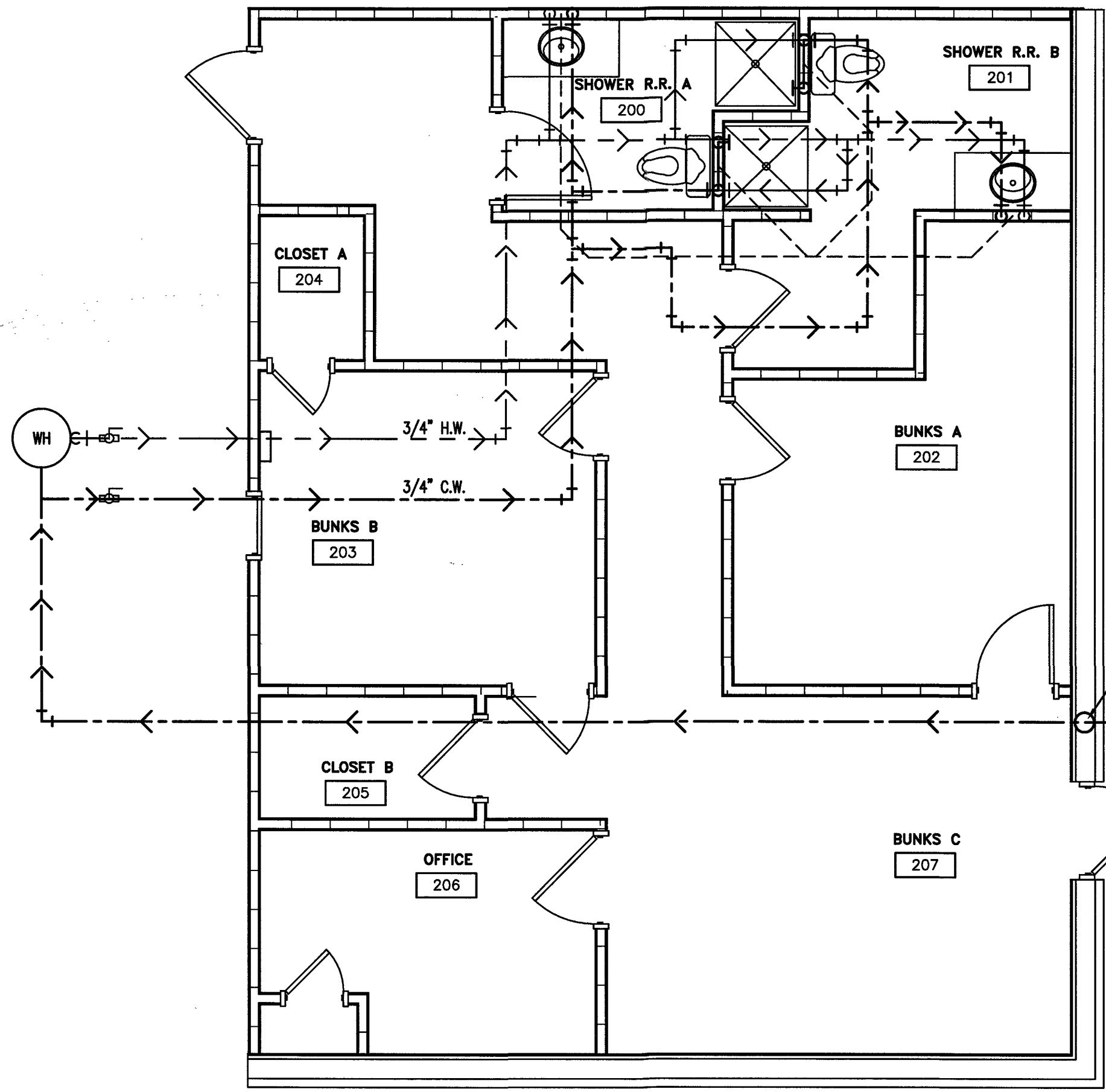
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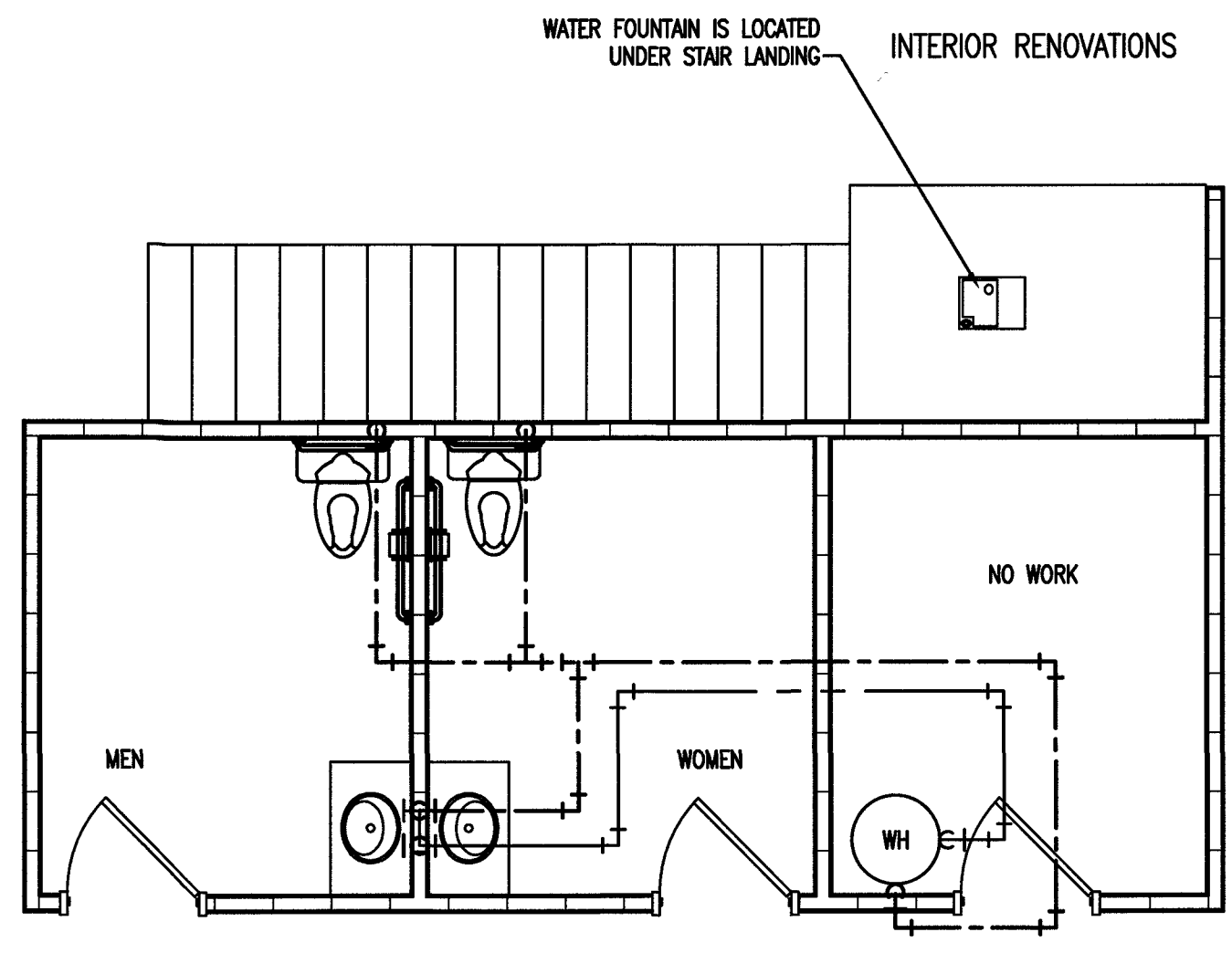
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 CONTRACTOR/BUILDER:

PROJECT:
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 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET:
PLUMBING - EX. BLDG 1 WATER/WASTE PLAN

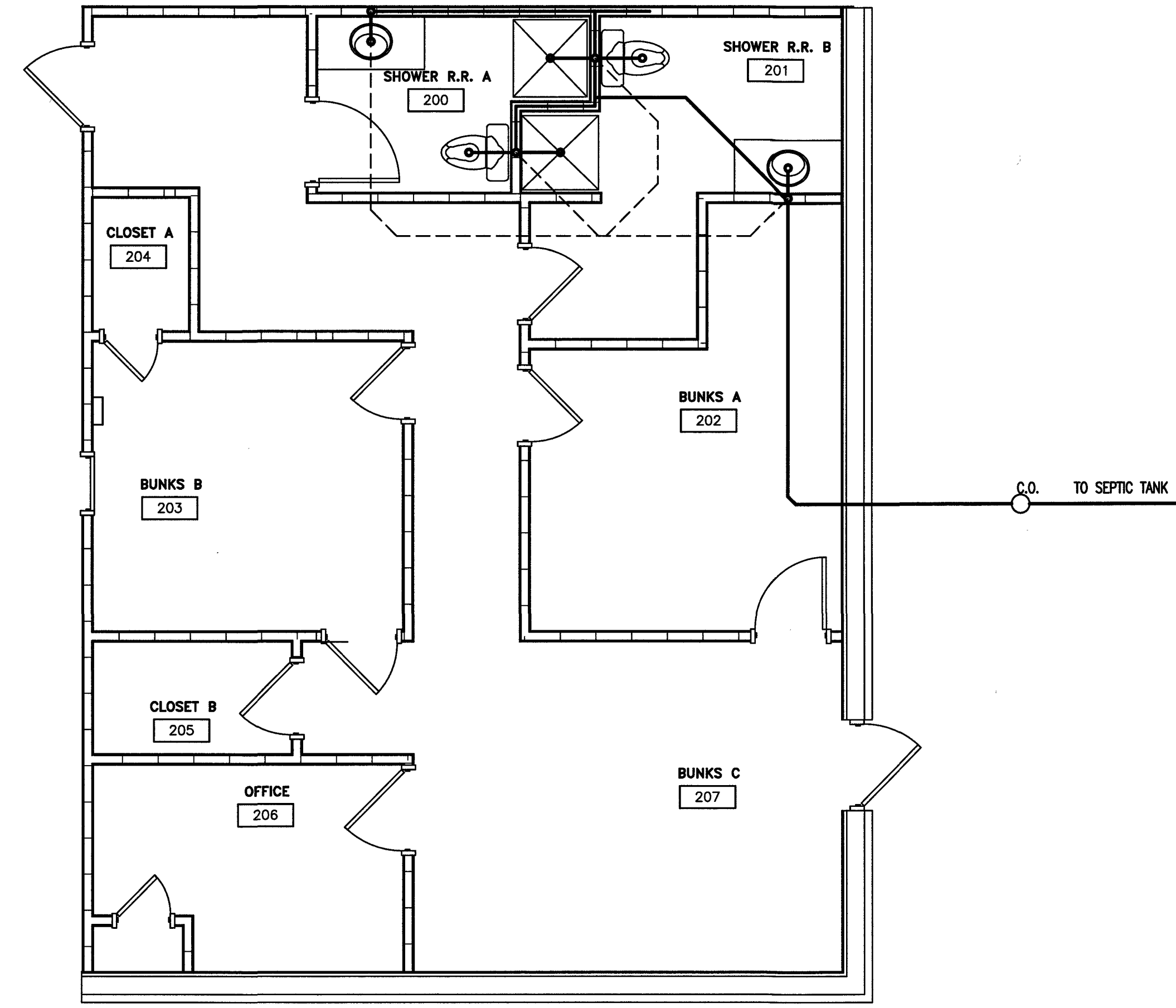
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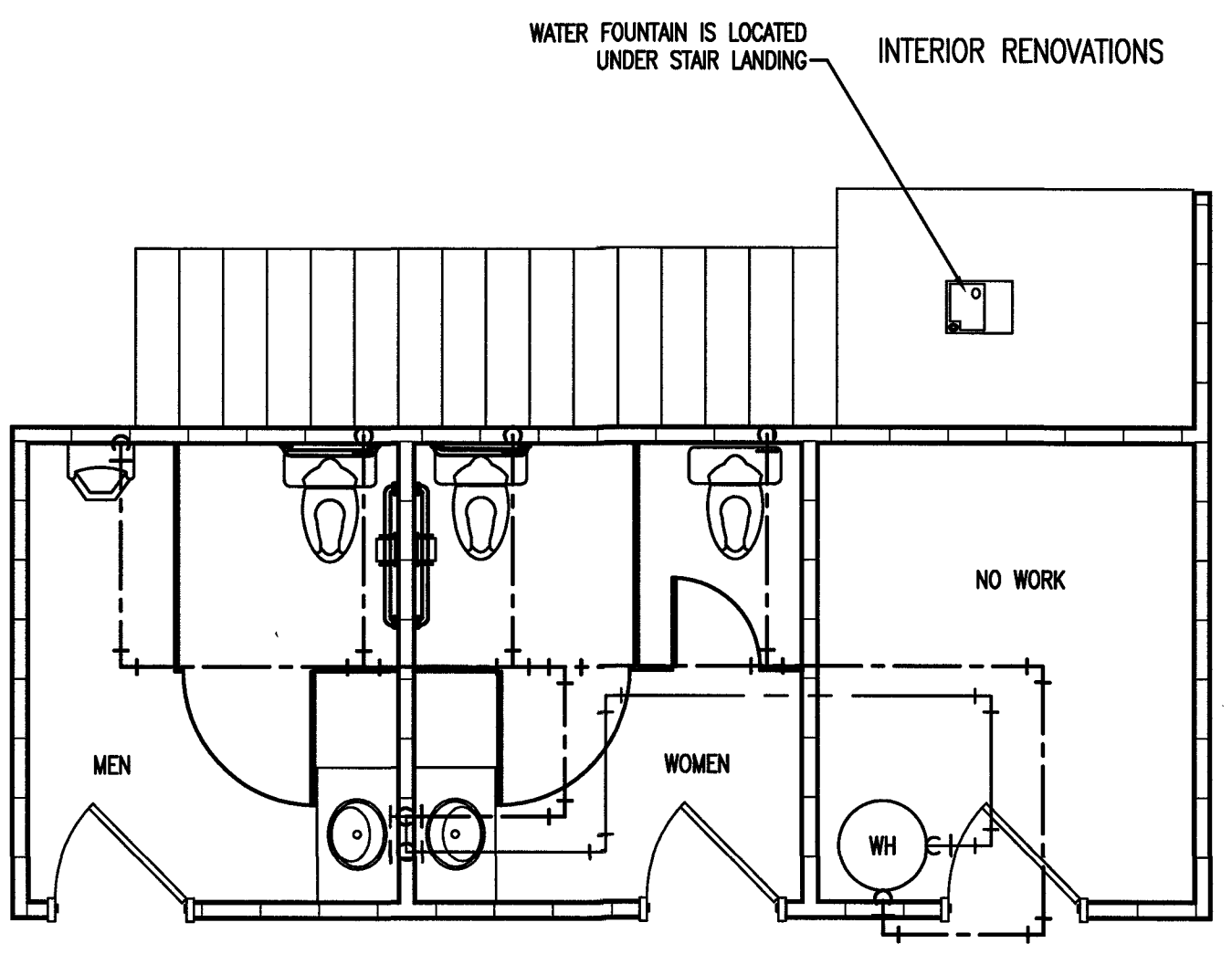
1 BLDG-1 PLUMBING - WATER
P3 NEW SECOND FLOOR
SCALE: 1/4" = 1'-0"



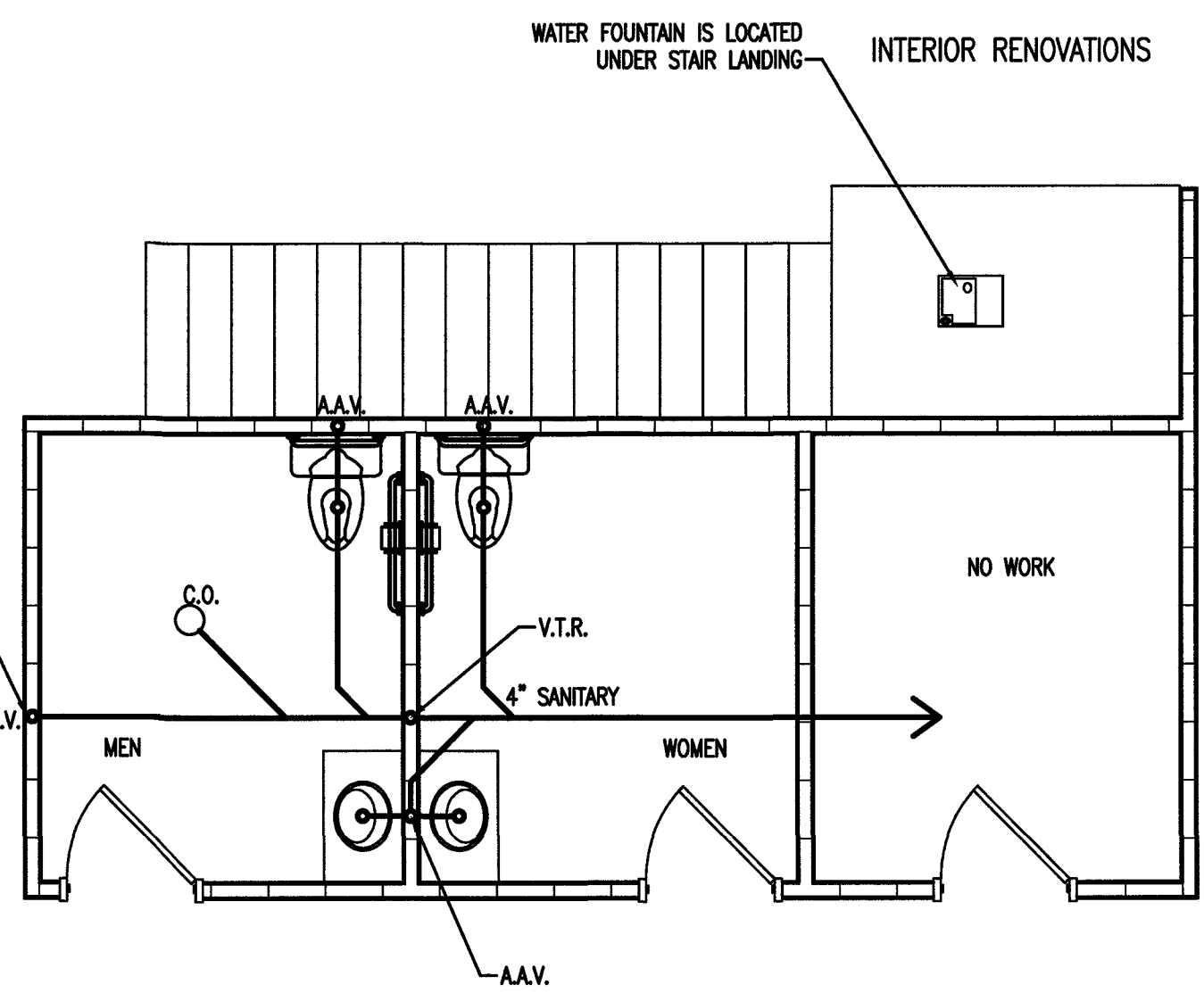
4 BLDG-1 PLUMBING - WATER
P3 (OPTION 1) NEW FIRST FLOOR
SCALE: 1/4" = 1'-0"



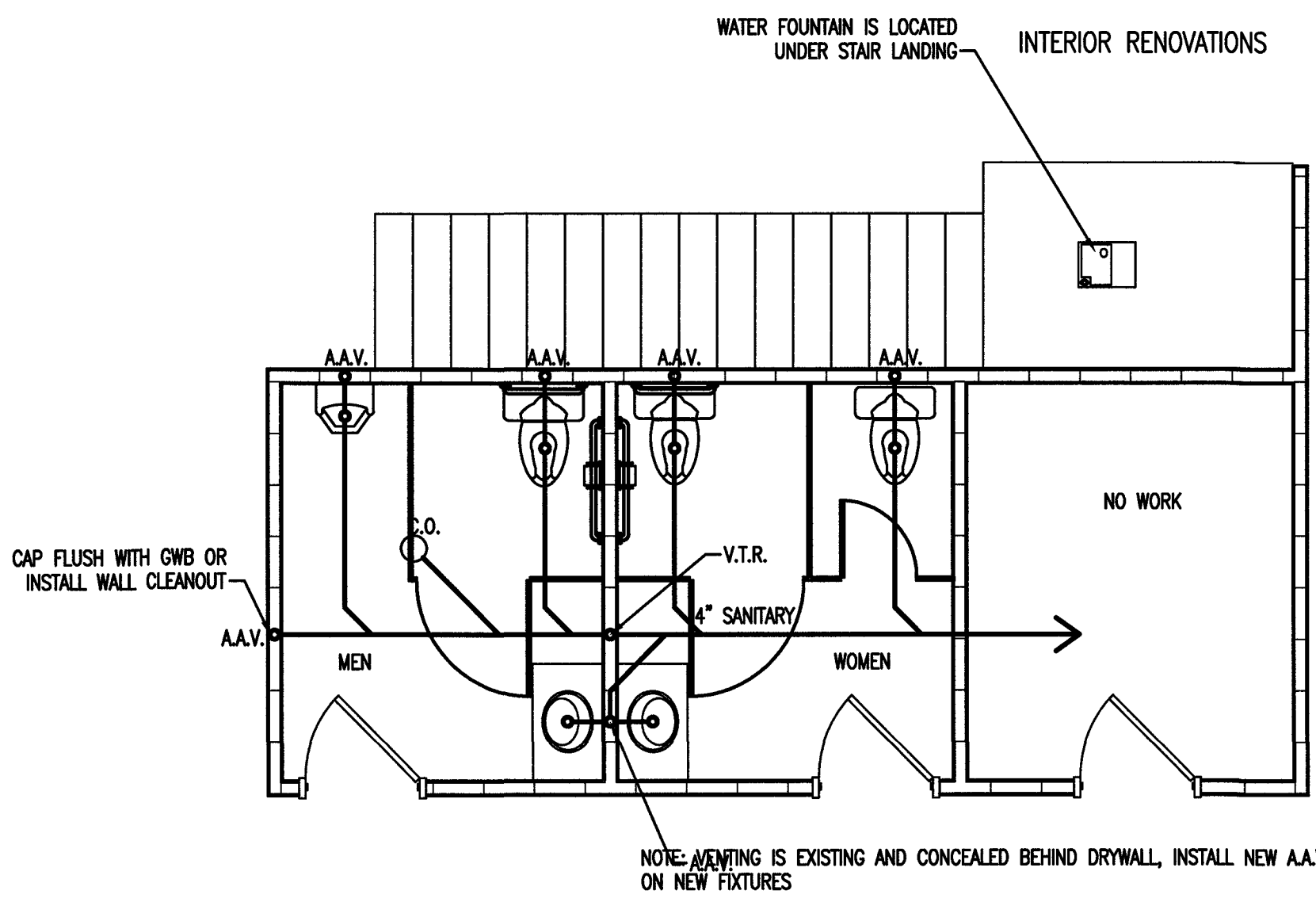
2 BLDG-1 PLUMBING - WASTE/VENT
P3 NEW SECOND FLOOR
SCALE: 1/4" = 1'-0"



3 BLDG-1 PLUMBING - WATER
P3 (OPTION 2) NEW FIRST FLOOR
SCALE: 1/4" = 1'-0"



5 BLDG-1 PLUMBING - WASTE/VENT
P3 (OPTION 1) NEW FIRST FLOOR
SCALE: 1/4" = 1'-0"



6 BLDG-1 PLUMBING - WASTE/VENT
P3 (OPTION 2) NEW FIRST FLOOR
SCALE: 1/4" = 1'-0"

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15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

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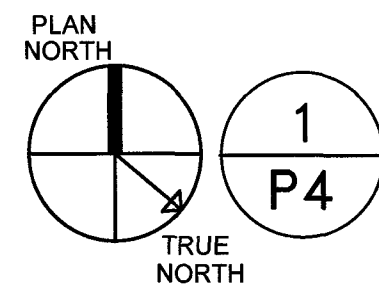
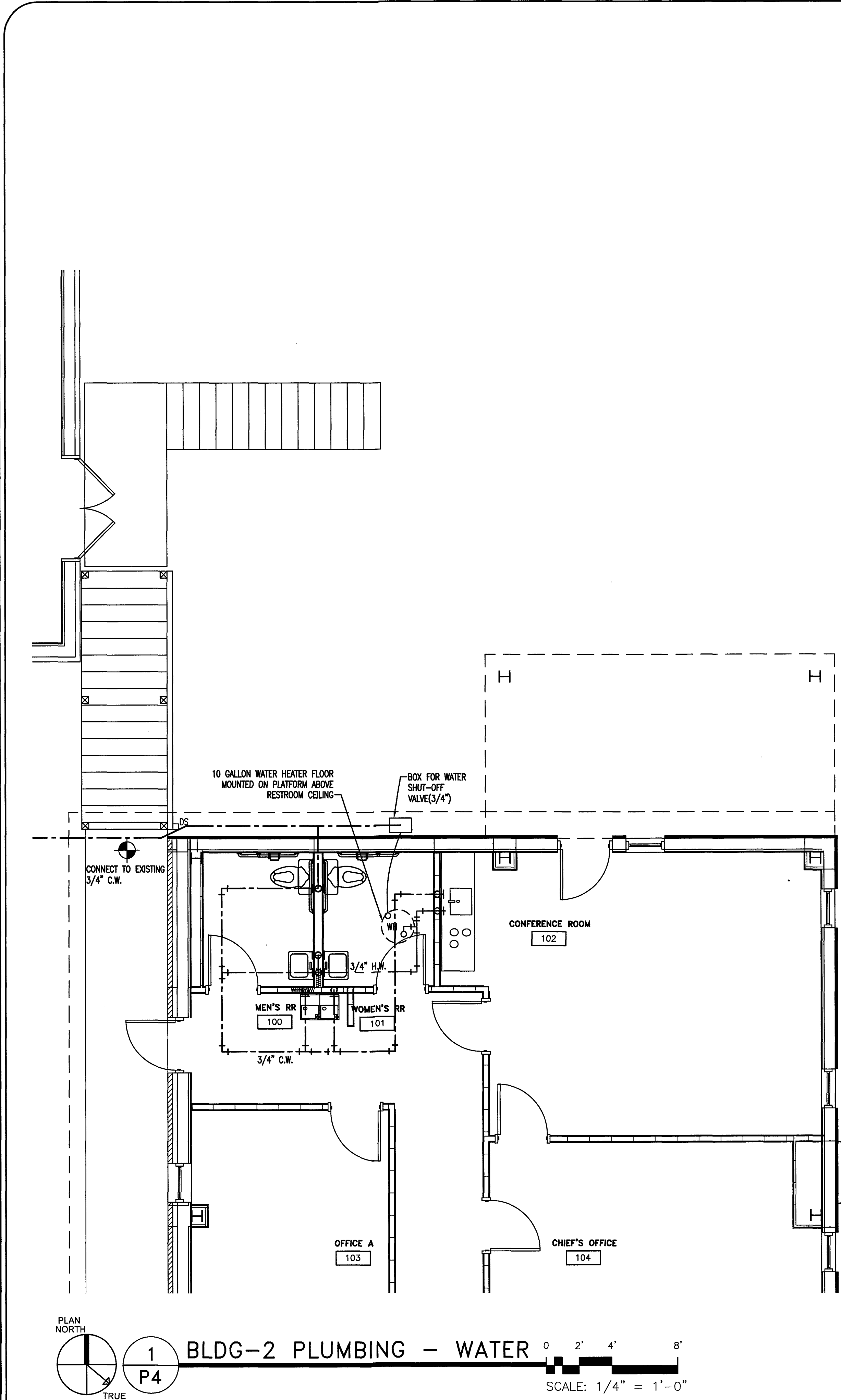
CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523

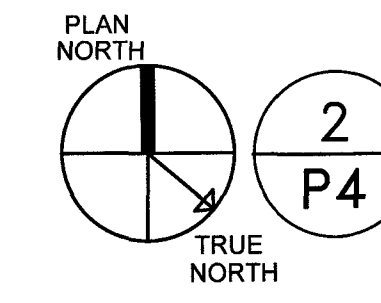
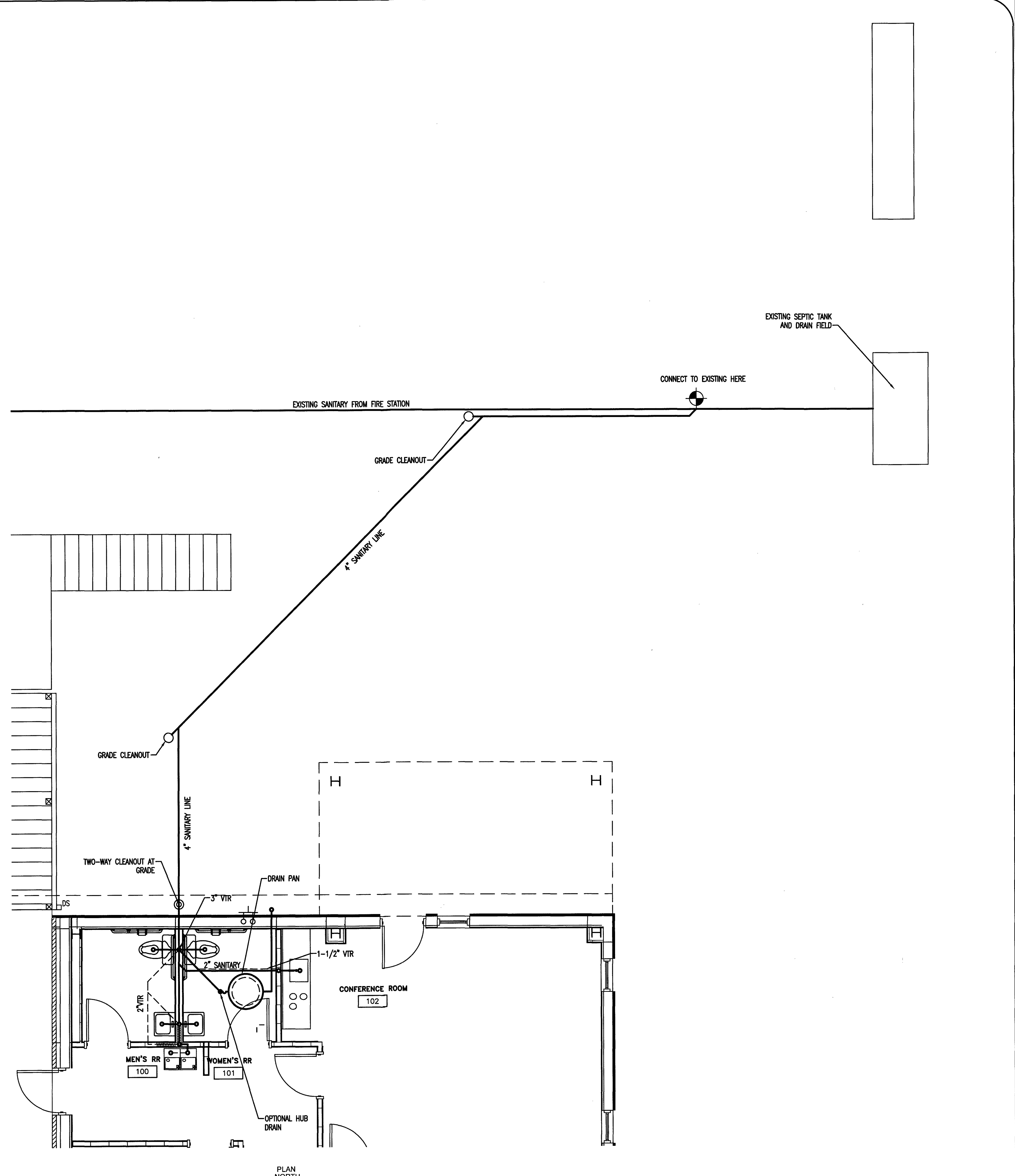
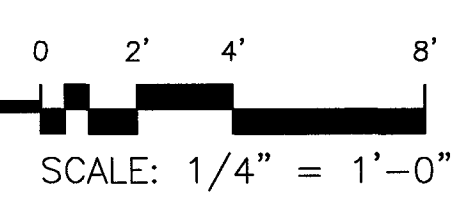
SHEET: PLUMBING - NEW BLDG 1 WATER/WASTE PLAN

P3

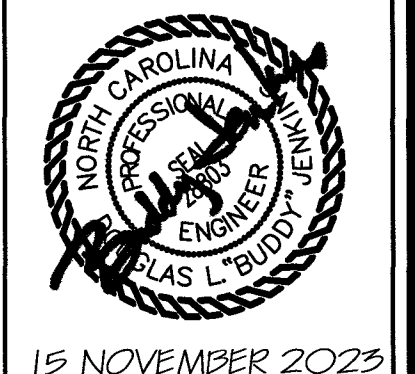
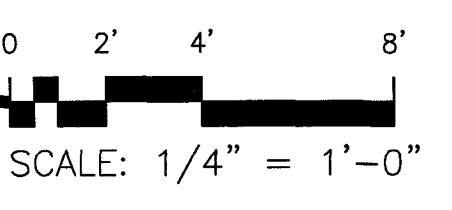
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 Plotted By: Noah
 Plotted Date: Nov 15, 2023 - 3:59pm



1 BLDG-2 PLUMBING - WATER



2 BLDG-2 PLUMBING - WASTE



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 DRAWN BY: JDL
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 CONTRACTOR/BUILDER:

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 2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28523
 SHEET: PLUMBING - BLDG 2 WATER/WASTE PLAN

P4