CONSTRUCTION DOCUMENTS FOR

SAMPSON COMMUNITY COLLEGE

ACTIVITIES BUILDING ADDITION

CLINTON, NC

SCO ID NO.17-16813-01C: NCCCS NO. 2163

JKF PROJECT NO. 2024-06

MAY 20, 2024

J K F
ARCHITECTURE

625 LYNNDALE CT. SUITE F GREENVILLE, NC 27858 (252)355-1068 PHONE

RPA ENGINEERING, PA
STRUCTURAL ENGINEER
102 REGENCY BLVD., SUITE A1
GREENVILLE, NC 27834
252-321-6027

PROGRESSIVE DESIGN COLLABORATIVE, Ltd.
MECHANICAL & ELECTRICAL ENGINEERS
3101 POPLARWOOD COURT, SUITE 320
RALEIGH, NC 27604
919-790-9989

RIVERS & ASSOCIATES, INC.
CIVIL/SITE ENGINEERS
107 E. 2ND STREET
GREENVILLE, NC 27858
252-752-4135

ROOM FINISH SCHEDULE (SEE FLOOR PLANS)

ROOM NAME
101
A | B | C
- A — WALL FINISH
- B — BASE MATERIAL/FINISH
- C — FLOOR MATERIAL/FINISH

FLOOR MATERIALS/FINISH

A	ATHLETIC FLOORING
CT	CERAMIC TILE
EC	EXPOSED CONCRETE
EX	EXISTING TO REMAIN
VCT	VINYL COMPOSITE TILE TO MATCH EXISTING
CR	CARPET TILE

BASE MATERIALS

CT	CERAMIC TILE
EX	EXISTING TO REMAIN
RM	RUBBER BASE TO MATCH EXISTING
RT	RUBBER BASE

WALL MATERIALS/FINISH

EX	EXISTING TO REMAIN
PM	PAINTED TO MATCH EXISTING
P	PAINTED GYPSUM BOARD/MASONRY
#	DESIGNATIONS NOTED ON PLAN

REFLECTED CEILING PLAN LEGEND

ROOM NAME
101
CLG. HGT.
- ROOM NO.
- FIN. CLG. HEIGHT AFF.
- CEILING MATERIAL

- LIGHT FIXTURE (SEE ELECTRICAL DRAWINGS FOR SIZE AND TYPE)
- INDIRECT LAY-N LIGHT FIXTURE (SEE ELECTRICAL DRAWINGS FOR SIZE AND TYPE)
- DIRECT/INDIRECT PENDENT MOUNTED LIGHT FIXTURE (SEE ELECTRICAL DRAWINGS FOR SIZE AND TYPE)
- SUPPLY AIR DIFFUSER
- RETURN AIR DIFFUSER
- EXHAUST AIR GRILLE
- DOWNLIGHT FIXTURE
- WALL SCONCE OR MOUNTED FIXTURE
- EXIT SIGN — SIGN FACE — DIRECTION ARROW IF NEEDED
- SPEAKER
- HEAT DETECTOR
- SMOKE DETECTOR
- SPRINKLER HEAD CEILING
- FIRE ALARM HORN STROBE
- X'-X" / XXX — DATUM ABOVE FIN. FLOOR / CEILING MATERIAL (SEE LEGEND)

CEILING MATERIALS LEGEND

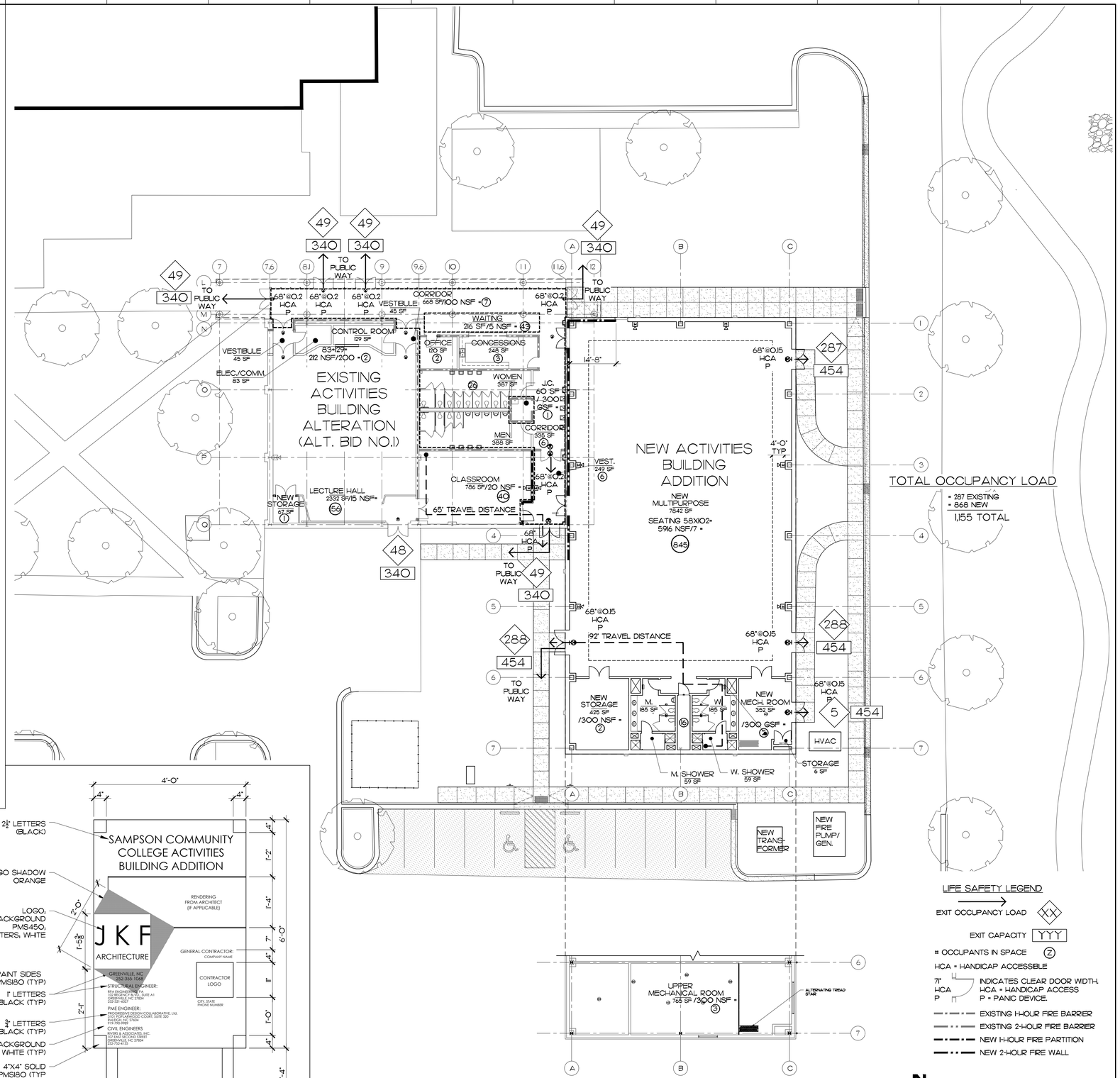
APC	ACOUSTICAL PANEL CEILING (IF FOLLOWED BY A NUMERAL DENOTES SPECIAL TYPE AS SPECIFIED)
PGB	PAINTED GYPSUM BOARD
ETR	EXISTING TO REMAIN
EXP	EXPOSED STRUCTURE

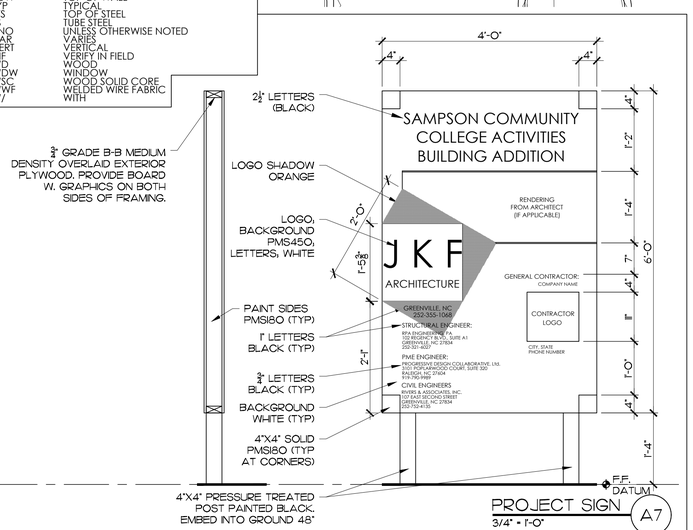
GENERAL PROJECT LEGEND

- A1 / A3.1 — REFERENCE NO. / DRAWING NO.
- DENOTES CHANGE IN FINISHED FLOOR MATERIAL
- A1 / A4 / A4.1 / A2 / A3 — ELEVATION REFERENCE
- 101 — DOOR NO.
- 100 — DOOR ASSEMBLY DESIGNATION
- HARDWARE SET NO.
- DOOR GROUP NO.
- 4X — PARTITION TYPE (SEE DRAWING A7.1)
- DOT DENOTES SIDE W/SPECIAL FINISH
- EXISTING 1-HOUR FIRE PARTITION
- EXISTING 2-HOUR FIRE PARTITION
- NEW 1-HOUR FIRE PARTITION
- NEW 2-HOUR FIRE WALL
- A / 1 — GENERAL NOTE REFERENCE NUMBERS DESIGNATE DEMOLITION. LETTERS DESIGNATE CONSTRUCTION.
- NEW CONSTRUCTION

ARCHITECTURAL ABBREVIATIONS

APC	ACOUSTICAL PANEL CEILING
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
ALT	ALTERNATE
AN	ANODIZED
ATTN	ATTENUATION
BD	BOARD
BIT	BITUMINOUS
BLKG	BLOCKING
BLKT	BLANKET
BM	BEAM
BOP	BOTTOM OF PLATE
BOS	BOTTOM OF STEEL
BRG	BEARING
CAB	CABINET
CAP	CAPACITY
CB	CATCH BASIN
C	CENTERLINE
CLG HT	CEILING HEIGHT
CJ	CONTROL JOINT
CLR	CLEAR
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CT	CERAMIC TILE
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ELEC	ELECTRICAL
ENCL	ENCLOSURE
EOS	EDGE OF SLAB
EQ C	EQUIPMENT CONTRACTOR
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXPD	EXPOSED
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FFE	FINISHED FLOOR ELEVATION
FL	FLOOR
FO	FACE OF
FRP	FIBERGLASS REINFORCED POLYESTER
FT	FIRE RETARDANT TREATED
FTG	FOOTING
FUR	FURRING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GL	GLASS
GN	GENERAL NOTE
GYP BD	GYPSUM BOARD
HDW	HARDWARE
HM	HOLLOW METAL
HP	HIGH POINT
HT	HEIGHT
HVAC	HEATING, VENTILATION, AIR CONDITIONING
INT	INTERIOR
INSUL	INSULATION
INV	INVERT
JT	JOINT
LFRCG	LAMINATED FIRE-RATED SAFETY RATED CERAMIC GLASS
LAV	LAVATORY
LP	LOW POINT
MANUF	MANUFACTURER
MC	MECHANICAL CONTRACTOR
MDP	MAIN DISTRIBUTION PANEL
MH	MANHOLE
MECH	MECHANICAL
MIN	MINIMUM
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OBSC.	OBSCURED
O/C	ON CENTER
OH	OVERHANG
OHD	OVERHEAD
OPNG	OPENING
PART	PARTITION
PC	PLUMBING CONTRACTOR
PGB	PAINTED GYPSUM BOARD
PGBR	PAINTED GYPSUM BOARD WITH REVEAL
PL	PLATE
PT	PAINTED
REF	REFRIGERATOR
REINF	REINFORCE / REINFORCING
REQD	REQUIRED
RM	ROOM
RO	ROUGH OPENING
RSW	RAIL & STILE WOOD
SCHED	SCHEDULE
SF	SQUARE FEET
SIM	SIMILAR
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE / STRUCTURAL
SUSP	SUSPENDED
TC	TOP CURB
TF	TRANSPARENT FINISH
TG	TOP GRATE
TEMP	TEMPERED
THK	THICK
TJ	TOP OF JOIST
TOB	TOP OF BLOCK
TOM	TOP OF MASONRY
TOP	TOP OF PLATE
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
TS	TOP OF STEEL
TS	TUBE STEEL
UNO	UNLESS OTHERWISE NOTED
VAR	VARIES
VERT	VERTICAL
VIF	VERIFY IN FIELD
WD	WOOD
WDW	WINDOW
WSC	WOOD SOLID CORE
WWF	WELDED WIRE FABRIC
W/	WITH





PROJECT SIGN
3/4" = 1'-0"

0 8" 16" 32"
SCALE: 1/16" = 1'-0"

UPPER MECHANICAL ROOM LIFE SAFETY PLAN A13
1/16" = 1'-0"

LIFE SAFETY LEGEND

- EXIT OCCUPANCY LOAD — XX
- EXIT CAPACITY — YYY
- = OCCUPANTS IN SPACE (Z)
- HCA = HANDICAP ACCESSIBLE
- 71" HCA P — INDICATES CLEAR DOOR WIDTH. HCA = HANDICAP ACCESS P = PANIC DEVICE.
- EXISTING 1-HOUR FIRE BARRIER
- EXISTING 2-HOUR FIRE BARRIER
- NEW 1-HOUR FIRE PARTITION
- NEW 2-HOUR FIRE WALL

N

LIFE SAFETY PLAN A15
1/16" = 1'-0"

MATERIALS KEYING LEGEND

DRAWING INDEX:

GENERAL NOTES

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL: JOHN K. FARKAS — REGISTERED ARCHITECT — 5922 — NORTH CAROLINA — GREENVILLE, N.C.

J K F ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: BUILDING CODE ANALYSIS, LEGENDS, SYMBOLS, & ABBREVIATIONS

SCALE	1/16" = 1'-0"
DRAWN	JRH
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	BC1.1

EXISTING ACTIVITIES BUILDING ALTERATION

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
Address: SAMPSON COMMUNITY COLLEGE, 1801 SUNSET AVE, CLINTON, NC Zip Code 28328
Owner/Authorized Agent: KELLY JACKSON Phone # (910)900-4060 E-Mail KJACKSON@SAMPSONCC.EDU
Owned By: County
Code Enforcement Jurisdiction: County

CONTACT:	John K. Farkas, AIA				
Architectural	JKF Architecture, P.C.	John K. Farkas, AIA	NC 5922	(252)355-1068	jkf@jkf-arch.com
Civil	Rivers & Associates	J. Stephen Janowski, P.E.	NC 12324	(252)752-4135	sjanowski@riversandassociates.com
Electrical	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Fire Alarm	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Plumbing	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Mechanical	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Sprinkler-Standpipe	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Structural	RPA Engineering, PA	Mark Roy, P.E.	NC 17348	(252)321-6027	mark.roy@rpaengineering.com

2018 NC BUILDING CODE: Renovation
2018 NC EXISTING BUILDING CODE: Alteration Level I N/A
CONSTRUCTED: (date) 1999 **CURRENT OCCUPANCY(S)** (Ch. 3): A-3
RENOVATED: (date) 2014 **PROPOSED OCCUPANCY(S)** (Ch. 3): A-3
RISK CATEGORY (Table 1604.5): **Current:** III **Proposed:** III

BASIC BUILDING DATA
Construction Type: II-B
Sprinklers: No
Standpipes: No
Primary Fire District: No **Flood Hazard Area:** No
Special Inspections Required: No

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
1st Floor	7,300	0	7,300
TOTAL	7,300	0	7,300

ALLOWABLE AREA
Primary Occupancy Classification(s): Assembly - A-3
Accessory Occupancy Classification(s): Business
Incidental Uses (Table 509): None
Special Uses (Chapter 4 – List Code Sections): None
Special Provisions: (Chapter 5 – List Code Sections): None
Mixed Occupancy: Yes Separation: 1 Hr. Exception:
Non-Separated Use (508.3)
Actual Area of Occupancy A / *Allowable Area of Occupancy A* + *Actual Area of Occupancy B* / *Allowable Area of Occupancy B* ≤ 1
____ + ____ + ... = ____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,2]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]
1	Exist. Building	6,800	9,500		9,500

ALLOWABLE HEIGHT – EXISTING NO CHANGES

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/_____* REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0	0				
Bearing Walls							
Exterior							
North		N/A	N/A				
East		N/A	N/A				
West		N/A	N/A				
South		N/A	N/A				
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North	>30'	0	0				
East	N/A	-	-				
West	>30'	0	0				
South	>30'	0	0				
Interior walls and partitions							
Floor Construction Including supporting beams and joists		0	0				
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists		0	0				
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit		N/A	N/A				
Shaft Enclosures - Other		N/A	N/A				
Corridor Separation		1-HR	1-HR				
Occupancy/Fire Barrier Separation		EX 2HR	EX 2HR				
Party/Fire Wall Separation		2HR	2HR				
Smoke Barrier Separation		N/A	N/A				
Smoke Partition		N/A	N/A				
Tenant/Dwelling Unit/ Sleeping Unit Separation		N/A	N/A				
Incidental Use Separation		N/A	N/A				

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

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

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: BC1.1

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

ACCESSIBLE DWELLING UNITS – N/A
(SECTION 1107)

ACCESSIBLE PARKING – NO CHANGE
(SECTION 1106)

PLUMBING FIXTURE REQUIREMENTS – NO CHANGE
(TABLE 2902.1)

SPECIAL APPROVALS

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

NORTH CAROLINA STATE CONSTRUCTION OFFICE, NCD01, SAMPSON

ENERGY SUMMARY – NO CHANGE TO EXISTING BUILDING ENVELOPE

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

Existing building envelope complies with code: Yes (The remainder of this section is not applicable)

Exempt Building: No Provide code or statutory reference:

Climate Zone: 3A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN – NO CHANGE TO EXISTING BUILDING
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) 1.1
Seismic (I_E) 1.25

Live Loads: Roof 20 psf
Mezzanine N/A
Floor 100 psf

Ground Snow Load: 10 psf

Wind Load: Ultimate Wind Speed 140 mph (ASCE-7)
Exposure Category B

SEISMIC DESIGN CATEGORY: C

NEW ACTIVITIES BUILDING ADDITION

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
Address: SAMPSON COMMUNITY COLLEGE, 1801 SUNSET AVE., CLINTON, NC Zip Code 28328
Owner/Authorized Agent: KELLY JACKSON Phone # (910)900-4060 E-Mail KJACKSON@SAMPSONCC.EDU
Owned By: County
Code Enforcement Jurisdiction: County

CONTACT:	John K. Farkas, AIA				
Architectural	JKF Architecture, P.C.	John K. Farkas, AIA	NC 5922	(252)355-1068	jkf@jkf-arch.com
Civil	Rivers & Associates	J. Stephen Janowski, P.E.	NC 12324	(252)752-4135	sjanowski@riversandassociates.com
Electrical	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Fire Alarm	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Plumbing	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Mechanical	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Sprinkler-Standpipe	Progressive Design Collaborative, Ltd	Steve Campbell, P.E.	NC 25020	(919)790-9989	steve@pdcengineers.com
Structural	RPA Engineering, PA	Mark Roy, P.E.	NC 17348	(252)321-6027	mark.roy@rpaengineering.com

2018 NC BUILDING CODE: New Building
2018 NC EXISTING BUILDING CODE: Alteration Level I N/A
CONSTRUCTED: (date) N/A **CURRENT OCCUPANCY(S)** (Ch. 3): N/A
RENOVATED: (date) N/A **PROPOSED OCCUPANCY(S)** (Ch. 3): A-3
RISK CATEGORY (Table 1604.5): **Current:** N/A **Proposed:** III

BASIC BUILDING DATA
Construction Type: II-B
Sprinklers: Yes NFPA 13
Standpipes: No
Primary Fire District: No **Flood Hazard Area:** No
Special Inspections Required: Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
1st Floor	0	10,000	10,000
TOTAL	0	10,000	10,000

ALLOWABLE AREA
Primary Occupancy Classification(s): Assembly - A-3
Accessory Occupancy Classification(s):
Incidental Uses (Table 509): REFRIGERANT MACHINE ROOM
Special Uses (Chapter 4 – List Code Sections): N/A
Special Provisions: (Chapter 5 – List Code Sections): N/A
Mixed Occupancy: No Separation: N/A

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,2]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]
1	New Activities Building Addition	9,200	38,000		38,000

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE[1]
Building Height in Feet (Table 504.3)[2]	75'	26'-6"	
Building Height in Stories (Table 504.4)[3]	3	1	

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

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/_____* REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0	0				
Bearing Walls							
Exterior							
North		N/A	N/A				
East		N/A	N/A				
West		N/A	N/A				
South		N/A	N/A				
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North	>30'	0	0				
East	>30'	0	0				
West	>30'	0	0				
South	>30'	0	0				
Interior walls and partitions							
Floor Construction Including supporting beams and joists		0	0				
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists		0	0				
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit		N/A	N/A				
Shaft Enclosures - Other		N/A	N/A				
Corridor Separation		N/A	N/A				
Occupancy/Fire Barrier Separation		N/A	N/A				
Party/Fire Wall Separation		2HR	2HR				
Smoke Barrier Separation		N/A	N/A				
Smoke Partition		N/A	N/A				
Tenant/Dwelling Unit/ Sleeping Unit Separation		N/A	N/A				
Incidental Use Separation		N/A	N/A				

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

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

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: BC1.1

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

ACCESSIBLE DWELLING UNITS – N/A
(SECTION 1107)

ACCESSIBLE PARKING – EXISTING TO REMAIN /NO CHANGE
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	96" SPACES	132" SPACES	
		11	2		2
TOTAL		11	2		2

PLUMBING FIXTURE REQUIREMENTS – NO CHANGE
(TABLE 2902.1)

USE		WATER CLOSETS			URINALS	LAVATORIES			SHOWERS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	TUBS	REGULAR	ACCESSIBLE
SPACE	EXIST'G	4	9		5	4	4		0	2	2
	NEW	2	3		1	3	3		4	0	0
	REQ'D	6	12		6	5	5		0	2	2

SPECIAL APPROVALS

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

NORTH CAROLINA STATE CONSTRUCTION OFFICE, NCD01, SAMPSON

ENERGY SUMMARY – NO CHANGE TO EXISTING BUILDING ENVELOPE

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

Existing building envelope complies with code: Yes (The remainder of this section is not applicable)

Exempt Building: No Provide code or statutory reference:

Climate Zone: 3A

Method of Compliance: Energy Code - Prescriptive
(If "Other" specify source here)_____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: STANDING SEAM MTL. ROOF 6" EXTRUDED POLYSTYRENE, ½" GLASS-MATT SHEATHING
U-Value of total assembly: U=0.039 REQUIRED, U=0.033 PROVIDED
R-Value of insulation: R-25CI REQUIRED, R-30CI PROVIDED
Skylights in each assembly: N/A
U-Value of skylight: N/A
total square footage of skylights in each assembly: N/A

Exterior Walls (each assembly)
Description of assembly: 4" FACEBRICK, 2 ½" AIRSPACE, 12" RIGID INSUL., 8" CMU
U-Value of total assembly: U=0.123 REQUIRED, U=0.067 PROVIDED
R-Value of insulation: R-7.6CI REQUIRED, R-14.9 PROVIDED
Openings (windows or doors with glazing)

	EXT. FRP DOOR	ALUM. ENTRANCE	CURTAIN-WALL	WINDOWS
U-Value of assembly:	0.125	0.38	0.38	0.38
Solar heat gain coefficient:	N/A	0.25	0.25	0.25
projection factor:	N/A	0	0	0
Door R-Values:	8.0	N/A	N/A	N/A

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

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

Floors slab on grade
Description of assembly: 4" CONC. SLAB ON GRADE
U-Value of total assembly:
R-Value of insulation: R-7.5 AT PERIMETER
Horizontal/vertical requirement: YES
slab heated: N/A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN – NO CHANGE
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) 1.1
Seismic (I_E) 1.25

Live Loads: Roof 20 psf
2nd Floor 50 psf (Mechanical Platform)
1st Floor 100 psf

Ground Snow Load: 10 psf

Wind Load: Ultimate Wind Speed 140 mph (ASCE-7)
Exposure Category B

SEISMIC DESIGN CATEGORY: C
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) III
Spectral Response Acceleration S_S 19.5 %g S_1 8.8 %g
Site Classification (ASCE 7) D
Data Source: Field Test
Basic structural system Building Frame
Analysis Procedure: Equivalent Lateral Force
Architectural, Mechanical, Components anchored? No

LATERAL DESIGN CONTROL: Wind & Earthquake

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) 2000 psf
Pile size, type, and capacity

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

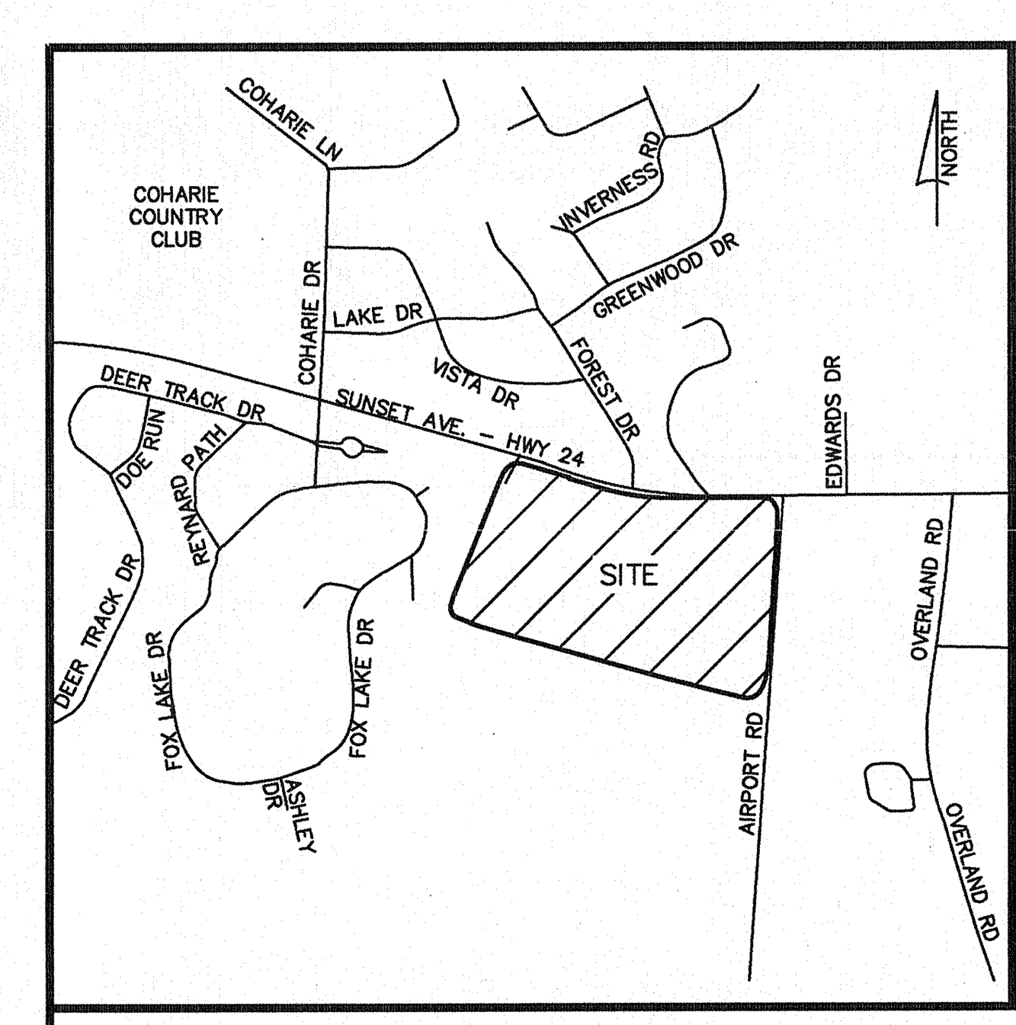
SEAL
JOHN K. FARKAS REGISTERED ARCHITECT 5922 GREENVILLE, NC NORTH CAROLINA

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
BUILDING CODE ANALYSIS

SCALE	DRAWING NO
AS NOTED	BC1.2
DRAWN: JRH	
CHECKED: JKF	
DATE: 5-20-2024	
PROJECT NO.: 2024-06	



VICINITY MAP
N.T.S.

SOURCE OF TITLE

DB 837, PG 558
DB 856, PG 689
DB 1779, PG 364

REFERENCES

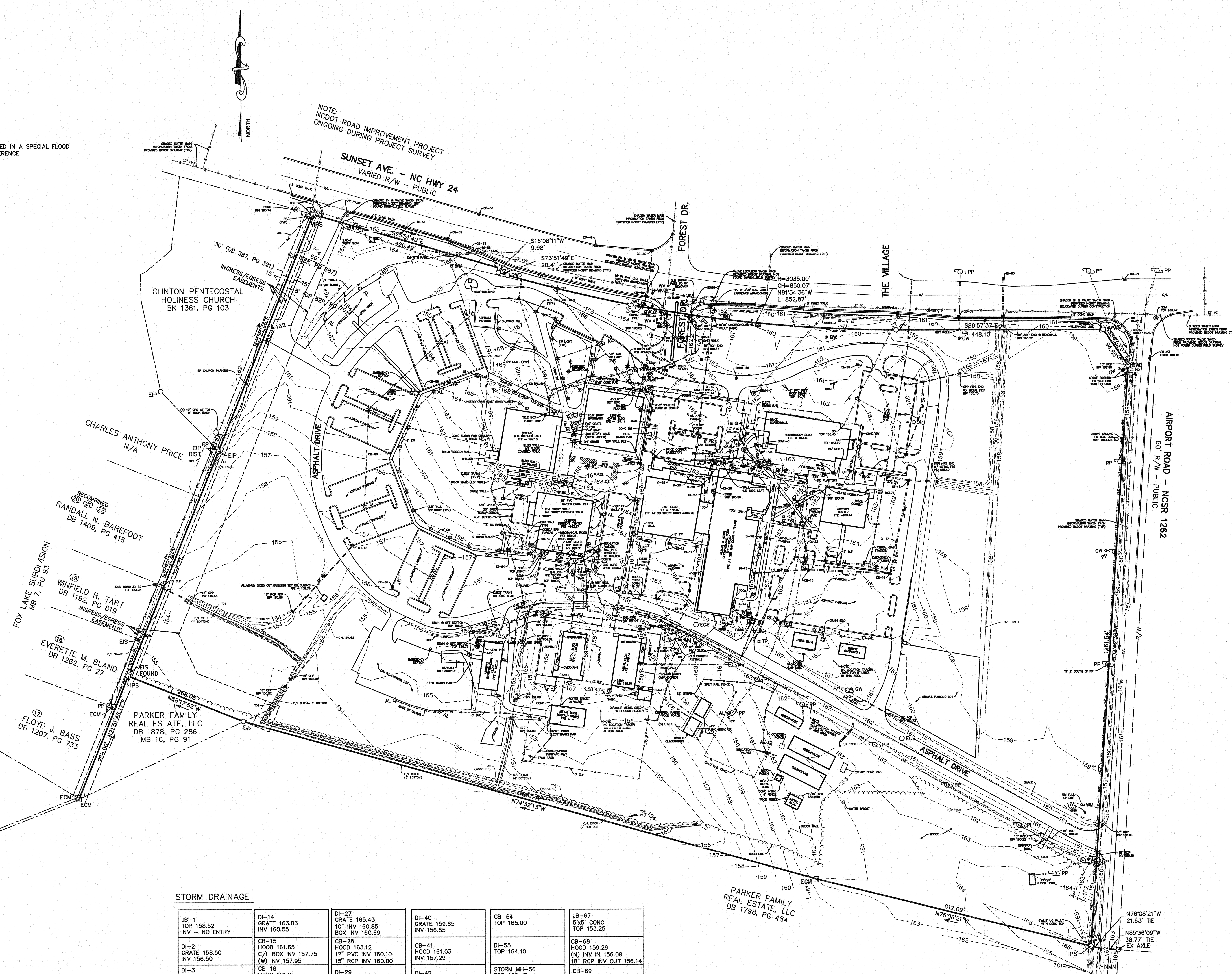
DB 387, PG 321
DB 829, PG 70
DB 856, PG 687
MB 16, PG 91–A

FLOOD NOTE

THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA (ZONE X). REFERENCE:
EFFECTIVE FIRM 3720148400J
CID 370263, PANEL 1484
EFFECTIVE DATE 1/5/2007

SITE DATA

TOTAL AREA 52.80 AC



LEGEND

AL = AREA LIGHT
BC = BACK OF CURB
BLDG = BUILDING
BRK = BRICK
CB = CATCH BASIN
C/L = CENTERLINE
CLF = CHAIN LINK FENCE
CONC = CONCRETE
CPP = CORRUGATED PLASTIC PIPE
DI = DROP INLET
DIST = DISTURBED
EB = ELECTRIC BOX
EC = EDGE OF CONCRETE
ECM = EXISTING CONCRETE MONUMENT
EIP = EXISTING IRON PIPE
EG = EDGE OF GRAVEL
EL = ELECTRIC RECEPTACLE
EP = EDGE OF PAVEMENT
ES = EMERGENCY STATION
ET = ELECTRIC TRANSFORMER
FES = FLARED END SECTION
FH = FIRE HYDRANT
FL = FLOOD LIGHT
FNT = FOUNTAIN
FO = FIBER OPTIC
FT = FEET
GP = GUY POLE
GS = GROUND SPOT ELEVATION
GW = GUY WIRE
HC = HANDICAPP
INV = INVERT
IPS = IRON PIPE SET
MH = MANHOLE
NGS = NATURAL GAS STATION
OHE = OVERHEAD ELECTRIC
PLT = PLANTER
PP = POWER POLE
RCP = REINFORCED CONCRETE PIPE
RPZ = REDUCED PRESSURE ZONE
R/W = RIGHT OF WAY
SBVB = STORY–BRICK VENEER BUILDING
SDMH = STORM DRAIN MANHOLE
SFT = SQUARE FEET
SP = SIGNAL POLE
SS = SANITARY SEWER
SSMH = SANITARY SEWER MANHOLE
SW = SIDEWALK
TB = TELEPHONE BOX
TD = TRENCH DRAIN
TOB = TOP OF BANK
TP = TELEPHONE PEDESTAL
TRANS = TRANSFORMER
UGE = UNDERGROUND ELECTRIC
UGT = UNDERGROUND TELEPHONE
VB = VALVE BOX
WP = WATER PUMP
WM = WATER METER
WV = WATER VALVE
= SIGN
℄ = CENTERLINE
= TREE OR SHRUB
—E— = OVERHEAD ELECTRICAL
—UGE— = UNDERGROUND ELECTRICAL (AS MARKED)
—W— = WATER LINE (PER PLANS)
—W— = WATER LINE (AS MARKED)
—SS— = SANITARY SEWER
—FOL— = FIBER OPTIC LINE(AS MARKED)
—UGT— = UNDERGROUND TELEPHONE LINE(AS MARKED)
—G— = UNDERGROUND GAS LINE(AS MARKED)
= WOODS LINE
= NOT TO SCALE

SURVEY NOTES:

1. ALL DISTANCES ARE HORIZONTAL GROUND MEASUREMENTS UNLESS SHOWN OTHERWISE.
2. ACREAGE CALCULATED BY COORDINATE METHOD.
3. NO TITLE OPINION OR TITLE COMMITMENT WAS PROVIDED BY THE OWNER AT THE TIME OF THIS SURVEY.
4. PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHTS OF WAY, AND RESTRICTIVE COVENANTS WHICH MAY BE OF RECORD.
5. UNDERGROUND UTILITIES PLOTTED IN PART FROM ACTUAL FIELD LOCATION OF ABOVE GROUND FEATURES AND INFORMATION PROVIDED BY THE CITY OF CLINTON, AND MARKED BY AN UNDERGROUND UTILITY LOCATING CONSULTANT.
6. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN REFLECT ALL SUCH UTILITIES IN THE AREA OF SURVEY, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR DOES HEREBY CERTIFY THAT ALL UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY UNCOVERED AND LOCATED ANY UNDERGROUND UTILITIES.
7. MATERIAL TYPES NOTED ON THIS MAP WERE TAKEN FROM PROVIDED PLANS OR FROM REASONABLY ACCESSIBLE INFORMATION.
8. ALL CURB ELEVATIONS ARE TOP OF CURB ELEVATION.
9. NCDOT ROAD IMPROVEMENT PROJECT ONGOING DURING PROJECT SURVEY.
10. VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

CERTIFICATIONS:

I, KENNETH L. BIGGS, SR., CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THIS TOPOGRAPHIC SURVEY WAS PERFORMED TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS AS APPLICABLE; THAT THE ORIGINAL DATA WAS OBTAINED ON 5/16/2017; THAT THE GROUND SURVEY WAS COMPLETED ON 11/01/2017; THAT CONTOURS SHOWN AS BROKEN LINES MAY NOT MEET THE STATED STANDARD; AND ALL ELEVATIONS ARE BASED ON NAVD 88.

Kenneth L. Biggs, Sr.
KENNETH L. BIGGS, SR., P.L.S. L–3110

NORTH CAROLINA PROFESSIONAL SEAL L-3110 LAND SURVEYOR Kenneth L. Biggs, Sr.

I, KENNETH L. BIGGS, SR. , PROFESSIONAL LAND SURVEYOR NO. L–3110, CERTIFY TO ONE OR MORE OF THE FOLLOWING AS INDICATED THUS [X] OR [✓].

☐ A. THAT THIS PLAT IS OF A SURVEY THAT CREATES A SUBDIVISION OF LAND WITHIN THE AREA OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND;

☐ B. THAT THIS PLAT IS OF A SURVEY THAT IS LOCATED IN SUCH PORTION OF A COUNTY OR MUNICIPALITY THAT IS UNREGULATED AS TO AN ORDINACE THAT REGULATES PARCELS OF LAND;

☐ C. ANY OF THE FOLLOWING:
1) THAT THE SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET;
2) THAT THE SURVEY IS OF AN EXISTING BUILDING OR OTHER STRUCTURE, OR NATURAL FESTURE, SUCH AS A WATERCOURSE; OR
3) THAT THHE SURVEY IS A CONTROL SURVEY.

☒ D. THAT THIS PLAT IS OF A SURVEY OF ANOTHER CATEGORY, SUCH AS THE RECOMBINATION OF EXISTING PARCELS, A COURT–ORDERED SURVEY OR OTHER EXCEPTION TO THE DIFINATION OF SUBDIVISION;

☐ E. THAT THE INFORMATION AVAILABLE TO THIS SURVEYOR IS SUCH THAT I AM UNABLE TO MAKE A DETERMINATION TO THE BEST OF MY PROFESSIONAL ABILITY AS TO PROVISIONS CONTAINED IN (A) THROUGH (D) ABOVE.

Kenneth L. Biggs, Sr. 2/9/18
SURVEYOR DATE

STORM DRAINAGE

JB–1 TOP 158.52 INV – NO ENTRY	DI–14 GRATE 163.03 INV 160.55	DI–27 GRATE 165.43 10" INV 160.85 BOX INV 160.69	DI–40 GRATE 159.85 INV 156.55	CB–54 TOP 165.00	JB–67 5'x5' CONC TOP 153.25
DI–2 GRATE 158.50 INV 156.50	CB–15 HOOD 161.65 C/L BOX INV 157.75 (W) INV 157.95	CB–28 HOOD 163.12 12" PVC INV 160.10 15" RCP INV 160.00	CB–41 HOOD 161.03 INV 157.29	DI–55 TOP 164.10	CB–68 HOOD 159.29 (N) INV IN 156.09 18" RCP INV OUT 156.14
DI–3 GRATE 159.43 INV IN 157.58 INV OUT 157.38	CB–16 HOOD 161.65 (N) INV 157.37 (W) INV 157.24	DI–29 1'x1' GRATE 165.15 INV 159.35	DI–42 GRATE 162.72 INV 161.44	STORM MH–56 TOP 162.47 8" CPP INV 159.67 12" RCP INV 161.02	CB–69 HOOD 163.27 18" RCP INV 158.05
DI–4 GRATE 160.36 (N) INV 157.96 (S) 18" RCP INV 157.86	DI–17 GRATE 161.84 INV 156.89	DI–30 1'x1' GRATE 165.15 INV 157.85	CB–43 HOOD 162.91	DI–57 GRATE 158.18	DI–70 TOP 163.68 INV 159.95
DI–5 2'x2' GRATE 159.39 INV 158.45	DI–18 GRATE 161.32 (W) 24" INV 156.07 (E) 36" INV 156.08 (S) INV 156.12	DI–31 2'x2' GRATE 164.53 INV 157.83	CB–44 HOOD 162.53	CB–58 HOOD 161.05	CB–71 HOOD 159.85
DI–6 2'x2' GRATE	DI–19 GRATE 162.74 INV 160.19	DI–32 GRATE 162.48 INV 157.46	DI–45 TOP 162.12	CB–59 HOOD 160.75	CB–72 HOOD 160.83
DI–7 GRATE 161.90 18" RCP INV 158.80	DI–20 GRATE 162.74 12" PVC INV 158.94 (NW) INV 159.59	DI–33 (VERTICAL PIPE) TOP 162.89 INV 157.87	CB–46 NEW TOP ELEV 163.55	DI–60 GRATE 158.30	GRATE–73 TOP 162.70 INV 158.98
DI–8 GRATE 161.86 18" RCP INV 159.00	DI–21 GRATE 162.71 12" PVC INV 159.71	DI–34 GRATE 162.77 INV IN 156.92 INV OUT 156.72	JB–47 (PREVIOUS CB)	MASON BOX–61 (NO GRATE) (N) 42" RCP INV 155.21 (S) 42" RCP INV 155.08 (W) 15" RCP INV 155.12	GRATE–74 TOP 162.70 INV 158.98
DI–9 GRATE 162.17 INV 159.80	DI–22 GRATE 162.60 12" PVC INV 158.50 12" PVC INV 158.60 18" RCP INV 158.05	DI–35 1'x1' GRATE 162.94 INV 159.67	DI–48 TOP 164.83 15" INV OUT 161.55	CB–62 HOOD 160.47	
DI–10 GRATE 164.24 INV 159.54	DI–23 GRATE 161.57 (S) 15" INV 158.07 (N) 15" INV 157.90	CB–36 HOOD 162.89 INV 159.30	CB–49 HOOD 162.97	CB–63 HOOD 160.46	
DI–11 GRATE 164.27 INV 160.61	YI–24 TOP 164.10 INV 162.25	DI–37 GRATE 163.40 INV 161.30	CB–50 HOOD 161.71	DI–64 TOP 158.14 INV IN 157.14 INV OUT 156.89	
DI–12 GRATE 164.31 INV 161.61	YI–25 TOP 164.23 INV 161.31	DI–38 GRATE 160.59 INV 157.66	DI–51 TOP 163.15	CB–65 HOOD 156.10 12" RCP INV 153.66	
DI–13 GRATE 163.56 (E) INV 159.06 (S) INV 159.24 (N) INV 159.14	YI–26 TOP 165.43 (N) INV 160.26 (S) INV 160.36 (W) INV 160.65	DI–39 GRATE 159.00 (S) 12" INV 156.38 (W) 12" INV 156.36 (E) 18" INV OUT 156.35	CB–52 HOOD 165.00	CB–66 HOOD 157.09 18" RCP INV IN 153.99 12" RCP INV IN 153.48 INV OUT 153.36	
			CB–53 HOOD 164.56		

Graphic Scale: 1"= 100'–0"
100' 50' 0' 100'

SANITARY SEWER

SSMH–1 TOP 165.88 (N) INV 163.57 (S) INV 163.67 (SW) INV 163.73
SSMH–2 TOP 161.64 (SW) INV 155.50 (E) INV 155.55 (W) INV 155.45
SSMH–3 TOP 159.69 (SW) INV 153.88 (W) INV 153.69 (E) INV 153.35
SSMH–4 TOP 161.87 (SW) INV 154.04 (E) INV 154.06 (W) INV 154.16
SSMH–5 TOP 163.26 (E) INV 158.36 (S) INV 158.41
SSMH–6 TOP 163.89 (N) INV 157.09 (W) INV 157.83
SSMH–7 TOP 161.70 (S) INV 156.57 (NE) INV 156.47

REVISION:
2/9/18 ADD WATER MAIN INFO FROM PROVIDED NCDOT DRAWING

SITE AS–BUILT, BOUNDARY & TOPOGRAPHIC SURVEY

SAMPSON COMMUNITY COLLEGE

1801 SUNSET AVE., US HWY 24,
CLINTON, NORTH CAROLINA 28328

CLINTON TOWNSHIP — NOVEMBER 1, 2017
SAMPSON COUNTY — NORTH CAROLINA

Sheet 1 OF 4

Owner/Contact Info:
Sampson Community College
1801 Sunset Ave. (US Hwy 24)
Clinton, NC 28328
(910) 592–8081

SURVEYOR OF RECORD:
COASTAL CAROLINA SURVEYORS, PLLC
LAND SURVEYORS
PO Box 2768, Winterville, NC 28590
KLB cell (252) 702–1427, FAX (252) 321–8621
kenbiggs1@yahoo.com
P–0790

Drawn by: KLB/CT	
Checked by: KLB	
Approved by: KLB	
Date: 11/01/17	
Scale: 1" = 100'	

CCS Project No. 2017029

SITE AS–BUILT, BOUNDARY & TOPOGRAPHIC SURVEY

SAMPSON COMMUNITY COLLEGE

1801 SUNSET AVE., US HWY 24,
CLINTON, NORTH CAROLINA 28328

CLINTON TOWNSHIP
SAMPSON COUNTY

NOVEMBER 1, 2017
NORTH CAROLINA

REVISION:
2/9/18 ADD WATER MAIN INFO FROM PROVIDED NCDOT DRAWING

Sheet 2 OF 4

Owner/Contact Info:

Sampson Community College
1801 Sunset Ave. (US Hwy 24)
Clinton, NC 28328
(910) 592–8081

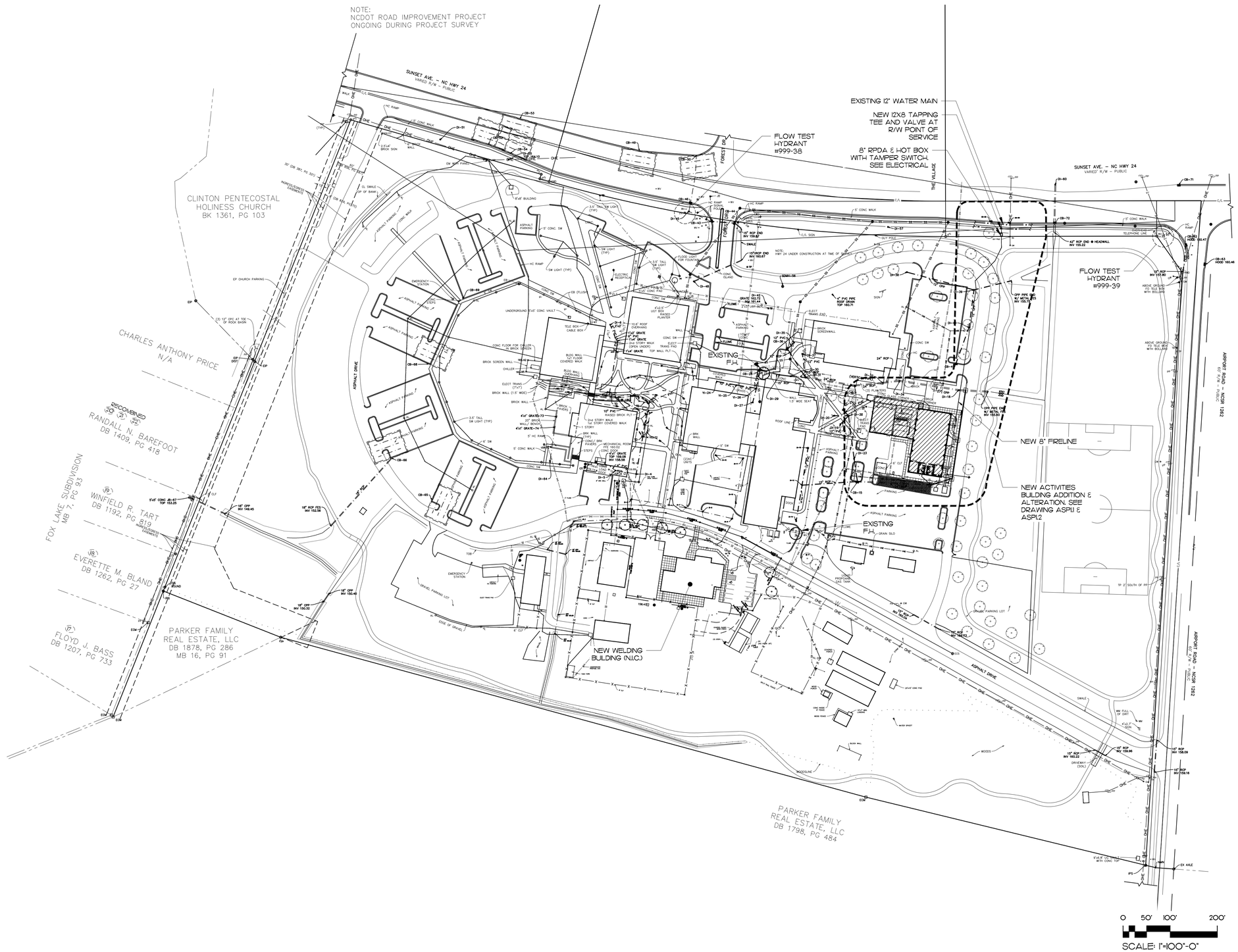
SURVEYOR OF RECORD:

COASTAL CAROLINA SURVEYORS, PLLC
LAND SURVEYORS
PO Box 2768, Winterville, NC 28590
KLB cell (252) 702–1427, FAX (252) 321–8621
kenbiggs1@yahoo.com

P–0790

Drawn by: KLB/CT	
Checked by: KLB	
Approved by: KLB	
Date: 11/01/17	
Scale: 1" = 50'	

CCS Project No. 2017029



SITE PLAN A1.5
1"=100'-0"

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

Rivers & ASSOCIATES, INC.
Since 1916
NC License: F-0334
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers
Planners
Surveyors
Landscape Architects

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

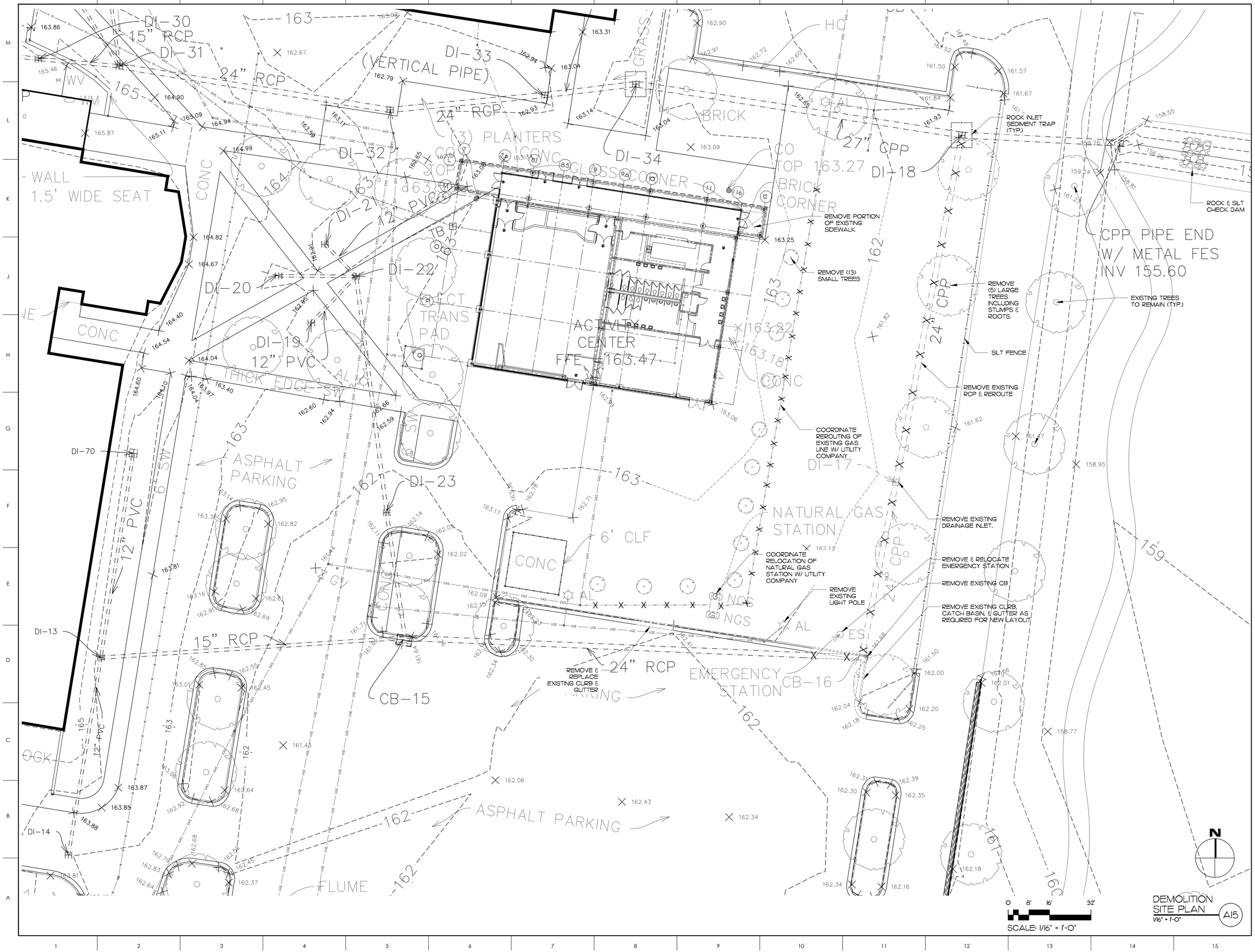
SEAL
JOHN K. FARKAS
REGISTERED ARCHITECT
4/4/2024
5923
GREENVILLE, NC

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
OVERALL CAMPUS PLAN

SCALE	1"=100'-0"
DRAWN	JRH
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	ASP0.0



MATERIALS KEYING LEGEND

CB-15 HOOD 161.65 C/L BOX INV 157.75 (W) INV 157.95
CB-16 HOOD 161.65 (N) INV 157.37 (W) INV 157.24
DI-17 GRATE 161.84 INV 156.89
DI-18 GRATE 161.32 (W) 24" INV 156.07 (E) 36" INV 156.08 (S) INV 156.12

GENERAL NOTES

1. STRIP SITE AREA OF 6"-8" OF TOP SOIL.

KEY PLAN

Rivers & ASSOCIATES, INC.
NC License: F-0334
riversandassociates.com Since 1918
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers
Planners
Surveyors
Landscape Architects

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

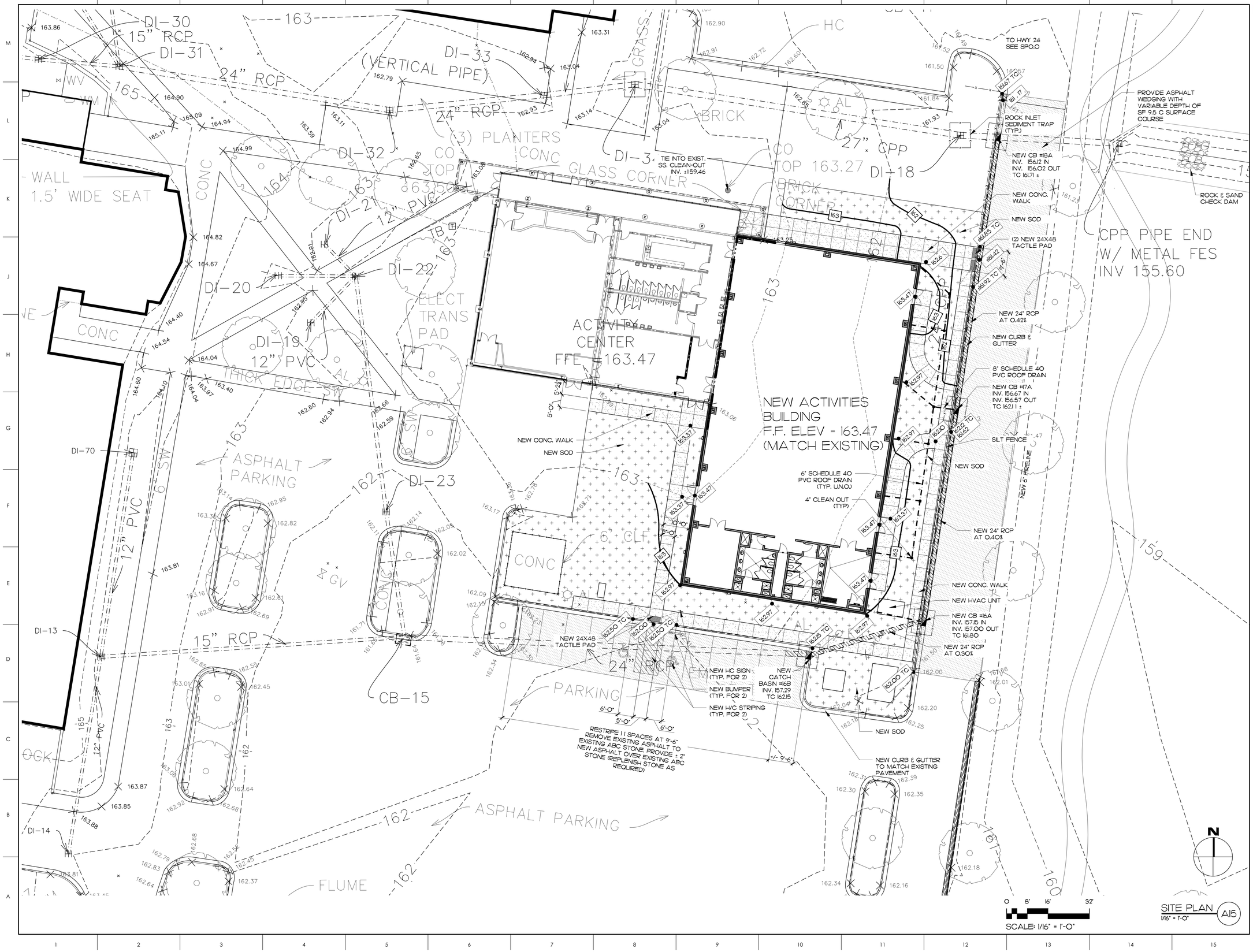
JOHN K. FARKAS
REGISTERED ARCHITECT
5922
NORTH CAROLINA

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY
COLLEGE ACTIVITIES
BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
DEMOLITION
SITE PLAN

SCALE: 1/16" = 1'-0"	DRAWING NO: ASPO.1
DRAWN: JRH	
CHECKED: JKF	
DATE: 5-20-2024	
PROJECT NO.: 2024-06	



MATERIALS KEYING LEGEND

DISTURBED AREA = 39,210 SF

GENERAL NOTES

1. *ALL UNDERGROUND LINES OUTSIDE BUILDING FOOTPRINT, EXCEPT LAWN IRRIGATION LINES, SHALL BE REQUIRED TO HAVE A WARNING TAPE INSTALLED IN THE BACKFILL BETWEEN 6 INCHES TO 24 INCHES BELOW FINISHED GRADE DIRECTLY OVER PIPING.*
   a. *METALLIC LINES SHALL BE IDENTIFIED WITH DURABLE PRINTED PLASTIC WARNING TAPES, MINIMUM 3 INCHES WIDE WITH LETTERING TO IDENTIFY BURIED LINE BELOW.*
   b. *NON-METALLIC PIPES, OTHER THAN GAS LINES, SHALL BE IDENTIFIED BY DETECTABLE WARNING TAPE, MINIMUM 2 INCHES WIDE, WITH LETTERING TO IDENTIFY BURIED LINE BELOW.*
   c. *2018 NC FUEL GAS CODE, SECTION 404.15.3 TRACER: AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO UNDERGROUND NON-METALLIC PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT THE END OF THE NON METALLIC PIPING. THE TRACER WIRE SIZE SHALL NOT BE LESS THAN 18AWG AND THE INSULATION TYPE SUITABLE FOR DIRECT BURIAL.*
2. *REFER TO ARCHITECTURAL DRAWINGS FOR ROOF LEADER LOCATION, SIZING, ETC. SHOWN SCHEMATICALLY ON CIVIL PLAN FOR COORDINATION PURPOSES ONLY.*

KEY PLAN

NC License: F-0334
Rivers & ASSOCIATES, INC. Since 1916
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers
Planners
Surveyors
Landscape Architects

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL — JOHN K. FARKAS, REGISTERED ARCHITECT, 5922, GREENVILLE

JKF ARCHITECTURE

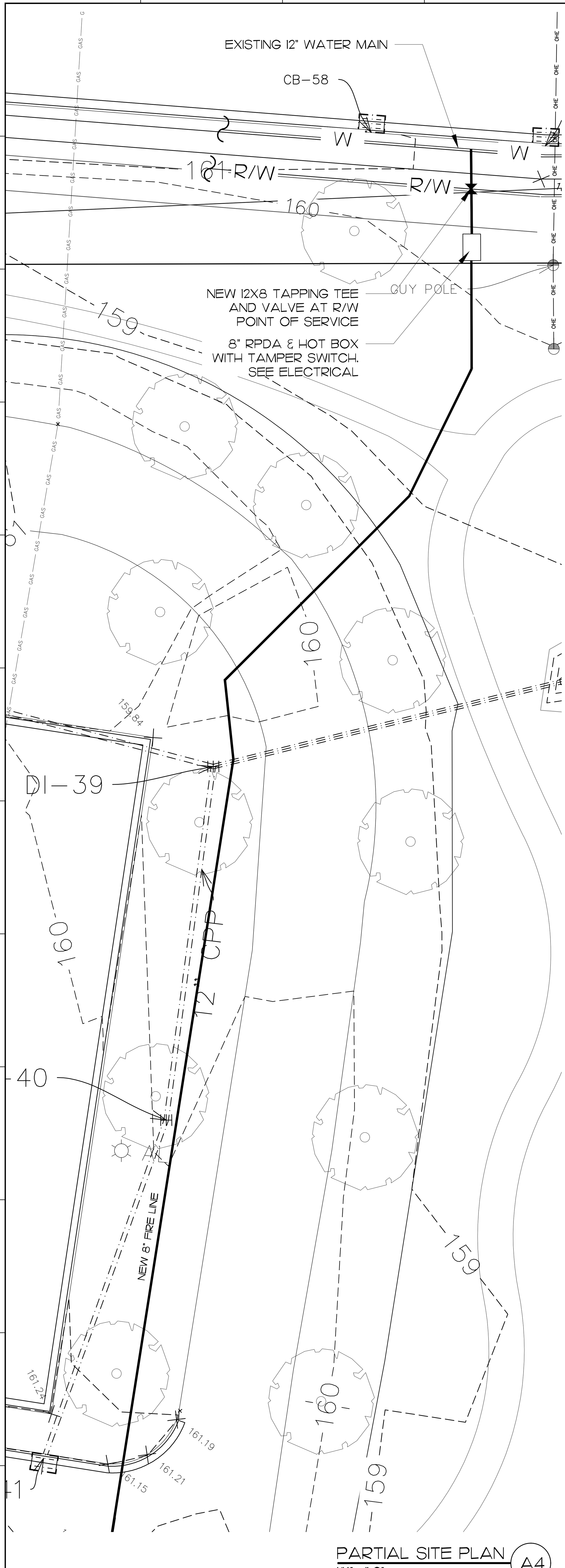
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

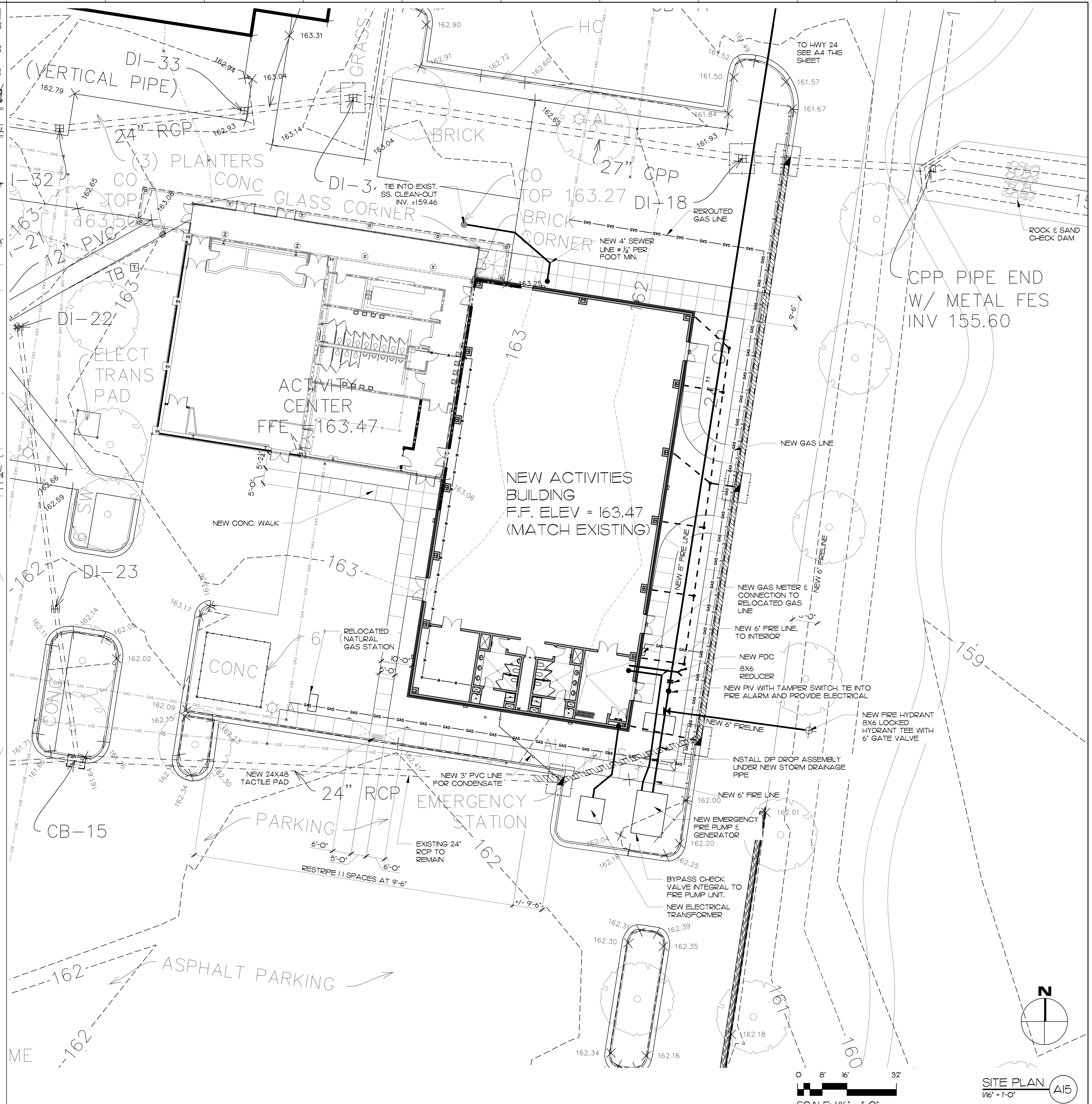
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION

CLINTON, NC

DRAWING TITLE: SITE PLAN & GRADING

SCALE	1/16" = 1'-0"
DRAWN	JRH
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	ASP1.1





MATERIALS KEYING LEGEND

FIRE FLOW ANALYSIS

CONSTRUCTION	II-B
GROSS BUILDING AREA	10,000 sf
SPRINKLERS	YES
MINIMUM REQUIRED FIRE FLOW (SECTION B105, 2012 NCFC)	1,500 gpm
MINIMUM REQUIRED FLOW DURATION (SECTION B105, 2012 NCFC)	2 hrs
FLOW TEST RESULTS	
PRESSURE HYDRANT	999-39
FLOW HYDRANT	999-38
DATE OF TEST	4/16/2024
STATIC PRESSURE	45 psi
RESIDUAL PRESSURE	35 psi
MEASURES FLOW	950 gpm
FLOW AT 20 PSI (CALCULATED PER NFPA 291)	1639 gpm

GENERAL NOTES

1. *ALL UNDERGROUND LINES OUTSIDE BUILDING FOOTPRINT, EXCEPT LAWN IRRIGATION LINES, SHALL BE REQUIRED TO HAVE A WARNING TAPE INSTALLED IN THE BACKFILL BETWEEN 6 INCHES TO 24 INCHES BELOW FINISHED GRADE DIRECTLY OVER PIPING.*
   a. *METALLIC LINES SHALL BE IDENTIFIED WITH DURABLE PRINTED PLASTIC WARNING TAPES, MINIMUM 3 INCHES WIDE WITH LETTERING TO IDENTIFY BURIED LINE BELOW.*
   b. *NON-METALLIC PIPES, OTHER THAN GAS LINES, SHALL BE IDENTIFIED BY DETECTABLE WARNING TAPE, MINIMUM 2 INCHES WIDE, WITH LETTERING TO IDENTIFY BURIED LINE BELOW.*
   c. *2018 NC FUEL GAS CODE, SECTION 404.15.3 TRACER: AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO UNDERGROUND NON-METTALLIC PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT THE END OF THE NON METALLIC PIPING. THE TRACER WIRE SIZE SHALL NOT BE LESS THAN 18AWG AND THE INSULATION TYPE SUITABLE FOR DIRECT BURIAL.*
2. *REFER TO ARCHITECTURAL DRAWINGS FOR ROOF LEADER LOCATION, SIZING, ETC. SHOWN SCHEMATICALLY ON CIVIL PLAN FOR COORDINATION PURPOSES ONLY.*

KEY PLAN

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 12321 J. STEPHEN JANOWSKI

NC License: F-0334
Rivers & ASSOCIATES, INC.
riversandassociates.com Since 1918
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers
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Surveyors
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SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL
JOHN K. FARKAS REGISTERED ARCHITECT 5922 GREENVILLE, N.C.
6/12/2024

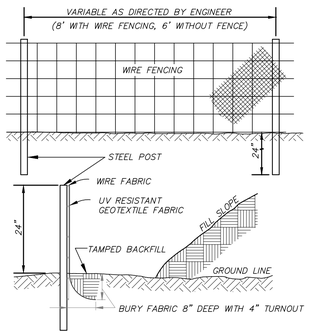
JKF
ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
UTILITY SITE PLAN

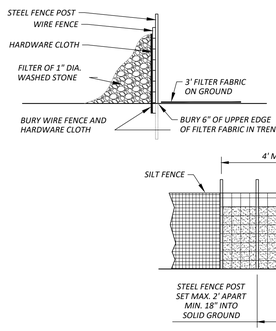
SCALE	1/16" = 1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	ASP1.2

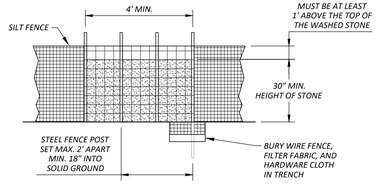


NOTES:

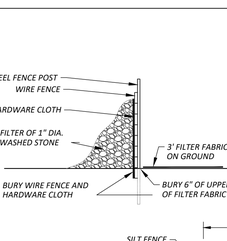
1. USE STANDARD STRENGTH FABRIC W/ 8' POST SPACING AND WIRE FENCING WHERE REINFORCED SILT FENCE IS REQUIRED.
2. WITH EXTRA STRENGTH FABRIC USE 6' POST SPACING AND NO WIRE FENCING.
3. WIRE FENCING TO BE 32", WITH 6 LINE WIRES AND STAY WIRES ON 12" CENTERS/ BOTTOM AND TOP WIRES 10 GA., INTERMEDIATE WIRES 12.5 GA.

TEMPORARY SILT FENCE — J4
N.T.S.



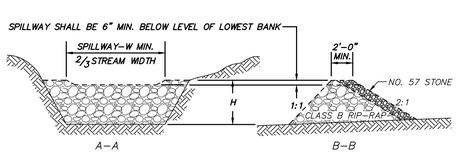


SILT FENCE OUTLET — E4
N.T.S.

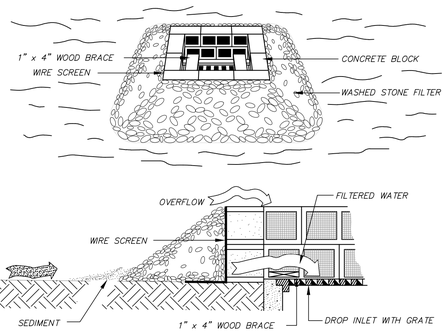


NOTES:

1. ROCK CHECK DAM SHALL BE CONSTRUCTED OF CLASS B RIP-RAP WITH 12" THICK NO. 57 STONE FACE ON UPSTREAM SIDE.
2. H=VARIES ACCORDING TO LOCAL CONDITIONS. INSTALL AS DIRECTED BY ENGINEER.



TEMPORARY ROCK SLIT CHECK DAM — A4
N.T.S.



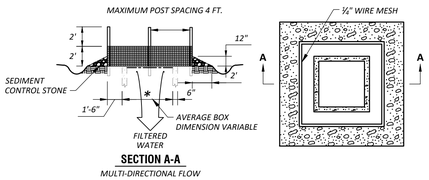
NOTES:

1. PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4", 8", AND 12" WIDE BLOCKS. THE MINIMUM HEIGHT SHALL BE 12", THE MAXIMUM HEIGHT SHALL BE 24".
2. WIRE MESH OR HARDWARE CLOTH WITH 1/2" OPENINGS SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE BLOCKS, TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS.
3. STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK. NCDOT #57 WASHED STONE.
4. CHECK DEVICE AFTER EACH RAIN. REPLACE WASHED STONE IF IT CLOGS WITH SEDIMENT.
5. SCRAP 1"x 4" BOARDS PLACED THROUGH THE HOLES OF CORNER BLOCKS PREVENTS COLLAPSE.

BLOCK AND GRAVEL DROP INLET SEDIMENT — H8
N.T.S.

NOTES:

1. SEDIMENT CONTROL STONE SHALL BE NO. 5 OR NO. 57 AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON "SEDIMENT CONTROL STONE."
2. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS.
3. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
4. STEEL POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
5. WOOD POST SHALL BE 6 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCHES IN DIAMETER.
6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.



SECTION A-A
MULTI-DIRECTIONAL FLOW

ROCK INLET SEDIMENT BARRIER — E8
N.T.S.

EROSION & SEDIMENTATION CONTROL NOTES

1. ALL WORK WILL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES. NO LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL THE APPROPRIATE EROSION CONTOL MEASURE MAY PROCEED UNTIL MEASURES ARE INSPECTED AND APPROVED.
2. FOLLOWING STRIPPING OF SITE, ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED. SILT FENCES SHALL BE PLACED ALONG PROPERTY LINES AS INDICATED ON PLANS TO PROTECT ADJACENT DEVELOPMENTS. ROCK INLET SEDIMENT TRAPS SHALL BE INSTALLED AROUND ALL DRAINAGE STUNCTURES TO COLLECT SURFACE RUNOFF AND CONTROL SILTATION AND RELEASE WATER AT A GRADUAL RATE. ALL DISTURBED AREAS WILL BE GRADED, SEEDED AND MULCHED.
3. ALL SHOULDERS SHALL BE SEEDED TO STABILIZE THE SOIL. SEED BED PREPARATION SHALL BE CONDUCTED ACCORDING TO NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (NCDOT). THE GROUND SURFACE SHALL BE CLEARED OF STUMPS, STONES, ROOTS, CABLES, WIRE, GRADE STAKES, AND OTHER MATERIALS THAT MIGHT HINDER PROPER GRADING, TILLAGE, SEEDING OR SUBSEQUENT MAINTENANCE OPERATIONS. GRADES ON THE AREA TO BE SEEDED SHALL BE MAINTAINED IN A TRUE AND EVEN CONDITION. MAINTENANCE SHALL INCLUDE ANY NECESSARY REPAIRS TO PREVIOUSLY GRADED AREAS. ALL GRADED AREAS SHALL BE THOROUGHLY TILLED TO A DEPTH OF AT LEAST FOUR (4) INCHES BY PLOWING, DISKING, HARROWING, OR OTHER APPROVED METHODS UNTIL THE CONDITION OF THE SOIL IS ACCEPTABLE. ON SITES WHERE SOIL CONDITIONS ARE SUCH THAT HIGH CLAY CONTENT AND EXCESSIVE COMPACTION CAUSE DIFFICULTY IN GETTING CLODS AND LUMPS EFFECTIVELY PULVERIZED, THE CONTRACTOR SHALL USE THE ROTARY TILLAGE MACHINERY UNTIL THE MIXING OF THE SOIL IS ACCEPTABLE AND NO CLODS OR CLUMPS REMAIN LARGER THAN 1 1/2 INCHES IN DIAMETER. A FIRM AND COMPACT SEED BED IS REQUIRED AND AFTER BEING GRADED, THE SEED BED SHALL BE LIGHTLY COMPACTED WITH A LAND ROLLER, SUCH AS A CULTIPACKER, BEFORE AND AFTER SEEDING. LIMESTONE SHALL BE DOLOMITIC AGRICULTURE GROUND LIMESTONE CONTAINING NOT LESS THAN 10 PERCENT MAGNESIUM OXIDE. LIME SHALL BE UNIFORMLY APPLIED AT THE RATE OF 2 TONS PER ACRE AS TESTING REQUIRES PER THE SPECIFICATIONS. IF REQUIRED PER SPECIFICATIONS, FERTILIZER SHALL BE INCORPORATED INTO THE UPPER THREE OR FOUR INCHES OF PREPARED SEED BED JUST PRIOR TO THE LAST TILLAGE OPERATION, BUT IN NO CASE SHALL IT BE APPLIED MORE THAN THREE DAYS PRIOR TO SEEDING. FERTILIZER SHALL BE USED IMMEDIATELY AFTER DELIVERY OR STORED IN A MANNER THAT WILL NOT PERMIT IT TO HARDEN OR DESTROY ITS EFFECTIVENESS.

PERMANENT SEEDING

APPLY DOLEMATIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE. IF HYDRATED LIME IS USED, FOLLOW RECOMMENDATION FROM SOIL TEST. COST OF THE TEST SHALL BE BORNE BY THE CONTRACTOR.

APPLY 10-10-10 FERTILIZER OUTSIDE OF NCDOT RIGHT-OF-WAY AT A RATE OF 1,000 POUNDS PER ACRE.

APPLY 10-20-20 FERTILIZER WITHIN NCDOT RIGHT-OF-WAY AT A RATE OF 500 POUNDS PER ACRE

PROVIDE PERMANENT SEEDING IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

OUTSIDE OF NCDOT R/W
(JANUARY 1 – MARCH 31)
COMMON BERMUDA GRASS (UNHULLED) - 20 POUNDS PER ACRE
(APRIL 1 – JULY 31)
COMMON BERMUDA GRASS (HULLED) - 15 POUNDS PER ACRE
CENTIPEDE - 8 POUNDS PER ACRE
(AUGUST 1 – DECEMBER 31)
COMMON BERMUDA GRASS (UNHULLED) - 15 POUNDS PER ACRE
TALL FESCUE - 120 POUNDS PER ACRE
CENTIPEDE - 8 POUNDS PER ACRE

WITHIN NCDOT R/W
(JANUARY 1 – DECEMBER 31)
FESCUE - 50 POUNDS PER ACRE
PENSACOLA BAHIAGRASS - 25 POUNDS PER ACRE
CENTIPEDE - 5 POUNDS PER ACRE

4. GROUND STABILIZATION (PER NCG010000)
   A. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
      I. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOONS AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
      II. 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.
   B. CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:
      I. EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
      II. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES.
      III. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.
      IV. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.
      V. ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.
      VI. FOR PORTIONS OF PROJECTS WITHIN ONE MILE AND DRAINING TO TROUT WATERS AND HIGH QUALITY WATERS AS CLASSIFIED BY THE ENVIRONMENTAL MANAGEMENT COMMISSION, STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.
      VII. FOR PORTIONS OF PROJECTS LOCATED IN OUTSTANDING RESOURCE WATERS WATERSHEDS AS CLASSIFIED BY THE ENVIRONMENTAL MANAGEMENT COMMISSION, STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.
      VIII. PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TO DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E&SC PLAN OR ADDED BY THE PERMITTING AUTHORITY.

5. SELF INSPECTION AND REPORTING REQUIREMENTS (PER NCG010000)

   MINIMUM SELF INSPECTION AND REPORTING REQUIREMENTS ARE AS FOLLOWS UNLESS OTHERWISE APPROVED IN WRITING BY THE DIVISION OF WATER QUALITY.

   A. A RAIN GAUGE SHALL BE MAINTAINED IN GOOD WORKING ORDER ON THE SITE UNLESS ANOTHER RAIN MONITORING DEVICE HAS BEEN APPROVED BY THE PERMITTING AUTHORITY.
   B. A WRITTEN RECORD OF THE DAILY RAINFALL AMOUNTS SHALL BE RETAINED AND ALL RECORDS SHALL BE MADE AVAILABLE TO DWQ OR AUTHORIZED AGENT UPON REQUEST (NOTE: IF NO RAINFALL OCCURRED, THE PERMITTEE MUST RECORD "ZERO").
   C. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. INSPECTION RECORDS MUST BE MAINTAINED FOR EACH INSPECTION EVENT AND FOR EACH MEASURE. AT A MINIMUM, INSPECTION OF MEASURES MUST OCCUR AT THE FREQUENCY INDICATED BELOW:
      I. ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS, AND
      II. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.50 INCHES OF RAIN PER 24 HOUR PERIOD.
      III. TIMES WHEN A DETERMINATION THAT ADVERSE WEATHER CONDITIONS PREVENTED INSPECTIONS SHOULD BE DOCUMENTED ON THE INSPECTION RECORD.
   D. ONCE LAND DISTURBANCE HAS BEGUN ON THE SITE, STORMWATER RUNOFF DISCHARGE OUTFALLS SHALL BE INSPECTED BY OBSERVATION FOR EROSION, SEDIMENTATION AND OTHER STORMWATER DISCHARGE CHARACTERISTICS SUCH AS CLARITY, FLOATING SOLIDS, AND OIL SHEENS. INSPECTIONS OF THE OUTFALLS SHALL BE MADE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.50 INCHES OF RAIN PER 24 HOUR PERIOD.
   E. INSPECTIONS ARE ONLY REQUIRED TO BE MADE DURING NORMAL BUSINESS HOURS. WHEN ADVERSE WEATHER CONDITIONS WOULD CAUSE THE SAFETY OF THE INSPECTION PERSONNEL TO BE IN JEOPARDY, THE INSPECTION CAN BE DELAYED UNTIL IT IS DEEMED SAFE TO PERFORM THESE DUTIES. IF THE INSPECTION CANNOT BE DONE ON THAT DAY, IT MUST BE COMPLETED ON THE FOLLOWING BUSINESS DAY.
   F. TWENTY-FOUR HOUR REPORTING FOR VISIBLE SEDIMENT DEPOSITION
      I. THE PERMITTEE SHALL REPORT TO THE DIVISION OF WATER QUALITY CENTRAL OFFICE OR THE APPROPRIATE REGIONAL OFFICE ANY VISIBLE SEDIMENT BEING DEPOSITED IN ANY STREAM OR WETLAND OR ANY NONCOMPLIANCE WHICH MAY ENDANGER HEALTH OF THE ENVIRONMENT. (SEE SECTION OF THIS PERMIT FOR CONTACT INFORMATION.) ANY INFORMATION SHALL BE PROVIDED ORALLY OR ELECTRONICALLY WITHIN 24 HOURS FROM THE TIME THE PERMITTEE BECAME AWARE OF THE CIRCUMSTANCES. VISIBLE DISCOLORATION OR SUSPENDED SOLIDS IN THE EFFLUENT SHOULD BE RECORDED ON THE INSPECTION RECORD AS PROVIDED BELOW.
      II. A WRITTEN SUBMISSION SHALL BE PROVIDED TO THE APPROPRIATE REGIONAL OFFICE OF THE DWQ WITHIN 5 DAYS OF THE TIME THE PERMITTEE BECOMES AWARE OF THE CIRCUMSTANCES. THE WRITTEN SUBMISSION SHALL CONTAIN A DESCRIPTION OF THE SEDIMENT DEPOSITION AND ACTIONS TAKEN TO ADDRESS THE CAUSE OF THE DEPOSITION. THE DIVISION OF WATER QUALITY STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS.
   G. RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS 30 DAYS SHALL REMAIN ON THE SITE AND AVAILABLE FOR AGENCY INSPECTORS AT ALL TIMES DURING NORMAL WORKING HOURS, UNLESS THE PERMITTING AUTHORITY PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE THIS REQUIREMENT NOT PRACTICAL. OLDER RECORDS MUST BE MAINTAINED FOR A PERIOD OF ONE YEAR AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. THE RECORDS MUST PROVIDE THE DETAILS OF EACH INSPECTION INCLUDING OBSERVATIONS, AND ACTIONS TAKEN IN ACCORDANCE WITH THIS PERMIT. THE PERMITTEE SHALL RECORD THE REQUIRED RAINFALL AND MONITORING OBSERVATIONS ON THE "INSPECTION RECORD FOR ACTIVITIES UNDER STORMWATER GENERAL PERMIT NCG010000" FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT IS INCLUSIVE OF ALL OF THE ELEMENTS CONTAINED IN THE DIVISION'S FORM. ELECTRONIC STORAGE OF RECORDS WILL BE ALLOWED IF APPROVED BY THE PERMITTING AUTHORITY.
   H. INSPECTION RECORDS MUST INCLUDE, AT A MINIMUM, THE FOLLOWING:
      I. CONTROL MEASURE INSPECTIONS: INSPECTION RECORDS MUST INCLUDE AT A MINIMUM:
         1. IDENTIFICATION OF THE MEASURES INSPECTED,
         2. DATE AND TIME OF THE INSPECTION,
         3. NAME OF THE PERSON PERFORMING THE INSPECTION,
         4. INDICATION OF WHETHER THE MEASURES WERE OPERATING PROPERLY,
         5. DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE,
         6. CORRECTIVE ACTIONS TAKEN AND
         7. DATE OF ACTIONS TAKEN.
      II. STORMWATER DISCHARGE INSPECTIONS: INSPECTION RECORDS MUST INCLUDE AT A MINIMUM:
         1. IDENTIFICATION OF THE DISCHARGE OUTFALL INSPECTED,
         2. DATE AND TIME OF THE INSPECTION,
         3. NAME OF THE PERSON PERFORMING THE INSPECTION,
         4. EVIDENCE OF INDICATORS OF STORMWATER POLLUTION SUCH AS OIL SHEEN, FLOATING OR SUSPENDED SOLIDS OR DISCOLORATION,
         5. INDICATION OF VISIBLE SEDIMENT LEAVING THE SITE,
         6. ACTIONS TAKEN TO CORRECT/PREVENT SEDIMENTATION AND
         7. DATE OF ACTIONS TAKEN.
      III. VISIBLE SEDIMENTATION FOUND OUTSIDE THE SITE LIMITS: INSPECTION RECORDS MUST INCLUDE:
         1. AN EXPLANATION AS TO THE ACTIONS TAKEN TO CONTROL FUTURE RELEASES,
         2. ACTIONS TAKEN TO CLEAN UP OR STABILIZE THE SEDIMENT THAT HAS LEFT THE SITE LIMITS AND
         3. THE DATE OF ACTIONS TAKEN.
      IV. VISIBLE SEDIMENTATION FOUND IN STREAMS OR WETLANDS: ALL INSPECTIONS SHOULD INCLUDE EVALUATION OF STREAMS OR WETLANDS ONSITE OR OFFSITE (WHERE ACCESSIBLE) TO DETERMINE IF VISIBLE SEDIMENTATION HAS OCCURRED.
   I. VISIBLE STREAM TURBIDITY - IF THE DISCHARGE FROM A SITE RESULTS IN VISIBLE STREAM TURBIDITY, INSPECTION RECORDS MUST RECORD THAT EVIDENCE AND ACTIONS TAKEN TO REDUCE SEDIMENT CONTRIBUTIONS. SITES DISCHARGING TO STREAMS NAMED ON THE STATE'S 303(D) LIST AS IMPAIRED FOR SEDIMENT-RELATED CAUSES MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING, INSPECTIONS OR APPLICATION OF MORE-STRINGENT MANAGEMENT PRACTICES IF IT IS DETERMINED THAT THE ADDITIONAL REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS. IF A DISCHARGE COVERED BY THIS PERMIT ENTERS A STREAM SEGMENT THAT IS LISTED ON THE IMPAIRED STREAM LIST FOR SEDIMENT-RELATED CAUSES, AND A TOTAL MAXIMUM DAILY LOAD (TMDL) HAS BEEN PREPARED FOR THOSE POLLUTANTS, THE PERMITTEE MUST IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE SITE IS CONSISTENT WITH THE ASSUMPTIONS AND MEETS THE REQUIREMENTS OF THE APPROVED TDML. THE DWQ 303(D) LIST CAN BE FOUND AT: HTTP://H2O.ENR.STATE.NC.ES/TMDL/GENERAL_303D.HTM
6. IN THE EVENT OF A CONFLICT BETWEEN THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT, THE SUBMITTED PLAN AND/OR THE CONTRACT SPECIFICATIONS, THE MORE RESTRICTIVE REQUIREMENTS SHALL PREVAIL. THE LAND-DISTURBING ACTIVITY SHALL BE CONDUCTED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
7. THE LATEST APPROVED EROSION AND SEDIMENTATION CONTROL PLAN WILL BE USED DURING PERIODIC UNANNOUNCED INSPECTIONS TO DETERMINE COMPLIANCE AND A COPY OF THE PLAN MUST BE ON FILE AT THE JOB SITE. IF IT IS DETERMINED THAT THE IMPLEMENTED PLAN IS INADEQUATE, THIS OFFICE MAY REQUIRE THE INSTALLATION OF ADDITIONAL MEASURES AND/OR THAT THE PLAN BE REVISED TO COMPLY WITH STATE LAW.
8. THE CERTIFICATE OF PLAN APPROVAL MUST BE POSTED AT THE PRIMARY ENTRANCE TO THE JOB SITE AND REMAINUNTIL THE SITE IS PERMANENTLY STABILIZED.
9. A BUFFER ZONE, SUFFICIENT TO RESTRAIN VISIBLE SEDIMENTATION WITHIN THE FIRST 25% OF THE WIDTH CLOSEST TO THE LAND DISTURBANCE, MUST BE PROVIDED AND MAINTAINED BETWEEN THE LAND-DISTURBING ACTIVITY AND ANY ADJACENT PROPERTY OR WATERCOURSE.
10. IN ORDER TO COMPLY WITH THE INTENT OF THE ACT, THE SCHEDULING OF THE LAND-DISTURBING ACTIVITIES IS TO BE SUCH THAT BOTH THE AREA OF EXPOSURE AND THE TIME BETWEEN LAND DISTURBANCE AND PROVIDING GROUND COVER IS MINIMIZED.
11. UNLESS A TEMPORARY, MANUFACTURED, LINING MATERIAL HAS BEEN SPECIFIED, A CLEAN STRAW MULCH MUST BE APPLIED, AT A MINIMUM RATE OF 2 TONS/ACRE, TO ALL SEEDED AREAS. THE MULCH MUST COVER AT LEAST 75% OF THE SEEDED AREA AFTER IT IS EITHER TACKED WITH AN ACCEPTABLE TACKING MATERIAL, OR CRIMPED IN PLACE.
12. ADEQUATE AND APPROPRIATE MEASURES MUST BE PROPERLY INSTALLED DOWNSTREAM, WITHIN THE LIMITS OF DISTURBANCE, OF ANY LAND-DISTURBING ACTIVITY TO PREVENT SEDIMENT FROM LEAVING THE LIMITS OF DISTURBANCE, ENTERING EXISTING DRAINAGE SYSTEMS, IMPACTING AN ON-SITE NATURAL WATERCOURSE OR ADJOINING PROPERTY.
13. SILT FENCES, INCLUDING OUTLET SECTIONS, ARE NOT APPROPRIATE FOR AREAS OF CONCENTRATED FLOW SUCH AS SWALES OR DITCHES. PROVIDE ADEQUATE AND APPROPRIATE MEASURES FOR ALL CONSTRUCTION WITHIN AREAS OF CONCENTRATED FLOW.
14. ALL SLOPES AFFECTED DURING THE INSTALLATION/CLEANUP PROCESS MUST BE PROVIDED ON A GRADE THAT CAN BE RETAINED BY VEGETATIVE OR OTHER APPROPRIATE COVER.
15. AT ANY GIVEN TIME WITHIN THE PROJECT AREA, THE MAXIMUM AFFECTED, EXPOSED AND "UNRESTORED" AREA IS LIMITED TO THE LESSER OF 2 (TWO) ACRES OR THE EFFECTIVE LENGTH ALONG ANY GIVEN ROAD SECTION LIMITED TO THE LESSER OF 2 (TWO) ACRES OR THE EFFECTIVE LENGTH ALONG ANY GIVEN ROAD SECTION (APPROXIMATELY 2 MILES). A ROAD SECTION BEING DEFINED AS A CONTINUOUS SECTION OF ROAD HAVING THE SAME SR NUMBER OR ROAD NAME.
16. INSTALL SILT FENCE OVER AND AROUND THE TOP OF EXISTING PIPES AND INLETS AT DISTURBED AREAS.
17. ALL DISTURBED AREAS SHALL BE GRADED TO MINIMIZE RUNOFF.
18. INSTALL SILT FENCE AROUND SPOIL PILES AND ALONG TRENCHES TO MINIMIZE SEDIMENT FROM ENTERING ROADSIDE DITCHES AND EXISTING DRAINAGE OUTLETS.
19. PROVIDE EROSION CONTROL MEASURES AROUND STOCK/WASTE PILES AND STAGING AREAS AS NEEDED OR AS DIRECTED BY ENGINEER.
20. PROTECT STORM PIPE INLETS FROM SEDIMENT RUNOFF FROM LAND DISTURBING ACTIVITIES WITH SILT FENCE, STONE CHECK DAM, OR ABC FILTER AS APPROPRIATE FOR SITE CONDITIONS.
21. REPLACE DISTURBED STORM PIPE OUTLET PROTECTION WITH EQUAL OR GREATER AMOUNT OF RIP-RAP WITHIN 15 DAYS OF DISTURBANCE -OR AS REQUIRED BY NCDENR-DWQ.
22. WHERE THE AREA AROUND AN OUTLET IS DISTURBED AND NO OUTLET PROTECTION EXISTS, CLASS "1" RIP-RAP SHALL BE PLACED AROUND PIPE OUTLET AS DIRECTED BY THE ENGINEER.
23. PROVIDE EROSION CONTROL MATTING WHERE INDICATED UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
24. PROVIDE PERMANENT SEEDING IN ACCORDANCE WITH THE SEEDING SCHEDULE.
25. REPORT EROSION CONTROL DEFICIENCIES TO THE ENGINEER IMMEDIATELY.
26. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL ALL SEEDING IS ESTABLISHED AND CONSTRUCTION AREAS HAVE BEEN STABILIZED.
27. CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. WHEN INSPECTION REVEALS THE TRAP TO BE REDUCED TO 50% OF DESIGN CAPACITY OR THE DEVICE TO BE DEFICIENT IN ITS INTENDED PURPOSE SUCH AS FABRIC DETERIORATION FOR SILT FENCES THE CONTRACTOR SHALL RESTORE THE DEVICE TO ITS ORIGINAL CONDITION. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO $5,000.00 PER DAY OF VIOLATION.

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

NC License: F-0334
Rivers & ASSOCIATES, INC.
riversandassociates.com Since 1918
107 East Second Street Greenville, NC 27858
(252) 752-4135
Engineers
Planners
Surveyors
Landscape Architects

SCO ID NO.17-16813-01D: NCCCS NO.2163

NO.	REVISION	DATE

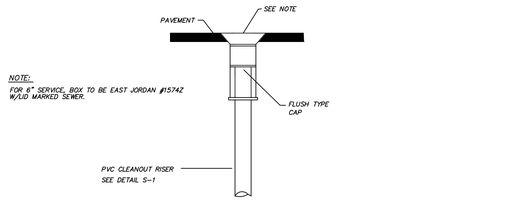
SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

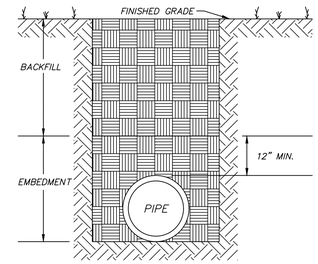
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: SITE DETAILS

SCALE: AS NOTED	DRAWING NO: ASP2.1
DRAWN: MBD	
CHECKED: JKF	
DATE: 5-20-2024	
PROJECT NO: 2024-06	

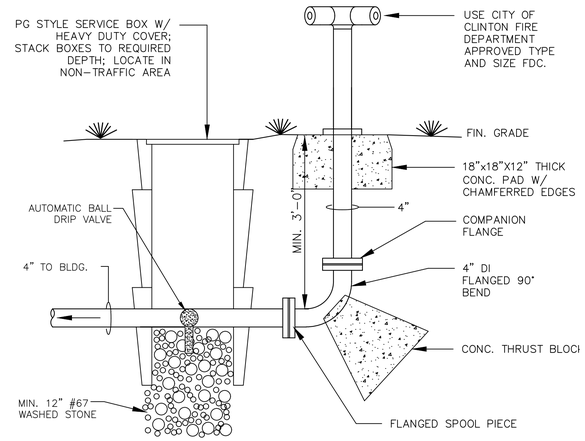


CLEANOUT DETAIL FOR PAVED AREAS — L4
N.T.S.



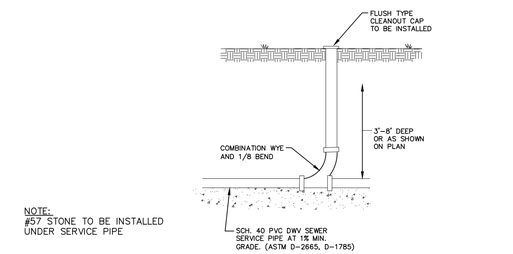
CLASS "F"

TRENCH SECTION DETAIL FOR THE INSTALLATION OF WATER MAINS — J9
N.T.S.



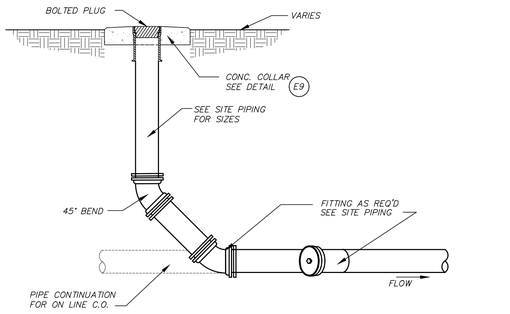
NOTE: CHECK VALVE FOR FDC PIPING IS LOCATED FIRE SUPPRESSION ROOM #137.

SIDEWALK STYLE FDC DETAIL — H15
N.T.S.

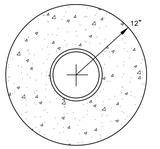


NOTE:
#57 STONE TO BE INSTALLED UNDER SERVICE PIPE

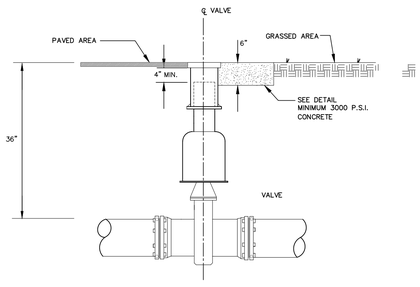
PVC SANITARY SEWER SERVICE DETAIL — H4
N.T.S.



EXTERIOR CLEANOUT DETAIL — E4
N.T.S.



PRECAST CONCRETE COLLAR



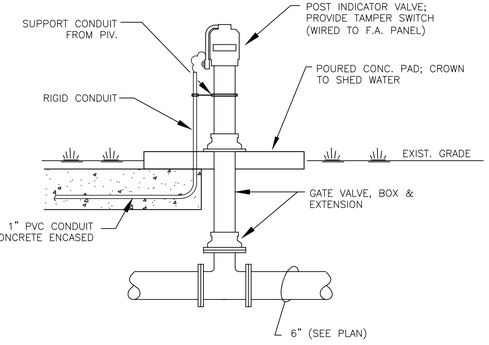
NOTE:

VALVE BOX SHALL NOT BE INSTALLED IN CURB AND GUTTER.

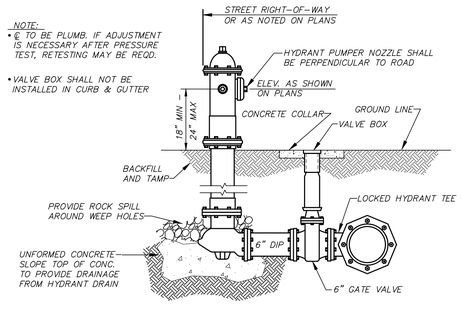
VALVE BOX SHALL BE IN ACCORDANCE WITH MANUAL.

VALVE BOX SHALL BE CENTERED AND PLUMBED OVER VALVE.

VALVE BOX DETAIL FOR VALVES SMALLER THAN 12" — E9
N.T.S.



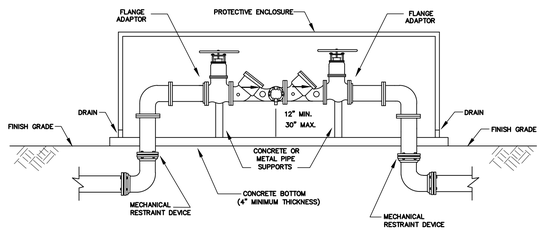
POST INDICATOR VALVE DETAIL — D15
N.T.S.



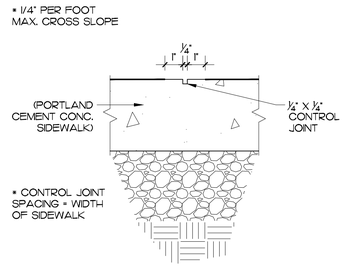
TYPICAL FIRE HYDRANT INSTALLATION — A4
N.T.S.

NOTES

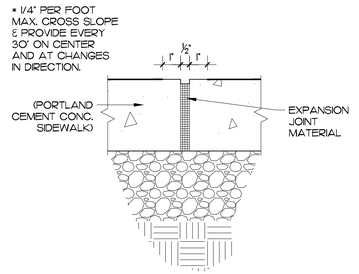
1. ALL FLANGE BOLTS SHALL BE GALVANIZED
2. USE ONLY CONTROL DEVICES APPROVED BY LOCAL UTILITY COMPANY AND THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA.
3. SUBMITTAL SHALL SHOW ALL PIPING & APPURTENANCES WITHIN THE PROTECTIVE ENCLOSURE WITH MEASUREMENTS & CLEARANCES CLEARLY LABELED.
4. ENCLOSURE MUST BE SIZED TO ALLOW ADEQUATE ROOM FOR TESTING, MAINTENANCE AND OPERATION.
5. DRAIN OPENINGS SHALL BE SIZED TO ADEQUATELY RELIEVE MAXIMUM DISCHARGE OF APPROPRIATE DEVICE.
6. REDUCED PRESSURE PRINCIPLE ASSEMBLIES SHALL REQUIRE AN ABOVE GROUND INSTALLATION.
7. PROVIDE FREEZE PROTECTION WITH 120V HEATER. PROVIDE ELECTRIC
8. REFER TO ELECTRICAL DRAWINGS FOR MONITORING AND HEATERS.



ABOVE GROUND INSTALLATION - RPDA — A9
N.T.S.



CONTROL JOINT DETAIL — A12
N.T.S.



EXPANSION JOINT DETAIL — A15
N.T.S.

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

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NC License: F-0334
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NO	REVISION	DATE

SEAL

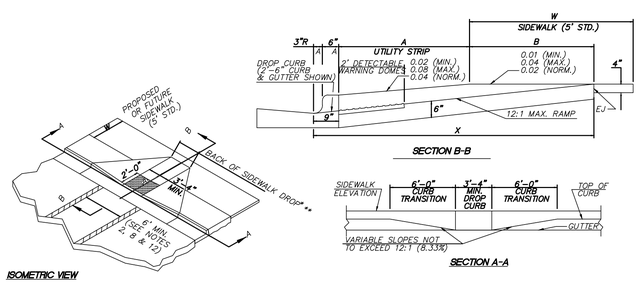
JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
SITE DETAILS

SCALE	DRAWING NO
AS NOTED	ASP2.2
DRAWN: JRH	
CHECKED: JKF	
DATE: 5-20-2024	
PROJECT NO.: 2024-06	

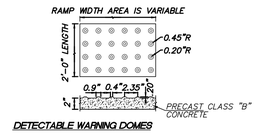
NOTES:
1. CONSTRUCT THE WALKING SURFACE OF THE DETECTABLE DOMES WITH SLIP RESISTANCE AND A 70% CONTRASTING COLOR TO THE SIDEWALK.
2. CROSSWALK WIDTHS AND CONFIGURATION VARY BUT MUST CONFORM TO TRAFFIC DESIGN STANDARDS.
3. PROVIDE WHEELCHAIR RAMPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATE WHEELCHAIR RAMPS AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. WHERE TWO RAMPS ARE INSTALLED PLACE NOT LESS THAN 2 FEET OF FULL HEIGHT CURB BETWEEN THE RAMPS. PLACE DUAL RAMPS AS NEAR PERPENDICULAR TO THE TRAVEL LANE BEING CROSSED AS POSSIBLE.
4. DO NOT EXCEED 0.08 (12:1) SLOPE ON THE WHEELCHAIR RAMP IN RELATIONSHIP TO THE GRADE OF THE STREET.
5. CONSTRUCT WHEELCHAIR RAMPS 40" (3'-4") OR GREATER FOR DUAL RAMPS.
6. USE CLASS "B" CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.
7. PLACE A 1/2 " EXPANSION JOINT WHERE THE CONCRETE WHEELCHAIR RAMP JOINS THE CURB AND AS SHOWN ON STD. DWG. 848.01.
8. PLACE THE INSIDE PEDESTRIAN CROSSWALK LINES NO CLOSER IN THE INTERSECTION BY BISECTING THE INTERSECTION RADII, WITH ALLOWANCE OF A 4' CLEAR ZONE IN THE VEHICULAR TRAVELWAY WHEN ONE RAMP IS INSTALLED.
9. COORDINATE THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SO THE FLOOR OF THE WHEELCHAIR RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES. PLACE DIAGONAL RAMPS WITH FLARED SIDES SO 24" OF FULL HEIGHT CURB FALLS WITHIN THE CROSSWALK MARKINGS ON EACH SIDE OF THE FLARES.
10. CONSTRUCT THE PEDESTRIAN CROSSWALK A MINIMUM OF 6 FEET. A CROSSWALK WIDTH OF 10 FEET OR GREATER IS DESIRABLE.
11. USE STOP LINES, NORMALLY PERPENDICULAR TO THE LANE LINES, WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL. STOP SIGN OR OTHER LEGAL REQUIREMENT. AN UNUSUAL APPROACH SKEW MAY REQUIRE THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTING ROADWAY.
12. PLACE ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.
13. OTHER DETECTABLE WARNING MATERIALS MAY BE CONSIDERED FROM THAT SHOWN, BUT REQUIRE CITY ENGINEER'S WRITTEN APPROVAL PRIOR TO INSTALLATION.
14. FOR ALL ROADS WITH RADII 25' OR LESS, ONLY ONE WHEELCHAIR RAMP IS REQUIRED. WHEELCHAIR RAMPS TO BE PLACED AS PER TRAFFIC DESIGN STANDARDS TO INSURE PEDESTRIANS ENTER & EXIT WITHOUT ENTERING TRAVEL LANES.



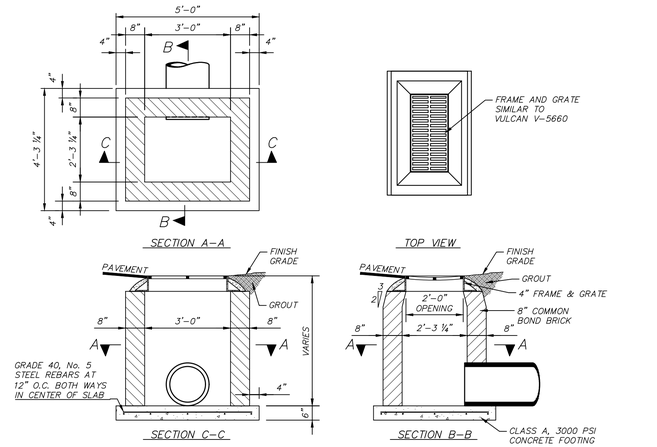
W	A	W+A+9"	X	B
5'	0.0'	5.8'	5.8'	5.0'*
6'	0.0'	6.8'	6.8'	6.0'**
7'	0.0'	7.8'	7.3'	6.5'**
8'	0.0'	8.8'	7.3'	6.5'**
5'	1.5'	7.3'	7.5'	5.2'
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

B = X-(A+9")
B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.
* BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.
** BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPES 0.04.
*** THICKNESS MAY VARY FOR APPROVED EQUAL PRECAST MATERIAL

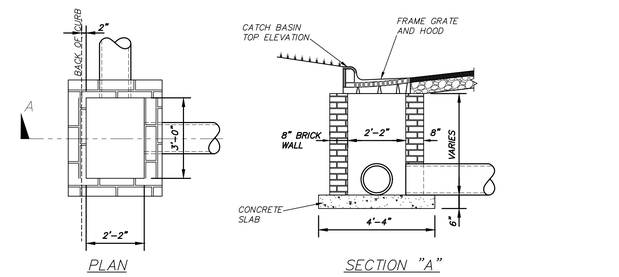
1. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. THE RAMP MAY BE YELLOW IN COLOR OR ANY COLOR WITH A 70% CONTRAST RATIO.



HANDICAP RAMP DETAIL F10
N.T.S.



STANDARD DROP INLET J15
N.T.S.



STANDARD CATCH BASIN F15
N.T.S.

GENERAL NOTES:

USE STANDARD OR JUMBO BRICK FOR WALL CONSTRUCTION. SOLID CONCRETE BRICK OR BLOCK ARE OPTIONAL WALL CONSTRUCTION MATERIAL

PRECAST UNITS MADE OF CLASS "AA" CONCRETE MAY BE USED IN LIEU OF BRICK MASONRY CONTRUCTION. SUBMIT DESIGN OF PRECAST UNITS FOR APPROVAL PRIOR TO CONSTRUCTION.

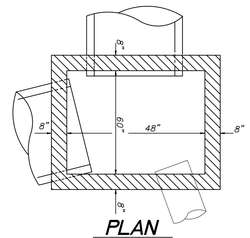
INSTALL MANHOLE IN POSITION AS DIRECTED BY THE ENGINEER. CUT OR BEND ALL REBAR CROSSING THIS OPENING TO ALLOW 2" MINIMUM CONCRETE COVERAGE. ENCLOSE THE OPENING WITH 8 "A" BARS TIED TO TO THE REBAR MAT AND SET SO A MINIMUM OF 3" CONCRETE COVER IS ATTAINED. REFERENCE NCDOT STD. NO. 840.54 FOR MANHOLE INFORMATION.

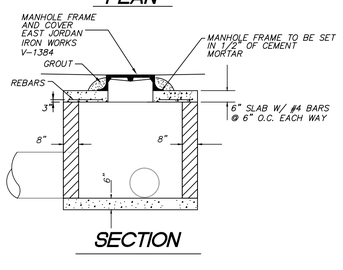
PROVIDE JUNCTION BOXES WITH MAHNOLES OVER 3'-6" IN DEPTH WITH STEPS PLACED ON 12" CENTERS. REFERENCE NCDOT STD. NO. 840.66.

SPACE DOWEL "C" BARS AT A MAXIMUM OF 12" CENTERS.

MAXIMUM DEPTH OF THIS UNIT AS SHOWN IS 12'.

CONSTRUCT THE JUNCTION BOX IN ACCORDANCE WITH SECTIONS 830, 832, 834 AND 840 OF THE NCDOT STANDARD SPECIFICATIONS.





TYP. STORM MANHOLE DETAILS A15
N.T.S.

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

Rivers & ASSOCIATES, INC.
NC License: F-0334
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NO	REVISION	DATE

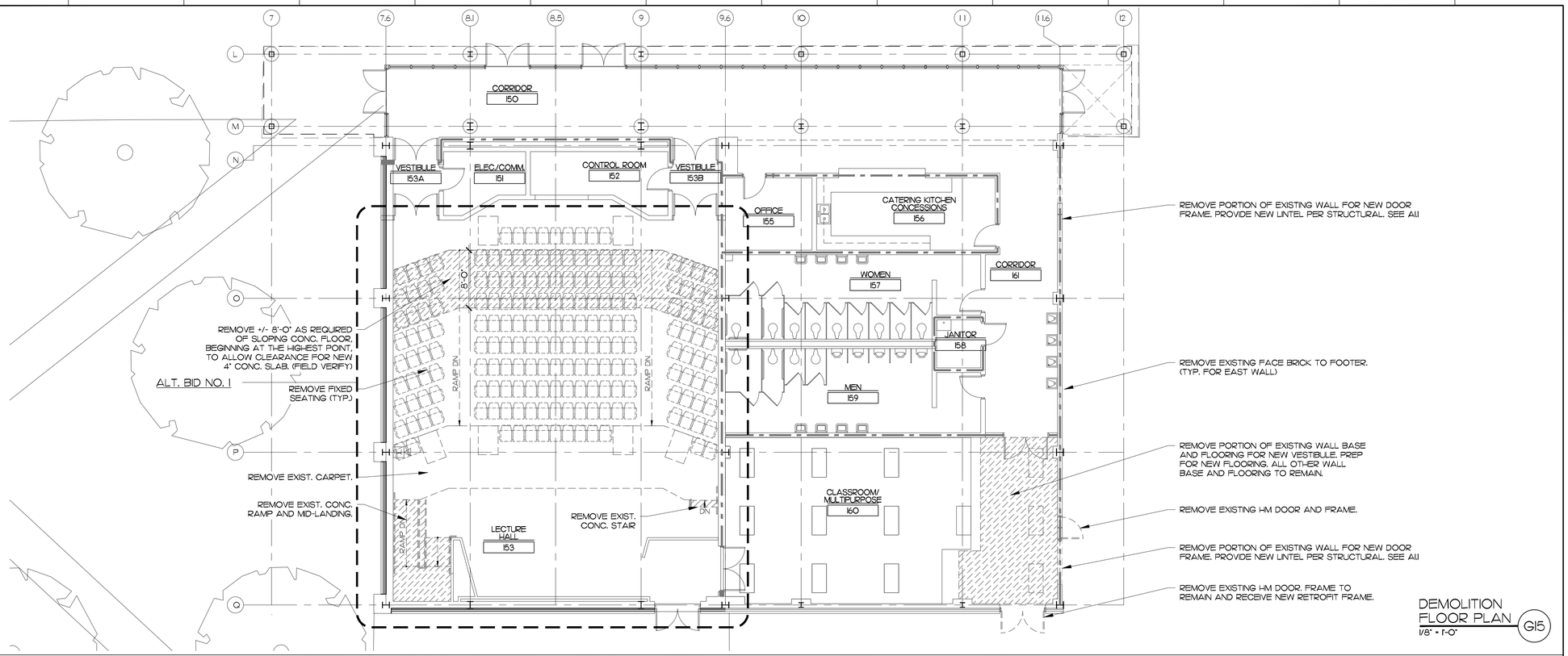
SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

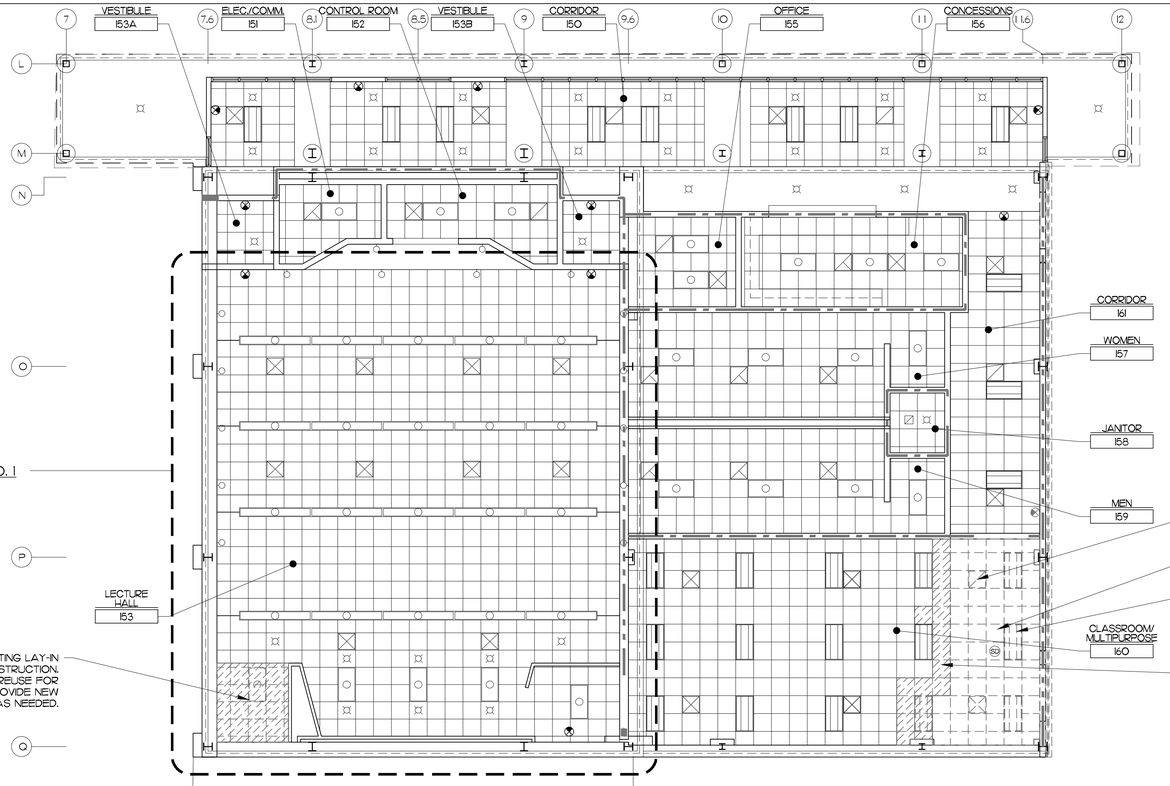
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: SITE DETAILS

SCALE	DRAWING NO
AS NOTED	ASP2.3
DRAWN: JRH	
CHECKED: JKF	
DATE: 5-20-2024	
PROJECT NO.: 2024-06	



DEMOLITION FLOOR PLAN — G15
1/8" = 1'-0"



DEMOLITION RCP FLOOR PLAN — A15
1/8" = 1'-0"

MATERIALS KEYING LEGEND

GENERAL NOTES

- - - - EXISTING 2-HOUR FIRE PARTITION
——— EXISTING 1-HOUR FIRE PARTITION

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

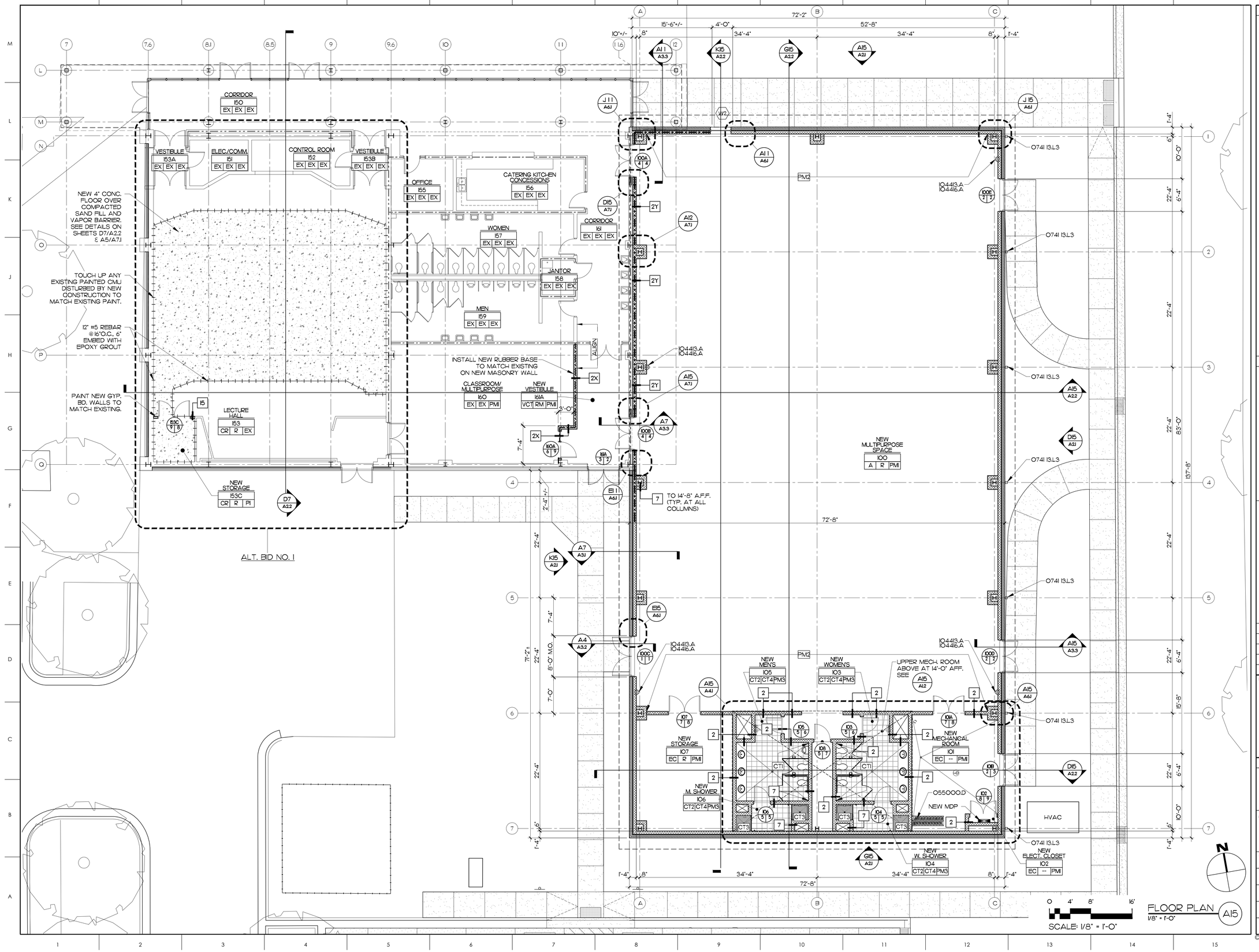
SEAL
JOHN K. FARKAS
REGISTERED ARCHITECT
6/14/2024
5822
GREENVILLE, N.C.

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
DEMOLITION PLAN

SCALE	1/8"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A0.1



MATERIALS KEYING LEGEND

055000.D	-ALTERNATING TREAD STAIR ASSEMBLY
0741 13.L3	-METAL DOWNSPOUT, 5X5"
08919.A	-FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
10413.A	-SEMI-RECESSED FIRE EXTINGUISHER CABINET
10416.A	-FIRE EXTINGUISHER

GENERAL NOTES

- EXISTING 1-HOUR FIRE BARRIER
- EXISTING 2-HOUR FIRE BARRIER
- NEW 1-HOUR FIRE PARTITION
- NEW 2-HOUR FIRE WALL

P4 TYPICAL PAINT FOR HOLLOW METAL FRAMES AND PAINTED GYP. BULKHEADS

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT GREENVILLE, N.C. 6/14/2024 5822

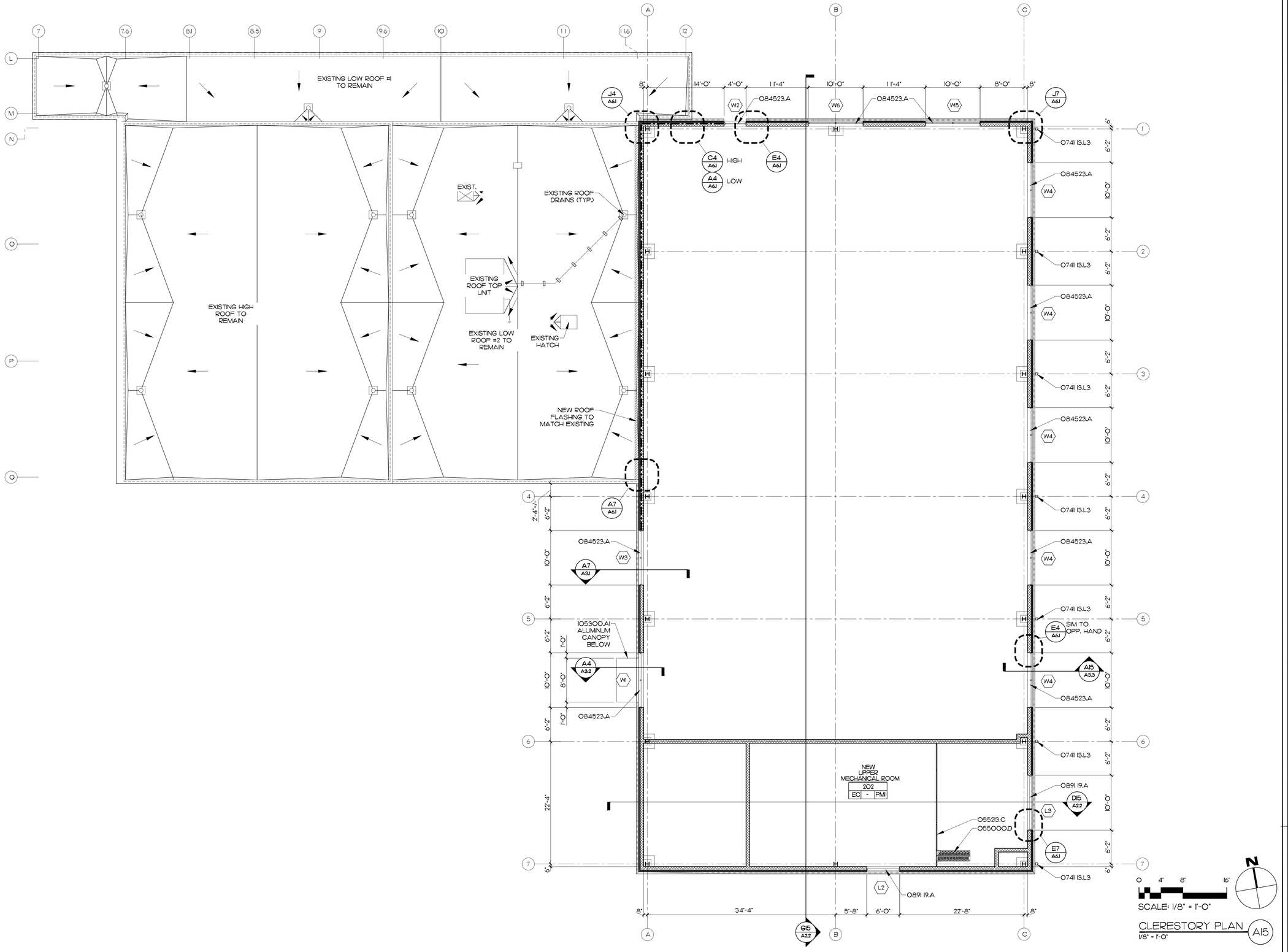
JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: FLOOR PLAN

SCALE	1/8" = 1'-0"
DRAWN	JRH, BTP
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A1.1



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

CLERESTORY PLAN A1.5
1/8" = 1'-0"

MATERIALS KEYING LEGEND

055000.D	- ALTERNATING TREAD STAIR ASSEMBLY
055213.C	- STEEL GUARDRAIL ASSEMBLY, 42" HIGH, PAINTED
074113.L3	- METAL DOWNSPOUT, 5X5"
084523.A	- FIBERGLASS-SANDWICH PANEL ASSEMBLY
089119.A	- FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
105300.A1	- ALUMINUM CANOPY ASSEMBLY

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE #CMDI 143834, THRU 4-11-2029.

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

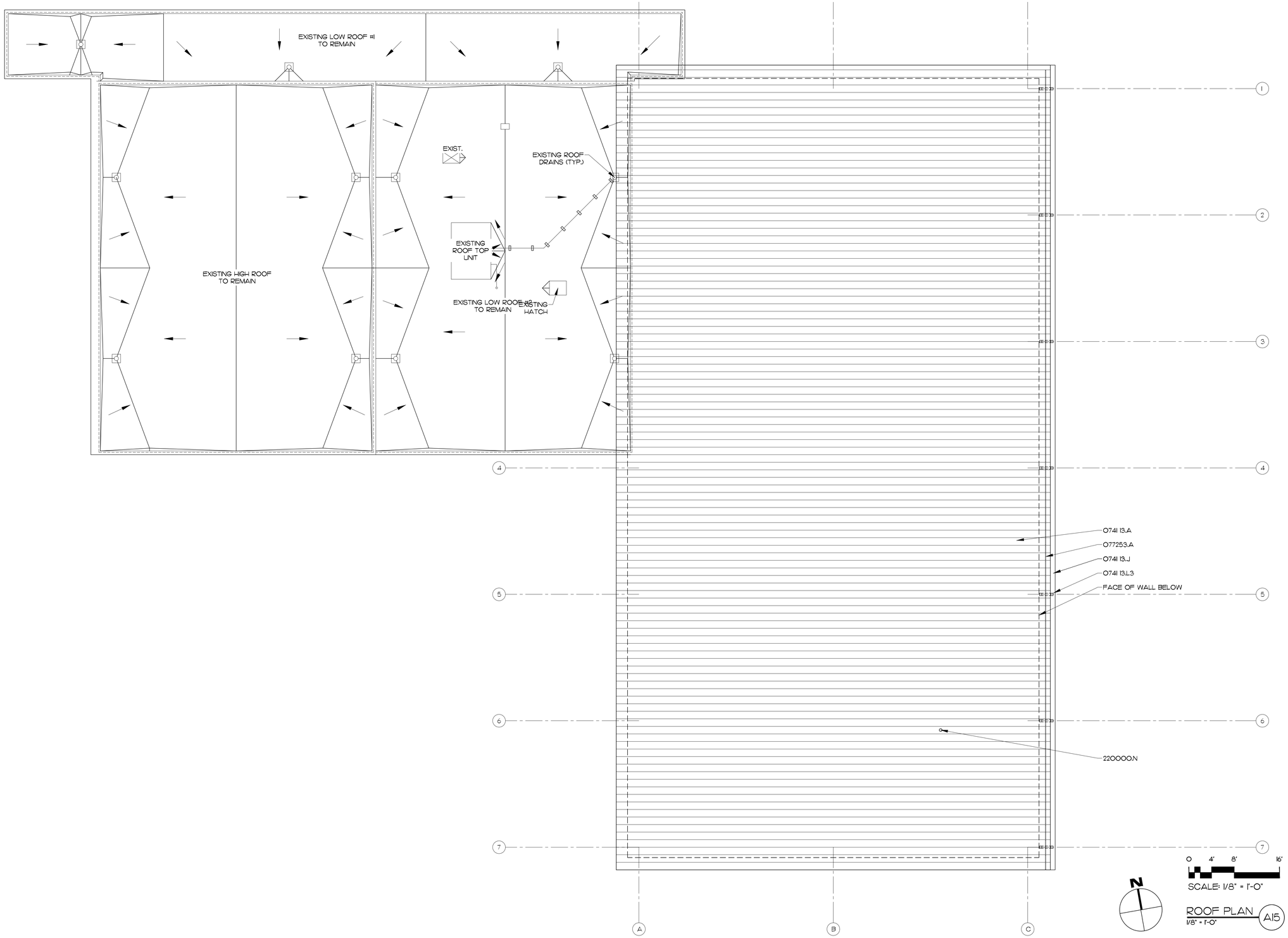
JOHN K. FARKAS REGISTERED ARCHITECT 5972 GREENVILLE, N.C. 6/14/2024

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: CLERESTORY PLAN

SCALE	1/8" = 1'-0"
DRAWN	JRH
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A1.2



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

ROOF PLAN A1.5
1/8" = 1'-0"

MATERIALS KEYING LEGEND

07413.A - METAL ROOF, STANDING SEAM SYSTEM
07413.J - METAL GUTTER
07413.L3 - METAL DOWNSPOUT, 5X5"
077253.A - SNOW GUARD
220000.N - PIPE VENT

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE #CMD143834

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS
REGISTERED ARCHITECT
6/14/2024
5920
GREENVILLE, N.C.

JKF ARCHITECTURE

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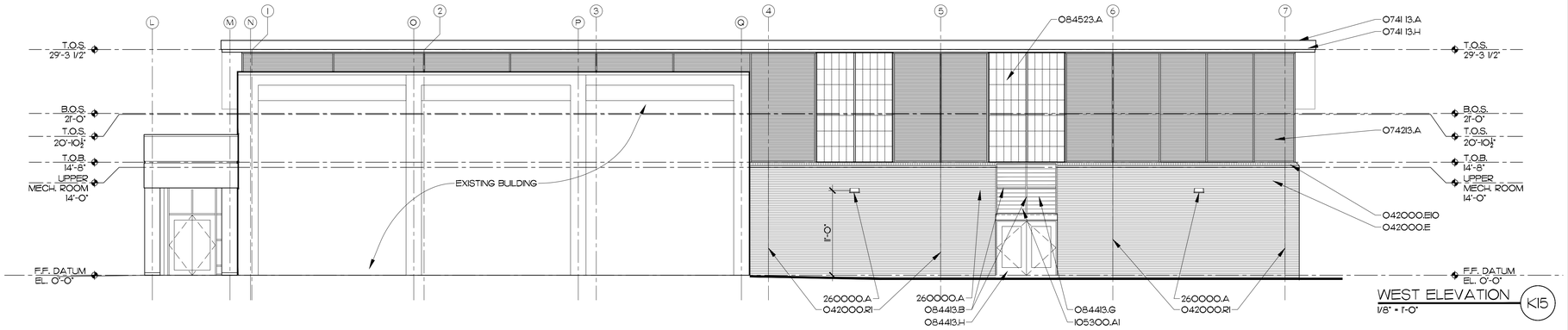
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

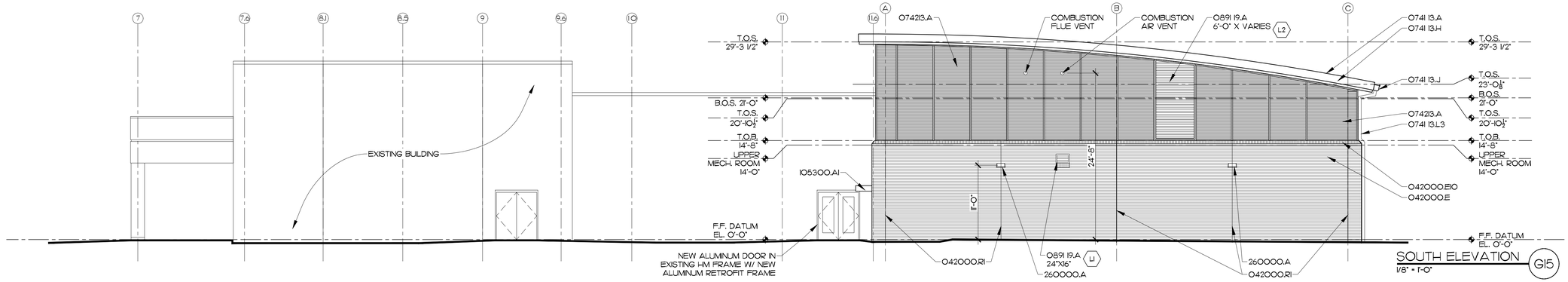
DRAWING TITLE
ROOF PLAN

SCALE	1/8"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06

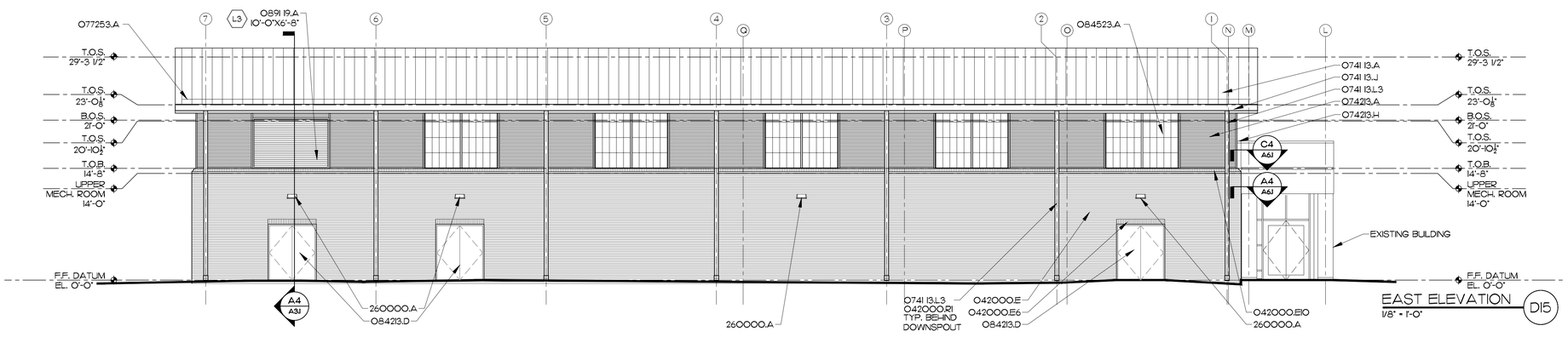
DRAWING NO
A1.3



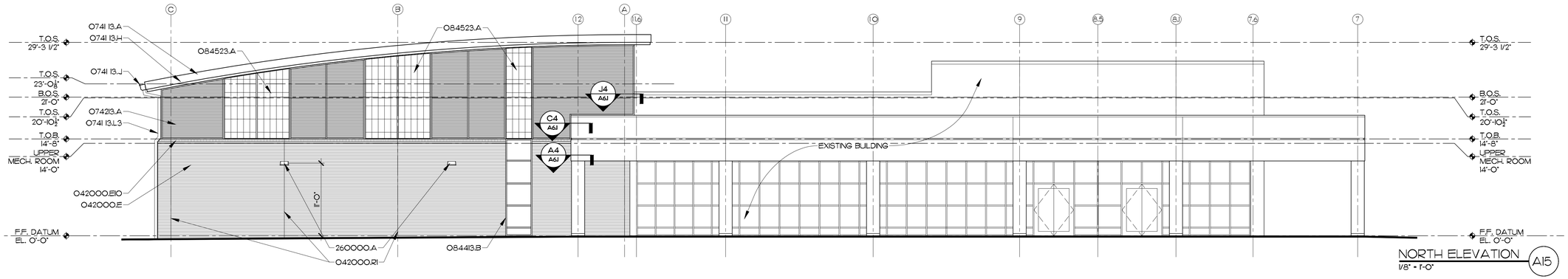
WEST ELEVATION K15
1/8" = 1'-0"



SOUTH ELEVATION G15
1/8" = 1'-0"



EAST ELEVATION D15
1/8" = 1'-0"



NORTH ELEVATION A15
1/8" = 1'-0"

MATERIALS KEYING LEGEND

042000.E	-	FACE BRICK
042000.E10	-	FACE BRICK, SOLDIER COURSE SILL, SPECIAL SHAPE
042000.E6	-	FACE BRICK, SHELF BRICK, SOLDIER COURSE
042000.R1	-	CONTROL JOINT
074113.A	-	METAL ROOF, STANDING SEAM SYSTEM
074113.H	-	METAL FASCIA
074113.J	-	METAL GUTTER
074113.L3	-	METAL DOWNSPOUT, 5X5"
074213.A	-	METAL WALL PANEL
074213.H	-	METAL FLASHING
077253.A	-	SNOW GUARDS
084213.D	-	ALUMINUM FRP DOOR
084413.B	-	ALUMINUM CURTAIN WALL FRAMING
084413.G	-	HORIZONTAL SUNSHADE SYSTEM
084413.H	-	ALUMINUM STILE AND RAIL DOOR
084523.A	-	FIBERGLASS-SANDWICH PANEL ASSEMBLY
089119.A	-	FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
105300.A1	-	ALUMINUM CANOPY ASSEMBLY, CANTILEVERED
260000.A	-	EXTERIOR LIGHT FIXTURE

GENERAL NOTES

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS, REGISTERED ARCHITECT, 6/19/2024, 5922, GREENVILLE, NC

JKF ARCHITECTURE

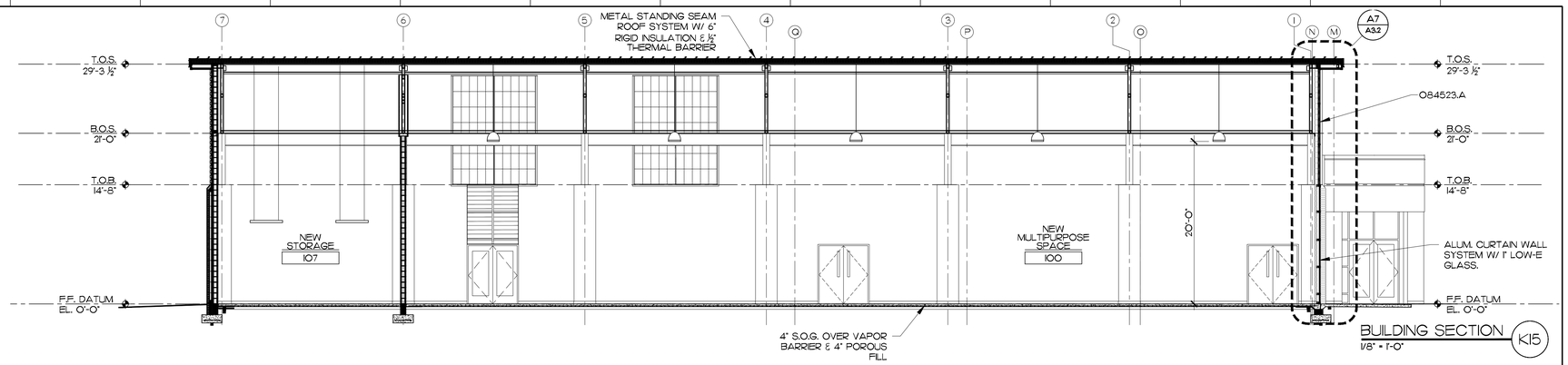
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

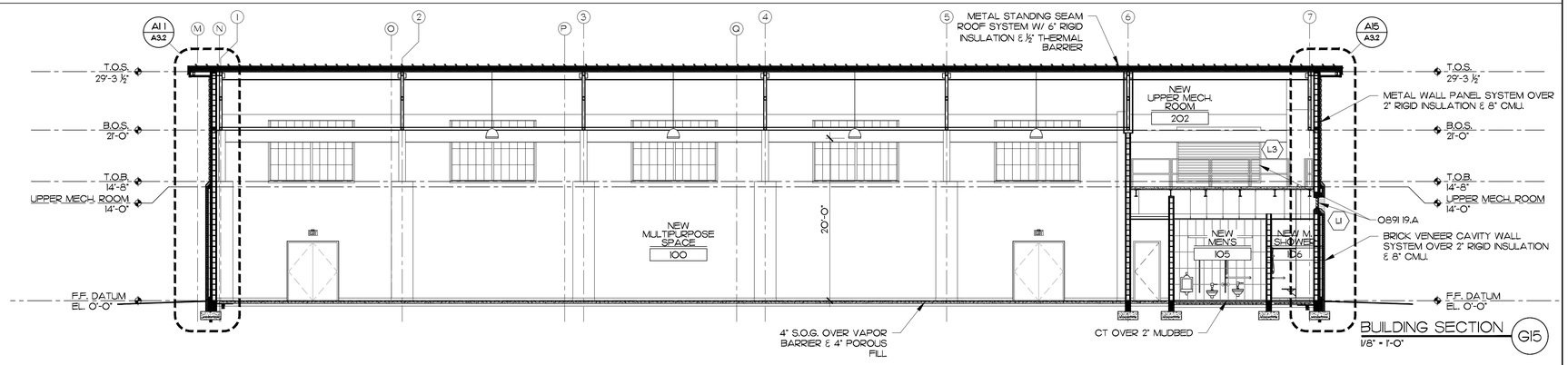
DRAWING TITLE
EXTERIOR ELEVATIONS

SCALE	1/8"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06

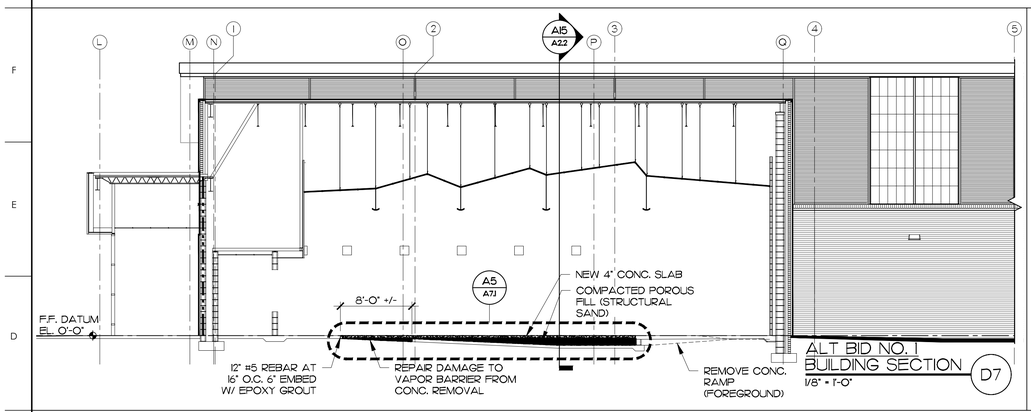
DRAWING NO
A2.1



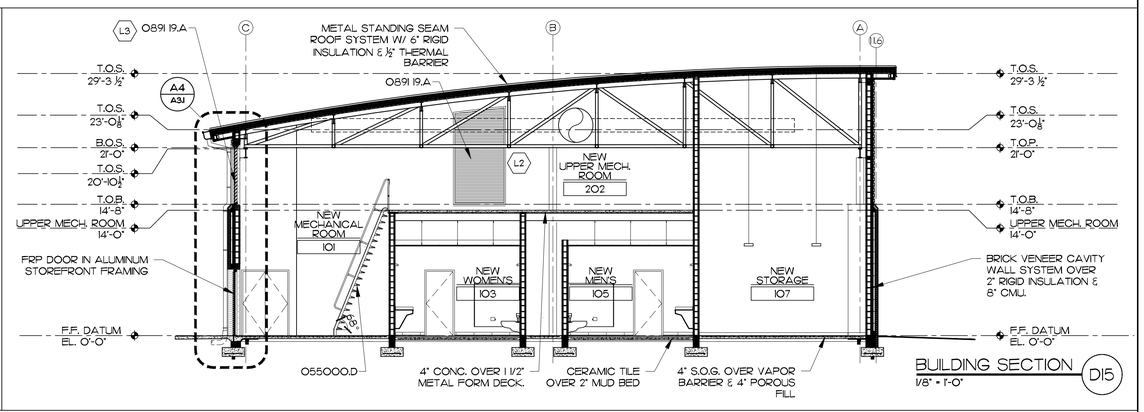
BUILDING SECTION K15
1/8" = 1'-0"



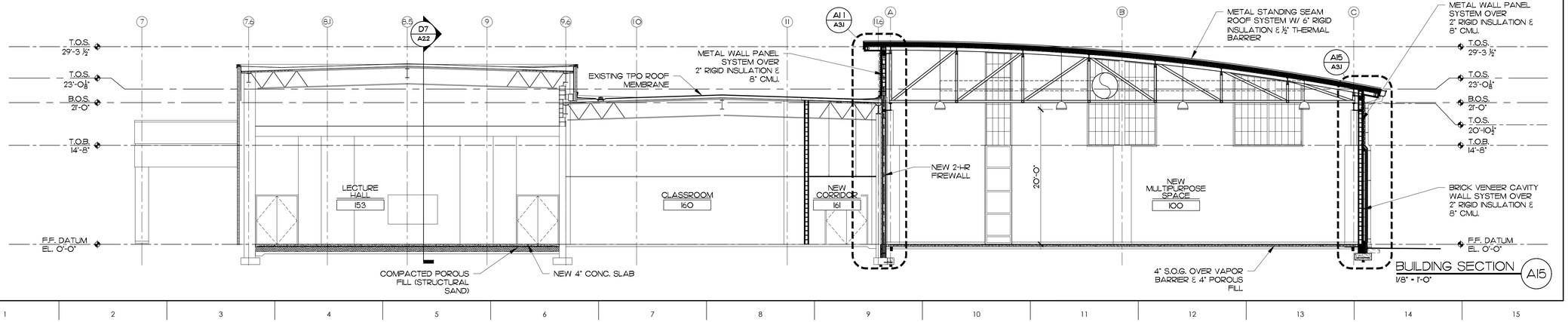
BUILDING SECTION G15
1/8" = 1'-0"



ALT BID NO. 1
BUILDING SECTION D7
1/8" = 1'-0"



BUILDING SECTION D15
1/8" = 1'-0"



BUILDING SECTION A15
1/8" = 1'-0"

MATERIALS KEYING LEGEND

055000.D - ALTERNATING TREAD STAIR ASSEMBLY
084523.A - FIBERGLASS-SANDWICH PANEL ASSEMBLY
0891 19.A - FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE #CMDI 143834

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT 6/14/2024 5022 GREENVILLE, N.C.

JKF ARCHITECTURE

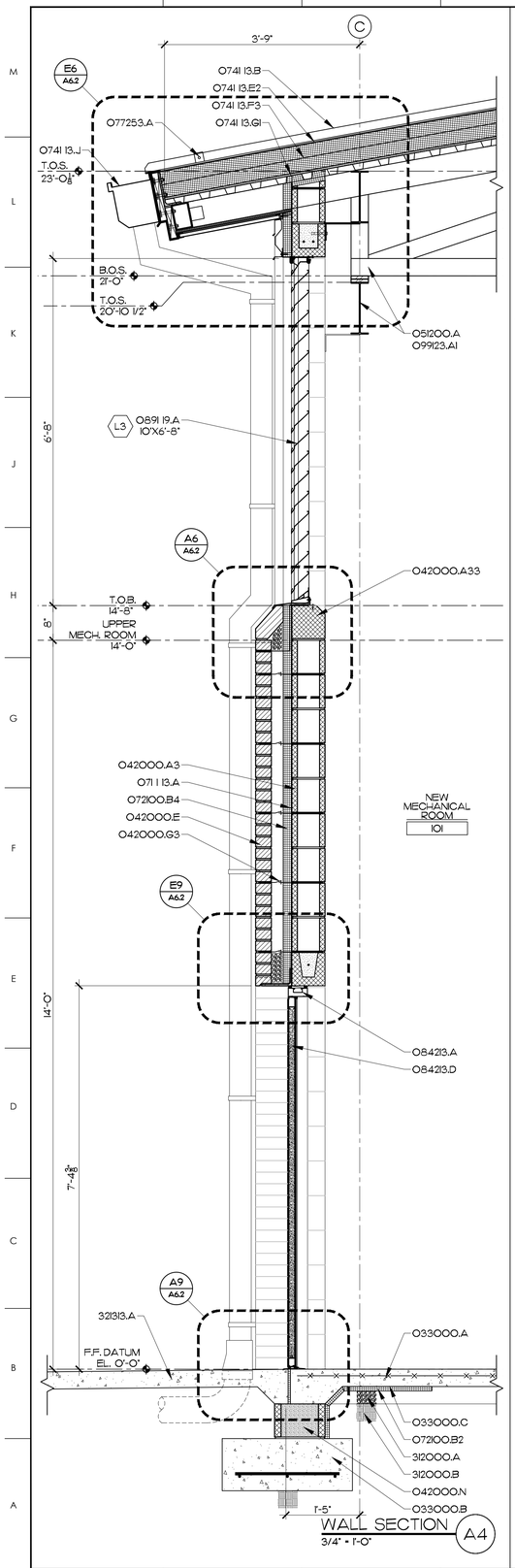
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

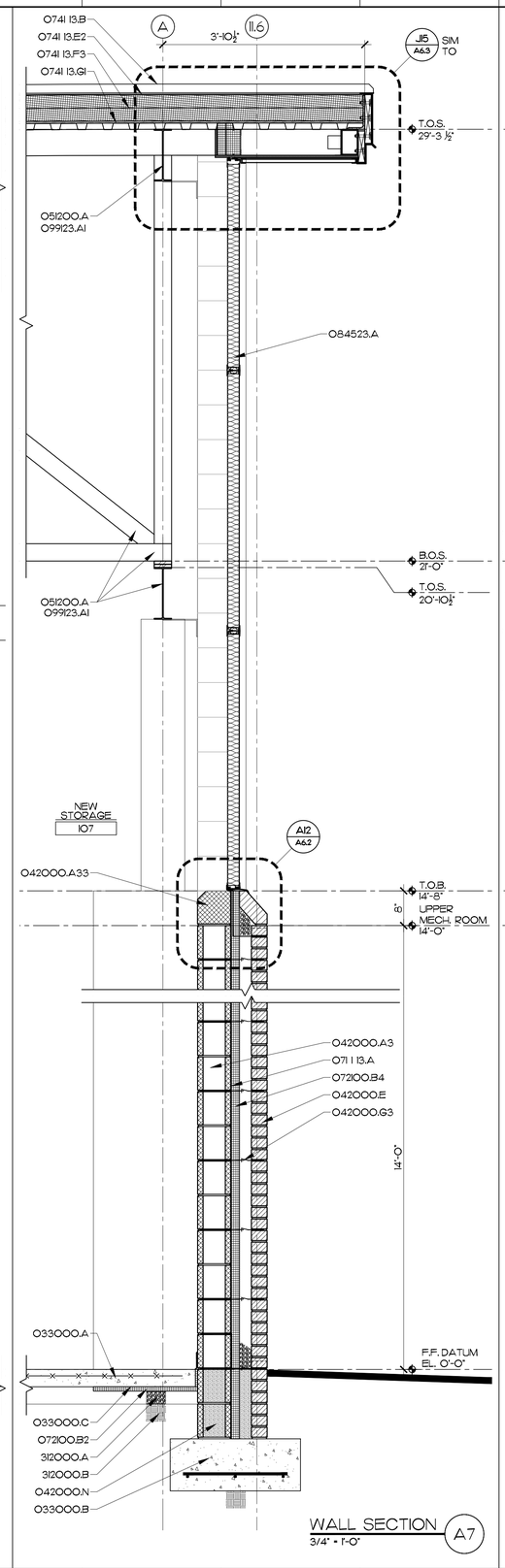
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

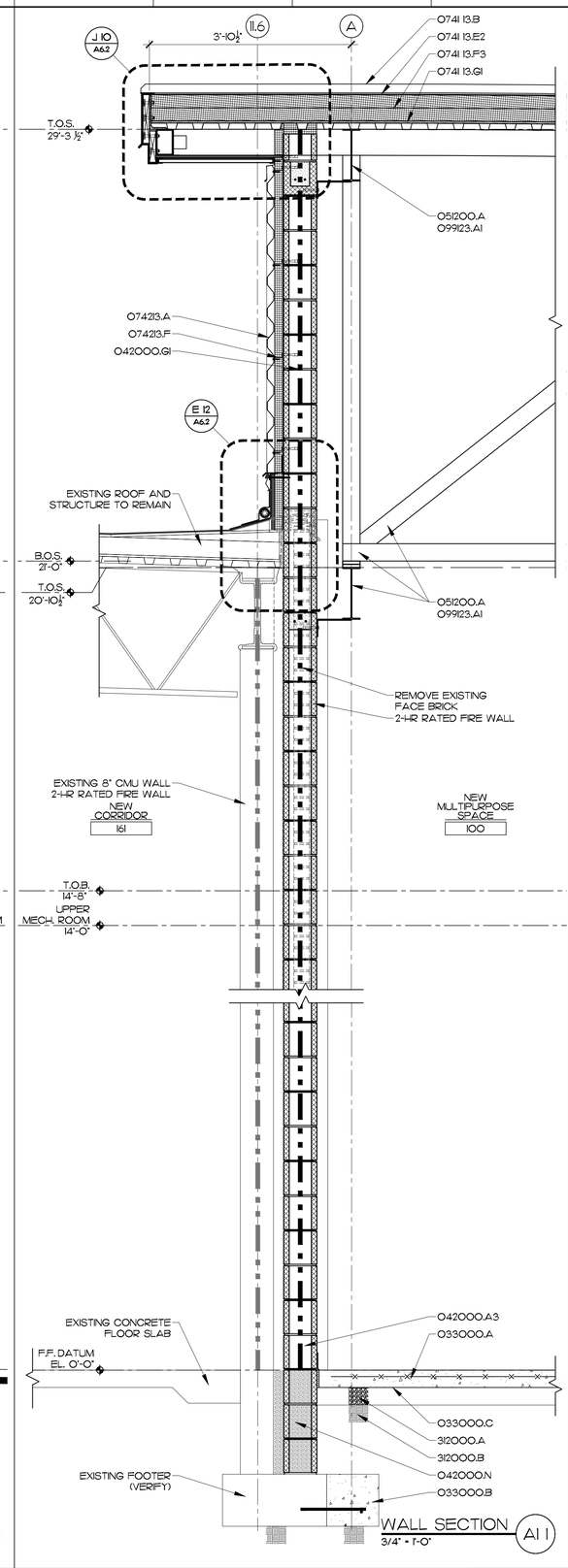
DRAWING TITLE
BUILDING SECTIONS

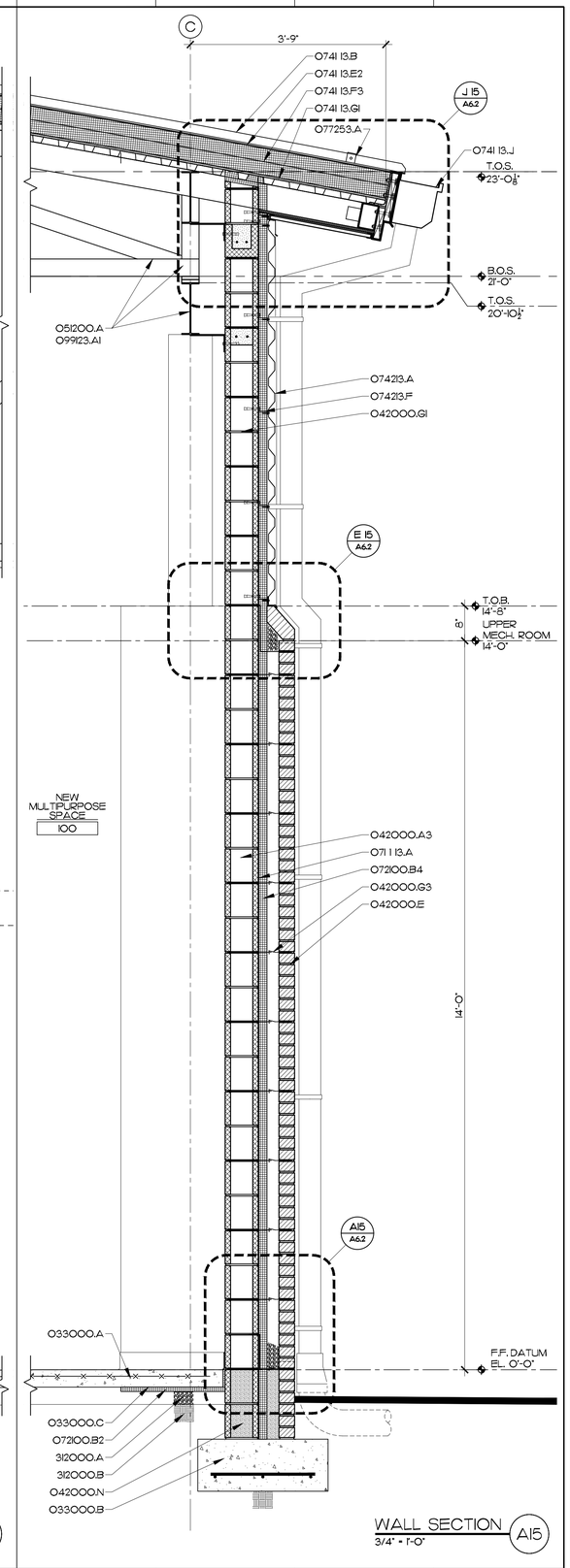
SCALE	1/8"=1'-0"
DRAWN	JRH
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06

DRAWING NO
A2.2









MATERIALS KEYING LEGEND

033000.A	- CONCRETE SLAB ON GRADE, SEE STRUCTURAL
033000.B	- CONCRETE FOOTING, SEE STRUCTURAL
033000.C	- VAPOR BARRIER
042000.A3	- CONCRETE MASONRY UNIT, 8"
042000.A33	- CONCRETE MASONRY UNIT, 8" SOLID BEVELED
042000.E	- FACE BRICK
042000.GI	- HORIZONTAL JOINT REINFORCING AT 16" O.C. VERT.
042000.G3	- HORIZONTAL JOINT REINF. AT 16" VERT. & BRICK TIE EYES AT 24" O.C. HORIZ.
042000.N	- GROUT SOLID
051200.A	- STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
071 13.A	- BITUMINOUS DAMPROOFING
072100.B2	- 1" RIGID INSULATION
072100.B4	- 2" RIGID INSULATION
0741 13.B	- METAL ROOF, STANDING SEAM PANEL
0741 13.E2	- SELF ADHERING SHEET
0741 13.F3	- RIGID INSULATION, 6" THICK
0741 13.GI	- GLASS-MAT GYP. SHEATHING, 1/2" THICK
0741 13.J	- METAL GUTTER
074213.A	- METAL WALL PANEL
074213.F	- 2" METAL Z-FURRING CHANNEL, 16"O.C.
077253.A	- SNOW GUARD
084213.A	- STOREFRONT FRAMING, THERMALLY BROKEN
084213.D	- ALUMINUM FRP DOOR
084523.A	- FIBERGLASS-SANDWICH PANEL ASSEMBLY
0891 19.A	- FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
09912 3.AI	- PAINT FINISH, INTERIOR SYSTEM
312000.A	- POROUS FILL
312000.B	- COMPACTED FILL
321313.A	- CONCRETE SIDEWALK, 4" THICK

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE. #CMDI 143834

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS NORTH CAROLINA REGISTERED ARCHITECT 6/19/2024 5922 GREENVILLE, S.C.

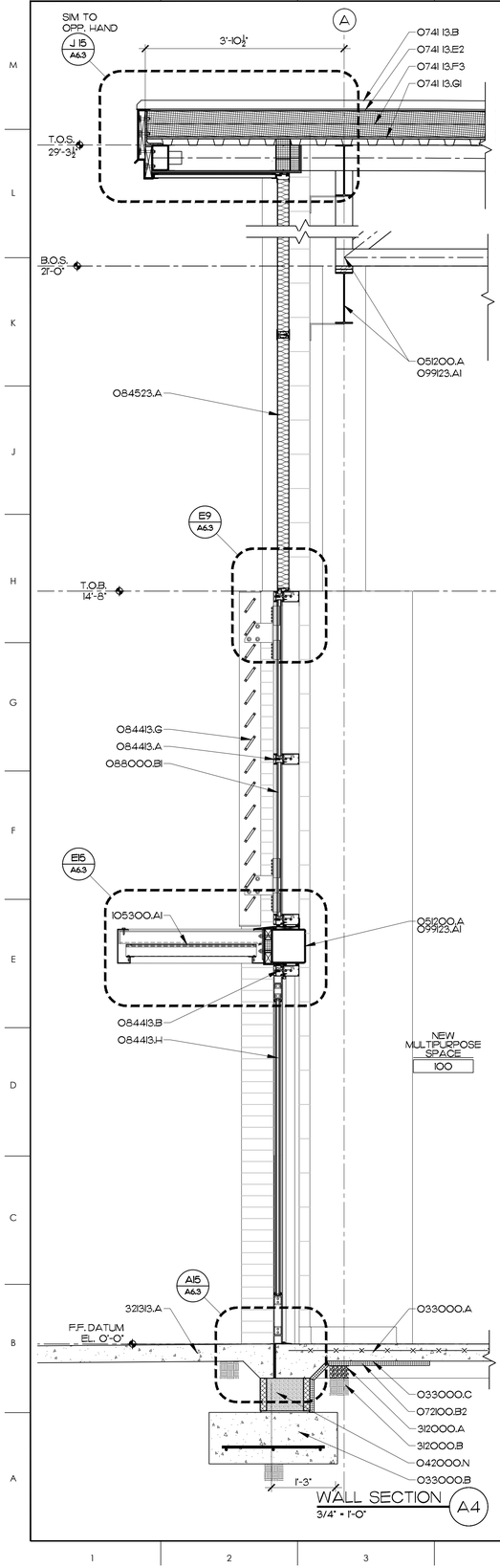
JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

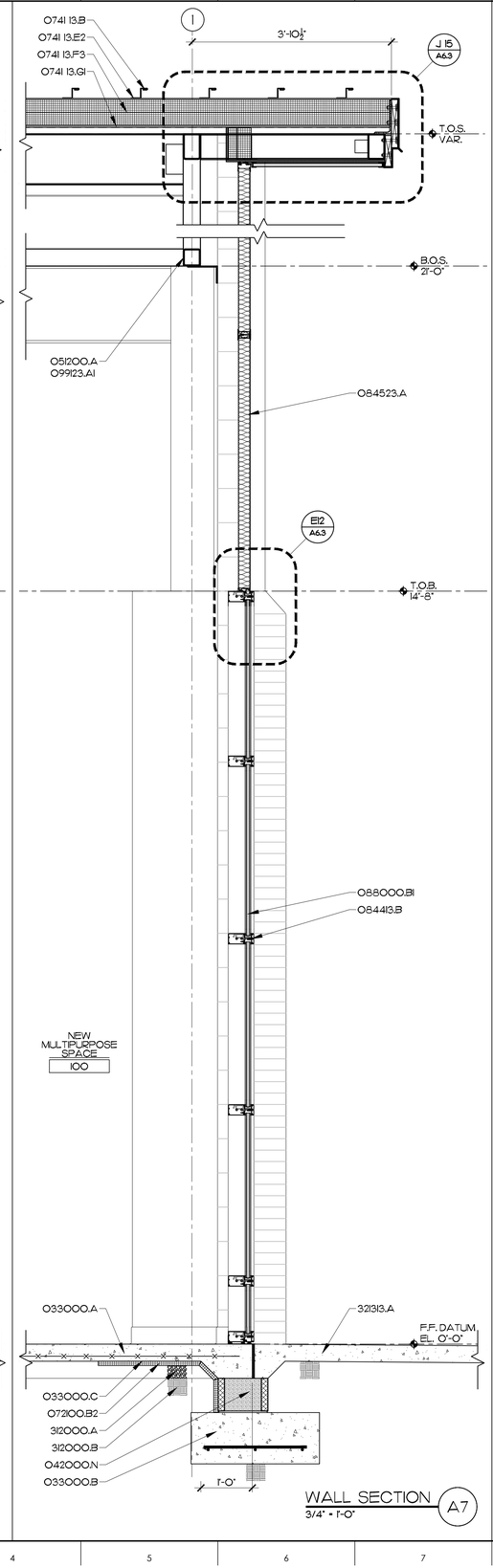
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: WALL SECTIONS

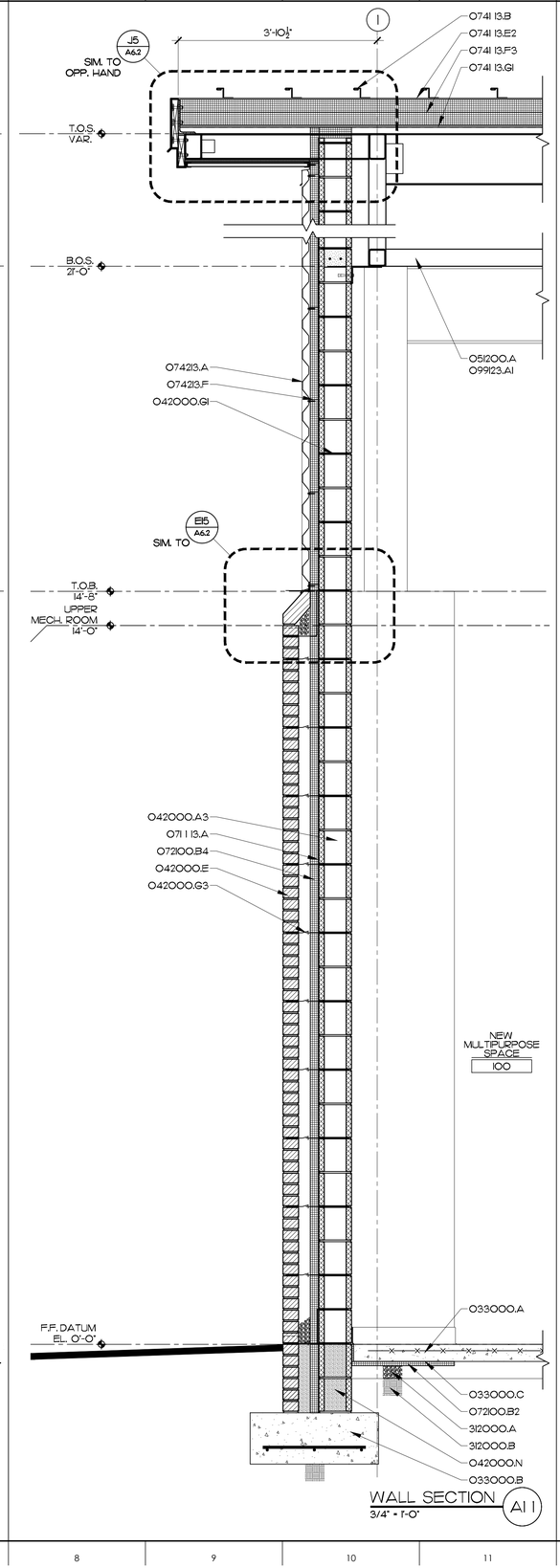
SCALE	3/4"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A3.1



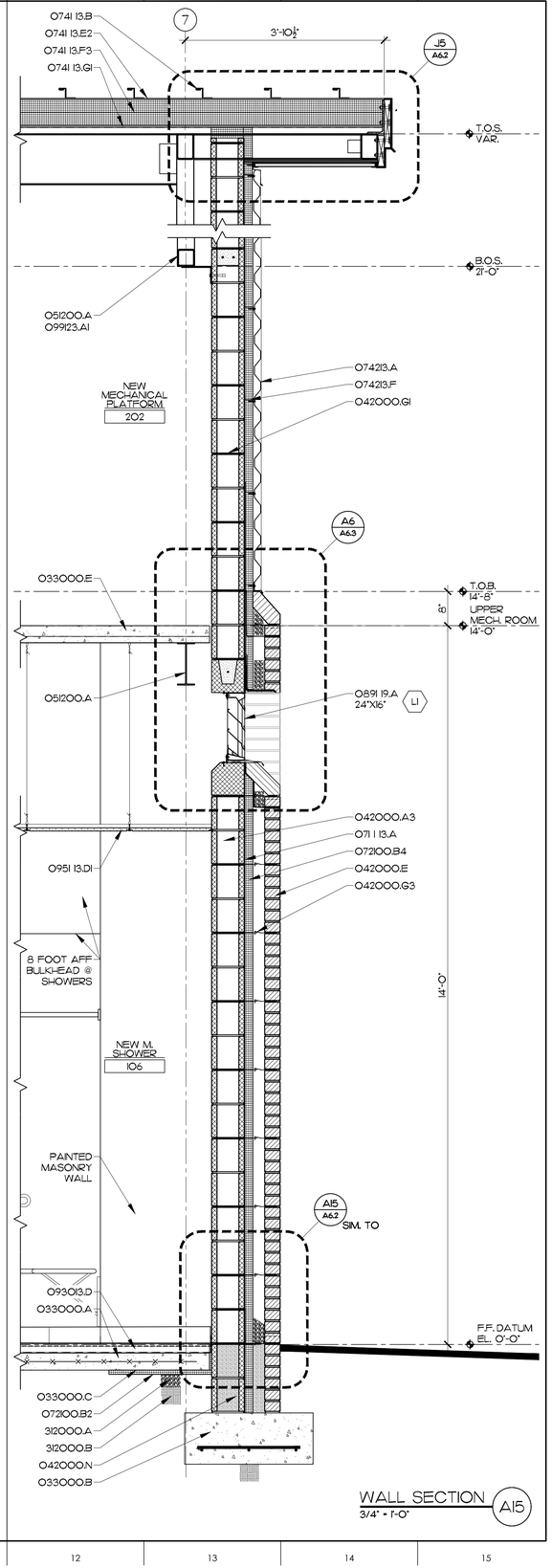
WALL SECTION A4
3/4" = 1'-0"



WALL SECTION A7
3/4" = 1'-0"



WALL SECTION A11
3/4" = 1'-0"



WALL SECTION A15
3/4" = 1'-0"

MATERIALS KEYING LEGEND

O33000.A	CONCRETE SLAB ON GRADE, SEE STRUCTURAL
O33000.B	CONCRETE FOOTING, SEE STRUCTURAL
O33000.C	VAPOR BARRIER
O33000.E	CONCRETE - SEE STRUCTURAL
O42000.A3	CONCRETE MASONRY UNIT, 8"
O42000.E	FACE BRICK
O42000.GI	HORIZONTAL JOINT REINFORCING AT 16" O.C. VERT.
O42000.G3	HORIZONTAL JOINT REINF. AT 16" VERT. & BRICK TIE EYES AT 24" O.C. HORIZ.
O42000.N	GROUT SOLID
051200.A	STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
071 1 13.A	BITUMINOUS DAMPROOFING
072100.B2	1" RIGID INSULATION
072100.B4	2" RIGID INSULATION
0741 13.B	METAL ROOF, STANDING SEAM PANEL
0741 13.E2	SELF ADHERING SHEET
0741 13.F3	RIGID INSULATION, 6" THICK
0741 13.GI	GLASS-MAT GYP. SHEATHING, 1/2" THICK
074213.A	METAL WALL PANEL
074213.F	2" METAL Z-FURRING CHANNEL, 16" O.C.
084413.A	ALUMINUM CURTAIN WALL ASSEMBLY
084413.B	ALUMINUM CURTAIN WALL FRAMING
084413.G	HORIZONTAL SUNSHADE SYSTEM
084413.H	ALUMINUM STILE AND RAIL DOOR
084523.A	FIBERGLASS-SANDWICH PANEL ASSEMBLY
088000.BI	1" INSULATING GLASS-LOW E
0891 19.A	FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
093013.D	MORTAR BED
0951 13.DI	ACOUSTICAL PANEL CEILING TILE, 2X2
099123.AI	PAINT FINISH, INTERIOR SYSTEM
105300.A	ALUMINUM CANOPY ASSEMBLY
312000.A	POROUS FILL
312000.B	COMPACTED FILL
321313.A	CONCRETE SIDEWALK, 4" THICK

GENERAL NOTES

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT 6/19/2024 5823 GREENVILLE, N.C.

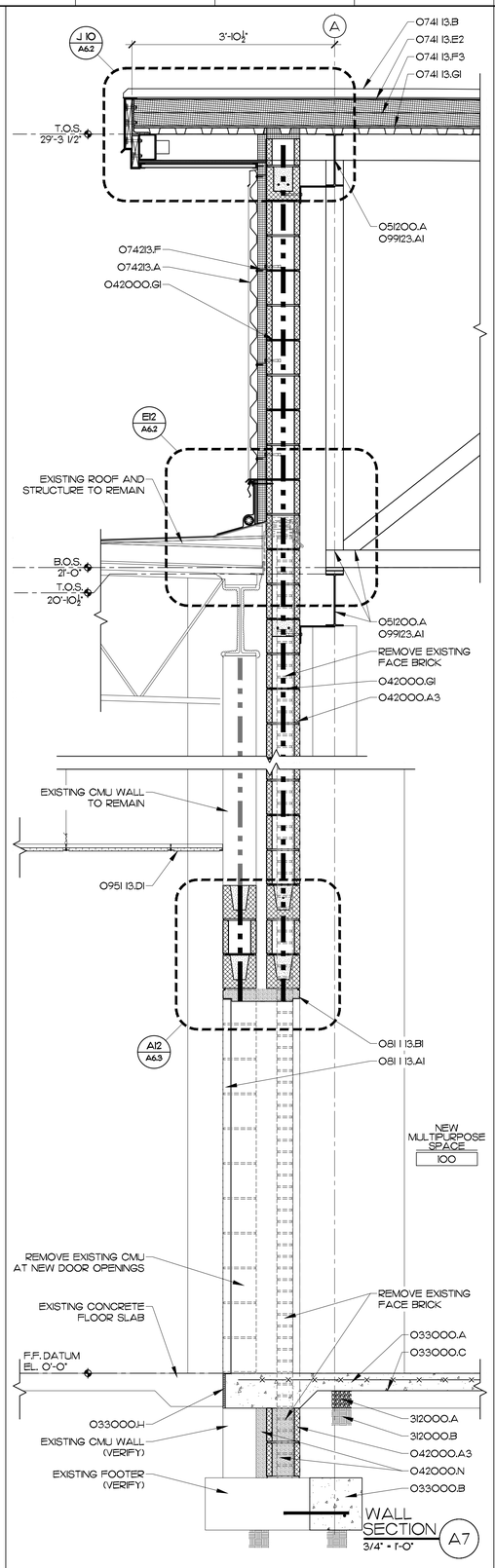
JKF ARCHITECTURE

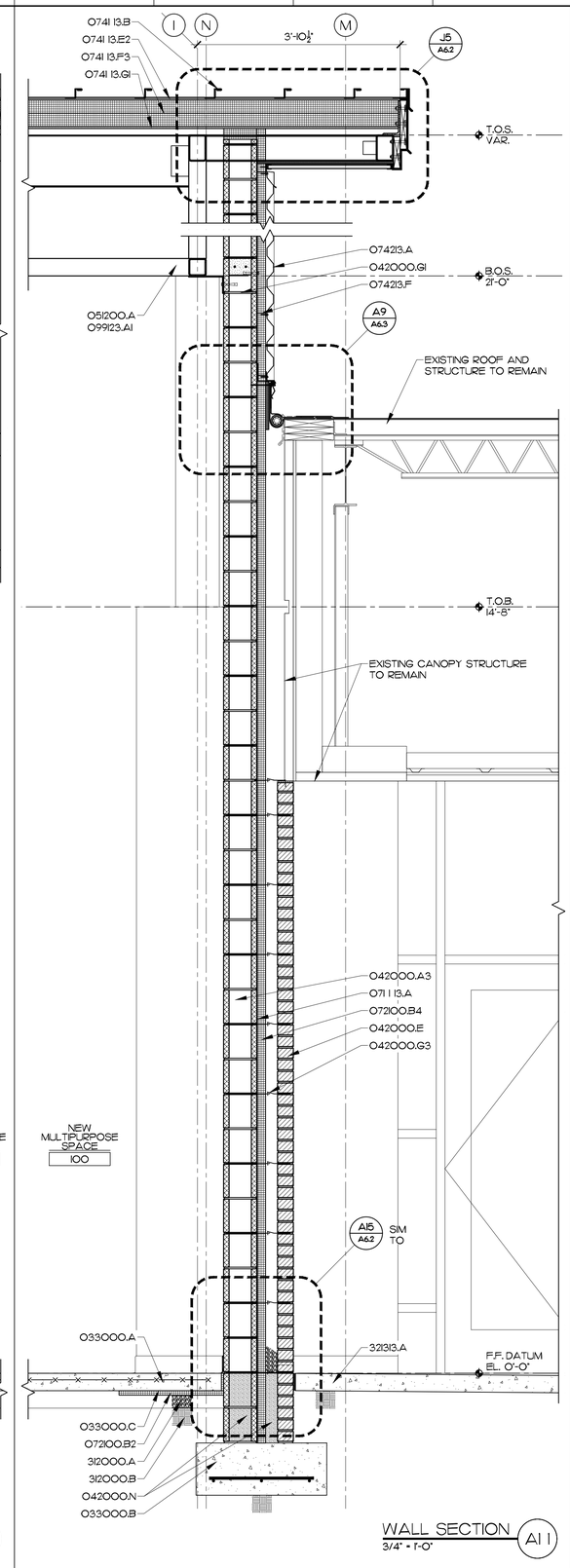
625 LYNNDALE CT., SUITE F, GREENVILLE NC 27858 252-355-1068

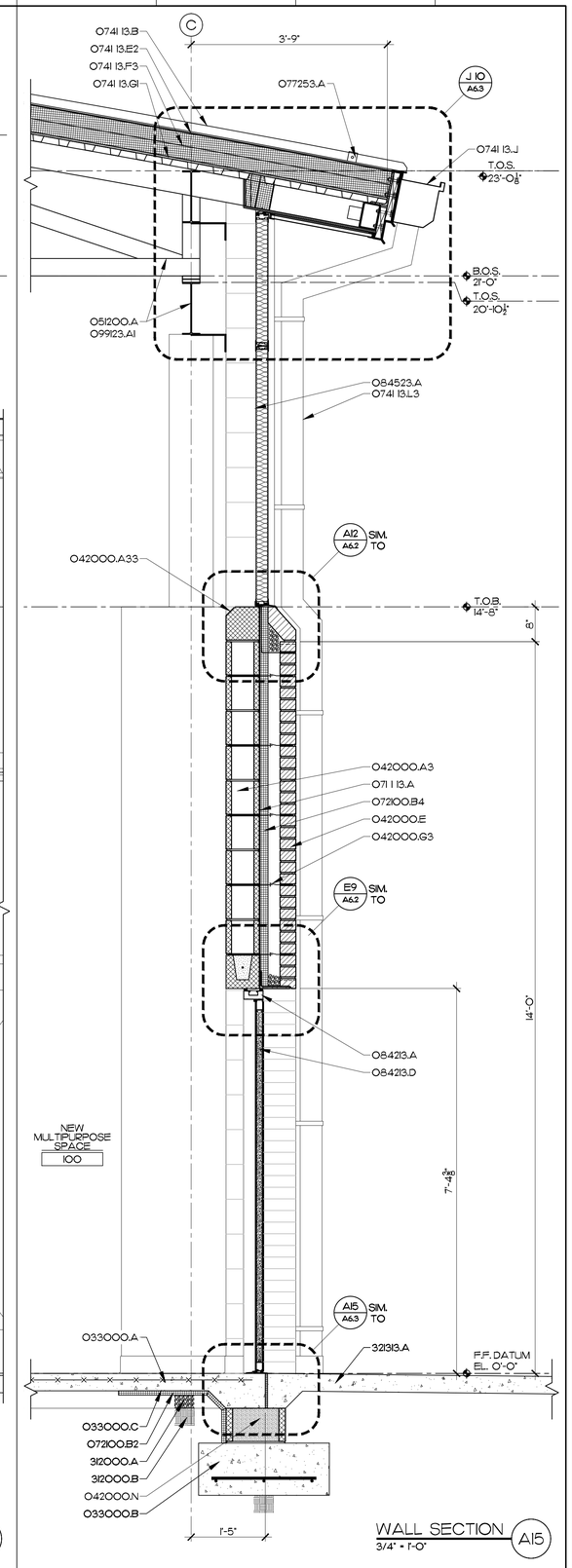
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: WALL SECTIONS

SCALE	3/4"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A3.2







MATERIALS KEYING LEGEND	
O33000.A	-CONCRETE SLAB ON GRADE, SEE STRUCTURAL
O33000.B	-CONCRETE FOOTING, SEE STRUCTURAL
O33000.C	-VAPOR BARRIER
O33000.H	-COMPRESSIBLE FILL
O42000.A3	-CONCRETE MASONRY UNIT, 8"
O42000.A33	-CONCRETE MASONRY UNIT, 8", SOLID BEVELED
O42000.E	-FACE BRICK
O42000.GI	-HORIZONTAL JOINT REINFORCING AT 16" O.C. VERT.
O42000.G3	-HORIZONTAL JOINT REINF. AT 16" VERT. & BRICK TIE EYES AT 24" O.C. HORIZ.
O42000.N	-GROUT SOLID
O51200.A	-STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
O71 11 3.A	-BITUMINOUS DAMPROOFING
O72100.B2	-1" RIGID INSULATION
O72100.B4	-2" RIGID INSULATION
O741 13.B	-METAL ROOF, STANDING SEAM PANEL
O741 13.E2	-SELF ADHERING SHEET
O741 13.F3	-RIGID INSULATION, 6" THICK
O741 13.GI	-GLASS-MAT GYP. SHEATHING, 1/2" THICK
O741 13.J	-METAL GUTTER
O741 13.L3	-METAL DOWNSPOUT, 5X5"
O74213.A	-METAL WALL PANEL
O74213.F	-2" METAL Z-FURRING CHANNEL, 16" O.C.
O77253.A	-SNOW GUARD
O81 11 3.AI	-HOLLOW METAL DOOR (FIRE-RATED)
O81 11 3.BI	-HOLLOW METAL FRAME (FIRE-RATED)
O84213.A	-STOREFRONT FRAMING, THERMALLY BROKEN
O84213.D	-ALUMINUM FRP DOOR
O84523.A	-FIBERGLASS-SANDWICH PANEL ASSEMBLY
O951 13.DI	-ACOUSTICAL PANEL CEILING TILE, 2X2
O99123.AI	-PAINT FINISH, INTERIOR SYSTEM
3120000.A	-POROUS FILL
3120000.B	-COMPACTED FILL
3213113.A	-CONCRETE SIDEWALK, 4" THICK

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE. #CMDI 143834

EXISTING 2-HOUR FIRE PARTITION

NEW 2-HOUR FIRE WALL

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS
REGISTERED ARCHITECT
6/19/2024
5962
GREENVILLE, N.C.

JKF
ARCHITECTURE

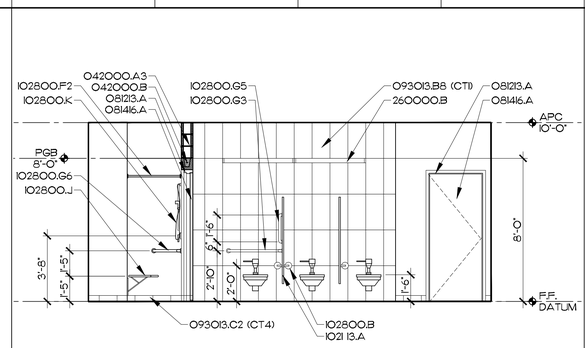
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY
COLLEGE ACTIVITIES
BUILDING ADDITION
CLINTON, NC

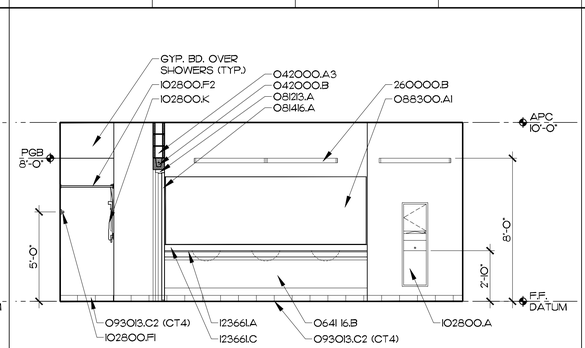
DRAWING TITLE

WALL SECTIONS

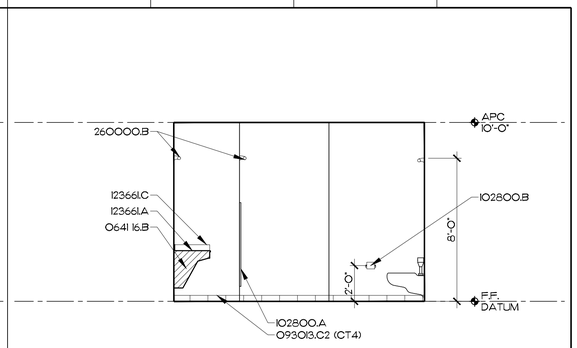
SCALE	3/4"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A3.3



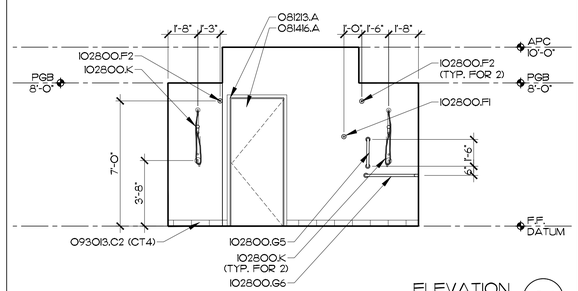
ELEVATION K7
1/4" = 1'-0"



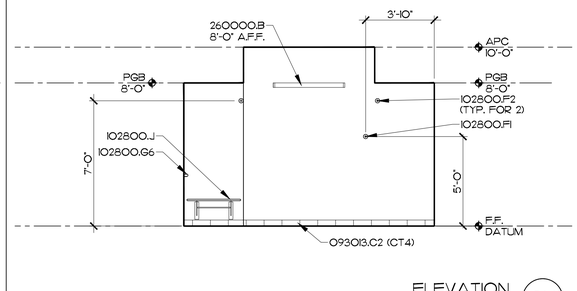
ELEVATION K11
1/4" = 1'-0"



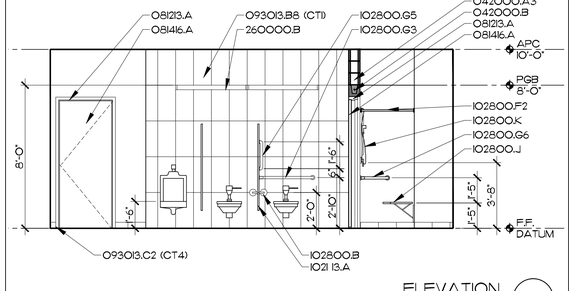
ELEVATION K15
1/4" = 1'-0"



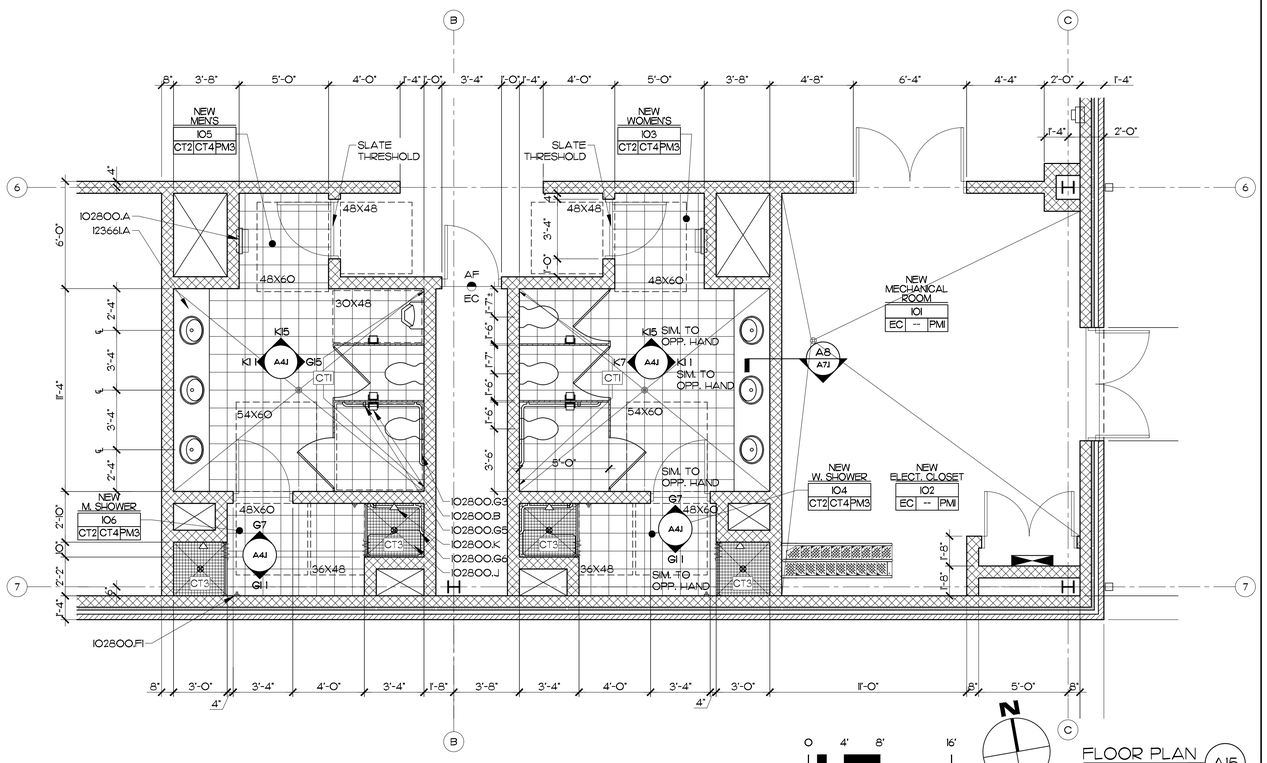
ELEVATION G7
1/4" = 1'-0"



ELEVATION G11
1/4" = 1'-0"



ELEVATION G15
1/4" = 1'-0"



FLOOR PLAN A15
1/4" = 1'-0"

MATERIALS KEYING LEGEND

042000.A3	-	CONCRETE MASONRY UNIT, 8"
042000.B	-	CONCRETE MASONRY, BOND BEAM
0641 16.B	-	PLASTIC LAMINATE, 3/4" THICK
081213.A	-	HOLLOW METAL FRAME
081416.A	-	SOLID CORE WOOD DOOR, FLUSH
0883000.A1	-	1/4" GLASS MIRROR
093013.B8	-	CERAMIC TILE, 12X24
093013.C2	-	CERAMIC TILE, SPECIAL SHAPE, SURFACE BULLNOSE
1021 13.A	-	TOILET COMPARTMENT
102800.A	-	TOWEL DISPENSER/WASTE RECEPTACLE
102800.B	-	TOILET TISSUE DISPENSER
102800.F1	-	ROBE HOOK
102800.F2	-	SHOWER CURTAIN ROD
102800.G3	-	42X54 GRAB BAR
102800.G5	-	18" VERT. GRAB BAR
102800.G6	-	18"X32" GRAB BAR
102800.J	-	FOLDING SHOWER SEAT
102800.K	-	SHOWER HEAD ASSEMBLY W/6' HAND-HELD HEAD
12366LA	-	SIMULATED STONE COUNTERTOP
12366LC	-	SIMULATED STONE BACKSPLASH
260000.B	-	INTERIOR LIGHT FIXTURE

GENERAL NOTES

1. ALL FLOORS IN BATHROOMS AND TOILETS TO HAVE WATERPROOF MEMBRANE PER SPECIFICATION.

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT GREENVILLE NC 5926 6/14/2024

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
ENLARGED FLOOR PLAN & INTERIOR ELEVATIONS

SCALE	1/4" = 1'-0"
DRAWN	BTP
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A4.1

VESTIBULE 153A ETR EXIST

ELEC./COMM. 151 ETR EXIST

CONTROL ROOM 152 ETR EXIST

VESTIBULE 153B ETR EXIST

CORRIDOR 150 ETR EXIST

OFFICE 155 ETR EXIST

CATERING KITCHEN CONCESSIONS 156 ETR EXIST

CORRIDOR 161 APC EXIST

WOMEN 157 ETR EXIST

JANITOR 158 ETR EXIST

MEN 159 ETR EXIST

RELOCATE EXISTING RETURN-AIR GRILLE IN NEW APC CEILING

LECTURE HALL 153 ETR EXIST

CLASSROOM/ MULTIPURPOSE 160 ETR EXIST

NEW VESTIBULE 161A APC 10'-0"

NEW MULTIPURPOSE SPACE 100 EXP VAR.

NEW STORAGE 153C APC 10'-0"

NEW APC CEILING T'S AND TRIM EDGE. RE-USE SALVAGED APC TILES. RE-USE SALVAGED CEILING TILE FOR INFILL OR PROVIDE NEW MATCHING CEILING TILE AS REQUIRED. RELOCATE EXISTING LIGHT FIXTURE IN NEW CEILING.

ADD NEW CROSS T'S AND TRIM EDGE TO EXISTING CEILING GRID AROUND NEW WALL CONSTRUCTION. MATCH EXISTING TRIM EDGE AND CROSS T'S. RE-USE SALVAGED CEILING TILE FOR INFILL OR PROVIDE NEW MATCHING CEILING TILE AS REQUIRED FOR NEW CONSTRUCTION.

RELOCATE EXISTING DIFFUSER IN NEW APC CEILING

RELOCATE EXISTING LIGHT FIXTURES IN NEW APC CEILING (TYP. FOR 3)

NEW PENDANT LIGHT FIXTURE 20'-0" A.F.F. (TYP. FOR 20)

NEW ALUMINUM CANOPY

NEW MEN'S 105 APC 10'-0"

NEW WOMEN'S 103 APC 10'-0"

PGB 10'-0"

NEW PENDANT LIGHT FIXTURE 10'-0" A.F.F. (TYP. FOR 4)

NEW MECHANICAL ROOM 101 EXP VAR.

NEW ELECT. CLOSET 102 EXP VAR.

NEW PENDANT LIGHT FIXTURE 10'-0" A.F.F. (TYP. FOR 4)

NEW STORAGE 107 EXP VAR.

PGB 8'-0"

PGB 8'-0"

NEW M. SHOWER 106 APC 10'-0"

NEW W. SHOWER 104 APC 10'-0"

NEW UPPER MECHANICAL ROOM 202 EXP VAR.

UPPER MECHANICAL ROOM REFLECTED CEILING PLAN A6
1/8" = 1'-0"

REFLECTED CEILING PLAN A15
1/8" = 1'-0"

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

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT 5822 6/19/2024 GREENVILLE, N.C.

JKF ARCHITECTURE

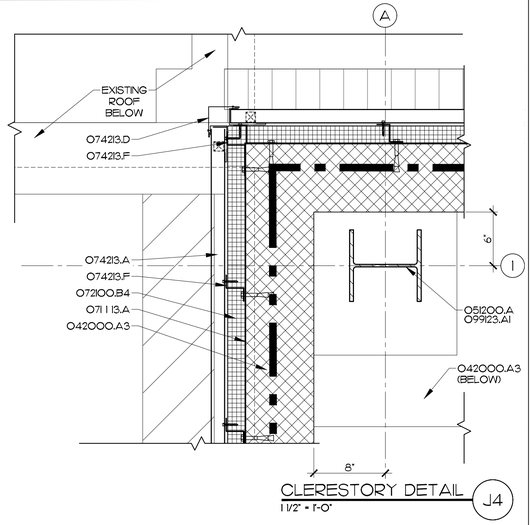
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

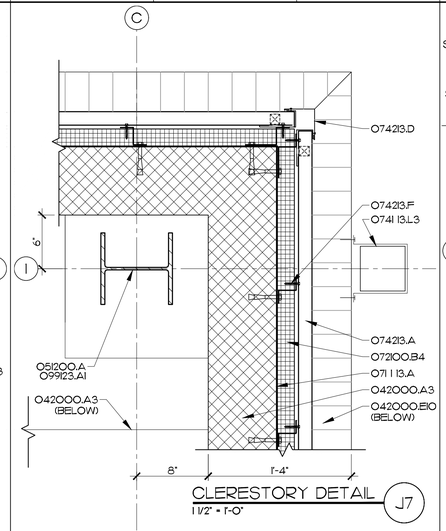
DRAWING TITLE
REFLECTED CEILING PLAN, UPPER MECHANICAL ROOM REFLECTED CEILING PLAN

SCALE	1/8"=1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06

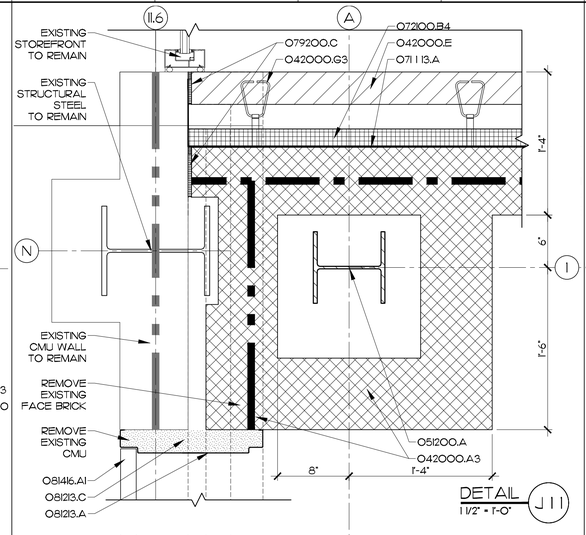
DRAWING NO
A5.1



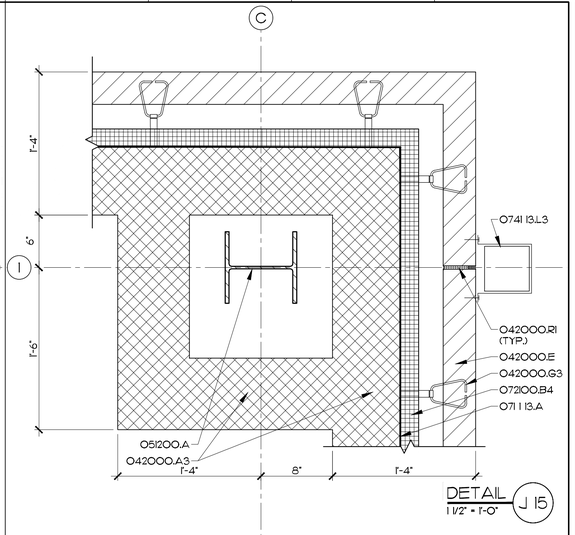
CLERESTORY DETAIL J4
1 1/2" = 1'-0"



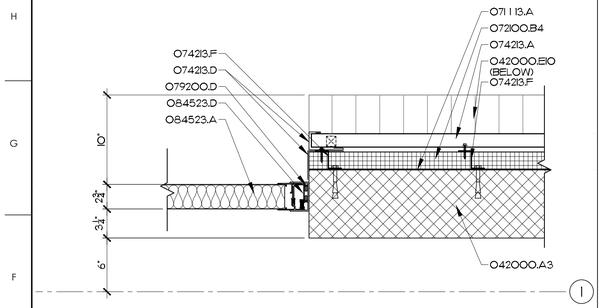
CLERESTORY DETAIL J7
1 1/2" = 1'-0"



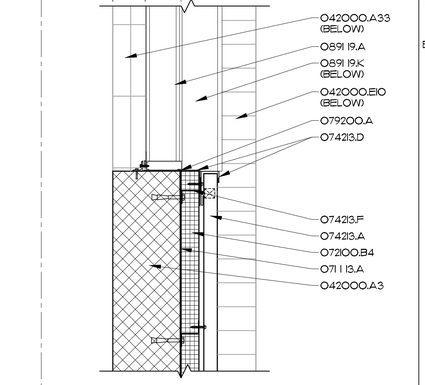
DETAIL J11
1 1/2" = 1'-0"



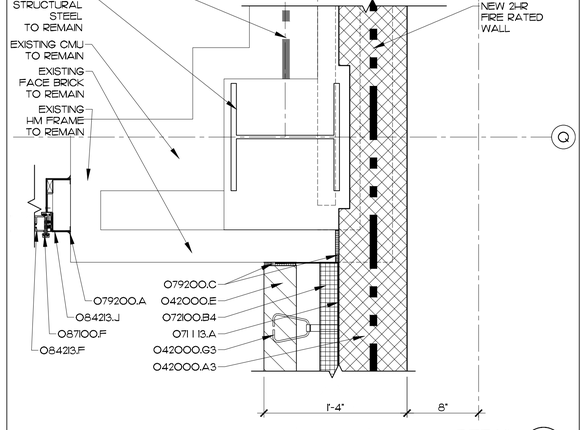
DETAIL J15
1 1/2" = 1'-0"



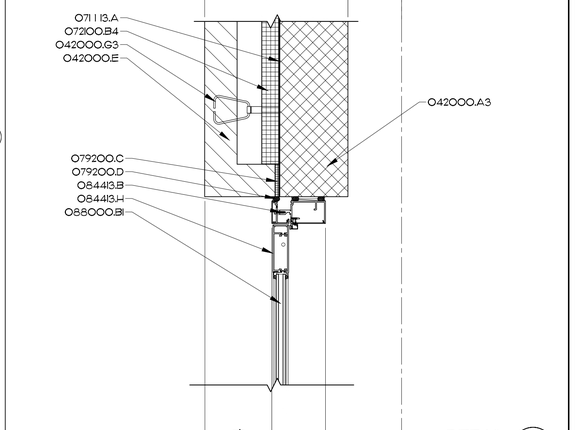
CLERESTORY DETAIL E4
1 1/2" = 1'-0"



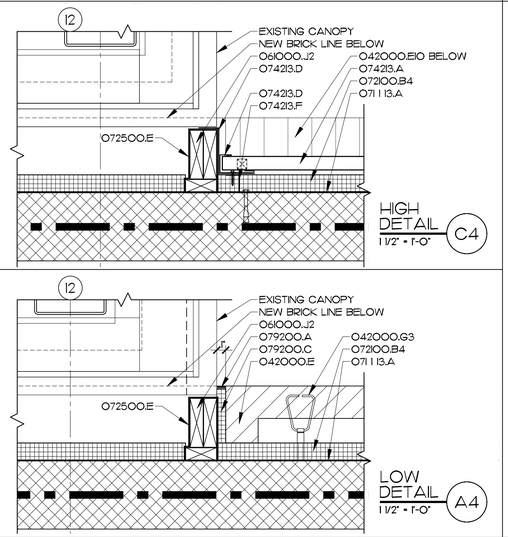
CLERESTORY DETAIL E7
1 1/2" = 1'-0"



DETAIL E11
1 1/2" = 1'-0"

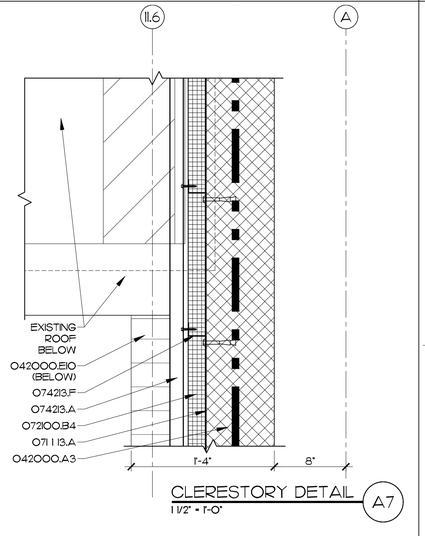


DETAIL E15
1 1/2" = 1'-0"

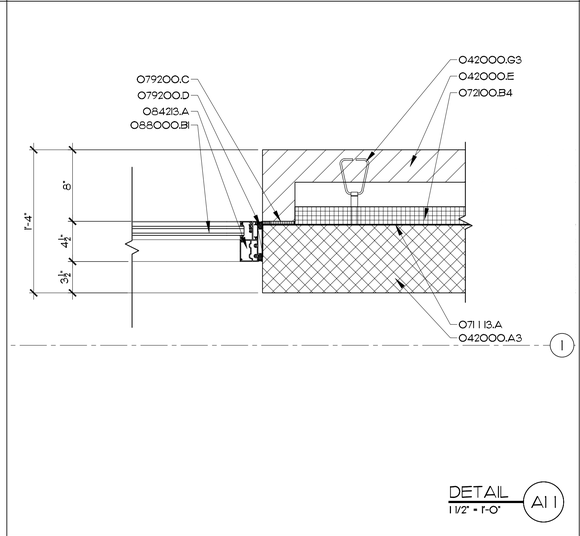


HIGH DETAIL C4
1 1/2" = 1'-0"

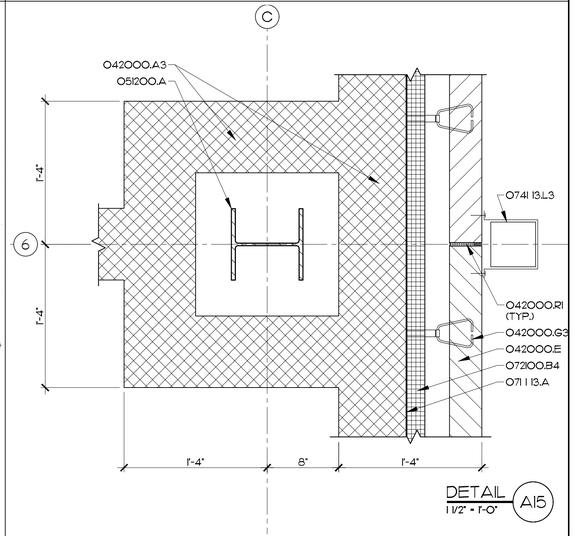
LOW DETAIL A4
1 1/2" = 1'-0"



CLERESTORY DETAIL A7
1 1/2" = 1'-0"



DETAIL A11
1 1/2" = 1'-0"



DETAIL A15
1 1/2" = 1'-0"

MATERIALS KEYING LEGEND

042000.A3	-CONCRETE MASONRY UNIT, 8"
042000.A33	-CONCRETE MASONRY UNIT 8" SOLID BEVELED
042000.E	-FACE BRICK
042000.E10	-FACE BRICK, SOLDIER COURSE SILL, SPECIAL SHAPE
042000.G3	-HORIZONTAL JOINT REINF. AT 16" VERT. & BRICK TIE EYES AT 24" O.C. HORIZ.
042000.R1	-CONTROL JOINT
051200.A	-STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
061000_J2	-WOOD BLOCKING, PRESSURE TREATED
071 13.A	-BITUMINOUS DAMPROOFING
072100.B4	-2" RIGID INSULATION
072500.E	-BUILDING WRAP
074141 3.L3	-METAL DOWNSPOUT, 5X5
074213.A	-METAL WALL PANEL
074213.D	-METAL CLOSURE TRIM
074213.F	-2" METAL Z-FURRING CHANNEL, 16" O.C.
079200.A	-SEALANT
079200.C	-COMPRESSIBLE SEALER W/ADHESIVE
079200.D	-BACKER ROD & SEALANT
081213.A	-HOLLOW METAL FRAME (FIRE-RATED)
081213.C	-GROUT SOLID
081416.A1	-SOLID CORE WOOD DOOR, FLUSH, (FIRE RATED)
084213.A	-STOREFRONT FRAMING, THERMALLY BROKEN
084213.F	-ALUMINUM STILE & RAIL DOOR
084213.J	-ALUMINUM RETROFIT FRAME
084413.B	-ALUMINUM CURTAIN WALL FRAMING
084413.H	-ALUMINUM STILE AND RAIL DOOR
084523.A	-FIBERGLASS-SANDWICH PANEL ASSEMBLY
084523.D	-METAL SUB-FRAME
087100.F	-CONTINUOUS ALUMINUM HINGE
088000.BI	-1" INSULATING GLASS-LOW E
089119.A	-FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
089119.K	-METAL SILL PAN
099123.A1	-PAINTED FINISH, INTERIOR SYSTEM

GENERAL NOTES

EXISTING 2-HOUR FIRE PARTITION

NEW 2-HOUR FIRE WALL

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS — REGISTERED ARCHITECT — 5922 — 6/19/2024 — GREENVILLE, N. CAROLINA

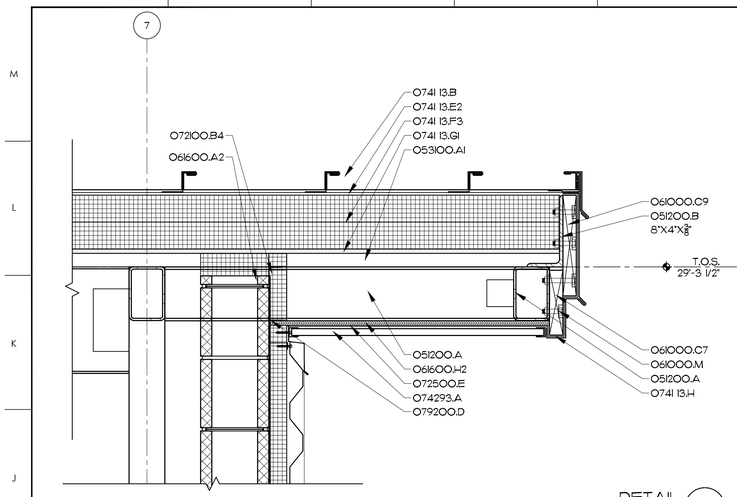
JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

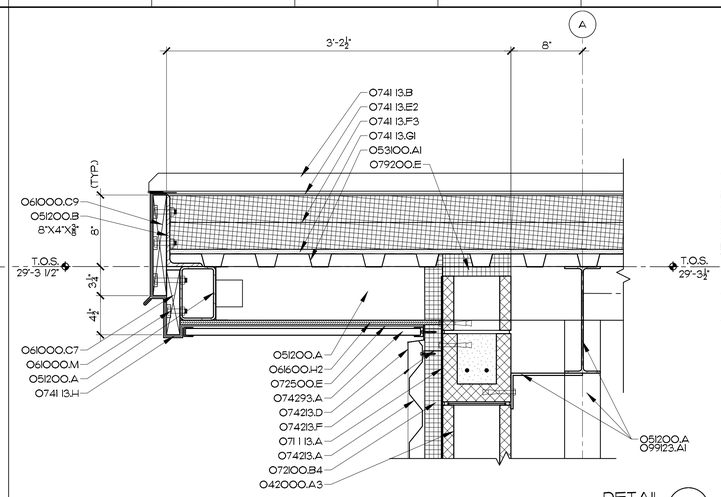
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: EXTERIOR DETAILS

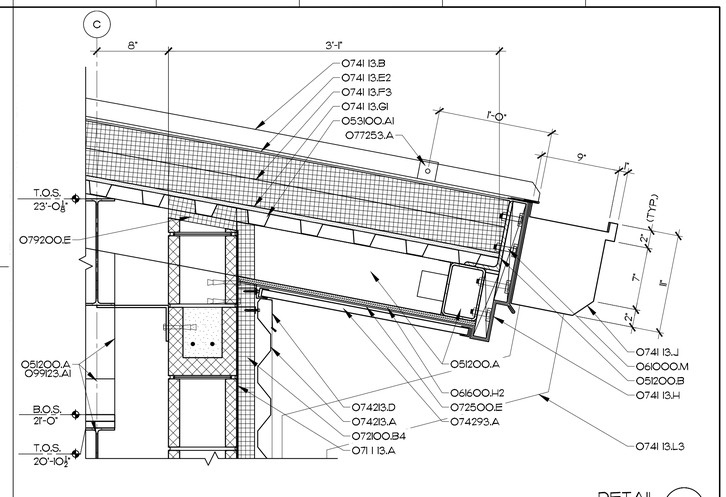
SCALE	1 1/2" =1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A6.1



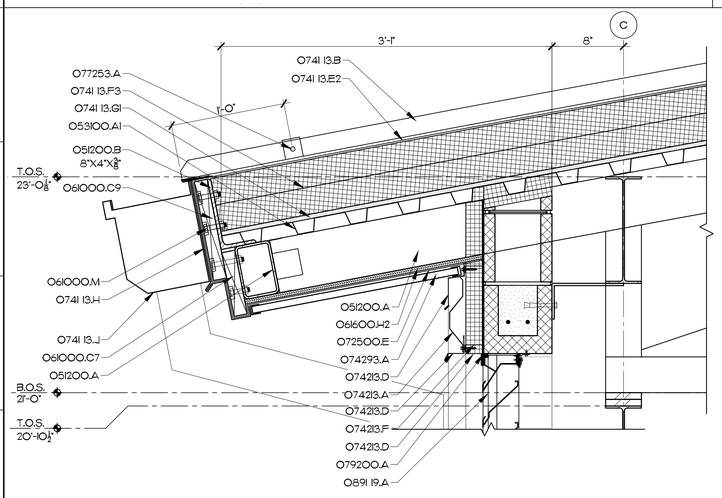
DETAIL J5 — 1 1/2" = 1'-0"



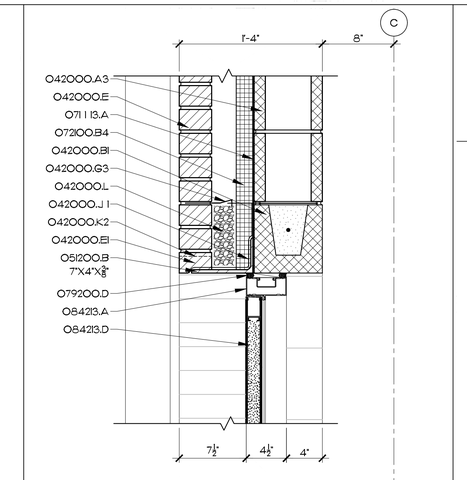
DETAIL J10 — 1 1/2" = 1'-0"



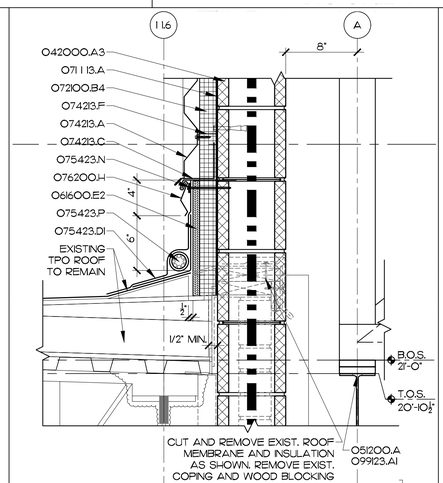
DETAIL J15 — 1 1/2" = 1'-0"



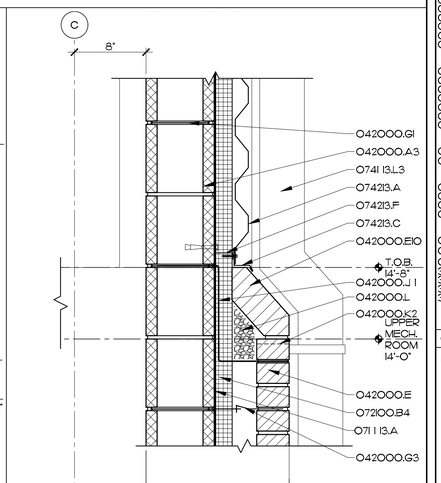
DETAIL E6 — 1 1/2" = 1'-0"



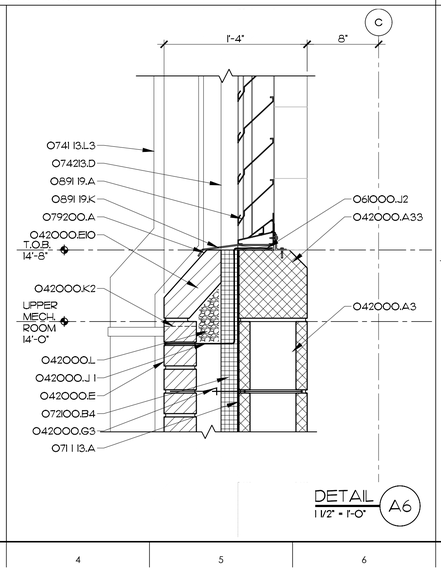
DETAIL E9 — 1 1/2" = 1'-0"



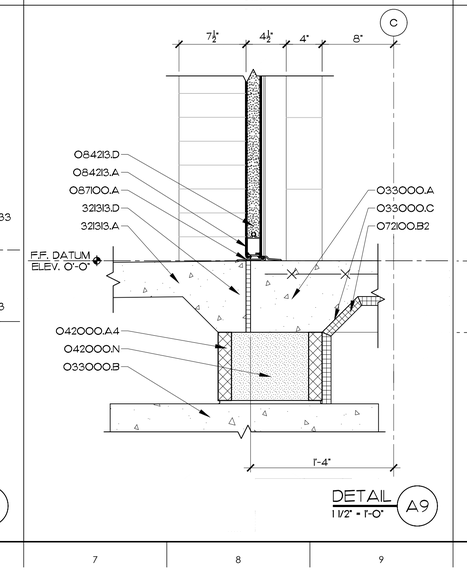
DETAIL E12 — 1 1/2" = 1'-0"



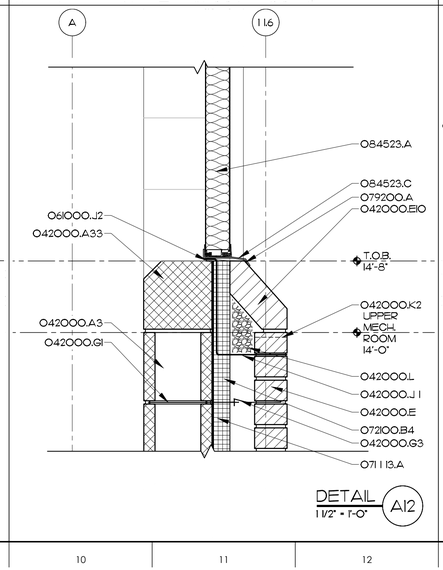
DETAIL E15 — 1 1/2" = 1'-0"



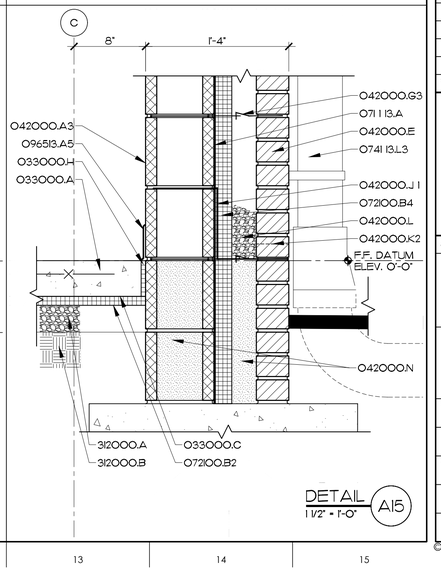
DETAIL A6 — 1 1/2" = 1'-0"



DETAIL A9 — 1 1/2" = 1'-0"



DETAIL A12 — 1 1/2" = 1'-0"



DETAIL A15 — 1 1/2" = 1'-0"

MATERIALS KEYING LEGEND

033000.A	-CONCRETE SLAB ON GRADE, SEE STRUCTURAL
033000.B	-CONCRETE FOOTING, SEE STRUCTURAL
033000.C	-VAPOR BARRIER
033000.H	-COMPRESSIBLE FILL
042000.A3	-CONCRETE MASONRY UNIT, 8"
042000.A33	-CONCRETE MASONRY UNIT 8" SOLID BEVELED
042000.A4	-CONCRETE MASONRY UNIT, 12"
042000.BI	-CONCRETE MASONRY, BOND BEAM, 8"
042000.E	-FACE BRICK
042000.EI	-FACE BRICK, SHELF BRICK
042000.EIO	-FACE BRICK, SOLDIER COURSE SILL, SPECIAL SHAPE
042000.GI	-HORIZONTAL JOINT REINFORCING AT 16" O.C. VERT.
042000.G3	-HORIZONTAL JOINT REINF. AT 16" VERT. & BRICK TIE EYES AT 24" O.C. HORIZ.
042000.J1	-THRU-WALL FABRIC FLASHING
042000.K2	-WEEP SLOTS AT 16" O.C.
042000.L	-CAVITY DRAINAGE MATERIAL
042000.N	-GROUT, SOLID
051200.A	-STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
051200.B	-STEEL ANGLE, SIZE AS INDICATED
053100.AI	-ROOF DECK, 1-1/2"
054000.FI	-COLD FORMED METAL FRAMING, 6" STUD AT 16" O.C.
061000.C7	-TREATED 2X8
061000.C9	-TREATED 2X12
061000.J2	-WOOD BLOCKING, PRESSURE TREATED
061000.M	-1/2" DIA. BOLT COUNTERSUNK AT 16" O.C., STAGGERED
061600.E2	-PLYWOOD ROOF SHEATHING, 3/4" T&G
061600.A2	-PLYWOOD SHEATHING, 1/2" THICK
061600.H2	-1/2" TREATED PLYWOOD
071113.A	-BITUMINOUS DAMPROOFING
072100.B2	-1" RIGID INSULATION
072100.B4	-2" RIGID INSULATION
072500.E	-BUILDING WRAP
071413.B	-METAL ROOF, STANDING SEAM PANEL
071413.H	-METAL FASCIA
071413.E2	-SELF ADHERING SHEET
071413.F3	-RIGID INSULATION, 6" THICK
071413.GI	-GLASS-MAT GYP. SHEATHING, 1/2" THICK
071413.J	-METAL GUTTER
071413.L3	-METAL DOWNSPOUT, 5X5
074293.A	-METAL WALL PANEL
074213.C	-METAL SILL FLASHING
074213.D	-METAL CLOSURE TRIM
074213.F	-2" METAL FURRING CHANNEL, 16" O.C.
074293.A	-METAL SOFFIT PANEL
075423.DI	-TPO MEMBRANE COUNTER FLASHING
075423.N	-METAL TERMINATION BAR, FASTEN 12" O.C.
075423.P	-COMPRESSIBLE TUBE
076200.H	-2-PIECE METAL COUNTERFLASH
077253.A	-SNOW GUARD
079200.A	-SEALANT
079200.D	-BACKER ROD & SEALANT
079200.E	-COMPRESSIVE FILL
084213.A	-STOREFRONT FRAMING, THERMALLY BROKEN
084213.D	-ALUMINUM FRP DOOR
084523.A	-FIBERGLASS-SANDWICH PANEL ASSEMBLY
084523.C	-METAL SILL PAN
084523.D	-METAL SUB-FRAME
087100.A	-THERMAL BREAK THRESHOLD
089119.A	-FIXED, EXTRUDED-ALUMINUM LOUVER (SEE MECHANICAL)
089119.K	-METAL SILL PAN
096513.A5	-4" RESILIENT TOP SET BASE
099123.AI	-PAINT FINISH, INTERIOR SYSTEM
312000.A	-PROPOSED FILL
312000.B	-COMPACTED FILL
321313.A	-CONCRETE SIDEWALK, 4" THICK
321313.D	-COMPRESSIBLE FILL

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE. #CMDI 143834

EXISTING 2-HOUR FIRE PARTITION

NEW 2-HOUR FIRE WALL

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS — REGISTERED ARCHITECT — 5922 — 6/19/2024 — GREENVILLE, N.C.

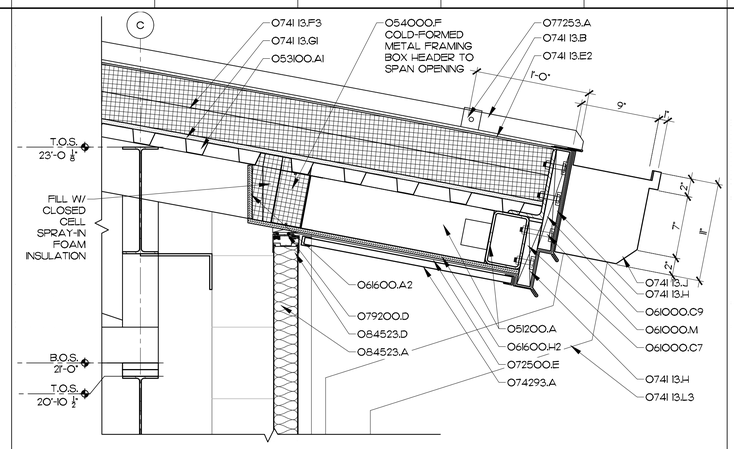
JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

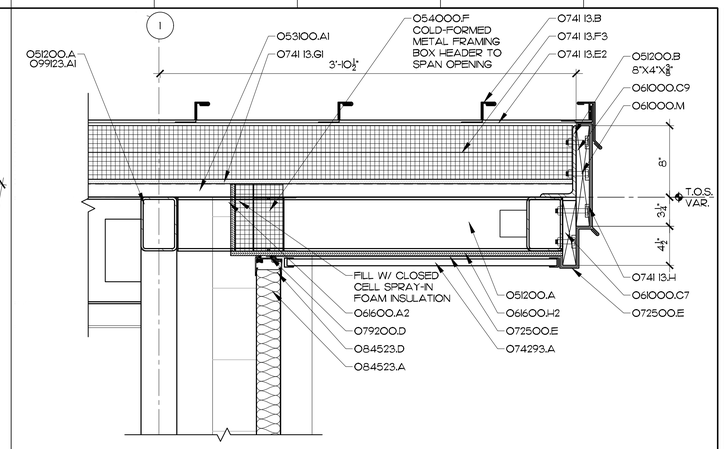
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: EXTERIOR DETAILS

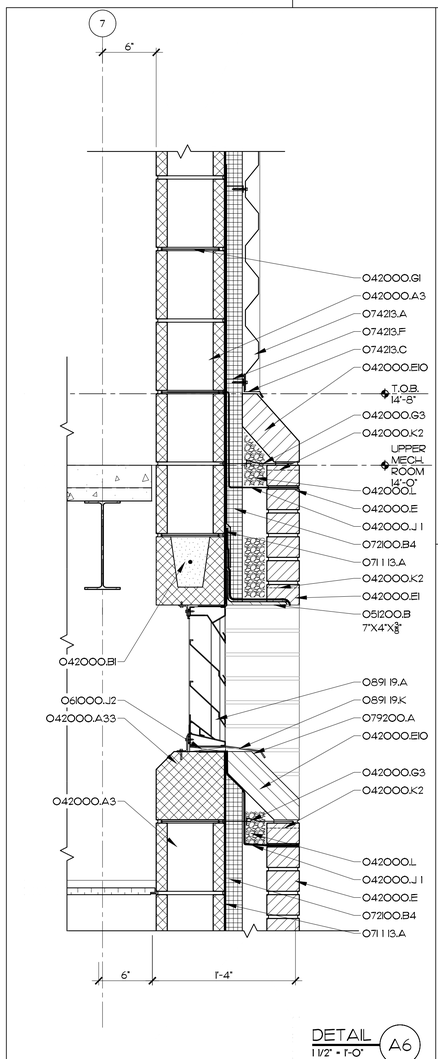
SCALE	1 1/2" = 1'-0"
DRAWN	JRH
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A6.2



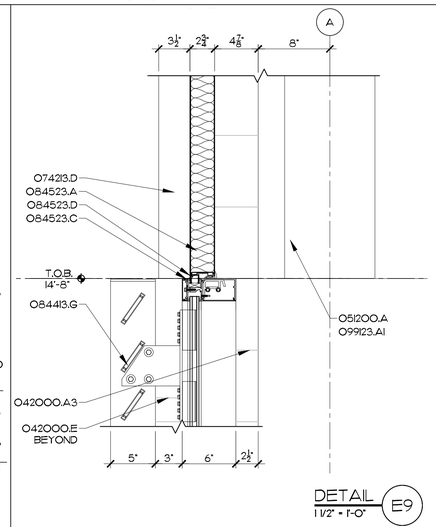
DETAIL J10
1 1/2" = 1'-0"



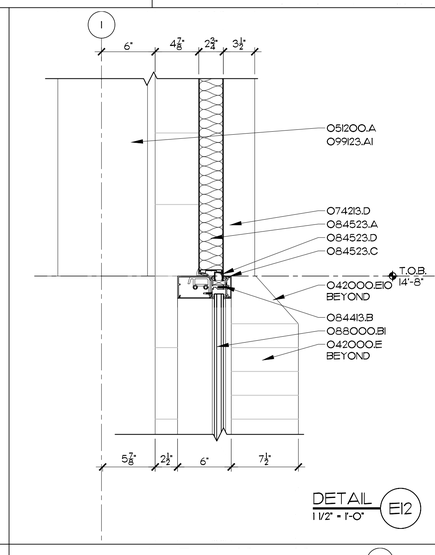
DETAIL J15
1 1/2" = 1'-0"



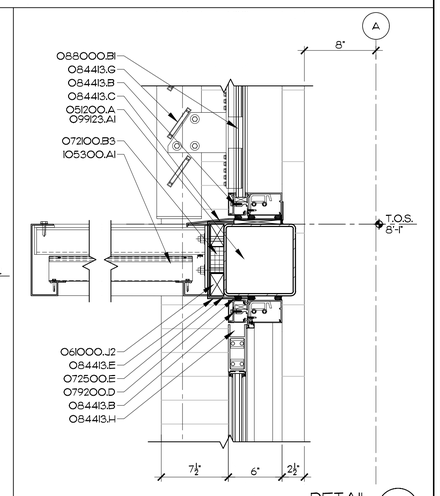
DETAIL A6
1 1/2" = 1'-0"



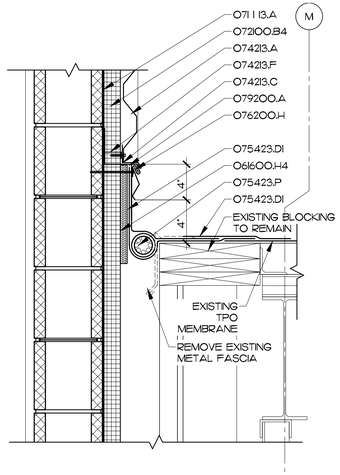
DETAIL E9
1 1/2" = 1'-0"



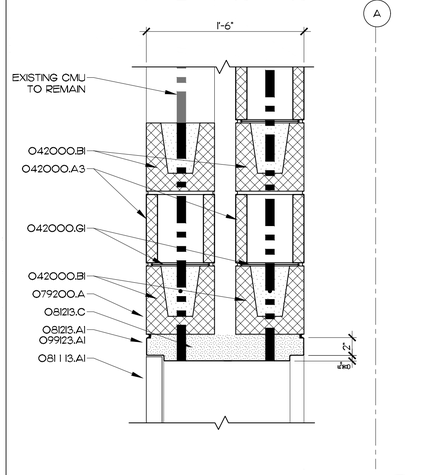
DETAIL E12
1 1/2" = 1'-0"



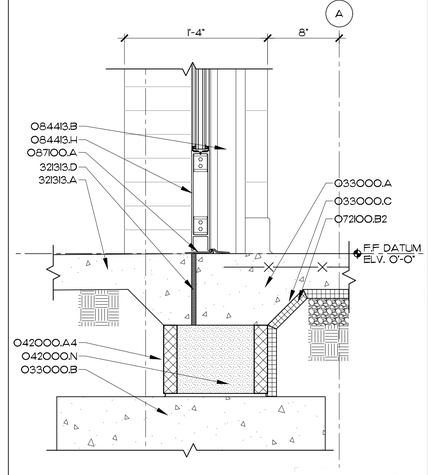
DETAIL E15
1 1/2" = 1'-0"



DETAIL A9
1 1/2" = 1'-0"



DETAIL A12
1 1/2" = 1'-0"



DETAIL A15
1 1/2" = 1'-0"

MATERIALS KEYING LEGEND

033000.A	-CONCRETE SLAB ON GRADE, SEE STRUCTURAL
033000.B	-CONCRETE FOOTING, SEE STRUCTURAL
033000.C	-VAPOR BARRIER
042000.A3	-CONCRETE MASONRY UNIT, 8"
042000.A33	-CONCRETE MASONRY UNIT 8" SOLID BEVELED
042000.A4	-CONCRETE MASONRY UNIT, 12"
042000.BI	-CONCRETE MASONRY, BOND BEAM, 8"
042000.E	-FACE BRICK
042000.EI	-FACE BRICK, SHELF BRICK
042000.EIO	-FACE BRICK, SOLDIER COURSE SILL, SPECIAL SHAPE
042000.GI	-HORIZONTAL JOINT REINFORCING AT 16" O.C. VERT.
042000.G3	-HORIZONTAL JOINT REINF. AT 16" VERT. & BRICK TIE EYES AT 24" O.C. HORIZ.
042000.J11	-THRU-WALL FABRIC FLASHING
042000.K2	-WEEP SLOTS AT 16" O.C.
042000.L	-CAVITY DRAINAGE MATERIAL
042000.N	-GROUT SOLID
051200.A	-STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
051200.B	-STEEL ANGLE, SIZE AS INDICATED
053100.AI	-ROOF DECK, 1-1/2"
054000.F	-COLD FORMED METAL FRAMING, 6" STUD
061000.J2	-WOOD BLOCKING, PRESSURE TREATED
061000.C7	-TREATED 2X8
061000.C9	-TREATED 2X12
061000.J2	-WOOD BLOCKING, PRESSURE TREATED
061000.M	-1/2" DIA. BOLT COUNTERSUNK AT 16" O.C., STAGGERED
061600.A2	-PLYWOOD SHEATHING, 1/2" THICK
061600.H2	-1/2" TREATED PLYWOOD
061600.H4	-3/4" TREATED PLYWOOD
071113.A	-BITUMINOUS DAMPROOFING
072100.B3	-1 1/2" RIGID INSULATION
072100.B4	-2" RIGID INSULATION
072500.E	-BUILDING WRAP
074113.B	-METAL ROOF STANDING SEAM PANEL
074113.E2	-SELF ADHERING SHEET
074113.F3	-RIGID INSULATION, 6" THICK
074113.GI	-GLASS-MAT GYP. SHEATHING, 1/2" THICK
074113.H	-METAL FASCIA
074113.J	-METAL GUTTER
074113.L3	-METAL DOWNSPOUT, 5X5
074213.A	-METAL WALL PANEL
074213.C	-METAL SILL FLASHING
074213.D	-METAL CLOSURE TRIM
074213.F	-2" METAL Z-FURRING CHANNEL, 16" O.C.
074293.A	-METAL SOFFIT PANEL
075423.DI	-TPO MEMBRANE COUNTER FLASHING
075423.P	-COMPRESSIBLE TUBE
076200.H	-2-PIECE METAL COUNTERFLASH
077253.A	-SNOW GUARD
079200.A	-SEALANT
079200.D	-BACKER ROD & SEALANT
081113.AI	-HOLLOW METAL DOOR (FIRE-RATED)
081213.AI	-HOLLOW METAL FRAME (FIRE-RATED)
081213.C	-GROUT SOLID
084413.B	-ALUMINUM CURTAIN WALL FRAMING
084413.G	-METAL SILL PAN
084413.E	-METAL TRIM
084413.G	-HORIZONTAL SUNSHADE SYSTEM
084413.H	-ALUMINUM STILE AND RAIL DOOR
084523.A	-FIBERGLASS-SANDWICH PANEL ASSEMBLY
084523.C	-METAL SILL PAN
084523.D	-METAL SUB-FRAME
087100.A	-THERMAL BREAK THRESHOLD
088000.BI	-1" INSULATING GLASS-LOW E
089119.A	-FIXED, EXTRUDED ALUMINUM LOUVER (SEE MECHANICAL)
099123.AI	-PAINT FINISH, INTERIOR SYSTEM
321313.A	-CONCRETE SIDEWALK, 4" THICK
321313.D	-COMPRESSIBLE FILL
105300.AI	-ALUMINUM CANOPY ASSEMBLY, CANTILEVERED

GENERAL NOTES

1. EXISTING TPO ROOF WARRANTED BY CARLISLE. #CMDI 143834

EXISTING 2-HOUR FIRE PARTITION

NEW 2-HOUR FIRE WALL

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT 5522 GREENVILLE, N.C. 5/14/2024

JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE

EXTERIOR DETAILS

SCALE	1 1/2" = 1'-0"
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06
DRAWING NO	A6.3

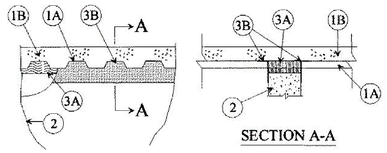
System No. HW-D-0026

May 16, 2008

Assembly Rating — 1, 2, 3 and 4 Hr (See Item 2)

Nominal Joint Width — 3/4 In.

Class II Movement Capabilities — 33% Compression or Extension



SECTION A-A

1. **Floor Assembly —** The fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the floor assembly shall be equal to or greater than the hourly rating of the wall assembly and shall include the following construction features:
A. **Steel Floor and Form Units*** — Max 3 in. (76 mm) deep galv steel fluted units.
B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. **Roof Assembly —** (Not Shown)—As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly and shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.
B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.
C. **Roof Covering*** — Hot-mopped or cold-application materials compatible with insulating concrete.

2. **Wall Assembly —** Min 4-7/8, 6-1/8, 7-3/8 and 8-5/8 in. (124, 156, 187 and 219 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) structural concrete for 1, 2, 3 and 4 hr rated assemblies, respectively. Wall may also be constructed of any UL Classified **Concrete Blocks***.
See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. **Joint System — Max separation between bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width.** The joint system consists of a forming material and a fill material as follows:
A. **Forming Material*** — Min 4-7/8 in. (124 mm) thickness of min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut to the shape of the fluted deck, approx 25 percent larger than the area of the flutes with additional min 4-7/8 in. (124 mm) thick by 1 in. (25 mm) high sections at the bottom of the shapes to completely fill the 3/4 in. (19 mm) gap between the top of the wall and bottom of the steel floor units. Mineral wool to be compressed and firmly packed into the flutes and the gap between the top of the wall and bottom of the steel floor units, flush with both sides of wall.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
ROCK WOOL MANUFACTURING CO — Delta Board
ROCKWOOL — Safe
THERMAFIBER INC — Type SAF
B. **Fill, Void or Cavity Material*** — Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material sprayed or brushed on each side of the wall in the flutes of the steel floor units and between the top of the wallboard and the bottom of the steel floor units to completely cover mineral wool and to overlap a min of 1 in. (25 mm) onto wall and steel deck on both sides of wall.
PASSIVE FIRE PROTECTION PARTNERS — 3500SI, 5100SP

Fire Resistance Ratings – ANSI/UL 904

Design No. **U904**

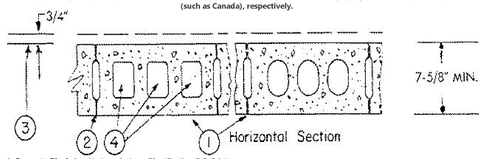
April 14, 2023

Bearing Wall Rating — 3 HR.

Nonbearing Wall Rating — 3 HR.

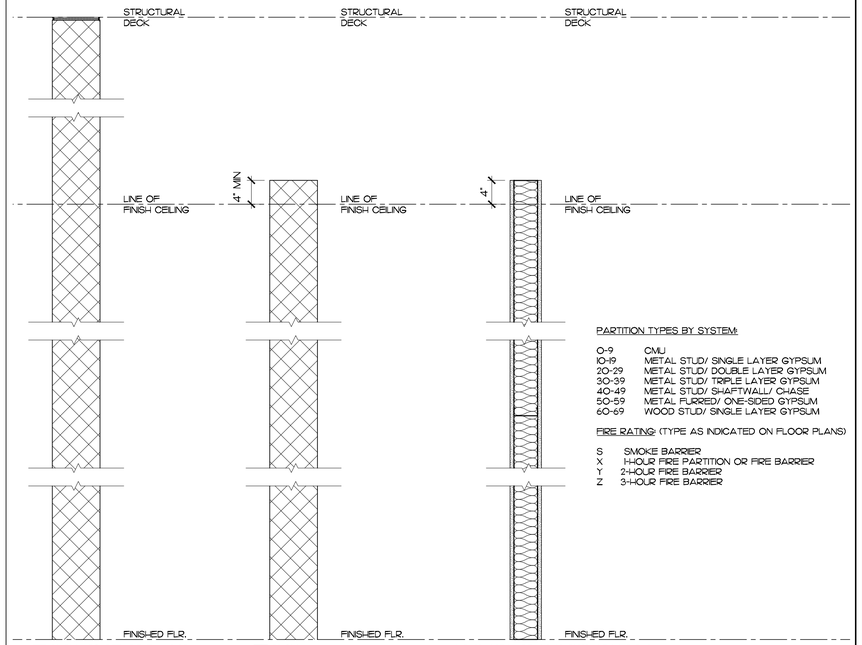
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Concrete Blocks*** — Various designs. Classification C-3 (3 hr).
See **Concrete Blocks** category for list of eligible manufacturers.
2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to Classification if used. Attached to concrete bolcks (Item 1).
4. **Loose Masonry Fill —** If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 1 hr to Classification.
5. **Foamed Plastic*** — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP — EnergyShield Pro Wall Insulation, EnergyShield Pro 2 Wall Insulation, EnergyShield CGF Pro, EnergyShield Ply Pro, EnergyShield® CGF, EnergyShield® PanelCast, EnergyShield® and "EnergyShield® XR
DUPONT DE NEMOURS, INC. — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board
FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci-Class A", "Xci 286", "Xci Foil (Class A)".
RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath"
JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"
5A. **Building Units*** — As an alternate to Item 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.
ATLAS ROOFING CORP — EnergyShield® Ply
RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply"
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

UL DETAILS G9
N.T.S.



MATERIALS KEYING LEGEND

042000.A3	- CONCRETE MASONRY UNIT, 8"
051200.A	- STRUCTURAL STEEL, SEE STRUCTURAL DRAWINGS
0641 16.B	- PLASTIC LAMINATE, 3/4" THICK
078413.A	- PENETRATION FIRE STOPPING
079200.E	- COMPRESSIVE FILL
0811 13.A1	- HOLLOW METAL DOOR (FIRE-RATED)
081213.A1	- HOLLOW METAL FRAME (FIRE-RATED)
081213.C	- GROUT SOLID
099123.A1	- PAINTED FINISH, INTERIOR SYSTEM
102800.H	- MIRROR UNIT, 18X32 (MOUNT 40" MAX TO REFLECTING SURFACE)
123661.A	- SIMULATED STONE COUNTERTOP
123661.C	- SIMULATED STONE BACKSPLASH
260000.B	- INTERIOR LIGHT FIXTURE

GENERAL NOTES

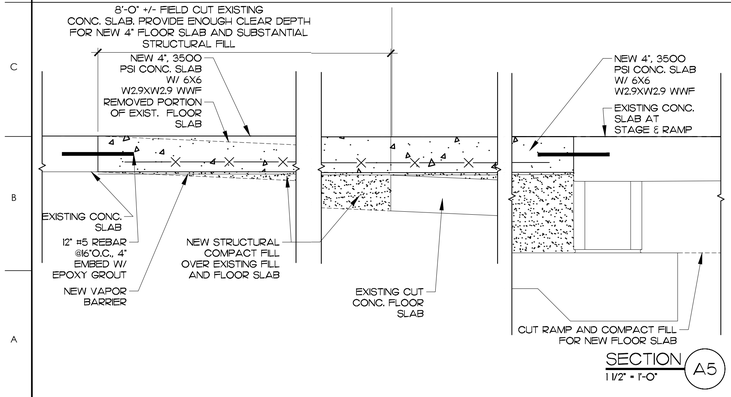
1. SEE FIRE PROTECTION, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL PIPE, DUCT, ETC. THROUGH - PENETRATION FIRESTOP SYSTEMS. ALL PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH THOSE DETAILS.
2. PROVIDE CEMENTIOUS TILE BACKING PANEL IN LIEU OF GYPSUM BOARD WHERE CERAMIC WALL TILE IS SCHEDULED.
3. PROVIDE MOISTURE-RESISTANT GYPSUM BOARD IN ALL TOILET ROOMS, JANITORS CLOSETS, MECHANICAL ROOMS & WET AREAS IN LIEU OF GYPSUM BOARD INDICATED IN PARTITION TYPES.

EXISTING 2-HOUR FIRE PARTITION
NEW 2-HOUR FIRE WALL

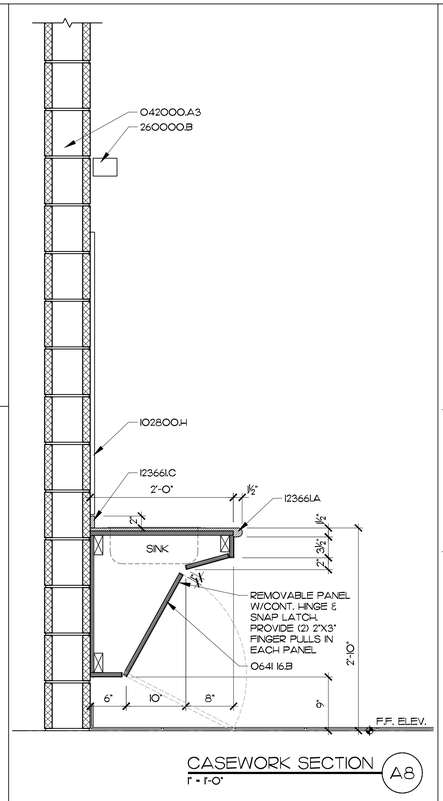
KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

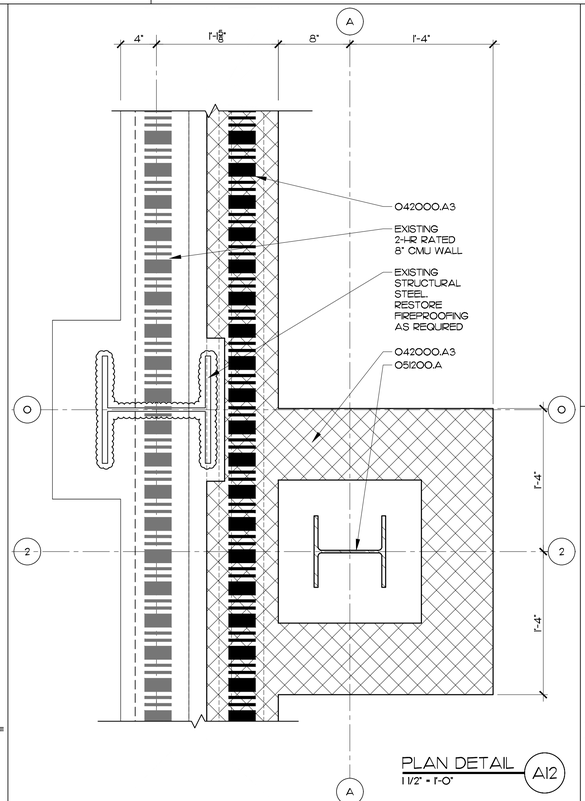
NO	REVISION	DATE



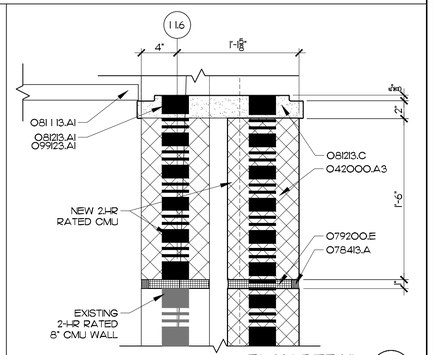
SECTION A5
1 1/2" = 1'-0"



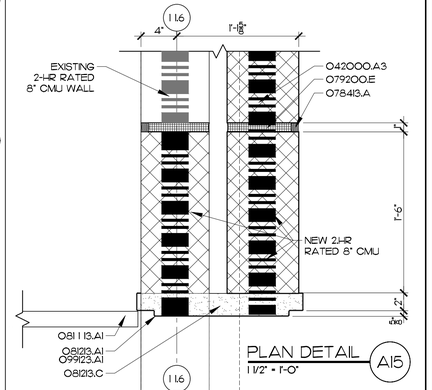
CASEWORK SECTION A8
1" = 1'-0"



PLAN DETAIL A12
1 1/2" = 1'-0"



PLAN DETAIL D15
1 1/2" = 1'-0"



PLAN DETAIL A15
1 1/2" = 1'-0"

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT GREENVILLE, N.C. 6/14/2024 5922

JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
PARTITION TYPES, INTERIOR DETAILS

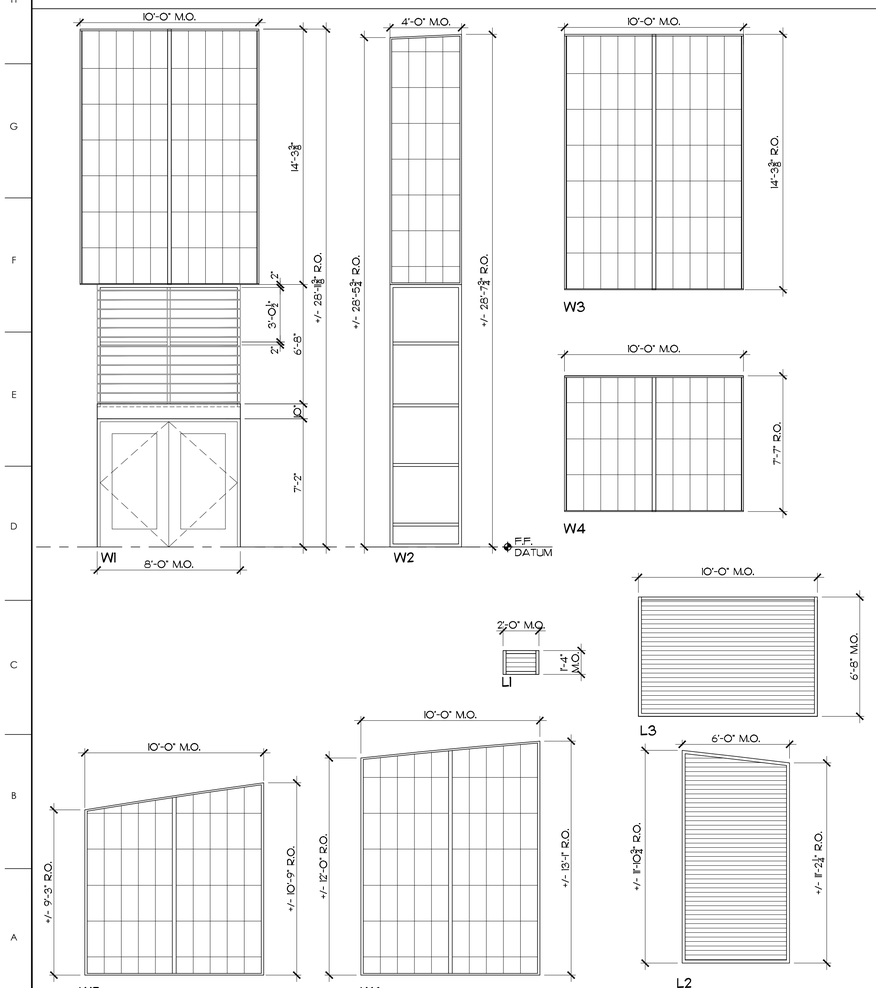
SCALE	AS NOTED
DRAWN	MCZ
CHECKED	JKF
DATE	5-20-2024
PROJECT NO.	2024-06

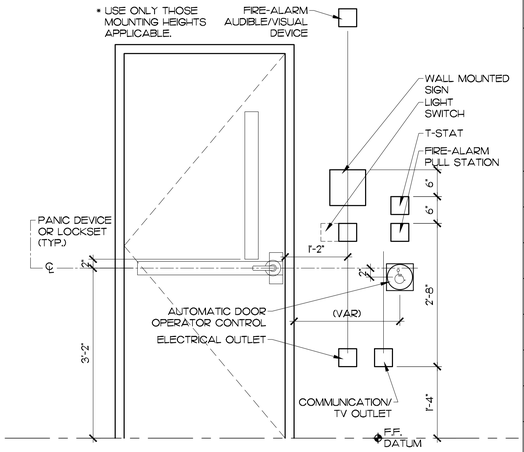
DRAWING NO A7.1

WINDOW & LOUVER SCHEDULE

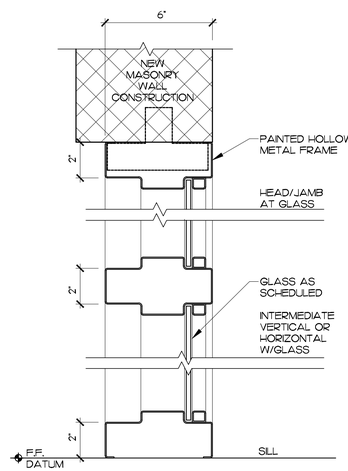
WINDOW GROUP NO.	WINDOW UNIT SIZE (W X H)	WINDOW TYPE	MATERIAL	FINISH	FRAME ELEVATION	UNIT THICKNESS	DETAILS J	DETAILS H	DETAILS S	GLASS	FIRE RATING (HRS)	REMARKS
WI	10'-0" X +/-28'-11 3/8"	ALUMINUM FIXED / TRANS. FIBERGLASS PANELS	AL / TFWP	AN	WI	4-1/2"	E15 A6.1	A4 A3.2	A4 A3.2	T LOW-E TEMP.	-	TRANSLUCENT FIBERGLASS-SANDWICH WALL PANEL (TFWP)
W2	4'-0" X VARIES	ALUMINUM FIXED / TRANS. FIBERGLASS PANELS	AL / TFWP	AN	W2	4-1/2"	SIM. TO E15 A6.1	A7 A3.2	A7 A3.2	T LOW-E TEMP.	-	TRANSLUCENT FIBERGLASS-SANDWICH WALL PANEL (TFWP)
W3	10'-0" X +/-14'-3 3/8"	TRANSLUCENT FIBERGLASS PANELS	AL TFWP	-	W3	2-3/4"	A1 1 A6.1	J 15 A6.2	A12 A6.2	- -	-	TRANSLUCENT FIBERGLASS-SANDWICH WALL PANEL (TFWP)
W4	10'-0" X 7'-7"	TRANSLUCENT FIBERGLASS PANELS	AL TFWP	-	W4	2-3/4"	A1 1 A6.1	J 10 A6.3	A12 A6.2	- -	-	TRANSLUCENT FIBERGLASS-SANDWICH WALL PANEL (TFWP)
W5	10'-0" X VARIES*	TRANSLUCENT FIBERGLASS PANELS	AL TFWP	-	W5	2-3/4"	A4 A6.1	J 15 A6.1	A12 A6.1	- -	-	TRANSLUCENT FIBERGLASS-SANDWICH WALL PANEL (TFWP)
W6	10'-0" X VARIES*	TRANSLUCENT FIBERGLASS PANELS	AL TFWP	-	W6	2-3/4"	A1 1 A6.1	J 15 A6.1	A12 A6.1	- -	-	TRANSLUCENT FIBERGLASS-SANDWICH WALL PANEL (TFWP)
LI	24" X 16"	FIXED	AL	AN	LI	4"	E15 A6.2	E15 A6.2	A6 A6.2	- -	-	
L2	6'-0" X VARIES*	FIXED	AL	AN	L2	4"	E6 A6.2	E6 A6.2	A6 A6.2	- -	-	
L3	10'-0" X 6'-8"	FIXED	AL	AN	L3	4"	E6 A6.2	E6 A6.2	A6 A6.2	- -	-	

WINDOW TYPES

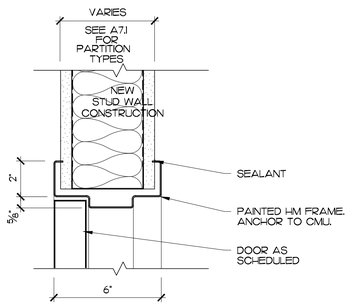




TYP. MOUNTING HEIGHT JIO
3/4" = 1'-0"



DETAIL E10
3/4" = 1'-0"

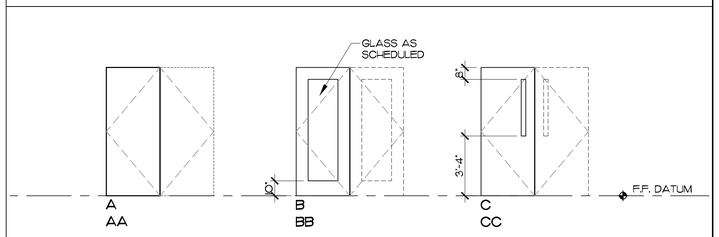


DETAIL A10
3" = 1'-0"

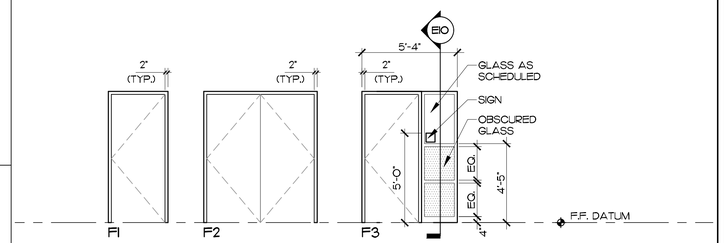
DOOR SCHEDULE

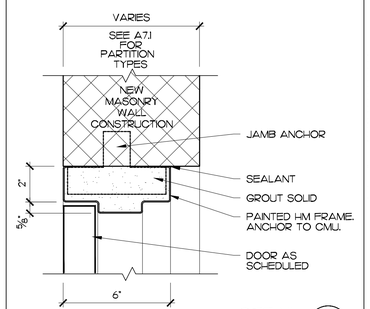
DOOR GROUP NO.	DOOR OPENING SIZE (W X H)	DOOR TYPE	DOOR THICKNESS (1-3/4" U.N.O.)	DOOR MATERIAL	DOOR FINISH	FRAME ELEVATION	FRAME MATERIAL	FRAME FINISH	FRAME DETAILS J	FRAME DETAILS H	FRAME DETAILS S	GLASS	FIRE RATING (HRS)	REMARKS
1	(2) 3'-9" X 7'-2"	BB	1-3/4"	AL	AN	WI	AL	AN	E15 A6.1	E15 A6.3	E15 A6.3	T LOW-E TEMP.	-	-
2	(2) 3'-0" X 7'-2"	AA	1-3/4"	AL	FRP	F2	AL	AN	A15	E9 A6.2	A9 A6.2	-	-	-
3	+/- (2) 3'-0" X 7'-2"	BB	1-3/4"	AL	AN	F2	AL	AN	E1 1 A6.1	- -	- -	T LOW-E TEMP.	-	NEW ALUM. DOOR IN EXIST. HM FRAME W/ NEW ALUM. RETROFIT FRAME
4	(2) 3'-0" X 7'-2"	CC	1-3/4"	SWC	TF	F2	HM	P	A15 A7.1	A12 A6.3	- -	5/16" FIRE RATED TEMP.	90M	-
5	3'-0" X 7'-2"	A	1-3/4"	SWC	TF	F1	HM	P	A13	A13	- -	-	-	-
6	3'-0" X 7'-2"	A	1-3/4"	SWC	TF	F3	HM	P	E10	E10	- -	5/16" FIRE RATED TEMP.	20M	-
7	(2) 3'-0" X 7'-2"	AA	1-3/4"	SWC	TF	F2	HM	P	A13	A13	- -	-	-	-
8	(2) 2'-8" X 7'-2"	AA	1-3/4"	SWC	TF	F2	HM	P	A13	A13	- -	-	-	-
9	(2) 3'-0" X 7'-2"	AA	1-3/4"	SWC	TF	F2	HM	P	A10	A10	- -	-	-	-

DOOR TYPES

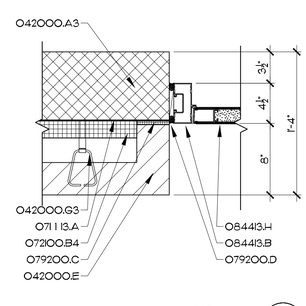


FRAME TYPES





DETAIL A13
3" = 1'-0"



DETAIL A15
1 1/2" = 1'-0"

MATERIALS KEYING LEGEND

042000.A3 - CONCRETE MASONRY UNIT, 8"
042000.E - FACE BRICK
042000.G3 - HORIZONTAL JOINT REINF. AT 16" VERT. 24" O.C. HORIZ.
071 13.A - BITUMINOUS DAMPROOFING
072100.B4 - 2" RIGID INSULATION
079200.C - COMPRESSIBLE SEALER W/ADHESIVE
079200.D - BACKER ROD & SEALANT
084413.B - ALUMINUM CURTAIN WALL FRAMING
084413.H - ALUMINUM STILE AND RAIL DOOR

GENERAL NOTES

KEY PLAN

SCO ID NO.17-16813-01C: NCCCS NO.2163

NO	REVISION	DATE

SEAL

JOHN K. FARKAS REGISTERED ARCHITECT 5422 GREENVILLE, N.C. 6/19/2024

JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
WINDOW & DOOR SCHEDULES & DETAILS

SCALE	DRAWING NO
AS NOTED	A8.1
DRAWN: MCZ	
CHECKED: JKF	
DATE: 5-20-2024	
PROJECT NO.: 2024-06	

GENERAL STRUCTURAL NOTES:

1. GENERAL NOTES

1.1. METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

1.2. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS OR OPENINGS NOT HEREIN INDICATED.

1.3. COORDINATE THESE DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS.

1.4. VERIFY ALL FLOOR AND ROOF OPENING SIZES AND LOCATIONS, EQUIPMENT PAD SIZES AND LOCATIONS, ANCHOR BOLT LAYOUTS, ETCETERA, WITH EQUIPMENT SELECTED.

1.5. VERIFY BUILDING LOCATION AND ORIENTATION WITH OWNER AND LOT SETBACK REQUIREMENTS BEFORE ANY CONSTRUCTION IS STARTED ON THE PROJECT.

1.6. CONTRACTOR SHALL VERIFY ALL EXISTING CONSTRUCTION DIMENSIONS WHICH IMPACT NEW CONSTRUCTION PRIOR TO FABRICATING ANY REBAR, STEEL, TRUSSES, ETCETERA.

1.7. DO NOT CUT, NOTCH, OR OTHERWISE MODIFY ANY STRUCTURAL MEMBERS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER OF RECORD.

1.8. CUTTING OF STEEL MEMBERS AND INSTALLATION OF HOLES IN STEEL MEMBERS SHALL BE DONE BY CUTTING OR DRILLING. DO NOT USE TORCHES FOR CUTTING UNLESS APPROVED BY THE ENGINEER OF RECORD.

1.9. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND INSTALLATION OF ALL SHORING REQUIRED TO SUPPORT NEW AND EXISTING STRUCTURAL ELEMENTS.

2. FOUNDATION

2.1. ALL FOOTINGS SHALL BE ON UNDISTURBED SOIL OR 98% COMPACTED FILL PER ASTM D698.

2.2. NO FOOTINGS OR SLABS SHALL BE POURED INTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, ICE OR LOOSE MATERIAL.

2.3. EXCAVATIONS FOR FOOTINGS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 6 MIL. POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HRS OF THE EXCAVATION OF THE FOOTING.

2.4. ADVERSE FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION SUCH AS SOFT SOILS, ORGANIC MATTER, ETCETERA, SHALL BE REPORTED TO THE ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

2.5. IF UNDERMINING OF FOOTINGS OCCURS, FILL VOIDS WITH LEAN CONCRETE MIX. DO NOT ATTEMPT TO REPLACE AND RECOMPACT SOIL.

3. REINFORCED CONCRETE MASONRY

3.1. LOAD-BEARING MASONRY PIERS OR WALLS, FOUNDATION WALLS, AND ANY OTHER MASONRY SO DESIGNATED ON THE DRAWINGS, ARE CONSIDERED TO BE STRUCTURAL MASONRY.

3.2. COMPRESSIVE STRENGTH OF MASONRY UNITS:
SOLID CLAY UNITS _____ 8250 PSI
CONCRETE UNITS _____ 1900 PSI ON NET AREA
MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY (Fm) IS 1,900 PSI.

3.3. MORTAR SHALL BE TYPE 'S' ASTM C270.

3.4. GROUT FOR REINFORCED MASONRY SHALL BE FINE GROUT ASTM C476. MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 3000 PSI. MAXIMUM HEIGHT TO WHICH MASONRY SHALL BE LAID BEFORE FILLING IS 6'-0". PROVIDE CLEANOUT OPENINGS AT THE BOTTOM OF EACH GROUT LIFT. CLEANOUT OPENINGS SHALL BE PROVIDED AT EACH CELL TO BE FILLED WITH GROUT.

3.5. REINFORCING GRADE AND DETAILS FOR MASONRY, SHALL BE AS THAT FOR CONCRETE. TIE IN REBAR IN POSITION, AND PLACE CONCRETE AROUND REINFORCING DURING CONSTRUCTION OF MASONRY. DO NOT PUSH REINFORCING DOWN INTO PREVIOUSLY PLACED GROUT FILL. SET BOLTS SIMILARLY. TIE WYTHES WITH HORIZONTAL REINFORCING AS SPECIFIED.

3.6. ALL CELLS BELOW GRADE SHALL BE FULLY GROUTED WITH MASONRY GROUT.

3.7. PROVIDE HORIZONTAL JOINT REINFORCING AT 16" O.C. UNLESS OTHERWISE NOTED.

3.8. PLACE ALL VERTICAL REINFORCING BARS IN CENTERS OF BLOCK CELLS UNLESS OTHERWISE NOTED.

3.9. FILL ALL CELLS, AT VERTICAL REINFORCING, FULL HEIGHT WITH MASONRY GROUT.

3.10. CONTRACTOR SHALL COORDINATE LOCATION OF ALL OPENINGS IN MASONRY. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.

3.11. ALL MASONRY WORK PERFORMED, SHALL BE IN ACCORDANCE WITH ACI/ASCE 530. MASONRY CONSTRUCTION AND MATERIALS USED, SHALL CONFORM TO ALL REQUIREMENTS OF THESE CONTRACT DOCUMENTS.

3.12. UNLESS OTHERWISE SHOWN, MASONRY WALLS SHALL HAVE VERTICAL CONTROL JOINTS AT A MAXIMUM SPACING OF 40'-0" ON CENTER FOR BRICK AND OF 25'-0" FOR CMU. THE JOINT SHALL BE FORMED USING PVC MATERIAL CONFORMING TO ASTM D2287, TYPE PVC 654-4. COORDINATE LOCATION OF JOINTS WITH THE ARCHITECTURAL ELEVATIONS.

3.13. PLACE A CONTINUOUS HORIZONTAL CMU BOND BEAM AT EACH FLOOR, AND AT THE TOP OF THE WALL, AND AT INTERMEDIATE LOCATIONS AS REQUIRED TO PROVIDE A MAXIMUM VERTICAL SPACING OF 12'-0", UNLESS OTHERWISE NOTED ON THE PLAN.

4. CONCRETE

4.1. ALL PLACED CONCRETE, SHALL HAVE NORMAL WEIGHT COARSE AGGREGATES UNLESS OTHERWISE NOTED, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) AT 28 DAYS AS SHOWN ON THE CONCRETE MATERIALS SCHEDULE.

4.2. GROUT FOR BASE PLATES SHALL BE NON-METTALIC, NON-SHRINKABLE GROUT, AND SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH, AT 28 DAYS, OF 5000 PSI.

4.3. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.

4.4. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH ¾" x 45 DEGREE CHAMFER, UNLESS OTHERWISE NOTED.

4.5. HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS, AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED, WITH A CLASS B TENSION SPLICE, AT CORNERS AND INTERSECTIONS. TOP BAR CRITERIA SHALL APPLY IF 12" OR MORE OF FRESH CONCRETE IS PLACED BELOW BAR.

4.6. SEE ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING / DAMPPROOFING DETAILS.

4.7. ALL DOWELS SHALL MATCH SIZE AND NUMBER OF MAIN REINFORCING, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

4.8. SEE ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF FLOOR FINISHES.

4.9. SEE MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS FOR ADDITIONAL WALL / SLAB OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

4.10. ALL REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.

4.11. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

4.12. DETAIL AND FABRICATE REINFORCING STEEL IN ACCORDANCE WITH THE ACI DETAILING MANUAL.

4.13. IN-PLACE REINFORCING STEEL, SHALL BE REVIEWED BY THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

4.14. AT CORNERS AND INTERSECTIONS, PROVIDE BARS OF THE SAME NUMBER AND SIZE AS THE LONGITUDINAL BARS IN THE FOOTING.

4.15. CONCRETE MATERIALS SHALL BE AS FOLLOWS:

4.15.1. USE TYPE I/II PORTLAND CEMENT CONFORMING TO ASTM C150

4.15.2. AGGREGATE SHALL CONFORM TO ASTM C33 (FINE AND COURSE AGGREGATES)

4.15.3. AIR ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260

4.15.4. PLASTICIZER CAN BE USED TO IMPROVE WORKABILITY IF REQUIRED

4.16. CONCRETE MIX DESIGN:

4.16.1. MAXIMUM WATER/CEMENT RATIO – 0.50 FOR SLAB, 0.55 FOR FOOTINGS AND OTHER CONCRETE UNLESS OTHERWISE NOTED.

4.16.2. SLUMP SHALL BE 4 INCHES TO 6 INCHES (WITHOUT PLASTICIZER)

4.16.3. AIR ENTRAINMENT SHALL BE 4% TO 6% (EXTERIOR CONCRETE)

4.17. CONCRETE SLAB SHALL BE CURED USING A WATER-BASED CURING COMPOUND. CURING COMPOUND SHALL BE APPLIED TO ALL HORIZONTAL SURFACES. ONCE THE SURFACE WATER DISSIPATES AND THE SURFACE IS NOT MARRED BY WALKING, APPLY PER MANUFACTURER'S SPECIFICATIONS.

4.18. CONDUCT SLUMP, AIR, AND STRENGTH TESTS OF CONCRETE IN ACCORDANCE WITH THE FOLLOWING PROCEDURES:

4.18.1. SECURE SAMPLES IN ACCORDANCE WITH "METHOD OF SAMPLING FRESH CONCRETE" (ASTM C 172). MOLD AND CURE FIVE SPECIMENS FROM EACH SAMPLE IN ACCORDANCE WITH "METHOD OF MAKING ANS CURING CONCRETE COMPRESSION AND FLEXURE SPECIMENS IN THE FIELD" (ASTM C 31). FIVE SPECIMENS COMPRISE ONE TEST. TEST TWO SPECIMENS AT 7 DAYS (ASTM C 39). TEST TWO SPECIMENS AT 28 DAYS IN ACCORDANCE WITH "METHOD OF TEST FOR COMPRESSIVE STRENGTH OF MOLDED CONCRETE CYLINDERS" (ASTM C 39). TEST EVALUATION SHALL BE CONDUCTED IN ACCORDANCE WITH PROVISIONS OF ACI 318-14. KEEP ONE SPECIMEN IN RESERVE.

4.18.2. MAKE ONE STRENGTH TEST FOR EACH 100 CUBIC YARDS OR FRACTION THEREOF FOR EACH MIX DESIGN OF CONCRETE PLACED IN ONE DAY, EXCEPT THAT IN NO CASE SHALL A GIVEN MIX DESIGN BE REPRESENTED BY LESS THAN THREE TESTS.

5. STRUCTURAL STEEL

5.1. DETAILING OF STRUCTURAL STEEL CONNECTIONS, MUST BE CONSISTENT WITH RECOGNIZED, PUBLISHED METHODS, SUCH AS THE "AISC STEEL CONSTRUCTION MANUAL, 16TH EDITION", "DETAILING FOR STEEL CONSTRUCTION", OR "VOLUME II CONNECTIONS MANUAL OF STEEL CONSTRUCTION".

5.2. MEMBERS AND CONNECTIONS NOT FULLY DEVELOPED ON THE CONTRACT DRAWINGS, AND CONNECTIONS FOR ANY PORTION OF THE STRUCTURE NOT SHOWN ON THE CONTRACT DRAWINGS, SHALL BE DESIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER, AND DETAILED ON THE SHOP DRAWINGS.

5.3. ALTERNATIVE CONNECTION DETAILS, MAY BE SUBMITTED ON SHOP DRAWINGS BY THE CONTRACTOR, ONLY IF ACCOMPANIED BY COMPLETE STRUCTURAL CALCULATIONS, PREPARED AND SEALED BY AN ENGINEER, LICENSED IN THE PROJECTS JURISDICTION. FAILURE TO SUBMIT SUCH CALCULATIONS FOR REVIEW, CONCURRENT WITH SHOP DRAWING ERECTION PLANS AND DETAILS, WILL BE CAUSE FOR REJECTION OF THAT SUBMITTAL.

5.4. CALCULATIONS FOR DETAILS, MUST SHOW A RATIONAL ANALYSIS OF A COMPLETE LOAD PATH, INCLUDING LOCAL EFFECTS ON WEBS, FLANGES ETC., OF THE CONNECTED MEMBERS AND THE DEVICES (PLATES, SEATS, BRACKETS, BOLTS, WEBS, ETC.) AFFECTING ALL CONNECTIONS.

5.5. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION, SHALL CONFORM TO THE "AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AUGUST 1, 2022), AND THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (MAY 9, 2022). AISC MANUALS REFERENCE YEAR TO 2010, AS REFERENCED IN CHAPTER 35 OF THE 2018 NCBC.

5.6. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE, AWS D1.1. ELECTRODES FOR SHOP AND FIELD WELDS, SHALL BE CLASS E70XX. ALL WELDING SHALL BE DONE BY QUALIFIED, CERTIFIED WELDERS, PER THE ABOVE STANDARD.

5.7. SHOP AND FIELD TESTING OF WELDS AND BOLTS, SHALL BE PERFORMED AS OUTLINED IN THE SPECIFICATIONS.

5.8. ALL FILLET WELDS SHALL BE A MINIMUM OF ¼ INCH, UNLESS OTHERWISE NOTED.

5.9. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS, FOR THE WORK OF OTHER TRADES, WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.

5.10. ALL STRUCTURAL STEEL SHAPES USED, SHALL BE IN ACCORDANCE WITH ASTM A992 SPECIFICATIONS (Fy = 50 KSI). ALL STRUCTURAL TUBING USED, SHALL BE IN ACCORDANCE WITH ASTM A500, GRADE B (Fy = 46 KSI). ALL PIPE USED, SHALL BE IN ACCORDANCE WITH ASTM A53 (Fy = 35 KSI). ALL MISCELLANEOUS STEEL USED, SHALL BE IN ACCORDANCE WITH ASTM A36 (Fy = 36 KSI).

5.11. ALL FIELD BOLTED CONNECTIONS, SHALL BE BEARING TYPE CONNECTIONS (THREADS INCLUDED IN THE SHEAR PLANE), WITH ¾" DIAMETER, ASTM A325 HIGH STRENGTH BOLTS, UNLESS OTHERWISE NOTED ON THE DRAWING. ALL BOLTS SHALL BE TIGHTENED TO A "SNUG-TIGHT" CONDITION, UNLESS OTHERWISE NOTED.

5.12. FOR ALL FLOOR AND ROOF OPENINGS, THE CONTRACTOR SHALL VERIFY OPENING LOCATIONS WITH EQUIPMENT SELECTED, AND MAKE ANY NECESSARY MODIFICATIONS AT NO ADDITIONAL COST. IT IS THE RESPONSIBILITY OF FABRICATOR, TO RECEIVE ALL NECESSARY INFORMATION, PRIOR TO FABRICATION OF ANY STEEL.

5.13. ALL STRUCTURAL STEEL WHICH IS TO BE SPRAYED WITH FIREPROOFING SHALL NOT BE PRIMED OR PAINTED. STEEL WHICH IS NOT SPRAYED WITH FIREPROOFING SHALL BE PRIMED AND PAINTED. DO NOT PAINT SURFACES TO BE EMBEDDED IN CONCRETE.

5.14. BEAM END CONNECTIONS, SHALL BE DESIGNED FOR A MINIMUM GRAVITY LOAD OF 50% U.D.L., PER THE "AISC MANUAL OF STEEL CONSTRUCTION, 16TH EDITION", UNLESS OTHERWISE INDICATED.

5.15. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED, TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT, UNTIL ALL PERMANENT BRACING, ROOF & WALL SHEATHING, OR METAL ROOF DECK ARE IN PLACE, TO RESIST LATERAL MOVEMENT OF THE FRAME.

6. NON-COMPOSITE METAL FLOOR DECK

6.1. STEEL FLOOR DECK SHALL BE 1.0C24, 24 GAGE, GALVANIZED, NON-COMPOSITE FORM DECK AS PER STEEL DECK INSTITUTE (SDI) SPECIFICATIONS.

6.2. FLOOR DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
MOMENT OF INERTIA, I 0.057 IN^4/FT. WIDTH
SECTION MODULUS (TOP OF DECK), S_a 0.103 IN^3/FT. WIDTH
SECTION MODULUS (BOT. OF DECK), S_b 0.098 IN^3/ FT. WIDTH
IN ADDITION TO MEETING THE MINIMUM REQUIREMENTS ABOVE, THE DECK MANUFACTURER SHALL DESIGN THE FLOOR DECK FOR THE LOADS SHOWN IN THE STRUCTURAL DESIGN CRITERIA. DECK SHALL BE DESIGNED TO SUPPORT ALL CONSTRUCTION LOADS ALONE, UNSHORED, AND ALL INDICATED DEAD AND LIVE LOADS.

6.3. AS A MINIMUM, FLOOR DECK SHALL BE ATTACHED AS FOLLOWS:
- SHEETS BEARING ON SUPPORTS, SHALL BE WELDED WITH ⅝" DIAMETER PUDDLE WELDS IN THE BOTTOM OF THE FLUTES WITHOUT SHEAR STUDS (12" O.C., MAX.)
- SIDE LAPS SHALL BE FASTENED AS RECOMMENDED BY THE MANUFACTURER, SUFFICIENT TO PREVENT DIFFERENTIAL DEFLECTION OF THE DECK UNITS.

7. METAL ROOF DECK

7.1. METAL ROOF DECK SHALL BE CUT TO PROVIDE A MINIMUM THREE-SPAN CONDITION.

7.2. METAL ROOF DECK SHALL BE SECURELY WELDED THROUGH THE DECK ONTO THE SUPPORTING MEMBERS WITH ⅝" DIAMETER PUDDLE WELDS AT 12" O.C. (36/4 PATTERN). WELDING WASHERS ARE REQUIRED FOR ALL DECK WITH A THICKNESS LESS THAN 22 GA. USE SPACING OF 6" O.C. AT ROOF PERIMETER.

7.3. IN LIEU OF WELDING, METAL ROOF DECK MAY BE ATTACHED TO SUPPORTING MEMBERS WITH #12 SCREWS USING THE SAME PATTERN AS FOR WELDING.

7.4. ALL METAL DECK SIDE-LAPS SHALL BE FASTENED WITH #12 SCREWS AT 12" O.C., MAXIMUM.

7.5. ALL METAL DECK SHALL BE FINISHED WITH A GALVANIZED COATING, CONFORMING TO ASTM A653 G60. DECK EXPOSED TO WEATHER SHALL CONFORM TO ASTM A653 G90.

7.6. PROVIDE A MINIMUM 1½" DECK END BEARING (OR PER MANUFACTURER'S RECOMMENDATIONS IF GREATER).

7.7. ROOF DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
22 GA. DECK
MOMENT OF INERTIA, I_p (BOTTOM OF DECK) 0.155 IN^4/FT. WIDTH
SECTION MODULUS, S_p (BOTTOM OF DECK) 0.186 IN^3/ FT. WIDTH
MOMENT OF INERTIA, I_n (TOP OF DECK) 0.183 IN^4/FT. WIDTH
SECTION MODULUS, S_n (TOP OF DECK) 0.192 IN^3/FT. WIDTH

8. DELEGATED DESIGN

8.1. ITEMS INDICATED TO BE DESIGNED BY OTHERS SHALL BE DESIGNED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. ITEMS REQUIRING DELEGATED DESIGN ARE INDICATED IN THE DRAWINGS AND SPECIFICATIONS.

8.2. SUBMIT CALCULATIONS AND DRAWINGS FOR ANY ITEMS DESIGNED BY OTHERS, TO ENGINEER OF RECORD FOR REVIEW.

NOTE:
SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

CONCRETE MATERIALS SCHEDULE

LOCATION	MINIMUM COMPRESSIVE STRENGTH (AT 28 DAYS)	REMARKS
FOUNDATIONS	3000 PSI	–
FLOOR SLAB, WALLS, EQUIPMENT PADS	4000 PSI	–
CONCRETE FOR MASONRY CORES, BOND BEAMS	3000 PSI	ASTM C476 GROUT

EXPOSED CONCRETE FINISH SCHEDULE

AREA	FINISH	COMMENTS
BASEMENT WALLS	SMOOTH FORM	SEE NOTE 1
ALL EXTERIOR WALLS, CURBS, UNLESS OTHERWISE NOTED	SMOOTH FORM	SEE NOTE 1
EXTERIOR CONCRETE PAVEMENT, SIDEWALKS	COARSE BROOM	SEE NOTE 1
SLAB ON GRADE	TROWEL	SEE NOTE 1
EXT. EQUIP. PADS	COARSE BROOM	SEE NOTE 1
EXTERIOR STAIRS	COARSE BROOM	SEE NOTE 1
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NOTES:
1. SEE SPECIFICATIONS SECTION, '033000 CAST-IN-PLACE CONCRETE', FOR ADDITIONAL INFORMATION.

STRUCTURAL DESIGN CRITERIA:

1. DESIGN LOADS:

1.1. ROOF DEAD LOAD

	MAX	MIN (FOR UPLIFT)
ROOF MEMBRANE & INSULATION	4 PSF	2 PSF
SHEATHING	3 PSF	2 PSF
ROOF FRAMING	5 PSF	3 PSF
PIPING, DUCT, ETC.	8 PSF	0 PSF
	20 PSF	7 PSF

1.2. LIVE LOADS
ROOF LIVE LOAD – ALL AREAS GREATER OF 20 PSF MINIMUM OR SNOW LOAD
1ST FLOOR LIVE LOAD _____ 100 PSF
2ND FLOOR LIVE LOAD _____ 50 PSF (MECHANICAL PLATFORM)
STAIRS _____ 100 PSF, UNIFORM
300 LBS., CONCENTRATED
GUARDRAIL _____ WORST CASE OF 50 PLF LOAD ALONG TOP RAIL OR 200 LBS. CONCENTRATED LOAD, ANY DIRECTION

1.3. SNOW LOAD
GROUND SNOW LOAD = 10 PSF (CLINTON, NC)
SNOW LOAD IMPORTANCE FACTOR: I = 1.1
SNOW EXPOSURE FACTOR = 1.0
SNOW THERMAL FACTOR = 1.0
ROOF SNOW LOAD = 11 PSF
BASIC DESIGN ROOF SNOW LOAD = 11 PSF

1.4. WIND LOAD
BASIC WIND SPEED: Vult = 140 MPH (CLINTON, NC)
RISK CATEGORY: ___ I ___ II _X_ III ___ IV
WIND EXPOSURE CATEGORY: 'B' (ASCE 7-10)
WIND BASE SHEAR (FOR MWFRS): Vx = 93.5K Vy = 41.5K
INTERNAL PRESSURE COEFFICIENT: ±0.55

1.5. SEISMIC LOADS (N.C. STATE BLDG. CODE):
SEISMIC IMPORTANCE FACTOR: I = 1.25
RISK CATEGORY: ___ I ___ II _X_ III ___ IV
SEISMIC DESIGN CATEGORY: ___ A ___ B _X_ C ___ D
MAPPED SPECTRAL RESPONSE ACCELERATION: Ss 19.5 % g S1 8.8 % g
SPECTRAL RESPONSE COEFFICIENTS: Sds 20.8 % Sd1 14.0 %
SEISMIC RESPONSE COEFFICIENT: Cs 0.065
RESPONSE MODIFICATION FACTOR, R 3.25 (INTERMEDIATE REINFORCED MASONRY WALL)
SITE CLASSIFICATION: ___ A ___ B ___ C _X_ D ___ E ___ F
BASIC STRUCTURAL SYSTEM:
___ BEARING WALL _____ DUAL w/ SPECIAL MOMENT FRAME
_X_ BUILDING FRAME _____ DUAL w/ INTERMEDIATE R/C OR SPECIAL STEEL
___ MOMENT FRAME _____ INVERTED PENDULUM
SEISMIC BASE SHEAR Vx = 81K Vy = 81K
ANALYSIS PROCEDURE: ___ SIMPLIFIED _X_ EQUIVALENT LATERAL FORCE ___ MODAL
ARCHITECTURAL, MECHANICAL COMPONENTS ANCHORED? ___ YES _X_ NO
LATERAL DESIGN CONTROL: _X_ EARTHQUAKE _X_ WIND

1.6. WIND CONTROLS LATERAL LOAD DESIGN IN V_x DIRECTION. SEISMIC CONTROLS IN V_y DIRECTION. THE BUILDING UTILIZES SHEAR WALLS FOR LATERAL LOAD RESISTANCE.

1.7. ALL DESIGN LOADS ARE PER NORTH CAROLINA STATE BUILDING CODE 2018 EDITION.

2. FOUNDATION DESIGN CRITERIA:

2.1. MINIMUM FOOTING BEARING DEPTH BELOW GRADE IS 12 INCHES.

2.2. FOUNDATION DESIGN IS BASED ON A MAXIMUM ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF, PER GEOTECHNICAL REPORT BY TERRACON CONSULTANTS, INC., DATED 7-20-2017, PROJ.# 72175056.

2.3. CONTRACTOR SHALL FIELD VERIFY THE SOIL BEARING CAPACITY PRIOR TO START OF CONSTRUCTION.

CONCRETE REBAR SPLICE SCHEDULE

BAR SIZE	LAP LENGTH (in.) f'c = 3000 psi	f'c = 4000 psi	f'c = 5000 psi
#4	22	19	17
#5	28	24	21
#6	32	29	26
#7	48	42	37
#8	55	48	43
#9	62	54	48
#10	68	60	53
#11	76	66	59

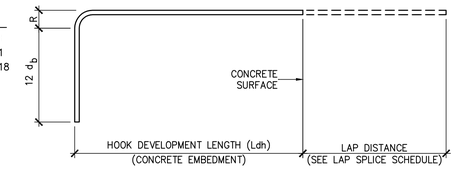
NOTES:
1. CONCRETE IS NORMAL WEIGHT CONCRETE. IF LIGHTWEIGHT CONCRETE IS USED, MULTIPLY LENGTHS IN TABLE BY 1.3.
2. BAR YIELD STRENGTH (fy) IS 60 KSI.
3. BAR SPACING AND COVER REQUIREMENTS OF ACI SECTION 25.4.2.2 ARE ASSUMED TO BE MET. IF NOT, MULTIPLY LENGTHS IN TABLE BY 1.5.
4. REDUCTION OF EXCESS REINFORCEMENT NOT TAKEN.
5. IF MORE THAN 12" OF FRESH CONCRETE IS CAST IN MEMBER BELOW HORIZONTAL SPLICE, MULTIPLY LENGTHS IN TABLE BY 1.3.

MASONRY VENEER LINTEL SCHEDULE

OPENING DIMENSION	ANGLE SIZE	ORIENTATION
0'-0" THRU 4'-0"	L 4 x 4 x 5/16	N/A
4'-1" THRU 6'-0"	L 4 x 4 x 3/8	N/A
6'-1" THRU 8'-0"	L 6 x 4 x 5/16	LLV
8'-1" THRU 10'-0"	L 6 x 4 x 3/8	LLV
10'-1" THRU 12'-0"	L 7 x 4 x 3/8	LLV
–	–	–

NOTES:
1. PROVIDE LOOSE STEEL ANGLE LINTELS FOR ALL MASONRY VENEER OPENINGS, PER ABOVE DATA UNLESS NOTED OTHERWISE.
2. PROVIDE MINIMUM OF 8" BEARING FOR ALL LINTELS UNLESS NOTED OTHERWISE.
3. COORDINATE HORIZONTAL LEG SIZE WITH ARCHITECTURAL DRAWINGS. SIZES MAY NEED TO BE CHANGED TO ACCOMMODATE AIR SPACE, INSULATION AND OTHER WALL COMPONENTS.

BEND RADIUS (R)
$4d_b$ – No.3 – No.8
$5d_b$ – No.9 – No.11
$6d_b$ – No.14 – No.18



STANDARD HOOKS IN TENSION (PER ACI 318-02)

BAR SIZE	HOOK DEVELOPMENT LENGTH Ldh (INCHES) f'c 3000 psi	f'c 4000 psi	f'c 5000 psi
#3	9	7	7
#4	11	10	9
#5	14	12	11
#6	17	15	13
#7	19	17	15
#8	22	19	17
#9	25	22	19
#10	28	24	22
#11	31	26	24

NOTES:
1. CONCRETE IS NORMAL WEIGHT CONCRETE. IF LIGHTWEIGHT CONCRETE IS USED, MULTIPLY LENGTHS IN TABLE BY 1.3.
2. BAR YIELD STRENGTH (fy) IS 60 KSI.
3. SIDE COVER REQUIREMENTS OF ACI SECTION 25.4.3.2 ARE ASSUMED TO NOT BE MET.
4. TIE OR STIRRUP REQUIREMENTS OF ACI SECTION 25.4.3.2 ARE ASSUMED TO NOT BE MET.
5. REDUCTION OF EXCESS REINFORCEMENT IS NOT TAKEN.
6. HOOK DEVELOPMENT LENGTH IS VALID FOR 180° HOOKS ALSO.

d_b = BAR DIAMETER

MASONRY REBAR LAP SPLICE SCHEDULE

BAR SIZE	BASIC LAP SPLICE (Ld) FOR CMU REINFORCING
#3	1'-6"
#4	2'-0"
#5	2'-6"
#6	3'-0"
#7	3'-6"
#8	4'-0"
#9	4'-6"

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

RPA ENGINEERING, P.A.
Structural Engineering Solutions
Engineering License Certificate No. C-2734
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Greenville, NC 27834
RPA Project No.: 2017165

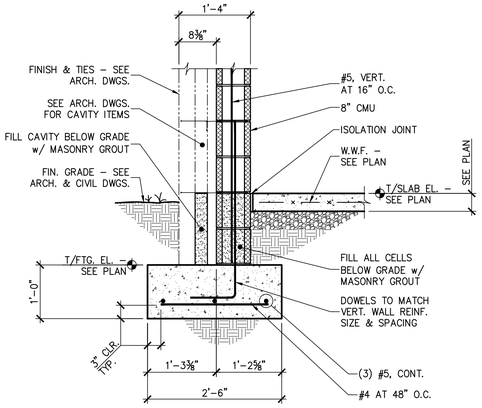
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER REGISTERED

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

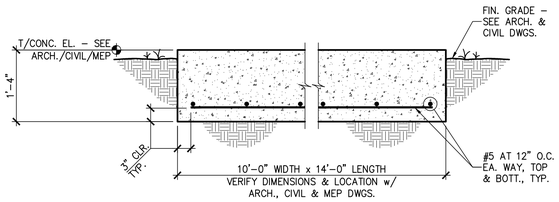
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
STRUCTURAL DESIGN CRITERIA, STRUCTURAL GENERAL NOTES, SCHEDULES & DETAILS

SCALE	DRAWING NO.
AS NOTED	S0.1
DRAWN: MBM	
CHECKED: MSR	
DATE: 5-20-2024	
PROJECT NO.: 2018-208	

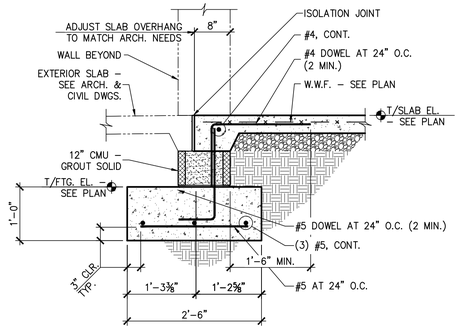


1 S1.1 SECTION - TYP. FTG. AT 8" CMU WALL
N.T.S.

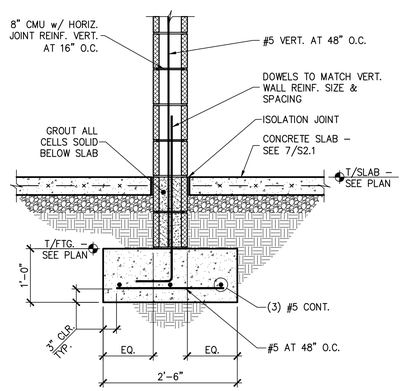


4 S1.1 SECTION - FDN. FOR EMERGENCY PUMP & GENERATOR
3/4" = 1'-0"

FOOTING SCHEDULE				
MARK	FTG. SIZE	REINFORCEMENT	T/FTG. EL.	REMARKS
F3.0	3'–0" x 3'–0" x 1'–0"	(4) #4 EA. WAY, BOTT.	SEE PLAN	–
F4.0	4'–0" x 4'–0" x 1'–0"	(5) #4 EA. WAY, BOTT.	SEE PLAN	–
F5.0	5'–0" x 5'–0" x 1'–0"	(6) #4 EA. WAY, BOTT.	SEE PLAN	–



2 S1.1 SECTION - TYP. EXT. DOOR WALL FTG.
N.T.S.

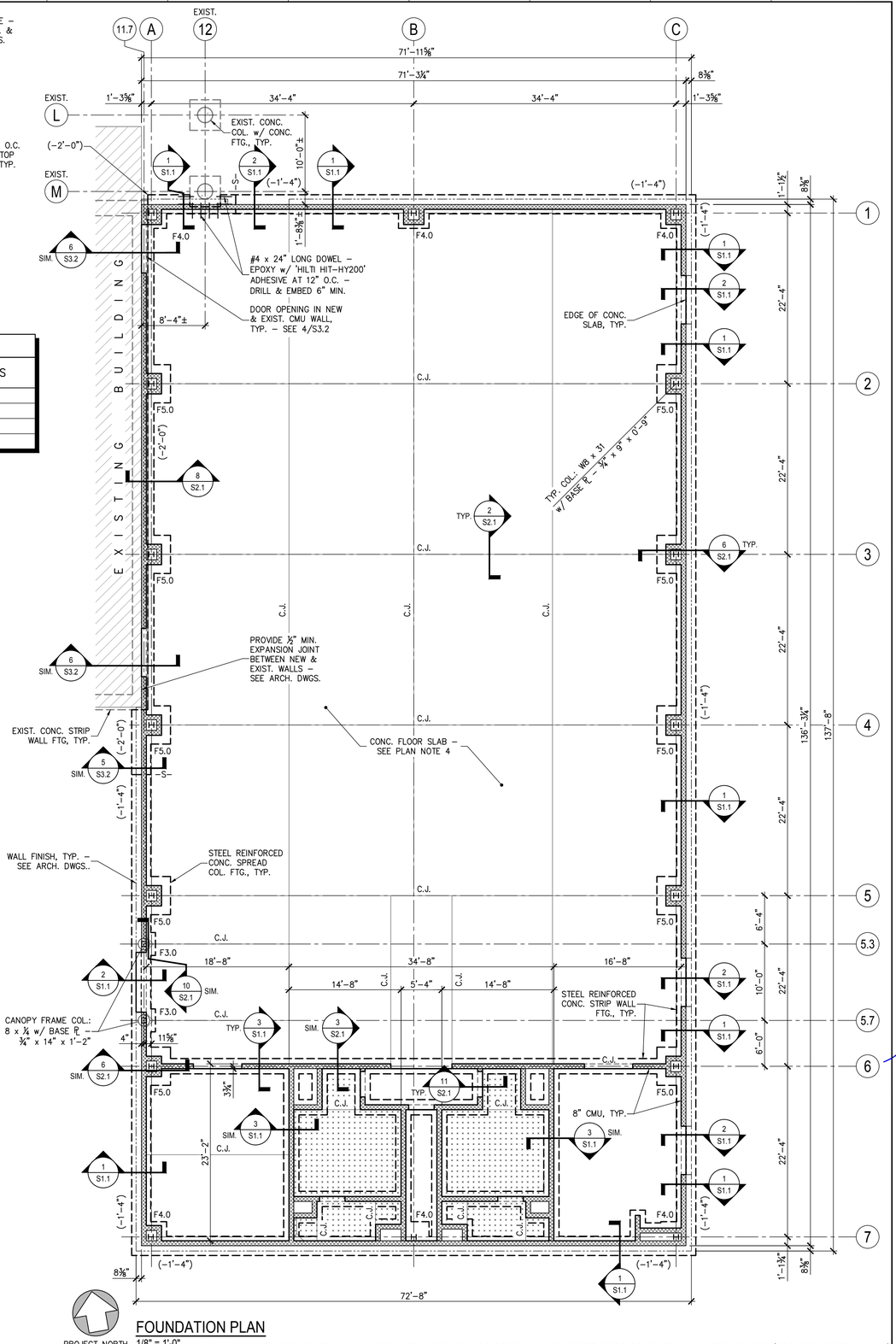


3 S1.1 SECTION - TYP. FULL HT. CMU WALL FTG.
N.T.S.

FOUNDATION PLAN LEGEND	
F4.0	DENOTES COLUMN CONCRETE SPREAD FOOTING WITH FOOTING MARK – SEE FOOTING SCHEDULE ON SHEET S1.1 FOR SIZE AND REINFORCING
H	DENOTES STEEL COLUMN – SEE COLUMN SCHEDULE ON THIS SHEET FOR COLUMN SIZE, BASE PLATE SIZE AND QUANTITY, AND SIZE OF ANCHOR BOLTS – SEE DETAIL 7/S2.1 FOR ADDITIONAL INFORMATION
–S–	DENOTES FOOTING STEP – STEP FOOTING AS REQUIRED TO MATCH TOP OF EXISTING FOOTING ELEVATION – SEE DETAIL 4/S2.1 FOR ADDITIONAL INFORMATION
	DENOTES A DEPRESSED SLAB (2", TYPICAL) – SEE 11/S2.1 AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION
C.J.	DENOTES SLAB ON GRADE CONSTRUCTION OR SAWCUT CONTROL JOINT – SEE DETAILS 2/S2.1 AND 3/S2.1 FOR ADDITIONAL INFORMATION
(–1'–4")	DENOTES TOP OF FOOTING ELEVATION
	DENOTES A FULL HEIGHT OR LOAD BEARING CMU WALL – SEE FOUNDATION DETAILS FOR REINFORCING
U.O.N.	DENOTES 'UNLESS OTHERWISE NOTED'

FOUNDATION PLAN NOTES:

1. SEE SHEET S0.1 FOR DESIGN CRITERIA, GENERAL STRUCTURAL NOTES & SCHEDULES.
2. DIMENSIONS SHOWN WITH '±' ARE EXISTING AND ARE SUBJECT TO FIELD VERIFICATION PRIOR TO ACCEPTANCE AS VALID.
3. TOP OF SLAB REFERENCE ELEVATION = 0'–0" UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ACTUAL SITE ELEVATIONS.
4. CONCRETE FLOOR SLAB IS 4" THICK WITH 6 x 6 – W 2.1 x W 2.1 WELDED WIRE FABRIC, TYPICAL EXCEPT AT MECHANICAL ROOMS WITH DEPRESSED SLAB. PROVIDE 10 MIL VAPOR BARRIER AND 4" OF WASHED, CRUSHED STONE (NCDOT No. 57) UNDER SLAB.
5. ALL INTERIOR WALL STRIP FOOTINGS SHALL BE 2'–0" WIDE UNLESS OTHERWISE NOTED ON THE PLAN.
6. ALL EXTERIOR WALL STRIP FOOTINGS SHALL BE 2'–6" WIDE UNLESS OTHERWISE NOTED ON THE PLAN.
7. SEE DETAIL 4/S2.1 FOR TYPICAL FOOTING STEP.
8. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF MASONRY CONTROL JOINTS.
9. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR MASONRY OPENINGS NOT SHOWN.
10. FOR FOOTING, BASE PLATE AND ANCHOR BOLT DETAIL, SEE SHEET S2.1.
11. PRIOR TO POURING EQUIPMENT PAD, ROUGHEN SLAB AND COAT WITH CONCRETE BONDING ADHESIVE. PROVIDE 6 x 6 – W 2.1 X W 2.1 WELDED WIRE FABRIC IN MID–HEIGHT OF PAD.
12. EXTERIOR CMU WALLS ARE SHEAR WALLS. SEE DETAILS FOR REINFORCEMENT REQUIREMENTS.
13. CMU VERTICAL WALL REINFORCING SHALL BE #5 AT 16" O.C. AT EXTERIOR WALLS, AND #5 AT 48" O.C. AT INTERIOR WALLS, UNLESS OTHERWISE NOTED.
14. SEE 9/S2.1 FOR CONDITIONS WHERE POSSIBLE PIPING CONFLICTS WITH FOUNDATION MAY EXIST.



PROJECT NORTH

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

MATERIALS KEYING LEGEND

RPA ENGINEERING, P.A.
Structural Engineering Solutions
Engineering License Certificate No. C-2734
102 Regency Blvd. Phone : 252-321-6027
Suite A1 Fax : 252-355-2179
Greenville, NC 27834

RPA Project No.: 2017165

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER MARK STATEN RPA

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FOUNDATION PLAN

SCALE	AS NOTED
DRAWN	MBM
CHECKED	MSR
DATE	5-20-2024
PROJECT NO.	2018-20B
DRAWING NO.	S1.1

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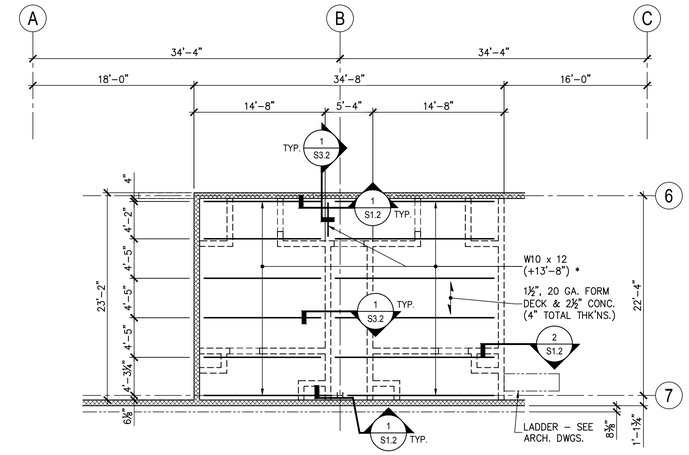
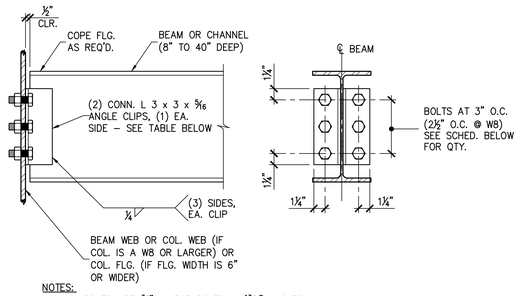


* OFFSET PLACEMENT OF BEAMS AS REQ'D., TO AVOID CONFLICT OF BRG. CONNECTIONS. w/ EA. OTHER

PROJECT NORTH 1/8" = 1'-0"

UPPER MECHANICAL ROOM FRAMING PLAN



NOTES:
1. ALL BOLTS ARE ¾"ø, A325 BOLTS IN 13/16"ø HOLES.
2. USE ⅜" CLIP ANGLES WHERE INDICATED ON FRAMING PLAN(S).

BEAM DEPTH NOMINAL	No. OF BOLTS EACH SIDE	FRAMING ANGLE LENGTH 'L'
8"	2	5"
10"	2	5½"
12"	3	8½"
14"	3	8½"
16"	4	11½"
18"	4	11½"
21"	5	14½"
24"	6	17½"
27"	6	17½"
30"	7	20½"
33"	8	23½"
36"	9	26½"
40"	10	29½"

* BOLT ROWS ARE SPACED 3" O.C. UNLESS NOTED OTHERWISE.

1 / S1.2 DETAIL - TYP. FRAMED BEAM CONN.
N.T.S.

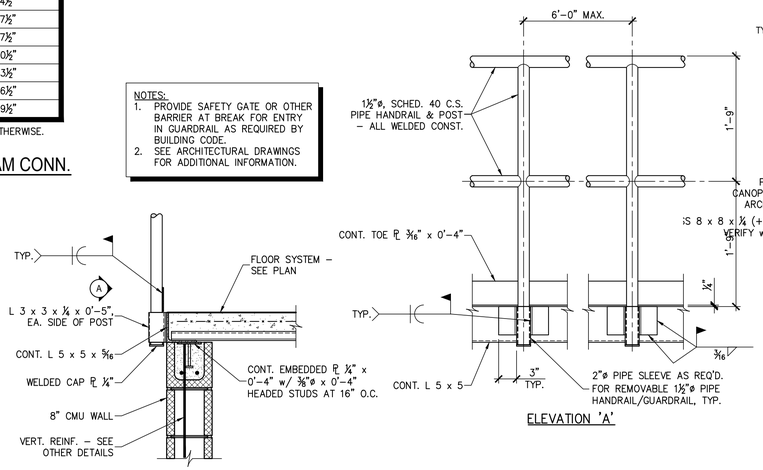
ROOF FRAMING PLAN LEGEND

	DENOTES DIRECTION OF DECK SPAN
W14 x 22 (+12'-4")	DENOTES STEEL BEAM OR PURLIN WITH SIZE DESIGNATION AND TOP OF STEEL REFERENCE ELEVATION
	DENOTES HSS 4 x 4 x 5/16 HORIZONTAL STEEL TRUSS BRIDGING BETWEEN BOTTOM CHORDS, AT PANEL POINTS, WHERE INDICATED ON PLAN
	DENOTES MOMENT CONNECTION – SEE DETAIL 2/S3.2 FOR ADDITIONAL INFORMATION
U.O.N.	DENOTES 'UNLESS OTHERWISE NOTED'

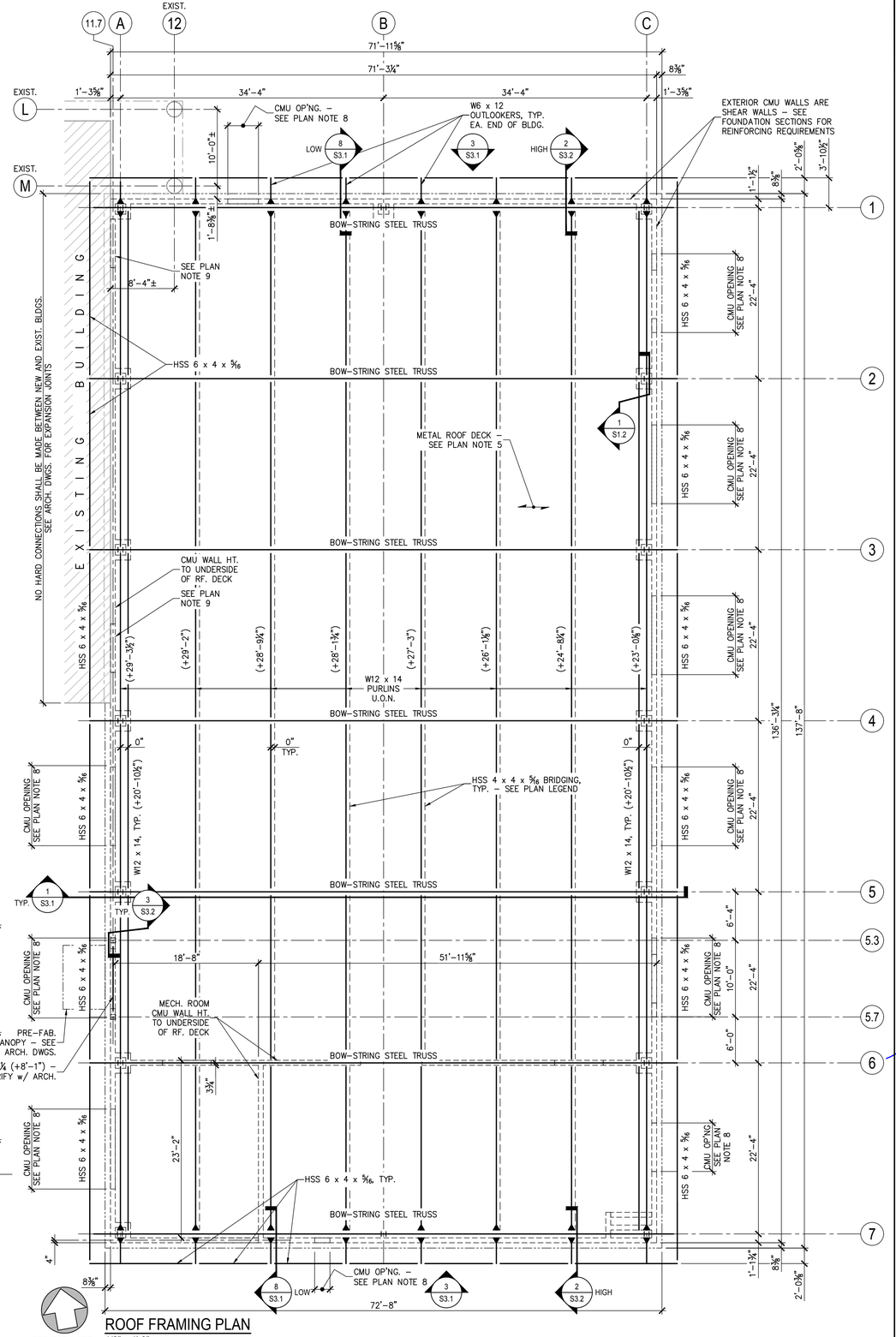
ROOF FRAMING PLAN NOTES:

1. SEE SHEET S0.1 FOR DESIGN CRITERIA, GENERAL STRUCTURAL NOTES AND SCHEDULES.
2. DIMENSIONS SHOWN WITH '±' ARE EXISTING AND ARE SUBJECT TO FIELD VERIFICATION PRIOR TO ACCEPTANCE AS VALID.
3. USE STEEL ANGLE LINTELS FOR ALL BRICK OPENINGS UNLESS OTHERWISE NOTED, EXCEPT AT STEEL LINTEL BEAM LOCATIONS. SEE SHEET S4.1 FOR MASONRY VENEER LINTEL SCHEDULE.
4. COORDINATE ROOF OPENINGS WITH MECHANICAL AND PLUMBING DRAWINGS.
5. ROOF DECK IS 1½", 20 GA. WIDE RIB (S.D.I. TYPE WR–22). SEE NOTES ON SHEET S4.1 FOR ADDITIONAL INFORMATION.
6. SEE GENERAL STRUCTURAL NOTES FOR WELDING REQUIREMENTS.
7. TOP OF STEEL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR REFERENCE ELEVATION 0'–0". SEE ARCHITECTURAL DRAWINGS FOR ACTUAL FINISHED FLOOR ELEVATION.
8. SEE 4/S3.2 FOR HEADER ABOVE OPENING IN CMU. VERIFY OPENING SIZE WITH ARCHITECTURAL DRAWINGS.
9. ENSURE THAT CMU HEADERS IN NEW CMU WALL DO NOT PHYSICALLY LINK TO EXISTING CMU WALL TO PROTECT FIRE SEPARATION.

NOTES:
1. PROVIDE SAFETY GATE OR OTHER BARRIER AT BREAK FOR ENTRY IN GUARDRAIL AS REQUIRED BY BUILDING CODE.
2. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



2 / S1.2 DETAIL - TYP. SLEEVED GUARDRAIL
N.T.S.



PROJECT NORTH 1/8" = 1'-0"

ROOF FRAMING PLAN

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER MARK STATEN ROSE

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RPA Project No.: 2017165

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
UPPER MECHANICAL ROOM & ROOF FRAMING PLANS

SCALE	AS NOTED
DRAWN	MBM
CHECKED	MSR
DATE	5-20-2024
PROJECT NO.	2018-20B
DRAWING NO.	S1.2

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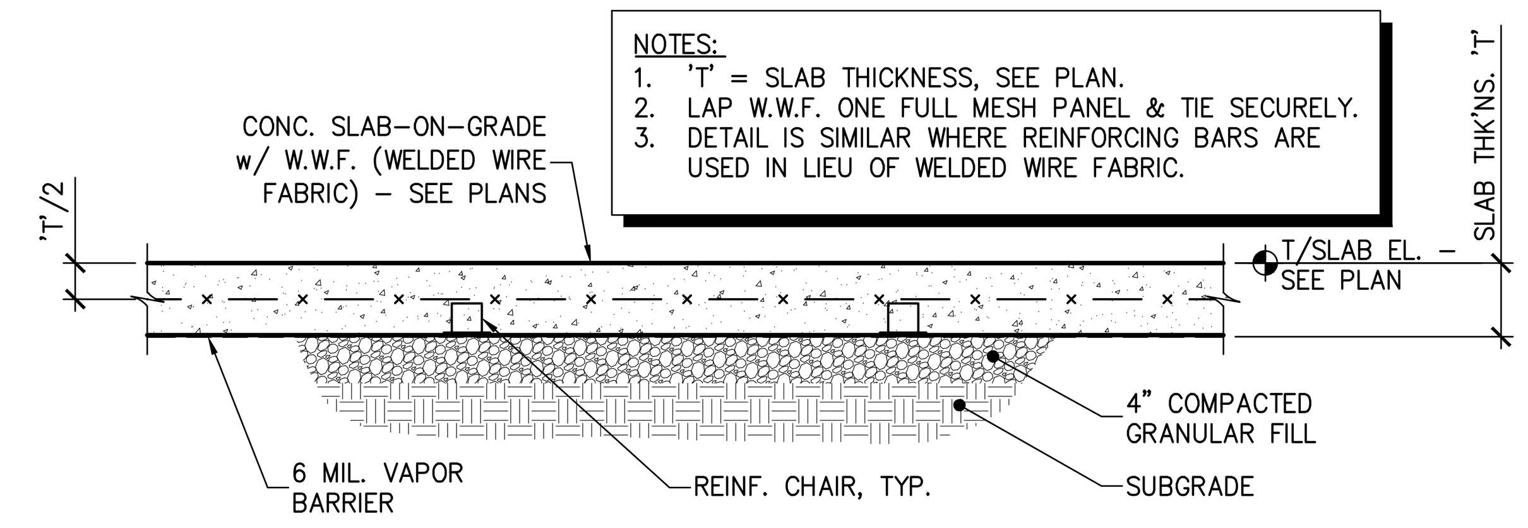
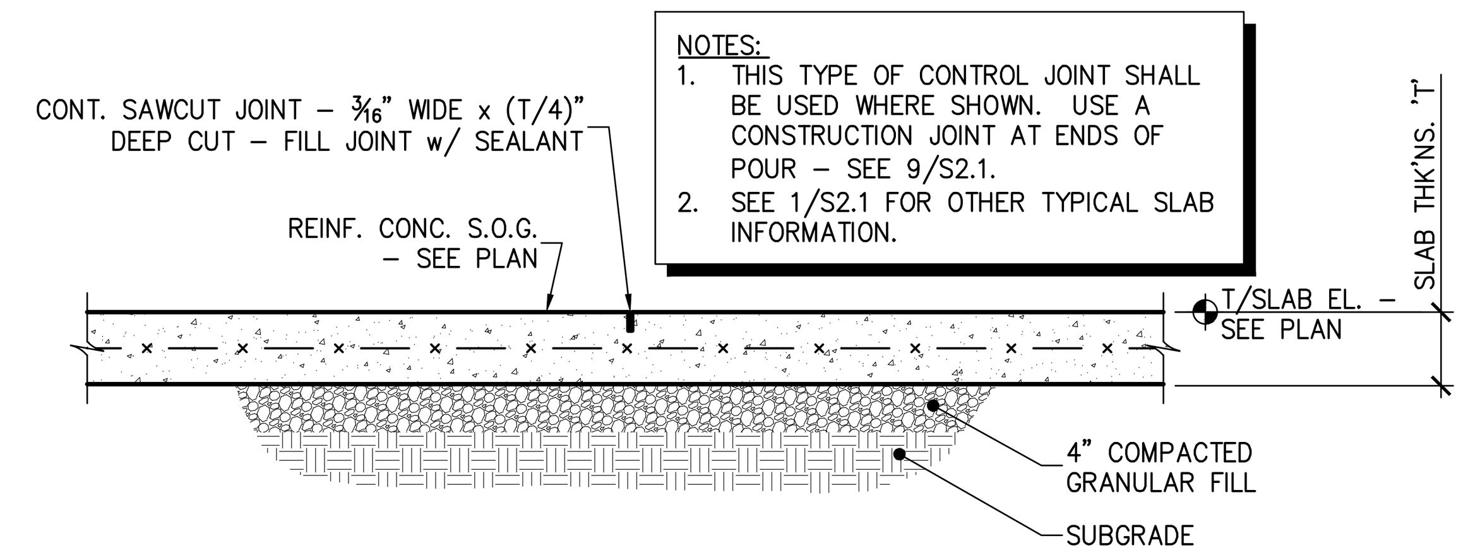
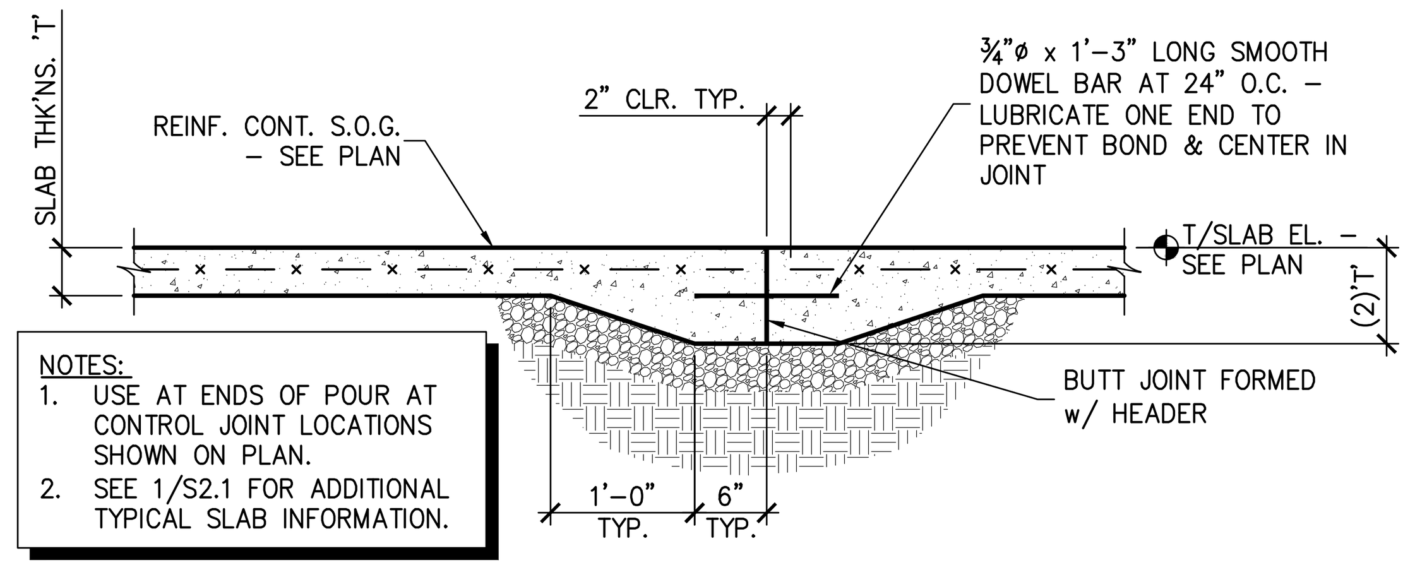


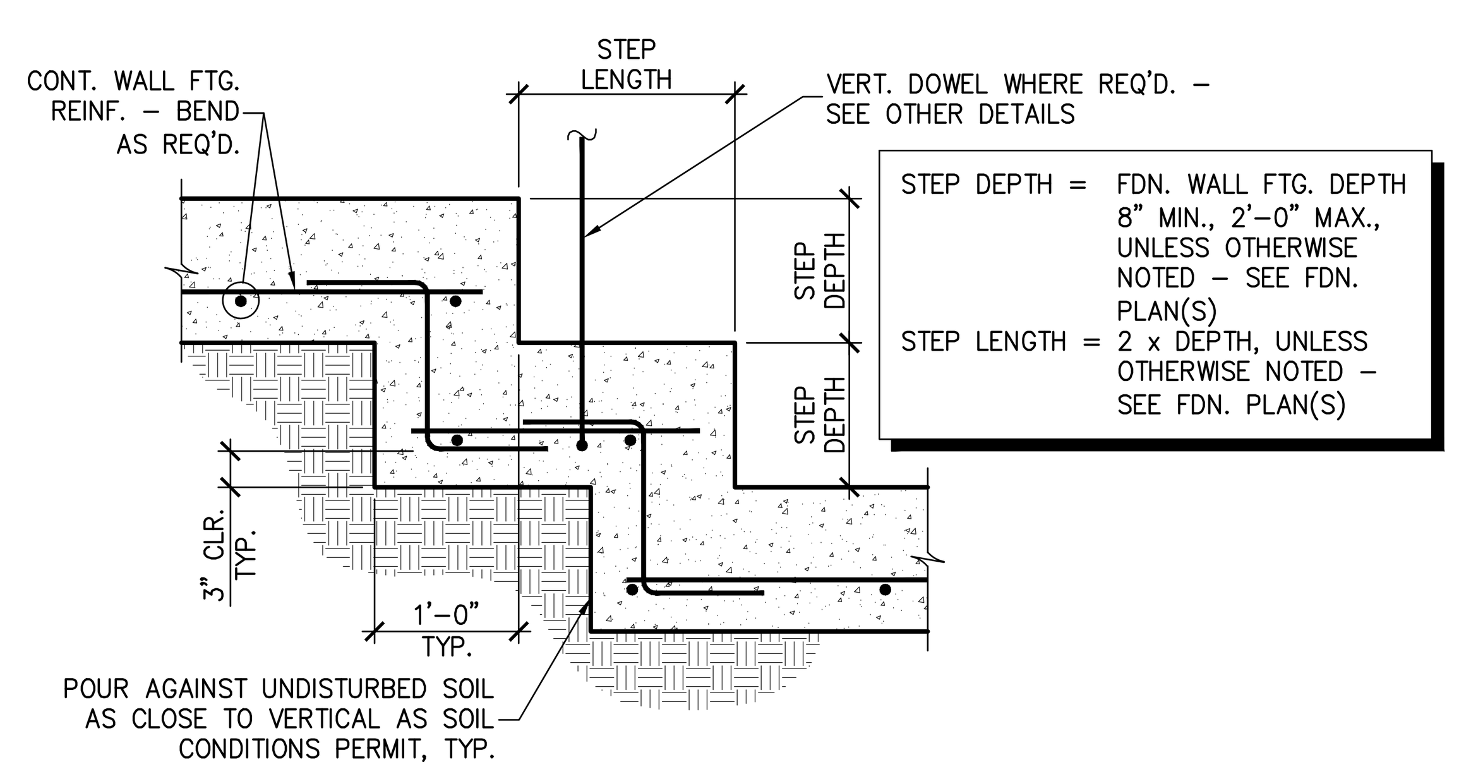
1 SECTION - TYP. SLAB ON GRADE
S2.1 N.T.S.



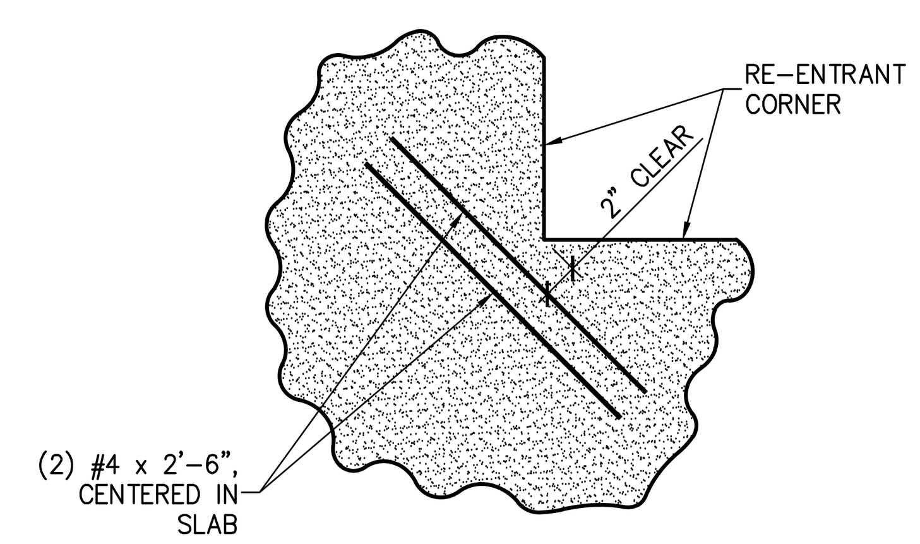
2 SECTION - TYP. CONTROL JOINT
S2.1 N.T.S.



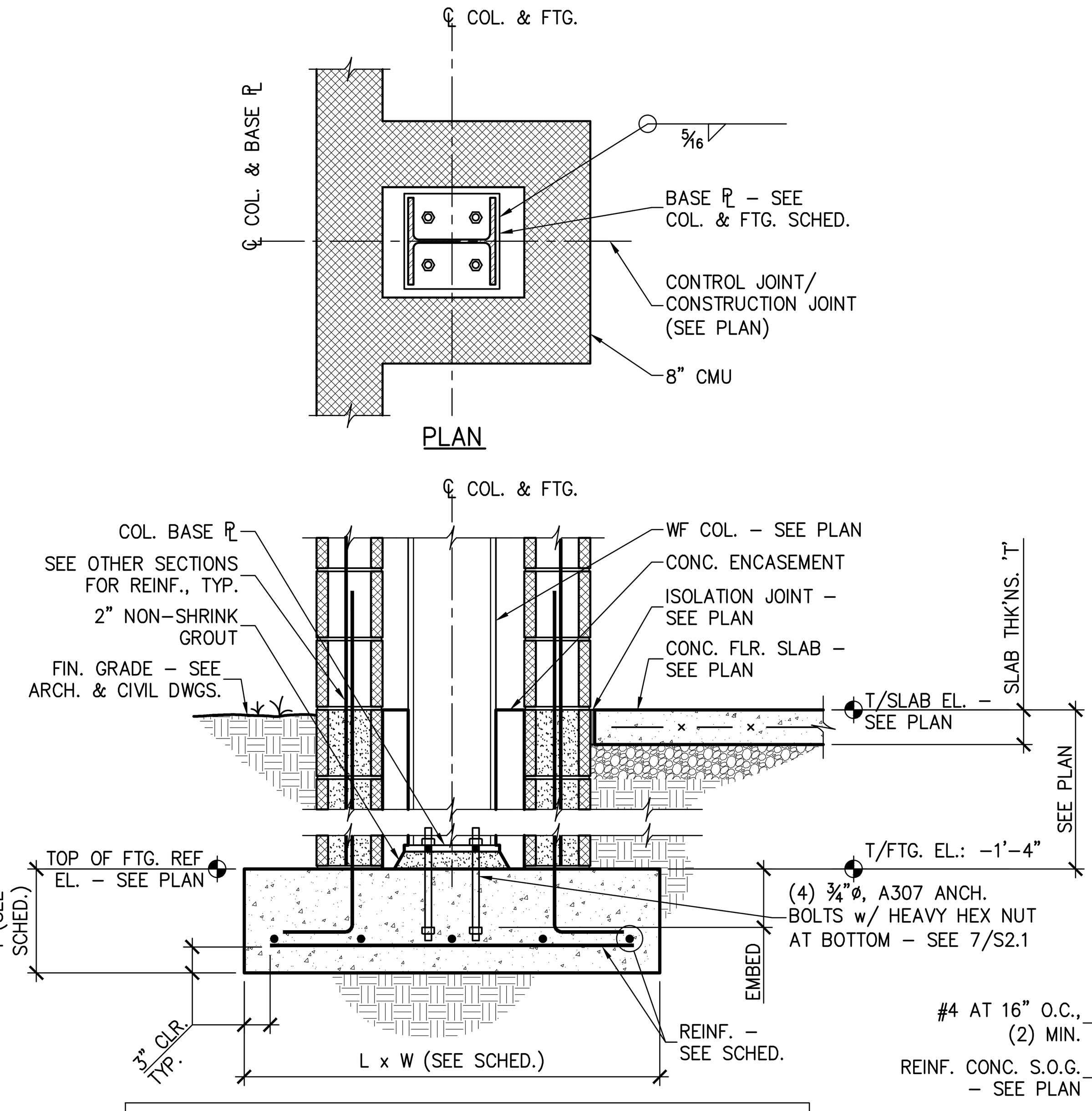
3 SECTION - TYP. CONSTRUCTION JOINT
S2.1 N.T.S.



4 SECTION - TYP. STEPPED FTG.
S2.1 N.T.S.

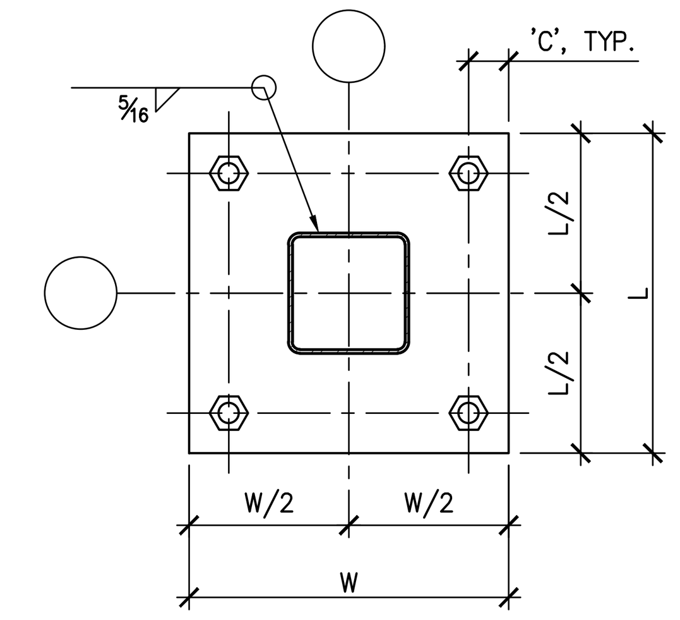


5 DETAIL - TYP. REINF. AT RE-ENTRANT SLAB CORNER
S2.1 N.T.S.



NOTE:
SEE FOOTING SCHEDULE ON SHEET S1.1 FOR ADDITIONAL INFORMATION.

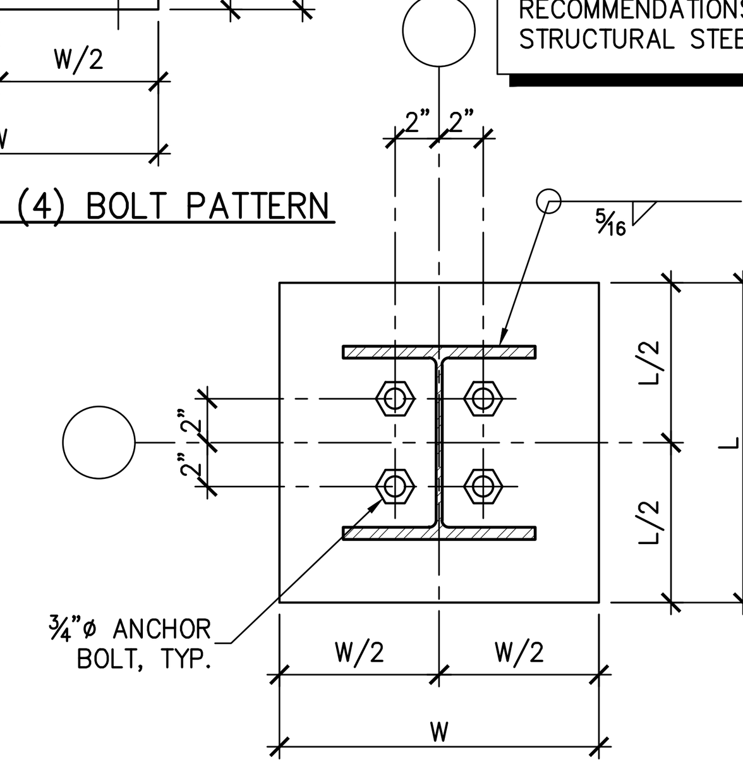
6 SECTION - TYP. WIDE FLANGE COL. FTG.
S2.1 N.T.S.



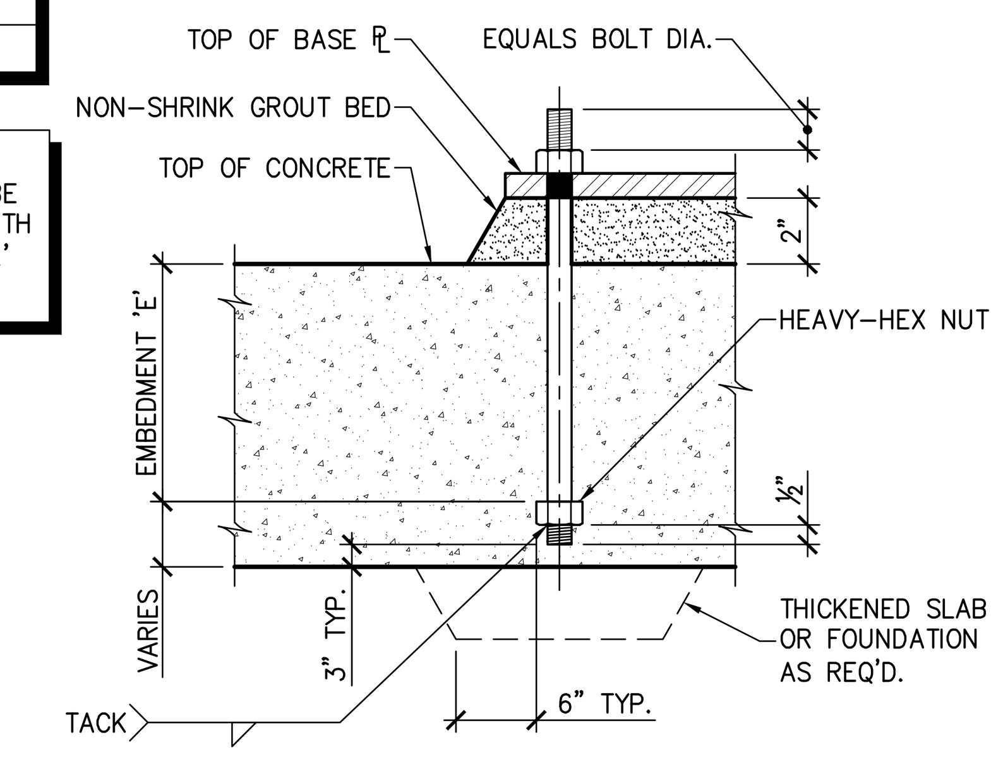
TYP. 'HSS' COL. w/ (4) BOLT PATTERN

BOLT DIA.	DISTANCE 'C'
3/4" AND BELOW	1½"
1"	1¾"
1¼"	2¼"
1½"	2⅝"

NOTE:
ANCHOR BOLT HOLES SHALL BE OVERSIZED IN ACCORDANCE WITH RECOMMENDATIONS OF 'A.I.S.C.' STRUCTURAL STEEL DETAILING.

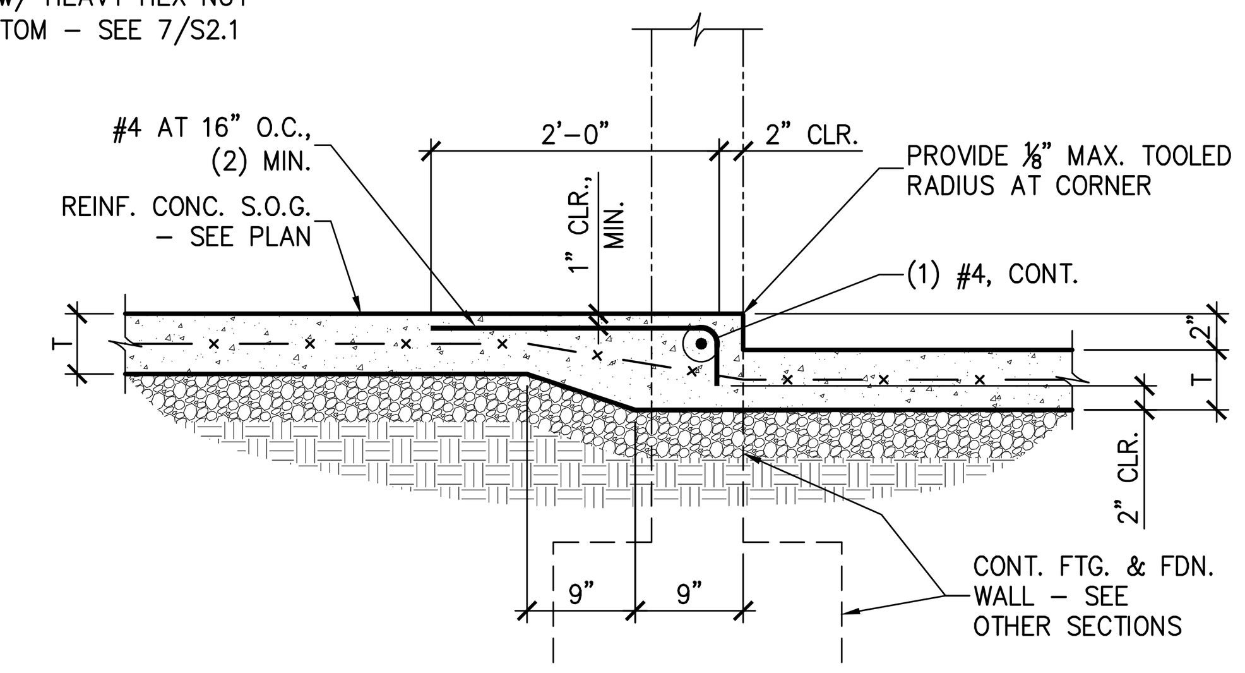


TYP. 'W' COL. w/ (4) BOLT PATTERN



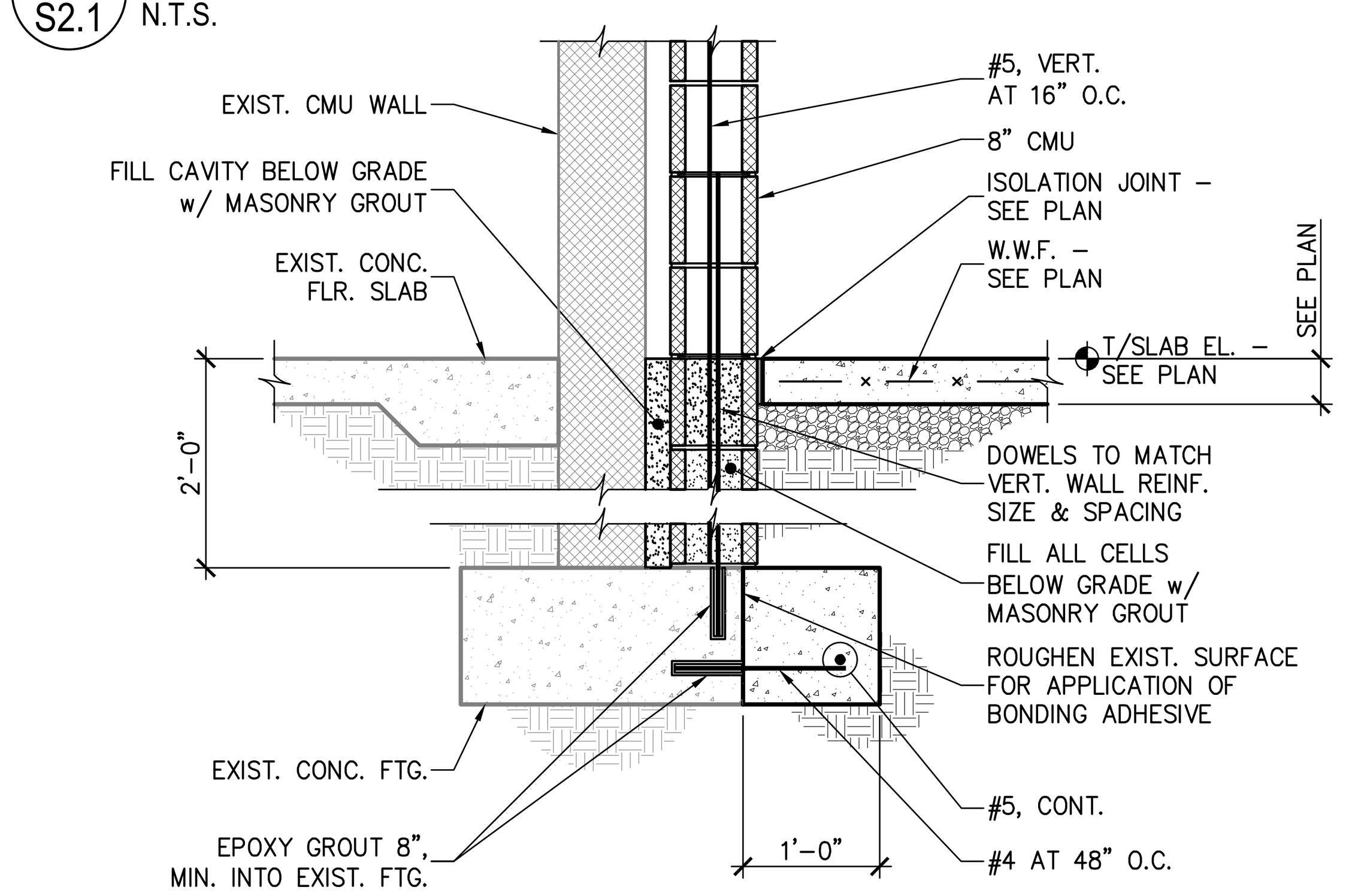
BOLT DIA. 'D'	EMBEDMENT 'E'	REMARKS
3/4"	0'-9"	-
1"	1'-0"	-
1¼"	1'-3"	-
1½"	1'-6"	-

7 TYPICAL ANCHOR BOLT DETAL
S2.1 N.T.S.

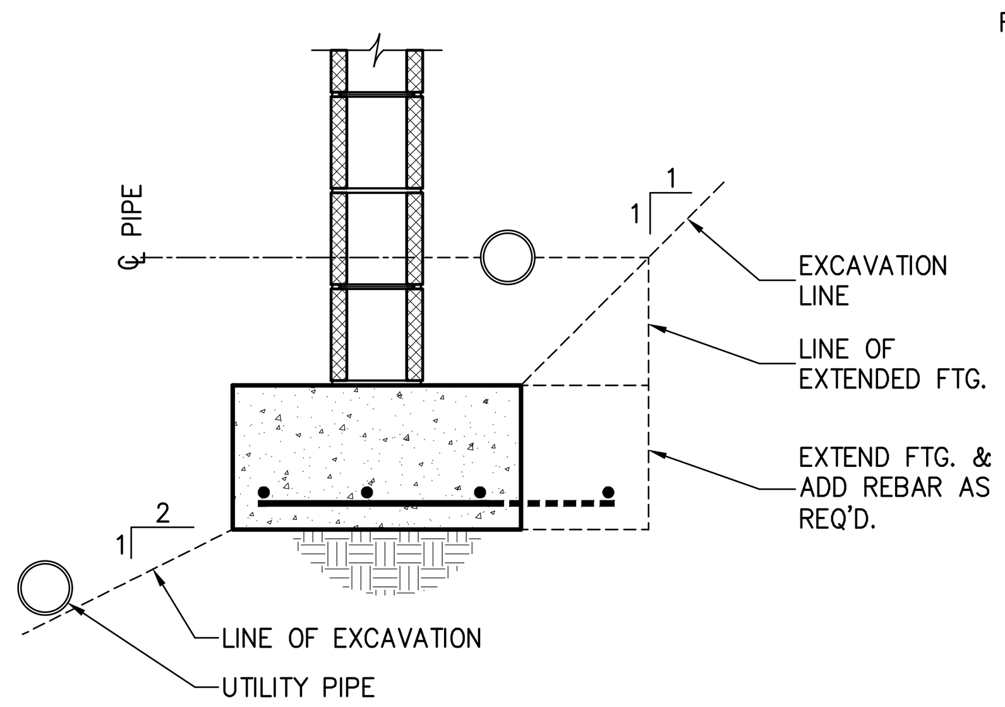


NOTES:
1. SEE FDN. PLAN & ARCH. DWGS. FOR LOCATION & SIZE OF DEPRESSION.
2. SEE DETAIL 1/S2.1 FOR TYPICAL SLAB INFORMATION.

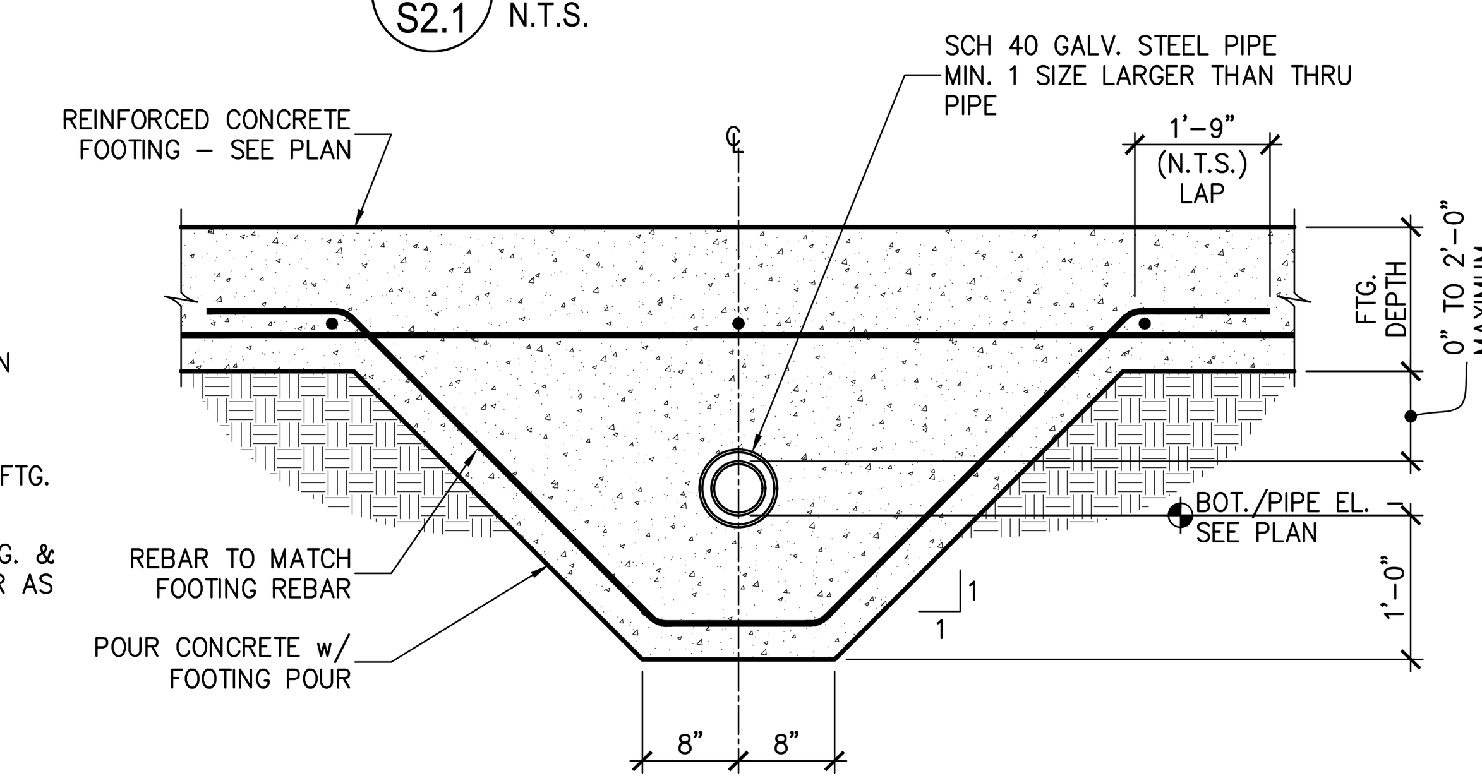
11 SECTION - TYP. DEPRESSED SLAB AT DOORWAY
S2.1 N.T.S.



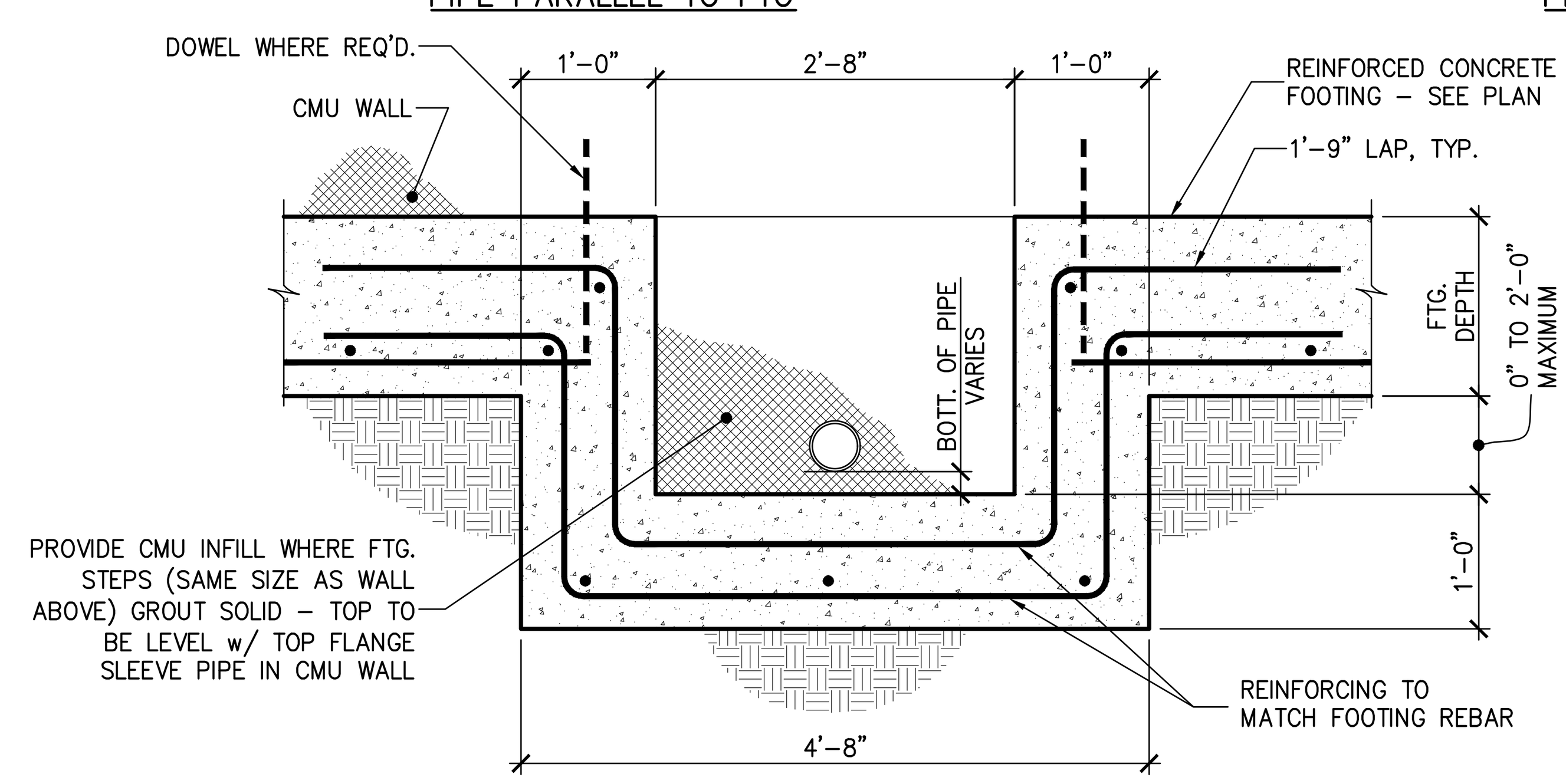
8 SECTION - NEW / EXSIT. WALL INTERFACE
S2.1 N.T.S.



PIPE PARALLEL TO FTG



PIPE PERPENDICULAR TO FTG.



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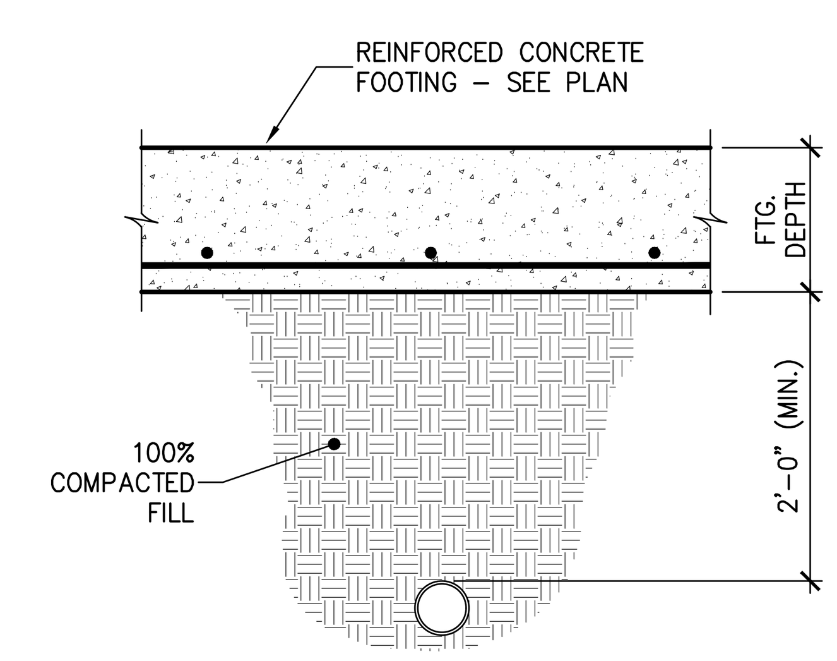
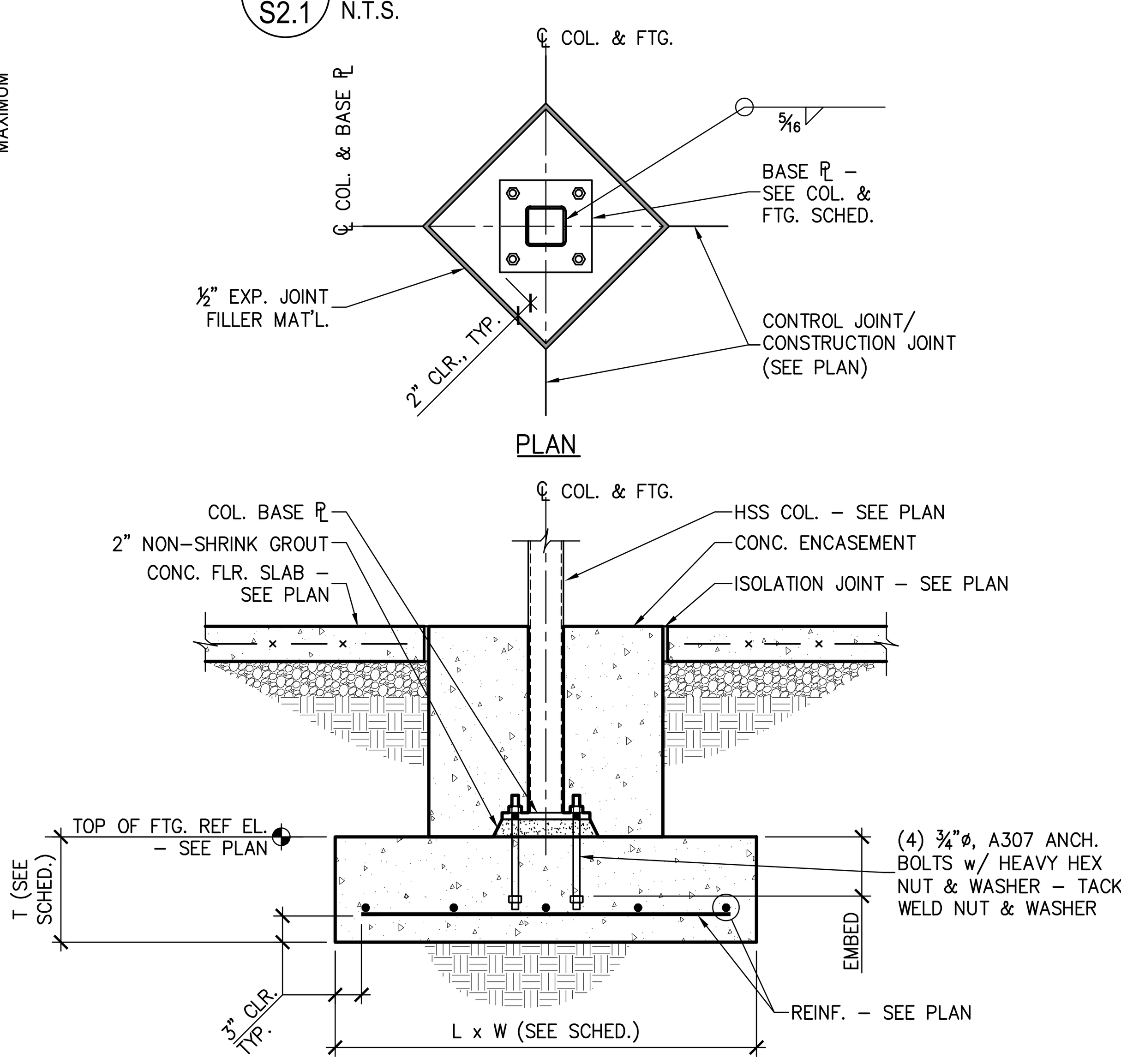


PIPE PERPENDICULAR TO FTG.

9 SECTION - TYP. PIPES UNDER OR ADJACENT TO FTGS.
S2.1 N.T.S.



NOTE:
SEE 7/S2.1 FOR ADDITIONAL INFORMATION.

10 SECTION - TYP. HSS COL. FTG.
S2.1 N.T.S.

MATERIALS KEYING LEGEND

RPA ENGINEERING, P.A.
Structural Engineering Solutions
Engineering License Certificate No. C-2734
102 Regency Blvd. Suite AI Greenville, NC 27834
Phone: 252-321-6027
Fax: 252-355-2179
RPA Project No.: 2017165

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

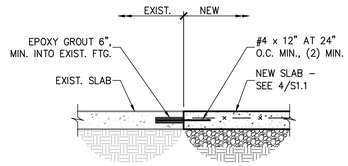
SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 17348

JKF ARCHITECTURE
625 LYNNDALE CT. SUITE F, GREENVILLE, NC 27858 252-355-1068

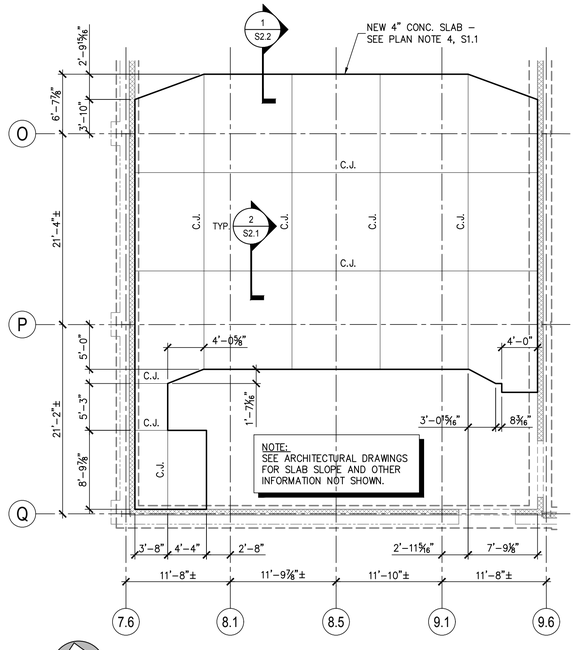
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FOUNDATION SECTIONS & DETAILS

SCALE: AS NOTED
DRAWN: MBM
CHECKED: MSR
DATE: 5-20-2024
PROJECT NO.: 2018-20B
DRAWING NO.: S2.1



1 S2.2 SECTION - TYP. EXIST. / NEW SLAB INTERFACE
N.T.S.



PROJECT NORTH
PARTIAL FOUNDATION PLAN - ALT. NO. 1: NEW SLAB IN EXIST. BLDG.
1/8" = 1'-0"

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER MARK STATEN ROY

RPA ENGINEERING, P.A.
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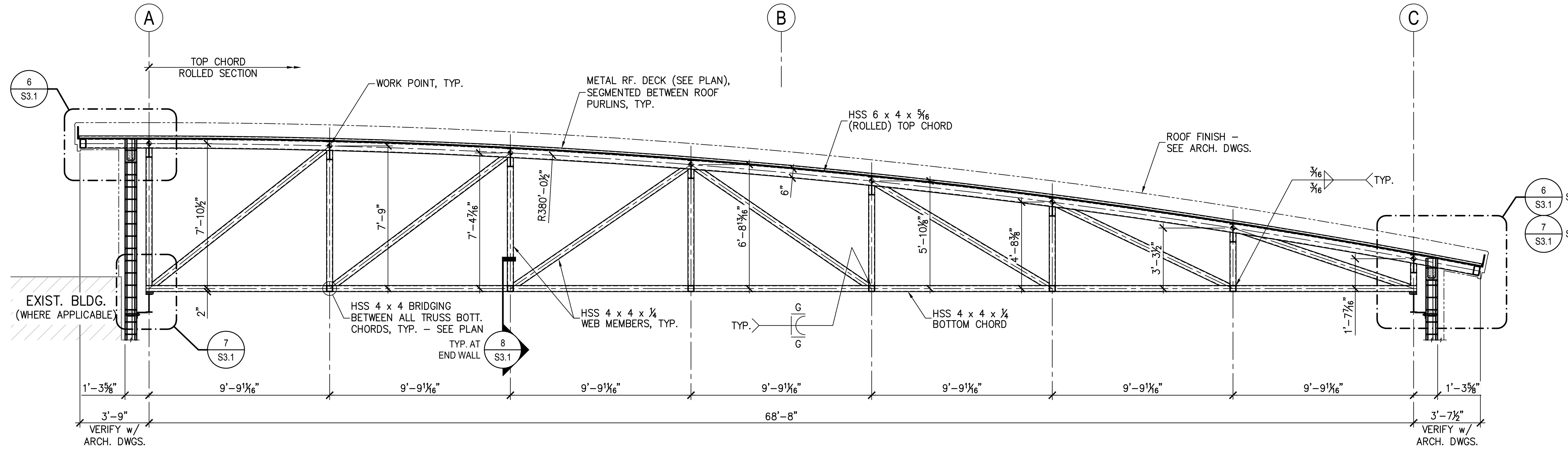
RPA Project No.: 2017165

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

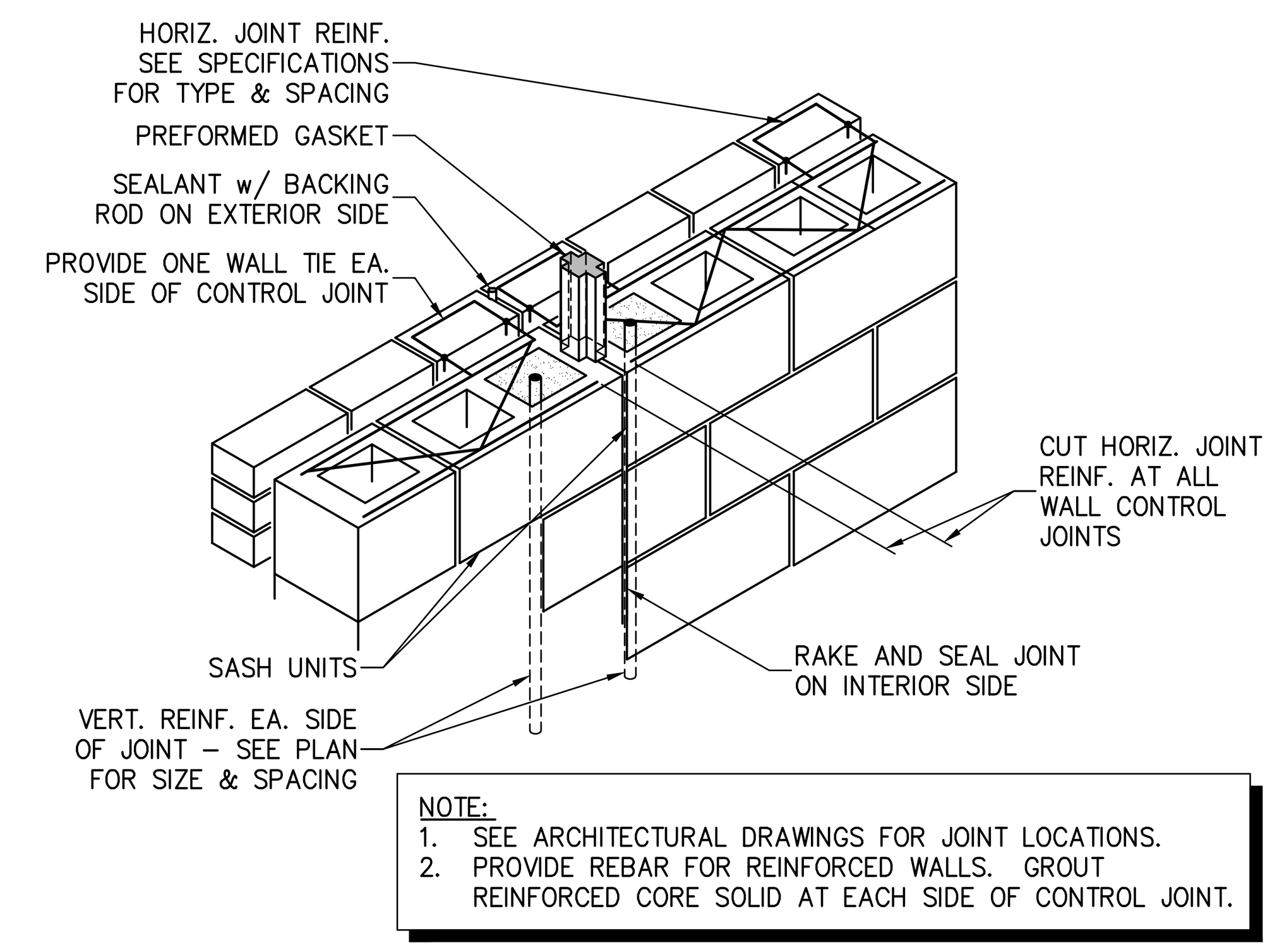
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
ALT. NO. 1: NEW SLAB PLAN, SECTIONS & DETAILS

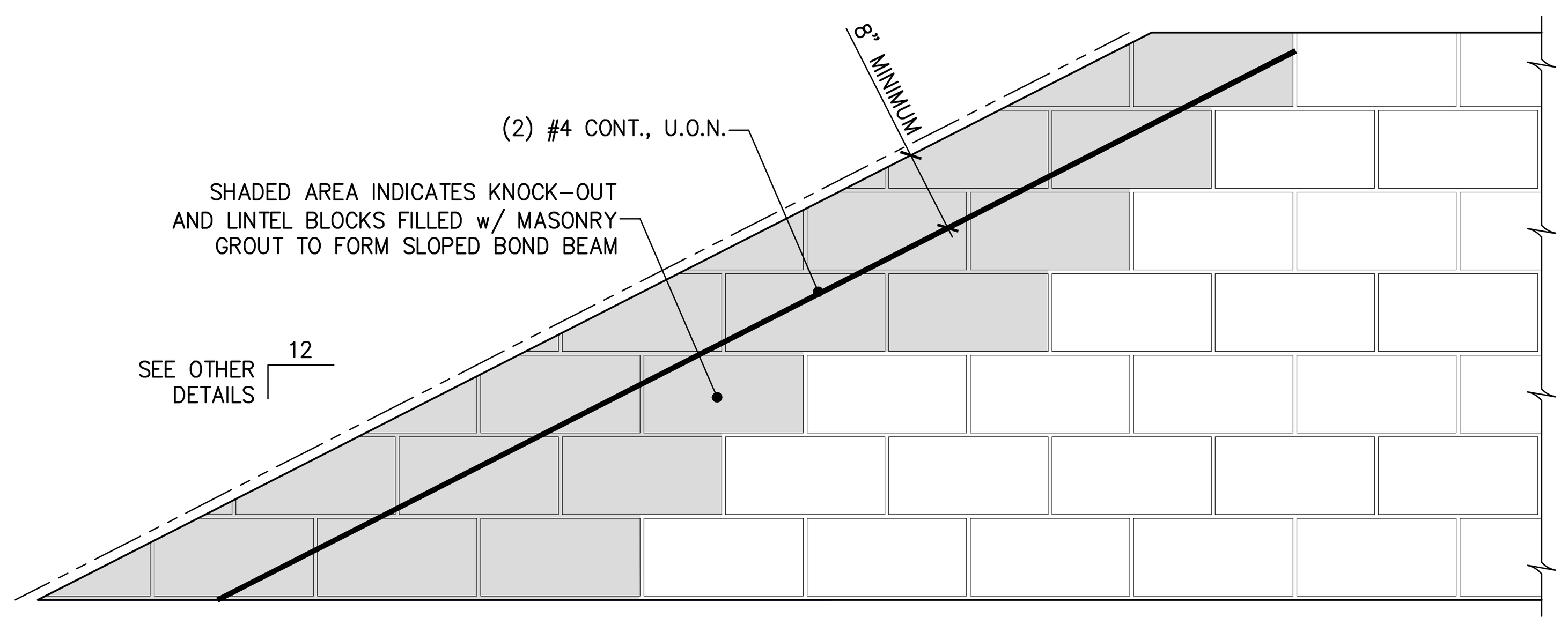
SCALE	DRAWING NO.
AS NOTED	S2.2
DRAWN: MBM	
CHECKED: MSR	
DATE: 5-20-2024	
PROJECT NO.: 2018-208	



1 SECTION - TYPICAL BOW-STRING STEEL TRUSS
S3.1 N.T.S.

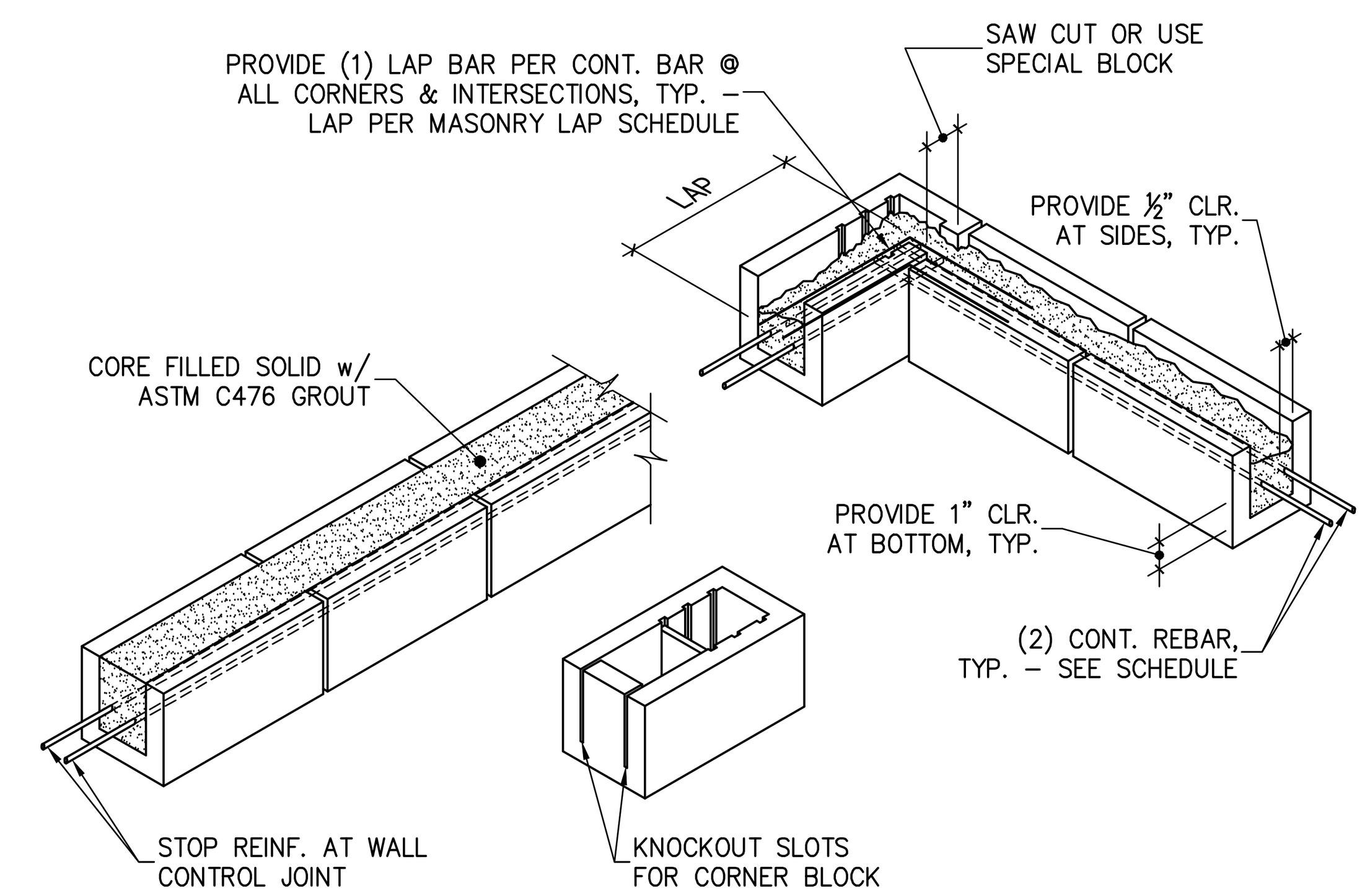


2 DETAIL - TYP. CMU WALL CONTROL JOINT w/ BRICK VENEER
S3.1 N.T.S.



NOTE:
RUNNING BOND SHOWN, STACK BOND SIMILAR. ALTERNATE CONSTRUCTION METHODS MUST BE SPECIFICALLY APPROVED BY ENGINEER.

3 ELEVATION - TYP. SLOPING BOND BEAM
S3.1 N.T.S.

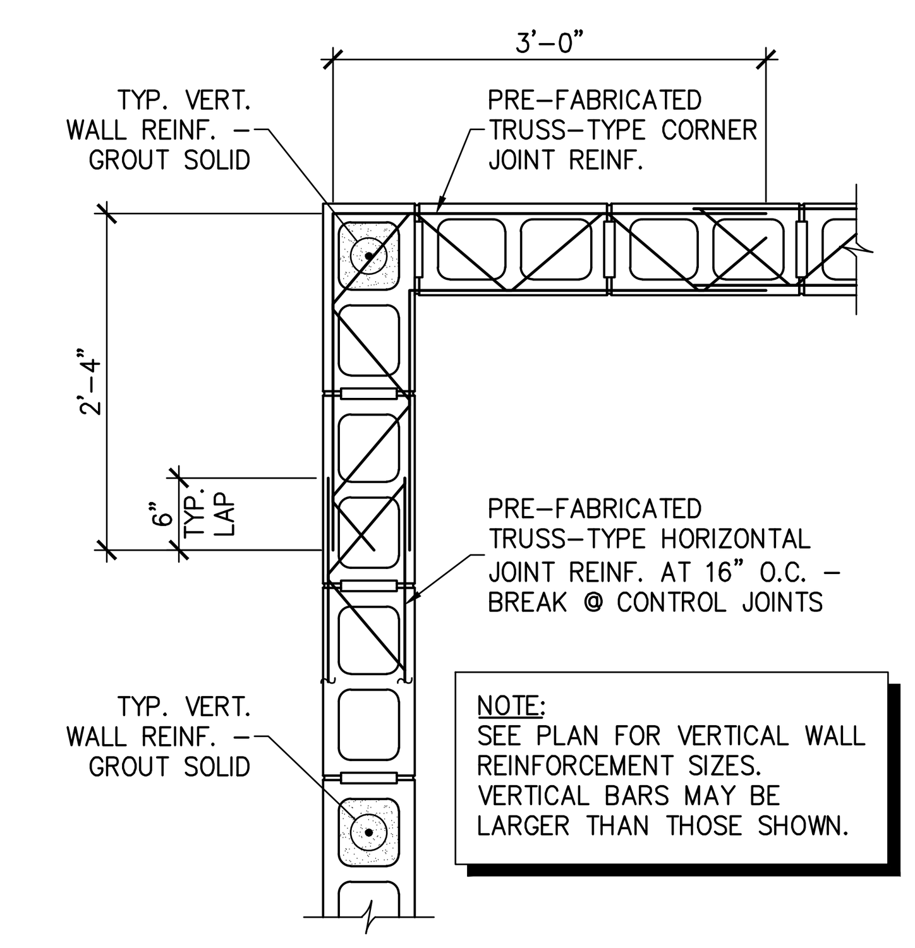


CMU BOND BEAM CONT. REINFORCING

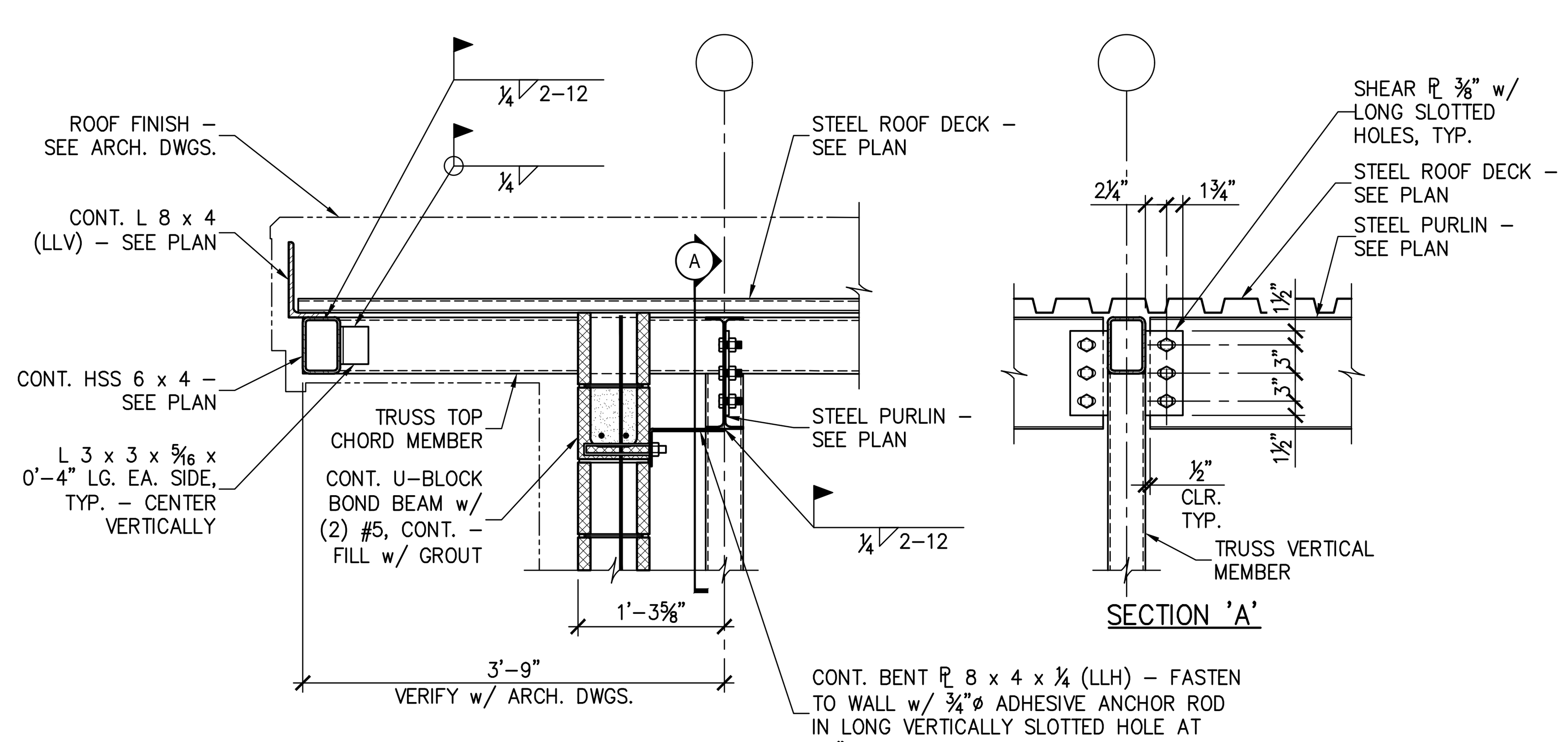
CMU THK.	REINF.	REMARKS
8"	(2) #5	–
12"	(2) #5	–
–	–	–

NOTES:
1. MATCH THICKNESS OF CORNER LAP BARS AND CONTINUOUS BARS.
2. SEE MASONRY LAP SCHEDULE FOR LAP REQUIREMENTS AT CORNERS AND INTERSECTIONS.

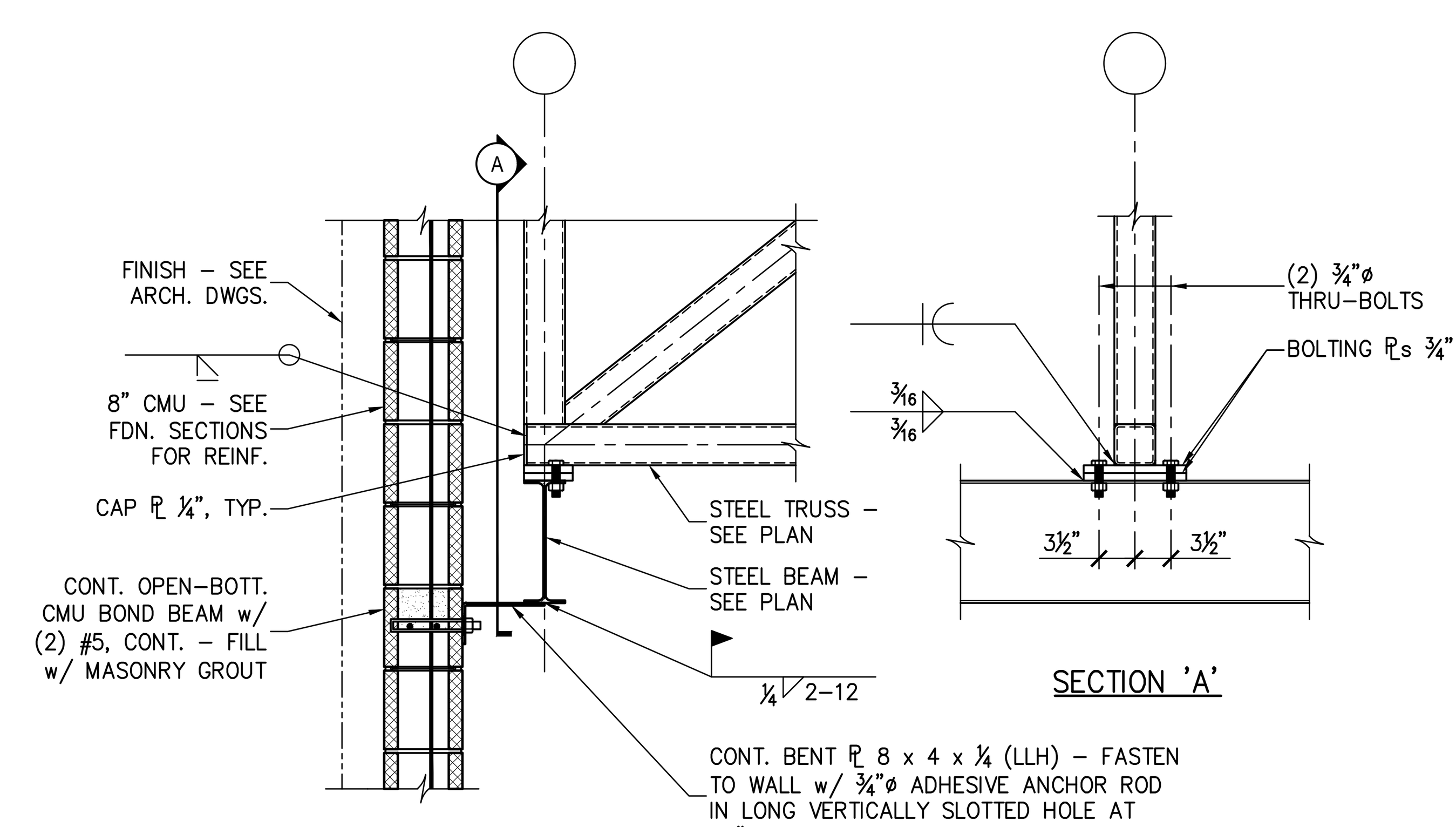
4 DETAIL - TYP. BOND BEAM
S3.1 N.T.S.



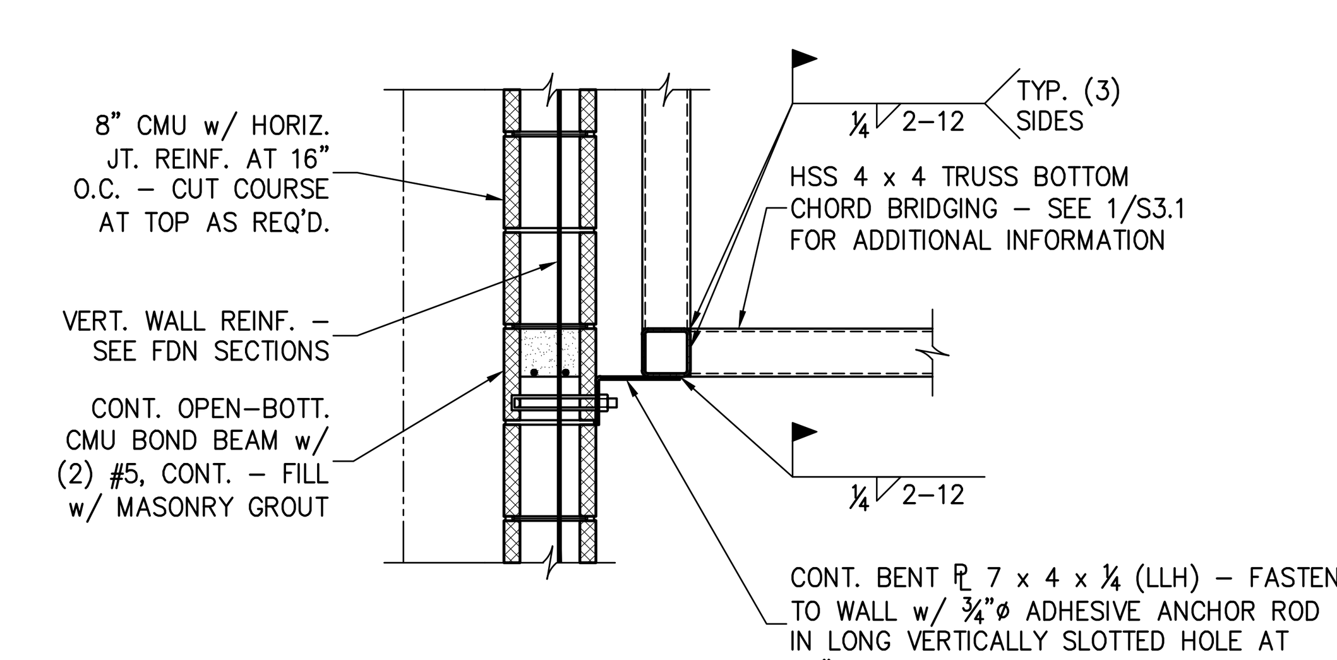
5 PLAN DETAIL - TYP. CMU CORNER REINF.
S3.1 N.T.S.



6 ENLARGED DETAIL AT TRUSS
S3.1 N.T.S.



7 SECTION - TYP. TRUSS BRG.
S3.1 N.T.S.



8 SECTION - TYP. TRUSS / CMU END WALL CONN.
S3.1 N.T.S.

MATERIALS KEYING LEGEND

RPA ENGINEERING, P.A.
Structural Engineering Solutions
Engineering License Certificate No. C-2734
102 Regency Blvd. Suite A1 Greenville, NC 27834
Phone: 252-321-6027
Fax: 252-355-2179
RPA Project No.: 2017165

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

SEAL 17348

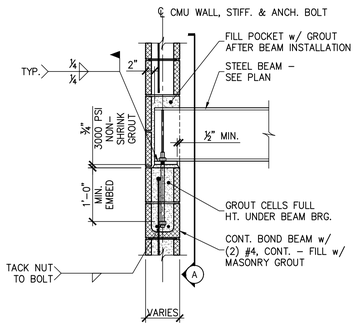
JKF ARCHITECTURE

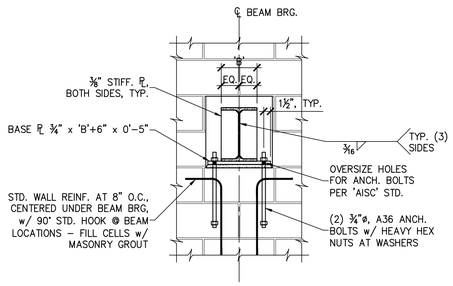
625 LYNNDALE CT. SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

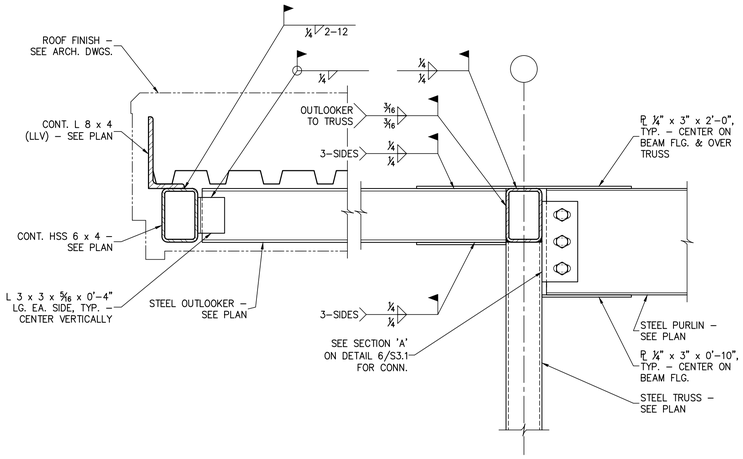
DRAWING TITLE: FRAMING SECTIONS & DETAILS

SCALE: AS NOTED
DRAWN: MBM
CHECKED: MSR
DATE: 5-20-2024
PROJECT NO.: 2018-20B
DRAWING NO.: S3.1

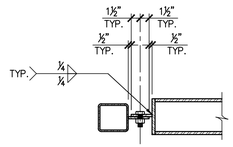




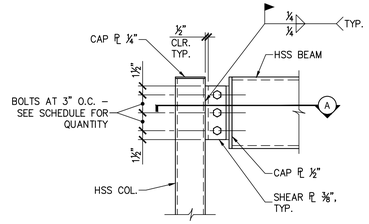
1 / S3.2 SECTION - TYP. STEEL BEAM BRG. ON PERPENDICULAR CMU
N.T.S.



2 / S3.2 SECTION - MOMENT CONNECTION
N.T.S.



PLAN SECTION 'A'
SINGLE BEAM CONN.

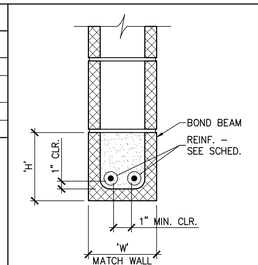


BOLT QUANTITY SCHEDULE	
SUPPORTED BEAM	QTY. ¾"ø A325N BOLTS
6"	2
8"	2
10"	3
12"	3
14"	4
16"	4
18"	5
20"	6

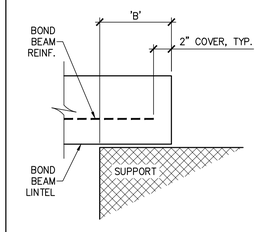
3 / S3.2 SECTION - HSS BEAM TO HSS COL. CONN.
N.T.S.

CONCRETE MASONRY LINTEL SCHEDULE					
LINTEL MARK	WIDTH 'W'	HEIGHT 'H'	BRG. 'B'	REINFORCING	REMARKS
CL1	WALL	8"	8"	(2) #5	SEE PLAN FOR LOCATION
CL2	WALL	16"	8" (U.O.N.)	(2) #5	SEE PLAN FOR LOCATION
CL3	WALL	24"	16"	(2) #5	SEE PLAN FOR LOCATION
–	–	–	–	–	–

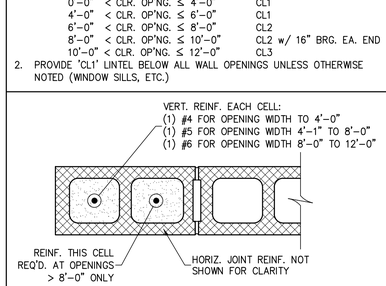
MASONRY LINTEL SCHEDULE NOTES:
1. PROVIDE REINFORCING BOND BEAM LINTELS FOR ALL CONCRETE MASONRY OPENINGS ACCORDING TO SPAN SCHEDULE BELOW, UNLESS OTHERWISE NOTED
   - 0'–0" < CLR. OP'NG. ≤ 4'–0" CL1
   - 4'–0" < CLR. OP'NG. ≤ 6'–0" CL1
   - 6'–0" < CLR. OP'NG. ≤ 8'–0" CL2
   - 8'–0" < CLR. OP'NG. ≤ 10'–0" CL2 w/ 16" BRG. EA. END
   - 10'–0" < CLR. OP'NG. ≤ 12'–0" CL3
2. PROVIDE 'CL1' LINTEL BELOW ALL WALL OPENINGS UNLESS OTHERWISE NOTED (WINDOW SILLS, ETC.)



SECTION – 'CL1'
TYPICAL BOND BEAM LINTEL DETAIL

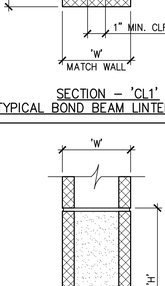


DETAIL – TYPICAL BOND BEAM BRG.

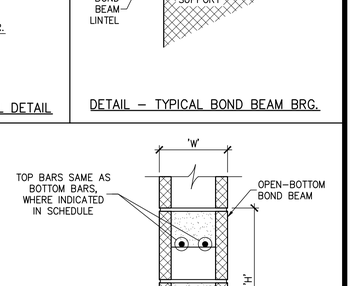


TYPICAL JAMB @ EXTERIOR CMU DETAIL NOTES:
1. OPENING WIDTH SHALL NOT EXCEED 12'–0" FOR THIS TYPE OF JAMB, UNLESS OTHERWISE NOTED.
2. THIS TYPE OF JAMB APPLIES WHERE ALL CMU LINTELS ARE USED, UNLESS OTHERWISE NOTED.

PLAN SECTION – JAMB

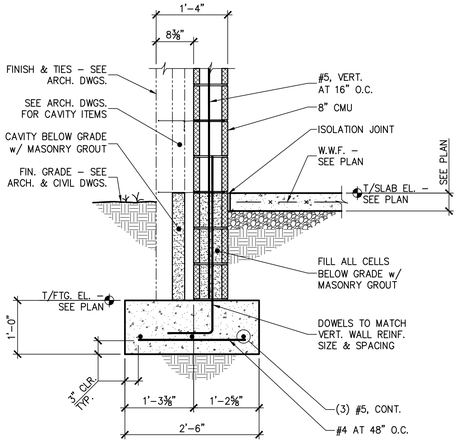


SECTION – 'CL2' / 'CL3'
(ONE PIECE)

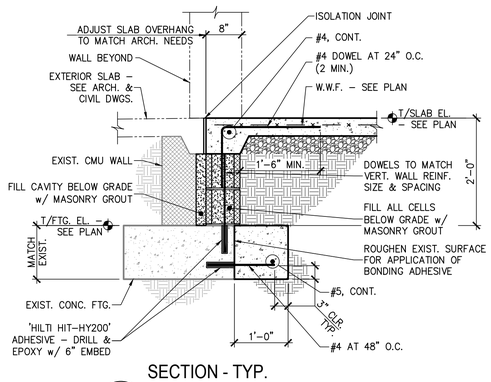


SECTION – 'CL2' / 'CL3'
(MULTIPLE PIECE)

4 / S3.2 CONCRETE MASONRY LINTEL SCHEDULE
N.T.S.



5 / S3.2 SECTION - TYP. FTG. AT 8" CMU WALL
N.T.S.



6 / S3.2 SECTION - TYP. EXT. DOOR WALL FTG.
N.T.S.

MATERIALS KEYING LEGEND

RPA ENGINEERING, P.A.
Structural Engineering Solutions
Engineering License Certificate No. C-2734
102 Regency Blvd. Suite A1 Greenville, NC 27834
Phone : 252-321-6027
Fax : 252-355-2179
RPA Project No.: 2017165

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER MARK STATEN RPA

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FRAMING SECTIONS & DETAILS

SCALE	DRAWING NO.
AS NOTED	S3.2
DRAWN: MBM	
CHECKED: MSR	
DATE: 5-20-2024	
PROJECT NO.: 2018-20B	

Statement of Special Inspections

Project: *Sampson Community College Activities Building Addition*

Location: *Clinton, NC*

Owner: *Sampson County*

Design Professional In Responsible Charge: *Mark S. Roy, PE*

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.

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: __ Weekly __ Quarterly X Monthly __ Per Attached Schedule

Prepared by:

Mark S. Roy, PE

Signature 6-12-2024 Date

NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER MARK STATEN ROY

Design Professional Seal

Owner's Authorization:

Signature Date

Building Official's Acceptance:

Signature Date

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
- __ Cold-Formed Steel Framing
- __ Spray Fire Resistant Material
- __ Wood Construction
- X Exterior Insulation and Finish System
- __ Mechanical & Electrical Systems
- __ Architectural Systems
- __ Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. **Special Inspection Coordinator** (SI)	*Mark S. Roy, PE* *RPA Engineering, PA*	*102 Regency Blvd, Suite A1* *Greenville, NC 27834* *252-321-6027*
2. Structural Engineer of Record (SER)	*Mark S. Roy, PE* *RPA Engineering, PA*	*102 Regency Blvd, Suite A1* *Greenville, NC 27834* *252-321-6027*
3. Architect of Record (AR)	*John Farkus, AIA LEED-AP BD+C* *JKF Architecture*	*625 Lynndale Court, Suite F* *Greenville, NC 27858* *252-355-1068*
4. Testing Agency (TA)	*TBD*	*TBD*
5. Testing Agency		
6. Other		

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category *C*
Quality Assurance Plan Required (Y/N) *N*

Description of seismic force resisting system and designated seismic systems:
Intermediate Reinforced Masonry Wall

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *140 mph*
Wind Exposure Category *B*
Quality Assurance Plan Required (Y/N) *N*

Description of wind force resisting system and designated wind resisting components:
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.

Special Inspections General Notes

1. The inspection and testing agencies shall be engaged by the owner's agent and not by the contractor or sub-contractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.
2. Each Special Inspection Agency shall submit a Final Report of Special Inspections to the Special Inspection Coordinator at the conclusion of the project.

Schedules of Special Inspection Services

SOILS AND FOUNDATIONS

ITEM	QUALIFICATIONS	SCOPE
1. SHALLOW FOUNDATIONS	TA	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	TA	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) OR MODIFIED PROCTOR TESTS (ASTM 101557) VERIFY EXTENT AND SLOPE OF FILL PLACEMENT.
3. DEEP FOUNDATIONS		NOT APPLICABLE
4. LOAD TESTING		NOT APPLICABLE
5. OTHER		

CAST-IN-PLACE CONCRETE

ITEM	QUALIFICATIONS	SCOPE
1. DESIGN MIX	SER	REVIEW MIX SUBMITTAL
2. MATERIAL CERTIFICATIION	SER	REVIEW CERTIFICATES OF COMPLIANCE FOR CONCRETE MATERIALS, REINFORCING, ADMIXTURES, AND ACCESSORIES.
3. REINFORCEMENT INSTALLATION	SER/TA	PERFORM FIELD INSPECTION OF REINFORCEMENT PLACEMENT.
4. ANCHOR RODS	SER/TA	INSPECT SIZE, POSITIONING AND EMBEDMENT OF ANCHOR RODS.
5. CONCRETE PLACEMENT	TA (ACI-CCI ICC-RCSI)	INSPECT PLACEMENT OF CONCRETE. VERIFY THAT CONCRETE CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION. VERIFY THAT CONCRETE IS PROPERLY CONSOLIDATED.
6. SAMPLING AND TESTING OF CONCRETE	TA (ACI-CFTT ACI-STT)	TEST CONCRETE COMPRESSIVE STRENGTH (ASTM C31 & C39), SLUMP (ASTM C143), AIR-CONTENT (ASTM C231 OR C173) AND TEMPERATURE (ASTM C1064).
7. CURING AND PROTECTION	TA (ACI-CCI ICC-RCSI)	INSPECT CURING, COLD WEATHER PROTECTION AND HOT WEATHER PROTECTION PROCEDURES.
8. FABRICATION DRAWINGS	SER	REVIEW REINFORCING STEEL FABRICATION DRAWINGS FOR COMPLIANCE WITH DESIGN DRAWINGS.
9. OTHER		

MASONRY

ITEM	QUALIFICATIONS	SCOPE REQUIRED INSPECTION LEVEL: X 1 __ 2
1. MATERIAL CERTIFICATION	SER	REVIEW CERTIFICATES OF COMPLIANCE FOR CONCRETE MASONRY UNITS, MORTAR, GROUT, REINFORCING, AND ACCESSORIES.
2. MIXING OF MORTAR AND GROUT	TA (ICC-SMSI)	PERIODIC INSPECTION OF PROPORTIONING, MIXING AND RETEMPERING OF MORTAR AND GROUT.
3. INSTALLATION OF MASONRY	SER/TA (ICC-SMSI)	PERIODIC INSPECTION OF SIZE, LAYOUT, BONDING AND PLACEMENT OF MASONRY UNITS.
4. REINFORCEMENT INSTALLATION	SER/TA (ICC-SMSI)	PERIODIC INSPECTION OF PLACEMENT, POSITIONING AND LAPPING OF REINFORCING STEEL.
5. GROUTING OPERATIONS	TA (ICC-SMSI)	PERIODIC INSPECTION OF PLACEMENT AND CONSOLIDATION OF GROUT. INSPECT MASONRY CLEAN-OUTS FOR HIGH-LIFT GROUTING.
6. WEATHER PROTECTION	TA (ICC-SMSI)	PERIODIC INSPECTION OF COLD WEATHER PROTECTION AND HOT WEATHER PROTECTION PROCEDURES. VERIFY THAT WALL CAVITIES ARE PROTECTED AGAINST PRECIPITATION.
7. EVALUATION OF MASONRY STRENGTH	TA (ICC-SMSI)	TEST COMPRESSIVE STRENGTH OF MORTAR AND GROUT CUBE SAMPLES (ASTM C780).
8. ANCHORS AND TIES	SER/TA (ICC-SMSI)	PERIODIC INSPECTION OF SIZE, LOCATION, SPACING AND EMBEDMENT OF DOWELS, ANCHORS AND TIES.
9. OTHER		

STRUCTURAL STEEL

ITEM	QUALIFICATIONS	SCOPE
1. FABRICATOR CERTIFICATION / QUALITY CONTROL PROCEDURES	SER	REVIEW SHOP FABRICATION AND QUALITY CONTROL PROCEDURES. FABRICATOR SHALL SUBMIT CERTIFICATE OF COMPLIANCE.
2. MATERIAL CERTIFICATION	SER	REVIEW CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL; REVIEW CERTIFICATES OF COMPLIANCE FOR BOLTS, NUTS, AND WASHERS; REVIEW CERTIFICATES OF COMPLIANCE FOR WELD FILLER MATERIAL.
3. BOLTING	SER/TA	VISUALLY INSPECT HIGH-STRENGTH BOLTED CONNECTIONS. VERIFY SNUGTIGHT BOLTED CONNECTIONS HAVE ALL CONNECTED PARTS DRAWN TOGETHER.
4. WELDING	TA (AWS-CWI) (ASNT)	VISUALLY INSPECT ALL FIELD WELDS PER AWS D1.1 OR AWS D1.3 AS APPLICABLE. PROVIDE PERIODIC INSPECTION OF SINGLE PASS FILLET WELDS. PROVIDE CONTINUOUS INSPECTION AND 100% TESTING OF ALL PARTIAL AND FULL PENETRATION GROOVE WELDS. VERIFY SIZE AND LENGTH OF FILLET WELDS.
5. SHEAR CONNECTIONS	TA (AWS/AISC-SSI) (ICC-SWSI)	INSPECT SIZE, NUMBER, POSITIONING AND WELDING OF SHEAR CONNECTORS. INSPECT SUDS FOR FULL 360 DEGREE FLASH. RING TEST ALL SHEAR CONNECTORS WITH A 3 LB HAMMER. BEND TEST ALL QUESTIONABLE STUDS TO 15 DEGREES.
6. STRUCTURAL DETAILS	SER	INSPECT STEEL FRAME FOR COMPLIANCE WITH STRUCTURAL DRAWINGS, INCLUDING BRACING, MEMBER CONFIGURATION AND CONNECTION DETAILS.
7. METAL DECK	TA (AWS-CWI)	INSPECT WELDING AND SIDE-LAP FASTENING OF METAL ROOF AND FLOOR DECK.
8. FABRICATION DRAWINGS	SER	REVIEW STRUCTURAL STEEL FABRICATION DRAWINGS FOR COMPLIANCE WITH DESIGN DRAWINGS.
9. OTHER		

SPRAY-APPLIED FIRE RESISTANCE MATERIAL

ITEM	QUALIFICATIONS	SCOPE
1. MATERIAL SPECIFICATIONS		NOT APPLICABLE.
2. LABORATORY TESTED FIRE RESISTANCE DESIGN		NOT APPLICABLE.
3. SCHEDULE OF THICKNESS		NOT APPLICABLE.
4. SURFACE PREPARATION		NOT APPLICABLE.
5. APPLICATION		NOT APPLICABLE.
6. CURING AND AMBIENT CONDITION		NOT APPLICABLE.
7. THICKNESS		NOT APPLICABLE.
8. DENSITY		NOT APPLICABLE.
9. BOND STRENGTH		NOT APPLICABLE.

EXTERIOR INSULATION & FINISH SYSTEM (EIFS)

ITEM	QUALIFICATIONS	SCOPE
1. MATERIAL SUBMITTALS	AR	REVIEW CERTIFICATES OF COMPLIANCE.
2. CONDITION OF SUBSTRATE	AR	PERIODIC INSPECTION.
3. APPLICATION OF FOAM PLASTIC BOARD	AR	PERIODIC INSPECTION.
4. APPLICATION OF COATINGS	AR	PERIODIC INSPECTION.
5. APPLICATION OF MESH	AR	PERIODIC INSPECTION.
6. AMBIENT CONDITION AND CURING	AR	REVIEW AND VERIFY CONTRACTOR PROCEDURES.
7. FLASHING & JOINT DETAILS	AR	PERIODIC INSPECTION. VERIFY COMPLIANCE WITH ARCHITECTURAL DRAWINGS.
8. SEALANTS/CAULKS	AR	PERIODIC INSPECTION.
9. OTHER		

MECHANICAL & ELECTRICAL SYSTEMS

ITEM	QUALIFICATIONS	SCOPE
1. SMOKE CONTROL		NOT APPLICABLE.
2. MECHANICAL, HVAC & PIPING		NOT APPLICABLE.
3. ELECTRICAL SYSTEM		NOT APPLICABLE.
4. OTHER		

ARCHITECTURAL SYSTEMS

ITEM	QUALIFICATIONS	SCOPE
1. WALL PANELS & VENEERS		NOT APPLICABLE.
2. Suspended Ceilings		NOT APPLICABLE.
3. OTHER		

SPECIAL CASES

ITEM	QUALIFICATIONS	SCOPE
1. ???	??	????
2. ???	??	????
3. ???	??	????
4. ???	??	????

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

Exterior Design Institute (EDI) Certification

EDI-EIFS EIFS Third Party Inspector

Other

MATERIALS KEYING LEGEND

GENERAL NOTES

KEY PLAN

SCO ID #17-18613-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17348 ENGINEER MARK STATEN ROY

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Structural Engineering Solutions
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Greenville, NC 27834
RPA Project No.: 2017165

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
STATEMENT OF SPECIAL INSPECTIONS

SCALE	DRAWING NO.
AS NOTED	S4.1
DRAWN: MBM	
CHECKED: MSR	
DATE: 5-20-2024	
PROJECT NO.: 2018-20B	

FIRE PROTECTION SYMBOLS

- PIPE TURNING UP
- PIPE TURNING DOWN
- TEE DOWN
- TEE UP
- 45° OFFSET
- DIRECTION OF FLOW IN PIPE
- PIPE SLOPED IN DIRECTION OF ARROW
- PIPE CAP
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- PIPE UNION
- GATE VALVE
- CHECK VALVE
- BUTTERFLY VALVE
- BALL VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- SAFETY RELIEF VALVE
- BACKFLOW PREVENTER ASSEMBLY (TYPE INDICATED)
- Y–TYPE STRAINER
- BASKET STRAINER
- PRESSURE GAUGE (W/?" BALL VALVE)
- PIPE ANCHOR
- FLEXIBLE PIPE CONNECTION
- PUMP
- FIRE HOSE CABINET
- PLUGGED TEE
- HYDRAULIC CALCULATION NODE (SPRINKLER SYSTEM) (1)
- HYDRAULIC CALCULATION NODE (STANDPIPE SYSTEM) (24)
- RISER/ALARM CHECK VALVE
- DRY PIPE VALVE WITH EXHAUSTER OR ACCELERATOR
- DELUGE VALVE
- PREACTION VALVE
- HOSE END VALVE
- TAMPER SWITCH (SHOWN ON VALVE) (TS)
- PRESSURE SWITCH (PS)
- FLOW SWITCH (FS)
- DOUBLE DETECTOR CHECK VALVE
- ANGLE VALVE (ELEVATION VIEW)
- ANGLE VALVE (PLAN VIEW)
- FIRE HYDRANT WITH OS&Y VALVE IN ROADWAY BOX
- SIAMESE CONN., FIRE DEPT. CONN., FIRE PUMP TEST HEADER
- HOSE TEST HEADER
- WATER MOTOR GONG ASSEMBLY

℄	CENTER LINE
§	PLATE
∟	ANGLE
ø	ROUND, DIAMETER OR PHASE
#	POUNDS OR NUMBER
A	COMPRESSED AIR

GENERAL SYMBOLS

- SHEET LETTER
- SHOWN ON SHEET NUMBER / ELEVATION LETTER
- SHOWN ON SHEET NUMBER / SECTION LETTER
- DIMENSION LINE
- SHEET NUMBER WITH DETAIL LETTER
- A1 — COLUMN NUMBER OR LETTER
- 1 — KEYED NOTE NUMBER
- CPR ? — REVISION NUMBER
- CONNECT TO EXISTING
- REMOVE TO THIS POINT
- N — NORTH ARROW

GENERAL NOTES

1. NOT ALL SYMBOLS & ABBREVIATIONS SHOWN ON THIS DRAWING MAY BE USED FOR THIS PROJECT.
2. UNLESS OTHERWISE NOTED, EACH TRADE CONTRACTOR IS RESPONSIBLE FOR CUTTING, CORE DRILLING, PATCHING, ETC. TO INSTALL HIS RESPECTIVE WORK.
3. COORDINATE WORK OF THIS TRADE WITH OTHER TRADE CONTRACTORS.
4. REPAIR ANY DAMAGE TO FIRE PROOFING MATERIAL DUE TO INSTALLATION OF HANGERS AND SUPPORTS.
5. SEAL ALL PIPING AND/OR CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES (WALLS, PARTITIONS, FLOORS, ETC.) IN ACCORDANCE WITH THE UL LISTED SYSTEMS.
6. SEAL ALL PIPING AND/OR CONDUIT PENETRATIONS THROUGH NON–RATED ASSEMBLIES (WALLS, PARTITIONS, FLOORS, ETC.) TO REDUCE TRANSFER OF SOUND THROUGH THE ASSEMBLIES. GYPSUM WALLBOARD "MUD" MAY BE USED FOR THIS PROCESS.
7. EXAMINE THE PROJECT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR FAILURE TO THOROUGHLY EXAMINE EXISTING CONDITIONS TO DETERMINE THE EXACT SCOPE OF THIS PROJECT; INCLUDING DEMOLITION WORK.
8. EXISTING AREAS OF THE FACILITY (WHETHER INSIDE OR OUTSIDE OF THE PROJECT LIMITS) DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. REPORT IMMEDIATELY TO THE ARCHITECT AND OWNER ANY MATERIAL ENCOUNTERED DURING DEMOLITION THAT HAS BEEN IDENTIFIED AS, OR IS SUSPECTED OF, CONTAINING ASBESTOS.
10. COORDINATE / SCHEDULE ALL SHUTDOWNS OF EXISTING UTILITIES IN ADVANCE WITH THE OWNER.
11. UNLESS NOTED OTHERWISE, ALL SPRINKLER PIPING SERVING INDIVIDUAL SPRINKLER HEADS SHALL BE 1" SCHEDULE 40 BLACK STEEL.
12. PROVIDE MIN. PITCH OF PIPE REQUIRED TO DRAIN SYSTEM. PITCH PIPE TOWARDS INSPECTOR'S TEST STATION AND/OR MAIN RISER. PROVIDE MANUAL AIR VENTS AT HIGH POINTS OF SYSTEM TO EVACUATE AIR FROM SYSTEM.
13. FIRE PROTECTION INSTALLATIONS SHALL MEET THE REQUIREMENTS OF NFPA 13, AND ANY STATE OR LOCAL AUTHORITY HAVING JURISDICTION.
14. ALL SPRINKLER HEADS SHALL BE LOCATED IN CENTER OF TILE WHERE LAY–IN CEILINGS OCCUR UNLESS NOTED OTHERWISE.
15. DRAWINGS AND CALCULATIONS SHALL INCLUDE THE FIRE PROTECTION CONTRACTORS NORTH CAROLINA FIRE SPRINKLER CONTRACTOR'S LICENSE AND THE RESPONSIBLE INDIVIDUAL'S NAME AND NICET LEVEL.
16. ALL SPRINKLER PIPING, AS SHOWN, IS DIAGRAMMATIC WITH APPROXIMATE PIPE LOCATIONS, ELEVATIONS, ROUTING, ETC., AND IS PROVIDED FOR INFORMATIONAL PURPOSES. EVERY FITTING, ELL, TEE AND LENGTH OF PIPE MAY NOT BE SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW THE CONTRACT DRAWINGS AND COORDINATE THE FIRE PROTECTION SYSTEM INSTALLATION WITH THE BUILDING STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS. THE FIRE PROTECTION CONTRACTOR SHALL CREATE A FABRICATION DRAWING SHOWING ALL PIPE SIZES, LOCATION, ROUTING, HANGERS & ELEVATIONS THAT IS A RESULT OF THIS COORDINATION EFFORT. NECESSARY OFFSETS IN PIPING REQUIRED TO PROPERLY INSTALL THE FIRE PROTECTION SYSTEM AS TO TAKE UP MINIMUM SPACE SHALL BE FURNISHED AND INSTALL BY THE CONTRACTOR WITH NO ADDITIONAL EXPENSE TO THE OWNER.
17. FIRE PROTECTION CONTRACTOR SHALL NOTE THE SEISMIC DESIGN CATEGORY LISTED IN THE BUILDING CODE SUMMARY SECTION OF THE ARCHITECTURE DRAWINGS AND SHALL PROVIDE SEISMIC RESTRAINT DESIGN IN COMBINATION WITH REQUIRED PRODUCT DATA, HYDRAULIC CALCULATIONS, AND WET SYSTEM LAYOUT SHOP DRAWINGS WHERE REQUIRED.

WATER SUPPLY INFORMATION

Tested By: MICHAEL CHRISTOPHER MEDLIN – CITY OF CLINTON PUBLIC WORKS MANAGER – (910)299–4905 X3059

Hydrant Elev.	162' (+/–)	Pressure Hydrant:		Flow Hydrant:	
Date/Time	04/16/2024 8:00 am	Static	45 psi	Pitot Pressure	–
Water Main Size	12"	Residual	35 psi	Flow	950 gpm

Pressure Hydrant: 999–39 HWY 24/Airport Rd. — Flow Hydrant: 999–38 HWY 24/Comm. College Entrance

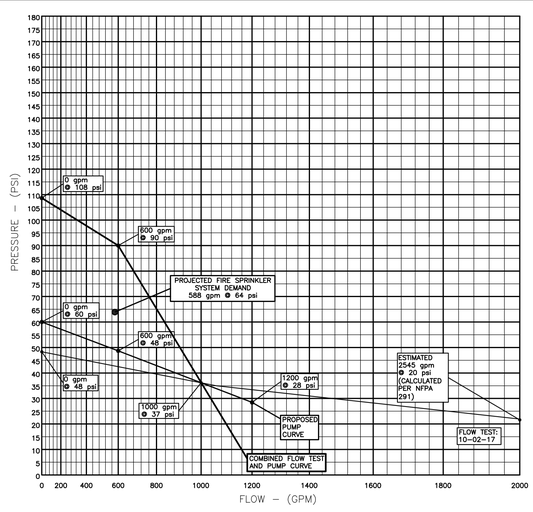
PRELIMINARY HYDRAULIC ANALYSIS

MOST DEMANDING OCCUPANCY DESIGN ASSUMPTIONS: WET SPRINKLER SYSTEM PROTECTION FOR UPPER LEVEL MECH. PLATFORM ORDINARY HAZARD GROUP I OCCUPANCY, PROTECTED WITH SSU HEADS.

1. WATER FLOW QUANTITY:			
(A) DENSITY * DESIGN AREA * 150 .15*1500*150%	=	338	GPM
(B) OUTSIDE HOSE STREAM DEMAND	=	250	GPM
(C) OTHER	=	0	GPM
TOTAL WATER DEMAND:	=	588	GPM
2. WATER PRESSURE:			
(A) END– HEAD–PRESSURE [DENSITY * (AREA/HEAD / K–FACTOR]² [.15*130÷5.6]² MINIMUM 7 PSI. K–FACTOR IS 5.6 FOR 0.5" ORIFICE, 8.1 FOR 0.53" ORIFICE AND 11 FOR 0.64" ORIFICE.	=	13	PSI
(B) ELEVATION LOSS = HEIGHT * .433 (25' HEIGHT)	=	11	PSI
(C) OUTSIDE FRICTION LOSS (INCLUDES 6" REDUCED PRESSURE BACKFLOW PREVENTER)	=	20	PSI
(D) INSIDE FRICTION LOSS	=	20	PSI
TOTAL PRESSURE (A+B+C+D):	=	64	PSI

PROJECTED FIRE PROTECTION DEMAND: 588 GPM @ 64 PSI
(BASED ON PRELIMINARY INFORMATION PROVIDE OTHERS)

WATER SUPPLY CURVE



HYDRAULIC ANALYSIS NOTES:

1. WORK INVOLVES THE NEW FIRE PROTECTION SPRINKLER SYSTEM FED FROM NEW FIRE PROTECTION SERVICE.
2. NO STORAGE OVER 12'
3. ALL SPRINKLER HEAD SPECIFICATION INFORMATION SHALL BE INDUSTRY STANDARD UNLESS OTHERWISE INDICATED ON THE DRAWINGS AND/OR AS OTHERWISE REQUIRED. BY CODE (ORIFICE SIZES, TEMPERATURE CLASSIFICATION, ETC.).
4. WET SPRINKLER SYSTEM PIPING TO BE BLACK STEEL PIPE, ASTM A 53 SCHEDULE 40 WITH THREADED OR GROOVED JOINTS AS OUTLINE IN THE SPECIFICATIONS. DRY TYPE SPRINKLER SYSTEM IS TO BE GALVANIZED PIPE AND FITTINGS.
5. ALL SPRINKLER SYSTEM PIPING HANGERS ANDS SUPPORTS SHALL COMPLY WITH NFPA 13 AND INSTALLED ACCORDING TO NFPA 13.

SPRINKLER DESIGN / BUILDING DATA

Project Name: SAMPSON COMMUNITY COLLEGE – ACTIVITIES BUILDING		FP DESIGN By: MJS AT PDC
Project Location: CLINTON, NC		
OCCUPANCY: ASSEMBLY (A–3)		
CONSTRUCTION: II–B		
GROSS BLDG AREA: 10,000 SF		System: SEE BELOW
SPRINKLERS: YES	Floor#: SEE BELOW	Sys. Sq. Ft.: SEE BELOW
MIN. REQUIRED FIRE FLOW: 1,500 GPM	Phone#: (919) 790–9989	Ceiling Hgt.: 25'
MIN. REQUIRED FLOW DURATION: 2 HRS	Hazard: SEE BELOW	Total Bldg. Hgt.: 25'

DESIGN SUMMARY

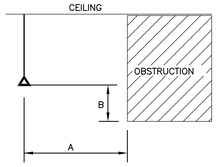
	DESIGN AREA 1	DESIGN AREA 2	
Design Method	HYD. CALC.	HYD. CALC.	
System Id No.	#1	#2	
Location	TO BE DETERMINED	TO BE DETERMINED	
Type of System	WET	WET	
Hazard Class	LIGHT HAZARD	ORDINARY HAZARD I	
Criteria From	NFPA 13	NFPA 13	
Design Area	TO BE DETERMINED	TO BE DETERMINED	
Spacing	225 MAX (LIGHT HAZARD)	130 MAX (ORDINARY HAZARD)	
Density	0.10 GPM/SQ. FT.	0.15 GPM/SQ. FT.	
K–Factor	5.6	5.6	
Hose Allowance	100	250	
# Design Sprklr's.	TO BE DETERMINED	TO BE DETERMINED	
Requirements ❁			
G.P.M. Req'd.	TO BE DETERMINED	TO BE DETERMINED	
P.S.I. Req'd.	TO BE DETERMINED	TO BE DETERMINED	
Node #	TO BE DETERMINED	TO BE DETERMINED	
Safety Factor:	TO BE DETERMINED	TO BE DETERMINED	
G.P.M.	TO BE DETERMINED	TO BE DETERMINED	
P.S.I.	TO BE DETERMINED	TO BE DETERMINED	

FIRE/JOCKEY PUMP SCHEDULE

MARK	GPM	PSI	HP	VOLTS	PHASE	REMARKS
FP–1	500	50	10	208	3	DIESEL PUMP – PRE–PACKAGED UNIT IN SEPARATE HOUSING
JP–1	10	75	3	208	3	VERTICAL INLINE PRESSURE MAINTANANCE PUMP

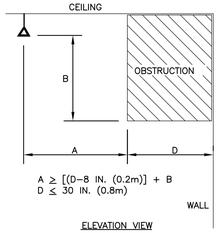
FIRE PROTECTION SHEET LISTING

TABLE 8–6.5.1.2	
POSITION OF SPRINKLERS TO AVOID OBSTRUCTIONS TO DISCHARGE (SSU/SSP)	
DISTANCE FROM SPRINKLER TO SIDE OF OBSTRUCTION (A)	MAXIMUM ALLOW– ABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION (B)
LESS THAN 1 FT.	0 IN.
1 FT. TO LESS THAN 1 FT. 6 IN.	2½ IN.
1 FT. 6 IN. TO LESS THAN 2 FT.	3½ IN.
2 FT. TO LESS THAN 2 FT. 6 IN.	5½ IN.
2 FT. 6 IN. TO LESS THAN 3 FT.	7½ IN.
3 FT. TO LESS THAN 3 FT. 6 IN.	9½ IN.
3 FT. 6 IN. TO LESS THAN 4 FT.	12 IN.
4 FT. TO LESS THAN 4 FT. 6 IN.	14 IN.
4 FT. 6 IN. TO LESS THAN 5 FT.	16½ IN.
5 FT. AND GREATER	18 IN.
FOR SI UNITS: 1 IN. = 25.4 MM; 1 FT. = 0.3048 M.	



ELEVATION VIEW

FIGURE 8–6.5.1.2(a) POSITION OF SPRINKLERS TO AVOID OBSTRUCTIONS TO DISCHARGE (SSU/SSP).



ELEVATION VIEW

FIGURE 8–6.5.1.2(b) OBSTRUCTIONS AGAINST WALLS (SSU/SSP).

1 / FP0.1 TYPICAL SOFFIT/SPRINKLER HEAD INSTALLATION
NOT TO SCALE

TABLE AND FIGURES FROM LATEST EDITION NFPA 13

CONSULTANT

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL — 06/13/2024

pdc
Progressive Design Collaborative, ltd.
3101 Poplarwood Court, Suite 320
Raleigh, North Carolina 27604
919-790-9989
License# C-0185
PDC #24010

KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

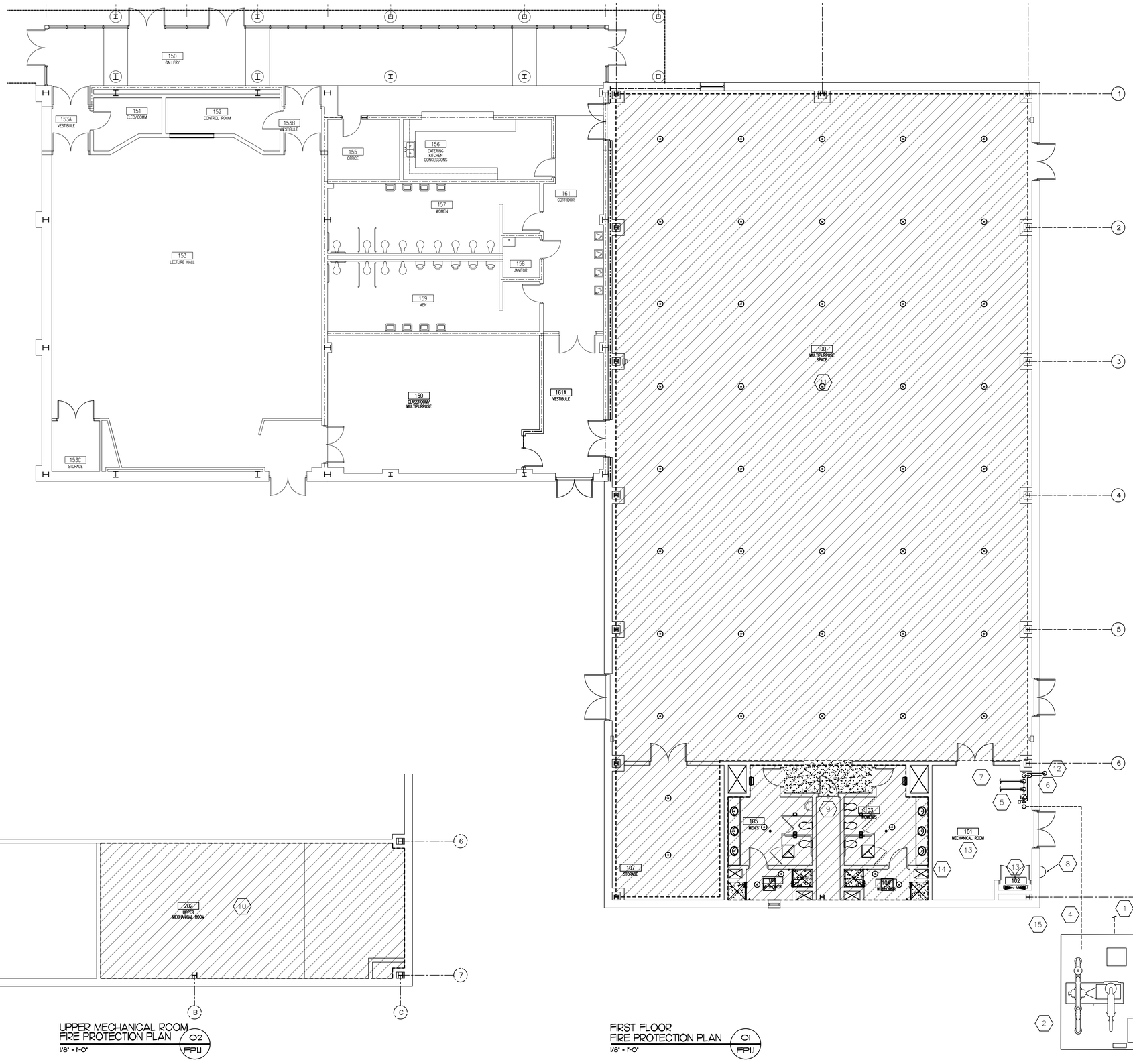
JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRE PROTECTION SYMBOLS, GENERAL NOTES, ANALYSIS

SCALE	NTS
DRAWN	DJL
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-208
DRAWING NO	FP0.1

Project #: 240210
Sheet: FP0–1
Plotted By: dbarry
Plotted: June 13, 2024 @ 7:12 AM



UPPER MECHANICAL ROOM FIRE PROTECTION PLAN 02
1/8" = 1'-0" FP1.1

FIRST FLOOR FIRE PROTECTION PLAN 01
1/8" = 1'-0" FP1.1

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

WALL LEGEND

ONE(1)-HOUR FIRE RATED WALL

TWO(2)-HOUR FIRE RATED WALL

KEYNOTES

1. INCOMING 6" FIRE PROTECTION SERVICE BY SITE UTILITIES CONTRACTOR – REFER TO CIVIL/SITE DRAWINGS FOR CONTINUATION AND LOCATIONS OF HYDRANT, FDC, POST INDICATOR VALVE, AND RPDA BACKFLOW PREVENTER TO BE LOCATED AT R.O.W. AT NC HWY. 24
2. DIESEL FIRE PUMP AND ENCLOSURE – REFER TO SHEET FP2.1 FOR FURTHER INFORMATION COORDINATE LOCATION WITH SITE UTILITY CONTRACTOR PRIOR TO START OF WORK – REFER TO CIVIL/SITE DRAWINGS
3. FIRE PUMP TEST HEADER WITH TWO (2) 2-1/2" BRASS HOSE VALVES – FACE OUT TO NEW CATCH BASIN AT PARKING LOT – REFER TO CIVIL/SITE DRAWINGS
4. INCOMING 6" FIRE PROTECTION SUPPLY MAIN
5. AUTOMATIC WET FIRE PROTECTION SPRINKLER SYSTEM RISER – REFER TO SHEET FP2.1 FOR FURTHER INFORMATION
6. OUT TO FDC
7. OUT TO AUTOMATIC WET FIRE PROTECTION SPRINKLER SYSTEM AND FDC
8. 10" ELECTRIC BELL
9. PROVIDE LIGHT HAZARD OCCUPANCY FIRE SPRINKLER PROTECTION FOR THIS AREA AREA HAS LAY-IN TYPE CEILING AT +10' AFF – SPRINKLER HEADS SHALL BE CONCEALED TYPE PENDENT SPRINKLER HEAD, QUICK-RESPONSE, GLASS BULB, ADJUSTABLE, BRASS FINISH, WITH WHITE COVER PLATE COORDINATE SHOP DRAWING PRODUCTION CAREFULLY WITH ARCHITECT'S REFLECTED CEILING PLAN AND MECHANICAL AND ELECTRICAL CEILING MOUNTED DEVICES
10. PROVIDE ORDINARY HAZARD GROUP I FIRE SPRINKLER PROTECTION FOR THIS AREA AREA HAS NO CEILING – SPRINKLER HEADS SHALL BE 200' MIN. UPRIGHT HEADS W/ CAGE GUARDS
MAINS SHALL BE RUN AT +/- +22'-0" AFF (JUST ABOVE BOTTOM CHORD OF STEEL TRUSS) COORDINATE WITH MECHANICAL DUCTING LAYOUT AND PROVIDE SPRINKLER PROTECTION BELOW DUCTING AS REQUIRED BY NFPA 13 – 2018 WHERE NECESSARY BASED ON DUCTING SIZE
11. PROVIDE LIGHT HAZARD OCCUPANCY FIRE SPRINKLER PROTECTION FOR THIS AREA AREA HAS NO CEILING – SPRINKLER HEADS SHALL BE 200' MIN. UPRIGHT HEADS W/ CAGE GUARDS
MAINS SHALL BE RUN AT +/- +22'-0" AFF (JUST ABOVE BOTTOM CHORD OF STEEL TRUSS) COORDINATE WITH MECHANICAL DUCTING LAYOUT AND PROVIDE SPRINKLER PROTECTION ON EITHER SIDE OF DUCTING AS REQUIRED BY NFPA 13 – 2018 WHERE NECESSARY BASED ON DUCTING SIZE
12. APPROXIMATE LOCATION OF MAIN DRAIN – COORDINATE WITH RISER SETUP AND SHOW IN FIRE PROTECTION SHOP DRAWINGS
13. SEE PLAN DETAIL 02 ON THIS SHEET FOR COVERAGE AT HIGH CEILING OF THIS AREA – PROVIDE COVERAGE FOR ELECTRICAL CLOSET 107
14. REMOTE VISUAL AND AUDIBLE ALARM FOR FIRE PUMP PER NFPA 20 12.4.1.3 – COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER AND CONDUIT AND REFER TO FIRE PUMP SPECIFICATION 21 31 16 FOR FURTHER INFORMATION AND COORDINATION WITH FIRE PUMP
15. DISTANCE FROM BUILDING SHOWN IS SCHEMATIC IN NATURE. REFER TO CIVIL PLANS FOR PLACEMENT ON SITE AND COORDINATE AS REQUIRED.

GENERAL NOTES

1. REFER TO SHEET FP0.1 FOR ABBREVIATIONS, GENERAL PROJECT NOTES, DETAILS AND SCHEDULES.
2. UNLESS NOTED OTHERWISE, ALL SPRINKLER PIPING SERVING INDIVIDUAL SPRINKLER HEADS SHALL BE 1" SCHEDULE 40 BLACK STEEL.
3. PROVIDE COMPLETE FIRE SPRINKLER SYSTEM FOR THE ENTIRE AREA PER NFPA 13.
4. PROVIDE MIN. PITCH OF PIPE REQUIRED TO DRAIN SYSTEM. PITCH PIPE TOWARDS INSPECTOR'S TEST STATION AND/OR MAIN RISER. PROVIDE MANUAL AIR VENTS AT HIGH POINTS OF SYSTEM TO EVACUATE AIR FROM SYSTEM
5. FIRE PROTECTION INSTALLATIONS SHALL MEET THE REQUIREMENTS OF NFPA 13, CITY AND STATE REQUIREMENTS
6. ALL FIRE PROTECTION PIPING AND EQUIPMENT, AS SHOWN, IS DIAGRAMMATIC WITH APPROXIMATE PIPE LOCATIONS, ELEVATIONS, ROUTING, ETC., AND IS PROVIDED FOR INFORMATIONAL PURPOSES. EVERY FITTING, ELL, TEE AND LENGTH OF PIPE MAY NOT BE SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW THE CONTRACT DRAWINGS AND COORDINATE THE FIRE PROTECTION SYSTEM INSTALLATION WITH ALL OTHER BUILDING SYSTEMS. THE FIRE PROTECTION CONTRACTOR SHALL CREATE A FABRICATION DRAWING SHOWING ALL PIPE SIZES, LOCATION, ROUTING, HANGERS & ELEVATIONS THAT ARE A RESULT OF THIS COORDINATION EFFORT. NECESSARY OFFSETS IN PIPING REQUIRED TO PROPERLY INSTALL THE FIRE PROTECTION SYSTEM AS TO TAKE UP MINIMUM SPACE SHALL BE FURNISHED AND INSTALL BY THE CONTRACTOR WITH NO ADDITIONAL EXPENSE TO THE OWNER.
7. ALL SPRINKLER HEAD SPECIFICATION INFORMATION IS TYPICAL UNLESS OTHERWISE INDICATED ON THE DRAWINGS AND/OR AS OTHERWISE REQ'D. BY CODE (ORIFICE SIZES, TEMPERATURE CLASSIFICATION, ETC.).
8. WET SPRINKLER SYSTEM PIPING TO BE BLACK STEEL PIPE, ASTM A 53 SCHEDULE 40 WITH THREADED OR GROOVED JOINTS AS OUTLINED IN THE SPECIFICATIONS.
9. ALL SPRINKLER SYSTEM PIPING HANGERS AND SUPPORTS SHALL COMPLY WITH NFPA 13 AND INSTALLED ACCORDING TO NFPA 13.
10. PAINT ALL EXPOSED FIRE PROTECTION SPRINKLER PIPING WITH COLOR CHOSEN BY PROJECT ARCHITECT. REFER TO PROJECT SPECIFICATION 210500–COMMON WORK FIRE–SUPPRESSION.

CONSULTANT

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL
06/13/2024

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919-790-9989
License# C-0185
PDC #24010

KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

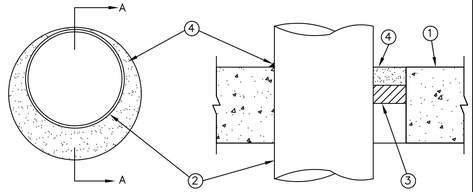
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRE PROTECTION FLOOR PLANS

SCALE	1/8"=1'-0"
DRAWN	DJL
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	FP1.1

Project #: 24010
Sheet: FP1-1
Plotted By: dlarry
Plotted: June 13, 2024 @ 7:12 AM

System No. CAJ1044
F Ratings--2, 3, and 4 Hr (See Items 2A and 4)
T Rating--0 Hr.

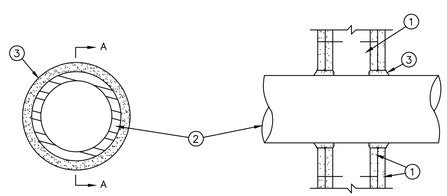


1. Floor or Wall Assembly--Lightweight or normal weight (100-150 pcf) concrete. Except as noted in table under Item 4, min thickness of solid concrete floor or wall assembly is 4-1/2 in. Wall assembly may also be constructed of any UL classified Concrete Blocks*. Max diam of opening is 32 in. See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Pipe or Conduit--Nom 30 in. diam (or smaller) cast iron or Schedule 10 (or heavier) steel pipe, nom 6 in. diam (or smaller) steel conduit, nom 3 in. diam (or smaller) type L (or heavier) copper tube or nom 4 in. diam (or smaller) steel electrical metallic tubing. Max annular space between pipe or conduit and edge of through opening not to exceed 2 in. Min annular space between pipe or conduit and edge of through opening is zero in. (point contact). Pipe or conduit to be rigidly supported on both sides of floor or wall assembly.
3. Packing Material--Polyethylene backer rod or nom 1 in. thickness of tightly-packed mineral wool batt or glass fiber insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surfaces of wall as required to accommodate the required thickness of caulk fill material (Item 4).
4. Fill, Void or Cavity Material*--Caulk--Applied to fill the annular space flush with top surface of floor. In wall assemblies, required caulk thickness to be installed symmetrically on both sides of wall, flush with wall surface. The hourly F ratings and the min required caulk thickness are dependent upon a number of parameters, as shown in the following table:

Min Floor or Wall Thkns, In	Nom Pipe Tube Or Conduit Diam, In	Max Annular Space, In	Min Caulk Thkns, In	F Rating, Hr
2-1/2	1/2-12	1-3/8	1/2	2
2-1/2	1/2-6	2-3/8	1	2
4-1/2	1/2-6	1-8	1/4(a)	2
4-1/2	1/2-12	1-1/4	1/2	3
4-1/2	1/2-20	2	1	3
4-1/2	22-30	2	2	3
5-1/2	1/2-6	1-3/8	1-3/8	4

(a)Min 2 in. thickness of mineral-wool batt insulation required in annular space.
(b)Min 1 in. thickness of mineral-wool batt insulation required in annular space on both sides of floor or wall assembly. Min 1 in. thickness of caulk to be installed flush with each surface of floor or wall assembly.
Minnesota Mining & Manufacturing Co.--Types CP-25 WB, CP-25 WB +.
*Bearing the UL Classification Marking

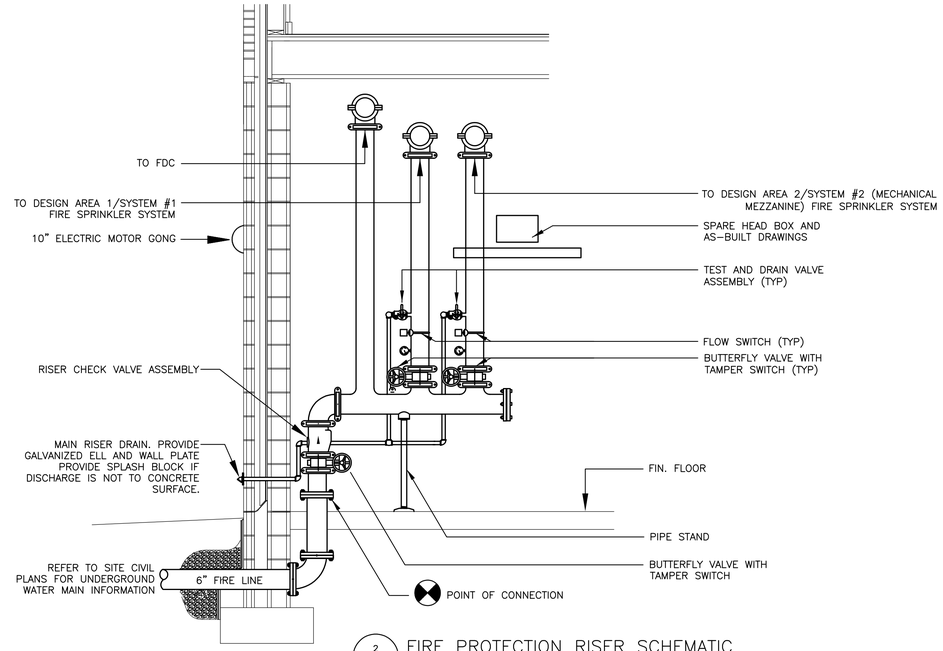
System No. WL1001
F Ratings--1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings--0, 1, 2, 3 and 4 Hr (See Item 3)



1. Wall Assembly--The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs--Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
   B. Wallboard, Gypsum*--Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam or opening is 13-1/2 in.
2. Pipe or Conduit--Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing or Type L (or heavier) copper tubing or nom 1 in. diam (or smaller) flexible steel conduit. When copper pipe or flexible steel conduit in used, max F Rating of firestop system (Item 3) is 2 h. Steel pipes or conduits larger than nom 4 in. diam may only be used in walls constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.
3. Fill, Void or Cavity Materials*--Caulk--Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam, In	Annular Space, In	F Rating, Hr	T Rating, Hr
1	0 to 3/16	1 or 2	0+, 1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1/2	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

+When copper pipe is used, T Rating is 0 h.
Minnesota Mining & Mfg. Co.--Types CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+
*Bearing the UL Classification Marking



2 FP2.1 FIRE PROTECTION RISER SCHEMATIC
NOT TO SCALE

NOTE: PIPE ESCUTCHEON ARE REQUIRED AT EXPOSED PIPING LOCATIONS.

7 FP2.1 FIRE RATED PENETRATION DETAIL
NOT TO SCALE

6 FP2.1 DRAIN DETAIL
NOT TO SCALE

4 FP2.1 RISER CLEARANCES
NOT TO SCALE

NOTE: 1. THESE METHODS SHALL BE USED WHEN PRESSURE EXCEEDS 100 PSI & SHALL BE INSTALLED WITHIN 12" OF THE LAST SPRINKLER DROP ON EACH SPRINKLER BRANCH LINE; ALL INSTALLATION SHALL COMPLY WITH NFPA 13.

5 FP2.1 TYPICAL SPRINKLER PIPE HANGER DETAIL
NOT TO SCALE

NOTE: FLEXIBLE SPRINKLER HEAD FITTINGS ALLOWED. REFER TO PROJECT SPECIFICATIONS FOR MORE INFORMATION.

3 FP2.1 TYPICAL SPRINKLER RETURN BEND DETAIL
NOT TO SCALE

NOTE: FIRE PUMP AND ENCLOSURE BASED ON AC FIRE PUMP MANUFACTURER

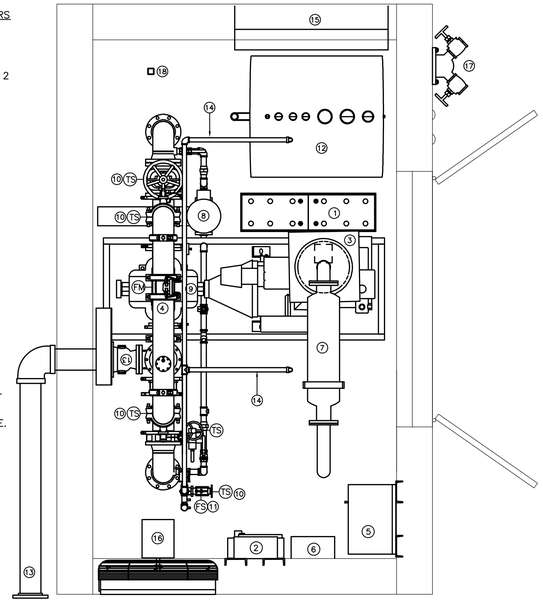
PUMP & ENCLOSURE LEGEND

1 BATTERY
2 JOCKEY CONTROLLER
3 DIESEL ENGINE
4 GROOVED FLOWMETER
5 DIESEL CONTROLLER
6 HEATER, W/ THERMOSTAT
7 MUFFLER
8 JOCKEY PUMP
9 DIESEL PUMP
10 TAMPER SWITCH
11 FLOW SWITCH
12 DOUBLE WALL FUEL TANK SIZED PER NFPA
13 WASTE CONE - PIPED ON OUTSIDE OF ENCLOSURE TO PARKING AREA
14 SPRINKLER PIPING
15 FRESH AIR INTAKE
16 AIR EXHAUST
17 FIRE PUMP TEST HEADER WITH TWO (2) 2-1/2" BRASS HOSE VALVES
18 FLOOR DRAIN - RUN DRAIN IN CONCRETE SLAB TO EDGE. DRAIN TO GRADE. ENSURE NOT IN LOCATION AS TO CREATE A NUISANCE. COORDINATE FINAL LOCATION IN FIELD PRIOR TO POURING CONCRETE.

FIRE PUMP PARAMETERS
GPM: 500 @ 50 PSI
VOLTAGE: 208
HZ: 60
PHASE: 3
2-1/2" TEST VALVES: 2

PUMP ENCLOSURE INTERFACE CONNECTIONS:
A. SUCTION: FLANGED, 6", CLASS 150#.
B. DISCHARGE: FLANGED, 6", CLASS 150#.
C. MAIN RELIEF VALVE DISCHARGE: FLANGED, 5", CLASS 150#.
D. DRAIN: 2" CLASS 150#.
E. SINGLE POWER POINT CONNECTION: 208V / 3PH / 60 HZ.

NOTES:
1. PIPING MUST BE SUPPORTED NEAR ALL INTERFACE CONNECTIONS TO ELIMINATE STRAIN.
2. ALL PIPING SUPPORTS ARE NOT SHOWN FOR CLARITY PURPOSES.
3. MINIMUM CLEARANCE TO ANY OBSTRUCTION REQUIRED BY THE NATIONAL ELECTRIC CODE.
4. CONDUIT AND SMALL PIPING RUNS TO FOLLOW STRUCTURAL MEMBERS, WHERE POSSIBLE, TO AVOID CREATING TRIP HAZARDS.
5. FIRE PUMP AND ENCLOSURE BASED ON AC FIRE PUMP MANUFACTURER AND SHALL BE NO LARGER OVERALL THAN 10' X 15'
6. THE FIRE PROTECTION CONTRACTOR WILL HAVE TO PROVIDE A PAD TO SUPPORT THE FIRE PUMP ENCLOSURE AS OUTLINED IN NFPA 20, 4.29 "PACKAGED FIRE PUMP ASSEMBLIES". REFER TO DETAIL 4 ON S1.1 FOR ADDITIONAL REQUIREMENTS.
7. REFER TO BUILDING PLAN FOR LOCATION OF TEST HEADER ON ENCLOSURE. TEST HEADER MUST BE ACCESSIBLE FOR TESTING WITH 2.5" FIRE HOSES CONNECTED TO TEST VALVES.



1 FP2.1 DIESEL FIRE PUMP IN PACKAGED ENCLOSURE DETAIL
NOT TO SCALE

NOTE:
1. PROVIDE TAMPER SWITCHES ON BACKFLOW PREVENTER OS&Y VALVES.
2. ALL ELECTRICAL & FIRE ALARM WIRING TO BE PROVIDED BY E.C..
3. SEE NFPA 13 FOR CONNECTIONS PASSING THROUGH OR UNDER FOUNDATION WALLS.
4. COORDINATE PIPING CONFIGURATION FOR FDC WITH GC AND SITE UTILITY CONTRACTOR PRIOR TO THE START OF FIRE PROTECTION SHOP DRAWINGS

GENERAL NOTES

1. REFER TO SHEET FP0.1 FOR ABBREVIATIONS, GENERAL PROJECT NOTES, DETAILS AND SCHEDULES.
2. ALL FIRE PROTECTION DEVICES AS SHOWN, ARE LOCATED IN COORDINATION WITH THE CEILING GRID, LIGHTING, DIFFUSERS, ETC., & DIMENSIONS FOR SAME ARE PROVIDED FOR INFORMATIONAL PURPOSES. ALL DEVICE LOCATIONS SHALL BE FIELD VERIFIED WITH THE ACTUAL INSTALLED CEILING GRID LAYOUT, AND FIELD ADJUSTMENTS MADE ACCORDINGLY. ALL INSTALLATIONS SHALL COMPLY WITH NFPA 13, NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS AND ANY OTHER STATE OR LOCAL AUTHORITY HAVING JURISDICTION.
3. PROVIDE COMPLETE FIRE SPRINKLER SYSTEM FOR THE ENTIRE AREA PER NFPA 13.
4. REFER TO SHEET FP0.1 FOR ALL SPRINKLER HEAD REQUIREMENTS FOR THIS PROJECT.

CONSULTANT

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL
08/13/2024

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PDC #24010

KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRE PROTECTION DETAILS

SCALE	1/8"=1'-0"
DRAWN	DJL
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	FP2.1

Project #: 24010
Sheet: FP2.1
Plotted By: dlowry
Plotted: June 13, 2024 @ 7:12 AM

FIXTURE SCHEDULE

MARK	DESCRIPTION	REMARKS
SH–1	SHOWER (STANDARD) SYMMONS, MODEL NO. C–96–1–151–X PRESSURE BALANCING ANTI–SCALD VALVE WITH LEVER HANDLE, INTEGRAL SERVICE STOPS, ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN, AND UNIVERSAL ADJUSTABLE 2.5 GPM SHOWER HEAD WITH WALL MOUNTING BRACKET. VALVE SHALL BE OF ALL BRONZE AND STAINLESS STEEL WITH ONLY ONE MOVING PART, PROVIDE FD–1	MOUNT SHOWER VALVE 48" A.F.F. AND SHOWER HEAD 74" A.F.F.
SH–2	SHOWER (ACCESSIBLE) ROLL–IN/TRANSFER SYMMONS MODEL NO. C–96–500–B30–V–X–1.5 WITH PRESSURE BALANCING ANTI–SCALD VALVE WITH INTEGRAL SERVICE STOPS, LEVERTROL LEVER DIVERTER VALVE, 1.5 GPM SOLID BRASS ADJUSTABLE SHOWER HEAD WITH ARM AND FLANGE, AND AND WALL/HAND SHOWER WITH 5' FLEXIBLE METAL HOSE, IN–LINE VACUUM BREAKER, AND 30" VERTICAL SLIDE BAR. SHOWER VALVE SHALL BE OF ALL BRONZE AND STAINLESS STEEL WITH ONLY ONE MOVING PART, PROVIDE FD–1	
WH–1	ELECTRIC WATER HEATER, 66 GALLON A.O. SMITH MODEL NO. DEN–66, 66 GALLON ELECTRIC WATER HEATER. ELEMENTS SHALL BE RATED AT 4500 WATTS, 208/1/60, WITH NON–SIMULTANEOUS OPERATION WITH RECOVERY RATE OF 23GPH AT 80° RISE. ELEMENTS SHALL BE CONTROLLED BY A MOUNTED THERMOSTAT AND HIGH TEMPERATURE CUTOFF SWITCH. HEATER SHALL BE SET AT 110°F WATER TEMPERATURE. TANK SHALL BE GLASS LINED, RATED FOR 150 PSI WORKING PRESSURE, AND SHALL HAVE A THREE–YEAR WARRANTY. WATER HEATER SHALL MEET ALL REQUIREMENTS OF CURRENT VERSION OF ASHRAE 90. EFFICIENCY STANDARDS. PROVIDE AMTROL MODEL NO. THERM–X–TROL ST–30V EXPANSION TANK WITH 150 PSI MAXIMUM WORKING PRESSURE AND FACTORY PRE–CHARGED TO 40 PSIG.	
BP–1	INLINE DOMESTIC BOOSTER PUMP LITTLE GIANT INLINE 400 BOOSTER PUMP, SINGLE PUMP WITH INLET AND OUTLET ISOLATION VALVES, INLET CHECK VALVE, DISCHARGE MOUNTED 2 GALLON BLADDER TANK, BYPASS LOOP, AND PRESSURE RELIEF VALVE, MOTOR WITH OVERCURRENT PROTECTION, HARDWIRED CONNECTION, NEMA 1 ENCLOSURE, 120/1/60, 1/3 HP MOTOR. SYSTEM STARTS ON DROP IN WATER PRESSURE AND STOPS WHEN NO FLOW IS DETECTED WITH A MINIMUM RUN TIMING FUNCTION. PIPE RELIEF TO INDIRECT CONNECTION AT EXISTING MOP RECEPTOR	

GENERAL NOTES

45. CLEAN OUT, TEST, AND REPAIR ALL EXISTING WASTE AND VENT, STORM, AND WATER PIPING TO BE REUSED – REPAIR AND/OR REPLACE ALL DAMAGED OR REMOVED INSULATION FOR COMPLETE COVERAGE
46. WHERE PIPING CONTAINING GAS IS TO BE REMOVED, OBSERVE PROCEDURE OF NCFGC 406.7.1, NFPA 54 7.2.7 AND 8.3.1 AND NFPA 56(PS) – DISCONNECT THE GAS PIPING FROM THE GAS SOURCE, VENT TO THE OUTDOORS, AND THOROUGHLY PURGE WITH AIR, WATER, OR INERT GAS BEFORE CUTTING OR WELDING
47. ANY ITEM REMOVED FROM THE BUILDING DURING DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER FOR DISPOSAL – CARE SHALL BE TAKEN IN THE REMOVAL OF ITEMS TO MINIMIZE DAMAGE – ANY ITEM NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES
48. PROVIDE TRAP PRIMER VALVES AS NOTED IN FIXTURE SCHEDULE AND AS NOTED ON PLANS – TRAP PRIMERS SHALL BE INSTALLED AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS – TRAP PRIMER VALVE SHALL BE INSTALLED ON A MINIMUM OF 1/2" SIZE COLD WATER PIPE AND SHALL BE LOCATED AT NEAREST FIXTURE TO DEVICE TO BE PRIMED AND IN A SERVICEABLE LOCATION – TRAP PRIMERS SHALL BE ELIMINATED WHERE BOTH HOSE BIBBS/HYDRANTS ARE PROVIDED AND FLOORS ARE NON–ABSORBENT
49. THE SPACE ABOVE THE CEILINGS AND IN THE MECHANICAL ROOMS ARE RETURN AIR PLENUMS – ALL MATERIALS IN PLENUM SPACES MUST BE NON–COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE–DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84E
50. ALL PLUMBING SYSTEMS SHALL BE INSTALLED IN SUCH A MANNER AS TO COMPLETELY PREVENT THE POSSIBILITY OF CROSS CONNECTIONS BETWEEN SAFE AND UNSAFE SUPPLIES OR BACK SIPHONAGE.

FIXTURE SCHEDULE

MARK	DESCRIPTION	REMARKS
WC–1	WATER CLOSET (STANDARD) AMERICAN STANDARD AFWALL MILLENIUM MODEL NO. 2257.101 UNIVERSAL WALL HUNG VITREOUS CHINA ELONGATED WATER CLOSET WITH SIPHON JET ACTION AND 1–1/2" TOP SPUD, PROVIDE BOLT CAPSBEMIS MODEL NO. 1655SSCT EXTRA HEAVY DUTY SOLID PLASTIC OPEN FRONT ELONGATED SEAT WITH ST STL POSTS, ST STL SELF–SUSTAINING CHECK HINGES, STA–TITE FASTENING NUTS SLOAN REGAL MODEL 111 – 1.6 GPF EXPOSED MANUAL FLUSHOMETER ZURN MODEL NO. Z1202–N4 VERTICAL OR Z1201–N4 HORIZONTAL CARRIER WITH ALL MOUNTING HARDWARE, FOOT SUPPORTS, ETC. FOR A COMPLETE INSTALLATION WITH VANDAL–PROOF TRIM	15" AFF TO RIM
WC–2	WATER CLOSET (ACCESSIBLE) AMERICAN STANDARD AFWALL MILLENIUM MODEL NO. 2257.101 UNIVERSAL WALL HUNG VITREOUS CHINA ELONGATED WATER CLOSET WITH SIPHON JET ACTION AND 1–1/2" TOP SPUD, PROVIDE BOLT CAPSBEMIS MODEL NO. 1655SSCT EXTRA HEAVY DUTY SOLID PLASTIC OPEN FRONT ELONGATED SEAT WITH ST STL POSTS, ST STL SELF–SUSTAINING CHECK HINGES, STA–TITE FASTENING NUTS SLOAN REGAL MODEL 111 – 1.6 GPF EXPOSED MANUAL FLUSHOMETER ZURN MODEL NO. Z1202–N4 VERTICAL OR Z1201–N4 HORIZONTAL CARRIER WITH ALL MOUNTING HARDWARE, FOOT SUPPORTS, ETC. FOR A COMPLETE INSTALLATION WITH VANDAL–PROOF TRIM	17" AFF TO RIM
U–1	URINAL, WALL MOUNTED (HANDICAP ACCESSIBLE) SLOAN, WALL HUNG, MODEL WEUS 1000.1001–0.13, 3/4" TOP SPUD, VITREOUS CHINA, ELONGATED RIM, URINAL WITH PINT FLUSH VALVE. CARRIER SHALL BE JAY R. SMITH #0636 TO FIT INSTALLATION REQUIREMENTS.	17" AFF TO RIM
L–1	COUNTERTOP LAVATORY (STANDARD AND ACCESSIBLE) SLOAN, ENAMELED CAST IRON, COUNTERTOP, MODEL NO. SS–3002, 4" CENTERS, 20" X 17" LAVATORY WITH SYMMONS SCOTT MODEL NO. S–60–H METERING FAUCET WITH 1/2 GPM FLOW RESTRICTOR VANDAL PROOF AERATOR, AND SINGLE LEVER HANDLE INDEXED "H" AND "C" FOR TEMPERATURE SELECTION. PROVIDE MCGUIRE NO. LF170 SUPPLIES WITH ESCUTCHEONS, MCGUIRE NO. 155A DRAIN AND TAILPIECE WITH PERFORATED STRAINER, AND MCGUIRE NO 8912C P–TRAP. PROVIDE PLUMBEREX HANDY–SHIELD COVERS ON TRAP AND SUPPLIES.	SEE ARCHITECTURE DRAWINGS FOR COUNTER HEIGHT
FD–1	FLOOR DRAIN WITH STRAINER JAY R. SMITH MODEL NO. 2005–A–NB, DUCO CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE 6" DIAMETER POLISHED NICKEL BRONZE STRAINER.	
FD–2	PVC HUB DRAIN FOR AHU CONDENSATE 4 X 2, 4 X 3, OR 6 X 4 SCHED. 40 SOLID WALL PVC REDUCING COUPLING SET AS HUB DRAIN ABOVE FINISH FLOOR – COORDINATE HEIGHT WITH AHU CONDENSATE PIPING IN FIELD – CONFIRM CONDENSATE DRAIN PIPE SIZES AT PLAN TO DETERMINE COUPLING SIZES NEEDED	
H–1	FREEZELESS WALL HYDRANT JAY R. SMITH MODEL NO. 5609QT NON–FREEZE HYDRANT WITH VACUUM BREAKER, BRONZE CASING, ALL BRONZE INTERIOR PARTS, POLISHED NICKEL BRONZE FACE, OPERATING KEY, 3/4" HOSE CONNECTION, AND LENGTH TO SUIT WALL CONDITIONS.	MOUNT 24" AFF
H–2	HOSE BIBB CHICAGO FAUCETS NO. 293–CP WITH POLISHED CHROME FINISH AND REMOVABLE TEE HANDLE. VACUUM BREAKER CHICAGO FAUCETS NO. E27.	MOUNT 12" AFF
H–3	HOSE BIBB – INTERIOR/FACILTIES WOODFORD MODEL NO. 24 HYDRANT/HOSE BIBB, CHROME PATED BRASS, VACUUM BREAKER, 3/4" HOSE THREAD OUTLET, WALL FLANGE, AND OPTIONAL METAL WHEEL HANDLE – MOUNT BALL VALVE SHUTOFF FOR HYDRANTS (H–3) ON EXPOSED PIPING AT 6' AFF IN MECHANICAL/FACILITIES SPACES	MOUNT 12" AFF
CO–1	CLEANOUT – FLOOR ZURN MODEL NO. ZN1400–BP WITH NICKEL BRONZE TOP AND BRONZE PLUG, PROVIDE –CM CARPET CLEANOUT MARKER WHERE IN CARPET	
CO–2	CLEANOUT – WALL ZURN MODEL NO. Z1441–BP–VP WALL CLEANOUT OR Z1446–BP–VP WALL CLEANOUT TEE TO SUIT APPLICATION, VANDAL PROOF SECURED TOP, SMOOTH ST STL ROUND ACCESS COVER	
CO–3	CLEANOUT – EXTERIOR GRADE/PAVING ZURN MODEL NO. Z1449–BP CLEANOUT FERRULE WITH BRONZE PLUG AT GRADE, WHERE IN PAVING PROVIDE WITH ZURN MODEL NO. ZN1474–G–VP HEAVY DUTY CLEANOUT HOUSING WITH INTEGRAL ANCHOR FLANGE, SECURED SCORIATED NICKEL BRONZE COVER WITH LIFTING DEVICE AND VANDAL–PROOF SCREW	

GENERAL NOTES

1. THE CONTRACT DOCUMENTS ARE COMLIMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL – IN THE CASE OF CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY AND/OR GREATER QUANTITY OF WORK
2. BE RESPONSIBLE FOR ALL PERMITS, FEES, AND COSTS ASSOCIATED WITH THE INSTALLATION OF PLUMBING WORK
3. MAKE A COMPLETE REVIEW OF THE PLUMBING PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION OF THE PLUMBING SYSTEM, AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE ENGINEER
4. VISIT THE PROJECT SITE PRIOR TO BIDDING AND BE FAMILIAR WITH THE EXISTING CONDITIONS
5. REFER TO THE ARCHITECTURAL PLANS FOR ALL FLOOR PLAN DIMENSIONS – DO NOT SCALE THESE PLANS
6. ENSURE THAT ITEMS TO BE FURNISHED UNDER THIS CONTRACT WILL FIT THE SPACE AVAILABLE – MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SERVICE CLEARANCE REQUIREMENTS, AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS
7. COORDINATE WITH ALL PRIME AND/OR SUBCONTRACTORS THE INSTALLATION OF FIXTURES AND EQUIPMENT UNDER THIS CONTRACT, PRIOR TO THE INSTALLATION, IN ORDER TO AVOID CONFLICT WITH OTHER TRADES – IF AN ALTERNATE METHOD OF INSTALLATION IS REQUIRED, IT SHALL BE COORDINATED WITH THE ENGINEER OR ARCHITECT PRIOR TO START OF WORK
8. PROVIDE AND INSTALL ALL PLUMBING SUPPORT DEVICES – ALL LOCATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND OTHER PRIME CONTRACTORS AND/OR SUBCONTRACTORS PRIOR TO INSTALLATION
9. PROVIDE ALL OPENINGS IN WALLS AND FLOORS UNLESS NOTED OTHERWISE – VERIFY LOCATION AND SIZE OF ALL OPENINGS REQUIRED UNDER THIS CONTRACT WITH THE GENERAL CONTRACTOR
10. PROVIDE ALL ACCESS DOORS AS REQUIRED FOR CODE COMPLIANCE AND TO ACCESS ANY INSTALLATION THAT WILL REQUIRE FUTURE MAINTENANCE – THESE DOORS SHALL BE 20" x 20" UNLESS NOTED OTHERWISE – EACH ROOM WITH A DRYWALL CEILING SHALL HAVE A MINIMUM OF ONE ACCESS DOOR PROVIDED BY THE PLUMBING CONTRACTOR – THE DRYWALL SUBCONTRACTOR SHALL PROVIDE THE REQUIRED FRAMED OPENING AND INSTALL THE ACCESS DOORS
11. SEAL ALL PENETRATIONS OF FIRE RATED WALLS USING THE UL METHODS DETAILED IN THESE DRAWINGS
12. INSTALL INSULATED WATER PIPING IN EXTERIOR WALLS ON THE INTERIOR SIDE OF THE WALL INSULATION – SEE SPECIFICATIONS FOR SIZE AND TYPE INSULATION TO BE USED
13. THE USE OF FLEXIBLE RUBBER COUPLINGS IS PROHIBITED – REFER TO PROJECT SPECIFICATIONS FOR ACCEPTABLE TYPE 304 STAINLESS STEEL JACKETED CLAMPS
14. INSTALL FLOOR DRAIN STRAINERS AND CLEANOUT TOPS FLUSH WITH THE FINISHED FLOOR ELEVATION – A RAISED OR LOWERED STRAINER OR CLEANOUT TOP WILL NOT BE ACCEPTABLE
15. INSTALL ALL THREADED CLEANOUT PLUGS WITH PIPE DOPE TO ALLOW FOR EASY REMOVAL IN THE FUTURE
16. PLUMBING FIXTURES SHALL BE NEATLY CAULKED WITH SILICONE CAULKING COMPOUND WHERE THE FIXTURE MEETS THE WALL, COUNTERTOP, OR FLOOR UNLESS OTHERWISE NOTED
17. PROVIDE CHROME ESCUTCHEON RINGS AT CEILING AND WALL PIPE PENETRATIONS AT ALL EXPOSED TO VIEW PIPING
18. WHERE VALVES ON WATER LINES ARE LOCATED ABOVE CEILING, LOCATE THEM 8" ABOVE CEILING
19. IN ADDITION TO THE LOCATIONS REQUIRED IN THESE DRAWINGS, LEAD–FREE, TWO–PIECE, FULL–PORT BRONZE BALL VALVES/SHUTOFFS SHALL BE PROVIDED AS REQUIRED BY THE LATEST CURRENT VERSION OF THE NC PLUMBING CODE SECTION 606
20. PROVIDE BALL VALVE IN BRANCH PIPING TO ALL EXTERIOR HOSE BIBBS
21. COORDINATE EXACT FLOOR DRAIN LOCATIONS IN THE MECHANICAL ROOMS WITH THE MECHANICAL CONTRACTOR FOR THE TYPE OF MECHANICAL EQUIPMENT TO BE INSTALLED
22. INSTALL HANGER RODS BEFORE GYPSUM BOARD CEILINGS ARE INSTALLED AND COMPLETE PIPING INSTALLATION AFTER THE CEILING HAS BEEN FINISHED
23. COORDINATE WITH MECHANICAL AND CONTROLS CONTRACTORS FOR DEVICES TO BE CONNECTED TO THE BAS/BMS
24. THE FLASHING AND COUNTER–FLASHING FOR ALL VENTS THROUGH THE ROOF SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR – THE PLUMBING CONTRACTOR SHALL COORDINATE ALL LOCATIONS OF THE VENTS THROUGH THE ROOF WITH THE ROOFING SUB–CONTRACTOR – ALL VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10'–0" FROM ALL MECHANICAL FRESH AIR INTAKE GRILL OR DUCT OPENING OR A MINIMUM OF 2'–0" ABOVE THE TOP OF SUCH OPENINGS –
25. EACH ABOVE GROUND SECTION OF GAS PIPING SHALL BE ELECTRICALLY BONDED PER NC FUEL GAS CODE SECTION 310
26. CONTRACTOR SHALL TEST PRESSURE BEFORE START OF WORK, IF EXISTING CITY WATER PRESSURE EXCEEDS 80 PSI, A WATER PRESSURE REDUCING VALVE SHALL BE PROVIDED – INSTALL IMMEDIATELY DOWNSTREAM OF, AND IN THE SAME ROOM AS, THE DOMESTIC WATER RISER AND MAIN SHUTOFF VALVE AND SET AT 60 PSI
27. PROVIDE FINAL CONNECTIONS AND ALL NECESSARY PIPE AND FITTINGS TO ALL GAS FIRED EQUIPMENT UNLESS NOTED OTHERWISE
28. PROVIDE ALL ELECTRICAL AND CONTROL CONNECTIONS TO THE EQUIPMENT PROVIDED UNDER THIS CONTRACT – REFER TO THE ELECTRICAL PLANS FOR LOCATIONS OF JUNCTION BOXES, DISCONNECTS, PANELS, AND CIRCUIT BREAKERS – TYPE, SIZE, AND NUMBER OF CONDUCTORS AND CONDUITS TO EQUIPMENT SHALL BE EQUAL TO THE CONDUCTORS AND CONDUITS PROVIDED BY THE ELECTRICAL CONTRACTOR TO THE JUNCTION BOXES AND DISCONNECT SWITCHES – CONNECTIONS SHALL CONFORM TO THE LATEST CURRENT VERSION OF THE NATIONAL ELECTRICAL CODE REGULATIONS
29. ALL MOTOR STARTERS, SWITCHES, CONTROL DEVICES, ETC. SHALL BE RECESSED IN THE WALLS, EXCEPT WHERE THESE ITEMS ARE LOCATED IN THE MECHANICAL ROOMS
30. PROVIDE NAMEPLATES FOR ALL EQUIPMENT, SWITCHES, CONTROL DEVICES, ETC.
31. WATER HEATER INSTALLATIONS SHALL COMPLY WITH THE LATEST CURRENT VERSION OF THE NATIONAL ELECTRICAL CODE
32. FIELD LOCATE ALL UNDERGROUND UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THESE PLANS PRIOR TO THE START OF WORK – AVOID CONFLICTING WITH THESE UTILITIES DURING THE INSTALLATION OF THE WORK AND REPAIR ANY DAMAGE TO THESE UTILITIES AT NO ADDITIONAL COSTS TO THE PROJECT
33. UNDERGROUND WATER PIPING SHALL BE INSTALLED A MINIMUM OF 30" BELOW FINISHED GRADE TO PIPE CROWN
34. UNDERGROUND PIPING ON THE EXTERIOR OF THE BUILDING SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE PIPING AT 6 TO 8 INCHES BELOW FINISH GRADE – LINE MARKING TAPE SHALL CONFORM TO ANSI/ASTM 13.1 AND SHALL BE 6" WIDE, 7.0 MILS MINIMUM THICKNESS, NON–DISTORTING, COLORFAST, ULTRAVIOLET LIGHT FAST, NON–STRETCH, 600 POUND TENSILE STRENGTH PER 6" WIDTH, AND MESSAGE MUST REPEAT WITHIN A MAXIMUM OF 40 INCHES – THE PRINTED LEGEND SHALL BE INDICATIVE OF THE TYPE OF UNDERGROUND LINE THAT IT IS MARKING
35. UNDERGROUND GAS PIPING SHALL HAVE INSULATED COPPER TRACER WIRE, MINIMUM 18 AWG WITH INSULATION SUITABLE FOR DIRECT BURIAL AND ENDS SHALL TERMINATE ABOVE GRADE
36. PAINT AND COLOR CODE ALL EXPOSED PIPING IN MECHANICAL ROOMS – ABOVE CEILING PIPING SHALL HAVE FLOW ARROWS AND LABELS LOCATED AT 10 FOOT INTERVALS, AT ALL TURNS, AND AT BOTH SIDES OF EACH WALL OR FLOOR PENETRATION, AND SHALL BE COLOR CODED AS FOLLOWS:
    COLD WATER = GREEN
    HOT WATER = LIGHT RED
    GAS = YELLOW
    NON–POTABLE WATER = PURPLE
37. PROVIDE A PHENOLIC SIGN AT ALL NON–POTABLE WATER OUTLETS STATING "NON–POTABLE – NOT SAFE FOR DRINKING" IN LETTERS 1/2" HIGH
38. ALL GUTTERS, DOWNSPOUTS, AND STORM WATER PIPING SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR
39. EXISTING PIPING LOCATIONS AND CONNECTIONS HAVE BEEN PRODUCED FROM BEST AVAILABLE INFORMATION – VERIFY THESE LOCATIONS IN THE FIELD – SHOULD A DIFFERENT METHOD OF PIPING BE REQUIRED THAN THAT SHOWN ON THESE PLANS, NOTIFY ENGINEER AND COORDINATE WITH ENGINEER THE PROPOSED CONFIGURATION
40. COORDINATE ALL SHUT–DOWN TIMES OF THE EXISTING WATER AND WASTE PIPING WITH THE OWNER PRIOR TO THE INSTALLATION OF ANY NEW PIPING
41. PROVIDE THE CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, CEILINGS, AND ROOFING WHERE NEW FIXTURES ARE ADDED OR EXISTING FIXTURES ARE REMOVED – GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING AND FLOOR FINISHES
42. ALL EXISTING SOIL, WASTE, STORM, WATER, AND GAS PIPING THAT IS TO BE REMOVED SHALL BE REMOVED AS FAR AS POSSIBLE WITHIN THE SCOPE OF THE PROJECT – WHERE REQUIRED, REMAINING EXISTING PIPING SHALL BE CAPPED WATER AND GAS TIGHT AT ACTIVE MAINS BELOW THE SLAB, FLOOR, OR GRADE, OR WITHIN THE WALLS OR CEILING UNLESS NOTED OTHERWISE
43. COORDINATE CAPPING OF EXISTING PIPING WITH OTHER TRADES SO THAT CAPPING DOES NOT CONFLICT WITH PROPER INSTALLATION AND FUNCTION OF THE COMPLETED SCOPE OF THE NEW WORK
44. EXISTING SOIL, WASTE, STORM OR VENT PIPING THAT IS TO BE REMOVED SHALL BE REMOVED SUCH THAT DEAD ENDS ARE NOT CREATED – ANY PORTION OF CAPPED SOIL, WASTE, STORM OR VENT PIPING AT A DEVELOPED LENGTH OF 2' OR MORE FROM A MAIN OR CONNECTED FUNCTIONING BRANCH SHALL BE CONSIDERED A DEAD END

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	WASTE PIPING
	CONDENSATE DRAIN PIPING
	VENT PIPING
	COLD WATER PIPING
	110°F HOT WATER PIPING
MPG	2 PSI NATURAL GAS PIPING
ECW	EXISTING COLD WATER PIPING
	BALL VALVE
	GATE VALVE
	CHECK VALVE
	GAS COCK
	ELECTRIC SOLENOID VALVE
	UNION
	BUTTERFLY VALVE
	CIRCUIT SETTER/BALANCING VALVE
	HYDRANT
	PIPE TURNS UP
	PIPE TURNS DOWN
	CLEANOUT AT WALL OR IN CEILING
	CLEANOUT AT FINISHED FLOOR/FINISHED GRADE
A	WATER HAMMER ARRESTOR WITH PDI SIZE (REFER TO WATER HAMMER SCHEDULE)
	HOT WATER RECIRCULATION PUMP
	POINT OF CONNECTION
	ENDPOINT OF DEMOLITION
VTR	VENT THROUGH ROOF
FFE	FINISH FLOOR ELEVATION
BFF	BELOW FINISH FLOOR
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
INV	INVERT OF PIPING
VIF	VERIFY IN FIELD
℄	CENTERLINE
ROW	RIGHT OF WAY
(E)	EXISTING
(N)	NEW
ST STL	STAINLESS STEEL
UON / UNO	UNLESS OTHERWISE NOTED / UNLESS NOTED OTHERWISE

LOAD SUMMARY (NET CHANGE TO FACILITY)

WASTE DEMAND IN FIXTURE UNITS	WATER DEMAND IN FIXTURE UNITS	WATER DEMAND IN G.P.M.	NAT GAS DEMAND IN BTU PER HOUR
22	83	36.5	400,000

CONNECTION SCHEDULE

	WASTE	COLD WATER	HOT WATER
WATER CLOSET (FLUSH VALVE)	4"	1"	–
URINAL (FLUSH VALVE)	2"	3/4"	–
LAVATORY	2"	1/2"	1/2"
HYDRANT/HOSE BIBB	–	3/4"	–
SHOWER	3"	1/2"	1/2"

WATER HAMMER ARRESTORS

PDI DESIGNATION	JAY R. SMITH 5000 SERIES HYDROTROL	ZURN Z–1700 SERIES SHOKTROL	WADE SHOKSTOPS	MAX FU
A	#5005	#100	#W–5	11
B	#5010	#200	#W–10	32
C	#5020	#300	#W–20	60
D	#5030	#400	#W–50	113
E	#5040	#500	#W–75	154
F	#5050	#600	#W–100	330

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE

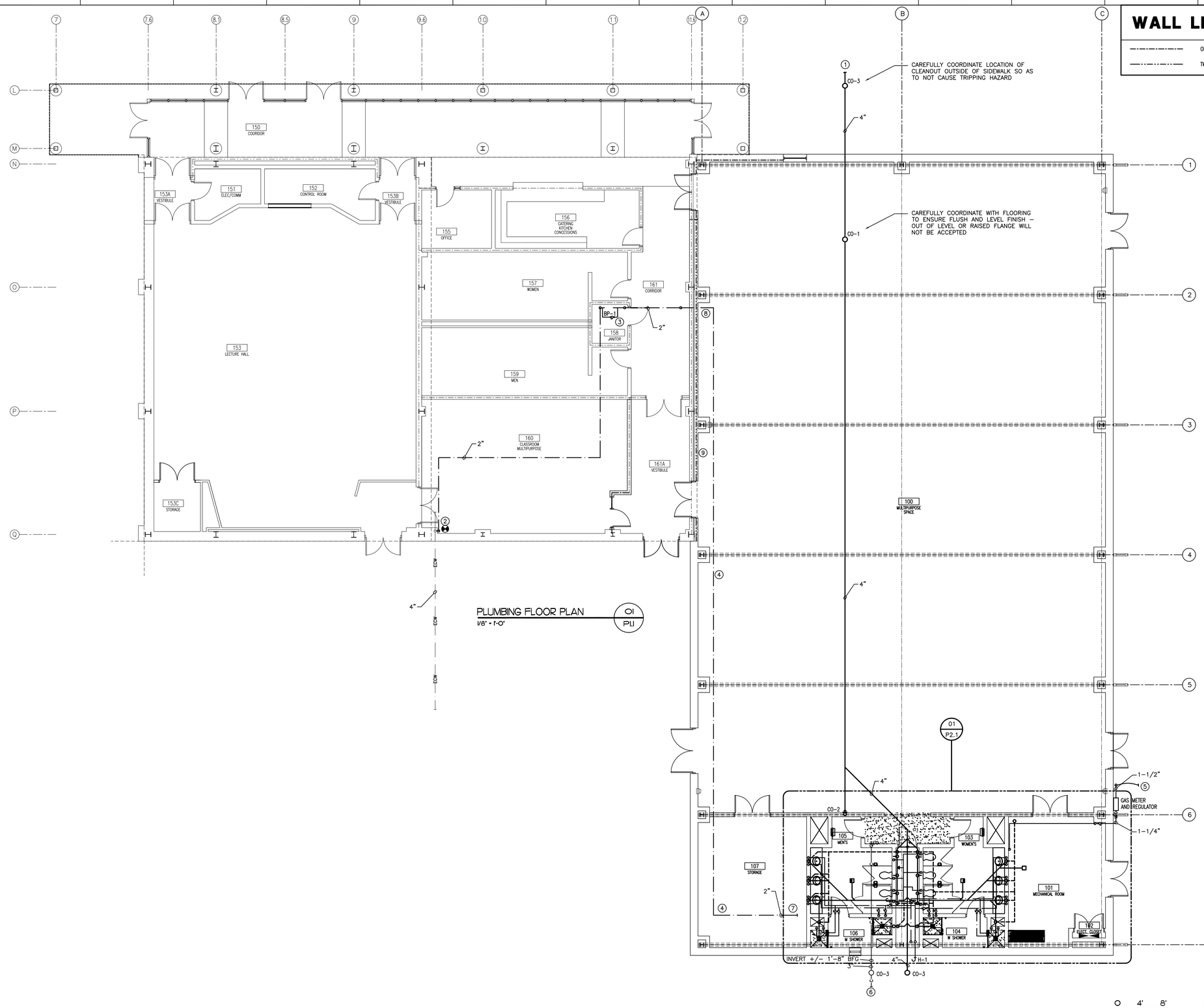
625 LYNNDALE CT., SUITE F, GREENVILLE NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
PLUMBING NOTES, SYMBOLS, AND LEGEND

SCALE: 1/8"=1'-0"	DRAWING NO: P0.0
DRAWN: DJL	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 24501.0
Sheet: P0.0
Plotted By: dfleury
Plotted: June 13, 2024 @ 7:06 AM



PLUMBING FLOOR PLAN 01 / P1.1
1/8" = 1'-0"

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

WALL LEGEND

ONE(1)-HOUR FIRE RATED WALL

TWO(2)-HOUR FIRE RATED WALL

GENERAL NOTES:

1. CAREFULLY COORDINATE ALL LOCATIONS OF UTILITIES ENTERING NEW BUILDING AND ROUTED THROUGH EXISTING BUILDING WITH OTHER TRADES AND GENERAL CONTRACTOR BEFORE START OF WORK

NOTES: (AS INDICATED ON THIS PLAN BY A NUMBER IN A ◯)

1. PROVIDE MATERIALS FOR CONNECTION TO SANITARY SEWER BY SITE UTILITY CONTRACTOR
2. PROVIDE MATERIALS FOR CONNECTION OF NEW 2" CW SUPPLY TO EXISTING 2-1/2" TEE IN VERTICAL ON EXISTING 4" DOMESTIC WATER RISER,PROVIDE BALL VALVE SHUTOFF AND ROUTE PIPING ABOVE CEILING TO JANITOR'S CLOSET
3. LOCATE BOOSTER PUMP IN EASILY ACCESSIBLE LOCATION IN JANITOR'S CLOSET
4. ROUTE NEW CW SUPPLY PIPING UP HIGH ABOVE BOTTOM CORD OF TRUSS IN MULTIPURPOSE SPACE
5. 1 1/2" INCOMING GAS, PRESSURE REGULATOR, AND METER BY GAS COMPANY, PROVIDE 2 psi NATURAL GAS SERVICE AND 400,000 BTUh ON BUILDING SIDE. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY.
6. PROVIDE MATERIALS FOR CONNECTION TO STORM SEWER BY SITE UTILITY CONTRACTOR
7. SEE SHEET P1.2 FOR CONTINUATION
8. SEE SHEET P4.2 FOR DOUBLE FIRE WALL PENETRATION DETAIL
9. REMOVE EXISTING EXTERIOR HOSE BIBB AND CAP EXISTING CW SUPPLY PIPING ABOVE CEILING

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

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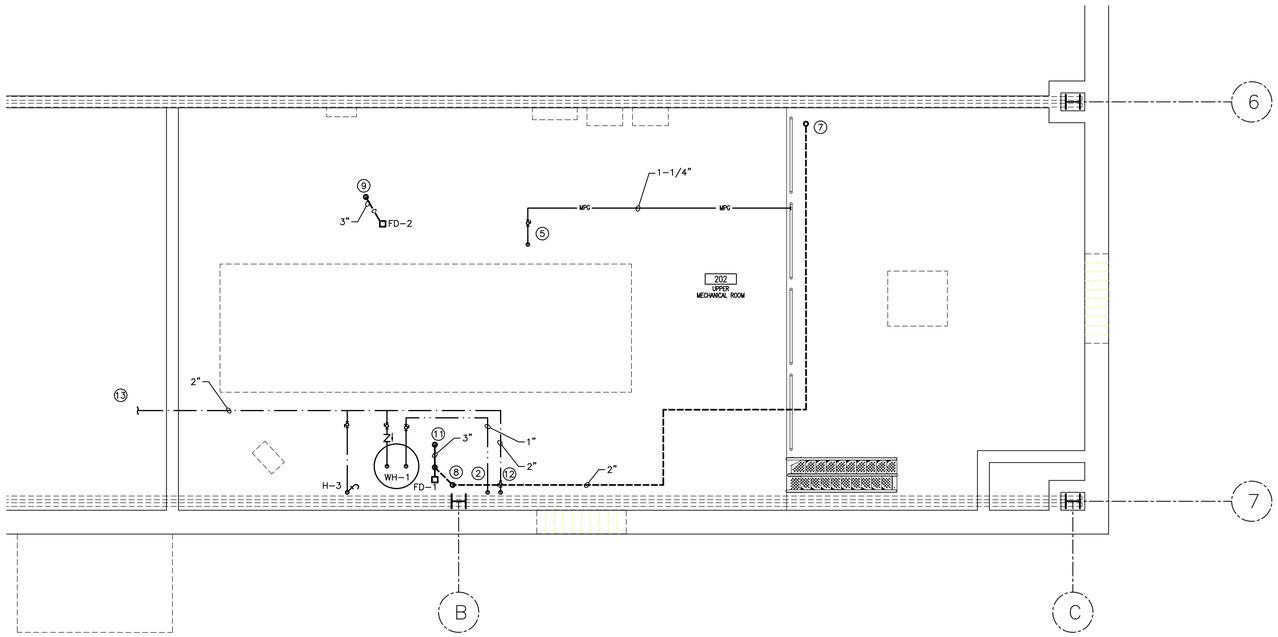
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: PLUMBING FLOOR PLAN

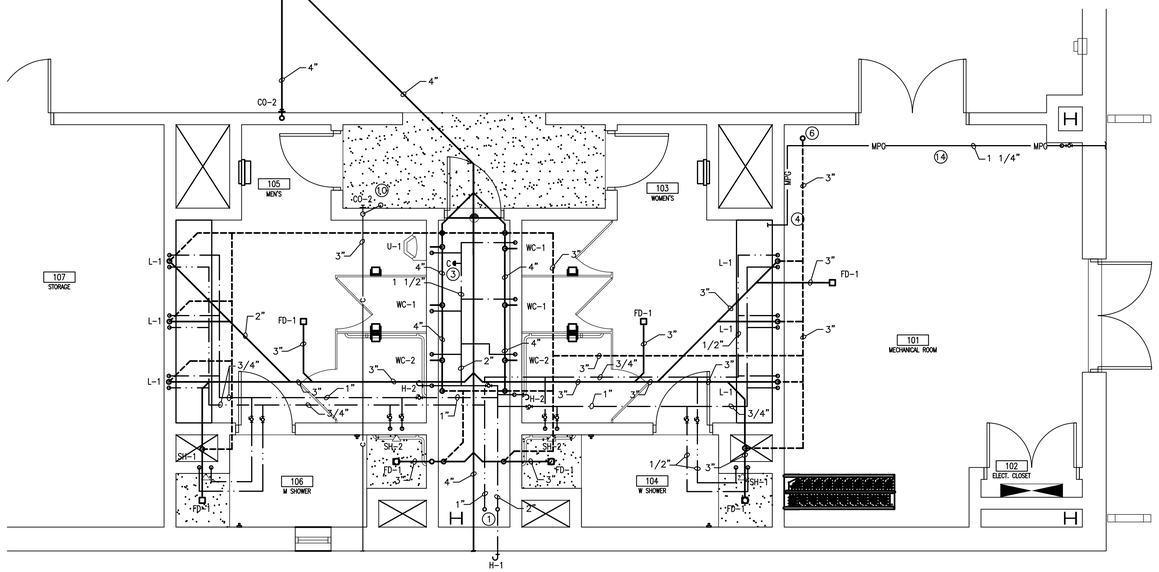
SCALE	1/8"=1'-0"
DRAWN	DJL
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-208
DRAWING NO	P1.1

Project #: 240010
Sheet: P1-1
Plotted By: dteary
Plotted: June 13, 2024 @ 7:06 AM



ENLARGED UPPER MECHANICAL ROOM PLAN 02 / P2.1

1/4" = 1'-0"



ENLARGED RESTROOM PLAN 01 / P2.1

1/4" = 1'-0"

WALL LEGEND

- ONE(1)-HOUR FIRE RATED WALL
- TWO(2)-HOUR FIRE RATED WALL

GENERAL NOTES:

1. ALL VENT PIPING SHALL BE 2" UNO
2. CAREFULLY COORDINATE ALL LOCATIONS OF UTILITIES ENTERING NEW BUILDING AND ROUTED THROUGH EXISTING BUILDING WITH OTHER TRADES AND GENERAL CONTRACTOR BEFORE START OF WORK

NOTES: (AS INDICATED ON THIS PLAN BY A NUMBER IN A ◯)

1. HW PIPING DN FROM ABOVE, SEE DETAIL 02 THIS SHEET FOR CONTINUATION
2. HW DN TO FIRST FLOOR, SEE DETAIL 01 THIS SHEET FOR CONTINUATION
3. LOCATE WATER HAMMER ARRESTOR ABOVE CEILING IN A LOCATION THAT IS EASILY ACCESSIBLE
4. GAS PIPING UP, SEE DETAIL 02 THIS SHEET FOR CONTINUATION
5. PROVIDE GAS COCK SHUT OFF, 6" DIRT LEG, BALL VALVE, AND CAP FOR CONTINUATION BY MECHANICAL CONTRACTOR, FINAL CONNECTION TO AHU BY MECHANICAL CONTRACTOR
6. 3" VENT UP, SEE DETAIL 02 THIS SHEET FOR CONTINUATION
7. 3" VTR
8. ROUTE VENT BELOW SLAB AND RISE UP NEAR COLUMN AT WALL
9. 3" CONDENSATE DRAIN DN , SEE DETAIL 01 THIS SHEET FOR CONTINUATION
10. 3" CONDENSATE DRAIN DN FROM ABOVE, SEE DETAIL 02 THIS SHEET FOR CONTINUATION
11. 3" WASTE PIPING DN TO FIRST FLOOR, SEE DETAIL 01 THIS SHEET FOR CONTINUATION
12. 2" CW DN TO FIRST FLOOR, SEE DETAIL 01 THIS SHEET FOR CONTINUATION
13. 2" CW FROM EXISTING BUILDING, SEE SHEET P1.1 FOR CONTINUATION
14. ROUTE GAS PIPING UP HIGH, TIGHT TO STRUCTURE

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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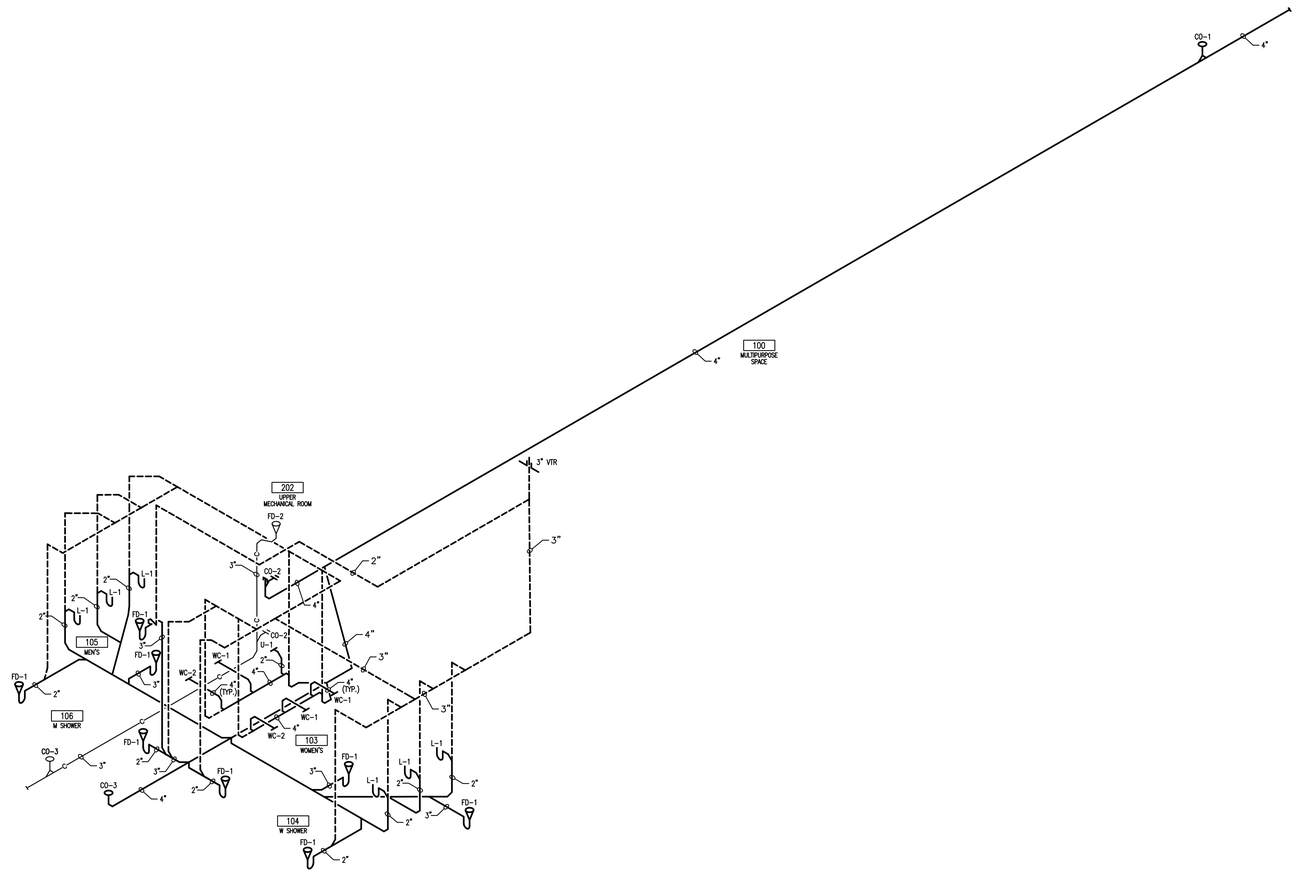
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
ENLARGED PLUMBING PLANS

SCALE	1/4"=1'-0"
DRAWN	DJL
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	P2.1

Project #: 240010
Sheet: P2-1
Plotted By: dfleury
Plotted: June 13, 2024 @ 7:05 AM



WASTE & VENT RISER — 01 / P3.1
N.T.S.

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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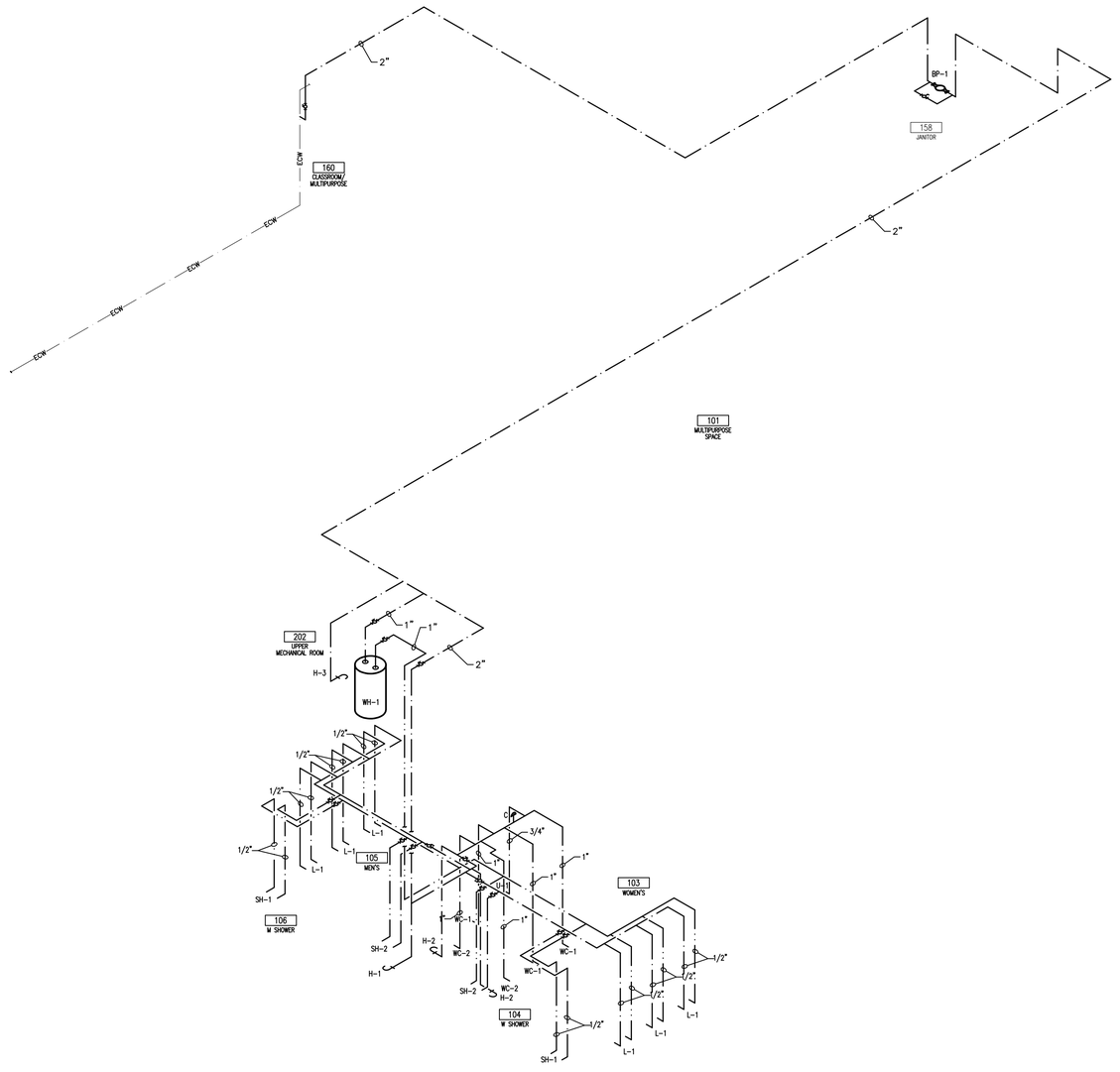
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
WASTE AND VENT RISER

SCALE: NTS	DRAWING NO: P3.1
DRAWN: DJL	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 24010
Sheet: P3-1
Plotted By: dlowry
Plotted: June 13, 2024 @ 7:04 AM



HOT & COLD WATER RISER — 01 / P3.2

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KEY PLAN

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NO	REVISION	DATE

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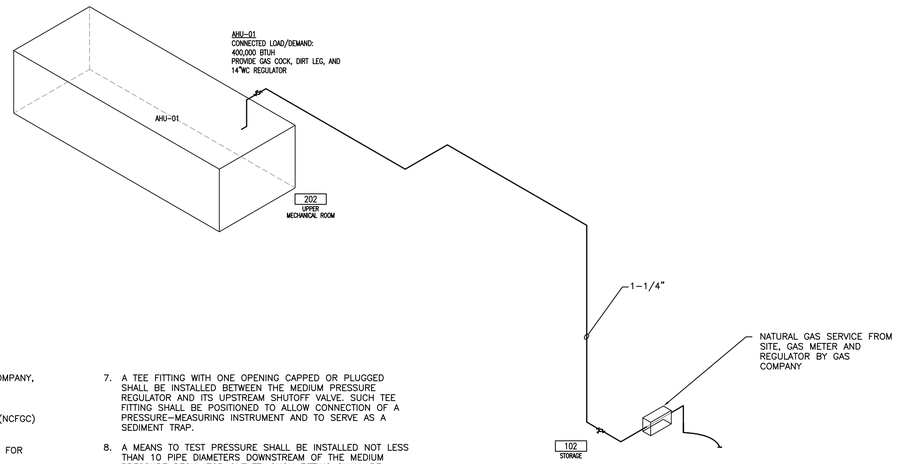
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
DOMESTIC WATER RISER

SCALE	DRAWING NO
NTS	P3.2
DRAWN: DJL	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 24010
Sheet: P3-2
Plotted By: dseary
Plotted: June 13, 2024 @ 7:04 AM



GENERAL NOTES:

1. 1 1/2" INCOMING GAS, PRESSURE REGULATOR, AND METER BY GAS COMPANY, PROVIDE 2 psi NATURAL GAS SERVICE AT 400,000 BTUh CAPACITY ON BUILDING SIDE. COORDINATE WITH CIVIL.
2. PIPING SIZED BY LONGEST LENGTH METHOD AND NC FUEL GAS CODE (NCFGC) TABLE 402.4(3)
3. MEDIUM PRESSURE REGULATOR SHALL BE APPROVED AND BE SUITABLE FOR THE INLET AND OUTLET GAS PRESSURES FOR THE APPLICATION
4. MEDIUM PRESSURE REGULATOR SHALL MAINTAIN A REDUCED OUTLET PRESSURE UNDER LOCKUP (NO-FLOW) CONDITIONS
5. THE CAPACITY OF THE MEDIUM PRESSURE REGULATOR, DETERMINED BY PUBLISHED RATINGS OF ITS MANUFACTURER, SHALL BE ADEQUATE TO SUPPLY THE APPLIANCES SERVED
6. THE MEDIUM PRESSURE REGULATOR SHALL BE PROVIDED WITH ACCESS.
7. A TEE FITTING WITH ONE OPENING CAPPED OR PLUGGED SHALL BE INSTALLED BETWEEN THE MEDIUM PRESSURE REGULATOR AND ITS UPSTREAM SHUTOFF VALVE. SUCH TEE FITTING SHALL BE POSITIONED TO ALLOW CONNECTION OF A PRESSURE-MEASURING INSTRUMENT AND TO SERVE AS A SEDIMENT TRAP.
8. A MEANS TO TEST PRESSURE SHALL BE INSTALLED NOT LESS THAN 10 PIPE DIAMETERS DOWNSTREAM OF THE MEDIUM PRESSURE REGULATOR OUTLET. SUCH FITTING SHALL BE POSITIONED TO ALLOW CONNECTION OF A PRESSURE-MEASURING INSTRUMENT.
9. GAS LINE TO BE BONDED IN ACCORDANCE WITH THE 2018 NCFGC, SECTION 310 ELECTRICAL BONDING.
10. PRESSURE REGULATORS THAT REQUIRE A VENT SHALL BE VENTED DIRECTLY TO THE OUTDOORS AND DESIGNED TO PREVENT THE ENTRY OF INSECTS, WATER AND FOREIGN OBJECTS IN ACCORDANCE WITH 2018 NCFGC SECTION 410.3.

GAS RISER
N.T.S.

01
P3.3

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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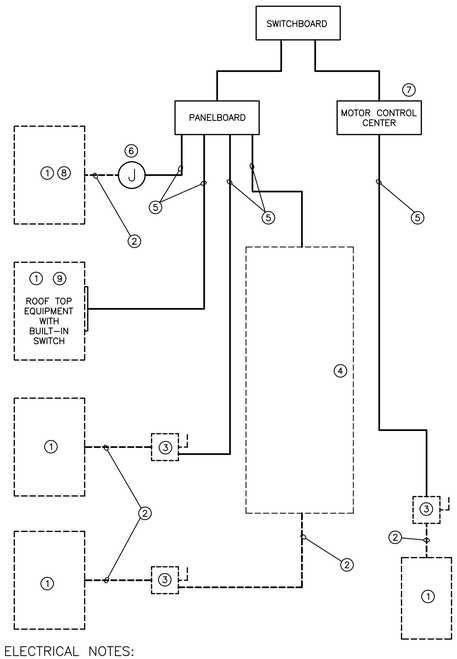
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
GAS RISER

SCALE: NTS	DRAWING NO: P3.3
DRAWN: DJL	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 240210
Sheet: P3-3
Plotted By: dteary
Plotted: June 13, 2024 @ 7:04 AM

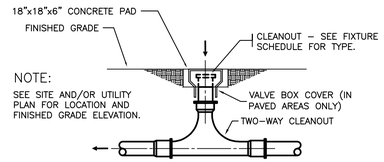


ELECTRICAL NOTES:

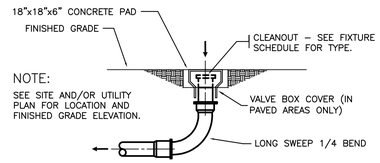
1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL
2. CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR OR OTHER TRADES
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR
4. A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
5. FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
6. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. FOR PROJECTS UTILIZING AN MCC, THE STARTER, CB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
8. IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP AND TEST EQUIPMENT.
9. IF THE ROOF TOP FAN IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.
10. IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND THE OTHER TRADES

ELECTRICAL EQUIPMENT CONNECTIONS

DETAIL NOT TO SCALE — **10**

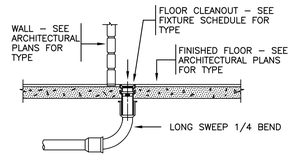


CLEANOUT AT FINISHED GRADE

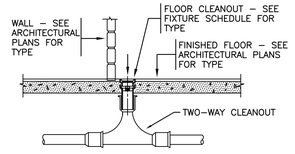


CLEANOUT AT FINISHED GRADE

DETAIL NOT TO SCALE — **09**

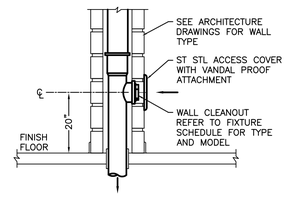


CLEANOUT AT FINISHED FLOOR



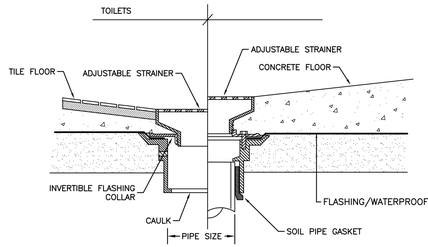
CLEANOUT AT FINISHED FLOOR

DETAIL NOT TO SCALE — **08**



CLEANOUT AT WALL

DETAIL NOT TO SCALE — **07**

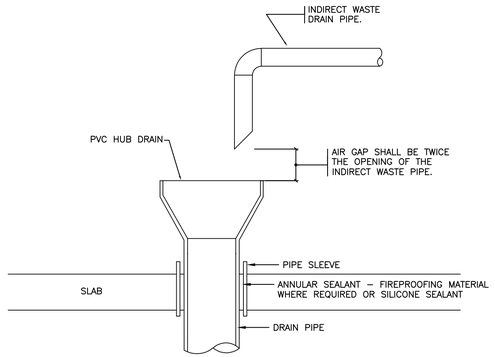


NOTES:

1. THE PLUMBING CONTRACTOR IS TO COORDINATE WITH THE GENERAL CONTRACTOR THE DRAIN LOCATIONS AND SETTING HEIGHTS.
2. SEE ARCHITECTURAL PLANS FOR ALL FLOOR FINISHES AND THICKNESSES.

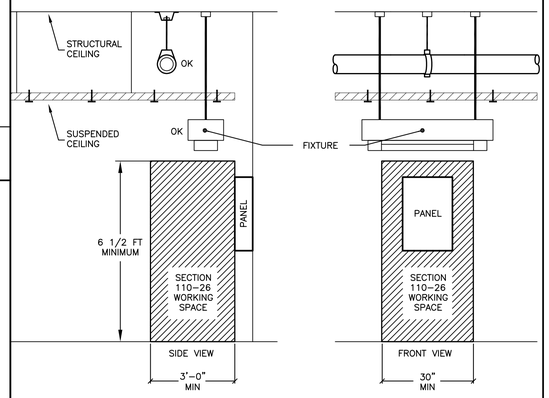
FLOOR DRAIN (FD-1)

DETAIL NOT TO SCALE — **06**



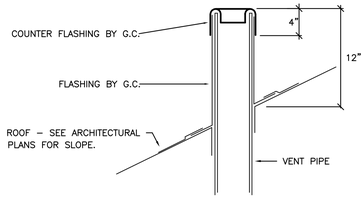
HUB DRAIN DETAIL (FD-3)

DETAIL NOT TO SCALE — **05**



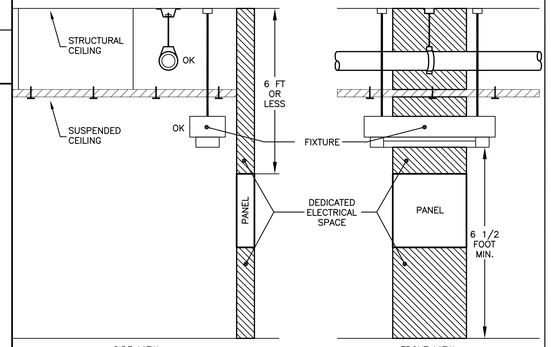
WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26

DETAIL NOT TO SCALE — **04**



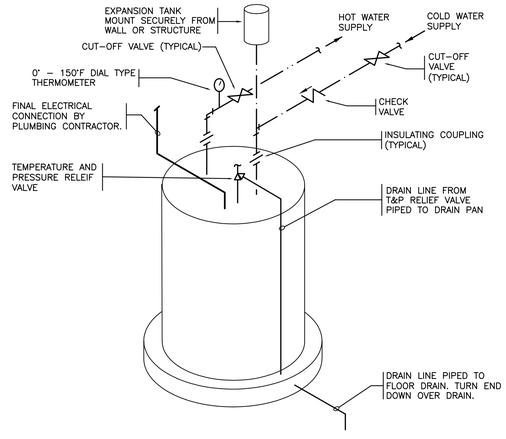
VENT THRU ROOF

DETAIL NOT TO SCALE — **03**



DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26(F)(1)

DETAIL NOT TO SCALE — **02**



NOTES:

1. REQUIREMENTS FOR THERMAL EXPANSION MUST BE MET
2. FLOOR DRAIN FOR RELIEF VALVE PIPING LOCATION MUST BE COORDINATED
3. PROVIDE A CHECK VALVE IN VERTICAL SUPPLY PIPING TO FIXTURES
4. PROVIDE 4" CONCRETE MAINTENANCE PAD FOR HEATER(S) AND TANK(S)
5. PROVIDE 3' MIN. CLEARANCE IN FRONT OF HEATER(S) AND TANK(S)

ELECTRIC WATER HEATER (WH-1)

DETAIL NOT TO SCALE — **01**

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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JKF ARCHITECTURE

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SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

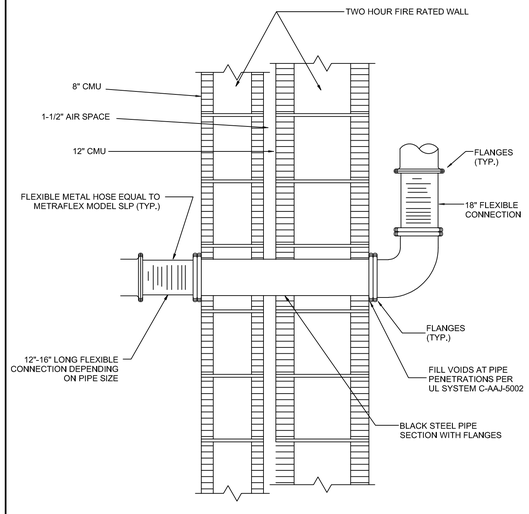
DRAWING TITLE
PLUMBING DETAILS

SCALE	1/8"=1'-0"
DRAWN	DJL
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B

DRAWING NO
P4.1

Project #: 24010
Sheet: P4-1
Plotted By: dlowry
Plotted: June 13, 2024 @ 7:03 AM

SECTION A-A



DOUBLE FIRE WALL PIPE PENETRATION VERTICAL

DETAIL NOT TO SCALE — **03**

DETAIL NOT TO SCALE — **02**

DETAIL NOT TO SCALE — **01**

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SCO ID #17-16813-01C: NCCCS #2163

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CLINTON, NC

DRAWING TITLE
PLUMBING DETAILS

SCALE: 1/8"=1'-0"	DRAWING NO: P4.2
DRAWN: DJL	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 24010
Sheet: P4-2
Plotted By: dtorr
Plotted: June 13, 2024 @ 7:03 AM

ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AF	AIR FILTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
AMP	AMPERE
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
AVG	AVERAGE
CC	AIR COOLED CONDENSER
B	BOILER
B.I.	BLACK IRON
BB	BASEBOARD RADIATION
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BO	BLANK OFF
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
CA	COMPRESSED AIR
CAP	CAPACITY
CAU	COMPRESSED AIR
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CI	CAST IRON
CL	CENTER LINE
CO	CARBON MONOXIDE
CO	CLEAN OUT
CONC	CONCRETE
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CY	CYCLE
DB	DRY BULB TEMPERATURE
DELF	DEFLECTION
DIFF	DIFFUSER
DN	DOWN
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EHC	ELECTRIC HEAT COIL
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F.D.	FLOOR DRAIN
FA	FREE AREA
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FLEX	FLEXIBLE
FM	FLOW METER
FP	FAN POWERED BOX
FPM	FEET PER MINUTE
FT	FEET
FT2	SQUARE FEET
FT3	CUBIC FEET
°F	DEGREES FAHRENHEIT
GA	GAUGE
GC	GENERAL CONTRACTOR
GE	GENERAL EXHAUST
GPM	GALLONS PER MINUTE
GR	GRILLE
°H	ENTHALPY DIFFERENCE
HC	HEATING COIL
HGRH	HOT GAS REHEAT
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HU	HUMIDIFIER
HVAC	HEATING VENTILATION & AIR CONDITIONING
HX	HEAT EXCHANGER
HZ	HERTZ
IF	INJECTION FAN
IN	INCHES
INSUL	INSULATION
ISDL	ISOLATION
KE	KITCHEN EXHAUST
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LF	LINEAR FEET
LLC	LIQUID LEVEL CONTROLLER
LWT	LEAVING WATER TEMPERATURE
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MIN	MINIMUM
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NK	NECK
NPSH	NET POSITIVE SUCTION HEAT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DAMPER
OV	OUTLET VELOCITY
P	PUMP
PD	PRESSURE DROP
PH	PHASE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH
ΔP	PRESSURE DIFFERENTIAL
RA	RETURN AIR
REFRIG	REFRIGERANT
REG	REGISTER
RET	RETURN
RF	RELIEF / RETURN FAN
RH	RELATIVE HUMIDITY
RM	ROOM
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
SM	SHEET METAL
SP	STATIC PRESSURE
SQ. FT.	SQUARE FEET
SS	STAINLESS STEEL
ST	SOUND TRAP
T	TANK
TC	TEMPERATURE CONTROL
TE	TOILET EXHAUST
TG	TRANSFER GRILLE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
ΔT	TEMPERATURE DIFFERENTIAL
UH	UNIT HEATER
V	VOLTAGE
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIB	VIBRATION
W	WATT
WB	WET BULB TEMPERATURE
WC	WATER COLUMN
WMS	WIRE MESH SCREEN
WP	WORKING PRESSURE

GENERAL NOTES

1. THE CONTRACT DOCUMENTS ARE COMPLIMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.
2. COORDINATE ALL WORK WITH THAT OF THE OTHER DISCIPLINES PRIOR TO THE INSTALLATION OF ANY PIPING, DUCTWORK, OR EQUIPMENT.
3. PERFORM A COMPLETE REVIEW OF THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS WITH THE ENGINEER AND ARCHITECT.
4. ENSURE THAT ITEMS FURNISHED OR PROVIDED WILL FIT IN THE SPACE AVAILABLE, ACCOUNTING FOR SERVICE AND ACCESS CLEARANCES. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS. PROVIDE THE ENGINEER WITH SCALED COORDINATION DRAWINGS OF ALL MECHANICAL SPACES AND ABOVE CEILING INSTALLATIONS.
5. PROVIDE ALL EQUIPMENT TO MAXIMIZE SPACE FOR MAINTENANCE, SERVICE, AND FUTURE REPLACEMENT.
6. PROVIDE ALL ELECTRICAL AND CONTROL CONNECTIONS TO THE EQUIPMENT PROVIDED. REFER TO THE ELECTRICAL DRAWINGS FOR LOCATIONS OF JUNCTION BOXES, DISCONNECTS, CIRCUIT BREAKERS (PANELBOARDS). TYPE, SIZE, AND NUMBER OF CONDUCTORS AND CONDUITS TO EQUIPMENT SHALL BE EQUIVALENT TO THE CONDUCTORS AND CONDUITS PROVIDED BY DIVISION 26. IN CASE OF MECHANICAL EQUIPMENT CONNECTION TO A CIRCUIT BREAKER, THE NUMBER AND SIZE OF THE CONDUCTORS AND CONDUITS SHALL CONFORM TO THE LATEST NATIONAL ELECTRICAL CODE REGULATIONS. ALL MOTOR STARTERS, SWITCHES, CONTROL DEVICES, ETC., PROVIDED BY DIVISION 23 SHALL BE RECESSED IN THE WALLS, EXCEPT WHEN THESE ITEMS ARE LOCATED IN MECHANICAL SPACES. PROVIDE A NAMEPLATE FOR ALL EQUIPMENT, SWITCHES, CONTROL DEVICES, ETC. REFER TO THE GENERAL PROVISIONS SECTION OF THE DIVISION 23 SPECIFICATIONS.
7. PROVIDE ALL SUPPORT DEVICES NECESSARY FOR THE WORK. COORDINATE ALL LOCATIONS WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.
8. REFER TO THE ARCHITECTURAL DRAWINGS FOR FLOOR PLAN DIMENSIONS AND ELEVATIONS. DO NOT SCALE THESE DRAWINGS.
9. PROVIDE ALL PENETRATIONS PERTAINING TO THE WORK THROUGH THE ROOF, WALLS, AND FLOORS. PROVIDE THE WATERPROOFING AROUND THE OPENINGS.
10. COORDINATE THE SIZE AND LOCATION OF ALL PENETRATIONS THROUGH THE ROOF WITH DIVISION 7 AND OTHER DISCIPLINES.
11. FIRE SEAL ALL FLOOR AND FIRE WALL PIPE AND CONDUIT PENETRATIONS WITH A UL APPROVED METHOD IN ACCORDANCE WITH THE NC BUILDING CODE.
12. PROVIDE ALL CUTTING AND PATCHING OF FLOORS AND WALLS FOR THE WORK, UNLESS OTHERWISE INDICATED.
13. CONDENSATE DRAINS SHALL BE A MINIMUM OF 1"ø COPPER, INSULATED WITH A 25/50 RATED CLOSED CELL RUBBER TUBING HAVING A NOMINAL WALL THICKNESS OF 1". PROVIDE A P-TRAP WITH VENT AND CLEANOUT PLUG AT THE UNIT. ALL CONDENSATE LINES SHALL BE ROUTED TO A FLOOR DRAIN OR AS INDICATED ON THE DRAWINGS.
14. DUCT DIMENSIONS INDICATED ARE INSIDE CLEAR UNLESS OTHERWISE INDICATED.
15. EXHAUST DUCTWORK SHALL BE UNINSULATED UNLESS OTHERWISE INDICATED.
16. PROVIDE FLEXIBLE DUCT CONNECTORS AT SUPPLY, RETURN, AND EXHAUST DUCTWORK CONNECTIONS TO ALL AIR HANDLING UNITS AND FANS.
17. PROVIDE SHEET METAL COLLAR AT ALL LOCATIONS WHERE DUCTS PENETRATE WALLS. COLLARS SHALL BE SAME GAGE AS THE DUCTWORK.
18. PROVIDE FIRE DAMPERS AT DUCT PENETRATIONS THROUGH THE FIRE RATED PARTITIONS, BARRIERS, AND WALLS AS INDICATED ON THE DRAWINGS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PENETRATIONS THROUGH FIRE RATED WALLS OF 3 HOURS OR MORE SHALL BE PROTECTED BY A LISTED FIRE DOOR, SATISFACTORY FOR CLASS A OPENINGS, ON BOTH SIDES OF THE WALL.
19. ALL ACCESS DOORS IN THE DUCTWORK SHALL BE LOCATED TO EASILY ACCESS FIRE DAMPERS. COORDINATE CEILING ACCESS PANEL LOCATIONS WITH ALL OTHER DISCIPLINES. ALL ACCESS DOORS IN DUCTWORK FOR FIRE DAMPERS, DUCT-MOUNTED COILS, CONTROL DAMPERS, HUMIDIFIERS, DUCT SMOKE DETECTORS, AND OTHER DEVICES SHALL CONFORM TO THE FOLLOWING SCHEDULE:

DUCT WIDTH	ACCESS DOOR SIZE
UP TO 17" WIDE	16"x12" (OR AS LARGE AS POSSIBLE)
18" TO 22"	16"x16"
22" AND LARGER	18"x18"

20. PROVIDE BALANCING DAMPERS IN ALL LOW PRESSURE DUCTS FOR SYSTEM BALANCING.
21. PROVIDE ADJUSTABLE CONTROL DEFLECTION DEVICES AT ALL BRANCH DUCT TAKE-OFFS.
22. ALL ELBOWS IN DUCTWORK SHALL BE 1-1/2ø RADIUS ELBOWS, UNLESS INDICATED OTHERWISE. WHERE RECTANGULAR ELBOWS ARE INDICATED, INSTALL DOUBLE WIDTH TURNING VANES.
23. INSTALL SMOKE DETECTORS (FURNISHED AND WIRED BY DIVISION 26) IN THE RETURN AIR DUCT OF EACH AIR HANDLING UNIT.
24. PROVIDE THERMOSTATS, SENSORS, AND OTHER CONTROLS 48" ABOVE FINISHED FLOOR OR AS INDICATED ON THE DRAWINGS. COORDINATE WITH OTHER DISCIPLINES TO ALIGN EXACTLY WITH ADJACENT DEVICES SUCH AS LIGHT SWITCHES AND CONTROLS.
25. PROVIDE ALL THERMOSTATS, SENSORS, CONTROLS, WIRING, AND CONDUIT.
26. WHERE DUCTWORK CONNECTS TO EXTERIOR LOUVERS, DUCTWORK SHALL BE PRIMED AND PAINTED BLACK TO PREVENT DUCTWORK FROM BEING VISIBLE THROUGH THE LOUVER.
27. ALL DUCT LAYOUT AND LOCATIONS INDICATED ARE DIAGRAMMATIC. VISIT THE SITE, BECOME FAMILIAR WITH THE EXISTING CONDITIONS, AND COORDINATE THE DUCT LAYOUT WITH ALL DISCIPLINES PRIOR TO INSTALLATION.
28. SUPPORT ALL DUCTWORK, PIPING, EQUIPMENT, AND APPURTENANCES FROM THE BUILDING SUPPORT STRUCTURE AND NOT THE ROOF.
29. INSULATE ALL SUPPLY DIFFUSERS AND DUCTED RETURN DIFFUSERS WITH 2" - 1# R.6 DUCT WRAP. CUT DIFFUSERS SO THERE IS A FOLDED 2" LAP ON ALL FOUR SIDES. TAPE WITH FSK TAPE WHERE INSULATED FLEX MEETS DUCT INSULATION, AND SO THERE ARE NO RAW EDGES OF FIBERGLASS.
30. EQUIPMENT SHALL MEET OR EXCEED ALL REQUIREMENTS IN THE 2013 VERSION OF ASHRAE STANDARD 90.1 AND THE CURRENTLY ENFORCED NORTH CAROLINA ENERGY CONSERVATION CODE.
31. ALL EQUIPMENT REMOVED FROM THE BUILDING DURING DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER FOR DISPOSAL. CARE SHOULD BE TAKEN IN REMOVAL OF ITEMS TO MINIMIZE DAMAGE. ANY ITEM NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES.
32. DO NOT INSTALL PIPING OR DUCTWORK OVER ANY ELECTRICAL PANEL OR SWITCHGEAR.
33. PROVIDE EQUIPMENT SUPPORT PAD FOR ALL BASE MOUNTED EQUIPMENT. PAD SHALL BE 6" HIGH FOR CONDENSING UNIT AND 4" HIGH FOR ALL OTHER MECHANICAL EQUIPMENT, INCLUDING AIR HANDLING UNITS. PROVIDE 8" MINIMUM FROM EQUIPMENT TO END OF PAD ON ALL SIDES.
34. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA BUILDING, ENERGY, AND MECHANICAL CODES.
35. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS TO FULLY COMMISSION THE SYSTEMS SPECIFIED HEREIN IN CONJUNCTION WITH THE OWNER'S THIRD PARTY COMMISSIONING AGENT. THIS INCLUDES, BUT IS NOT LIMITED TO, FILLING OUT PRE-FUNCTIONAL TEST FORMS, FILLING OUT EQUIPMENT START UP FORMS, STARTING UP EQUIPMENT WITH FACTORY REPRESENTATIVES, PROVIDE TECHNICIANS FOR FUNCTIONAL TESTING OF ALL EQUIPMENT IN THE PROJECT SCOPE, AND CORRECTING DEFICIENCIES REVEALED DURING THE PROCESS. COMMISSIONING SHALL BE IN ACCORDANCE WITH THE 2018 NC ENERGY CODE AT MINIMUM. THE COMMISSIONING AGENT WILL BE HIRED BY THE OWNER AND WILL COMPLETE THE APPENDIX C1 REQUIRED BY THE NC ENERGY CODE.

MECHANICAL SHEET INDEX

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	EXISTING FLEXIBLE DUCT
	FLEXIBLE DUCT
	EXISTING SUPPLY DUCT
	SUPPLY DUCT
	EXISTING RETURN DUCT
	RETURN DUCT
	EXISTING EXHAUST DUCT
	EXHAUST DUCT
	EXISTING OUTSIDE AIR INTAKE
	OUTSIDE AIR INTAKE
	BALANCING DAMPER
	EXISTING SUPPLY GRILLE
	SUPPLY GRILLE
	EXISTING RETURN GRILLE
	RETURN GRILLE
	EXISTING EXHAUST GRILLE
	EXHAUST GRILLE
T#	EXISTING THERMOSTAT WITH NIGHT SETBACK – SUBSCRIPT INDICATES AIR HANDLING UNIT NUMBER
T#	THERMOSTAT – SUBSCRIPT INDICATES AIR HANDLING UNIT NUMBER
H	HUMIDITY SENSOR
C	CO2 SENSOR
R R	REFRIGERANT PIPING
C C	CONDENSATE PIPING
	POINT OF DISCONNECT
	POINT OF CONNECTION
FS	AIRFLOW MEASURING STATION
S	DUCT MOUNTED SMOKE DETECTOR.

MECHANICAL SUMMARY
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Code

2018 NC ENERGY CODE: PRESCRIPTIVE___x___ PERFORMANCE_____
ASHRAE 90.1-2013: PRESCRIPTIVE_____ PERFORMANCE_____

Additional Prescriptive Compliance

___ 506.2.1 More Efficient Mechanical Equipment
_x_ 506.2.2 Reduced Lighting Power Density
___ 506.2.3 Energy Recovery Ventilation Systems
___ 506.2.4 Higher Efficiency Service Water Heating
___ 506.2.5 On-Site Supply of Renewable Energy
___ 506.2.6 Automatic Daylighting Control Systems

Thermal Zone 3A
Winter Dry Bulb: 22.7 degrees F
Summer Dry Bulb: 95.2 degrees F
Summer Wet Bulb: 77.0 degrees F

Interior Design Conditions
Winter Dry Bulb: 70 degrees F
Summer Dry Bulb: 75 degrees F
Relative Humidity: 55 %

Building Heating Load: 238.8 MBH (ADDITION ONLY)

Building Cooling Load: 53.9 TONS (ADDITION ONLY)

Mechanical Spacing Conditioning System

Unitary

Description of Unit:
Heating Efficiency:
Cooling Efficiency:
Size Category of Unit:
— See schedules on plans and specifications

Boiler: Total boiler output. If oversized, state reason. N/A MBH

Chiller: Total chiller capacity. If oversized, state reason. N/A TONS

Refer to Equipment Schedules for Unit 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 North Carolina State Energy Code (or ASHRAE 90.1-2013) as listed above.

CONSULTANT

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06/13/2024

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PDC #24010

KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
MECHANICAL LEGEND, SYMBOLS, AND NOTES

SCALE: NO SCALE	DRAWING NO: M0.0
DRAWN: JAV	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

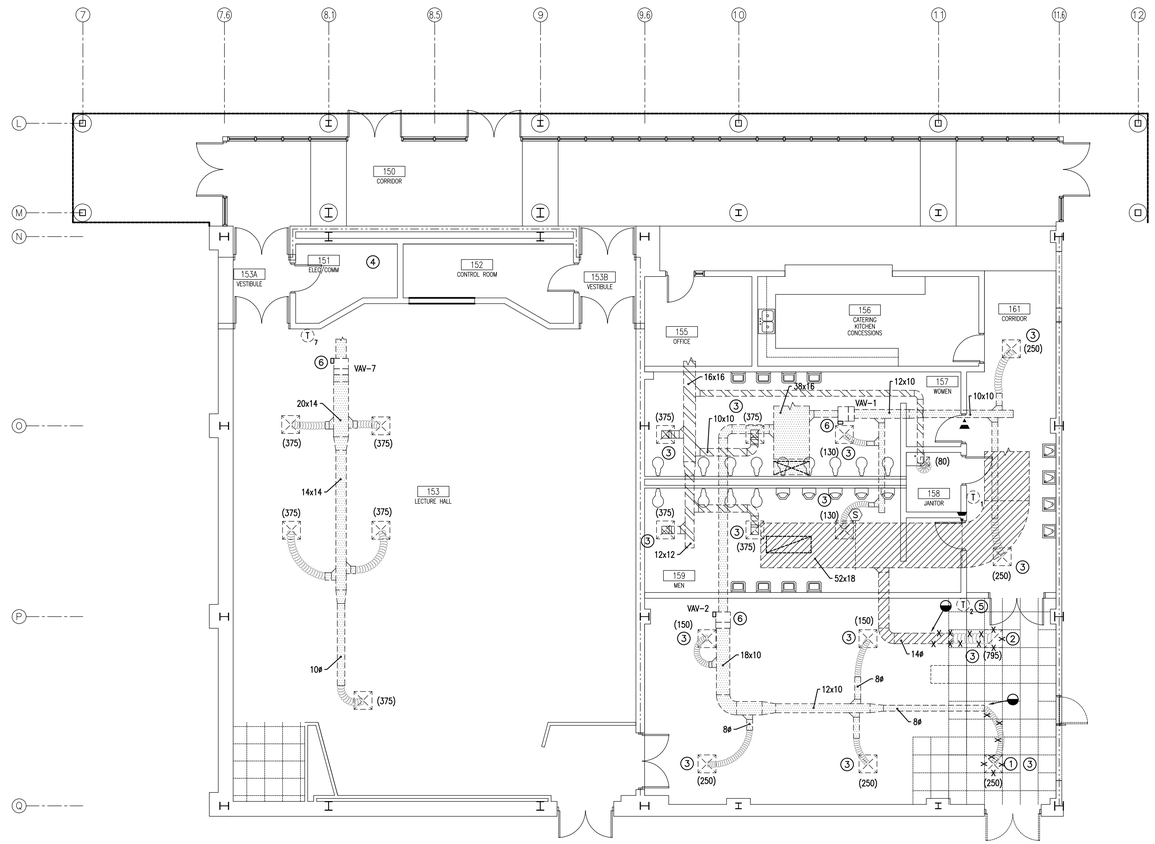
Project #: 24010
Sheet: M0-0
Plotted By: dtorr
Plotted: June 13, 2024 @ 7:12 AM

WALL LEGEND

——·——·——	ONE(1)-HOUR FIRE RATED WALL
——·——·——	TWO(2)-HOUR FIRE RATED WALL

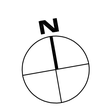
NOTES: (AS INDICATED ON THIS PLAN BY A NUMBER IN A ◯)

1. DISCONNECT EXISTING DIFFUSER AND TURN OVER TO THE OWNER. DEMO FLEX DUCT BACK TO HARD BRANCH DUCT.
2. DISCONNECT EXISTING RETURN GRILLE AND TURN OVER TO THE OWNER. DEMO DUCT BACK TO POINT OF DISCONNECT INDICATED.
3. MEASURE EXISTING DIFFUSER/GRILLE WITH A FLOW HOOD DURING PRE-CONSTRUCTION TAB.
4. EXISTING BAS CONTROL PANEL LOCATED IN THIS ROOM.
5. RELOCATE EXISTING THERMOSTAT.
6. EXISTING VAV BOX. TAB TO BALANCE AT CONCLUSION OF WORK.



FIRST FLOOR MECHANICAL DEMOLITION PLAN — M0.1 (01)
1/8" = 1'-0"

0 4' 8' 16'
SCALE: 1/8" = 1'-0"



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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRST FLOOR DEMOLITION PLAN

SCALE: 1/8"=1'-0"	DRAWING NO: M0.1
DRAWN: JAV	
CHECKED: SWC	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

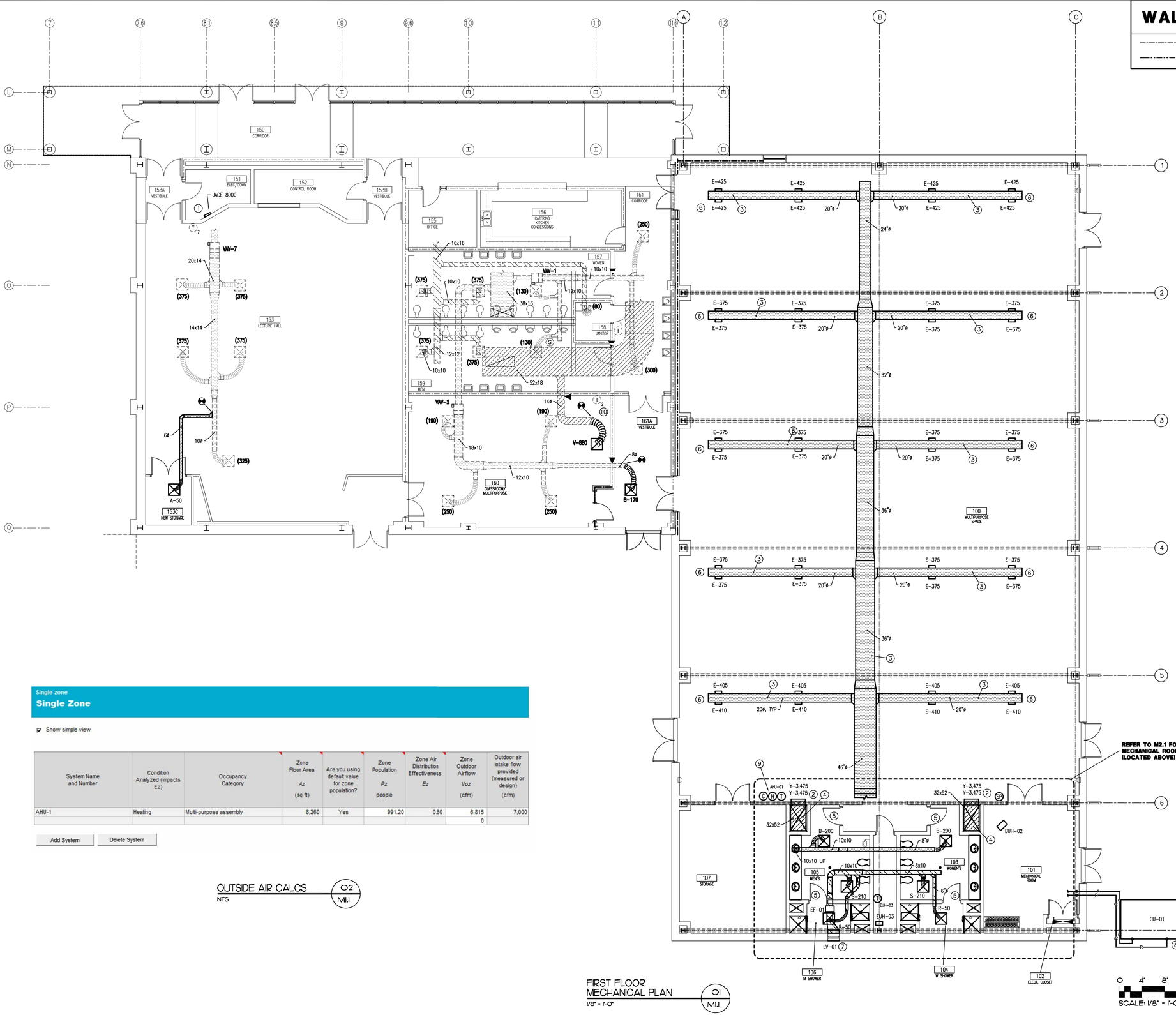
Project #: 240010
Sheet: M0-1
Plotted By: dfreyr
Plotted: June 13, 2024 @ 7:12 AM

WALL LEGEND

- ONE(1)–HOUR FIRE RATED WALL
- TWO(2)–HOUR FIRE RATED WALL

NOTES: (AS INDICATED ON THIS PLAN BY A NUMBER IN A ◯)

1. PROVIDE TRIDIUM JACE 8000 CONTROLLER NEXT TO EXISTING DDC PANEL IN ELECTRICAL ROOM. BAS CONTRACTOR SHALL MIGRATE ALL EXISTING CONTROLLERS AND POINTS IN THIS BUILDING FROM THE JACE IN THE TECHNOLOGIES BUILDING TO THIS JACE. PROVIDE SOFTWARE LICENSE SUFFICIENT FOR TOTAL POINTS IN SCOPE OF WORK.
2. TWO 60" TALL GRILLES STACKED. MOUNT BOTTOM EDGE OF BOTTOM GRILLE 8" AFF. CFMS LISTED ARE AT DCV OUTSIDE AIR. TAB TO ALSO BALANCE AT MAXIMUM OUTSIDE AIR.
3. DOUBLE WALL SPIRAL DUCTWORK WITH MILL PHOSPHATIZED "PAINT GRIP" FINISH. RUN IN WEBBING OF TRUSSES.
4. RETURN DUCT SHALL BE DOUBLE-WALL RECTANGULAR WITH 1.5" ELASTOMERIC FOAM INSULATION BETWEEN PANELS. INTERNAL WALL SHALL BE PERFORATED, EXCEPT FITTINGS.
5. 1" DOOR UNDERCUT. COORDINATE WITH ARCHITECT'S DOOR SCHEDULE.
6. MOUNT DIFFUSERS AT 4 AND 8 O'CLOCK POSITIONS.
7. REFER TO ARCHITECTURAL ELEVATIONS FOR LOUVER HEIGHT.
8. REFRIGERANT PIPING SHOW IS SIMPLIFIED AND SCHEMATIC, INTENDING TO SHOW GENERAL ROUTING ONLY. REFER TO MANUFACTURER'S PIPING DIAGRAM. BASIS OF DESIGN PIPING IS 2-1/8" FOR SUCTION, 1-1/8" FOR LIQUID, AND 7/8" FOR REHEAT. PIPING SIZES SHALL BE VERIFIED WITH THE PARTICULAR MANUFACTURER.
9. PROVIDE WIRE GUARDS (NOT PLASTIC) OVER ALL CONTROL DEVICES.
10. RELOCATE EXISTING THERMOSTAT.



FIRST FLOOR MECHANICAL PLAN 01 M1.1
1/8" = 1'-0"

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

Single zone

Single Zone

Show simple view

System Name and Number	Condition Analyzed (impacts Ez)	Occupancy Category	Zone Floor Area Az (sq ft)	Are you using default value for zone population?	Zone Population Pz people	Zone Air Distribution Effectiveness Ez	Zone Outdoor Airflow Voz (cfm)	Outdoor air intake flow provided (measured or design) (cfm)
AHU-1	Heating	Multi-purpose assembly	8,260	Yes	991.20	0.80	6,815	7,000
							0	

Add System | Delete System

OUTSIDE AIR CALCS 02 M1.1
NTS

CONSULTANT

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SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

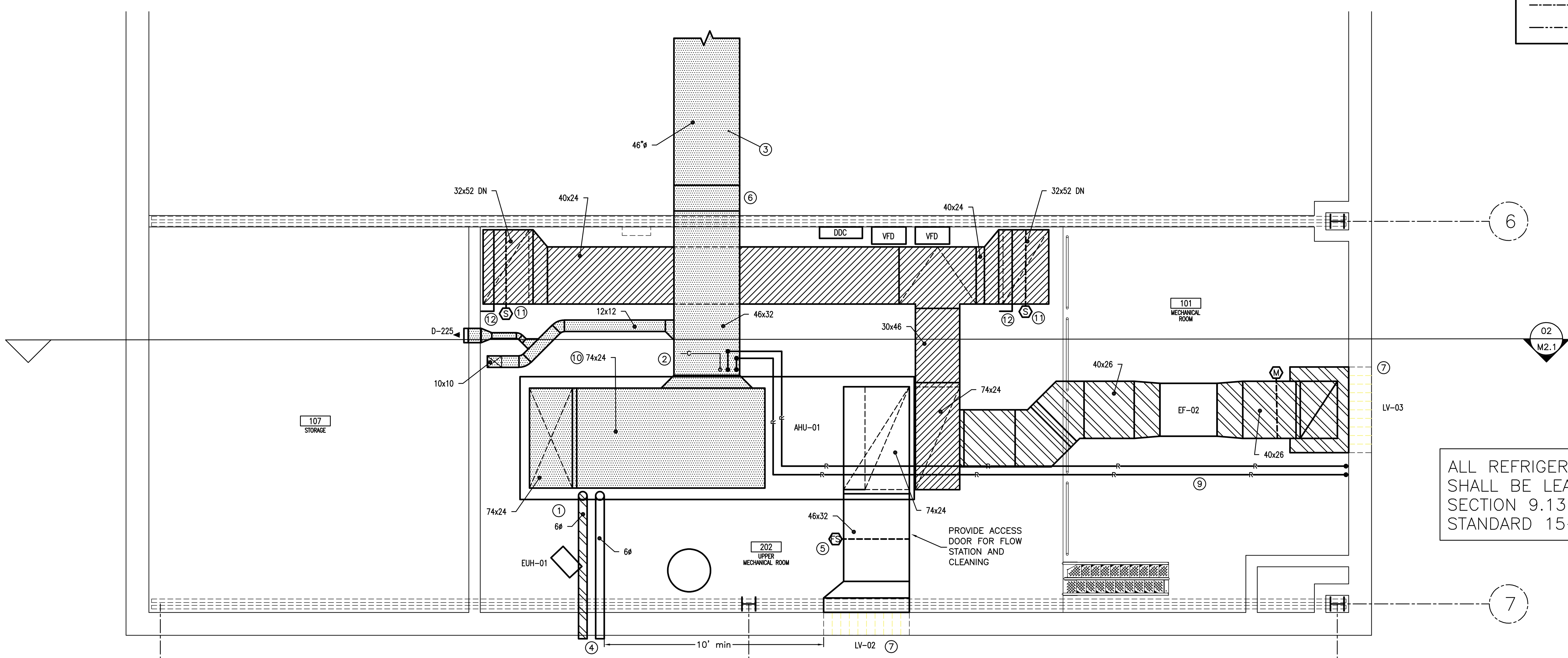
DRAWING TITLE
FIRST FLOOR DUCTWORK AND PIPING PLAN

SCALE	1/8"=1'-0"
DRAWN	JAV
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	M1.1

Project #: 24010
Sheet: M1-1
Plotted By: dtorry
Plotted: June 13, 2024 @ 7:12 AM

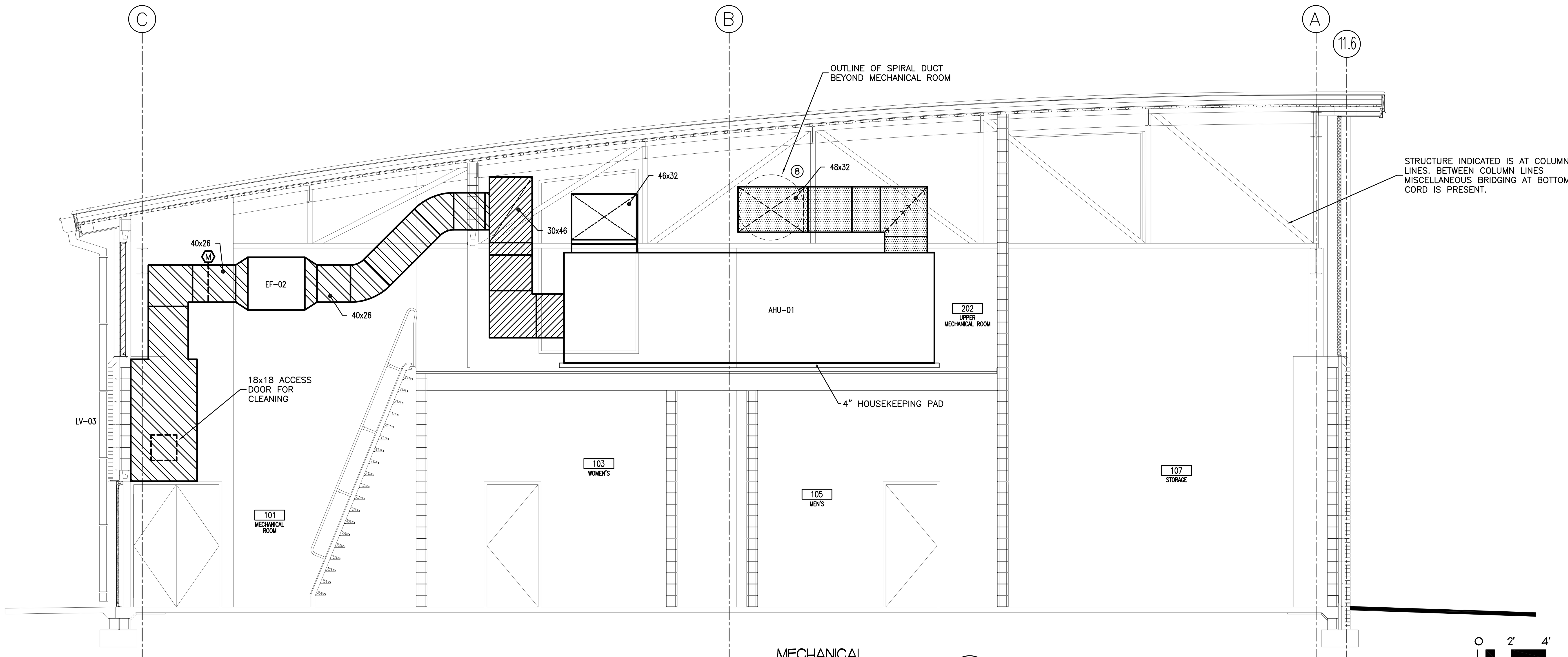
WALL LEGEND

— · — · —	ONE(1)-HOUR FIRE RATED WALL
— · · — · · —	TWO(2)-HOUR FIRE RATED WALL



MECHANICAL ROOM PLAN 01 M1.2
1/4" = 1'-0"

ALL REFRIGERANT PIPING SHALL BE LEAK TESTED PER SECTION 9.13 OF ASHRAE STANDARD 15-2022.



MECHANICAL ROOM SECTION 02 M1.2
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

N

NOTES: (AS INDICATED ON THIS PLAN BY A NUMBER IN A ◯)

1. PROVIDE 4" CONCRETE PAD UNDER UNIT EXTENDING AT LEAST 8" BEYOND FOOTPRINT IN EACH DIRECTION. PROVIDE STAINLESS STEEL AUXILIARY DRAIN PAN UNDER UNIT.
2. EXTEND CONDENSATE TO FLOOR DRAIN AND TERMINATE WITH AIR GAP. REFER TO PLUMBING DRAWINGS FOR FLOOR DRAIN LOCATION.
3. DUCT SHALL RUN ABOVE BOTTOM CORD OF JOISTS IN WEBBING. COORDINATE WITH GENERAL CONTRACTOR AND STEEL SHOP DRAWINGS.
4. FLUE VENT AND COMBUSTION AIR INTAKE FROM GAS FURNACE TO EXTERIOR WALL. MAINTAIN SEPARATION PER NC FUEL GAS CODE. REFER TO ARCHITECTURAL ELEVATIONS FOR HEIGHTS.
5. AIR FLOW MEASURING STATION FOR OUTSIDE AIR. EBTRON OR EQUIVALENT.
6. TRANSITION FROM RECTANGULAR DOUBLE-WALL DUCTWORK TO DOUBLE-WALL SPIRAL. PROVIDE ESCUTCHEON AT WALL.
7. REFER TO ARCHITECTURAL ELEVATIONS FOR LOUVER HEIGHT.
8. ROUND DUCT SHOWN BEYOND MECHANICAL ROOM WALL FOR REFERENCE.
9. REFRIGERANT LINES SHOWN ARE SCHEMATIC ONLY AND INTENDED TO SHOW GENERAL ROUTING. REFER TO MANUFACTURER'S PIPING DIAGRAM AND CONFIRM SIZES WITH MANUFACTURER OF THE PARTICULAR EQUIPMENT. BASIS OF DESIGN PIPING IS 2-1/8" FOR SUCTION, 1-1/8" FOR LIQUID, AND 7/8" FOR REHEAT. PIPING SIZES SHALL BE VERIFIED WITH THE PARTICULAR MANUFACTURER.
10. PROVIDE DOUBLE-WALL PLENUM WITH PERFORATED INNER LINER. PLENUM SHALL BE FULL SIZE OF UNIT'S SUPPLY AIR OPENING.
11. PROVIDE SMOKE DETECTOR AT 2' AFF WITH ACCESS DOOR.
12. PROVIDE BALANCING DAMPER AT 42" AFF OF PLATFORM

CONSULTANT

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL
06/13/2024

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

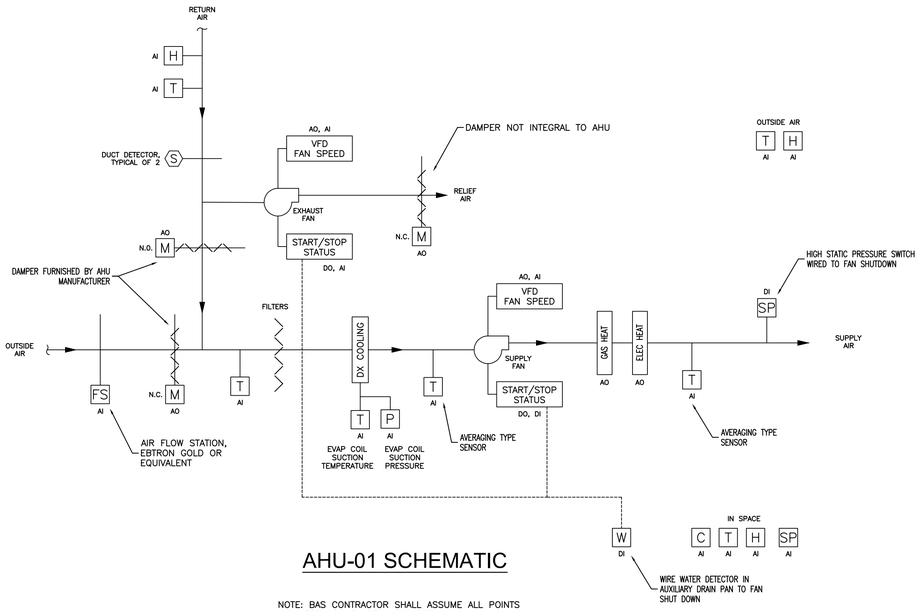
JKF ARCHITECTURE
625 LYNNDALE CT. SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
MECHANICAL ROOM PLAN AND SECTION

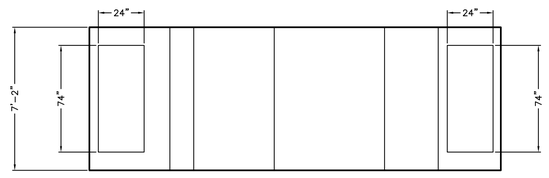
SCALE	1/4"=1'-0"
DRAWN	JAV
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	M2.1

Plotted By: dlowry
Plotted: June 13, 2024 @ 7:12 AM
Project #: 240010
Sheet: M2-1

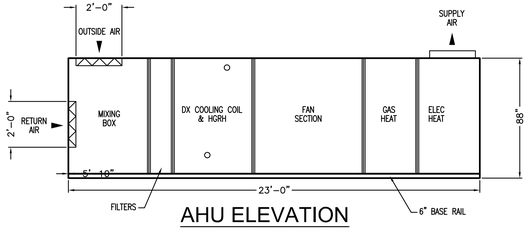


AHU-01 SCHEMATIC

NOTE: BAS CONTRACTOR SHALL ASSUME ALL POINTS INDICATED ABOVE ARE HARDWIRED.



AHU PLAN



AHU ELEVATION

SEQUENCE OF OPERATIONS

GENERAL ZONING/SCHEDULING

A. EACH AHU IS A ZONE THAT CAN BE INDIVIDUALLY ASSIGNED AN OPERATION SCHEDULE OR OPERATE IN CONJUNCTION WITH OTHER ZONES AS DEFINED BY THE OWNER. IF AN ASSOCIATED OVERRIDE BUTTON IS PUSHED DURING NORMALLY OCCUPIED TIMES, NO CHANGE IN OPERATION WILL OCCUR. IF ANY ASSOCIATED OVERRIDE BUTTON IS PUSHED DURING NORMALLY UNOCCUPIED TIMES, BOTH THE AHU AND CENTRAL HEATING AND COOLING SOURCE WILL OPERATE IN THE OCCUPIED MODE FOR THE PROGRAMMED TIME DURATION.

B. SCHEDULING

1. REGULAR SCHEDULING. EACH ZONE HAS A REGULAR, DAY-TO-DAY SCHEDULE OF OCCUPIED HOURS. THE HVAC EQUIPMENT IN A ZONE WILL START EARLY ENOUGH SO THAT THE SPACE TEMPERATURES IN THE ZONE ARE AT SETPOINT BY THE BEGINNING OF OCCUPIED HOURS. THE START TIME IS AUTOMATICALLY ADJUSTED WITH CHANGES IN OUTSIDE AIR TEMPERATURE. START/STOP OPTIMIZATION ALGORITHMS SHALL BE USED.
2. HOLIDAYS: HOLIDAYS CAN BE SCHEDULED UP TO A YEAR IN ADVANCE. DURING SCHEDULED HOLIDAYS, THE ZONES REMAIN IN UNOCCUPIED MODE.
3. SPECIAL EVENT SCHEDULING: SPECIAL EVENTS CAN BE SCHEDULED UP TO A YEAR IN ADVANCE DURING WHICH A ZONE WILL OPERATE IN OCCUPIED MODE REGARDLESS OF THE ZONE'S REGULAR SCHEDULE OR SCHEDULED HOLIDAYS.
4. BAS OPERATOR OVERRIDES: THE BUILDING MANAGEMENT SYSTEM OPERATOR CAN OVERRIDE THE ENTIRE BUILDING EITHER ON OR OFF AT SINGLE POINTS IN THE GLOBAL CONTROL MODULE'S SOFTWARE.

I) AIR HANDLERS

A) MODE CONTROL OPTIONS

1) SINGLE ZONE VARIABLE AIR VOLUME (SZVAV)

(a) MODE DETERMINED BY SPACE AND/OR AMBIENT CONDITIONS (GREATER THAN 20% O/A)

B) SUPPLY FAN OPERATION

1) THE SUPPLY FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED TIMES AND SHALL BE OFF DURING UNOCCUPIED TIMES PER A TIME OF DAY AND 365 DAY A YEAR SCHEDULE GIVEN BY THE OWNER. DETERMINE FAN STATUS THROUGH THE VARIABLE FREQUENCY DRIVE AND CURRENT SENSOR. WHEN FAN FAILS TO START AS COMMANDED, SIGNAL ALARM.

2) UNIT SHALL OPERATE AS SZVAV

(a) UNIT SHALL START AT MINIMUM AND MODULATE SPEED HIGHER BASED ON MODE AND CONTROL SETPOINTS. RAMP RATE FOR COOLING SHOULD BE SLOWER THAN HEATING MODES.

C) COOLING MODE

1) AS SPACE CONDITIONS RISE ABOVE THE DEFINED MODE SETPOINT, THE UNIT WILL ENTER COOLING MODE AND OPERATE COOLING CAPACITY TO CONTROL SETPOINT. AS THE SPACE TEMPERATURE RISES ABOVE THE ADJUSTABLE CONTROL SETPOINT, THE CONTROLLER SHALL ENERGIZE COOLING STAGE(S).

2) TO STAGE UP THE EXTRA COMPRESSOR(S), THE SAT NEEDS TO BE ABOVE THE ACTIVE SUPPLY AIR COOLING SETPOINT AND THE DIGITAL COMPRESSOR NEEDS TO BE AT 100% FOR A PERIOD OF TIME EQUAL TO THE STAGE UP DELAY. ONCE A FIXED COMPRESSOR IS ENABLED THE DIGITAL COMPRESSOR SIGNAL WILL GO TO 10% AND MODULATE UP AS NEEDED. THIS WILL REPEAT AS ADDITIONAL FIXED COMPRESSORS ARE STAGED UP.

3) FOR COMPRESSORS TO STAGE ON, MINIMUM OFF TIMES (ADJ.) MUST BE SATISFIED AS WELL AS STAGE UP DELAYS (ADJ.).

4) TO STAGE DOWN THE EXTRA COMPRESSOR(S), THE SAT NEEDS TO BE BELOW THE ACTIVE SUPPLY AIR COOLING SETPOINT MINUS THE COOLING STAGE CONTROL WINDOW AND THE DIGITAL COMPRESSOR NEEDS TO BE AT 0% FOR A PERIOD OF TIME EQUAL TO THE STAGE DOWN DELAY. ONCE A FIXED COMPRESSOR STAGES OFF THE DIGITAL COMPRESSOR WILL GO TO 100% AND MODULATE DOWN AS NEEDED. THIS WILL REPEAT AS ADDITIONAL FIXED COMPRESSORS STAGE OFF.

5) FOR COMPRESSORS TO STAGE DOWN, MINIMUM RUN TIMES (ADJ.) MUST BE SATISFIED AS WELL AS STAGE DOWN DELAYS (ADJ.). THE DIGITAL COMPRESSOR IS ALWAYS THE LAST COMPRESSOR TO BE DEACTIVATED.

D) HEATING MODE

1) AS SPACE CONDITIONS GO BELOW THE DEFINITE MODE SETPOINT, THE UNIT WILL ENTER HEATING MODE AND OPERATE HEATING TO CONTROL SETPOINT. AS THE SPACE TEMPERATURE RISES ABOVE THE ADJUSTABLE CONTROL SETPOINT, THE CONTROLLER SHALL ENERGIZE HEATING STAGE(S):

2) THE NATURAL GAS BURNER SHALL BE THE FIRST STAGE HEATING AND SHALL BE ENGAGED TO OPERATE WHEN THE DISCHARGE AIR TEMPERATURE FALLS BELOW SETPOINT.

3) THE FAN SPEED SHALL BE ADJUSTED BETWEEN THE MINIMUM CFM AND THE MAXIMUM HEATING CFM BASED ON THE SPACE LOAD. SUFFICIENT RAMP TIME SHOULD BE ALLOWED FOR MAXIMUM EFFICIENCY WITHOUT LOSING SPACE CONDITIONS BY A SIGNIFICANT MARGIN.

4) IF THE NATURAL GAS BURNER IS AT MAXIMUM CAPACITY AND THE DISCHARGE AIR SETPOINT IS NOT SATISFIED, THE ELECTRIC AUXILIARY HEAT SHALL BE ENABLED AS STAGE 2 HEAT. THE SCR ELECTRIC HEAT SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE UP TO A MAXIMUM OF 85'F OR 20'F ABOVE SPACE SETPOINT BASED ON THE DEVIATION FROM SPACE SETPOINT.

5) THE SEQUENCE SHALL UNWIND IN REVERSE.

E) DEHUMIDIFICATION MODE

1) DEHUMIDIFICATION MODE WILL BE ENERGIZED IF SPACE RELATIVE HUMIDITY IS ABOVE SETPOINT (60%, ADJ) FOR A MINIMUM OF 10 MINUTES.

2) IN DEHUMIDIFICATION MODE, THE COMPRESSOR(S) SHALL MODULATE TO ACHIEVE THE EVAPORATOR COIL LEAVING TEMPERATURE SETPOINT. ELECTRIC REHEAT (VIA ELECTRIC HEATING COIL) IS THEN USED TO CONTROL TO THE MODE (SPACE CONTROL) SETPOINT.

(a) IF IN COOLING MODE AND DEHUMIDIFICATION MODE, THE EVAPORATOR TEMPERATURE WILL BE CONTROLLED TO THE COIL TEMPERATURE SETPOINT (~53F ADJ) AND ELECTRIC HEATING COIL REHEAT WILL BE USED TO CONTROL THE SUPPLY AIR TEMPERATURE TO MAINTAIN THE MODE CONTROL SETPOINT.

(i) SAT MACHINES – EVAPORATOR COIL TEMP WILL BE MAINTAINED FOR DEHUMIDIFICATION AND HOT GAS REHEAT WILL CONTROL THE SAT. FOR ADJUSTABLE SAT CONTROL, SAT WILL BE ADJUSTED TO MAINTAIN THE CONTROL TEMPERATURE SETPOINT.

(ii) SINGLE ZONE VAV – SAME PROCEDURE WILL APPLY WITH THE ADDITION OF THE FAN SPEED THROUGH AN INDEPENDENT LOOP. SUFFICIENT RAMP TIME SHOULD BE ALLOWED FOR MAXIMUM EFFICIENCY WITHOUT LOSING SPACE CONDITIONS BY A SIGNIFICANT SPREAD.

G) ECONOMIZING MODE

6) AS AMBIENT CONDITIONS ALLOW, THE ECONOMIZER WILL ACTIVATE. THE ECONOMIZER BECOMES THE 1ST STAGE OF COOLING. ECONOMIZER SHALL BE ENABLED IF OUTSIDE ENTHALPY IS BELOW 28 BTU/LB, OUTSIDE AIR TEMPERATURE IS BELOW RETURN AIR TEMPERATURE, AND UNIT IS NOT IN HEATING MODE. THE ECONOMIZER DAMPER SHALL BE MODULATED TO MAINTAIN A MIXED AIR TEMPERATURE OF 2'F BELOW THE ACTIVE SUPPLY AIR TEMPERATURE SETPOINT. ONCE OA DAMPER IS FULLY OPEN, ADDITIONAL COOLING STAGES CAN BE UTILIZED TO ACHIEVE THE MODE CONTROL SETPOINT. ALLOW SUFFICIENT TIME FOR RAMP. THERE SHALL BE A 15 MINUTE DELAY (ADJ) BETWEEN ENTERING AND EXITING ECONOMIZER MODE.

H) CO2 OPERATION

1) AS THE CO2 LEVEL RISES ABOVE DESIRED SET POINT, THE ECONOMIZER DAMPER WILL OPEN. THE ECONOMIZER WILL MODULATE BASED ON CO2 SETPOINT (~1200 PPM, ADJ.) AND PROPORTIONAL RANGE (~200 PPM ADJ). DAMPERS START AT MINIMUM POSITION AND WILL MODULATE OPEN WHEN ABOVE SETPOINT. THE DAMPER WILL CONTINUE TO OPEN UP TO THE MAXIMUM POSITION WHEN CO2 IS ABOVE SETPOINT PLUS PROPORTIONAL RANGE. THIS MAY NOT BE 100% AND SHOULD BE SET TO THE DESIGN CONDITION MAXIMUM FOR THE UNIT IN CONJUNCTION WITH TAB.

I) EXHAUST (RELIEF) FAN OPERATION

1) THE RELIEF FAN SHALL BE ENABLED IN OCCUPIED MODE ANYTIME THE SUPPLY FAN IS OPERATING AND THE BUILDING PRESSURE RELATIVE TO THE OUTSIDE IS GREATER THAN +0.07" wg. A MINIMUM DAMPER POSITION SHOULD BE SET TO ENABLE THE EXHAUST FAN OPERATION. BELOW THIS MINIMUM, THE EXHAUST FAN SHALL BE OFF. MINIMUM SPEED ON THE EXHAUST FAN IS 18 Hz, SO BALANCING IS REQUIRED TO SET THE DAMPER ON/OFF POSITION. ONCE BUILDING PRESSURE RISES ABOVE +0.07" wg, THE EXHAUST FAN SHALL START AT MINIMUM SPEED. THE EXHAUST FAN SHALL THEN MODULATE ABOVE 20Hz TO MAINTAIN THE CONTROL SETPOINT OF +0.05" wg. ONCE PRESSURE FALLS BELOW +0.03" wg, THE FAN SHALL TURN OFF. PROVIDE TIME AVERAGING OF BUILDING PRESSURE TO SMOOTH RELIEF FAN OPERATION. ALLOW SUFFICIENT DEAD BAND TO ENSURE LONGEVITY OF MOTOR; THIS SHALL BE ESTABLISHED DURING TAB.

J) CONDENSER FAN CONTROL

1) THE CONDENSER FAN IS COMMANDED ON WHEN THE FIRST COMPRESSOR IS ENABLED. THE CONDENSER PERFORMANCE IS ADJUSTED TO CONTROL PROPER HEAD PRESSURE DEPENDING ON COOLING OR DEHUMIDIFICATION MODE. THE MODULATION WILL BE SET TO MINIMUM SPEED/FLOW WHEN COMPRESSORS ARE CALLED AND BE ALLOWED TO GO TO FULL SPEED/FLOW IF ABOVE HIGH PRESSURE SETPOINT. TYPICAL SETPOINTS FOR HEAD PRESSURE ARE COOLING MODE 340PSI AND DEHUMIDIFICATION 375PSI. VERIFY WITH MANUFACTURER.

(a) IN THE COOLING MODE THE SPEED OF THE CONDENSER FAN WILL BE ADJUSTED BETWEEN 0% AND 100% TO MAINTAIN THE DESIRED HEAD PRESSURE SETPOINT.

(b) IN HEAT PUMP HEATING MODE THE CONDENSER FAN WILL OPERATE AT 100%.

K) SAFETIES

UPON A SIGNAL FROM THE DUCT SMOKE DETECTOR VIA A HARDWIRED RELAY FROM THE FIRE ALARM CONTROL PANEL, THE AHU FANS SHALL SHUTDOWN. SHUTDOWN SHALL BE WIRED SUCH THAT FANS TURN OFF EVEN IF VFDs ARE IN HAND OPERATION.

SUPPLY AND RELIEF FAN SHALL SHUT DOWN IF THE DUCT HIGH STATIC SWITCH IS ACTIVATED (HARDWIRE INTERLOCK) SUPPLY AND RELIEF FAN SHALL SHUT DOWN IF WATER DETECTOR IN AUXILIARY DRAIN PAN IS ACTIVATED.

UNIT SHALL BE EQUIPPED WITH A REFRIGERANT DETECTION SYSTEM (RDS) TO DETECT LEAKED REFRIGERANT WITHIN THE CONDITIONED AIRSTREAM. THE SYSTEM SHALL MEET THE REQUIREMENTS OF ASHRAE 15 7.6.2.5. THE RDS SYSTEM CONSISTS OF A MITIGATION BOARD AND ONE OR MORE REFRIGERANT SENSORS IN THE CONDITIONED AIRSTREAM. IN THE EVENT OF A REFRIGERANT LEAK THAT COULD LEAK INTO THE OCCUPIED SPACE, THE RDS SENSORS WILL SEND AN ALARM TO THE MITIGATION BOARD. IN THE EVENT OF AN ALARM, THE COMPRESSOR OPERATION IS DISABLED, THE ELECTRIC AND GAS HEAT ARE DISABLED, AND THE INDOOR BLOWER IS ENABLED TO PROVIDE CIRCULATION AIRFLOW IN ACCORDANCE WITH UL 60335-2-40. THE BOARD WILL REMAIN IN ALARM STATE FOR FIVE MINUTES AFTER RDS SENSOR HAS CLEARED THE ALARM BELOW THE CONCENTRATION SETPOINT.

EXHAUST FAN CONTROL (OTHER THAN EF-02)

EXHAUST FANS SHALL BE CONTROLLED BY THE ENERGY MANAGEMENT SYSTEM.

OCCUPIED PERIOD:

A. FANS SHALL OPERATE VIA METHOD AS LISTED IN SCHEDULE. VIA BAS, T-STAT, ETC.

UNOCCUPIED PERIOD:

A. FANS ARE OFF.

PREPARATORY PERIOD:

A. EXHAUST FANS SHALL BE INTERLOCKED TO OPERATE WITH SPECIFIC CORRESPONDING AIR HANDLING UNITS.

UNIT HEATERS

A. UNIT HEATER: BUILT-IN THERMOSTAT SHALL MAINTAIN ITS SET POINT OF 55'F. BY STARTING THE UNIT HEATER. ONCE THE UNIT HEATER IS ENERGIZED, IT WILL RUN FOR AT LEAST FIVE (5) MINUTES TO AVOID SHORT CYCLING. NO BUILDING MANAGEMENT SYSTEM MONITORING OR CONTROL IS REQUIRED FOR UNIT HEATERS.

BAS OVERRIDE

A. ACTIVATION OF THE OVERRIDE PUSH BUTTON AT A WALL MOUNTED TEMPERATURE SENSOR WILL SWITCH AN AIR HANDLING UNIT CONTROL SEQUENCE OR LIGHTING SEQUENCE FROM THE UNOCCUPIED TO THE OCCUPIED MODE FOR A PROGRAMMABLE TIME PERIOD. THE INITIAL SET UP TIME PERIOD SHALL BE TWO HOURS.

TREND LOGS

A. PROVIDE TREND LOGS FOR CONDENSING UNIT, FAN, AIR HANDLING UNIT OPERATION, AND ANY OTHER EQUIPMENT.

B. TREND ALL TEMPERATURE, PRESSURE AND EQUIPMENT CHANGES OF STATE.

MAINTENANCE MANAGEMENT

THE DDC SYSTEM SHALL MEASURE AND RECORD RUN TIME FOR ALL START/STOP POINTS IN THE SYSTEM. BASED UPON THE ACCUMULATED RUN TIME PROVIDE MAINTENANCE MESSAGES ON THE INTERVAL RECOMMENDED BY THE EQUIPMENT MANUFACTURERS. ANY DIGITAL INPUT POINT THAT IS USED FOR MAINTENANCE PURPOSES (I.E. DIRTY FILTER) SHALL ALSO GENERATE A MAINTENANCE MESSAGE. ALL MAINTENANCE MESSAGES ARE TO BE SENT VIA EMAIL TO COUNTY'S FACILITY MAINTENANCE DIRECTOR OR SOMEONE ELSE OF HIS CHOOSING.

TROUBLE ALARMS

THE CONTROLS SUBCONTRACTOR SHALL ESTABLISH A TROUBLE HIGH AND TROUBLE LOW ALARM LIMIT FOR EACH ANALOG INPUT, EQUIPMENT STATUS AND ANNUNCIATE A CORRESPONDING ALARM MESSAGE AT THE CONTROLS FRONT END.

MODIFICATION

ALL SOFTWARE SETPOINTS, LIMITS, ALARMS, MESSAGES, SCHEDULES, SEQUENCES, ETC., AS SPECIFIED HEREIN ARE TO PROVIDE AN INITIAL SETUP OF THE CONTROL SYSTEM. THE CONTROL SUBCONTRACTOR SHALL PROVIDE SOFTWARE CUSTOMIZATIONS THAT MAY BE REQUIRED TO "TUNE" THE DDC SYSTEM TO ACCURATELY RESPOND TO ACTUAL BUILDING PARAMETERS. FURTHER, THESE SOFTWARE FUNCTIONS SHALL BE READILY MODIFIABLE BY THE OWNER'S PERSONNEL AS CHANGES IN BUILDING OPERATION DICTATE.

LIGHTING CONTROL

A. BAS CONTRACTOR SHALL PROVIDE OUTPUTS AS REQUIRED TO CONTROL LIGHTING RELAYS AND CONTACTORS. BAS CONTRACTOR SHALL PROVIDE TIMED OVERRIDE SWITCHES FOR EACH AREA SERVED (MAXIMUM 2-HOUR TIME LIMIT). REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR OVERRIDE SWITCH REQUIREMENTS AND LOCATIONS.

B. PROVIDE OUTPUTS FOR CONTROLLING CONTACTORS FOR INTERIOR LIGHTS: REFER TO ELECTRICAL DRAWINGS FOR REQUIREMENTS.

C. PROVIDE OUTPUTS FOR CONTROLLING CONTACTORS FOR EXTERIOR LIGHTS: REFER TO ELECTRICAL DRAWINGS FOR REQUIREMENTS.

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CLINTON, NC

DRAWING TITLE
SEQUENCE OF OPERATIONS CONTROLS SCHEMATICS

SCALE	NTS
DRAWN	JAV
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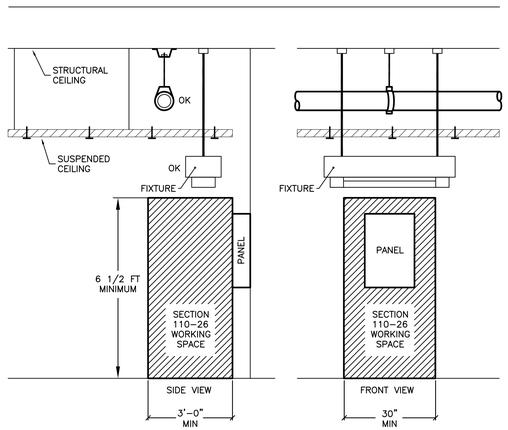
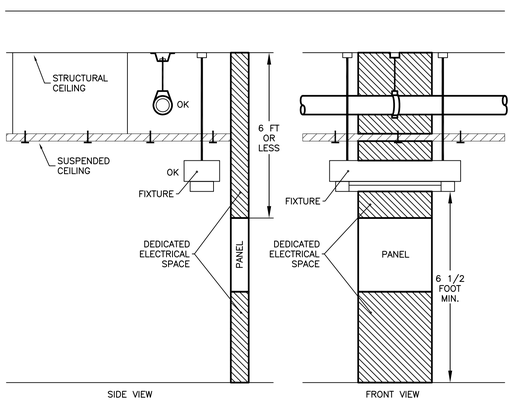


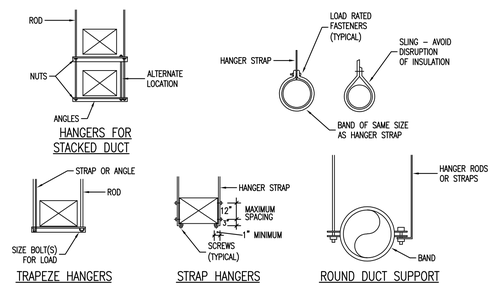
WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26

DETAIL NOT TO SCALE — **09**



DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26(F)(1)

DETAIL NOT TO SCALE — **10**

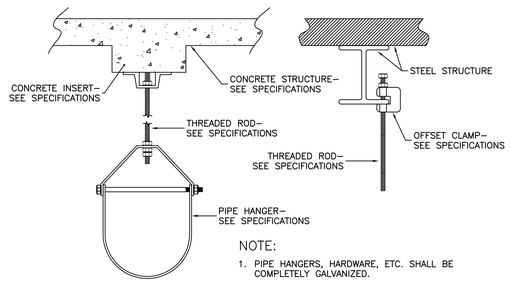


NOTES:

1. REINFORCEMENT MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES.
2. DO NOT EXCEED LOAD RATINGS FOR METHOD USED.

TYPICAL DUCT HANGERS
FROM SMACNA DUCT STANDARDS

DETAIL NOT TO SCALE — **11**

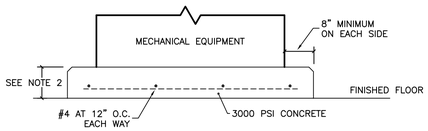


NOTE:

1. PIPE HANGERS, HARDWARE, ETC. SHALL BE COMPLETELY GALVANIZED.

HANGERS

DETAIL NOT TO SCALE — **06**

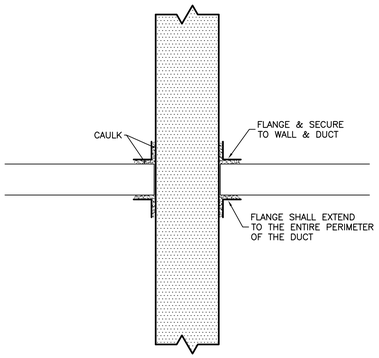


NOTES:

1. ACTUAL PAD SIZE TO BE DETERMINED BY CONTRACTOR AFTER ALL EQUIPMENT HAS BEEN SUBMITTED AND REVIEWED.
2. PAD SHALL BE 4" HIGH FOR ALL AHUs. REFER TO CONDENSING UNIT PAD DETAIL FOR THAT PARTICULAR EQUIPMENT.

MECHANICAL EQUIPMENT SUPPORT PAD

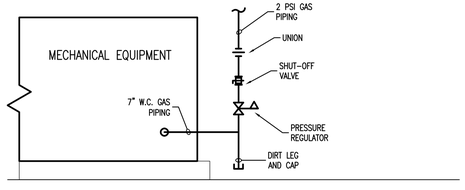
DETAIL NOT TO SCALE — **07**



(PLAN VIEW)

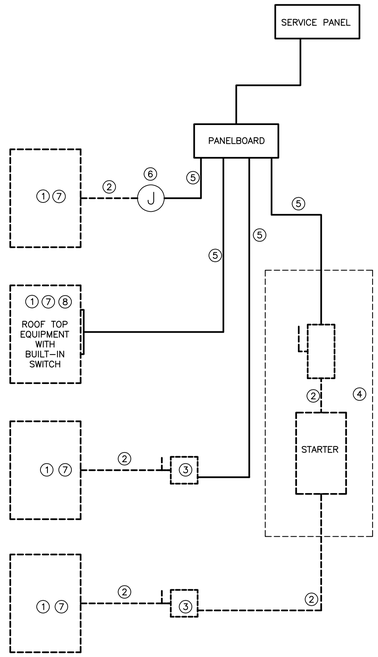
NON-RATED DUCT PENETRATION

DETAIL NOT TO SCALE — **07**



TYPICAL GAS CONNECTION

DETAIL NOT TO SCALE — **08**



GENERAL NOTES:

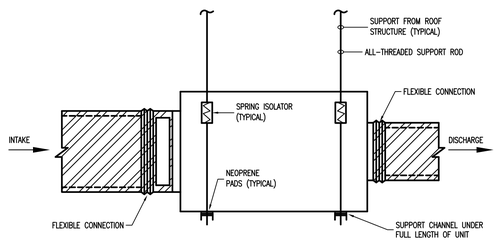
1. IN A SINGLE PRIME CONTRACT IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND OTHER TRADES.

NOTES: (AS INDICATED IN THIS DETAIL BY A NUMBER IN A ◯)

1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
2. CONDUIT AND WIRING PROVIDED BY HVAC, PLUMBING CONTRACTOR OR TRADES.
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED BY THE EQUIPMENT CONTRACTOR.
4. A COMBINATION STARTER OR VFD MAY BE PROVIDED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. PROVIDE ADJACENT TO EQUIPMENT. THIS SHALL BE PROVIDED BY THE EQUIPMENT CONTRACTOR.
5. FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. REFER TO PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
6. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP AND TEST EQUIPMENT.
8. IF THE ROOF TOP EQUIPMENT IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

ELECTRICAL EQUIPMENT CONNECTIONS

DETAIL NOT TO SCALE — **04**

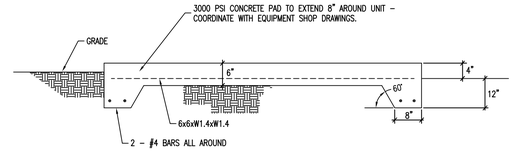


NOTES:

1. WRAP FAN WITH 2" 1-1/2 LB DENSITY FIBERGLASS INSULATION FOR SOUND CONTROL.

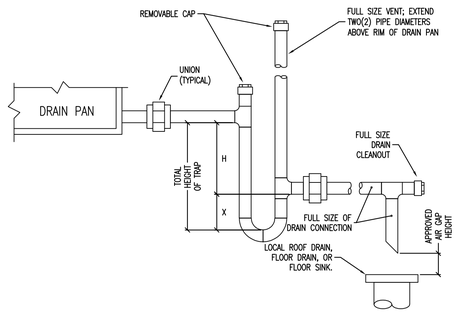
IN-LINE FAN SUPPORT

DETAIL NOT TO SCALE — **05**



AIR COOLED CONDENSING UNIT PAD

DETAIL NOT TO SCALE — **01**



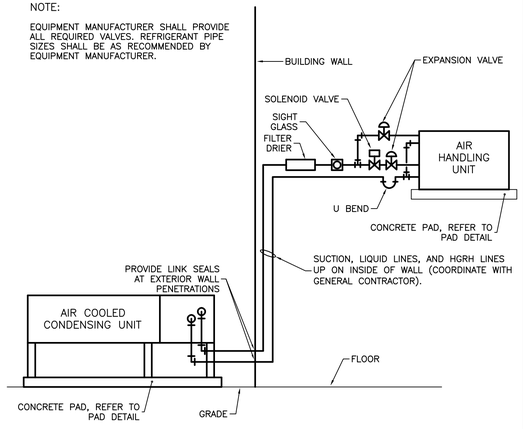
BLOW THROUGH	DRAW THROUGH
X = MINIMUM 1" PLUS CASING STATIC PRESSURE	X = 1/2 "H"
H = MINIMUM 1"	H = MINIMUM 1" PLUS CASING STATIC PRESSURE

CONDENSATE DRAIN DETAIL

DETAIL NOT TO SCALE — **02**

NOTE:

EQUIPMENT MANUFACTURER SHALL PROVIDE ALL REQUIRED VALVES. REFRIGERANT PIPE SIZES SHALL BE AS RECOMMENDED BY EQUIPMENT MANUFACTURER.



SET UNIT ON NEOPRENE VIBRATION ISOLATION PADS. SHIM LEVEL.

REFRIGERANT PIPING SCHEMATIC

DETAIL NOT TO SCALE — **03**

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License# C-0185
PDC #24010

KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

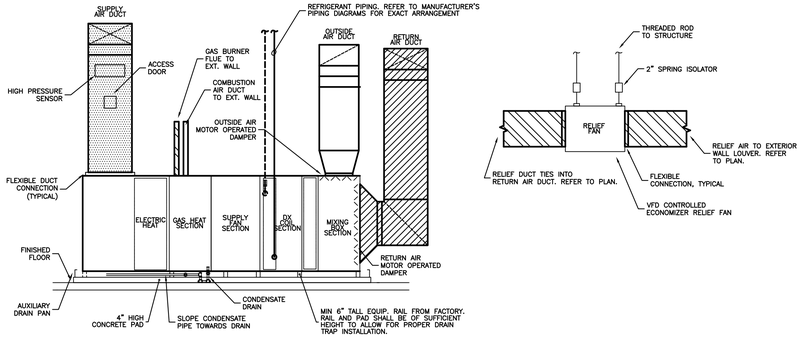
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
MECHANICAL DETAILS

SCALE	NTS
DRAWN	JAV
CHECKED	SWC
DATE	5-20-2024
PROJECT NO.	2016-20B

DRAWING NO
M4.1

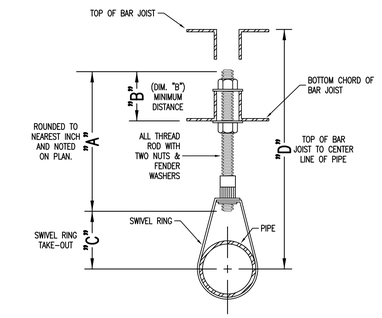
Project #: 24010
Sheet: M4-1
Plotted By: dtorr
Plotted: June 13, 2024 @ 7:11 AM



NOTES:
1. PROVIDE STAINLESS STEEL AUXILIARY DRAIN PAN UNDER ENTIRE UNIT WITH FLOAT SWITCH.
2. VIEW OF UNIT FROM OUTSIDE WALL

AIR HANDLING UNIT DETAIL

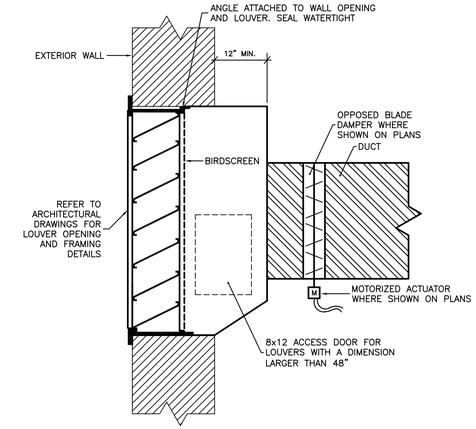
DETAIL NOT TO SCALE — **05**



NOTE ON PLAN: HANGER NUMBER AND "A" DIMENSION

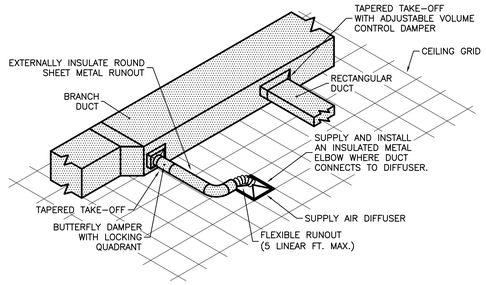
PIPE SIZE	ROD SIZE	'B' DIM.	MIN. 'C' DIM.	MAX. 'C' DIM.
3/4"	3/8"	SIZE OF ANGLE IRON ON BOTTOM CHORD OF BAR JOIST PLUS 1 1/2"	1/2"	1 5/8"
1"			5/8"	1 3/4"
1 1/4"			13/16"	1 7/8"
1 1/2"			15/16"	2"
2"			1 3/16"	2 3/8"
2 1/2"			1 7/16"	2 3/4"
3"			1 3/4"	3 1/4"
3 1/2"			2"	3 5/8"
4"			2 1/4"	3 7/8"
5"	1/2"		2 3/4"	4 3/4"
6"			3 5/16"	5 1/2"
8"			4 5/16"	6 3/4"

DETAIL NOT TO SCALE — **04**



OUTSIDE AIR/EXHAUST LOUVER

DETAIL NOT TO SCALE — **01**



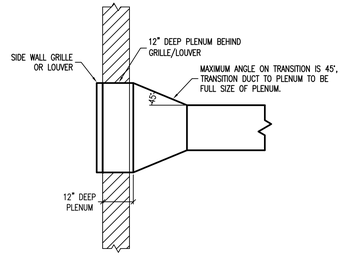
NOTE:
PROVIDE TAPERED TAKE-OFF WITH ADJUSTABLE VOLUME DAMPER, AIR DISTRIBUTING GRID, OR RADIUS TAKE-OFF WITH STRAIGHTENING VANES AT TAKE-OFF.

SUPPLY AIR TAKE-OFF

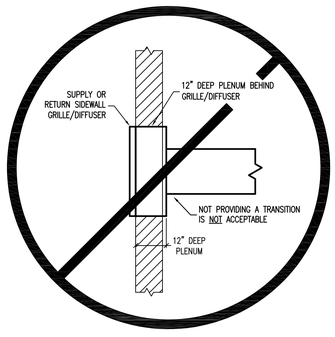
DETAIL NOT TO SCALE — **02**

TYPICAL FURNACE EXHAUST/VENT DETAIL

DETAIL NOT TO SCALE — **07**

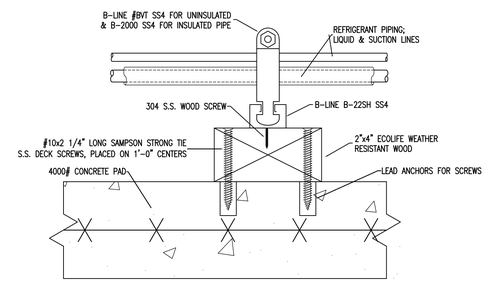


ACCEPTABLE



NOT ACCEPTABLE

DETAIL NOT TO SCALE — **06**



DETAIL FOR REFIGERANT PIPE SUPPORT

DETAIL NOT TO SCALE — **03**

CONSULTANT

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL 06/13/2024

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Project #: 24010
Sheet: M4-2
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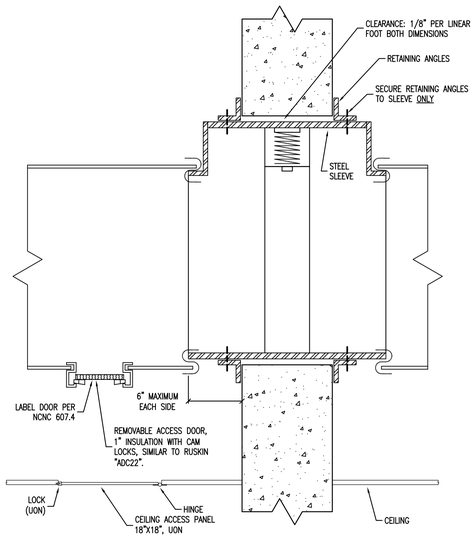

NOTES:

1. INSTALL FIRE DAMPER IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION DETAILS. DO NOT VARY FROM THOSE INSTRUCTIONS IN ANY WAY. DO NOT FIRESTOP THE GAP BETWEEN THE FIRE DAMPER SLEEVE AND THE PENETRATION UNLESS SPECIFICALLY REQUIRED BY THE DAMPER MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. FIRE DAMPER SHALL HAVE BLADES OUT OF THE AIR STREAM.
3. SECURE DAMPER TO SLEEVE ON 8" CENTERS WITH:
   - 1/2" LONG WELDS OR
   - 1/4" BOLTS AND NUTS IN HOLES PROVIDED OR
   - #10 STEEL SCREWS OR
   - MINIMUM 3/16" STEEL RIVETS.
4. CEILING ACCESS PANEL IS REQUIRED IN GYPSUM BOARD CEILING.
5. COORDINATE TYPE OF CEILING ACCESS PANEL WITH ARCHITECTURAL PLANS. COORDINATE LOCATION OF CEILING ACCESS PANEL WITH ALL CONTRACTORS.
6. THIS TYPICAL FIRE DAMPER DETAIL IS GENERIC GUIDANCE ONLY. INSTALL FIRE DAMPER IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION DETAILS. DO NOT VARY FROM THOSE INSTRUCTIONS IN ANY WAY. DO NOT FIRE STOP THE GAP BETWEEN THE FIRE DAMPER SLEEVE AND THE PENETRATION UNLESS SPECIFICALLY REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. WHERE THE INSTALLATION INSTRUCTIONS REQUIRE ADDITIONAL FRAMING IN THE WALL FOR MOUNTING, COORDINATE INSTALLATION REQUIREMENTS WITH GENERAL CONTRACTOR AND FRAMING CONTRACTOR TO ENSURE FRAMING IS PROVIDED FOR A COMPLIANT INSTALLATION.
8. FIRE DAMPER MUST REMAIN ACCESSIBLE WITHOUT REMOVING FLEX DUCT.

FIRE DAMPER

AIR DISTRIBUTION SCHEDULE

MARK	PURPOSE	CFM	SIZE	FLEX DUCT	MAKE	MODEL	REMARKS
A	SUPPLY	40–100	24 x 24	6"ø	PRICE	ASCDA	1 2 3
B	SUPPLY	105–230	24 x 24	8"ø	PRICE	ASCDA	1 2 3
C	SUPPLY	235–375	24 x 24	10"ø	PRICE	ASCDA	1 2 3
D	SUPPLY	–	10x6	–	PRICE	620	
E	SUPPLY	350–450	6 x 18	–	PRICE	HCD	
–	–	–	–	–	–	–	
R	EXHAUST	50–100	24 x 24	6"ø	PRICE	APDDR	1 2 3 4
S	EXHAUST	105–225	24 x 24	8"ø	PRICE	APDDR	1 2 3 4
T	EXHAUST	230–375	24 x 24	10"	PRICE	APDDR	1 2 3 4
V	RETURN	560–850	24 x 24	14"	PRICE	APPDR	1 2 3 4
Y	RETURN	3650	30 x 60	–	PRICE	98	1
–	–	–	–	–	–	–	

GENERAL NOTES:

A. EQUIVALENTS BY KRUEGER, TITUS, TUTTLE AND BAILEY, NAILOR, OR AS LISTED IN SPECIFICATIONS.

B. PROVIDE VOLUME DAMPERS AT TAKE–OFF FOR EACH GRILLE.

REMARKS:

1. PROVIDE WITH OFF–WHITE ENAMEL FINISH. ARCHITECT SHALL CONFIRM COLOR.
2. PROVIDE WITH TRIM TO MATCH CEILING TYPE. REFER TO RCP IN ARCHITECTURAL DRAWINGS.
3. PROVIDE GRILLE WITH ROUND NECK OR SUPPLY SQUARE–TO–ROUND TRANSITION.
4. ALL CEILING MOUNTED RETURN GRILLES SHALL BE FULL–FACED. NO LAY–IN PANELS ALLOWED.
5. PROVIDE SPLIT BLADE TYPE, OPTIONAL SPIRAL DUCT FRAME, DAMPER WITH POLE OPERATOR BRACKET AND FIELD PAINTABLE FINISH

ELECTRIC UNIT HEATER SCHEDULE

MARK	MAKE	MODEL	MBH	kW	VOLTAGE/PH	MOUNTING HEIGHT	LOCATION	REMARKS
EUH–01	MARKEL	F2F5105N	17.1	5.0	208/3	10'	MECHANICAL PLATFORM	1 2 3 4 5
EUH–02	MARKEL	F2F5103N	11.2	3.3	208/1	9'	STORAGE 102	1 2 3 4 5
EUH–03	MARKEL	F2F5103N	11.2	3.3	208/1	9'	PLUMB CHASE	1 2 3 4
–	–	–	–	–	–	–	–	

GENERAL NOTES:

A. UNITS BASED ON MARKEL 5100 SERIES.

B. EQUIVALENTS BY REZNOR, BERKO, AND INDEECO, OR AS LISTED IN SPECIFICATIONS.

REMARKS:

1. PROVIDE HANGING BRACKET, DUST SHIELD, AND FAN GUARD.
2. PROVIDE FACTORY THERMOSTAT
3. UL OR ETL LISTED.
4. PROVIDE FACTORY DISCONNECT SWITCH.
5. PROVIDE SUMMER FAN SWITCH.

REFRIGERANT CALCULATIONS

RCL FOR R–454B IS 3.2 LBS/1000 CU FT.

SYSTEM IS CONSIDERED A HIGH PROBABILITY SYSTEM WITH A2L REFRIGERANT. SYSTEM IS AN EXAMPLE OF "CONNECTED SPACES" VIA DUCTED AIR DISTRIBUTION.

VOLUME OF SERVED SPACE IS APPROX: 215,473 cu ft

CALCULATION PER 7.3.1 OF ASHRAE 15

EDVC = 3.2 lbs/1000 cu ft x 215,473 cu ft x 1.0 = 689 lbs

CALCULATION PER 7.6.1.1 OF ASHRAE 15:

EDVC = 215,473 cu ft x 22.0 lbs/1000 cu ft x 0.5 x 1.0 = 2370 lbs

UNIT WILL HAVE AIR CIRCULATION INITIATED BY REFRIGERANT DETECTOR

PER 7.3.4, MAXIMUM RELEASABLE CHARGE Mrel SHALL BE THE REFRIGERANT CHARGE IN EACH INDEPENDENT CIRCUIT. 59.6 LBS FIELD PIPING CHARGE, THIS IS LESS THAN 689 LBS.

AIR COOLED SPLIT SYSTEM DX CONDENSING UNIT

MARK	MANUFACTURER	MODEL	FAN QTY/ HP	FAN QTY/ HP	COMPR. QTY/ RLA	COMPR. QTY/ RLA	SUCTION LINE OD	LIQUID LINE OD	EQUIV LENGTH	VOLT/PH	MCA	MOCP	TOTAL REF CHARGE (LBS)	UNIT WEIGHT (LBS)	APPROX DIMENSIONS L x W x H	REMARKS
CU–01	AAON	CFA–060–D–A–3	2/1.5	2/1.5	2/26.9	2/26.9	PER MFG	PER MFG	~65 ft	208/3	247	250	29.8 x 2	2,701	122 x 84 x 69	1 2 3 4 5 6 7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

REMARKS:

1. PROVIDE NEOPRENE VIBRATION ISOLATION PADS AND CONCRETE HOUSEKEEPING PAD.
2. PERFORMANCE BASED ON 105'F AMBIENT.
3. PROVIDE HAIL GUARDS FOR CONDENSER COILS.
4. UNIT SHALL BE R–454B. REFRIGERANT LINE SIZES AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
5. EQUIVALENTS BY DAIKIN, TRANE, OR YORK.
6. PROVIDE FACTORY CIRCUIT BREAKER. MINIMUM 35 kA SCCR.
7. MANUFACTURER SHALL PROVIDE A REFRIGERANT DETECTION SYSTEM WITH THE EQUIPMENT. REFER TO SEQUENCE ON M3.1 FOR REQUIREMENTS.

LOUVER SCHEDULE

MARK	RUSKIN MODEL	SIZE (WxH)	FREE AREA (SQ. FT.)	CFM	MAX Pd	USE	PURPOSE
LV–01	HZ700	24x16	0.94	520	0.05	EXHAUST	TOILET EXHAUST
LV–02	HZ700	60x120	28.62	16,300	0.10	INTAKE	OUTSIDE AIR
LV–03	HZ700	60x120	28.62	16,300	0.09	EXHAUST	RELIEF AIR
–	–	–	–	–	–	–	–

GENERAL NOTES:

A. PROVIDE GRAVITY BACK DRAFT DAMPERS ON ALL EXHAUST LOUVERS.

B. PROVIDE FRAMED, 1/4" x 1/4" ALUMINUM BIRD SCREENS FOR ALL LOUVERS.

C. WIND DRIVEN RAIN RESISTANT STATIONARY LOUVER. 6" DEEP FRAME. COORDINATE FRAME REQUIRED WITH ARCHITECTURAL WALL.

D. LOUVERS SHALL BE PROVIDED BY DIVISION 23. COORDINATE WITH THE GENERAL CONTRACTOR ON OPENINGS.

E. PROVIDE 2–COAT KYNAR FINISH FOR ALL LOUVERS. ARCHITECT/OWNER TO SELECT THE COLOR OF ALL LOUVERS. PROVIDE SUBMITTALS TO ENGINEER AND ARCHITECT.

F. EQUIVALENTS BY GREENHECK, RELIABLE, POTTORFF, AND AS LISTED IN THE SPECIFICATIONS.

G. LV–02 AND LV–03 SHALL BE AMCA 540 AND AMCA 550 CERTIFIED.

FAN SCHEDULE

MARK	MAKE	MODEL	CFM	ESP	SONES	HP/WATTS	BHP	VOLT/ø	MAX FAN RPM	REMARKS
EF–01	GREENHECK	CSP–A700	520	0.6	1.1	194	–	115/1	1,050	1 2 3 4 5 9
EF–02	GREENHECK	QEI–24–I	11,300	0.4	–	5.0 HP	3.03	208/3	1,200	5 6 7 8 10
–	–	–	–	–	–	–	–	–	–	

GENERAL NOTES:

A. PROVIDE ALL DUCT TRANSITIONS FOR FANS.

B. ALL FANS SHALL BE U.L. LISTED AND AMCA CERTIFIED.

C. PROVIDE WITH FACTORY MOUNTED OR PLUG TYPE DISCONNECT.

D. EXTERNALLY OR INTERNALLY MOUNTED DISCONNECT SWITCH FURNISHED BY DIVISION 23 AND INSTALLED BY DIVISION 26.

E. EQUIVALENTS BY TWIN CITY, PENN, OR AS LISTED IN SPECIFICATIONS.

REMARKS:

1. PROVIDE SPEED CONTROLLER.
2. PROVIDE GRAVITY OPERATED DAMPER.
3. PROVIDE SQUARE TO ROUND DUCT CONNECTOR.
4. PROVIDE VIBRATION ISOLATION KIT.
5. PROVIDE MOTOR WITH THERMAL OVERLOADS.
6. VFD FOR FAN PROVIDED BY CONTROLS CONTRACTOR. PROVIDE SHAFT GROUNDING RING. FAN WEIGHTS 581 LBS. INVERTY DUTY MOTOR.
7. PROVIDE INLET SILENCER. INLET dBA = 72, OUTLET dBA = 74, RADIATED dBA = 60.
8. PROVIDE 2" VIBRATION SPRING ISOLATORS.
9. BAS CONTROLLED ON A SCHEDULE
10. BAS CONTROLLED IN CONJUNCTION WITH AHU–1

FAN SOUND POWER (AHU-01)

	63 Hz	125 Hz	250 Hz	500 Hz	1,000 Hz	2,000 Hz	4,000 Hz	8,000 Hz	
SUPPLY DISCH	89	87	85	84	84	84	84	83	
RADIATED	90	89	92	91	91	90	87	84	
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–

GENERAL NOTES:

A. VALUES LISTED ARE MAXIMUM PERMISSIBLE PER OCTAVE BAND.

SPLIT SYSTEM DX HORIZONTAL AIR HANDLING UNIT

MARK	MANUFACTURER	MAX COOLING CFM	MIN CLG/HTG CFM	MAX HEATING CFM	MAX OUTSIDE AIR CFM	MIN OCV OUTSIDE AIR CFM	ESP, in wg	TSP, in wg	BHP	QTY/HP	COOLING COIL ENT AIR		COOLING COIL LV AIR		WINTER OUTSIDE ENT CONDITIONS		WINTER LEAVING CONDITIONS		TOTAL COOLING	SENSIBLE COOLING	ELEC HEAT	ELEC HEAT	GAS INPUT	GAS OUTPUT	EER	COP	APPROX DIMENSIONS	VOLT/PH	FLA	MCA/ MOCP	UNIT WEIGHT (LBS)	REMARKS
							SUPPLY FAN				DB°F	WB°F	DB°F	WB°F	DB°F	WB°F	GAS	ELEC	MBH	MBH	kW	STAGES	MBH	MBH			L x W x H					
AHU–01	ADAPTIV AIR	16,300	7,000	8,150	7,000	2,400	1.3	4.40	15.9	2/10.0	85.7	69.6	56.4	56.1	42.2	38.0	75.2	85.2	704.8	523.8	88.0	SCR	600.0	486.0	10.1	N/A	276 x 86 x 82	208/3	301	362/400	6,550	1 2 3 4 5 6 7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

GENERAL NOTES:

A. MINIMUM 6 ROW DX COOLING COIL WITH 2" MERV 8 FILTERS. COIL CASING SHALL BE STAINLESS STEEL. MAX APD 1.20" UNIT IS BLOW–THRU CONFIGURATION.

B. PROVIDE 6" BASE RAIL AND DOUBLE SLOPED STAINLESS STEEL DRAIN PAN.

C. PROVIDE MICROPROCESSOR CONTROLS AND VOLTAGE/PHASE MONITOR.

D. PROVIDE FACTORY CIRCUIT BREAKER, SINGLE POINT POWER CONNECTION, AND 24V CONTROL TRANSFORMER FOR EVAPORATOR UNIT. 35 kA SCCR.

E. PROVIDE SPACE TEMPERATURE AND HUMIDITY SENSORS. PROVIDE DUCT MOUNTED SUPPLY AIR TEMPERATURE SENSOR.

F. PROVIDE HORIZONTAL CONFIGURATION.

G. DUAL INDEPENDENTLY CIRCUITED COMPRESSORS WITH HOT GAS BYPASS (BOTH CIRCUITS).

H. FAN SHALL BE DIRECT DRIVE WITH FACTORY VFD AND SHAFT GROUNDING. PROVIDE NON–FUSED DISCONNECT SWITCH AND UL PANEL WITH MANUAL MOTOR PROTECTORS TO DISTRIBUTE POWER TO EACH MOTOR.

I. EQUIVALENTS BY DAIKIN, TRANE, OR YORK.

J. UNIT SHALL HAVE 100% ECONOMIZER CAPABILITY. PROVIDE OUTSIDE AIR ENTHALPY SENSOR FOR CONTROL

K. COOLING COIL SHALL BE R–454B. MAXIMUM APD = 0.8 in wg

L. PROVIDE WALL MOUNTED CO2 SENSOR AND DEMAND CONTROL VENTILATION.

M. PROVIDE BACNET INTERFACE.

N. GAS HEATER SHALL BE STAINLESS STEEL CONSTRUCTION, 5:1 MODULATING. HEATER SHALL BE DIRECT VENTED SEPARATED COMBUSTION.

O. PROVIDE ELECTRIC SCR HEATING SECTION.

P. LEAVING WINTER TEMPERATURE ASSUMES GAS IS FIRST STAGE AND ENTERING AIR FOR ELECTRIC HEAT (SECOND STAGE) INCLUDES GAS OPERATING 100%

R. AHU MANUFACTURER SHALL PROVIDE SINGLE FACTORY VFD. PROVIDE UL LISTED PANEL WITH MANUAL MOTOR PROTECTORS FORE EACH MOTOR.

REMARKS:

1. PROVIDE SINGLE–ZONE VAV CONTROL
2. MOUNT ON 4" CONCRETE HOUSEKEEPING PAD INSIDE STAINLESS STEEL DRAIN PAN ON NEOPRENE VIBRATION ISOLATORS.
3. ASSUMES 75'F/63'F DB/WB AND 70'F/58'F DB/WB RETURN AIR FOR INTERIOR CONDITIONS.
4. PROVIDE STAINLESS STEEL AUXILIARY DRAIN PAN EXTENDING 3" BEYOND UNIT FOOTPRINT. PROVIDE FLOAT SWITCH IN DRAIN PAN WIRED TO SHUT DOWN UNIT.
5. PROVIDE SUCTION LINE ACCUMULATORS AND LIQUID REFRIGERANT RECEIVERS FOR BOTH CIRCUITS. HOT GAS BYPASS LINES ARE FIELD INSTALLED BY CONTRACTOR.
6. PROVIDE FINAL GAS REGULATOR AND GAS CONNECTION TO UNIT.
7. PROVIDE REFRIGERANT LEAK DETECTOR (R–454B) IN EVAPORATOR SECTION.

CONSULTANT

SEAL

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06/13/2024

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M5.1

Project #: 24010
Sheet: M5–1
Plotted By: dtarry
Plotted: June 13, 2024 @ 7:11 AM

ABBREVIATIONS

ABBREV.	DEFINITION
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEMP	TEMPORARY
TGB	TECHNOLOGY GROUND BAR
TGMB	TECHNOLOGY MAIN GROUND BAR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP.	TYPICAL
U/C	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
WG	WIRE GUARD
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
D	DIMMING OR DIMMER
DB	DISTRIBUTION BOARD
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DISC	DISCONNECT SWITCH
E	EMERGENCY
ECB	ENCLOSED CIRCUIT BREAKER
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
GAA	GENERATOR ALARM ANNUNCIATOR
GAP	GENERATOR ALARM PANEL
GEN	GENERATOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF AUTOMATIC
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KW	KILOWATT
KWH	KILOWATT HOURS
LC	LIGHTING CONTACTOR
LS	LOUD SPEAKER
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT PROTECTION
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MH	MAN HOLE
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
N or NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O/H	OVER HEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PC	PHOTOCELL
PH	PHASE POTENTIAL TRANSFORMER
PT	POTENTIAL TRANSFORMER
RC	RECEPTACLE CONTACTOR
RSC	RIGID STEEL CONDUIT
SEC	SECURITY

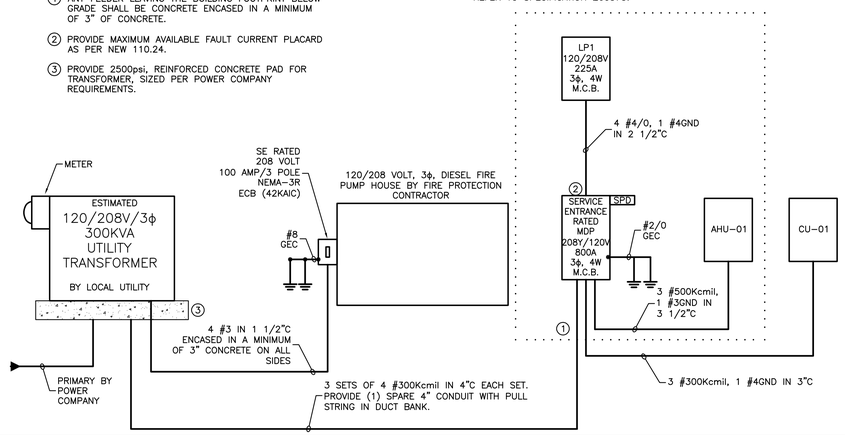
LIGHTING FIXTURE SCHEDULE

SYMBOL	SIZE	MOUNTING	VOLT	MANUFACTURER AND MODEL NO.	EQUALS	DESCRIPTION	LAMP	WATTS
A	17" DIAM X 18"H	PENDANT MOUNT AT 20' AFF	123/277	LITHONIA #JCBL-30000LM-ACFR-ACRON-MVOLT-GZ10-40K-80CRI-PM-FWG	HUBBELL KENALL	LED PENDANT DOME LIGHT WITH ACRYLIC REFLECTOR AND FULL WIRE GUARD. COORDINATE FINISHES AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ORDERING AND ROUGH IN.	LED 4000K 30000 LUMENS	243
B	4'L X4"D X 3"H	WALL MOUNTED COORDINATE HEIGHT WITH ARCHITECT	123/277	VISA #CV1704-L35K-H-MVOLT	PRUDENTIAL OR LITECONTROL	LED WALL MOUNTED VANITY LIGHT UP/DOWN WALL WASH	LED 3500K 2500 LUMEN	33
BE	4'L X4"D X 3"H	WALL MOUNTED COORDINATE HEIGHT WITH ARCHITECT	123/277	VISA #CV1704-L35K-H-MVOLT	PRUDENTIAL OR LITECONTROL	SAME AS TYPE B EXCEPT WITH 90 MINUTE BATTERY BACK-UP	LED 3500K 2500 LUMEN	33
C	4'L X 4"W X 4"H	PENDANT OR SURFACE MOUNT ON	123/277	LITHONIA #2L2N-L48-3000LM-MDD-MVOLT-40K-80CRI-WH-ZACVH	DAYBRITE OR WILLIAMS	LED STRIP LIGHT WITH FLAT DIFFUSE LENS. PENDANT MOUNT WITH AIRCRAFT CABLES DOWN TO 10' AFF OR SURFACE MOUNT ON CEILING WHERE CEILING IS 10' AFF OR LESS.	LED 4000K 3000 LUMEN	42
CE	4'L X 4"W X 4"H	PENDANT MOUNT OR SURFACE MOUNT ON	120	LITHONIA #2L2N-L48-3000LM-MDD-MVOLT-40K-80CRI-WH-ZACVH-BSL722	DAYBRITE OR WILLIAMS	SAME AS TYPE C EXCEPT WITH 90 MINUTE BATTERY BACKUP	LED 4000K 3000 LUMEN	42
DE	6" DIAM X 8"H	RECESSED	123/277	GOTHAM #EVO-35/20-6ARA-MWD-LSS-MVOLT-ELR	PATHWAY OR WILLIAMS	6" OPEN LED DOWNLIGHT WITH 90 MINUTE BATTERY BACK-UP	LED 3500K 2000 LUMEN	24
GE	17"W X11"D X 9"H	WALL MOUNTED COORDINATE HEIGHT WITH ARCHITECT	123/277	LITHONIA #WSTLED-P2-40K-VF-MVOLT-E20WC	GARDCO OR WILLIAMS	LED TRAPEZOIDAL WALL PACK WITH FORWARD THROW OPTICS. PROVIDE 20W COLD WEATHER 90 MINUTE BATTERY BACKUP. FINISH SHALL BE SELECTED BY ARCHITECT.	LED 4000K 3000 LUMENS	25
S	6" DIAM X 8"H	RECESSED	123/277	GOTHAM #EVO-35K-20-6-DFRAMF-MVOLT	PATHWAY OR WILLIAMS	LED LENSED SHOWER LIGHT WITH DEADFRONT AND ANTI-MICROBIAL FINISH	LED 3500K 2000 LUMEN	24
X1	8 5/8"H X 12 7/8"W X 1 7/8"D	UNIVERSAL	123/277	EMERGILITE #XX-PXN-1-R	DUALLITE OR LITHONIA	SINGLE FACE LED EXIT SIGN WITH 90 MINUTE BATTERY BACK-UP. ARCHITECT TO SELECT COLOR/FINISH. PROVIDE WIRE GUARDS IN MULTIPURPOSE SPACE	LED	5

NOTE: ALL FINISHES AND CUSTOM COLORS SHALL BE SELECTED BY ARCHITECT. FINAL FIXTURE LOCATIONS SHALL BE DICTATED BY RCP. CONTRACTOR SHALL REFER TO ARCHITECTURAL RCP FOR LOCATIONS.

NOTES: (AS INDICATED ON THIS POWER RISER BY A NUMBER IN A ◯)

1. ANY FEEDER LEAVING THE BUILDING FOOTPRINT BELOW GRADE SHALL BE CONCRETE ENCASED IN A MINIMUM OF 3" OF CONCRETE.
2. PROVIDE MAXIMUM AVAILABLE FAULT CURRENT PLACARD AS PER NEW 110.24.
3. PROVIDE 2500psi, REINFORCED CONCRETE PAD FOR TRANSFORMER, SIZED PER POWER COMPANY REQUIREMENTS.



POWER RISER

GENERAL NOTES:

A. ARC FLASH LABELS AND AVAILABLE FAULT CURRENT LABELS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NEC 110.16 (A) AND NEC 408.6. LABELS SHALL BE PROVIDED, REFER TO SPECIFICATION 260573.

GENERAL NOTES

A. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.

B. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.

C. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM. REFER TO THE SPECIFICATIONS FOR MORE DETAILED INFORMATION.

D. USE OF THE CONDUIT SYSTEM FOR EQUIPMENT GROUNDING SHALL NOT BE ACCEPTABLE. A SEPARATE GREEN GROUND WIRE SHALL BE RUN WITH THE CIRCUIT CONDUCTORS IN EACH CONDUIT.

E. IN ALL AREAS WHERE FIRE RATED WALL, FLOOR, OR CEILINGS ARE INSTALLED, ALL PENETRATIONS OF ELECTRICAL CONDUITS OR OTHER RELATED ELECTRICAL MATERIAL SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED MATERIALS TO MAINTAIN THE RATINGS OF THE BUILDING CONSTRUCTION.

F. ALL FUSES, DISCONNECT SWITCHES AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED WITH THE EQUIPMENT SUPPLIER AND THE MECHANICAL CONTRACTOR BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT. REFER TO DETAIL 01 THIS SHEET.

G. ALL WORK AND MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH THE STATE, LOCAL AND NATIONAL CODES AND ORDINANCES.

H. EACH CONTRACTOR SHALL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED BY HIM AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL REQUEST OF THE ENGINEER. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

I. ALL CONDUITS (WITH OR WITHOUT WIRES) SHALL BE COLOR CODED WITH 1/2" WIDE PAINT OR TAPE, 10' ON CENTER, USE COLORS AS IDENTIFIED IN SPECIFICATIONS.

J. THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE ARCHITECT, PRIOR TO INSTALLATION FOR USE WITH THE ACTUAL EQUIPMENT, CASEWORK AND MILLWORK TO BE FURNISHED.

K. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED SWITCHES, RECEPTACLES, CONDUIT, WIRING, PANELS, ETC. UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED.

L. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ENGINEER PRIOR TO INSTALLATION.

M. WHERE ELECTRICAL EQUIPMENT PENETRATES EXTERIOR WALLS, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ENGINEER. SUBMIT DETAIL OF PROPOSED SEALING METHODS.

N. ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH THE OTHER CONTRACTORS. WATERPROOFING OF THE ROOF PENETRATION SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR.

O. THERE SHALL BE NO HORIZONTAL RUNS OF CONDUIT WITHIN CMU WALLS LONGER THAN 6'. IF A LONGER RUN IS REQUIRED, RUN CONDUIT ABOVE CEILING OR BELOW SLAB AND THEN VERTICALLY UP OR DOWN WITHIN CMU WALL.

P. OUTLET BOXES ON OPPOSITE SIDES OF THE FIRE RESISTANT WALL OR SHAFT ENCLOSURE RATED TWO HOURS OR LESS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24" AS REQUIRED BY NCSBC VOL. 1, PARAGRAPH 705.4.3.

Q. PHENOLIC NAMEPLATES FOR PANELS, DISCONNECTS, ETC. SHALL BE COLOR CODED. USE COLORS AS IDENTIFIED IN SPECIFICATIONS.

SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
D	EXISTING DATA RACK	
D	SPRINKLER BELL	
M AHU-#	MOTOR OPERATED DAMPER	
S	FIRE ALARM REMOTE ALARM INDICATING LIGHT (RAIL)	
SOR	OVERRIDE SWITCH BY HVAC CONTROLS CONTRACTOR - CONNECTED TO BAS SYSTEM	REFER TO MECHANICAL CONTROLS SEQUENCE OF OPERATIONS AND SPECIFICATION 260923

ENERGY FORM

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:

ENERGY CODE: PRESCRIPTIVE__X__ PERFORMANCE_____

ASHRAE 90.1: PRESCRIPTIVE_____ PERFORMANCE_____

LIGHTING SCHEDULE

Lamp type required in fixture - See Fixture Schedule.
Number of lamps in fixture - See Fixture Schedule.
Ballast type used in the fixture - See Specifications.
Number of ballasts in fixture - See Specifications.
Total wattage per fixture - Varies - See Fixture Schedule
Total interior wattage specified versus allowed: 5905 watts versus 10483 watts (whole building)
Total exterior wattage specified versus allowed: 75 watts versus 1290 watts

ADDITIONAL PRESCRIPTIVE COMPLIANCE

__X__ 406.2 More Efficient HVAC Performance
__X__ 406.3 Reduced Lighting Power Density
____ 406.4 Enhanced Lighting Controls
____ 406.5 On-Site Supply of Renewable Energy
____ 406.6 Provision of Dedicated Outdoor HVAC Air System
____ 406.7 High Efficiency Service Water Heating

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 North Carolina State Building Code, Energy Conservation Code.

SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
◯ OR	EXISTING LIGHT FIXTURE - LETTER DESIGNATES TYPE	
▭ OR ▭	LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
⊗	EXIT LIGHT - ARROW INDICATES DIRECTION, SHADING INDICATES ILLUMINATED FACE	SEE FIXTURE SCHEDULE
⊗	WALL MOUNTED EXIT LIGHT - ARROW INDICATES DIRECTION, SHADING INDICATES ILLUMINATED FACE	SEE FIXTURE SCHEDULE
⊙	LED LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
OR ⊘ OR ⊘	EMERGENCY LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	EXISTING BATTERY POWERED EMERGENCY FIXTURE - WALL/CEILING MOUNTED	
S	SINGLE POLE TOGGLE SWITCH - +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL 1221-X WITH 97071 COVER. EQUALS: LEVITON, P&S
S_3	3-WAY SWITCH - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET	HUBBELL 1223-X WITH 97071 COVER. EQUALS: LEVITON, P&S
S_{3D}	3-WAY 0-10V SLIDE DIMMER SWITCH WITH ON/OFF SWITCH	LUTON MAESTRO OR EQUAL BY LEVITON OR P&S
S_4	4-WAY SWITCH - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET	HUBBELL 1224-X WITH 97071 COVER. EQUALS: LEVITON, P&S
S_D	SINGLE POLE 0-10V SLIDE DIMMER SWITCH WITH ON/OFF 3-WAY SWITCH	LUTON MAESTRO OR EQUAL BY LEVITON OR P&S
S_M	120 VOLT MOTOR RATED TOGGLE DISCONNECT SWITCH WITH JUNCTION BOX	
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR - TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	WATTSTOPPER DT-300 OR EQUAL BY HUBBELL OR SYSTEM SENSOR
S_{DS}	DUAL TECHNOLOGY WALL SWITCH SENSOR - COVERAGE: MAJOR MOTION 35'x30', MINOR MOTION 20'x15'. TIME DELAYS OF NO LESS THAN 15 MINUTES. MOUNT AT +48" TO TOP OF OUTLET BOX. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	WATTSTOPPER DW100 OR APPROVED EQUAL BY HUBBELL OR SYSTEM SENSOR
	DUPLEX, TAMPER RESISTANT GROUNDING TYPE RECEPTACLE - AT +16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED	HUBBELL HBL 5362-TR WITH 97101 COVER. EQUALS: LEVITON, P&S
GFI	DUPLEX, TAMPER RESISTANT RECEPTACLE - GROUND FAULT INTERRUPTION TYPE - INSTALL AT +16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL GPSG-5362 WITH SS26 COVER EQUALS: LEVITON, P&S
GFI WP	WEATHER RESISTANT, TAMPER RESISTANT, DUPLEX GROUNDING TYPE RECEPTACLE WITH WEATHERPROOF, 'IN-USE', DIE CAST, GRAY COVER MOUNTED AT +16" ABOVE GRADE TO BOTTOM OF OUTLET BOX, UNLESS OTHERWISE NOTED	HUBBELL GFSG-5362 WITH WITH TAYMAC COVER EQUALS: P&S, LEVITON
	TWO DUPLEX, TAMPER RESISTANT, GROUNDING TYPE RECEPTACLES IN A DOUBLE GANG BOX. MOUNT AT +16" AFF TO BOTTOM OF OUTLET UNLESS OTHERWISE NOTED. PROVIDE WITH STAINLESS STEEL COVER.	HUBBELL HBL 5362-TR WITH 97101 COVER EQUALS: P&S, LEVITON
#	DATA OUTLET - ADA AFF TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED. STUB 1" CONDUIT OUT ABOVE THE NEAREST LAY-IN CEILING. SUBSCRIPT SHALL INDICATE THE NUMBER OF DATA DROPS REQUIRED. IF NO NUMBER IS INDICATED, PROVIDE A MINIMUM OF (2) CAT-6 PLENUM DROPS.	SINGLE GANG BOX WITH STAINLESS STEEL COVER COVER.
WAP	WIRELESS ACCESS POINT WITH CAT-6 DATA DROP. REFER TO PLANS FOR LOCATIONS.	
▬	120/208 VOLT PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES.	
SPD	SURGE PROTECTIVE DEVICE	SEE SPECIFICATIONS
	DISCONNECT SWITCH, HEAVY DUTY.	SEE SPECIFICATIONS
LC#	MECHANICALLY HELD LIGHTING CONTACTOR. # INDICATES CONTACTOR NUMBER. PROVIDE NUMBER OF CONTACTS AS REQUIRED. PROVIDE HAND OFF AUTO SWITCH FOR EACH LIGHTING CONTACTOR.	SQUARE D, EATON OR GE PROVIDE # CONTACTS AS NEEDED
———	WIRING AND CONDUIT INSTALLED CONCEALED IN WALL SPACE OR ABOVE FINISHED CEILING	
- - - - - - -	UNSWITCHED WIRING AND CONDUIT LEG ON LIGHTING PLANS. UNDER FLOOR WIRING AND CONDUIT ON POWER PLANS. UNDER GROUND WIRING AND CONDUIT ON SITE PLANS.	
——→	HOME RUN CIRCUIT TO PANELBOARD	
J	JUNCTION BOX WITH REMOVABLE COVER - SIZE PER NATIONAL ELECTRICAL CODE	
▭	I/P CAMERA	
S #CD	FIRE ALARM SIGNAL - VISUAL, WALL MOUNTED AT +84" ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF #CD INDICATES CANDELA RATING OF STROBE.	SEE SPECIFICATIONS
S #CD	CEILING MOUNTED FIRE ALARM STROBE - #CD INDICATES CANDELA RATING OF STROBE	SEE SPECIFICATIONS
F	MANUAL FIRE ALARM PULL STATION - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF BOX (DOUBLE ACTION).	SEE SPECIFICATIONS
V #CD	FIRE ALARM SIGNAL - SPEAKER WITH VISUAL, "WP" INDICATES WEATHERPROOF. #CD INDICATES CANDELA RATING OF STROBE. INTERIOR: WALL MOUNTED AT +84" ABOVE FINISHED FLOOR. EXTERIOR: SEE ARCHITECTURAL DETAIL A02.02-6.	SEE SPECIFICATIONS
SD	PHOTOELECTRIC TYPE SMOKE DETECTOR - CEILING MOUNTED	SEE SPECIFICATIONS
HD	HEAT DETECTOR - FIXED TEMPERATURE (135°F @ MECHANICAL ROOMS)	SEE SPECIFICATIONS
V #CD	CEILING MOUNTED FIRE ALARM SPEAKER/STROBE - #CD INDICATES CANDELA RATING OF STROBE	SEE SPECIFICATIONS
V	CEILING MOUNTED FIRE ALARM SPEAKER	SEE SPECIFICATIONS
FACP	ADDRESSABLE FIRE ALARM PANEL BY SIMPLEX, NOTIFIER, OR EST.	SEE SPECIFICATIONS
RAAP	ADDRESSABLE REMOTE FIRE ALARM ANNUNCIATOR PANEL WITH MICROPHONE FOR LIVE VOICE OVERRIDE MESSAGES	SEE SPECIFICATIONS
RACP	ADDRESSABLE REMOTE FIRE ALARM CONTROL PANEL	SEE SPECIFICATIONS
R	SHUTDOWN RELAY FOR AHU'S - WIRE INTO FIRE ALARM SYSTEM	SEE SPECIFICATIONS
SD_D	DUCT TYPE PHOTOELECTRIC SMOKE DETECTOR AND SAMPLING TUBE INSTALLED IN MECHANICAL DUCTWORK. PROVIDED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR WITH FINAL CONNECTIONS BY ELECTRICAL CONTRACTOR.	SEE SPECIFICATIONS
INV	EMERGENCY LIGHTING INVERTER (2100VA) WITH VRLA BATTERY AND (8) OUTPUT BREAKERS. TRUE SINE WAVE OUTPUT.	DUAL LITE DLS-2100-120-A-20-8 OR APPROVED EQUAL BY EELP OR EMERGILITE
TP	FIRE ALARM TAMPER SWITCH	SEE SPECIFICATIONS
FS	FIRE ALARM FLOW SWITCH	SEE SPECIFICATIONS
MM	FIRE ALARM MONITOR MODULES	SEE SPECIFICATIONS
RM	FIRE ALARM RELAY MODULES	SEE SPECIFICATIONS
TS	FIRE ALARM TEMPERATURE SENSOR	SEE SPECIFICATIONS
NAC	FIRE ALARM NAC PANEL	SEE SPECIFICATIONS
AMP	FIRE ALARM SPEAKER AMPLIFIER CABINET	SEE SPECIFICATIONS
ELTD	EMERGENCY LIGHTING TRANSFER DEVICE - 20 AMPS OF CAPACITY WITH AUXILIARY CONTACTS FOR 0-10V DIMMING OVERRIDE.	SEE SPECIFICATIONS
DDC	HVAC CONTROL PANEL FURNISHED BY HVAC CONTROLS CONTRACTOR	
VFD	VARIABLE FREQUENCY DRIVE BY HVAC CONTROLS CONTRACTOR	

CONSULTANT

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTHOCH

06/13/2024

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE

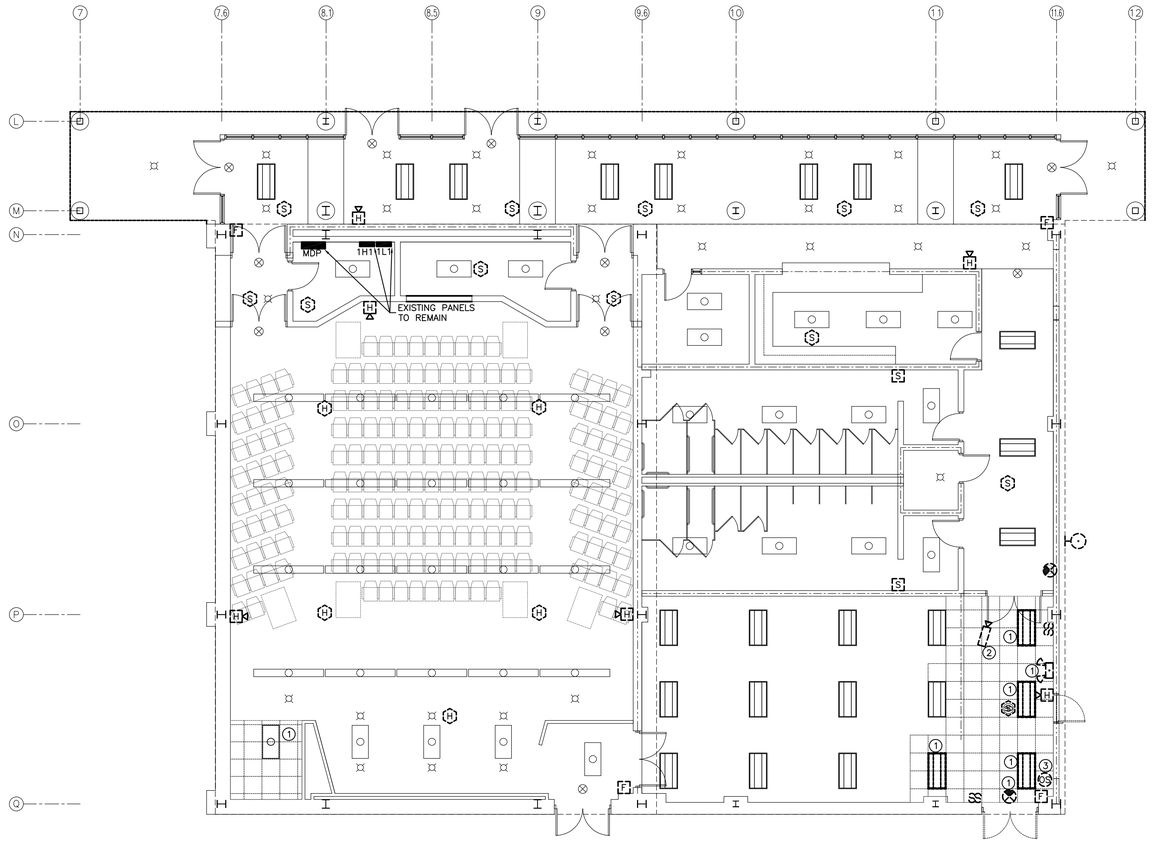
625 LYNNDALE CT., SUITE F, GREENVILLE NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
ELECTRICAL LEGEND AND SYMBOLS PLAN

SCALE	1/8"=1'-0"
DRAWN	JPT
CHECKED	JTB
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	E0.0

Project #: 24001.0
Sheet: E0-0
Plotted By: bbingham
Plotted: June 13, 2024 @ 2:00 PM



ELECTRICAL
DEMOLITION PLAN — 01 / E0.1
1/8" = 1'-0"

GENERAL NOTES:

A. ALL DEVICES SHOWN DASHED SHALL BE REMOVED IN THEIR ENTIRETY. THIS INCLUDES ANY EXPOSED RACEWAYS AND ALL WIRING.

KEYNOTES:

1. REMOVE EXISTING LIGHT FIXTURES TO BE REINSTALLED IN NEW WORK.
2. REMOVE EXISTING SECURITY CAMERA TO BE REINSTALLED IN NEW WORK.
3. REMOVE EXISTING OCCUPANCY SENSOR TO BE REINSTALLED IN NEW WORK.

CONSULTANT

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06/13/2024

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRST FLOOR DEMOLITION PLAN

SCALE: 1/8"=1'-0"	DRAWING NO: E0.1
DRAWN: JPT	
CHECKED: JTB	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

N

Project #: 24010
Sheet: E0-1
Plotted By: bbrayton
Plotted: June 13, 2024 @ 2:02 PM

WALL LEGEND

ONE(1)-HOUR FIRE RATED WALL

TWO(2)-HOUR FIRE RATED WALL

KEYNOTES(CONTINUED):

12 PROVIDE 2" CONDUIT, ROUTED ON TOP OF TRUSS, BETWEEN FUTURE PROJECTOR LOCATION AND SOUND RACK INTERFACE JUNCTION BOX.

13 PROVIDE 2" CONDUIT, ROUTED ON TOP OF TRUSS, BETWEEN JUNCTION BOX AND ACCESSIBLE CEILING FOR NETWORK CABLING.

GENERAL NOTES:

1. ALL NEW DATA CABLES SHALL BE ROUTED BACK TO EXISTING DATA RACK IN EXISTING ELEC/COMM 151. PROVIDE NEW J-HOOKS OR OTHER RACEWAY AS REQUIRED. #D NEXT TO OUTLET OR WAP INDICATES QUANTITY OF CAT-6 DROPS AT THAT LOCATION.
2. ALL LOW VOLTAGE CABLING ROUTED IN OR THROUGH MULTIPURPOSE SPACE SHALL BE IN A MINIMUM OF 3/4" CONDUIT.
3. ALL EMPTY CONDUITS SHALL HAVE PULL CORDS.

KEYNOTES:

1. PROVIDE (2)-2" CONDUITS FROM FUTURE SOUND SYSTEM LOCATION BACK TO AV RACK IN STORAGE 101.
2. SPRINKLER BELL SHALL BE 24 VOLT ELECTRIC BELL AND TIED TO FIRE ALARM SYSTEM. COORDINATE FINAL LOCATION AND REQUIREMENTS WITH FIRE PROTECTION CONTRACTOR PRIOR TO ROUGH-IN.
3. 120 VOLT, 20 AMP, MOTOR RATED TOGGLE DISCONNECT SWITCH FOR PLUMBING OR MECHANICAL EQUIPMENT. COORDINATE FINAL LOCATION WITH PLUMBING OR MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
4. PROVIDE DOUBLE GANG DEEP JUNCTION BOX WITH 1 1/4" CONDUIT, CONCEALED IN WALL, TO JUNCTION BOX IN CEILING FOR FUTURE SOUND SYSTEM/AV. COORDINATE FINAL LOCATION AND CONNECTIONS WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
5. PROVIDE JUNCTION BOX WITH SPARE CIRCUIT FOR FUTURE PROJECTOR. COORDINATE WITH OWNER FOR EXACT LOCATION.
6. EXTEND EXISTING RECEPTACLE BRANCH CIRCUIT TO NEW RECEPTACLES UTILIZING 2 #12, 1#12G IN 3/4" CONDUIT.
7. 240 VOLT, 30 AMP, 2 POLE, NEMA-1, FUSED DISCONNECT SWITCH. COORDINATE FINAL LOCATION WITH PLUMBING CONTRACTOR.
8. PROVIDE NEW BRANCH CIRCUIT TO EXISTING SPARE BREAKER IN PANEL L1 AS INDICATED UTILIZING 2 #10, 1 #10 GROUND IN 3/4" CONDUIT FOR BOOSTER PUMP. COORDINATE FINAL LOCATION WITH PLUMBING CONTRACTOR..
9. REINSTALL EXISTING SECURITY CAMERA IN NEW LOCATION. COORDINATE PLACEMENT AND AIMING WITH OWNER'S SECURITY DEPARTMENT.
10. INTERCEPT EXISTING FIRE ALARM PANEL BRANCH CIRCUIT AND EXTEND (2 #12, 1 #12G IN 3/4"C) TO NEW PANEL LOCATION.
11. PROVIDE 3" CONDUIT, ROUTED ON TOP OF TRUSS, BETWEEN JUNCTION BOXES.

PROVIDE PROTECTIVE GUARDS OVER WIRELESS ACCESS POINTS

FIRST FLOOR POWER PLAN 01 E1.1
1/8" = 1'-0"

MECHANICAL PLATFORM POWER PLAN 02 E1.1
1/8" = 1'-0"

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

CONSULTANT

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SEAL: NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTWICH 06/13/2024

KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

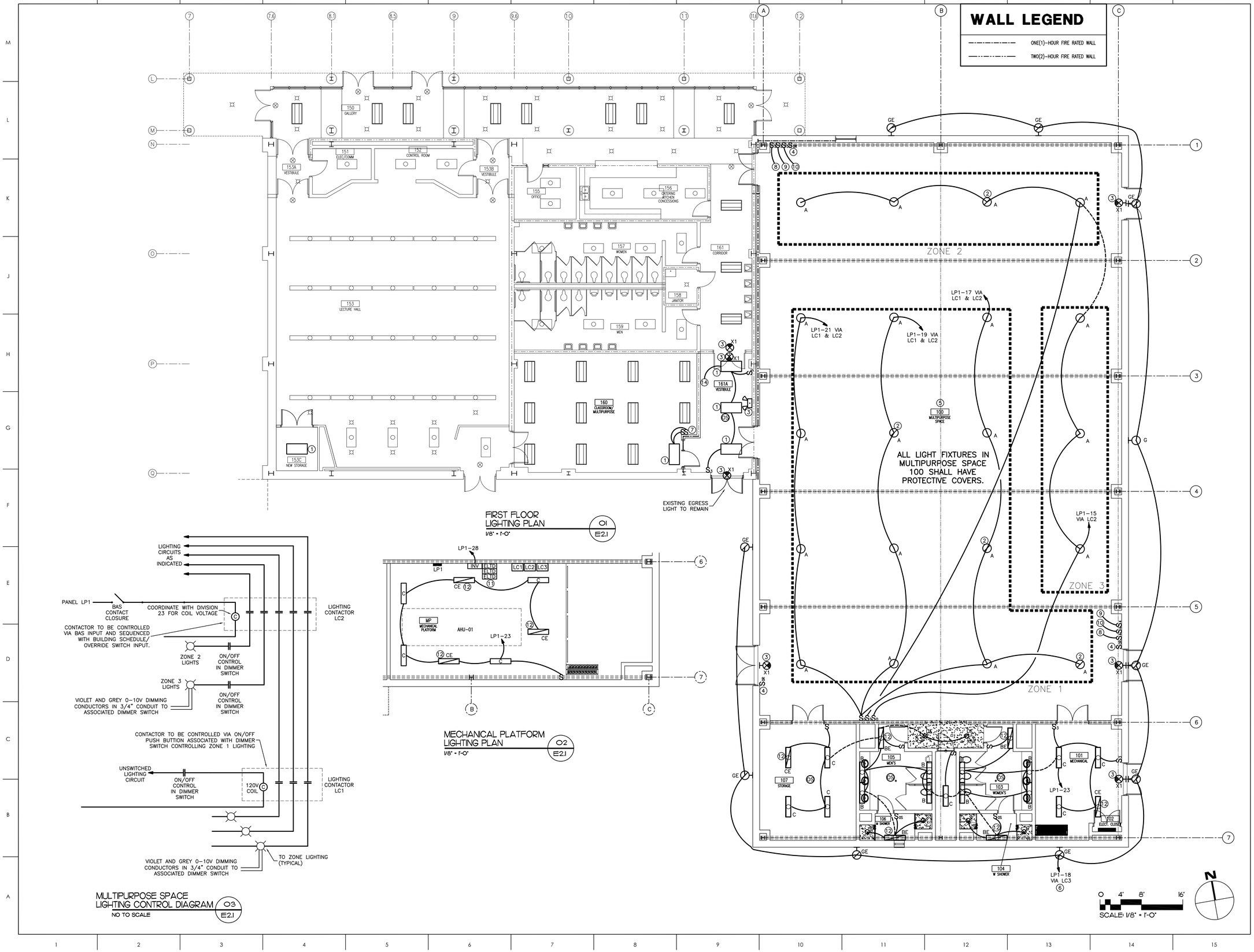
DRAWING TITLE: POWER PLANS

SCALE	1/8"=1'-0"
DRAWN	JPT
CHECKED	JTB
DATE	5-20-2024
PROJECT NO.	2016-208
DRAWING NO	E1.1

Project #: 24010
Sheet: E1-1
Plotted By: bbryden
Plotted: June 13, 2024 @ 2:02 PM

WALL LEGEND

- ONE(1)-HOUR FIRE RATED WALL
- TWO(2)-HOUR FIRE RATED WALL



FIRST FLOOR LIGHTING PLAN 01 E2.1
1/8" = 1'-0"

MECHANICAL PLATFORM LIGHTING PLAN 02 E2.1
1/8" = 1'-0"

MULTIPURPOSE SPACE LIGHTING CONTROL DIAGRAM 03 E2.1
NO TO SCALE

GENERAL NOTES:

A. SEE ARCHITECT'S RCP FOR FINAL CEILING TYPES AND LAYOUT.

KEYNOTES:

1. REINSTALL EXISTING LIGHT FIXTURES IN NEW CEILING. RELAMP AND CLEAN EXISTING FIXTURE. EXTEND EXISTING LIGHTING BRANCH CIRCUIT (2 #12, 1 #12G IN 3/4"C) AS REQUIRED.
2. FIXTURE SHALL BE POWERED VIA EMERGENCY LIGHTING INVERTER AND EMERGENCY LIGHTING TRANSFER DEVICE SO THAT FIXTURE TURNS ON/OFF AND DIMS WITH OTHER FIXTURES BUT ILLUMINATES TO FULL BRIGHTNESS IN THE EVENT OF POWER FAILURE.
3. EMERGENCY FIXTURE SHALL BE TIED TO UNSWITCHED NORMAL POWER LIGHTING CIRCUIT IN THIS SPACE.
4. BAS OVERRIDE SWITCH SHALL OVERRIDE SCHEDULED OFF LIGHTING EVENT. REFER TO SPECIFICATIONS FOR SEQUENCE.
5. REFER TO LIGHTING CONTROL WIRING DIAGRAM ON THIS SHEET FOR SWITCHING CONTROLS IN THIS SPACE.
6. EXTERIOR LIGHTING SHALL BE CONTROLLED VIA BAS INPUT ON CONTACTOR COIL. COORDINATE TIME OF DAY PROGRAMMING WITH OWNER. EXTEND UNSWITCHED LIGHTING CIRCUIT TO FIXTURES TO MAINTAIN BATTERY CHARGE. FIXTURES SHALL ILLUMINATE UPON LOSS OF NORMAL POWER.
7. REWIRE FIXTURES INTO NEW SWITCHES FOR INBOARD/OUTBOARD CONTROL.
8. WIRE SWITCH TO CONTACTOR TO CONTROL ZONE 1 LIGHTS.
9. WIRE SWITCH TO CONTACTOR TO CONTROL ZONE 2 LIGHTS.
10. WIRE SWITCH TO CONTACTOR TO CONTROL ZONE 3 LIGHTS.
11. PROVIDE EMERGENCY LIGHTING TRANSFER DEVICES FOR EMERGENCY LIGHTING POWERED FROM INVERTER. EXTEND SWITCHED AND UNSWITCHED NORMAL POWER CIRCUITS AS WELL AS UNSWITCHED INVERTER CIRCUIT TO EACH TRANSFER DEVICE.
12. EMERGENCY EGRESS FIXTURE WITH 90 MINUTE BATTERY BACK-UP. WIRE FIXTURE SO THAT FIXTURE TURNS ON/OFF WITH OTHER FIXTURES, BUT UPON LOSS OF NORMAL POWER, FIXTURE SHALL ILLUMINATE.
13. NIGHT LIGHT WITH 90 MINUTE BATTERY BACK-UP. FIXTURE SHALL ILLUMINATE UPON LOSS OF NORMAL POWER.
14. WIRE FIXTURES INTO EXISTING LIGHTING CIRCUIT ADDING SWITCHES AND OCCUPANCY SENSORS.

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE

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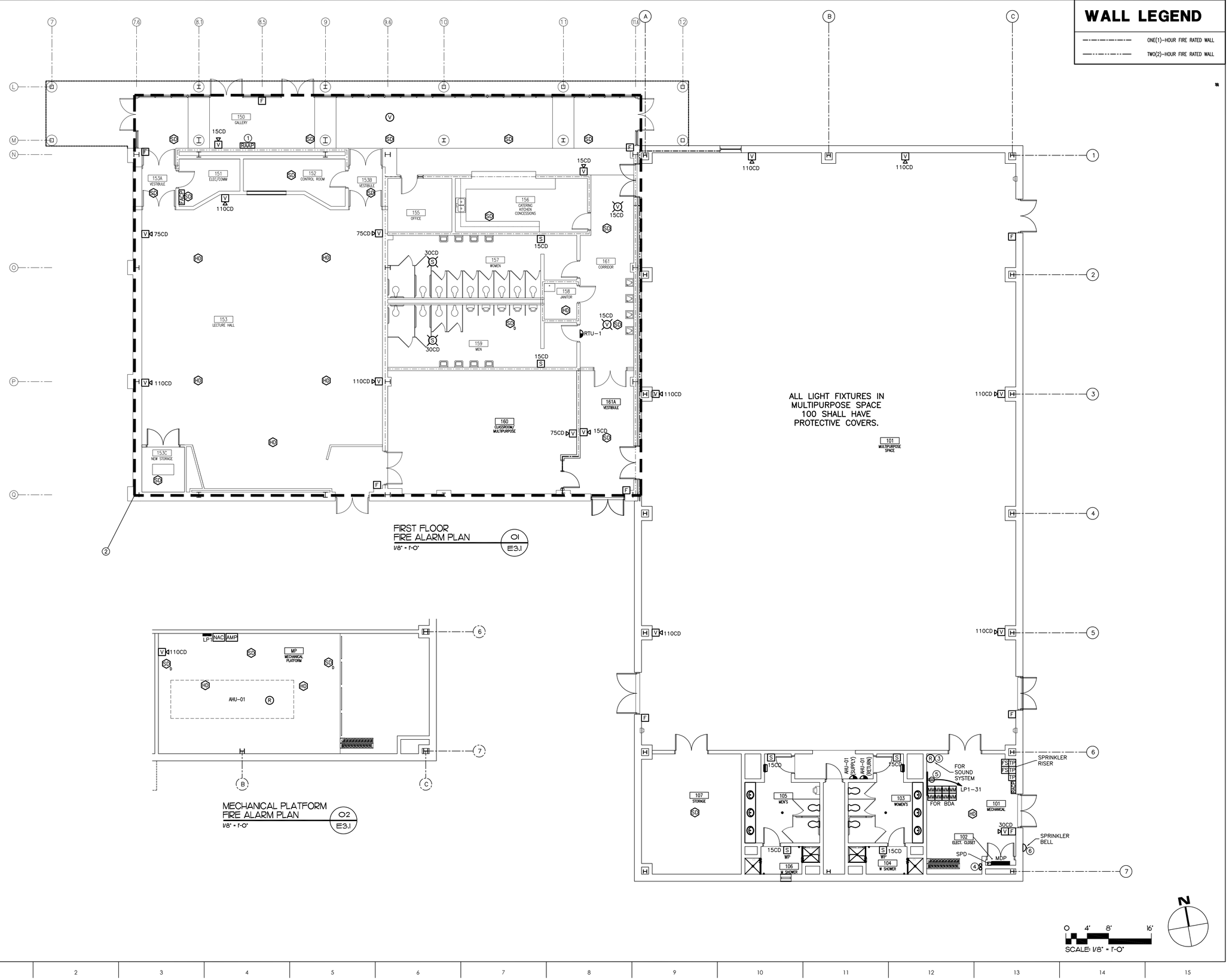
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRST FLOOR LIGHTING PLAN

SCALE: 1/8"=1'-0"	DRAWING NO: E2.1
DRAWN: JPT	
CHECKED: JTB	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 24010
Sheet: E2-1
Plotted By: bbryden
Plotted: June 13, 2024 @ 2:02 PM



FIRST FLOOR FIRE ALARM PLAN — 01 / E3.1
1/8" = 1'-0"

MECHANICAL PLATFORM FIRE ALARM PLAN — 02 / E3.1
1/8" = 1'-0"

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

WALL LEGEND

- ONE(1)-HOUR FIRE RATED WALL
- TWO(2)-HOUR FIRE RATED WALL

GENERAL NOTES:

A. PROVIDE LEXAN COVERS ON ALL PULL STATIONS IN MULTIPURPOSE SPACE.

B. PROVIDE WIRE GUARD COVERS ON ALL FIRE ALARM DEVICES IN MULTIPURPOSE SPACE.

C. FIRE ALARM DEVICES IN EXISTING BUILDING TO BE COMPATIBLE WITH NEW VOICE EVACUATION SYSTEM AND BE NFPA 72 COMPLIANT.

D. ALL FIRE ALARM WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

KEYNOTES:

1. PROVIDE REMOTE ANNUNCIATOR PANEL IN SAME LOCATION AS EXISTING FIRE ALARM CONTROL PANEL TO BE REMOVED. EXISTING BACK BOX MAY BE REUSED IF POSSIBLE. PROVIDE NEW CUSTOM COVER TO FIT EXISTING OPENING. CONTRACTOR SHALL FIELD MEASURE OPENING TO DETERMINE THE APPROPRIATE COVER. CONTRACTOR SHALL CUT WALL AS REQUIRED TO FIT NEW BACK BOX IF NEEDED.
2. EXISTING DEVICES SHALL BE REPLACED ONE FOR ONE WITH NEW VOICE EVACUATION DEVICES UNLESS OTHERWISE INDICATED. ALL NEW WIRING SHALL BE PROVIDED. CONDUIT MAY BE REUSED WHERE POSSIBLE.
3. PROVIDE RELAY FOR SOUND SYSTEM TO MUTE UPON GENERAL ALARM.
4. PROVIDE (2)-2" CONDUITS FOR FIRE ALARM WIRING TO FIRE PUMP HOUSE. CONDUITS EXTERIOR TO BUILDING SHALL BE CONCRETE ENCASED WITH A MINIMUM OF 3" CONCRETE ON ALL SIDES AND BURIED A MINIMUM OF 24" BELOW GRADE TO TOP OF CONCRETE.
5. PROVIDE AND INSTALL 4'x4'x3/4" FIRE RETARDANT PLYWOOD BACK BOARD FOR BDA SYSTEM EQUIPMENT AND MONITOR MODULES. REFER TO DETAIL
6. COORDINATE LOCATION OF SPRINKLER BELL WITH FIRE PROTECTION CONTRACTOR.

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE
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SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRE ALARM PLANS

SCALE	1/8"=1'-0"
DRAWN	JPT
CHECKED	JTB
DATE	5-20-2024
PROJECT NO.	2016-208
DRAWING NO	E3.1

Project #: 24010
Sheet: E3-1
Plotted By: bstaten
Plotted: June 13, 2024 @ 2:02 PM

GENERAL NOTES:

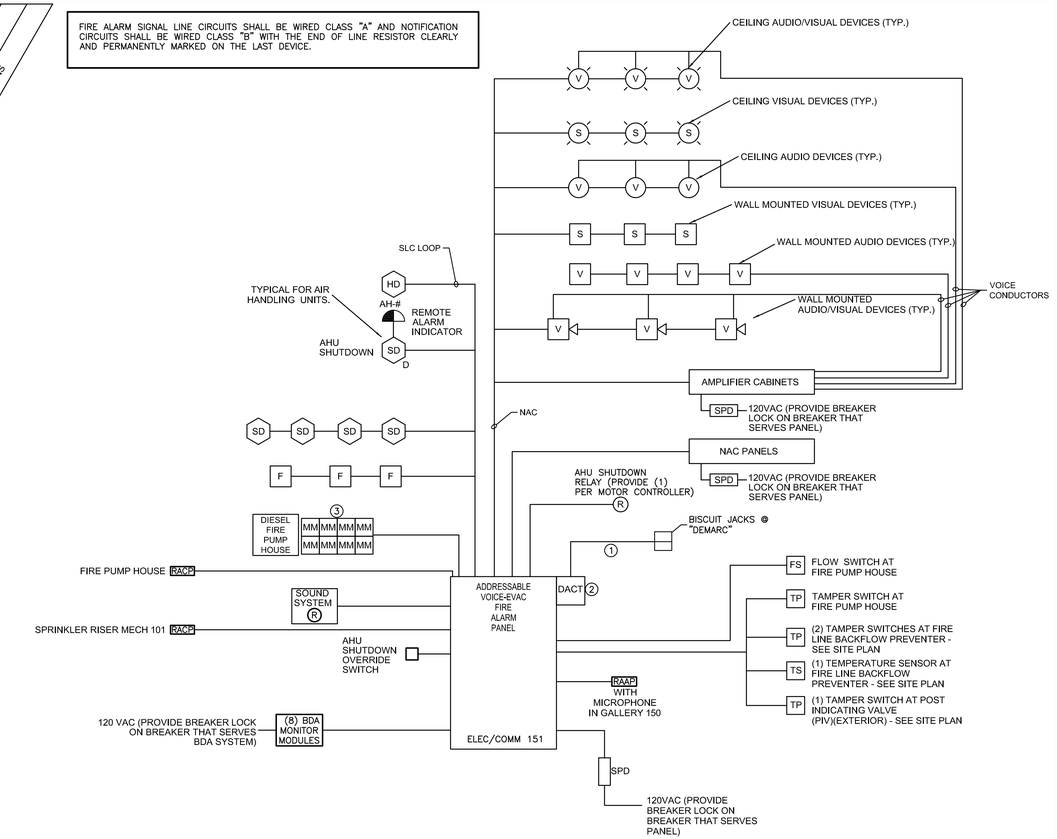
A. VERIFY OPERATION WITH LOCAL AHJ PRIOR TO PROGRAMMING.

SYSTEM INPUTS

		A ACTUATE GENERAL ALARM SPEAKERS/STROBES	B ACTUATE AUDIBLE ALARM SIGNAL	C ACTUATE SUPERVISORY SIGNAL INDICATOR	D ACTUATE AUDIBLE SUPERVISORY SIGNAL	E ACTUATE COMMON TROUBLE SIGNAL INDICATOR	F ACTUATE AUDIBLE COMMON TROUBLE SIGNAL	G ACTUATE ALL EVACUATION SIGNALS	H TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	I TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	J TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	K RECALL ELEVATORS TO PRIMARY RECALL FLOOR	L RECALL ELEVATORS TO ALTERNATE RECALL FLOOR	M DISPLAY CHANGE OF STATUS AT FACP	O SHUTDOWN ALL AIR HANDLING UNITS	P ACTUATE AUDIBLE CARBON MONOXIDE ALARM SIGNAL	Q TRANSMIT CO ALARM SIGNAL TO SUPERVISING STATION	R ACTUATE CARBON MONOXIDE ALARM SIGNAL	S UNLOCK ACCESS CONTROLLED EGRESS DOORS	T ACTIVATE ELEVATOR FIREMAN'S HAT	U SHUNT TRIP POWER TO ELEVATOR	V MUTE MULTIPURPOSE DINING SOUND SYSTEM	W RELEASE MAGNETICALLY HELD DOOR OPENS	
1	MANUAL PULL STATIONS	o	o					o	o					o	o				o			o	o	1
2	SMOKE DETECTORS	o	o					o	o					o	o				o			o	o	2
3	HEAT DETECTORS	o	o					o	o					o	o				o			o	o	3
4	HEAT DETECTORS MECHANICAL MEZZANINES	o	o					o	o					o	o				o			o	o	4
5	DUCT DETECTORS	o	o					o	o					o	o				o			o	o	5
6	AHU OVERRIDE SWITCH			o	o					o				o										6
7	TAMPER SWITCH @ PIV			o	o					o				o										7
8	TAMPER SWITCHES AT SPRINKLER RISERS			o	o					o				o										8
9	FLOW SWITCH AT SPRINKLER RISER	o	o					o	o					o										9
10	FIRE ALARM SYSTEM AC POWER FAILURE					o	o			o				o									o	10
11	FIRE ALARM SYSTEM LOW BATTERY					o	o			o				o										11
12	NAC PANELS LOW BATTERY					o	o			o				o										12
13	OPEN CIRCUIT					o	o			o				o										13
14	GROUND FAULT					o	o			o				o										14
15	NOTIFICATION APPLIANCE SHORT CIRCUIT					o	o			o				o										15
16	TEMPERATURE SENSOR					o	o			o				o										16
17	EMERGENCY RESPONDER BDA SUPERVISION			o							o			o										17
18	KITCHEN HOOD FIRE SUPPRESSION ACTIVATION	o	o					o						o	o									18
19	KITCHEN EQUIPMENT UDS SHUNT TRIP POWER LOSS					o	o			o				o										19
20	FIRE PUMP RUN			o	o						o			o										20
21	FIRE PUMP LOSS OF POWER			o	o						o			o										21
22	FIRE PUMP PHASE REVERSAL					o	o			o				o										22
23	FIRE PUMP SYSTEM TROUBLE					o	o			o				o										23
24	FIRE PUMP ALTERNATE SOURCE (CIRCUIT BREAKER)					o	o			o				o										24
25	BDA - LOSS OF NORMAL AC POWER SUPPLY			o							o			o										25
26	BDA - SYSTEM BATTERY CHARGER FAILURE			o							o			o										26
27	BDA - MALFUNCTION OF DONOR ANTENNAS			o							o			o										27
28	BDA - FAILURE OF ACTIVE RF EMITTING DEVICES			o							o			o										28
29	BDA - LOW BATTERY CAPACITY AT 70% REDUCTION OF OPERATING CAPACITY			o							o			o										29
30	BDA - FAILURE OF CRITICAL EQUIPMENT COMPONENTS			o							o			o										30
31	BDA - OSCILLATION OF ACTIVE RF EMITTING DEVICES			o							o			o										31
32	BDA - COMMUNICATION LINE BETWEEN FIRE ALARM SYSTEM AND THE IN-BUILDING TWO WAY EMERGENCY RESPONDER COMMUNICATIONS COVERAGE SYSTEM			o							o			o										32

FIRE ALARM OPERATIONAL MATRIX

FIRE ALARM SIGNAL LINE CIRCUITS SHALL BE WIRED CLASS "A" AND NOTIFICATION CIRCUITS SHALL BE WIRED CLASS "B" WITH THE END OF LINE RESISTOR CLEARLY AND PERMANENTLY MARKED ON THE LAST DEVICE.



KEYNOTES:

1. PROVIDE CAT-6 DEDICATED PHONE LINES TO EXISTING PHONE/DATA ROOM 151. COORDINATE WITH AHJ AND MONITORING STATION FOR ALTERNATIVE COMMUNICATION METHODS DESIRED.
2. FIRE ALARM CONTROL PANEL SHALL BE EQUIPPED WITH A MULTI-TECHNOLOGY DIALER COMPLIANT WITH NFPA 72. DIALER SHALL BE CAPABLE OF COMMUNICATING VIA PHONE, IP PHONE AND CELLULAR COMMUNICATIONS. EXISTING TECHNOLOGIES TO BE USED SHALL BE COORDINATED WITH AHJ.
3. PROVIDE ALL MONITOR AND RELAY MODULES, TAMPER, FLOW SWITCHES, PULL STATION, SMOKE DETECTOR, A/V DEVICE AND RACP IN REQUIRED TO MONITOR THE FIRE PUMP.

GENERAL FIRE ALARM RISER NOTES:

A. SEE PLANS FOR LOCATIONS AND QUANTITIES OF ALL DEVICES.

B. ALL WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

C. BATTERY CALCULATIONS ARE REQUIRED WITH ALL SUBMITTALS.

D. TEST RESULTS ARE REQUIRED FOR ALL DEVICES.

E. PROVIDE SHUT-DOWN DEVICES FOR ALL AIR HANDLERS AND SUPPLY FANS OF ALL MECHANICAL EQUIPMENT.

F. VERIFY ROOM NUMBERS WITH ARCHITECT PRIOR TO PROGRAMMING SYSTEM.

G. ALL NAC PANELS AND AMPLIFIER PANELS SHALL HAVE A SMOKE DETECTOR MOUNTED WITHIN 15'-0" OF PANEL.

H. A SMOKE DETECTOR SHALL BE MOUNTED WITHIN 15'-0" OF FACP, RACP, RAAP AND NAC PANELS.

I. IF ANY ARCHITECTURAL CHANGES ARE MADE THAT SHALL AFFECT ANY DEVICE PLACEMENT, THIS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO INSTALLATION.

J. THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL BE NICET LEVEL 2 CERTIFIED AND HAVE AT LEAST 2 YEARS OF EXPERIENCE INSTALLING FIRE ALARM SYSTEMS.

K. THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL BE NICET LEVEL 2 CERTIFIED AND HAVE AT LEAST 2 YEARS OF EXPERIENCE INSTALLING FIRE ALARM SYSTEMS.

L. THE SHOP DRAWINGS SUBMITTALS FOR DEVICE LOCATIONS SHALL BE SUBMITTED TO ENGINEER AND LOCAL (AHJ) FIRE MARSHALL PRIOR TO ANY INSTALLATION/ROUGH-IN FOR FIRE ALARM DEVICES.

M. WIRING DIAGRAMS, LOCATION DRAWINGS, DEVICE CUT SHEETS AND VOLTAGE DROP CALCULATIONS ARE REQUIRED WITH ALL SUBMITTALS.

N. THE FIRE ALARM SYSTEM PROVIDER SHALL PROVIDE ALL DOCUMENTATION AS SPECIFIED IN THE INTERNATIONAL FIRE CODE SECTION 907 REQUIREMENTS AS PART OF HIS SHOP DRAWING SUBMITTALS.

THIS INCLUDES:
1. LOCATION DRAWINGS OF ALARM INITIATING AND NOTIFICATION DEVICES.
2. WIRING DIAGRAMS WITH CONDUCTOR TYPE AND SIZES.
3. LOCATIONS OF ALARM CONTROL AND TROUBLE SIGNALLING EQUIPMENT.
4. POWER CONNECTION DETAILS AND WIRING SCHEMATICS
5. BATTERY CALCULATIONS
6. VOLTAGE DROP CALCULATIONS
7. MANUFACTURER'S MODEL NUMBERS, LISTING INORMATION FOR EQUIPMENT, DEVICES AND MATERIALS.
8. THE INTERFACE OF FIRE SAFETY CONTROL FUNCTIONS.

O. REFER TO SPECIFICATION 28 46 01 "FIRE DETECTION AND ALARM - VOICE EVACUATION".

P. FIRE ALARM SIGNAL LINE CIRCUITS SHALL BE WIRED CLASS "A" AND NOTIFICATION CIRCUITS SHALL BE WIRED CLASS "B" WITH THE END OF LINE RESISTOR CLEARLY AND PERMANENTLY MARKED ON THE LAST DEVICE.

Q. PROVIDE SPARE PARTS AS DEFINED IN SPECIFICATION 284601.

R. ALL FIRE ALARM SYSTEM WORK SHALL BE APPROVED BY THE SAMPSON COUNTY FIRE MARSHALL PRIOR TO COMMENCING ANY FIRE ALARM WORK.

S. FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72.

T. COORDINATE WITH THE FIRE PROTECTION CONTRACTOR FOR VOLTAGE, RELAY, ETC. FOR CONNECTIONS OF SPRINKLER BELL. ALL WIRING, CONDUIT, RELAY, AND INTERCONNECTIONS SHALL BE BY THE ELECTRICAL & FIRE ALARM CONTRACTORS.

U. SPEAKER AMPLIFIER CABINETS SHALL BE ADDED AS NEEDED. ALL 120VAC POWER FOR CABINET SHALL BE PROVIDED FROM THE NEAREST 120V PANEL. BREAKER HASPS SHALL BE PROVIDED ON BREAKER SERVING CABINET.

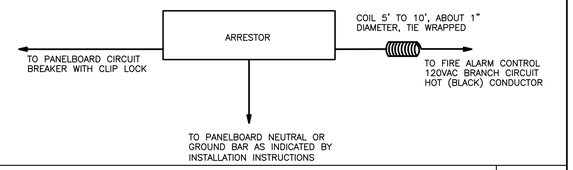
V. ELECTRICAL CONTRACTOR SHALL COORDINATE CLOSELY WITH FIRE ALARM SUB-CONTRACTOR FOR ALL 120V AC POWER REQUIRED FOR THIS SYSTEM. IF ANY ADDITIONAL CIRCUITS ARE REQUIRED THAT ARE NOT IDENTIFIED ON PLANS, THE ELECTRICAL CONTRACTOR SHALL PROVIDE THAT CIRCUIT FROM THE NEAREST 120V PANEL. AS-BUILTS SHALL BE UPDATED TO REFLECT THE INSTALLED CONDITION. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE PROJECT.

W. THE FIRE ALARM SYSTEM SHALL BE INTERCONNECTED WITH THE GYMNASIUM/ DINING ROOM SOUND SYSTEM SUCH THAT UPON ALARM CONDITION THE SOUND SYSTEM MUTES.

DETAIL NOT TO SCALE — FIRE ALARM RISER AND OPERATIONAL MATRIX — **01**

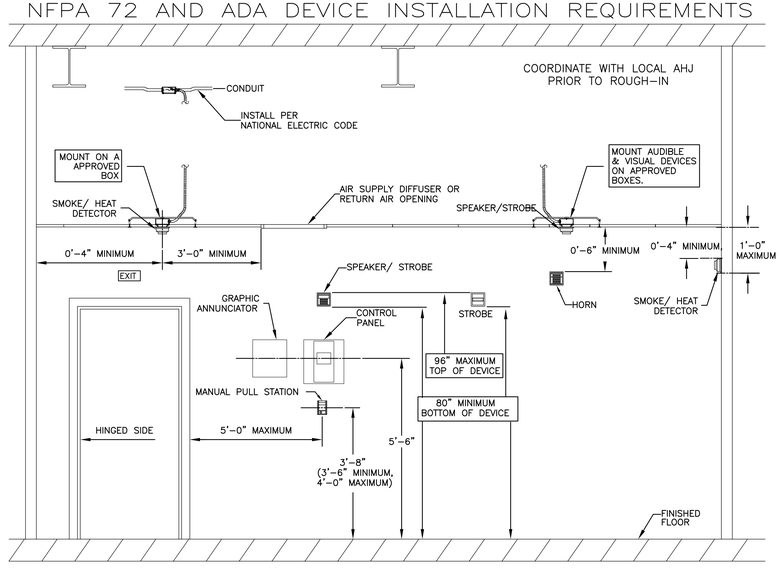
GENERAL NOTES:

SECURELY MOUNT TRANSIENT ARRESTOR IN ACCESSIBLE JUNCTION BOX OR PROPER METAL ENCLOSURE ADJACENT TO THE PANELBOARD. PROVIDE ENGRAVED LABEL INDICATING ITS LOCATION.



DETAIL NOT TO SCALE — TRANSIENT ARRESTOR INSTALLATION DETAIL — **03**

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



DETAIL NOT TO SCALE — FIRE ALARM DEVICE MOUNTING — **02**

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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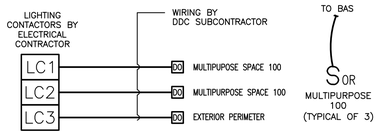
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
FIRE ALARM RISER/MATRIX
FIRE ALARM DEVICE MOUNTING

SCALE: NO SCALE	DRAWING NO: E4.1
DRAWN: JPT	
CHECKED: JTB	
DATE: 5-20-2024	
PROJECT NO.: 2016-208	

Project #: 240010
Sheet: E4-1
Plotted: June 13, 2024 @ 2:02 PM
Plotted By: blangdon



GENERAL NOTES:

A. BAS SYSTEM SHALL PROVIDE BLINK/ALERT CAPABILITIES SUCH THAT WHEN LIGHTS ARE PROGRAMMED TO SHUT–OFF, 10 MINUTES PRIOR TO SHUT–OFF, LIGHTS BLINK TO NOTIFY OCCUPANT.

B. THE LIGHTING OVERRIDE SWITCHES S OR SHALL BE LOW VOLTAGE TYPE SINGLE BUTTON TYPE. PROVIDE AND INSTALLED BY THE DIVISION 23 CONTROLS CONTRACTOR.

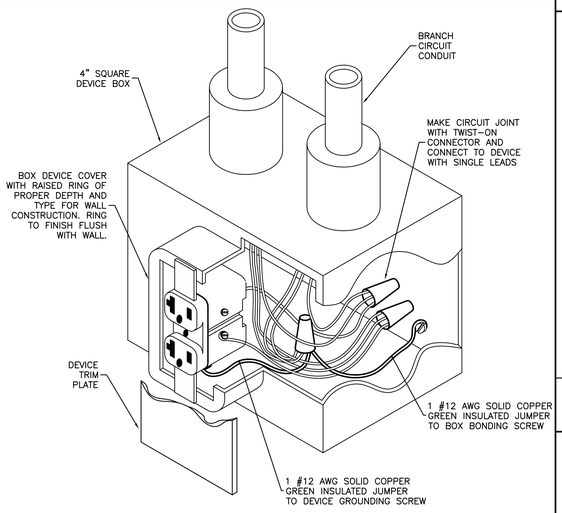
C. THE LIGHTING CONTACTORS ARE MECHANICALLY HELD TYPE. THE BAS SYSTEM SHALL BE INTEGRATED INTO THE CONTACTORS TO ALLOW LIGHTS IN MULTIPURPOSE SPACE AND EXTERIOR TO BE TURNED ON/OFF AT PRE–SCHEDULED TIMES.

D. REFER TO SPECIFICATION 260923.

E. ALL POWER WIRING BY THE ELECTRICAL CONTRACTOR AND ALL LOW VOLTAGE WIRING BY THE DIVISION 23 CONTROLS CONTRACTOR.

LIGHTING / BAS CONTROL

DETAIL 07



DETAIL NOT TO SCALE — RECEPTACLE GROUNDING DETAIL — 06

System No. C-AJ-1014

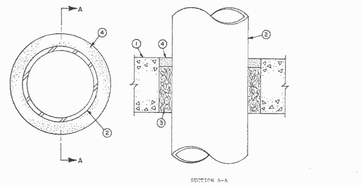
May 09, 2013

F Rating — 2 Hr

T Rating — 0 Hr

L Rating At Ambient — Less Than 1 CFM/sq ft

L Rating At 400 F — Less Than 1 CFM/sq ft



1. **Floor or Wall Assembly —** Min 3–1/4 in. (83 mm) thick reinforced lightweight or normal weight (100–150 pcf or 1600–2400 kg/m^3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of circular opening is 6 in. (152 mm).
See **Concrete Block** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants —** One metallic pipe or conduit to be centered within the firestop system. A nom annular space of 3/4 in. (19 mm) is required within the firestop system. Pipe or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or conduits may be used:

A. **Steel Pipe —** Nom 4 in. diam (102 mm) (or smaller) Schedule 10 (or heavier) steel pipe.

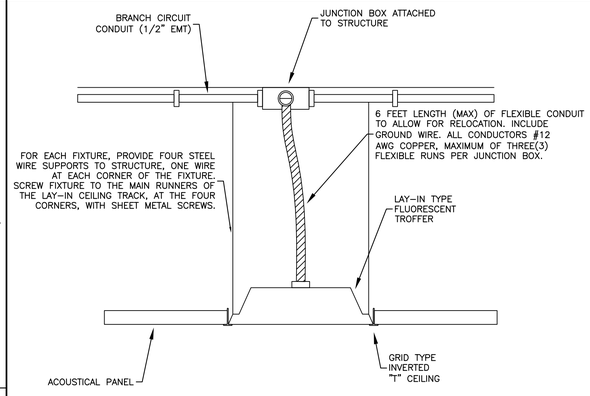
B. **Conduit —** Ncm 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or steel conduit.

3. **Packing Material —** Min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as require to accommodate the required thickness of fill material. Min thickness of packing material in floors and walls to be 2–3/4 in. (70 mm) and 2–1/4 in. (57 mm), respectively.

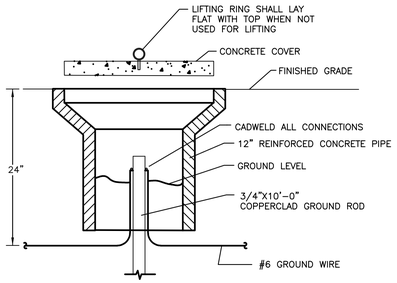
4. **Fill, Void or Cavity Material* — Sealant —** Min 1/2 in. (13 mm) thickness of fill material applied within annulus, flush with top surface of floor or with both surfaces of wall. As an alternate, the permanent forming material (Item 3) may be omitted if the fill material thickness is increased to a min 1–1/2 in. (38 mm).
3M COMPANY — Types FB-1000 NS, FB-1003SL (floors only), FB-2000 or FB-2000+.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2013-05-09

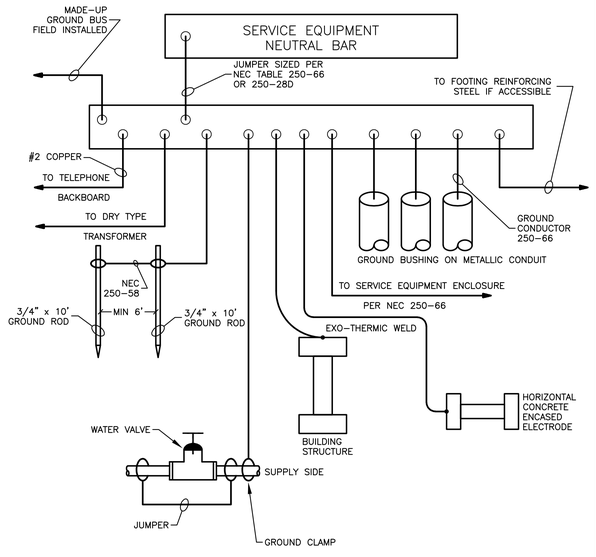


DETAIL NOT TO SCALE — LAY–IN FIXTURE MOUNTING DETAIL — 05



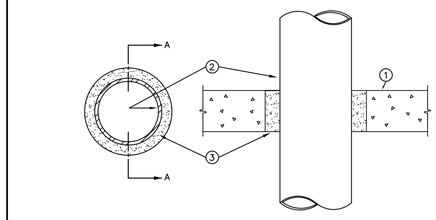
TYPICAL GROUND ROD DETAIL

DETAIL NOT TO SCALE — 04



SERVICE EQUIPMENT GROUNDING DETAIL

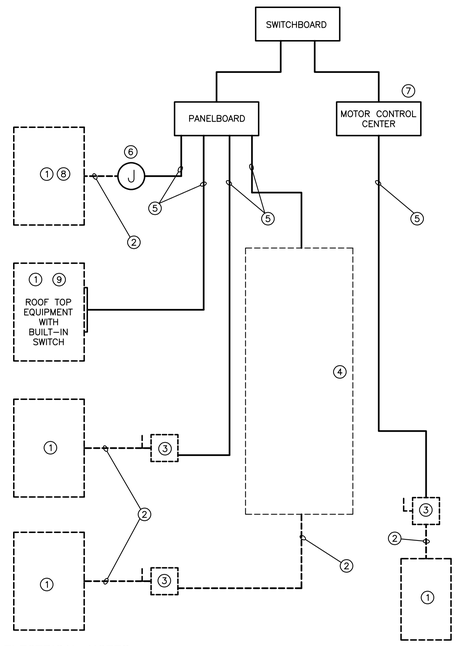
DETAIL NOT TO SCALE — 03



SECTION A–A

1. NON–RATED WALL.
2. THROUGH PENETRANTS – ONE PIPE, OR CONDUIT.
3. FILL, VOID, OR CAVITY MATERIAL: SILICON CAULK.

DETAIL NOT TO SCALE — NON–RATED WALL PIPE PENETRATION — 02



ELECTRICAL NOTES:

1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL
2. CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR OR OTHER TRADES
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR
4. A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
5. FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
6. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. FOR PROJECTS UTILIZING AN MCC, THE STARTER, CB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
8. IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP AND TEST EQUIPMENT.
9. IF THE ROOF TOP FAN IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.
10. IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND THE OTHER TRADES

ELECTRICAL EQUIPMENT CONNECTIONS

DETAIL NOT TO SCALE — ELECTRICAL EQUIPMENT CONNECTIONS — 01

CONSULTANT

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKOVICH — 06/13/2024

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE

625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

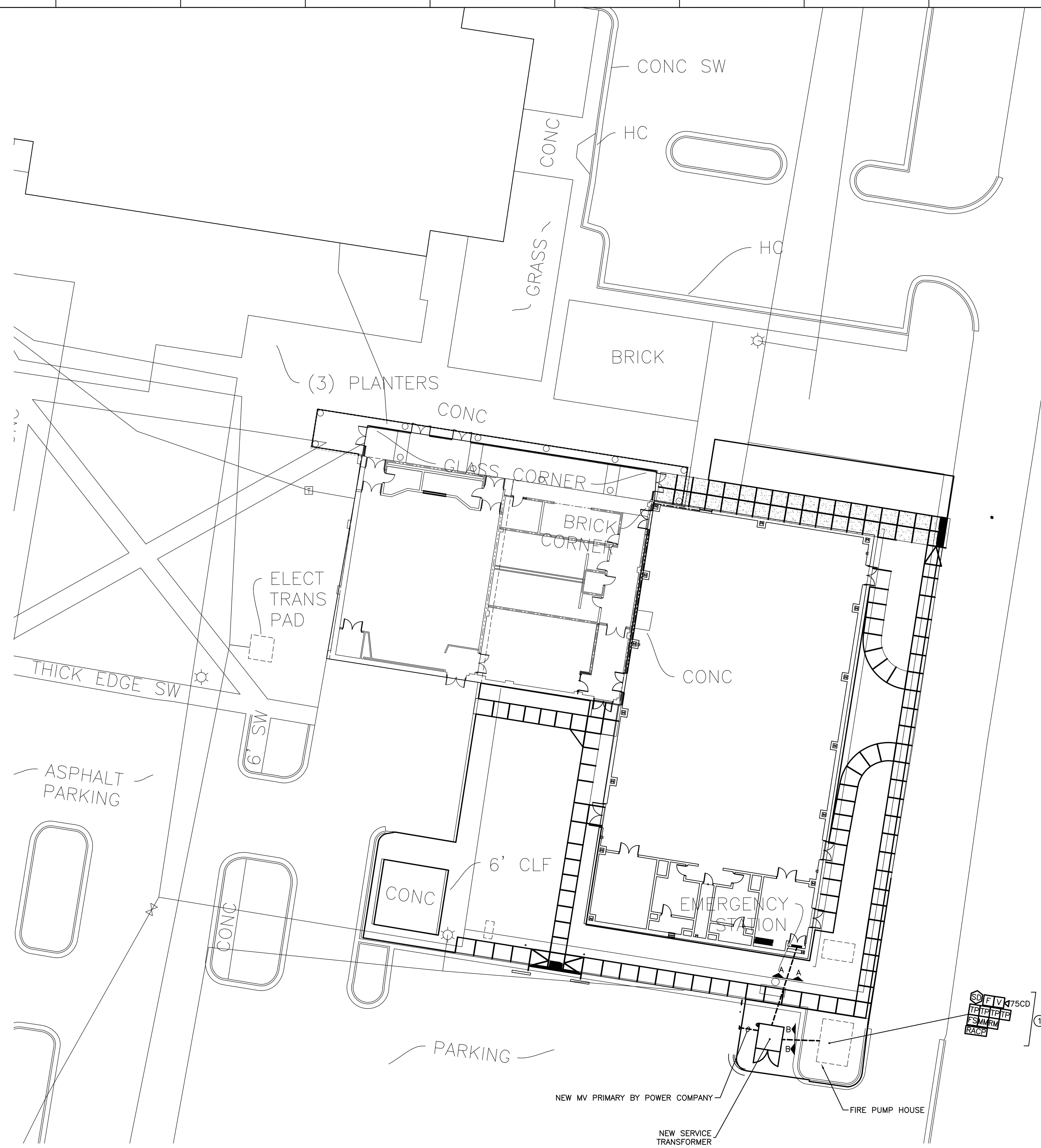
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE: ELECTRICAL DETAILS

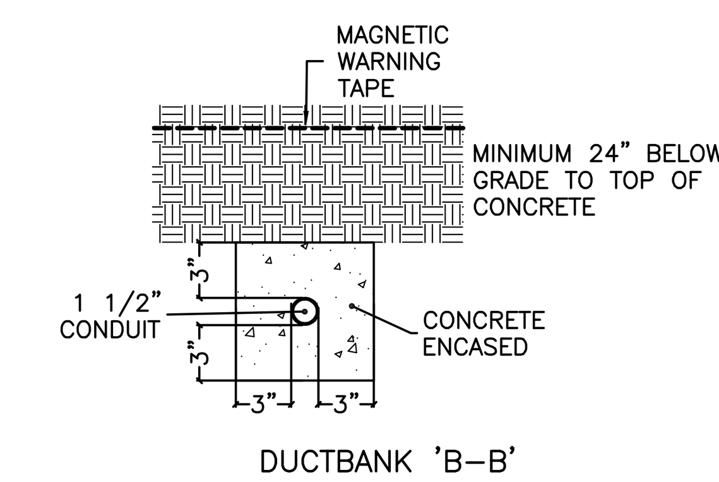
SCALE	NO SCALE
DRAWN	JPT
CHECKED	JTB
DATE	5-20-2024
PROJECT NO.	2016-20B

DRAWING NO: E4.2

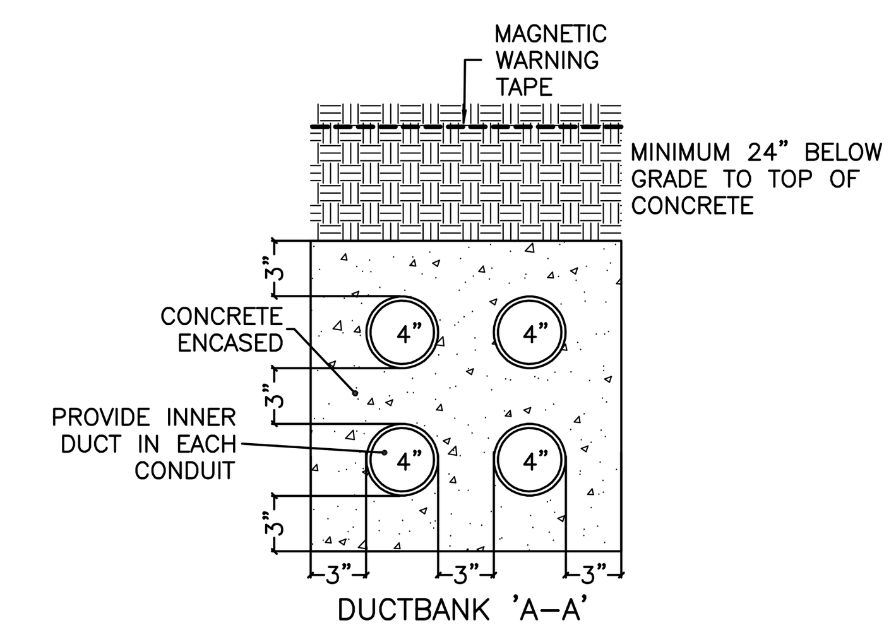
Project #: 24001.0
Sheet: E4–2
Plotted By: bbryden
Plotted: June 13, 2024 @ 2:02 PM



01 ENLARGED ELECTRICAL SITE PLAN
E5.1 1" = 20'-0"



03 DUCT BANK SECTION B
E5.1 NO SCALE



02 DUCT BANK SECTION A
E5.1 NO SCALE

SCALE 1"=20'-0"

KEYNOTES:

1. PROVIDE TAMPER, FLOW SWITCHES, PULL STATION, SMOKE DETECTOR, A/V DEVICE AND RACP IN FIRE PUMP HOUSE AS REQUIRED. PROVIDE MONITOR AND RELAY MODULES AT FIRE PUMP CONTROLLER AS REQUIRED.

CONSULTANT

SEAL

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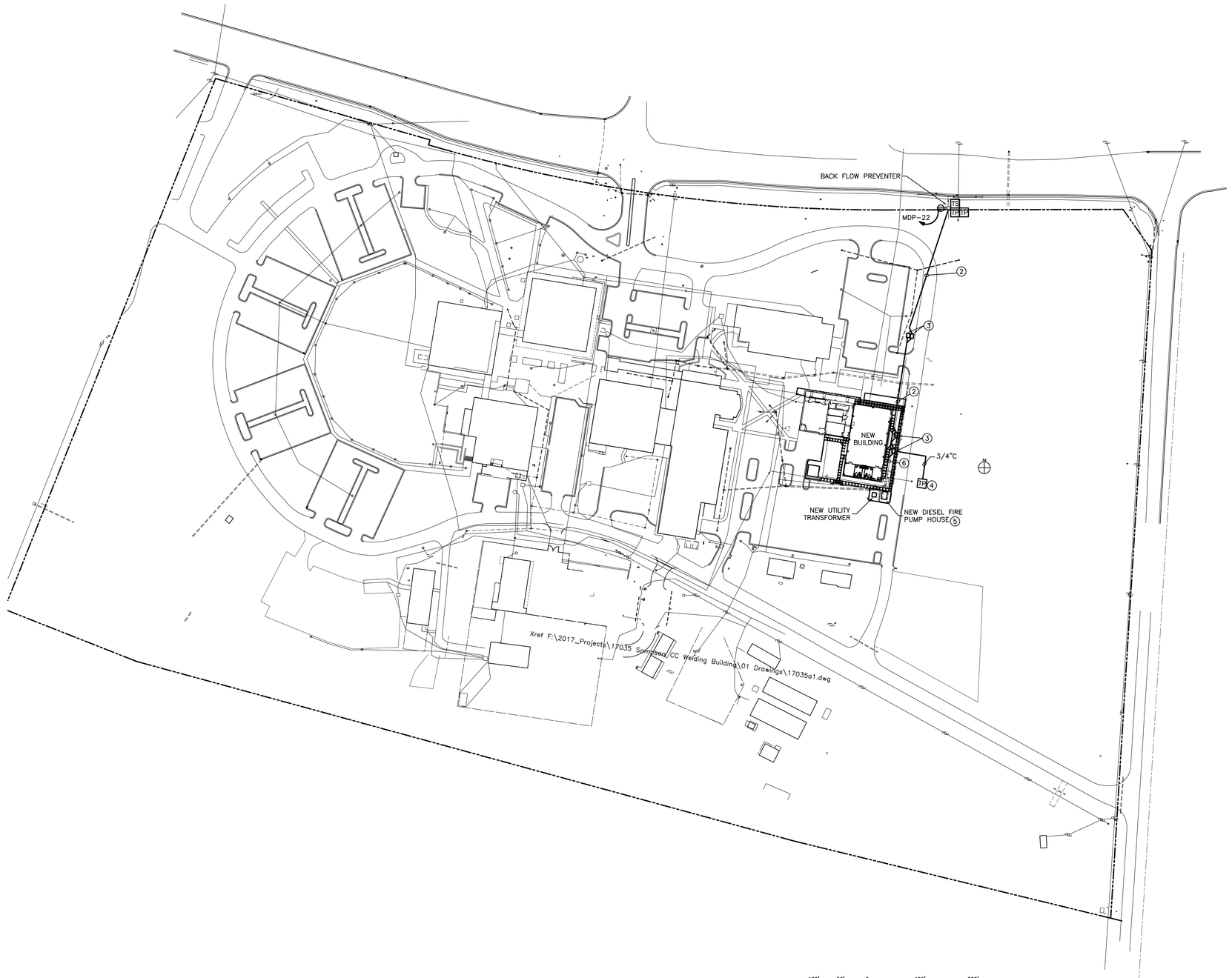
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
ENLARGED ELECTRICAL SITE PLAN

SCALE	1"=20'-0"
DRAWN	JPT
CHECKED	JTB
DATE	5-20-2024
PROJECT NO.	2016-20B
DRAWING NO	E5.1

Project #: 24010
Sheet: E5-1
Plotted By: blangdon
Plotted: June 13, 2024 @ 2:02 PM



01 E5.2 ELECTRICAL SITE PLAN
1" = 100'-0"

100' 50' 0 100' 200'
SCALE 1"=100'-0"

KEYNOTES:

1. PROVIDE FIRE ALARM AND POWER CONNECTIONS AT FIRE LINE HOT BOX.
2. ROUTE FIRE ALARM AND POWER CONDUITS ROUTED NEXT TO NEW FIRE LINE. PROVIDE A 1 1/2"C FOR POWER AND A 1 1/4" CONDUIT FOR FIRE ALARM.
3. PROVIDE (2)-11" X 18" QUAZITE STYLE PG HANDHOLES – ONE FOR FIRE ALARM, ONE FOR POWER.
4. PROVIDE 3/4" CONDUIT FROM PIV TO HANDHOLE FOR FIRE ALARM WIRING FOR PIV.
5. REFER TO DRAWING E5.1 FOR FIRE ALARM DEVICES AT FIRE PUMP HOUSE.
6. PROVIDE 1 1/2" CONDUIT FOR POWER FROM MDP TO EXTERIOR HANDHOLE AND 1 1/4" CONDUIT FOR FIRE ALARM WIRING FROM EXTERIOR HANDHOLE TO INSIDE MECHANICAL 101 TO INTERFACE WITH NEW FIRE ALARM SYSTEM.

CONSULTANT

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KEY PLAN

SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

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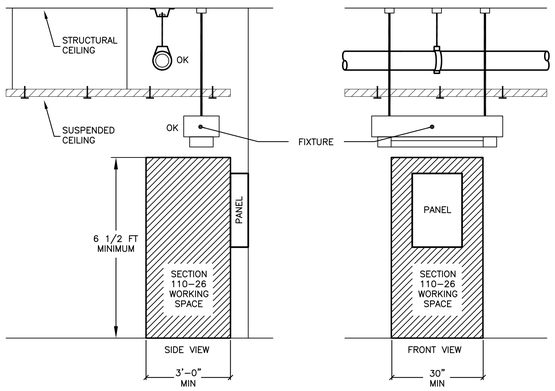
SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

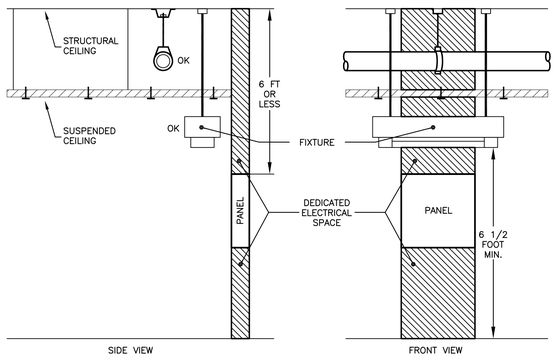
DRAWING TITLE
ELECTRICAL SITE PLAN

SCALE	DRAWING NO
1"=100'-0"	E5.2
DRAWN: JPT	
CHECKED: JTB	
DATE: 5-20-2024	
PROJECT NO.: 2016-20B	

Project #: 24010
Sheet: E5-2
Plotted By: bbrayton
Plotted: June 13, 2024 @ 2:02 PM

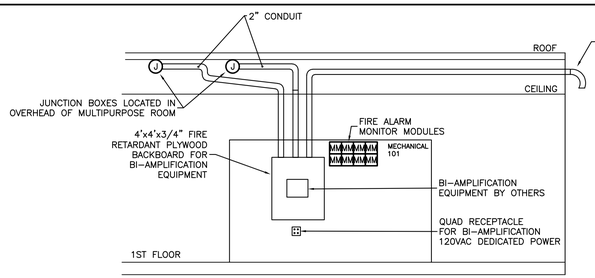


WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26



DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26

DETAIL NOT TO SCALE — **01**



GENERAL NOTES:

A. ELECTRICAL CONTRACTOR SHALL PROVIDE 4' x'4 FIRE RETARDANT PLYWOOD BACKBOARD FOR EQUIPMENT MOUNTING.

B. ALL BI-AMPLIFICATION EQUIPMENT AND ASSOCIATED CABLING SHALL BE PROVIDED BY OTHERS UNDER AN ALLOWANCE. THE CABLING SHALL BE PLENUM RATED.

C. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A QUAD RECEPTACLE BELOW THE BACKBOARD.

D. PROVIDE 2" CONDUIT (COMMUNICATION) FROM BACKBOARD LOCATION TO REPEATER LOCATIONS.

E. PROVIDE 2" CONDUIT (COMMUNICATION) FROM MECHANICAL 101 TO SIDE WALL MOUNTED ANTENNA. THE CONDUIT SHALL BE 2" RGS WITH WEATHERHEAD. CONDUIT SHALL EXTEND 12" FROM WALL. CONDUIT SHALL BE SECURED TO STRUCTURE. FINAL LOCATION SHALL BE COORDINATED PRIOR TO ROUGH-IN.

F. IF CONDUIT IS NOT USED BY OWNER/OTHERS, PROVIDE SEAL AND CAP FOR FUTURE USE. COORDINATE WITH OWNER/OTHERS PRIOR TO ROUGH-IN.

G. PROVIDE MONITOR MODULES FOR FIRE ALARM SYSTEM SUPERVISORY. FIRE ALARM CONTRACTOR SHALL COORDINATE CLOSELY WITH BDA SYSTEM CONTRACTOR FOR FINAL FIRE ALARM CONNECTIONS TO EQUIPMENT.

H. CIRCUIT BREAKER THAT SERVES QUAD RECEPTACLE SHALL BE A DEDICATED CIRCUIT AND SHALL BE PROVIDED WITH BREAKER LOCK TO PREVENT THE BREAKER FROM BEING TURNED "OFF".

IMPORTANT NOTE:

THE BI-DIRECTIONAL AMPLIFICATION SYSTEM (EMERGENCY RESPONDER RADIO) SHALL BE PROVIDED UNDER AN ALLOWANCE. REFER TO ARCHITECT'S LIST OF ALLOWANCES.

ALL CONDUIT, POWER WIRING, BACKBOARD, MONITOR MODULES AND OUTLET BOXES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AS PART OF THE BASE BID. THIS SHALL BE COORDINATED WITH BDA CONTRACTOR PRIOR TO ROUGH-IN.

THE FACILITY UNDER THE ALLOWANCE WILL REQUIRE A SITE SURVEY TO SEE IF THE RADIO SYSTEM IS NEEDED. THAT SURVEY IS PROVIDED BY A RESPONDER RADIO SYSTEMS CONTRACTOR. IF THE SURVEY INDICATES THAT THE SYSTEM IS NEEDED, THE SYSTEM SHALL BE DESIGNED AND PROVIDED BY A COMPANY THAT SPECIALIZES IN THE RESPONDER RADIO SYSTEMS.

THE LOCAL FIRE MARSHALL (AHJ) SHALL BE CONSULTED PRIOR TO ANY WORK AND/OR SURVEY BEING PERFORMED AT THIS FACILITY. THE SURVEY SHALL BE REVIEWED AND APPROVED BY THE LOCAL AHJ PRIOR TO PROVIDING THE SYSTEM.

DETAIL NOT TO SCALE — **BI-DIRECTIONAL AMPLIFICATION SYSTEM (BDA)** — **02**

PANEL MDP

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	H	23.712	CU-01	SEE POWER RISER				250	25.362									1.650	H	2
3	H	23.712								25.362		20	10	N/A	10	3/4"	EUH-03	1.650	H	4
5	H	23.712									25.362							1.650	H	6
7	H	28.680	AHU-01 (NOTE 2)	SEE POWER RISER				400	30.330			20	10	N/A	10	3/4"	EUH-02	1.650	H	8
9	H	28.680								28.680									O	10
11	H	28.680									28.680	30	10	10	10	3/4"	SPD		O	12
13	O		SPARE					100	0.000										O	14
15	O									1.667								1.667	H	16
17	O										1.667	30	10	N/A	10	3/4"	EUH-01	1.667	H	18
19	O								1.667									1.667	H	20
21	O		SPARE					225		1.500		20	6	6	6	1"	FIRELINE BFP HEATER (NOTE 3)	1.500	O	22
23	O										0.000	20					SPARE		O	24
25	O		SPACE						0.000			20					SPARE		O	26
27	O									0.000		20					SPARE		O	28
29	O										0.000	20					SPARE		O	30
31	O		SPACE						0.000			20					SPARE		O	32
33	O		SPACE							0.000		20					SPARE		O	34
35	O		SPACE								0.000	20					SPARE		O	36
37	S	10.568	PANEL LP1	SEE POWER RISER				225	10.568										O	38
39	S	12.932								12.932		100					SPARE		O	40
41	S	8.096									8.096								O	42
			LOAD TOTAL:						67.93	70.14	63.81									

208Y/120 V — 3 PHASE — 4 WIRE
MAINS: MCB — 800 A MCB (NOTE 1)
42000 AIC — X — SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	7.51	100%	7.51
(M) MOTOR	6.02	100%	6.02
(H) HVAC	169.58	100%	169.58
(L) LIGHTING	8.32	125%	10.41
(O) OTHER	10.44	100%	10.44
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	201.87	101%	203.95

FED FROM: SERVICE TRANSFORMER
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. MAIN BREAKER SHALL BE FULLY RATED.
2. LOAD HAS BEEN REDUCED SINCE CU-01 AND ELECTRIC HEAT IN AHU-01 WILL NOT OPERATE SIMULTANEOUSLY.
3. PROVIDE GFPE BREAKER.
4.

PANEL TOTALS			
PHASE A	68.627	KVA	571.9 AMP
PHASE B	70.864	KVA	590.5 AMP
PHASE C	64.463	KVA	537.2 AMP

PANEL LP1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	O	1.000	FUTURE SOUND RACK	3/4"	12	12	12	20	1.540			20	10	10	10	3/4"	REC RM 101	0.540	R	2
3	O	1.000	FUTURE SOUND RACK	3/4"	12	12	12	20		1.720		20	10	10	10	3/4"	REC RM 101	0.720	R	4
5	R	0.720	REC 101, 102, EXTERIOR	3/4"	12	12	12	20			1.800	20	10	10	10	3/4"	REC RM 101	1.080	R	6
7	R	0.600	REC 103	3/4"	12	12	12	20	1.800			20	10	10	10	3/4"	FUTURE PROJECTOR	1.200	O	8
9	R	0.360	REC 107	3/4"	12	12	12	20		0.860		20	12	12	12	3/4"	FIRE ALARM NAC PANEL (NOTE 1)	0.500	O	10
11	R	0.360	REC 107	3/4"	12	12	12	20			1.160	20	12	12	12	3/4"	HVAC CONTROLS, MOTORIZED DAMPER	0.800	H	12
13	R	0.540	REC MP	3/4"	12	12	12	20	2.790			30	10	10	10	3/4"	WH-1	2.250	O	14
15	L	1.701	LIGHTING RM 101	3/4"	10	10	10	20		3.951								2.250	O	16
17	L	1.215	LIGHTING RM 101	3/4"	10	10	10	20			1.290	20	10	10	12	3/4"	EXTERIOR LIGHTING	0.075	L	18
19	L	0.972	LIGHTING RM 101	3/4"	10	10	10	20	2.978									2.006	M	20
21	L	1.215	LIGHTING RM 101	3/4"	10	10	10	20		3.221		30	10	N/A	10	3/4"	EF-02 (5 HP)	2.006	M	22
23	L	1.046	LIGHTING RM 102,103,105, MP	3/4"	10	10	10	20			3.052							2.006	M	24
25	R	0.720	RECEPT - 101	3/4"	12	12	12	20	1.220			20	12	12	12	3/4"	FIRE ALARM AMPLIFIER CABINET (NOTE 1)	0.500	O	26
27		0.540	REC 101, CHASE	3/4"	12	12	12	20		2.640		25	10	10	10	3/4"	LIGHTING INVERTERN (NOTE 2)	2.100	L	28
29	R	0.794	REC 105, FAN EF-01	3/4"	12	12	12	20			0.794	20					SPARE		O	30
31	O	0.240	BDA SYSTEM (NOTE 1)	3/4"	12	12	12	20	0.240			20					SPARE		O	32
33	R	0.540	REC 101	3/4"	10	10	10	20		0.540		20					SPARE		O	34
35	O		SPARE					20			0.000	20					SPARE		O	36
37	O		SPARE					20	0.000			20					SPARE		O	38
39	O		SPARE					20		0.000		20					SPARE		O	40
41	O		SPARE					20			0.000	20					SPARE		O	42
			LOAD TOTAL:						10.57	12.93	8.10									

208Y/120 V — 3 PHASE — 4 WIRE
MAINS: MCB — 225 A MCB
22000 AIC — SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	7.51	100%	7.51
(M) MOTOR	6.02	100%	6.02
(H) HVAC	0.80	100%	0.80
(L) LIGHTING	8.32	125%	10.41
(O) OTHER	8.94	100%	8.94
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	31.60	107%	33.68

FED FROM: MDP
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE BREAKER LOCK. REFER TO FIRE ALARM SPECIFICATIONS FOR TYPE.
2. COORDINATE BREAKER SIZE WITH MANUFACTURER'S RECOMMENDATION.
3.
4.

PANEL TOTALS			
PHASE A	11.264	KVA	93.9 AMP
PHASE B	13.784	KVA	114.9 AMP
PHASE C	8.629	KVA	71.9 AMP

	TOTAL KVA	TOTAL DIVERSITY	CONNECTED KVA
INTERIOR LIGHTING	5.905	x1.25	7.358
EXTERIOR LIGHTING	0.075	x1.25	0.094
WATER HEATERS	4.5	x1.25	5.6
HVAC (COOLING)	95.83	x1.0	95.83
HVAC (HEAT)	86.113	x0.14	12.82
HVAC AUXILIARIES	0.94	x1.0	0.94
VENTILATION	6.018	x1.0	6.018
GENERAL PURPOSE RECEPTACLES	5.94	x1.0	5.94
DEDICATED LOADS	44.2	x1.0	44.2
	251		179

$$I = \frac{(\ 179\ )\ (1000)}{208\ x\sqrt{3}} = 497\ \text{AMPS}$$

LOAD SUMMARY

CONSULTANT

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKOVICH — 06/13/2024

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SCO ID #17-16813-01C: NCCCS #2163

NO	REVISION	DATE

SEAL

JKF ARCHITECTURE
625 LYNNDALE CT., SUITE F, GREENVILLE, NC 27858 252-355-1068

SAMPSON COMMUNITY COLLEGE ACTIVITIES BUILDING ADDITION
CLINTON, NC

DRAWING TITLE
PANEL SCHEDULES
LOAD SUMMARY

SCALE	DRAWING NO
NO SCALE	E6.1
DRAWN: JPT	
CHECKED: JTB	
DATE: 5-20-2024	
PROJECT NO.: 2016-208	

Project #: 240010
Sheet: E6-1
Plotted By: bbaldwin
Plotted: June 13, 2024 @ 2:03 PM