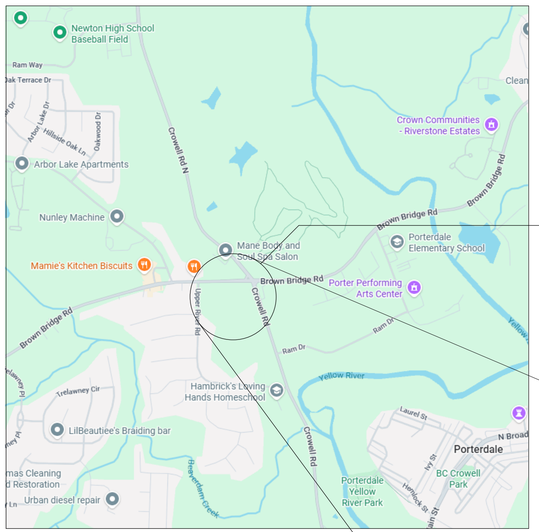
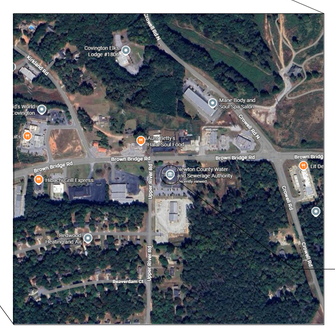
NEWTON COUNTY WATER AND SEWERAGE AUTHORITY

NCWSA OFFICE
11325 BROWN BRIDGE ROAD COVINGTON, GEORGIA, 30016
NCWSA OFFICE ADDITION



SITE



PROJECT LOCATION

CONSTRUCTION DOCUMENTS
4/28/2026

1100 Abernathy Rd, Building 500, Suite 1050
Atlanta, GA 30328
www.wendelcompanies.com
p:678.222.0375 tf:877.293.6335

Wendel Project No. 616202

NEWTON COUNTY WATER AND SEWERAGE AUTHORITY
NCWSA OFFICE
11325 BROWN BRIDGE ROAD
COVINGTON, GEORGIA, 30016

NCWSA OFFICE ADDITION
CONSTRUCTION DOCUMENTS

PROJECT TEAM

PES Structural Engineers
1852 Century Pl NE # 201,
Atlanta, GA 30345
T. 770-457-5923

BUILDING CODE INFORMATION:

PROJECT LOCATION: NEWTON COUNTY WATER AND SEWERAGE AUTHORITY
11325 BROWN BRIDGE ROAD
COVINGTON, GA 30016

PROJECT SCOPE:
THIS PROJECT IS AN ADDITION TO AND RENOVATION OF AN EXISTING ADMINISTRATION BUILDING. THE ADDITION WILL INCLUDE A NEW PUBLIC MEETING SPACE AND OFFICES FOR STAFF.

BUILDING AND FIRE CODES:
2026 BUILDING CODE OF GEORGIA INCLUDE:

- 2024 INTERNATIONAL BUILDING CODE (IBC) w/GEORGIA AMENDMENTS
- 2024 INTERNATIONAL EXISTING BUILDING CODE (IEBC) w/GEORGIA AMENDMENTS
- 2024 INTERNATIONAL PLUMBING CODE (IPC) w/GEORGIA AMENDMENTS
- 2024 INTERNATIONAL MECHANICAL CODE (IMC) w/GEORGIA AMENDMENTS
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2023 NFPA 70, NATIONAL ELECTRIC CODE (NEC) w/GEORGIA AMENDMENTS
- 2010 ADA w/ GEORGIA AMENDMENTS

OCCUPANCY CLASSIFICATION (IBC CH. 3) NOTE: BUILDING FULLY SPRINKLERED
MIXED USE / SEPARATED OCCUPANCY (IBC 508.3)
GROUP A-3 ASSEMBLY / GROUP B BUSINESS

OCCUPANCY SEPARATION (IBC CH.5)
GROUP A-3 ASSEMBLY TO GROUP B BUSINESS:
ONE-HOUR REQUIRED SEPARATION (IBC TABLE 508.3.3)

TYPE OF CONSTRUCTION: ADDITION: TYPE IIB
TYPE IIIB LOBBY & BREAK ROOM ONLY
EXISTING: TYPE IIIB

FULLY SPRINKLERED: YES

FIRE ALARM: YES

EXISTING BUILDING:
CONTINUATION OF EXISTING USE: YES
CHANGE OF USE: ADDING ASSEMBLY FUNCTION TO BUSINESS USE
CLASSIFICATION OF WORK: LEVEL 2

BUILDING HEIGHT AND AREA:
ACTUAL BUILDING HEIGHT: 35' (EXISTING) 29' (ADDITION) , 2 STORIES
ALLOWABLE BUILDING HEIGHT: 75' SF, 4 STORIES

ACTUAL BUILDING AREA: 17,628 SF
ALLOWABLE BUILDING AREA: 109,250 SF
PER TABLE 506.2 $A_a = A_t+(NS \times I_f)$
109,250 SF = 92,000+(23,000 x .75)

MAXIMUM EXIT ACCESS TRAVEL DISTANCE: 175 FT
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 75 FT
MAXIMUM DEAD ENDS IN CORRIDORS: 50 FT

CODE OCCUPANCY SCHEDULE

NAME	AREA	OCCUPANT LOAD FACTOR	CALCULATED OCCUPANCY LOAD	LEVEL
ASSEMBLY, A-1				
BOARD ROOM	1674 SF	7 SF	240	1ST FLOOR- EXISTING
PREFUNCTION	664 SF	5 SF	133	1ST FLOOR- EXISTING
	2339 SF		373	
BUSINESS, B				
BUSINESS (EXISTING)	4046 SF	150 SF	27	1ST FLOOR- EXISTING
BUSINESS (ADDITION)	167 SF	150 SF	2	1ST FLOOR- EXISTING
BUSINESS (ADDITION)	1157 SF	150 SF	8	1ST FLOOR- EXISTING
BUSINESS (ADDITION)	1203 SF	150 SF	9	1ST FLOOR- EXISTING
BUSINESS (RENOVATED)	569 SF	150 SF	4	1ST FLOOR- EXISTING
BUSINESS (RENOVATED)	549 SF	150 SF	4	1ST FLOOR- EXISTING
BUSINESS (ADDITION)	3619 SF	150 SF	25	2ND FLOOR - ADDITION
BUSINESS (RENOVATED)	3231 SF	150 SF	22	2ND FLOOR - ADDITION
BUSINESS (EXISTING)	243 SF	150 SF	2	2ND FLOOR - ADDITION
BUSINESS (EXISTING)	506 SF	150 SF	4	2ND FLOOR - ADDITION
	15289 SF		107	
BUILDING TOTAL	17628 SF		480	

PLUMBING FIXTURE COUNTS
BUSINESS (B) 107 OCCUPANTS/2 = 54 MALE/ 54 FEMALE
ASSEMBLY (A) 373 OCCUPANTS/2 = 186 MALE/186 FEMALE

ASSEMBLY
WATER CLOSETS
MALE(1 PER 125): 187(A) > 2 WC
FEMALE (1 PER 65): 187(A) > 3 WC

LAVATORIES
MALE(1 PER 200): 187(A) > 1 LAV
FEMALE (1 PER 200): 187(A) > 1 LAV

DRINKING FOUNTAIN (1 PER 500): 373(A) > 1 DF

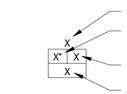
SERVICE SINK: 1 SS

BUSINESS
WATER CLOSETS
MALE(FIRST 50 - 1 PER 25, REMAINDER - 1 PER 50): 43(B) > 2 WC
FEMALE (FIRST 50 - 1 PER 25, REMAINDER - 1 PER 50): 43(B) > 2 WC

LAVATORIES
MALE(FIRST 80 - 1 PER 40, REMAINDER - 1 PER 80): 54(B) > 2 LAV
FEMALE (FIRST 80 - 1 PER 40, REMAINDER - 1 PER 80): 54(B) > 2 LAV

DRINKING FOUNTAIN (1 PER 100): 86(B) > 1 DF

SERVICE SINK: 1 SS



DOOR NUMBER OR STAIR NUMBER
EGRESS WIDTH
EGRESS CAPACITY
ANTICIPATED LOAD

FE FEC — FIRE EXTINGUISHER / FIRE EXTINGUISHER CABINET

1 HOUR FIRE-RESISTANCE RATED CONSTRUCTION

2 HOUR FIRE-RESISTANCE RATED CONSTRUCTION

3 HOUR FIRE-RESISTANCE RATED CONSTRUCTION

S S — 1 HOUR FIRE-RESISTANCE/SMOKE BARRIER RATED CONSTRUCTION

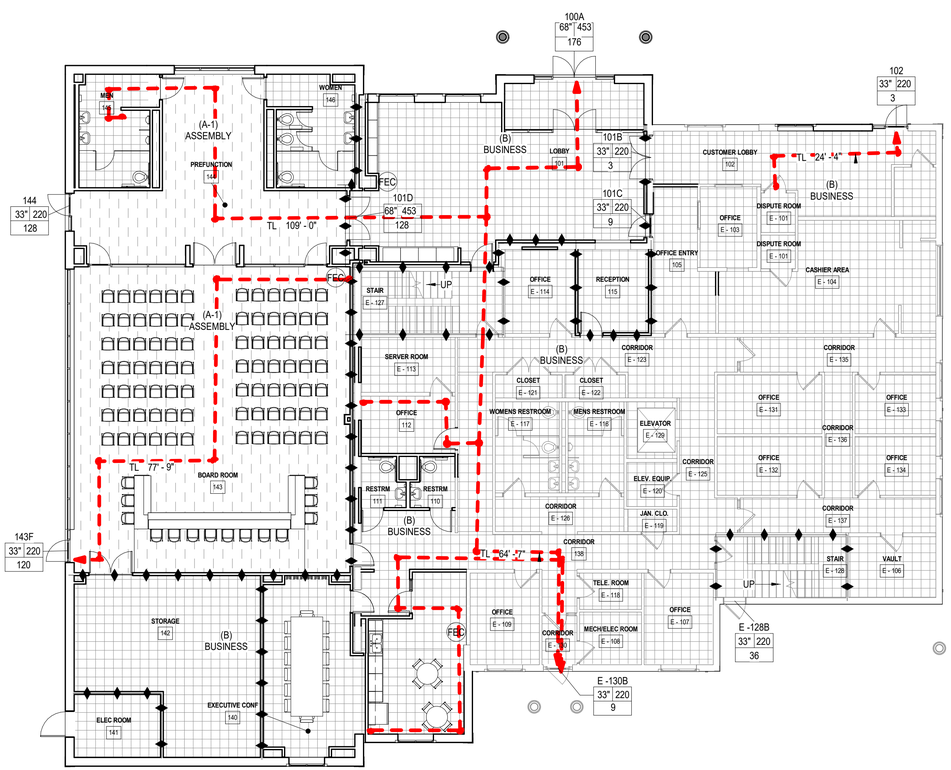
TL X' - X" — EXIT ACCESS TRAVEL DISTANCE LABEL
CP X' - X" — COMMON PATH OF TRAVEL DISTANCE LABEL
PATH OF TRAVEL

(A-3)
OCC CLASSIFICATION — FUNCTION BY IBC CHAPTER 10

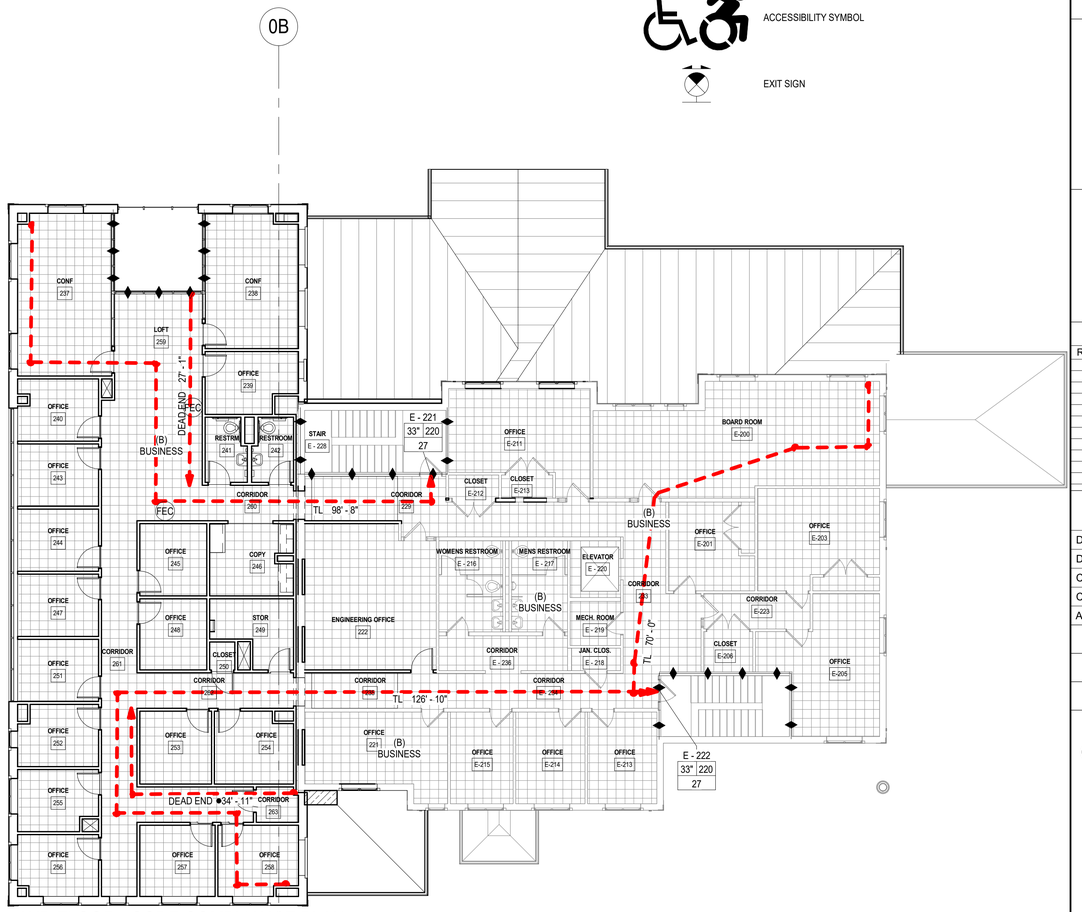
AOR — AREA OF REFUGE

ACCESSIBILITY SYMBOL

EXIT SIGN



1 1ST FLOOR CODE COMPLIANCE PLAN
SCALE: 3/32" = 1'-0"



2 2ND FLOOR - CODE COMPLIANCE PLAN
SCALE: 3/32" = 1'-0"

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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CONSTRUCTION DOCUMENTS

NCWSA
NEWTON COUNTY WATER & SEWERAGE AUTHORITY

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REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

CODE COMPLIANCE

DRAWING NUMBER
G101

Plot Date: 4/27/2026 11:26:41 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt

DRAWING INDEX

SHEET NUMBER	SHEET NAME	REVISION NUMBER	REVISION DATE
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G101	CODE COMPLIANCE		
CIVIL			
C001	CIVIL GENERAL NOTES AND LEGEND		
C010	SITE DETAILS 1		
C011	SITE DETAILS 2		
CD101	EXISTING SITE CONDITIONS AND DEMOLITION PLAN		
C201	PROPOSED SITE PLAN		
C207	SEDIMENT AND EROSION CONTROL NOTES 1		
C213	SEDIMENT AND EROSION CONTROL PLAN		
C214	SEDIMENT AND EROSION CONTROL DETAILS 1		
C215	SEDIMENT AND EROSION CONTROL DETAILS 2		
C216	SEDIMENT AND EROSION CONTROL DETAILS 3		
C401	SITE UTILITY PLAN		
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S002	DESIGN CRITERIA		
S002A	LOAD MAPS		
S003	CONCRETE GENERAL NOTES & SCHEDULES		
S005	STEEL GENERAL NOTES & SCHEDULES		
S006	WOOD GENERAL NOTES		
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S103	ROOF FRAMING PLAN		
S201	WOOD WALL ELEVATIONS		
S202	WOOD SHEAR WALL ELEVATIONS		
S301	DETAILS		
S311	SLAB-ON-GROUND DETAILS		
S312	SLAB-ON-GROUND DETAILS		
S313	SLAB-ON-GROUND DETAILS		
S501	STEEL FRAMING DETAILS		
S511	COMPOSITE STEEL FRAMING DETAILS		
S512	COMPOSITE STEEL FRAMING DETAILS		
S513	COMPOSITE STEEL FRAMING DETAILS		
S521	STEEL ROOF FRAMING DETAILS		
S522	STEEL ROOF FRAMING DETAILS		
S523	STEEL ROOF FRAMING DETAILS		
S601	WOOD ROOF FRAMING DETAILS		
S602	WOOD ROOF FRAMING DETAILS		
S611	WOOD SHEAR WALL AND DIAPHRAM DETAILS		
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A002	ACCESSIBILITY FIGURES		
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AD102	2ND FLOOR - DEMO PLANS		
AD103	ROOF - DEMO PLANS		
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A352	WALL SECTIONS		
A353	WALL SECTIONS		
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A452	DETAILS		
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A601	INTERIOR ELEVATIONS		
A602	INTERIOR ELEVATIONS		
A603	INTERIOR ELEVATIONS		
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A800	INTERIOR SECTION DETAILS CASEWORK AND MILLWORK		
A801	INTERIOR SECTION DETAILS CASEWORK AND MILLWORK		
A900	INTERIOR PARTITION TYPES AND DETAILS		
A920	DOOR SCHEDULE AND DETAILS		
A921	WINDOW TYPES		
A950	FIRST FLOOR FINISH PLAN		

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SHEET NUMBER	SHEET NAME	REVISION NUMBER	REVISION DATE
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FIRE PROTECTION			
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FP101	FIRST FLOOR PLAN		
FP102	SECOND FLOOR PLAN		
FP103	ATTIC PLAN		
PLUMBING			
P001	SYMBOLS, ABBREVIATIONS, GENERAL NOTES		
P101	BELOW GRADE PLAN		
P102	FIRST FLOOR PLAN		
P103	SECOND FLOOR PLAN		
P104	ROOF PLAN		
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M101	FIRST FLOOR NEW WORK PLAN		
M102	SECOND FLOOR NEW WORK PLAN		
M103	ROOF PLAN		
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E002	SYMBOLS, NOTES, & ABBREVIATIONS		
ED101	FIRST FLOOR LIGHTING PLAN - DEMOLITION		
ED102	SECOND FLOOR LIGHTING PLAN - DEMOLITION		
ED103	FIRST FLOOR POWER & SYSTEMS PLAN - DEMOLITION		
ED104	SECOND FLOOR POWER & SYSTEMS PLAN - DEMOLITION		
E100	ELECTRICAL SITE PLAN		
E101	FIRST FLOOR LIGHTING PLAN - NEW WORK		
E102	SECOND FLOOR LIGHTING PLAN - NEW WORK		
E103	FIRST FLOOR POWER & SYSTEMS PLAN - NEW WORK		
E104	SECOND FLOOR POWER & SYSTEMS PLAN - NEW WORK		
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E402	ELECTRICAL DETAILS		
E501	LUMINAIRE SCHEDULE		
E502	MECHANICAL EQUIPMENT CONNECTIONS SCHEDULE		
E503	PANELBOARD SCHEDULES		
E601	SINGLE LINE DIAGRAM		
E701	FIRE ALARM RISER DIAGRAM		
E702	FIRE ALARM DETAILS		

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BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES
AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver

FILENAME

BC PROJECT NUMBER
616202

CLIENT PROJECT NUMBER

SHEET LIST

DRAWING NUMBER
G002

Plot Date: 4/27/2026 11:26:42 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFWAJ7.rvt

GENERAL NOTES:

1. THE INFORMATION PROVIDED IN THESE DRAWINGS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTOR IS DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH BIDS WILL BE BASED.
2. DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD)88 & HORIZONTAL DATUM OF NAD83/2011.
3. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE INFORMATION.
4. ANY N.A.V.D BENCH MARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED AND PROPERLY REFERENCED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE GEORGIA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THE SITE.
5. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED BY THE CONTRACTOR AS FOLLOWS: CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK AND IN DANGER OF BEING DAMAGED, DESTROYED, OR COVERED SHALL BE PROPERLY REFERENCED BY A REGISTERED-LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE GEORGIA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THE SITE. THE CONTRACTOR SHALL RETAIN LAND SURVEYOR TO REFERENCE AND RESTORE UPON COMPLETION OF THE WORK, ALL SUCH CORNERS AND MONUMENTS AND SHALL FURNISH TO DEKALB COUNTY A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWING.
6. ALL NORTHINGS AND EASTINGS REFER TO EDGE OF CONSTRUCTION, UNLESS OTHERWISE STATED.
7. ALL FINAL GRADES SHALL BE IMPLEMENTED BY THE CONTRACTOR WITH COORDINATION TO THE ENGINEER OF RECORD.
8. ANY CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE NEWTON COUNTY , STATE AND FEDERAL AGENCY WITH JURISDICTION. IT IS THE INTENT OF THESE DRAWINGS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND APPLICABLE CODES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF NEWTON COUNTY.
9. EXISTING TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A SURVEY PREPARED BY GASKINS+LECRAW INC., MARCH 19, 2025.
10. EXISTING INVERT ELEVATIONS WERE OBTAINED FROM THE SUBSURFACE SURVEY PROVIDED BY GASKINS+LECRAW INC., MARCH 19, 2025. THE RESULTS OF THIS SUBSURFACE SURVEY ARE PROVIDED IN THESE DRAWINGS.
11. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD AND UNDERGROUND UTILITIES.
12. NEWTON COUNTY REQUIRES THAT THE ACCESS TO ALL WATER AND SEWER VALVES, SANITARY MANHOLES, AND OTHER CONTROL MECHANISM BE MAINTAINED THROUGHOUT CONSTRUCTION IN THE EVENT OF AN EMERGENCY. COVERING VALVE BOXES OR MANHOLES CAN BE CONSIDERED OBSTRUCTION AND TAMPERING WITH DEPARTMENT UTILITIES. ALL REQUESTS FOR UTILITY ADJUSTMENTS MUST BE MADE IN WRITING AT LEAST TWO (2) WEEKS IN ADVANCE.
13. THERE ARE KNOWN UTILITIES WITHIN THE PROJECT SITE. THESE INCLUDE BUT NOT LIMITED TO ALL OF THE UTILITIES SHOWN ON THE SUE SURVEY BY GASKINS+LECRAW INC..
14. IF SHEETING, SHORING, OR DEWATERING ARE NECESSARY, THE CONTRACTOR MUST MONITOR AND CONTROL ALL WORK THAT MAY CAUSE CRACKING TO ANY ADJACENT BUILDING, STRUCTURE, OR PROPERTY AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THESE OPERATIONS, COST OF SHEETING, SHORING, OR DEWATERING SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.
15. ALL GRASS AREAS AFFECTED SHALL BE RE-SODDED. ANY GRASS AREA WITH 3:1 SLOPES AFFECTED SHALL BE SEEDED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE DEWATERING PERMIT. COST OF THE PERMIT AND DEWATERING SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.
17. THE CONTRACTOR SHALL RESTRICT PERSONNEL, THE USE OF EQUIPMENT, AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION AND DESIGNATED STAGING AREAS.
18. ALL DITCH EXCAVATIONS SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE PROVISIONS OF THE TRENCH SAFETY ACT.
19. ALL EXCESS MATERIAL, AS DESIGNATED BY THE CONTRACTOR, IS TO BE DISPOSED BY THE CONTRACTOR WITHIN 72 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.
20. ALL DISPOSAL OF MATERIALS, RUBBISH AND DEBRIS SHALL BE MADE AT A LEGAL DISPOSAL SITE OR BY OTHER PRIOR APPROVED MANNER. MATERIAL CLEARED FROM THE SITE AND DEPOSITED ON ADJACENT AREAS WILL NOT BE CONSIDERED AS HAVING BEEN DISPOSED PROPERLY. OWNERSHIP OF DEMOLISHED MATERIAL SHALL BE SPECIFIED AND A CHAIN OF CUSTODY PROVIDED TO NEWTON COUNTY.
21. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO NEWTON COUNTY, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE NEWTON COUNTY WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR WILL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE NEWTON COUNTY.
22. EXISTING ABOVE GROUND FEATURES ARE SHOWN ACCORDING TO THE BEST AVAILABLE DATA AND MAY NOT BE ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF/HERSELF WITH CURRENT CONDITIONS, AND SHALL REPORT DISCREPANCIES TO THE ENGINEER OF RECORD PRIOR TO STARTING WORK.
23. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, AND UTILITIES SHOWN AND NOT SHOWN ON THE DRAWINGS. ANY STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS DAMAGED, EXPOSED OR ANY WAY DISTURBED SHALL BE REPAIRED, PATCHED, OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
24. CONTRACTOR SHALL AVOID THE REMOVAL AND ANY DAMAGE TO ANY EXISTING TREES UNLESS OTHERWISE DIRECTED BY THE CONTRACT DOCUMENTS.

BURIED UTILITY NOTES:

1. EXISTING UTILITIES ARE CONSIDERED TO BE SHOWN IN THE HORIZONTAL DRAWING WITH REASONABLE ACCURACY. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE WHATEVER FURTHER INVESTIGATIONS ARE NECESSARY TO ESTABLISH THE EXACT LOCATION OF THE EXISTING UTILITY AND ADJUST ROUTING OF NEW UTILITY FACILITIES PRIOR TO LAYING THE NEW UTILITIES TO MEET THE INTENT OF THE DESIGN. ALL MODIFIED ROUTING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
2. EXPLORATORY OR PRE-TRENCHING IN THE ALIGNMENT AND GRADE OF THE PROPOSED, UTILITIES, STRUCTURES, FRENCH DRAINS AND CONDUITS, POLE FOUNDATIONS AND/OR SUB GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF ITS CONSTRUCTION AS DIRECTED BY THE COUNTY. THE CONTRACTOR SHALL PROVIDE NEWTON COUNTY AND UNDERGROUND UTILITY OWNERS WITH IMMEDIATE NOTIFICATION OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND POSSIBLE CONFLICTS. PAYMENT FOR EXPLORATORY OR PRE-TRENCHING SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST RELATED TO THE BID ITEM.
3. PROVIDE A CONSTANT SLOPE ON ALL REACHES OF PIPES BETWEEN VENTS AND DRAINS. SLOPE PIPE AS REQUIRED AND IN A MANNER THAT MINIMIZES THE NUMBER OF VENTS AND DRAINS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING EXISTING UTILITIES THAT INTERFERE WITH THE INSTALLATION OF NEW UTILITIES, AND TO OTHERWISE DEFINE A ROUTING FOR ALL NEW UTILITIES OVER, UNDER, OR AROUND THE REMAINING EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE RELOCATION OF EXISTING UTILITIES. THE CONTRACTOR IS ADVISED THAT TRENCH EXCAVATION FOR EXISTING UTILITIES MAY BE AS DEEP AS ±10 FEET TO ALLOW FOR ACCEPTABLE ROUTING.
5. WHERE PIPE ELEVATIONS ARE NOT GIVEN, MINIMUM 2.5 FEET OF COVER IS REQUIRED.
6. THE ENGINEER OF RECORD AND NEWTON COUNTY DO NOT ASSUME RESPONSIBILITY THAT DURING CONSTRUCTION UNDERGROUND PIPING AND UTILITIES OTHER THAN THAT SHOWN MAY BE ENCOUNTERED. ANY DAMAGE TO EXISTING PIPING AND UTILITIES MUST BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR.
7. UNLESS OTHERWISE INDICATED IN THE DRAWINGS ALL NEW VERTICAL TRANSITIONS BELOW GRADE SHALL BE ACCOMPLISHED USING 45 DEGREE ELBOWS TO BE APPROVED BY NEWTON COUNTY ON A CASE BY CASE BASIS ONLY.
8. WATERLINE SHALL BE UPDATED TO TIE-IN TO EXISTING WATERMAIN. FIRELINE SHALL SPLIT FROM WATERLINE FOR FIRE PROTECTION ON THE BUILDING.

SOIL BORING NOTES:

1. GEOTECHNICAL REPORT WAS PREPARED BY MC SQUARED LLC, DATED JANUARY 9, 2025.

CIVIL SITE DESIGNATIONS

- SS — SANITARY SEWER
- W — WATER
- GAS — GAS
- PIPE DIAMETERS 10" AND OVER
- TO BE DEMOLISHED
- FIRE HYDRANT
- WATER VALVE
- (M) WATER METER

EARTHWORK SYMBOLS

- ASPHALT
- CONCRETE
- GRAVEL
- EL:xxxx.00 — SPOT ELEVATION
- STORM DRAINAGE PIPE FLOW
- YARD PIPE FLOW

SURVEY UTILITY LINES

- FOC — FIBER OPTICS
- G — GAS
- W — WATER
- SS — SANITARY SEWER
- ST — STORM DRAINAGE
- UE — UNDERGROUND ELECTRIC
- UTL — UTILITY
- P — POWER

ABBREVIATIONS

A		**R**	
ASPH	ASPHALT	R/W	RIGHT OF WAY
AVE	AVENUE	**S**	
C		SOE	SUPPORT OF EXCAVATION
CLF	CHAIN LINK FENCE	SSMH	SANITARY SEWER MAN HOLE
CO	CLEAN OUT	**U**	
E		UNK	UNKNOWN
ESMT	EASEMENT	**V**	
EOP	EDGE OF PAVEMENT	VLT	VAULT
M		**W**	
MON	MONUMENT	WV	WATER VALVE

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ATLANTA, GA 30328

wendel

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PRELIMINARY DESIGN

NCWSA — NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: B.FLIEG
DRAWN: B.FLIEG
CHECKED: K.DEVENDORF
CHECKED:
APPROVED:

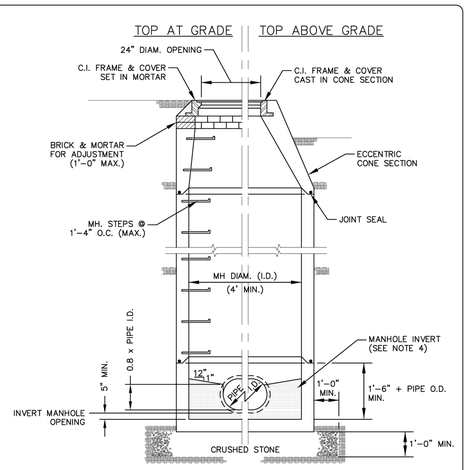
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BC PROJECT NUMBER
203000
CLIENT PROJECT NUMBER

CIVIL

CIVIL GENERAL NOTES AND LEGEND

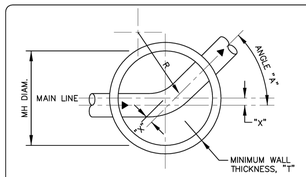
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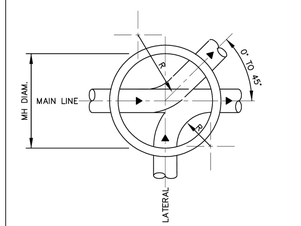


NOTES:
1. PRECAST CONCRETE SECTIONS SHALL MEET THE REQUIREMENTS OF ASTM C 478. MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN PRECAST SECTIONS SHALL BE 4000 PSI.
2. SEAL ALL JOINTS AND LIFT HOLES, BOTH INSIDE AND OUT, WITH GROUT. THIS IS IN ADDITION TO JOINT SEALANT BETWEEN SECTIONS.
3. PROVIDE UNIFORM BEDDING OF THE BOTTOM TO PREVENT UNEVEN LOADING.
4. SEE DETAIL B-7 FOR INVERT CONSTRUCTION REQUIREMENTS.

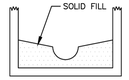
PRECAST CONCRETE MANHOLE
NOT TO SCALE
REVISED AUGUST 2021
STANDARD DETAIL NO. B-1



MAIN LINE ONLY



MAIN LINE WITH LATERAL

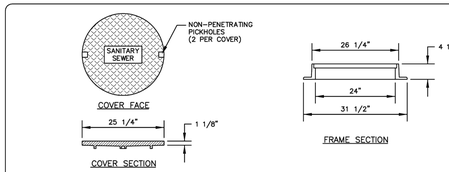


PRECAST OR FIELD-INSTALLED INVERT

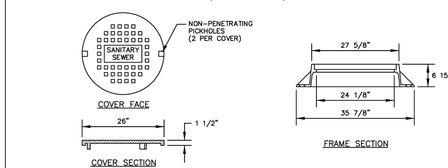
STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS				
PIPE SIZE	ANGLE "A"	MH DIAM.	"T"	"X"
6" TO 16"	0° TO 90°	4'-0"	5"	0"
18" TO 24"	0° TO 60°	4'-0"	5"	0"
18" TO 24"	60° TO 90°	5'-0"	6"	6"

NOTES:
1. MINIMUM ℄ RADIUS OF M.H. INVERT R = 1.5 x PIPE DIAMETER.
2. ROUND AND TROWEL INVERTS SMOOTH.
3. PROVIDE 0.2 FOOT DROP ACROSS INVERT.
4. NO FIELD MODIFICATION OF PRECAST INVERTS SHALL BE ALLOWED.
5. MAXIMUM GROUT SPACING BETWEEN BRICK SHALL BE 3/8".

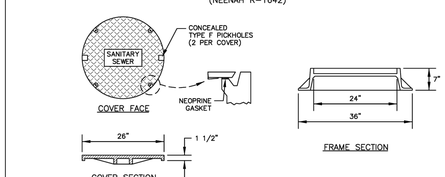
MANHOLE INVERTS
NOT TO SCALE
REVISED AUGUST 2021
STANDARD DETAIL NO. B-7



STANDARD INSTALLATION
(NEENAH R-1695)

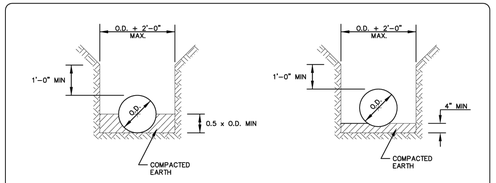


TRAFFIC INSTALLATION
(NEENAH R-1642)



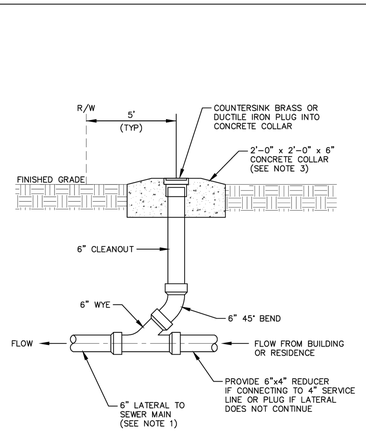
WATERTIGHT INSTALLATION
(NEENAH R-1916F)

MANHOLE FRAME AND COVER
NOT TO SCALE
REVISED AUGUST 2021
STANDARD DETAIL NO. B-6



NOTES:
1. STONE SHALL BE #57 STONE COARSE AGGREGATE IN ACCORDANCE WITH GDOT SPECIFICATION SECTION 800.
2. GRAVITY SEWERS:
   A. PVC GRAVITY SEWER SHALL UTILIZE TYPE 4 BEDDING AT A MINIMUM.
   B. DIP GRAVITY SEWERS SHALL UTILIZE TYPE 5 BEDDING AT A MINIMUM.
3. FORCE MAINS:
   A. PVC PIPE SHALL UTILIZE TYPE 2 BEDDING AT A MINIMUM.
   B. DIP PUSH-ON PIPE SHALL UTILIZE TYPE 2 BEDDING AT A MINIMUM.
   C. DIP RESTRAINED JOINT PIPE SHALL UTILIZE TYPE 3 BEDDING AT A MINIMUM.
4. TYPE 6 BEDDING SHALL BE USED IN WET TRENCH CONDITIONS AND FOR ALL PVC PIPE CONSTRUCTED WITH COVER GREATER THAN 14 FEET.

SEWER PIPE BEDDING
NOT TO SCALE
REVISED AUGUST 2021
STANDARD DETAIL NO. B-8



NOTES:
1. SEE DETAIL B-11 FOR LATERAL CONNECTION TO NCWSA SEWER.
2. ALL SERVICE LINES AND CLEANOUT PIPING MATERIALS, EXCEPT PLUG, SHALL BE SOLVENT WELD PVC.
3. TYPE II CONCRETE IN ACCORDANCE WITH ASTM C 150 FOR ALL UNPAVED AREAS. CENTER WITH #4 REBAR EA. SIDE, EA. WAY.
4. CLEANOUTS SHALL NOT BE INSTALLED WITHIN DRIVEWAYS.

CLEANOUT
NOT TO SCALE
REVISED AUGUST 2021
STANDARD DETAIL NO. B-12

BROWN AND CALDWELL
990 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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PRELIMINARY DESIGN

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: B.FLIEG
DRAWN: B.FLIEG
CHECKED: K.DEVENDORF
CHECKED:
APPROVED:

FILENAME
203000-C-010.dwg

BC PROJECT NUMBER
203000

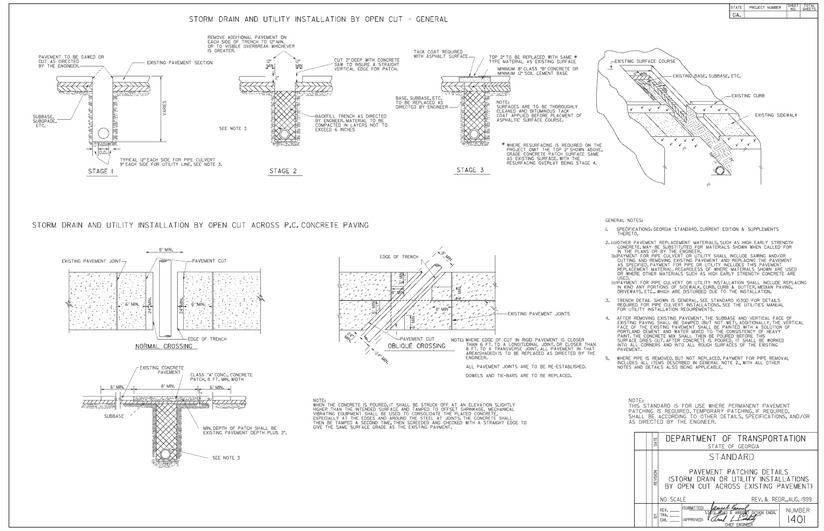
CLIENT PROJECT NUMBER

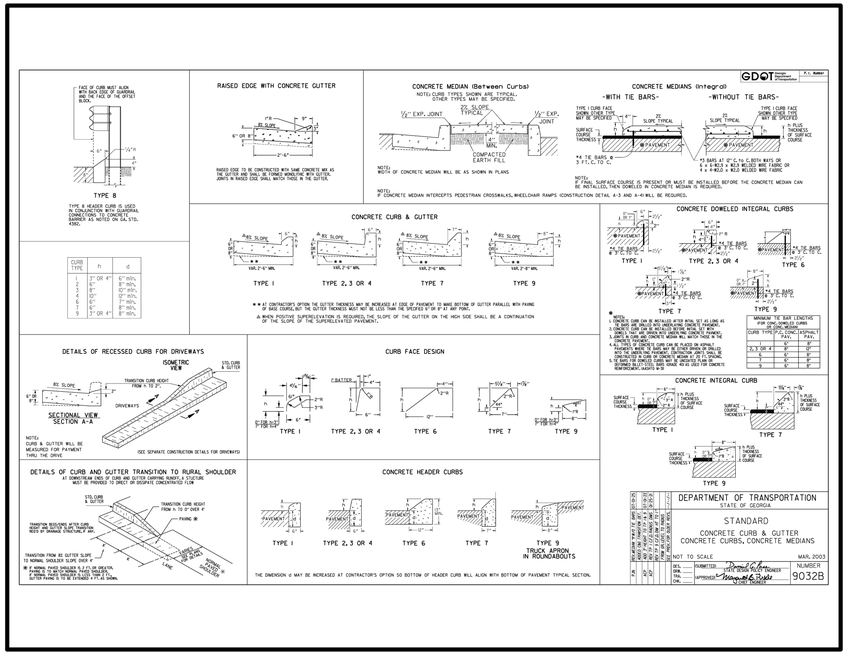
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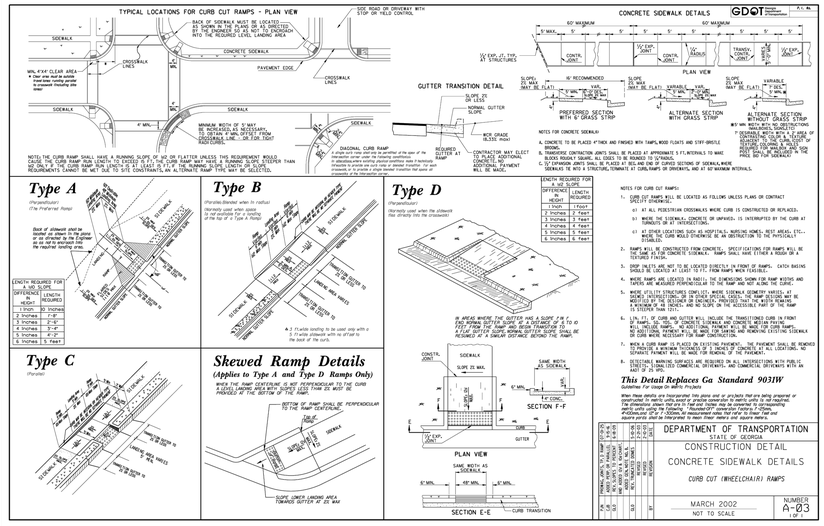
SITE DETAILS 1

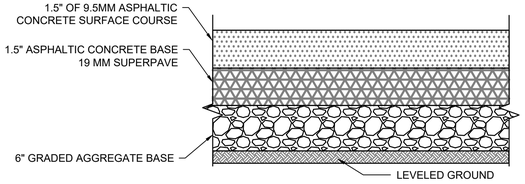
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A MEDIUM DUTY ASPHALT PAVEMENT
DETAIL:NTS

BROWN AND CALDWELL
990 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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ADMINISTRATION BUILDING EXPANSION PROJECT

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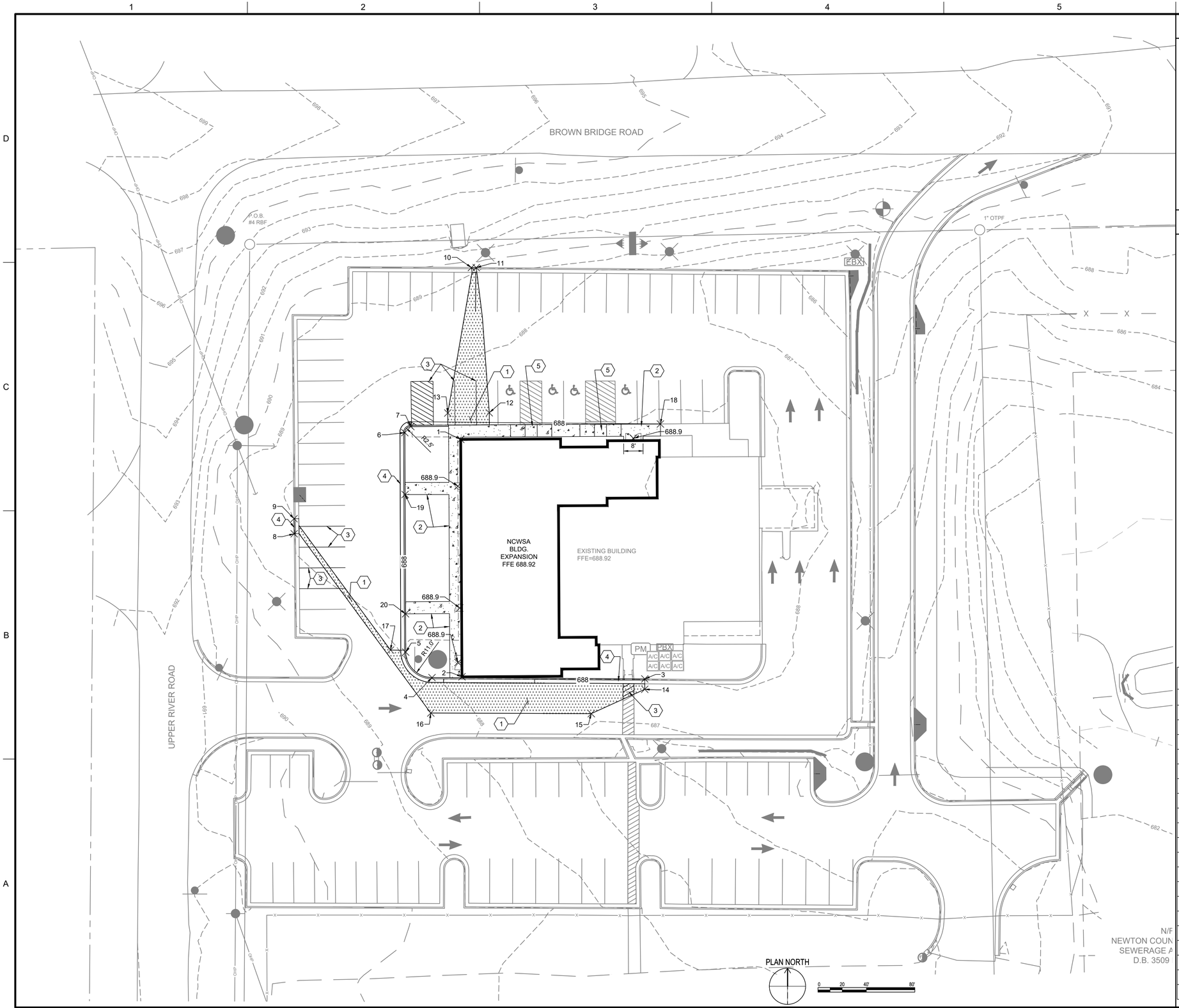
FILENAME 203000-C-011.dwg
BC PROJECT NUMBER 203000
CLIENT PROJECT NUMBER

CIVIL

SITE DETAILS 2

DRAWING NUMBER C-011

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GENERAL NOTES:

1. EXISTING TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A SURVEY PREPARED BY GASKINS & LECRAW, INC. DATED 3-19-2025.
2. EXISTING PORTION OF SITE LOCATED TO THE EAST OF THE ADMINISTRATION BUILDING, CONTAINING DRY EXTENDED DETENTION BASIN 'A' WAS OBTAINED FROM THE STORMWATER MANAGEMENT REPORT PREPARED BY PRECISION PLANNING INC. DATED OCTOBER 15, 2020.

KEYNOTES:

1. ASPHALT PAVEMENT REPLACEMENT, SEE DETAIL 1401/C-011.
2. 5' WIDE CONCRETE SIDEWALK, SEE DETAIL A-03/C-011.
3. PAVEMENT STRIPING. MATCH EXISTING.
4. CONCRETE CURB AND GUTTER, TYPE 2, SEE DETAIL 9032B/C-011
5. SIDEWALK RAMP, SEE DETAIL A-03, TYPE B/C-011

Point Table

Point #	Elevation	Northing	Easting	Description
1	688.60	1303751.86	2374221.32	CORNER OF BLDG
2	688.70	1303653.86	2374221.82	CORNER OF BLDG
3	688.80	1303652.99	2374297.31	BACK OF CURB
4	688.56	1303653.54	2374209.44	BACK OF CURB
5	688.50	1303664.06	2374198.58	BACK OF CURB
6	688.50	1303754.65	2374198.23	BACK OF CURB
7	688.50	1303757.16	2374200.72	BACK OF CURB
8	688.00	1303712.90	2374152.55	BACK OF CURB
9	688.00	1303719.12	2374152.47	BACK OF CURB
10	689.57	1303822.75	2374225.72	BACK OF CURB
11	689.34	1303822.74	2374227.71	BACK OF CURB
12	688.00	1303762.84	2374233.11	ASPHALT
13	688.00	1303762.74	2374215.97	ASPHALT
14	687.80	1303648.73	2374297.29	ASPHALT
15	687.20	1303638.67	2374275.22	ASPHALT
16	688.47	1303638.93	2374208.94	ASPHALT
17	688.13	1303664.92	2374192.32	ASPHALT
18	688.50	1303758.21	2374303.77	SIDEWALK
19	688.50	1303729.09	2374198.33	SIDEWALK
20	688.50	1303679.85	2374198.52	SIDEWALK

Brown AND Caldwell
BROWN AND CALDWELL
990 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

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NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

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CHECKED: K.DEVENDORF
CHECKED:
APPROVED:

FILENAME
203000-C-201.dwg
BC PROJECT NUMBER
203000
CLIENT PROJECT NUMBER

CIVIL

PROPOSED SITE PLAN

DRAWING NUMBER
C-201

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PROJECT: NCWSA BUILDING EXPANSION

FIRM MAP: 13217C0108D, DATED MARCH 17, 2014

CERTIFIED DESIGN PROFESSIONAL:
NAME: KIMBERLY DEVENDORF
LEVEL II CERTIFICATION NUMBER: 000018852
(SEE TITLEBLOCK FOR SIGNATURE AND SEAL)

24-HOUR LOCAL EMERGENCY CONTACT
NAME: NEWTON COUNTY PUBLIC WORKS
PHONE NUMBER: (678) 625-1300

PRIMARY PERMITTEE
NAME: NEWTON COUNTY WATER AND SEWERAGE AUTHORITY, NEWTON COUNTY
ADDRESS: 11325 BROWN BRIDGE RD., COVINGTON, GA 30016
EMAIL ADDRESS: (770) 787-1375
PHONE NUMBER: 787-1375

SITE INFORMATION (ACREAGE)
TOTAL SITE AREA: 5.15 ACRES
TOTAL DISTURBED AREA: 0.27 ACRES

GPS LOCATION OF CONSTRUCTION EXIT #1(IN DECIMAL DEGREES):
LATITUDE: 33.5836100989
LONGITUDE: -83.9120721817

INITIAL DATE OF THE PLANS:
SEE COVER SHEET AND/OR TITLE BLOCK FOR INFORMATION.

DESCRIPTION OF THE NATURE OF CONSTRUCTION ACTIVITY:

EXISTING SITE: EXISTING SITE IS LOCATED ON THE PROPERTY OF THE NCWSA ADMINISTRATION BUILDING. THE BUILDING IS IN USE BY THE NEWTON COUNTY WATER AND SEWERAGE AUTHORITY.

PROPOSED SITE: THE PROPOSED SCOPE OF WORK WILL BE AN EXPANSION OF THE EXISTING BUILDING +/- 5,140 SQFT. THERE WILL INCLUDE UPDATED ASSOCIATED UTILITIES.

VICINITY MAP:



VICINITY MAP
N.T.S.

RECEIVING WATERS (WARM WATER & FISHERIES STREAM)
NAME OF WATER(S) OR IF UNNAMED, NAME OF FIRST BLUE LINE STREAM: SOUTH RIVER
IF DISCHARGING TO A SEPARATE STORM SYSTEM: N/A
GOVERNMENT OPERATING SYSTEM: N/A
DESCRIPTION OF ADJACENT SENSITIVE AREAS THAT MAY BE AFFECTED: SOUTH RIVER TO THE SOUTH OF THE SITE AND WETLANDS ON THE EAST SIDE OF THE SITE.

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES

THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION.

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

BUFFER ENCROACHMENTS
DESCRIPTION: CONSTRUCTION ACTIVITIES DO NOT ENCROACH ANY STREAM BUFFER.

BUFFER VARIANCE REQUIRED? _____ YES, X NO

AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

EROSION AND SILTATION CONTROL DEVICES MUST BE INSTALLED PRIOR TO START OF OTHER CONSTRUCTION AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

ANY FAILURE OF ANY EROSION CONTROL DEVICE TO FUNCTION AS INTENDED FOR ANY REASON SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

ALL DISTURBED AREAS ARE TO BE GRASSED AS SOON AS CONSTRUCTION PHASE PERMITS. TEMPORARY MULCHING SHALL BE UTILIZED DURING THE PERIOD OF GERMINATION OF GRASS SEEDINGS USING STRAW OR HAY MULCH, JUTE MATTING OR SYNTHETIC FIBERS.

ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL CONFORM TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA AND ANY APPLICABLE LOCAL REGULATIONS.

EROSION CONTROL DEVICES WILL BE PROPERLY INSTALLED PRIOR TO SITE DISTURBANCE, MAINTAINED IN GOOD WORKING CONDITION UNTIL COMPLETION OF PROJECT, AND REPLACED WHEN EFFECTIVENESS IS REDUCED TO 50%.

ALL DISTURBED AREAS ARE TO BE STABILIZED WITH SUITABLE PERENNIAL VEGETATION, ACCORDING TO SOIL CONSERVATION SERVICE OR GEORGIA EXTENSION SERVICE SPECIFICATIONS, IMMEDIATELY FOLLOWING THE COMPLETION OF GRADING.

STRIPPING OF VEGETATION, GRADING OR OTHER DEVELOPMENT ACTIVITIES SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION.

WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED.

ALL SEDIMENT COLLECTED DURING MAINTENANCE OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED FROM THE SITE OR SPREAD IN LANDSCAPED OR NATURALLY VEGETATED AREAS, SEEDED AND COVERED WITH STRAW.

DETENTION FACILITIES AND EROSION AND SILTATION CONTROL DEVICES MUST BE INSTALLED PRIOR TO START OF OTHER CONSTRUCTION AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. THE DEVICES SHALL BE MOVED AND ADJUSTED AS NEEDED TO KEEP A FUNCTIONING SYSTEM THROUGHOUT CONSTRUCTION. EROSION CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO CONSTRUCTION EXITS, SILT FENCE, STORM INLET/OUTLET PROTECTION, DIVERSION DIKE OR DOWNDRAINS ON LONG STEEP SLOPES AND TEMPORARY GRASSING.

SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE ½ FULL VOLUME.

MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.

MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.

SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.

SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 TEMPORARY SILT FENCE, OF THE GEORGIA STANDARD SPECIFICATIONS, 1993 EDITION AND BE WIRE REINFORCED.

THE PROPERTY OWNER AND CONTRACTOR ARE EQUALLY RESPONSIBLE FOR ALL EROSION CONTROL ACTIVITIES.

ALL TEMPORARY AND PERMANENT SEEDING MUST BE PREFORMED AT THE APPROPRIATE SEASON. IN SUCH INSTANCES WHERE THE ESTABLISHMENT OF VEGETATION IS INOPPORTUNE DUE TO SEASON OR DROUGHT, DISTURBED AREAS SHALL BE TEMPORARY STABILIZED USING 2"-4" OF MULCH (Ds1). ADDITIONAL PLANTINGS WILL BE NECESSARY IF A SUFFICIENT STAND OF GRASS FAILS TO GROW.

THE CITY'S DESIGNEE WILL VERIFY ADEQUATE COVER (100% COVER, 70% DENSITY) OF PERMANENT STABILIZATION (Ds3, Ds4).

SEDIMENT STORAGE VOLUME @ 67 CY/ACRE MUST BE INSTALLED PRIOR TO ANY OTHER LAND DISTURBANCE ACTIVITY AND IN PLACE UNTIL FINAL STABILIZATION OCCURS.

PRODUCT SPECIFIC PRACTICES

CONCRETE TRUCKS: CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASHOUT OR DISCHARGE SURPLUS CONCRETE DRUM WASH ON SITE. WASH AREAS, IF CONSTRUCTED, WILL CONSIST OF AN ENCLOSED WASTE COLLECTION AREA THAT WILL CONTAIN THE CONCRETE WASH UNTIL IT HARDENS. SEE ES&PC PLANS FOR LOCATION AND ES&PC DETAILS.

PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM OR SURFACE WATERS BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTIONS AND FEDERAL, STATE AND LOCAL REGULATIONS.

PETROLEUM PRODUCTS: ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY PETROLEUM TO BE STORED IN TANKS WILL BE SURROUNDED BY AN EARTHEN BERM AS A SECONDARY PROTECTIVE MEASURE ALL CONTAINERS/TANKS WILL BE REGULARLY INSPECTED FOR CRACKS OR LEAKAGE. IF POSSIBLE, PETROLEUM PRODUCTS WILL BE STORED IN A COVERED AREA. ANY ASPHALT SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURE'S RECOMMENDATIONS.

DESCRIPTION OF THE MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED:
SEE SHEETS C-550 THROUGH C-554 FOR DETAILS

MULCH: MULCH STORAGE MUST COMPLY WITH THE FOLLOWING SECTION OF THE STANDARD FIRE PREVENTION CODE: SECTION 502.3.1 - NO PERSON SHALL STORE IN ANY BUILDING OR UPON ANY PREMISES IN EXCESS OF 2,500 CU.FT. GROSS VOLUME OF COMBUSTIBLE EMPTY PACKING CASES, BOXES, BARRELS OR SIMILAR CONTAINERS, OR RUBBER TIRES, OR RUBBER OR OTHER SIMILARLY COMBUSTIBLE MATERIALS WITHOUT A PERMIT.

POLLUTION AND SPILL PREVENTION MEASURES

1. GOOD HOUSEKEEPING PRACTICES: AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT TO DO THE JOB. ALL MATERIALS ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER ONE ROOF OR ENCLOSURE. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINER WITH ORIGINAL MANUFACTURE'S LABEL. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURE. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
2. HAZARDOUS PRODUCTS:
   THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
   A. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
   B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT INFORMATION.
   C. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.
3. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
4. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
5. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
6. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.
7. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER) THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
8. FOR SPILLS OF UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
9. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA E.P.D. WILL BE CONTACTED WITHIN 24 HOURS.
10. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THE THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURERS PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

FERTILIZERS: FERTILIZER USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED (WHENEVER POSSIBLE). THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO SEALABLE PLASTIC BINS TO AVOID SPILLS (WHENEVER POSSIBLE).

SANITARY/SEPTIC WASTES: ALL SANITARY WASTE FACILITIES WILL BE SERVICED BY A QUALIFIED DOMESTIC WASTE HAULER. FACILITIES WILL BE PLACED OUT OF HIGH FLOW AREAS, AND WILL BE KEPT AWAY FROM, AND NOT RINSED INTO, STORM DRAIN INLETS AND RECEIVING BODIES OF WATER.

SANDBLASTING GRITS: NO SANDBLASTING GRIT WILL BE DISPOSED OF ON SITE. ITS DISPOSAL WILL BE COORDINATED WITH A LICENSED WASTE MANAGEMENT OR TRANSPORT AND DISPOSAL FIRM.

CONSTRUCTION WASTES: ALL CONSTRUCTION WASTE, FOR EXAMPLE: RUBBLE, PACKAGING MATERIALS, SCRAP BUILDING SUPPLIES, AND TREES AND SHRUBS REMOVED DURING GRUBBING, WILL BE COLLECTED AT A DESIGNATED ON-SITE LOCATION. IF POSSIBLE THE WASTE ACCUMULATION AREA WILL BE LOCATED IN A COVERED AREA. ALL CONSTRUCTION WASTES WILL BE REMOVED REGULARLY ON A CONSISTENT SCHEDULE AND DISPOSED OF AT AUTHORIZED DISPOSAL SITES.

DETERGENTS: THE USE OF DETERGENTS WILL BE LIMITED ON SITE, AND NO WASH WATER CONTAINING DETERGENTS WILL BE DISCHARGED TO STORM DRAIN INLETS OR RECEIVING BODIES OF WATER.

UTILITIES PROTECTION CENTER
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800-282-7411
WEB: MY.GEORGIA811.COM
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ATLANTA, GA 30328

wendel

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PRELIMINARY DESIGN

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: B.FLIEG
DRAWN: B.FLIEG
CHECKED: K.DEVENDORF
CHECKED:
APPROVED:

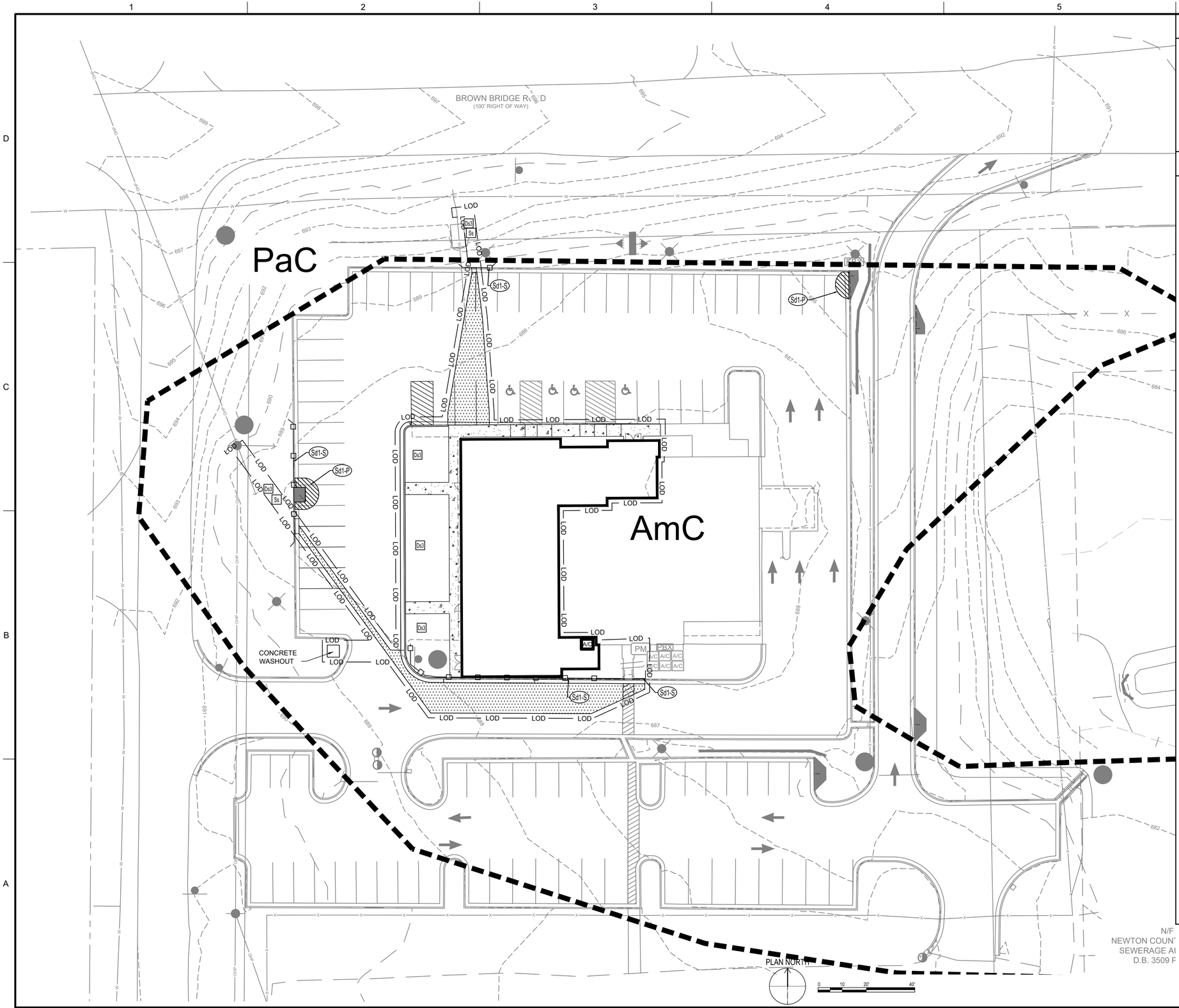
FILENAME
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BC PROJECT NUMBER
203000
CLIENT PROJECT NUMBER

CIVIL

SEDIMENT AND EROSION CONTROL NOTES 1

DRAWING NUMBER
C-207

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GENERAL NOTES:

1. EXISTING TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A SURVEY PREPARED BY GASKINS & LECRAW, INC. DATED 3-19-2025.
2. TEMPORARY SEDIMENT BASIN WILL BE COMPLETELY REMOVED DURING FINAL PHASE OF CONSTRUCTION

LEGEND:

LOD — LIMITS OF DISTURBANCE

SILT FENCE

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PRELIMINARY DESIGN

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	B. FLIEG
DRAWN:	B. FLIEG
CHECKED:	K.DEVENDORF
CHECKED:	
APPROVED:	

FILENAME
203000-C-213.dwg

BC PROJECT NUMBER
203000

CLIENT PROJECT NUMBER

CIVIL

SEDIMENT AND EROSION CONTROL PLAN

DRAWING NUMBER
C-213

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Sediment Barrier Sd1



DEFINITION
Sediment Barriers are temporary structures made up of a porous material typically supported by steel or wood posts. Types of sediment barriers may include silt fence, brush piles, mulch berms, compost filter socks or other filtering material.

PURPOSE
To minimize and prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways or storm drainage systems by slowing storm water runoff and causing the deposition and/or filtration of sediment at the structure. The barriers retain the soil on the disturbed land until the activities disturbing the land are completed and vegetation is established.

CONDITIONS
Barriers should be installed where runoff can be stored behind the barrier without damaging the submerged area behind the barrier or the structure itself. Sediment barriers shall not be installed across streams, ditches, waterways, or other concentrated flow areas.

DESIGN CRITERIA
Sediment barriers are designed to retain sediment transported by sheet flow from disturbed areas. It is important for the design professional to take into account the profile of the product for use on the site.

Sediment Barriers should also provide a riprap splash pad or other outlet protection device for any point where flow may overtop the sediment barrier. Ensure that the maximum height of the barrier at a protected, reinforced outlet does not exceed 1 foot and that the support spacing does not exceed 4 feet.

Where all runoff is to be stored behind the sediment barrier (where no storm water disposal system is present), maximum continuous slope length behind a sediment barrier shall not exceed those shown in Table 6-27.1. For longer slope lengths, slope interrupters must be used. The drainage area shall not exceed ¼ acre for every 100 feet of sediment barrier.

Table 6-27.1 Criteria for Sediment Barrier

Land Slope	Maximum Slope Length Above Fence
Percent	Feet
< 2	100
2 to 5	75
5 to 10	50
10 to 20	25
>20*	15

*In areas where the slope is greater than 20%, a flat area length of 10 feet between the toe of slope to the barrier should be provided.

Placement
The type of sediment barrier depends on whether the area is sensitive or nonsensitive. Sensitive areas can be defined as any area that needs additional protection. These areas include but are not limited to, state waters, wetlands, or any area the design professional designates as sensitive.

When using multiple types of sediment barriers on a site in a single run, the barriers must be overlapped 18 inches or as specified by design professional. See Figure 6-27.5

CONSTRUCTION SPECIFICATIONS

Non-sensitive Areas * Sd1-NS

Sediment barriers being used as Type NS shall have a support spacing of no greater than 6 feet on center, with each being driven into the ground a minimum of 18 inches.

A brush barrier is a good tool to use in developing pasture in an agricultural situation to protect sediment from leaving the site until the pasture is stabilized.

If greater filtering capacity is required, a commercially available sediment barrier may be placed on the side of the brush barrier receiving the sediment-laden runoff. The lower edge of the fabric must be buried in a 6-inch deep trench immediately uphill from the barrier. The upper edge must be stapled, tied or otherwise fastened to the brush barrier. Edges of adjacent fabric pieces must overlap each other. See Figure 6-27.5.

Installation
Sediment barriers should be installed along the contour.

Temporary sediment barriers shall be installed according to the following specifications as shown on the plans or as directed by the design professional.

For installation of the barriers, See Figures 6-27.1, 6-27.2, 6-27.3 and 6-27.4, respectively. It is important to remember that not all sediment barriers need to be trenched into the ground but most taller sediment barriers do.

Post installation shall start at the center of a low point (if applicable) with the remaining posts spaced no greater than 6 feet apart for Type NS sediment barriers and no greater than 4 feet apart for Type C sediment barriers. For post size requirements, see Table 6-27.2. Fasteners for wood posts are listed in Table 6-27.3.

Static Slicing Method
The static slicing machine pulls a narrow blade through the ground to create a slit 12" deep, and simultaneously inserts the silt fence fabric into this slit behind the blade. The blade is designed to slightly disrupt soil upward next to the slit and to minimize horizontal compaction, thereby creating an optimum condition for compacting the soil vertically on both sides of the fabric. Compaction is achieved by rolling a tractor wheel along both sides of the slit in the ground 2 to 4 times to achieve nearly the same or greater compaction as the original undisturbed soil. This vertical compaction reduces the air spaces between soil particles, which minimizes infiltration. Without this compaction infiltration can saturate the soil, and water may find a pathway under the fence. When a silt fence is holding back several tons of accumulated water and sediment, it needs to be supported by posts that are driven 18 inches into the soil. Driving in the posts and attaching the fabric to them completes the installation.

Trenching Method
Trenching machines have been used for over twenty-five years to dig a trench for burying part of the filter fabric underground. Usually the trench is about 2-"6" wide with a 6" excavation. Post setting and fabric installation often precede compaction, which make effective compaction more difficult to achieve. EPA supported an independent technology evaluation (ASCE 2001), which compared three progressively better variations of the trenching method with static slicing method. The static slicing method performed better than two lower performance levels of the trenching method, and was as good as or better than the trenching method's highest performance level. The best trenching method typically required nearly triple the time and effort to achieve results comparable to the static slicing method.

Along all state waters and other sensitive areas, two rows of Type S sediment barriers shall be used. The two rows of Type S should be placed a minimum of 36 inches apart.

MAINTENANCE
Sediment shall be removed once it has accumulated to one-half the original height of the barrier.

Sediment barriers shall be replaced whenever they have deteriorated to such an extent that the effectiveness of the product is reduced (approximately six months) or the height of the product is not maintaining 80% of its properly installed height.

Temporary sediment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.

Sensitive Areas* Sd1-S

Sediment barriers being used as Type S shall have a support spacing of no greater than 4 feet on center, with each being driven into the ground a minimum of 18 inches.

*As of January 1 2016, in the existing Georgia Department of Transportation Qualified Products list #36 (QPL- 36), Type A, B, or C will fall under sensitive and non-sensitive applications. **Type C will be classified as sensitive and Type A and B as non-sensitive.** Refer to Appendix A-2 and the Equivalent BMP List.

PRACTICE CLASSIFICATIONS

For silt fence Type A, B, or C, refer to Table 6-27.4.

Type A Silt Fence
This 36-inch wide filter fabric shall be used on developments where the life of the project is great than or equal to six months. **Type A is classified as non-sensitive application.**

Type B Silt Fence
Though only 22-inches wide, this filter fabric allows the same flow rate as Type A silt fence. Type B silt fence shall be limited to use on minor projects, such as residential home sites or small commercial developments where permanent stabilization will be achieved in less than six months. **Type B is classified as non-sensitive application.**

Type C Silt Fence
Type C fence is 36-inches wide with wire reinforcement or equivalent. The wire reinforcement is necessary because this fabric allows almost three times the flow rate as Type A silt fence. Type C silt fence shall be used where runoff flows or velocities are particularly high or where slopes exceed a vertical height of 10 feet. **Type C is classified as sensitive application.**

Filter Media Sock Specifications
Compost filter media used for sediment barrier filter material shall be weed free and derived from a well-decomposed source of organic matter. **Filter Media Sock is classified as a Type B, non-sensitive application.** The compost shall be produced using an aerobic composting process meeting CFR 503 regulations including time and temperature data. The compost shall be free of any refuse, contaminants or other materials toxic to plant growth. Non-composted products will not be accepted without applicable water quality test results. Test methods for the items below should follow US Compositing Council Test Methods for the Examination of Compositing and Compost guidelines for laboratory procedures:

A. pH – 5.0-8.0 in accordance with TMECC 04.11-A, "Electrometric pH Determinations for Compost"

B. Particle size – 99% passing a 2 inch (50mm) sieve and a maximum of 40% passing a 3/8 inche (9.5mm) sieve, in accordance with TMECC 02.02-B, "Sample Sieving for Aggregate Size Classification". (Note: In the field, product commonly is between ½ in./12.5mm and 2 in./50 mm in particle size.)

C. Moisture content of less than 60% in accordance with standardized test methods for moisture determination.

D. Material shall be relatively free (<1% by dry weight) of inert or foreign manmade materials.

E. Sock containment system for compost filter media shall be a photodegradable or biodegradable knitted mesh material and should have 1/8 in. to 3/8 in., openings.

Brush Barrier Sd1-BB

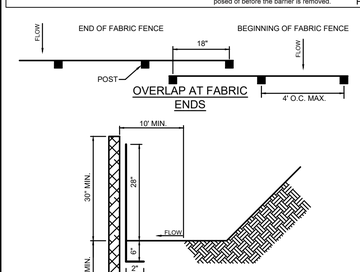
(Only during timber clearing operations)

Brush obtained from clearing and grubbing operations may be piled in a row along the perimeter of disturbance at the time of clearing and grubbing. Brush barriers should not be used in developed areas or locations where aesthetics are a concern.

Brush should be wind-rowed on the contour as nearly as possible and may require compaction. Construction equipment may be utilized to satisfy this requirement.

The minimum base width of the brush barrier shall be 5 feet and should be no wider 10 feet. The height of the brush barrier should be between 3 and 5 feet tall.

GSWCC 2016 Edition



OVERLAP AT FABRIC ENDS

SIDE VIEW

FRONT VIEW

TYPE FENCE	S
TENSILE STRENGTH (lbs. MIN.) (ASTM D-4632)	WARP-260 FILL-180
ELONGATION (% MAX.) (ASTM D-4632)	40
AOS (APPARENT OPENING SIZE) (MAX. SIEVE SIZE) (ASTM D 4751)	#30
FLOW RATE (GAL./MIN./SQ.FT) (GDT-87)	70
ULTRAVIOLET STABILITY (ASTM D-4632 AFTER 300 HOURS WEATHERING IN ACCORDANCE WITH ASTM D-4355)	80
BURSTING STRENGTH (PSI MIN.) (ASTM D-3786 DIAPHRAGM BURSTING STRENGTH TESTER)	175
MINIMUM FABRIC WIDTH (INCHES)	36

NOTES:
1. USE ONLY 36" FABRIC ON GEORGIA D.O.T. QUALIFIED PRODUCTS LIST #36
2. USE STEEL POSTS ONLY, 1.3 lbs/FT MIN., U, T, OR C SHAPED POST SECTION, 5' LENGTH MINIMUM.
3. ADD REBAR CAPS TO ALL POSTS.
4. ALONG STREAMS AND OTHER SENSITIVE AREAS, TWO ROWS OF TYPE C SILT FENCE OR ONE ROW OF TYPE S SILT FENCE BACKED WITH HAYBALES SHALL BE USED.
5. ALL SILT FENCE SHALL MEET THE MINIMUM STANDARD SET FORTH IN SECTION 171-TEMPORARY SILT FENCE OF THE GEORGIA D.O.T., STANDARD SPECIFICATIONS, CURRENT EDITION.
6. ALL SILT FENCE SHALL BE TYPE S, 36" WITH WOVEN WIRE REINFORCEMENT.
7. ATTACH FABRIC TO POSTS USING WIRE TIES. ALSO, ATTACH FABRIC TO WIRE BACKING MIDWAY BETWEEN POSTS AT THE TOP AND BOTTOM.

MAINTENANCE REQUIREMENTS:
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-THIRD THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

SILT FENCE - TYPE S
N.T.S.

Disturbed Area Stabilization (With Mulching Only) Ds1



DEFINITION
Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

PURPOSE
•To reduce runoff and erosion

•To conserve moisture

•To prevent surface compaction or crusting

•To control undesirable vegetation

•To modify soil temperature

•To increase biological activity in the soil

REQUIREMENT FOR REGULATORY COMPLIANCE
Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface.

Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months.

If any area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed. Refer to **Ds2 -Disturbed Area Stabilization (With Temporary Seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding)**.

SPECIFICATIONS
Mulching Without Seeding
This standard applies to graded or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation

1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
Select one of the following materials and apply at the depth indicated:

1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

Applying Mulch
When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment.
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Apply polyethylene film on exposed areas.

Anchoring Mulch
1. Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately after application.

Straw or hay mulch spread with special blower-type equipment may be anchored. Tackifers, binders and hydraulic mulch with tackifier specifically designed for tacking straw can be substituted for emulsified asphalt. Please refer to specification **Tac-Tackifers.** Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.

2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the wood waste chips.
3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

FOR TEMPORARY PROTECTION OF CRITICAL AREAS WITHOUT SEEDING. THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHICH MAY BE SUBJECTED TO EROSION FOR 6 MONTHS OR LESS, WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT WHICH CAN BE STABILIZED WITH A MULCH COVER.

MATERIALS	RATE	APPLICATION
DRY STRAW OR HAY	2"-4" DEEP	APPLY UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT. ANCHOR HAY DISK HARROW OR PACKER DISK OR WITH EMULSIFIED ASPHALT (GRADE AE-S OR SS-1)AT A RATE OF 100 GAL. PER 100 GAL. OF WATER FOR EACH TON OF MULCH
WOOD WASTE, CHIPS, SAWDUST OR BARK	2" TO 3" THICK	ANCHOR WITH NETTING OF THE APPROPRIATE SIZE. OPENINGS IN THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS
EROSION CONTROL MATTING OR NETTING	APPLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS	APPLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
CUTBACK ASPHALT (SLOW CURING)	1200 GALLONS PER ACRE, OR ⅓ GALLON PER SQUARE YARD	APPLY UNIFORMLY
POLYETHYLENE FILM	SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL	ANCHOR TRENCH AT THE TOP OF SLOPE AS WELL AS INCREMENTALLY AS NECESSARY

MAINTENANCE REQUIREMENTS:
INSPECT ALL MULCHED AREAS ON A DAILY BASIS AND AFTER EACH RAINFALL EVENT, REGRADE ERODED AREAS AND REMULCH AREAS IN WHICH THE COVER IS NO LONGER GREATER THAN 90% CONTINUOUS.

Ds1 TEMPORARY MULCHING

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS AND SPECIFICATIONS.

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS 1/

SPECIES	BROADCAST RATES 2/ - PLS 3/ PER ACRE	PER 1000 S.F.	RESOURCE AREA 4/	PLANTING DATES J F M A M J J A S O N D	REMARKS
BARLEY (Hordeum vulgare)			M-L P C		14,000 SEED PER POUND WINTERHARDY. USE ON PRODUCTIVE SOILS.
ALONE	144 LBS.	3.3 LBS.			
IN MIXTURES	24 LBS.	0.6 LBS.			
LESPEDEZA, ANNUAL (Lespedeza striata)			M-L P C		200,000 SEED PER POUND. MAY VOLUNTEER FOR SEVERAL YEARS. USE INOCULANT EL
ALONE	40 LBS.	0.9 LBS.			
IN MIXTURES	10 LBS.	0.2 LBS.			
LOVEGRASS, WEEPING (Eragrostis curvula)			M-L P C		1,500,000 SEED PER POUND. MAY LAST FOR SEVERAL YEARS. MIX WITH SERICEA LESPEDEZA
ALONE	4 LBS.	0.1 LBS.			
IN MIXTURES	2 LBS.	0.05 LBS.			
MILLET, BROWNTOP (Panicum fasciculatum)			M-L P C		137,000 SEED PER POUND. QUICK, DENSE COVER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEEDED AT HIGH RATES.
ALONE	40 LBS.	0.9 LBS.			
IN MIXTURES	10 LBS.	0.2 LBS.			
MILLET, PEARL (Pennesetum glaucum)			M-L P C		88,000 SEED PER POUND. QUICK, DENSE COVER. MAY REACH 5 FEET IN HEIGHT. NOT RECOMMENDED FOR MIXTURES.
ALONE	50 LBS.	1.1 LBS.			
OATS (Avena sativa)			M-L P C		13,000 SEED PER POUND. USE ON PRODUCTIVE SOILS. NOT AS WINTERHARDY AS RYE OR BARLEY.
ALONE	128 LBS.	2.9 LBS.			
IN MIXTURES	32 LBS.	0.7 LBS.			
RYE (Secale cereale)			M-L P C		18,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT AND WINTERHARDY.
ALONE	168 LBS.	3.9 LBS.			
IN MIXTURES	28 LBS.	0.6 LBS.			
RYEGRASS, ANNUAL (Lolium temulentum)			M-L P C		227,000 SEED PER POUND. DENSE COVER. VERY COMPETITIVE AND IS NOT TO BE USED IN MIXTURES.
ALONE	40 LBS.	0.9 LBS.			
SUDANGRASS (Sorghum sudanese)			M-L P C		55,000 SEED PER POUND. GOOD ON DROUGHTY SITES. NOT RECOMMENDED FOR MIXTURES.
ALONE	60 LBS.	1.4 LBS.			
TRITICALE (X-Triticosecale)			C		USE ON LOWER PART OF SOUTHERN COASTAL PLAIN AND IN ATLANTIC COASTAL FLATWOODS ONLY.
ALONE	144 LBS.	3.3 LBS.			
IN MIXTURES	24 LBS.	0.6 LBS.			
WHEAT (Triticum aestivum)			M-L P C		15,000 SEED PER POUND. WINTERHARDY.
ALONE	180 LBS.	4.1 LBS.			
IN MIXTURES	30 LBS.	0.7 LBS.			

1/ TEMPORARY COVER CROPS ARE VERY COMPETITIVE AND WILL CROWN OUT PERENNIALS IF SEEDED TOO HEAVILY.
2/ REDUCE SEEDING RATES BY 50% WHEN DRILLED.
3/ PLS IS AN ABBREVIATION FOR PURE LIVE SEED.
4/ M-L REPRESENTS THE MOUNTAIN; BLUE RIDGE; AND RIDGES AND VALLEYS MLRA'S
P REPRESENTS THE SOUTHERN PIEDMONT MLRA
C REPRESENTS THE SOUTHERN COASTAL PLAIN; SAND HILLS; BLACK LANDS; AND ATLANTIC COAST FLATWOODS MLRAs

NOTES:
1. APPLY TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE.
2. IF DISTURBED AREAS ARE TO BE LEFT UNDISTURBED FOR LESS THAN 6 MONTHS USE TEMPORARY GRASSING, OTHERWISE USE PERMANENT
3. GRASSING.

SOIL TO RECEIVE GRASSING IS TO BE SCARIFIED TO PROVIDE A PLACE FOR THE SEED TO
4. LODGE AND GERMINATE.

APPLY AGRICULTURAL LIME AT
5. A RATE OF ONE TON PER ACRE.

FOR LOW FERTILITY SOILS, APPLY 500-700 LBS. OF 10-10-10 FERTILIZER PER ACRE. APPLY BEFORE LAND PREPARATION AND INCORPORATE WITH A
6. DISK, RIPPER OR CHISEL.

APPLY SEED BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER-SEEDER OR HYDRAULIC SEEDER. RAKE SOIL LIGHTLY TO COVER SEED WHEN
7. APPLIED BY HAND.

PROVIDE WATER AS REQUIRED TO GERMINATE AND MAINTAIN A HEALTHY, THICK COVER OF GRASS.

MAINTENANCE REQUIREMENTS:

INSPECT ALL AREAS WHERE TEMPORARY GRASSING HAS BEEN APPLIED. WHERE COVER IS SPARSE, SCARIFY THE AREA, TEST SOIL FERTILITY, APPLY FERTILIZER AS NECESSARY AND RESEED. WHERE EROSION HAS OCCURRED, REGRADE PRIOR TO ABOVE STEPS.

Ds2 TEMPORARY GRASSING

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS AND SPECIFICATIONS.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		(label)	A crushed stone pad located at the construction exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A travelway constructed as part of a construction plan including access roads, sub- division roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			Straw or hay mulch spread with special blower-type equipment may be anchored. Tackifers, binders and hydraulic mulch with tackifier specifically designed for tacking straw can be substituted for emulsified asphalt. Please refer to specification **Tac-Tackifers.** Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE		(label)	An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn2	PERMANENT DOWNDRAIN STRUCTURE		(label)	A flexible conduit of heavy-duty fabric or other ma- terial designed to safely conduct surface runoff down a slope. Temporary, and inexpensive.
Fr	FILTER RING			A paved chute, sectional conduit, pipe or similar material designed to designed to safely conduct surface runoff down a slope.
Ga	GABION			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Gr	GRADE STABILIZATION STRUCTURE		(label)	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Lv	LEVEL SPREADER			Permanent structures installed to protect natural or artificial channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Rd	ROCK FILTER DAM			A structure to convert concentrated flow of waters into less erosive sheet flow. This should be constructed only on undisturbed soils.
Re	RETAINING WALL		(label)	A permanent or temporary stone filter dam installed across small streams or waterways.
Rt	RETROFITTING		(label)	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Sd1	SEDIMENT BARRIER		type (indicate type)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd2	SEDIMENT TRAP, TEMPORARY			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, gravel or a sediment fence.
Sd3	SEDIMENT BASIN, TEMPORARY			An impounding area created by excavating around a storm drain inlet. The excavated area will be filled and stabilized on completion of land disturbing activities.
Sd4	SEDIMENT TRAP, TEMPORARY			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sk	FLOATING SURFACE SKIMMER		(label)	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
				A buoyant device that releases/ drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Spb	STEP BERM		(label)	A linear control device constructed as a diversion perpendicular to the direction of the runoff to enhance dissipation and infiltration of runoff, while creating multiple sedimentation chambers with the employment of intermediate dikes.
Sr	TEMPORARY STREAM CROSSING		(label)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN INLET/OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING		(show stripping & storage areas)	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION		(denote tree centers)	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes, or similar structures.

VEGETATIVE MEASURES

Bf	BUFFER ZONE		Bf	An undisturbed natural "green belt" separating the land-disturbing site from surrounding property and bordering streams. It serves to reduce water velocity and remove some sediment. It is also at times a type of vision pollutor barrier.
Cs	COASTAL DUNE STABILIZATION		Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished. retarding cover.
Ds1	DISTURBED AREA STABILIZATION (w/MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedings may not have a suitable growing season to produce an erosion.
Ds2	DISTURBED AREA STABILIZATION (w/TEMPORARY SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (w/PERMANENT SEEDING)		Ds3	Establishing permanent vegetative cover such as trees, shrubs, vines, sod, grasses or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (WITH SODDING)		Ds4	A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS		Fl-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (WITH PERMANENT VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GEORGIA UNIFORM CODING SYSTEM FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

Disturbed Area Stabilization (With Temporary Seeding) Ds2



DEFINITION
The establishment of temporary vegetative cover with fast growing seedings for seasonal protection on disturbed or denuded areas.

PURPOSE
•To reduce runoff and sediment damage of down stream resources

•To protect the soil surface from erosion

• To improve wildlife habitat

• To improve aesthetics

•To improve filth, infiltration and aeration as well as organic matter for permanent plantings

REQUIREMENT FOR REGULATORY COMPLIANCE
Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. If an area is expected to be undisturbed for longer than six months, permanent perennial vegetation shall be used. If optimum planting conditions for temporary grassing is lacking, mulch can be used as a singular erosion control device for up to six months but it shall be applied at the appropriate depth, anchored, and have a continuous 90% cover or greater of the soil surface. Refer to specification **Ds1-Disturbed Area Stabilization (With Temporary Seeding).**

CONDITIONS
Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWCD for more information.

SPECIFICATIONS
Grading and Shaping
Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others.

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation
When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or hand-seeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall.

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate.

Lime and Fertilizer
Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application. Soils must be tested to determine required amounts of fertilizer and amendments. Fertilizer should be applied before land preparation and incorporated with a disk, ripper, or chisel. On slopes too steep for, or inaccessible to equipment, fertilizer shall be hydraulically applied, preferably in the first pass with seed and some hydraulic mulch, then topped with the remaining required application rate.

Seeding
Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See Table 6-4.1

Mulching
Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to **Ds1 - Disturbed Area Stabilization (With Mulching Only)**.

Irrigation
During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

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PRELIMINARY DESIGN

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: B.FLIEG
DRAWN: B.FLIEG
CHECKED: K.DEVENDORF
CHECKED:
APPROVED:

FILENAME
203000-C-214.dwg
BC PROJECT NUMBER
203000
CLIENT PROJECT NUMBER

CIVIL

SEDIMENT AND EROSION CONTROL DETAILS 1

DRAWING NUMBER
C-214

PLOT DATE: 4/26/2026 8:59 AM CAD USER: BENJAMIN FLIEG
Path: C:\USERS\BFLIEG\DC\ACCDOCS\WENDELINC\WSA ADMIN BLDG_V2\5\PROJECT FILES_REVIT & CAD\CIVIL\SHEET FILENAME: 203000-C-214.DWG

Disturbed Area Stabilization (With Permanent Vegetation)

Ds3



DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization.

PURPOSE

- To protect the soil surface from erosion
- To reduce damage from sediment and runoff to down-stream areas
- To improve wildlife habitat and visual resources
- To improve aesthetics

REQUIREMENT FOR REGULATORY COMPLIANCE

This practice shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice or sodding shall be applied immediately to all areas at final grade. **Final Stabilization** means that all soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by the GA EPD for waste disposal, 100% of the soil surface is uniformlycovered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures.

Permanent vegetation shall consist of, planted trees, shrubs, perennial vines; or a crop of perennial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall be achieved. Final stabilization applies to each phase of construction. For linear construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by stabilizing the disturbed land for its agricultural or silvicultural use. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures and temporary erosion and sedimentation control measures shall not be removed.

CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

PLANNING CONSIDERATIONS

1. Use conventional planting methods where possible.
2. When mixed plantings are done during marginal planting periods, companion crops shall be used.
3. No-till planting is effective when planting is done following a summer or winter annual cover crop. Sericea lespedeza planted no-till into stands of rye is an excellent practice.
4. Block sod provides immediate cover. It is especially effective in controlling erosion adjacent to concrete flumes and other structures. Refer to Specification **Ds4-Disturbed Area Stabilization (With Sodding)**.
5. Irrigation should be used when the soil is dry or when summer plantings are done.
6. Low maintenance plants, as well as natives, should be used to ensure long-lasting erosion control.
7. Mowing should not be performed during the quail nesting season (May to September).
8. Wildlife plantings should be included in critical area plantings.

PG 1

hydroseeder.

Finely ground limestone can be applied in the mulch slurry or in combination with the top dressing.

When *conventional planting* is to be done, lime and fertilizer shall be applied uniformly in one of the following ways:

1. Apply before land preparation so that it will be mixed with the soil during seedbed preparation.
2. Mix with the soil used to fill the holes, distribute in furrows.
3. Broadcast after steep surfaces are scarified, pitted or trenched.
4. A fertilizer pellet shall be placed at root depth in the closing hole beside each pine tree seedling.

Plant Selection

Refer to Tables 6-4.1, 6-5.2, 6-5.3 and 6-5.4 for approved species. Species not listed shall be approved by the State Resource Conservationist of the Natural Resources Conservation Service before they are used.

Plants shall be selected on the basis of species characteristics, site and soil conditions, planned use and maintenance of the area; time of year of planting, method of planting; and the needs and desires of the land user.

Some perennial species are easily established and can be planted alone. Examples of these are Common Bermuda, Tall Fescue, and Weeping Lovegrass.

Other perennials, such as Bahia Grass and Sericea Lespedeza, are slow to become established and should be planted with another perennial species. The additional species will provide quick cover and ample soil protection until the target perennial species become established. For example, Common seeding combinations are 1) Weeping Lovegrass with Sericea Lespedeza (scarified) and 2) Tall Fescue with Sericea Lespedeza (unscarified).

Plant selection may also include annual companion crops. Annual companion crops should be used only when the perennial species are not planted during their optimum planting period. A common mixture is Brown Top Millet with Common Bermuda in mid-summer. Care should be taken in selecting companion crop species and seeding rates because annual crops will compete with perennial species for water, nutrients, and growing space. A high seeding rate of the companion crop may prevent the establishment of perennial species.

Ryegrass shall not be used in any seeding mixtures containing perennial species due to its ability to out-compete desired species chosen for permanent perennial cover.

Seed Quality

The term "pure live seed" is used to express the quality of seed and is not shown on the label. Pure live seed, PLS, is expressed as a percentage of the seeds that are pure and will germinate. Information on percent germination and purity can be found on seed tags. PLS is determined by multiplying the percent of pure seed with the percent of germination; i.e.,

(PLS = % germination x % purity)

EXAMPLE:

Common Bermuda seed
70% germination, 80% purity

PLS = 70% germination x 80% purity

PLS = 56%

The percent of PLS helps you determine the amount of seed you need. If the seeding rate is 10 pounds PLS and the bulk seed is 56 % PLS, the bulk seeding rate is:

10 lbs. PLS/acre = 17.9 lbs/acre
56% PLS

You would need to plant 17.9 lbs/acre to provide 10 lbs/acre of pure live seed.

Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used (but is strongly recommended for any seeding process, when possible). When conventional seeding is to be used, seedbed preparation will be done as follows:

Broadcast plantings

1. Tillage, at a minimum, shall adequately

PG 2

loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used.

2. Tillage may be done with any suitable equipment.
3. Tillage should be done on the contour where feasible.
4. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

Individual Plants

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
3. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Inoculants

All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria. The inoculant shall be a pure culture prepared specifically for the seed species and used within the dates on the container.

A mixing medium recommended by the manufacturer shall be used to bond the inoculant to the seed. For conventional seeding, use twice the amount of inoculant recommended by the manufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used.

All inoculated seed shall be protected from the sun and high temperatures and shall be planted the same day inoculated. No inoculated seed shall remain in the hydroseeder longer than one hour.

Planting

Hydraulic Seeding

Mix the seed (inoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a cult-packer-seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultpacker or other suitable equipment.

No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots.

Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface.

Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Mulching

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% to 100% soil cover. When selecting a mulch, design professionals should consider the mulch's functional longevity, vegeta-

PG 3

tion establishment enhancement, and erosion control effectiveness. Select the mulching material from the following and apply as indicated:

1. *Dry straw or dry hay* of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
2. *Wood cellulose mulch or wood pulp fiber* shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Dry straw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
3. One thousand pounds of *wood cellulose* or *wood pulp fiber*, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
4. *Sericea Lespedeza* hay containing mature seed shall be applied at a rate of three tons per acre.
5. *Pine straw or pine bark* shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas.
6. When using temporary erosion control blankets or block sod, mulch is not required.
7. *Bituminous treated roving* may be applied on planted areas, slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods:

1. *Hay and straw* mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk" or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
2. *Synthetic tackifiers, binders or hydraulic mulch specifically designed to tack straw,* shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. All tackifiers, binders or hydraulic mulch specifically designed to tack straw should be verified nontoxic through EPA 2021.0 testing. Refer to **Tackifiers-Tac**
3. *Rye or wheat* can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one-half bushel per acre.
4. *Plastic mesh or netting* with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Bedding Material

Mulch is used as a bedding material to conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bare areas on lawns.

PG 4

Material	Depth
Grain straw	4" to 6"
Grass Hay	4" to 6"
Pine needles	3" to 5"
Wood waste	4" to 8"

Irrigation

Irrigation will be applied at a rate that will not cause runoff.

Topdressing

Topdressing will be applied on all temporary and permanent (perennial) species planted alone or in mixtures with other species. Recommended rates of application are listed in Table 6-5.1.

Second Year and Maintenance Fertilization

Second year fertilizer rates and maintenance fertilizer rates are listed in Table 6-5.1.

Lime Maintenance Application

Apply one ton of agricultural lime every 4 to 6 years or as indicated by soil tests. Soil tests can be conducted to determine more accurate requirements, if desired.

Use and Management

Mow Sericea Lespedeza only after frost to ensure that the seeds are mature. Mow between November and March.

Bermudagrass, Bahiagrass and Tall Fescue may be mowed as desired. Maintain at least 6 inches of top growth under any use and management. Moderate use of top growth is beneficial after establishment.

Exclude traffic until the plants are well established. Because of the quail nesting season, mowing should not take place between May and September.

PG 5

PG 6

Construction Exit

Co



DEFINITION

A stone stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk or parking area or any other area where there is a transition from bare soil to a paved area.

PURPOSE

To reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or by runoff.

CONDITIONS

This practice is applied at appropriate points of construction egress. Geotextile underliners are required to stabilize and support the pad aggregates.

DESIGN CRITERIA

Formal design is not required. The following standards shall be used:

Aggregate Size

Stone will be in accordance with National Stone Association R-2 (1.5 to 3.5 inch stone).

Pad Thickness

The gravel pad shall have a minimum thickness of 6 inches.

Pad Width

At a minimum, the width should equal full width of all points of vehicular egress, but not less than 20 feet wide.

Pad Length

The gravel pad shall have a minimum length of 50 feet. When the construction is less than 50' from the paved access, the length shall be from the edge of existing pavement to the permitted building being constructed.

Washing

If the action of the vehicle traveling over the gravel pad does not sufficiently remove the mud, the tires should be washed prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with crushed stone and provisions that intercept the sediment laden runoff and direct it into an approved sediment trap or sediment basin.

Location

The exit shall be located or protected to prevent sediment from leaving the site.

CONSTRUCTION SPECIFICATIONS

It is recommended that the egress area be excavated to a depth of 3 inches and be cleared of all vegetation and roots.

Diversion Ridge

On sites where the grade toward the paved area is greater than 2%, a diversion ridge 6 to 8 inches high with 3:1 side slopes shall be constructed across the foundation approximately 15 feet above the road.

Geotextile

The geotextile underliner must be placed the full length and width of the entrance. Geotextile selection shall be based on AASHTO M288-06 specification:

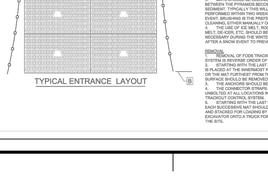
1. For subgrades with a CBR greater than or equal to 3 or shear strength greater than 90 kPa, geotextile must meet requirements of section AASHTO M288-06 Section 7.3, *Separation Requirements*.
2. For subgrades with a CBR between 1 and 3 or sheer strength between 30 and 90 kPa, geotextile must meet requirements of section AASHTO M288-06 Section 8, *Geotextile Property Requirements for Subsurface Drainage, Separation, Stabilization, and Permanent Erosion Control (Geotextile Property Requirements)*..

MAINTENANCE

The exit shall be maintained in a condition that will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with 1.5-3.5 inch stone, as conditions demand, and repair and/or cleanout of any structures to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles or site onto roadways or into storm drains must be removed immediately.

CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM



NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"- 3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS TO AN APPROVED SEDIMENT TRAP OR SEDIMENT POND. PREVENT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

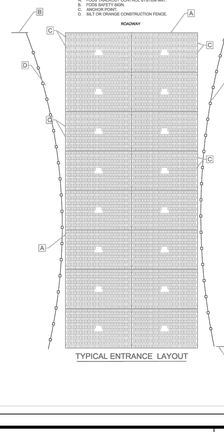
Figure 6-14.1

GENERAL NOTES:

1. CRUSHED STONE CONSTRUCTION ENTRANCE/EXIT WILL BE REPLACED WITH FOD CONSTRUCTION EXIT AT ALL PAVEMENT AREA ENTRANCE/EXIT.

FODS TRACKOUT CONTROL SYSTEM INSTALLATION

THE PURPOSE AND DESIGN OF THE FODS TRACKOUT CONTROL SYSTEM IS TO EFFECTIVELY REMOVE MOST SEDIMENT FROM VEHICLE TIRES AS THEY EXIT A DISTURBED LAND AREA ONTO A PAVED STREET. THIS MANUAL IS A PLATFORM FROM WHICH TO INSTALL A FODS TRACKOUT CONTROL SYSTEM. (NOTE: THIS IS NOT A ONE SIZE FITS ALL GUIDE.) THE INSTALLATION MAY NEED TO BE MODIFIED TO MEET THE EXISTING CONDITIONS AT THE SITE. THE FODS TRACKOUT CONTROL SYSTEM SHOULD BE INSTALLED AT THE BEGINNING OF CONSTRUCTION. THE SYSTEM SHOULD BE INSTALLED SAFELY WITH PROPER ANCHORING AND SIGNS PLACED AT THE ENTRANCE AND EXIT TO CAUTION USERS AND OTHERS.



TYPICAL ENTRANCE LAYOUT

INSTALLATION

1. ... AT THE AREA WHERE THE FODS TRACKOUT CONTROL SYSTEM #2 TO BE PLACED SHOULD CORRESPOND TO BEST MANAGEMENT PRACTICES FOR EXISTING CONDITIONS. THE FODS TRACKOUT CONTROL SYSTEM #2 PLACED SHOULD ALSO MEET OR EXCEED THE LOCAL JURISDICTION MINIMUM REQUIREMENTS FOR CONSTRUCTION PLAN (ENTRY) REQUIREMENTS.
2. ... CALL FOR UTILITY LOCATES 3 BUSINESS DAYS PRIOR TO INSTALLATION OF THE FODS TRACKOUT CONTROL SYSTEM #2 FOR THE MARKING OF UNDERGROUND UTILITIES. CALL THE UTILITY NOTIFICATION CENTER.
3. ... ONCE THE SITE IS ESTABLISHED WHERE FODS TRACKOUT CONTROL SYSTEM #2 TO BE PLACED, ANY VEGETATION, DEBRIS, UNEVEN SOIL OR LOOSE SOIL/GRAVEL/ROCK OR MEANDERING RUTS AS LARGE HOLES, LANDSCAPING MATERIALS, OR SUDDEN AIRLIFT SHOULD BE REMOVED.
4. ... THE INDIVIDUAL MATS SHALL BE PLACED IN/TO POSITION. THE FIRST MAT SHOULD BE PLACED AT THE EXIT/ENTRANCE OF THE CONSTRUCTION. THIS WILL ENSURE THAT THE VEHICLE WILL EXIT STRAIGHT FROM THE SITE ONTO THE PAVED SURFACE.
5. ... AFTER THE FIRST MAT IS PLACED (DOWN IN THE PROPER LOCATION), MATS SHOULD BE ANCHORED TO THE GROUND. ANCHORS (INCLUDED WITH THE EQUIPMENT MATS ARE INSTALLED. ANCHORS SHOULD BE PLACED AT EVERY ANCHOR POINT (IF FEASIBLE) TO HELP MAINTAIN THE MAT IN ITS CURRENT POSITION.
6. ... AFTER THE FIRST MAT IS ANCHORED IN ITS CURRENT POSITION, THE SECOND MAT IS PLACED AT THE END OF THE FIRST MAT BEFORE ANCHORING. MAT #2 IS PLACED ADJACENT TO THE FIRST MAT.
7. ... THE SECOND MAT SHOULD BE PLACED ADJACENT TO THE FIRST MAT SUCH THAT THE MAT RIBBING IS CORRECTLY SITUATED BETWEEN THIS TWO MATS, AND THE MATS ARE FLUSH.
8. ... NEXT THE CONNECTOR STRAPS SHOULD BE INSTALLED TO CONNECT THE TWO MATS TOGETHER. THE STRAPS ARE SIMILAR TO THE ANCHORS IN THE SYSTEM, THAT MAY SHOULD BE ANCHORED AT EVERY ANCHOR POINT TO HELP STABILIZE THE MAT AND ENSURE THE SYSTEM IS CONTINUOUS WITH NO GAPS BETWEEN THE MATS.
9. ... SUCCESSIVE MATS CAN THEN BE PLACED TO CREATE THE FODS TRACKOUT CONTROL SYSTEM REPEATING THE ABOVE STEPS.

USE AND MAINTENANCE

1. ... ALL VEHICLES SHOULD DRIVE SLOWLY, DOWN THE LENGTH OF THE TRACKOUT CONTROL SYSTEM AND NOT CUT ACROSS THE MATS.
2. ... DRIVERS SHOULD ALLOW TURN THE WHEEL OF THEIR VEHICLES SUCH THAT THE VEHICLE WILL MAKE A SHALLOW S-TURN ROUTE DOWN THE LENGTH OF THE FODS TRACKOUT CONTROL SYSTEM.
3. ... MATS SHOULD BE CLEANED ONCE THE VOIDS BETWEEN THE PYRAMIDS BECOME FULL OF SEDIMENT. CLEANING OF THE MATS SHOULD BE PERFORMED WITHIN TWO WEEKS AFTER A STORM EVENT. BRUSHING IS THE PREFERRED METHOD OF CLEANING AND SHOULD BE DONE WHEN DRY.
4. ... THE USE OF ICE MELT, ROCK SALT, SNOW MELT, DE-ICER, ETC. SHOULD BE UTILIZED AS NECESSARY DURING THE WINTER MONTHS AND AFTER A KNOWN EVENT TO PREVENT ICE BUILDUP.

REMOVAL

1. ... REMOVAL OF FODS TRACKOUT CONTROL SYSTEM IS REVERSE ORDER OF INSTALLATION.
2. ... THE FIRST MAT TO BE REMOVED SHOULD BE THAT IS PLACED AT THE INNERMOST POINT OF THE SITE OR THE MAT FURTHEST FROM THE EXIT OR PAVED SURFACE SHOULD BE REMOVED FIRST.
3. ... ANCHORS SHOULD BE REMOVED.
4. ... THE CONNECTOR STRAPS SHOULD BE UNBOLTED AT ALL LOCATIONS IN THE FODS TRACKOUT CONTROL SYSTEM #2.
5. ... STARTING WITH THE LAST MAT IN THE SYSTEM, EACH SUCCESSIVE MAT SHOULD THEN BE MOVED TO THE EXIT/ENTRANCE AND LOADED BY THE EXCAVATOR ONTO A TRUCK FOR REMOVAL FROM THE SITE.

SPECIES	BROADCAST RATES ½ - PLS 2/ PER ACRE	BROADCAST RATES ½ - PLS 2/ PER 1000 S.F.	RESOURCE AREA 3/	PLANTING DATES J F M A M J J A S O N D	REMARKS
BAHIA, PENSACOLA (Paspalum notatum)			P		166,000 SEED PER POUND. LOW GROWING SOD FORMING. SLOW TO ESTABLISH. PLANT WITH A COMPANION CROP. WILL SPREAD INTO BERMUDA PASTURES AND LAWNS. MIX WITH SERICEA LESPEDEZA OR WEEPING LOVEGRASS.
ALONE OR W/ TEMPORARY COVER	60 LBS.	1.4 LBS.	C		
WITH OTHER PERENNIALS	30 LBS.	0.7 LBS.			
BAHIA, WILMINGTON (Paspalum notatum)			M-L		166,000 SEED PER POUND. LOW GROWING SOD FORMING. SLOW TO ESTABLISH. PLANT WITH A COMPANION CROP. WILL SPREAD INTO BERMUDA PASTURES AND LAWNS. MIX WITH SERICEA LESPEDEZA OR WEEPING LOVEGRASS.
ALONE OR W/ TEMPORARY COVER	60 LBS.	1.4 LBS.	P		
WITH OTHER PERENNIALS	30 LBS.	0.7 LBS.			
BERMUDA, COMMON (Cynodon dactylon) HULLED SEED			P		1,797,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.
ALONE	10 LBS.	0.2 LBS.	C		
WITH OTHER PERENNIALS	6 LBS.	0.1 LBS.			
BERMUDA, COMMON (Cynodon dactylon) UNHULLED SEED			P		PLANT WITH WINTER ANNUALS. PLANT WITH TALL FESCUE.
W/ TEMP COVER	10 LBS.	0.2 LBS.	C		
WITH OTHER PERENNIALS	6 LBS.	0.1 LBS.			
BERMUDA SPRIGS (Cynodon dactylon)					A CUBIC FOOT CONTAINS APPROXIMATELY 650 SPRIGS. A BUSHEL CONTAINS 1.25 CUBIC FEET OR APPROXIMATELY 800 SPRIGS.
COASTAL, COMMON, MIDLAND, OR TIFT 44	40 C.F. OR 500 PLUGS 3" x 3"	0.9 C.F. OR	M-L		
COASTAL, COMMON, OR TIFT 44			P		SAME AS ABOVE.
TIFT 78			C		SOUTHERN COASTAL PLAIN ONLY.
CENTIPEDE (Eremochloa ophiuroides)	BLOCK SOD ONLY		P		DROUGHT TOLERANT. FULL SUN OR PARTIAL SHADE. EFFECTIVE AGGREGIST TO CONQUER WEEDS. SLOW GROWING. SLOW TO ESTABLISH. IRRIGATION IS NEEDED UNTIL FULLY ESTABLISHED. DO NOT PLANT NEAR PASTURES. WINTERKILLED AS FAR NORTH AS ATHENS AND ATLANTA.
			C		
CROWNVETCH (Coronilla varia)	15 LBS.	0.3 LBS.	M-L		10,000 SEEDS PER POUND. DENSE GROWTH ATTRACTIVE PINK TO PURPLE FLOWERS. BLOOMS SPRING TO LATE FALL. MIX W/ 10 LBS. OF TALL FESCUE OR 15 LBS. OF RYE. INOCULATE SEED WITH M INOCULANT. USE FROM NORTH ATLANTA AND NORTHWARD.
WITH WINTER ANNUALS OR COOL SEASON GRASSES			P		
FESCUE, TALL (Festuca arundinacea)	50 LBS.	1.1 LBS.	M-L		227,000 SEED PER POUND. USE ALONE ONLY ON BETTER SITES. NOT FOR DROUGHTY SOILS. MIX WITH PERENNIAL LESPEDEZAS OR CROWNVETCH. APPLY TOPDRESSING IN SPRING FOLLOWING FALL PLANTING. NOT FOR HEAVY USE AREAS OR ATHLETIC FIELDS.
ALONE	30 LBS.	0.7 LBS.	P		
W/ OTHER PERENNIALS					
LESPEDEZA Antiro virgata (Lespedeza virgata DC) or Appalow (Lespedeza cuneata [Dumont] G. Don)			M-L		300,000 SEED PER POUND. HEIGHT OF GROWTH IS 18 TO 24 INCHES. ADVANTAGES IN URBAN AREAS. SPREADING-TYPE GROWTH. NEW GROWTH HAS BRONZE COLORATION. MIX W/ WEEPING LOVEGRASS, SERICEA LESPEDEZA, TALL FESCUE, OR WINTER ANNUALS. DO NOT MIX W. SERICEA LESPEDEZA. SLOW TO DEVELOP SOLID STANDS. INOCULATE SEED W/ EL INOCULANT.
			P		
			C		
SCARIFIED	60 LBS.	1.4 LBS.	M-L		
UNSCARIFIED	75 LBS.	1.7 LBS.	P		
			C		

SPECIES	BROADCAST RATES ½ - PLS 2/ PER ACRE	BROADCAST RATES ½ - PLS 2/ PER 1000 S.F.	RESOURCE AREA 3/	PLANTING DATES J F M A M J J A S O N D	REMARKS
LESPEDEZA, SERICEA (Lespedeza cuneata)			M-L		550,000 SEED PER POUND. WIDELY ADAPTED LOW MAINTENANCE. MIX WITH WEEPING LOVEGRASS, COMMON BERMUDA, BAHIA, OR TALL FESCUE. SLOW TO ESTABLISH. TO BECOME FULLY ESTABLISHED. EXCELLENT ON ROADBANKS. INOCULATE SEED WI EL INOCULANT
SCARIFIED	60 LBS.	1.4 LBS.	P		
			C		
UNSCARIFIED	75 LBS.	1.7 LBS.	M-L		MIX WITH TALL FESCUE OR WINTER ANNUALS
			P		
			C		
SEED-BEARING HAY	3 TONS	138 LBS.	M-L		CUT WHEN SEED IS MATURE, BUT BEFORE IT SHATTERS. ADD TALL FESCUE OR WINTER ANNUALS.
			P		
			C		
LESPEDEZA, SHRUB (Lespedeza bicolor) (Lespedeza thunbergii)			M-L		PROVIDE WILDLIFE FOOD AND COVER.
PLANTS	3' x 3'		P		
			C		
LOVEGRASS, WEEPING (Eragrostis curvula)			M-L		1,530,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT. GROWS WELL WITH SERICEA LESPEDEZA ON ROADBANKS
			P		
			C		
ALONE	4 LBS.	0.1 LBS.			
W/ OTHER PERENNIALS	2 LBS.	0.05 LBS.			
MAIDENCANE (Panicum hemitomon)					FOR VERY WET SITES. MAY CLOG DRAINAGE. DIG SPROS FROM LOCAL SOURCES. USE ALONG RIVER BANKS AND SHORELINES.
SPRIGS	2' x 3' SPACING		ALL		
WITH OTHER PERENNIALS					
PANICGRASS, ATLANTIC COASTAL (Panicum amarum var. amarulum)			P		GROWS WELL ON COASTAL SAND DUNES. BORROW AREAS, AND SALT FLATS. PROVIDES WINTER COVER FOR WILDLIFE. MIX WITH SERICEA LESPEDEZA EXCEPT ON SAND DUNES
	20 LBS.	0.5 LBS.	C		
REED CANARY GRASS (Phalaris arundinacea)			M-L		GROWS SIMILAR TO TALL FESCUE.
ALONE	50 LBS.	1.1 LBS.	P		
WITH OTHER PERENNIALS	30 LBS.	0.7 LBS.			
SUNFLOWER, 'AZTEC' MAXIMILLIAN (Helianthus maximilian)	10 LBS.	0.2 LBS.	M-L		227,000 SEED PER POUND. MIX WITH WEEPING LOVEGRASS OR OTHER LOW-GROWING GRASSES OR LEGUMES
			P		
			C		

SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.

1/ REDUCE SEEDING RATES BY 50% WHEN DRILLED.
2/ PLS IS AN ABBREVIATION FOR PURE LIVE SEED. REFER TO SECTION V.E. OF THESE SPECIFICATIONS.
3/ MA REPRESENTS THE MOUNTAIN, BLUE RIDGE, AND RIDGES AND VALLEYS MLRA'S
P REPRESENTS THE SOUTHERN PIEDMONT MLRA
C REPRESENTS THE SOUTHERN COASTAL PLAIN, SAND HILLS; BLACK LANDS; AND ATLANTIC COAST FLATWOODS MLRAs

SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
COOL SEASON GRASSES	FIRST	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 1/ 2/
	SECOND MAINTENANCE	6-12-12	1000 lbs./ac.	-
		10-10-10	400 lbs./ac.	30
COOL SEASON GRASSES AND LEGUMES		6-12-12	1500 lbs./ac.	0-50 lbs./ac. 1/
		0-10-10	1000 lbs./ac.	-
		0-10-10	400 lbs./ac.	-
GROUND COVERS		10-10-10	1300 lbs./ac. 3/	-
		10-10-10	1300 lbs./ac. 3/	-
		10-10-10	1100 lbs./ac.	-
PINE SEEDLINGS	FIRST	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	-
SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10	700 lbs./ac.	-
		0-10-10	700 lbs./ac. 4/	
TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
WARM SEASON GRASSES	FIRST	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/ 6/
	SECOND MAINTENANCE	6-12-12	800 lbs./ac.	50-100 lbs./ac. 2/
		10-10-10	400 lbs./ac.	30 lbs./ac.
WARM SEASON GRASSES AND LEGUMES	FIRST	6-12-12	1500 lbs./ac.	
	SECOND MAINTENANCE	0-10-10	1000 lbs./ac.	50 lbs./ac. 6/
		0-10-10	400 lbs./ac.	

1/ Apply in spring following seeding.
2/ Apply in split applications when high rates are used.
3/ Apply in 3 split applications.
4/ Apply when plants are pruned.
5/ Apply to grass species only.
6/ Apply when plants grow to a height of 2 to 4 inches.

MAINTENANCE REQUIREMENT

Stormwater Best Management Practice
Concrete Washout

EPA United States Environmental Protection Agency

Clean Water Act Section 402 NPDES

Minimum Measure
Construction Site Stormwater Runoff Control

Subcategory
Good Housekeeping/Materials Management

Description of Concrete Washout at Construction Sites

Concrete and its ingredients

Concrete is a mixture of cement, water, and aggregate material. Portland cement is made by heating a mixture of limestone and clay containing oxides of calcium, aluminum, silicon and other metals in a kiln and then pulverizing the resulting clinker. The fine aggregate particles are usually sand. Coarse aggregate is generally gravel or crushed stone. When cement is mixed with water, a chemical reaction called hydration occurs, which produces glue that binds the aggregates together to make concrete.

Concrete washout

After concrete is poured at a construction site, the chutes of ready mixed concrete trucks and hoppers of concrete pump trucks must be washed out to remove the remaining concrete before it hardens. Equipment such as wheelbarrows and hand tools also need to be washed down. At the end of each work day, the drums of concrete trucks must be washed out. This is customarily done at the ready mixed batch plants, which are usually off-site facilities, however large or rural construction projects may have on-site batch plants. Cementitious (having the properties of cement) washwater and solids also come from using such construction materials as mortar, plaster, stucco, and grout.

Construction workers should handle wet concrete and washout water with care because it may cause skin irritation and eye damage. If the washwater is dumped on the ground (Fig. 1), it can run off the construction site to adjoining roads and enter roadside storm drains, which discharge to surface waters such as rivers, lakes, or estuaries. The red arrow in Figure 2 points to a ready mixed truck chute that's being washed out into a roll-off bin, which isn't watertight. Leaking washwater, shown in the foreground, will likely follow similar



Figure 1. *Chute washwater being dumped on the ground*



Figure 2. *Chute washwater leaking from a roll-off bin being used as a washout container*

paths to nearby surface waters. Rainfall may cause concrete washout containers that are uncovered to overflow and also transport the washwater to surface waters. Rainwater polluted with concrete washwater can percolate down through the soil and alter the soil chemistry, inhibit plant growth, and contaminate the groundwater. Its high pH can increase the toxicity of other substances in the surface waters and groundwater. Figures 1 and 2 illustrate the need for better washout management practices.

Environmental and Health Impacts

Concrete washout water (or washwater) is a slurry containing toxic metals. It's also caustic and corrosive, having a pH near 12. In comparison, Drano liquid drain cleaner has a pH of 13.5. Caustic washwater can harm fish gills and eyes and interfere with reproduction. The safe pH ranges for aquatic life habitats are 6.5 – 9 for freshwater and 6.5 – 8.5 for saltwater.

Best Management Practice Objectives

The best management practice objectives for concrete washout are to (a) collect and retain all the concrete washout water and solids in leak proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters or into the ground water, and (b) recycle 100 percent of the collected concrete washout water and solids. Another

Office of Water, 4203M
www.epa.gov/npdes/pubs/concretewashout.pdf
www.epa.gov/npdes/stormwater/menuofbmps
EPA 833-F-11-006
February 2012

objective is to support the diversion of recyclable materials from landfills. Table 1 shows how concrete washout materials can be recycled and reused.

Table 1 – Recycling concrete washout materials

Uses of Recycled Materials	Concrete Washout Materials						
	Washwater	Cement Paste	Fine Fraction	Coarse Aggregate	Aggregate Combined	Cement Concrete	Concrete Blocks
Reused to washout additional mixer truck chutes or drums	x						
Reused as a ready mixed concrete ingredient	x	x[a]	x	x			
Reused as an ingredient of precast concrete products, e.g., highway barriers, retaining wall blocks, riprap	x	x	x	x	x		x
Reused as crushed concrete, products, e.g., road base or fill			x	x	x	x	
Reused to pave the yards of ready mixed concrete plants							x
Returned back to a surface water, e.g., river, lake, or estuary	x[c]						

a. Fine particles of cementitious material (e.g., Portland cement, slag cement, fly ash, silica fume)
b. Recyclable, if allowed by the concrete quality specifications
c. Treated to reduce the pH and remove metals, so it can be delivered to a municipal wastewater treatment plant, where it is treated further and then returned to a natural surface water

Washwater recycling, treatment, disposal

Washwater from concrete truck chutes, hand mixers, or other equipment can be passed through a system of weirs or filters to remove solids and then be reused to wash down more chutes and equipment at the construction site or as an ingredient for making additional concrete. A three chamber washout filter is shown in Figure 3. The first stage collects the coarse aggregate. The middle stage filters out the small grit and sand. The third stage has an array of tablets that filter out fines and reduces the pH. The filtered washwater is then discharged through a filter sock. An alternative is to pump the washout water out of the washout container (Fig 4) and treat the washwater off site to remove metals and reduce its pH, so it can be delivered to a publicly owned treatment works (POTW), also known as a municipal wastewater treatment plant, which provides additional treatment allowing the washwater to be discharged to a surface water. The POTW should be contacted to inquire about any pretreatment requirements, i.e., the National Pretreatment Standards for Prohibited Discharges (40CFR 403.5) before discharging the washwater to the POTW. The washwater can also be retained in the washout container and allowed to evaporate, leaving only the hardened cementitious solids to be recycled.



Figure 3. *Concrete washout filter*



Figure 4. *Vacuuming washwater out of a washout container for treatment and reuse*

Solids recycling

The course aggregate materials that are washed off concrete truck chutes into a washout container can be either separated by a screen and placed in aggregate bins to be reused at the construction site or returned to the ready mixed plant and washed into a reclaimer (Fig. 5). When washed out into a reclaimer, the fine and course aggregates are separated out and placed in different piles or bins to be reused in making fresh concrete. Reclaimers with settling tanks separate cement fines from the washwater, and these fines can also be used in new concrete unless prohibited by the user's concrete quality specifications.

Figure 5. *Ready mixed truck washing out into a reclaimer*

Hardened concrete recycling

When the washwater in a construction site concrete washout container has been removed or allowed to evaporate, the hardened concrete that remains can be crushed (Fig. 6) and reused as a construction material. It makes an excellent aggregate for road base and can be used as fill at the construction site or delivered to a recycler. Concrete recyclers can be found at municipal solid waste disposal facilities, private recycling plants, or large construction sites.



Figure 6. *Crushed concrete stockpile and crusher*

trucks can use hay bale washout pits, but concrete pump trucks have a low hanging hopper in the back that may prevent their being washed out into bale-lined pits.

Vinyl washout container



Figure 11. *Vinyl washout pit with filter bag*

The vinyl washout container (Fig. 11) is portable, reusable, and easier to install than a hay bale washout pit. The biodegradable filter bag (Fig. 12) assists in extracting the concrete solids and prolongs the life of the vinyl container. When the bag is lifted, the water is filtered out and the remaining concrete solids and the bag can be disposed of together in a landfill, or the hardened concrete can be delivered to a recycler. After the solids have been removed several times and the container is full of washwater, the washwater can be allowed to evaporate, so the container can be reused. The washwater can be removed more quickly by placing another filter bag in the container and spreading water gelling granules evenly across the water. In about five minutes, the water in the filter bag will turn into a gel that can be removed with the bag. Then the gel and filter bag can be disposed to together.



Figure 12. *Extracting the concrete solids or gelled washwater*

Metal washout container

The metal roll-off bin (Fig. 13) is designed to securely contain concrete washwater and solids and is portable and reusable. It also has a ramp that allows concrete pump trucks to wash out their hoppers (Fig. 14). Roll-off providers offer recycling services, such as, picking up the roll-off bins after the washwater has evaporated and the solids have hardened, replacing them with empty washout bins, and delivering the hardened concrete to a recycler (Fig. 15), rather than a landfill. Some providers will vacuum off the washwater, treat it to remove metals and reduce the pH, deliver it to a wastewater treatment plant for additional treatment and subsequent discharge to a surface water. Everything is recycled or treated sufficiently to be returned to a natural surface water.



Figure 13. *Mixer truck being washed out into a roll-off bin*



Figure 14. *Pump truck using the ramp to wash out into a roll-off bin*



Figure 15. *Delivering hardened Concrete to a recycler*

Another metal, portable, washout container, which has a rain cover to prevent overflowing, is shown in Figure 16. It is accompanied by an onsite washwater treatment unit, which reduces the pH and uses a forced weir tank system to remove the coarse aggregate, fine aggregate, and cement fines. The washwater can then be reused at the construction site to wash out other mixer truck chutes and equipment. The solids are transported to a concrete recycler (Fig. 17) to be crushed and used as road base or aggregate for making precast products, such as retaining wall blocks. All materials are recycled.



Figure 16. *Washout container with a rain cover and onsite washwater treatment*



Figure 17. *Delivering hardened concrete to a recycler*

Siting Washout Facilities

Concrete washout facilities, such as washout pits and vinyl or metal washout containers, should be placed in locations that provide convenient access to concrete trucks, preferably near the area where concrete is being poured. However they

should not be placed within 50 feet of storm drains, open ditches, or waterbodies. Appropriate gravel or rock should cover approaches to concrete washout facilities when they are located on undeveloped property. On large sites with extensive concrete work, washouts should be placed at multiple locations for ease of use by ready mixed truck drivers. If the washout facility is not within view from the pour location, signage will be needed to direct the truck drivers.

Operating and Inspecting Washout Facilities

Concrete washout facilities should be inspected daily and after heavy rains to check for leaks, identify any plastic linings and sidewalls have been damaged by construction activities, and determine whether they have been filled to over 75 percent capacity. When the washout container is filled to over 75 percent of its capacity, the washwater should be vacuumed off or allowed to evaporate to avoid overflows. Then when the remaining cementitious solids have hardened, they should be removed and recycled. Damages to the container should be repaired promptly. Before heavy rains, the washout container's liquid level should be lowered or the container should be covered to avoid an overflow during the rain storm.

Educating Concrete Subcontractors

The construction site superintendent should make ready mixed truck drivers aware of washout facility locations and be watchful for improper dumping of cementitious material. In addition, concrete washout requirements should be included in contracts with concrete delivery companies.

Reference

NRMCA 2009. Environmental Management in the Ready Mixed Concrete Industry, 2PERMM, 1st edition. By Gary M. Mullins. Silver Springs, MD: National Ready Mixed Concrete Association.

Websites and Videos

Construction Materials Recycling Association
www.concreterecycling.org

National Ready Mixed Concrete Association
www.nrmca.org

National Ready Mixed Concrete Research and Education Foundation
www.nrmc-foundation.org

Additional information and videos on concrete washout containers and systems can be found by a web search for "concrete washout."

Photograph Credits

Figures 1, 2. *Mark Jenkins, Concrete Washout Systems, Inc.*
Figure 3. *Mark Shaw, Ultra Tech International, Inc.*
Figure 4. *Mark Jenkins, Concrete Washout Systems, Inc.*
Figure 5. *Christopher Crouch, CCI Consulting*
Figure 6. *William Turley, Construction Materials Recycling Association*
Figure 7. *Brad Burke, Innovative Concrete Solutions, LLC*
Figure 8. *Ron Lankester, Enviroguard*
Figures 9, 10. *Mark Jenkins, Concrete Washout Systems, Inc.*
Figures 11, 12. *Tom Card, RTC Supply*
Figures 13, 14, 15. *Mark Jenkins, Concrete Washout Systems, Inc.*
Figures 16, 17. *Rick Abney Sr., Waste Crete Systems, LLP.*

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Wet concrete recycling

Builders often order a little more ready mixed concrete than they actually need, so it is common for concrete trucks to have wet concrete remaining in their drum after a delivery. This unused concrete can be returned to the ready mixed plant and either (1) used to pour precast concrete products (e.g., highway barriers, retaining wall blocks, riprap), (2) used to pave the ready mixed plant's yard, (3) washed into a reclaimer, or (4) dumped on an impervious surface and allowed to harden, so it can be crushed and recycled as aggregate. Unused wet concrete should not be dumped on bare ground to harden at construction sites because this can contribute to ground water and surface water contamination.

Washout Containers

Different types of washout containers are available for collecting, retaining, and recycling the washwater and solids from washing down mixed truck chutes and pump truck hoppers at construction sites.

Chute washout box

A chute washout box is mounted on the back of the ready mixed truck. If the truck has three chutes, the following procedure is used to perform the washout from the top down: (1) after the pour is completed, the driver attaches the extension chute to the washout box, (2) the driver then rotates the main chute over the extension chute (Fig. 7) and washes down the hopper first then the main chute, (3) finally the driver washes down the flop down chute and last the extension chute hanging on the box. All washwater and solids are captured in the box.



Figure 7. *Chute washout box*

After the wash down, washwater and solids are returned to the ready mixed plant for recycling. A filter basket near the top of the washout box separates out the coarse aggregates so they can be placed in a bin for reuse either at the construction site or back at the cement plant.

Chute washout bucket and pump

After delivering ready mixed concrete and scraping the last of the customer's concrete down the chute, the driver hangs a washout bucket shown in Figure 8 (see red arrow) on the end of the truck's chute and secures the hose to insure no leaks. The driver then washes down the chute into the bucket to remove any cementitious material before it hardens. After washing out the chute, the driver pumps (yellow arrow points to the pump) the washwater, sand, and other fine solids from the bucket up into the truck's drum to be returned to the ready mixed plant, where it can be washed into a reclaimer. A removable screen at the bottom of the washout bucket prevents course aggregate from entering the pump. This course aggregate can also be returned to the plant and added to the coarse aggregate pile to be reused. All the materials are recycled.



Figure 8. *Chute washout bucket and pump*

Hay bale and plastic washout pit

A washout pit made with hay bales and a plastic lining is shown in Figure 9. Such pits can be dug into the ground or built above grade. The plastic lining should be free of tears or holes that would allow the washwater to escape (Fig. 10). After the pit is used to wash down the chutes of multiple ready mixed trucks and the washwater has evaporated or has been vacuumed off, the remaining hardened solids can be broken up and removed from the pit. This process may damage the hay bales and plastic lining. If damage occurs, the pit will need to be repaired and relined with new plastic. When the hardened solids are removed, they may be bound up with the plastic lining and have to be sent to a landfill, rather than recycled. Recyclers usually accept only unmixed material. If the pit is going to be emptied and repaired more than a few times, the hay bales and plastic will be generating additional solid waste. Ready mixed concrete

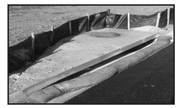


Figure 9. *Hay bale and plastic washout pit*



Figure 10. *Leaking washout pit that has not been well maintained*

Inlet Sediment Trap Sd2



DEFINITION
A temporary protective device formed at or around an inlet to a storm drain to trap sediment.

PURPOSE
To prevent sediment from entering a storm drainage systems prior to permanent stabilization of the disturbed area draining to the inlet.

CONDITIONS
All storm drain drop inlets that receive runoff from disturbed areas.

DESIGN CRITERIA
Through testing there are two different categories (high retention and high flow) supported. In areas where BMPs are being used on paved surfaces, or safety is a concern, the potentially negative effects of ponding should be taken into account. In such cases, a high flow BMP is preferred.

On unpaved areas where ponding will not cause a safety hazard, high retention shall be taken into account. If high retention is not used in this situation a rationale shall be given on the plan and an unpaved application should apply.

Sediment traps must be self-draining unless they are otherwise protected in an approved fashion that will not present a safety hazard. The drainage area entering the inlet sediment trap shall be no greater than one acre.

If runoff may bypass the protected inlet, a temporary dike should be constructed on the down slope side of the structure. Also, a stone filter ring may be used on the up slope side of the inlet to slow runoff and filter larger soil particles. Refer to **Fr-Stone Filter Ring.**

CONSTRUCTION SPECIFICATIONS
Excavated Inlet Sediment Trap
An excavation may be created around the inlet sediment trap to provide additional sediment storage. The trap shall be sized to provide a minimum storage capacity calculated at the rate of 67 cubic yards per acre of drainage area. A minimum depth of 1.5 feet for sediment storage should be provided. Side slopes shall not be steeper than 2:1.

Sediment traps may be constructed on natural ground surface, on an excavated surface, or on machine compacted fill, provided they have a non-erodible outlet.

Filter Fabric with Supporting Frame Sd2 -F

This method of inlet protection is applicable where the inlet drains a relatively flat area (slope no greater than 5%) and shall not apply to inlets receiving concentrated flows, such as in street or highway medians. As shown in Figure 6-28.1, Type S silt fence supported by steel posts should be used. The stakes shall be spaced evenly around the perimeter of the inlet a maximum of 3 feet apart, and securely driven into the ground, approximately 18 inches deep. The fabric shall be 36 inches tall and entrenched 12 inches and backfilled with crushed stone or compacted soil. Fabric and wire shall be securely fastened to the posts, and fabric ends must be overlapped a minimum of 18 inches or wrapped together around a post to provide a continuous fabric barrier around the inlet.

Baffle Box Sd2 -B

For inlets receiving runoff with a higher volume or velocity, a baffle box inlet sediment trap should be used. As shown in Figure 6-28.2, the baffle box shall be constructed of 2" x 4" boards spaced a maximum of 1 inch apart or of plywood with weep holes 2 inches in diameter. The weep holes shall be placed approximately 6 inches on center vertically and horizontally. Gravel shall be placed outside the box, all around the inlet, to a depth of 2 to 4 inches. The entire box is wrapped

PG 1

in Type C filter fabric that shall be entrenched 12 inches and backfilled.

Block and Gravel Drop Inlet Protection Sd2 -Bg

This method of inlet protection is applicable where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure. As shown in Figure 6-28.3, one block is placed on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. The bottom row of blocks is placed against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, lateral support may be given to subsequent rows by placing 2" x 4" wood studs through block openings. Hardware cloth or comparable wire mesh with 1/2 inch openings shall be fitted over all block openings to hold gravel in place. Clean gravel should be placed 2 inches below the top of the block on a 2:1 slope or flatter and smoothed to an even grade. DOT #57 washed stone is recommended.

Gravel drop Inlet Protection Sd2-G

This method of inlet protection is applicable where heavy concentrated flows are expected. As shown in Figure 6-28.4, stone and gravel are used to trap sediment. The slope toward the inlet shall be no steeper than 3:1. A minimum 1 foot wide level stone area shall be left between the structure and around the inlet to prevent gravel from entering the inlet. On the slope toward the inlet, stone 3 inches in diameter and larger should be used. On the slope away from the inlet, 1/2 to 3/4 inch gravel (#57 washed stone) should be used at a minimum thickness of 1 foot.

Sod Inlet Protection Sd2-S

This method of inlet protection is applicable only at the time of permanent seeding, to protect the inlet from sediment and mulch material until permanent vegetation has become established. As shown in Figure 6-28.5, the sod shall be placed to form a turf mat covering the soil for a distance of 4 feet from each side of the inlet structure. Sod strips shall be staggered so that adjacent strip ends are not aligned.

Curb Inlet Protection Sd2-P

Once pavement has been installed, a curb inlet filter shall be installed on inlets receiving runoff from disturbed areas. This method of inlet protection shall be removed if a safety hazard is created.

One method of curb inlet protection uses "pigs-in-a-blanket"- 8-inch concrete blocks wrapped in filter fabric. See Figure 6-28.6. Another method uses gravel bags constructed by wrapping DOT #57 stone with filter fabric, wire, plastic mesh, or equivalent material.

A gap of approximately 4 inches shall be left between the inlet filter and the inlet to allow for overflow and prevent hazardous ponding in the roadway. Proper installation and maintenance are crucial due to possible ponding in the roadway, resulting in a hazardous condition. Several other methods are available to prevent the entry of sediment into storm drain inlets.

Figure 6-28.7 shows one of these alternative methods.

MAINTENANCE
The trap shall be inspected daily and after each rain, and repairs made as needed. Sediment shall be removed when the sediment has accumulated to one-half the height of the trap. Sediment shall be removed from curb inlet protection immediately. For excavated inlet sediment traps, sediment shall be removed when one-half of the sediment storage capacity has been lost to sediment accumulation. Sod inlet protection shall be maintained as specified in **Ds4 - Disturbed Area Stabilization (With Sodding).**

Sediment shall not be washed into the inlet. It shall be removed from the sediment trap, disposed of and stabilized so that it will not enter the inlet again.

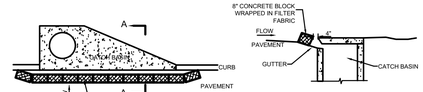
When the contributing drainage area has been permanently stabilized, all materials and any sediment shall be removed, and either

PG 2

salvaged or disposed of properly. The disturbed area shall be brought to proper grade, then smoothed and compacted. Appropriately stabilize all disturbed areas around the inlet.

PG 3

NOTES :
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENING IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4" BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.



NOTE: INSTALL FILTER AFTER ANY ASPHALT PAVING

Sd2-5 CURB INLET PROTECTION "PIGS IN BLANKET"
N.T.S.

UTILITIES PROTECTION CENTER
CALL FREE
CALL : 811
800-282-7411
WEB: MY.GEORGIA811.COM
THREE WORKING DAYS BEFORE YOU DIG

Brown AND Caldwell
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990 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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PRELIMINARY DESIGN

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: B.FLIEG
DRAWN: B.FLIEG
CHECKED: K.DEVENDORF
CHECKED:
APPROVED:

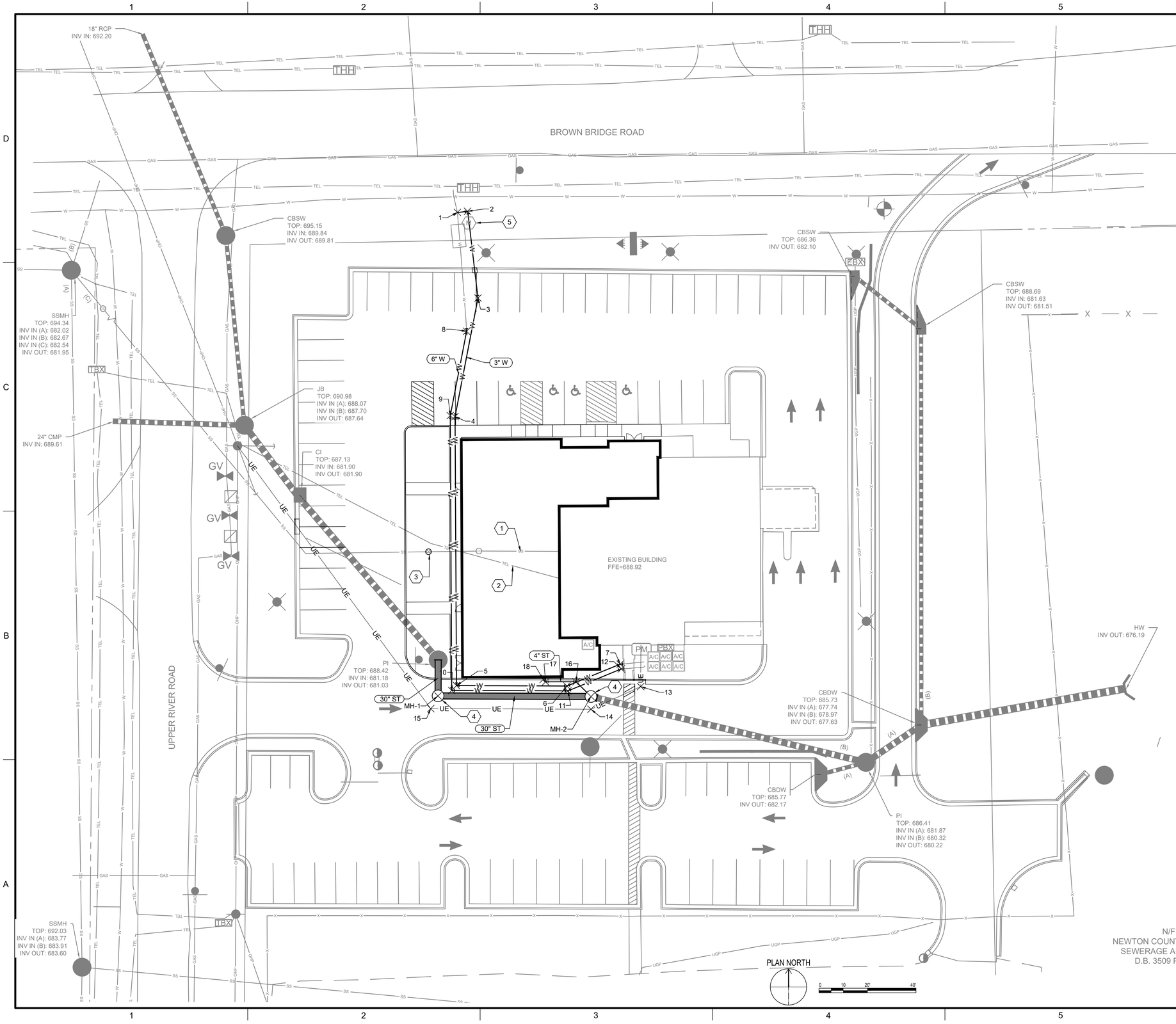
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BC PROJECT NUMBER
203000
CLIENT PROJECT NUMBER

CIVIL

SEDIMENT AND EROSION CONTROL DETAILS 3

DRAWING NUMBER
C-216

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GENERAL NOTES:

1. PROPOSED WATER PIPE MATERIAL SHALL BE POLYETHYLENE AND CONFORMS TO NCWSA WATER & SEWER STANDARDS & SPECIFICATIONS - ARTICLE 3, SECTION 3.02.C.6.e.ii

KEYNOTES:

1 PROTECT SEWER LATERAL IN PLACE

2 PROTECT TELECOM IN PLACE

3 SEWER CLEAN OUT, SEE DETAIL B-12/C-010

4 MANHOLE, SEE DETAIL B-1/C-010

5 EXISTING 2" WATER METER AND BACKFLOW PREVENTER. UPSIZE EXISTING 2" PIPE TO 3" BEFORE AND AFTER EXISTING EQUIPMENT.

WATER			
Point #	Northing	Easting	Description
1	1303845.60	2374219.71	TIE-IN
2	1303846.03	2374223.88	90° BEND
3	1303810.28	2374228.20	22.5° BEND
4	1303761.39	2374218.73	11.25° BEND
5	1303650.43	2374219.34	90° BEND
6	1303650.25	2374264.90	22.5° BEND
7	1303659.26	2374286.82	22.5° BEND
8	1303796.57	2374223.50	11.25° BEND
9	1303761.77	2374216.77	11.25° BEND
10	1303648.44	2374217.35	90° BEND
11	1303648.25	2374265.29	22.5° BEND
12	1303657.30	2374287.30	22.5° BEND

UNDERGROUND ELECTRIC			
Point #	Northing	Easting	Description
13	1303650.02	2374295.30	UE
14	1303640.67	2374274.79	UE
15	1303640.93	2374208.71	UE

STORM			
Point #	Northing	Easting	Description
16	1303652.03	2374268.61	45° BEND
17	1303651.97	2374256.07	45° BEND
18	1303652.96	2374255.07	45° BEND

STRUCTURE TABLE			
MANHOLE:	DETAILS:	NORTHING	EASTING
MH-1	48" RIM = 688.18 INV IN = 680.99 INV OUT = 680.95	1303646.17	2374211.73
MH-2	48" RIM = 687.60 INV IN = 680.78 INV IN = 683.00 INV OUT = 680.75	1303645.92	2374274.79

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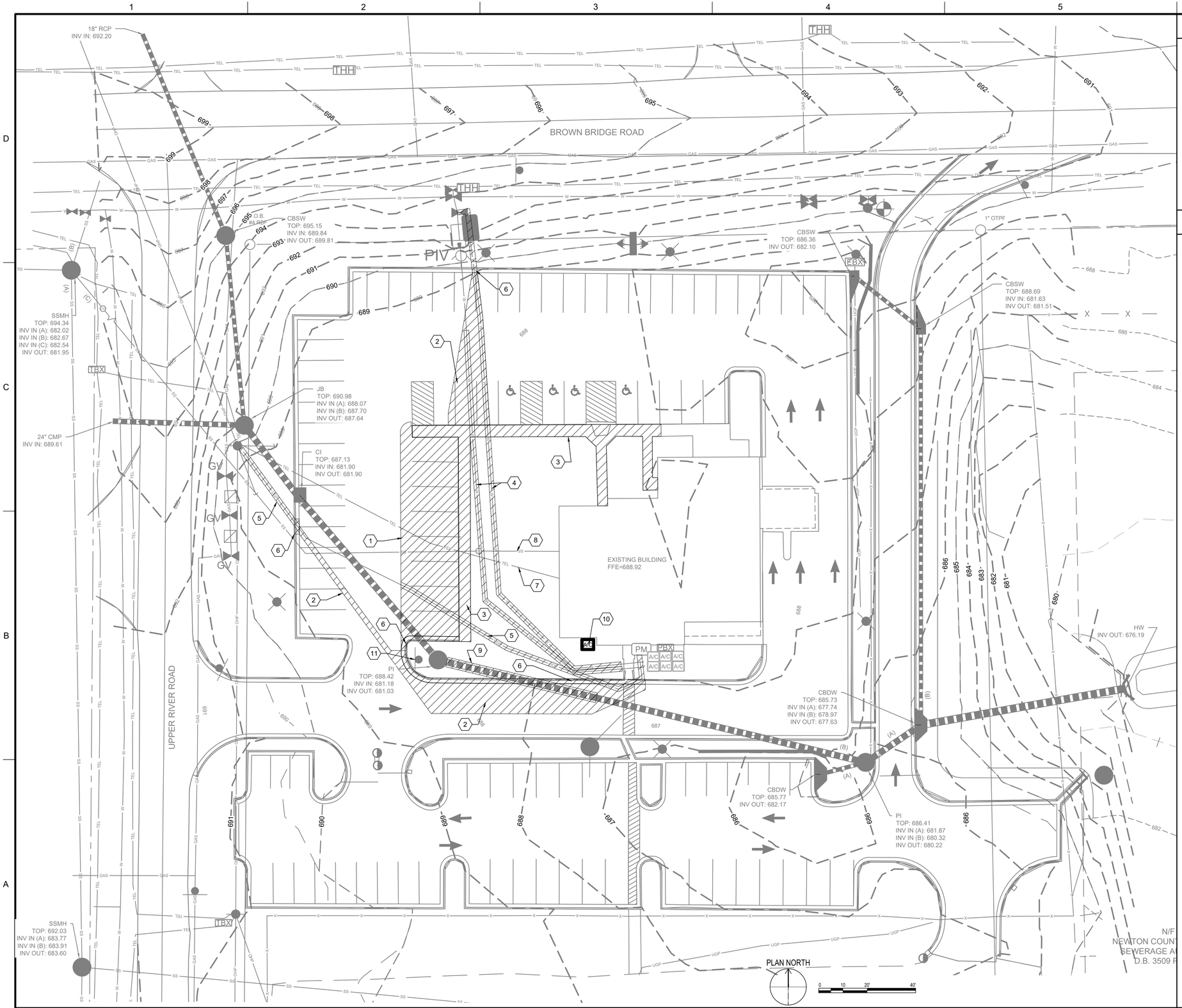
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BC PROJECT NUMBER
203000
CLIENT PROJECT NUMBER

CIVIL

SITE UTILITY PLAN

DRAWING NUMBER
C-401

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GENERAL NOTES:

1. EXISTING TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A SURVEY PREPARED BY GASKINS & LECRAW, INC. DATED 3-19-2025.

KEYNOTES:

1 REMOVE ASPHALT

2 REMOVE ASPHALT TO EXTENTS NEEDED FOR UTILITY INSTALLATION

3 REMOVE SIDEWALK

4 REMOVE WATERLINES

5 REMOVE UNDERGROUND ELECTRIC

6 REMOVE CURB TO EXTENTS NEEDED FOR UTILITY INSTALLATION

7 PROTECT BURIED TELECOM

8 PROTECT SEWER LATERAL

9 REMOVE STORM PIPE. GROUT PIPE PENETRATION IN MANHOLE.

10 REMOVE AIR CONDITIONING UNIT.

11 REMOVE AND SALVAGE SIGN. REINSTALL AFTER GRADING IS COMPLETE.

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ADMINISTRATION BUILDING EXPANSION PROJECT

REVISIONS

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DESIGNED:	B. FLIEG
DRAWN:	B. FLIEG
CHECKED:	K.DEVENDORF
CHECKED:	
APPROVED:	

FILENAME
203000-CD-101.dwg

BC PROJECT NUMBER
203000

CLIENT PROJECT NUMBER

CIVIL

EXISTING SITE CONDITIONS AND DEMOLITION PLAN

DRAWING NUMBER
CD-101

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GENERAL

A. THE FOLLOWING NOTES APPLY TO ALL STRUCTURAL DRAWINGS. NOTES SHALL APPLY UNLESS OTHERWISE INDICATED BY STRUCTURAL DRAWINGS OR SPECIFICATIONS.

B. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION OR PLAN NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL SIMILAR OR LIKE CONDITIONS UNLESS NOTED OTHERWISE.

C. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONSTRUCTION DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONSTRUCTION DOCUMENTS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONSTRUCTION DOCUMENTS.

D. CONSTRUCTION DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE GENERAL CONTRACTOR.

E. CONSTRUCTION DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONSTRUCTION DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.

F. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL DRAWINGS.

G. DO NOT SCALE FOR DIMENSIONS NOT SHOWN ON DRAWINGS. SEND WRITTEN REQUEST FOR INFORMATION TO THE ARCHITECT FOR DIMENSIONS NOT PROVIDED.

H. THE STRUCTURE SHOWN ON THESE DRAWINGS IS SELF-SUPPORTING ONLY IN ITS COMPLETED FORM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE DESIGN, ADEQUACY, SAFETY, AND STABILITY OF TEMPORARY ERECTION BRACING AND SHORING.

I. NO PROVISIONS HAVE BEEN MADE IN THE DESIGN FOR THE SUPPORT OF A CONCENTRATED LOAD FROM PLUMBING, MECHANICAL OR HVAC EXCEPT AS SHOWN ON THE DRAWINGS.

J. THE GENERAL CONTRACTOR SHALL COORDINATE ALL SIZES AND LOCATIONS OF FLOOR, ROOF, AND WALL PENETRATIONS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. ALL PENETRATIONS NOT SHOWN ON STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD UNLESS NOTED OTHERWISE.

K. THE GENERAL CONTRACTOR SHALL VERIFY THAT MISCELLANEOUS FRAMING SHOWN ON THE STRUCTURAL DRAWINGS FOR MECHANICAL EQUIPMENT, OWNER-FURNISHED ITEMS, PARTITIONS, ETC. IS CONSISTENT WITH THE REQUIREMENTS OF SUCH ITEMS.

L. ELEVATIONS SHOWN ARE TO TOP OF FOUNDATIONS, SLABS OR STEEL BEAMS UNLESS NOTED OTHERWISE.

M. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ORDER TO COMPLY WITH THE CONSTRUCTION DOCUMENTS.

N. THE GENERAL CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE OSHA REGULATIONS.

O. ALL TESTING SHALL BE PAID FOR BY THE OWNER (CONTRACTOR SHALL COORDINATE WITH OWNER TO ENSURE THAT COST OF TESTING IS ACCURATE AND PRESENTED TO OWNER WITH CONSTRUCTION COSTS).

SHOP DRAWINGS AND DEFERRED SUBMITTALS

A. STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND THE SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED IN THE CONSTRUCTION DOCUMENTS.

B. THE GENERAL CONTRACTOR SHALL SUBMIT, AS REQUIRED, PRINTS OR ELECTRONIC COPIES, AS DIRECTED, OF SHOP DRAWINGS FOR ALL FABRICATED MATERIALS TO ARCHITECT FOR REVIEW.

C. REVIEW OF SHOP DRAWINGS BY THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE GENERAL CONTRACTOR OF THE SOLE RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THOSE SHOP DRAWINGS.

D. REPRODUCTION/DUPLICATION OF THE STRUCTURAL DRAWINGS FOR USE IN THE PRODUCTION OF SHOP DRAWINGS IS PROHIBITED, UNLESS NOTED OTHERWISE. IN THE EVENT THAT THE GENERAL CONTRACTOR OR SUBCONTRACTOR ELECTS TO PRODUCE SHOP DRAWINGS BY COPYING ELECTRONIC OR PAPER COPIES OF THE STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL REQUEST FROM THE STRUCTURAL ENGINEER OF RECORD A SHOP DRAWING WAIVER ALONG WITH THE SPECIFIC SHEETS REQUIRED. SIGNATURE OF THE WAIVER BY THE GENERAL CONTRACTOR, ALONG WITH PAYMENT OF A FEE TO THE STRUCTURAL ENGINEER OF RECORD WILL BE REQUIRED. THE GENERAL CONTRACTOR SHALL CONTINUE TO ASSUME RESPONSIBILITY FOR ERRORS, OMISSIONS AND COORDINATION REQUIRED FOR SHOP DRAWING PRODUCTION, REGARDLESS OF THE USE OF COPIES OF THE STRUCTURAL DRAWINGS FOR SHOP DRAWING PRODUCTION.

E. THE STRUCTURAL ENGINEER OF RECORD HAS DELEGATED THE DESIGN OF SYSTEMS NOT SHOWN IN THE STRUCTURAL DRAWINGS. SUCH SYSTEMS SHALL BE CONSIDERED DEFERRED SUBMITTALS.

F. DEFERRED SUBMITTALS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER (STRUCTURAL ENGINEER WHERE REQUIRED BY JURISDICTION) LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTALS SHALL CLEARLY INDICATE ALL LOADS AND REACTIONS TO BE IMPOSED ON THE PRIMARY STRUCTURE. SUBMITTALS SHALL INCLUDE ALL COMPONENTS AND CONNECTIONS. WHERE CONTRACT DOCUMENTS INDICATE MEMBER OR CONNECTION QUALITIES AND/OR QUANTITIES, THESE SHALL BE CONSIDERED A MINIMUM AND REMAIN THE DESIGN RESPONSIBILITY OF THE COMPONENT ENGINEER TO INCREASE AS REQUIRED TO SATISFY LOAD AND DEFLECTION REQUIREMENTS. DEFERRED SUBMITTALS SHALL INCLUDE CALCULATIONS. BOTH THE CALCULATIONS AND THE SHOP DRAWINGS OF THE DEFERRED SUBMITTAL SHALL BE SEALED PRIOR TO SUBMISSION.

G. DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION AFTER APPROVAL BY THE CONTRACTOR.
- STEEL CONNECTIONS
- OPEN WEB STEEL JOISTS
- COLD-FORMED STEEL FRAMING
- SEISMIC DESIGN AND ANCHORAGE OF NON-STRUCTURAL COMPONENTS
- ANCHORAGE OF ROOFTOP EQUIPMENT FOR WIND AND SEISMIC FORCES
- PRE-ENGINEERED WOOD TRUSSES
- GLAZING SYSTEMS

I. ALL COMPONENTS ATTACHED TO THE BUILDING STRUCTURE (CLADDING, GLAZING, STAIRS, ETC.) SHALL BE DESIGNED AND DETAILED TO ACCOMMODATE THE BUILDING'S INELASTIC SEISMIC STORY DRIFTS. DESIGN DRIFT SHALL BE TAKEN AS FOLLOWS, UNO:

- 0.02 x H

WHERE H IS THE STORY HEIGHT IN INCHES.

SUSPENDED LOADS AT STRUCTURE

A. ATTACHMENT TO ROOF DECK FOR ANY SUSPENDED LOADS IS PROHIBITED WITHOUT WRITTEN APPROVAL FROM ARCHITECT/STRUCTURAL ENGINEER OF RECORD.

B. PIPE HANGERS SHALL BE ATTACHED TO THE TOP FLANGES OF JOISTS OR BEAMS WITH APPROVED CLAMPS/CONNECTIONS.

C. ALL MULTIPLE TIER CABLE TRAYS, PIPE RACKS OR GROUPS OF PIPES OR DUCTS SHALL BE SUPPORTED FROM EACH ROOF FRAMING MEMBER WHERE THE GROUP CROSSES THE MEMBER OR AT 8'-0" OC MAX (TYPICAL) AND AT 6'-0" OC MAX FOR WOOD WHERE GROUP IS ORIENTED PARALLEL TO THE MEMBER, UNLESS NOTED OTHERWISE ON DRAWINGS.

D. HANGERS SHALL BE ADDED AT ALL PIPE VALVE AND FITTING LOCATIONS.

E. CONTRACTORS AND SUBCONTRACTORS SUSPENDING LOADS FROM STRUCTURE SHALL ACCOUNT FOR AND PROVIDE ALL CONNECTIONS, STRUTS, TIES AND RIGGING REQUIRED FOR COMPLETE INSTALLATION AND SHALL FURNISH DRAWINGS SHOWING POINTS OF SUPPORT, SUPPORT LOADS AND ALL REQUIRED SUPPLEMENTAL BRACING. PROVIDE SUPPORTS AND HANGERS AS REQUIRED FOR PIPING AND EQUIPMENT SO THAT ALL COMBINED LOADING SHALL NOT EXCEED ALLOWABLE LOADINGS OF STRUCTURE AS SHOWN ON STRUCTURAL DRAWINGS. SUPPORT LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES AND SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS OF THE ITEMS SUPPORTED.

F. EXPENSE RESULTING FROM IMPROPER COORDINATION OR LOCATION OF ANCHOR BOLTS, OPENINGS, SLEEVES, INSERTS, HANGERS OR OTHER SUPPORTS REQUIRED FOR PIPING AND EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EXISTING CONDITIONS

A. THE GENERAL CONTRACTOR SHALL SURVEY THE EXISTING STRUCTURE TO DETERMINE THAT ALL MODIFICATIONS AS INDICATED IN THE CONSTRUCTION DOCUMENTS ARE FEASIBLE AND PRACTICAL AND SHALL REPORT ANY DISCREPANCIES OR UNUSUAL CONDITIONS TO THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD.

B. WHEN EXISTING FRAMING IS SHOWN ON THE STRUCTURAL DRAWINGS IT IS FOR REFERENCE ONLY AS IT RELATES TO THE STRUCTURAL SCOPE OF WORK. THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO BE A COMPREHENSIVE REPRESENTATION OF THE AS-BUILT EXISTING STRUCTURE.

C. REFERENCE DOCUMENTS FOR THIS PROJECT INCLUDE:

1. ORIGINAL STRUCTURAL DRAWINGS DATED 9/18/1997, ISSUED FOR CONSRUCTION, BY DESIGN ASSOCIATES ARCHITECTS, INC.

2. ORIGINAL ARCHITECTURAL DRAWINGS DATED 9/18/1997, ISSUED FOR CONSRUCTION, BY DESIGN ASSOCIATES ARCHITECTS, INC.

3. ARCHITECTURAL DRAWINGS FOR LOBBY ADDITION DATED 9/10/2007, ISSUED FOR CONSRUCTION, BY DIMERY ASSOCIATES ARCHITETS

D. WHERE PORTIONS OF THE NEW CONSTRUCTION ARE INDICATED TO FIT TO EXISTING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL VERIFY DIMENSIONS OF EXISTING CONSTRUCTION BY FIELD MEASUREMENTS BEFORE SUBMISSION OF SHOP DRAWINGS AND FABRICATION.

E. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION THAT MIGHT BE AFFECTED BY OR OTHERWISE INTERFERE WITH INSTALLATION OF NEW WORK. THIS INCLUDES THOSE THAT MIGHT BE DAMAGED BY NEW FOUNDATION OR OTHER WORK, AND THOSE WHOSE PRESENCE MIGHT LEAD TO DAMAGE TO THE NEW WORK (SUCH AS DIFFERENTIAL SETTLEMENT, ETC.).

SPECIAL INSPECTIONS

A. SPECIAL INSPECTIONS ARE REQUIRED IN ADDITION TO THE INSPECTIONS SPECIFIED IN SECTION 110 OF THE BUILDING CODE.

B. ALL SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE SUPPLEMENTAL SPECIAL INSPECTIONS PACKAGE.

SEISMIC DESIGN OF NON-STRUCTURAL COMPONENTS

A. ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS, INCLUDING THEIR SUPPORT AND ATTACHMENTS, SHALL BE DESIGNED TO RESIST SEISMIC FORCES IN ACCORDANCE WITH IBC CHAPTER 16, ASCE7 CHAPTER 13, AND ANY ADDITIONAL REQUIREMENTS OF THE STATE OR LOCAL JURISDICTION. THESE REQUIREMENTS SHALL BE SATISFIED BY:

1. PROJECT-SPECIFIC DESIGN AND DOCUMENTATION PREPARED AND SUBMITTED BY A REGISTERED DESIGN PROFESSIONAL IN THE STATE IN WHICH THE PROJECT IS LOCATED.

2. SUBMITTAL OF MANUFACTURER'S CERTIFICATION THAT THE COMPONENT IS SEISMICALLY QUALIFIED BY ANALYSIS, TESTING IN ACCORDANCE WITH SECTION 13.2.5, OR EXPERIENCE DATA IN ACCORDANCE WITH SECTION 13.2.6.

B. SEISMIC BRACING OF ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS NOT SPECIFICALLY SHOWN IN THE CONTRACT DOCUMENTS SHALL BE DESIGNED BY A REGISTERED DESIGN PROFESSIONAL IN THE STATE IN WHICH THE PROJECT IS LOCATED.

C. ARCHITECTURAL COMPONENTS REQUIRING SEISMIC DESIGN AND DETAILING INCLUDE, BUT ARE NOT LIMITED TO, ACCESS FLOORS, CLADDING, GLAZING, PARTIAL HEIGHT INTERIOR WALLS, HANGING PARTITIONS, SUSPENDED CEILINGS, AND INTERIOR/EXTERIOR VENEER.

D. MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS REQUIRING SEISMIC DESIGN AND DETAILING INCLUDE, BUT ARE NOT LIMITED TO, DUCTS, LIGHT FIXTURES, PIPING SYSTEMS, ROOF TOP UNITS, AND OTHER EQUIPMENT SUPPORTED BY OR SUSPENDED FROM FLOORS OR ROOFS.

E. ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS CROSSING BUILDING EXPANSION JOINTS SHALL BE DETAILED IN ORDER TO ACCOMMODATE THE ANTICIPATED SEISMIC RELATIVE DISPLACEMENTS ACROSS THE JOINT.

WIND DESIGN OF NON-STRUCTURAL COMPONENTS

A. REFER TO THE WIND COMPONENTS AND CLADDING SCHEDULE ON SHEET S002 FOR WIND PRESSURES TO BE USED FOR THE DESIGN OF EXTERIOR COMPONENT AND CLADDING MATERIALS NOT SPECIFICALLY DESIGNED BY THE STRUCTURAL ENGINEER OF RECORD.

SOILS, SHALLOW FOUNDATIONS, & RETAINING WALLS

A. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH SPECIFICATIONS AND THE CIVIL DRAWINGS. THE STRUCTURAL DESIGN IS BASED ON RECOMMENDATIONS CONTAINED IN THE REPORT OF SUBSURFACE INVESTIGATION BY MC SQUARED, LLC PROJECT NO. A082405.125 DATED JANUARY 9, 2025. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE REPORT AND REVIEW THE RECOMMENDATIONS AND REQUIREMENTS INCLUDED THEREIN FOR THE SELECTED FOUNDATION SYSTEM IN THE CONSTRUCTION DOCUMENTS. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY ALL ASSUMPTIONS AND REPORT TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD ANY VARIATIONS.

B. DESIGN SOIL BEARING PRESSURE IS 3000 PSF.

C. DESIGN SOIL LATERAL PRESSURES ON STRUCTURE ARE DUE TO THE FOLLOWING EQUIVALENT FLUID DENSITIES:

1.	AT REST CONDITION:	55 PCF
2.	ACTIVE CONDITION:	37 PCF
3.	PASSIVE CONDITION:	151 PCF (FS = 2.0)
4.	COEFFICIENT OF FRICTION FOR SLIDING:	0.37

D. ALL EXCAVATIONS AND GRADES PREPARED FOR BEARING SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE DESIGN ASSUMPTIONS AND REPORT NONCONFORMING CONDITIONS.

E. WHERE FILL IS REQUIRED, IT SHALL BE SELECTED AND PLACED IN ACCORDANCE WITH INSTRUCTIONS OF A QUALIFIED GEOTECHNICAL ENGINEER TO MAINTAIN DESIGN BEARING PRESSURE.

F. FROST DEPTH FOR THIS PROJECT IS 12" BELOW GRADE. FINISHED GRADE SHALL BE MAINTAINED A MINIMUM OF 12" ABOVE TOP OF FOUNDATIONS.

G. TOP OF FOOTING ELEVATIONS PROVIDED ON CONSTRUCTION DRAWINGS ARE FOR PURPOSES OF DESIGN. NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF TOP OF FOOTING ELEVATIONS NEED TO BE ADJUSTED BASED ON CONTRACTOR'S FIELD COORDINATION.

1. GENERAL CONTRACTOR SHALL COORDINATE REQUIRED ADJUSTMENT OF FOOTING ELEVATIONS TO AVOID INFLUENCE BETWEEN FOUNDATIONS AND BURIED UTILITIES. ALL REQUIRED ADJUSTMENTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW. SEE "TYPICAL TRENCH ADJACENT TO FOOTING" SECTION.

H. DO NOT EMBED PIPING WITHIN OR PASS PIPING VERTICALLY OR HORIZONTALLY THROUGH FOUNDATIONS WITHOUT REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD. PIPING MAY PASS BELOW CONTINUOUS FOOTINGS WHERE INSTALLED IN ACCORDANCE WITH "TYPICAL PIPE UNDER WALL FOOTING" SECTION.

I. FOOTINGS SHALL BE CENTERED ABOUT COLUMN LINES UNLESS NOTED OTHERWISE.

J. THE DESIGN OF WALLS RETAINING EARTH ASSUMES DRAINAGE SYSTEM IS IN PLACE, AND DOES NOT INCLUDE HYDROSTATIC PRESSURE LOADS UNLESS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL PROVIDE DRAINAGE SYSTEM IN ALL BACKFILL CONDITIONS (SEE CIVIL/ARCHITECTURAL DRAWINGS FOR DRAINAGE SPECIFICATIONS).

K. THE DESIGN OF WALLS RETAINING EARTH DOES NOT INCLUDE SURCHARGE LOADS THAT MAY BE INDUCED FROM CONSTRUCTION ACTIVITIES. SEE GENERAL NOTES SECTION REGARDING GENERAL CONTRACTOR'S RESPONSIBILITIES FOR TEMPORARY ERECTION BRACING AND SHORING.

L. BACKFILL SHALL NOT BE PLACED AGAINST WALLS UNTIL THE WALLS HAVE ACHIEVED SPECIFIED DESIGN STRENGTH. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY IN 12" TO 18" LIFTS AGAINST BOTH SIDES OF WALL UNTIL THE LOWER FINAL GRADE IS REACHED.

1. UNLESS SPECIFICALLY NOTED AS "CANTILEVERED" ON STRUCTURAL DRAWINGS, WALLS RETAINING EARTH SHALL NOT BE BACKFILLED AGAINST UNTIL STRUCTURAL SLABS PROVIDING LATERAL RESTRAINT FOR THE WALLS HAVE BEEN INSTALLED AND HAVE REACHED SPECIFIED DESIGN STRENGTH. WHERE THIS CANNOT BE ACCOMMODATED THE WALL SHALL BE SHORED CONTINUALLY.

STRUCTURAL SHEET LIST

SHEET NUMBER	SHEET NAME
S001	GENERAL NOTES & SCHEDULES
S002	DESIGN CRITERIA
S002A	LOAD MAPS
S003	CONCRETE GENERAL NOTES & SCHEDULES
S005	STEEL GENERAL NOTES & SCHEDULES
S006	WOOD GENERAL NOTES
S101	FOUNDATION PLAN
S102	LEVEL 2 FRAMING PLAN
S103	ROOF FRAMING PLAN
S201	WOOD WALL ELEVATIONS
S202	WOOD SHEAR WALL ELEVATIONS
S301	FOUNDATION DETAILS
S311	SLAB-ON-GROUND DETAILS
S312	SLAB-ON-GROUND DETAILS
S313	SLAB-ON-GROUND DETAILS
S501	STEEL FRAMING DETAILS
S511	COMPOSITE STEEL FRAMING DETAILS
S512	COMPOSITE STEEL FRAMING DETAILS
S513	COMPOSITE STEEL FRAMING DETAILS
S521	STEEL ROOF FRAMING DETAILS
S522	STEEL ROOF FRAMING DETAILS
S523	STEEL ROOF FRAMING DETAILS
S601	WOOD ROOF FRAMING DETAILS
S602	WOOD ROOF FRAMING DETAILS
S611	WOOD SHEAR WALL AND DIAPHRAGM DETAILS

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	KLF	KIPS PER LINEAL FOOT
ADDL	ADDITIONAL	KO	KNOCKOUT
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL	KSI	KIPS PER SQUARE INCH
AFF	ABOVE FINISHED FLOOR	KSF	KIPS PER SQUARE FOOT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	L	LENGTH
AISI	AMERICAN IRON AND STEEL INSTITUTE	LFH	LONG FACE HORIZONTAL
ALTN	ALTERNATE	LFV	LONG FACE VERTICAL
AR	ANCHOR ROD	LG	LONG
ARCH	ARCHITECT	LL	LIVE LOAD
ASD	ALLOWABLE STRESS DESIGN	LLH	LONG LEG HORIZONTAL
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	LLV	LONG LEG VERTICAL
AWS	AMERICAN WELDING SOCIETY	LO	LOW
B/	BOTTOM OF	LOCS	LOCATIONS
BD	BOARD	LRFD	LOAD RESISTANCE FACTORED DESIGN
BETW	BETWEEN	LSH	LONG SIDE HORIZONTAL
BLDG	BUILDING	LSV	LONG SIDE VERTICAL
BM	BEAM	LW	LONG WAY
BOT	BOTTOM	LWC	LIGHT WEIGHT CONCRETE
BP	BASE PLATE	MAX	MAXIMUM
BRDG	BRIDGING	MEP	MECHANICAL, ELECTRICAL & PLUMBING
BRG	BEARING	MEZZ	MEZZANINE
C/C	CENTER-CENTER	MFR	MANUFACTURER
CFSF	COLD FORMED STEEL FRAMING	MIN	MINIMUM
CIP	CAST-IN-PLACE	MISC	MISCELLANEOUS
CJ	CONTROL JOINT	MPII	MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
CL	CENTERLINE	MTL	METAL
CLR	CLEAR	NIC	NOT IN CONTRACT
CMU	CONCRETE MASONRY UNIT	NS	NEAR SIDE
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CONN	CONNECTION	OD	OUTSIDE DIAMETER
CONT	CONTINUOUS	OH	OPPOSITE HAND
CTR	CENTER	OPEN	OPENING
D	DEEP	PAF	POWDER ACTUATED FASTENERS
DBA	DEFORMED BAR ANCHOR	PCF	POUNDS PER CUBIC FOOT
DBL	DOUBLE	PEMB	PRE-ENGINEERED METAL BUILDING
DEP	DEPRESSED	PJF	PREFORMED JOINT FILLER
DIA	DIAMETER	PL	PLATE
DIAG	DIAGONAL	PLF	POUNDS PER LINEAL FOOT
DL	DEAD LOAD	PPHCC	PRESTRESSED PRECAST HOLLOW CORE CONCRETE
DWL	DOWEL	PREFAB	PRE-FABRICATED
DN	DOWN	PSI	POUNDS PER SQUARE INCH
EA	EACH	PSF	POUNDS PER SQUARE FOOT
EF	EACH FACE	PT	POST TENSIONED
EJ	EXPANSION JOINT	P.T.	PRESSURE TREATED
ELEV	ELEVATION	QTY	QUANTITY
ENG	ENGINEER OR ENGINEERING	RAD	RADIUS
EOS	EDGE OF SLAB	RD	ROOF DRAIN
EQ	EQUAL	REF	REFERENCE
EW	EACH WAY	REINF	REINFORCING
EXIST	EXISTING	REQD	REQUIRED
EXP	EXPANSION	REV	REVISION
EXT	EXTERIOR	RTU	ROOF TOP UNIT
F/	FACE OF	SCHED	SCHEDULE
FD	FLOOR DRAIN	SER	STRUCTURAL ENGINEER OF RECORD
FDN	FOUNDATION	SF	SQUARE FOOT
FF	FINISH FLOOR	SHTHG	SHEATHING
FLR	FLOOR	SIM	SIMILAR
FRT	FIRE RETARDANT TIMBER	SLH	SHORT LEG HORIZONTAL
FS	FAR SIDE	SLV	SHORT LEG VERTICAL
FTG	FOOTING	SOG	SLAB ON GROUND
FV	FIELD VERIFY	SPA	SPACES
GA	GAUGE, GAGE	SPEC	SPECIFICATION
GALV	GALVANIZED	SS	STAINLESS STEEL
GC	GENERAL CONTRACTOR	STD	STANDARD
GDR	GIRDER	STIFF	STIFFENER
GENL	GENERAL	STL	STEEL
GYP	GYPSUM	SW	SHORT WAY
HCA	HEADED CONCRETE ANCHORS	SYM	SYMMETRICAL
HDR	HEADER	T/	TOP OF
HG	HIP GIRDER	T&B	TOP & BOTTOM
HGR	HANGER	T&G	TONGUE & GROOVE
HI	HIGH	TEMP	TEMPORARY
HKD	HOOKED	TG	TRUSS GIRDER
HORIZ	HORIZONTAL	THK	THICKENED/THICK
HSS	HOLLOW STRUCTURAL SECTION	THRU	THROUGH
H.T.	HEAVY TIMBER	TYP	TYPICAL
ID	INSIDE DIAMETER	UNO	UNLESS NOTED OTHERWISE
IE	INVERT ELEVATION	VERT	VERTICAL
INSUL	INSULATION OR INSULATING	W	WIDE
INT	INTERIOR	W/	WITH
JBE	JOIST BEARING ELEVATION	W/O	WITHOUT
JT	JOINT	WD	WOOD
JST	JOIST	WP	WORK POINT
K	KIPS (KILOPOUNDS)	WWR	WELDED WIRE REINFORCEMENT

Brown AND Caldwell

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS IT BEARS THE SEAL AND SIGNATURE OF A DULY REGISTERED PROFESSIONAL

CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

GENERAL NOTES & SCHEDULES

DRAWING NUMBER
S001

Plot Date: 4/27/2026 6:47:18 PM
Path: Autodesk Docs://NCWSA Admin Bldg_ V25/0250683-NCWSA Office Addition-R25-STRUCT.rvt

BUILDING CODES

BUILDING CODES:

ALL DESIGN AND NEW CONSTRUCTION IS BASED ON AND SHALL BE IN ACCORDANCE WITH:

1. INTERNATIONAL BUILDING CODE, 2024 EDITION

2. STATE AND LOCAL AMENDMENTS: 2025 GEORGIA AMENDMENTS

3. REFERENCED STANDARDS WITH THE EFFECTIVE DATES INDICATED IN THE GOVERNING BUILDING CODE.

EXISTING BUILDING WORK:

ALL EVALUATION AND DESIGN ASSOCIATED WITH EXISTING CONDITIONS IS BASED ON:

1. INTERNATIONAL EXISTING BUILDING CODE, 2024 EDITION

2. STATE AND LOCAL AMENDMENTS: 2025 GEORGIA AMENDMENTS

3. IEBC COMPLIANCE PATH:
   - REPAIRS
   - PRESCRIPTIVE METHOD
   - WORK AREA METHOD
   - PERFORMANCE METHOD

4. STRUCTURAL SCOPE:
   - ADDITION

DESIGN LOADS

DESIGN ROOF DEAD LOAD:	
SEE LOAD MAPS ON S002A	
DESIGN ROOF LIVE LOAD:	
SEE LOAD MAPS ON S002A	
DESIGN ROOF RAIN LOAD:	
RAIN INTENSITY (100 YEAR, 1-HOUR RAINFALL)	3.2"/HR
DESIGN RAIN INTENSITY FOR STRUCTURAL DESIGN (100 YEAR, 15-MINUTE RAINFALL)	6.8"/HR
DESIGN DEPTH OF RAINWATER AT LOWEST POINT OF ROOF DURING DESIGN RAINFALL	5"
DESIGN ELEVATED FLOOR DEAD LOAD:	
SEE LOAD MAPS ON S002A	
DESIGN SLAB-ON-GROUND LIVE LOAD:	
UNIFORM LIVE LOAD	125 PSF
DESIGN ELEVATED FLOOR LIVE LOAD:	
SEE LOAD MAPS ON S002A. REDUCTIONS APPLIED PER TRIBUTARY AREA AS PERMITTED BY CODE.	
DESIGN SNOW LOAD:	
GROUND SNOW LOAD, Pg	15 PSF
ALLOWABLE STRESS DESIGN GROUND SNOW LOAD, Pg(asd)	10.5
FLAT ROOF SNOW LOAD, Pf	13 PSF
MINIMUM ROOF SNOW LOAD, Pm	15 PSF
SNOW EXPOSURE FACTOR, Ce	1.0
RISK CATEGORY	II
SNOW THERMAL FACTOR (TYPICAL), Ct	1.16
WINTER WIND PARAMETER FOR SNOW DRIFT, W2	0.35
SEE SNOW DRIFT LOAD DIAGRAM ON THIS SHEET FOR SNOW DRIFT LOADS	
DESIGN WIND LOAD:	
BASIC DESIGN WIND SPEED, V	105 MPH
ALLOWABLE STRESS DESIGN WIND SPEED, Vasd	82 MPH
RISK CATEGORY	II
WIND EXPOSURE CATEGORY	C
COMPONENTS AND CLADDING WIND PRESSURE	SEE SCHEDULE
INTERNAL PRESSURE COEFFICIENT	+/-0.18
DESIGN SEISMIC LOAD:	
RISK CATEGORY	II
SPECTRAL RESPONSE ACCELERATION PARAMETER, Ss	0.240
SPECTRAL RESPONSE ACCELERATION PARAMETER, S1	0.091
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER, Sds	0.200
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER, Sd1	0.130
SITE CLASS (AS DETERMINED BY GEOTECHNICAL INVESTIGATION)	D
BASIC SEISMIC-FORCE RESISTING SYSTEM	
ONE-STORY WOOD STRUCTURE ADDITION: LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE TWO-STORY STEEL STRUCTURE ADDITION: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE, EXCLUDING CANTILEVER COLUMN SYSTEMS	
RESPONSE MODIFICATION FACTOR, R	
ONE-STORY WOOD STRUCTURE ADDITION	6.5
TWO-STORY STEEL STRUCTURE ADDITION	3
DESIGN BASE SHEAR, V	
ONE-STORY WOOD STRUCTURE ADDITION	5 K
TWO-STORY STEEL STRUCTURE ADDITION	40K
ANALYSIS PROCEDURE:	
EQUIVALENT LATERAL FORCE (ASCE 7, SECTION 12.8)	
SEISMIC DESIGN CATEGORY	B
SEISMIC IMPORTANCE FACTOR, Ie	1.00
SEISMIC RESPONSE COEFFICIENT, Cs	
ONE-STORY WOOD STRUCTURE ADDITION	0.029
TWO-STORY STEEL STRUCTURE ADDITION	0.064

NOTES:

1. NO PROVISIONS HAVE BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION.

COMPONENTS & CLADDING EXTERNAL PRESSURE LOADS (PSF) TWO-STORY STEEL ADDITION

IBC 2024: LOCATION PER ASCE 7-22: FIGURE 30.3-1 & 30.3-2A

EFFECTIVE WIND AREA (FT2)	ROOF: ALL ROOF ZONES	ROOF: 1'	ROOF: 1	ROOF: 2	ROOF: 3	ROOF OVERHANGS: ROH1, ROH1'	ROOF OVERHANGS: ROH2	ROOF OVERHANGS: ROH3	WALLS: ALL WALL ZONES	WALLS: 4	WALLS: 5	PARAPETS: P4 (+&-)	PARAPETS: P5 (+&-)
<10	11.0	-24.8	-43.1	-56.9	-77.5	-39.0	-52.7	-73.4	24.8	-26.8	-33.0	77.6	98.8
20	10.3	-24.8	-40.3	-53.2	-70.2	-38.3	-47.9	-64.9	23.7	-25.7	-30.8	72.6	90.0
50	9.4	-24.8	-36.5	-48.4	-60.5	-37.4	-41.4	-53.6	22.2	-24.3	-27.9	66.0	78.5
>100	8.7	-24.8	-33.7	-44.7	-53.2	-36.7	-36.6	-45.0	21.1	-23.2	-25.7	61.0	69.7
>500	8.7	-16.8	-27.1	-36.2	-36.2	-22.9	-25.2	-25.2	18.6	-20.6	-20.6	49.4	49.4

ROOFTOP EQUIPMENT	
Phoriz =	43.6 PSF
Puplift =	-34.4 PSF

NOTES:

1 a = 10'-9". SEE ASSOCIATED WALL ISOMETRIC FOR LOCATION OF WALL ZONES.

2 POSITIVE PRESSURE VALUES REFER TO FORCES ACTING TOWARDS BUILDING OR COMPONENT FACE, NEGATIVE PRESSURE VALUES REFER TO FORCES ACTING AWAY FROM BUILDING OR COMPONENT FACE.

3 EACH COMPONENT AND ITS CONNECTION SHALL BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE FORCES.

4 FOR COMPONENTS HAVING EFFECTIVE AREAS IN BETWEEN TABULATED VALUES, DESIGN LOADS MAY BE INTERPOLATED. OTHERWISE DESIGN LOAD SHALL BE TAKEN FROM THE NEXT LOWEST TABULATED EFFECTIVE AREA.

5 DESIGN VALUES SHOWN IN THIS TABLE ARE ULTIMATE VALUES FOR USE WITH LRFD DESIGN. VALUES MAY BE MULTIPLIED BY 0.6 FOR USE WITH SERVICE LEVEL OR ASD DESIGN. REFER TO THE BUILDING CODE FOR APPLICABLE LOAD COMBINATIONS.

6 PARAPET COMPONENTS AND CLADDING ARE THOSE ELEMENTS WHICH EXIST ABOVE THE HORIZONTAL PLANE OF THE ROOF AND SHALL BE DESIGNED FOR:

· POSITIVE AND NEGATIVE PRESSURES 4 OR 5 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON OUTSIDE FACE.

· POSITIVE PRESSURES 4 OR 5 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON ROOF SIDE FACE.

· NEGATIVE PRESSURES 2 OR 3 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON ROOF SIDE FACE.

· P4/5 SHALL BE APPLIED TO THE DESIGN OF THE STRUCTURAL ELEMENT OF THE PARAPET AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE PARAPET.

7 ROOTOP EQUIPMENT PRESSURES SHALL BE APPLIED HORIZONTALLY AND VERTICALLY TO COMPONENTS WHICH ARE EITHER ROOFTOP STRUCTURES OR ROOFTOP APPURTENANCES AND THEIR CONNECTION. EXAMPLES OF THIS ARE RTUs, AHUs, AND SCREEN WALLS.

8 ROH# : DENOTES DESIGN WIND PRESSURE VALUES WHICH SHALL BE APPLIED AT ROOF OVERHANGS TO TOP SURFACE CLADDING OR SHEATHING AND ITS CONNECTION. SOFFIT CLADDING OR SHEATHING SHALL BE DESIGNED FOR SIMILAR PRESSURE TO THE ADJACENT WALL PRESSURE. A COMBINATION OF THESE FORCES SHALL BE APPLIED TO THE STRUCTURAL ELEMENT OF THE OVERHANG AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE OVERHANG.

COMPONENTS & CLADDING EXTERNAL PRESSURE LOADS (PSF) ONE-STORY WOOD ADDITION

IBC 2024: LOCATION PER ASCE 7-22: FIGURE 30.3-1 & 30.3-2B & 30.3-2E

EFFECTIVE WIND AREA (FT2)	ROOF: ALL ROOF ZONES	ROOF: 1	ROOF: 2	ROOF: 3	ROOF OVERHANGS: ROH1	ROOF OVERHANGS: ROH2	ROOF OVERHANGS: ROH3	WALLS: ALL WALL ZONES	WALLS: 4	WALLS: 5
<10	18.0	-45.1	-59.6	-78.2	-62.1	-76.6	-95.2	24.4	-26.5	-32.7
20	15.5	-38.8	-51.5	-67.0	-54.6	-67.3	-82.9	23.3	-25.4	-30.5
50	12.8	-30.4	-40.7	-52.2	-44.8	-55.1	-66.6	21.9	-23.9	-27.6
>100	11.4	-24.7	-35.4	-41.0	-37.9	-48.6	-54.3	20.8	-22.8	-25.4
>500	9.9	-20.0	-30.2	-41.0	-30.6	-40.8	-51.7	18.2	-20.3	-20.3

NOTES:

1 a = 6'-6". SEE ASSOCIATED WALL ISOMETRIC FOR LOCATION OF WALL ZONES.

2 POSITIVE PRESSURE VALUES REFER TO FORCES ACTING TOWARDS BUILDING OR COMPONENT FACE, NEGATIVE PRESSURE VALUES REFER TO FORCES ACTING AWAY FROM BUILDING OR COMPONENT FACE.

3 EACH COMPONENT AND ITS CONNECTION SHALL BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE FORCES.

4 FOR COMPONENTS HAVING EFFECTIVE AREAS IN BETWEEN TABULATED VALUES, DESIGN LOADS MAY BE INTERPOLATED. OTHERWISE DESIGN LOAD SHALL BE TAKEN FROM THE NEXT LOWEST TABULATED EFFECTIVE...

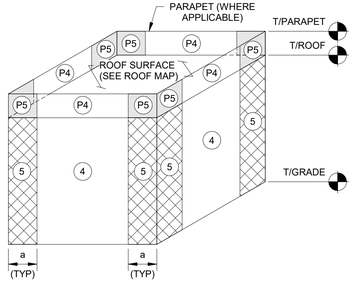
5 DESIGN VALUES SHOWN IN THIS TABLE ARE ULTIMATE VALUES FOR USE WITH LRFD DESIGN. VALUES MAY BE MULTIPLIED BY 0.6 FOR USE WITH SERVICE LEVEL OR ASD DESIGN. REFER TO THE BUILDING CODE FOR APPLICABLE LOAD COMBINATIONS.

6 ROOTOP EQUIPMENT PRESSURES SHALL BE APPLIED HORIZONTALLY AND VERTICALLY TO COMPONENTS WHICH ARE EITHER ROOFTOP STRUCTURES OR ROOFTOP APPURTENANCES AND THEIR CONNECTION. EXAMPLES OF THIS ARE RTUs, AHUs, AND SCREEN WALLS.

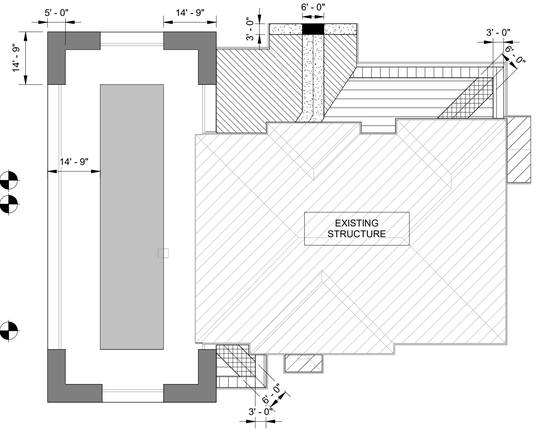
7 ROH# : DENOTES DESIGN WIND PRESSURE VALUES WHICH SHALL BE APPLIED AT ROOF OVERHANGS TO TOP SURFACE CLADDING OR SHEATHING AND ITS CONNECTION. SOFFIT CLADDING OR SHEATHING SHALL BE DESIGNED FOR SIMILAR PRESSURE TO THE ADJACENT WALL PRESSURE. A COMBINATION OF THESE FORCES SHALL BE APPLIED TO THE STRUCTURAL ELEMENT OF THE OVERHANG AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE OVERHANG.

C&C DIAGRAM KEY:

- DENOTES FLAT ROOF ZONE 1 PRESSURES
- DENOTES FLAT ROOF ZONE 2 PRESSURES
- DENOTES FLAT ROOF ZONE 3 PRESSURES
- DENOTES GABLE ZONE 1 PRESSURES
- DENOTES GABLE ZONE 2 PRESSURES
- DENOTES GABLE ZONE 3 PRESSURES
- DENOTES HIP ZONE 1 PRESSURES
- DENOTES HIP ZONE 2 PRESSURES
- DENOTES HIP ZONE 3 PRESSURES



WALL ISOMETRIC

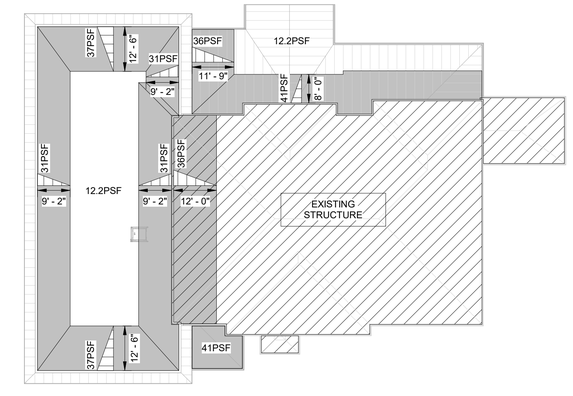


ROOF PLAN

COMPONENTS & CLADDING DIAGRAM

1 S002

SCALE: 1" = 20'-0"



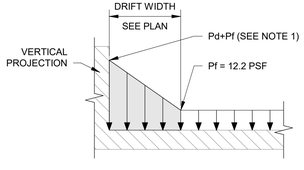
ROOF SNOW DRIFT DIAGRAM

2 S002

SCALE: 1" = 20'-0"

SNOW DRIFT LOAD DIAGRAM NOTES:

1. DENOTES LOCATION OF SNOW DRIFT. LOADS SHOWN ARE TOTAL SNOW LOAD (Pd+Pf) WITH VALUES DECREASING LINEARLY FROM DENOTED PRESSURE TO BALANCED SNOW LOAD PRESSURE (Pf), UNLESS NOTED OTHERWISE
2. DENOTES LOCATION OF BALANCED FLAT ROOF SNOW LOAD (Pf) ONLY. SEE DESIGN CRITERIA ON Sxxx FOR ADDITIONAL SNOW LOADING INFORMATION
3. ALL LOADS ARE UNFACTORED
4. WHERE DRIFT LOADS ARE SHOWN ON DRIFT DIAGRAM, DRIFT LOADS HAVE BEEN ACCOUNTED FOR IN DESIGN OF STRUCTURE AND IN STEEL JOIST DESIGNATIONS ON ROOF FRAMING PLANS.



BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS IT BEARS THE SEAL AND SIGNATURE OF A DULY REGISTERED PROFESSIONAL

CONSTRUCTION DOCUMENTS

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

DESIGN CRITERIA

DRAWING NUMBER
S002

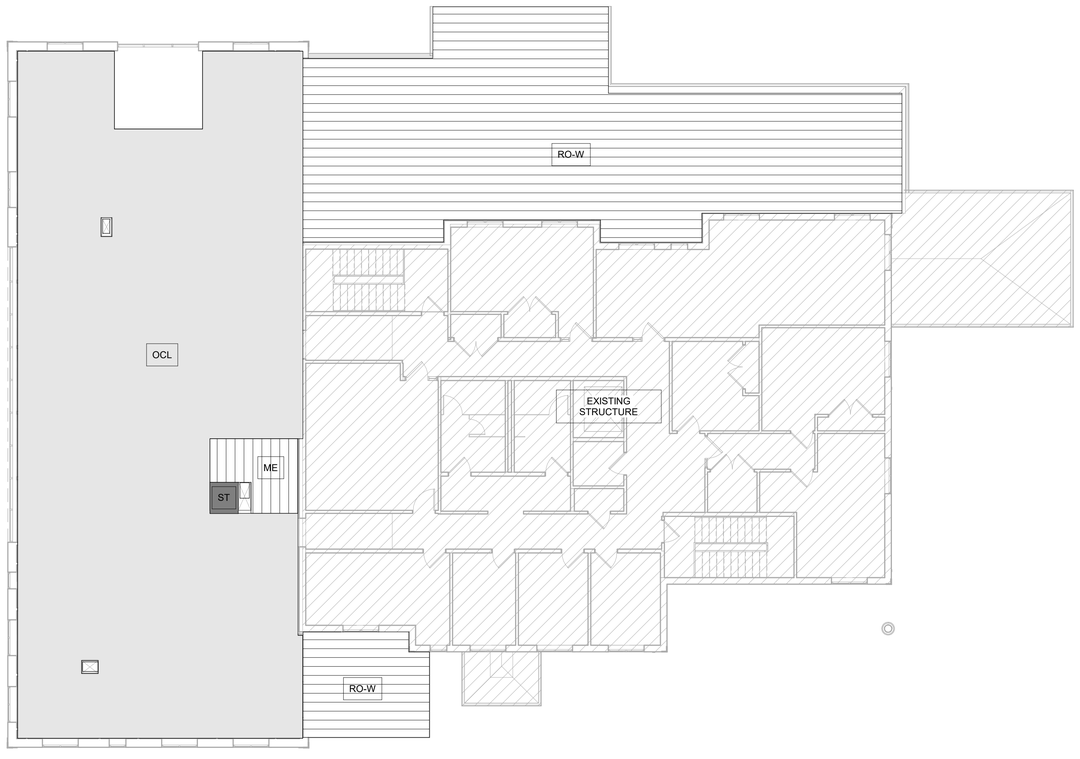
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LOAD MAP KEY

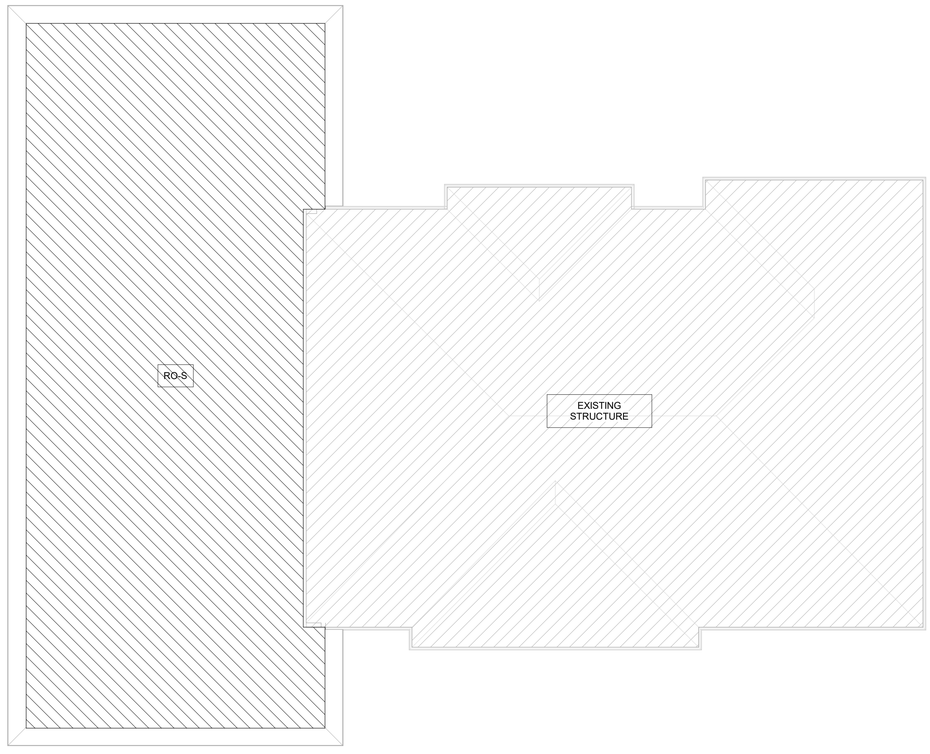
LOAD MARK	OCCUPANCY OR USE	SUPERIMPOSED DEAD LOAD (PSF)	LIVE LOAD (PSF)	LIVE LOAD REDUCTION	CONCENTRATED LIVE LOAD (LB)	REMARKS
ME	MECHANICAL/ELECTRICAL	20	125	NO	-	-
OCL	OFFICES, CORRIDORS, LOBBIES	20	100	NO	2000	-
RO-S	STEEL ROOF	20	20	YES	300	-
RO-W	WOOD ROOF	TOP CHORD DL = 10 PSF BOTTOM CHORD DL = 10 PSF	TOP CHORD LL = 20 PSF	YES	300	TRUSS SELF WEIGHT = 3 PSF (ASSUMED)
ST	LIGHT STORAGE	20	125	NO	-	-

LOAD MAP NOTES:

1. FOR DESIGN LOAD CRITERIA, SEE S002.
2. SUPERIMPOSED DEAD LOADS ARE IN ADDITION TO THE SELF-WEIGHT OF THE STEEL COMPOSITE STRUCTURE.
3. SEE FRAMING PLANS FOR DESIGN LOADS OF SPECIFIC ITEMS SUCH AS MECHANICAL EQUIPMENT.
4. LIVE LOAD REDUCTION SHALL BE IN ACCORDANCE WITH THE REFERENCED BUILDING CODE.
5. ALL LOADS ARE UNFACTORED FOR USE IN THE APPLICABLE LOAD COMBINATIONS OF THE REFERENCED BUILDING CODE, UNO.



LEVEL 2 LOAD MAP — 1 / S002A
SCALE: 1" = 10'-0"



ROOF LOAD MAP — 2 / S002A
SCALE: 1" = 10'-0"

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

LOAD MAPS

DRAWING NUMBER
S002A

Plot Date: 4/27/2026 6:47:23 PM
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CONCRETE

A. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH DIVISION 03 SPECIFICATIONS.

B. CONCRETE MIXTURES SHALL MEET THE MINIMUM REQUIREMENTS TABULATED IN THE SCHEDULE ON THIS SHEET.

C. THE GENERAL CONTRACTOR SHALL SUBMIT TO STRUCTURAL ENGINEER OF RECORD PROPOSED CONSTRUCTION JOINT LOCATIONS FOR APPROVAL. NO HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED EXCEPT THOSE SHOWN ON THE STRUCTURAL DRAWINGS. WHERE NEW CONCRETE IS TO BE POURED ONTO EXISTING CONCRETE, BONDING IS REQUIRED AS NOTED IN ACI 301.

D. THE FOLLOWING CRITERIA REGARDING PIPES AND CONDUITS EMBEDDED IN ELEVATED CONCRETE SLABS SHALL BE ADHERED TO (SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR LOCATION OF SLEEVES, PIPES, CONDUIT, ACCESSORIES, ETC). THIS CRITERIA WILL BE STRICTLY ENFORCED.

1. CONDUITS, PIPES, AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE SHALL BE PERMITTED TO BE EMBEDDED IN CONCRETE WITH THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
2. CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE.
3. CONDUITS, PIPES, AND SLEEVES PASSING THROUGH A SLAB SHALL NOT SIGNIFICANTLY IMPAIR THE STRENGTH OF THE CONSTRUCTION.
4. CONDUITS AND PIPES SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 THE OVERALL THICKNESS OF THE SLAB, WALL, OR BEAM IN WHICH THEY ARE EMBEDDED.
5. CONDUITS AND PIPES SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS OR WIDTHS ON CENTER. CONCRETE COVER FOR PIPES, CONDUITS AND FITTINGS SHALL NOT BE LESS THAN 1 1/2" FOR CONCRETE EXPOSED TO EARTH OR WEATHER, NOR 3/4" FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND.
6. CONDUITS AND PIPES SHALL BE PLACED BETWEEN TOP AND BOTTOM SLAB REINFORCEMENT. CONDUITS AND PIPES SHALL BE PLACED IN THE MIDDLE THIRD OF THE SLAB OR WALL THICKNESS UNLESS NOTED OTHERWISE.
7. CONDUITS AND PIPES SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED.
8. CONDUITS AND PIPES, WITH FITTINGS, EMBEDDED WITHIN A COLUMN SHALL NOT DISPLACE MORE THAN 4 PERCENT OF THE AREA OF CROSS SECTION NOTED ON DRAWINGS OR AS REQUIRED BY FIRE PROTECTION.
9. PIPES AND FITTINGS SHALL BE DESIGNED TO RESIST EFFECTS OF MATERIAL, PRESSURE AND TEMPERATURE TO WHICH THEY WILL BE SUBJECTED.
10. REINFORCEMENT WITH AN AREA NOT LESS THAN 0.002 TIMES THE AREA OF CONCRETE SECTION SHALL BE PROVIDED NORMAL TO PIPING. THIS REINFORCEMENT SHALL BE IN ADDITION TO REINFORCEMENT NOTED ON DRAWINGS.
11. REFER TO ACI 318, SECTION 6.3 FOR ADDITIONAL REQUIREMENTS FOR CONDUITS AND PIPES EMBEDDED IN CONCRETE.

E. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR DRIPS, CHAMFERS, REGLETS, SLOTS, SLEEVES, RUSTICATIONS, INSERTS ANCHORS AND OTHER EMBEDDED ITEMS NOT NOTED ON STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PLACING ALL EMBEDDED ITEMS SHOWN ON DRAWINGS & ADDITIONAL ITEMS NOTED IN THIS NOTE, AS REQUIRED BY OTHER TRADES. UNLESS SHOWN ON STRUCTURAL DRAWINGS, NO OPENINGS LARGER THAN 12"x12" SHALL BE PLACED IN SLABS OR WALLS. FOR OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS, APPROVALS MUST BE OBTAINED FROM THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OF STEEL AND PLACEMENT OF CONCRETE. SHOW ALL OPENINGS AND SLEEVES ON THE SHOP DRAWINGS.

F. CORING OF SLABS AND USE OF DRILLED ANCHORS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD. IF APPROVED, COORDINATE ANCHOR LOCATIONS SO THAT NO CONTACT IS MADE WITH ANY REINFORCING OR PT TENDONS.

G. POWDER ACTUATED FASTENERS (OR POWDER DRIVEN FASTENERS) SHALL BE ANCHORED IN CONCRETE WITH MINIMUM FASTENER SPACING OF 3" AND MINIMUM EDGE DISTANCE OF 2". FASTENERS SHALL NOT EXCEED 5/8" EMBEDMENT UNLESS APPROVED BY STRUCTURAL ENGINEER OF RECORD.

H. WHERE POLYSTYRENE RIGID INSULATION IS INDICATED AS A FILL MATERIAL BELOW CONCRETE SLABS, INSULATION SHALL CONFORM TO ASTM C-578 WITH MINIMUM COMPRESSIVE RESISTANCE OF 40 PSI AND MINIMUM DENSITY OF 1.8 PCF. INSULATION SHALL ALSO COMPLY WITH ADDITIONAL DIVISION 07 SPECIFICATION REQUIREMENTS WHERE IT IS INTENDED TO PERFORM AS AN INSULATION MATERIAL.

I. STEEL HEADED SHEAR REINFORCEMENT & STUD RAIL ASSEMBLIES SHALL CONFORM TO ASTM A1044.

SLAB-ON-GROUND

A. CONCRETE SLAB CONTROL JOINTS SHALL BE CUT INTO THE SLABS AT A DEPTH OF 1/3 TIMES THE THICKNESS OF THE SLAB FOR FIBER REINFORCED SLABS, 1/4 TIMES THE THICKNESS OF THE SLAB FOR ALL OTHER SLABS USING CONVENTIONAL WET-CUT SAW, AND 1/5 TIMES THE THICKNESS OF THE SLAB FOR ALL OTHER SLABS USING EARLY-ENTRY DRY-CUT SAW. SLAB SHALL BE SAWCUT WITHIN 4 HOURS OF CONCRETE PLACEMENT USING EARLY-ENTRY DRY-CUT SAW OR WITHIN 12 HOURS USING WET-CUT SAW. MAXIMUM SPACING OF INTERIOR SLAB CONTROL JOINTS, UNLESS NOTED OTHERWISE, SHALL BE PER THE TYPICAL CONTROL JOINT KEY PLAN, OR AS SHOWN ON THE CONSTRUCTION DRAWINGS.

B. SLAB CONSTRUCTION JOINTS SHALL BE USED IN PLACE OF CONTROL JOINTS WHERE NEEDED TO INTERRUPT A CONTINUOUS POUR.

C. PLACEMENT OF WELDED WIRE REINFORCEMENT IN SLAB, WHERE SPECIFIED, SHALL BE AT A CONSISTENT DEPTH OF 1 1/2" FROM T/SLAB. WELDED WIRE REINFORCEMENT SHALL BE PROPERLY CHAIRED ABOVE GRADE.

D. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DOCUMENTS FOR SLAB FINISHES, SLAB DEPRESSIONS, THICKENED SLABS (IN ADDITION TO THICKENED SLABS NOTED ON STRUCTURAL DRAWINGS), ELEVATIONS, AND ENCASED OR EMBEDDED ITEMS.

E. PLUMBING AND ELECTRICAL CONDUITS SHALL BE PLACED BELOW THE SLAB AND NOT WITHIN THE SLAB. VERTICAL PENETRATIONS ARE ALLOWED.

F. COLUMN BOX-OUTS SHALL BE USED TO ISOLATE AN ADEQUATE AREA AROUND COLUMN BASE PLATES TO PROVIDE FOR COLUMN PLACEMENT AND LEVELING. BOX-OUTS SHALL BE CLEAN AND FREE OF DEBRIS TO TOP OF FOOTING PRIOR TO FILLING WITH CONCRETE.

REINFORCING STEEL

A. REINFORCING STEEL AND ACCESSORIES WORK SHALL BE IN ACCORDANCE WITH DIVISION 03 SPECIFICATIONS.

B. REINFORCEMENT SHALL BE SPLICED ONLY AT LOCATIONS SHOWN OR NOTED IN THE STRUCTURAL DOCUMENTS, EXCEPT REINFORCEMENT MARKED "CONTINUOUS" CAN BE SPLICED AT LOCATIONS DETERMINED BY THE GENERAL CONTRACTOR. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.

C. LONGITUDINAL REINFORCING BARS IN FOOTINGS SHALL BE PLACED CONTINUOUS AT CORNERS AND INTERSECTIONS.

D. FOR EVERY VERTICAL OR HORIZONTAL BAR DISCONTINUED BY AN OPENING, ONE BAR (MIN. OF 2 BARS) SHALL BE ADDED AT SIDE OF OPENING (HALF TO EACH SIDE - TYPICAL).

E. PROVIDE DOWELS FROM FOUNDATIONS, THE SAME SIZE AND NUMBER AS THE VERTICAL WALL OR COLUMN REINFORCING, UNLESS NOTED OTHERWISE.

CLASS B TENSION LAP SPLICE LENGTHS (ACI 318)

LAP SPLICE

F'c = 3000 PSI					F'c = 4000 PSI				
BAR SIZE	TOP BARS (SEE NOTE 3)		OTHER BARS		BAR SIZE	TOP BARS (SEE NOTE 3)		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2		CASE 1	CASE 2	CASE 1	CASE 2
#3	28	42	21	32	#3	24	36	18	28
#4	37	56	28	43	#4	32	48	25	37
#5	46	69	36	53	#5	40	60	31	46
#6	56	83	43	64	#6	48	72	37	55
#7	81	131	62	93	#7	70	105	54	81
#8	93	139	71	107	#8	80	120	62	92
#9	104	157	80	120	#9	90	136	70	104
#10	118	176	90	136	#10	102	153	78	117
#11	131	196	100	151	#11	113	170	87	130

NOTES

1. TABULATED VALUES ARE BASED ON MINIMUM YIELD STRENGTH OF 60 KSI. LENGTHS ARE IN INCHES.
2. CASE 1 AND CASE 2 DEPEND ON THE TYPE OF STRUCTURAL MEMBER, CONCRETE COVER, AND BAR SPACING AND ARE DEFINED AS FOLLOWS:

BEAMS & COLUMNS	CASE 1	CLEAR SPACING ≥ 2.0 BAR DIA
	CASE 2	CLEAR SPACING < 2.0 BAR DIA
ALL OTHERS	CASE 1	CONCRETE COVER ≥ 1.0 BAR DIA AND CLEAR SPACING ≥ 2.0 BAR DIA
	CASE 2	CONCRETE COVER < 1.0 BAR DIA OR CLEAR SPACING < 2.0 BAR DIA

3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE PLACED BELOW THE DEVELOPMENT OR SPLICE.
4. REBAR IS ASSUMED TO BE UNCOATED (NO EPOXY COATING). INCREASE LAP SPLICE AND DEVELOPMENT LENGTHS SHOWN BY 1.3 FOR TOP, AND 1.5 FOR OTHER EPOXY COATED BARS.
5. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATED VALUES BY 1.3.
6. LAP SPLICE LENGTHS SHALL BE AS SHOWN IN THE TABLE ABOVE, UNLESS NOTED OTHERWISE.
7. WHERE BARS OF DIFFERENT SIZES ARE LAP SPLICED, THE LAP SPLICE LENGTH SHALL BE THE LARGER OF THE TENSION DEVELOPMENT LENGTH OF THE LARGER BAR AND THE TENSION LAP SPLICE LENGTH OF THE SMALLER BAR.

TENSION DEVELOPMENT LENGTHS (ACI 318)

DEVELOPMENT LENGTH
CRITICAL SECTION (SEE DETAILS)

F'c = 3000 PSI					F'c = 4000 PSI				
BAR SIZE	TOP BARS (SEE NOTE 3)		OTHER BARS		BAR SIZE	TOP BARS (SEE NOTE 3)		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2		CASE 1	CASE 2	CASE 1	CASE 2
#3	21	32	16	25	#3	18	28	14	21
#4	28	43	22	33	#4	25	37	19	28
#5	36	53	27	41	#5	31	46	24	36
#6	43	64	33	49	#6	37	55	28	43
#7	62	93	48	72	#7	54	81	42	62
#8	71	107	55	82	#8	62	92	47	71
#9	80	120	62	93	#9	70	104	54	80
#10	90	136	70	104	#10	78	117	60	90
#11	100	151	77	116	#11	87	130	67	100

CAST-IN-PLACE CONCRETE CLEAR COVER SCHEDULE

	CONCRETE COVER
CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	3 IN
CONCRETE IN CONTACT WITH GROUND OR WEATHER:	
#6 THROUGH #18 BARS	2 IN
#5 BAR, W31 OR D31 WIRE, AND SMALLER	1 1/2 IN
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS:	
#14 AND #18 BARS	1 1/2 IN
#11 BAR AND SMALLER	3/4 IN
BEAMS, COLUMNS:	
PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1 1/2 IN

POST-INSTALLED ANCHORS - SPECIFIED PRODUCTS BY APPLICATION

	ANCHOR TYPE		CONCRETE
MECHANICAL	EXPANSION ANCHORS/ EXPANSION BOLTS		HILTI KWIK BOLT TZ2 SIMPSON STRONG-BOLT 2 DEWALT POWER-STUD+ SD2
MECHANICAL	SCREW ANCHORS		HILTI HUS-EZ SIMPSON TITEN HD DEWALT SCREW-BOLT+
MECHANICAL	LIGHT DUTY SCREW ANCHORS		HILTI KWIK-CON II+ SIMPSON TITEN 2 DEWALT ULTRACON+
ADHESIVE	ADHESIVE ANCHORS (EPOXY ANCHORS) WITH A36 ALL-THREAD ROD		HILTI HIT-HY200V3 OR RE500V3 SIMPSON SET-3G DEWALT PURE110+
ADHESIVE	ADHESIVE ANCHORS (EPOXY ANCHORS) WITH REBAR		HILTI HIT-HY200V3 OR RE500V3 SIMPSON SET-3G DEWALT PURE110+

ANCHOR PRODUCT NOTES:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USING POST INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REINFORCING. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
2. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED, SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED DESIGN PROFESSIONAL IN THE STATE IN WHICH THE PROJECT IS LOCATED SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE REFERENCED BUILDING CODE.
3. ALTERNATE PRODUCTS SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL SHALL HAVE A VALID RESEARCH REPORT, ALSO KNOWN AS EVALUATION REPORT, INDICATING COMPLIANCE WITH APPROPRIATE ACCEPTANCE CRITERIA REQUIRED BY THE BUILDING CODE FOR THE INTENDED LOAD TYPE AND USE (E.G. WIND, SEISMIC, SUSTAINED TENSION, ETC). RESEARCH REPORTS SHALL BE ISSUED BY A SOURCE APPROVED BY THE AUTHORITY HAVING JURISDICTION.

POST-INSTALLED ANCHORS - INSTALLATION REQUIREMENTS

	MECHANICAL ANCHORS		ADHESIVE ANCHORS	
	HOLE DEPTH (NOTE 2) Hnom, PROJECTION (NOTE 3), BIT ⌀, EXPANSION ANCHOR (SEE SCHEDULE), FIXTURE	HOLE DEPTH (NOTE 2) Hnom, BIT ⌀, SCREW ANCHOR (SEE SCHEDULE), FIXTURE	HOLE DEPTH = Hnom, PROJECTION (NOTE 3), BIT ⌀, ADHESIVE ANCHOR WITH THREADED ROD (SEE SCHEDULE), FIXTURE	HOLE DEPTH = Hnom, BIT ⌀, ADHESIVE ANCHOR WITH REBAR (SEE SCHEDULE)
BIT ⌀	PER MFR	PER MFR	PER MFR	PER MFR
FIXTURE HOLE ⌀ (UNO)	AISC STD	ANCHOR ⌀ + 3/16"	AISC STD	N/A

ANCHOR INSTALLATION NOTES:

1. SPECIAL INSPECTIONS SHALL BE PERFORMED FOR POST-INSTALLED ANCHORS IN ACCORDANCE WITH THE ANCHOR MPII AND/OR EVALUATION REPORT, UNLESS MORE SPECIFIC REQUIREMENTS ARE SPECIFIED IN THE CONSTRUCTION DOCUMENTS.
2. POST-INSTALLED ANCHORS ARE SPECIFIED BY THE NOMINAL EMBEDMENT (Hnom) INDICATED IN MANUFACTURER'S LITERATURE. INCREASE THE HOLE DEPTH AS REQUIRED BY THE MANUFACTURER PRINTED INSTALLATION INSTRUCTIONS FOR THE SPECIFIED ANCHOR SIZE AND EMBEDMENT.
3. TOTAL ANCHOR LENGTH SHALL BE COORDINATED TO PROVIDE ADEQUATE PROJECTION LENGTH FOR FIXTURE THICKNESS, WASHER(S) AS REQUIRED, AND FULL ENGAGEMENT OF NUT.
4. COORDINATE OTHER REQUIREMENTS WITH MANUFACTURER PRINTED INSTALLATION INSTRUCTIONS INCLUDING, BUT NOT LIMITED TO, TEMPERATURE, HOLE DRILLING/CLEANING/PREPARATION, & INSTALLATION TORQUE.

5. ADDITIONAL NOTES FOR ADHESIVE ANCHORS

A. ADHESIVE ANCHOR DESIGN TEMPERATURE RANGE IS 110°F (LONG TERM) AND 130°F (SHORT TERM).

B. IN ADDITION TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, THE FOLLOWING GUIDELINES SHALL BE FOLLOWED FOR INSTALLATION OF ADHESIVE ANCHORS:

a. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION.
b. ADHESIVE ANCHORS SHALL BE INSTALLED IN DRY CONCRETE, AND DURING DRY CONDITIONS.
c. ADHESIVE ANCHORS SHALL BE INSTALLED IN HOLES PREDRILLED WITH A CARBIDE TIPPED DRILL BIT.
d. ADHESIVE ANCHORS SHALL BE INSTALLED WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, BUT NOT OUTSIDE OF THE DESIGN TEMPERATURE RANGE.
e. LOADS SHALL NOT BE APPLIED TO ADHESIVE ANCHORS UNTIL THE FULL CURING TIME ASSOCIATED WITH THE INSTALLATION TEMPERATURE HAS ELAPSED.

C. INSTALLATION OF ADHESIVE ANCHORS SHALL BE PERFORMED BY CERTIFIED PERSONNEL. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

D. WHEN ANCHORING TO CONCRETE MASONRY WITH VOIDS, THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER.

CONCRETE MIXTURES

APPLICATION	EXPOSURE	F'c (AT 28-DAYS UNO)	MAXIMUM W/C	MAXIMUM (CI-) CONTENT	AIR CONTENT	NOMINAL MAXIMUM AGGREGATE SIZE (NOTE 3)	MAXIMUM CONCRETE WEIGHT
FOOTINGS	F0 S0 W0 C0	3000 PSI	SEE NOTE 1	1	SEE NOTE 2	1"	150 PCF
INTERIOR SLAB-ON-GRADE	F0 S0 W0 C0	3000 PSI	SEE NOTE 1	1	SEE NOTE 2	1"	150 PCF
NORMAL WEIGHT ELEVATED SLAB ON STEEL DECK	F0 S0 W0 C0	4000 PSI	SEE NOTE 1	1	3% MAX	3/4"	150 PCF

NOTES:

1. WHERE NO MAXIMUM WATER CEMENT RATIO IS NOTED FOR DURABILITY, PROPORTIONING OF WATER/CEMENT RATIO SHALL BE AS REQUIRED FOR SPECIFIED CONCRETE MIX DESIGN.
2. WHERE AIR ENTRAINMENT IS NOT REQUIRED BY DESIGN, THE CONTRACTOR, INSTALLER, AND SUPPLIER MAY CHOOSE TO INCLUDE AIR ENTRAINMENT TO IMPROVE PLACEMENT AND FINISHING CHARACTERISTICS. AIR ENTRAINMENT IS NOT PERMITTED IN NORMAL WEIGHT CONCRETE TO RECEIVE A HARD TROWEL FINISH AND ENTRAPPED AIR SHALL NOT EXCEED 3%. SLABS SHALL BE PROPERLY FINISHED TO AVOID SURFACE IMPERFECTIONS, SUCH AS BLISTERING OR DELAMINATION.
3. COARSE AGGREGATE SHALL BE ASTM C 33, GRADED. SELECT GRADING CLASS PER TYPE OF CONSTRUCTION OR LOCATION USED, AND IN RELATION TO SPECIFIC WEATHERING REGION. AGGREGATE SHALL BE FROM A SINGLE SOURCE. #67 GRADING SHALL BE USED FOR CONCRETE WITH 3/4 INCH MAXIMUM; #57 GRADING SHALL BE USED FOR CONCRETE WITH 1 INCH MAXIMUM.
4. FINE AGGREGATE FOR INTERIOR SLAB-ON-GRADE SHALL CONSIST OF A MINIMUM 70% NATURAL SAND.
5. COMPLY WITH ACI 318-19 TABLE 19.3.2.1 FOR CEMENTITIOUS MATERIAL TYPES FOR SULFATE RESISTANCE.

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CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

CONCRETE GENERAL NOTES & SCHEDULES

DRAWING NUMBER
S003

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STRUCTURAL STEEL

A. ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS.
B. SLOTTED HOLES FOR BEAM END CONNECTIONS ARE NOT ALLOWED FOR BEAMS ASSOCIATED WITH A BRACED FRAME OR MOMENT FRAME, OR NOTED WITH A REQUIRED AXIAL CONNECTION FORCE, UNLESS CONNECTIONS ARE DESIGNED AND CONSTRUCTED AS SLIP CRITICAL, USING CLASS A SURFACE PREPARATION AND PRE-TENSIONED BOLTS.
C. GUSSET PLATES AND STIFFENER PLATES SHALL BE 3/8" MINIMUM, WELDED BOTH SIDES CONTINUOUSLY, UNLESS NOTED OTHERWISE.
D. MEMBERS SUPPORTING DECK AT THE PERIMETER OF THE BUILDING SHALL BE CONTINUOUS EXCEPT AT EXPANSION JOINTS. SQUARE GROOVE WELD (BUTT JOINT) CONTINUOUS MEMBERS PLACED END TO END UNLESS NOTED OTHERWISE.
E. STEEL COLUMN BASE PLATES AND ANCHOR RODS SHALL HAVE MINIMUM 3" CONCRETE COVER PROTECTION.
F. POWDER ACTUATED FASTENERS (OR POWDER DRIVEN FASTENERS) SHALL BE ANCHORED IN STEEL WITH MINIMUM FASTENER SPACING OF 1 1/2" AND MINIMUM EDGE DISTANCE OF 1/2".
G. GROUT UNDER BEARING PLATES SHALL BE MIN. 6,000 PSI COMPRESSIVE STRENGTH. LOADING OF STRUCTURE SHALL NOT OCCUR UNTIL GROUT IS INSTALLED UNDER BASE PLATES AND PROPERLY CURED.
H. MATERIALS:
1. W-SHAPES: ASTM A 992.
2. CHANNELS, ANGLES, M-SHAPES, S-SHAPES: ASTM A 572, GRADE 50.
3. PLATE AND BAR: ASTM A 36. FOR PLATES CONNECTING ELEMENTS LESS THAN OR EQUAL TO 4" THICK: ASTM A572.
4. COLD-FORMED HOLLOW STRUCTURAL SECTIONS: ASTM A 500, GRADE C, STRUCTURAL TUBING.
5. STEEL PIPE: ASTM A 53, TYPE E OR S, GRADE B.
6. HIGH-STRENGTH A325 BOLTS, NUTS, AND WASHERS: ASTM F3125, GRADE A325, TYPE 1, HEAVY-HEX STEEL STRUCTURAL BOLTS; ASTM A563, GRADE DH, HEAVY-HEX CARBON-STEEL NUTS; AND ASTM F436, TYPE 1, HARDENED CARBON-STEEL WASHERS.
a. DIRECT-TENSION INDICATORS: ASTM F959, TYPE 325-1, COMPRESSIBLE-WASHER TYPE.
b. FINISH: PLAIN FINISH, AT EXTERIOR CONDITIONS AND GALVANIZED STEEL, HOT-DIP OR MECHANICALLY DEPOSITED ZINC COATING.
7. HIGH-STRENGTH A490 BOLTS, NUTS, AND WASHERS: ASTM F3125, GRADE A490, TYPE 1, HEAVY-HEX STEEL STRUCTURAL BOLTS; ASTM A563, GRADE DH, HEAVY-HEX CARBON-STEEL NUTS; AND ASTM F436, TYPE 1, HARDENED CARBON-STEEL WASHERS.
a. DIRECT-TENSION INDICATORS: ASTM F959, TYPE 490-1, COMPRESSIBLE-WASHER TYPE.
b. FINISH: PLAIN FINISH, AT EXTERIOR CONDITIONS AND GALVANIZED STEEL, HOT-DIP OR MECHANICALLY DEPOSITED ZINC COATING.
8. TENSION-CONTROL, HIGH-STRENGTH BOLT-NUT-WASHER ASSEMBLIES: ASTM F3125, GRADE F1852, TYPE 1, HEAVY-HEX OR ROUND HEAD ASSEMBLIES, CONSISTING OF STEEL STRUCTURAL BOLTS WITH SPLINED ENDS; ASTM A563, GRADE DH, HEAVY-HEX CARBON-STEEL NUTS; AND ASTM F436, TYPE 1, HARDENED CARBON-STEEL WASHERS.
a. FINISH: PLAIN FINISH, AT EXTERIOR CONDITIONS AND GALVANIZED STEEL, HOT-DIP OR MECHANICALLY DEPOSITED ZINC COATING.
9. SHEAR CONNECTORS: ASTM A 108, AISI C-1015 THROUGH C-1020 HEADED-STUD TYPE, COLD FINISHED CARBON STEEL; AWS D1.1, TYPE B.
10. UNHEADED ANCHOR RODS: ASTM F1554, GRADE 36.
a. CONFIGURATION: STRAIGHT.
b. NUTS: ASTM A563 HEAVY-HEX CARBON STEEL.
c. PLATE WASHERS: ASTM A36 CARBON STEEL.
d. WASHERS: ASTM F436, TYPE 1, HARDENED CARBON STEEL.
e. FINISH: PLAIN FINISH, AT EXTERIOR CONDITIONS AND GALVANIZED STEEL, HOT-DIP ZINC COATING, ASTM A153, OR MECHANICALLY DEPOSITED ZINC COATING, ASTM B695.
11. THREADED RODS: ASTM A 36.
12. NONMETALLIC, SHRINKAGE-RESISTANT GROUT: ASTM C 1107, FACTORY-PACKAGED, NONMETALLIC AGGREGATE GROUT, NONCORROSIVE AND NONSTAINING, MIXED WITH WATER TO CONSISTENCY SUITABLE FOR APPLICATION AND A 30-MINUTE WORKING TIME.
I. CONNECTIONS:
1. WHERE COMPLETE CONNECTION DESIGN IS NOT INDICATED IN THE STRUCTURAL DRAWINGS, CONNECTIONS SHALL BE COMPLETED BY THE STRUCTURAL STEEL FABRICATOR IN ACCORDANCE WITH DIVISION 05 PERFORMANCE SPECIFICATION REQUIREMENTS.
2. CONNECTIONS SHALL BE DESIGNED AS SNUG-TIGHT CONNECTIONS WITH THREADS IN THE SHEAR PLANE, UNLESS NOTED OTHERWISE. ALL BOLTS NOTED AS PRE-TENSIONED OR SLIP CRITICAL IN THE DRAWINGS SHALL BE TIGHTENED TO THE MINIMUM PRETENSION VALUE SHOWN IN TABLE J3.1 OF THE AISC STEEL MANUAL, USING COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATOR DEVICES OR TENSION-CONTROL, HIGH STRENGTH BOLT-NUT-WASHER ASSEMBLIES.
3. BOLTED CONNECTIONS SHALL CONSIST OF A MINIMUM OF (2) BOLTS. THE MINIMUM CONNECTION LENGTH SHALL NOT BE LESS THAN 0.5x"T", WHERE "T" IS THE DISTANCE BETWEEN WEB TOES OF FILLETS AT THE TOP AND BOTTOM OF THE WEB OF A ROLLED SECTION.

WELDING

A. MINIMUM WELD SIZE SHALL BE 3/16" FILLET WELD UNLESS NOTED OTHERWISE.
B. WELD FILLER METALS SHALL COMPLY WITH AWS REQUIREMENTS FOR THE APPLICABLE WELD PROCESS AND BASE MATERIAL, AND AS FOLLOWS:
1. USE 70 KSI (E70XX) MINIMUM ELECTRODES UNLESS NOTED OTHERWISE.
2. USE 60 KSI (E60XX) ELECTRODES FOR WELDING AT COLD FORMED STEEL FRAMING, AND FOR PUDDLE WELDS OF COMPOSITE DECK, ROOF DECK AND NON-COMPOSITE DECK TO SUPPORTS WHEN DECK THICKNESS IS 22 GAGE OR GREATER.
3. USE 70 KSI (E70XX) ELECTRODES FOR PUDDLE WELDS OF COMPOSITE DECK, ROOF DECK AND NON-COMPOSITE DECK TO SUPPORTS WHEN DECK THICKNESS IS LESS THAN 22 GAGE AND WELDS ARE MADE THROUGH WELD WASHERS.
4. USE 80 KSI (E80XX) ELECTRODES FOR WELDING A706 REINFORCING STEEL.
C. FIELD WELDING SHALL BE SHOWN ON SHOP DRAWINGS AND ERECTION DRAWINGS.
D. REFER TO ARCHITECTURAL DOCUMENTS FOR EXPOSED STEEL AND JOINT LOCATIONS AND REQUIREMENTS. ALL EXPOSED WELDED CONNECTIONS SHALL BE GROUND SMOOTH AND SUBJECT TO ARCHITECT APPROVAL. FABRICATOR SHALL ALTER JOINT DETAILING AS REQUIRED TO ENSURE THAT EFFECTIVE THROAT SPECIFIED IN WELD DETAIL IS MAINTAINED AFTER GRINDING OF WELD SURFACE.
E. WELDS INDICATED IN STRUCTURAL DETAILS ARE INTENDED AS THE BASIS OF DESIGN. FABRICATOR AND ERECTOR HAVE THE OPTION TO PROPOSE THE USE OF ALTERNATIVE WELDING PROCEDURES. ALTERNATIVE WELDS SHALL BE INDICATED ON SHOP DRAWINGS FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.
F. REINFORCING STEEL WELDING SHALL CONFORM TO AWS D1.4, STRUCTURAL WELDING CODE - REINFORCING STEEL BY AMERICAN WELDING SOCIETY FOR COMPLIANCE WITH ACI 318-25, SECTION 26.6.4.2 (A)

COLD-FORMED STEEL FRAMING (STUDS AND JOISTS)

A. ALL COLD-FORMED STEEL FRAMING WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS.
B. ISOLATION OF NON-LOAD-BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF VERTICAL LOADS SHALL ALLOW FOR A MINIMUM OF 1" MOVEMENT FROM LIVE LOAD.
C. SEE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING WALLS AND TO VERIFY ALL DIMENSIONS SHOWN FOR LOAD BEARING WALLS.

METAL FABRICATION

A. ALL METAL FABRICATION WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS.

HOT-DIP GALVANIZED STRUCTURAL STEEL

A. ALL HOT-DIP GALVANIZATION WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS.
B. ALL BOLTS USED FOR CONNECTIONS AT GALVANIZED STEEL MEMBERS SHALL BE GALVANIZED PER STANDARDS NOTED.
C. REFER TO ASTM A-143, A-384 AND D-6386 FOR ADDITIONAL STANDARD PRACTICES RELATED TO SPECIAL CONDITIONS FOR HOT-DIP GALVANIZING.
D. GALVANIZED FAYING SURFACES AT SLIP CRITICAL CONNECTIONS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A-123 AND SHALL BE ROUGHENED BY MEANS OF HAND WIRE BRUSHING. POWER WIRE BRUSHING IS NOT PERMITTED.

STEEL JOIST FRAMING

A. ALL STRUCTURAL STEEL JOIST AND JOIST GIRDER WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS.
B. JOISTS SHALL BE EQUALLY SPACED BETWEEN COLUMN LINES OR OTHER SPECIFICALLY LOCATED FRAMING MEMBERS UNLESS NOTED OTHERWISE.
C. HORIZONTAL AND DIAGONAL BRIDGING IS REQUIRED AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH SJI STANDARD SPECIFICATIONS.
D. STEEL JOIST FRAMING SHALL BE DESIGNED FOR WIND NET UPLIFT:
1. ROOF JOISTS: C&C NET UPLIFT = 15 PSF (ASD); MWFRS NET UPLIFT = 6 PSF (ASD).
E. JOIST DESIGN SHALL ACCOUNT FOR LATERAL STABILITY OF THE JOIST TOP CHORD UNDER FULL DESIGN LOADS AT CONDITIONS WHERE A STRUCTURAL STEEL ROOF DECK IS NOT DIRECTLY ATTACHED TO THE TOP CHORD, INCLUDING BUT NOT LIMITED TO AREAS WHERE JOISTS PASS THROUGH OPENINGS AND JOISTS SUPPORTING STANDING SEAM ROOFING.

COMPOSITE STEEL FLOOR DECK

A. ALL COMPOSITE STEEL FLOOR DECK WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS.
B. STEEL COMPOSITE DECK SHALL BE ASTM A653 GALVANIZED G60, WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI, UNLESS NOTED OTHERWISE.
C. DECK SHALL BE SUPPORTED BY A MINIMUM OF FOUR SUPPORT LOCATIONS (THREE SPAN CONDITION).
D. COMPOSITE STEEL FLOOR DECK SHALL BE ATTACHED TO THE SUPPORTS WITH 5/8" DIAMETER PUDDLE WELDS. WHEN DECK THICKNESS IS LESS THAN 0.028 INCHES, WELDS SHALL BE MADE THROUGH MIN. 16 GAUGE WELDING WASHERS. SPACING OF WELDS SHALL BE AS FOLLOWS:
1. AT BUTTED ENDS: AT 12" OC
2. AT PERIMETER/EDGES OF BUILDING: AT 12" OC
3. INTERMEDIATE SUPPORTS: AT 12" OC
4. SIDE LAPS: AT MID-SPAN OR AT 3'-0" OC, WHICHEVER IS SMALLER. HEX HEAD SCREWS SIZE #10 OR CRIMPING (BUTTON PUNCHING) MAY BE USED AT SIDE LAP CONNECTIONS.

STEEL ROOF DECK

A. ALL STEEL ROOF DECK WORK SHALL BE IN ACCORDANCE WITH DIVISION 05 SPECIFICATIONS
B. ROOF DECK FINISHES SHALL BE AS FOLLOWS:
1. INTERIOR, NOT EXPOSED TO VIEW: ASTM A1008 FACTORY PRIME PAINTED.
2. INTERIOR, EXPOSED TO VIEW: ASTM A1008 FACTORY PRIME PAINTED TO RECEIVE FINISH PAINT. SEE ARCHITECTURAL DRAWINGS FOR EXTENTS.
3. DECK RECEIVING SPRAY APPLIED FIREPROOFING AND/OR CONCRETE TOPPING: ASTM 653 GALVANIZED G60.
4. EXTERIOR EXPOSURE (TOP OR BOTTOM OF DECK EXPOSED TO ELEMENTS): ASTM A653 GALVANIZED G90.
C. MINIMUM YIELD STRENGTH SHALL BE 50,000 PSI, UNLESS NOTED OTHERWISE.
D. DECK SHALL BE SUPPORTED BY A MINIMUM OF FOUR SUPPORT LOCATIONS (THREE SPAN CONDITION).
E. MINIMUM FINAL ROOF SLOPE SHALL BE 1/4" PER 1 FT. WHERE SLOPE IS NOT ACHIEVED BY STEEL STRUCTURE, CREATE IT WITH INSULATION ABOVE THE DECK (SEE ARCHITECTURAL DRAWINGS).
F. STEEL ROOF DECK SHALL BE ATTACHED TO STEEL SUPPORTS WITH 5/8" DIAMETER PUDDLE WELDS AND TO COLD FORMED STEEL FRAMING WITH #12 HEX HEAD SCREWS. WHEN DECK THICKNESS IS LESS THAN 0.028 INCHES, WELDS MUST BE MADE THROUGH MIN. 16 GAUGE WELDING WASHERS. SPACING OF WELDS SHALL BE AS FOLLOWS
1. AT PERIMETER/EDGES OF BUILDING: AT 36/4 PATTERN
2. INTERMEDIATE SUPPORTS: AT 36/4 PATTERN
3. SIDE LAPS: PROVIDE 3 CONNECTIONS PER SPAN. HEX HEAD SCREWS SIZE #10 SHALL BE USED AT SIDE LAP CONNECTIONS.

COMPOSITE STEEL FLOOR SYSTEM

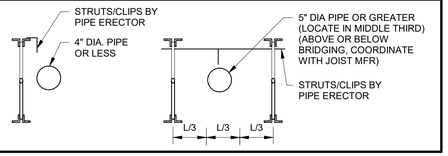
A. STEEL HEADED STUD ANCHORS (SHEAR CONNECTORS / SHEAR STUDS) SHALL BE TYPE B AND CONFORM TO AWS D1.1 AND ASTM A108 SPECIFICATIONS FOR 1010 THROUGH 1020 MILD STEELS. MINIMUM TENSILE STRENGTH= 65,000 PSI.
B. WHERE COMPOSITE BEAM DESIGNATION OCCURS ON FRAMING PLAN THROUGH THE CALLING OUT OF A NUMBER OF REQUIRED STEEL HEADED STUD ANCHORS, FLOOR AND BEAM ARE DESIGNED TO ACT COMPOSITE BY USE OF SHEAR STUDS ON TOP BEAM FLANGE.
1. SEE DISTRIBUTED STEEL HEADED STUD ANCHOR PLACEMENT DETAIL FOR PLACEMENT REQUIREMENTS.
2. IF LONGITUDINAL HEADED STUD ANCHOR SPACING EXCEEDS 12", ATTACH DECK TO SUPPORT WITH PUDDLE WELDS BETWEEN STUDS.
C. ALL STEEL HEADED STUD ANCHORS SHALL BE 3/4" DIAMETER x (FLUTE HT. + 1 1/2") AFTER WELDING, UNLESS OTHERWISE NOTED.
1. MINIMUM CLEARANCE FROM TOP OF STUD TO TOP OF SLAB IS 1".
D. MAINTAIN INDICATED MINIMUM SLAB THICKNESS OVER BEAMS THROUGHOUT SPAN. ELEVATED SLAB SHALL BE PLACED WITH MINIMUM THICKNESS THROUGHOUT WITH NO MORE THAN 1/2" OF ADDITIONAL THICKNESS IN ANY LOCATION TO HELP WITH THE LEVELING OF THE SLAB.

WATER PIPING SUPPORT SCHEDULE

PIPE DIA (IN)	PIPE WEIGHT (LB/FT)	PIPE SUPPORT SPACING (MAX) (FT)
2 1/2	6.0	12
3	8.5	12
4	12.0	12
5	17.5	12
6	23.5	6
8	37.5	6

NOTES:

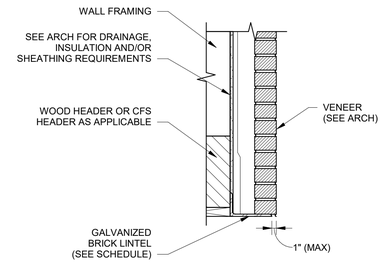
1. PIPES IN TABLE ARE SCHEDULE 10 TYPE. ESFR MANUFACTURER TO SUBMIT DOCUMENTATION FOR ALTERNATIVE PIPING NOT NOTED.
2. PIPE WEIGHT INCLUDES: PIPE + INSULATION + WATER
3. EXACT PIPE LOCATIONS TO BE COORDINATED WITH MECHANICAL DRAWINGS.
4. PIPES RUNNING PARALLEL TO JOISTS WITH DIAMETER GREATER THAN 4" SHALL BE TRAPEZZED BETWEEN (2)-JOISTS AND SUPPORTED IN THE MIDDLE THIRD OF THE JOIST SPACING. PIPES RUNNING PERPENDICULAR GREATER THAN 4" IN DIAMETER SHALL BE SUPPORTED FROM EACH JOIST.
5. MEMBER SIZES ON PLANS HAVE BEEN ADJUSTED TO SUPPORT WATER PIPING LOADS IN THIS TABLE.
6. ANY PIPE OR COMBINATION OF PIPES WITH TOTAL DIAMETERS GREATER THAN 8" SHALL BE HUNG PER THE DIRECTION OF THE ARCHITECT - NOTIFY ARCHITECT PRIOR TO PROCEEDING WITH WORK.
7. NO PIPING SHALL RUN BELOW THE BOTTOM CHORD OF THE BAR JOIST.



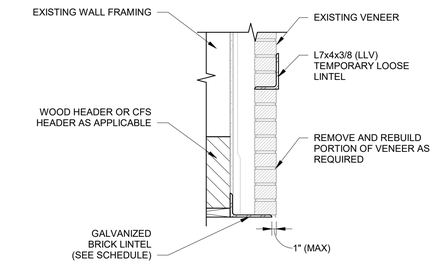
BRICK/4" CMU VENEER LINTEL SCHEDULE (FLUSH TO STUD)

SPAN (OPENING)	LINTEL SIZE
≤ 3'-8"	L7 x 4 x 3/8 (LLH)
> 3'-8", ≤ 6'-4"	L7 x 4 x 3/8 (LLH)
> 6'-4", ≤ 11'-4"	BENT PLATE 7" x 7" x 3/8"

DETAILS:



NEW BRICK VENEER



NEW OPENING IN EXISTING BRICK VENEER

NOTES:

1. PROVIDE 4" BEARING MINIMUM AT EACH END OF LINTEL ANGLES.

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NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: ARB
DRAWN: ALK
CHECKED: CAF
CHECKED:
APPROVED:

FILENAME

BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

STEEL GENERAL NOTES & SCHEDULES

DRAWING NUMBER
S005

Plot Date: 4/27/2026 6:47:31 PM Path: Autodesk Docs://NCWSA Admin Bldg_V25/0250683-NCWSA Office Addition-R25-STRUCT.rvt

WOOD ROOF SHEATHING

A. 19/32" (5/8") PERFORMANCE CATEGORY APA RATED SHEATHING, 40/20, EXPOSURE 1 (SLOPED ROOF AREAS, UNLESS NOTED OTHERWISE).
B. LONG SIDE OF PANEL SHALL BE PERPENDICULAR TO THE SUPPORT WITH THE END JOINT OF THE PANEL ALIGNED WITH THE CENTER OF THE TWO ADJACENT PANELS. (NO CONTINUOUS PANEL JOINTS). PANELS SHALL BE CONTINUOUS OVER TWO OR MORE SPANS.
C. MINIMUM SIZE OF CONNECTION SHALL BE 6d COMMON NAILS TO WOOD, UNLESS NOTED OTHERWISE ON PLAN. MAXIMUM SPACING OF CONNECTION SHALL BE PER THE "TYPICAL FLOOR/ROOF DIAPHRAGM CONNECTION - PLAN" DETAIL, UNLESS NOTED OTHERWISE ON PLAN. SHEATHING SHALL ALSO BE GLUED TO THE SUPPORTING JOISTS.
D MINIMUM SIZE OF CONNECTION SHALL BE #10 SCREWS TO STEEL STUDS AND JOISTS. MAXIMUM SPACING OF CONNECTION SHALL BE 4" AT PERIMETER AND 12" AT INTERMEDIATE SUPPORT, UNLESS NOTED OTHERWISE ON PLAN.
E. SUITABLE EDGE SUPPORT SHALL BE PROVIDED AS RECOMMENDED BY THE AMERICAN PLYWOOD ASSOCIATION BY USE OF PANEL CLIPS OR LUMBER BLOCKING BETWEEN JOISTS OR TRUSSES. PANEL END JOINTS SHALL OCCUR OVER FRAMING. PANELS SHALL BE BLOCKED WITH 2X6 MINIMUM AT PERIMETER OF ROOF AND AT DIRECTIONAL CHANGES.

WOOD WALL SHEATHING

A. 7/16" PERFORMANCE CATEGORY APA RATED SHEATHING, 24/16, EXPOSURE 1 (UNLESS NOTED OTHERWISE).
B. MINIMUM SIZE OF CONNECTION SHALL BE 8d COMMON NAILS TO WOOD SHEAR WALLS. MAXIMUM SPACING OF CONNECTION SHALL BE PER THE WOOD SHEAR WALL SCHEDULE. ALL UNSUPPORTED EDGES SHALL BE BLOCKED WITH 2x MEMBERS.
C. MINIMUM SIZE OF CONNECTION SHALL BE 8d COMMON NAILS TO WOOD EXTERIOR NON-SHEAR WALLS. MAXIMUM SPACING OF STANDARD CONNECTION SHALL BE 12" AT PERIMETER OF SHEETS AND 12" AT INTERMEDIATE STUDS. ALL UNSUPPORTED EDGES SHALL BE BLOCKED WITH 2x MEMBERS.
D. MINIMUM SIZE OF CONNECTION SHALL BE #8 SCREWS TO STEEL STUDS. MAXIMUM SPACING OF STANDARD CONNECTION SHALL BE 6" AT PERIMETER OF SHEETS AND 12" AT INTERMEDIATE STUDS. ALL UNSUPPORTED EDGES SHALL BE BLOCKED WITH STEEL STUD MEMBERS.

WOOD FRAMING

A. CONFORM TO NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, PUBLISHED BY THE AMERICAN WOOD COUNCIL, AWC NDS AND AWC SPECIAL DESIGN PROVISIONS FOR WIND & SEISMIC.
B. UNLESS NOTED OTHERWISE, USE SPRUCE-PINE-FIR , 19% MAX. MOISTURE CONTENT, AS FOLLOWS:

1. BEAMS, HEADERS	NO. 1/NO. 2
2. LOAD BEARING STUDS, & EXTERIOR STUDS	NO. 1/NO. 2
3. JOISTS, PURLINS	NO. 1/NO. 2
4. SUB-PURLINS, PLATES, BLOCKING	NO. 1/NO. 2
5. NON-LOAD BEARING INTERIOR STUDS	STUD GRADE

C. ANY WOOD IN CONTACT WITH CONCRETE, MASONRY, SOIL, OR EXPOSED TO THE ELEMENTS SHALL BE PRESSURE TREATED.
D. METALS (PLATES, NAILS, BOLTS, ETC) IN CONTACT WITH PRESSURE TREATED, FIRE-RETARDANT OR WOLMANIZED WOOD SHALL HAVE G185 ZINC GALVANIZED COATING. ALL OTHER METALS IN CONTACT WITH WOOD SHALL HAVE G90 ZINC GALVANIZED COATING.
E. METAL CONNECTORS SHALL BE FASTENED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO DEVELOP THE MAXIMUM PUBLISHED CAPACITY.
F. TIMBER FASTENING SHALL BE PER GOVERNING BUILDING CODE "MINIMUM FASTENING SCHEDULE" UNLESS NOTED AS GREATER ON CONSTRUCTION DRAWINGS. CONNECTORS TO BE SIMPSON OR APPROVED ALTERNATE, WITH MINIMUM CAPACITY AS NOTED.
G. TOE NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES TO THE PIECE AND BE STARTED AT 1/3 THE NAIL LENGTH FROM THE END OF THE PIECE.
H. ALL BOLTS SHALL BE FURNISHED WITH STANDARD NUT WASHER.
I. ALL NAILS SHALL BE COMMON WIRE NAILS.
J. GENERAL STRUCTURAL WOOD NOTES:
1. (3)-2x, (2)-2x AND (2)-2x + 1/2" PLYWOOD PLATE BEAMS SHALL BE SPIKED TOGETHER W/12d NAILS @ 12" OC TOP & BOTTOM. (4)-2x AND LARGER BEAMS SHALL BE BOLTED TOGETHER W/ 1/2" DIAMETER BOLTS @ 2'-6" OC MAX. TOP & BOTTOM.
2. ROOF BEAMS WITH SPANS GREATER THAN 5'-0" SHALL BE ANCHORED EACH END WITH (1)-1/4" X 16 GA. (MIN.) STRAP WITH (4)-8D NAILS INTO BEAM AND INTO JAMB STUDS.
3. MULTIPLE STUD OR SOLID COLUMNS SHALL BE CONTINUOUS FROM FRAMING LEVEL, WHERE SHOWN, TO THE FOUNDATION. THIS WILL REQUIRE SOLID BLOCKING WITHIN THE FLOOR FRAMING EQUAL TO THE COLUMN DIMENSION (SEE TYPICAL DETAIL).
4. MULTIPLE STUD PACK COLUMNS SHALL BE CONNECTED LATERALLY TO ONE ANOTHER WITH 16d NAILS AT 16" OC VERTICALLY.
K. PROVIDE ONE ROW OF BRIDGING FOR EACH 8'-0" SPAN FOR ROOF JOISTS.
L. WALL SHEATHING NOTED ON STRUCTURAL DRAWINGS OR SCHEDULES SHALL BE ATTACHED DIRECTLY TO THE FACE OF FRAMING MEMBERS. SEE ARCHITECTURAL DRAWINGS FOR ALL NON-STRUCTURAL SHEATHING REQUIREMENTS. ADDITIONAL SHEATHING REQUIRED BY ARCHITECTURAL DRAWINGS SHALL BE ATTACHED TO THE OUTSIDE FACE OF STRUCTURAL SHEATHING.
M. AT CONTRACTOR'S OPTION, FINGER-JOINTED LUMBER MAY BE USED FOR WALL STUDS ONLY.
N. ALL NON-LOAD BEARING, AND NON-SHEAR WALLS MAY BE ANCHORED USING POWDER-DRIVEN FASTENERS, 3/4" MAX. EMBEDMENT DEPTH.
O. ALL WALL DOUBLE TOP PLATES SHALL BE LAPPED AT CORNERS AND INTERSECTIONS AND FASTENED PER GOVERNING BUILDING CODE "MINIMUM FASTENING SCHEDULE" UNLESS NOTED OTHERWISE. ALL DOUBLE PLATE END JOINTS SHALL BE OFFSET AT LEAST 48". DOUBLE PLATES TO BE FASTENED TOGETHER PER GOVERNING BUILDING CODE "MINIMUM FASTENING SCHEDULE", UNLESS NOTED OTHERWISE. AT LOAD-BEARING WALLS, FASTEN EA. PLATE TO PLATE WITH SEE KEY DETAIL.
P. JOISTS OR STUDS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING UNLESS METAL OR WOOD SIDE PIECES/PLATES ARE PROVIDED TO STRENGTHEN THE MEMBER.
Q. WALL FRAMING MAY BE PANELIZED (WITHOUT GYPSUM WALLBOARD). SUBMIT PANEL DRAWINGS FOR REVIEW.
R. LET-IN BRACING FOR WALL PANELS IS NOT ALLOWED. SHEATHING FASTENED TO FACE OF WALL AT SHOP MAY SERVE AS PANEL BRACING.

PARALLEL STRAND LUMBER (PARALLAM)

A. PARALLEL STRAND LUMBER SHALL BE MANUFACTURED BY WEYERHAEUSER OR AN APPROVED EQUAL.
B. 1.8E PARALLEL STRAND LUMBER FOR SIZES 3 1/2" x 3 1/2", 3 1/2" x 5 1/4", 3 1/2" x 7", 5 1/4" x 5 1/4", 5 1/4" x 7" AND 7" x 7" SHALL HAVE THE FOLLOWING PROPERTIES:

ALLOWABLE BENDING STRESS	2400 PSI
ALLOWABLE COMPRESSION PARALLEL TO GRAIN	2500 PSI
ALLOWABLE HORIZONTAL SHEAR	190 PSI
ALLOWABLE COMPRESSION PERPENDICULAR TO GRAIN	545 PSI
MODULUS OF ELASTICITY	1,800,000 PSI
SHEAR MODULUS OF ELASTICITY	112,500 PSI
EQUIVALENT SPECIFIC GRAVITY	0.5

C. 2.0E PARALLEL STRAND LUMBER FOR ALL OTHER SIZES SHALL HAVE THE FOLLOWING PROPERTIES:

ALLOWABLE BENDING STRESS	2900 PSI
ALLOWABLE COMPRESSION PARALLEL TO GRAIN	2900 PSI
ALLOWABLE HORIZONTAL SHEAR	290 PSI
ALLOWABLE COMPRESSION PERPENDICULAR TO GRAIN	625 PSI
MODULUS OF ELASTICITY	2,000,000 PSI
SHEAR MODULUS OF ELASTICITY	125,000 PSI
EQUIVALENT SPECIFIC GRAVITY	0.5

D. PARALLEL-STRAND LUMBER SHALL NOT HAVE HOLES OR NOTCHES CUT INTO THE BEAM WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.

LAMINATED VENEER LUMBER (MICROLLAM)

A. LAMINATED VENEER LUMBER SHALL BE 2.0E MICROLLAM LVL AS MANUFACTURED BY WEYERHAEUSER OR AN APPROVED EQUAL.
B. LAMINATED VENEER LUMBER SHALL HAVE THE FOLLOWING PROPERTIES:

ALLOWABLE BENDING STRESS	2600 PSI
ALLOWABLE COMPRESSION PARALLEL TO GRAIN	2510 PSI
ALLOWABLE HORIZONTAL SHEAR	285 PSI
ALLOWABLE COMPRESSION PERPENDICULAR TO GRAIN	750 PSI
MODULUS OF ELASTICITY	2,000,000 PSI
SHEAR MODULUS OF ELASTICITY	125,000 PSI

C. LAMINATED VENEER LUMBER SHALL NOT HAVE HOLES OR NOTCHES CUT INTO THE BEAM WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.

PRE-ENGINEERED WOOD ROOF TRUSSES

A. TRUSSES SHALL BE SPACED @ 24" OC (UNLESS NOTED OTHERWISE IN THE CONSTRUCTION DRAWINGS). SEE PLANS FOR TRUSS LOCATION AND SPANS AS WELL AS SPECIAL TRUSS LOCATIONS REQUIRED FOR NON-TYPICAL ROOF LOADING.
B. ROOF TRUSS DESIGN GRAVITY LOADS SHALL BE AS FOLLOWS:
1. AT TYPICAL ROOF AREAS: SEE LOAD MAPS ON S002A
2. TRUSSES SHALL BE DESIGNED FOR ADDITIONAL WIND LOAD AND SEISMIC LOAD AS APPLICABLE (SEE DESIGN LOAD GENERAL NOTES).
3. FOR ALL ROOF TRUSSES, SEE MECHANICAL DRAWINGS AND ROOF PLAN FOR EQUIPMENT WEIGHTS, LOCATIONS AND ACCESS PATHS IN ROOF TRUSSES. IF EQUIPMENT WEIGHTS PLUS 30 PSF LIVE LOAD ARE MORE SEVERE THAN THE 60 PSF UNIFORM LIVE LOAD, USE THE WORST CASE LOAD FOR TRUSS DESIGN. DESIGN PITCHED ROOF TRUSSES FOR UNBALANCED SNOW LOAD PER GOVERNING BUILDING CODE OR LIVE LOADS NOTED, WITH THE WORST CASE LOAD GOVERNING DESIGN.
C. SPECIAL LOADS FROM FIRE SPRINKLER, MECHANICAL, PLUMBING, OR OTHER EQUIPMENT HAVE NOT BEEN CONSIDERED AND SHALL BE COORDINATED BY THE TRUSS DESIGNER. TRUSSES SUPPORTING THESE SPECIAL LOADS SHALL BE DESIGNED FOR THESE LOADS IN ADDITION TO THE TYPICAL UNIFORM LOADS.
D. MAXIMUM DEFLECTION OF TRUSSES SHALL BE L/240 FOR DL+LL AND L/360 FOR LL.
E. MINIMUM TRUSS CHORDS SIZE SHALL BE 2X4.
F. WOOD TRUSSES SHALL BE FULLY ENGINEERED AND FABRICATED BY THE MANUFACTURER. SIGNED AND SEALED SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD AND SHALL INCLUDE TRUSS SPACING, SIZE OF MEMBERS, CONNECTIONS, AND ALL BRACING. DESIGN SHALL CONSIDER DEAD LOAD, LIVE LOAD, AND ALL SPECIAL LOADS INCLUDING FROM FIRE SPRINKLERS, MECHANICAL, AND PLUMBING. CALCULATIONS SHALL BE SUBMITTED TO THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD AND SHALL BE SIGNED AND SEALED BY A REGISTERED DESIGN PROFESSIONAL LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED.
G. METAL CONNECTOR PLATES (TRUSS CONNECTORS, MENDING PLATES) SHALL BE MANUFACTURED FROM NO LESS THAN 20 GAUGE G60 GALVANIZED STEEL (1.25 OZ. PER SF) AND 33,000 PSI YIELD STRENGTH. CONNECTORS SHALL HAVE NAIL LIKE PROJECTIONS. METAL CONNECTORS SHALL CONFORM TO TRUSS PLATE INSTITUTE STANDARD TPI 1.
H. WOOD TRUSSES ALONG A VERTICAL PLANE OF THE BUILDING SHALL BE CONTINUOUS. TRUSSES MAY BE SPLICED FOR SHIPPING PURPOSES AND CONNECTED IN THE FIELD WITH METAL CONNECTOR PLATES.
I. ALL CONNECTIONS BETWEEN TRUSSES SHALL BE DESIGNED AND SPECIFIED BY THE TRUSS DESIGN ENGINEER, INCLUDING REQUIRED HARDWARE.
J. WHERE THE ROOF TRUSS CONNECTS TO ANOTHER TRUSS OR BEAM, IT SHALL BE CONNECTED WITH A METAL TRUSS ANCHOR CAPABLE OF RESISTING GRAVITY AND WIND LOADS (AS WELL AS SEISMIC WHERE APPLICABLE). ANCHOR TO BE SELECTED AND DESIGNED BY TRUSS DESIGNER.
K. TRUSS DESIGNER SHALL INDICATE THAT ALL HIPS, VALLEYS, AND RIDGES NOT SUPPORTED BY A TRUSS MEMBER SHALL HAVE A DOUBLE 2x8 FRAMING MEMBER SPANNING BETWEEN TRUSSES WITH SIMPSON CLIP CONNECTION EACH END.
L. ALL TRUSS SHOP DRAWINGS INCLUDING LATERAL BRACING DETAILS SHALL BE AVAILABLE AT THE JOBSITE DURING TIMES OF INSPECTION AND SHALL BEAR CLEAR INDICATION THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD.
M. ROOF TRUSSES SHALL BE FABRICATED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
N. CONCENTRATED LOADS SHALL BE SUPPORTED AT PANEL POINTS ONLY. ANY LOADS SUSPENDED FROM TRUSSES MUST BE APPLIED TO EACH TRUSS UNIFORMLY, SPACING OF HANGERS NOT TO EXCEED 2'-0" OC IN ANY DIRECTION.
O. GENERAL CONTRACTOR SHALL NOT CUT OR ALTER ANY TRUSS MEMBER.
P. GENERAL CONTRACTOR SHALL INSTALL TEMPORARY BRACING TO HOLD THE TRUSSES TRUE AND PLUMB AND IN A SAFE CONDITION UNTIL PERMANENT TRUSS BRACING AND BRIDGING CAN BE SOLIDLY NAILED IN PLACE TO FORM A STRUCTURALLY SOUND FRAMING SYSTEM. REFER TO SBCA/TPI BCSI-B1 "GUIDE FOR HANDLING, INSTALLING, RESTRAINING AND BRACING OF TRUSSES", BCSI-B7 "GUIDE FOR HANDLING, INSTALLING & BRACING OF 3x2 & 4x2 PARALLEL CHORD TRUSSES" AND ADDITIONAL BRACING DETAILS PROVIDED BY THE TRUSS MANUFACTURER. TEMPORARY BRACING FOR TRUSSES WITH CLEAR SPANS OF 60 FEET OR GREATER IN LENGTH SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE CONSTRUCTION IS TO OCCUR.
Q. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT BRACING AT ALL LOCATIONS SHOWN ON THE TRUSS DESIGN DRAWINGS. REFER TO SBCA/TPI BCSI-B3 "PERMANENT RESTRAINT/BRACING OF CHORDS & WEB MEMBERS" AND ADDITIONAL BRACING DETAILS PROVIDED BY THE TRUSS MANUFACTURER. PERMANENT BRACING FOR THE TRUSSES WITH CLEAR SPANS OF 60 FEET OR GREATER IN LENGTH SHALL BE DESIGNED BY A REGISTERED DESIGN PROFESSIONAL HIRED BY THE GENERAL CONTRACTOR AND LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. ALL PERMANENT BRACING SHALL BE INSTALLED AND ALL COMPONENTS PERMANENTLY FASTENED BEFORE THE APPLICATION OF ANY LOADS TO THE TRUSSES.

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CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

WOOD GENERAL NOTES

DRAWING NUMBER
S006

Plot Date: 4/27/2026 6:47:32 PM Path: Autodesk Docs://NCWSA Admin Bldg_ V25/0250683-NCWSA Office Addition-R25-STRUCT.rvt

FOUNDATION PLAN

1 / S101

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

FOUNDATION PLAN NOTES:

1. SOG4 — 4" CONCRETE SLAB-ON-GROUND REINFORCED W/ 3 PCY MACRO-SYNTHETIC FIBERS OVER CRUSHED STONE BASE PER GEOTECHNICAL RECOMMENDATIONS (SEE ARCH FOR VAPOR RETARDER LOCATIONS).
   T/SLAB = SEE CIVIL
   REF T/SLAB = 0'-0"
2. BASE PLATE MARK (SEE 5/S301)
   COLUMN MARK (SEE SCHEDULE ON THIS SHEET)
   FOUNDATION MARK (SEE SCHEDULE ON THIS SHEET) — F# / C# / BP#
   - #' - #"
   TOP OF FOOTING ELEVATION
3. SUBMIT PROPOSED SLAB-ON-GROUND CONSTRUCTION OR CONTRACTION JOINT LOCATIONS. FOR SCHEMATIC CJ PLAN - SEE 1/S311
4. FOR TRENCHES ADJACENT TO FOUNDATIONS - SEE 1/S301
   FOR PIPING PASSING UNDER WALL FOUNDATIONS - SEE 2/S301
   PIPING PASSING UNDER FOOTING SHALL BE PLACED AND INSPECTED BEFORE FOUNDATIONS ARE PREPARED.
5. GENERAL CONTRACTOR SHALL COORDINATE PLUMBING AND UTILITIES LOCATIONS WITH FOUNDATIONS AS NEEDED. ADDITIONALLY GC SHALL COORDINATE FOUNDATION ELEVATIONS WITH PLUMBING AND UTILITIES AS NEEDED. FORWARD ANY FOUNDATION LOCATION CHANGE REQUESTS TO STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL.
6. DENOTES STEP IN FOUNDATION - SEE 3/S301
7. SEE ARCHITECTURAL DRAWINGS FOR:
   - ALL SLOPED SLAB AREAS (MAINTAIN SLAB THICKNESS NOTED ON PLAN AS A MINIMUM IN ALL AREAS).
   - ALL DEPRESSED SLAB AND/OR RAISED SLAB AREAS. (MAINTAIN SLAB THICKNESS NOTED ON PLAN AS A MINIMUM IN ALL AREAS).
   - ALL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS SHOWN IN STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES OR DIMENSIONS NOT SHOWN ON ARCHITECTURAL DRAWINGS FOR CLARIFICATION.
8. DENOTES STEP IN TOP OF SLAB - SEE 3/S311

WOOD WALL PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXTENTS AND DIMENSIONS NOT SHOWN. SOME NON-STRUCTURAL WALLS MAY NOT BE SHOWN FOR CLARITY.
2. x#-# — DENOTES LOAD-BEARING WOOD STUD WALLS - SEE SCHEDULE ON THIS SHEET.
3. WSW#-# — DENOTES WOOD SHEAR WALL - SEE SCHEDULE ON THIS SHEET.
4. #H# — DENOTES WOOD HEADER AT DOOR OR WINDOW OPENINGS - SEE SCHEDULE ON THIS SHEET. FOR TYPICAL ELEVATION AND REQUIRED HARDWARE - SEE 3/S201
5. FOR PENETRATION THROUGH TYPICAL WALL STUDS - SEE 6/S611
6. ● DENOTES SHEAR WALL HOLD DOWN AT END OF SHEAR WALL. SEE SHEAR WALL SCHEDULE ON THIS SHEET AND DETAILS 1/S611 & 4/S312 FOR ADDITIONAL INFORMATION.
7. FOR WALL UPLIFT HARDWARE AND FASTENING REQUIREMENTS - SEE --->01
8. FOR BRACING TOP OF INTERIOR NON-LOAD BEARING WOOD PARTITION WALLS - SEE DETAIL 8/S601

COLUMN SCHEDULE

MARK	SIZE
C54	HSS5x5x1/4
C66	HSS6X6X3/8
C810	HSS8X8X5/8
C128	HSS12x12x1/2

FOUNDATION SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	BOTTOM REINFORCEMENT	TOP REINFORCEMENT
F3	3' - 0"	3' - 0"	1' - 0"	(4)-#4 EW, HOOKED EA END	--
F7	7' - 0"	7' - 0"	1' - 2"	(7)-#6 EW	(7)-#6 EW
F8	8' - 0"	8' - 0"	2' - 0"	(8)-#7 EW	(8)-#6 EW
F13x5	13' - 0"	5' - 0"	1' - 2"	(9)-#7 (LW); (13)-#6 (SW)	--
F13x8	13' - 0"	8' - 0"	1' - 8"	(12)-#7 (LW); (14)-#7 (SW)	(12)-#7 (LW); (14)-#7 (SW)

WOOD WALL STUD SCHEDULE

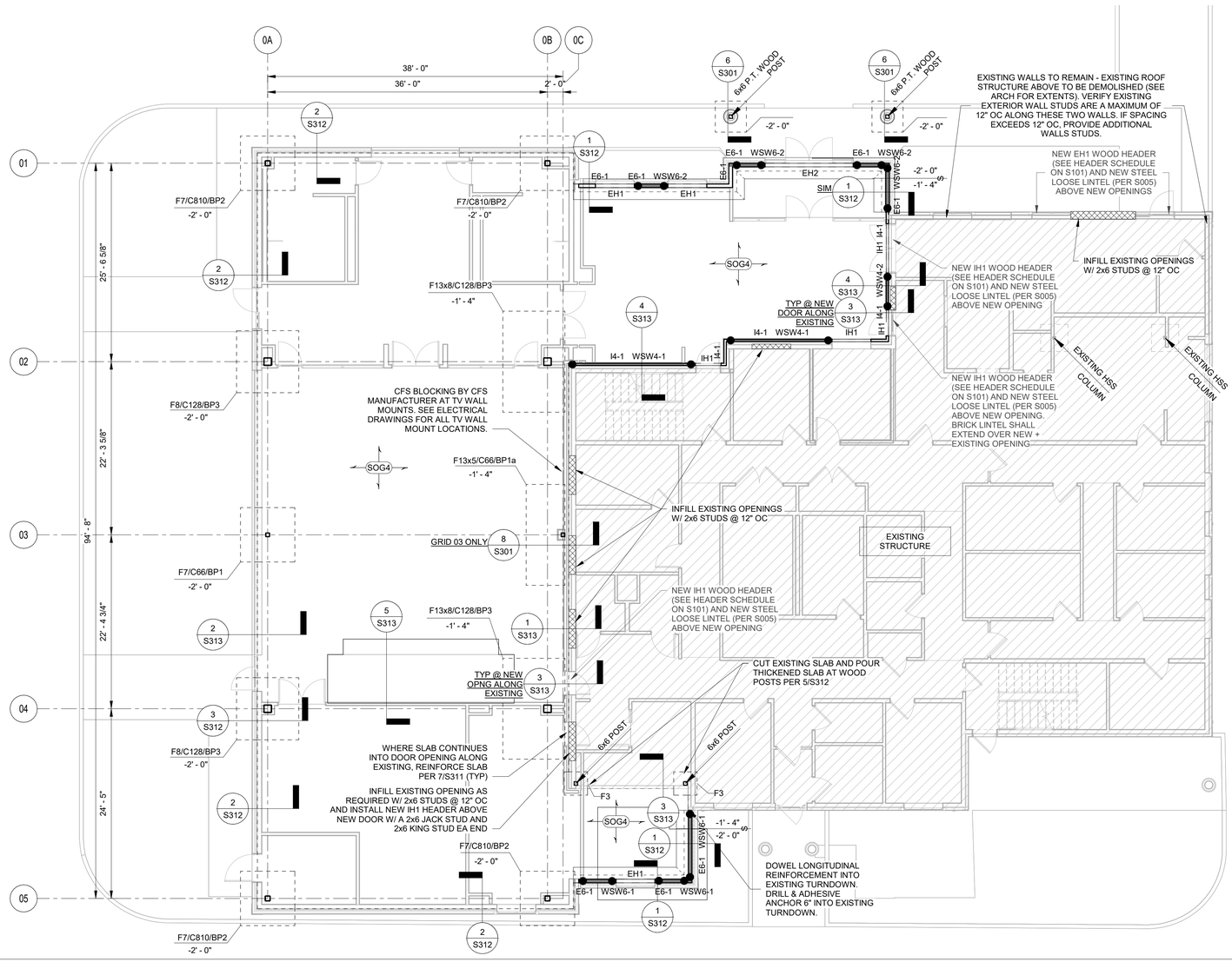
MARK	LOCATION	STUD SIZE & SPACING LEVEL 1 - ROOF
E6-1	EXTERIOR WALL	2x6 @ 12" OC
I4-1	INTERIOR WALL	2x4 @ 16" OC

LOAD BEARING WOOD HEADER SCHEDULE

MARK	LEVEL 1 - ROOF HEADER	JACK STUDS	KING STUDS
EH1	(3) 2x8	2x6	(3) 2x6
EH2	LVL (3) 1 3/4 x 11 7/8	(2) 2x6	(4) 2x6
IH1	(2) 2x10	2x4	(2) 2x4

NOTES:

1. ALL HEADERS AND STUDS ARE TYPICAL UNLESS NOTED OTHERWISE ON PLAN.
2. USE 2x6's FOR JACK AND KING STUDS INSTEAD OF 2x4's IF WALLS ARE 2x6 WALLS.



WOOD SHEAR WALL SCHEDULE

MARK (SEE PLAN)	LEVEL	SHEATHING	FASTENING (8d COMMON NAILS) EDGE	FASTENING (8d COMMON NAILS) FIELD	SILL PLATE ANCHORAGE	SIMPSON HOLD-DOWN AT END OF SHEARWALL AT LEVEL 1	STUD PACK @ ENDS OF WALL 2x4	STUD PACK @ ENDS OF WALL 2x6	SHEAR WALL TRUSS LOAD IN PLF (SEE DETAIL 5/S611)	SHEAR WALL TRUSS FASTENING @ TOP AND BOT CHORD (SEE DETAIL 5/S611)	SHEAR WALL TRUSS SPACING
WSW6-1	1	7/16" OSB	6" OC	12" OC	5/8" x 7" EMBED ANCHOR @ 48" OC	HDUE5	-	(2)	195	(4) 8d COMMON NAILS OR @ 6" OC (TC); (2) SIMPSON A23 CLIPS OR @ 12" OC (BC)	BETWEEN EA TRUSS
WSW6-2	1	7/16" OSB	4" OC	12" OC	5/8" x 7" EMBED ANCHOR @ 36" OC	HDUE5	-	(2)	335	(6) 8d COMMON NAILS (TC); (2) SIMPSON A23 CLIPS OR @ 12" OC (BC)	BETWEEN EA TRUSS
WSW4-1	1	7/16" OSB	6" OC	12" OC	5/8" x 7" EMBED ANCHOR @ 48" OC	HDUE3	(2)	-	85	CROSS BRACING (SEE DETAIL 7/S611)	BETWEEN EA TRUSS
WSW4-2	1	7/16" OSB	4" OC	12" OC	5/8" x 7" EMBED ANCHOR @ 36" OC	HDUE7	(6)	-	335	8d COMMON NAILS @ 4" OC (TC); (2) SIMPSON A23 CLIPS OR @ 12" OC (BC)	BETWEEN EA TRUSS

GENERAL SHEAR WALL NOTES:
1. PROVIDE 2x BLOCKING AT ALL PANEL EDGES - SEE DETAIL 3/S611
2. CONFORM TO MATERIAL REQUIREMENTS IN GENERAL NOTES & PROJECT SPECIFICATIONS. WHERE GENERAL NOTES CONNECTION REQUIREMENTS VARY FROM THIS TABLE, THIS TABLE CONTROLS.
3. ATTACH PRE-FABRICATED STRAPS, ANCHORS, & HOLD-DOWNS PER MANUFACTURER'S RECOMMENDATIONS TO DEVELOP FULL LOAD CAPACITY.
4. SEE WOOD FRAMING NOTES ON S006 FOR ATTACHMENT AT OTHER LOCATIONS.
5. SEE PLANS FOR LOCATIONS OF SHEAR WALLS.
6. SEE LOAD BEARING STUD SCHEDULE FOR STUD SIZE AND SPACING. WHERE STUD PACKS ARE SHOWN ON PLANS AND IN DETAILS, SCHEDULED SPACING SHALL BE INTERRUPTED IN ORDER TO MAINTAIN CONTINUOUS LOAD PATH.
7. WHERE 8d NAILING IS 2" OC OR LESS AND WHERE 10d NAILING IS 3" OC OR LESS, 3x MEMBERS ARE REQUIRED AT PANEL EDGES. ALTERNATIVELY, PROVIDE (2) 2x MEMBERS AT PANEL EDGES.
8. SEE S202 FOR TYPICAL SHEAR WALL ELEVATION.
9. SEE 2/S611 FOR TYPICAL ROOF SHEATHING FASTENING.

HOLD-DOWN SYSTEM NOTES (SIMPSON):
1. SEE WALL TYPE PLANS FOR ALL ANCHOR LOCATIONS.
2. SEE1/S611 FOR PLAN DETAIL AT CORNER AND "T" WOOD WALL INTERSECTIONS.
3. SEE S201 FOR TYPICAL UPLIFT SYSTEM ELEVATION.

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LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
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FOUNDATION PLAN

DRAWING NUMBER S101

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LEVEL 2 FRAMING PLAN

1 / S102

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

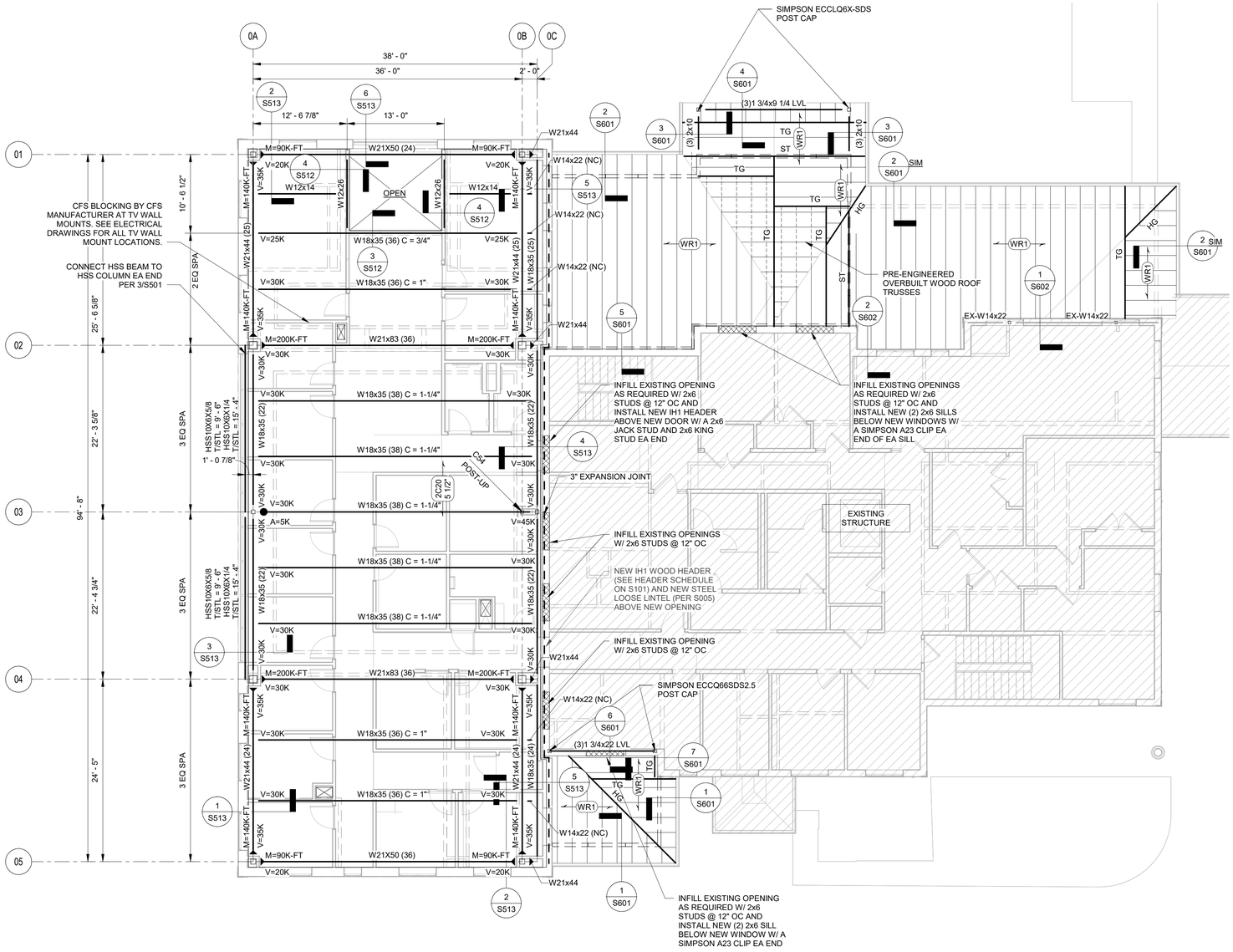
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STEEL FLOOR FRAMING PLAN NOTES:

1. 2C20 / 5 1/2" — DENOTES 3 1/2" NORMAL WEIGHT CONCRETE ON 2"-20 GAUGE COMPOSITE METAL DECK (TOTAL THICKNESS = 5 1/2") REINFORCED W/ 4 PCY MACRO-SYNTHETIC FIBERS.
   MINIMUM DECK PROPERTIES:
   I_{eff}+ = 0.417 IN⁴/FT I_{eff}- = 0.412 IN⁴/FT
   S_{eff}+ = 0.342 IN³/FT S_{eff}- = 0.347 IN³/FT
2. T/SLAB = SEE LEVEL SCHEDULE THIS SHEET.
3. T/STEEL = SEE LEVEL SCHEDULE THIS SHEET.
4. DENOTES THE AMOUNT OF CAMBER ON THE BEAM OR GIRDER
   DENOTES QUANTITY OF 3/4" DIA x 4" LG HEADED STUD ANCHORS WELDED TO TOP FLANGE OF STEEL BEAM (NC): DENOTES NON-COMPOSITE BEAM
   DENOTES BEAM SIZE → W#x## (#) C=#"
   TOP OF STEEL ELEVATION → (+) #' - #" (UNLESS NOTED OTHERWISE)
5. FOR TYPICAL COMPOSITE STEEL FRAMING SECTIONS AND DETAILS SEE S511 - S512
6. GENERAL CONTRACTOR SHALL VERIFY ALL OPENING DIMENSIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. V=#K — DENOTES DESIGN SERVICE LEVEL (ALLOWABLE STRESS DESIGN) SHEAR REACTION. IF REACTION IS NOT SHOWN, DESIGN FOR 15 K.
8. DENOTES MOMENT CONNECTION. DESIGN CONNECTIONS FOR FORCES INDICATED ON PLAN AND IN ELEVATIONS. FOR CONNECTION DETAIL - SEE 5/S501.
   DENOTES BEAM-THRU-BEAM MOMENT CONNECTION. DESIGN CONNECTIONS FOR FORCES INDICATED ON PLAN AND IN ELEVATIONS. FOR CONNECTION DETAIL - SEE 4/S501.
   M=#K-FT — DENOTES DESIGN SERVICE LEVEL (ALLOWABLE STRESS DESIGN) MOMENT REACTION (+ OR -). IF FORCE IS NOT SHOWN, DESIGN FOR 25 K-FT.
9. DENOTES DRAG CONNECTION. DESIGN CONNECTIONS FOR AXIAL FORCES INDICATED ON PLAN AND IN ELEVATIONS. DRAG CONNECTIONS TO HSS COLUMNS SHALL BE THRU-PLATES, UNO - SEE 2/S501
   A=#K — DENOTES DESIGN SERVICE LEVEL (ALLOWABLE STRESS DESIGN) AXIAL DRAG FORCE. IF FORCE IS NOT SHOWN, DESIGN FOR 5 K.
10. POST-UP — DENOTES COLUMN POST UP PER DETAIL 1/S501.
11. INSTALL (3)-#4 BARS @ 6" OC AT MID-DEPTH OF SLAB CONTINUOUS AROUND ENTIRE PERIMETER OF SLAB AND AT ALL INTERIOR SLAB EDGES. LAP EDGE BARS 3' - 0" AND EXTEND 4' - 0" PAST ALL INSIDE CORNERS.

WOOD ROOF FRAMING PLAN NOTES:

1. WR1 — DENOTES 5/8" WOOD ROOF SHEATHING ON GABLED PRE-ENGINEERED WOOD ROOF TRUSSES AT 24" OC, UNLESS NOTED OTHERWISE.
2. TRUSS BEARING ELEVATION = 12' - 0", UNLESS NOTED OTHERWISE.
3. TG — DENOTES PRE-ENGINEERED WOOD TRUSS GIRDER. PROVIDE A STUD PACK WITH ONE MORE STUD THAN THE NUMBER OF PLIES IN TRUSS GIRDER DOWN TO FOUNDATION.
4. HG — DENOTES PRE-ENGINEERED WOOD TRUSS HIP GIRDER. PROVIDE A STUD PACK WITH ONE MORE STUD THAN THE NUMBER OF PLIES IN TRUSS GIRDER DOWN TO FOUNDATION.
5. ST — DENOTES PRE-ENGINEERED WOOD SHEAR TRUSS TO ALIGN WITH SHEAR WALL BELOW. DESIGN FOR IN-PLANE SHEAR LOAD PER SHEAR WALL SCHEDULE. FASTEN SHEAR TRUSS TO TOP OF SHEAR WALL BELOW PER 4/S611
6. ALL ROOF TRUSSES SHALL HAVE UPLIFT TIES AT ALL BEARING POINTS PER ROOF TRUSS TIE DOWN SCHEDULE ON THIS SHEET. REACTIONS SHALL BE PROVIDED BY THE TRUSS ENGINEER IN THE FINAL, FOR CONSTRUCTION TRUSS SHOP DRAWINGS.
7. X# - ## — DENOTES WOOD BEAM - SEE SCHEDULE ON THIS SHEET.
   - NOMINAL BEAM DEPTH
   - NUMBER OF PLYS
   - D = DIMENSIONED LUMBER
   - L = LVL
8. ALL WOOD ROOF BEAMS BEARING ON WALLS SHALL HAVE UPLIFT TIES AT BEARING POINTS - SEE WOOD ROOF BEAM SCHEDULE ON THIS SHEET.
9. FOR TYPICAL ROOF DIAPHRAGM FASTENING - SEE DETAIL 2/S611, UNLESS NOTED OTHERWISE ON PLAN
10. SEE FLOOR LEVEL BELOW FOR SHEAR WALL LOCATIONS. PROVIDE SHEAR TRUSS OVER THESE LOCATIONS CAPABLE OF TRANSFERRING LOAD TO WALL NOTED ON SHEAR WALL SCHEDULE.
11. ⊂⊃⊂⊃ DENOTES LOAD-BEARING WALLS BELOW.



LEVEL SCHEDULE

NAME	ELEVATION
FFE	0"
LEVEL 2 - T/STL	12' - 6 1/2"
LEVEL 2 - T/SLAB	13' - 0"

WOOD BEAM SCHEDULE

BEAM TYPE	STUD PACKS LEVEL 1	HANGER (WHERE REQUIRED)
(3) 1 3/4x9 1/4 LVL	SEE PLAN	-
(3) 1 3/4x22 LVL	SEE PLAN	-
(3) 2x10	(3) 2x6	SIMPSON (2) H2.5A

ROOF TRUSS TIE DOWN SCHEDULE

UPLIFT REACTION AT BEARING POINTS OF ROOF TRUSS (ASD)	SIMPSON TIE-ROOF @ EACH END OF BEAM	NAILS TO TRUSS	NAILS TO PL	SDS SCREWS TO TRUSS	THRU-BOLTS TO PL	REMARKS
< 540 LB	H2.5A SIMPSON TIE	0.131" x 1 1/2"	0.131" x 1 1/2"	-	-	-
540 LB ≤ REACTION < 1080 LB	(2) H2.5A SIMPSON TIES	0.131" x 1 1/2"	0.131" x 1 1/2"	-	-	-
1080 LB ≤ REACTION < 1420 LB	(2) H8 SIMPSON TIES	0.148" x 1 1/2"	0.148" x 1 1/2"	-	-	-
1420 LB ≤ REACTION < 3990 LB	(2) VGTL/R SIMPSON TIEDOWNS	-	-	1/4" x 3"	(2) 5/8" DIA	2 PLY MIN W/ HDU4 EA FACE BELOW TOP PL; 1/4" x 3" SQ WASHER PL
3990 LB ≤ REACTION < 6485 LB	HGT-2 SIMPSON TIEDOWN	0.148" x 3"	-	-	(2) 5/8" DIA	2 PLY W/ FULL-HEIGHT THREADED ROD; 1/4" x 3" SQ WASHER PL
6485 LB ≤ REACTION < 9035 LB	HGT-3 SIMPSON TIEDOWN	0.148" x 3"	-	-	(2) 5/8" DIA	3 PLY W/ FULL-HEIGHT THREADED ROD; 1/4" x 4" SQ WASHER PL

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DRAWN: Author
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APPROVED: Approver
FILENAME

BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

LEVEL 2 FRAMING PLAN

DRAWING NUMBER S102

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ROOF FRAMING PLAN

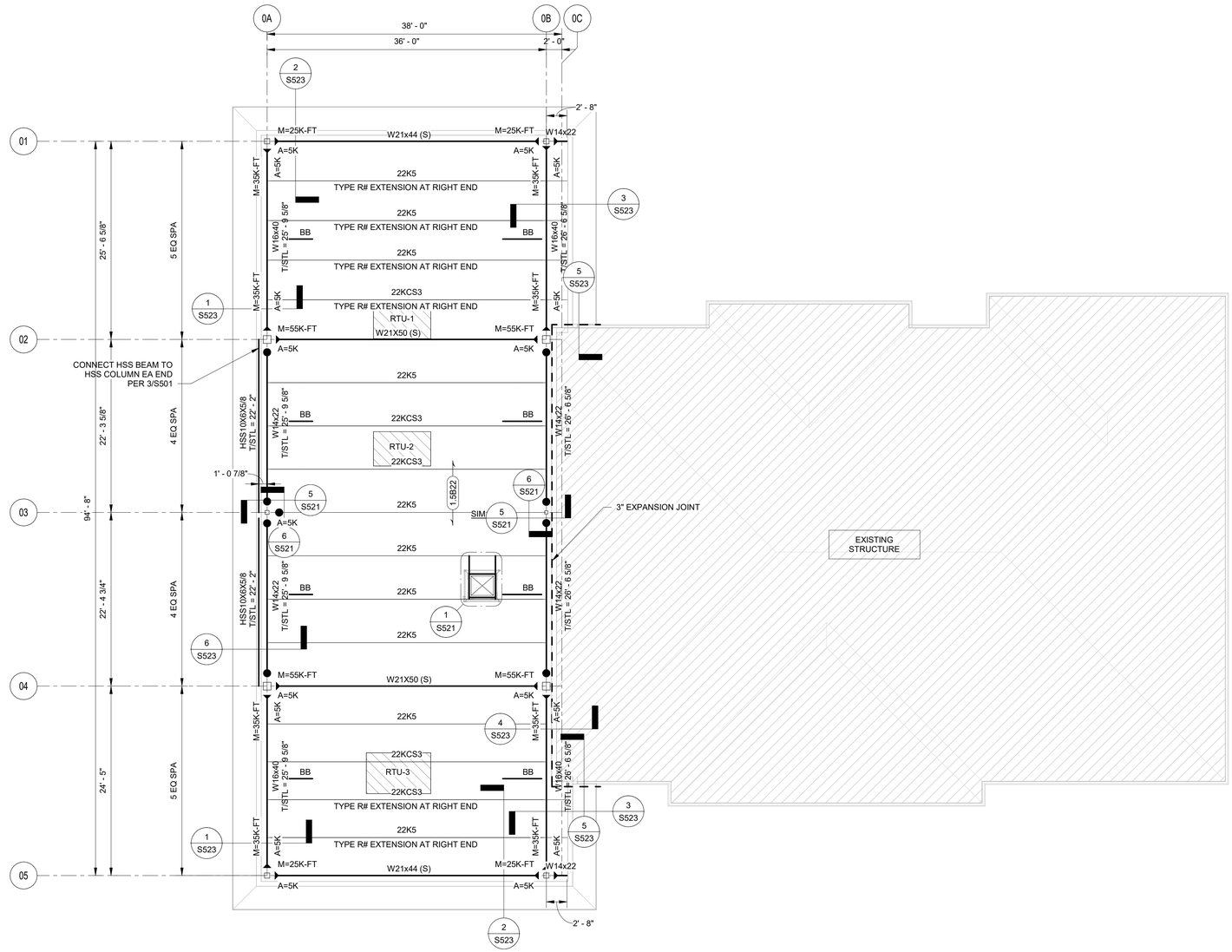
1 / S103

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

STEEL ROOF FRAMING PLAN NOTES:

1. 1.5B22 — DENOTES 22 GAUGE 1 1/2" TYPE B WIDE RIB STEEL ROOF DECK.
   MINIMUM DECK PROPERTIES:
   I_P = 0.162 IN^4/FT I_P = 0.175 IN^4/FT
   S_P = 0.183 IN^3/FT S_P = 0.189 IN^3/FT
2. SEE PLAN FOR TOP OF STEEL ELEVATIONS.
3. NOTIFY STRUCTURAL ENGINEER OF RECORD IF PIPING WEIGHT IS IN EXCESS OF THOSE NOTED IN SCHEDULE. FOR ALL PIPING SUPPORTED FROM ROOF STRUCTURE SEE S005
4. DO NOT SUPPORT MULTIPLE SPRINKLER MAINS FROM THE SAME JOIST. GENERAL CONTRACTOR TO PROVIDE SPRINKLER DRAWINGS TO STRUCTURAL ENGINEER OF RECORD AND JOIST MANUFACTURER FOR REVIEW AND COORDINATION PRIOR TO JOIST FABRICATION WHERE LOAD PER JOIST EXCEEDS 200#.
5. JOISTS SHALL BE REINFORCED AT CONCENTRATED LOADS - SEE 2/S521
6. PROVIDE SUPPORT FRAME AT ROOF DRAINS, VENTS, EXHAUST FANS, HATCHES, AND OTHER OPENINGS LARGER THAN 12" PER 1/S521 COORDINATE SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
7. ROOF EDGE ANGLES SHALL BE CONTINUOUS. FOR SPLICE CONNECTION - SEE 4/S521
8. MAXIMUM SPACING OF STEEL ROOF JOISTS SHALL BE 6' - 0" OC, UNLESS NOTED OTHERWISE.
9. JOIST SEATS SHALL BE DESIGNED FOR ROLL-OVER FORCES ALONG GRID LINES 0A & 0B, UNLESS NOTED OTHERWISE ON PLAN - SEE 3/S521.
10. V=#K DENOTES: DESIGN SERVICE LEVEL (ALLOWABLE STRESS DESIGN) SHEAR REACTION. IF REACTION IS NOT SHOWN, DESIGN FOR 15 K.
11. ▶—— DENOTES MOMENT CONNECTION. DESIGN CONNECTIONS FOR FORCES INDICATED ON PLAN AND IN ELEVATIONS. FOR CONNECTION DETAIL - SEE 5/S501.
    M=#K-FT DENOTES DESIGN SERVICE LEVEL (ALLOWABLE STRESS DESIGN) MOMENT REACTION (+ OR -). IF FORCE IS NOT SHOWN, DESIGN FOR 25 K-FT.
12. ●—— DENOTES DRAG CONNECTION. DESIGN CONNECTIONS FOR AXIAL FORCES INDICATED ON PLAN AND IN ELEVATIONS. DRAG CONNECTIONS TO HSS COLUMNS SHALL BE THRU-PLATES, UNO - SEE 2/S501
    A=#K DENOTES DESIGN SERVICE LEVEL (ALLOWABLE STRESS DESIGN) AXIAL DRAG FORCE. IF FORCE IS NOT SHOWN, DESIGN FOR 5 K.
13. BB DENOTES BEAM BOTTOM FLANGE BRACE PER DETAIL 7/S521.

N



RTU SCHEDULE

MARK	WEIGHT
RTU-1	1350 LB
RTU-2	1350 LB
RTU-3	1650 LB

NOTES:

1. NOTIFY ARCHITECT/ENGINEER IF UNIT SUPPLIED EXCEEDS SCHEDULED WEIGHT.
2. REFERENCE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND EXACT UNIT SIZES AND LOCATIONS.
3. EQUIPMENT CURB AND ANCHORAGE IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR - SEE 2/S522. ANCHOR CURBS TO RESIST UPLIFT AND OVERTURNING FORCES FROM WIND LOADS.

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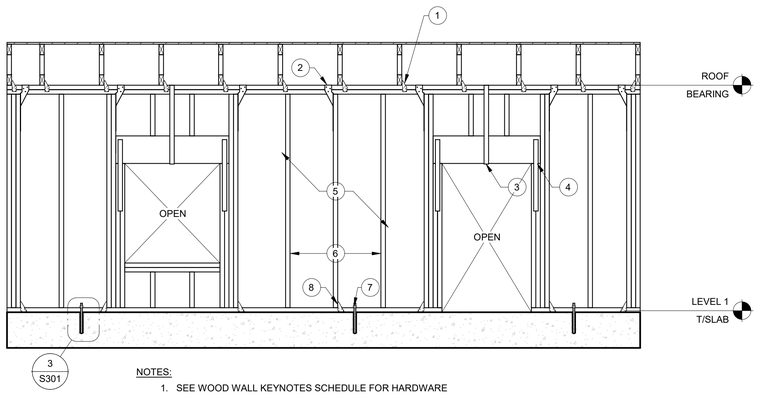
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ROOF FRAMING PLAN

DRAWING NUMBER
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NOTES:

1. SEE WOOD WALL KEYNOTES SCHEDULE FOR HARDWARE REQUIREMENTS APPLICABLE TO THE ELEVATION.
2. SEE SHEAR WALL ELEVATIONS AND WOOD SHEAR WALL KEYNOTES SCHEDULE FOR ADDITIONAL HARDWARE REQUIRED AT WALLS INDICATED AS SHEAR WALLS IN THE CONSTRUCTION DOCUMENTS.
3. TRUSS ANCHORAGE HARDWARE REQUIREMENTS ARE SUBJECT TO CHANGE FOLLOWING THE SEOR REVIEW OF THE PRE-ENGINEERED WOOD ROOF TRUSS CALCULATIONS AND SHOP DRAWINGS.

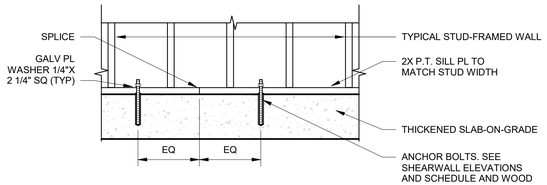
UPLIFT CONNECTORS AT WOOD WALLS - ELEVATION

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

1 / S201

WOOD WALL KEYNOTES

UPLIFT NOTE NUMBER	UPLIFT NOTE CONTENT
1	CONNECT EACH TRUSS TO WALL/BEAM PER ROOF TRUSS TIE DOWN SCHEDULE. CONNECT BEAM TO WALL PER PLAN AND PER KEY DETAILS. CONNECT BEAM TO POST PER KEY DETAILS.
2	THE DOUBLE 2x PLATE SHALL BE ANCHORED TO THE STUDS WITH (1)-SIMPSON 'H6' TIE AT FULL HEIGHT STUDS AT THE JAMBS EACH SIDE OF OPENINGS, AT WALL CORNERS AND @ 24" OC BETWEEN.
3	PROVIDE SIMPSON 'CS20' STRAP WRAPPING OVER DOUBLE 2x TOP PLATE AND EXTENDING TO BOTTOM OF HEADER ON EACH SIDE. SPACE 3'-0" OC (MAX). (TYPICAL AT ALL HEADERS AT LOAD BEARING WALLS)
4	FOR OPENING WIDTHS LESS THAN 6'-0", PROVIDE SIMPSON 'CS20' STRAP FROM TOP OF HEADER 9" DOWN JACK STUDS ON INTERIOR SIDE OF WALL. FOR OPENING WIDTHS BETWEEN 6'-0" AND 11'-4", PROVIDE SIMPSON 'CS16' STRAP FROM TOP OF HEADER 15" DOWN JACK STUDS ON INTERIOR SIDE OF WALL. (TYPICAL AT ALL HEADERS AT LOAD BEARING WALLS).
5	UNSHEATHED INTERIOR AND EXTERIOR LOAD BEARING STUD WALLS SHALL HAVE CONTINUOUS HORIZONTAL BLOCKING @ 4'-0" OC MAXIMUM VERTICALLY PRIOR TO APPLYING LOADS TO THESE WALLS (NOT REQUIRED IF SHEATHING IS IN PLACE)
6	LOAD BEARING WOOD STUD (SEE WALL STUD SCHEDULE FOR STUD SIZE AND SPACING)
7	USE 5/8" DIAMETER ADHESIVE ANCHORS (7" EMBEDMENT) THRU THE MUD SILLS AT THE JAMBS EACH SIDE OF OPENINGS, AT WALL CORNERS AND @ 48" OC BETWEEN (UNLESS NOTED OTHERWISE FOR SHEAR WALLS)
8	PROVIDE (2) SIMPSON 'H8' AT FULL HEIGHT STUDS TO MUD SILLS AT THE JAMBS EACH SIDE OF OPENINGS, AT WALL CORNERS AND @ 24" OC BETWEEN.



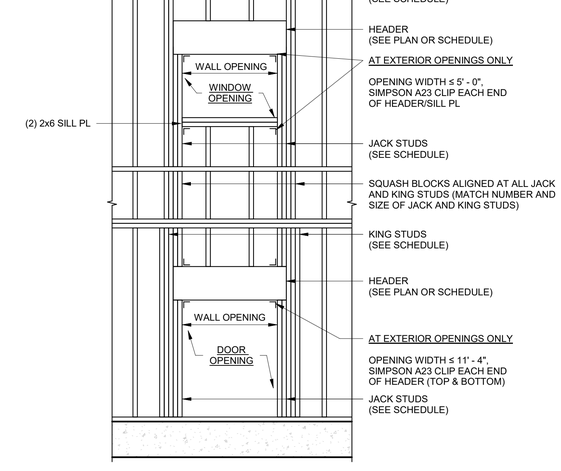
NOTES:

1. FINISH SLAB FOR EVEN BEARING OF SILL PLATE. PLACE NON-SHRINK GROUT UNDER PLATE WHEN GAP EXCEEEDS 1/8"
2. USE ONLY GALVANIZED ANCHORS IN PRESSURE TREATED WOOD. GALVANIZED FASTENERS ARE NOT REQUIRED IN BORATE TREATED WOOD.
3. THIS DETAIL DOES NOT APPLY TO SHEARWALL HOLDDOWN ANCHORS.
4. OFFSET BOLTS IN SILL PLATE AS REQUIRED TO MAINTAIN 3 1/4" MIN EDGE DISTANCE IN CONCRETE (MEASURED FROM CENTER OF BOLT).

TYPICAL SILL PLATE ANCHORAGE - ELEVATION

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

2 / S201



TYPICAL HEADER LAYOUT - ELEVATION

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

3 / S201

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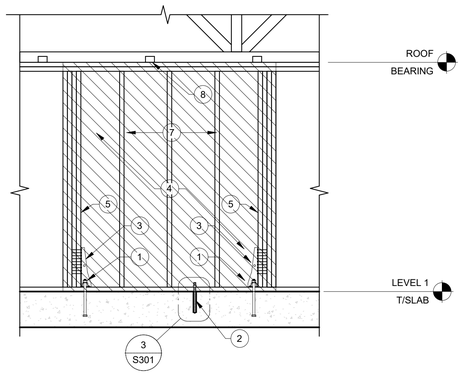
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WOOD WALL ELEVATIONS

DRAWING NUMBER
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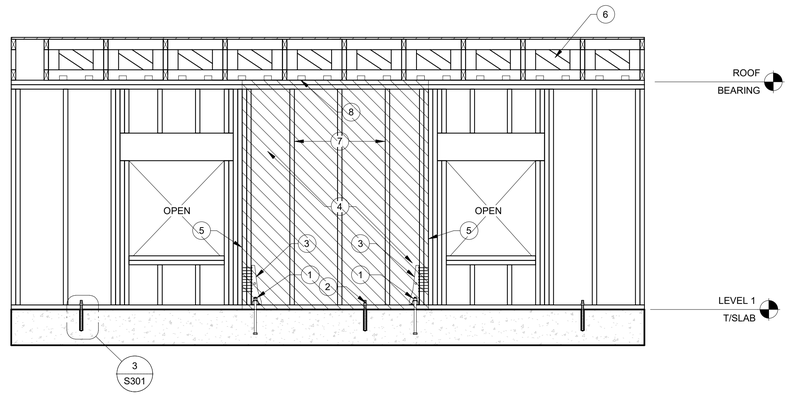
NOTES:

1. SEE SHEAR WALL SCHEDULE AND WOOD SHEAR WALL KEYNOTE SCHEDULE FOR HARDWARE REQUIREMENTS APPLICABLE TO THE ELEVATION.
2. SEE UPLIFT CONNECTORS WALL ELEVATIONS AND WOOD WALL KEYNOTES SCHEDULE FOR HARDWARE REQUIRED IN ADDITION TO HARDWARE SHOWN IN THIS ELEVATION.

SHEAR WALL AT SHEAR TRUSS PARALLEL TO WALL - ELEVATION

1 / S202

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



NOTES:

1. SEE SHEAR WALL SCHEDULE AND WOOD SHEAR WALL KEYNOTE SCHEDULE FOR HARDWARE REQUIREMENTS APPLICABLE TO THE ELEVATION.
2. SEE UPLIFT CONNECTORS WALL ELEVATIONS AND WOOD WALL KEYNOTES SCHEDULE FOR HARDWARE REQUIRED IN ADDITION TO HARDWARE SHOWN IN THIS ELEVATION.

SHEAR WALL ADJACENT TO OPENING WITH ROOF TRUSSES PERPENDICULAR TO WALL - ELEVATION

2 / S202

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

WOOD SHEAR WALL KEYNOTES

NOTE NUMBER	NOTE CONTENT
1	HOLDOWN ANCHOR (SEE SHEAR WALL SCHEDULE FOR SIZE AND EMBEDMENT LENGTH)
2	USE 5/8" DIAMETER ADHESIVE ANCHORS (7" EMBEDMENT) THRU MUD SILL WITHIN 12" OF HOLDOWN AND AT SPACING INDICATED IN SHEAR WALL SCHEDULE WITH PLATE WASHER 0.229"X3"X3" AT 2x4 WALLS AND 0.229"X5"X5" AT 2x6 WALLS
3	HOLDOWN (SEE SHEAR WALL SCHEDULE)
4	WALL SHEATHING (SEE SHEAR WALL SCHEDULE). INSTALL 2x BLOCKING AT ALL UNSUPPORTED EDGES. FASTEN SHEATHING AT PANEL EDGES PER SHEAR WALL SCHEDULE AND AT INTERMEDIATE SUPPORTS PER GENERAL NOTES.
5	STUD PACK AT END OF SHEAR WALL (SEE SHEAR WALL SCHEDULE FOR QUANTITY)
6	SHEAR TRUSS BETWEEN TRUSSES PERPENDICULAR TO SHEAR WALL (SEE SHEAR WALL SCHEDULE FOR REQUIRED LOCATIONS, FASTENING, AND LOADING.
7	LOAD BEARING WOOD STUD (SEE WALL STUD SCHEDULE FOR STUD SIZE AND SPACING)
8	CONNECTION BETWEEN SHEAR TRUSS AND SHEAR WALL (SEE SHEAR WALL SCHEDULE)

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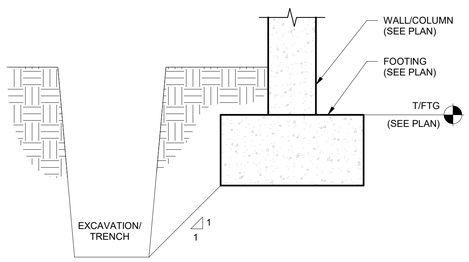
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WOOD SHEAR WALL ELEVATIONS

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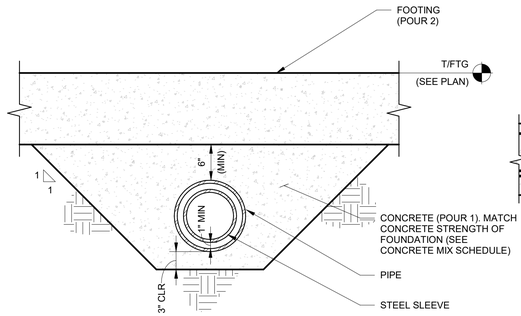


NOTES:
1. DETAIL IS INTENDED TO INDICATE THE MINIMUM CLEARANCE BETWEEN TRENCHES AND INSTALLED FOUNDATIONS TO MAINTAIN STABILITY OF THE FOUNDATION. THIS DETAIL IS NOT INTENDED TO ADDRESS OSHA TRENCHING AND EXCAVATION SAFETY REQUIREMENTS.

TYPICAL TRENCH ADJACENT TO FOOTING - SECTION

SCALE: 1" = 1'-0"

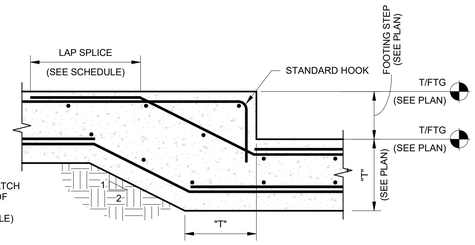
1 / S301



TYPICAL PIPE UNDER WALL FOOTING - SECTION

SCALE: 1" = 1'-0"

2 / S301



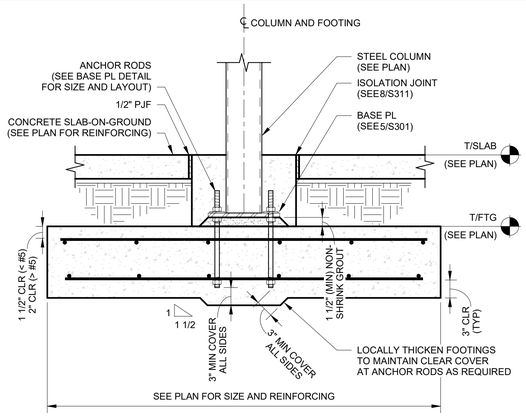
NOTES:

1. "T" DENOTES FOOTING THICKNESS (SEE PLANS, KEYED SECTIONS AND DETAILS FOR FOOTING THICKNESS AND REINFORCING).

TYPICAL FOOTING STEP - SECTION

SCALE: 1" = 1'-0"

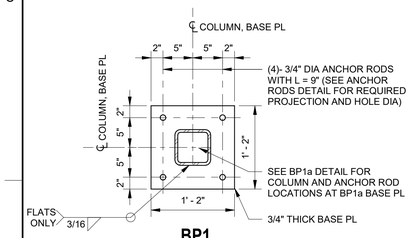
3 / S301



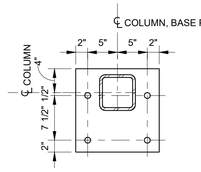
TYPICAL INTERIOR COLUMN FOOTING - SECTION

SCALE: 1" = 1'-0"

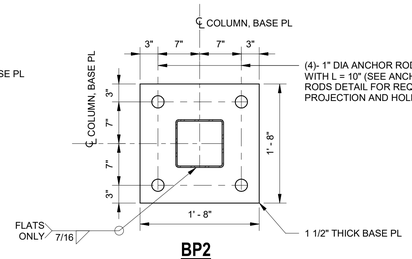
4 / S301



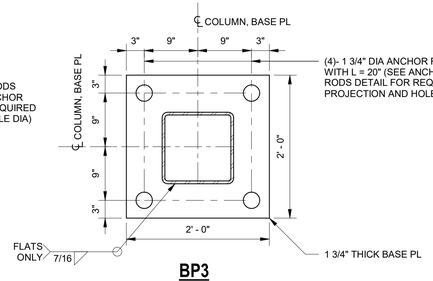
BP1



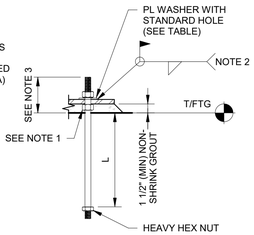
BP1a



BP2



BP3



BASE PLATE HOLE DIAMETER AND PLATE WASHER SIZE

ANCHOR RODS DIA	BASE PL HOLE DIA	MIN WASHER DIMENSION	MIN WASHER THICKNESS
3/4"	1 5/16"	2"	1/4"
1"	1 13/16"	3"	3/8"
1 3/4"	2 3/4"	4"	5/8"

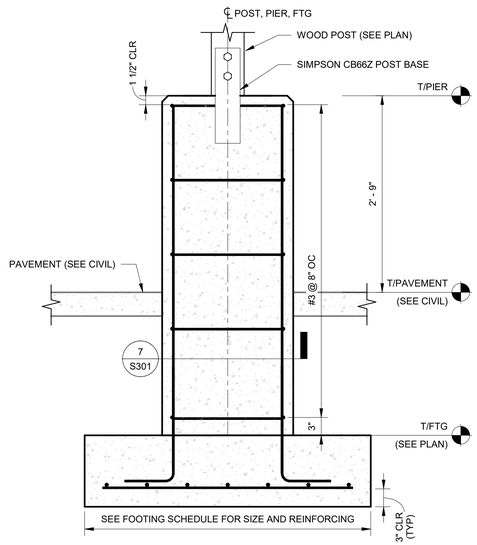
NOTES:

1. PROVIDE LEVELING NUTS AND WASHERS, SHIM STACKS, OR LEVELING PLATE TO TEMPORARILY SUPPORT COLUMN DURING LEVELING AND GROUTING.
2. WELD REQUIRED ONLY AT MOMENT FRAME COLUMNS AT BASE PLATE TYPES BP-1 & BP-2. AS AN ALTERNATIVE TO WELDING, FILL ALL VOIDS BETWEEN ANCHOR ROD AND BASE PLATE HOLES WITH GROUT OR EPOXY PRIOR TO INSTALLING WASHER AND NUT.
3. PROVIDE ADEQUATE PROJECTION FOR INSTALLATION OF NUT ABOVE BASE PLATE:
   A. AT BASE PLATE TYPE BP1: 7" MINIMUM
   B. AT BASE PLATE TYPE BP2: 7 1/2" MINIMUM
   C. AT BASE PLATE TYPE BP3: 8 1/2" MINIMUM

BASE PLATE DETAILS

SCALE: 1" = 1'-0"

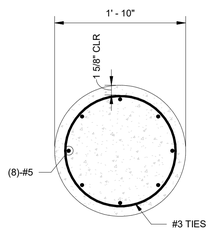
5 / S301



CONCRETE PIER AT WOOD POST - SECTION

SCALE: 1" = 1'-0"

6 / S301

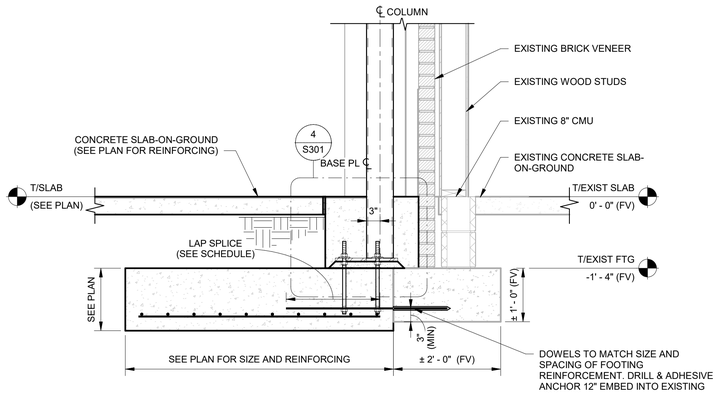


'P1'

CONCRETE PIER REINFORCING - DETAIL

SCALE: 1" = 1'-0"

7 / S301



STEEL COLUMN FOOTING AT EXISTING WALL FOOTING - SECTION

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

8 / S301

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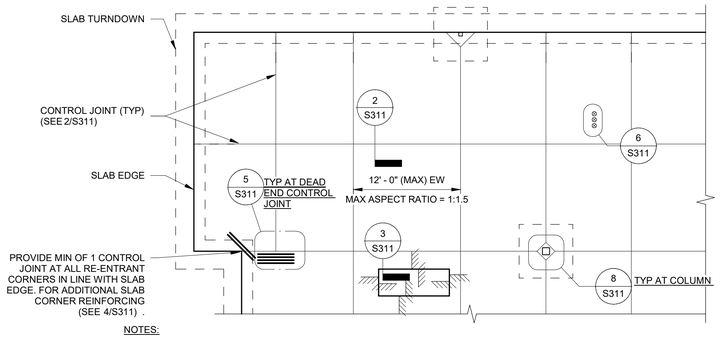
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FOUNDATION DETAILS

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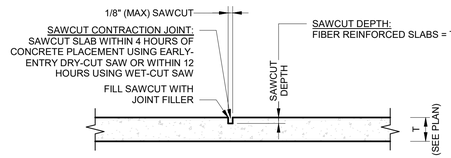
NOTES:

1. KEY PLAN ILLUSTRATES CONSTRUCTION CONCEPTS ONLY. SEE PLAN FOR ACTUAL DIMENSIONS AND ARRANGEMENT OF STRUCTURAL ELEMENTS (COLUMNS, WALLS, FOUNDATIONS) AND REFER TO TYPICAL DETAIL FOR ADDITIONAL SLAB REINFORCEMENT REQUIRED.
2. PROVIDE ADDITIONAL CONTROL JOINTS AT ABRUPT CHANGES IN THICKNESS COORDINATE LOCATIONS WITH FLOOR FINISHES AND INTERIOR WALLS.
3. CONTRACTOR SHALL SUBMIT PROPOSED CONTROL JOINT LAYOUT FOR DESIGN TEAM REVIEW PRIOR TO CONCRETE PLACEMENT.

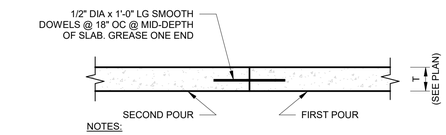
TYPICAL CONTROL JOINT KEY PLAN

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

1 S311



SAWCUT CONTRACTION JOINT AT FIBERS



NOTES:

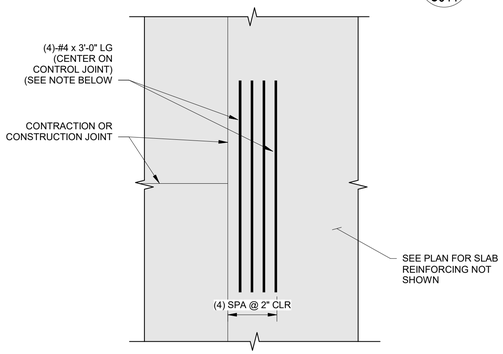
1. APPLY A SPRAY-ON BOND BREAKER TO THE FIRST POUR PRIOR TO PLACING THE SECOND POUR.

CONSTRUCTION JOINT AT FIBERS

TYPICAL CONSTRUCTION/CONTRACTION JOINT DETAILS - SECTION

SCALE: 1" = 1'-0"

2 S311



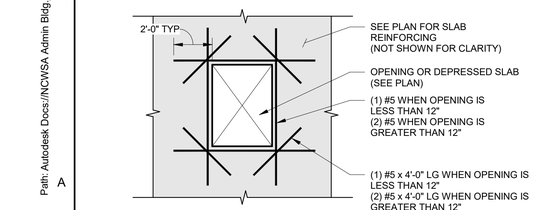
NOTES:

1. INSTALL REINFORCING 1" CLEAR BELOW TOP OF SLAB.

TYPICAL DEAD END CONTROL JOINT REINFORCING - PLAN

SCALE: 1" = 1'-0"

5 S311



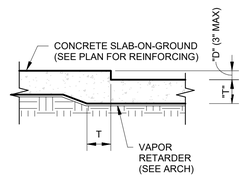
NOTES:

1. DETAIL APPLIES FOR ALL OPENINGS IN SLABS ON GROUND AND TOPPING SLABS.

TYPICAL REINFORCING AT SLAB-ON-GROUND OPENINGS - PLAN

NOT TO SCALE

6 S311



3" MAX

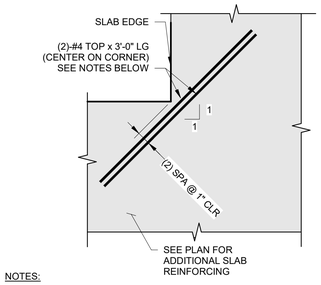
NOTES:

1. T = SLAB THICKNESS (SEE PLAN)
2. D = SLAB DEPRESSION (SEE ARCH)

TYPICAL DEPRESSED SLAB - SECTION

SCALE: 1" = 1'-0"

3 S311



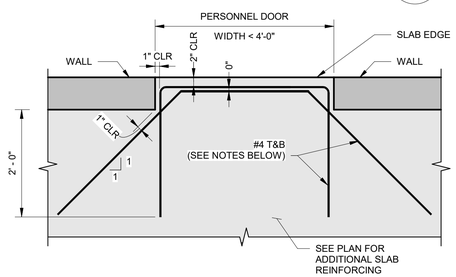
NOTES:

1. INSTALL REINFORCING 1" CLEAR FROM TOP OF SLAB.
2. REENTRANT CORNER REINFORCING IS NOT REQUIRED WHEN A CONSTRUCTION OR SAWCUT CONTRACTION JOINT ALIGNS WITH THE CORNER. REINFORCEMENT SHALL NOT CROSS CONSTRUCTION OR SAWCUT CONTRACTION JOINTS THAT ALLOW FOR MOVEMENT.

TYPICAL ADDITIONAL SLAB CORNER REINFORCING - PLAN

SCALE: 1" = 1'-0"

4 S311



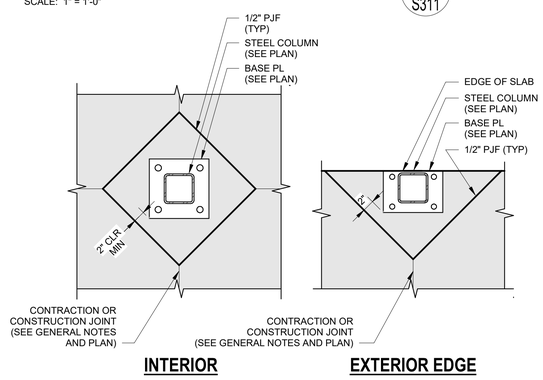
NOTES:

1. INSTALL REINFORCING 1" CLEAR FROM TOP OF SLAB.
2. DIAGONAL CORNER REINFORCING IS NOT REQUIRED WHEN A CONSTRUCTION OR SAWCUT CONTRACTION JOINT ALIGNS WITH THE EDGE OF THE OPENING. REINFORCEMENT SHALL NOT CROSS CONSTRUCTION OR SAWCUT CONTRACTION JOINTS THAT ALLOW FOR MOVEMENT.
3. DETAIL ONLY APPLICABLE WHERE WALL INTERRUPTS SLAB AND CREATES RE-ENTRANT CORNERS IN SLAB.

TYPICAL SLAB REINFORCING AT DOORS - PLAN

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

7 S311



NOTES:

1. COLUMN BOX OUT SHALL BE NOT LESS THAN 2'-0" x 2'-0". GENERAL CONTRACTOR SHALL INCREASE BOX OUT AS REQUIRED TO ALLOW FOR GROUTING UNDER BASE PLATE. WELDING OF WASHERS TO BASE PLATE AT DEEPER FOOTINGS AND ATTACHING OF DIAGONAL BRACING MEMBER.

TYPICAL ISOLATION JOINT- PLAN

SCALE: 1" = 1'-0"

8 S311

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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REV	DATE	DESCRIPTION

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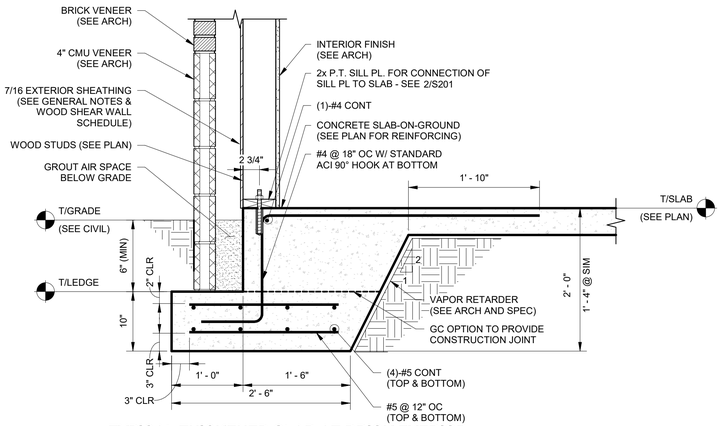
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DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

SLAB-ON-GROUND DETAILS

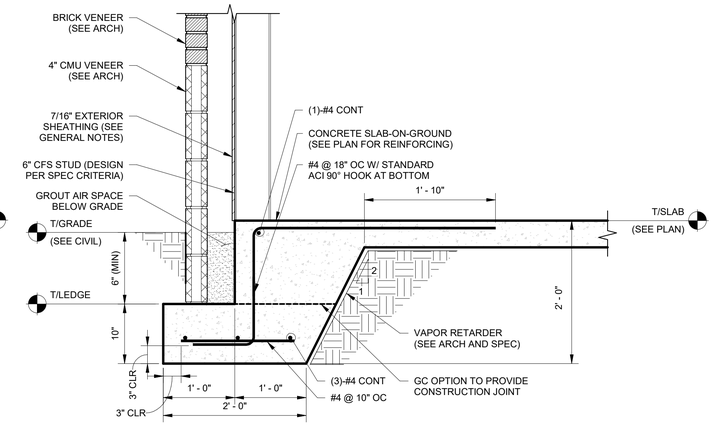
DRAWING NUMBER
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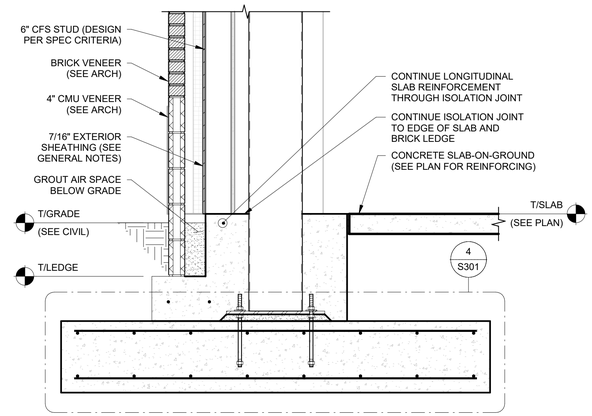
TYPICAL THICKENED SLAB AT BRICK EXERIOR LOAD-BEARING WALL - SECTION 1 S312

SCALE: 1" = 1'-0"



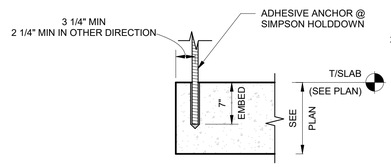
TYPICAL THICKENED SLAB AT BRICK EXERIOR CFS WALL - SECTION 2 S312

SCALE: 1" = 1'-0"

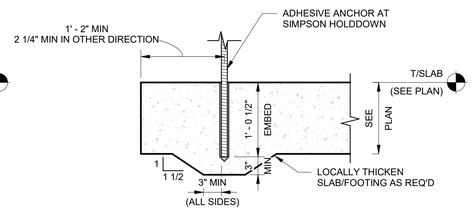


COLUMN FOOTING AT EXTERIOR WALL - SECTION 3 S312

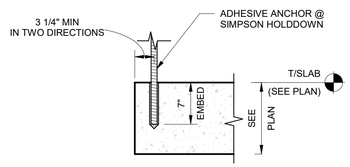
SCALE: 3/4" = 1'-0"



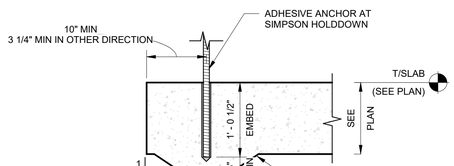
WSW4-1



WSW4-2



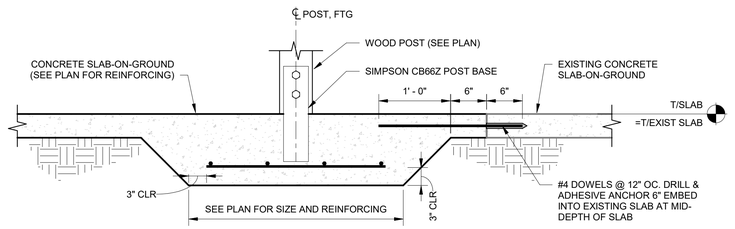
WSW6-1



WSW6-2

SHEAR WALL SIMPSON HOLDDOWN ANCHORAGE DETAIL - SECTION 4 S312

SCALE: 1" = 1'-0"



THICKENED SLAB AT WOOD POST - SECTION 5 S312

SCALE: 1" = 1'-0"

Brown AND Caldwell

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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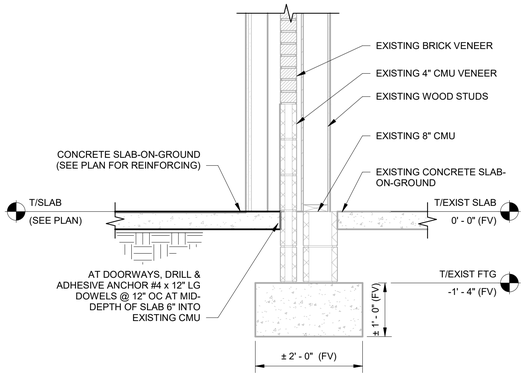
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DRAWN: Author
CHECKED: Checker
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FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

SLAB-ON-GROUND DETAILS

DRAWING NUMBER
S312

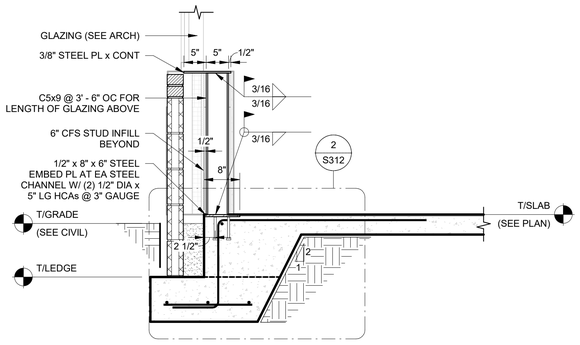
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SLAB-ON-GROUND AT EXISTING BRICK VENEER - SECTION

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

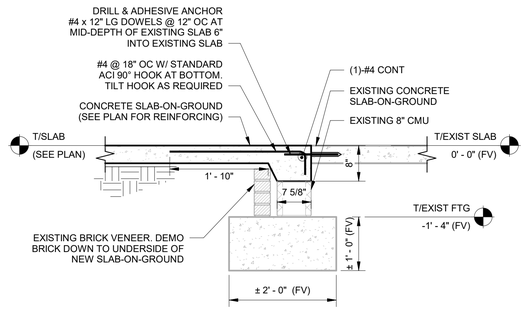
1 / S313



CANTILEVERED STEEL CHANNEL AT WINDOW SILL SUPPORT - SECTION

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

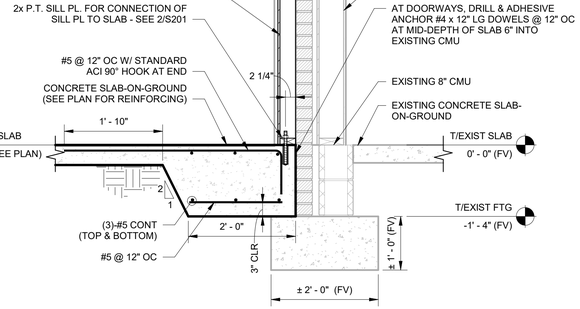
2 / S313



SLAB-ON-GROUND AT EXISTING SLAB-ON-GROUND

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

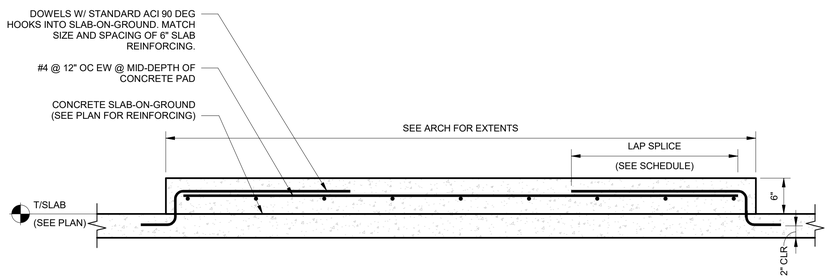
3 / S313



INTERIOR LOAD-BEARING WOOD WALL AT EXISTING EXTERIOR WOOD WALL - SECTION

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

4 / S313



BUILT-UP CONCRETE PAD - SECTION

SCALE: 1" = 1'-0"

5 / S313

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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DRAWN:	Author
CHECKED:	Checker
CHECKED:	
APPROVED:	Approver

FILENAME

BC PROJECT NUMBER 616202

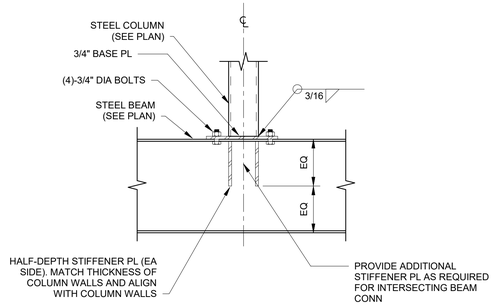
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SLAB-ON-GROUND DETAILS

DRAWING NUMBER

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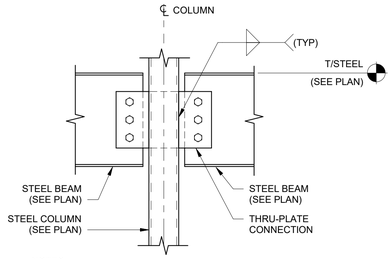
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TYPICAL TRANSFER BEAM CONNECTIONS - DETAILS

1 / S501

SCALE: 1" = 1'-0"



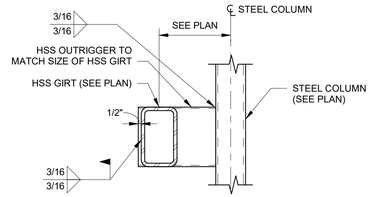
NOTES:

1. FABRICATOR SHALL SUBMIT DRAG CONNECTION CALCULATIONS WITH SHOP DRAWINGS. CONNECTIONS SHALL BE DESIGNED FOR FORCES SHOWN ON BRACE ELEVATIONS AND FRAMING PLANS.

DRAG CONNECTION AT BEAM TO HSS COLUMN - SECTION

2 / S501

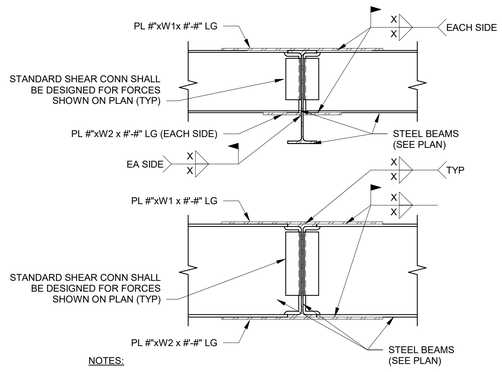
SCALE: 1" = 1'-0"



TYPICAL HSS BEAM TO HSS COLUMN CONNECTION - DETAIL

3 / S501

SCALE: 1" = 1'-0"



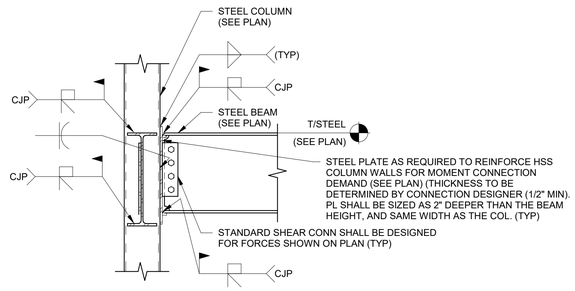
NOTES:

1. W1 SHALL BE 1" LESS THAN BEAM FLANGE WIDTH. W2 SHALL BE 1" GREATER THAN BEAM FLANGE WIDTH.
2. PLATE THICKNESS AND LENGTH DESIGNATED "#" SHALL BE DESIGNED BY CONNECTION ENGINEER FOR CONNECTION FORCES SHOWN ON PLAN.

TYPICAL BEAM THROUGH GIRDER MOMENT CONNECTIONS - SECTION

4 / S501

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



NOTES:

1. FABRICATOR HAS THE OPTION TO USE ALTERNATE MOMENT CONNECTION. SUBMIT DETAIL FOR REVIEW AND ACCEPTANCE PRIOR TO SUBMITTING SHOP DRAWINGS. IF BOLTED FLANGE PLATES ARE PROPOSED, SUBMITTAL SHALL INCLUDE FLANGE EXTENSION PLATES OR ANGLES FOR DECK SUPPORT.
2. FABRICATOR SHOULD COORDINATE FIT UP PLATES AS REQUIRED.
3. FOR TOP OF COLUMN CONDITION, EXTEND COLUMN AS REQUIRED FOR CONNECTION (2" MAXIMUM) AND PROVIDE A 3/4" CAP PLATE.
4. JOISTS FRAMING PERPENDICULAR INTO THIS COLUMN SHALL BEAR ON A STIFFENED SEAT ANGLE.

TYPICAL WIDE FLANGE BEAM TO HSS COLUMN MOMENT CONNECTIONS - SECTION

5 / S501

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

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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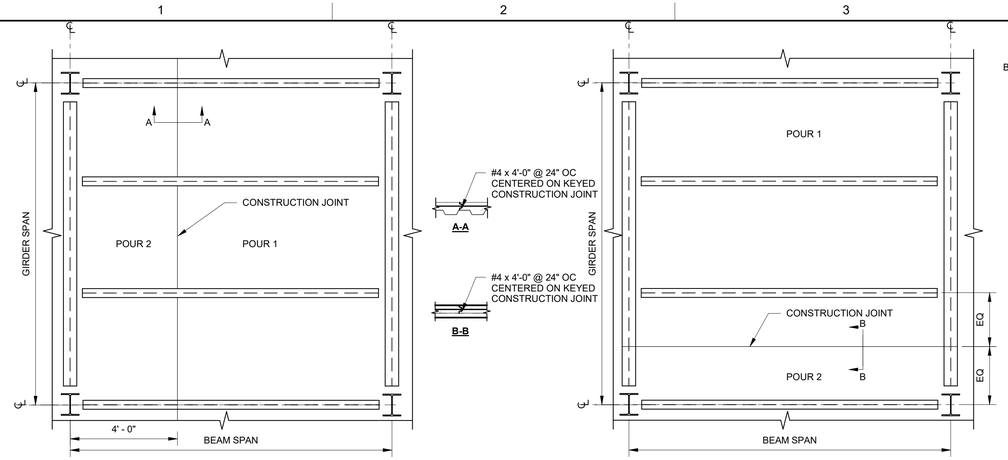
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CHECKED: Checker
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APPROVED: Approver
FILENAME

BC PROJECT NUMBER
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CLIENT PROJECT NUMBER

STEEL FRAMING DETAILS

DRAWING NUMBER
S501

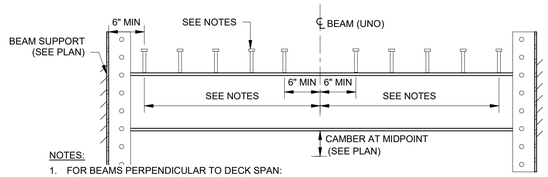
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COMPOSITE FRAMING CONSTRUCTION JOINT LOCATION - PLAN

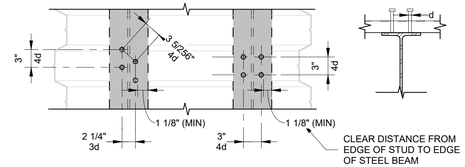
SCALE: 3/8" = 1'-0"

1 S511

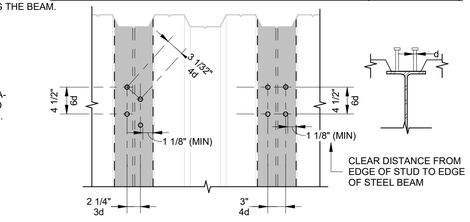


NOTES:

1. FOR BEAMS PERPENDICULAR TO DECK SPAN:
   a. EQUALLY SPACE ANCHORS IN ONE ROW ALONG BEAM AT A MAXIMUM SPACING OF 24" OC. NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF THERE ARE INSUFFICIENT ANCHORS TO SPACE AT 24" OC ALONG THE BEAM.
   b. MINIMUM ANCHOR SPACING ALONG BEAM IS 3" OC (4x STUD DIAMETER).
   c. IF THERE ARE ANCHORS REMAINING, ASSIGN ONE ANCHOR TO EVERY OTHER RIB WITHOUT AN ANCHOR STARTING AT EACH END OF THE BEAM.
   d. IF THERE ARE STILL ANCHORS REMAINING, ASSIGN ONE ANCHOR TO EACH RIB WITHOUT AN ANCHOR, AGAIN STARTING AT EACH END OF THE BEAM.
   e. IF NUMBER OF ANCHORS EXCEEDS NUMBER OF RIBS, ASSIGN ONE ANCHOR TO EACH RIB. ASSIGN SECOND ANCHOR TO EACH RIB STARTING AT EACH END OF BEAM UNTIL ALL ANCHORS ARE USED. SEE A-A FOR MINIMUM ANCHOR SPACE. EDGE OF ANCHORS SHALL BE LOCATED A MINIMUM OF 1 1/8" (1.5x STUD DIAMETER) FROM EDGE OF BEAM FLANGE (3" GAUGE). WELD ANCHORS AFTER ASSIGNING IS COMPLETE.
2. FOR BEAMS PARALLEL TO DECK SPAN:
   a. EQUALLY SPACE TOTAL QUANTITY OF ANCHORS IN ONE ROW ALONG BEAM. IF QUANTITY OF ANCHORS EXCEEDS THE MINIMUM SPACING IN NOTE b BELOW, INSTALL ANCHORS IN TWO ROWS ALONG BEAM.
   b. MINIMUM ANCHOR SPACING ALONG BEAM IS 4 1/2" OC (6x STUD DIAMETER).
   c. FOR ONE ROW OF ANCHORS, LOCATE ANCHORS OVER BEAM WEB. FOR TWO ROWS OF ANCHORS, SEE B-B FOR MINIMUM ANCHOR SPACING. EDGE OF ANCHORS SHALL BE LOCATED A MINIMUM OF 1 1/8" (1.5x STUD DIAMETER) FROM EDGE OF BEAM FLANGE. (3" GAUGE).
3. SEE COMPOSITE FLOOR SYSTEM NOTES AND FRAMING PLAN FOR HEADED STUD ANCHOR SIZE, LENGTH AND QUANTITY.



DECK PERPENDICULAR TO STEEL BEAM (DETAIL A-A)

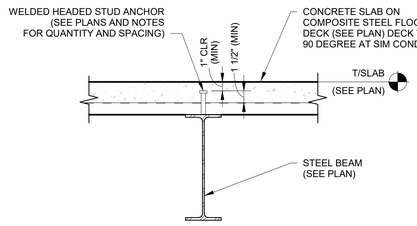


DECK PARALLEL TO STEEL BEAM (DETAIL B-B)

DISTRIBUTED HEADED STUD ANCHOR PLACEMENT

SCALE: 1" = 1'-0"

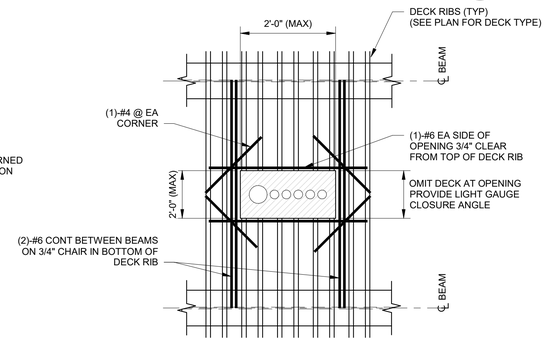
2 S511



TYPICAL COMPOSITE STEEL BEAM - SECTION

SCALE: 1" = 1'-0"

3 S511



MULTIPLE SLEEVES IN SINGLE OPENING

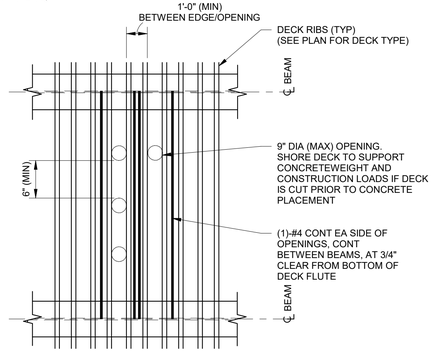
NOTES:

1. REINFORCING SHALL EXTEND 2'-0" MINIMUM PAST EACH SIDE OF OPENING.
2. ALL OPENINGS TO BE REVIEWED AND APPROVED BY EOR. ADDITIONAL FRAMING MAY BE REQUIRED.

COMPOSITE SLAB PIPE PENETRATION - PLAN

SCALE: 1" = 1'-0"

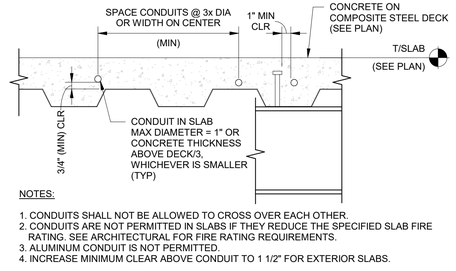
4 S511



ISOLATED OPENINGS

NOTES:

1. REINFORCING SHALL EXTEND 2'-0" MINIMUM PAST EACH SIDE OF OPENING.



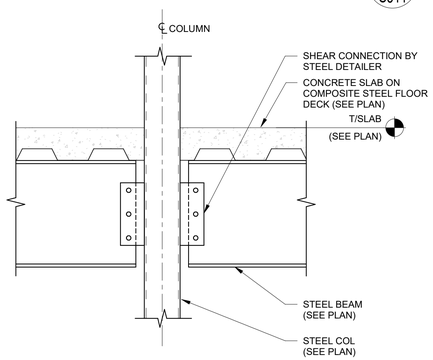
TYPICAL CONDUIT IN DECK SLAB - SECTION

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

5 S511

NOTES:

1. CONDUITS SHALL NOT BE ALLOWED TO CROSS OVER EACH OTHER.
2. CONDUITS ARE NOT PERMITTED IN SLABS IF THEY REDUCE THE SPECIFIED SLAB FIRE RATING. SEE ARCHITECTURAL FOR FIRE RATING REQUIREMENTS.
3. ALUMINUM CONDUIT IS NOT PERMITTED.
4. INCREASE MINIMUM CLEAR ABOVE CONDUIT TO 1 1/2" FOR EXTERIOR SLABS.



TYPICAL COMPOSITE STEEL BEAM TO STEEL COLUMN CONNECTION - SECTION

SCALE: 1" = 1'-0"

6 S511

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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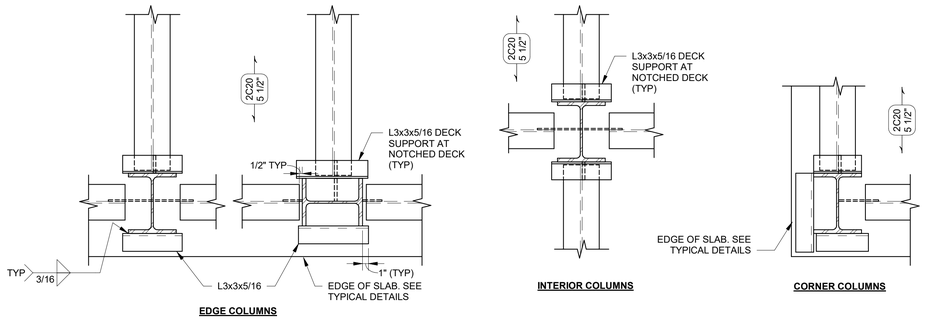
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DRAWN: Author
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CHECKED:
APPROVED: Approver
FILENAME

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616202
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COMPOSITE STEEL FRAMING DETAILS

DRAWING NUMBER
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Plot Date: 4/27/2026 6:48:12 PM Path: Autodesk Docs://NCWSA Admin Bldg_ V25\0250683-NCWSA Office Addition-R25-STRUCT.rvt



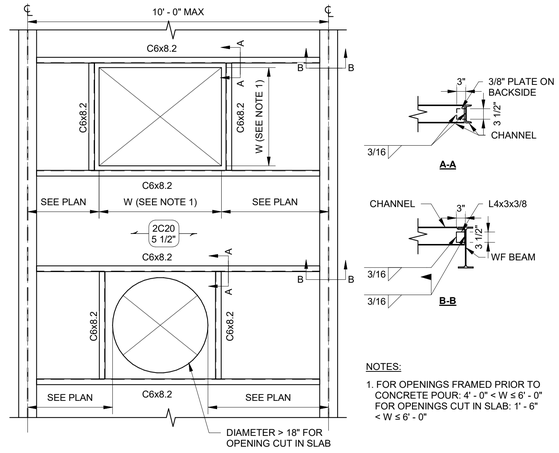
NOTES:

1. DETAILS APPLY AT WIDE FLANGE AND HSS COLUMNS
2. ATTACH DECK TO SUPPORT ANGLES (TYP)

DECK SUPPORT ANGLE AT COLUMN - PLAN

SCALE: 1" = 1'-0"

1 S512



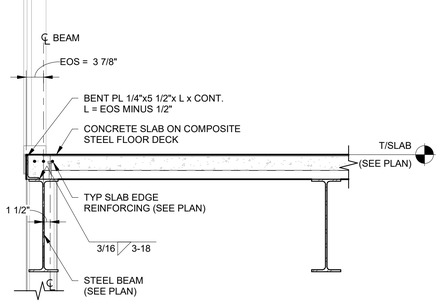
NOTES:

1. FOR OPENINGS FRAMED PRIOR TO CONCRETE POUR: 4' - 0" < W ≤ 6' - 0"
   FOR OPENINGS CUT IN SLAB: 1' - 6" < W ≤ 6' - 0"

TYPICAL FRAMED OPENING IN COMPOSITE SLAB - PLAN

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

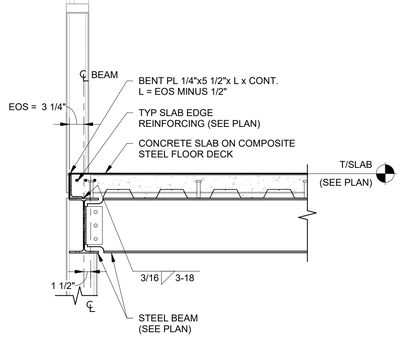
2 S512



COMPOSITE STEEL FRAMING AT INTERIOR SLAB EDGE - SECTION

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

3 S512



COMPOSITE STEEL FRAMING AT INTERIOR SLAB EDGE - SECTION

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

4 S512

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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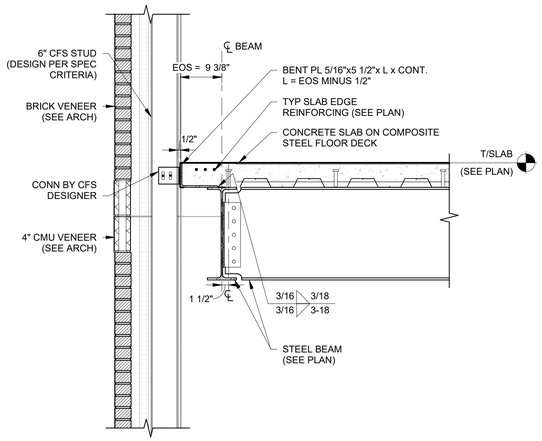
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COMPOSITE STEEL FRAMING DETAILS

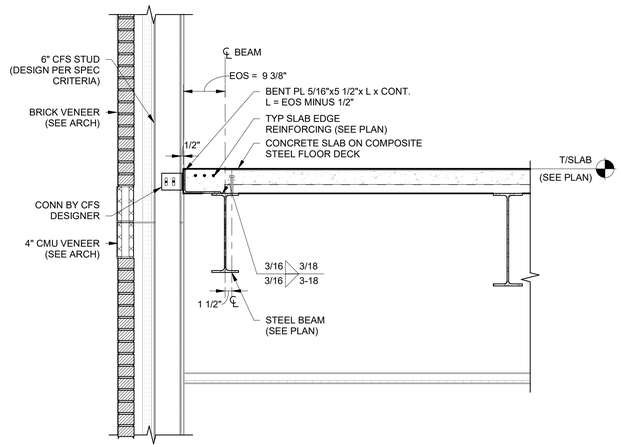
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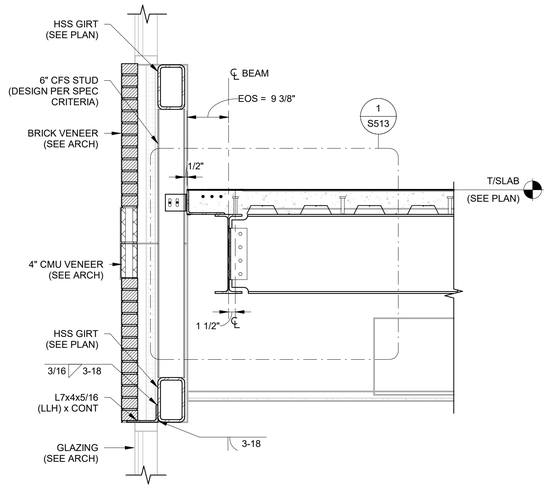
STEEL COMPOSITE FLOOR FRAMING AT EXTERIOR WALL - SECTION 1 S513

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



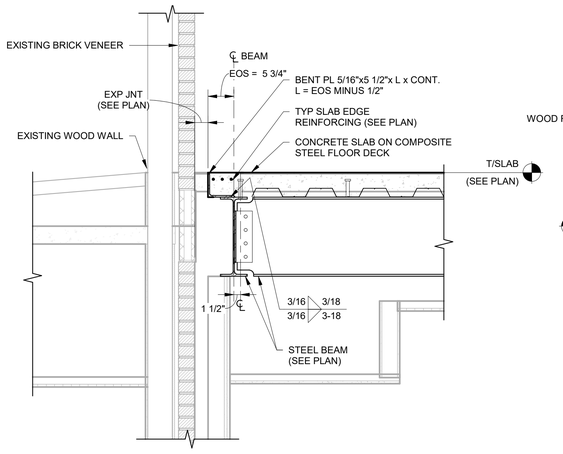
STEEL COMPOSITE FLOOR FRAMING AT EXTERIOR WALL - SECTION 2 S513

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



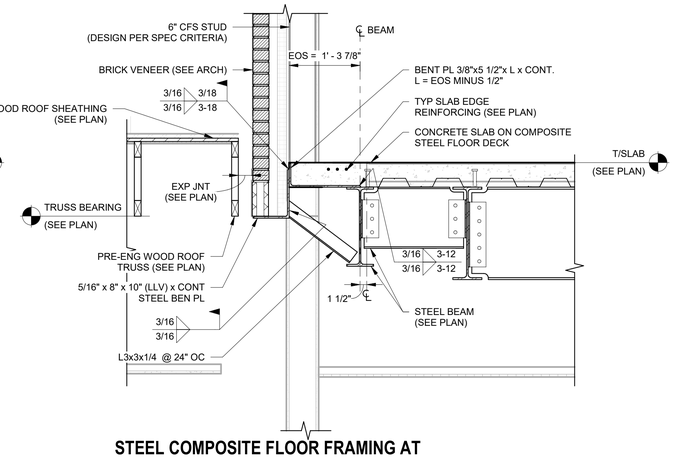
STEEL COMPOSITE FLOOR FRAMING AT EXTERIOR WALL WITH HSS GIRTS - SECTION 3 S513

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



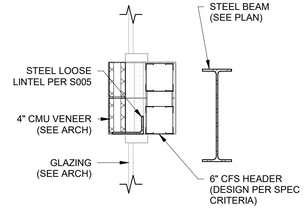
STEEL COMPOSITE FLOOR FRAMING AT EXPANSION JOINT - SECTION 4 S513

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



STEEL COMPOSITE FLOOR FRAMING AT EXPANSION JOINT AT WOOD ADDITION - SECTION 5 S513

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



EXTERIOR CMU VENEER SUPPORT AT FLOOR OPENING - SECTION 6 S513

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

Brown AND Caldwell

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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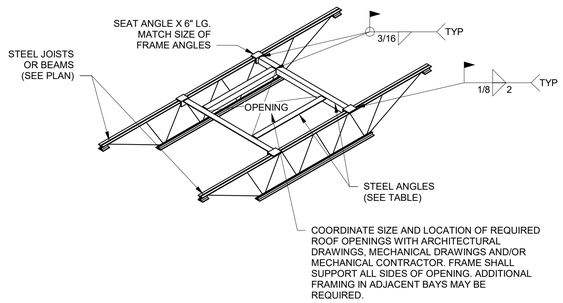
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COMPOSITE STEEL FRAMING DETAILS

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SPAN	ANGLE SIZE
UP TO 4'-0"	L3X3X3/16
4'-1" TO 6'-0"	L4X3X1/4 (LLV)
6'-1" TO 8'-0"	L5X3X1/4 (LLV)
8'-1" TO 10'-0"	L6X4X5/16 (LLV)

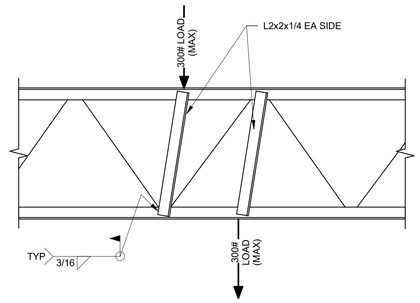
NOTES:

1. PROVIDE FRAMING AT ROOF DRAINS.
2. WELD/CONNECT DECK TO ALL FRAMING AT 6" OC MAXIMUM SPACING. COORDINATE WITH ENGINEER FOR SPECIAL DETAILS REQUIRED TO CONNECT ANGLES TO EXISTING DECK IN AN INSTALLATION OF NEW UNIT ON EXISTING ROOF FRAMING.
3. WHEN JOIST BRIDGING CONFLICTS WITH ROOF OPENING FRAMES, STOP BRIDGING AT EACH SIDE OF OPENING, PROVIDE CROSS BRIDGING AT LAST BRIDGING SPACE EACH SIDE OF OPENING AND CONNECT ENDS OF BRIDGING TO OPENING FRAMING. ADD ADDITIONAL BRIDGING AND CROSS BRIDGING ON EACH SIDE OF OPENING ON EACH SIDE OF CUT BRIDGING AREA WITH BRIDGING EXTENDED ONE BAY BEYOND EACH SIDE OF OPENING.
4. ANCHOR EQUIPMENT AND CURB TO MISCELLANEOUS FRAMING SHOWN AS REQUIRED FOR WIND AND/OR SEISMIC FORCES. COORDINATE WITH EQUIPMENT/CURB MANUFACTURER (CONNECTION DESIGN NOT BY PES STRUCTURAL ENGINEERS).
5. THIS DETAIL IS NOT APPLICABLE TO ROOFTOP EQUIPMENT CURBS. REFER TO TYPICAL EQUIPMENT CURB SUPPORT DETAIL FOR CURB SUPPORT FRAMING.

TYPICAL ROOF OPENING DECK SUPPORT FRAMING - ISOMETRIC

1 S521

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



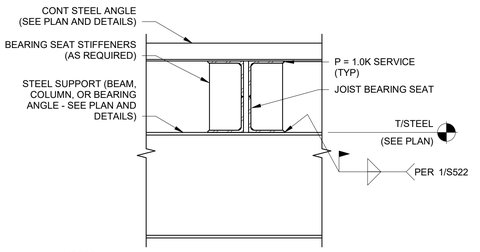
NOTES:

1. STRUT IS NOT REQUIRED WHERE THE DISTANCE FROM PANEL POINT DOES NOT EXCEED 3" FOR K-JOISTS.
2. STRUT IS NOT REQUIRED WHERE NOMINAL CONCENTRATED LOAD DOES NOT EXCEED 100 LBS AND THE ATTACHMENTS ARE CONCENTRIC TO THE CHORD.

TYPICAL JOIST CHORD SUPPORT - SECTION

2 S521

SCALE: 1" = 1'-0"



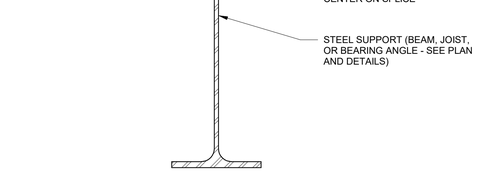
NOTES:

1. JOIST DESIGN ENGINEER SHALL DESIGN BEARING SEAT FOR LATERAL LOAD INDICATED.
2. FABRICATOR SHALL INSTALL BEARING SEAT STIFFENERS IF REQUIRED BY DESIGN.

TYPICAL JOIST ROLLOVER DESIGN FORCE - SECTION

3 S521

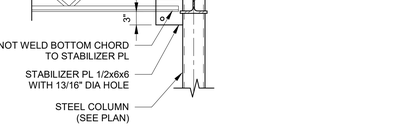
SCALE: 1" = 1'-0"



TYPICAL CONTINUOUS ROOF ANGLE SPLICE - SECTION

4 S521

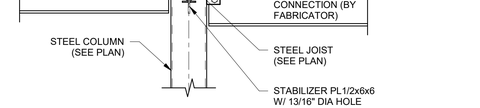
SCALE: 3" = 1'-0"



TYPICAL JOIST AT COLUMN CONNECTION - SECTION

5 S521

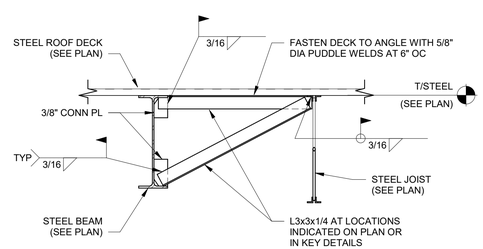
SCALE: 3/4" = 1'-0"

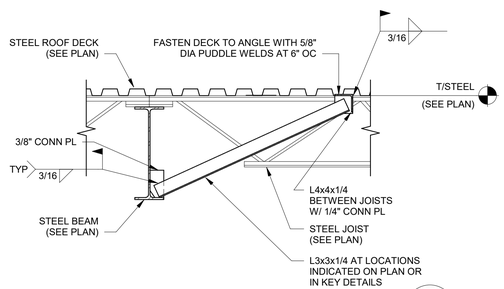


TYPICAL BEAM/GIRDER @ COLUMN CONNECTION - SECTION

6 S521

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





TYPICAL BEAM BRACING AT ROOF - SECTION

7 S521

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

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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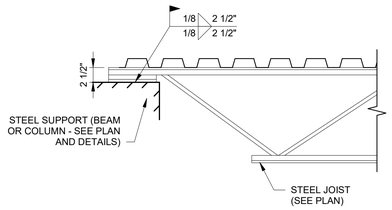
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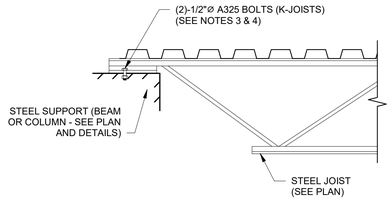
STEEL ROOF FRAMING DETAILS

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WELDED CONNECTION



BOLTED CONNECTION

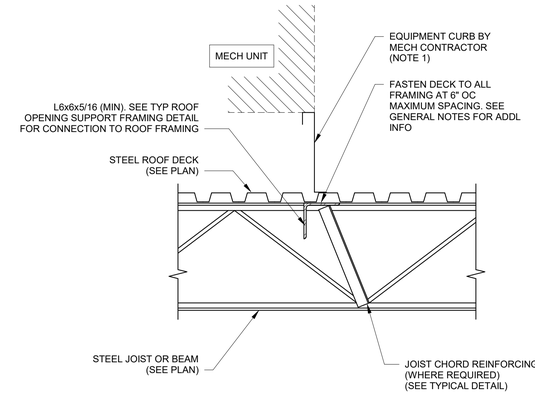
NOTES:

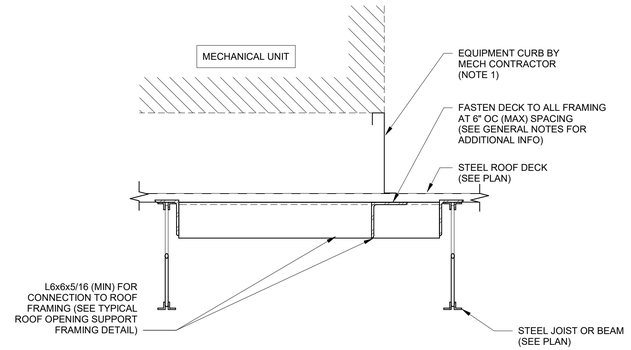
1. JOIST SEAT DEPTHS AND CONNECTIONS INDICATED IN THIS DETAIL ARE TYPICAL UNO ON PLANS AND SPECIFIC DETAILS.
2. SLOPED OR BEVELED SEATS ARE REQUIRED WHERE ROOF SLOPE EXCEEDS 1/4"/FT. COMPLY WITH SJI SPECIFICATIONS AND SEE PLANS FOR JOIST SEAT DEPTHS.
3. BOLTED CONNECTIONS ARE REQUIRED AT LOCATIONS INDICATED BY THE JOIST SUPPLIER.
4. IF BOLTS CANNOT BE INSTALLED AT CONNECTIONS INDICATED AS BOLTED, NOTIFY THE JOIST SUPPLIER AND SUBMIT PROPOSED CONNECTION MODIFICATION TO ARCH/SEOR FOR REVIEW. WELDS INDICATED IN THIS DETAIL SHALL NOT BE SUBSTITUTED FOR BOLTS.

TYPICAL STEEL JOIST SEAT CONNECTIONS - SECTION

SCALE: 1" = 1'-0"

1 / S522





NOTES:

1. COORDINATE SIZE AND LOCATION OF EQUIPMENT CURB WITH MECHANICAL CONTRACTOR. CURB SHALL BE SUPPORTED ON ALL SIDES.
2. ANCHOR EQUIPMENT AND CURB TO MISCELLANEOUS FRAMING SHOWN AS REQUIRED FOR WIND AND/OR SEISMIC FORCES. COORDINATE WITH EQUIPMENT/CURB MANUFACTURER (CONNECTION DESIGN NOT BY PES STRUCTURAL ENGINEERS).
3. NOTIFY SEOR IF EQUIPMENT SIZE AND/OR WEIGHT (INCLUDING CURB) EXCEEDS WEIGHT NOTED ON PLANS.
4. IN ADDITION TO CURB SUPPORT FRAME, INSTALL TYPICAL ROOF OPENING FRAME TO SUPPORT DECK AT PERIMETER OF OPENINGS. SEE TYPICAL ROOF OPENING FRAME DETAIL FOR ADDITIONAL INFORMATION.
5. PROVIDE LARGER FRAMING MEMBERS AS REQUIRED FOR ANCHORAGE OF EQUIPMENT CURB.

TYPICAL EQUIPMENT CURB SUPPORT - SECTION

SCALE: 1" = 1'-0"

2 / S522

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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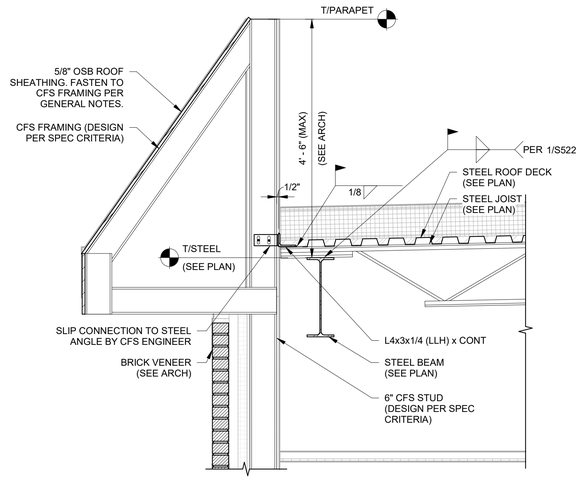
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STEEL ROOF FRAMING DETAILS

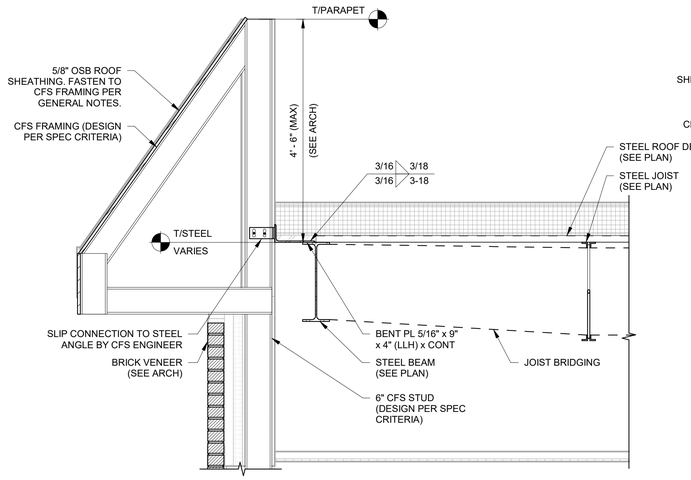
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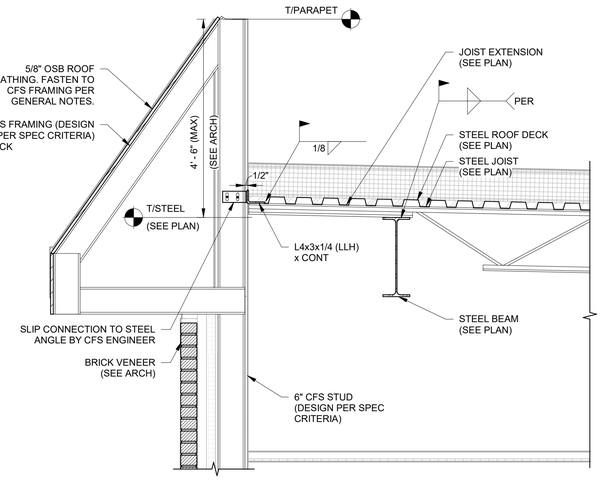
STEEL ROOF FRAMING AT EXTERIOR WALL WITH MANSARD ROOF - SECTION 1 S523

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



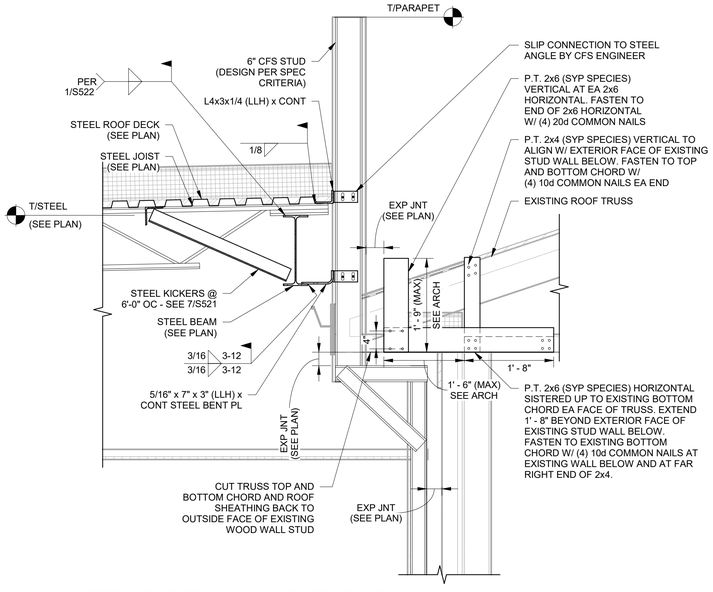
STEEL ROOF FRAMING AT EXTERIOR WALL WITH MANSARD ROOF - SECTION 2 S523

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



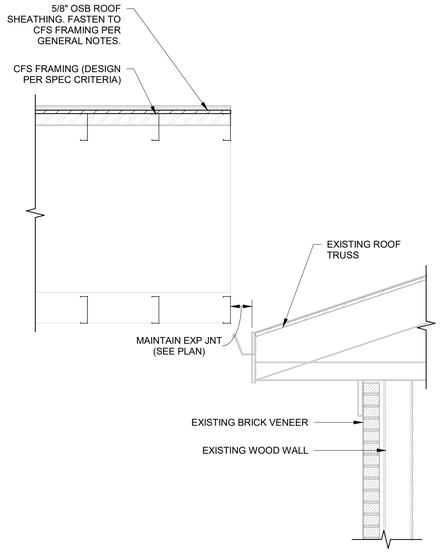
STEEL ROOF FRAMING WITH JOIST EXTENSION AT EXTERIOR WALL WITH MANSARD ROOF - SECTION 3 S523

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



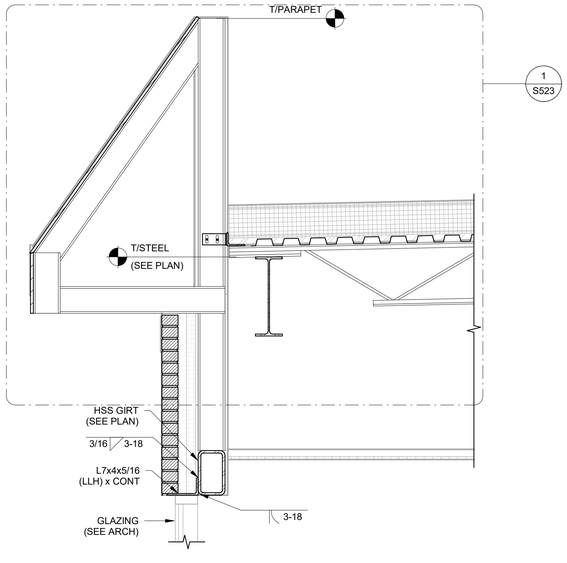
STEEL ROOF FRAMING AT EXISTING WOOD ROOF FRAMING - SECTION 4 S523

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



STEEL ROOF FRAMING AT EXISTING WOOD ROOF FRAMING - SECTION 5 S523

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



STEEL ROOF FRAMING AT EXTERIOR WALL WITH MANSARD ROOF WITH HSS GIRT BELOW - SECTION 6 S523

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

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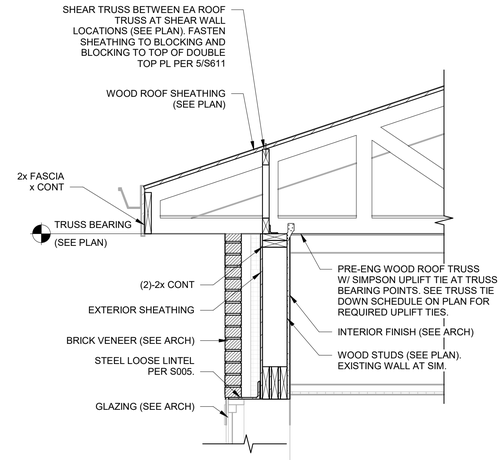
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DRAWING NUMBER
S523

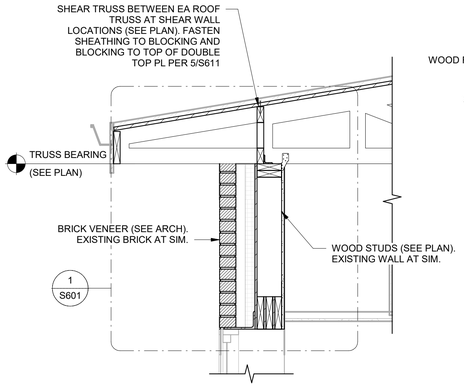
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WOOD ROOF FRAMING AT EXTERIOR WALL - SECTION

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

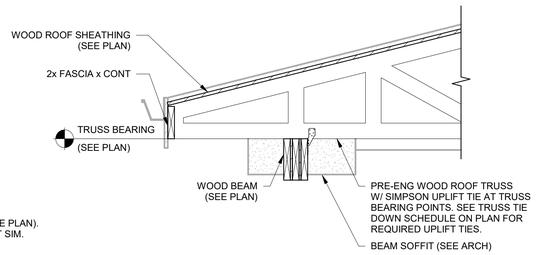
1 S601



WOOD ROOF FRAMING AT EXTERIOR WALL - SECTION

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

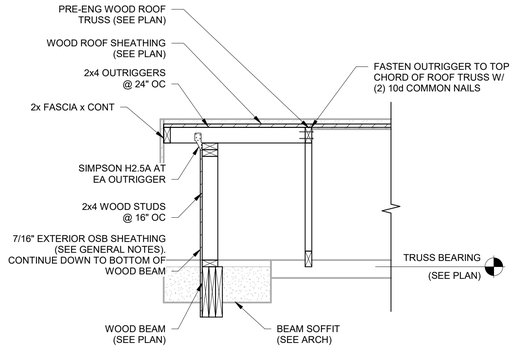
2 S601



WOOD ROOF FRAMING AT WOOD BEAM - SECTION

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

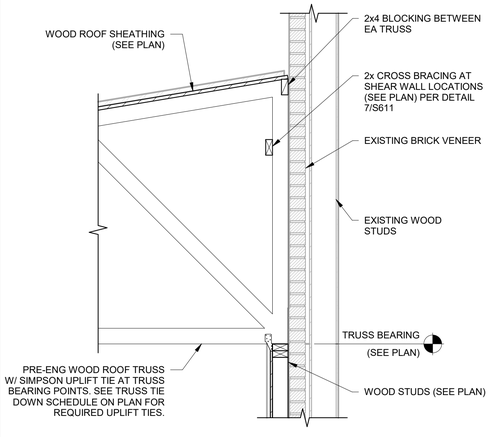
3 S601



WOOD ROOF GABLE END AT WOOD BEAM - SECTION

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

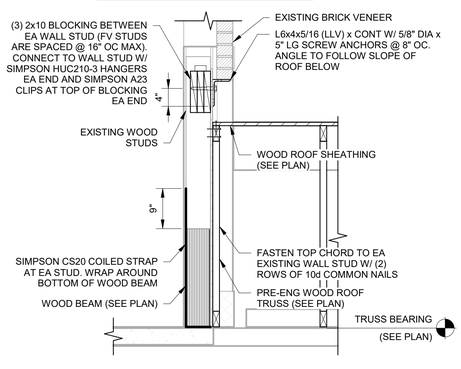
4 S601



WOOD ROOF FRAMING AT EXISTING WOOD WALL - SECTION

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

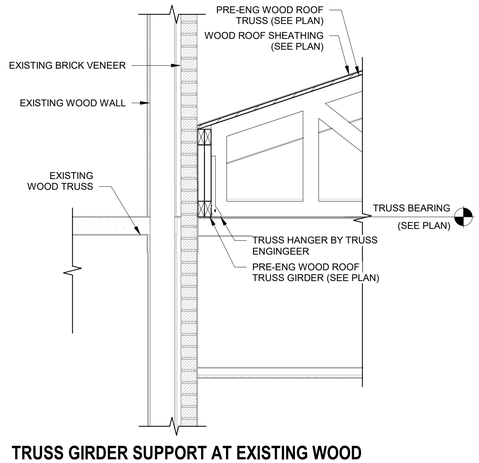
5 S601



WOOD BEAM SUPPORTING EXISTING WOOD WALL WITH BRICK - SECTION

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

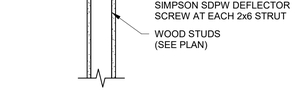
6 S601



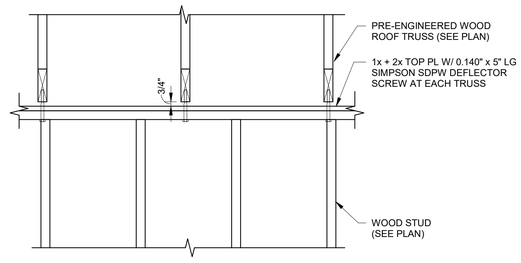
TRUSS GIRDER SUPPORT AT EXISTING WOOD WALL - SECTION

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

7 S601



WALL PARALLEL TO TRUSSES



WALL PERPENDICULAR TO TRUSSES

TYPICAL ROOF TRUSS TO INTERIOR NON-LOAD BEARING WALL CONNECTIONS - SECTION

SCALE: 1" = 1'-0"

8 S601

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

CONSTRUCTION DOCUMENTS

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

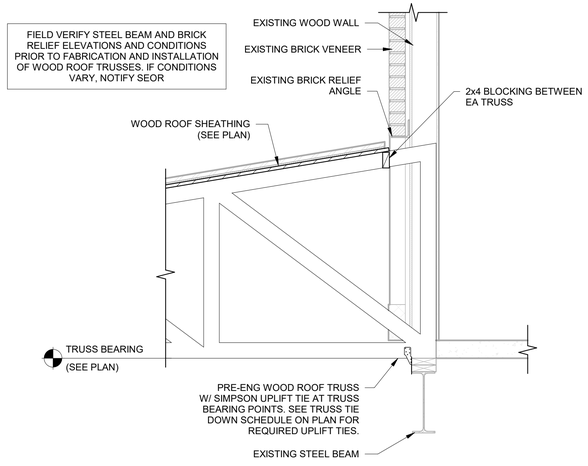
BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

WOOD ROOF FRAMING DETAILS

DRAWING NUMBER
S601

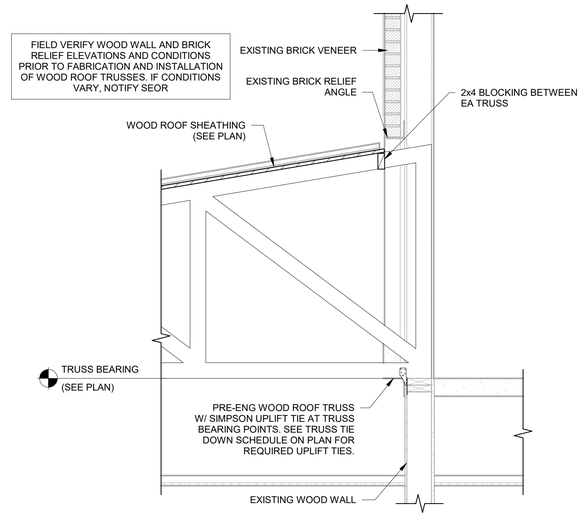
Path: Autodesk Docs://NCWSA Admin Bldg_ V25\0250683-NCWSA Office Addition-R25-STRUCT.rvt

Plot Date: 4/27/2026 6:48:35 PM



WOOD ROOF FRAMING AT EXISTING STEEL BEAM - SECTION 1 S602

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



WOOD ROOF FRAMING AT EXISTING WALL - SECTION 2 S602

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

Brown AND Caldwell

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

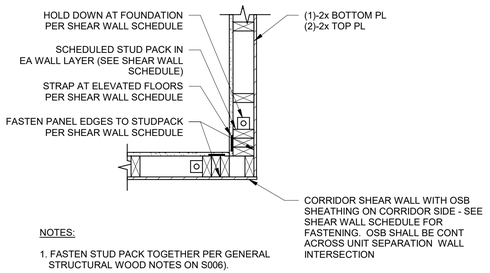
DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

WOOD ROOF FRAMING DETAILS

DRAWING NUMBER
S602

Plot Date: 4/27/2026 6:48:36 PM Path: Autodesk Docs://NCWSA Admin Bldg_ V25/0250683-NCWSA Office Addition-R25-STRUCT.rvt



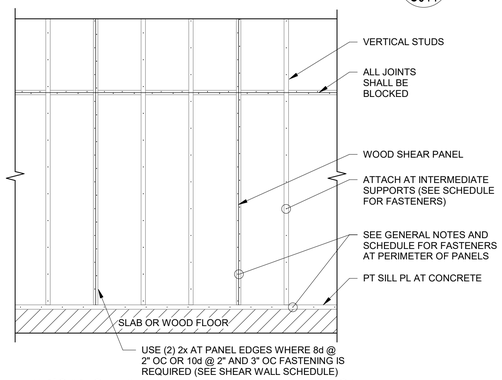
NOTES:

1. FASTEN STUD PACK TOGETHER PER GENERAL STRUCTURAL WOOD NOTES ON S006).

TYPICAL UNIT SEPARATION/CORRIDOR SHEAR WALL INTERSECTION - PLAN

1 / S611

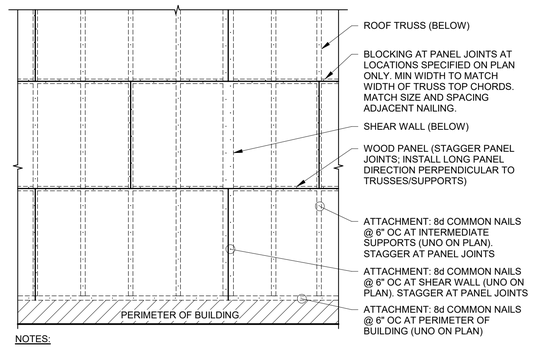
SCALE: 1" = 1'-0"



TYPICAL SHEAR WALL PANEL CONNECTION - ELEVATION

3 / S611

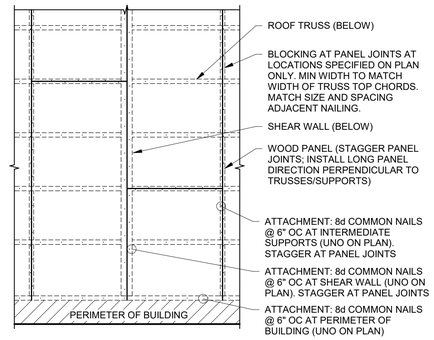
SCALE: 1/2" = 1'-0"



NOTES:

1. SEE FLOOR AND ROOF SHEATHING NOTES ON S006 FOR ADDITIONAL INFORMATION.

FRAMING PARALLEL TO SHEAR WALL



NOTES:

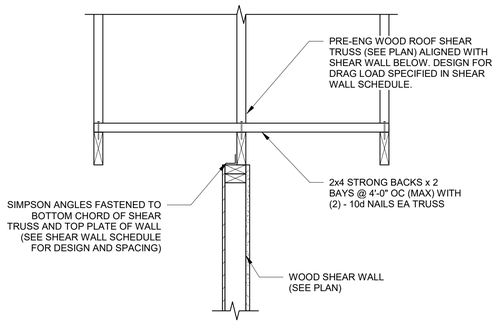
1. SEE FLOOR AND ROOF SHEATHING NOTES ON S006 FOR ADDITIONAL INFORMATION.

FRAMING PERPENDICULAR TO SHEAR WALL

TYPICAL ROOF DIAPHRAGM CONNECTION - PLAN

2 / S611

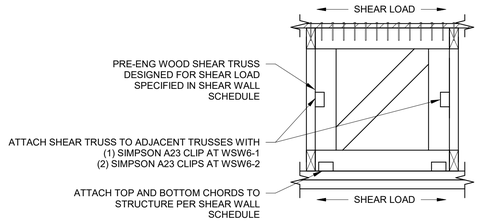
SCALE: 1/2" = 1'-0"



TYPICAL SHEAR TRUSS TO SHEAR WALL CONNECTIONS - SECTION

4 / S611

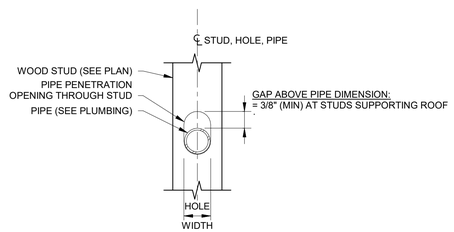
SCALE: 1" = 1'-0"



TYPICAL SHEAR TRUSS FASTENING - SECTION

5 / S611

SCALE: 1" = 1'-0"



NOTES:

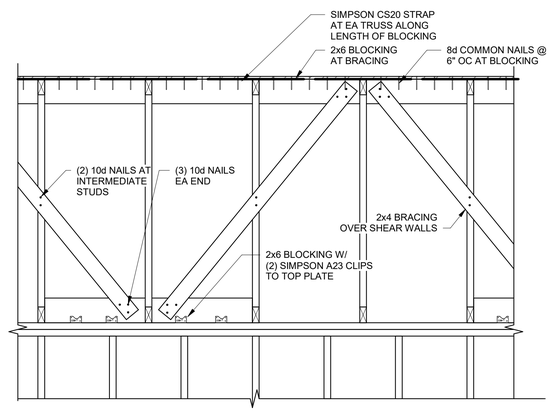
1 LOAD-BEARING WALL STUDS SHALL BE DOUBLED FROM COUNT INDICATED IN WALL STUD SCHEDULE (SEE PLAN)

2 'HOLE WIDTH' SHALL BE 1 3/4" (MAX) AT 2x4 STUDS AND 3" (MAX) AT 2X6 STUDS

PIPE PENETRATION THROUGH WOOD STUD - DETAIL

6 / S611

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



NOTE:
CROSS BRACING TO ALIGN WITH SHEAR WALLS BELOW.

TYPICAL CROSS BRACING AT SHEAR WALL - SECTION

7 / S611

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

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS IT BEARS THE SEAL AND SIGNATURE OF A DULY REGISTERED PROFESSIONAL

CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
CHECKED:	
APPROVED:	Approver

FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

WOOD SHEAR WALL AND DIAPHRAGM DETAILS

DRAWING NUMBER
S611

Plot Date: 4/27/2026 6:48:38 PM
Path: Autodesk Docs://NCWSA Admin Bldg_ V25/0250683-NCWSA Office Addition-R25-STRUCT.rvt

MATERIALS LEGEND:

- FACE BRICK
- CONCRETE MASONRY UNIT
- FOAM PLASTIC BOARD INSULATION
- BLANKET INSULATION
- CONTINUOUS WOOD
- SHIM
- FINISHED WOOD
- GYPSUM BOARD / GROUT
- CONCRETE OR PRECAST CONCRETE
- ACOUSTICAL CEILING TILE OR PANEL
- MASONRY IN ELEVATION
- PLYWOOD
- GRAVEL
- FOAMED IN PLACE INSULATION
- STEEL
- EARTH
- SOLID SURFACE / CAST STONE
- STONE

DRAWING SYMBOLS:

- SIM, 1 / A101 — WALL SECTION REFERENCE
- SIM, 1 / A101, SIM, 1 / A101 — BUILDING SECTION REFERENCE
- 0 — COLUMN CENTERLINE
- 0 — EXISTING COLUMN CENTERLINE
- ℄ — CENTERLINE
- BREAK LINE
- 1 / A101, SIM — ENLARGED DETAIL REFERENCE
- 1-HR FIRE RATING
- 2-HR FIRE RATING
- 3-HR FIRE RATING
- S — S — 1-HR FIRE/SMOKE RATING
- # — CONSTRUCTION NOTE
- # — DEMOLITION NOTE
- 1 — REVISION TAG
- 1 A — GRAPHIC TYPE / SIGN TYPE — SIGNAGE TAG
- ROOM NAME / 101 — ROOM NAME AND NUMBER
- 1 View Name, SCALE: 1/8" = 1'-0" — VIEW TITLE - DETAIL NUMBER
- 1 / A101 — BUILDING ELEVATION REFERENCE
- 1 / 1 / 1 / A101 — INTERIOR ELEVATION REFERENCE
- 101-1 — DOOR NUMBER
- W1 — WINDOW / LOUVER NUMBER
- MATCHLINE RE: 1/A101 — MATCHLINE RE: 1/A101 — MATCHLINE REFERENCE
- NEW WALL
- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE REMOVED
- NEW DOOR OPENING
- EXISTING DOOR OPENING TO REMAIN
- EXISTING DOOR AND FRAME TO BE REMOVED
- LEVEL NAME / Name Elevation / LEVEL HEIGHT — ELEVATION REFERENCE
- WP — WORKING POINT

ABBREVIATIONS

A/C	AIR CONDITION
ACP	ACCOUSTICAL CEILING PANEL
ACS DR	ACCESS DOOR
ACS PNL	ACCESS PANEL
ACT	ACCOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT/ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZE
ANT	ANTENNA
AOR	AREA OF REFUGE
APPROX	APPROXIMATELY
ARCH	ARCHITECT
ASSY	ASSEMBLY
AV	AUDIO VISUAL
BD	BOARD
BLDG	BUILDING
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING
C TO C	CENTER TO CENTER
CAB	CABINET
CB	CATCH BASIN
CDCT	CIRCULAR DUCT
CFMF	COLD-FORMED METAL FRAMING
CG	CORNER GUARD
CGFSU	CERAMIC GLAZED STRUCTURAL FACING UNITS
CH	COAT HOOK
CH BD	CHALK BOARD
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLO	CLOSET
CLOS	CLOSURE
CLR	CLEAR
CLRM	CLASSROOM
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONSTR	CONSTRUCTION
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPRS	COMPRESSIBLE
CPT	CARPET
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CUST	CUSTODIAN
D	DEEP/DEPTH
DBL	DOUBLE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DPTN	DEMOUNTABLE PARTITION
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENCL	ENCLOSURE
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ET CETERA
EWC	ELECTRIC WATER COOLER
EXH FN	EXHAUST FAN
EXP	EXPANSION/EXPOSED
EXST	EXISTING
EXT	EXTERIOR
EXTRU	EXTRUSION
F/F	FACE TO FACE
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FACE
FHC	FIRE HOSE CABINET
FIN	FINISH
FIN FLR	FINISHED FLOOR
FLASH	FLASHING
FLR	FLOOR
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FR	FRAME
FRG	FIBER REINFORCED GYPSUM
FSS	FOLDING SHOWER SEAT
FT	FEET/FOOT
FURG	FURRING
G	NATURAL GAS
GA	GAGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GDR	GUARD RAIL
GFCI	GROUND FAULT CIRCUIT INERRUPTER
GL	GLASS
GLZ CMU	GLAZED CONCRETE MASONRY UNIT
GYP	GYPSUM
GYP BD	GYPSUM WALLBOARD
H	HIGH
HB	HOSE BIBB
HC	HANDICAP
HD	HAND DRYER
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HPC	HIGH PERFORMANCE COATING
HPT	HIGH POINT
HS	HOT STACK
HT	HEIGHT
HVAC	HEATING
HYD	HYDRANT
ID	INSIDE DIAMETER
IF	INSIDE FACE
INCL	INCLUDED
INSUL	INSULATION
INSUL PNL	INSULATED METAL PANEL
INT	INTERIOR
JAN	JANITOR
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LF	LINEAR FEET (FOOT)
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LIN	LINEAR
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNDSCP	LANDSCAPE
LOC	LOCATION
LPT	LOW POINT
LVT	LUXURY VINYL TILE
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOD BIT	MODIFIED BITUMEN
MTD	MOUNTED
MTL	METAL
MTLP	METAL PARTITION
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OH	OVERHANG
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OS	OCCUPANCY SENSOR
P	PIPE
PCC	PRECAST CONCRETE
PEJ	PREMOLDED EXPANSION JOINT
PERF	PERFORATED
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PORC	PORCELAIN
PP	POWER POLE
PREF	PREFINISH
PREFAB	PREFABRICATE
PT	PAINT
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
QTY	QUANTITY
R	RADIUS/RISER/THERMAL RESISTANCE
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RECPT	RECEPTACLE
REF	REFERENCE/REFRIGERATOR
REINF	REINFORCE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETURN
RFG	ROOFING
RH	ROOF HATCH/RIGHT HAND
RHR	RIGHT HAND REVERSE
RL	ROOF LEADER
RM	ROOM
RO	ROUGH OPENING
RR	RAILROAD
RTU	ROOF TOP UNIT
RV	ROOF VENT
S	SOUTH
SA	SUPPLY AIR
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
SCHED	SCHEDULE
SD	SOAP DISPENSER
SECT	SECTION
SF	SQUARE FOOT (FEET)
SHR	SHOWER
SHT	SHEET
SHTHG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SLNT	SEALANT
SND	SANITARY NAPKIN DISPENSER
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SP	STAND PIPE
SP FIN	SPECIAL FINISH
SPEC	SPECIFICATION
SQ	SQUARE
SS	STORM SEWER
SSM	SOLID SURFACE MATERIAL
SST	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUSP	SUSPEND
SV	SHEET VINYL/SMOKE VENT
SYMM	SYMMETRICAL
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TOWEL BAR
TD	TRENCH DRAIN/TOWEL DISPENSER
TDR	TOWEL DISPENSER/RECEPTACLE
TEL	TELEPHONE
TER	TERRAZZO
THK	THICKNESS
TK BD	TACK BOARD
TOC	TOP OF CURB/TOP OF CONCRETE
TOJ	TOP OF JOIST
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TP	TOWEL PIN
TPH	TOILET PAPER HOLDER
TPO	THERMOPLASTIC POLYOLEFIN
TPTN	TOILET PARTITION
TRTD	TREATED
TV	TELEVISION
TYP	TYPICAL
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UNFIN	UNFINISH
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UTIL	UTILITY
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VP	VENT PIPE
VS	VACANCY SENSOR
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	WEST/WIDE
W/	WITH
W/O	WITHOUT
WBL	WOOD BLOCKING
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WWR	WELDED WIRE REINFORCEMENT

REFERENCE KEYNOTE LEGEND:

DECIMAL POINT · ROOT · SUFFIX · SUFFIX MODIFIER

02 25 00 . A 01

(R-VALUE 35)

REFERENCE KEYNOTE MODIFIER

ROOT:
USE SAME SPECIFICATION NUMBER THAT REFERENCES ITEM

DECIMAL POINT:
SEPARATES ROOT FROM SUFFIX

SUFFIX:
USER DEFINED SINGLE ALPHA CHARACTER
(DO NOT USE THE LETTERS "I" OR "O"

SUFFIX MODIFIER:
OPTIONAL USER-DEFINED TWO-DIGIT NUMBER

REFERENCE KEYNOTE MODIFIER:
OPTIONAL TEXT NOTE LOCATED BELOW REFERENCE KEYNOTE. ONLY APPEARS IN DRAWING BLOCKS, CONTAINED WITHIN PARENTHESIS

BUILDING CODE INFORMATION:

PROJECT LOCATION: NEWTON COUNTY WATER AND SEWERAGE AUTHORITY
11325 BROWN BRIDGE ROAD
COVINGTON, GA 30016

PROJECT SCOPE:
THIS PROJECT IS AN ADDITION TO AND RENOVATION OF AN EXISTING ADMINISTRATION BUILDING. THE ADDITION WILL INCLUDE A NEW PUBLIC MEETING SPACE AND OFFICES FOR STAFF.

BUILDING AND FIRE CODES:
2026 BUILDING CODE OF GEORGIA INCLUDE:

2024 INTERNATIONAL BUILDING CODE (IBC) w/GEORGIA AMENDMENTS
2024 INTERNATIONAL EXISTING BUILDING CODE (IEBC) w/GEORGIA AMENDMENTS
2024 INTERNATIONAL PLUMBING CODE (IPC) w/GEORGIA AMENDMENTS
2024 INTERNATIONAL MECHANICAL CODE (IMC) w/GEORGIA AMENDMENTS
2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2023 NFPA 70, NATIONAL ELECTRIC CODE (NEC) w/GEORGIA AMENDMENTS
2010 ADA w/ GEORGIA AMENDMENTS

OCCUPANCY CLASSIFICATION (IBC CH. 3) NOTE: BUILDING FULLY SPRINKLERED
MIXED USE / SEPARATED OCCUPANCY (IBC 508.3)
GROUP A-3 ASSEMBLY / GROUP B BUSINESS

OCCUPANCY SEPARATION (IBC CH.5)
GROUP A-3 ASSEMBLY TO GROUP B BUSINESS:
ONE-HOUR REQUIRED SEPARATION (IBC TABLE 508.3.3)

TYPE OF CONSTRUCTION: ADDITION: TYPE IIB
TYPE IIIB LOBBY & BREAK ROOM ONLY
EXISTING: TYPE IIIB

FULLY SPRINKLERED: YES

FIRE ALARM: YES

EXISTING BUILDING:
CONTINUATION OF EXISTING USE: YES
CHANGE OF USE: ADDING ASSEMBLY FUNCTION TO BUSINESS USE
CLASSIFICATION OF WORK: LEVEL 2

BUILDING HEIGHT AND AREA:
ACTUAL BUILDING HEIGHT: 35' (EXISTING) 29' (ADDITION) , 2 STORIES
ALLOWABLE BUILDING HEIGHT: 75' SF, 4 STORIES

ACTUAL BUILDING AREA: 17,628 SF
ALLOWABLE BUILDING AREA: 109,250 SF
PER TABLE 506.2 $A_a = A_t+(NS \times I_f)$
109,250 SF = 92,000+(23,000 x .75)

MAXIMUM EXIT ACCESS TRAVEL DISTANCE: 175 FT
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 75 FT
MAXIMUM DEAD ENDS IN CORRIDORS: 50 FT

GENERAL NOTES:

1. THE PROJECT SPECIFICATIONS ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND WILL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND GENERAL NOTES. IN CASES, IF ANY, WHERE REQUIREMENTS INDICATED ON THE ARCHITECTURAL DRAWINGS DIFFER FROM THE SPECIFICATIONS, NOTIFY THE ARCHITECT.
2. UNLESS OTHERWISE NOTED, DETAILS, SECTIONS AND NOTES CONTAINED IN THE ARCHITECTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS EVEN IF NOT EXPLICITLY REFERENCED.
3. DEFICIENT WORK AND/OR WORK NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR WILL REIMBURSE THE PARTIES REQUIRED FOR PERFORMING THE DESIGN SERVICES ARISING FROM DEFICIENT WORK, REVIEW OF MODIFICATIONS/CONTRACTOR SUBSTITUTION, OR EXPEDITING OF SUBMITTALS.
4. COST OF INVESTIGATION AND/OR REDESIGN INCURRED BY THE ARCHITECT DUE TO CONTRACTOR ERRORS WILL BE AT THE CONTRACTOR'S EXPENSE.
5. VERIFY IN THE FIELD (VIF) ALL EXISTING JOB CONDITIONS, REVIEW ALL CONTRACT DRAWINGS, AND VERIFY DIMENSIONS AND ELEVATIONS NOTED IN THE CONTRACT DOCUMENTS PRIOR TO THE START OF WORK.
6. USE ONLY DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE THESE DRAWINGS OR USE DIMENSIONS OBTAINED FROM ELECTRONIC DRAWING OR MODEL FILES, IF PROVIDED.

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CONSTRUCTION DOCUMENTS

NCWSA — NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver

FILENAME

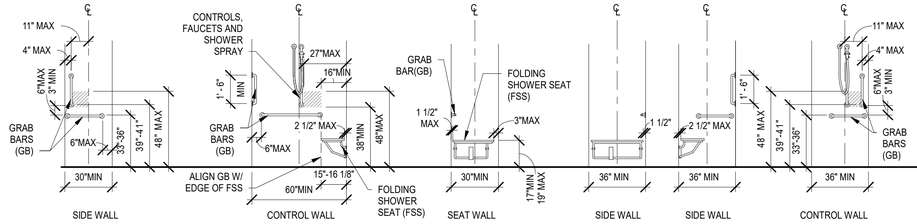
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616202
CLIENT PROJECT NUMBER

TITLES & SYMBOLS

DRAWING NUMBER
A001

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TYP FIXTURE MOUNTING HEIGHTS:

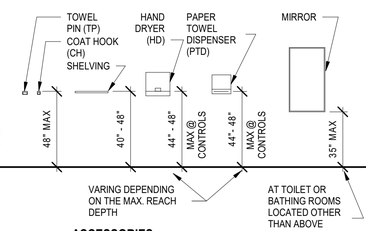


ROLL- IN SHOWER

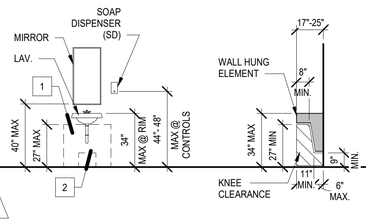
*SEE PLAN FOR ACTUAL DIMENSIONS

TRANSFER SHOWER

*SEE PLAN FOR ACTUAL DIMENSIONS

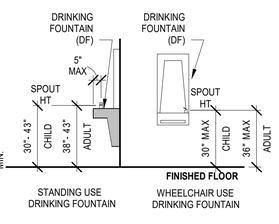


ACCESSORIES



LAVATORY

KNEE CLEARANCE



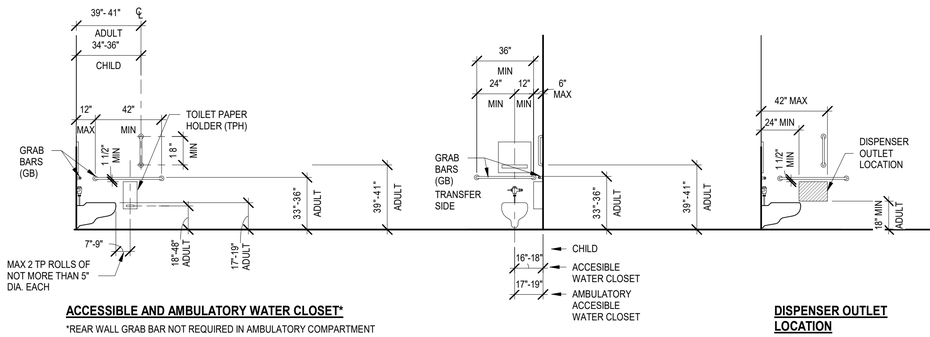
DRINKING FOUNTAIN

GENERAL NOTES:

1. DIMENSIONS FROM THE FINISHED FLOOR SHALL BE TAKEN FROM THE LEADING EDGE/FACE SHOWN TO ACCOUNT FOR SLOPE IN FLOOR
2. WATER CLOSET HEIGHT IS TO BE MEASURED FROM TOP OF SEAT, SEATS SHALL NOT BE SPRUNG TO RETURN TO THE LIFTED POSITION

KEYNOTES:

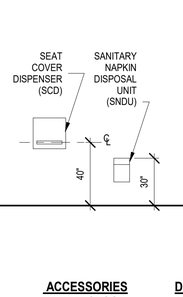
1. 27"HX30"W MIN KNEE CLEARANCE AT FRONT EDGE
2. 9"HX11"D MIN KNEE CLEARANCE DEPTH, FRONT OF LAV TO TRAP (8"H WHEN 27"D MIN) THE DIP OF THE OVERFLOW SHALL NOT BE CONSIDERED
3. 24"HX30"W MIN KNEE CLEARANCE AT FRONT EDGE



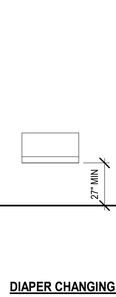
ACCESSIBLE AND AMBULATORY WATER CLOSET*

*REAR WALL GRAB BAR NOT REQUIRED IN AMBULATORY COMPARTMENT

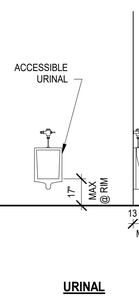
DISPENSER OUTLET LOCATION



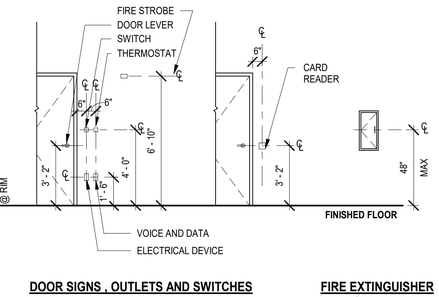
ACCESSORIES WATER CLOSET



DIAPER CHANGING TABLE



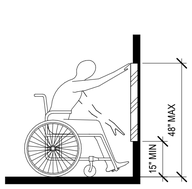
URINAL



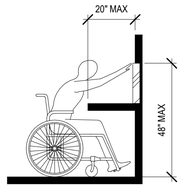
DOOR SIGNS , OUTLETS AND SWITCHES

FIRE EXTINGUISHER CABINET

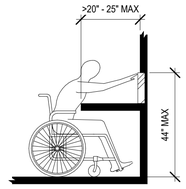
ADA REACH RANGE FIGURES:

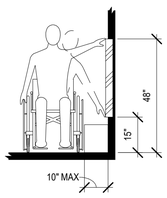


UNOBSTRUCTED FORWARD REACH

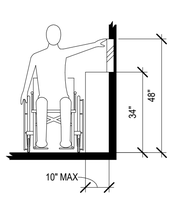


OBSTRUCTED HIGH FORWARD REACH

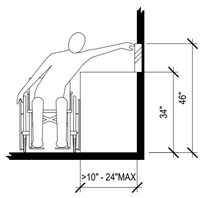




UNOBSTRUCTED SIDE REACH



OBSTRUCTED HIGH SIDE REACH



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CONSTRUCTION DOCUMENTS

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

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CHECKED: DEK
CHECKED:
APPROVED: Approver

FILENAME

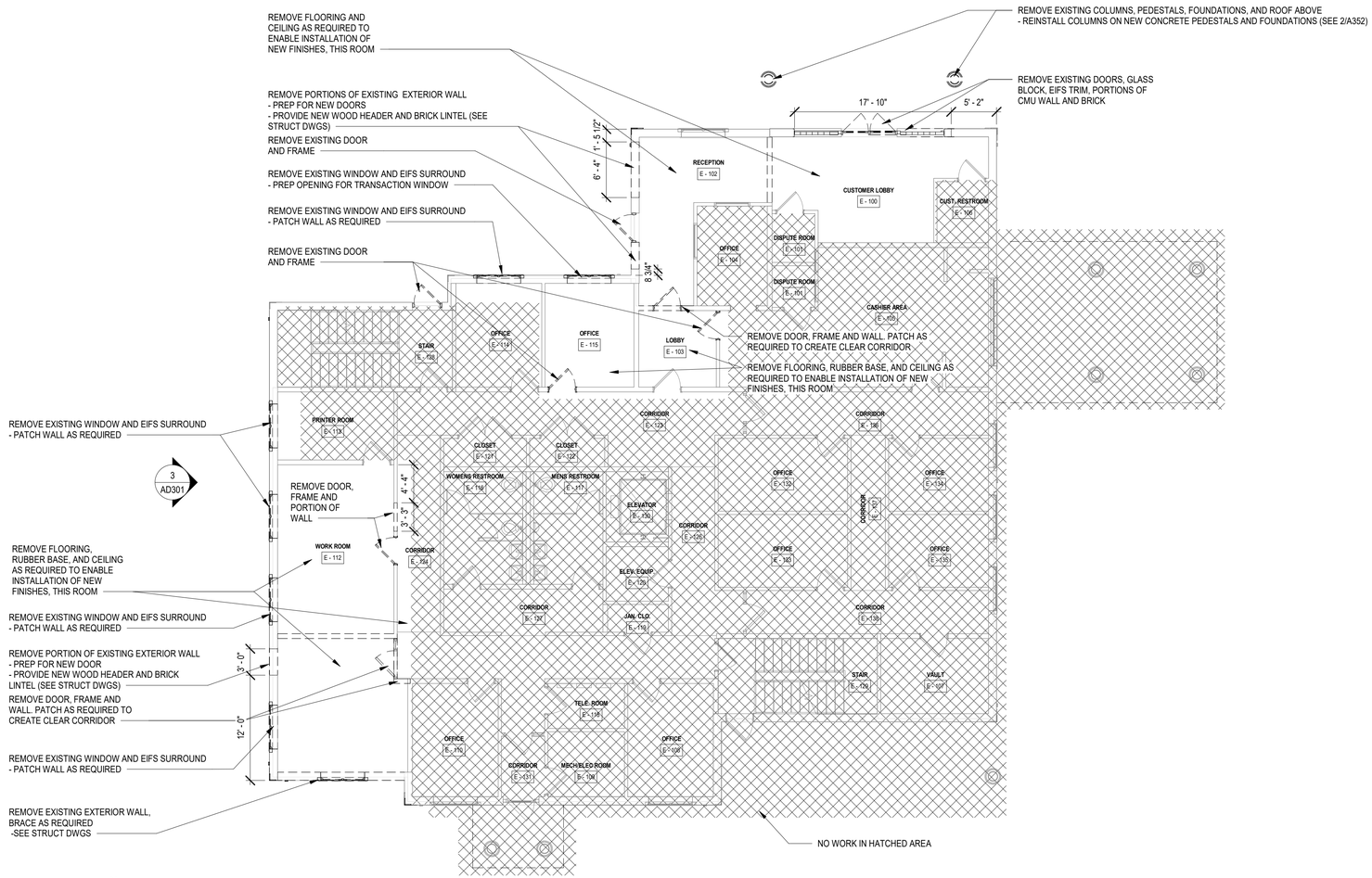
BC PROJECT NUMBER 616202

CLIENT PROJECT NUMBER

ACCESSIBILITY FIGURES

DRAWING NUMBER A002

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GENERAL DEMOLITION NOTES:

1. INFORMATION SHOWN IS NOT PURPORTED TO BE AN ACCURATE AND/OR DETAILED REPRESENTATION OF EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.
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9. BRACE ALL EXISTING-TO-REMAIN ELEMENTS AS REQUIRED TO REMOVE DEMOLISHED ELEMENTS.

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CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

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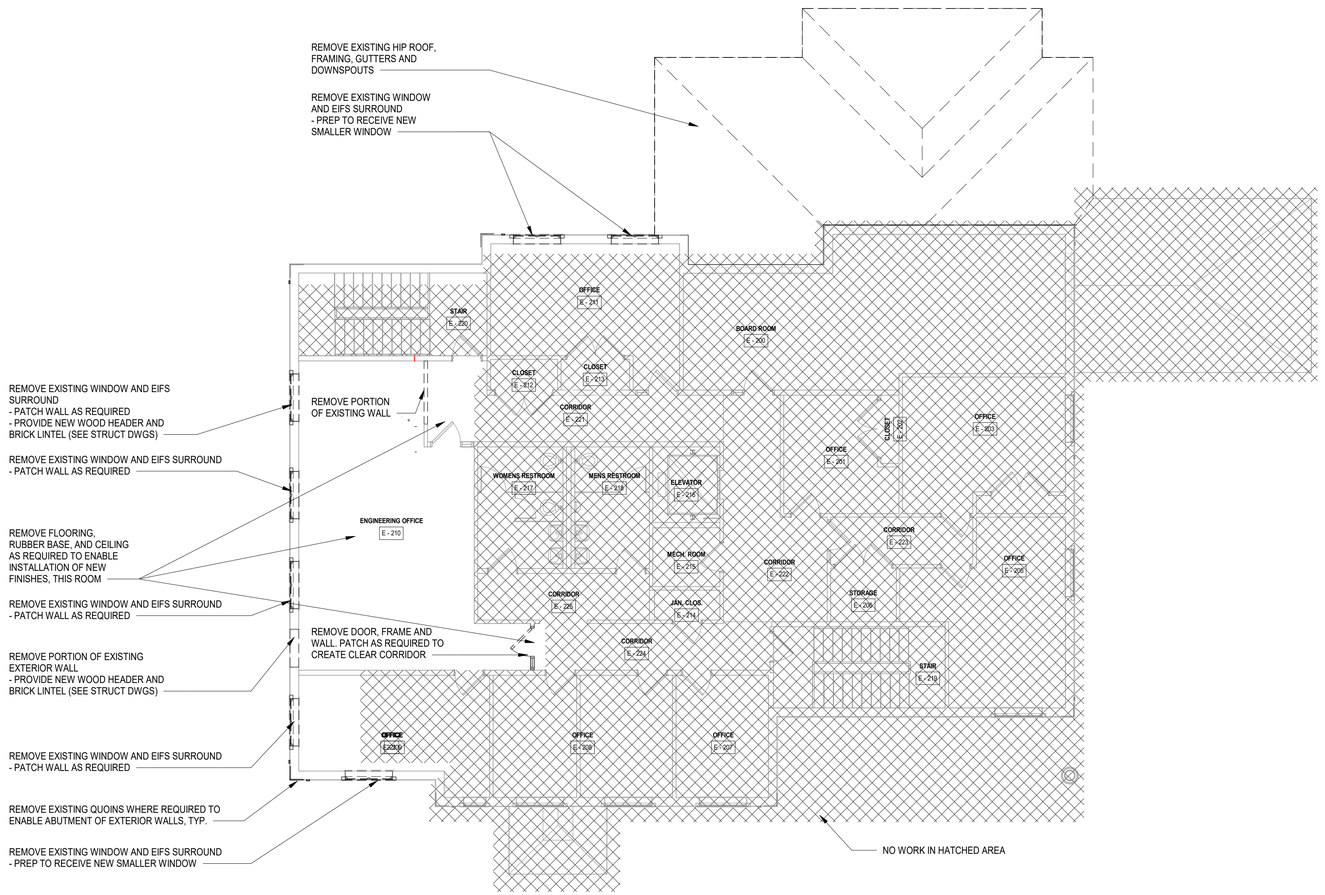
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DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

1ST FLOOR - DEMO PLANS

DRAWING NUMBER
AD101

Plot Date: 4/27/2026 11:26:44 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt



1 SECOND FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

1. INFORMATION SHOWN IS NOT PURPORTED TO BE AN ACCURATE AND/OR DETAILED REPRESENTATION OF EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.
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8. REMOVE EXISTING EXTERIOR SPLIT-FACE CMU AS REQUIRED TO ENABLE CONSTRUCTION OF ADDITION, TYP.
9. BRACE ALL EXISTING-TO-REMAIN ELEMENTS AS REQUIRED TO REMOVE DEMOLISHED ELEMENTS.

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ATLANTA, GA 30328
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CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

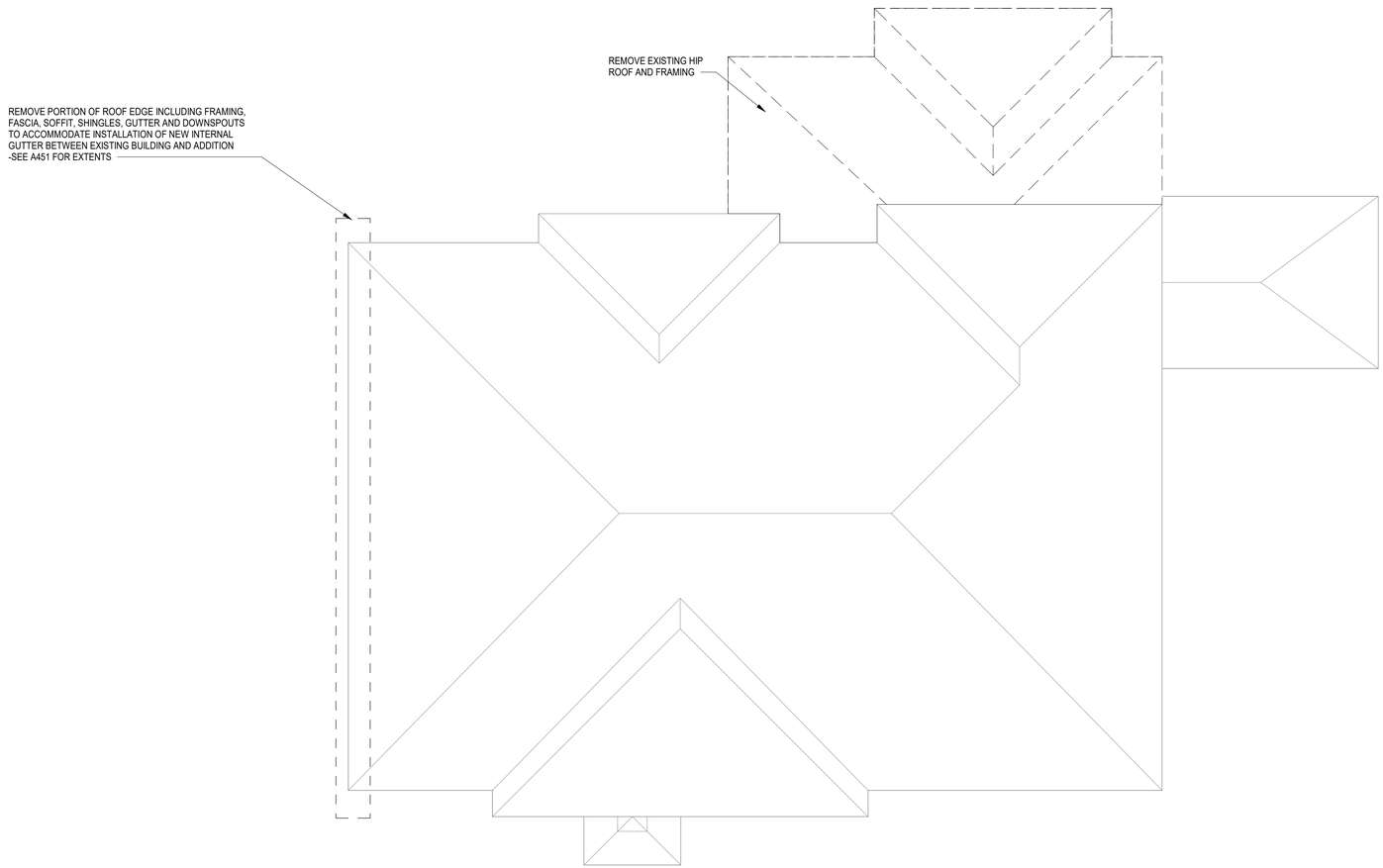
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DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

2ND FLOOR - DEMO PLANS

DRAWING NUMBER
AD102

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N

1 ROOF DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

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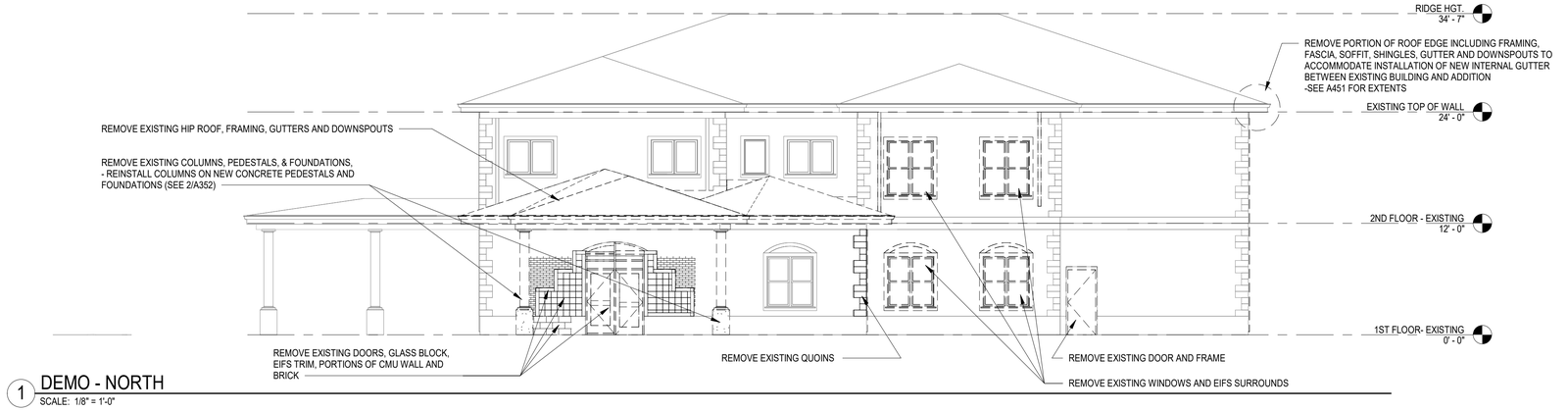
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ROOF - DEMO PLANS

DRAWING NUMBER
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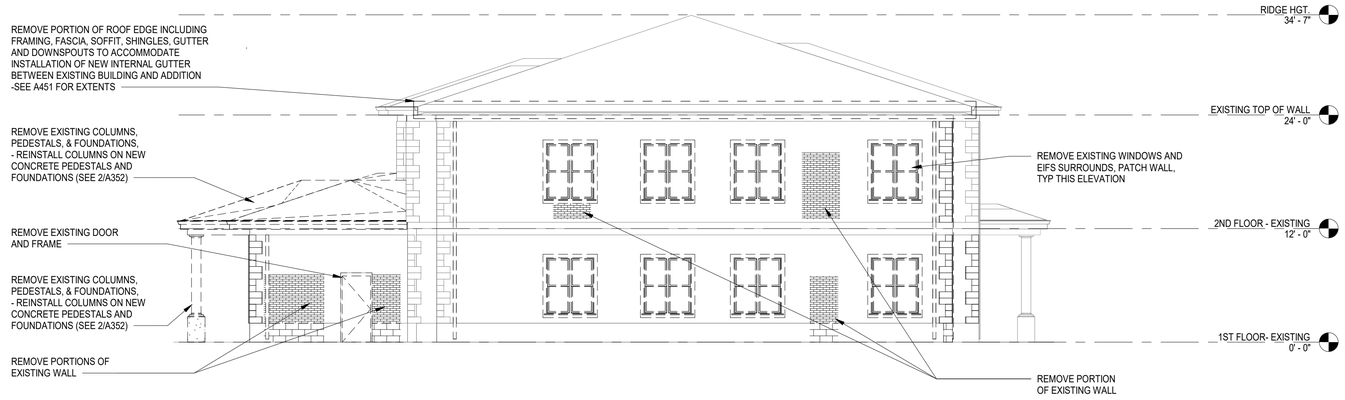
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1 DEMO - NORTH
SCALE: 1/8" = 1'-0"



2 DEMO - SOUTH
SCALE: 1/8" = 1'-0"



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

GENERAL DEMOLITION NOTES:

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BC PROJECT NUMBER
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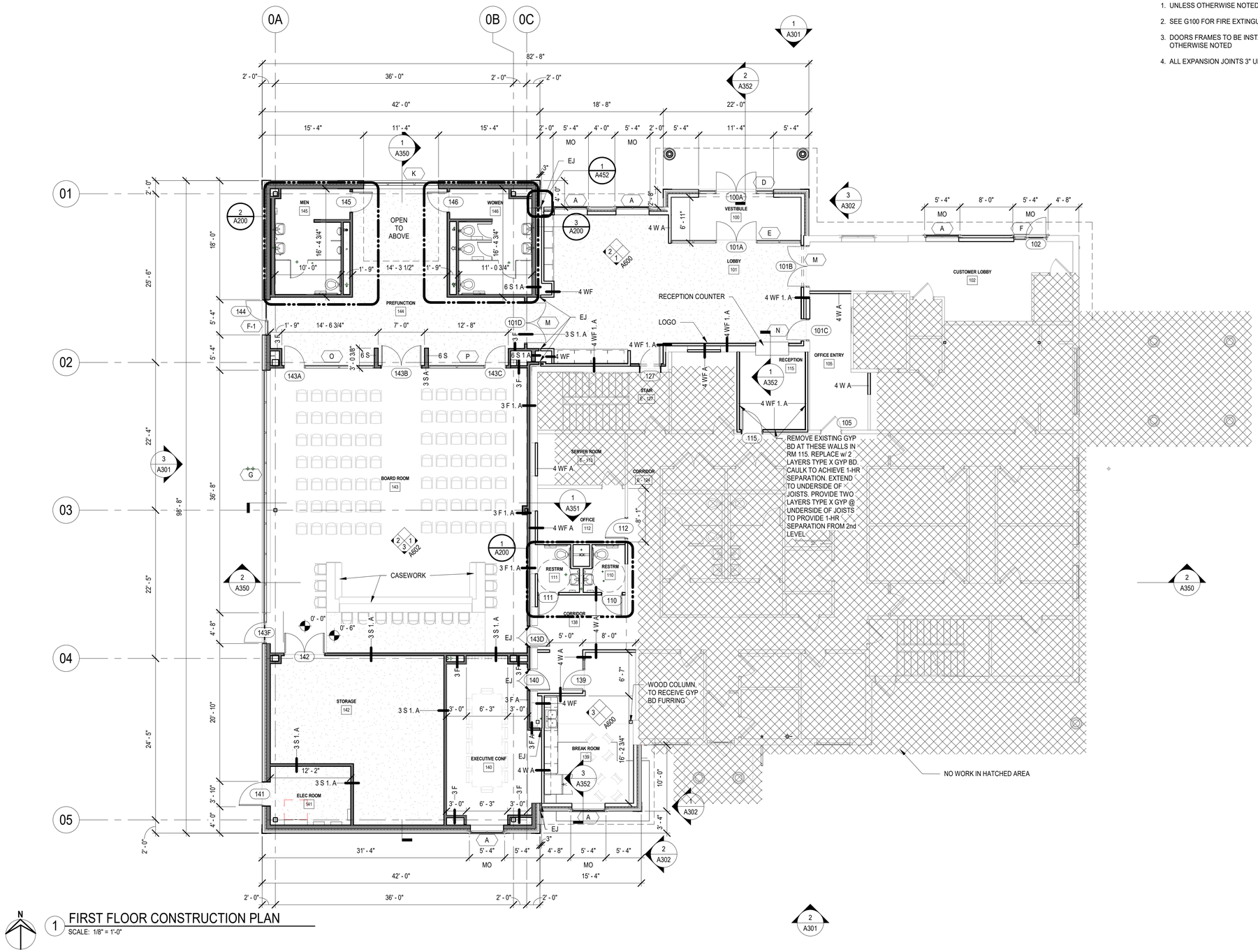
DEMO ELEVATIONS

DRAWING NUMBER
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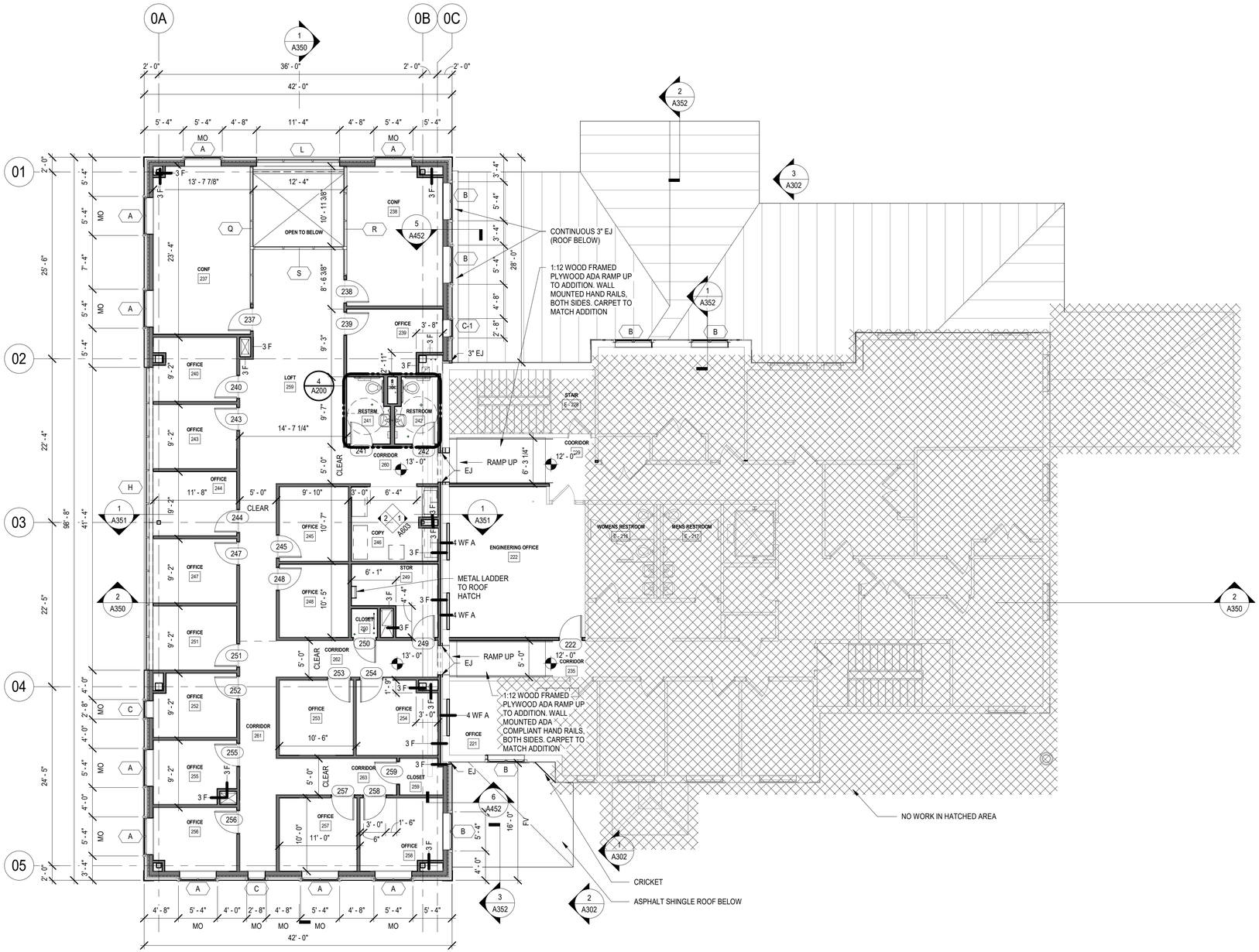
FLOOR PLAN NOTES

1. UNLESS OTHERWISE NOTED, INTERIOR PARTITIONS TO BE TYPE 3 S A
2. SEE G100 FOR FIRE EXTINGUISHER LOCATIONS
3. DOORS FRAMES TO BE INSTALLED 4" FROM ADJACENT WALL UNLESS OTHERWISE NOTED
4. ALL EXPANSION JOINTS 3" UNLESS OTHERWISE NOTED


REMOVE EXISTING GYP BD AT THESE WALLS IN RM 115. REPLACE w/ 2 LAYERS TYPE X GYP BD. CAULK TO ACHIEVE 1-HR SEPARATION. EXTEND TO UNDERSIDE OF JOISTS. PROVIDE TWO LAYERS TYPE X GYP @ UNDERSIDE OF JOISTS TO PROVIDE 1-HR SEPARATION FROM 2nd LEVEL
WOOD COLUMN TO RECEIVE GYP BD FURRING
NO WORK IN HATCHED AREA
CASEWORK
OPEN TO ABOVE
RECEPTION COUNTER
LOGO
MEN
WOMEN
VESTIBULE
LOBBY
CUSTOMER LOBBY
PREFUNCTION
RECEPTION
OFFICE ENTRY
STAIR
SERVER ROOM
CORRIDOR
BOARD ROOM
OFFICE
RESTRM
STORAGE
EXECUTIVE CONF
BREAK ROOM
ELEC ROOM
82' - 8"
42' - 0"
36' - 0"
18' - 8"
22' - 0"
31' - 4"
15' - 4"
11' - 4"
5' - 4"
4' - 0"
2' - 0"
MO
EJ
4 W A
4 WF
4 WF 1. A
3 S 1. A
3 F 1. A
6 S 1 A
6 S
3 S A
3 F
3 F A
3 S 1. A
4 WF A
4 W A
4 WF F. A
3 S 1. A
3 S 1. A
3 S 1

FLOOR PLAN NOTES

1. UNLESS OTHERWISE NOTED, INTERIOR PARTITIONS TO BE TYPE 3 S A
2. SEE G100 FOR FIRE EXTINGUISHER LOCATIONS
3. DOORS FRAMES TO BE INSTALLED 4" FROM ADJACENT WALL UNLESS OTHERWISE NOTED



1 SECOND FLOOR CONSTRUCTION PLAN
SCALE: 1/8" = 1'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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CONSTRUCTION DOCUMENTS

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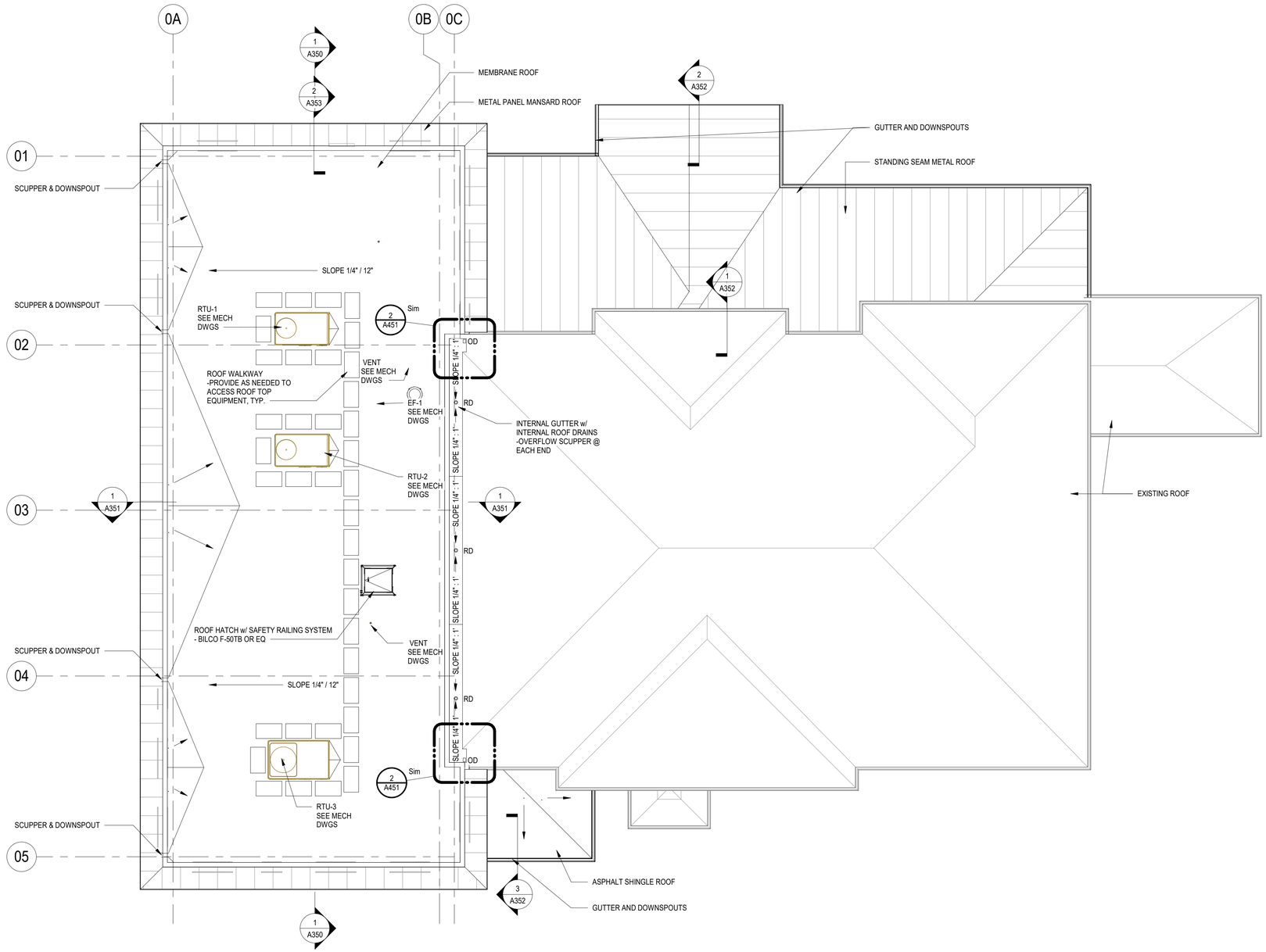
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DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

2ND FLOOR - CONSTRUCTION PLANS

DRAWING NUMBER
A102

Plot Date: 4/27/2026 11:26:49 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt



N

1 ROOF CONSTRUCTION PLAN

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

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900 HAMMOND DRIVE, SUITE 500
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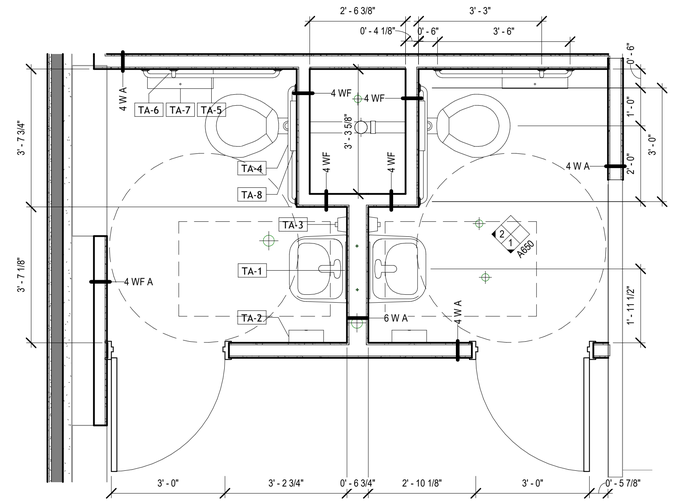
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CHECKED: DEK
CHECKED:
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FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

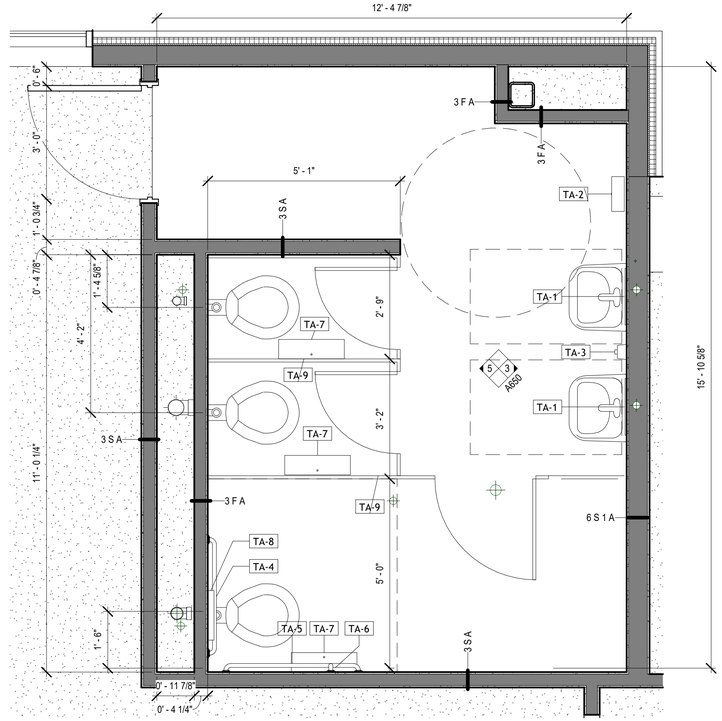
ROOF - CONSTRUCTION PLANS

DRAWING NUMBER
A150

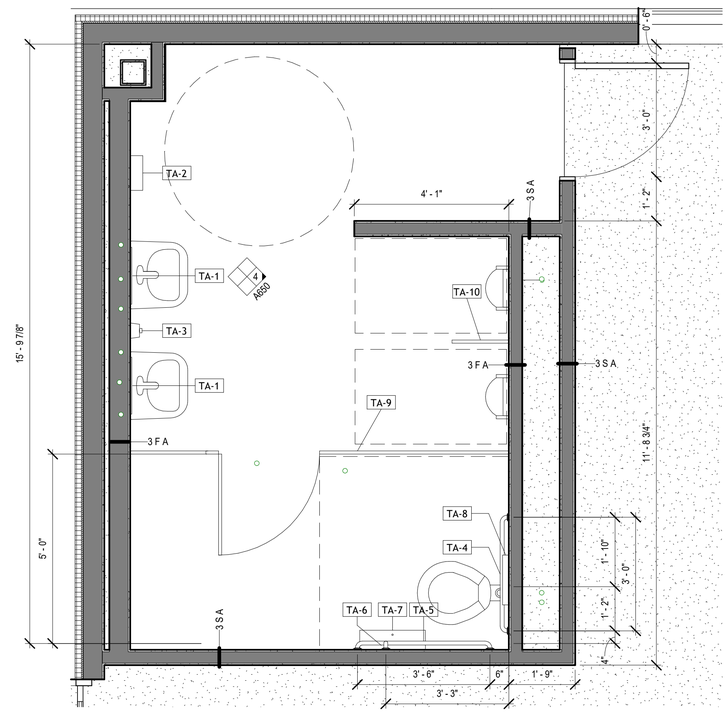
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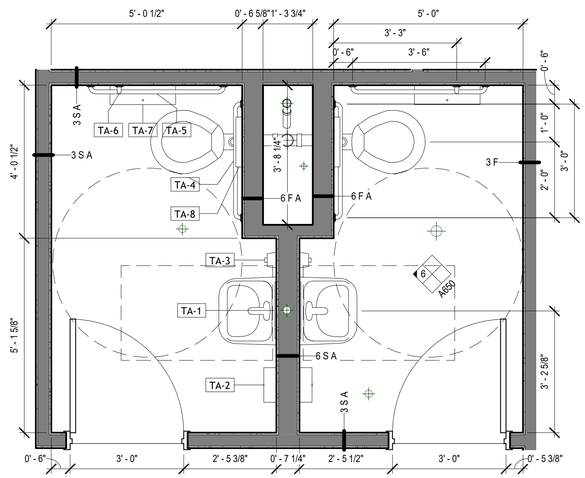
1 FIRST FLOOR PLAN - RESTROOMS 110 & 111
SCALE: 1/2" = 1'-0"



3 FIRST FLOOR PLAN - RESTROOM 146
SCALE: 1/2" = 1'-0"



2 FIRST FLOOR PLAN - RESTROOM 145
SCALE: 1/2" = 1'-0"



4 SECOND FLOOR PLAN - RESTROOMS 241 & 242
SCALE: 1/2" = 1'-0"

RESTROOM ACCESSORY EQUIPMENT

DESIGNATION	DESCRIPTION	COMMENTS
TA-1	18"x30" Mirror	SURFACE MOUNT
TA-2	Towel Dispenser / Waste Receptacle	SEMI-RECESSED
TA-3	Soap Dispenser	SURFACE MOUNT
TA-4	36 inch ADA compliant grab bar	SURFACE MOUNT - HORIZONTAL
TA-5	42 inch ADA compliant grab bar	SURFACE MOUNT - HORIZONTAL
TA-6	18 Inches ADA compliant grab bar	SURFACE MOUNT - VERTICAL
TA-7	Toilet Paper Dispenser, Twin 9" Jumbo – Surface Mounted	SURFACE MOUNT
TA-8	Seat Cover Dispenser	SURFACE MOUNT
TA-9	ASI Maximum Privacy Phenolic Toilet Compartments	
TA-10	ASI Urinal Partitions to Coordinate with TA-9	

NOTE:
1. SEE MOUNTING DIAGRAMS (A100) FOR INSTALLATION LOCATION
2. CONTRACTOR TO PROVIDE BLOCKING AS REQUIRED
3. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES PER 2010 ADA STANDARD FOR ACCESSIBLE DESIGN 606.5

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900 HAMMOND DRIVE, SUITE 500
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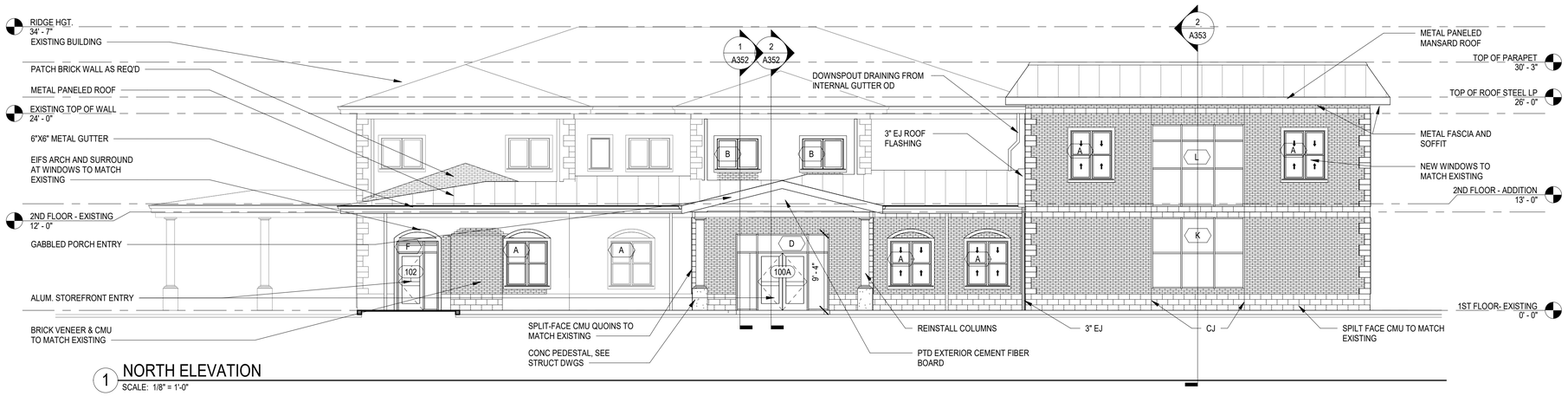
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DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

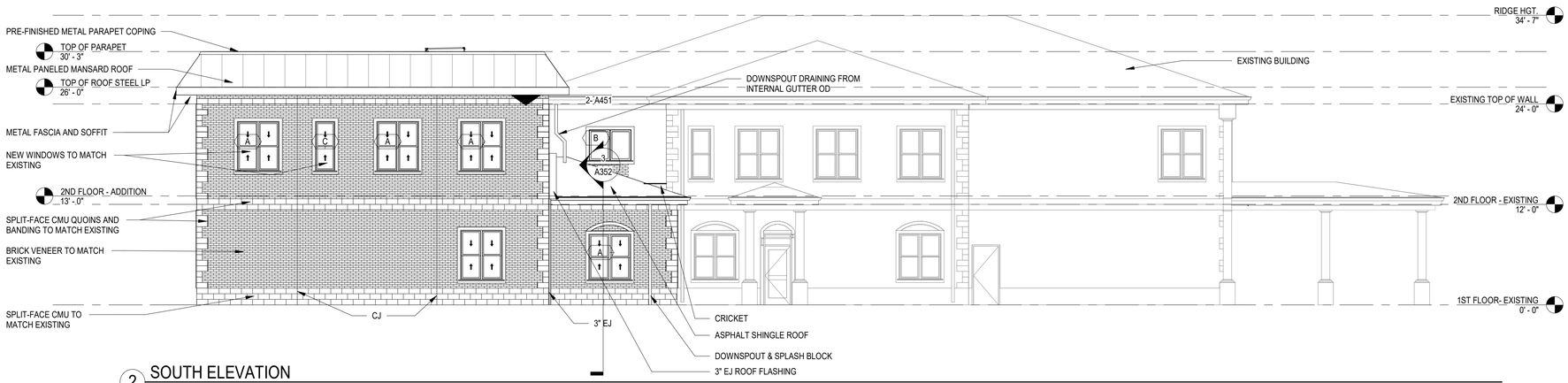
ENLARGED PLANS

DRAWING NUMBER
A200

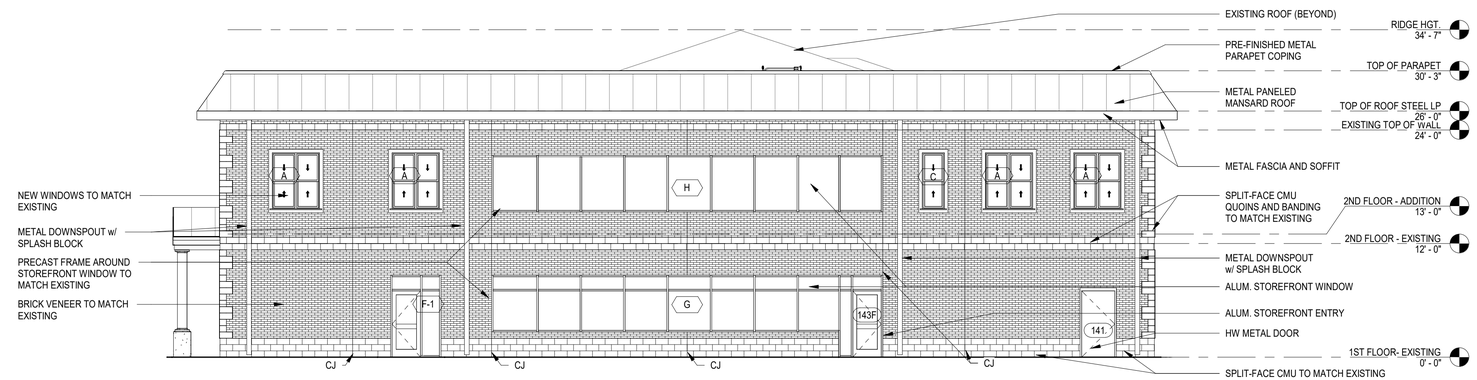
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1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



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

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REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	MW4
DRAWN:	MW4
CHECKED:	DEK
CHECKED:	
APPROVED:	Approver

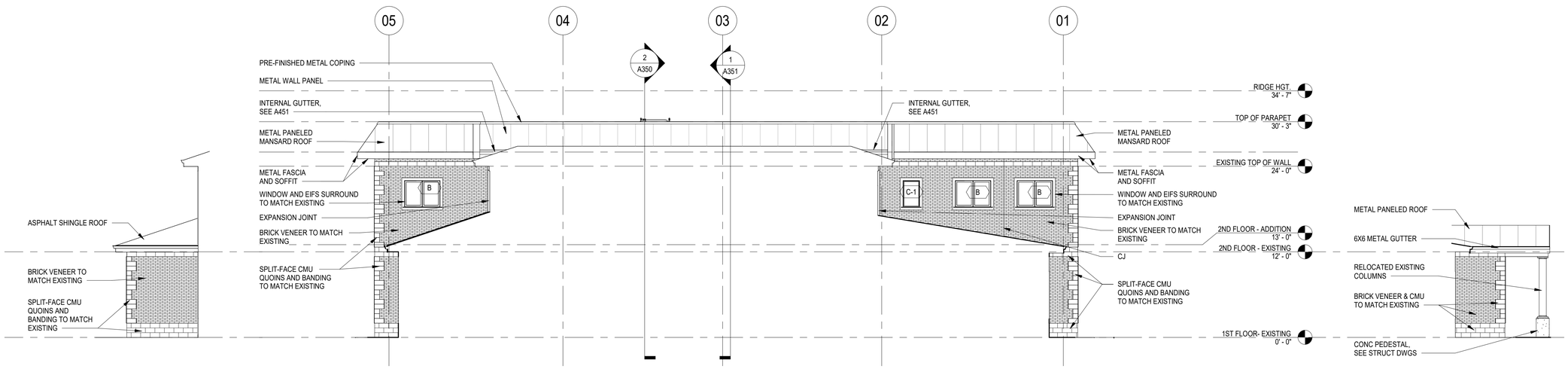
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

CONSTRUCTION ELEVATIONS

DRAWING NUMBER
A301

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1 EAST ELEVATION - PARTIAL @ KITCHEN
SCALE: 1/8" = 1'-0"

2 EAST ELEVATION - PARTIAL @ ADDITION
SCALE: 1/8" = 1'-0"

3 EAST ELEVATION - PARTIAL @ ENTRY
SCALE: 1/8" = 1'-0"

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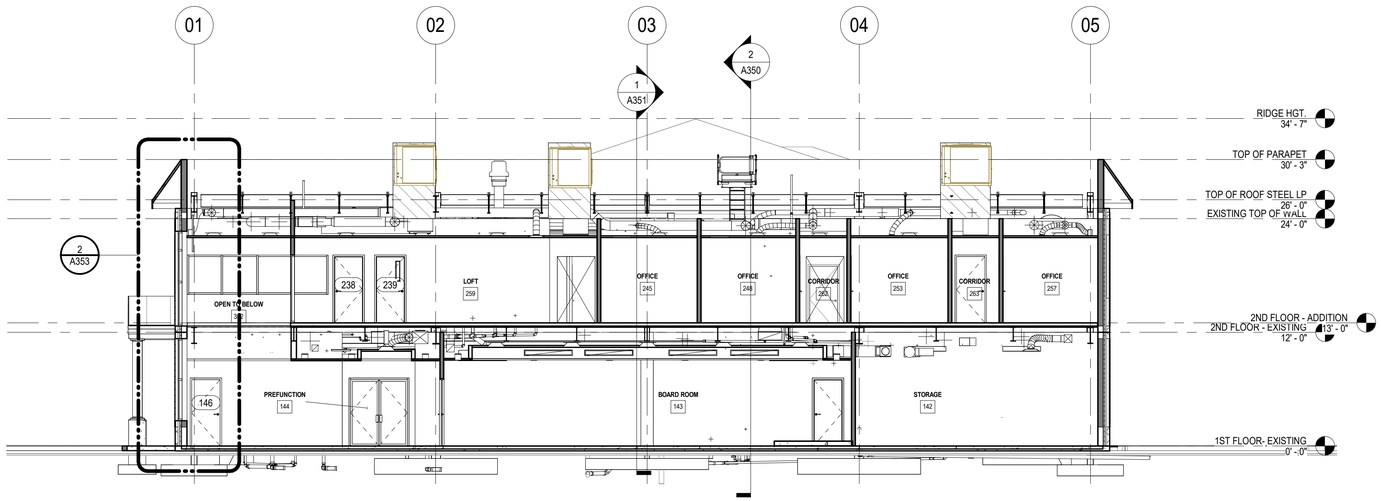
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AT FULL SIZE

DESIGNED: MW4
DRAWN: MW4
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CLIENT PROJECT NUMBER

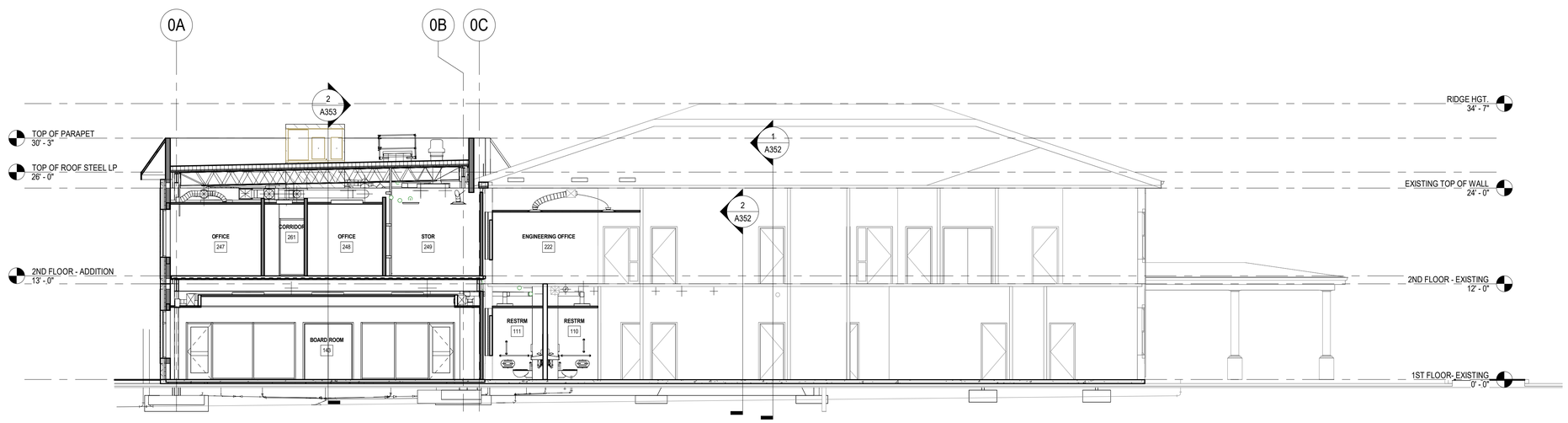
CONSTRUCTION ELEVATIONS

DRAWING NUMBER
A302

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1 SECTION AA - ADDITION
SCALE: 1/8" = 1'-0"



2 SECTION BB - SOUTH CORRIDOR
SCALE: 1/8" = 1'-0"

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DESIGNED: MW4
DRAWN: LDG
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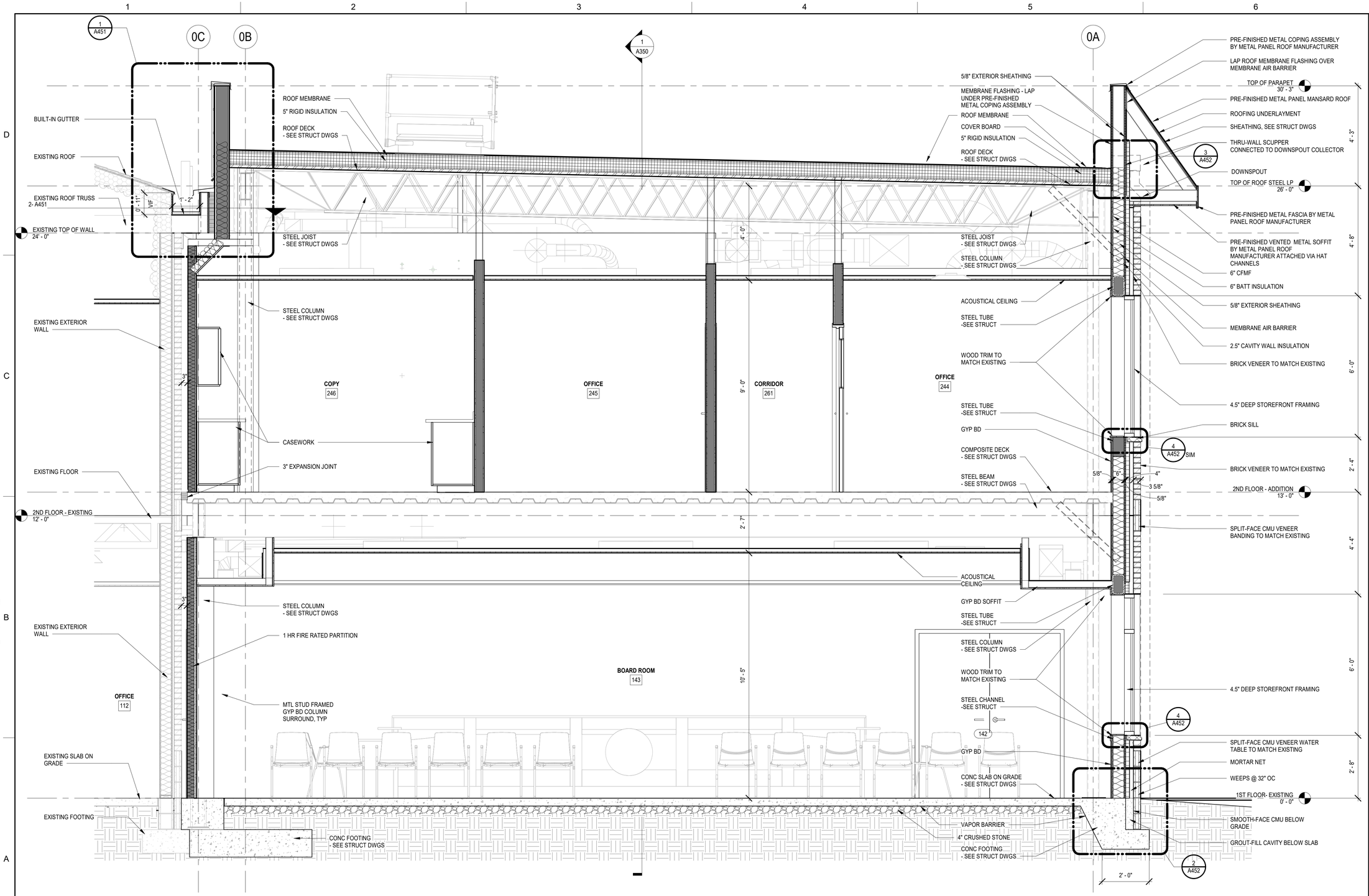
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

BUILDING SECTIONS

DRAWING NUMBER
A350

Plot Date: 4/27/2026 11:26:59 PM Path: C:\Users\mw4\OneDrive - Wendell\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4.rvt



1 SECTION THRU ADDITION
SCALE: 1/2" = 1'-0"

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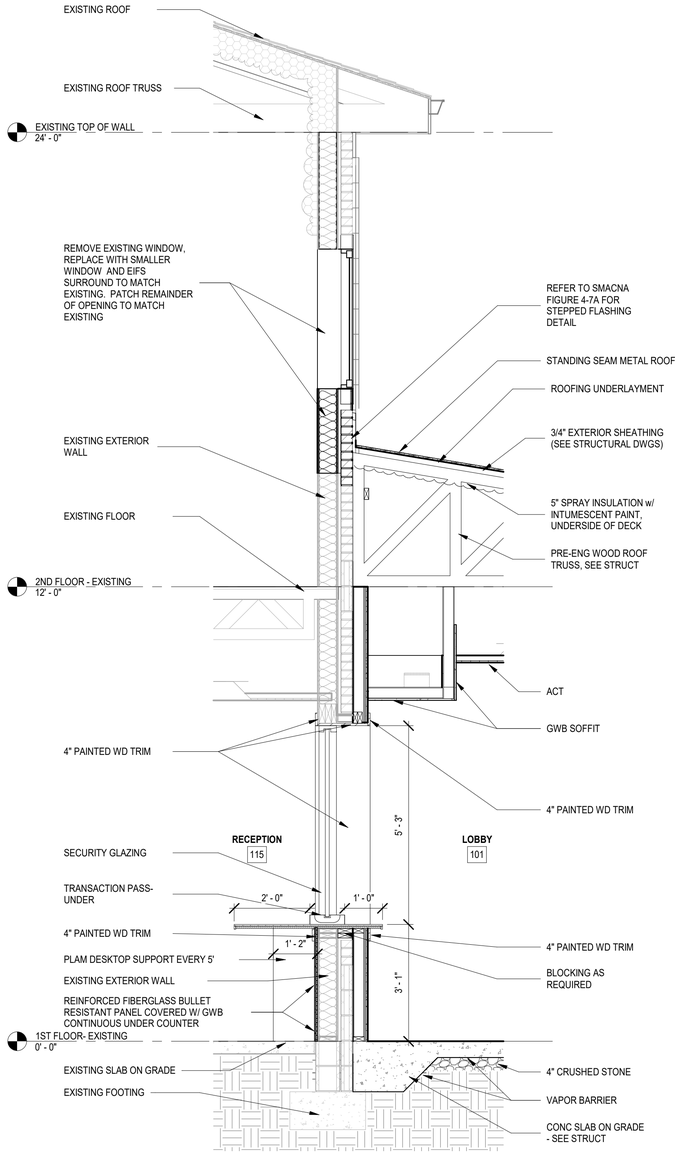
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AT FULL SIZE

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CLIENT PROJECT NUMBER

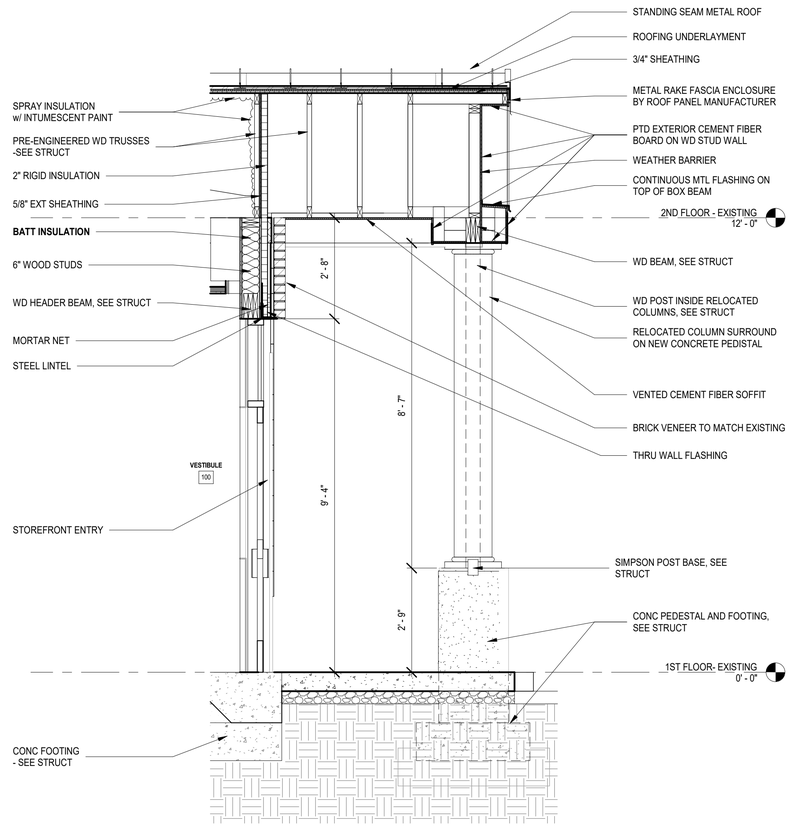
WALL SECTIONS

DRAWING NUMBER
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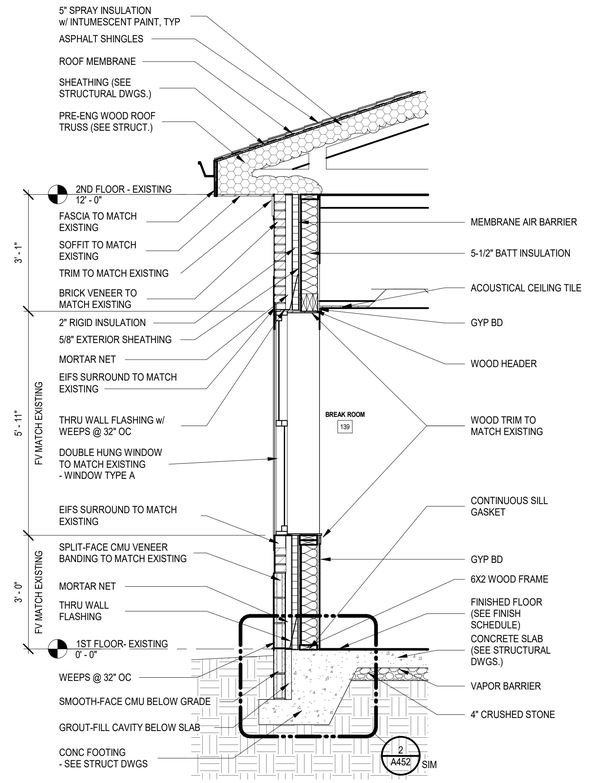
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1 SECTION THRU RECEPTION
SCALE: 1/2" = 1'-0"



2 SECTION THRU ENTRY
SCALE: 1/2" = 1'-0"



3 SECTION THRU BREAK RM
SCALE: 1/2" = 1'-0"

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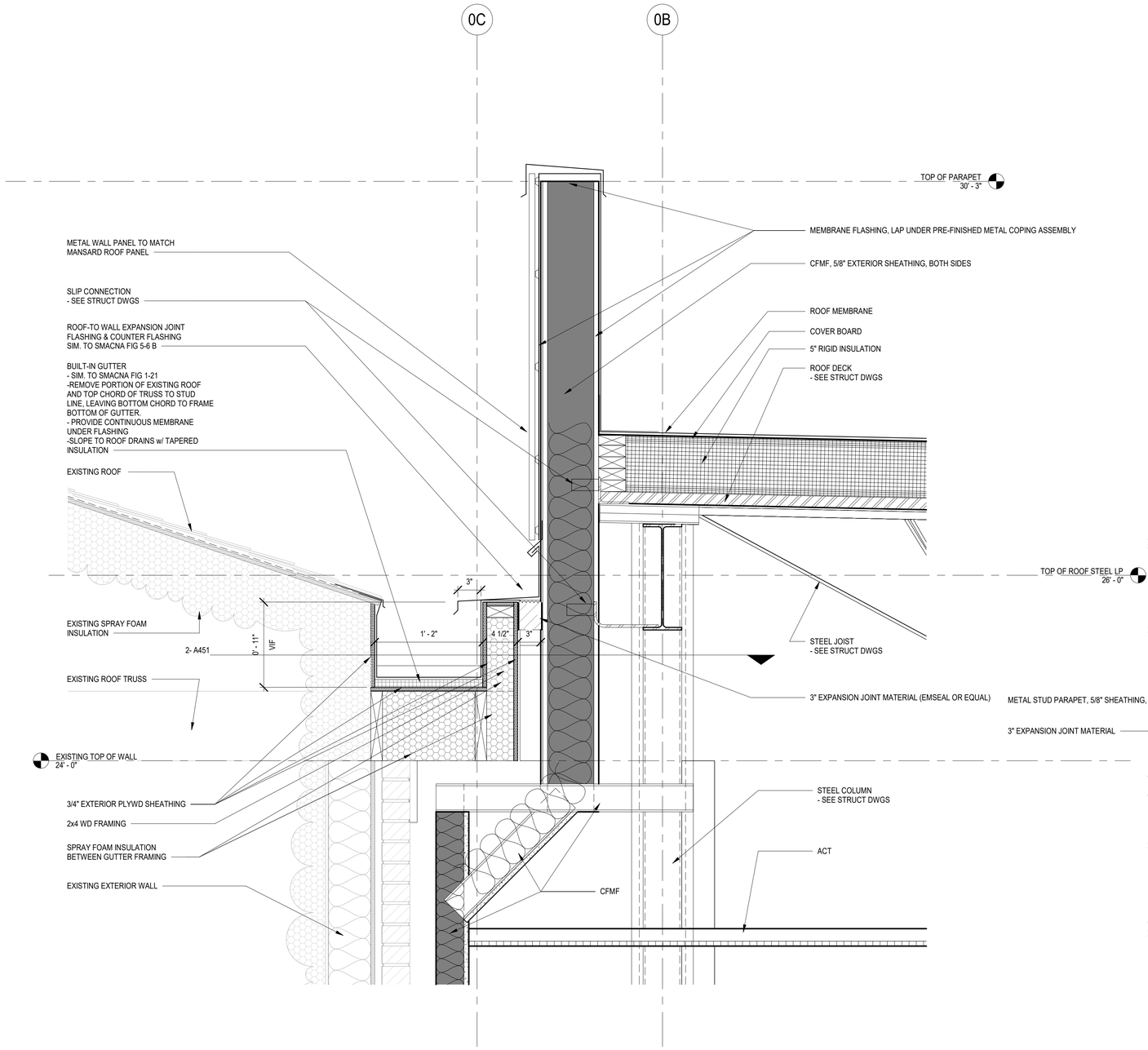
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616202
CLIENT PROJECT NUMBER

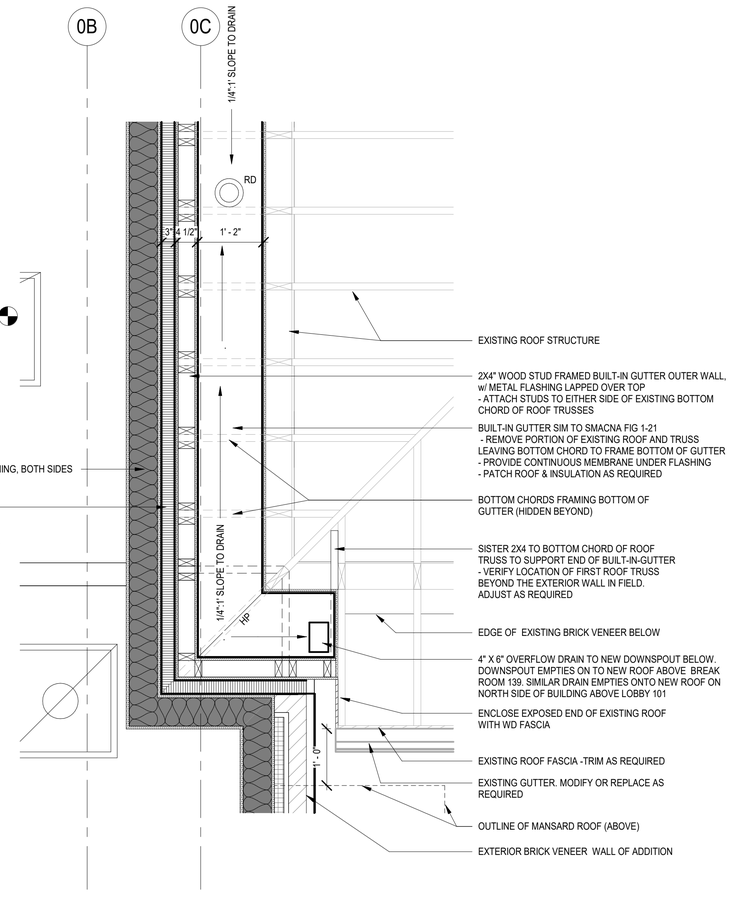
WALL SECTIONS

DRAWING NUMBER
A352

Plot Date: 4/27/2026 11:27:02 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt



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



2 PLAN DET @ INTERNAL GUTTER
SCALE: 3/4" = 1'-0"

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DRAWN: MW4
CHECKED: DEK
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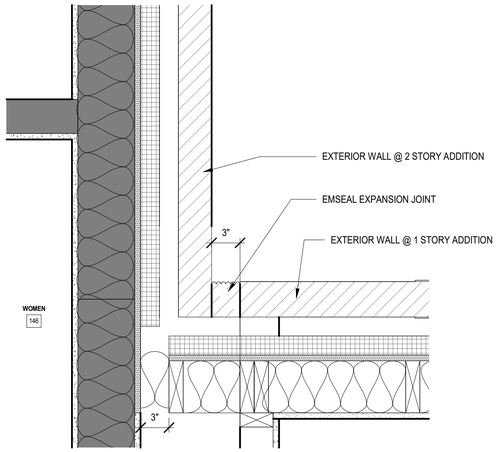
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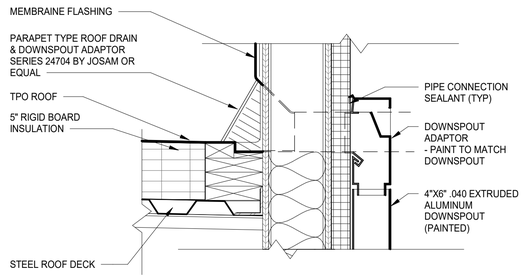
DETAILS

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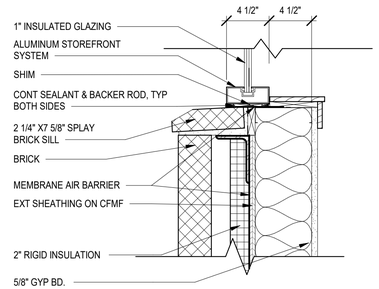
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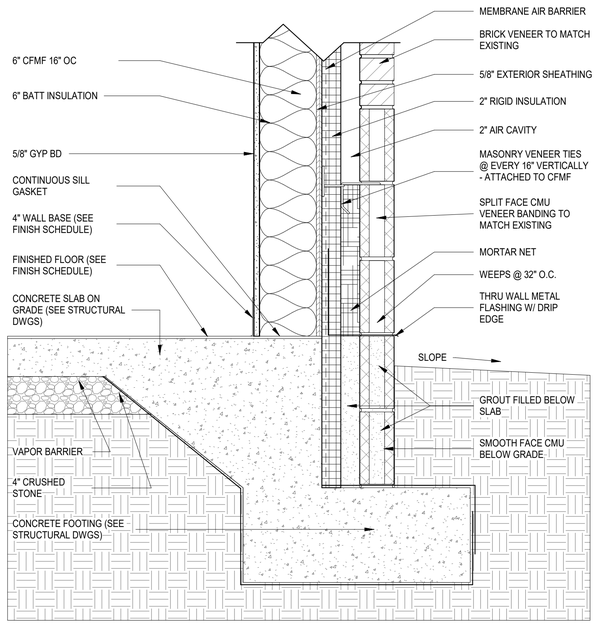
1 EXT WALL EXPANSION JOINT
SCALE: 1 1/2" = 1'-0"



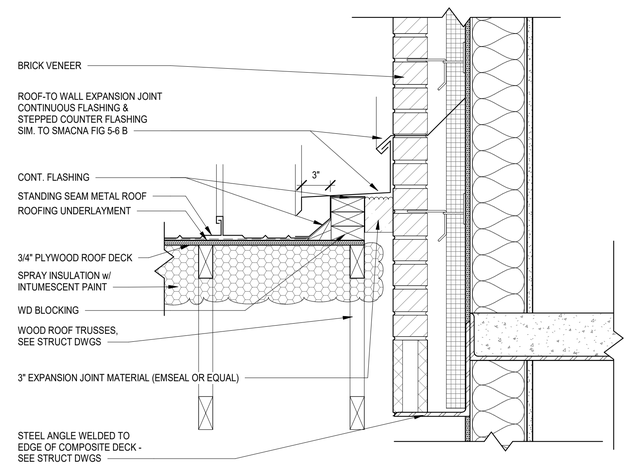
3 DETAIL - THRU WALL DETAIL
SCALE: 1 1/2" = 1'-0"



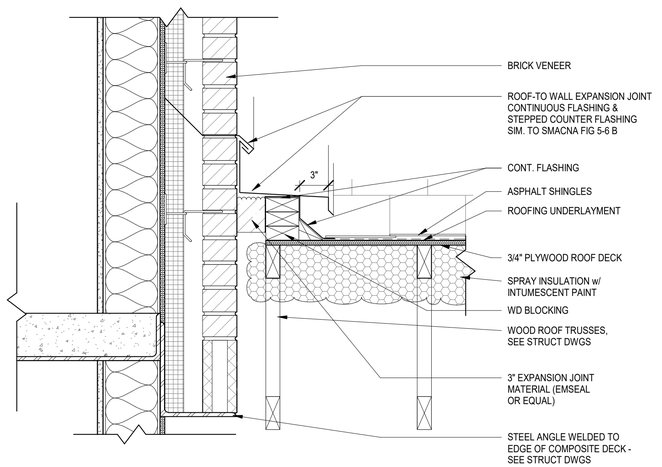
4 EXT STOREFRONT SILL @ MASONRY
SCALE: 1 1/2" = 1'-0"



2 DETAIL - CMU WALL @ BASE
SCALE: 1 1/2" = 1'-0"



5 EXPANSION JOINT @ METAL ROOF
SCALE: 1 1/2" = 1'-0"



6 EXPANSION JOINT @ SHINGLE ROOF
SCALE: 1 1/2" = 1'-0"

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DESIGNED: MW4
DRAWN: MW4
CHECKED: DEK
CHECKED:
APPROVED: Approver

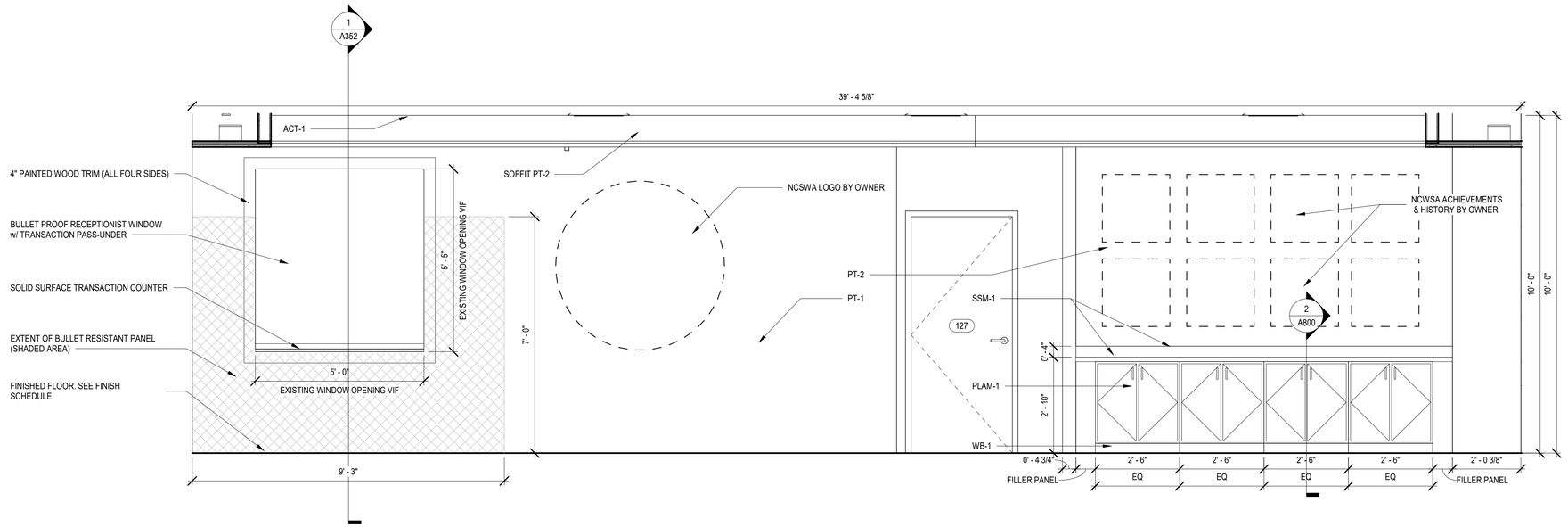
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616202
CLIENT PROJECT NUMBER

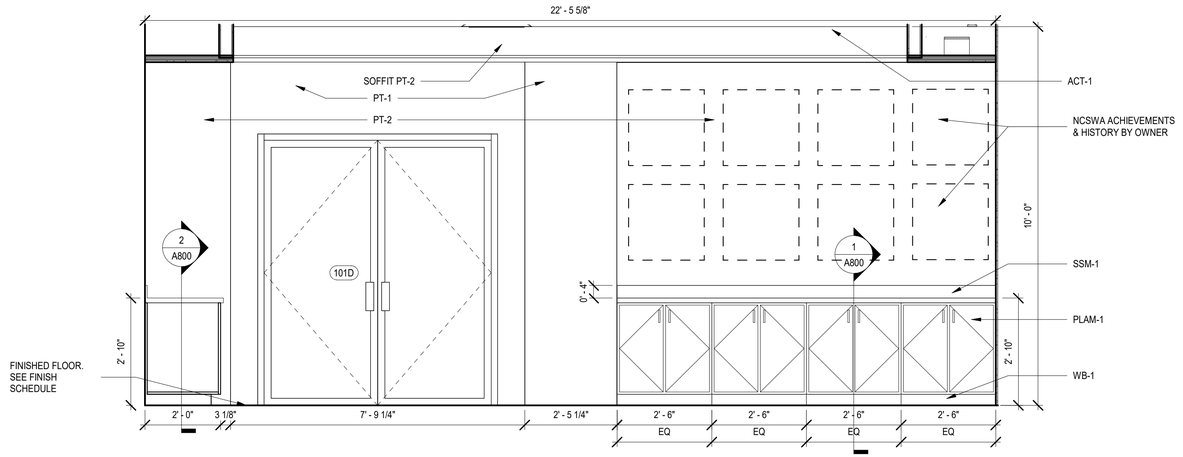
DETAILS

DRAWING NUMBER
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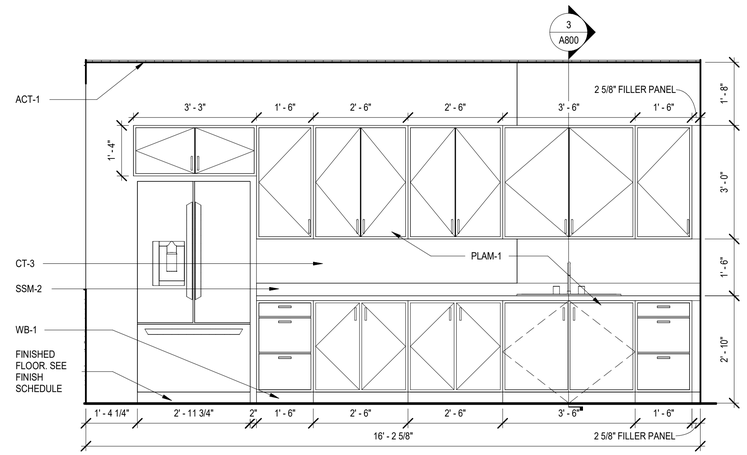
Plot Date: 4/27/2026 11:27:03 PM Path: C:\Users\mw4\OneDrive - Wendell\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4.rvt



1 LOBBY 101 - SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



2 LOBBY 101 - WEST ELEVATION
SCALE: 1/2" = 1'-0"



3 BREAK ROOM 139 - WEST ELEVATION
SCALE: 1/2" = 1'-0"

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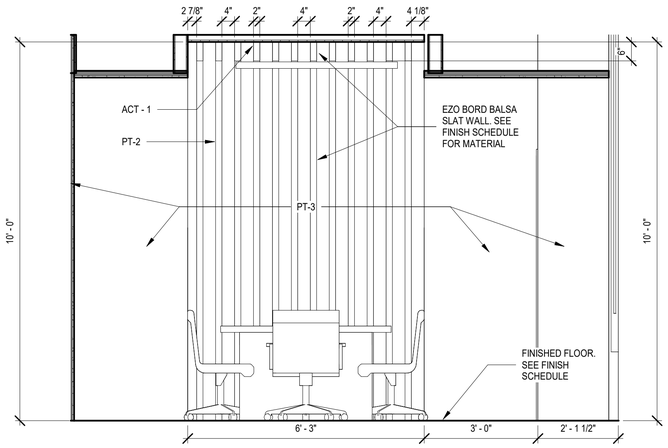
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DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

INTERIOR ELEVATIONS

DRAWING NUMBER
A600

Plot Date: 4/27/2026 11:27:04 PM Path: C:\Users\mw4\OneDrive - Wendell\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4.rvt



1 EXEC. CONF. RM 140 - NORTH ELEVATION
SCALE: 1/2" = 1'-0"

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REVISIONS

REV	DATE	DESCRIPTION

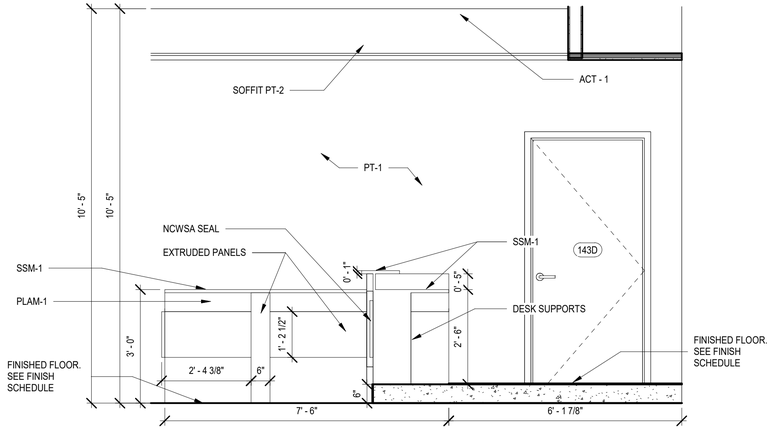
LINE IS 2 INCHES
AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

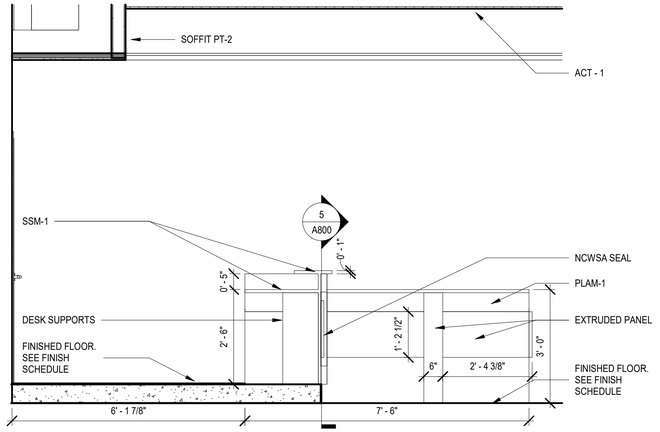
INTERIOR ELEVATIONS

DRAWING NUMBER
A601

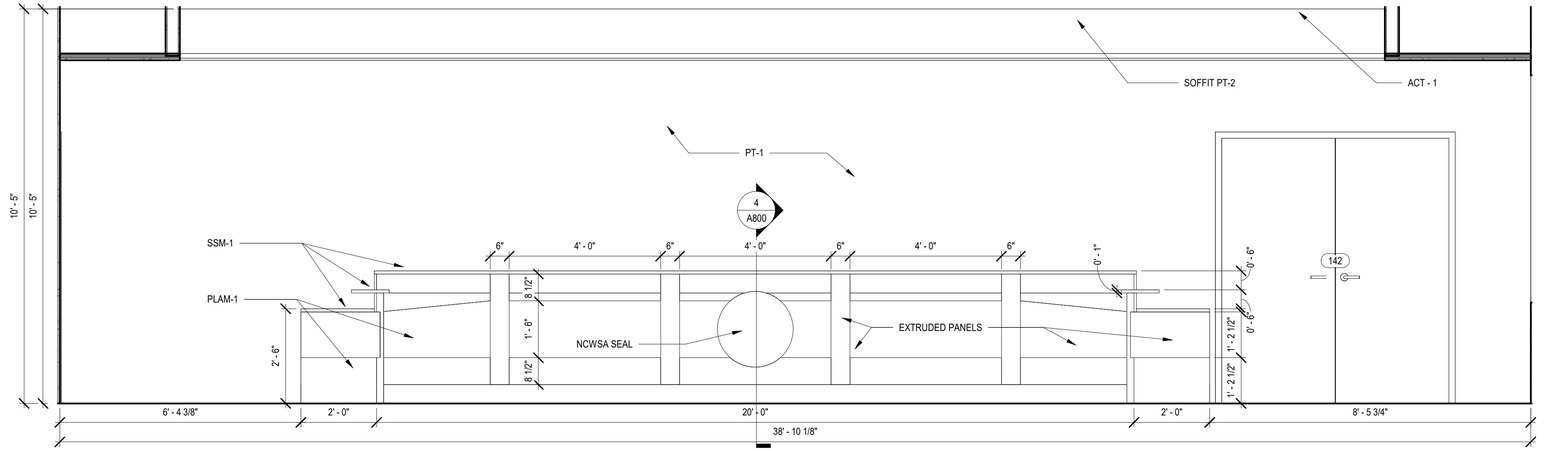
Plot Date: 4/27/2026 11:27:05 PM Path: C:\Users\mw4\OneDrive - Wendell\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4.rvt



1 BOARD RM 143 - EAST ELEVATION
SCALE: 1/2" = 1'-0"



2 BOARD RM 143 - WEST ELEVATION
SCALE: 1/2" = 1'-0"



3 BOARD RM 143 - SOUTH ELEVATION
SCALE: 1/2" = 1'-0"

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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CONSTRUCTION DOCUMENTS

NCWSA
NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

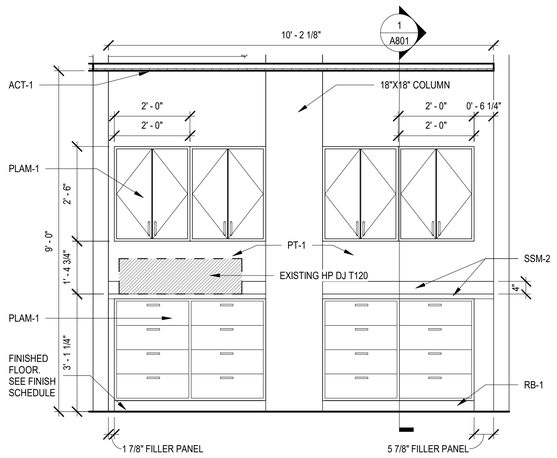
LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
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APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

INTERIOR ELEVATIONS

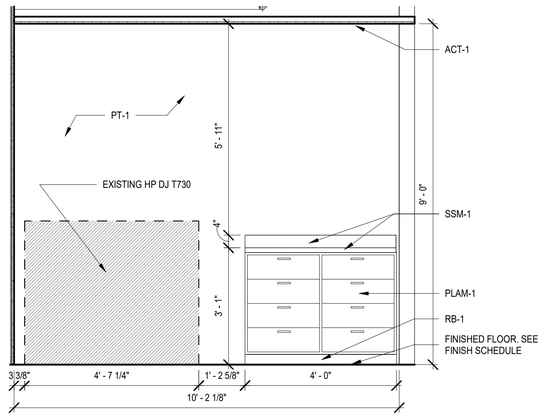
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A602

Plot Date: 4/27/2026 11:27:05 PM Path: C:\Users\mw4\OneDrive - Wendell\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4.rvt



1 PRINTING AREA 246 - EAST ELEVATION

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



2 PRINTING AREA 246 - WEST ELEVATION

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

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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CONSTRUCTION DOCUMENTS

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

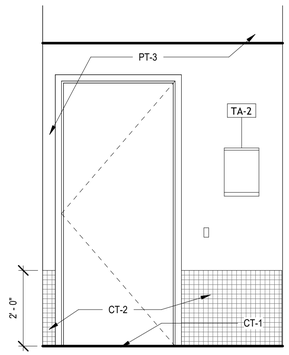
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DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

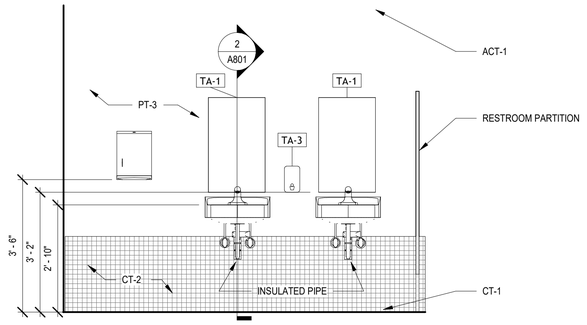
INTERIOR ELEVATIONS

DRAWING NUMBER
A603

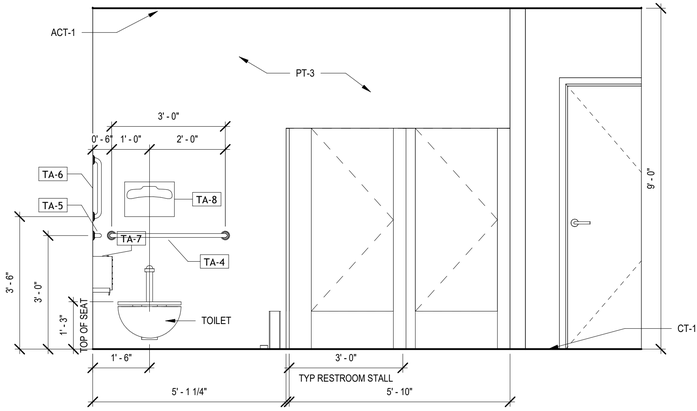
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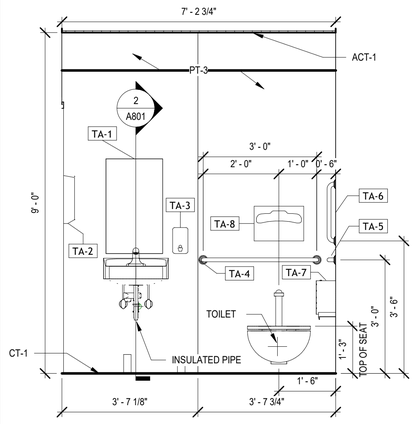
1 INTERIOR RESTROOM WALL ELEVATIONS
SCALE: 1/2" = 1'-0"



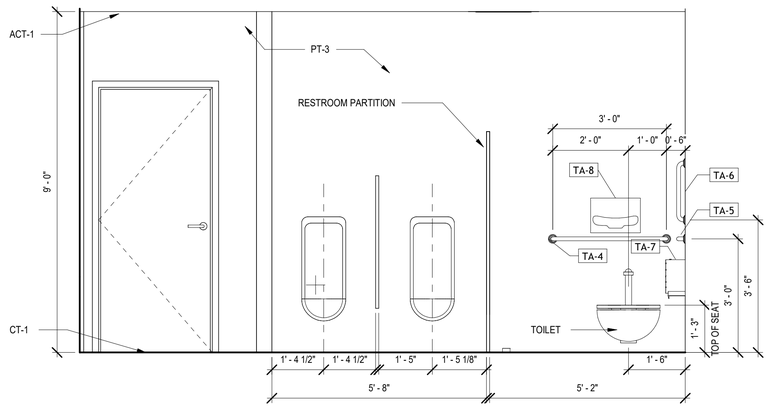
3 SINK ELEVATION AT RESTROOMS 145 &146
SCALE: 1/2" = 1'-0"



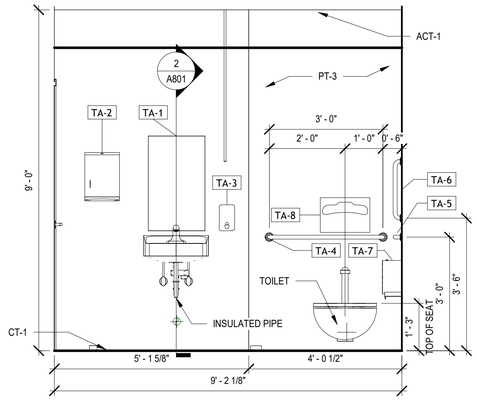
5 RESTROOM 146 - WEST ELEVATION
SCALE: 1/2" = 1'-0"



2 RESTROOM 110 & 111 ELEVATION
SCALE: 1/2" = 1'-0"



4 RESTROOM 145 - EAST ELEVATION
SCALE: 1/2" = 1'-0"



6 RESTROOM 241 & 242 ELEVATION
SCALE: 1/2" = 1'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver

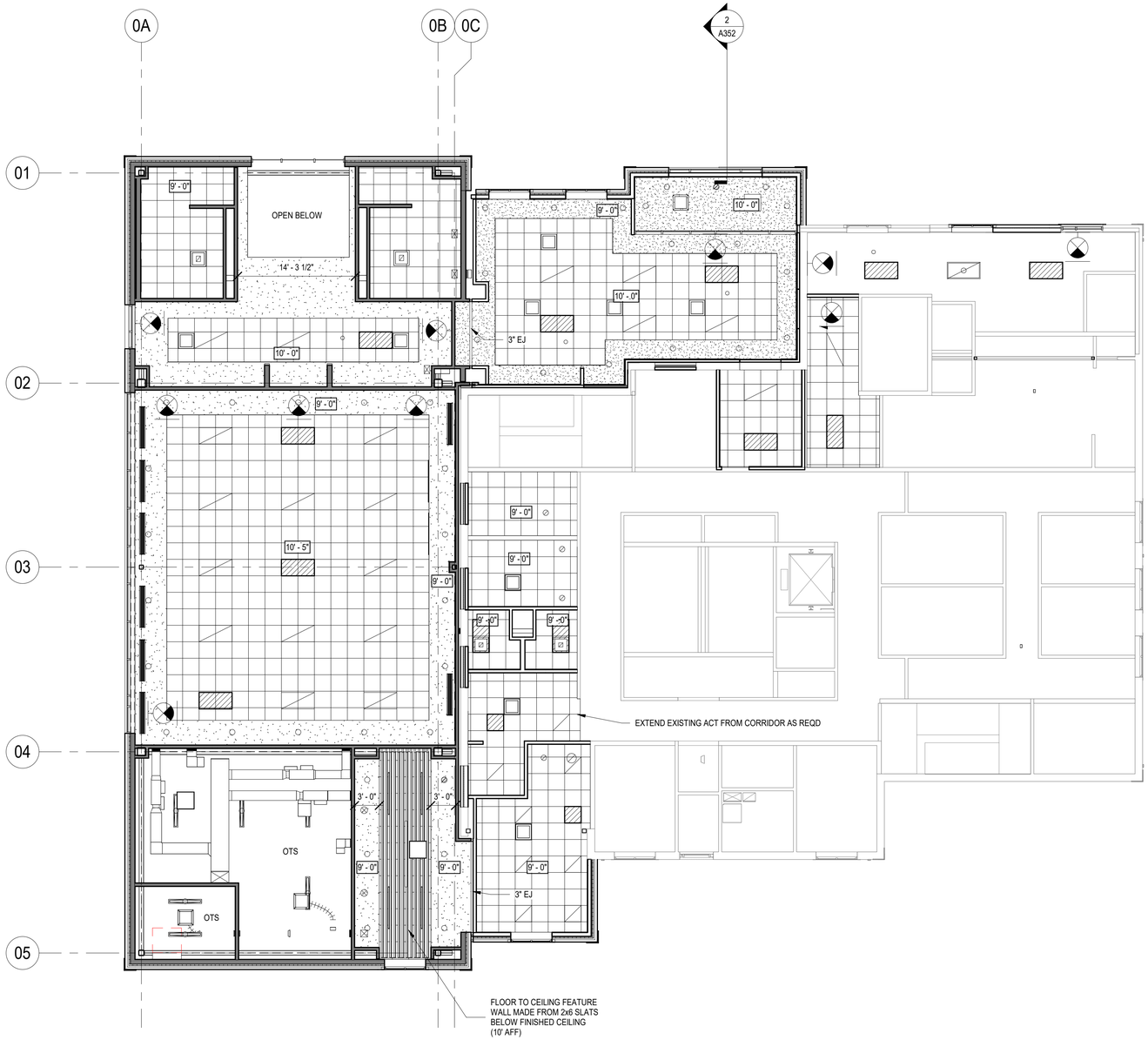
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

RESTROOM INTERIOR ELEVATIONS

DRAWING NUMBER
A650

Plot Date: 4/27/2026 11:27:08 PM Path: C:\Users\mw4\OneDrive - Wendell\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4.rvt



1 1st Floor RCP
SCALE: 1/8" = 1'-0"

GENERAL RCP NOTES:

1. CONTRACTOR TO REUSE AS MANY EXISTING FIXTURES AS POSSIBLE. CLEAN AND RE-LAMP ALL REUSED FIXTURES TO MATCH BUILDING STANDARD. PROVIDE NEW LAMPS AND/OR BULBS FOR ALL FIXTURES - EXISTING, REUSED, AND NEW. ALL BULBS TO HAVE A COLOR TEMPERATURE OF 350K WITH A MINIMUM CRI OF 80. ALL FIXTURES SHOULD BE CLEAN AND FREE OF DUST, LABELS, ETC.
2. REFER TO ARCHITECTS REFLECTED CEILING PLAN FOR LIGHT FIXTURE LOCATIONS.
3. CONTRACTOR SHALL PROVIDE LIGHT FIXTURE CUT SHEETS FOR ARCHITECTS APPROVAL, PRIOR TO ORDERING. NO SUBSTITUTIONS SHALL BE SUBMITTED UNLESS AVAILABILITY OF FIXTURE IS PROHIBITIVE TO MEETING THE PROJECT SCHEDULE.
4. ALL LIGHT FIXTURES ARE DIMENSIONED TO THE CENTER OF THE FIXTURE UNLESS OTHERWISE NOTED.
5. LIGHTS TO BE CENTERED ON CEILING TILE, UNLESS OTHERWISE NOTED.
6. WIRING DEVICES ARE TO MATCH BUILDING STANDARD.
7. EACH SPACE TO BE INDIVIDUALLY SWITCHED UNLESS OTHERWISE NOTED.
8. COVER PLATES ON WALLS SHALL BE BUILDING STANDARD. PLATES TO BE STANDARD SIZE (OVERSIZED PLATES ARE NOT ACCEPTABLE).
9. COORDINATE ALL FIRE SAFETY EQUIPMENT, INCLUDING EXIT SIGNS, EMERGENCY BACK-UP LIGHTS, AUDIO AND VISUAL ALARMS, PULL STATIONS, ETC. AS REQUIRED BY ALL APPLICABLE CODES AND ORDINANCES HAVING JURISDICTION ON THIS PROJECT WITH CONTRACTOR, REFER TO MEP DRAWINGS FOR EXACT LOCATION AND SPECIFICATION OF EMERGENCY EGRESS AND LIGHTING AND EXIT FIXTURES.
10. PROVIDE T-BAR HOLD DOWN CLIPS ON ALL FIXTURES WHERE APPLICABLE.
11. PROVIDE BLOCKING IN CEILING FOR ALL PROJECTION SCREENS AND VIDEO PROJECTORS. COORDINATE WITH AV VENDOR.
12. SEE DESIGN BUILD DRAWINGS FOR SPRINKLER LOCATION/FIRE SUPPRESSION PLAN.
13. WHERE WATER HEATERS ARE PROVIDED IN THE PLENUM, THEY SHALL BE SUPPORTED BY NON-COMBUSTIBLE CONSTRUCTION (METAL STUDS).
14. BREAK/REWORK EXISTING CEILING GRID AT ALL NEW WALL PARTITIONS THAT GO TO THE DECK, PATCH AND REPAIR AS NECESSARY.

RCP SYMBOLS LEGEND:

- EXIT SIGN
- 1'-0" — SOFFIT OR CEILING HEIGHT
- ACT-1 — 2' x 2' ACOUSTIC CEILING TILE
- GWB — GYPSUM WALL BOARD CEILING
- (S) — SPEAKER
- SPRINKLER HEAD REF. FIRE PROTECTION DWGS

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

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NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

1ST FLOOR - REFLECTED CEILING PLAN

DRAWING NUMBER
A701

Plot Date: 4/27/2026 11:27:09 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt



1 2nd Floor RCP
SCALE: 1/8" = 1'-0"

GENERAL RCP NOTES:

1. CONTRACTOR TO REUSE AS MANY EXISTING FIXTURES AS POSSIBLE. CLEAN AND RE-LAMP ALL REUSED FIXTURES TO MATCH BUILDING STANDARD. PROVIDE NEW LAMPS AND/OR BULBS FOR ALL FIXTURES - EXISTING, REUSED, AND NEW. ALL BULBS TO HAVE A COLOR TEMPERATURE OF 350K WITH A MINIMUM CRI OF 80. ALL FIXTURES SHOULD BE CLEAN AND FREE OF DUST, LABELS, ETC.
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3. CONTRACTOR SHALL PROVIDE LIGHT FIXTURE CUT SHEETS FOR ARCHITECTS APPROVAL, PRIOR TO ORDERING. NO SUBSTITUTIONS SHALL BE SUBMITTED UNLESS AVAILABILITY OF FIXTURE IS PROHIBITIVE TO MEETING THE PROJECT SCHEDULE.
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5. LIGHTS TO BE CENTERED ON CEILING TILE, UNLESS OTHERWISE NOTED.
6. WIRING DEVICES ARE TO MATCH BUILDING STANDARD.
7. EACH SPACE TO BE INDIVIDUALLY SWITCHED UNLESS OTHERWISE NOTED.
8. COVER PLATES ON WALLS SHALL BE BUILDING STANDARD. PLATES TO BE STANDARD SIZE (OVERSIZED PLATES ARE NOT ACCEPTABLE).
9. COORDINATE ALL FIRE SAFETY EQUIPMENT, INCLUDING EXIT SIGNS, EMERGENCY BACK-UP LIGHTS, AUDIO AND VISUAL ALARMS, PULL STATIONS, ETC. AS REQUIRED BY ALL APPLICABLE CODES AND ORDINANCES HAVING JURISDICTION ON THIS PROJECT WITH CONTRACTOR, REFER TO MEP DRAWINGS FOR EXACT LOCATION AND SPECIFICATION OF EMERGENCY EGRESS AND LIGHTING AND EXIT FIXTURES.
10. PROVIDE T-BAR HOLD DOWN CLIPS ON ALL FIXTURES WHERE APPLICABLE.
11. PROVIDE BLOCKING IN CEILING FOR ALL PROJECTION SCREENS AND VIDEO PROJECTORS. COORDINATE WITH AV VENDOR.
12. SEE DESIGN BUILD DRAWINGS FOR SPRINKLER LOCATION/FIRE SUPPRESSION PLAN.
13. WHERE WATER HEATERS ARE PROVIDED IN THE PLENUM, THEY SHALL BE SUPPORTED BY NON-COMBUSTIBLE CONSTRUCTION (METAL STUDS).
14. BREAK/REWORK EXISTING CEILING GRID AT ALL NEW WALL PARTITIONS THAT GO TO THE DECK, PATCH AND REPAIR AS NECESSARY.

RCP SYMBOLS LEGEND:

- EXIT SIGN
- 1'-0" — SOFFIT OR CEILING HEIGHT
- ACT-1 — 2' x 2' ACOUSTIC CEILING TILE
- GWB — GYPSUM WALL BOARD CEILING
- S — SPEAKER
- SPRINKLER HEAD REF. FIRE PROTECTION DWGS

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

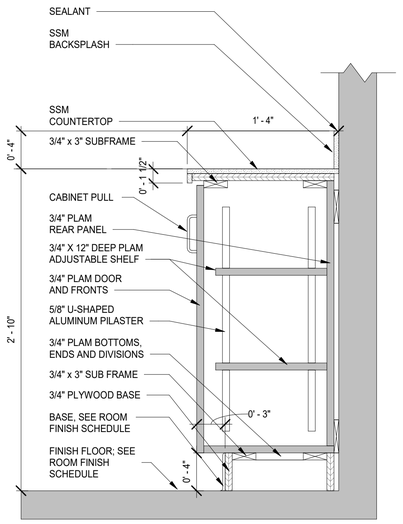
LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

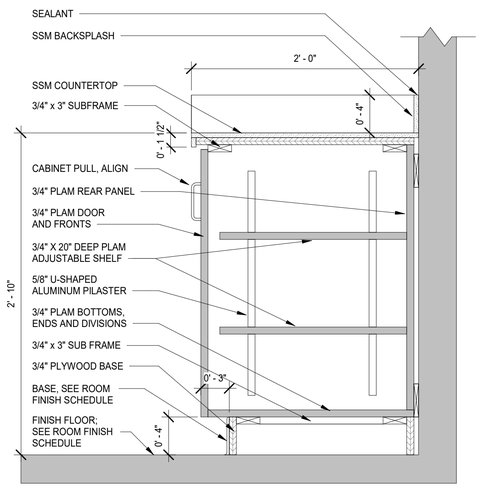
2ND FLOOR - REFLECTED CEILING PLAN

DRAWING NUMBER
A702

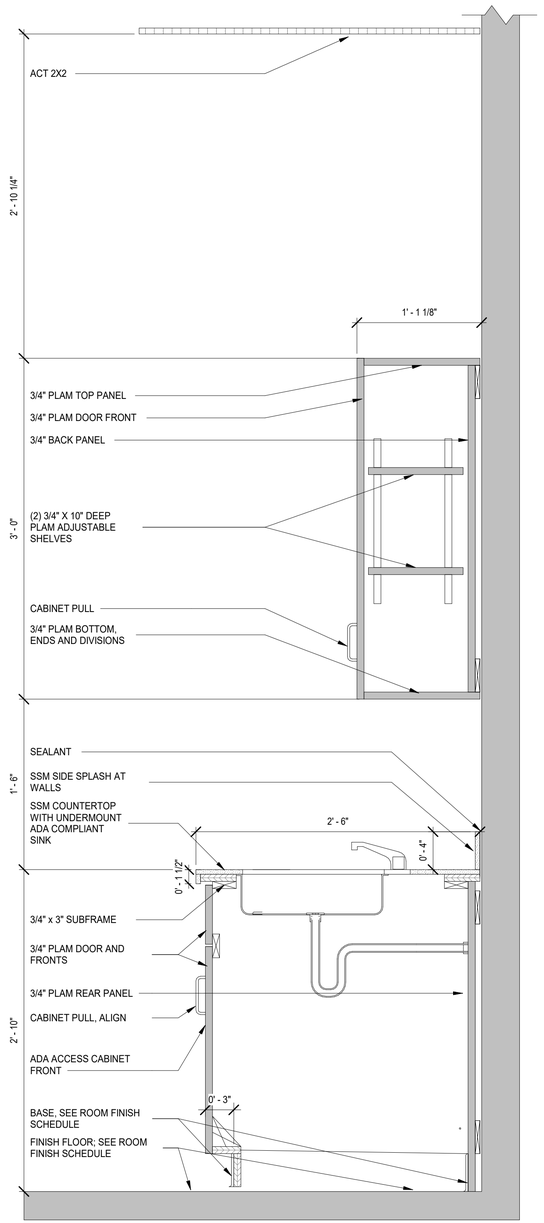
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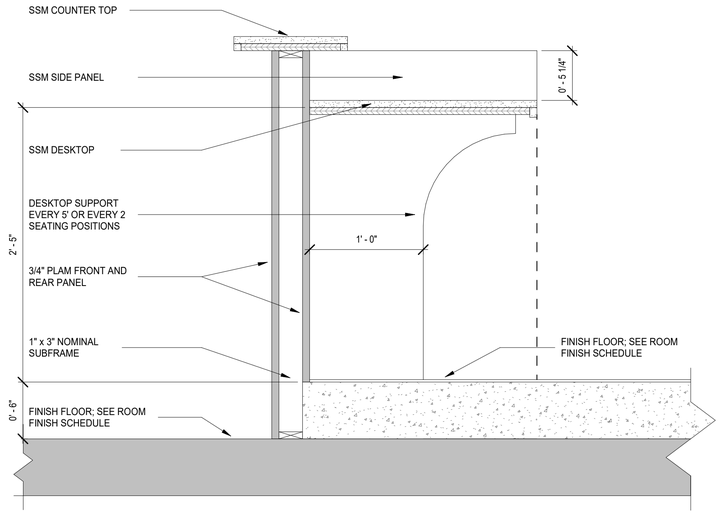
1 16" DEEP EXEC. CONF. RM & LOBBY CASEWORK DETAIL
SCALE: 1 1/2" = 1'-0"



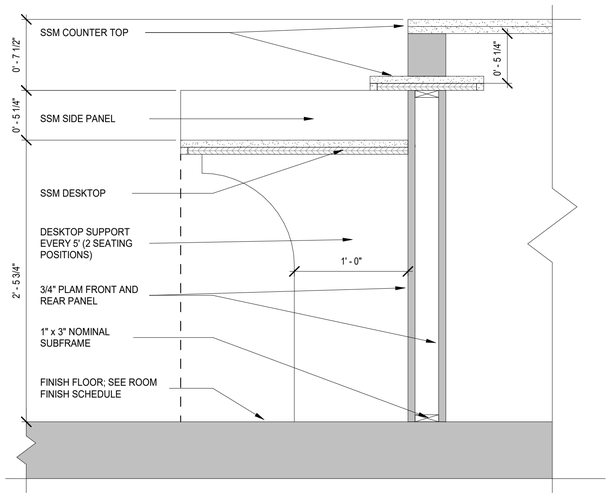
2 24" DEEP LOBBY CASEWORK DETAIL
SCALE: 1 1/2" = 1'-0"



3 MILLWORK SINK DETAIL
SCALE: 1 1/2" = 1'-0"



4 BOARD RM MILLWORK 1
SCALE: 1 1/2" = 1'-0"



5 BOARD RM MILLWORK 2
SCALE: 1 1/2" = 1'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	MW4
DRAWN:	LDG
CHECKED:	DEK
CHECKED:	
APPROVED:	Approver

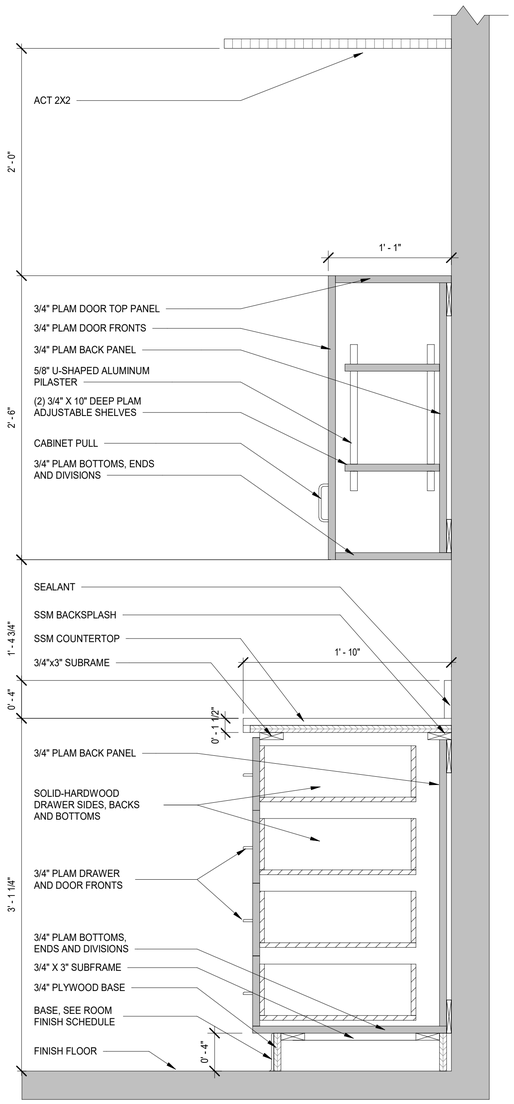
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BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

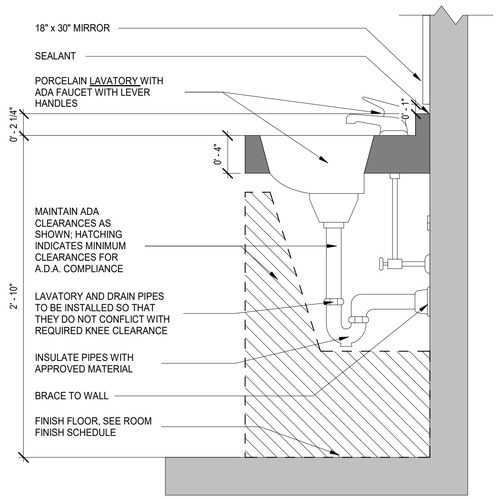
INTERIOR SECTION DETAILS CASEWORK AND MILLWORK

DRAWING NUMBER
A800

Plot Date: 4/27/2026 11:27:11 PM
Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt



1 PRINTING AREA TOP & BOTTOM CASEWORK DETAILS
SCALE: 1 1/2" = 1'-0"



2 LAVATORY SINK DETAIL
SCALE: 1 1/2" = 1'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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CONSTRUCTION DOCUMENTS

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

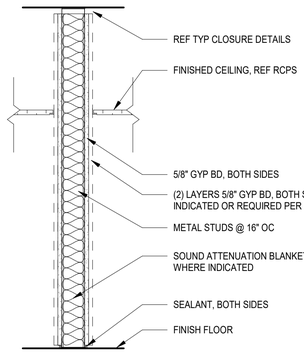
DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

INTERIOR SECTION DETAILS CASEWORK AND MILLWORK

DRAWING NUMBER
A801

Plot Date: 4/27/2026 11:27:11 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt

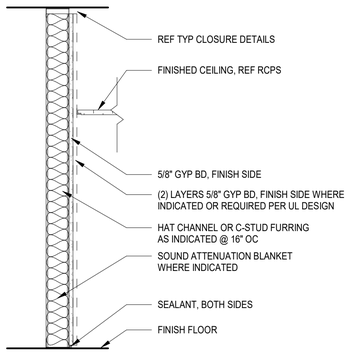


#S METAL C-STUD & GYP BD TO DECK

NOTES:
1. BRACE METAL STUDS AS PER MANUFACTURER REQUIREMENTS TO BUILDING STRUCTURE.
2. PROVIDE METAL CLIP ANGLES AS REQUIRED TO INSTALL WALLS ON UNEVEN SURFACES.

NON-RATED & RATED PARTITIONS

FIRE RATING:
UL DESIGN U465 - 1 HR
UL DESIGN U411 - 2 HR



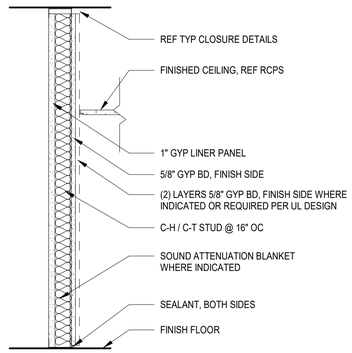
#H HAT CHANNEL FURRING & GYP BD TO DECK

#F C-STUD FURRING & GYP BD TO DECK

NOTES:
1. BRACE METAL STUDS AS PER MANUFACTURER REQUIREMENTS TO BUILDING STRUCTURE.
2. PROVIDE METAL CLIP ANGLES AS REQUIRED TO INSTALL WALLS ON UNEVEN SURFACES.

FURRING PARTITIONS

FIRE RATING:
UL DESIGN V497 - 1 HR
UL DESIGN V497 - 2 HR



#SW C-H / C-T STUD & GYP BD TO DECK

SHAFT WALL PARTITIONS

FIRE RATING:
UL DESIGN U499 - 1 HR
UL DESIGN U438 - 2 HR

PARTITION TYPES
SCALE: 1" = 1'-0"

STRUCTURE MATERIAL

STRUCTURE SIZE

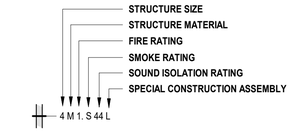
NOMINAL	HAT CHANNEL FURRING (H)	C-STUD FURRING (F)	C-STUD PARTITION (S)	SHAFTWALL PARTITION (SW)	WOOD STUD PARTITION (W)	WOOD FURRING (WF)	CONCRETE MASONRY UNIT (M)	CONCRETE (C)
0	7/8"	-	-		-	-	-	-
1	1 1/2"	1 5/8"	-		-	3/4"	-	-
2	-	2 1/2"	2 1/2"		2x2	2x2	-	-
3	-	3 5/8"	3 5/8"		2x3	2x3	-	-
4	-	-	4"		2x4	2x4	4"	4"
5	-	-	5 1/2"		-	-	-	5"
6	-	6"	6"		2x6	2x6	6"	6"
8	-	-	8"		-	-	8"	8"
10	-	-	-		-	-	10"	10"
12	-	-	-		-	-	12"	12"

FIRE RATING: *(IF BLANK, NONRATED ASSEMBLY)*
1: 1 HOUR FIRE RESISTANT (ULXXX)
2: 2 HOUR FIRE RESISTANT (ULXXX)
3: 3 HOUR FIRE RESISTANT (ULXXX)
4: 4 HOUR FIRE RESISTANT (ULXXX)

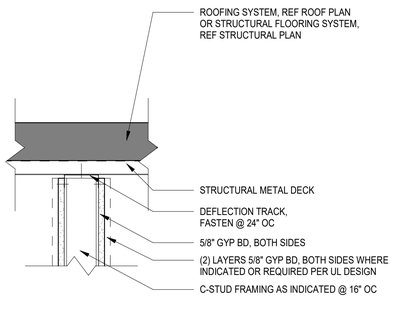
SMOKE RATING: *(IF BLANK, NONRATED ASSEMBLY)*
S: SMOKE RATED (ULXXX)

SOUND ISOLATION RATING: *(IF BLANK, NONRATED ASSEMBLY)*
A: GENERAL ATTENUATION
40: STC 40 (EXAMPLE)

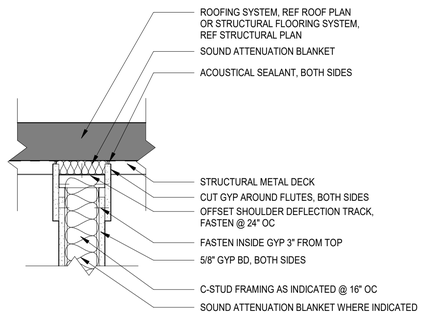
SPECIAL CONSTRUCTION ASSEMBLY: *(IF BLANK, N/A)*
L: LEAD LINED WALL ASSEMBLY



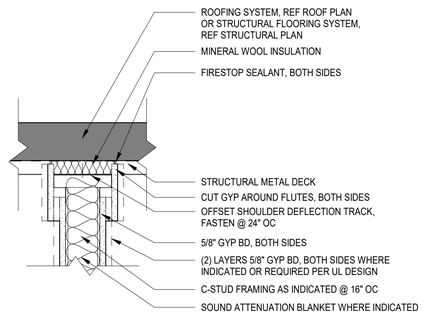
PARTITION SYMBOL
SCALE: 12" = 1'-0"



NON-RATED PARTITIONS

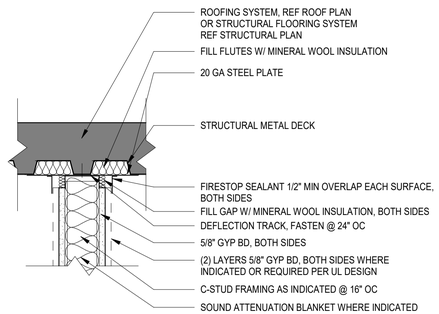


ACOUSTICAL PARTITIONS



FIRE RATINGS:
UL DESIGN HW-D-0060 - 1 HR & 2 HR ASSEMBLY

RATED PARTITIONS (PERPENDICULAR TO DECKING)



FIRE RATINGS:
UL DESIGN HW-D-0264 - 1 HR & 2 HR ASSEMBLY

RATED PARTITIONS (PARALLEL TO DECKING)

PARTITION CLOSURE DETAILS
SCALE: 1 1/2" = 1'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MW4
DRAWN: LDG
CHECKED: DEK
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

INTERIOR PARTITION TYPES AND DETAILS

DRAWING NUMBER
A900

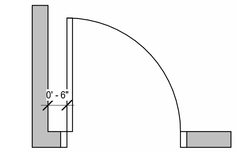
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DOOR SCHEDULE

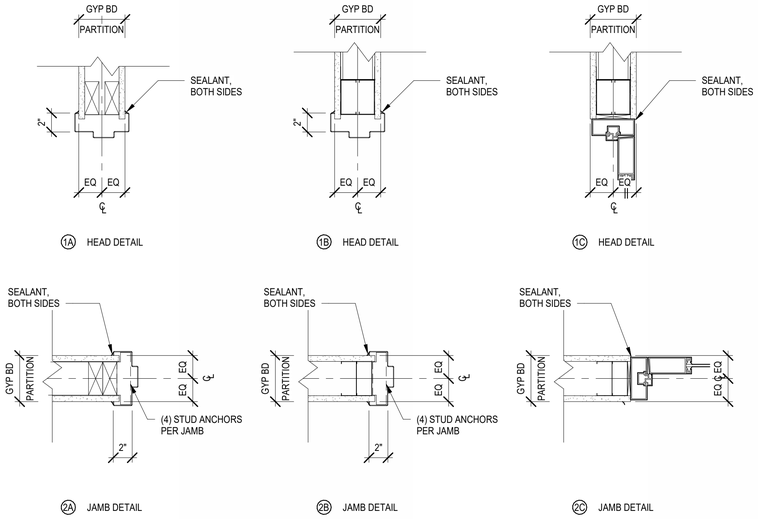
DOOR NO.	PANEL WIDTH	PANEL HEIGHT	PANEL MATERIAL	PANEL TYPE	PANEL GLASS	FRAME MATERIAL	FRAME TYPE	FRAME GLASS	ASSY RATING	DETAILS HEAD	DETAILS JAMB	REMARKS
1ST FLOOR- EXISTING												
100A	6' - 0"	7' - 0"	AL	GG	G2	AL	1			6/A920	7/A920	
101A	6' - 0"	7' - 0"	AL	GG	G2	AL	1			1C	2C	
101B	6' - 0"	7' - 0"	AL	GG	G4	AL	1		1	1C	2C	
101C	3' - 0"	7' - 0"	AL	2G	G4	AL	1		1			ACCESS CONTROL READER & STRIKE
101D	6' - 0"	7' - 0"	AL	GG	G4	AL	1		1	1C	2C	
102	3' - 0"	7' - 0"	AL	2G	G2	AL	2	G2		6/A920	7/A920	
105	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B		EXISTING DOOR w/ NEW HARDWARE, ACCESS CONTROL READER & STRIKE
110	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
111	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
112	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	REUSE EXISTING IF IN GOOD CONDITION
115	3' - 0"	7' - 0"	WD	F	-	HM	1		1	1B	2B	
127	3' - 0"	7' - 0"	WD	F	-	HM	2		1			
139	3' - 0"	7' - 0"	WD	F	-	HM	3	G3		1B	2B	
140	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	ACCESS CONTROL READER & STRIKE
141	3' - 6"	7' - 0"	HM	F	-	HM	2			4/A920	5/A920	
142	6' - 0"	7' - 0"	WD	FF		HM	1			1B	2B	
143A	3' - 0"	7' - 0"	AL	2G	G2	AL	1	G2		1C	2C	
143B	6' - 0"	7' - 0"	WD	FF		HM	1			1B	2B	
143C	3' - 0"	7' - 0"	AL	2G	G2	AL	1	G2		1C	2C	ACCESS CONTROL READER & STRIKE
143D	3' - 0"	7' - 0"	HM	F	-	HM	1		1			ACCESS CONTROL READER & STRIKE
143F	3' - 0"	7' - 0"	AL	2G	G2	AL	2	G2		6/A920	3/A920	
144	3' - 0"	7' - 0"	AL	2G	G2	AL	2	G2		6/A920	3/A920	
145	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
146	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
2ND FLOOR - EXISTING												
222	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
2ND FLOOR - ADDITION												
237	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
238	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
239	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
240	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
241	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
242	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
243	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
244	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
245	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
247	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
248	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
249	3' - 0"	7' - 0"	WD	F	-	HM	1		1	1B	2B	
250	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	
251	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
252	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
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254	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
255	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
256	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
257	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
258	3' - 0"	7' - 0"	WD	N	G3	HM	1			1B	2B	
259	3' - 0"	7' - 0"	WD	F	-	HM	1		-	1B	2B	

GLAZING LEGEND:

- G1 1" INSULATED LOW-E GLAZING
- G2 1" INSULATED LOW-E TEMPERED GLAZING
- G3 1/4" CLEAR TEMPERED GLASS
- G4 FIRE RATED SAFETY GLAZING

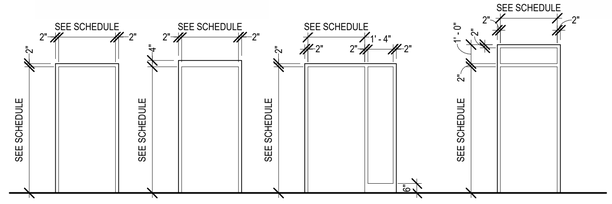


1 TYPICAL DOOR LOCATION
SCALE: 1/2" = 1'-0"

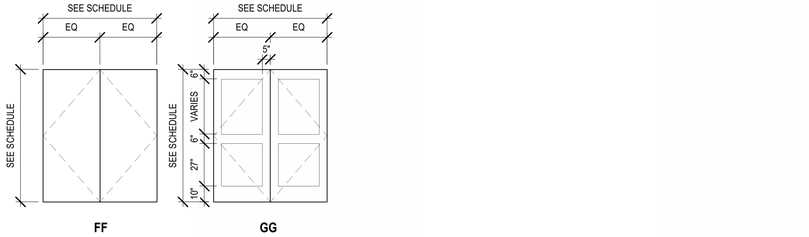


1A HEAD DETAIL
1B HEAD DETAIL
1C HEAD DETAIL
2A JAMB DETAIL
2B JAMB DETAIL
2C JAMB DETAIL

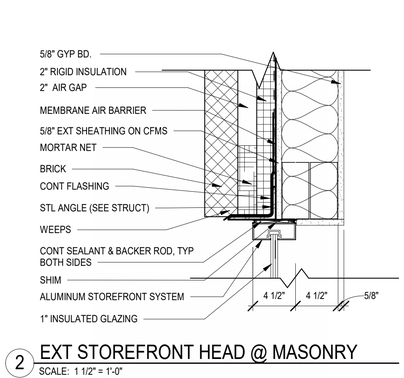
DOOR FRAME DETAILS
SCALE: 1 1/2" = 1'-0"



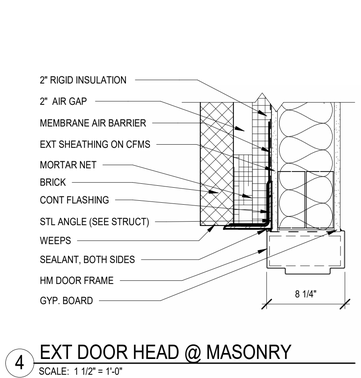
FRAME TYPES
SCALE: 1/4" = 1'-0"



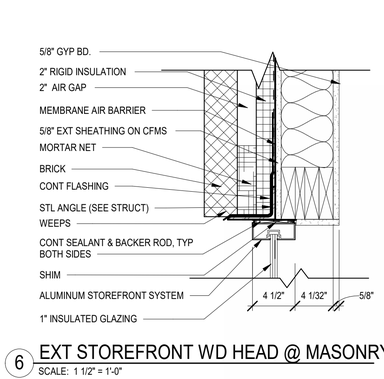
DOOR TYPES
SCALE: 1/4" = 1'-0"



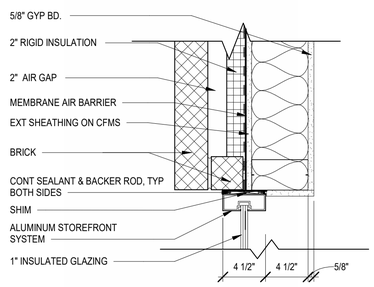
2 EXT STOREFRONT HEAD @ MASONRY
SCALE: 1 1/2" = 1'-0"



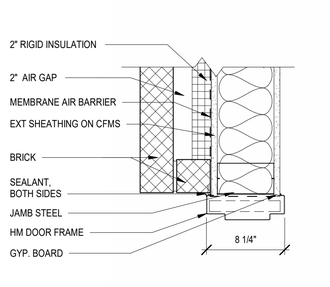
4 EXT DOOR HEAD @ MASONRY
SCALE: 1 1/2" = 1'-0"



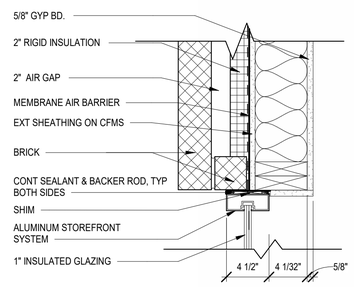
6 EXT STOREFRONT WD HEAD @ MASONRY
SCALE: 1 1/2" = 1'-0"



3 EXT STOREFRONT JAMB @ MASONRY
SCALE: 1 1/2" = 1'-0"



5 EXT DOOR JAMB @ MASONRY
SCALE: 1 1/2" = 1'-0"



7 EXT STOREFRONT WD JAMB @ MASONRY
SCALE: 1 1/2" = 1'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

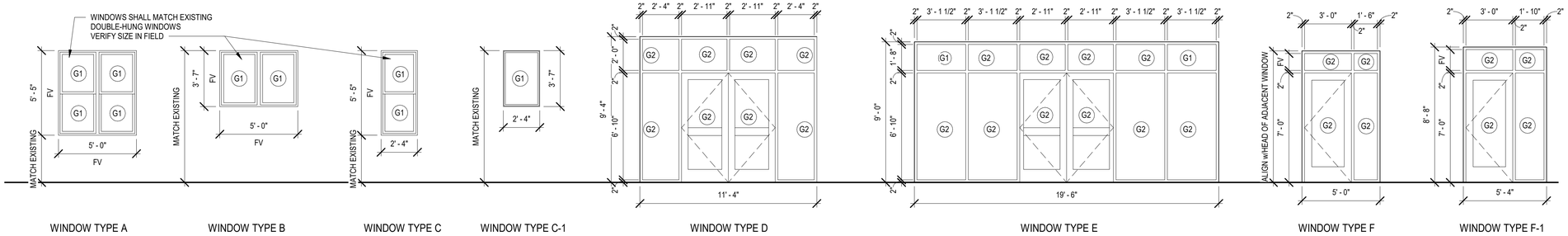
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DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

DOOR SCHEDULE AND DETAILS

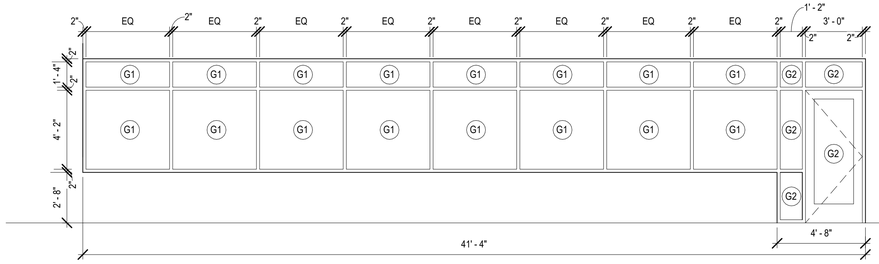
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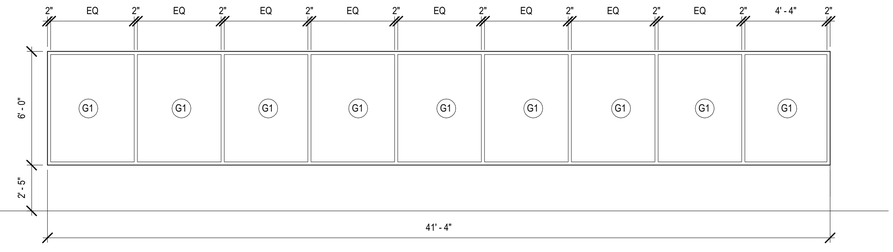
WINDOW TYPES



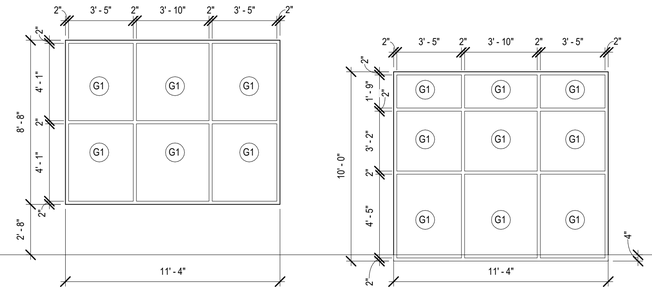
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WINDOW TYPE G

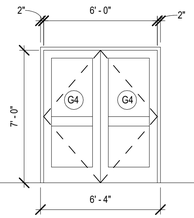


WINDOW TYPE H

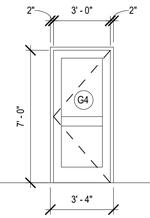


WINDOW TYPE K

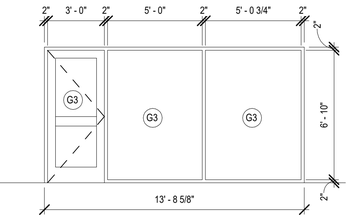
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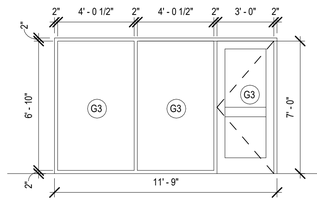
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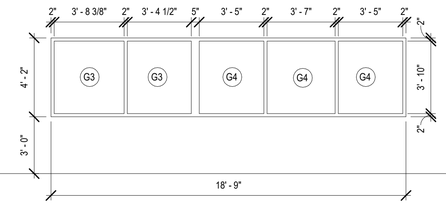
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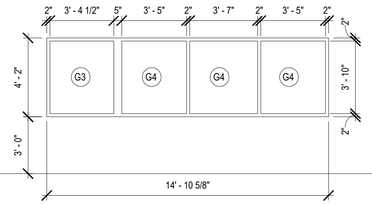
WINDOW TYPE O



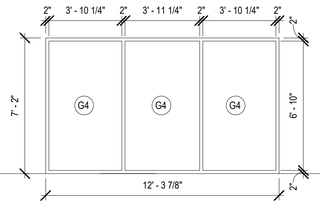
WINDOW TYPE P



WINDOW TYPE Q



WINDOW TYPE R



WINDOW TYPE S

GLAZING LEGEND:

- G1 — 1" INSULATED LOW-E GLAZING
- G2 — 1" INSULATED LOW-E TEMPERED GLAZING
- G3 — 1/4" CLEAR TEMPERED GLASS
- G4 — FIRE RATED SAFETY GLAZING

Brown AND Caldwell

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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REVISIONS

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LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	Designer
DRAWN:	Author
CHECKED:	Checker
CHECKED:	
APPROVED:	Approver

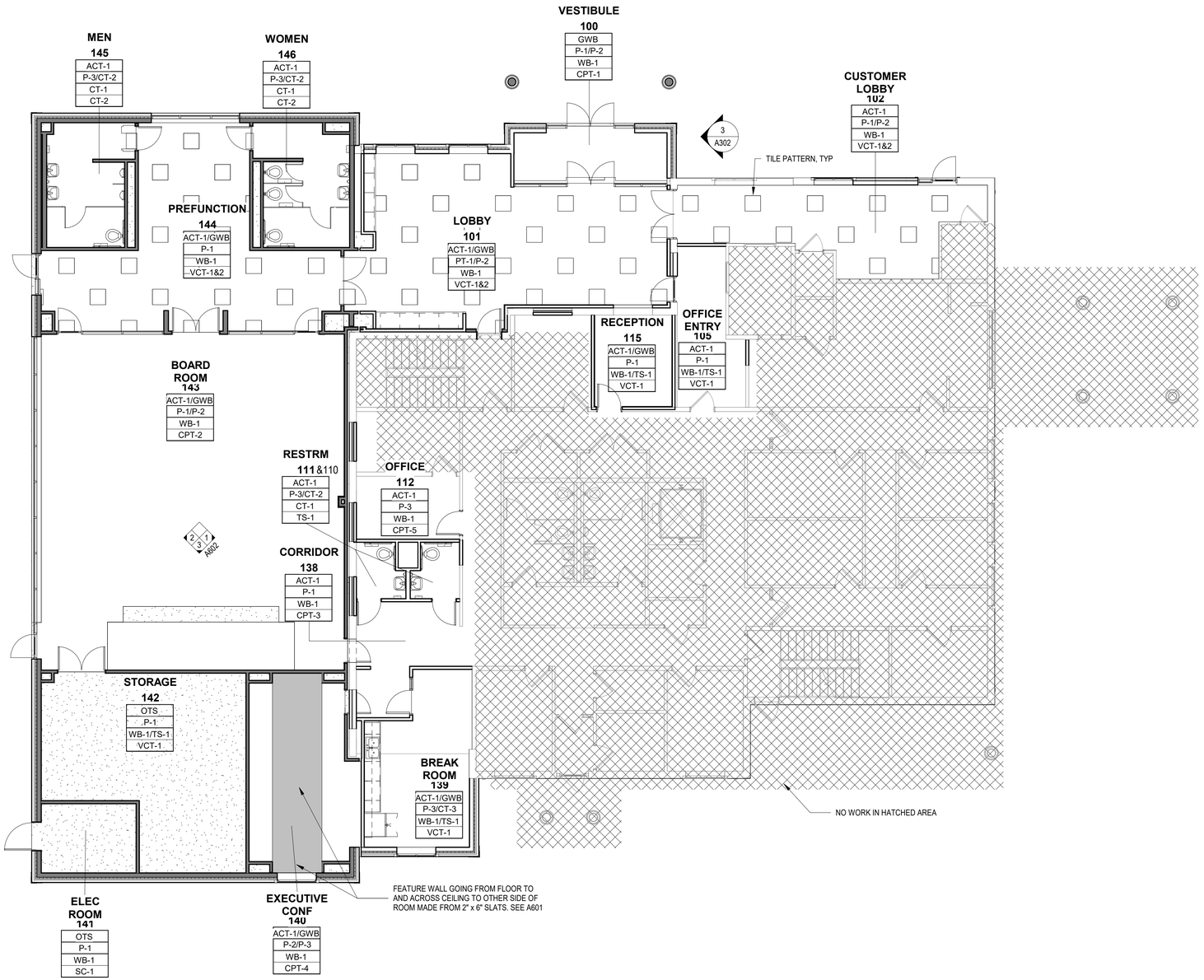
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

WINDOW TYPES

DRAWING NUMBER
A921

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N

1 FIRST FLOOR FINISH PLAN

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

GENERAL FINISH NOTES:

CONTRACTOR TO SUBMIT (3) SETS OF 8" X 10" SAMPLES TO ARCHITECT FOR APPROVAL, PRIOR TO ORDERING. THIS IS INCLUSIVE OF ALL FINISH SAMPLES.

FLOOR FINISH NOTES:

1. VCT FLOORING IS TO BE RUN IN A MONOLITHIC PATTERN.
2. ALL MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURERS' RECOMMENDATIONS.
3. PROVIDE VINYL REDUCER STRIPS BETWEEN CARPET AND VINYL FLOORING; STRIPS SHOULD BE CENTERED UNDER DOORS; COLOR TO BE SELECTED BY ARCHITECT.
4. CARPET SEAMING TO BE COORDINATED FOR PROPER MATCHING OF CARPET PATTERNS.
5. CONTRACTOR TO CORRECTLY TREAT ALL SEAM AND EDGES ACCORDING TO MANUFACTURERS RECOMMENDED INSTALLATION METHODS AT ALL CARPET-TO-CARPET TRANSITIONS. CONTRACTOR TO SUBMIT SEAMING DIAGRAM TO ARCHITECT FOR APPROVAL; SEAMING DIAGRAM SUBJECT TO ADJUSTMENT OR CHANGE AS REQUIRED.
6. CONTRACTOR TO COORDINATE ALL DOOR SWINGS WITH FLOOR MATERIAL FOR FREE AND CLEAR SWING.
7. CONTRACTOR TO FLASH PATCH ALL FLOORS AS REQUIRED TO SATISFY ALL ASSEMBLY AND INSTALLATION REQUIREMENTS.
8. CLEAN ALL GLUE FROM VCT FLOORING INSTALLATION AND PROVIDE ONE COAT OF MANUFACTURER'S APPROVED POLISHED WAX FINISH. FLASH PATCH AT ALL TRANSITIONS.
9. CARPET TO TILE TRANSITION STRIP - SCHLUTER EDGE STRIP. TRANSITION STRIP TO MATCH TILE HEIGHT.
10. ALL GROUT TO BE EPOXY BASED (NOT CEMENT BASED) UNLESS OTHERWISE NOTED.
11. ALL VINYL WALL BASE SHALL BE PROVIDED IN CONTINUOUS RUNS.
12. ALL STATIC DISSIPATIVE TILE TO BE CONNECTED TO AN ELECTRICAL GROUND (ie: BUILDING STEEL OR GROUND BUS BAR). GC TO COORDINATE WITH ELECTRICAL CONTRACTOR.

WALL FINISH NOTES:

1. ALL MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURERS' RECOMMENDATIONS.
2. ALL FINISHES AT CLOSETS TO MATCH THE ROOM IN WHICH THEY OCCUR.
3. ALL PAINT GRADE CLOSET SHELVES SHALL RECEIVE THREE COATS OF SEMI-GLOSS PAINT TO MATCH THE WALL IN WHICH THEY OCCUR UNLESS OTHERWISE NOTED.
4. ALL EXISTING METAL DOORS AND FRAMES TO BE BRUSHED, SANDED AND FILLED AS REQUIRED FOR A "LIKE NEW" APPEARANCE AND SUBJECT TO ARCHITECT'S APPROVAL IN FIELD. DOORS TO BE PROPERLY PRIMED PRIOR TO RECEIVING FINAL FINISH PAINT GRADE.
5. ALL FIRE EXTINGUISHER CABINETS AND FIRE STANDPIPE CABINETS TO BE PRIMED AND PAINTED IN A SEMI-GLOSS FINISH TO MATCH THE WALL FINISH IN WHICH THEY OCCUR UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO VERIFY EXISTING CONDITION OF PERIMETER WINDOW-SYSTEM SILLS AND BASE MULLIONS AT START OF CONSTRUCTION AND REPAIR TO "LIKE NEW" CONDITION.
7. PATCH AND REPAIR WALL SURFACES AS REQUIRED TO PROVIDE SMOOTH SURFACE READY TO RECEIVE NEW WALLCOVERING.
8. THERE SHALL BE A MINIMUM NUMBER OF (1) PRIMER COAT AND (2) FINISH COATS. MAXIMUM NUMBER OF COATS SHALL BE AS REQUIRED TO OBTAIN UNIFORM COLOR AND SHEEN.
9. PAINT SHALL BE LATEX EGGSHELL/FLAT (SELECT ONE) FINISH AT GYP BD PARTITIONS. SEMI-GLOSS FINISH AT FLOORS, FRAME AND CONVECTORS, AND FLAT FINISH AT CEILINGS, UNLESS OTHERWISE NOTED.

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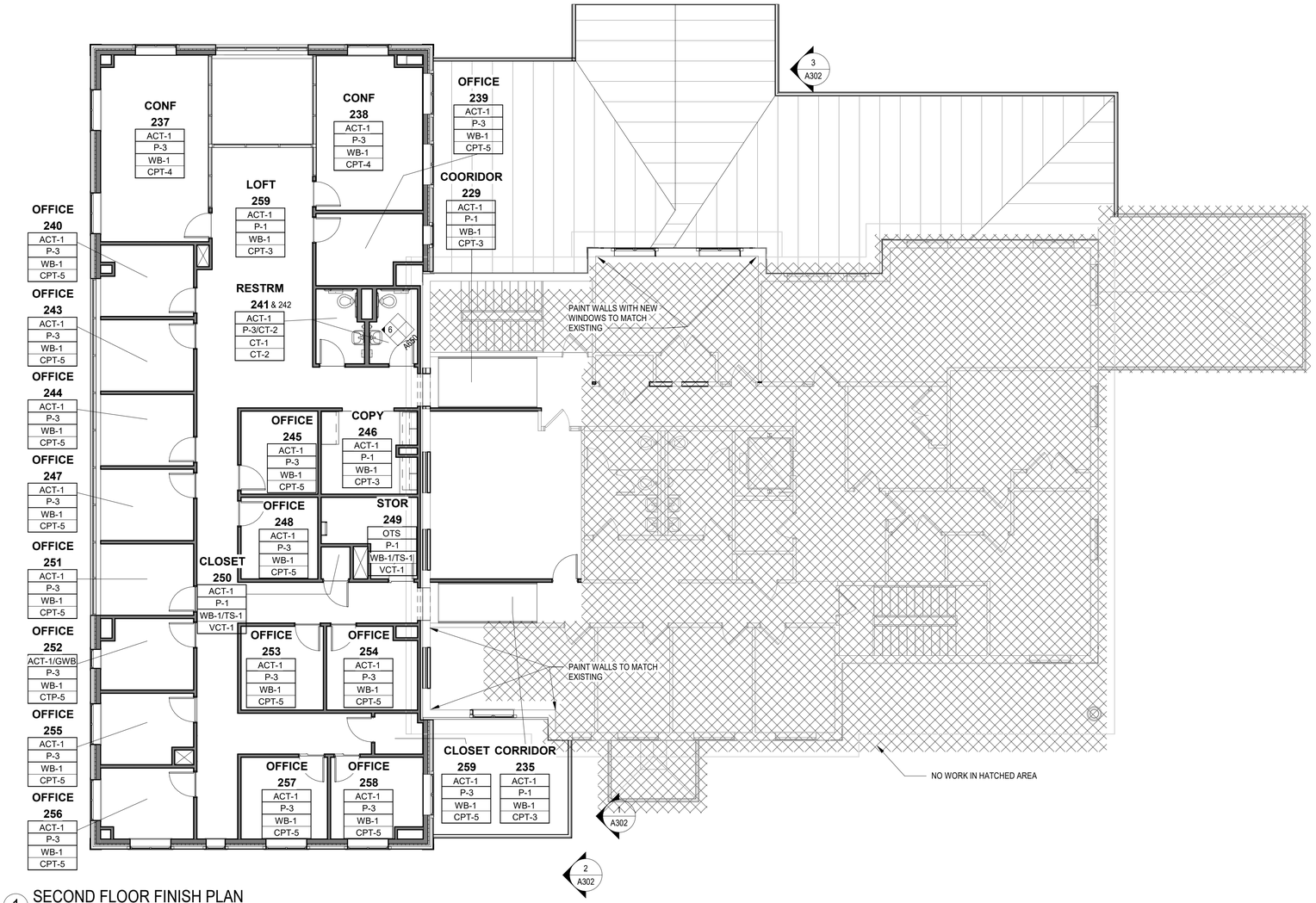
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DRAWN: LDG
CHECKED: DEK
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APPROVED: Approver
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

FIRST FLOOR FINISH PLAN

DRAWING NUMBER
A950

Plot Date: 4/27/2026 11:27:15 PM Path: C:\Users\mw4\OneDrive - Wendel\Documents\616202-NCWSA-ARCH_V25(Central)_mwordenFW4J7.rvt



1 SECOND FLOOR FINISH PLAN

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

GENERAL FINISH NOTES:

CONTRACTOR TO SUBMIT (3) SETS OF 8" X 10" SAMPLES TO ARCHITECT FOR APPROVAL, PRIOR TO ORDERING. THIS IS INCLUSIVE OF ALL FINISH SAMPLES.

FLOOR FINISH NOTES:

1. VCT FLOORING IS TO BE RUN IN A MONOLITHIC PATTERN.
2. ALL MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURERS' RECOMMENDATIONS.
3. PROVIDE VINYL REDUCER STRIPS BETWEEN CARPET AND VINYL FLOORING; STRIPS SHOULD BE CENTERED UNDER DOORS; COLOR TO BE SELECTED BY ARCHITECT.
4. CARPET SEAMING TO BE COORDINATED FOR PROPER MATCHING OF CARPET PATTERNS.
5. CONTRACTOR TO CORRECTLY TREAT ALL SEAM AND EDGES ACCORDING TO MANUFACTURERS RECOMMENDED INSTALLATION METHODS AT ALL CARPET-TO-CARPET TRANSITIONS. CONTRACTOR TO SUBMIT SEAMING DIAGRAM TO ARCHITECT FOR APPROVAL; SEAMING DIAGRAM SUBJECT TO ADJUSTMENT OR CHANGE AS REQUIRED.
6. CONTRACTOR TO COORDINATE ALL DOOR SWINGS WITH FLOOR MATERIAL FOR FREE AND CLEAR SWING.
7. CONTRACTOR TO FLASH PATCH ALL FLOORS AS REQUIRED TO SATISFY ALL ASSEMBLY AND INSTALLATION REQUIREMENTS.
8. CLEAN ALL GLUE FROM VCT FLOORING INSTALLATION AND PROVIDE ONE COAT OF MANUFACTURER'S APPROVED POLISHED WAX FINISH. FLASH PATCH AT ALL TRANSITIONS.
9. CARPET TO TILE TRANSITION STRIP - SCHLUTER EDGE STRIP. TRANSITION STRIP TO MATCH TILE HEIGHT.
10. ALL GROUT TO BE EPOXY BASED (NOT CEMENT BASED) UNLESS OTHERWISE NOTED.
11. ALL VINYL WALL BASE SHALL BE PROVIDED IN CONTINUOUS RUNS.
12. ALL STATIC DISSIPATIVE TILE TO BE CONNECTED TO AN ELECTRICAL GROUND (ie: BUILDING STEEL OR GROUND BUS BAR). GC TO COORDINATE WITH ELECTRICAL CONTRACTOR.

WALL FINISH NOTES:

1. ALL MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURERS' RECOMMENDATIONS.
2. ALL FINISHES AT CLOSETS TO MATCH THE ROOM IN WHICH THEY OCCUR.
3. ALL PAINT GRADE CLOSET SHELVES SHALL RECEIVE THREE COATS OF SEMI-GLOSS PAINT TO MATCH THE WALL IN WHICH THEY OCCUR UNLESS OTHERWISE NOTED.
4. ALL EXISTING METAL DOORS AND FRAMES TO BE BRUSHED, SANDED AND FILLED AS REQUIRED FOR A "LIKE NEW" APPEARANCE AND SUBJECT TO ARCHITECT'S APPROVAL IN FIELD. DOORS TO BE PROPERLY PRIMED PRIOR TO RECEIVING FINAL FINISH PAINT GRADE.
5. ALL FIRE EXTINGUISHER CABINETS AND FIRE STANDPIPE CABINETS TO BE PRIMED AND PAINTED IN A SEMI-GLOSS FINISH TO MATCH THE WALL FINISH IN WHICH THEY OCCUR UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO VERIFY EXISTING CONDITION OF PERIMETER WINDOW-SYSTEM SILLS AND BASE MULLIONS AT START OF CONSTRUCTION AND REPAIR TO "LIKE NEW" CONDITION.
7. PATCH AND REPAIR WALL SURFACES AS REQUIRED TO PROVIDE SMOOTH SURFACE READY TO RECEIVE NEW WALLCOVERING.
8. THERE SHALL BE A MINIMUM NUMBER OF (1) PRIMER COAT AND (2) FINISH COATS. MAXIMUM NUMBER OF COATS SHALL BE AS REQUIRED TO OBTAIN UNIFORM COLOR AND SHEEN.
9. PAINT SHALL BE LATEX EGGSHELL/FLAT (SELECT ONE) FINISH AT GYP BD PARTITIONS. SEMI-GLOSS FINISH AT FLOORS, FRAME AND CONVECTORS, AND FLAT FINISH AT CEILINGS, UNLESS OTHERWISE NOTED.

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FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

SECOND FLOOR FINISH PLAN

DRAWING NUMBER
A951

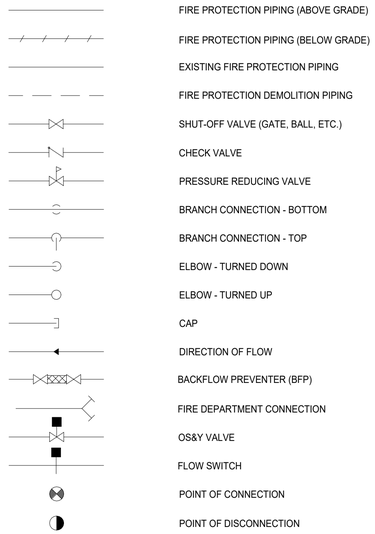
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ROOM NUMBER	ROOM NAME	HAZARD CLASSIFICATION	SYSTEM TYPE
100	VESTIBULE	LIGHT HAZARD	WET
101	LOBBY	LIGHT HAZARD	WET
110	RESTROOM	LIGHT HAZARD	WET
111	RESTROOM	LIGHT HAZARD	WET
112	OFFICE	LIGHT HAZARD	WET
113	SERVER ROOM	ORDINARY HAZARD GROUP 1	WET
140	EXECUTIVE CONFERENCE	LIGHT HAZARD	WET
141	ELEC ROOM	ORDINARY HAZARD GROUP 1	WET
142	STORAGE	ORDINARY HAZARD GROUP 1	WET
143	BOARD ROOM	LIGHT HAZARD	WET
144	PREFUNCTION SPACE	LIGHT HAZARD	WET
145	MENS RESTROOM	LIGHT HAZARD	WET
146	WOMENS RESTROOM	LIGHT HAZARD	WET
222	OFFICE	LIGHT HAZARD	WET
237	CONFERENCE	LIGHT HAZARD	WET
238	CONFERENCE	LIGHT HAZARD	WET
239	OFFICE	LIGHT HAZARD	WET
240	OFFICE	LIGHT HAZARD	WET
241	RESTROOM	LIGHT HAZARD	WET
242	RESTROOM	LIGHT HAZARD	WET
243	OFFICE	LIGHT HAZARD	WET
244	OFFICE	LIGHT HAZARD	WET
245	OFFICE	LIGHT HAZARD	WET
246	COPY	LIGHT HAZARD	WET
247	OFFICE	LIGHT HAZARD	WET
248	OFFICE	LIGHT HAZARD	WET
249	STORAGE	ORDINARY HAZARD GROUP 1	WET
250	CLOSET	ORDINARY HAZARD GROUP 1	WET
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252	OFFICE	LIGHT HAZARD	WET
253	OFFICE	LIGHT HAZARD	WET
254	OFFICE	LIGHT HAZARD	WET
255	OFFICE	LIGHT HAZARD	WET
256	OFFICE	LIGHT HAZARD	WET
257	OFFICE	LIGHT HAZARD	WET
258	OFFICE	LIGHT HAZARD	WET
259	LOFT	LIGHT HAZARD	WET
260	CORRIDOR	LIGHT HAZARD	WET
261	CORRIDOR	LIGHT HAZARD	WET
262	CORRIDOR	LIGHT HAZARD	WET
263	CORRIDOR	LIGHT HAZARD	WET

FIRE PROTECTION ABBREVIATIONS

AC	AIR COMPRESSOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
DPV	DRY PIPE VALVE
EC	ELECTRICAL CONTRACTOR
FACP	FIRE ALARM CONTROL PANEL
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FP	FIRE PUMP
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
MC	MECHANICAL CONTRACTOR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
PC	PLUMBING CONTRACTOR
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW

FIRE PROTECTION SYMBOLS

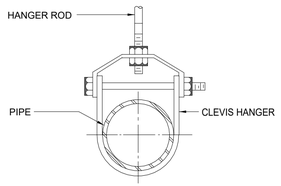


GENERAL NOTES

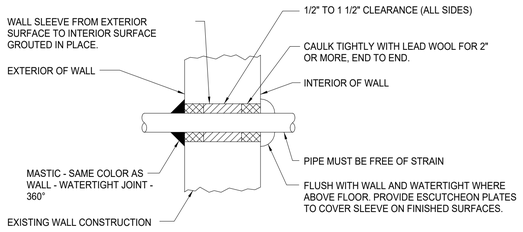
1. THIS LEGEND SHEET IS FOR CONTRACTOR REFERENCE ONLY. NOT ALL SYMBOLS AND/OR ABBREVIATIONS MAY APPLY TO THIS PARTICULAR PROJECT. ANY ADDITIONS OR OMISSIONS FROM THIS LEGEND SHEET DOES NOT IMPLY INCLUSION AND/OR EXCLUSION OF ANY PARTICULAR ITEM FROM THE PROJECT.
2. THE PLANS ARE DIAGRAMMATIC AND INDICATE ONLY THE SIZE AND GENERAL ARRANGEMENT OF PIPING AND EQUIPMENT. EXACT LOCATION OF ALL ELEMENTS SHALL BE DETERMINED AS WORK PROGRESSES, IN COOPERATION AND COORDINATION WITH THE WORK OF ALL OTHER TRADES. IT IS NOT INTENDED TO SHOW EVERY ITEM OF WORK OR MINOR PIECE OF EQUIPMENT, BUT THE CONTRACTOR SHALL FURNISH AND INSTALL WITHOUT ADDITIONAL REMUNERATION ANY COMPONENT NECESSARY TO COMPLETE THE SYSTEM IN ACCORDANCE WITH THE BEST PRACTICE OF THE TRADE.
3. ITEMS OF WORK OR EQUIPMENT SHOWN ON THE DRAWINGS ONLY, OR CALLED FOR IN THE SPECIFICATIONS ONLY, SHALL BE FURNISHED AND INSTALLED IN THE SAME MANNER AS IF THEY APPEARED ON BOTH THE DRAWINGS AND SPECIFICATIONS.
4. DRAWINGS DO NOT INDICATE ALL OFFSETS, CHANGES IN ELEVATIONS, ETC. WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL MAKE SUCH CHANGES IN PIPING AND LOCATION OF EQUIPMENT, ETC. TO ACCOMMODATE WORK WITH THAT OF OTHER CONTRACTORS.
5. INSTALL EQUIPMENT AND PIPING TO AVOID INTERFERENCE WITH THE OPERATION OR SERVICING AND MAINTENANCE OF EQUIPMENT.
6. ALL COSTS FOR CUTTING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS AND FLOORS TO ACCOMMODATE THE INSTALLATION OF FIRE PROTECTION WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS INDICATED OTHERWISE. MATERIALS FOR RESTORATION OF EXISTING SURFACES SHALL MATCH THE EXISTING MATERIALS.
7. PIPES PENETRATING FIRE WALLS AND FLOORS SHALL BE FIRESTOPPED AS SPECIFIED. REFER TO THE ARCHITECTURAL DRAWINGS FOR FIRE WALL AND FLOOR LOCATIONS.
8. ALL PHYSICAL ATTRIBUTES OF EQUIPMENT AND DEVICES ARE BASED ON THOSE MANUFACTURERS LISTED IN THE SPECIFICATIONS AND/OR THE EQUIPMENT SCHEDULES. THE CONTRACTOR IS RESPONSIBLE FOR ALL CHANGES BROUGHT ABOUT BY USE OF ITEMS BY OTHER MANUFACTURERS. THE ARCHITECT/ENGINEER HAS RESERVED THE RIGHT TO REJECT ITEMS BY OTHER MANUFACTURERS IF THOSE ITEMS DO NOT MATCH THE PHYSICAL ATTRIBUTES OF THE MANUFACTURERS LISTED.
9. COMPLY WITH THE GEORGIA STATE BUILDING CODES, NFPA 13 AND OTHER APPLICABLE CODES.
10. COORDINATE CONNECTION OF SUPERVISORY SWITCHES, FLOW SWITCHES, AND OTHER SIMILAR DEVICES TO THE FIRE ALARM SYSTEM.
11. FIRE PROTECTION SYSTEM SHALL BE A DELEGATED DESIGN AS DEFINED IN THE SPECIFICATIONS. SYSTEM TO BE HYDRAULICALLY DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.

CODE REVIEW

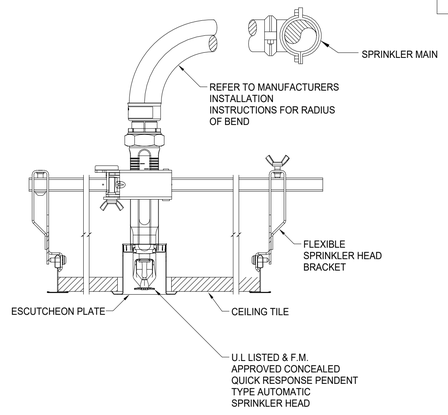
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PROJECT DESIGN DATE	03-20-2026
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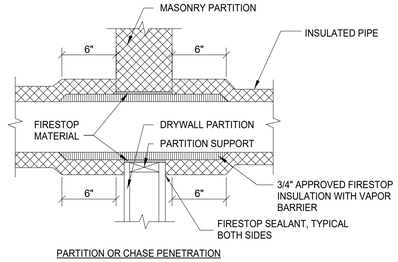
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2 PIPE SLEEVE THROUGH INTERIOR WALL-ABOVE GRADE
SCALE: NOT TO SCALE



3 CONCEALED PENDENT SPRINKLER & FLEXBILE HOSE DETAIL
SCALE: NOT TO SCALE



PARTITION OR CHASE PENETRATION

4 PIPE PENETRATION OF FIRE WALL
SCALE: NOT TO SCALE

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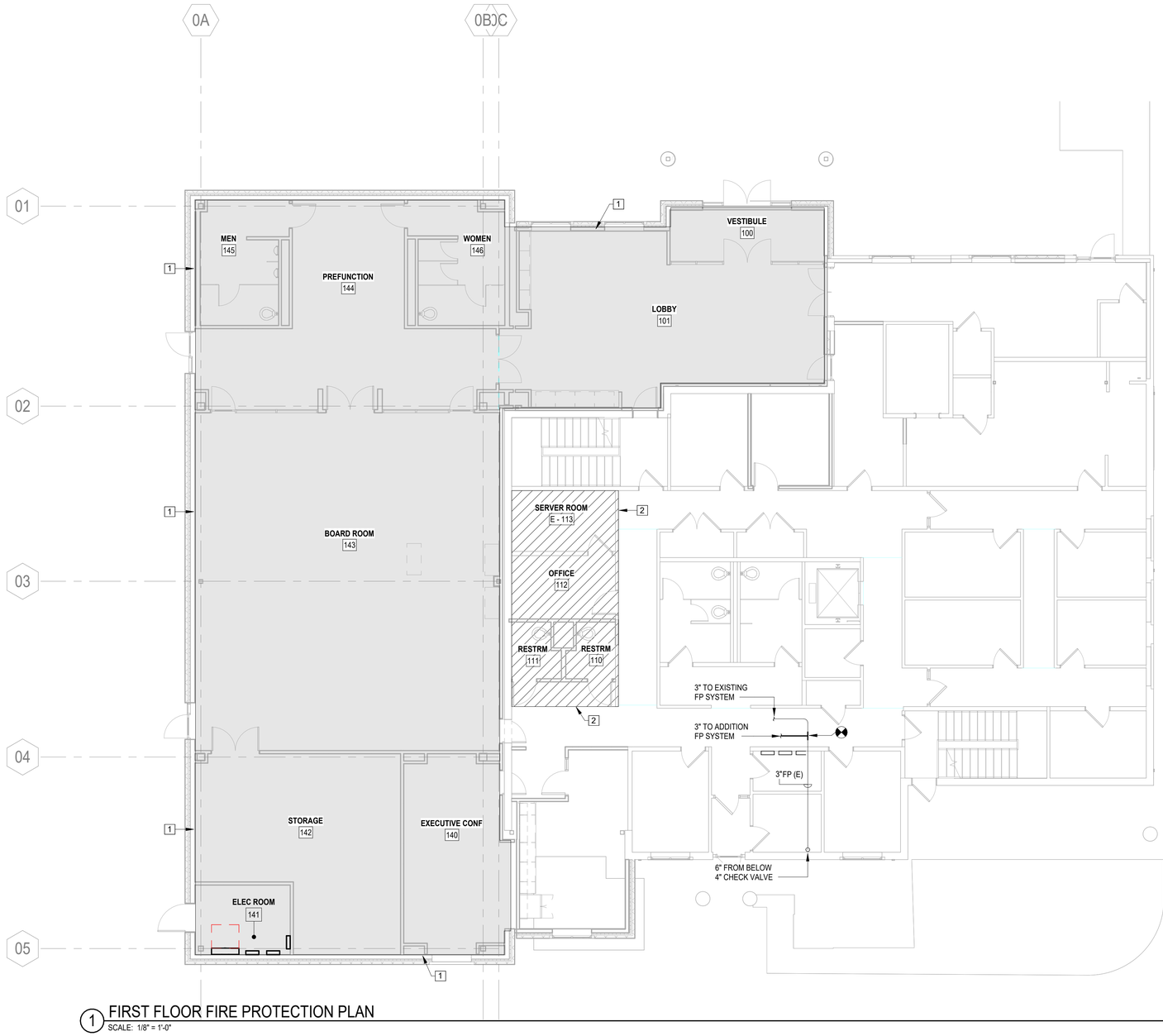
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APPROVED: RFJ
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

SYMBOLS, NOTES, AND ABBREVIATIONS

DRAWING NUMBER
FP001

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1 FIRST FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM EXISTING PIPING SIZES AND LOCATIONS. NOTIFY ENGINEER OF SIGNIFICANT DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

B. FIRE PROTECTION WORK IS TO BE A DELEGATED DESIGN. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND INSTALLATION OF A COMPLETE AND OPERABLE NFPA 13 COMPLIANT SPRINKLER SYSTEM WITHIN THE AREA OF WORK SHOWN. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

CONSTRUCTION NOTES:

1. SHADED AREA OF WORK INDICATES THE AREA OF NEW CONSTRUCTION. THIS AREA SHALL BE PROVIDED WITH A NEW NFPA 13 SPRINKLER SYSTEM THROUGHOUT. EXTEND FIRE PROTECTION PIPING FROM THE EXISTING MAIN IN THE FIRST FLOOR MECHANICAL ROOM.

2. HATCHED AREA OF WORK INDICATES THE AREA THAT HAS CURRENT SPRINKLER PROTECTION THAT WILL NEED TO BE REWORKED TO PROVIDE PROPER COVERAGE FOR NEW ROOM AND CEILING LAYOUT.

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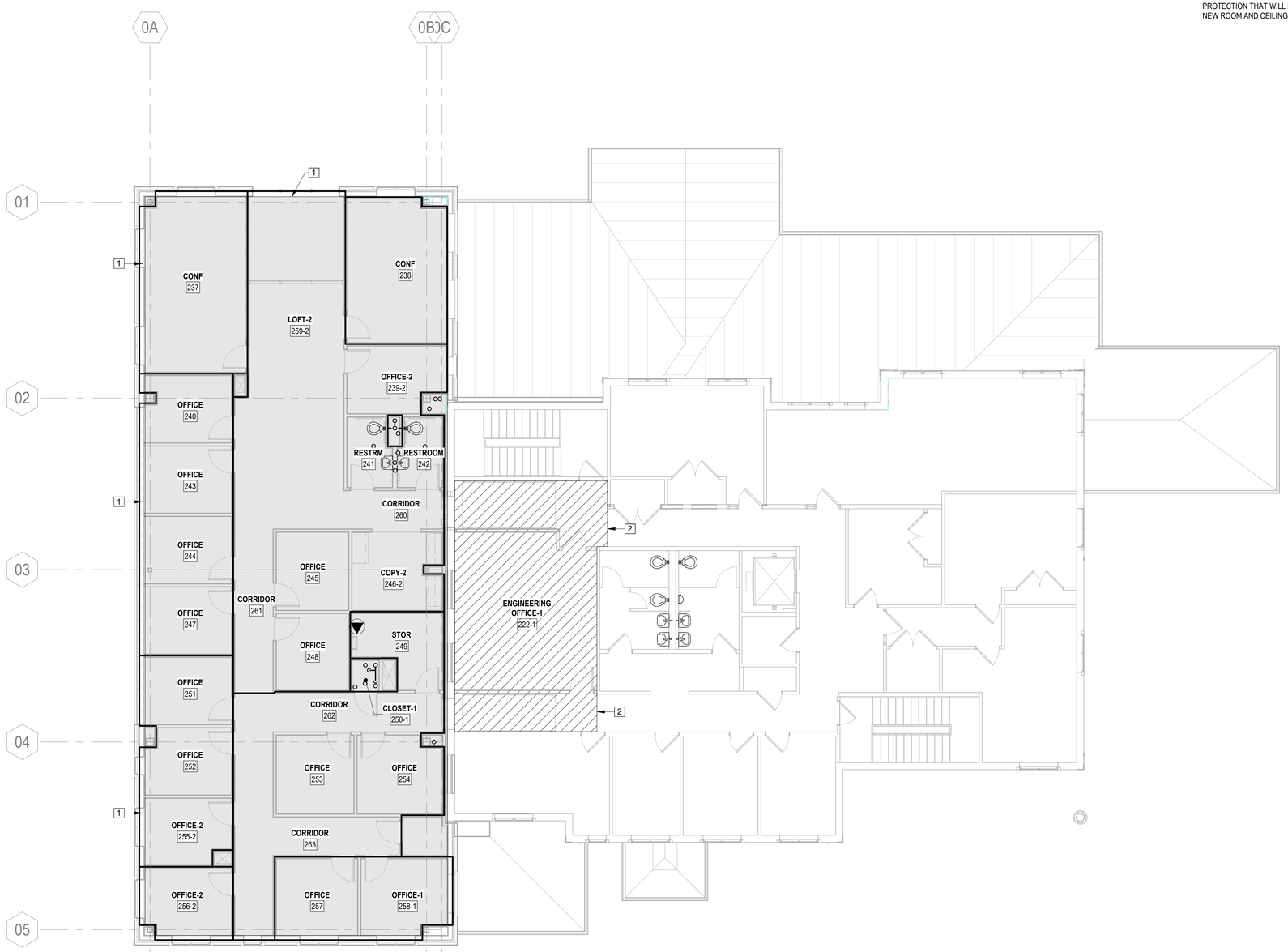
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616202
CLIENT PROJECT NUMBER

FIRST FLOOR PLAN

DRAWING NUMBER
FP101

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Plot Date: 4/27/2026 3:02:16 PM



1 SECOND FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM EXISTING PIPING SIZES AND LOCATIONS. NOTIFY ENGINEER OF SIGNIFICANT DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

B. FIRE PROTECTION WORK IS TO BE A DELEGATED DESIGN. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND INSTALLATION OF A COMPLETE AND OPERABLE NFPA 13 COMPLIANT SPRINKLER SYSTEM WITHIN THE AREA OF WORK SHOWN. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

CONSTRUCTION NOTES:

1. SHADED AREA OF WORK INDICATES THE AREA OF NEW CONSTRUCTION. THIS AREA SHALL BE PROVIDED WITH A NEW NFPA 13 SPRINKLER SYSTEM THROUGHOUT. EXTEND FIRE PROTECTION PIPING FROM THE EXISTING MAIN IN THE FIRST FLOOR MECHANICAL ROOM.

2. HATCHED AREA OF WORK INDICATES THE AREA THAT HAS CURRENT SPRINKLER PROTECTION THAT WILL NEED TO BE REWORKED TO PROVIDE PROPER COVERAGE FOR NEW ROOM AND CEILING LAYOUT.

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CLIENT PROJECT NUMBER

SECOND FLOOR PLAN

DRAWING NUMBER
FP102

Plot Date: 4/27/2026 3:02:17 PM Path: Autodesk Docs://NCWSA Admin Bldg_V25/616202-NCWSA-PLBG_V25.rvt

GENERAL NOTES:

A. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM EXISTING PIPING SIZES AND LOCATIONS. NOTIFY ENGINEER OF SIGNIFICANT DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

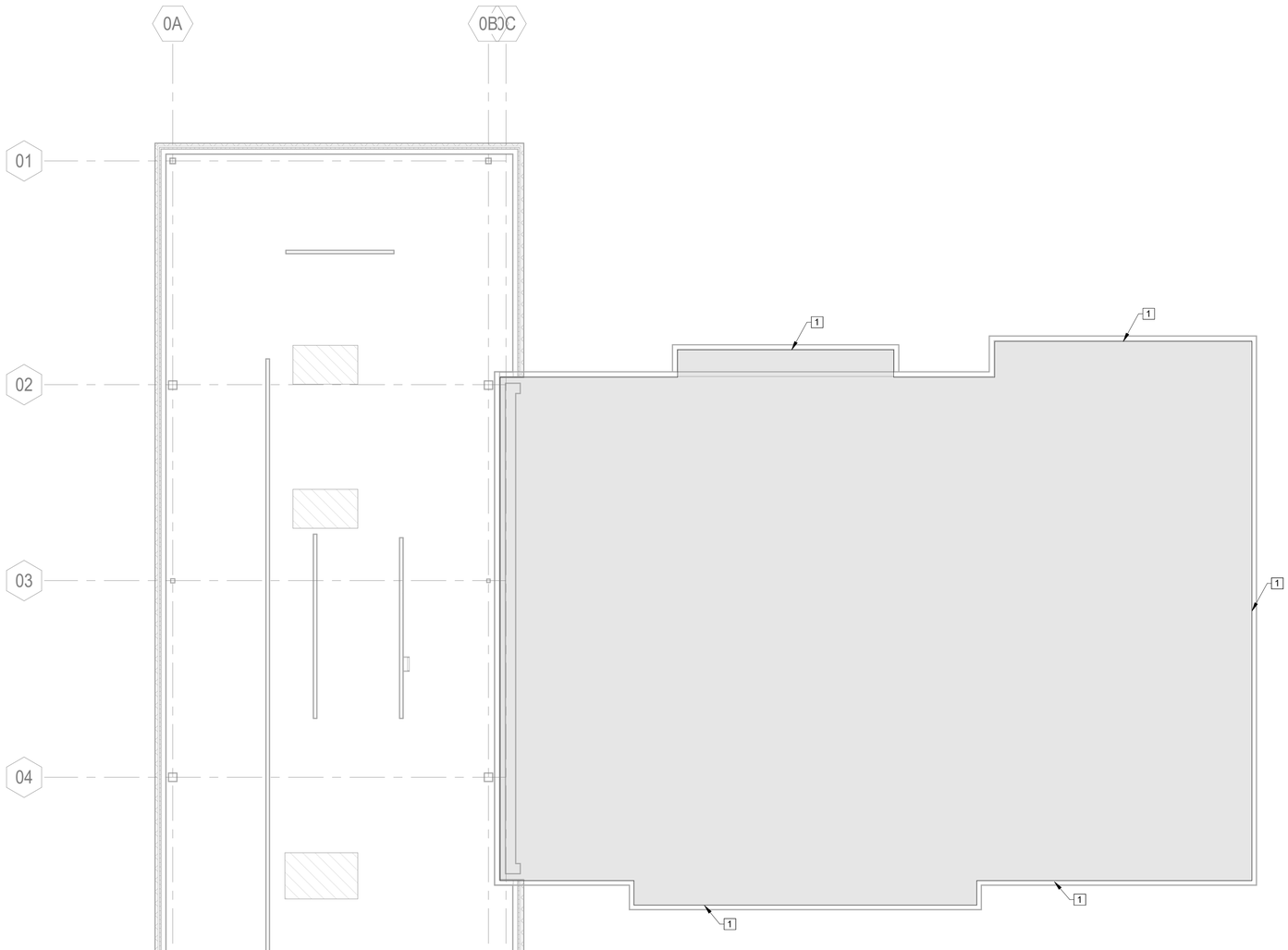
B. FIRE PROTECTION WORK IS TO BE A DELEGATED DESIGN. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND INSTALLATION OF A COMPLETE AND OPERABLE NFPA 13 COMPLIANT SPRINKLER SYSTEM WITHIN THE AREA OF WORK SHOWN. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

C. COORDINATE ACTUAL ROUTE OF PIPING IN ATTIC WITH FRAMING MEMBERS.

D. DRY SYSTEM AUXILIARY DRAINS SHALL BE PROVIDED AT ALL LOW POINTS OF THE SYSTEM TO CAPTURE CONDENSATION AND ALLOW FOR DRAINING OF TRAPPED SECTIONS OF WATER. NO POINT OF THE DRY SYSTEM SHALL TRAP ANY AMOUNT OF WATER.

CONSTRUCTION NOTES:

1. SHADED AREA OF WORK INDICATES THE ATTIC SPACE IN THE EXISTING BUILDING THAT IS TO BE PROVIDED WITH A DRY PIPE SPRINKLER SYSTEM. NEW LAYOUT IS TO PROVIDE COMPLETE PROTECTION OF THE EXISTING COMBUSTIBLE ATTIC SPACE. EXISTING DRY PIPE SPRINKLER SYSTEM SERVING THE SECOND FLOOR IS TO BE EXTENDED TO COVER ATTIC.



1 ATTIC FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"

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ATTIC PLAN

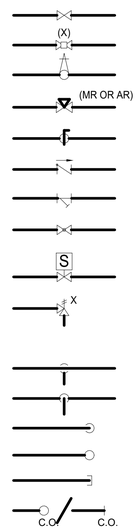
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PLUMBING ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
AC	AIR COMPRESSOR
AD	ACESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AR	APPLIANCE REGULATOR
BFP	BACKFLOW PREVENTER
BT	BATHTUB
BTU	BRITISH THERMAL UNIT
BV	BALANCING VALVE
CA	COMPRESSED AIR
CB	CATCH BASIN
CFH	CUBIC FEET PER HOUR
CI	CAST IRON
CO	CLEANOUT
CW	COLD WATER
CWFU	COLD WATER FIXTURE UNIT
CWP	CIRCULATING WATER PUMP
D	DRAIN LINE
DB	DRAIN BOX
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DIP	DUCTILE IRON PIPE
DIW	DEIONIZED WATER
DN	DOWN
DS	DOWNSPOUT
DSN	DOWN SPOUT NOZZLE
DWH	DOMESTIC WATER HEATER
DWV	DROP TO WASTE/RISE TO VENT
EWC	ELECTRIC WATER COOLER
EXST	EXISTING
F	FAHRENHEIT DEGREES
FACP	FIRE ALARM CONTROL PANEL
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FFE	FINISHED FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FP	FIRE PROTECTION PIPING
FS	FLOOR SINK
G	GAS
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSEPOWER
HW	HOT WATER
HWFU	HOT WATER FIXTURE UNIT
HWCP	HOT WATER CIRCULATING PUMP
HWR	HOT WATER RECIRCULATI0N
HWT	HOT WATER TANK
INV EL.	INVERT ELEVATION
KS	KITCHEN SINK
LAV	LAVATORY
LPD	LOW POINT DRAIN
LT	LAUNDRY TUB
M	METER
MC	MECHANICAL CONTRACTOR
MR	MEDIUM PRESSURE REGULATOR
MS	MOP SINK
MV	MIXING VALVE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OI	OIL INTERCEPTOR
P	PUMP
PC	PLUMBING CONTRACTOR
PD	PUMP DISCHARGE
PET	PLUMBING EXPANSION TANK
PRV	PRESSURE REDUCING VALVE
PVC	POLYVINYL CHLORIDE
RD	ROOF DRAIN
RV	RELIEF VENT
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SCW	SOFTENED COLD WATER
SE	SEWAGE EJECTOR
SF	SQUARE FOOT
SHR	SHOWER
SK	SINK
SMP	SUMP PUMP
SS	SERVICE SINK
ST	STORM SEWER
ST (OVERFLOW)	STORM SEWER EMERGENCY OVERFLOW
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TW	TEMPERED WATER
TD	TRENCH DRAIN
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
W.C.	WATER COLUMN
WCO	WALL CLEANOUT
WG	WATER GAUGE
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WV	WET VENT

PLUMBING SYMBOLS - VALVES AND SPECIALTIES



SHUT-OFF VALVE (GATE, BALL, ETC.)

BALANCING VALVE (X INDICATES GPM)

SHUT-OFF VALVE IN RISER

GAS PRESSURE REULATOR (MEDIUM PRESSURE OR APPLIANCE REGULATOR)

GAS COCK

CHECK VALVE

STRAINER

GLOBE VALVE

SOLENOID VALVE

RELIEF VALVE (X INDICATES
P - PRESSURE
T - TEMPERATURE
PT - COMBINATION PRESS/TEMP)

BRANCH CONNECTION - BOTTOM

BRANCH CONNECTION - TOP

ELBOW - TURNED DOWN

ELBOW - TURNED UP

CAP

CLEANOUT (FLOOR/WALL)

FLOOR DRAIN

FLOOR SINK

ROOF DRAIN ABOVE/BELOW DECK

WALL HYDRANT

HOSE BIBB

REDUCER

UNION

PIPE GUIDE (PG)

PIPE ANCHOR (PA)

WATER HAMMER ARRESTOR (X INDICATES PDI SIZE)

FLEXIBLE CONNECTOR

DIRECTION OF FLOW

DIRECTION OF DOWNWARD PITCH

PRESSURE GAUGE

THERMOMETER

PRESSURE/TEMPERATURE TAP

METER

PUMP

TRAP PRIMER VALVE

DRAWING SECTION NUMBER
DRAWING WHERE FOUND

DRAWING DETAIL NUMBER
DRAWING WHERE FOUND

ROOM NUMBER

POINT OF CONNECTION

TRENCH DRAIN

PLUMBING SYMBOLS - PIPING DESIGNATIONS

CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RETURN
NPCW	NON-POTABLE COLD WATER
NPHW	NON-POTABLE HOT WATER
SCW	SOFTENED COLD WATER
SAN	SANITARY SEWER
V	VENT
ST	STORM SEWER
EST	STORM SEWER OVERFLOW DRAIN
CA	COMPRESSED AIR
D	DRAIN
W	WATER MAIN (EXTERIOR)
PD	PUMP DISCHARGE
GAS	NATURAL GAS

GENERAL NOTES

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5. INSTALL EQUIPMENT AND PIPING TO AVOID INTERFERENCE WITH THE OPERATION OR SERVICING AND MAINTENANCE OF EQUIPMENT.
6. PIPES PENETRATING FIRE WALLS AND FLOORS SHALL BE FIRESTOPPED AS SPECIFIED. REFER TO THE ARCHITECTURAL DRAWINGS FOR FIRE WALL LOCATIONS.
7. ALL PHYSICAL ATTRIBUTES OF EQUIPMENT AND DEVICES ARE BASED ON THOSE MANUFACTURERS LISTED IN THE SPECIFICATIONS AND/OR THE EQUIPMENT SCHEDULES. THE RESPECTIVE CONTRACTORS ARE RESPONSIBLE FOR ALL CHANGES BROUGHT ABOUT BY USE OF ITEMS BY OTHER MANUFACTURERS. THE ARCHITECT/ENGINEER HAS RESERVED THE RIGHT TO REJECT ITEMS BY OTHER MANUFACTURERS IF THOSE ITEMS DO NOT MATCH THE PHYSICAL ATTRIBUTES OF THE MANUFACTURERS LISTED.
8. COMPLY WITH 2024 GEORGIA PLUMBING, BUILDING CODES AND ALL OTHER APPLICABLE CODES

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CONSTRUCTION DOCUMENTS

NCWSA
NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

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DRAWN: IBH
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CHECKED:
APPROVED: RFJ

FILENAME

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616202
CLIENT PROJECT NUMBER

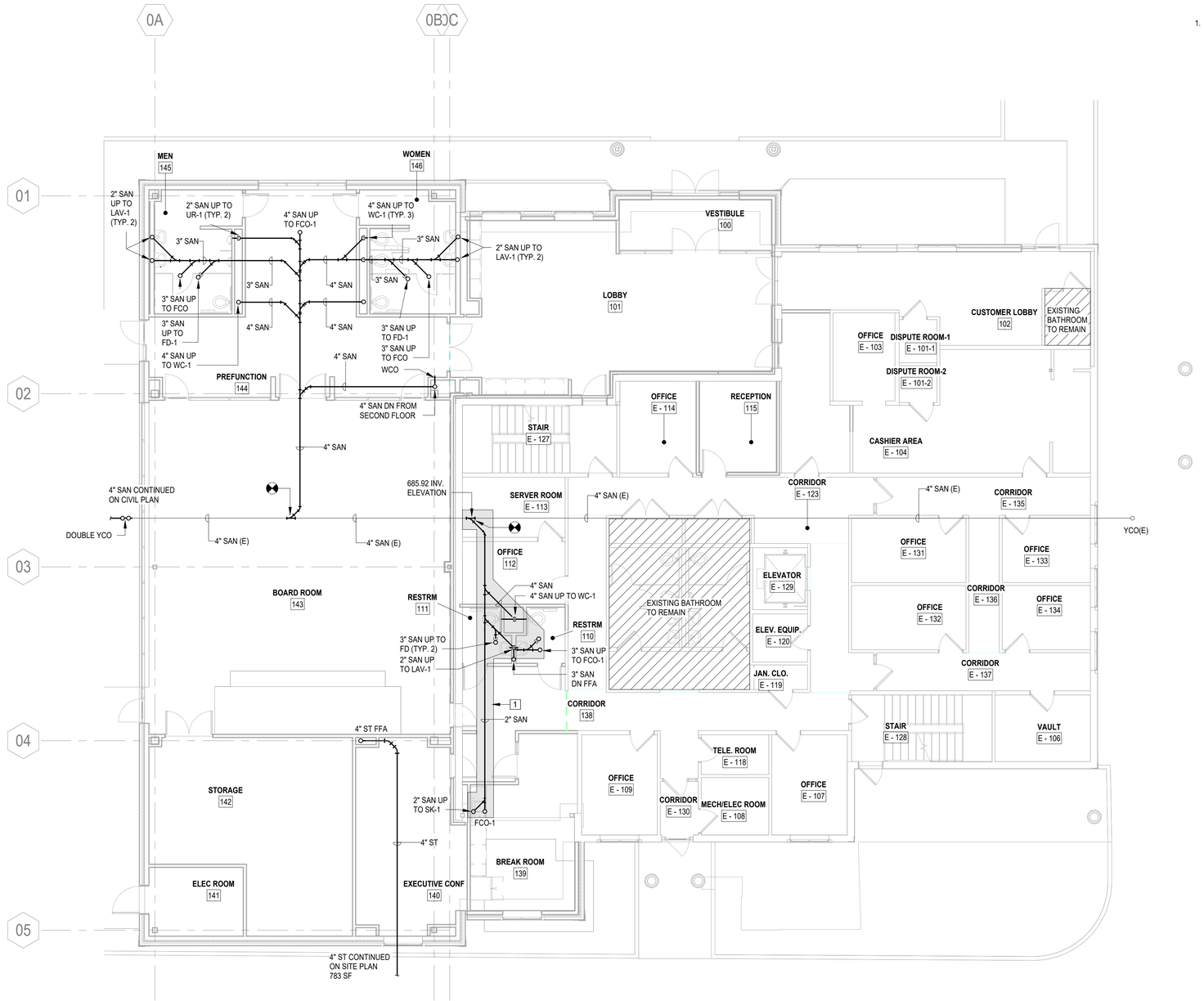
SYMBOLS, ABBREVIATIONS, GENERAL NOTES

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P001

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CONSTRUCTION NOTES:

1. SAW CUT FLOOR AND EXCAVATE AS REQUIRED FOR SANITARY PIPE INSTALLATION



1 BELOW GRADE PLAN
SCALE: 1/8" = 1'-0"

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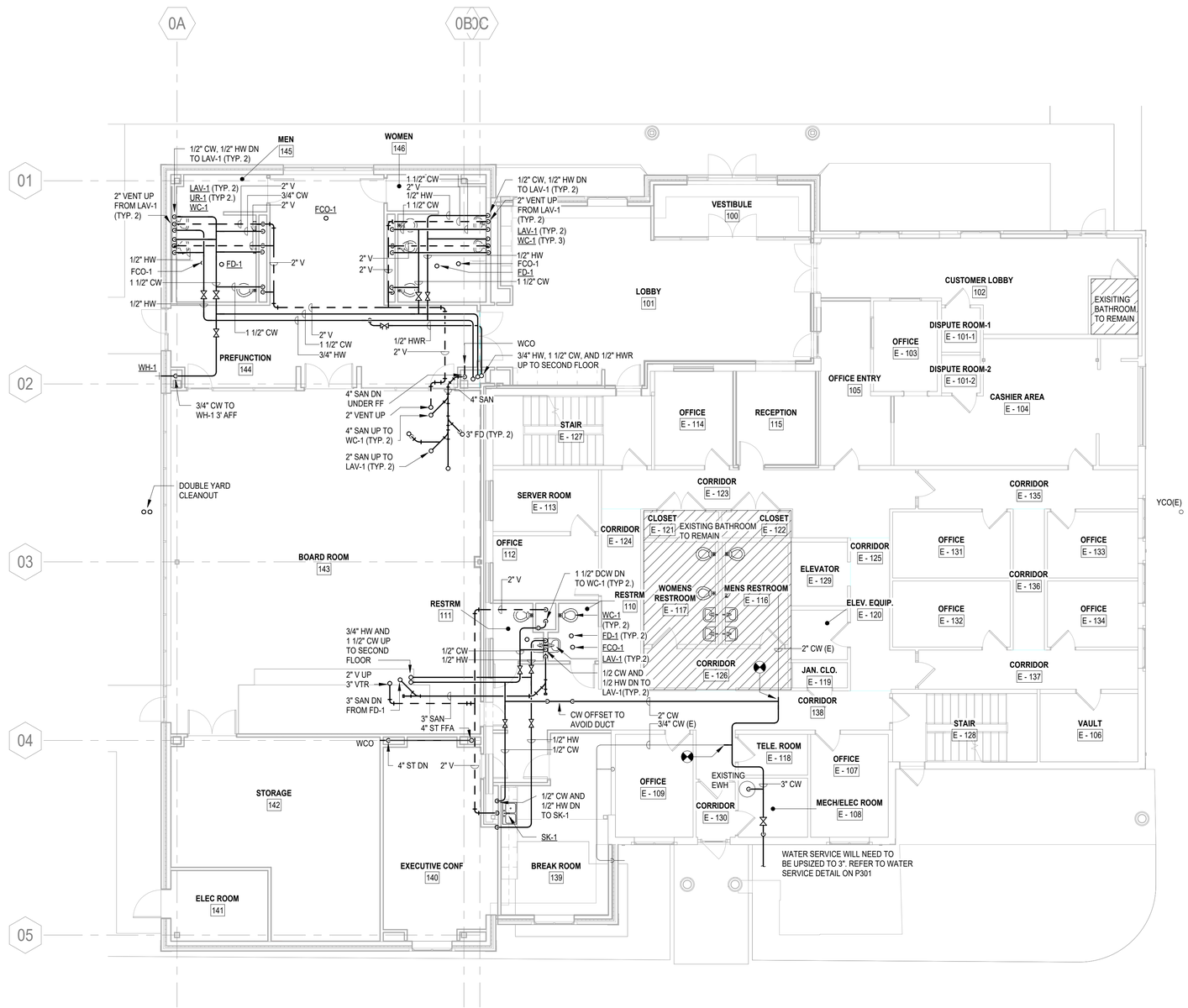
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BELOW GRADE PLAN

DRAWING NUMBER
P101

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1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

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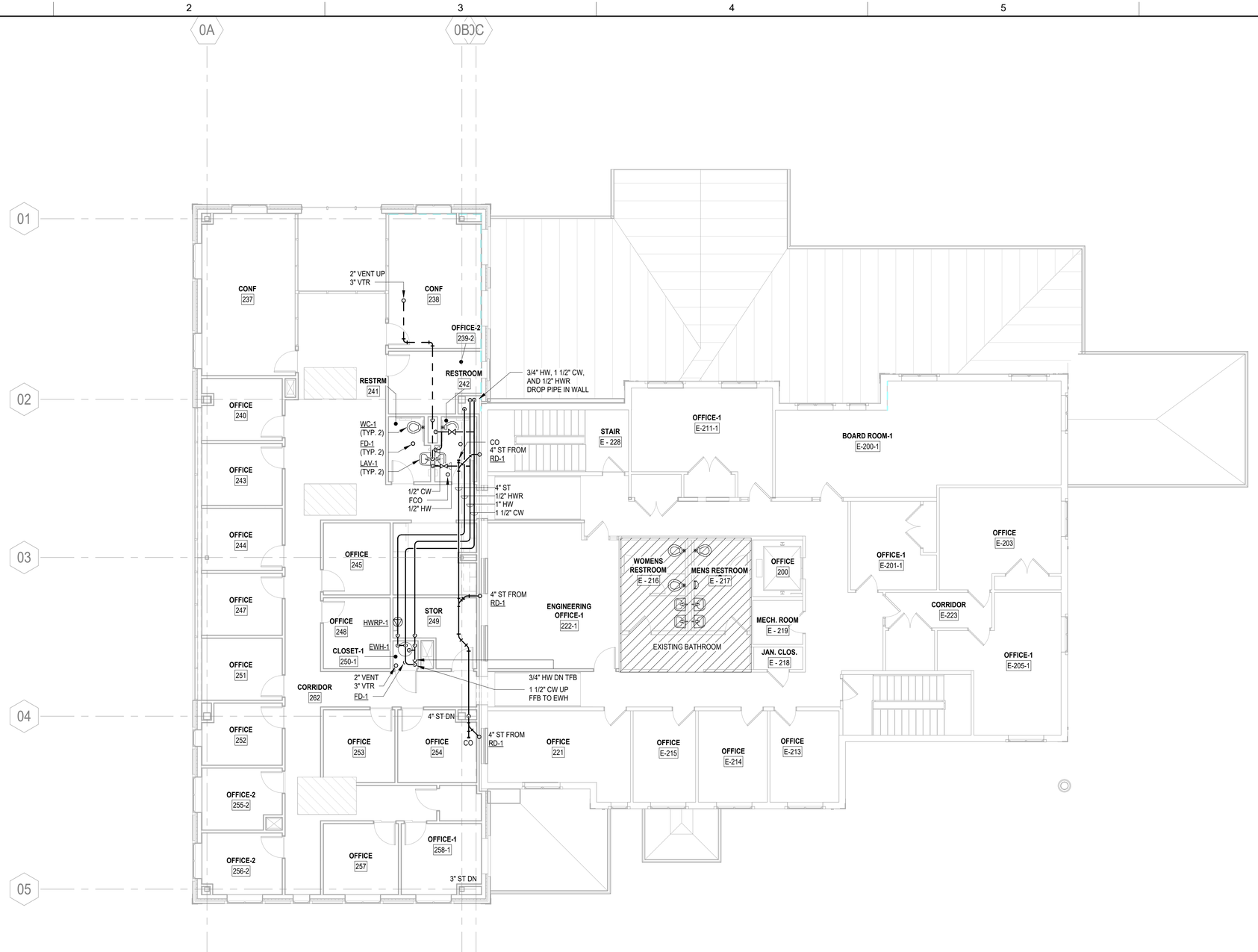
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FIRST FLOOR PLAN

DRAWING NUMBER
P102

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1 SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

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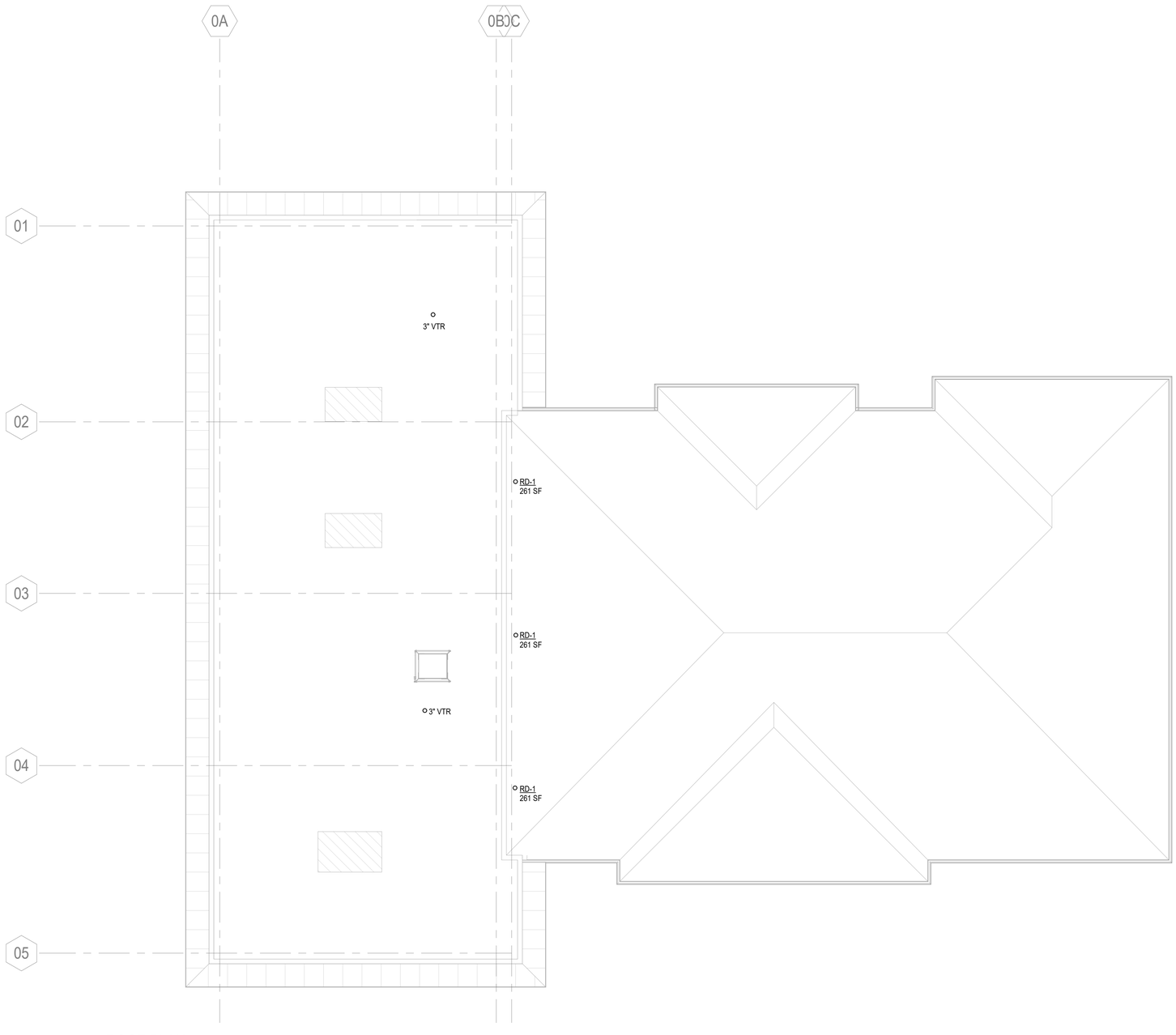
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SECOND FLOOR PLAN

DRAWING NUMBER
P103

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

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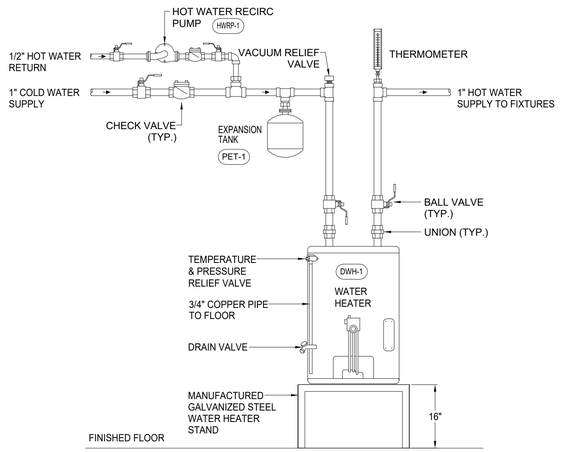
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BC PROJECT NUMBER
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CLIENT PROJECT NUMBER

ROOF PLAN

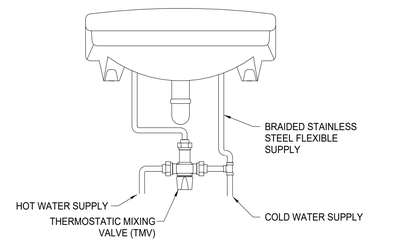
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1 ELECTRIC WATER HEATER DETAIL

SCALE: NONE

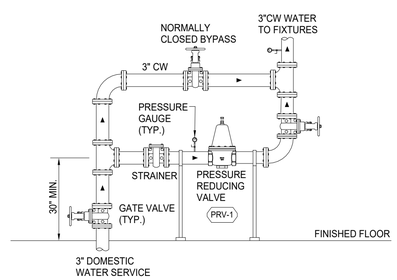


NOTES:

1. MOUNT THERMOSTATIC MIXING VALVE AS TIGHT TO UNDERSIDE OF SINK OR LAVATORY AS POSSIBLE TO MAINTAIN ADA CLEARANCE.

2 THERMOSTATIC MIXING VALVE AT HAND SINK DETAIL

SCALE: NONE



NOTE:

1. WATER METER AND BACKFLOW PREVENTOR LOCATED ON SITE.

3 BUILDING WATER SERVICE DETAIL

SCALE: NONE

PLUMBING FIXTURE / SPECIALTY SCHEDULE

FIXTURE NO.	DESCRIPTION	MANUFACTURER & MODEL	PIPING CONNECTIONS				ACCESSORIES	REMARKS
			S/W	VENT	CW	HW		
FCO-1	FLOOR CLEAN OUT W/ HEAVY DUTY ADJUSTABLE ROUND TOP, EPOXY COATED CAST IRON	WATTS CO-260	VARIES	-	-	-	-	SAME SIZE AS PIPE MAXIMUM 4"
FD-1	FLOOR DRAIN, 6"ø NICKEL BRONZE ADJUSTABLE STRAINER	WATTS FD-300-5	3"	-	-	-	PROVIDE TRAP GUARD	-
FD-2	FLOOR DRAIN, 6"ø NICKEL BRONZE ADJUSTABLE STRAINER	WATTS FD-100-A	4"	-	-	-	PROVIDE TRAP GUARD	-
LAV-1	WALL MOUNTED LAVATORY, VITREOUS CHINA, REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS	KOHLER K-2032	2"	1 1/2"	1/2"	1/2"	FAUCET (0.5GPM), 4"TRIM PLATE, TMV, SS STRAINER, SUPPLIES, STOPS, TRAP, AND ESCUTCHEON PLATE, CARRIER	ELECTRONIC FAUCET, SLOAN EAF-100-PLG-CP-0.35GPM-MLM-IR-IQ-FCT PLUG-IN, 120V/6VDC ADAPTER, THERMOSTATIC MIXING VALVE WATTS MODEL LFMMV, 0.5GPM AERATOR, 105°F OUTLET TEMPERATURE
PRV-1	DIRECT ACTING PRESSURE REDUCING VALVE WITH STRAINER	WATTS LFN223BS	3"	-	-	-	-	INLET PRESSURE 140PSI OUTLET PRESSURE 65PSI
RD-1	LACQUERED CAST IRON ROOF DRAIN WITH ANCHOR FLANGE, CAST IRON WATERPROOFING MEMBRANE CLAMP RING WITH INTEGRAL GRAVEL STOP, AND A STANDARD SELF-LOCKING POLYETHYLENE DOME STRAINER	MIFAB R1100	-	-	-	-	-	-
SK-1	STAINLESS STEEL, DOUBLE COMPARTMENT SINK, UNDERMOUNT, TWO 16"X16"X10"DEEP BOWLS	ELKAY ELUH361710DBG	2"	1 1/2"	1/2"	1/2"	FAUCET, SS STRAINERS, SUPPLIES, STOPS, TRAP, TAILPIECE, AND ESCUTCHEON PLATES	FAUCET: ELKAY LKGT1041 SINGLE HOLE FAUCET W/ PULLOUT SPRAY, CHROME FINISH
UR-1	URINAL, WALL MOUNTED, VITREOUS CHINA, 0.125GPF, REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS	KOHLER BARDON K-4904-ET	2"	1 1/2"	3/4"	-	HARD WIRED SENSOR FLUSH VALVE W/ OVERRIDE BUTTON, CARRIER	SENSOR HARD WIRED FLUSH VALVE, SLOAN SLOAN 186 ESS-0.125-DBP-TMO-HW. SLOAN TRANSFORMER 0345154
WC-1	WATER CLOSET, FLUSH VALVE, WALL MOUNTED, VITREOUS CHINA, 1.0 GPF. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS	KOHLER KINGSTON K-4325	4"	2"	1"	-	SENSOR FLUSH VALVE, OPEN FRONT SEAT, CARRIER	SENSOR HARD WIRED FLUSH VALVE, SLOAN 111 ESS-1.28-DFB-OR-HW. SLOAN TRANSFORMER 0345154
WH-1	WALL HYDRANT, ENCASED NON-FREEZE, SATIN NICKEL BOX, HINGED WITH LOCKING COVER, VACCUM BREAKER (ASSE 1052)	PRIER C-634BX1	-	-	3/4"	-	-	ORDER LENGTH AS REQUIRED BASED ON WALL THICKNESS

ELECTRIC WATER HEATER SCHEDULE (EWH)

PLAN DESIGNATION	MANUFACTURER MODEL NO.	TYPE	LOCATION	STORAGE CAPACITY (GAL)	GALLONS/HR @100° F RISE	ELECTRICAL DATA			NOTES
						KW/AMPS	VOLTS/ PHASE	HERTZ	
EWH-1	A O SMITH ENL-30	ELECTRIC TANK	SECOND FLOOR MECH ROOM	30	41	6	208/1Ø	60	1

NOTES:

1. PROVIDE THE FOLLOWING STANDARD AND OPTIONAL EQUIPMENT:
   - ASME CONSTRUCTION
   - ASME PRESSURE/TEMPERATURE RELIEF VALVE TEMPERATURE CONTROL
   - JUNCTION BOX WITH TERMINAL BLOCK

HOT WATER RETURN PUMP SCHEDULE (HWRP)

PLAN DESIGNATION	MANUFACTURER MODEL NO.	SERVICE	LOCATION	TOTAL HEAD (FT)	FLOW (GPM)	POWER (HP)	RPM	ELECTRICAL DATA				NOTES
								VOLTS	PHASE	HERTZ	F.L.AMPS	
HWRP-1	BELL & GOSSETT NBF-8S/LW	DOMESTIC WATER	PROCESS BUILDING MECH ROOM	6	2	1/16	2800	115	1	60	0.80	1,2,3

NOTES:

1. BRONZE BODY CONSTRUCTION, NON FERROUS IMPELLER
2. PROVIDE AQUASTAT AND AUTOMATIC TIMER KIT.
3. PROVIDE ELECTRICAL DISCONNECT.
4. NSF COMPLINAT

PLUMBING EXPANSION TANK SCHEDULE (PET)

PLAN DESIGNATION	MANUFACTURER MODEL NO.	LOCATION	TANK TYPE	TANK VOLUME (GAL.)	ACCEPTANCE VOLUME (GAL.)	LENGTH (IN.)	DIAMETER (IN.)	INLET (IN.)	FULL WEIGHT (LBS)	NOTES
PET-1	WATTS DETA 5	MECHANICAL ROOM	BLADDER	3.5	2.3	14	10	3/4	22	SEE BELOW

NOTES:

1. ASME RATED CARBON STEEL, NSF COMPLIANT
2. PROVIDE WITH INTEGRATED PRESSURE GAUGE AND BLADDER INTEGRITY MONITOR.

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SCHEDULES AND DETAILS

DRAWING NUMBER
P301

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HVAC ABBREVIATIONS

AAV	AUTOMATIC AIR VENT
AC	AIR COMPRESSOR
ACCU	AIR COOLED CONDENSING UNIT
ACS DR	ACCESS DOOR
ACS PNL	ACCESS PANEL
ACV	AUTOMATIC CONTROL VALVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	AIR FLOW STATION
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
AS	AIR SEPARATOR
ASC	ABOVE SUSPENDED CEILING
AVG	AVERAGE
BAV	BALANCING VALVE
BC	BOILER CIRCULATOR
BB-E	BASEBOARD - ELECTRIC
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BFWP	BOILER FEED WATER PUMP
BHP	BRAKE HORSEPOWER
BV	BALL VALVE
CA	COMPRESSED AIR
CA	COMBUSTION AIR
CEB	CONCRETE EQUIPMENT BASE
CFM	CUBIC FEET PER MINUTE
CHKV	CHECK VALVE
CHWP	CHILLED WATER CIRCULATING PUMP
CIR	CAST IRON RADIATOR
COM	COMMON
CRP	CONDENSATE RETURN PUMP
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CUV	CLASSROOM UNIT VENTILATOR
CV	CONTROL VALVE
DB	DRY BULB
DCI	DUCT COVERING INSULATION
DF	DESTRATIFICATION FAN
DLI	DUCT LINING INSULATION
DSS	DUCTLESS SPLIT SYSTEM AIR CONDITIONER
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EDR	EQUIVALENT DIRECT RADIATION
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
F	DEGREES FAHRENHEIT
FBO	FURNISHED BY OTHERS
FCU	FAN COIL UNIT
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FID	FIRE DAMPER
FSD	FIRE/SMOKE DAMPER
FTR	FINNED TUBE RADIATOR
FURN	FURNACE
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GPM	GALLONS PER MINUTE
GTV	GATE VALVE
GVTR	GAS VENT THROUGH ROOF
H	HUMIDIFIER
HC	HEATING COIL
HEX	HEAT EXCHANGER
HP	HORSEPOWER
HRU	HEAT RECOVERY UNIT
HSTAT	HUMIDISTAT
HV	HEATING AND VENTILATING UNIT
HWB	HOT WATER BOILER
HWCP	HOT WATER CIRCULATING PUMP
LAT	LEAVING AIR TEMPERATURE
LRI	LOUVERED ROOF INTAKE
LRV	LOUVERED ROOF VENT
LWT	LEAVING WATER TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAV	MANUAL AIR VENT
MC	MECHANICAL CONTRACTOR
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	OPEN
OA	OUTSIDE AIR
OC	ON CENTER
OED	OPEN ENDED DUCT
PC	PLUMBING CONTRACTOR
PLV	PLUG VALVE
PRV	PRESSURE REDUCING VALVE
PTAC	PACKAGE TERMINAL AIR CONDITIONER
RA	RETURN AIR
RAF	RETURN AIR FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLL	REFRIGERANT LIQUID LINE
RSL	REFRIGERANT SUCTION LINE
RTU	ROOF TOP UNIT
RV	ROOF VENT
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
SP	STATIC PRESSURE
STN	STRAINER
SUH	SUSPENDED UNIT HEATER
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
UH	UNIT HEATER
UTR	UP THROUGH ROOF
UV	UNIT VENTILATOR
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VIB ISO	VIBRATION ISOLATOR
WB	WET BULB
WC	WATER COLUMN
WCHRU	WATER CHILLER
WIV	WATER INLET VALVE
WPD	WATER PRESSURE DROP

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5. INSTALL EQUIPMENT, DUCTWORK, AND PIPING TO AVOID INTERFERENCE WITH THE OPERATION OR SERVICING AND MAINTENANCE OF EQUIPMENT.
6. HVAC CONTRACTOR IS RESPONSIBLE TO PROVIDE ACCESS PANELS AND DOORS WHERE THEY ARE NEEDED TO GAIN ACCESS TO CONCEALED EQUIPMENT.
7. ALL COSTS FOR CUTTING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS AND FLOORS TO ACCOMMODATE THE INSTALLATION OF HVAC WORK SHALL BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR UNLESS INDICATED OTHERWISE. MATERIALS FOR RESTORATION OF EXISTING SURFACES SHALL MATCH THE EXISTING MATERIALS.
8. PIPES AND/OR DUCTS PENETRATING FIRE WALLS AND FLOORS SHALL BE FIRESTOPPED AS SPECIFIED. REFER TO THE ARCHITECTURAL DRAWINGS FOR FIRE WALL AND FLOOR LOCATIONS.
9. ALL DUCT SIZES SHOWN ON DRAWINGS INDICATE CLEAR INSIDE DIMENSIONS.
10. ALL PHYSICAL ATTRIBUTES OF EQUIPMENT AND DEVICES ARE BASED ON THOSE MANUFACTURERS LISTED IN THE SPECIFICATIONS AND/OR THE EQUIPMENT SCHEDULES. THE RESPECTIVE CONTRACTORS ARE RESPONSIBLE FOR ALL CHANGES BROUGHT ABOUT BY USE OF ITEMS BY OTHER MANUFACTURERS. THE ARCHITECT/ENGINEER HAS RESERVED THE RIGHT TO REJECT ITEMS BY OTHER MANUFACTURERS IF THOSE ITEMS DO NOT MATCH THE PHYSICAL ATTRIBUTES OF THE MANUFACTURERS LISTED.
11. COMPLY WITH THE 2025 GEORGIA STATE BUILDING CODES, ASHRAE 90.1-2016, AND OTHER APPLICABLE CODES.

HVAC SYMBOLS - DUCTWORK

- AIRFLOW - SUPPLY/OUTDOOR AIR
- AIRFLOW - RETURN/EXHAUST AIR
- RECTANGULAR DUCTWORK (FIRST NUMBER INDICATES VISIBLE DIMENSION) — 12"x8"
- ROUND DUCTWORK — 12"Ø
- FLAT OVAL DUCTWORK — 12"x8"
- "L" INDICATES LINED DUCTWORK — 12"x8"L
- FLEXIBLE DUCTWORK
- RECTANGULAR CEILING DIFFUSER (ARROWS INDICATE DIRECTION OF THROW)
- CIRCULAR CEILING DIFFUSER
- RETURN/EXHAUST REGISTER OR GRILLE
- LINEAR DIFFUSER
- SIDEWALL DIFFUSER, REGISTER OR GRILLE
- DIFFUSER, REGISTER OR GRILLE DESIGNATION TYPE X INDICATES:
  - CD - CEILING DIFFUSER
  - LD - LINEAR DIFFUSER
  - RCD - RECTANGULAR CEILING DIFFUSER
  - EG - EXHAUST GRILLE
  - ER - EXHAUST REGISTER
  - RG - RETURN GRILLE
  - RR - RETURN REGISTER
  - TG - TRANSFER GRILLE)

  (X / NECK SIZE OR CORE SIZE / CFM)
- WALL MOUNTED THERMOSTAT (T)
- WALL MOUNTED REMOTE SENSOR THERMOSTAT (TRS)
- WALL MOUNTED TEMPERATURE SENSOR (S)
- WALL MOUNTED HUMIDISTAT (H)

- RECTANGULAR/ROUND SUPPLY AIR DUCTWORK UP
- RECTANGULAR/ROUND RETURN OR EXHAUST AIR DUCTWORK UP
- RECTANGULAR/ROUND SUPPLY AIR DUCTWORK DOWN
- RECTANGULAR/ROUND RETURN OR EXHAUST AIR DUCTWORK DOWN
- RECTANGULAR ELBOW WITH TURNING VANES
- VOLUME DAMPER
- FIRE DAMPER (F.I.D.)
- SMOKE DAMPER (S.D.)
- MOTOR OPERATED DAMPER (M)
- VAV BOX (X INDICATES BOX DESIGNATION)
- DUCT MOUNTED COIL
- FLEXIBLE DUCT CONNECTION
- SMOKE DETECTOR (S)
- DUCT MOUNTED SENSOR (X)

  X INDICATES:
  - SP - STATIC PRESSURE
  - T - TEMPERATURE
  - H - HUMIDITY
  - V - VELOCITY

HVAC SYMBOLS - CONTROLS

- DAMPER ACTUATOR
- OPPOSED BLADE DAMPER
- AVERAGING TEMPERATURE SENSOR (TS)
- FREEZESTAT (TS)
- PROBE TYPE TEMPERATURE SENSOR (TS)
- SMOKE DETECTOR (SD)
- HUMIDITY SENSOR (HS)
- MOTOR STARTER
- HEATING COIL (H, C)
- COOLING COIL (C, C)
- DIRECT EXPANSION REFRIGERANT COIL (DX, C)
- FIRE DAMPER (M)
- ELEC/PNEU TRANSDUCER
- SPACE THERMOSTAT (T)
- SPACE TEMPERATURE SENSOR (S)
- STATIC PRESSURE SENSOR (Y)
- ROOM DIFFERENTIAL PRESSURE SENSOR
- TRANSFORMER
- CIRCULATING PUMP
- FAN

SHOP/COORDINATION DRAWINGS:

CONTRACTOR SHALL PROVIDE TO THE ENGINEER CAD-GENERATED (AUTOCAD 2013 OR NEWER) COORDINATION DRAWINGS AT ⅛" EQUALS 1 FOOT SCALE.

1. CONTRACTOR SHALL BE RESPONSIBLE TO:
   - A. FIELD VERIFY EXISTING CONDITIONS
   - B. PROVIDE LAYOUT OF ALL NEW EQUIPMENT, DUCTWORK (DOUBLE LINED) AND PIPING.
   - C. PROVIDE ELEVATIONS OF ALL DUCTWORK (TOP AND BOTTOM).
   - D. PROVIDE DIMENSIONS OF MAIN PIPE RUNS FROM BUILDING GRID LINES OR WALLS.
   - E. PENETRATIONS THROUGH FIRE-RATED AND OTHER PARTITIONS.
   - F. EQUIPMENT INSTALLATION BASED ON EQUIPMENT PURCHASED FOR PROJECT.

HVAC SYMBOLS - PIPING DESIGNATIONS

- EXISTING PIPING (REFER TO DESIGNATIONS BELOW FOR TYPE)
- BBD — BOILER BLOWDOWN PIPING TO BE REMOVED (REFER TO DESIGNATIONS BELOW FOR TYPE)
- CR — CONDENSATE RETURN
- D — DRAIN
- FW — FEEDWATER
- HWS — HOT WATER SUPPLY
- HWR — HOT WATER RETURN
- LPS — LOW PRESSURE STEAM
- MU — MAKE-UP WATER
- PD — PUMPED DISCHARGE
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- CWR — CONDENSER WATER RETURN
- POINT OF CONNECTION
- POINT OF DISCONNECTION

HVAC SYMBOLS - VALVES & SPECIALTIES

- SHUT-OFF VALVE (GATE, BUTTERFLY, BALL, ETC.)
- BALANCING VALVE (X INDICATES GPM)
- TWO-WAY AUTOMATIC CONTROL VALVE
- THREE-WAY AUTOMATIC CONTROL VALVE
- CHECK VALVE
- STRAINER
- GLOBE VALVE
- PRESSURE REDUCING VALVE
- LOCKING VALVE
- TRIPLE DUTY VALVE
- FLOW CONTROL VALVE
- RELIEF VALVE (X INDICATES T - TEMPERATURE, P - PRESSURE, PT - COMBINATION PRESS/TEMP)
- BRANCH CONNECTION - BOTTOM
- BRANCH CONNECTION - TOP
- ELBOW - TURNED DOWN
- ELBOW - TURNED UP
- CAP
- FLEXIBLE CONNECTOR
- DIRECTION OF FLOW
- DIRECTION OF DOWNWARD PITCH (P)
- SENSOR/SWITCH (X INDICATES P - PRESSURE, T - TEMPERATURE, F - FLOW)
- GAUGE (X INDICATES T - TEMPERATURE, P - PRESSURE, F - FLOW)
- PRESSURE/TEMPERATURE TAP (PT)

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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CONSTRUCTION DOCUMENTS

NCWSA — NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	CJP
DRAWN:	CJP
CHECKED:	NBN
CHECKED:	
APPROVED:	RFJ

FILENAME

BC PROJECT NUMBER

CLIENT PROJECT NUMBER

MECHANICAL

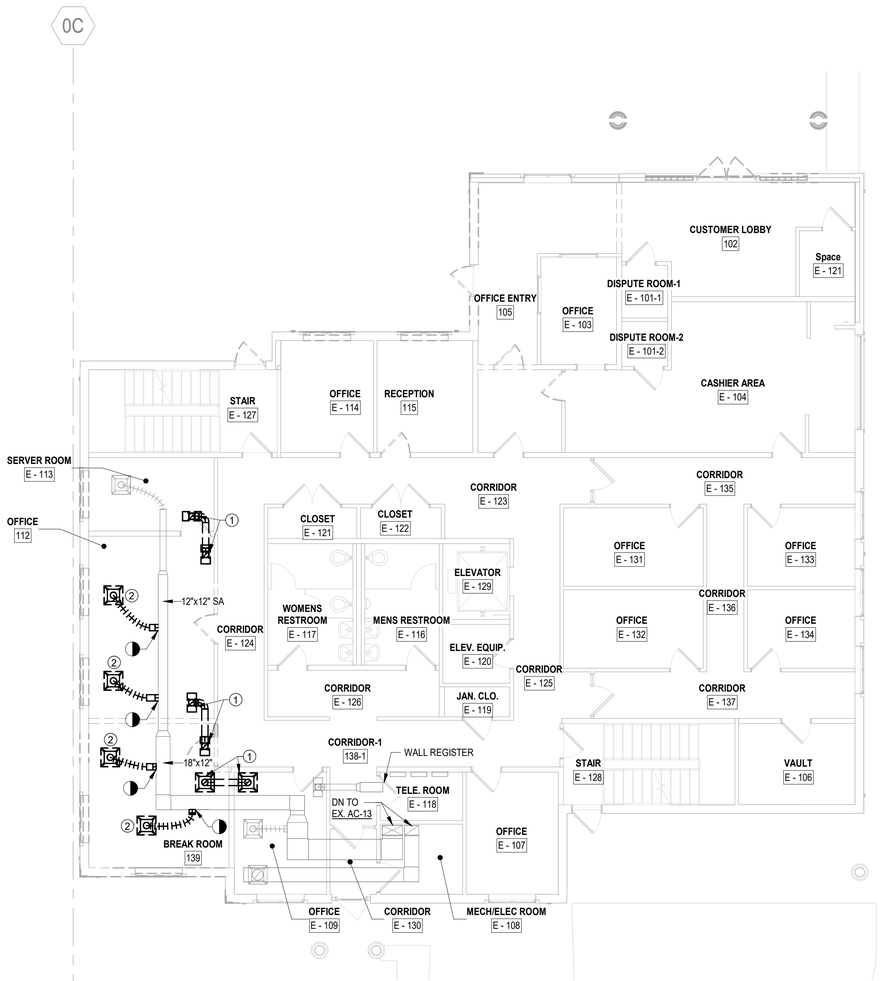
SYMBOLS, NOTES, & ABBREVIATIONS

DRAWING NUMBER

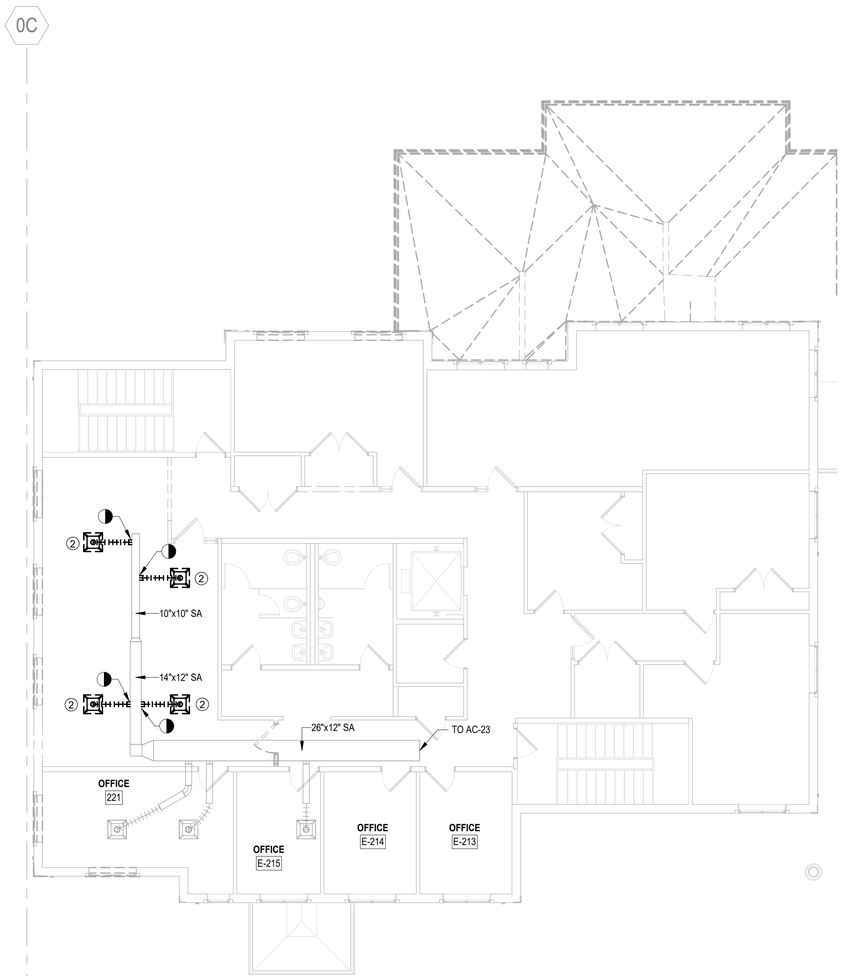
M001

ⓧ DEMOLITION NOTES:

1. REMOVE TRANSFER AIR ASSEMBLY INCLUDING RESISTER AND DUCTWORK IN THEIR ENTIRETY.
2. REMOVE DIFFUSERS, REGISTERS, GRILLS AND ASSOCIATED DUCTWORK IN THEIR ENTIRETY. CAP AND SEAL DUCT AT TAP.



1 FIRST FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2 SECOND FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

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FIRST & SECOND FLOOR DEMO PLAN

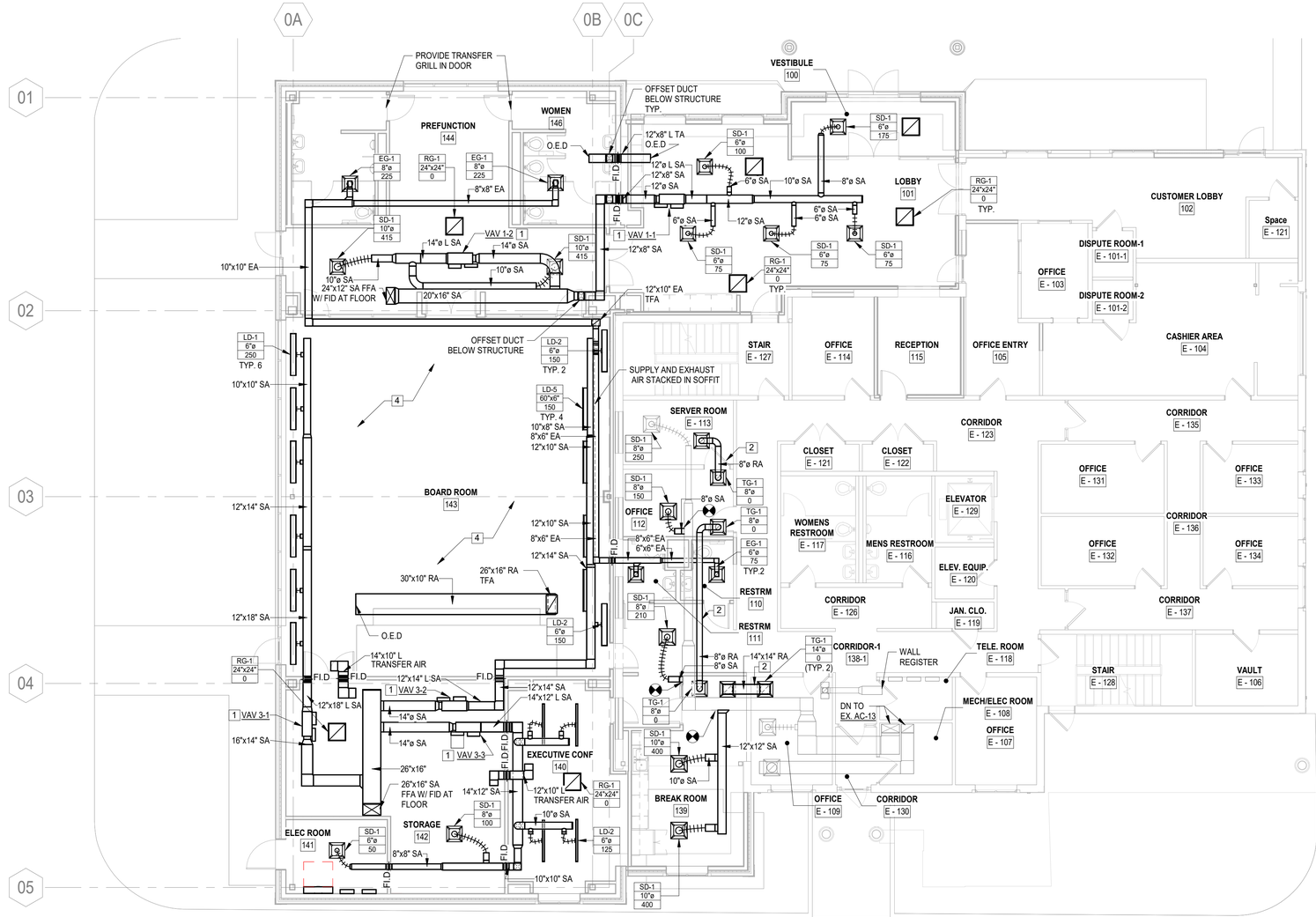
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MD101

GENERAL NOTES:

A. PROVIDE TURNING VANES AT ALL RECTANGULAR SUPPLY ELBOWS

X CONSTRUCTION NOTES:

1. PROVIDE VARIABLE AIR VOLUME (VAV) AS SCHEDULED. PROVIDE ALL ASSOCIATED SUPPORTS AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO DRAWING M202 FOR ASSOCIATED DETAIL AND DRAWING M301 FOR SCHEDULED CAPACITY.
2. PROVIDE DUCTWORK AS SHOWN IN ITS ENTIRETY. PROVIDE ALL REQUIRED SUPPORTS, INSULATION, AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
3. PROVIDE AIR TERMINAL DEVICES AS INDICATED ON PLAN. REFER TO M200 DWGS FOR ASSOCIATED DETAILS AND M300 DWG FOR SCHEDULED CAPACITIES.
4. LIGHTING FIXTURES IN BOARD ROOM 143 SHALL HAVE RETURN AIR CAPABILITY. TOTAL AIR FLOW SHALL EQUAL THE 2400 CFM. REFER TO ELECTRICAL DRAWINGS FOR COORDINATION.



1 FIRST FLOOR NEW WORK PLAN
SCALE: 1/8" = 1'-0"

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900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

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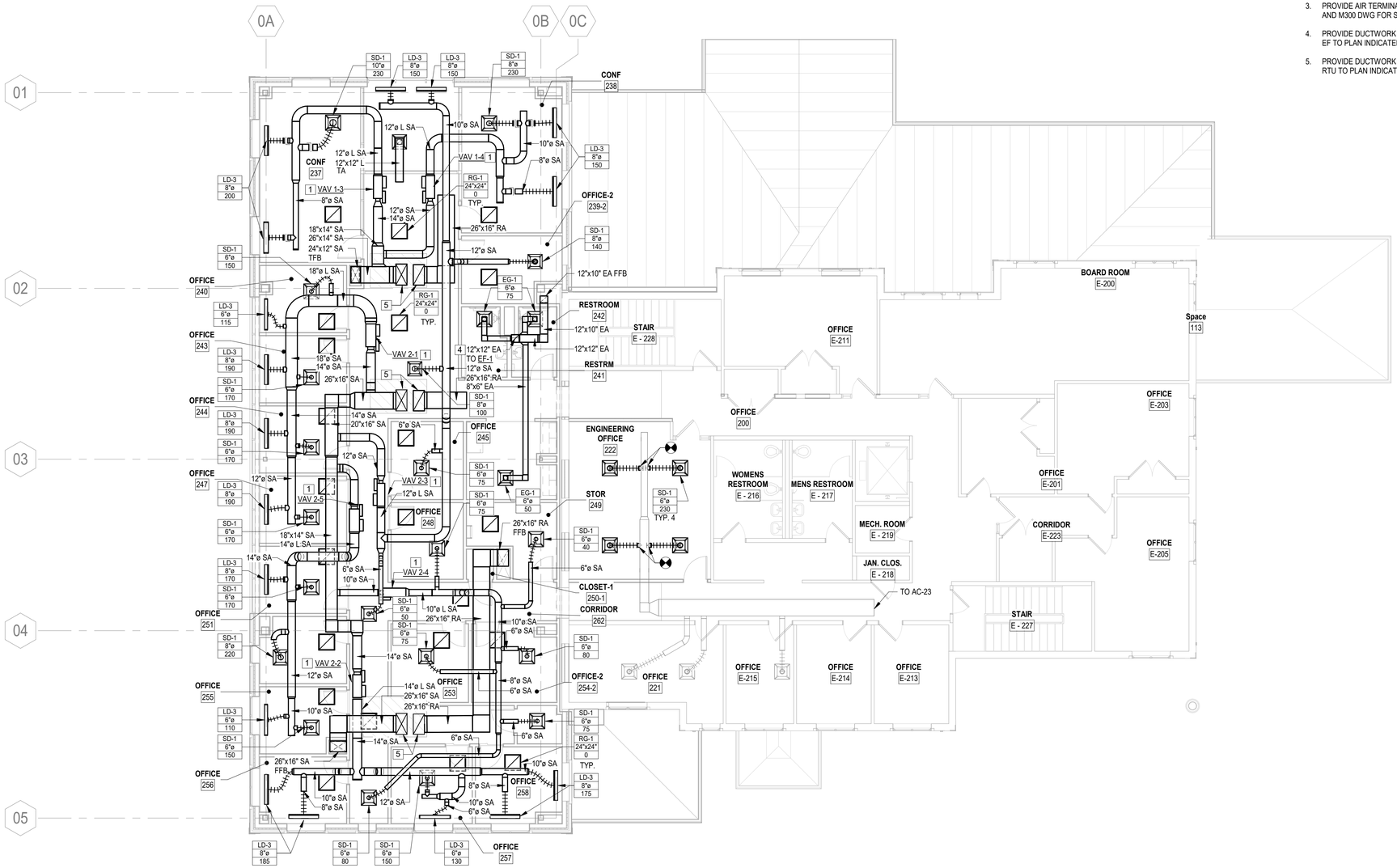
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Project Number
CLIENT PROJECT NUMBER

FIRST FLOOR NEW WORK PLAN

DRAWING NUMBER
M101



1 SECOND FLOOR NEW WORK PLAN
SCALE: 1/8" = 1'-0"

X CONSTRUCTION NOTES:

1. PROVIDE VARIABLE AIR VOLUME (VAV) AS SCHEDULED. PROVIDE ALL ASSOCIATED SUPPORTS AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO DRAWING M202 FOR ASSOCIATED DETAIL AND DRAWING M301 FOR SCHEDULED CAPACITY.
2. PROVIDE DUCTWORK AS SHOWN IN ITS ENTIRETY. PROVIDE ALL REQUIRED SUPPORTS, INSULATION, AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
3. PROVIDE AIR TERMINAL DEVICES AS INDICATED ON PLAN. REFER TO M200 DWGS FOR ASSOCIATED DETAILS AND M300 DWG FOR SCHEDULED CAPACITIES
4. PROVIDE DUCTWORK DROP FROM EXHAUST FAN (EF) ABOVE. PROVIDE ALL REQUIRED TRANSITIONS FROM EF TO PLAN INDICATED DIMENSIONS. PROVIDE INSULATED MOTORIZED DAMPER AT THE BUILDING ENVELOPE
5. PROVIDE DUCTWORK DROP FROM ROOF TOP UNIT (RTU) ABOVE. PROVIDE ALL REQUIRED TRANSITIONS FROM RTU TO PLAN INDICATED DIMENSIONS. PROVIDE INSULATED MOTORIZED DAMPER AT THE BUILDING ENVELOPE

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900 HAMMOND DRIVE, SUITE 500
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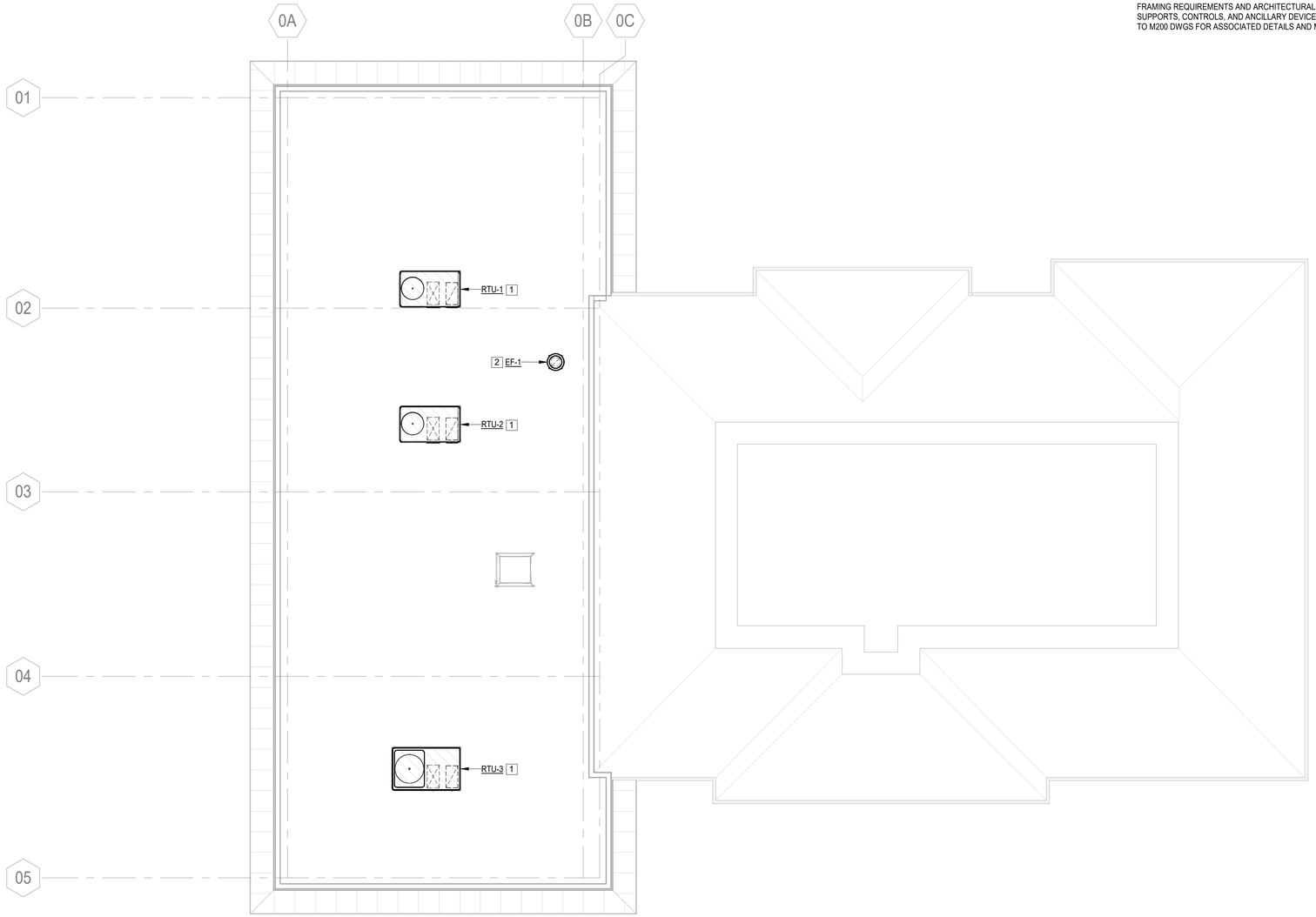
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Project Number
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SECOND FLOOR NEW WORK PLAN

DRAWING NUMBER
M102



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

X CONSTRUCTION NOTES:

1. PROVIDE ROOFTOP UNIT AND 24" TALL WIND RATED ROOF CURB IN ITS ENTIRETY. SECURE CURB TO STRUCTURE IN ACCORDANCE WITH GEORGIA STATE BUILDING CODE AND ASCE 7. COORDINATE WITH STRUCTURAL DWGS FOR FRAMING REQUIREMENTS AND ARCHITECTURAL DWGS FOR FLASHING REQUIREMENTS. PROVIDE ALL ASSOCIATED SUPPORTS, CONTROLS, AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO M200 DWGS FOR ASSOCIATED DETAILS AND M300 DWGS FOR SCHEDULED CAPACITY.
2. PROVIDE EXHAUST FAN AND 24" TALL WIND RATED ROOF CURB IN ITS ENTIRETY. SECURE CURB TO STRUCTURE IN ACCORDANCE WITH GEORGIA STATE BUILDING CODE AND ASCE 7. COORDINATE WITH STRUCTURAL DWGS FOR FRAMING REQUIREMENTS AND ARCHITECTURAL DWGS FOR FLASHING REQUIREMENTS. PROVIDE ALL ASSOCIATED SUPPORTS, CONTROLS, AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO M200 DWGS FOR ASSOCIATED DETAILS AND M300 DWGS FOR SCHEDULED CAPACITY.

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900 HAMMOND DRIVE, SUITE 500
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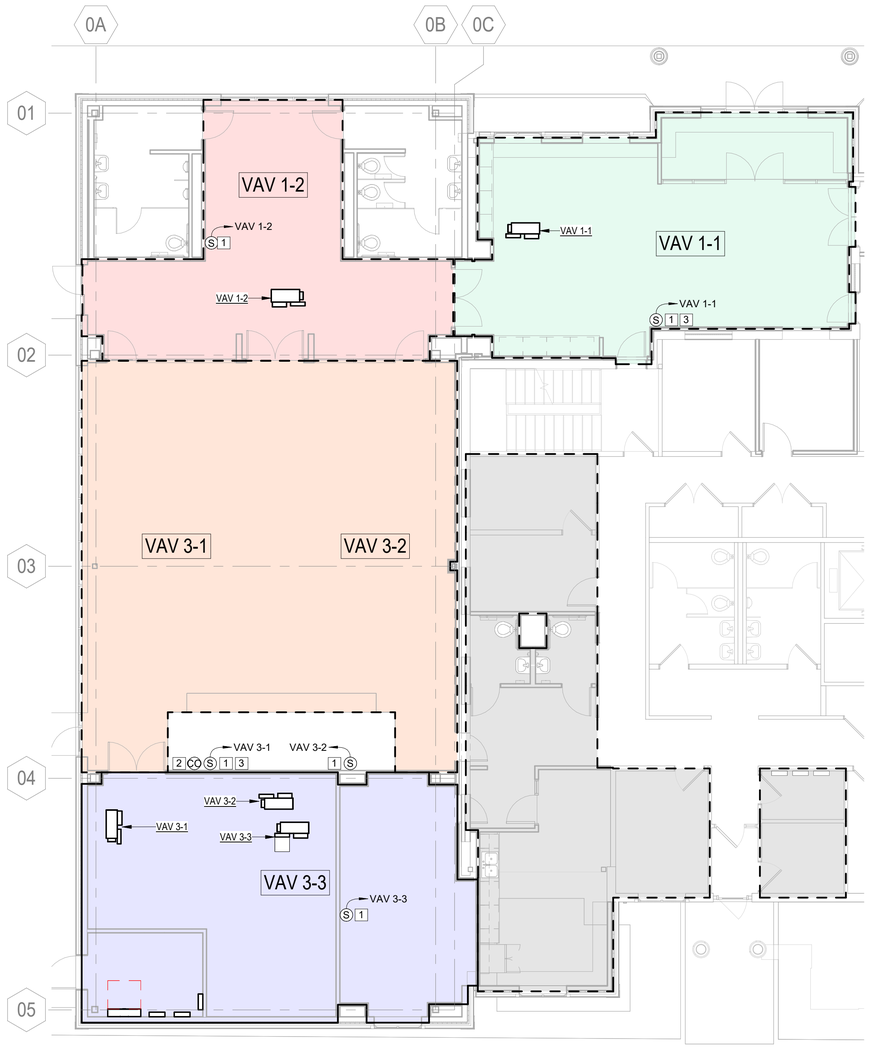
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APPROVED: RFJ
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BC PROJECT NUMBER
Project Number
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ROOF PLAN

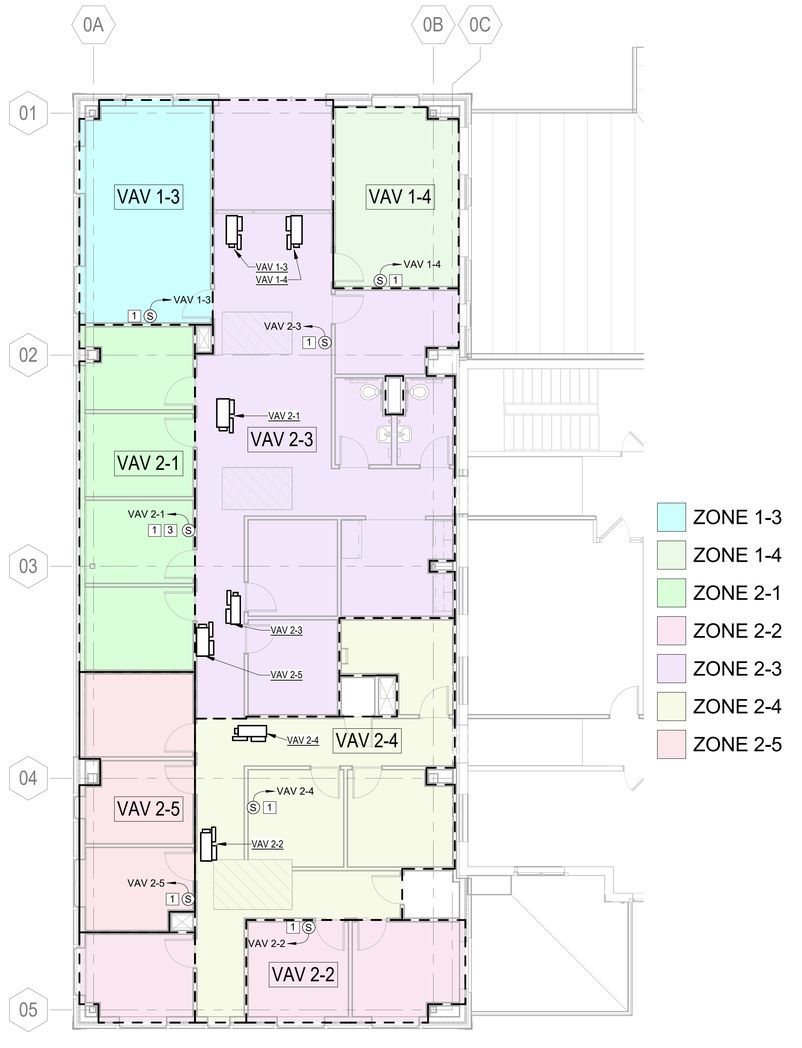
DRAWING NUMBER
M103

CONSTRUCTION NOTES:

1. PROVIDE SPACE TEMPERATURE SENSOR, AND ASSOCIATED SUPPORTS, CONTROLS, AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER INFORMATION.
2. PROVIDE CARBON MONOXIDE SENSOR, AND ASSOCIATED SUPPORTS, CONTROLS, AND ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER INFORMATION.
3. PROVIDE CONTROL WIRE AS REQUIRED FOR UNOCCUPIED TEMPERATURE SENSOR. PROVIDE ALL REQUIRED ANCILLARY DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.



1 FIRST FLOOR ZONING PLAN
SCALE: 1/8" = 1'-0"



2 SECOND FLOOR ZONING PLAN
SCALE: 1/8" = 1'-0"

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900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

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CONSTRUCTION DOCUMENTS

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REVISIONS

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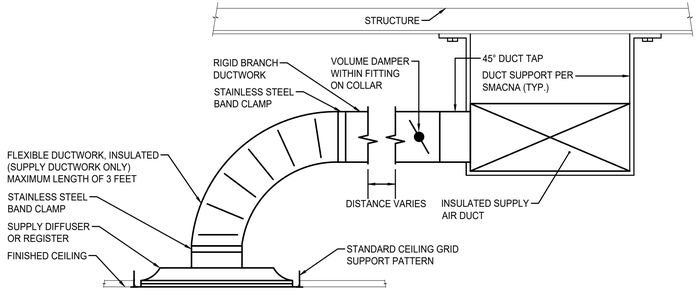
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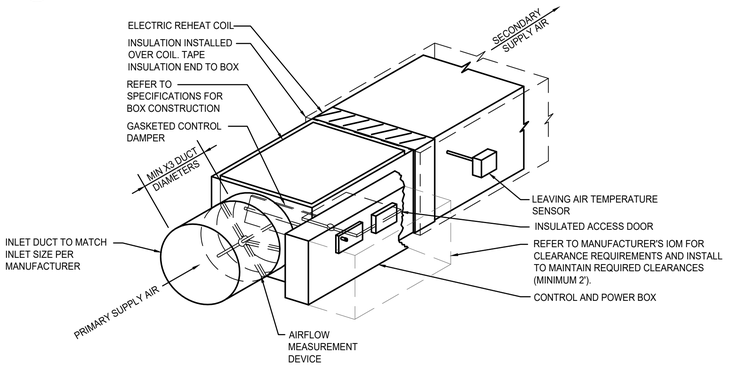
ZONNING PLAN

DRAWING NUMBER
M104



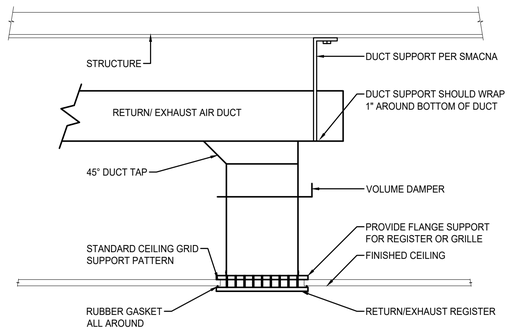
NOTE:
1. CONTRACTOR TO VERIFY TYPE OF DIFFUSER PRIOR TO PURCHASING TO DETERMINE IF SURFACE MOUNTED OR LAY-IN STYLE IS REQUIRED IN EACH LOCATION.
2. OFFSETS WITH FLEX DUCT SHALL NOT EXCEED 30 DEGREES AND SHALL BE GRADUAL. OFFSETS IN EXCESS OF 30 DEGREES SHALL BE HARD-DUCTED. GRADUAL 90 DEGREE OFFSET IS PERMITTED WHERE SPACE IS AVAILABLE.
3. FLEX DUCT SHALL NOT HAVE MORE THAN ½" SAG PER FOOT.
4. LENGTH OF FLEX DUCT SHALL NOT EXCEED 3'-0".
5. PROVIDE DUCT MOUNTED VOLUME DAMPER AS CLOSE TO MAIN DUCT AS POSSIBLE.
6. PROVIDE SINGLE BLADE DAMPERS UP TO 12" HIGH AND ON ROUND DUCT. PROVIDE MULTI BLADE DAMPERS ON ALL DUCTS OVER 12" HIGH PER SMACNA REQUIREMENTS.
7. PROVIDE LOCKING STYLE DAMPER HANDLE REGULATORS WITH HEXAGON NOT, DURO DYNE OR APPROVED EQUAL.

TYPICAL CEILING SUPPLY DIFFUSER DETAIL
SCALE: NOT TO SCALE



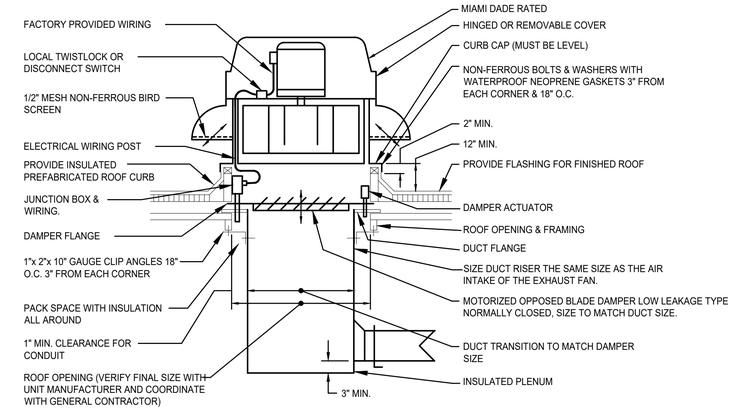
NOTE:
1. COMPLY WITH MANUFACTURER'S REQUIREMENTS FOR CLEARANCE TO CONTROL BOX.
2. PROVIDE LINED DUCTWORK 3FT PAST VAV DISCHARGE. REFER TO SPECIFICATIONS FOR LINED DUCTWORK CONSTRUCTION

2 TYPICAL VARIABLE AIR VOLUME TERMINAL UNIT DETAIL (VAV)
SCALE: NOT TO SCALE

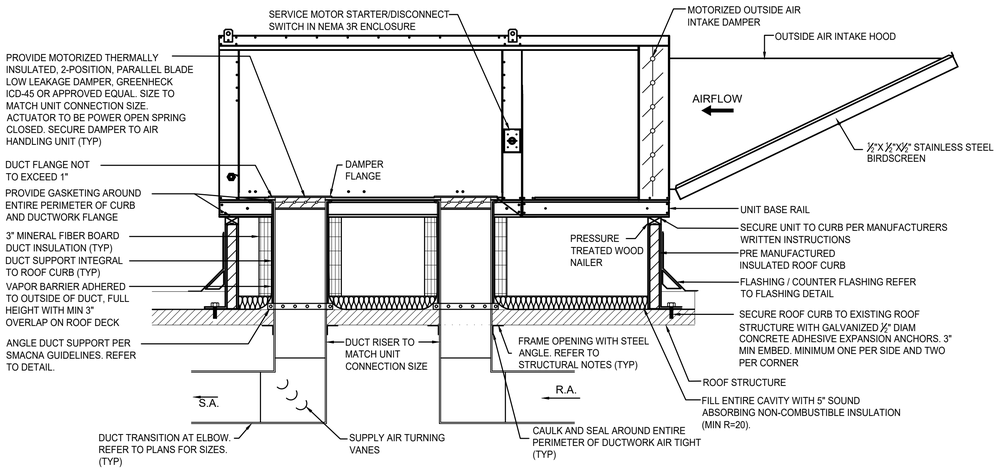


NOTE:
1. ALL BRANCH DUCT CONNECTIONS SHALL BE HARD DUCTED TO SQUARE NECKED GRILLS. NO SPIN ON COLLARS OR ROUND FLEXIBLE DUCTWORK SHALL BE ALLOWED.
2. CONTRACTOR TO VERIFY TYPE OF DIFFUSER PRIOR TO PURCHASING TO DETERMINE IF SURFACE MOUNTED OR LAY-IN STYLE IS REQUIRED IN EACH LOCATION.
3. PROVIDE DUCT MOUNTED VOLUME DAMPER AS CLOSE TO MAIN DUCT AS POSSIBLE.
4. PROVIDE SINGLE BLADE DAMPERS UP TO 12" HIGH AND ON ROUND DUCT. PROVIDE MULTI BLADE DAMPERS ON ALL DUCTS OVER 12" HIGH PER SMACNA REQUIREMENTS.
5. PROVIDE LOCKING STYLE DAMPER HANDLE REGULATORS WITH HEXAGON NOT, DURO DYNE OR APPROVED EQUAL.

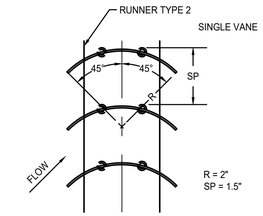
TYPICAL REGISTER CONNECTION
SCALE: NOT TO SCALE



ROOF MOUNTED DOWNBLAST EXHAUST FAN
SCALE: NOT TO SCALE

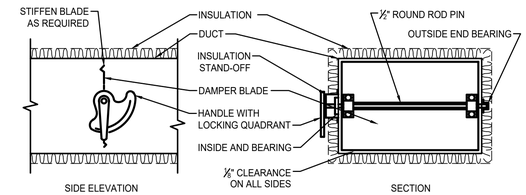


ROOF MOUNTED MAKE-UP AIR UNIT
SCALE: NOT TO SCALE



NOTE:
1. PROVIDE ON ALL RECTANGULAR SUPPLY ELBOWS

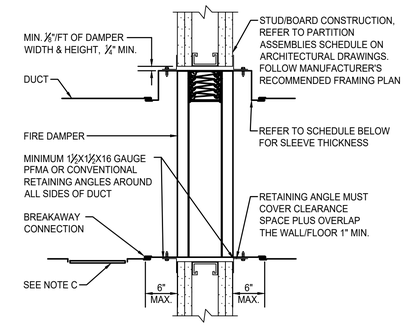
3 TURNING VANE DETAIL
SCALE: NOT TO SCALE



VOLUME DAMPER INSTALLATION DETAIL
SCALE: NOT TO SCALE

NOTES:

A. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
B. DETAIL SHOWS A SINGLE BLADE DAMPER. INSTALLATION SHALL BE SIMILAR FOR ROUND DAMPER AND MULTI-BLADE DAMPER



MINIMUM SLEEVE THICKNESS FOR FIRE DAMPERS

TYPE OF DUCT TO SLEEVE CONNECTION	DUCT	DUCT DIMENSION	SLEEVE GAUGE
RIGID	ROUND RECTANGULAR	24" MAX. DIAMETER 36" MAXIMUM WIDTH OR 24" MAX. HEIGHT	16 (.060")
RIGID	ROUND RECTANGULAR	OVER 24" DIAMETER OVER 36" WIDTH OR OVER 24" HEIGHT	14 (.075")
BREAKAWAY (OR NO DUCT)	ROUND OR RECTANGULAR	12" WIDE AND UNDER 13"-30" WIDE 31"-54" WIDE 55"-84" WIDE 85" WIDE AND OVER	26 (.018") 24 (.024") 22 (.030") 20 (.036") 18 (.048")

NOTE: SLEEVE THICKNESS MUST NOT BE LESS THAN THE GAUGE OF THE CONNECTING DUCT.

10 CURTAIN STYLE FIRE DAMPER DETAIL
SCALE: NOT TO SCALE

NOTES:

A. PROVIDED FOR GENERAL INSTALLATION GUIDANCE. ACTUAL INSTALLATION SHALL CONFORM TO MANUFACTURER'S INSTALLATION GUIDELINES IN ALL RESPECTS TO MAINTAIN UL RATING OF ASSEMBLY.
B. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF STUD FRAMING AROUND THE SLEEVE WITH OTHER TRADES. FOR WOOD CONSTRUCTION, WALL BOARD MUST COVER ALL WOOD STUD SURFACES.
C. ACCESS DOOR: MINIMUM SIZE 12x12. IF DUCT IS LESS THAN 14" WIDE, PROVIDE 24" LONG REMOVABLE DUCT SECTION, FLANGED, GASKETED AND SECURED WITH WING NUTS WITH 8x8 ACCESS INSPECTION DOOR. IF ASSEMBLY IS PROVIDED WITH FACTORY INSTALLED ACCESS DOOR, DAMPER SLEEVE SHALL BE 16" MAX. BEYOND THE EDGE OF THE RATED CONSTRUCTION.
C. FASTENERS SHALL BE MINIMUM #10 SCREWS SPACED 6" O.C. MAX. AND 2" MAX. FROM CORNERS SLEEVE ATTACHMENT AND MINIMUM 2 FASTENERS PER SIDE.
D. HORIZONTAL INSTALLATION IS SIMILAR.

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS IT BEARS THE SEAL AND SIGNATURE OF A DULY REGISTERED PROFESSIONAL

CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: CJP
DRAWN: CJP
CHECKED: NBN
CHECKED:
APPROVED: RFJ

FILENAME
BC PROJECT NUMBER
CLIENT PROJECT NUMBER

MECHANICAL
DETAILS

DRAWING NUMBER
M201

VARIABLE AIR VOLUME BOX SCHEDULE (VAV)

PLAN DESIGNATION	MANUFACTURER MODEL NO.	ASSOCIATED EQUIPMENT	INLET SIZE (IN.)	LOCATION	MAXIMUM AIR FLOW (CFM)	MINIMUM AIR FLOW (CFM)	REHEAT AIRFLOW (CFM)	AIR PRESSURE DROP (IN. W.C.)	COIL DATA					MAXIMUM NC	NOTES
									CAPACITY (KW)	EAT (°F)	LWT (°F)	VOLTS / PHASE	AMPS		
VAV 1-1	PRICE-SDV	RTU -1	7	LOBBY	490	120	390	.5	4.9	55	95	208 / 3	13.6	<30	1-7
VAV 1-2	PRICE-SDV	RTU -1	8	PRE-FUNCTION	825	250	485	.5	6.1	55	95	208 / 3	16.9	<30	1-7
VAV 1-3	PRICE-SDV	RTU -1	7	CORRIDOR	730	150	225	.5	2.8	55	95	208 / 3	7.8	<30	1-7
VAV 1-4	PRICE-SDV	RTU -1	7	CORRIDOR	635	150	245	.5	3.1	55	95	208 / 3	8.6	<30	1-7
VAV 2-1	PRICE-SDV	RTU -2	9	CORRIDOR	1350	160	300	.5	3.8	55	95	208 / 3	10.6	<30	1-7
VAV 2-2	PRICE-SDV	RTU -2	9	CORRIDOR	1000	160	350	.5	4.4	55	95	208 / 3	12.2	<30	1-7
VAV 2-3	PRICE-SDV	RTU -2	7	CORRIDOR	640	130	130	.5	3.2	55	95	208 / 3	8.9	<30	1-7
VAV 2-4	PRICE-SDV	RTU -2	7	CORRIDOR	425	120	220	.5	3.2	55	95	208 / 3	8.9	<30	1-7
VAV 2-5	PRICE-SDV	RTU -2	8	CORRIDOR	820	125	200	.5	2.5	55	95	208 / 3	6.9	<30	1-7
VAV 3-1	PRICE-SDV	RTU -3	10	STORAGE	1500	450	450	.5	5.7	55	95	208 / 3	15.8	<30	1-7
VAV 3-2	PRICE-SDV	RTU -3	9	STORAGE	1000	300	300	.5	3.8	55	95	208 / 3	10.6	<30	1-7
VAV 3-3	PRICE-SDV	RTU -3	7	STORAGE	650	125	290	.5	3.6	55	95	208 / 3	10.0	<30	1-7

1. PROVIDE INSULATED ACCESS DOOR IN VAV BOX FOR VIEWING DAMPER AND COIL.
2. COORDINATE VAV SUPPLY AIR DUCT TRANSITION WITH VAV NECK CONNECTION SIZE.
3. INLET STATIC PRESSURE SHALL BE .75 (I.N. W.G.).
4. PROVIDE SCR CONTROLLER FOR REHEATS
5. PROVIDE HI-LIMIT DISCHARGE STAT
6. PROVIDE ELECTRICAL DISCONNECT SWITCH
7. PROVIDE SPACE TEMPERATURE SENSOR
8. PROVIDE FACTORY VAV CONTROLLER

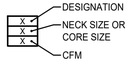
REGISTER, GRILLE, AND DIFFUSER SCHEDULE

PLAN DESIGNATION	MANUFACTURER MODEL NO.	TYPE	NECK SIZE	MAX. N.C. LEVEL	FACE SIZE (IN.)	MATERIAL	NOTES
SD-1	PRICE SPD	SQUARE PLAQUE	VARIES	<30	24" X 24"	STEEL	PROVIDE VOLUME DAMPER
RG-1	PRICE 525	FIXED DEFLECTION	VARIES	<30	24" X 24"	STEEL	
EG-1	PRICE 625	FIX DEFLECTION	VARIES	<30	24" X 24"	ALUMINUM	
TG-1	PRICE 525	FIXED DEFLECTION	VARIES	<30	24" X 24"	STEEL	

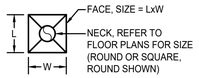
GENERAL NOTES:

1. A REGISTER IS DEFINED AS A GRILLE WITH A FACE DAMPER.
2. FACE SIZE IS DEFINED AS THE MAXIMUM OUTSIDE DIMENSIONS OF THE AIR INLET/OUTLET. REFER TO DIAGRAMS CONTAINED WITHIN FOR ADDITIONAL INFORMATION.
3. CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING AIR INLETS AND OUTLETS. PROVIDE ALL REQUIRED BRACKETS, FLANGES, SURFACE PLATES, AND FRAMES TO MOUNT THE DEVICE. REFER TO ARCHITECTURAL CEILING PLANS FOR CEILING TYPES.
4. SUBMIT A SEPARATELY FROM TECHNICAL DATA A COLOR CHART FOR COLOR AND FINISH SELECTION.

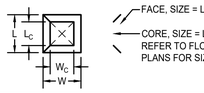
DEVICE TAG



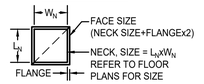
CEILING DIFFUSER



CEILING DIFFUSER w/ CORE



REGISTER / GRILLE



AIR CONDITIONING UNIT SCHEDULE (RTU)

PLAN DESIGNATION	MANUFACTURER MODEL NO.	ASSOCIATED EQUIPMENT	MAXIMUM UNIT WEIGHT (LBS)	AIR FLOW (CFM)	MIN O.A. CFM (OCCUPIED)	TOTAL S.P. (IN. W.C.)	EXTERNAL S.P. (IN. W.C.)	EER	IEER	D/X COOLING SECTION				HEATING (HEAT PUMP) (23 F AMBIENT)			OPERATING FAN HP	FAN HP	NO. OF COMPRESSORS	NO. OF CIRCUITS	REFRIGERANT TYPE	REFRIGERANT CHARGE TOTAL (LB)	TOTAL UNIT ELECTRIC DATA				NOTES
										TOTAL CAP. (MBH)	SENSIBLE CAP. (MBH)	EAT (°Fdb/°Fwd)	LAT (°Fdb/°Fwd)	TOTAL CAP. (MBH)	EAT (°F)	LAT (°F)							MCA	MOP	SCCR	VOLTS/PHASE	
RTU-1	TRANE WHK102A	VAV 1-1 THRU VAV 1-4	1293	2600	600	1.4	1.1	12.1	17.5	101.5	75.3	79.8 / 66.0	52.7 / 53.5	70.8	57.75	82.9	1.153	3	1	1	R-454B	16.5	62.0	80.0	65K	208V / 3Ø	SEE BELOW
RTU-2	TRANE WHK102A	VAV 2-1 THRU VAV 2-4	1188	3800	500	1.3	1	12.1	17.5	105.2	89.5	77.3 / 64.5	55.4 / 55.0	69.0	64.12	80.86	1.825	3	1	1	R-454B	16.5	62.0	80.0	65K	208V / 3Ø	SEE BELOW
RTU-3	TRANE WHK120A	VAV 3-1 THRU VAV 3-3	1483	3100	1100	1.3	1	11.4	16.6	116.7	91.05	80.7 / 66.58	54.8 / 54.7	77.4	55.3	76.4	1.2	4.2	1	1	R-454B	21.5	68.0	90.0	65K	208V / 3Ø	SEE BELOW

NOTES:

1. PROVIDE SINGLE VARIABLE FREQUENCY DRIVE FOR SUPPLY WITH INTEGRAL HAND-OFF-AUTO SELECTION SWITCH AND LOCKABLE DISCONNECT. VARIABLE FREQUENCY DRIVE SHALL BE FURNISHED BY ROOFTOP UNIT MANUFACTURER AND RECESSED IN UNIT CABINET WITH PREWIRED CONNECTION BETWEEN UNIT AND DRIVE. SINGLE DRIVE TO CONTROL EACH SET OF SUPPLY FANS(S) VIA STATIC PRESSURE CONTROL.
2. PROVIDE 2" MERV-13 FILTERS.
3. PROVIDE HINGED ACCESS DOOR AND REMOVABLE FILTERS.
4. FAN STATIC PRESSURES TO BE BASED ON FILTERS IN REPLACEMENT CONDITION (.2" WC ALLOWANCE).
5. PROVIDE NON-FUSED, UNIT MOUNTED DISCONNECT BY MANUFACTURER.
6. PROVIDE POWER EXHAUST POWERED BY UNIT SINGLE POINT POWER CONNECTION.
7. PROVIDE HINGED ACCESS DOORS.
8. UNIT TO BE FACTORY FABRICATED AS ONE UNIT BY MANUFACTURER.
9. PROVIDE DOOR KILL SWITCHES ASSOCIATED WITH THE FAN SECTION ACCESS DOOR. KILL SWITCHES TO BE WIRED TO VFD TO AUTOMATICALLY DE-ENERGIZE FANS WHEN DOOR IS OPENED.
10. PROVIDE THYBAR WIND RATED CURB ADAPTOR IN COMPLIANCE WITH THE 2024 GEORGIA BUILDING CODE AND ASCE 7. DEMONSTRATE A CONTINUOUS LOAD PATH FROM EQUIPMENT THROUGH CURB AND TO STRUCTURAL STEEL TO ACCOMMODATE WIND LOADING. CURB SHALL BE INSULATED ON INTERIOR WITH 1-½" THICK 3 LB/CF INSULATION.
11. PROVIDE ECONOMIZER WITH ENTHALPY CONTROL.
12. PROVIDE FACTORY MULTI ZONE VAV CONTROL.
13. PROVIDE POWERED 15A CONVENIENCE OUTLET FROM SINGLE POINT POWER CONNECTION.
14. PROVIDE CLOGGED FILTER SWITCH AND CONDENSATE OVERFLOW SWITCH.
15. PROVIDE CONDENSER HAIL GUARDS.
16. UNIT SHALL BE PROVIDED WITH A VARIABLE SPEED COMPRESSOR MATCHED WITH VFD.
17. PROVIDE REMOTE CONTROL PANEL PER UNIT

EXHAUST FAN SCHEDULE (EF)

PLAN DESIGNATION	MANUFACTURER MODEL NO.	LOCATION	CONSTRUCTION TYPE	DISCHARGE CONFIGURATION	AIR FLOW RATE (CFM)	EXTERNAL S.P. (IN. W.C)	FAN SPEED (RPM)	INLET SONES	DRIVE TYPE	ELECTRICAL DATA			NOTES
										MOTOR BHP	MOTOR HP	VOLTS/ PHASE	
EF-1	GREENHECK G-099-VG	ROOF	GPF	DB	800	.8	1625	10.9	DIRECT	-	¼	115V / 1Ø	1-10

NOTES:

1. PROVIDE 24" ROOF CURB.
2. PROVIDE ECM WITH 0-10 VDC INPUT SIGNAL AND BALANCING KNOB.
3. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
4. PROVIDE MOTORIZED BACK DAFT DAMPER WITH 24V ACTUATOR PROVIDE INSULATED MOTORIZED DAMPER.
5. PROVIDE INVERTER DUTY PREMIUM EFFICIENCY MOTOR, CLASS F INSULATION.
6. PROVIDE COMBINATION MOTOR STARTER.
7. PROVIDE FAN MOUNTED SPEED CONTROLLER FROM MANUFACTURER.

CONSTRUCTION TYPE:

GPF - GENERAL PURPOSE FAN
SRC - SPARK B RESISTANT CONSTRUCTION

DISCHARGE CONFIGURATION:

CW - CLOCKWISE
UB - UP BLAST
DB - DOWN BLAST

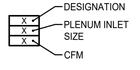
LINEAR DIFFUSER SCHEDULE

PLAN DESIGNATION	MANUFACTURER MODEL NO.	TYPE	MAX. N.C. LEVEL	# OF SLOTS	SLOT WIDTH (IN)	WITH PLENUM	PLENUM INLET SIZE (IN)	OVERALL LENGTH (IN)	THROW PATTERN	MATERIAL	NOTES
LD-1	PRICE SDS	LINEAR SLOT DIFFUSER TYPE 8	<25	5	1/2"	YES	VARIES	48	VERTICAL	STEEL	SEE BELOW
LD-2	PRICE SDS	LINEAR SLOT DIFFUSER TYPE 2	<25	1	3/4"	YES	6	60	1 WAY HORZ.	STEEL	SEE BELOW
LD-3	PRICE SDS	LINEAR SLOT DIFFUSER TYPE 14	<25	3	1/2"	YES	VARIES	48	VERTICAL	STEEL	SEE BELOW
LD-4	PRICE SDS	LINEAR SLOT DIFFUSER TYPE 14	<25	3	1/2"	YES	6	60	VERTICAL	STEEL	SEE BELOW
LD-5	PRICE SDS	LINEAR SLOT DIFFUSER TYPE 2	<25	3	1/2"	YES	NONE	60	1 WAY HORZ.	STEEL	SIDE WALL MOUNTED ON SOFFIT

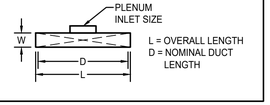
GENERAL NOTES:

1. DIFFUSER SHALL BE SET SUCH THAT SLOT FACING EXTERIOR WALL/WINDOW HAS VERTICAL AIRFLOW, AND SLOT FACING THE INTERIOR OF THE BUILDING HAS HORIZONTAL AIRFLOW.
2. CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING AIR INLETS AND OUTLETS. PROVIDE ALL REQUIRED BRACKETS, FLANGES, SURFACE PLATES, AND FRAMES TO MOUNT THE DEVICE. REFER TO ARCHITECTURAL CEILING PLANS FOR CEILING TYPES.
3. SUBMIT A SEPARATELY FROM TECHNICAL DATA A COLOR CHART FOR COLOR AND FINISH SELECTION.

DEVICE TAG



LINEAR DIFFUSER



BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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SCHEDULES

DRAWING NUMBER

M301

SYMBOLS & ABBREVIATIONS SCHEDULE

RECEPTACLES

LP2,12	DUPLEX RECEPTACLE OUTLET, 18" A.F.F., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE WITH MATCHING COVERPLATE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.
LP2,12	GFCI RECEPTACLE OUTLET, 18" A.F.F., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE WITH MATCHING COVERPLATE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.
LP2,12	DUPLEX RECEPTACLE OUTLET, 18" AFF., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE WITH MATCHING COVERPLATE. TAG INDICATES PANELBOARD & DEDICATED BRANCH CIRCUIT THAT IT IS CONNECTED TO. RECEPTACLE SHALL BE SUPPLIED BY A GFCI CIRCUIT BREAKER. PROVIDE LABEL ON COVER "PROTECTED BY GFCI"
LP2,12	INDICATES (2) TAMPER RESISTANT, 20 AMP, COMMERCIAL GRADE RECEPTACLES IN 2-GANG BOX UNDER A COMMON MATCHING COVERPLATE. RECEPTACLES SHALL BE GROUNDING TYPE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.
LP2,12	(2) GFCI RECEPTACLE OUTLETS, 18" A.F.F., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE IN 2-GANG BACKBOX WITH MATCHING COMMON COVERPLATE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.
LP2,10,12	RANGE OR DRYER OUTLET VERIFY RECEPTACLE NEMA CONFIGURATION, RATING & INSTALLATION HEIGHT WITH SELECTED EQUIPMENT SUPPLIER. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO. COVER PLATES SHALL BE STAINLESS STEEL.
LP2,12	SPECIAL PURPOSE RECEPTACLE AS CALLED FOR ON DRAWINGS OR AS REQUIRED BY EQUIPMENT MANUFACTURER. VERIFY NEMA CONFIGURATION. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.
LP2,12	FLOOR MOUNTED RECEPTACLE AS CALLED FOR ON DRAWINGS OR AS REQUIRED BY EQUIPMENT MANUFACTURER. UNLESS OTHERWISE NOTED, PROVIDE RECESSED IN CONCRETE WITH A METAL COVER. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.
WALL — J FLOOR — (J)	PROVIDE COMPLETE ELECTRICAL POWER CONNECTION TO MODULAR FURNITURE. WHIP TO BE PROVIDED WITH FURNITURE. CONNECTION SHALL INCLUDE MINIMUM WALL OR FLOOR JUNCTION BOX, WIRING TO CIRCUIT INDICATED, FINAL CONNECTION TO APPROPRIATE FURNITURE GROUP.
FB1 LP2,12	TYPE #1 FLOOR BOX WITH (1) DUPLEX RECEPTACLE . UNLESS OTHERWISE NOTED, PROVIDE RECESSED IN CONCRETE WITH A METAL COVER. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.

POWER

J	WALL MOUNTED JUNCTION BOX, SIZE AS INDICATED OR PROVIDE MINIMUM SIZE REQUIRED BY LATEST EDITION OF NATIONAL ELECTRICAL CODE (NFPA 70-NEC).
(J)	CEILING MOUNTED JUNCTION BOX, SIZE AS INDICATED OR PROVIDE MINIMUM SIZE REQUIRED BY LATEST EDITION OF NATIONAL ELECTRICAL CODE (NFPA 70-NEC).
	PROVIDE COMPLETE ELECTRICAL CONNECTION TO EQUIPMENT INDICATED (INCLUDING DISCONNECT, CONDUCTORS, RACEWAY, & OTHER REQUIRED HARDWARE. XX-X INDICATES EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	PROVIDE COMPLETE ELECTRICAL CONNECTION TO MOTOR INDICATED (INCLUDING DISCONNECT, STARTER, CONDUCTORS, RACEWAY, & OTHER REQUIRED HARDWARE. XX-X INDICATES EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	EMERGENCY POWER OFF BUTTON (EPO). PROVIDE WHERE INDICATED ON DRAWINGS. PROVIDE ALL REQUIRED INTERFACES AS CALLED FOR ON DRAWINGS OR REQUIRED BY EQUIPMENT MANUFACTURER.
TYPICAL WALL	ELECTRICAL PANELBOARD, SURFACE MOUNTED. UNLESS OTHERWISE NOTED, INSTALL AT 72" A.F.F. TO THE TOP OF THE BOX.
TYPICAL WALL	ELECTRICAL PANELBOARD, FLUSH MOUNTED. UNLESS OTHERWISE NOTED, INSTALL AT 72" A.F.F. TO THE TOP OF THE BOX.
	TYPICAL DISCONNECT (SAFETY SWITCH). REFER TO DRAWINGS FOR SIZE & ADDITIONAL FUSING REQUIREMENTS.
	TYPICAL DRY-TYPE TRANSFORMER (SIZE MIGHT VARY). UNLESS OTHERWISE NOTED, PROVIDE FLOOR MOUNTED WITH CONCRETE EQUIPMENT PAD.
	ELECTRICAL PIECE OF EQUIPMENT. REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.

DATA (SYSTEMS)

X	DATA DROP LOCATION. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM OF (2) CAT 6 CABLES & TERMINATIONS, INSTALL 18" AFF, EXTENSION RING & ASSOCIATED JACKS. PROVIDE 3/4" RACEWAY TO NEAREST ACCESSIBLE CEILING SPACE. PROVIDE WITH COVERPLATE. ALL DATA CABLES SHALL BE PROPERLY TERMINATED AT BOTH ENDS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
TV	TELEVISION CONNECTION DROP, VERIFY FINAL LOCATION PRIOR TO INSTALLATION. PROVIDE COAX CABLE WITH DUPLEX RECEPTACLE UNDER THE SAME COVERPLATE. VERIFY EXACT HEIGHT OF OUTLET & RECEPTACLE PRIOR TO ROUGH-IN.
AV	A/V CONNECTION FOR WALL MOUNTED FLAT PANEL DISPLAY. PROVIDE CABLE TV WIRING, DATA PORT CABLE, HDMI CABLE TO THE FLOOR BOX. BOX SHALL INCLUDE A DUPLEX RECEPTACLE. EQUIPMENT SHALL BE LEGRAND HT2102-WH-V1 OR EQUAL
DATA-X WALL — J FLOOR — (J)	PROVIDE DATA CABLING TO MODULAR OFFICE FURNITURE. SHALL INCLUDE WALL JUNCTION BOX OR FLOOR BOX, CONDUIT TO ACCESSIBLE SPACE. 'DATA-X' INDICATES NUMBER OF CABLES AT THIS LOCATION, UNLESS OTHERWISE NOTED, ROUTE DATA CABLES THROUGH THE FURNITURE & TERMINATE AT BOTH ENDS. COORDINATE DATA WIRING WITH FURNITURE INSTALLER.
	WIRELESS ACCESS POINT, CEILING MOUNTED. PROVIDE 4"X4" BOX ABOVE CEILING. EQUIPMENT AND WIRING PROVIDED BY OTHERS.

BRANCH CIRCUIT WIRING NOTES:

A. UNLESS OTHERWISE NOTED, MINIMUM HOMERUN (HOMERUN SHALL BE CONSIDERED TOTAL LENGTH FROM SOURCE TO LAST DEVICE ON THE CIRCUIT) CONDUCTORS FOR 20A/1P BRANCH CIRCUITS INCLUDING LIGHTING SHALL BE AS FOLLOWS:
- 1-100FT - #12 AWG
- 101-150FT - #10 AWG
- 151-250FT - #8 AWG
- 251-400FT - #6 AWG.
- 401 & LONGER - #4 AWG.

REDUCE CONDUCTORS SIZE TO A MAXIMUM CONDUCTOR SIZE THAT THE LOAD TERMINALS CAN ACCOMMODATE. REDUCED SIZE NOT LONGER THAN ONE FOOT. INCREASE RACEWAY SIZE AS NEEDED PER NEC, FOR THE LARGER SIZES OF CONDUCTORS.

REMOVAL (TYPICAL FOR ALL DEVICES):

XXXcd	TYPICAL POWER & SYSTEMS DEVICE SCHEDULED FOR REMOVAL. DISCONNECT & REMOVE ALL ASSOCIATED ELECTRICAL WORK AS INDICATED ON CONTRACT DOCUMENTS. REINSTALL AS REQUIRED
	TYPICAL LUMINAIRE SCHEDULED FOR REMOVAL. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.

REMOVAL NOTES:
NOT ALL DEVICES SCHEDULED FOR REMOVAL ARE SHOWN ON THIS SCHEDULE. ALL DEVICES TO BE REMOVED ARE MARKED WITH THE SAME LINETYPE & LINE WEIGHT AS SYMBOLS ABOVE. REFER TO DEMOLITION PLANS FOR ADDITIONAL INFORMATION.

EXISTING TO REMAIN (TYPICAL FOR ALL DEVICES):

XXXcd (ETR)	TYPICAL POWER & SYSTEMS DEVICE EXISTING TO REMAIN IN PLACE.
(ETR)	EXISTING LUMINAIRE SCHEDULED TO REMAIN IN PLACE. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.

EXISTING TO REMAIN NOTES:
NOT ALL EXISTING DEVICES SCHEDULED TO REMAIN ARE SHOWN ON THIS SCHEDULE. ALL DEVICES SCHEDULED TO REMAIN ARE MARKED WITH THE SAME LINETYPE & LINE WEIGHT AS SYMBOLS ABOVE. REFER TO FLOOR PLAN DRAWINGS FOR ADDITIONAL INFORMATION.

POWER ONE-LINE

	POWER TRANSFORMER, DELTA PRIMARY, WYE SECONDARY OR AS INDICATED. PROVIDE ALL REQUIRED GROUNDING.
XXAF XXAT	MOLDED CASE CIRCUIT BREAKER. AF INDICATES FRAME SIZE, AT INDICATES TRIP SETTING
XXAF XXAT	DRAWOUT TYPE CIRCUIT BREAKER. AF INDICATES FRAME SIZE, AT INDICATES TRIP SETTING
XXAS XXAS XXAF XXAF	DISCONNECT SWITCH & FUSIBLE SWITCH. XXAS INDICATES SWITCH AMPERE SIZE XXAF INDICATES FUSE AMPERE SIZE
XX A	FUSE, XX A INDICATES FUSE SIZE IN AMPERES.
1PP1 225 MLO 208Y/120V 3-PHASE 4-WIRE	PANELBOARD
E N	TRANSFER SWITCH.
GFP	GROUND FAULT PROTECTION.
SPD	SURGE PROTECTION.
PQM	POWER QUALITY METER.
DVM	DIGITAL VOLT METER.
65000	AVAILABLE FAULT CURRENT TAG (AMPS)

GENERAL NOTES: (FOR ALL DRAWINGS)

A. THE DRAWINGS ARE DIAGRAMMATIC & INDICATE GENERALLY THE LOCATIONS OF THE MATERIAL & EQUIPMENT. THESE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE.

B. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER INSTALLATION & OPERATION, SHALL BE INCLUDED IN THE CONTRACTOR'S BID, THE SAME AS IF HEREIN SPECIFIED OR SHOWN.

C. ALL MATERIAL & INSTALLATION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE NATIONAL ELECTRIC CODE, LATEST EDITION OF LOCAL CODES, & ORDINANCES.

D. ALL CONDUITS ON EXPOSED WORK SHALL BE RUN AT RIGHT ANGLES TO, & PARALLEL WITH, THE SURROUNDING WALL & SHALL CONFORM TO THE FORM OF THE CEILING. DIAGONAL RUNS WILL NOT BE ALLOWED. BENDS IN PARALLEL CONDUIT RUNS SHALL BE CONCENTRIC. ALL CONDUIT SHALL RUN PERFECTLY STRAIGHT & TRUE.

E. ALL CONDUIT RUNS ARE TO BE CONCEALED IN WALLS, CEILINGS, OR IN THE SLAB. CONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION DURING BUILDING CONSTRUCTION WITH OTHER TRADES. RUN SURFACE RACEWAY ONLY WHERE CALLED FOR OR SHOWN ON THE DRAWINGS. EXPOSED CONDUIT SHALL ONLY BE INSTALLED WHERE MEANS OF CONCEALING DOES NOT EXIST. CONTRACTOR IS TO NOTIFY ENGINEER & GET OWNERS APPROVAL PRIOR TO RUNNING EXPOSED CONDUITS.

F. INTERIOR RECEPTACLE & LIGHT FIXTURE BRANCH CIRCUITS SHALL BE IN EMT CONDUIT. A MAXIMUM OF (3) CIRCUITS CAN BE GROUPED TOGETHER IN A HOMERUN CONDUIT. EACH CIRCUIT SHALL HAVE SEPARATE NEUTRAL, GROUPING OF NEUTRALS SHALL NOT BE ACCEPTABLE. EACH CIRCUIT SHALL ALSO HAVE A GROUND WIRE SIZED PER NEC. USING CONDUIT, OR MC CABLE AS GROUND PATH SHALL NOT BE ACCEPTABLE. CABLE MUST BE SUPPORTED PER NEC, GROUPING OF GROUND WIRES [(1) GROUND PER (3) CIRCUITS] IS ACCEPTABLE. MAXIMUM 6' LENGTH OF MC CABLE ALLOWED FOR A WHIP CONNECTION TO LUMINAIRE ONLY. EXTERIOR (OUTDOOR) RECEPTACLE & LIGHT FIXTURE BRANCH CIRCUITS SHALL BE IN RMC CONDUIT OR AS PERMITTED IN THE SPECIFICATIONS.

G. COORDINATE ALL LUMINAIRE & CEILING MOUNTED EQUIPMENT LOCATIONS & MOUNTING HARDWARE WITH ARCHITECTURAL CEILING PLANS PRIOR TO CONSTRUCTION.

H. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED COSTS FOR SEALING ALL PENETRATIONS THROUGH FIRE & SMOKE WALLS USING UL APPROVED SEALANT & METHODS.

I. ALL COMMUNICATIONS OUTLET LOCATIONS ARE DIAGRAMMATIC & MUST BE FIELD VERIFIED WITH OWNER'S FURNITURE LOCATIONS PRIOR TO CONSTRUCTION. NO EXTRA COMPENSATION WILL BE GIVEN FOR FAILURE TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.

J. UNLESS OTHERWISE NOTED, PROVIDE ALL NEW RACEWAYS. USE SURFACE RACEWAY ONLY WHERE INDICATED ON THE PLANS. IF CONTRACTOR INTENDS TO UTILIZE SURFACE RACEWAY IN AREAS OTHER THOSE INDICATED ON PLANS, PRIOR APPROVAL IS REQUIRED FROM ENGINEER & OWNER.

K. CONTRACTOR MAY REUSE EXISTING CONCEALED CONDUIT UNLESS OTHERWISE NOTED ON THE PLANS.

L. ALL RECEWAYS CROSSING BUILDING EXPANSION JOINTS SHALL BE EQUIPPED WITH EXPANSION FITTINGS.

M. CONTRACTOR SHALL PROVIDE INFORMATION LABELS ON ALL RECEPTACLES, PANELBOARDS, JUNCTION BOXES, WALL SWITCHES, & DISCONNECT SWITCHES. LABELS SHALL BE PHENALIC TYPE WITH BLACK BACKGROUND & WHITE ENGRAVED LETTERING. LABEL SHALL INDICATED CIRCUIT/FEEDER SOURCE & EQUIPMENT ID NAME.

ABBREVIATIONS:

WP	INDICATES WEATHERPROOF DEVICE OR EQUIPMENT
WG	INDICATES DEVICE SHALL HAVE WIRE GUARD PROTECTION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
(ETR)	EXISTING EQUIPMENT SHALL REMAIN IN PLACE
OC	OVER COUNTER (INSTALL 12" ABOVE COUNTER HEIGHT)
UC	UNDER COUNTER (INSTALL 18" ABOVE FINISHED FLOOR)
VNAC	VISUAL NOTIFICATION APPLIANCE CIRCUIT
ANAC	AUDIO NOTIFICATION APPLIANCE CIRCUIT
SLC	SIGNALING LINE CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
HP	HORSEPOWER
kW	KILOWATT
kVA	KILOVOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
EM	EMERGENCY
NL	NIGHTLIGHT (TYPICAL FOR LIGHTING, 'ON' ALL THE TIME)
LTG	LIGHTING
CPWR	CONTINUOUS LOAD (POWER)
PWR	POWER
EH	ELECTRIC HEAT
KIT	KITCHEN EQUIPMENT
LMTR	LARGEST MOTOR
EQP	SHOP EQUIPMENT
NEC	NATIONAL ELECTRICAL CODE
MLO	MAIN LUGS ONLY
MCB	MAIN CIRCUIT BREAKER
AWG	AMERICAN WIRE GAGE

GENERAL SYMBOLS NOTE:

THIS SYMBOLS & ABBREVIATIONS SCHEDULE IS FOR THE ELECTRICAL CONTRACTOR REFERENCE ONLY. NOT ALL SYMBOLS OR ABBREVIATIONS MAY APPLY TO THIS PARTICULAR PROJECT. ANY ADDITIONS OR OMISSIONS FROM THIS SCHEDULE DOES NOT IMPLY INCLUSION AND / OR EXCLUSION OF ANY PARTICULAR ITEM FROM THE PROJECT.

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ELECTRICAL

SYMBOLS, NOTES, AND ABBREVIATIONS

DRAWING NUMBER
E001

SYMBOLS & ABBREVIATIONS SCHEDULE

LIGHTING

(REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION, LUMINAIRE SYMBOLS ARE SHOWN TO INDICATE GENERAL SHAPE & SIZE, ACTUAL SYMBOLS MY VARY)

T42.a.13

LUMINAIRE (RECESSED). REFER TO LUMINAIRE SCHEDULE FOR ADDTIONAL INFORMATION. UPPERCASE LETTER INDICATES TYPE IN LUMINAIRE SCHEDULE, LOWERCASE LETTER INDICATES TYPE OF SWITCHED LEG, NUMBER INDICATES CIRCUIT IN PANELBOARD.

S42.b.12

LUMINAIRE (SURFACE OR PENDANT MOUNTED). REFER TO LUMINAIRE SCHEDULE FOR ADDTIONAL INFORMATION. UPPERCASE LETTER INDICATES TYPE IN LUMINAIRE SCHEDULE, LOWERCASE LETTER INDICATES TYPE OF SWITCHED LEG, NUMBER INDICATES CIRCUIT IN PANELBOARD.

A4 c 17 — A8 c 17

RECESSED DOWNLIGHT. REFER TO LUMINAIRE SCHEDULE FOR ADDTIONAL INFORMATION. UPPERCASE LETTER INDICATES TYPE IN LUMINAIRE SCHEDULE, LOWERCASE LETTER INDICATES TYPE OF SWITCHED LEG, NUMBER INDICATES CIRCUIT IN PANELBOARD

AW4 d 19 — AW8 d 19

RECESSED WALLWASHER. REFER TO LUMINAIRE SCHEDULE FOR ADDTIONAL INFORMATION. UPPERCASE LETTER INDICATES TYPE IN LUMINAIRE SCHEDULE, LOWERCASE LETTER INDICATES TYPE OF SWITCHED LEG, NUMBER INDICATES CIRCUIT IN PANELBOARD

EM — EM — EM — EM

EMERGENCY LUMINAIRE, PROVIDE LUMINAIRE TYPE AS INDICATED. REFER TO PLANS & SPECIFICATIONS FOR ADDITIONAL INFORMATION.

K 3 III abc

WALL LIGHT SWITCH, ROMAN NUMERAL INDICATES NUMBER OF SWITCHES GANGED UNDER ONE COVERPLATE. LOWER CASE LETTERS INDICATE SWITCHING. PROVIDE WITH MATCHING COVERPLATES
"K" - KEYED SWITCH.
"3" - 3-WAY
"4" - 4-WAY
"WP" - WATERPROOF (IP66 MINIMUM)

D III abc

WALL MOUNTED DIMMER CONTROLLER (LED OR FLUORESCENT). ROMAN NUMERAL INDICATES NUMBER OF SWITCHES GANGED UNDER COMMON COVERPLATE. LOWER CASE LETTERS INDICATE SWITCHING. UNLESS OTHERWISE NOTED, PROVIDE 0-10VDC. COORDINATE & PROVIDE ANY ADDITIONAL WIRING REQUIREMENTS.

OS

LOW VOLTAGE CEILING MOUNTED OCCUPANCY SENSOR (AUTO ON, AUTO OFF) WITH DUAL TECHNOLOGY SENSING & 360° VIEW CAPABILITY. PROVIDE COMPLETE WITH ALL REQUIRED RELAYS & WIRING AS REQUIRED BY SELECTED EQUIPMENT MANUFACTURER.

OS

WALL MOUNTED OCCUPANCY SENSOR (AUTO ON, AUTO OFF) TYPE SWITCH.

OS

LOW VOLTAGE CORNER MOUNTED OCCUPANCY SENSOR WITH DUAL TECHNOLOGY SENSING. PROVIDE COMPLETE WITH ALL REQUIRED RELAYS & WIRING AS REQUIRED BY SELECTED EQUIPMENT MANUFACTURER.

VS

LOW VOLTAGE CEILING MOUNTED VACANCY SENSOR (MANUAL ON, AUTO OFF) WITH DUAL TECHNOLOGY SENSING & 360° VIEW CAPABILITY. PROVIDE COMPLETE WITH ALL REQUIRED RELAYS & WIRING AS REQUIRED BY SELECTED EQUIPMENT MANUFACTURER. REPLACE EXISTING WALL SWITCHES WITH LOW VOLTAGE (MOMENTARY CONTACT TYPE) & MODIFY EXISTING WIRING AS REQUIRED.

VS

WALL MOUNTED VACANCY SENSOR (MANUAL ON, AUTO OFF) TYPE SWITCH.

VS

LOW VOLTAGE CORNER MOUNTED VACANCY SENSOR (MANUAL ON, AUTO OFF) WITH DUAL TECHNOLOGY SENSING. PROVIDE COMPLETE WITH ALL REQUIRED RELAYS, LOW VOLTAGE SWITCHING & WIRING AS REQUIRED BY SELECTED EQUIPMENT MANUFACTURER. REPLACE EXISTING WALL SWITCHES WITH LOW VOLTAGE (MOMENTARY CONTACT TYPE) & MODIFY EXISTING WIRING AS REQUIRED.

PC

DAYLIGHT HARVESTING PHOTOCELL. PROVIDE COMPLETE WITH ALL REQUIRED MOUNTING HARDWARE & INTERCONNECTION TO CONTROLLER AS SPECIFIED. LOCATE IN ROOM PER MANUFACTURERS REQUIREMENTS.

10'-0"

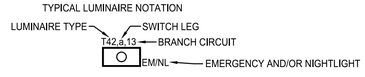
LUMINAIRE MOUNTING HEIGHT TAG. INDICATES THE HEIGHT THAT THE BOTTOM OF LUMINAIRE SHALL BE INSTALLED IN THE ASSOCIATED ROOM.

TYPICAL SITE LUMINAIRE (EXACT SYMBOL MAY VARY). SHALL INCLUDE LUMINAIRE HEAD, POLE, & CONCRETE BASE. REFER TO LUMINAIRE SCHEDULE & SITE LIGHTING PLAN FOR ADDITIONAL INFORMATION.

EMERGENCY LUMINAIRE UNIT, SHALL BE WITH BATTERY BACKUP. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION. BATTERY CAPACITY SHALL MEET OR EXCEED MINIMUM OPERATION TIME REQUIRED BY CODES.

EXIT SIGN (LED TYPE), SHALL PROVIDED WITH INTEGRAL BATTERY BACKUP. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION. VERIFY SHEVRON DIRECTION IN FIELD, PROVIDE AS REQUIRED. BATTERY CAPACITY SHALL MEET OR EXCEED MINIMUM OPERATION TIME REQUIRED BY CODE.

TYPICAL LUMINAIRE NOTATION



SECURITY & ACCESS CONTROL (SYSTEMS)

CCTV CAMERA, VERIFY FINAL LOCATION PRIOR TO INSTALLATION. PROVIDE 4"X4" BOX AND 2" CONDUIT ROUTED TO ACCESSIBLE AREA. EQUIPMENT AND WIRING TO BE PROVIDED BY OTHERS.

FIRE ALARM

EL

FIRE ALARM SYSTEM SMOKE SENSOR. (CEILING MOUNTED) PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER. (ROUND-CEILING MOUNTED, SQUARE-WALL MOUNTED). TAG 'EL' INDICATES SMOKE DETECTORS SHALL BE PROGRAMMED FOR ELEVATOR RECALL.

FIRE ALARM SYSTEM HEAT DETECTOR. UNLESS OTHERWISE NOTED, PROVIDE COMBINATION FIXED (135°F) & RATE-OF-RISE (15° PER MINUTE) TYPE DEVICE. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

F 190°F

FIRE ALARM SYSTEM HEAT DETECTOR. PROVIDE WITH FIXED TEMPERATURE SENSING ELEMENT (190°F OR AS OTHERWISE NOTED). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

CO — CO — WALL MOUNTED — IR — UV

CARBON MONOXIDE DETECTOR. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

FLAME DETECTOR, CEILING MOUNTED. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER. TAG INDICATES UV OR IR TECHNOLOGY.

FIRE ALARM SYSTEM DUCT DETECTOR. PROVIDE COMPLETE INSTALLATION INCLUDING SAMPLING TUBES EXTENDING THE FULL WIDTH OF DUCT. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

TS

FIRE ALARM SYSTEM REMOTE TEST STATION. PROVIDE WHERE INDICATED ON DRAWING & INTERFACE WITH DETECTION DEVICE INDICATED. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

F

FIRE ALARM SYSTEM MANUAL PULL STATION. PROVIDE COMPLETE INSTALLATION WITH PROTECTIVE COVER WHERE REQUIRED. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

RECEIVER — TRANSMITTER

FIRE ALARM SYSTEM BEAM DETECTOR TRANSMITTER & RECEIVER SYSTEM. PROVIDE COMPLETE INSTALLATION INCLUDING REMOTE TEST STATION. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

FIRE ALARM SYSTEM WATER FLOW SWITCH. PROVIDE COMPLETE INTERFACE BETWEEN FLOW SWITCH & FIRE ALARM CONTROL PANEL. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

FIRE ALARM SYSTEM TAMPER SWITCH. PROVIDE COMPLETE INTERFACE BETWEEN TAMPER SWITCH & FIRE ALARM CONTROL PANEL. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

XXXcd

FIRE ALARM SYSTEM AUDIO/VISUAL NOTIFICATION APPLIANCE (WALL MOUNTED BETWEEN 80" TO 96", INSTALL NOT CLOSER THEN 6" TO THE FINISHED CEILING). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER. UNLESS OTHERWISE NOTED, PROVIDE 15cd VISUAL DEVICE.

XXXcd

FIRE ALARM SYSTEM VISUAL NOTIFICATION APPLIANCE (WALL MOUNTED BETWEEN 80" TO 96", INSTALL NOT CLOSER THEN 6" TO THE FINISHED CEILING). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER. UNLESS OTHERWISE NOTED, PROVIDE 15cd VISUAL DEVICE.

FIRE ALARM SYSTEM AUDIO NOTIFICATION APPLIANCE (WALL MOUNTED BETWEEN 80" TO 96", INSTALL NOT CLOSER THEN 6" TO THE FINISHED CEILING). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

XXXcd

FIRE ALARM SYSTEM AUDIO/VISUAL NOTIFICATION APPLIANCE (CEILING MOUNTED). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER. UNLESS OTHERWISE NOTED, PROVIDE 75cd VISUAL DEVICE.

XXXcd

FIRE ALARM SYSTEM VISUAL NOTIFICATION APPLIANCE (CEILING MOUNTED). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER. UNLESS OTHERWISE NOTED, PROVIDE 75cd VISUAL DEVICE.

FIRE ALARM SYSTEM AUDIO NOTIFICATION APPLIANCE (CEILING MOUNTED). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

FA

FIRE ALARM SYSTEM WATER FLOW ALARM INTERFACE. PROVIDE COMPLETE ELECTRICAL INTERFACE TO ALARM (PROVIDED & INSTALLED BY SPRINKLER CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR). PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

ZAM

FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE. PROVIDE WHERE REQUIRED PER SPECS/DETAILS. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

CZAM

FIRE ALARM SYSTEM CONTROLLABLE ZONE ADDRESSABLE MODULE. PROVIDE WHERE REQUIRED PER SPECS/DETAILS. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

IAM

FIRE ALARM SYSTEM INDIVIDUAL ADDRESSABLE MODULE. PROVIDE WHERE REQUIRED PER SPECS/DETAILS. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

FSR

FIRE ALARM SYSTEM FAN SHUT-DOWN RELAY. PROVIDE WHERE REQUIRED PER SPECS/DETAILS. CONTACT RATING SHALL MATCH FAN MOTOR FEEDER RATING. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

ISO

FIRE ALARM SYSTEM ISOLATION MODULE. PROVIDE WHERE REQUIRED PER SPECS/DETAILS. INSTALL EVERY 25TH INITIATING DEVICE ON SLC LOOP. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

F

FIRE ALARM SYSTEM ELECTROMAGNETIC DOOR HOLDER. VERIFY REQUIRED VOLTAGE PRIOR TO ORDERING. PROVIDE COMPLETE INTERFACE TO FACP AS REQUIRED. PROVIDE ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

FACP

TYPICAL FIRE ALARM CONTROL PANEL. SURFACE OR FLUSH MOUNTED. PROVIDE WHERE INDICATED ON FLOOR PLANS. INSTALL APPROXIMATELY 72" A.F.F. TO TOP OF BOX. PROVIDE DEDICATED 120VAC, 20A/1P CIRCUIT ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

NACP

FIRE ALARM NOTIFICATION APPLIANCE CONTROL PANEL (POWER SUPPLY). PROVIDE WHERE INDICATED ON FLOOR PLANS. INSTALL APPROXIMATELY 72" A.F.F. TO TOP OF BOX. PROVIDE DEDICATED 120VAC, 20A/1P CIRCUIT ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

R.A.

FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL. PROVIDE WHERE INDICATED ON FLOOR PLANS. INSTALL APPROXIMATELY 72" A.F.F. TO TOP OF BOX. PROVIDE INTERFACE TO FACP ALL WIRING AS REQUIRED BY SELECTED MANUFACTURER.

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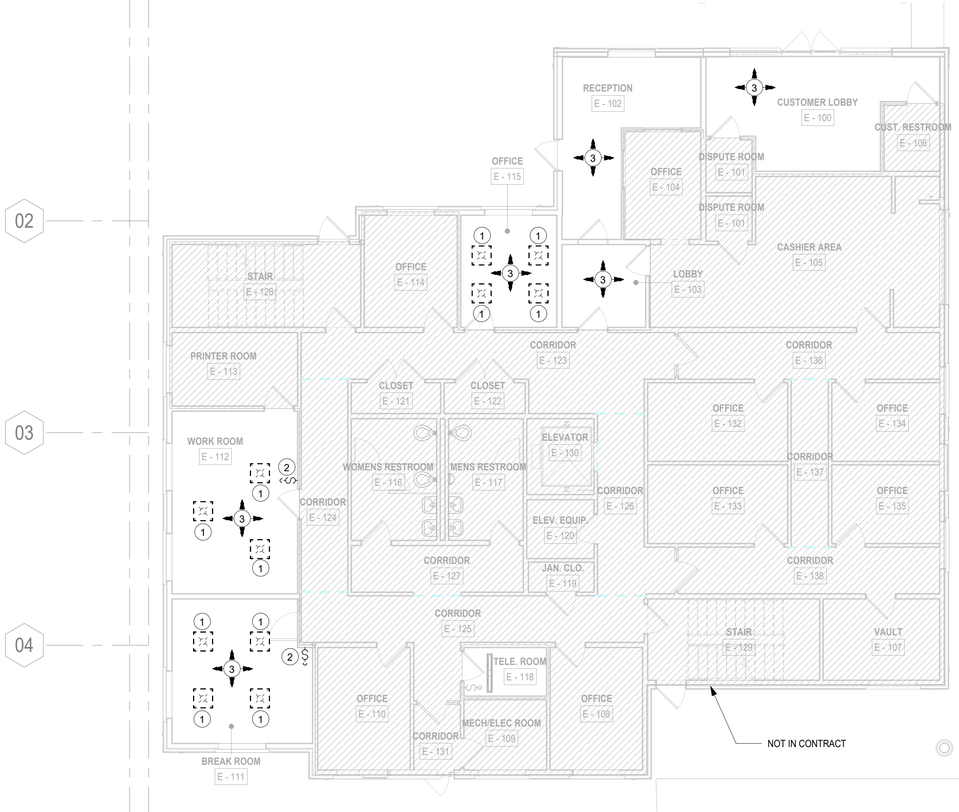
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

ELECTRICAL

SYMBOLS, NOTES, AND ABBREVIATIONS

DRAWING NUMBER
E002



1 FIRST FLOOR LIGHTING PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

A. MAINTAIN INTEGRITY OF EXISTING CIRCUIT WIRING PRESENTLY INSTALLED & SERVING EQUIPMENT OUTSIDE THE WORK AREA. VERIFY ROUTE OF EACH FEEDER & BRANCH CIRCUIT SCHEDULED FOR REMOVAL.

B. PROVIDE PROTECTION FOR ALL EXISTING CONSTRUCTION SYSTEMS/EQUIPMENT SCHEDULED TO REMAIN DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR RECONDITIONING OF EQUIPMENT/ITEMS DAMAGED DURING REMOVALS.

C. FIRE ALARM & SECURITY SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. PROVIDE TEMPORARY WIRING AS REQUIRED TO MAINTAIN FIRE ALARM SYSTEM DETECTION/NOTIFICATION THROUGHOUT CONSTRUCTION PHASE & OPERATION OF SECURITY SYSTEM. NOTIFY OWNER OF AREAS TO BE SHUTDOWN WHILE WORK IS BEING PERFORMED. FIRE ALARM & SECURITY SYSTEMS SHALL BE FULLY OPERATIONAL AT END OF EACH WORK DAY. CONTRACTOR SHALL NOT LEAVE ANY AREAS WITHOUT FIRE ALARM SYSTEM BEING FULLY FUNCTIONAL & SECURITY SYSTEM FULLY OPERATIONAL.

D. UNLESS OTHERWISE NOTED, DISCONNECT & REMOVE ALL ELECTRICAL WORK ASSOCIATED WITH DEVICE/FIXTURES SCHEDULED FOR REMOVAL. ASSOCIATED ELECTRICAL WORK SHALL INCLUDE CONDUIT, BOXES, CONNECTORS, ETC. BACK TO SOURCE PANEL.

E. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ELECTRICAL DEVICES & MISC. ITEMS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR ANY COST ASSOCIATED WITH DISPOSAL.

H. DEMOLITION SHOWN SHALL BE SELECTIVE. UNLESS OTHERWISE INDICATED ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES FOUND IN THE FIELD PRIOR TO DEMOLITION OF ANY ITEMS NOT SHOWN. CONTRACTOR SHALL, AT HIS EXPENSE, REPLACE OR REPAIR ANY DEMOLISHED ITEM(S) THAT WERE NOT CALLED FOR ON THE PLANS OR BROUGHT TO ENGINEERS ATTENTION.

(#) DEMOLITION NOTES:

1. DISCONNECT & REMOVE EXISTING LUMINAIRE & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
2. DISCONNECT & REMOVE EXISTING LIGHT SWITCH & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
3. DISCONNECT & REMOVE ALL EXISTING LIGHTING ELECTRICAL IN THIS ROOM. THIS INCLUDES LUMINAIRES, LIGHT SWITCHES, OCCUPANCY SENSORS, AND VACANCY SENSORS. DISCONNECT & REMOVE THE FIXTURE/DEVICE ITSELF & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.

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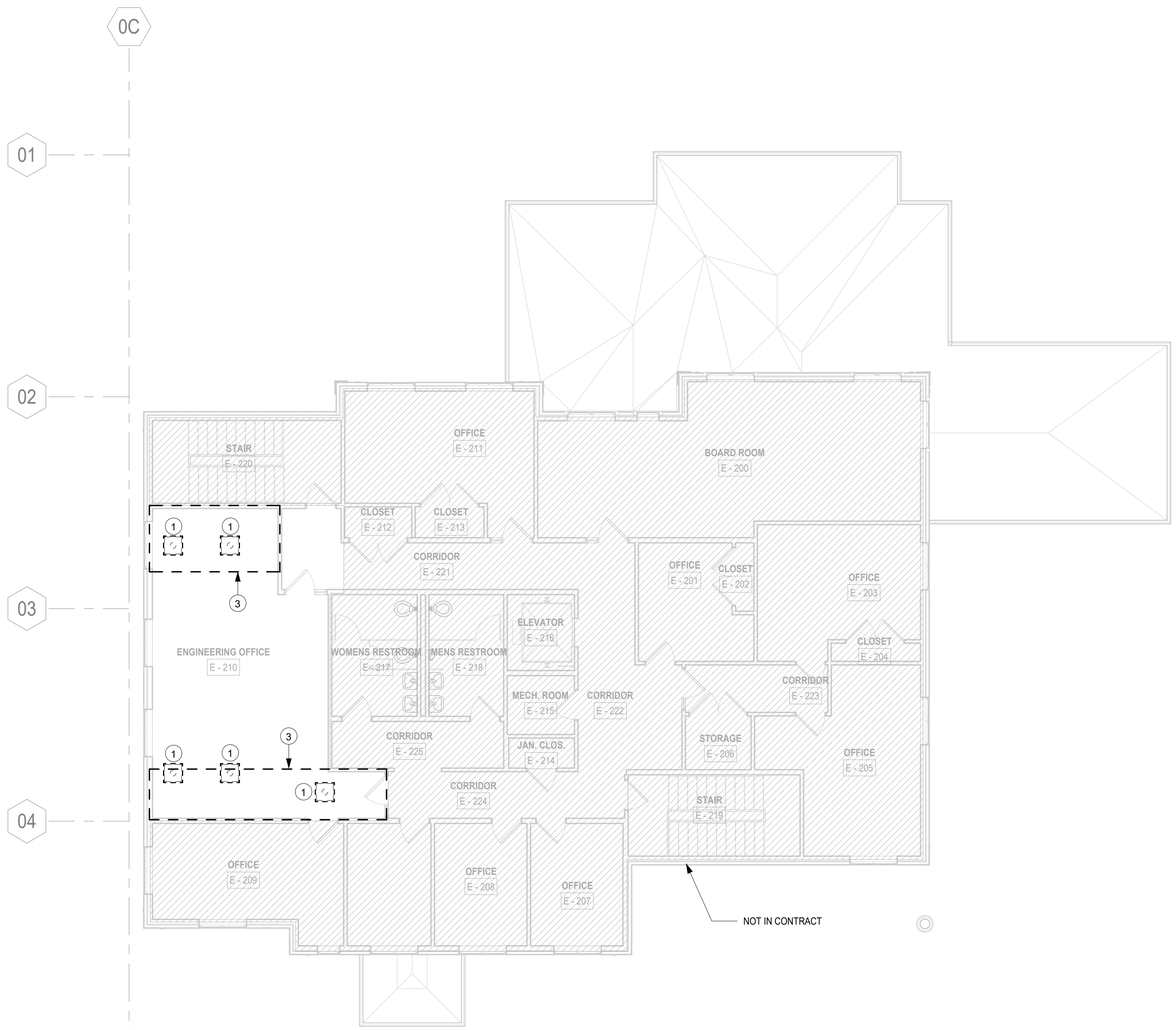
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FIRST FLOOR LIGHTING PLAN - DEMOLITION

DRAWING NUMBER
ED101

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1 SECOND FLOOR LIGHTING PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

A. MAINTAIN INTEGRITY OF EXISTING CIRCUIT WIRING PRESENTLY INSTALLED & SERVING EQUIPMENT OUTSIDE THE WORK AREA. VERIFY ROUTE OF EACH FEEDER & BRANCH CIRCUIT SCHEDULED FOR REMOVAL.

B. PROVIDE PROTECTION FOR ALL EXISTING CONSTRUCTION SYSTEMS/EQUIPMENT SCHEDULED TO REMAIN DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR RECONDITIONING OF EQUIPMENT/ITEMS DAMAGED DURING REMOVALS.

C. FIRE ALARM & SECURITY SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. PROVIDE TEMPORARY WIRING AS REQUIRED TO MAINTAIN FIRE ALARM SYSTEM DETECTION/NOTIFICATION THROUGHOUT CONSTRUCTION PHASE & OPERATION OF SECURITY SYSTEM. NOTIFY OWNER OF AREAS TO BE SHUTDOWN WHILE WORK IS BEING PERFORMED. FIRE ALARM & SECURITY SYSTEMS SHALL BE FULLY OPERATIONAL AT END OF EACH WORK DAY. CONTRACTOR SHALL NOT LEAVE ANY AREAS WITHOUT FIRE ALARM SYSTEM BEING FULLY FUNCTIONAL & SECURITY SYSTEM FULLY OPERATIONAL.

D. UNLESS OTHERWISE NOTED, DISCONNECT & REMOVE ALL ELECTRICAL WORK ASSOCIATED WITH DEVICE/FIXTURES SCHEDULED FOR REMOVAL. ASSOCIATED ELECTRICAL WORK SHALL INCLUDE CONDUIT, BOXES, CONNECTORS, ETC. BACK TO SOURCE PANEL.

E. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ELECTRICAL DEVICES & MISC. ITEMS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR ANY COST ASSOCIATED WITH DISPOSAL.

H. DEMOLITION SHOWN SHALL BE SELECTIVE. UNLESS OTHERWISE INDICATED ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES FOUND IN THE FIELD PRIOR TO DEMOLITION OF ANY ITEMS NOT SHOWN. CONTRACTOR SHALL, AT HIS EXPENSE, REPLACE OR REPAIR ANY DEMOLISHED ITEM(S) THAT WERE NOT CALLED FOR ON THE PLANS OR BROUGHT TO ENGINEERS ATTENTION.

(#) DEMOLITION NOTES:

1. DISCONNECT & REMOVE EXISTING LUMINAIRE & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
2. DISCONNECT & REMOVE EXISTING LIGHT SWITCH & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
3. DISCONNECT & REMOVE EXISTING LIGHTING ELECTRICAL IN THIS AREA. THIS INCLUDES LUMINAIRES, LIGHT SWITCHES, OCCUPANCY SENSORS, AND VACANCY SENSORS. DISCONNECT & REMOVE THE DEVICE/FIXTURE ITSELT & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.

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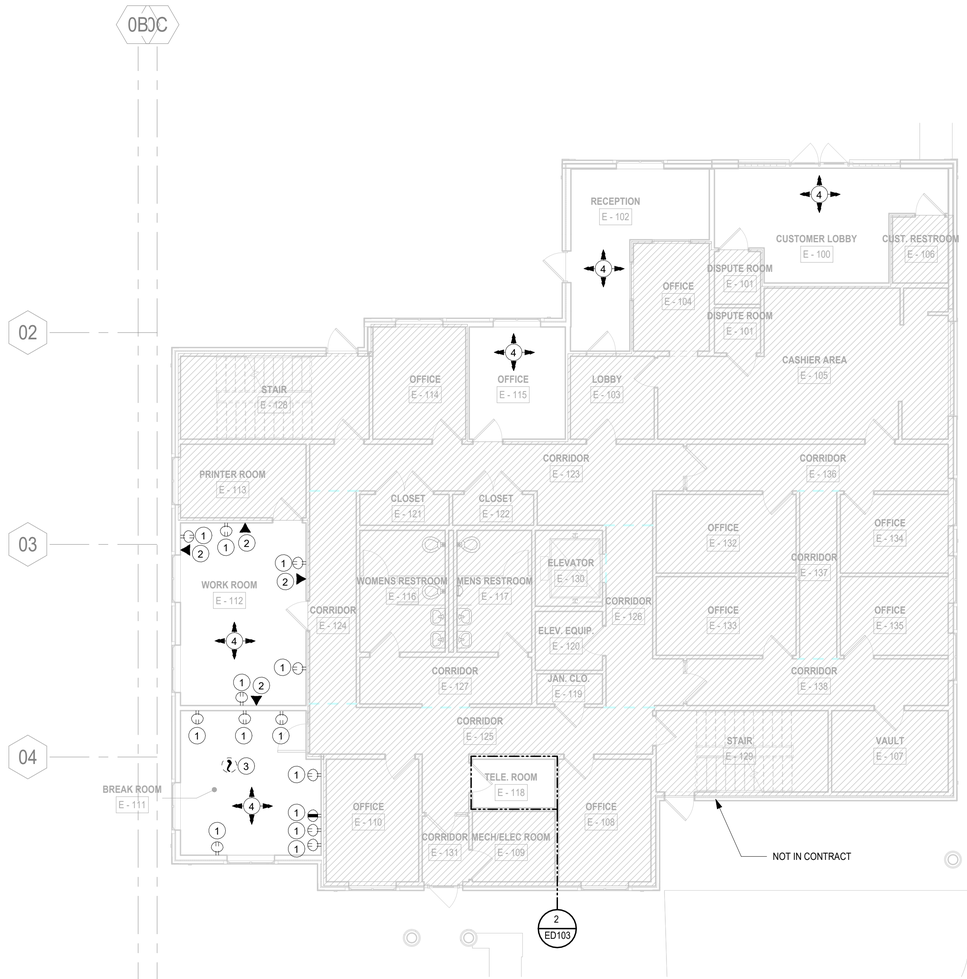
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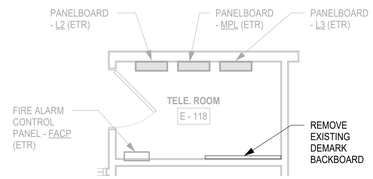
SECOND FLOOR LIGHTING PLAN - DEMOLITION

DRAWING NUMBER
ED102

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1 FIRST FLOOR POWER & SYSTEMS PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"



2 TELE. ROOM E - 118 POWER & SYSTEMS ENLARGED PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"

GENERAL DEMOLITION NOTES:

A. MAINTAIN INTEGRITY OF EXISTING CIRCUIT WIRING PRESENTLY INSTALLED & SERVING EQUIPMENT OUTSIDE THE WORK AREA. VERIFY ROUTE OF EACH FEEDER & BRANCH CIRCUIT SCHEDULED FOR REMOVAL.

B. PROVIDE PROTECTION FOR ALL EXISTING CONSTRUCTION SYSTEMS/EQUIPMENT SCHEDULED TO REMAIN DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR RECONDITIONING OF EQUIPMENT/ITEMS DAMAGED DURING REMOVALS.

C. FIRE ALARM & SECURITY SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. PROVIDE TEMPORARY WIRING AS REQUIRED TO MAINTAIN FIRE ALARM SYSTEM DETECTION/NOTIFICATION THROUGHOUT CONSTRUCTION PHASE & OPERATION OF SECURITY SYSTEM. NOTIFY OWNER OF AREAS TO BE SHUTDOWN WHILE WORK IS BEING PERFORMED. FIRE ALARM & SECURITY SYSTEMS SHALL BE FULLY OPERATIONAL AT END OF EACH WORK DAY. CONTRACTOR SHALL NOT LEAVE ANY AREAS WITHOUT FIRE ALARM SYSTEM BEING FULLY FUNCTIONAL & SECURITY SYSTEM FULLY OPERATIONAL.

D. UNLESS OTHERWISE NOTED, DISCONNECT & REMOVE ALL ELECTRICAL WORK ASSOCIATED WITH DEVICE/FIXTURES SCHEDULED FOR REMOVAL. ASSOCIATED ELECTRICAL WORK SHALL INCLUDE CONDUIT, BOXES, CONNECTORS, ETC. BACK TO SOURCE PANEL.

E. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ELECTRICAL DEVICES & MISC. ITEMS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR ANY COST ASSOCIATED WITH DISPOSAL.

F. DEMOLITION SHOWN SHALL BE SELECTIVE. UNLESS OTHERWISE INDICATED ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES FOUND IN THE FIELD PRIOR TO DEMOLITION OF ANY ITEMS NOT SHOWN. CONTRACTOR SHALL, AT HIS EXPENSE, REPLACE OR REPAIR ANY DEMOLISHED ITEM(S) THAT WERE NOT CALLED FOR ON THE PLANS OR BROUGHT TO ENGINEERS ATTENTION.

G. UNLESS OTHERWISE NOTED, ALL EXISTING TELECOMMUNICATIONS SYSTEMS SHALL REMAIN IN PLACE.

(#) DEMOLITION NOTES:

1. DISCONNECT & REMOVE EXISTING RECEPTACLE & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
2. DISCONNECT & REMOVE EXISTING DATA DROP & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
3. DISCONNECT & REMOVE EXISTING FIRE ALARM DEVICE & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
4. DISCONNECT & REMOVE ALL EXISTING POWER & SYSTEMS ELECTRICAL DEVICES IN THIS ROOM. THIS INCLUDES RECEPTACLES, DATA DROPS, AND FIRE ALARM DEVICES. DISCONNECT & REMOVE THE FIXTURE/DEVICE ITSELF & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.

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NCWSA OFFICE ADDITION

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REV	DATE	DESCRIPTION

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CHECKED:	JFW
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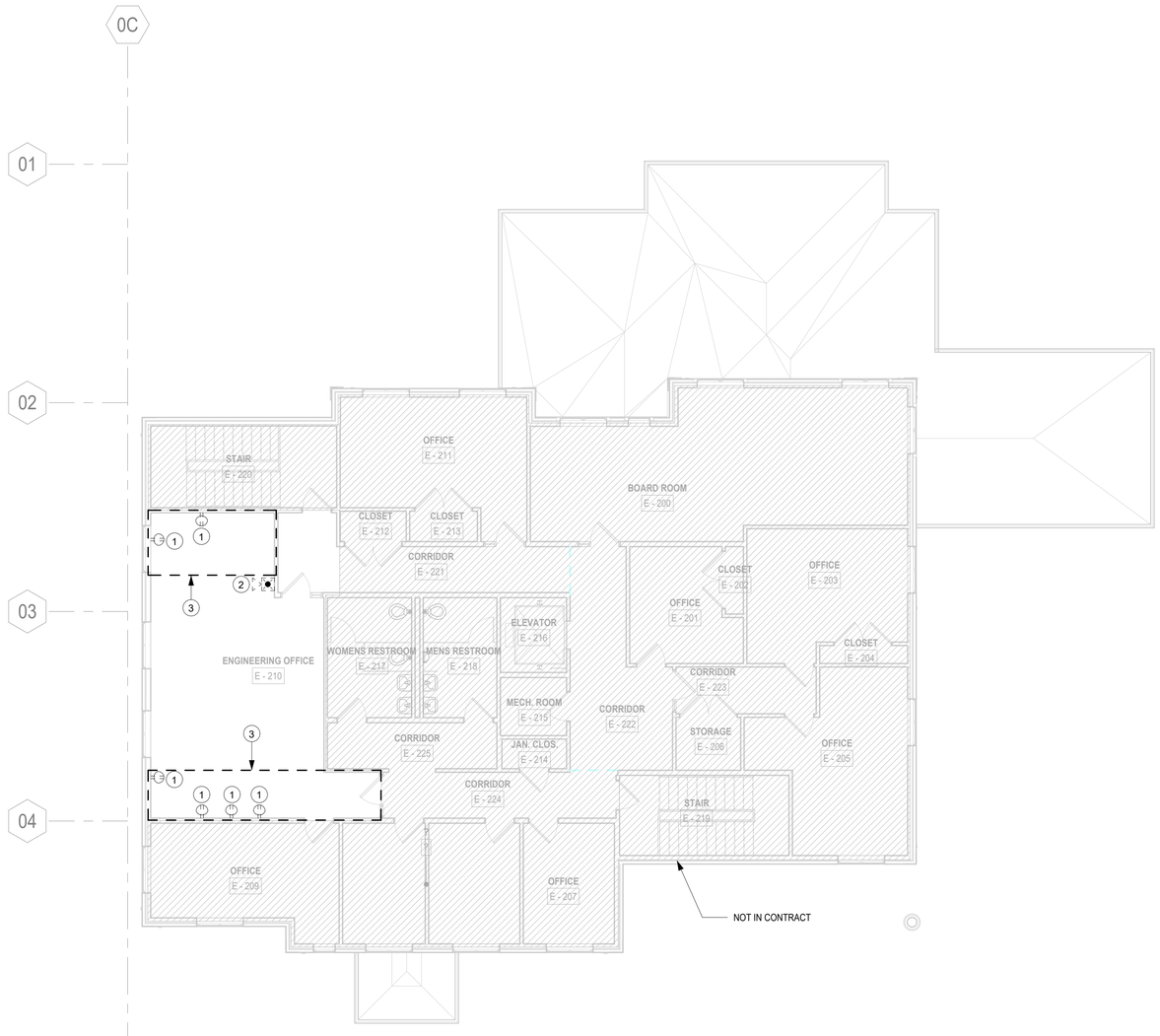
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

FIRST FLOOR POWER & SYSTEMS PLAN - DEMOLITION

DRAWING NUMBER
ED103

Plot Date: 4/27/2026 10:18:39 PM Path: Autodesk Docs://NCWSA Admin Bldg_ V25/616202-NCWSA-ELEC_V25.rvt



1 SECOND FLOOR POWER & SYSTEMS PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

A. MAINTAIN INTEGRITY OF EXISTING CIRCUIT WIRING PRESENTLY INSTALLED & SERVING EQUIPMENT OUTSIDE THE WORK AREA. VERIFY ROUTE OF EACH FEEDER & BRANCH CIRCUIT SCHEDULED FOR REMOVAL.

B. PROVIDE PROTECTION FOR ALL EXISTING CONSTRUCTION SYSTEMS/EQUIPMENT SCHEDULED TO REMAIN DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR RECONDITIONING OF EQUIPMENT/ITEMS DAMAGED DURING REMOVALS.

C. FIRE ALARM & SECURITY SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. PROVIDE TEMPORARY WIRING AS REQUIRED TO MAINTAIN FIRE ALARM SYSTEM DETECTION/NOTIFICATION THROUGHOUT CONSTRUCTION PHASE & OPERATION OF SECURITY SYSTEM. NOTIFY OWNER OF AREAS TO BE SHUTDOWN WHILE WORK IS BEING PERFORMED. FIRE ALARM & SECURITY SYSTEMS SHALL BE FULLY OPERATIONAL AT END OF EACH WORK DAY. CONTRACTOR SHALL NOT LEAVE ANY AREAS WITHOUT FIRE ALARM SYSTEM BEING FULLY FUNCTIONAL & SECURITY SYSTEM FULLY OPERATIONAL.

D. UNLESS OTHERWISE NOTED, DISCONNECT & REMOVE ALL ELECTRICAL WORK ASSOCIATED WITH DEVICE/FIXTURES SCHEDULED FOR REMOVAL. ASSOCIATED ELECTRICAL WORK SHALL INCLUDE CONDUIT, BOXES, CONNECTORS, ETC. BACK TO SOURCE PANEL.

E. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ELECTRICAL DEVICES & MISC. ITEMS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR ANY COST ASSOCIATED WITH DISPOSAL.

F. DEMOLITION SHOWN SHALL BE SELECTIVE. UNLESS OTHERWISE INDICATED ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES FOUND IN THE FIELD PRIOR TO DEMOLITION OF ANY ITEMS NOT SHOWN. CONTRACTOR SHALL, AT HIS EXPENSE, REPLACE OR REPAIR ANY DEMOLISHED ITEM(S) THAT WERE NOT CALLED FOR ON THE PLANS OR BROUGHT TO ENGINEERS ATTENTION.

G. UNLESS OTHERWISE NOTED, ALL EXISTING TELECOMMUNICATIONS SYSTEMS SHALL REMAIN IN PLACE.

(#) DEMOLITION NOTES:

1. DISCONNECT & REMOVE EXISTING RECEPTACLE & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
2. DISCONNECT & REMOVE EXISTING FIRE ALARM DEVICE & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.
3. DISCONNECT & REMOVE EXISTING POWER & SYSTEMS ELECTRICAL DEVICES IN THIS AREA. THIS INCLUDES RECEPTACLES, DATA DROPS, AND FIRE ALARM DEVICES. DISCONNECT & REMOVE THE DEVICE/ FIXTURE ITSELF & ALL ITS ASSOCIATED ELECTRICAL IN ITS ENTIRETY BACK TO SOURCE.

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REV	DATE	DESCRIPTION

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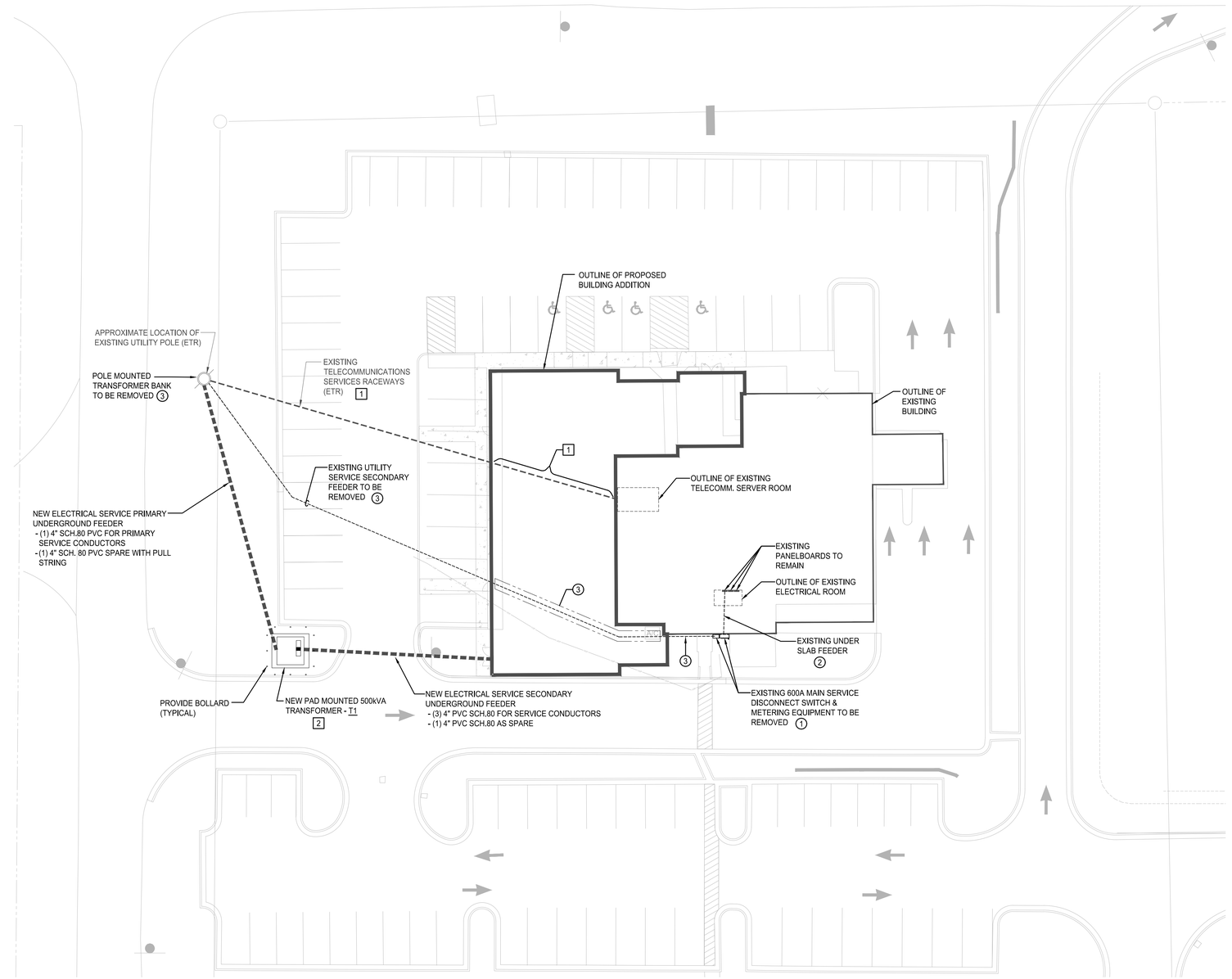
FILENAME

BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

SECOND FLOOR POWER & SYSTEMS PLAN - DEMOLITION

DRAWING NUMBER
ED104

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1 ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

GENERAL NOTES:

A. UNLESS OTHERWISE NOTED, ALL UNDERGROUND WIRING INDICATED ON THIS SHALL BE INSTALLED WITH A MINIMUM OF 24" COVER BELOW FINISHED GRADE.

B. PART OF THE ELECTRICAL SCOPE IS TO DISCONNECT & REMOVE EXISTING ELECTRICAL SERVICE & PROVIDE NEW SERVICE EQUIPMENT AS INDICATED. CONTRACTOR SHALL COORDINATE ALL WORK WITH LOCAL UTILITY COMPANY.

(X) DEMOLITION NOTES:

1. EXISTING MAIN SERVICE WALL MOUNTED DISCONNECT SWITCH & METERING EQUIPMENT & ALL ASSOCIATED ELECTRICAL WORK SHALL BE REMOVED IN THEIR ENTIRETY.

2. EXISTING SERVICE RACEWAY IN THE SLAB SHALL BE ABANDONED IN PLACE ONCE EXISTING ELECTRICAL SERVICE WIRING IS REMOVED. REMOVE CONDUCTORS, CUT THE RACEWAYS FLUSH WITH THE SLAB & PERMANENTLY SEAL THE CONDUIT OPENING.

3. ONCE THE NEW ELECTRICAL SERVICE HAS BEEN FULLY ESTABLISHED & VERIFIED OPERATIONAL, THE CONTRACTOR SHALL REMOVE THE ENTIRE EXISTING UNDERGROUND FEEDER IN ITS ENTIRETY, INCLUDING ALL SECTIONS LOCATED WITHIN THE FOOTPRINT OF THE NEW BUILDING ADDITION.

[X] CONSTRUCTION NOTES:

1. THE EXISTING TELECOMMUNICATIONS SERVICE RACEWAY SHALL BE FULLY PROTECTED THROUGHOUT CONSTRUCTION OF THE BUILDING ADDITION. CONTINUOUS TELECOMMUNICATIONS SERVICE SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE COORDINATED & APPROVED BY THE OWNER. ONCE EXPOSED, ALL RACEWAYS SHALL BE PROPERLY SUPPORTED, SECURED, & PROTECTED AS NECESSARY. ANY PORTION OF THE RACEWAY LOCATED BENEATH THE FOOTPRINT OF THE NEW BUILDING ADDITION SHALL BE ENCASED IN CONCRETE FOR PERMANENT PROTECTION. IN THE EVENT THAT ANY TELECOMMUNICATIONS CONDUITS OR CABLING ARE ACCIDENTALLY DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER & PROVIDE TEMPORARY SERVICE RESTORATION MEASURES TO MAINTAIN TELECOMMUNICATIONS CONTINUITY UNTIL PERMANENT REPAIRS ARE COMPLETED.

2. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, COORDINATION, & SERVICES REQUIRED TO COMPLETE ALL ON-SITE WORK NECESSARY FOR THE INSTALLATION THE UTILITY-OWNED TRANSFORMER. THIS SCOPE SHALL INCLUDE, BUT IS NOT LIMITED TO:
   - TRANSFORMER PAD AS REQUIRED BY SSEMC.
   - BOLLARDS OR OTHER MEANS OF PHYSICAL PROTECTION AS REQUIRED BY THE UTILITY.
   - PRIMARY & SECONDARY CONDUIT BANKS, ALL NECESSARY TRENCHING & BACKFILL.
   - GROUNDING & BONDING PER UTILITY & CODE REQUIREMENTS
   - SECONDARY CONDUCTORS FROM TRANSFORMER TO MAIN SERVICE METERING &/OR DISCONNECT EQUIPMENT.
   - COORDINATION WITH SSEMC FOR INSPECTIONS & FINAL CONNECTION.

PRIMARY CONDUCTORS & FINAL TERMINATIONS OF PRIMARY & CUSTOMER PROVIDED SECONDARY CONDUCTORS WILL BE PERFORMED BY THE UTILITY.

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CONSTRUCTION DOCUMENTS

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REVISIONS

REV	DATE	DESCRIPTION

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DESIGNED: RB1
DRAWN: RB1
CHECKED: JFW
CHECKED:
APPROVED:
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

ELECTRICAL SITE PLAN

DRAWING NUMBER E100

GENERAL NOTES:

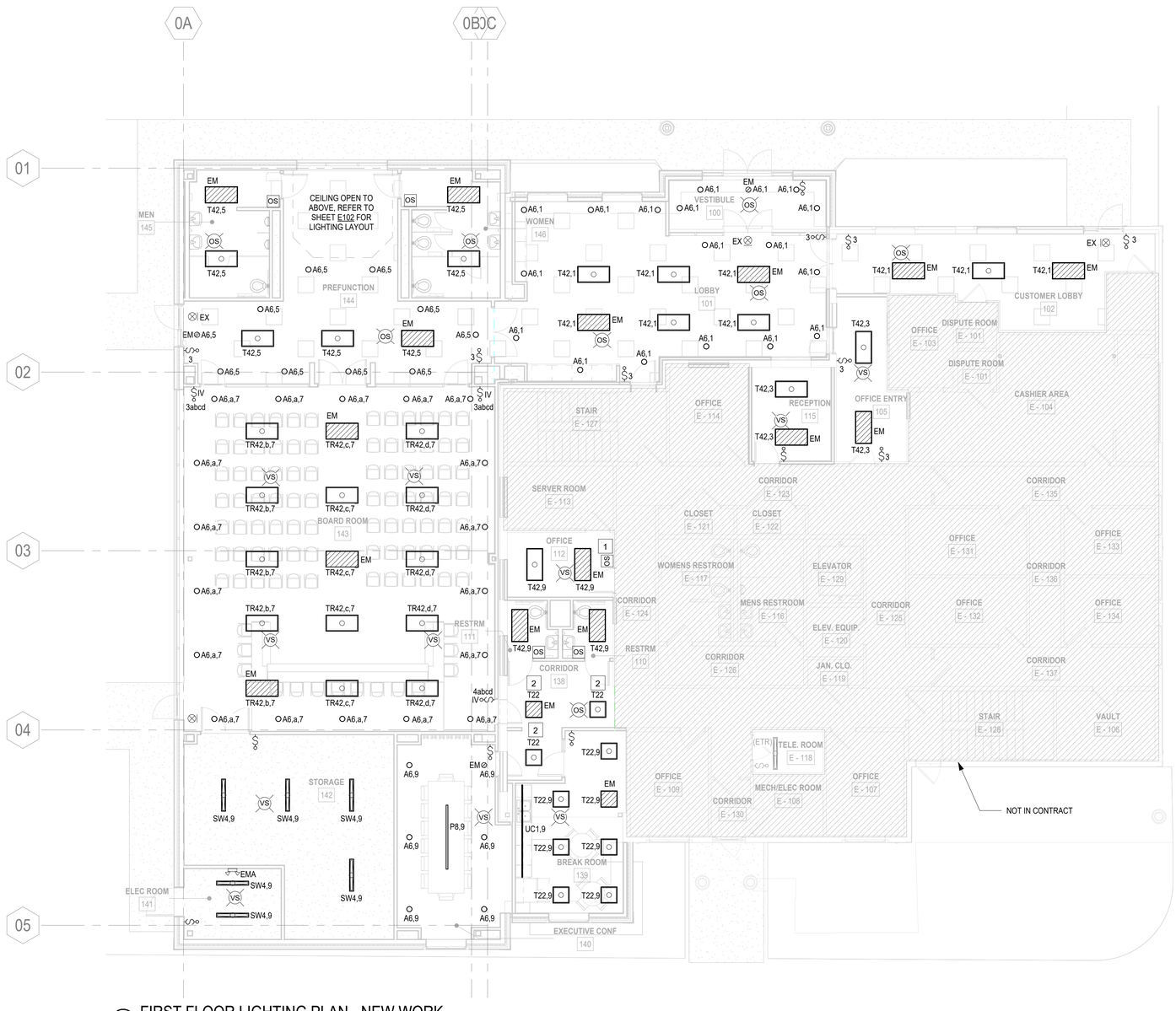
A. ALL EMERGENCY LIGHTING FIXTURES WILL BE WIRED TO BE SWITCHED ON/OFF WITH THE ROOM LIGHT SWITCH.

B. UNLESS OTHERWISE NOTED, ALL LIGHTING FIXTURES SHOWN ON THIS SHEET SHALL BE FED FROM PANELBOARD PP2 LOCATED IN ELEC ROOM 141.

CONSTRUCTION NOTES:

1. PROVIDE (1) WALL MOUNTED OCCUPANCY SENSOR LIGHT SWITCH WITH DIMMING CAPABILITIES AT THIS LOCATION.

2. CIRCUIT NEW LUMINAIRES TO EXISTING LIGHT SWITCH BRANCH CIRCUIT IN THIS CORRIDOR LOCATION.



1 FIRST FLOOR LIGHTING PLAN - NEW WORK
SCALE: 1/8" = 1'-0"

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APPROVED:

FILENAME

BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

FIRST FLOOR LIGHTING PLAN - NEW WORK

DRAWING NUMBER
E101

Plot Date: 4/27/2026 10:18:43 PM Path:Autodesk Docs://NCWSA Admin Bldg_ V25/616202-NCWSA-ELEC_V25.rvt



GENERAL NOTES:

A. ALL EMERGENCY LIGHTING WILL BE WIRED TO BE SWITCHED ON/OFF WITH THE ROOM LIGHT SWITCH.

B. UNLESS OTHERWISE NOTED, ALL LIGHTING FIXTURES SHOWN ON THIS SHEET SHALL BE FED FROM PANELBOARD PP2 LOCATED IN ELEC ROOM 141.

CONSTRUCTION NOTES:

1. PROVIDE (1) WALL MOUNTED OCCUPANCY SENSOR LIGHT SWITCH WITH DIMMING CAPABILITIES AT THIS LOCATION.
2. CIRCUIT NEW LUMINAIRES TO EXISTING LIGHT SWITCH BRANCH CIRCUIT IN THIS CORRIDOR LOCATION.
3. CIRCUIT NEW LIGHT SWITCHES TO EXISTING LUMINAIRE BRANCH CIRCUIT IN THIS ROOM.

1 SECOND FLOOR LIGHTING PLAN - NEW WORK

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

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FILENAME

BC PROJECT NUMBER 616202

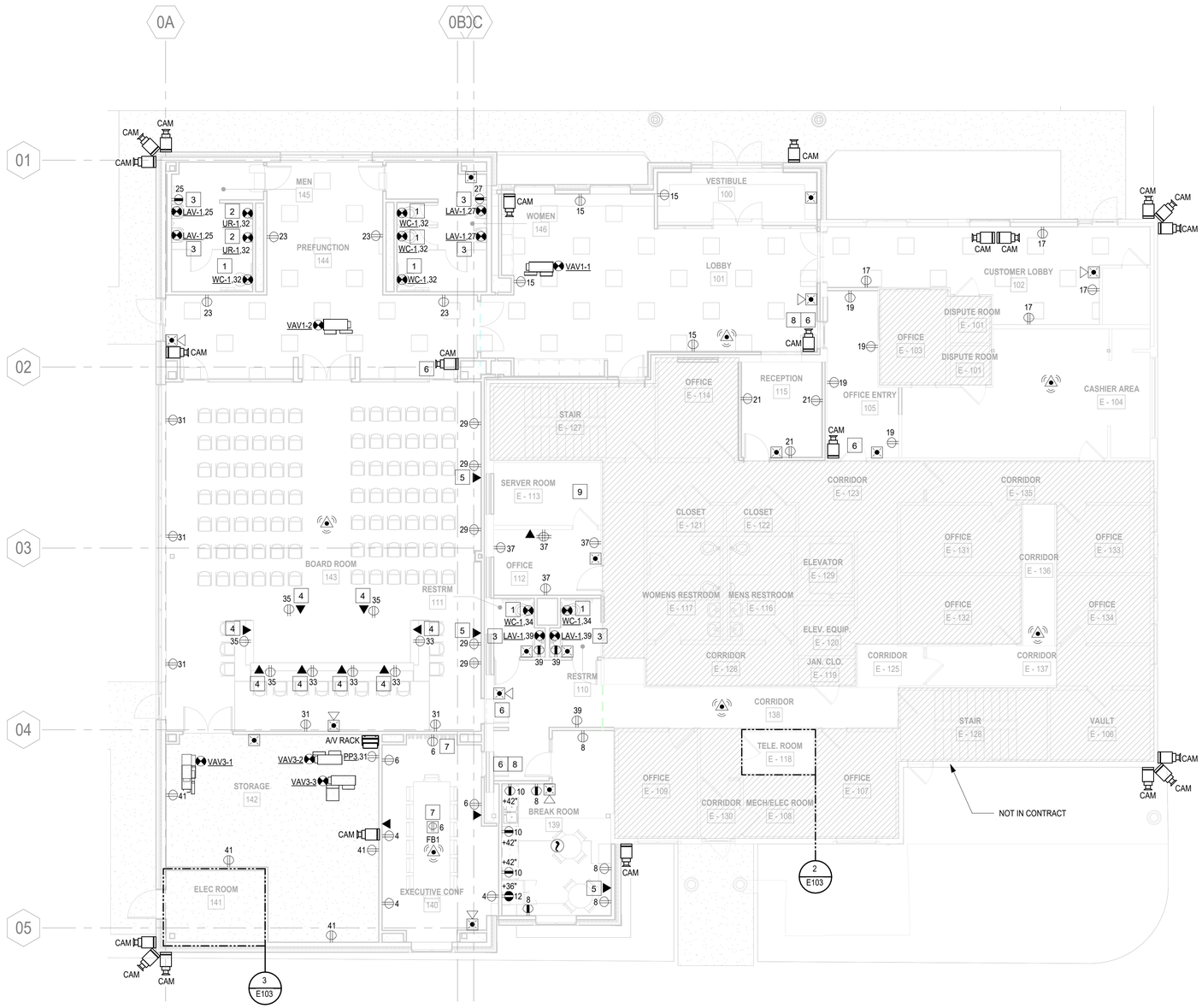
CLIENT PROJECT NUMBER

SECOND FLOOR LIGHTING PLAN - NEW WORK

DRAWING NUMBER

E102

Plot Date: 4/27/2026 10:18:45 PM Path: Autodesk Docs://NCWSA Admin Bldg_ V25/616202-NCWSA-ELEC_V25.rvt



1 FIRST FLOOR POWER & SYSTEMS PLAN - NEW WORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. UNLESS OTHERWISE NOTED, REFER TO DETAIL NO.1 ON SHEET E401 FOR ELECTRICAL EQUIPMENT MOUNTING HEIGHTS.

B. REFER TO SHEET E502 FOR INFORMATION ON WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT SHOWN ON THIS SHEET.

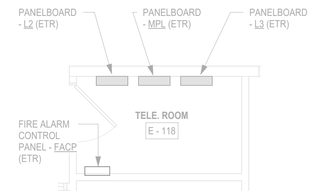
C. CONTRACTOR SHALL REVIEW & CONFIRM EXACT LOCATIONS OF ALL OUTLETS AND DATA DROPS WITH OWNER, PRIOR TO ROUGH-IN.

D. UNLESS OTHERWISE NOTED, ALL RECEPTACLES SHOWN ON THIS SHEET SHALL BE FED FROM PANELBOARD PP2 LOCATED IN ELEC ROOM 141.

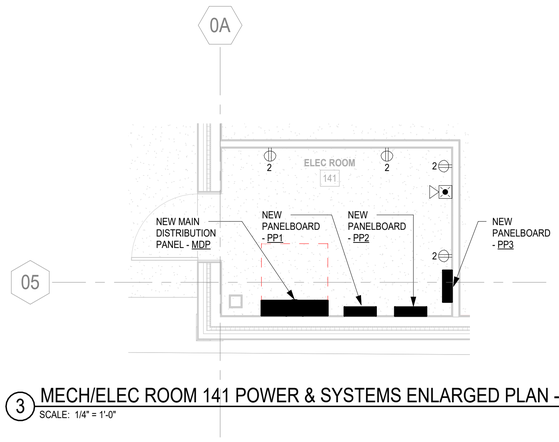
E. UNLESS OTHERWISE NOTED, ALL EXTERIOR CCTV CAMERA BACK BOXES SHALL BE MOUNTED AT 12' ABOVE FINISHED GRADE. PROVIDE PENETRATIONS THROUGH EXTERIOR WALL AS NEEDED. ALL INTERIOR CCTV CAMERA BACK BOXES SHALL BE MOUNTED RECESSED ON CEILING. REFER TO DETAILS NO.4 & NO.5 ON SHEET E401 FOR MORE INFORMATION.

CONSTRUCTION NOTES:

1. REFER TO DETAIL NO.5 ON SHEET E402 FOR WIRING REQUIREMENTS FOR WC-1.
2. REFER TO DETAIL NO.6 ON SHEET E402 FOR WIRING REQUIREMENTS FOR UR-2.
3. PROVIDE (1) DUPLEX RECEPTACLE AT THIS LOCATION FOR LAV-1 POWER. CIRCUIT AS INDICATED. MOUNT RECEPTACLE AT 24" ABOVE GRADE. REFER TO DETAIL NO.4 ON SHEET E402 FOR ADDITIONAL INFORMATION.
4. PROVIDE (1) 4"X"4 FLOOR BOX. ROUTE 2" CONDUIT FROM FLOOR BOX TO A/V RACK IN STORAGE ROOM 142.
5. PROVIDE (1) 4"X4" WALL BOX WITH IN WALL CHASE TO CEILING FOR TV. ROUTE 2" CONDUIT FROM WALL BOX TO A/V RACK IN STORAGE ROOM 142.
6. PROVIDE (1) 4"X4" WALL BOX MOUNTED AT 48". STUB UP 2" LOW VOLTAGE CONDUIT FROM WALL BOX TO CEILING FOR ACCESS CONTROLS EQUIPMENT. EQUIPMENT WILL BE PROVIDED BY OTHERS.
7. PROVIDE (1) 4"X4" FLOOR BOX AND (1) 4"X4" WALL BOX. ROUTE WITH (2) 2" CONDUIT FROM FLOOR BOX TO WALL BOX IN ASSOCIATED ROOM. ROUTE (2) 2" CONDUIT FROM WALL BOX TO CEILING. REFER TO DETAIL NO.7 ON SHEET E402 FOR ADDITIONAL INFORMATION.
8. PROVIDE (2) 4" IN CEILING PENETRATIONS FOR LOW VOLTAGE PATHWAYS BETWEEN EXISTING BUILDING AND NEW BUILDING ADDITION.
9. PROVIDE LOW VOLTAGE PATHWAY FROM SERVER ROOM E-113 TO STORAGE ROOM 142, STORAGE 249, AND LOBBY 101.



2 TELE. ROOM E - 118 POWER & SYSTEMS ENLARGED PLAN - NEW WORK
SCALE: 1/4" = 1'-0"



3 MECH/ELEC ROOM 141 POWER & SYSTEMS ENLARGED PLAN - NEW WORK
SCALE: 1/4" = 1'-0"

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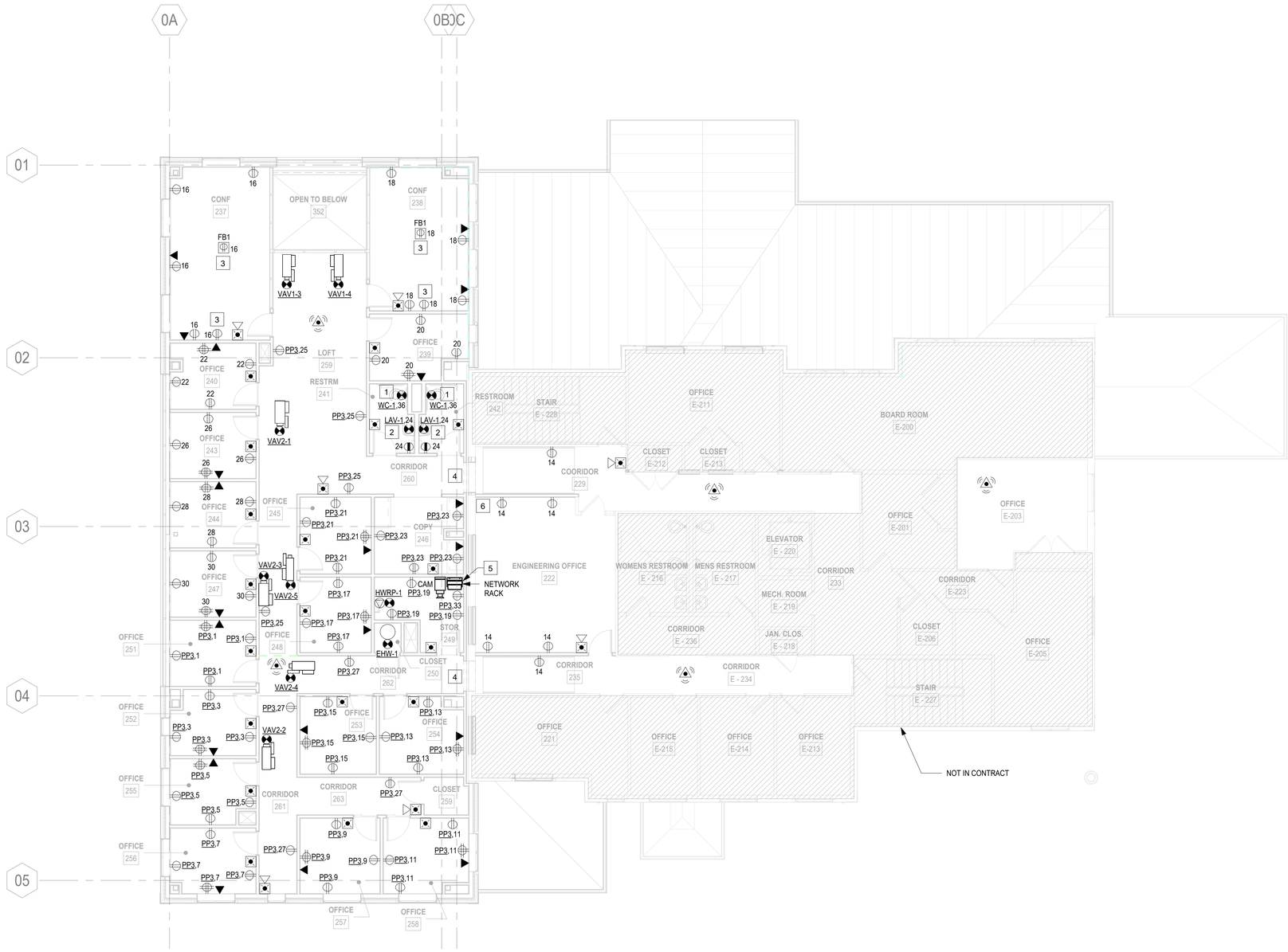
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APPROVED:
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

FIRST FLOOR POWER & SYSTEMS PLAN - NEW WORK

DRAWING NUMBER
E103

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1 SECOND FLOOR POWER & SYSTEMS PLAN - NEW WORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. UNLESS OTHERWISE NOTED, REFER TO DETAIL NO.1 ON SHEET E401 FOR ELECTRICAL EQUIPMENT MOUNTING HEIGHTS.

B. REFER TO SHEET E502 FOR INFORMATION ON WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT SHOWN ON THIS SHEET.

C. CONTRACTOR SHALL REVIEW & CONFIRM EXACT LOCATIONS OF ALL OUTLETS AND DATA DROPS WITH OWNER, PRIOR TO ROUGH-IN.

D. UNLESS OTHERWISE NOTED, ALL RECEPTACLES SHOWN ON THIS SHEET SHALL BE FED FROM PANELBOARD PP2 LOCATED IN ELEC ROOM 141.

CONSTRUCTION NOTES:

1. REFER TO DETAIL NO.5 ON SHEET E402 FOR WIRING REQUIREMENTS FOR WC-1.
2. PROVIDE (1) DUPLEX RECEPTACLE AT THIS LOCATION FOR LAV-1 POWER. CIRCUIT AS INDICATED. MOUNT RECEPTACLE AT 24" ABOVE GRADE. REFER TO DETAIL NO.4 ON SHEET E402 FOR ADDITIONAL INFORMATION.
3. PROVIDE (1) 4"X4" FLOOR BOX AND (1) 4"X4" WALL BOX. ROUTE WITH (2) 2" CONDUIT FROM FLOOR BOX TO WALL BOX IN ASSOCIATED ROOM. ROUTE (2) 2" CONDUIT FROM WALL BOX TO CEILING. REFER TO DETAIL NO.7 ON SHEET E402 FOR ADDITIONAL INFORMATION.
4. PROVIDE (2) 4" CEILING PENETRATIONS FOR LOW VOLTAGE PATHWAYS BETWEEN THE EXISTING BUILDING AND THE NEW BUILDING ADDITION.
5. PROVIDE LOW VOLTAGE PATHWAY FROM NETWORK RACK TO SERVER ROOM E-113.
6. PROVIDE (4) 2" CONDUIT FROM SERVER ROOM E-113 INTO SECOND FLOOR CEILING.

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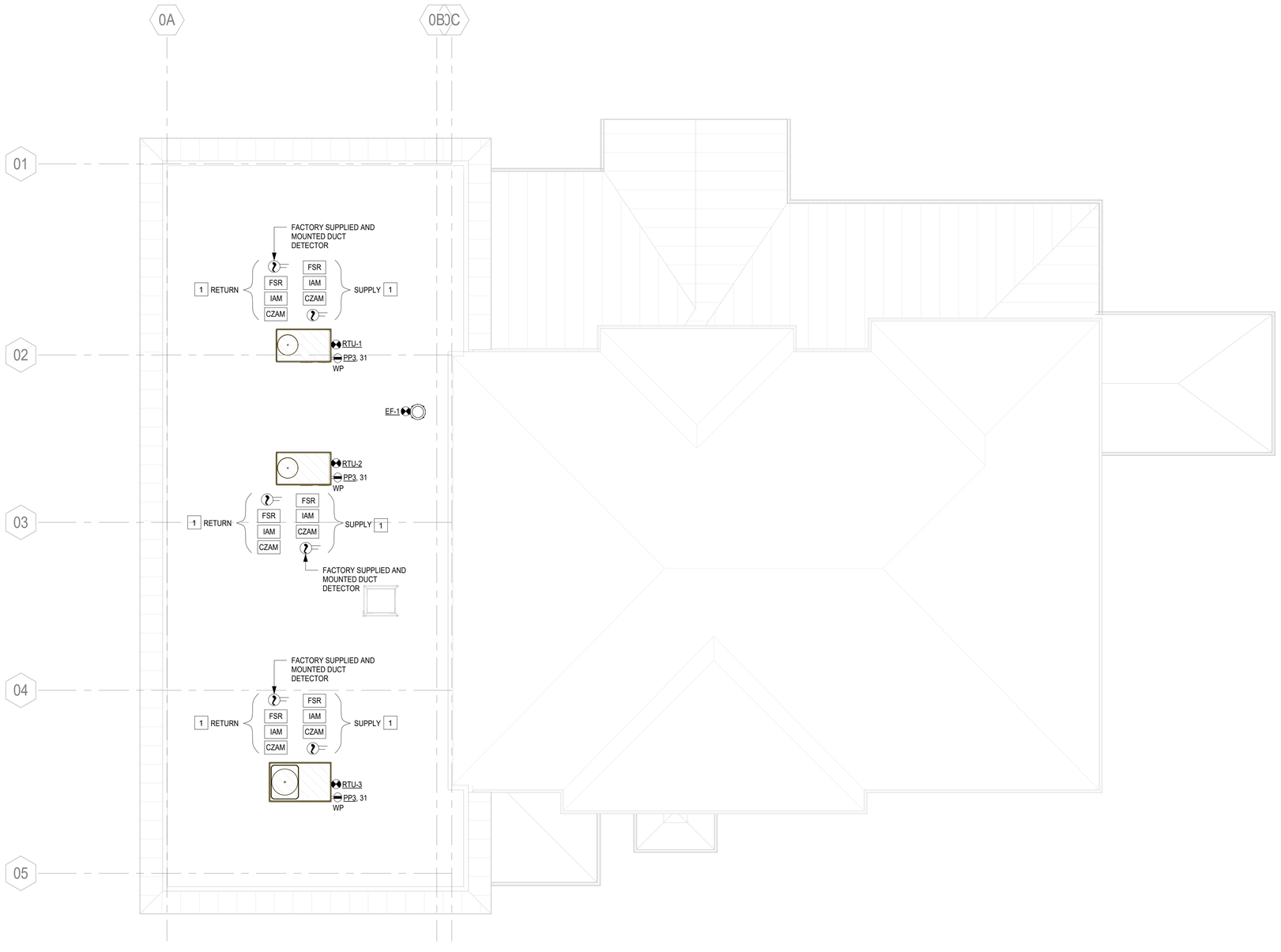
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APPROVED:
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

SECOND FLOOR POWER & SYSTEMS PLAN - NEW WORK

DRAWING NUMBER
E104

Plot Date: 4/27/2026 10:18:50 PM Path:Autodesk Docs://NCWSA Admin Bldg_ V25/616202-NCWSA-ELEC_V25.rvt



1 ROOF POWER & SYSTEMS PLAN - NEW WORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

B. REFER TO SHEET E502 FOR INFORMATION ON WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT SHOWN ON THIS SHEET.

CONSTRUCTION NOTES:

1. PROVIDE INDIVIDUAL ADDRESSABLE MODULE (IAM) REMOTELY MOUNTED IN CONDITIONED ENVIRONMENT. THE IAM WILL BE CONNECTED TO THE FACTORY SUPPLIED / INSTALLED DUCT MOUNTED DETECTORS TO PROVIDE THE NOTIFICATION OF ALARM TO THE FIRE ALARM CONTROL PANEL. THE FIRE ALARM CONTROL PANEL WILL SIGNAL THE CONTROL ZONE ADDRESSABLE MODULE (CZAM) OF ALARM CONDITION. THE CZAM WILL CONTROL THE FAN SHUTDOWN RELAY (FSR) TO SHUTDOWN THE UNIT. COORDINATE FINAL MOUNTING LOCATION WITH MECHANICAL CONTRACTOR BEFORE INTALLATION.

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REV	DATE	DESCRIPTION

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DRAWN: MAP
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CHECKED:
APPROVED:
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

ROOF POWER & SYSTEMS PLAN - NEW WORK

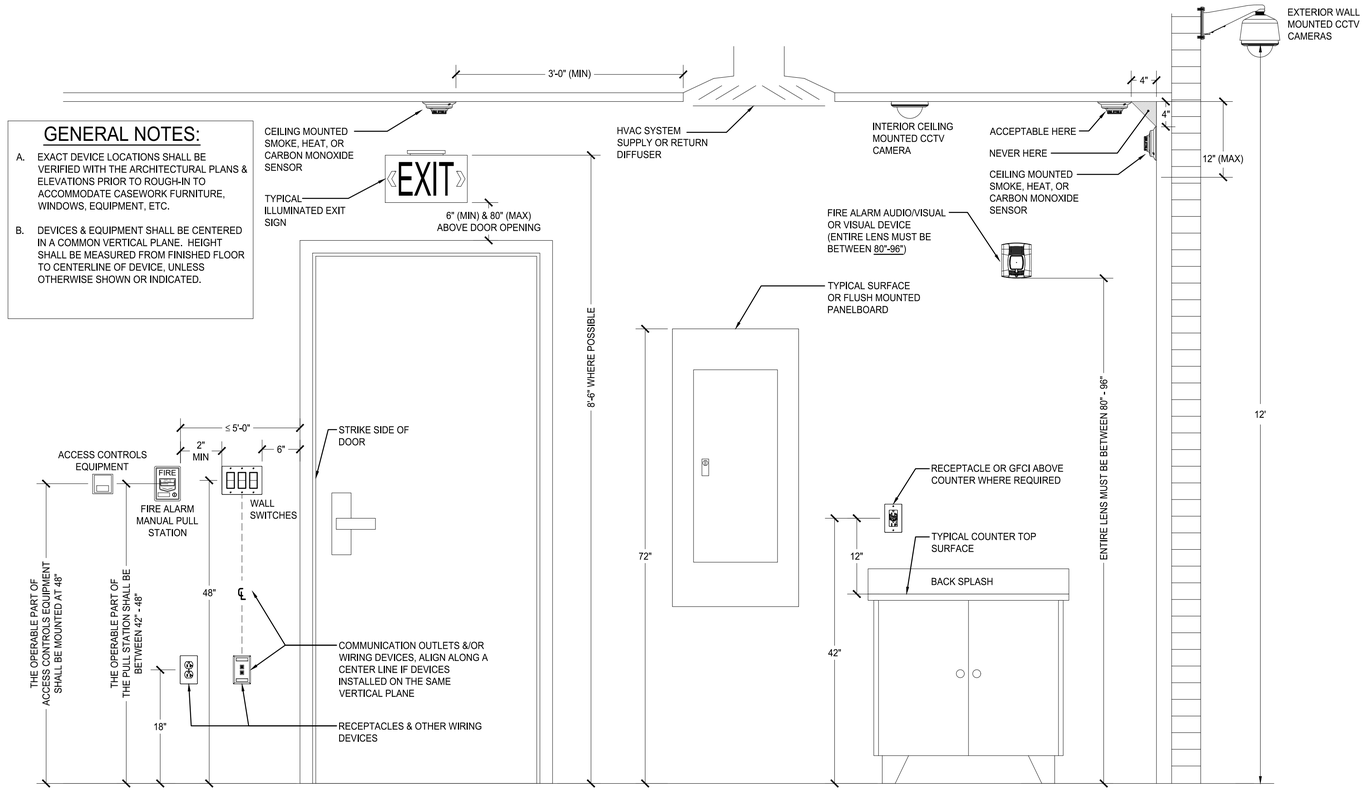
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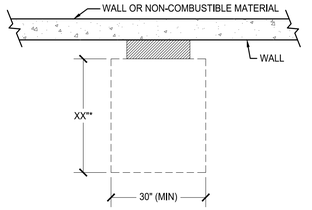
GENERAL NOTES:

A. EXACT DEVICE LOCATIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL PLANS & ELEVATIONS PRIOR TO ROUGH-IN TO ACCOMMODATE CASEWORK FURNITURE, WINDOWS, EQUIPMENT, ETC.

B. DEVICES & EQUIPMENT SHALL BE CENTERED IN A COMMON VERTICAL PLANE. HEIGHT SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE, UNLESS OTHERWISE SHOWN OR INDICATED.



1 TYPICAL DEVICE & EQUIPMENT INSTALLATION HEIGHTS
SCALE: NONE



WALL MOUNTED PANELS

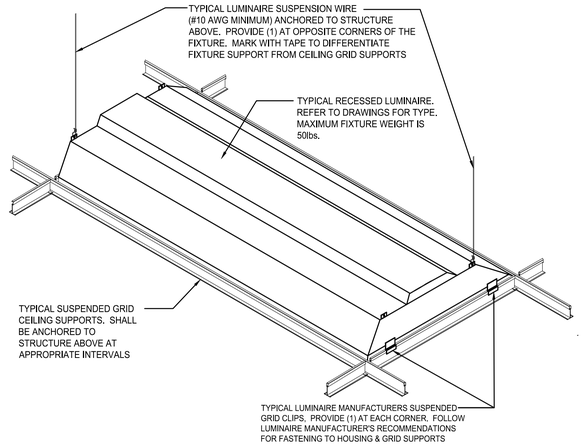
(INCLUDING POWER PANELS, CONTRACTORS, CONTROL CABINETS, DISCONNECT SWITCHES, MOTOR STARTERS, TIME CLOCK & SIMILAR ELECTRICAL EQUIPMENT)

NOTES:

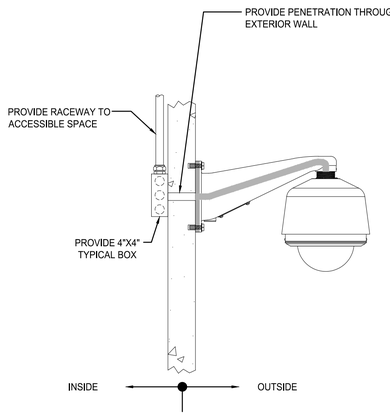
A. XX** IDENTIFIES MINIMUM WORKING SPACE CLEARANCE REQUIREMENTS
(IN THE DIRECTION OF ACCESS TO LIVE PARTS AS REQUIRED PER NFPA 70, SECTION 110.26(a))
- 36" FOR 0-150V PHASE TO GROUND ELECTRIC EQUIPMENT.
- 42" FOR 150-600V PHASE TO GROUND EQUIPMENT (CONDITION 2 "LIVE TO GROUND")
- 48" FOR 150-600V PHASE TO GROUND EQUIPMENT (CONDITION 3 "BETWEEN LIVE EQUIPMENT")

B. MINIMUM WORKING SPACE HEAD ROOM SHALL BE 78" AFF.

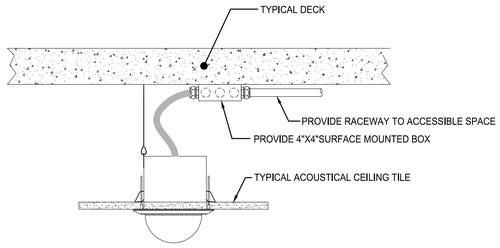
2 TYPICAL ELECTRICAL EQUIPMENT CLEARANCES
SCALE: NONE



3 TYPICAL TROFFER INSTALLATION DETAIL
SCALE: NONE



4 EXTERIOR WALL MOUNTED TYPICAL CCTV CAMERA DETAIL
SCALE: NONE



5 INTERIOR FLUSH CEILING MOUNTED TYPICAL CCTV CAMERA DETAIL
SCALE: NONE

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
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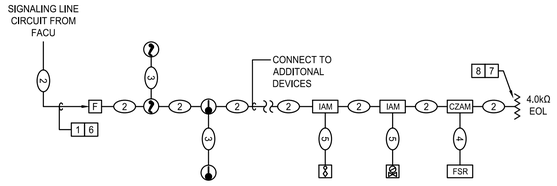
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CHECKED:
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FILENAME
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CLIENT PROJECT NUMBER

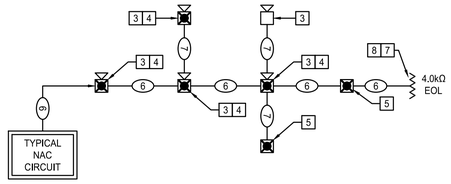
ELECTRICAL

DETAILS

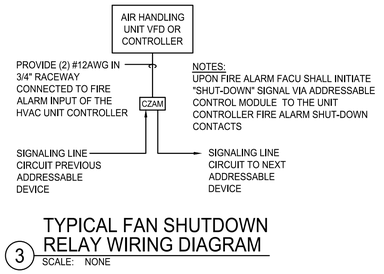
DRAWING NUMBER
E401



1 TYPICAL WIRING FOR SLC CIRCUIT
SCALE: NONE



2 TYPICAL NOTIFICATION CIRCUIT
SCALE: NONE

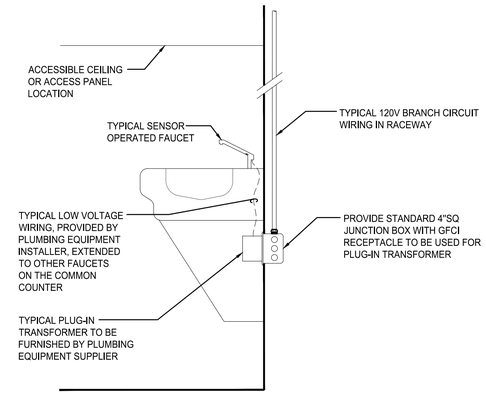


3 TYPICAL FAN SHUTDOWN RELAY WIRING DIAGRAM
SCALE: NONE

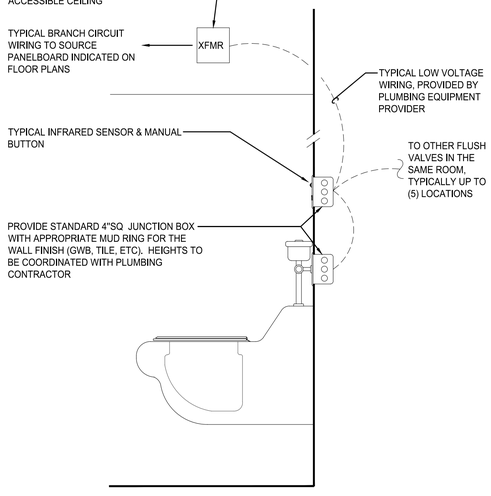
FIRE ALARM SYSTEM WIRING NOTES:

1. (2) #14 AWG IN 3/4" RACEWAY
2. (1) SIGNALING LINE CIRCUIT CABLE - (2) #18 AWG
3. (2) SIGNALING LINE CIRCUIT CABLES (1 IN & 1 OUT) - (2) #18 AWG & (2) #18 AWG
4. (1) SYSTEM POWER CIRCUIT CABLE (24VDC) - (2) #14 AWG
5. (1) NON DATA CONDUCTORS - (2) #14 AWG IN FLEXIBLE METAL RACEWAY.
6. (1) NOTIFICATION APPLIANCE CIRCUIT CABLE - (2) #14 AWG
7. (2) NOTIFICATION APPLIANCE CIRCUIT CABLES (1 IN & 1 OUT) - (2) #14 AWG & (2) #14 AWG

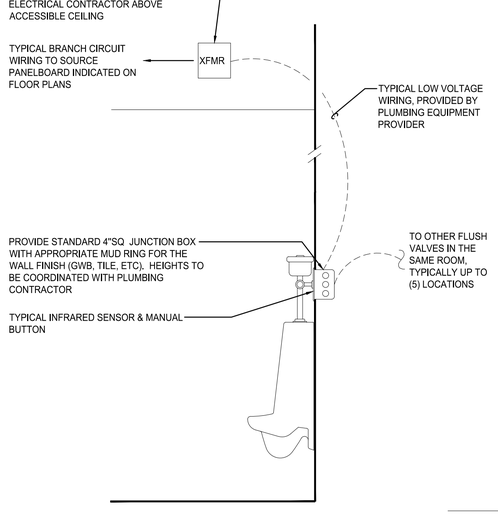
* ALL WIRING REQUIREMENTS ARE TO BE VERIFIED WITH SELECTED FIRE ALARM SYSTEM PROVIDER. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED FOR FAILURE TO PROVIDE WIRING PER EQUIPMENT MANUFACTURER'S REQUIREMENTS.



4 LAVATORY FAUCETS WIRING DETAIL
SCALE: NONE



5 FLUSH VALVE WIRING DETAIL
SCALE: NONE



6 URINAL FLUSH VALVE WIRING DETAIL
SCALE: NONE

FRONT VIEW

7 TYPICAL AV RACEWAY FOR CONFERENCE ROOM
SCALE: NONE

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LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	SHIELDING	DRIVER	LIGHT SOURCE	INPUT WATTS	BASIS OF DESIGN
A6	NOMINAL 6" DIAMETER, RECESSED, LED DOWNLIGHT WITH FOLLOWING MINIMUM SPECIFICATIONS: WIDE BEAM, 2-STAGE REFLECTOR SYSTEM SPECIFICALLY DESIGNED FOR LED SOURCES. FIXTURE MOUNTED JUNCTION BOX WITH DRIVER PRE-WIRED TO THE LED ENGINE. SPECULAR CLEAR REFLECTOR. PROVIDE COMPLETE WITH ALL REQUIRED INSTALLATION HARDWARE, ADJUSTABLE HANGERS, & CEILING CLIPS FOR INSTALLATION IN ASSOCIATED CEILINGS. CEILING TYPES SHALL BE VERIFIED PRIOR TO SUBMITTAL. LUMINAIRE SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS, ENERGY STAR & UL LISTED.	RECESSED	LENSED	TYPE: (1) LED DRIVER, VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	TYPE: (1) LED ARRAY LUMENS: 1,500 DELIVERED CCT: 3500K CRI: 90 MIN	16.2	PORTFOLIO - LD6C SERIES OR EQUAL
T22	2X2, RECESSED, STATIC, LED ARCHITECTURAL LENSED TROFFER WITH FOLLOWING MINIMUM SPECIFICATIONS: RIGID DIE FORMED CODE GAUGE PRIME COLD ROLLED STEEL WITH FULL LENGTH DIE FORMED STIFFENERS, HEAVY GAUGE FLAT STEEL DOOR WITH REINFORCED MITERED CORNERS. LUMINAIRE SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS.	RECESSED	CENTER DIFFUSER-RIBBED FROSTED EXTRUDED ACRYLIC	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V, DOWN TO 10% EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 2,000 DELIVERED CCT: 3500K CRI: 85 MIN	16.2	METALUX - CRUZE 22CZ SERIES OR EQUAL
T42	2X4, RECESSED, STATIC, LED ARCHITECTURAL LENSED TROFFER WITH FOLLOWING MINIMUM SPECIFICATIONS: RIGID DIE FORMED CODE GAUGE PRIME COLD ROLLED STEEL WITH FULL LENGTH DIE FORMED STIFFENERS, HEAVY GAUGE FLAT STEEL DOOR WITH REINFORCED MITERED CORNERS. LUMINAIRE SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS.	RECESSED	CENTER DIFFUSER-RIBBED FROSTED EXTRUDED ACRYLIC	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 5,000 DELIVERED CCT: 3500K CRI: 80 MIN	39.6	METALUX - CRUZE 24CZ SERIES OR EQUAL
TR42	2X4, RECESSED, STATIC, LED ARCHITECTURAL LENSED TROFFER WITH FOLLOWING MINIMUM SPECIFICATIONS: RIGID DIE FORMED CODE GAUGE PRIME COLD ROLLED STEEL WITH FULL LENGTH DIE FORMED STIFFENERS, HEAVY GAUGE FLAT STEEL DOOR WITH REINFORCED MITERED CORNERS. LUMINAIRE SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS. PROVIDE WITH AIR VERSION INTENDED FOR AIR RETURN THROUGH PLENUM. AIR VERSION REQUIRES PAINTED AFTER FABRICATION OPTION.	RECESSED	CENTER DIFFUSER-RIBBED FROSTED EXTRUDED ACRYLIC	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 5,000 DELIVERED CCT: 3500K CRI: 80 MIN	39.6	METALUX - CRUZE 24CZ SERIES OR EQUAL
TH42	2X4, RECESSED, STATIC, LED ARCHITECTURAL LENSED TROFFER WITH FOLLOWING MINIMUM SPECIFICATIONS: RIGID DIE FORMED CODE GAUGE PRIME COLD ROLLED STEEL WITH FULL LENGTH DIE FORMED STIFFENERS, HEAVY GAUGE FLAT STEEL DOOR WITH REINFORCED MITERED CORNERS. LUMINAIRE SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS.	RECESSED	CENTER DIFFUSER-RIBBED FROSTED EXTRUDED ACRYLIC	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 7,500 DELIVERED CCT: 3500K CRI: 80 MIN	55.4	METALUX - CRUZE 24CZ SERIES OR EQUAL
SW4	NARROW, 4FT, PENDANT OR SURFACE MOUNTED, LED, LENSED BARE STRIPLIGHT TYPE LUMINAIRE WITH FOLLOWING MINIMUM SPECIFICATIONS: HOUSING SHALL CONSIST OF DIE FORMED CHANNEL THAT IS COLD ROLLED HEAVY GAGE STEEL. CHANNEL HOUSING SHALL CONTAIN LED DRIVER & PROVIDE AN ASSEMBLY FOR MOUNTING LED ARRAYS & CURVED LENSING OPTIONS. LUMINAIRE SHALL DESIGNED & MANUFACTURED TO ALLOW FOR WIDE OPTICAL DISTRIBUTION. LUMINAIRE SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS. DLC LISTED.	PENDANT OR SURFACE	WIDE DISTRIBUTION CURVED ACRYLIC LENS	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 4,400 DELIVERED CCT: 3500K CRI: 85 MIN	37	METALUX - SNLED LENSED SERIES OR EQUAL
P8	8FT, PENDANT LINER SLOT TYPE LED LUMINAIRE WITH FOLLOWING MINIMUM SPECIFICATIONS: HOUSING SHALL BE EXTRUDED ALUMINUM WITH SNAP-IN LENS. 4" WIDE HOUSING INTEGRAL ELECTRICAL COMPONENTS ACCESSIBLE FROM BELOW. PROVIDE COMPLETE WITH ALL REQUIRED HARDWARE.	PENDANT	SNAP-IN, SATIN FLUSH DIFFUSER	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 6,360 DELIVERED CCT: 3500K CRI: 90 MIN	53.6	FINELITE - HP-4 INDIRECT/DIRECT LED SERIES OR EQUAL
UC1	FLEXABLE LINEAR LED TAPE STRIP LIGHTING WITH THE FOLLOWING MINIMUM SPECIFICATIONS: TAPE LED TO BE DIMMABLE, INDUSTRIAL HEAVY DUTY ADHESIVE BACKING, INTERVAL CUT LENGTHS NOT TO EXCEED 2". PROVIDE WITH 24 VOLT POWER SUPPLY. PROVIDE KELVIX EXTRUDED ALUMINUM MOUNTING CHANNEL CH-014-C FOR SURFACE MOUNTED INSTALLATION, FROSTED LENS AND END CAPS	SURFACE	FROSTED	TYPE: (1) LED DRIVER VOLTAGE: 120-277VAC DIMMING: 0-10V EMERGENCY: INTEGRAL EMERGENCY BATTERY/DRIVER, WHERE INDICATED ON PLANS	SOURCE: (1) LED ARRAY LUMENS: 300 DELIVERED PER FT CCT: 3500K CRI: 90 MIN	3.9 PER FOOT	KELVIX DIRECT VIEW 300 SERIES OR EQUAL
EX	ILLUMINATED "EXIT" SIGN. SHALL BE CONCEALED LED TYPE IN WHITE STEEL HOUSING. DESIGNED FOR SELF POWERED OPERATION WITH BATTERY BACKUP & INTEGRAL TEST CAPABILITY. UNIVERSAL MOUNTING CAPABILITY. UNIVERSAL CHEVRON STYLE KNOCKOUTS. REFER TO DRAWINGS FOR REQUIRED DIRECTIONS. SHALL BE DESIGNED & MANUFACTURED TO MEET UL 924 STANDARD.	SURFACE OR WALL MOUNTED	N/A	TYPE: LED DRIVER VOLTAGE: 120-277VAC DIMMING: N/A EMERGENCY: N/A	SOURCE: LONG LIFE RED LED LUMENS: N/A CCT: N/A CRI: N/A	1	SURE-LITES - SLX SERIES OR EQUAL

GENERAL LUMINAIRE SCHEDULE NOTES:

A. UNLESS OTHERWISE NOTED, BASIS OF DESIGN MANUFACTURER'S NAMES AND CATALOG NUMBERS ARE USED FOR QUALITY AND PERFORMANCE ONLY. WHERE INDICATED "OR EQUAL" LUMINAIRE AND THEIR ASSOCIATED DEVICES MANUFACTURED BY OTHERS SHALL BE EQUALY ACCEPTABLE PROVIDED THEY MEET OR EXCEED IN PERFORMACE AND QUALITY OF THE BASIS OF DESIGN LUMINAIRE.

B. CONTRACTOR SHALL VERIFY VOLTAGE SUPPLY TO EACH LUMINAIRE PRIOR TO ORDERING THE APPROVED FIXTURE.

C. ALL LUMINIARES SHALL BE FURNISHED COMPLETE WITH SPECIFIED LAMPS IF APPLICABLE.

D. LUMINAIRES SHALL BE INDEPENDENTLY SUPPORTED IN ACCORDANCE WITH ALL APPLICABLE CODES & SPECIFICATIONS

E. CONTRACTOR SHALL VERIFY CEILING TYPE FOR EACH LUMINAIRE LOCATION & ORDER ACCORDINGLY.

F. ALL LED LUMINAIRES SHALL BE DESIGNED & MANUFACTURED IN ACCORDANCE WITH IESNA LM-79 & LM-80 STANDARDS.

G. CONTRACTOR SHALL VERIFY ALL MOUTING REQUIREMENTS OF EACH EXIT SIGN PRIOR TO ORDERING, AS WELL AS DIRECTIONAL REQUIREMENTS.

H. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LUMINAIRE AND INSTALLATION REQUIREMENTS. PROVIDE ALL LISTED OPTIONS AND ACCESSORIES.

I. UNLESS OTHERWISE NOTED, REMOTE POWER SUPPLIES SHALL BE LOCATED IN NEARBY, DRY, VENTILATED LOCATION, MINIMIZE DISTANCE AND PROVIDE CONDUCTOR SIZE AS REQUIRED BY THE MANUFACTURER.

J. UNLESS OTHERWISE NOTED, ALL EMERGENCY BATTERY/DRIVERS SHALL BE WIRED FOR A SWITCHED CIRCUIT. REFER TO MANUFACTURER INSTRUCTIONS FOR WIRING INFORMATION

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ELECTRICAL

LUMINAIRE SCHEDULE

DRAWING NUMBER
E501

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

EQUIPMENT								POWER SUPPLY					CONTROL DEVICES												
ITEM DESIGNATION	EQUIPMENT NAME	ROOM/LOCATION	HP	kW	AMPS	PHASE	VOLTAGE	SOURCE	CIRCUIT BREAKER	CONDUCTOR SIZE (AWG) COPPER	GROUND SIZE (AWG) COPPER	RACEWAY SIZE	DISCONNECT SWITCH			STARTER NEMA SIZE	COMBINATION FVNR MOTOR STARTER/DISCONNECT SWITCH	FRACTIONAL HP DISCONNECT SWITCH	DISCONNECT SWITCH AT UNIT (SUPPLIED BY OTHERS)	PACKAGED CONTROL UNIT (SUPPLIED BY OTHERS)	THERMOSTAT CONNECTION (LINE VOLTAGE)	VARIABLE FREQUENCY DRIVE (PROVIDED BY OTHERS)	DUCT DETECTOR WITH TEST STATION		FIRE ALARM FAN SHUTDOWN		NOTES
													SWITCH AMPS	FUSE AMPS	LOCATION							RETURN	SUPPLY	RETURN	SUPPLY	
RTU-1	ROOFTOP UNIT	ROOF			62.0	3	208	MDP	80A/3P	(3)#2	#8	1-1/4"							X			X	X	X	X	X	1,2
RTU-2	ROOFTOP UNIT	ROOF			62.0	3	208	MDP	80A/3P	(3)#2	#8	1-1/4"							X			X	X	X	X	X	1,2
RTU-3	ROOFTOP UNIT	ROOF			68.0	3	208	MDP	90A/3P	(3)#2	#8	1-1/4"							X			X	X	X	X	X	1,2
EF-1	EXHAUST FAN	ROOF	1/4			1	120	PP1	15A/1P	(2)#12	#12	3/4"							X								1
VAV1-1	VARIABLE AIR VOLUME	LOBBY - 101		4.9	13.6	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV1-2	VARIABLE AIR VOLUME	PREFUNCTION - 144		6.1	16.9	3	208	PP1	30A/3P	(3)#10	#10	3/4"							X								1
VAV1-3	VARIABLE AIR VOLUME	LOFT - 259		2.8	7.8	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV1-4	VARIABLE AIR VOLUME	LOFT - 259		3.1	8.6	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV2-1	VARIABLE AIR VOLUME	LOFT - 259		3.8	10.6	3	208	PP1	20A/3P	(3)#10	#10	3/4"							X								1
VAV2-2	VARIABLE AIR VOLUME	CORRIDOR - 261		4.4	12.2	3	208	PP1	20A/3P	(3)#10	#10	3/4"							X								1
VAV2-3	VARIABLE AIR VOLUME	CORRIDOR - 261		3.2	8.9	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV2-4	VARIABLE AIR VOLUME	CORRIDOR - 262		3.2	8.9	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV2-5	VARIABLE AIR VOLUME	CORRIDOR - 261		2.5	6.9	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								
VAV3-1	VARIABLE AIR VOLUME	STORAGE - 142		5.7	15.8	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV3-2	VARIABLE AIR VOLUME	STORAGE - 142		3.8	10.6	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
VAV3-3	VARIABLE AIR VOLUME	STORAGE - 142		3.6	10.0	3	208	PP1	20A/3P	(3)#12	#12	3/4"							X								1
HWRP-1	HOT WATER RETURN PUMP	STORAGE - 249			0.8	1	120	PP1	15A/1P	(2)#12	#12	3/4"							X								1
EWH-1	ELECTRIC WATER HEATER	CLOSET - 250		6.0	28.8	1	208	PP1	40A/2P	(2)#8	#10	1"															1

MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES

1. PROVIDE HACR TYPE CIRCUIT BREAKER FOR THIS EQUIPMENT.
2. EXISTING FIRE ALARM DUCT DETECTORS LOCATED DOWNSTREAM OF THE AIR HANDLING UNIT ARE TO REMAIN FOR REUSE.
3. REUSE EXISTING EMERGENCY POWER FEED FOR THE SMOKE PURGE SYSTEM. MAKE ALL REQUIRED ELECTRICAL TERMINATIONS FOR THE SMOKE PURGE SYSTEM.

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MECHANICAL EQUIPMENT CONNECTIONS SCHEDULE

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EXISTING PANELBOARD SCHEDULE

PANELBOARD: **MPL** | NAME | VOLTS: **208 Y/120** | BUS CAPACITY: **175** A | MCB: **175** A | MLO: | 3Ø 4-WIRE | AIC: **42kA** | MTG: **SURFACE** | ENCL: **NEMA 1** | **TELE. RM E-118** | LOCATION

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1	20A/1P	LTS. VAULT, BR, WATER COOLER			0					RECEPTACLES RM. 109	20A/1P	2
3	20A/1P	LIGHTS ROOM 103				0				LIGHTS RM. 105, 106, 107, 116	20A/1P	4
5	20A/1P	LIGHTS CASHIER & LOBBY					0			LIGHTS RM. 108-110	20A/1P	6
7	20A/1P	ELEVATOR LIGHTS			0					FIRLE ALARM PANEL	20A/1P	8
9	20A/1P	ELEVATOR RM, PIT, LT/REC				0				RECEPT. AT PHONE BOARD	20A/1P	10
11	20A/1P	RECEPT. RM. 110, 111					0			RECEPT. R. 107 GFI/WATER COOLER	20A/1P	12
13	20A/1P	RECEPT. HALL/OFF. 112, 113			0					PANEL L3	100A/3P	14
15	20A/1P	QUAD RECEPT. RM. 105				0						16
17	20A/1P	RECEPT. HALL, RM. 105					0					18
19	20A/1P	RECEPT. RM 103			0					ELEVATOR	100A/3P	20
21	20A/1P	RECEPT. CASHIER/ CUST. LOBBY				0						22
23	20A/1P	RECEPT. UNDER DRIVE-THRU COUNT.					0					24
25	20A/1P	BATHROOM LIGHTS			0					FURNACE #13	20A/2P	26
27	20A/1P	LIGHTS RM. 111, 112, 113				0						28
29	20A/1P	SPARE					0			FURNACE #11	20A/2P	30
31	20A/1P	SPARE			0							32
33	20A/1P	SPARE				0				FURNACE #12	35A/3P	34
35	20A/1P	OUTSIDE LIGHTS DRIVE-THRU					0					36
37	20A/1P	SM. CAN LIGHTS HALL			0							38
39	20A/1P	HALL & EMERGENCY LIGHTS				0				OUTSIDE LIGHTS BAVK DOOR	20A/1P	40
41	20A/1P	SPRINKLER PUMP					0			SIGN OUT FRONT	20A/1P	42

EXISTING PANELBOARD SCHEDULE

PANELBOARD: **L3** | NAME | VOLTS: **208 Y/120** | BUS CAPACITY: **100** A | MCB: | MLO: **100** A | 3Ø 4-WIRE | AIC: **42kA** | MTG: **SURFACE** | ENCL: **NEMA 1** | **TELE RM E-118** | LOCATION

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1		BLANK			0					BLANK		2
3	20A/1P	MOSLER TRAY				0				UP STAIRS REFRIDGERATOR	20A/1P	4
5	20A/1P	MOSLER BLOWER					0			ALARM CIRCUIT	20A/1P	6
7	20A/1P	HEAT IN CEILING			0					RECEPT. NEW OFFICE	20A/1P	8
9	20A/1P	REFRIDGERATOR				0				RECEPT. NEW OFFICE	20A/1P	10
11	20A/1P	RECEPT. KITCHEN					0			VAT FANS	20A/1P	12
13	20A/1P	RECEPT. LEFT OF REFRIDGERATOR			0					RANGE	40A/2P	14
15	20A/1P	RECEPT. KITCHEN				0						16
17	20A/1P	RECEPT. KITCHEN					0			BLANK		18
19	20A/1P	RECEPT. KITCHEN			0					UPS	20A/1P	20
21	20A/1P	HEAT IN CEILING				0				EXISTING CIRCUIT	20A/1P	22
23		BLANK					0			EXISTING CIRCUIT	30A/2P	24
25	20A/1P	FLOOR RECEPT. UP STAIRS			0							26
27						0				EXISTING CIRCUIT	20A/1P	28
29	20A/1P	EXISTING CIRCUIT					0			EXISTING CIRCUIT	20A/1P	30
31					0					EXISTING CIRCUIT	20A/1P	32
33		BLANK				0				EXISTING CIRCUIT	20A/1P	34
35		BLANK					0			EXISTING CIRCUIT	20A/1P	36
37		BLANK			0					EXISTING CIRCUIT	20A/1P	38
39		BLANK				0				EXISTING CIRCUIT	20A/1P	40
41		BLANK					0			BLANK		42

EXISTING PANELBOARD SCHEDULE

PANELBOARD: **L2** | NAME | VOLTS: **208 Y/120** | BUS CAPACITY: **200** A | MCB: **200** A | MLO: | 3Ø 4-WIRE | AIC: **42kA** | MTG: **SURFACE** | ENCL: **NEMA 1** | **TELE. RM E-118** | LOCATION

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1	20A/1P	LIGHTS RMS. 201 & 202			0					RECEPTS. RM. 207	20A/1P	2
3	20A/1P	RECEPT. OFFICE 202				0				RECEPTS. RM. 207	20A/1P	4
5	20A/1P	FLOOR RECEPT. CASHIER AREA DW.					0			RECEPTS. RM. 207	20A/1P	6
7	20A/1P	RECEPTS. OFFICE 201, 202			0					HALL & EMEREGENCY LIGHTS	20A/1P	8
9	20A/1P	LIGHTS RM 200				0				SM. CAN LIGHTS HALL	20A/1P	10
11	20A/1P	WATER HEATER LOBBY BATHROOM					0			AIR HANDLER #23	20A/2P	12
13	20A/1P	GFI'S RECEPTS. RM 210			0							14
15	20A/1P	TV MONITOR				0				AIR HANDLER #21	20A/2P	16
17	20A/1P	LIGHTS BATHROOM UP					0					18
19	20A/1P	LIGHTS RM 211, 212 CLOSETS			0					WATER CIRCULATOR PUMP	20A/1P	20
21	20A/1P	RECEPTS. RM. 200				0				WATER HEATER	20A/1P	22
23	20A/1P	RECEPTS. OFFS. 211, 212					0			WATER HEATER	20A/1P	24
25	20A/1P	RECEPTS. UP			0					AIR HANDLER #22	30A/3P	26
27	30A/2P	SPARE				0						28
29							0					30
31	20A/1P	LIGHTS ROOMS 207, 208, 209			0					SPARE	20A/1P	32
33	20A/1P	RECEPTS. RM. 208, 209				0				SPARE	20A/1P	34
35	20A/1P	LIGHTS ROOM 210					0			SPARE	20A/1P	36
37	20A/1P	SPARE			0					SPARE	30A/2P	38
39	30A/2P	SPARE				0						40
41							0			SPARE	20A/1P	42

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

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CONSTRUCTION DOCUMENTS

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MAP
DRAWN: MAP
CHECKED: JFW
CHECKED:
APPROVED:
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

ELECTRICAL

PANELBOARD SCHEDULES

DRAWING NUMBER
E503

DISTRIBUTION PANEL SCHEDULE

PANELBOARD **MDP** | VOLTS: **208 Y/120** | 3Ø 4-WIRE | MECH/ELEC RM 141
NAME | BUS CAPACITY: **1200** A | AIC: **42kA** | LOCATION
MCB: **1200** A | MTG: **SURFACE**
MLO: | ENCL: **NEMA 1**

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1					0							2
3						0						4
5							0					6
7					0							8
9						0						10
11							0					12
13					0							14
15						0						16
17							0					18
19			HVAC	7446	15613			8167	HVAC			20
21	80A/3P	ROOF TOP UNIT - RTU-1	HVAC	7446		15613		8167	HVAC	ROOF TOP UNIT - RTU-3	90A/3P	22
23			HVAC	7446			15613	8167	HVAC			24
25			HVAC	7446	26286			18840	PWR			26
27	80A/3P	ROOF TOP UNIT - RTU-2	HVAC	7446		26190		18744	PWR	PANELBOARD - PP1	200A/3P	28
29			HVAC	7446			23674	16228	PWR			30
31			PWR	10376	14836			4460	PWR			32
33	100A/3P	PANELBOARD - PP2	PWR	8940		13760		4820	PWR	PANELBOARD - PP3	100A/3P	34
35			PWR	9351			13311	3960	PWR			36
37			PWR		0				PWR			38
39	200A/3P	PANELBOARD - L2	PWR			0			PWR	PANELBOARD - MPL	175A/3P	40
41			PWR				0		PWR			42

PANELBOARD SCHEDULE

PANELBOARD **PP1** | VOLTS: **208 Y/120** | 3Ø 4-WIRE | MECH/ELEC RM 141
NAME | BUS CAPACITY: **200** A | AIC: **42kA** | LOCATION
MCB: | MTG: **SURFACE**
MLO: **200** A | ENCL: **NEMA 1**

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1			HVAC	1670	2739			1069	HVAC			2
3	20A/3P	VAV1-1	HVAC	1670		2739		1069	HVAC	VAV2-4	20A/3P	4
5			HVAC	1670			2739	1069	HVAC			6
7			HVAC	2030	2859			829	HVAC			8
9	30A/3P	VAV1-2	HVAC	2030		2859		829	HVAC	VAV2-5	20A/3P	10
11			HVAC	2030			2859	829	HVAC			12
13			HVAC	937	2835			1898	HVAC			14
15	20A/3P	VAV1-3	HVAC	937		2835		1898	HVAC	VAV3-1	20A/3P	16
17			HVAC	937			2835	1898	HVAC			18
19			HVAC	1033	2306			1273	HVAC			20
21	20A/3P	VAV1-4	HVAC	1033		2306		1273	HVAC	VAV3-2	20A/3P	22
23			HVAC	1033			2306	1273	HVAC			24
25			HVAC	1273	2474			1201	HVAC			26
27	20A/3P	VAV2-1	HVAC	1273		2474		1201	HVAC	VAV3-3	20A/3P	28
29			HVAC	1273			2474	1201	HVAC			30
31			HVAC	1466	4462			2996	PWR	EWH-1	40A/2P	32
33	20A/3P	VAV2-2	HVAC	1466		4462		2996	PWR			34
35			HVAC	1466			1946	480	HVAC	EF-1	15A/1P	36
37			HVAC	1069	1165			96	PWR	HWRP-1	15A/1P	38
39	20A/3P	VAV2-3	HVAC	1069		1069				SPARE	20A/1P	40
41			HVAC	1069			1069			SPARE	20A/1P	42

PANELBOARD SCHEDULE

PANELBOARD **PP2** | VOLTS: **208 Y/120** | 3Ø 4-WIRE | MECH/ELEC RM 141
NAME | BUS CAPACITY: **100** A | AIC: **42kA** | LOCATION
MCB: | MTG: **SURFACE**
MLO: **100** A | ENCL: **NEMA 1**

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1	20A/1P	LIGHTING - ROOM 100, 101, 102	LTG	570	1290			720	REC	RECEPTACALES - ROOM 142	20A/1P	2
3	20A/1P	LIGHTING - ROOM 105, 115	LTG	160		880		720	REC	RECEPTACALES - ROOM 140	20A/1P	4
5	20A/1P	LIGHTING - ROOM 144, 145, 146	LTG	442			1162	720	REC	RECEPTACALES - ROOM 140	20A/1P	6
7	20A/1P	LIGHTING - ROOM 143	LTG	891	1611			720	REC	RECEPTACALES - ROOM 139	20A/1P	8
9	20A/1P	LIGHTING - ROOM 112,139,140,141,142	LTG	720		1260		540	REC	RECEPTACALES - ROOM 139	20A/1P	10
11	20A/1P	LIGHTING - ROOM 259, 260, 261, 262	LTG	389			1389	1000	REC	REC - ROOM 139 (FRIDGE GCFI BKR)	20A/1P	12
13	20A/1P	LIGHTING - ROOM 237-249, 252-58	LTG	1288	2368			1080	REC	RECEPTACLES - ROOM 222, 229, 235	20A/1P	14
15	20A/1P	RECEPTACALES - ROOM 100, 101	REC	720		1800		1080	REC	RECEPTACLES - ROOM 237	20A/1P	16
17	20A/1P	RECEPTACALES - ROOM 102	REC	720			1800	1080	REC	RECEPTACLES - ROOM 238	20A/1P	18
19	20A/1P	RECEPTACALES - ROOM 105	REC	720	1620			900	REC	RECEPTACLES - ROOM 239	20A/1P	20
21	20A/1P	RECEPTACALES - ROOM 115	REC	540		1440		900	REC	RECEPTACLES - ROOM 240	20A/1P	22
23	20A/1P	RECEPTACALES - ROOM 144	REC	720			1440	720	REC	RECEPTACLES - ROOM 241,242	20A/1P	24
25	20A/1P	RECEPTACALES - ROOM 145	REC	540	1440			900	REC	RECEPTACLES - ROOM 243	20A/1P	26
27	20A/1P	RECEPTACALES - ROOM 146	REC	540		1440		900	REC	RECEPTACLES - ROOM 244	20A/1P	28
29	20A/1P	RECEPTACALES - ROOM 143	REC	900			1800	900	REC	RECEPTACLES - ROOM 247	20A/1P	30
31	20A/1P	RECEPTACALES - ROOM 143	REC	900	1400			500	PWR	UR-1, UR-1, WC-1, WC-1, WC-1, WC-1	20A/1P	32
33	20A/1P	RECEPTACALES - ROOM 143	REC	720		1220		500	PWR	WC-1, WC-1	20A/1P	34
35	20A/1P	RECEPTACALES - ROOM 143	REC	720			1220	500	PWR	WC-1, WC-1	20A/1P	36
37	20A/1P	RECEPTACALES - ROOM 112	REC	900	900					SPARE	20A/1P	38
39	20A/1P	RECEPTACALES - ROOM 110,111,138	REC	900		900				SPARE	20A/1P	40
41	20A/1P	RECEPTACALES - ROOM 142	REC	540			540			SPARE	20A/1P	42

PANELBOARD SCHEDULE

PANELBOARD **PP3** | VOLTS: **208 Y/120** | 3Ø 4-WIRE | ELEC ROOM 141
NAME | BUS CAPACITY: **100** A | AIC: **42kA** | LOCATION
MCB: | MTG: **SURFACE**
MLO: **100** A | ENCL: **NEMA 1**

No.	BKR	DESCRIPTION	TYPE	LOAD	L1	L2	L3	LOAD	TYPE	DESCRIPTION	BKR	No.
1	20A/1P	RECEPTACLES - ROOM 251	REC	900	900					SPARE	20A/1P	2
3	20A/1P	RECEPTACLES - ROOM 252	REC	900		900				SPARE	20A/1P	4
5	20A/1P	RECEPTACLES - ROOM 255	REC	900			900			SPARE	20A/1P	6
7	20A/1P	RECEPTACLES - ROOM 256	REC	900	900					SPARE	20A/1P	8
9	20A/1P	RECEPTACLES - ROOM 257	REC	900		900				SPARE	20A/1P	10
11	20A/1P	RECEPTACLES - ROOM 258	REC	900			900			SPARE	20A/1P	12
13	20A/1P	RECEPTACLES - ROOM 254	REC	900	900					SPARE	20A/1P	14
15	20A/1P	RECEPTACLES - ROOM 253	REC	900		900				SPARE	20A/1P	16
17	20A/1P	RECEPTACLES - ROOM 248	REC	900			900			SPARE	20A/1P	18
19	20A/1P	RECEPTACLES - ROOM 249	REC	540	540					SPARE	20A/1P	20
21	20A/1P	RECEPTACLES - ROOM 245	REC	900		900				SPARE	20A/1P	22
23	20A/1P	RECEPTACLES - ROOM 246	REC	720			720			SPARE	20A/1P	24
25	20A/1P	RECEPTACLES - ROOM 259, 260, 261	REC	720	720					SPARE	20A/1P	26
27	20A/1P	RECEPTACLES - ROOM 261, 262	REC	720		720				SPARE	20A/1P	28
29	20A/1P	RECEPTACLES - ROOF	REC	540			540			SPARE	20A/1P	30
31	20A/1P	RECEPTACLES - ROOM 142 (A/V RACK)	REC	500	500					SPARE	20A/1P	32
33	20A/1P	RECEPTACLES - ROOM 249 (NETW. RACK)	REC	500		500				SPARE	20A/1P	34
35	20A/1P	SPARE					0			SPARE	20A/1P	36
37	20A/1P	SPARE			0					SPARE	20A/1P	38
39	20A/1P	SPARE				0				SPARE	20A/1P	40
41	20A/1P	SPARE					0			SPARE	20A/1P	42

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

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CONSTRUCTION DOCUMENTS

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NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

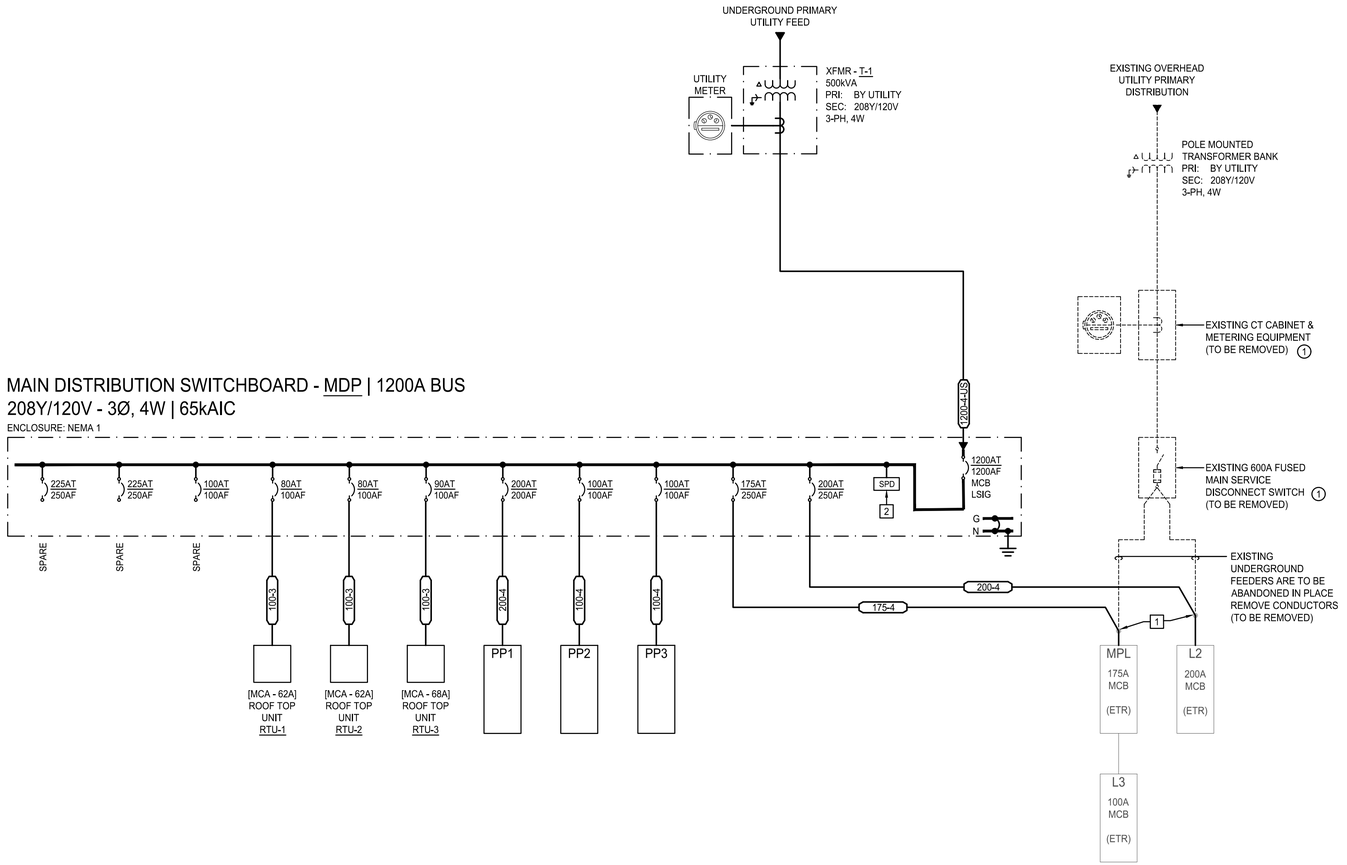
LINE IS 2 INCHES AT FULL SIZE

DESIGNED: MAP
DRAWN: MAP
CHECKED: JFW
CHECKED:
APPROVED:
FILENAME
BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

ELECTRICAL

PANELBOARD SCHEDULES

DRAWING NUMBER
E504



1 SINGLE LINE DIAGRAM
SCALE: NONE

FEEDER SIZE SCHEDULE | 3-PHASE
600V & BELOW (COPPER)

OVER-CURRENT DEVICE RATING	CONDUCTOR SIZE AWG OR KCMIL		4-WIRE FEEDERS WITH EQUIPMENT GROUND		3-WIRE FEEDERS WITH EQUIPMENT GROUND (NO NEUTRAL)		4-WIRE SEPARATELY DERIVED SYSTEM FEEDERS GROUNDING ELECTRODE CONDUCTOR (GEC)			4-WIRE FEEDERS W/O EQUIPMENT GROUND (UTILITY SECONDARY)	
	PHASE & NEUTRAL	EQUIP. GND.	xxxx-4	CONDUIT SIZE	xxxx-3	CONDUIT SIZE	xxxx-4-SD	GEC	CONDUIT SIZE	xxxx-4-US	CONDUIT SIZE
20	12	12	20-4	3/4"	20-3	3/4"	20-4-SD	8	3/4"	20-4-US	3/4"
30	10	10	30-4	3/4"	30-3	3/4"	30-4-SD	8	3/4"	30-4-US	3/4"
40	8	10	40-4	3/4"	40-3	3/4"	40-4-SD	8	3/4"	40-4-US	3/4"
60	6	10	60-4	1"	60-3	1"	60-4-SD	8	1"	60-4-US	1"
70	4	10	70-4	1-1/4"	70-3	1-1/4"	70-4-SD	8	1-1/4"	70-4-US	1-1/4"
100	2	8	100-4	1-1/4"	100-3	1-1/4"	100-4-SD	8	1-1/4"	100-4-US	1-1/4"
110	1	6	110-4	1-1/2"	110-3	1-1/2"	110-4-SD	6	1-1/2"	110-4-US	1-1/2"
125	1/0	6	125-4	2"	125-3	2"	125-4-SD	6	2"	125-4-US	2"
150	1/0	6	150-4	2"	150-3	2"	150-4-SD	6	2"	150-4-US	2"
175	2/0	6	175-4	2"	175-3	2"	175-4-SD	4	2"	175-4-US	2"
200	3/0	6	200-4	2"	200-3	2"	200-4-SD	4	2"	200-4-US	2"
225	4/0	4	225-4	2-1/2"	225-3	2-1/2"	225-4-SD	2	2-1/2"	225-4-US	2-1/2"
250	250	4	250-4	2-1/2"	250-3	2-1/2"	250-4-SD	2	2-1/2"	250-4-US	2-1/2"
300	350	4	300-4	3"	300-3	3"	300-4-SD	2	3"	300-4-US	3"
350	500	2	350-4	3"	350-3	3"	350-4-SD	2	3"	350-4-US	3"
400	600	2	400-4	3-1/2"	400-3	3"	400-4-SD	1/0	3"	400-4-US	3"
450	(2) 4/0	2	450-4	(2) 2-1/2"	450-3	(2) 2-1/2"	450-4-SD	1/0	(2) 2-1/2"	450-4-US	(2) 2"
500	(2) 250	2	500-4	(2) 2-1/2"	500-3	(2) 2-1/2"	500-4-SD	1/0	(2) 2-1/2"	500-4-US	(2) 2-1/2"
600	(2) 350	1	600-4	(2) 4"	600-3	(2) 4"	600-4-SD	3/0	(2) 4"	600-4-US	(2) 3"
700	(2) 500	1/0	700-4	(2) 4"	700-3	(2) 4"	700-4-SD	3/0	(2) 4"	700-4-US	(2) 3"
800	(2) 600	1/0	800-4	(2) 4"	800-3	(2) 4"	800-4-SD	3/0	(2) 4"	800-4-US	(2) 3"
1000	(3) 500	2/0	1000-4	(3) 4"	1000-3	(3) 4"	1000-4-SD	3/0	(3) 4"	1000-4-US	(3) 3"
1200	(3) 600	3/0	1200-4	(3) 4"	1200-3	(3) 4"	1200-4-SD	3/0	(3) 4"	1200-4-US	(3) 3-1/2"
1600	(4) 600	4/0	1600-4	(4) 4"	1600-3	(4) 4"	1600-4-SD	3/0	(4) 4"	1600-4-US	(4) 3-1/2"
2000	(5) 600	250	2000-4	(5) 4"	2000-3	(5) 4"	2000-4-SD	3/0	(5) 4"	2000-4-US	(5) 3-1/2"
2500	(6) 600	350	2500-4	(6) 4"	2500-3	(6) 4"	2500-4-SD	3/0	(6) 4"	2500-4-US	(6) 3-1/2"
3000	(8) 500	500	3000-4	(8) 4"	3000-3	(8) 4"	3000-4-SD	3/0	(8) 4"	3000-4-US	(8) 3-1/2"
4000	(10) 600	500	4000-4	(10) 4"	4000-3	(10) 4"	4000-4-SD	3/0	(10) 4"	4000-4-US	(10) 3-1/2"
5000	(12) 600	(2) 500	5000-4	(12) 4"	5000-3	(12) 4"	5000-4-SD	3/0	(12) 4"	5000-4-US	(12) 3-1/2"
6000	(16) 500	(2) 500	6000-4	(16) 4"	6000-3	(16) 4"	6000-4-SD	3/0	(16) 4"	6000-4-US	(16) 3"

FEEDER SCHEDULE GENERAL NOTES

A. ROUTES, LENGTHS & ABNORMAL ENVIRONMENTAL CONDITIONS SHALL BE VERIFIED TO BE COMPATIBLE WITH THE CABLE TYPE & SIZE. CONSULT ENGINEER WHEN RELATED ISSUES ARISE.

B. NOTE ALL FEEDERS ARE NECESSARILY USED. REFER TO SINGLE LINE DIAGRAM, SCHEDULES, & PLANS FOR REQUIRED FEEDERS.

C. FOR ALL FEEDERS WITH MULTIPLE CONDUITS PROVIDE THE INDICATED NUMBER OF PHASE, NEUTRAL, & GROUND CONDUCTORS IN EACH CONDUIT.

D. UNLESS OTHERWISE INDICATED, ALL CONDUCTORS ARE COPPER, TYPE THWN/THHN INSULATION FOR DRY, INDOOR AREAS & XHHW INSULATION FOR OUTDOOR INSTALLATIONS.

E. UNLESS OTHERWISE INDICATED, FEEDER SIZING SHALL MATCH THE SIZE INDICATED ABOVE FOR THE APPROPRIATE OVERCURRENT PROTECTIVE DEVICE PROVIDED TO PROTECT THE FEEDER OR LARGER WHERE INDICATED. NOTE THAT THE CONDUCTOR SIZE MAY BE LARGER THAN THE OCPD SIZE FOR THE ASSOCIATED CIRCUIT.

F. FOR BREAKER SIZE OF 100A & SMALLER 60°C AMPACITY WAS UTILIZED TO SIZE FEEDERS, 75°C AMPACITY WAS USED FOR FEEDERS PROTECTED BY A BREAKER LARGER THEN 100A.

GENERAL NOTES:

A. THE CONTRACTOR SHALL MAINTAIN EXISTING ELECTRICAL SERVICE IN OPERATION TO THE GREATEST EXTENT POSSIBLE THROUGHOUT THE DURATION OF THE PROJECT. ALL WORK AFFECTING THE EXISTING SERVICE SHALL BE COORDINATED IN ADVANCE TO MINIMIZE DISRUPTIONS TO BUILDING OPERATIONS. CONTRACTOR SHALL DEVELOP A SWITCHOVER SCHEDULE AS SOON AS POSSIBLE SO THE OWNER CAN COORDINATE ALL REQUIREMENTS TO ACCOMMODATE ANY REQUIRED SHUTDOWNS. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING & COORDINATING ALL SHUTDOWNS, ENSURING PROPER NOTICE IS PROVIDED TO ALL STAKEHOLDERS INCLUDING THE UTILITY COMPANY.

(X) DEMOLITION NOTES:

1. DISCONNECT & REMOVE EXISTING ELECTRICAL EQUIPMENT, WIRING, & ALL ITS ASSOCIATED ELECTRICAL WORK.

[X] CONSTRUCTION NOTES:

1. INTERCEPT EXISTING CONDUIT EMERGING FROM THE CONCRETE FLOOR TO FACILITATE CONNECTION TO NEW FEEDER.

2. SURGE PROTECTION DEVICE SHALL INCLUDE INTEGRAL DISCONNECT & OVERCURRENT PROTECTION.

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CONSTRUCTION DOCUMENTS

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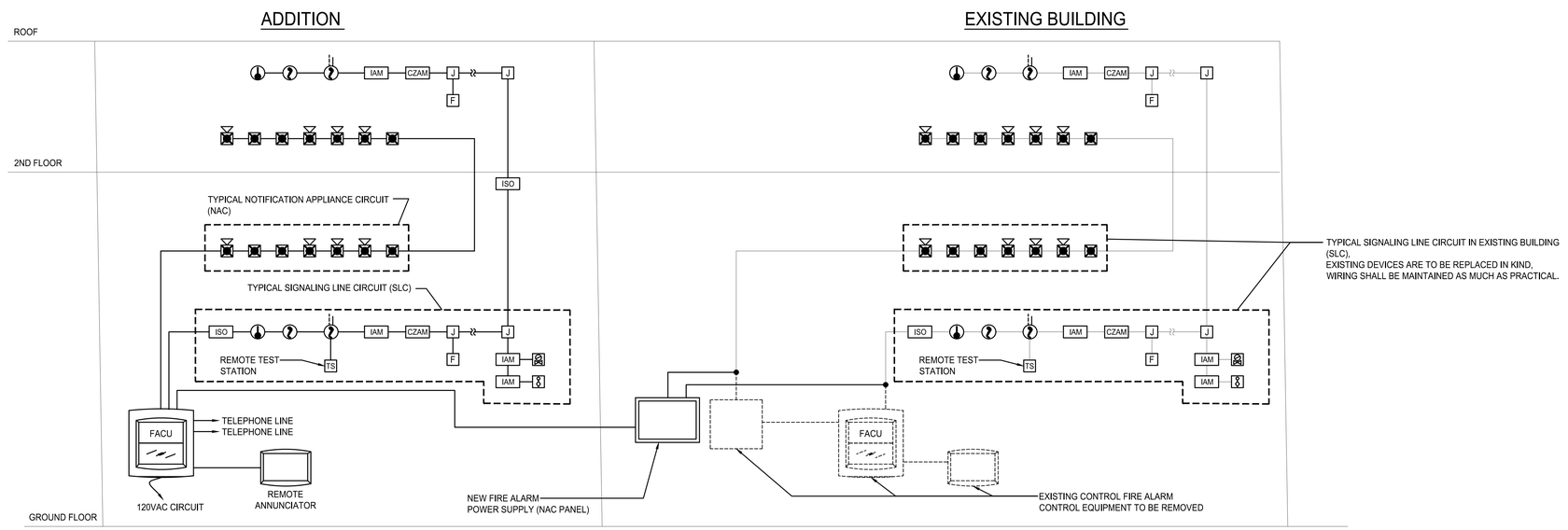
LINE IS 2 INCHES AT FULL SIZE

DESIGNED: RB1
DRAWN: RB1
CHECKED: JFW
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APPROVED:
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BC PROJECT NUMBER 616202
CLIENT PROJECT NUMBER

ELECTRICAL

SINGLE LINE DIAGRAM

DRAWING NUMBER
E601



1 FIRE ALARM RISER DIAGRAM
SCALE: NONE

SCOPE:

A. PLEASE PROVIDE A COMPLETE, CODE COMPLIANT FIRE ALARM SYSTEM FOR THE NEW BUILDING ADDITION & INTEGRATE IT WITH THE EXISTING FACILITY'S FIRE ALARM INFRASTRUCTURE. THE EXISTING FIRE ALARM WIRING IN THE FACILITY SHALL REMAIN IN PLACE & BE REUSED WHERE PRACTICAL. ALL EXISTING FIRE ALARM SYSTEM INITIATING & NOTIFICATION DEVICES—INCLUDING DETECTORS, PULL STATIONS, HORN/STROBES, & ALL OTHER FIELD COMPONENTS—SHALL BE REMOVED & REPLACED WITH NEW DEVICES THAT ARE FULLY COMPATIBLE WITH THE NEW FIRE ALARM SYSTEM BEING PROVIDED. THE FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH IBC, NFPA 70, & NFPA 72.

B. THESE DOCUMENTS ARE INTENDED TO OUTLINE THE DESIGN, MATERIALS, & EQUIPMENT REQUIRED FOR A COMPLETELY FUNCTIONING & OPERATING FIRE ALARM SYSTEM, INCLUDING INTERFACING TO OTHER BUILDING SYSTEMS AS REQUIRED.

C. THE OVERALL SCOPE & CHARACTER OF THE WORK ARE ILLUSTRATED IN THE PROJECT SPECIFICATIONS & DRAWINGS. ALTHOUGH DIVIDED INTO MULTIPLE SECTIONS FOR ORGANIZATIONAL CONVENIENCE, ALL CONTRACT DOCUMENTS MUST BE REVIEWED AS A SINGLE COORDINATED PACKAGE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TRADES, SUBCONTRACTORS, & VENDORS INVOLVED IN THE PROJECT.

D. THE DRAWINGS INDICATE THE GENERAL LOCATIONS OF FIRE ALARM SYSTEM EQUIPMENT & FIELD DEVICES. THE CONTRACTOR SHALL DETERMINE FINAL DEVICE PLACEMENT, QUANTITIES, & APPLIANCE RATINGS IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, & CONTRACT REQUIREMENTS.

E. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS & APPROVALS FROM THE AUTHORITY HAVING JURISDICTION (AHJ) & MUST PAY ALL ASSOCIATED FEES FOR FIRE ALARM SYSTEM WORK.

F. THE INSTALLING CONTRACTOR SHALL COORDINATE WITH MECHANICAL, ELECTRICAL, & OTHER TRADES TO ENSURE THAT INSTALLATIONS ARE CONSISTENT WITH FACILITY DESIGN, FUNCTION, & INTENT.

G. FINAL SYSTEM TESTING SHALL BE COORDINATED WITH OTHER CONTRACTORS TO ENSURE THAT THE ENTIRE SYSTEM IS OPERATIONAL AT THE TIME OF TESTING.

H. THE CONTRACTOR SHALL PROVIDE FINAL SYSTEM LAYOUT DRAWINGS, INCLUDING BATTERY & VOLTAGE DROP CALCULATIONS, & SECURE APPROVAL FROM THE FIRE MARSHAL & ALL RELEVANT AUTHORITIES HAVING JURISDICTION.

I. THE FIRE ALARM CONTRACTOR SHALL SCHEDULE & PERFORM ALL INSPECTIONS & TESTS REQUIRED BY THE AHJ & PROJECT SPECIFICATIONS.

INITIATION DEVICES:

J. INSTALL MANUAL FIRE PULL STATIONS AS SHOWN ON THE DRAWINGS. PULL STATION SHALL BE DUAL-ACTION, KEY-RESETTABLE, & MUST NOT USE BREAKABLE ELEMENTS. FINAL INSTALLATION DETAILS SHALL BE PROVIDED BY THE FIRE ALARM CONTRACTOR.

K. PROVIDE SMOKE DETECTION ABOVE EACH FIRE ALARM CONTROL PANEL & NOTIFICATION APPLIANCE CIRCUIT PANEL AS REQUIRED BY NFPA 72, SECTION 10.4.5.

L. ALL ADDRESSABLE MONITOR MODULES SHALL BE INSTALLED WITHIN 10 FEET OF THE DEVICES THEY MONITOR, UNLESS OTHERWISE INDICATED.

M. PROVIDE REMOTE TEST STATION/INDICATORS FOR ANY DEVICES THAT ARE NOT READILY ACCESSIBLE.

N. ALL ADDRESSABLE CONTROL MODULES MUST BE INSTALLED WITHIN 3 FEET OF THE DEVICES THEY CONTROL, UNLESS OTHERWISE INDICATED.

WIRING & PATHWAYS:

O. INSTALL FIRE ALARM HORN & STROBES THROUGHOUT THE FACILITY. PROVIDE ADDITIONAL NOTIFICATION APPLIANCE CIRCUIT (NAC) PANELS AS NEEDED TO SUPPORT DEVICE LOADS. NAC LOADING SHALL NOT EXCEED 75% OF THE RATED OUTPUT.

P. VISUAL NOTIFICATION DEVICES MUST BE INSTALLED IN ALL NORMALLY OCCUPIED, PUBLIC, & COMMON-USE AREAS. REFER TO DRAWINGS FOR MINIMUM NOTIFICATION SYSTEM DESIGN INTENT. ALL VISIBLE NOTIFICATION APPLIANCES SHALL BE SYNCHRONIZED.

Q. PROVIDE CLEAR STROBES LABELED "FIRE" FOR THE FIRE ALARM SYSTEM.

R. PROVIDE SUFFICIENT AUDIBLE NOTIFICATION APPLIANCES TO MEET THE AUDIBILITY & INTELLIGIBILITY REQUIREMENTS OF NFPA 72.

S. WALL-MOUNTED HORNS SHALL BE INSTALLED A MINIMUM OF 90" ABOVE THE FINISHED FLOOR, MEASURED TO THE TOP OF THE DEVICE, AS REQUIRED BY NFPA 72. COORDINATE ALL BACK BOX INSTALLATIONS WITH THE ELECTRICAL CONTRACTOR.

T. PROVIDE COMBINATION AUDIBLE/VISUAL APPLIANCES IN SPACES WITH HIGH AMBIENT NOISE LEVELS.

U. PROVIDE WEATHERPROOF DEVICES WHERE THEY MIGHT BE SUBJECT EXPOSURE TO THE WEATHER ELEMENTS.

NOTIFICATION DEVICES:

V. SLC, NAC, & IDC WIRING MUST BE INSTALLED AS CLASS B CIRCUITS.

W. WIRE TYPE BY CIRCUIT SHALL BE AS FOLLOWS:

FIRE ALARM WIRING & PATHWAY CRITERIA (NFPA 72)		
CIRCUIT TYPE	MINIMUM SIZE	PATHWAY TYPE
SLC	#16 AWG	B
NAC	#14 AWG	B
IDF	#14 AWG	B

X. CONDUCTOR TYPES SHALL BE SELECTED ACCORDING TO CIRCUIT REQUIREMENTS, SOLID OR STRANDED, CUPPER AS PERMITTED BY NFPA 70.

Y. PATHWAY SURVIVABILITY SHALL BE LEVEL 0, AS DEFINED BY NFPA 72.

Z. FIRE ALARM WIRING SHALL NOT BE INSTALLED IN CONDUITS OR JUNCTION BOXES WITH OTHER NON FIRE ALARM WIRING.

AA. PROVIDE WIRING TO CONTROL PANELS EITHER VERTICALLY OR HORIZONTALLY, MAKING ALL CHANGES IN DIRECTION AT 90-DEGREE ANGLES. CONDUCTORS SHALL BE NEATLY BUNDLED, WRAPPED, & PERMANENTLY LABELED.

AB. ALL CONDUCTORS MUST BE CONTINUOUS & PROVIDED WITHOUT SPLICES FROM DEVICE TO DEVICE. WIRE NUTS, CRIMPS, OR TWISTED SPLICES ARE NOT ALLOWED.

AC. ALL TERMINATIONS MUST BE MADE ON TERMINAL STRIPS. DEVICES SHALL BE EQUIPPED WITH SCREW TERMINALS.

AD. UNLESS OTHERWISE NOTED, ALL INTERIOR FIRE ALARM CIRCUITS MUST BE INSTALLED IN EMT RACEWAYS. RACEWAYS SHALL BE PAINTED RED. FOR EXTERIOR FIRE ALARM CIRCUITS PROVIDE WIRING IN IMC OR RMC RACEWAYS, ALSO PAINTED RED. ALL CONNECTIONS MUST BE LIQUID-TIGHT & RATED FOR WET LOCATIONS. SUPPORTS & HARDWARE MUST BE CORROSION-RESISTANT & APPROVED FOR OUTDOOR USE.

AE. CONDUIT SIZING & FILL SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR IN ACCORDANCE WITH THE NEC. CONDUIT FILL CALCULATIONS MUST BE PROVIDED TO DEMONSTRATE THAT 40% FILL IS NOT EXCEEDED. ALL WIRING MUST BE INSTALLED IN CONDUITS WITH A MINIMUM SIZE OF 3/4 INCH.

FIRE ALARM SYSTEM PANELS:

AF. PROVIDE THE FIRE ALARM CONTROL UNIT IN THE CNG CONTROL BUILDING. PROVIDE SIGNAGE ON THE DOOR THAT READS "FIRE ALARM CONTROL PANEL - FACP", OR AS REQUIRED BY LOCAL FIRE MARSHAL.

AG. PROVIDE DIGITAL ALARM COMMUNICATION TRANSMITTER (DACT) WITH ABILITIES OF TRANSMITTING ALARM , SUPERVISORY, & TROUBLE SIGNAL TO THE MONITORING STATION.

AH. PROVIDE NAC PANELS AS REQUIRED TO SUPPORT NOTIFICATION APPLIANCE POWER REQUIREMENTS.

AI. UPDATE SYSTEM RECORD DOCUMENTS & OTHER NFPA 72 MANDATED RECORD DOCUMENTS IN EXISTING STORAGE CABINET ADJACENT TO THE FACU. PROVIDE A DOCUMENT CABINET ADJACENT TO THE FACP.

OTHER SYSTEM REQUIREMENTS:

AJ. ALL POWER CIRCUITS SUPPLYING FIRE ALARM EQUIPMENT MUST BE DEDICATED TO THE FIRE ALARM SYSTEM. MULTIPLE FIRE ALARM PANELS MAY SHARE A SINGLE DEDICATED CIRCUIT IF CAPACITY LIMITS ARE NOT EXCEEDED. CIRCUITS SHALL BE FED FROM DEDICATED 20AMP BREAKERS EQUIPPED WITH BREAKER LOCKS. BREAKER SHALL LABELED AS "FIRE ALARM".

AK. BATTERY CALCULATIONS SHALL INCLUDE A 20% FUTURE GROWTH FACTOR IN ACCORDANCE WITH NFPA 72.

AL. BATTERY CALCULATIONS SHALL CONSIDER DEVICES IN THE EXISTING BUILDING OUTSIDE OF THE CURRENT PROJECT SCOPE.

AM. SEALED RECHARGEABLE BATTERIES FOR SECONDARY POWER MUST PROVIDE 24 HOURS OF STANDBY CAPACITY PLUS 5 MINUTES OF ALARM OPERATION.

AN. PROVIDE SURGE PROTECTIVE DEVICES (SPDS) ON THE INPUT POWER CONNECTIONS FOR ALL PANELS, INCLUDING SUB-PANELS & POWER SUPPLY PANELS (NAC, VOICE AMPLIFIERS, ETC).

AO. DEVICE TERMINAL NUMBERS & CONFIGURATION DIFFER FROM MFGR. TO MFGR. TERMINAL DEVICE NUMBERS & DEVICE CONFIGURATIONS INDICATED ARE FOR GENERAL CONCEPT ONLY, & SHALL BE VERIFIED WITH THE ACTUAL MFGR. SELECTED FOR THE PROJECT.

AP. PROVIDE ISOLATOR MODULES ON ALL SLC CIRCUITS AT EVERY 25TH DEVICE.

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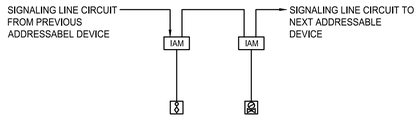
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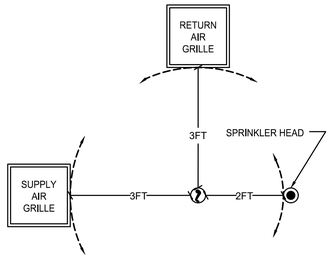
FIRE ALARM RISER DIAGRAM & NOTES

DRAWING NUMBER
E701



2 TYPICAL SPRINKLER SYSTEM INTERFACE WIRING SCHEMATIC

SCALE: NONE



3 SMOKE DETECTOR MINIMUM CLEARANCES

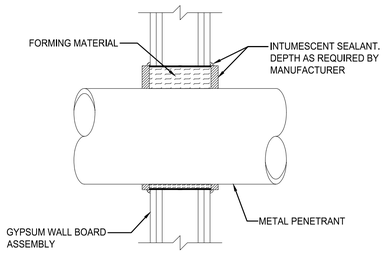
SCALE: NONE

FIRE ALARM SYSTEM SEQUENCE OF OPERATION INPUT/OUTPUT MATRIX

SYSTEM INPUTS			SYSTEM OUTPUTS: FACU — ACTUATE COMMON ALARM SIGNAL INDICATOR (A)	ACTUATE AUDIBLE ALARM SIGNAL (B)	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR (C)	ACTUATE AUDIBLE SUPERVISORY SIGNAL (D)	ACTUATE COMMON TROUBLE SIGNAL INDICATOR (E)	ACTUATE AUDIBLE TROUBLE SIGNAL (F)	ACTUATE ZONE OR DEVICE ADDRESS ALARM INDICATOR (G)	ACTUATE GENERAL EVACUATION SIGNAL (H)	DISPLAY CHANGE OF STATUS (I)	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION (J)	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION (K)	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION (L)	SYSTEM OUTPUTS: NOTIFICATION — ACTUATE CARBON MONOXIDE NOTIFICATION (M)	RELEASE MAGNETICALLY HELD DOORS (N)	CLOSE ALL SMOKE DAMPERS (O)	UNLOCK EXITS & CONTROL DOORS (P)	SHUT DOWN RESPECTIVE AIR HANDLING EQUIPMENT (Q)	SYSTEM OUTPUTS: REQUIRED FIRE SAFETY CONTROL									
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
ALARM CONDITION	MANUAL PULL STATIONS	1	●	●						●	●	●				●		●									1
	AREA SMOKE DETECTORS	2	●	●						●	●	●				●	●	●									2
	AREA HEAT DETECTORS	3	●	●						●	●	●				●	●	●									3
		4																									4
	SPRINKLER WATER FLOW SWITCH	5	●	●						●	●	●				●	●	●									5
		6																									6
		7																									7
		8																									8
SUPERVISORY CONDITION	SPRINKLER TAMPER SWITCH	9			●	●							●														9
	CIRCUIT DEVICE DISABLED	10			●	●							●														10
		11																									11
		12																									12
		13																									13
		14																									14
		15																									15
		16																									16
TROUBLE CONDITION	OPEN CIRCUIT	17					●	●						●													17
	GROUND FAULT	18					●	●						●													18
	NOTIFICATION APPLIANCE CIRCUIT SHORT	19					●	●						●													19
	FIRE ALARM SYSTEM LOW BATTERY	20					●	●						●													20
	FIRE ALARM SYSTEM AC POWER FAILURE	21					●	●						●													21
	CIRCUIT DISCONNECT	22					●	●						●													22
	FIELD WIRING OR SYSTEM COMPONENT FAULT	23					●	●						●													23
		24																									24
		25																									25
		26																									26
		27																									27
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	

1 INPUT/OUTPUT MATRIX

SCALE: NONE

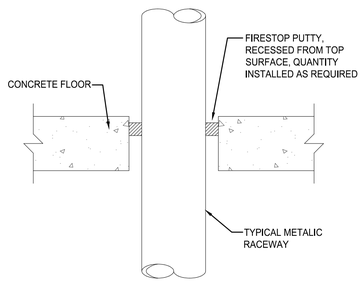


STUD WALL PENETRATION

* REFER TO UL FIRE RESISTANCE DIRECTORY FOR COMPLETE INSTALLATION REQUIREMENTS

8 UL SYSTEM W-L-1079* STUD WALL PENETRATION DETAIL

SCALE: NONE



CONCRETE FLOOR PENETRATION

* REFER TO UL FIRE RESISTANCE DIRECTORY FOR COMPLETE INSTALLATION REQUIREMENTS

9 UL SYSTEM C-AJ-1090* CONCRETE FLOOR PENETRATION DETAIL

SCALE: NONE

THROUGH PENETRATION FIRESTOP SCHEDULE

- THIS SCHEDULE IDENTIFIES REQUIREMENTS FOR ACCEPTABLE THROUGH PENETRATION FIRESTOPS FOR THIS PROJECT BASED ON BARRIER TYPE, BASIS OF BARRIER CONSTRUCTION, AND PENETRANT TYPE.
- THROUGH PENETRATION FIRESTOPS ARE NOT REQUIRED FOR FLOOR PENETRATIONS CONTAINED TOTALLY WITHIN A RATED SHAFT ENCLOSURE.
- NOMENCLATURE OF UL CLASSIFIED FIRESTOP ASSEMBLIES USED IN THE CONTRACT DOCUMENTS IS IDENTICAL TO THAT USED IN CATALOGS OF APPROVED FIRESTOP MANUFACTURERS AND IN UNDERWRITERS LABORATORIES "FIRE RESISTANCE DIRECTORY".

RATED BARRIER		FIRESTOP ASSEMBLY REQUIREMENTS		PENETRANT TYPE		
TYPE	BASIS OF CONSTRUCTION			METALLIC CONDUIT	NONMETALLIC CONDUIT	ELECTRICAL BOXES
WALL	METAL STUDS & GYPSUM WALLBOARD (U400 SERIES)	UL CLASSIFIED SERIES	SINGLE PENETRANT	UL # W-L-1079 DETAIL #8	N/A	CEYY OR CLIV
			MULTIPLE PENETRANTS	. . .	.	N/A
		EXCEPTIONS/ ADDED REQUIREMENTS		NOTE 1	N/A	NOTE 1 & 2
WALL	POURED CONCRETE, CONCRETE BLOCK OR MASONRY (BLOCK & U900 SERIES) (ANY THICKNESS)	UL CLASSIFIED SERIES	SINGLE PENETRANT	UL # C-AJ-1090 DETAIL #10	UL # C-AJ-2038 DETAIL #12	CEYY
			MULTIPLE PENETRANTS	. . .		N/A
		EXCEPTIONS/ ADDED REQUIREMENTS		NOTE 1	NOTE 1	NONE
FLOOR	POURED CONCRETE (ANY THICKNESS)	UL CLASSIFIED SERIES	SINGLE PENETRANT	UL # C-AJ-1090 DETAIL #9	UL # C-AJ-2038 DETAIL #11	CEYY
			MULTIPLE PENETRANTS	.		N/A

NOTES:

1. OPENINGS ACCOMODATING NONCOMBUSTIBLE CONDUITS THROUGH SINGLE MEMBRANES WHICH ARE PART OF A FIRE RESISTANCE RATED WALL ASSEMBLY ARE PERMITTED WHEN:
   A. AGGREGATE AREA OF THE MEMBRANE OPENINGS DO NOT EXCEED 100 SQUARE INCHES FOR ANY 100 SQUARE FEET OF WALL AREA.
2. CLASSIFIED TPFS ASSEMBLY IS NOT REQUIRED AT ELECTRICAL BOXES WHEN ALL THE FOLLOWING CONDITIONS ARE MET:
   A. ELECTRICAL BOX IS STEEL AND UL LISTED.
   B. AREA OF INDIVIDUAL BOX DOES NOT EXCEED 16 SQUARE INCHES.
   C. OUTLET BOXES ON OPPOSITE SIDES OF THE WALL ARE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES.

13 THROUGH PENETRATION FIRESTOP SCHEDULE

SCALE: NONE

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FIRE ALARM DETAILS

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