

NEW HANOVER COUNTY STAR CENTER

LS3P: 7405-230775

1605 Robin Hood Rd. Wilmington,
NC 28401



NEW HANOVER COUNTY



ISSUED: 2024.08.21 BID/ PERMIT SET

ARCHITECTURAL
LS3P

101 N Third St #500
Wilmington, NC 28401
(910) 790-9901
Charles Boney Jr
charlesboney@ls3p.com

**MECH., ELECT. PLUMB. & FIRE
SAFETY**

NEWCOMB & BOYD
5425 Page Rd Suite 215
Durham, NC 27703
(919) 783-7812
Paul Kitchens P.E.
PKitchens@newcomb-boyd.com

STRUCTURAL
WOOD ENGINEERS P.A.

254 N Front St
Wilmington, NC 28401
(910) 343-8007
Adam Sisk E.I.
adam@woodseng.com

CIVIL
PARAMOUNTE ENGINEERING

122 Cinema Dr.
Wilmington, NC 18403
(910) 791-6707
Robert Ballland P.E.
rballand@paramounte-eng.com

THE LINE SHOWS THE EXACT LOCATION OF THE ITEM.

E

D

C

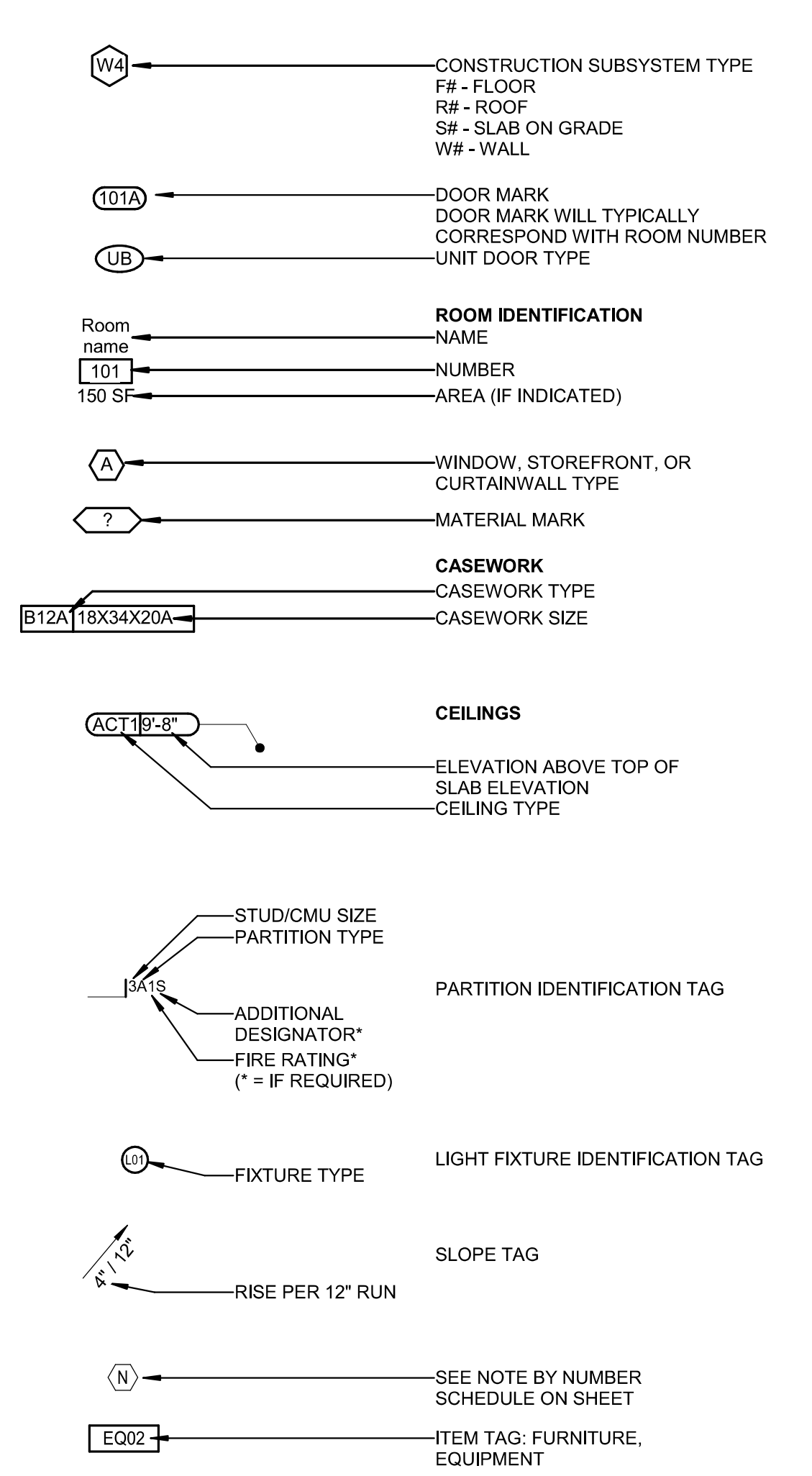
B

A

PROJECT ABBREVIATIONS

Table with 4 columns: A/C, AFF, ALT, ALUM, APPROX, ARCH, AUTO, AUX, AV, BITUM, BL, BLDG, BN, BOS, BOT, CAB, CL, CLG, CLG HT, CLO, CLR, CMU, COL, CONC, CONF, CONT, CORR, CU FT, CU YD, DEMO, DEPT, DET, DF, DIA, DIA, DIM, DIV, DS, E, EA, EIFS, EJ, EL, ELEC, ENCL, EOS, EQIP, EWC, EXIST, EXP JT, EXT, F, FD, FE, FEC, FE EL, FHC, FIN FLR, FLR, FOC, FOM, FOS, FOW, FT, FTG, FLRN, GA, GALV, GC, GYP BD, GYP PLAS, HC, HD, HDWD, HDWR, HM, HORIZ, HT, HVAC, ID, INCL, INFO, INSUL, INT, JAN CLO, KIT, KO, LAB, LAM, LAU, LAV, LF, LVR, MAINT, MATL, MAX, MECH, MEZZ, MFG, MFR, MIN, MISC, MASONRY, MR, MTD, MTG, MTL, N, NIC, NOM, NON, COMB, NTS, OC, OD

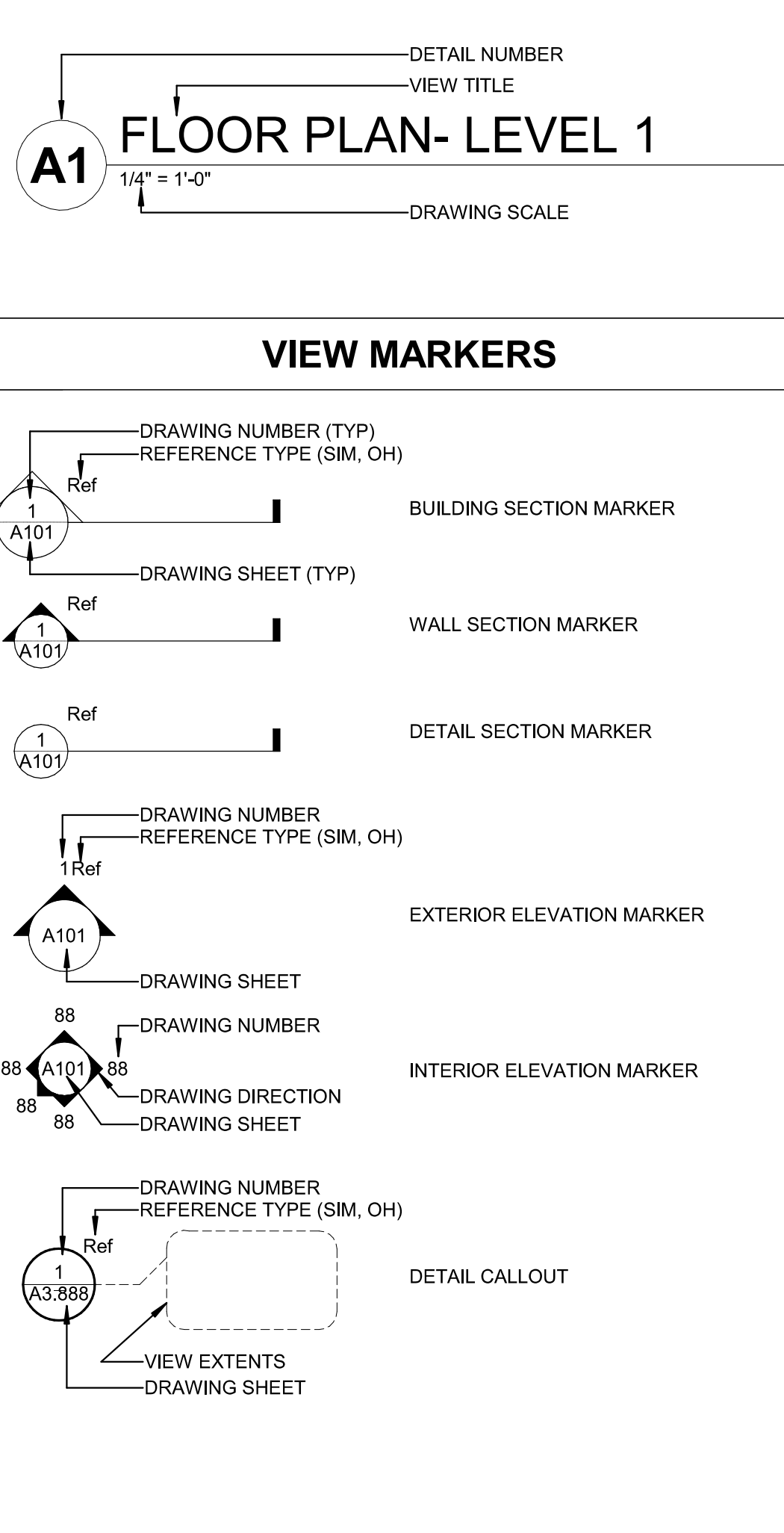
ITEM TAGS



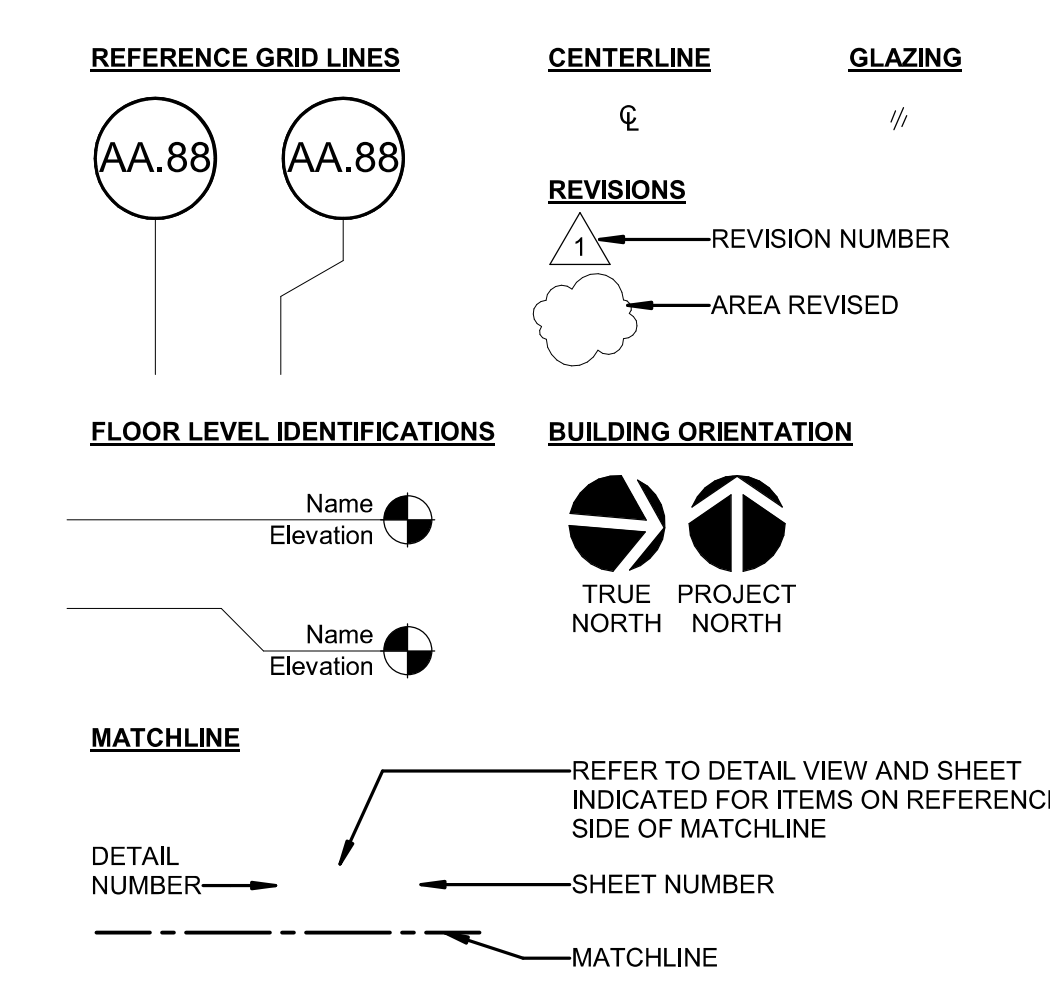
ACCESSIBILITY PROVISIONS

LIST GENERAL ACCESSIBILITY REQUIREMENTS HERE
APPLICABLE ACCESSIBILITY CODES:
LIST GENERAL ACCESSIBILITY REQUIREMENTS HERE

DRAWING TITLES



DRAWING SYMBOLS



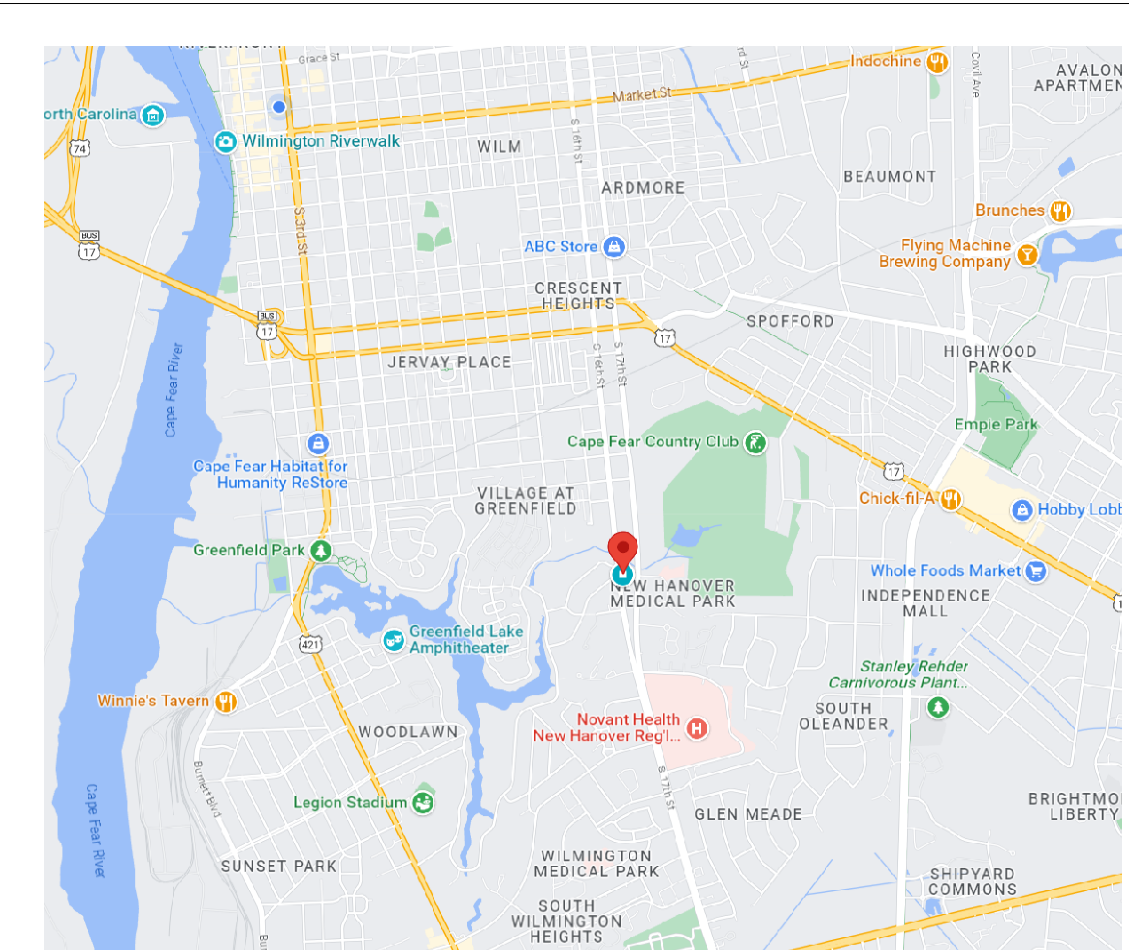
SHEET INDEX

Table with columns: NUMBER, NAME, ORIG ISSUE, REV#, DATE. Lists project information, code compliance, landscape, structural, architectural information, site, demolition, plans, enlarged elevations, building sections, wall sections, enlarged plans, floor pattern plans, mechanical, electrical, plumbing, fire protection, fire alarm, and telecom sheets.

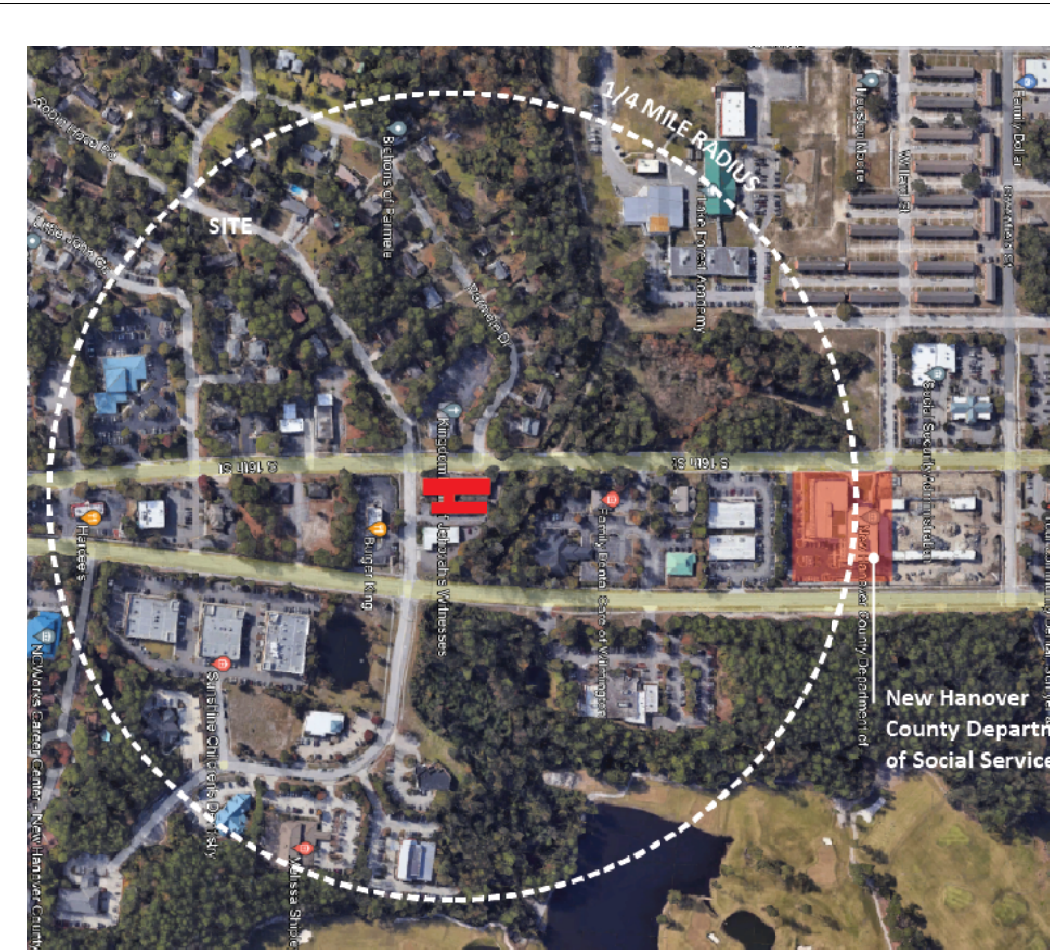
SPRINKLER PROVISIONS

- 1. BUILDING SHALL BE SPRINKLERED IN ACCORDANCE WITH CHAPTER 9 OF THE IBC.
2. CORRIDORS ARE TO BE SPRINKLERED
3. ALL SPRINKLER DESIGN INFORMATION SHALL BE SUBMITTED AS SHOP DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER (CERTIFIED IN SPRINKLER DESIGN) REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED AND APPROVED BY APPROPRIATE LOCAL AND STATE BUILDING OFFICIALS.
4. SYSTEM REQUIREMENTS FOR NON-RESIDENTIAL AREAS SUBJECT TO THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION

VICINITY MAP



VICINITY MAP



101 NORTH THIRD STREET, SUITE 500
WILMINGTON, NORTH CAROLINA 28401
TEL. 910.790.9901 FAX. 910.790.3111
WWW.LS3P.COM



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NEW HANOVER COUNTY
STAR CENTER
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

Table with columns: DATE, DESCRIPTION. Lists revision history for the sheet.

SHEET NAME: PROJECT INFORMATION SHEET

ORIG SUBMISSION: 2024.01.31

SHEET: G-001

BID/ PERMIT SET

OCCUPANCY TYPES

- (IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM
- (IBC2018) ASSEMBLY- NO FIXED SEATS- UNCONCENTRATED
- (IBC2018) BUSINESS AREAS
- (IBC2018) INSTITUTIONAL AREAS- OUTPATIENT AREAS
- (IBC2018) INSTITUTIONAL AREAS- SLEEPING AREAS
- (IBC2018) KITCHENS- COMMERCIAL
- (IBC2018) RESIDENTIAL

EGRESS PATHS- LEVE...

PATH	DISTANCE
Ex	19'-7 1/2"
Ex1	26'-1 1/2"
Ex2	110'-0 1/2"
Ex3	31'-11 1/2"
Ex4	87'-0"
Ex5	52'-5"
Ex6	37'-4"
Ex7	40'-6"
Ex8	50'-6 1/2"
Ex9	30'-2 1/2"
Ex10	47'-4"
Ex11	47'-4"

LIFE SAFETY- OCCUPANCY- LEVEL 1

NUMBER	NAME	AREA	AREA FUNCTION (OLF)	AREA PER OCCUPANT
1 OCC	QUIET RM	82 SF	(IBC2018) INSTITUTIONAL AREAS- OUTPATIENT AREAS	100 SF
1 OCC	MED STORAGE	60 SF	(IBC2018) INSTITUTIONAL AREAS- OUTPATIENT AREAS	100 SF
1 OCC	OFFICE	107 SF	(IBC2018) BUSINESS AREAS	150 SF
1 OCC	SECURITY	113 SF	(IBC2018) BUSINESS AREAS	150 SF
1 OCC	CLEAN STORAGE	70 SF	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
1 OCC	OFFICE	106 SF	(IBC2018) BUSINESS AREAS	150 SF
1 OCC	MECH	100 SF	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
1 OCC	LAUNDRY	86 SF	(IBC2018) INSTITUTIONAL AREAS- OUTPATIENT AREAS	100 SF
1 OCC	ELECT.	Not Enclosed	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
1 OCC	RISER	40 SF	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
1 OCC	STORAGE	26 SF	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
1 OCC	STOR	52 SF	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
1 OCC	STOR.	39 SF	(IBC2018) ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 SF
2 OCC	VISITORS	112 SF	(IBC2018) INSTITUTIONAL AREAS- OUTPATIENT AREAS	100 SF
2 OCC	EXAM ROOM	126 SF	(IBC2018) INSTITUTIONAL AREAS- OUTPATIENT AREAS	100 SF
2 OCC	LAUNDRY	113 SF	(IBC2018) BUSINESS AREAS	150 SF
4 OCC	RESIDENT ROOMS	822 SF	(IBC2018) RESIDENTIAL	200 SF
4 OCC	KITCHEN	685 SF	(IBC2018) KITCHENS- COMMERCIAL	200 SF
5 OCC	BUSINESS	438 SF	(IBC2018) BUSINESS AREAS	150 SF
7 OCC	PATIENT ROOM	819 SF	(IBC2018) INSTITUTIONAL AREAS- SLEEPING AREAS	120 SF
7 OCC	RESIDENT ROOMS	1314 SF	(IBC2018) RESIDENTIAL	200 SF
7 OCC	BUSINESS	644 SF	(IBC2018) BUSINESS AREAS	150 SF
8 OCC	PATIENT ROOMS	861 SF	(IBC2018) INSTITUTIONAL AREAS- SLEEPING AREAS	120 SF
13 OCC	QUIET ROOM	210 SF	(IBC2018) ASSEMBLY- NO FIXED SEATS- UNCONCENTRATED	15 SF
37 OCC	ASSEMBLY	713 SF	(IBC2018) ASSEMBLY- NO FIXED SEATS- UNCONCENTRATED	15 SF
48 OCC	LIVING/DINING SPACE	659 SF	(IBC2018) ASSEMBLY- NO FIXED SEATS- UNCONCENTRATED	15 SF
49 OCC	LIVING ROOM	747 SF	(IBC2018) ASSEMBLY- NO FIXED SEATS- UNCONCENTRATED	15 SF
		9143 SF		

CODE COMPLIANCE LEGEND

TRAVEL DISTANCE

- DISTANCE- COMMON PATH OF TRAVEL
- DISTANCE- EGRESS PATH
- DISTANCE- BETWEEN FIRE EXTINGUISHERS
- PATH DISTANCE
- PATH NUMBER
- PATH

BUILDING ELEMENTS

- 20MIN FIRE RATED DOOR
- 45MIN FIRE RATED DOOR
- 60MIN FIRE RATED DOOR
- 90MIN FIRE RATED DOOR
- 120MIN FIRE RATED DOOR
- 180MIN FIRE RATED DOOR

OCCUPANCY & EXITS

EXIT DOOR

- EGRESS WIDTH (INCHES)
- EXIT CAPACITY (OCCUPANTS) (EGRESS WIDTH*0.2)
- ANTICIPATED LOAD (OCCUPANTS)
- DOOR FIRE RATING (MINUTES)

EXIT STAIR

- EXIT STAIR
- EGRESS WIDTH (INCHES)
- EXIT CAPACITY (OCCUPANTS) (DOOR EGRESS WIDTH*0.3)
- ANTICIPATED LOAD (OCCUPANTS)
- STAIR IDENTIFICATION

EXIT SIGNS

- EXIT SIGN: AT EXIT (ONE SIDED)
- EXIT SIGN: EXIT DIRECTION (ONE SIDED)
- EXIT SIGN: MULTIPLE EXIT DIRECTION (ONE SIDED)
- EXIT SIGN: TWO FILLED QUADRANTS INDICATE TWO SIDED SIGN (HATCHED AREAS INDICATE DIRECTIONS SIGN IS VISIBLE FROM)

FIRE EXTINGUISHERS & CABINETS

- FE01 ON HOOKS
- FE13 SURFACE MOUNT
- FE01 SEMI RECESSED
- FE11 RECESSED

PARTITION GRAPHICS

GRAPHIC SAMPLE: 1 HOUR RATED CMU FIRE/SMOKE BARRIER:

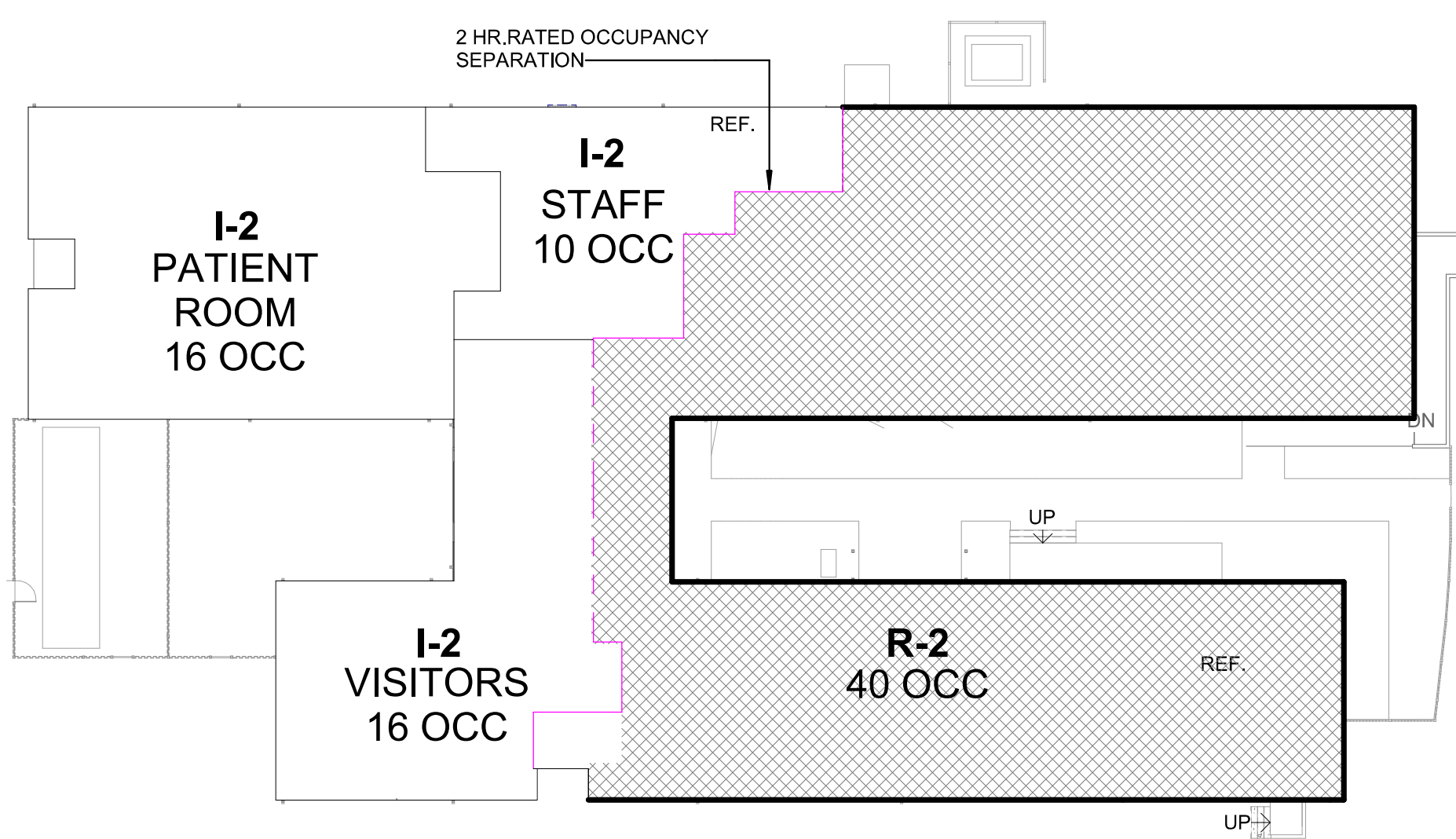
- SEE FILL PATTERN LEGEND FOR FIRE-RESISTANCE RATING
- SEE COLOR LEGEND FOR HEIGHT CONDITION AND FIRE/SMOKE PROTECTION TYPE
- SEE PARTITION TAG AND SCHEDULE FOR COMPLETE PARTITION INFORMATION

FILL PATTERN LEGEND

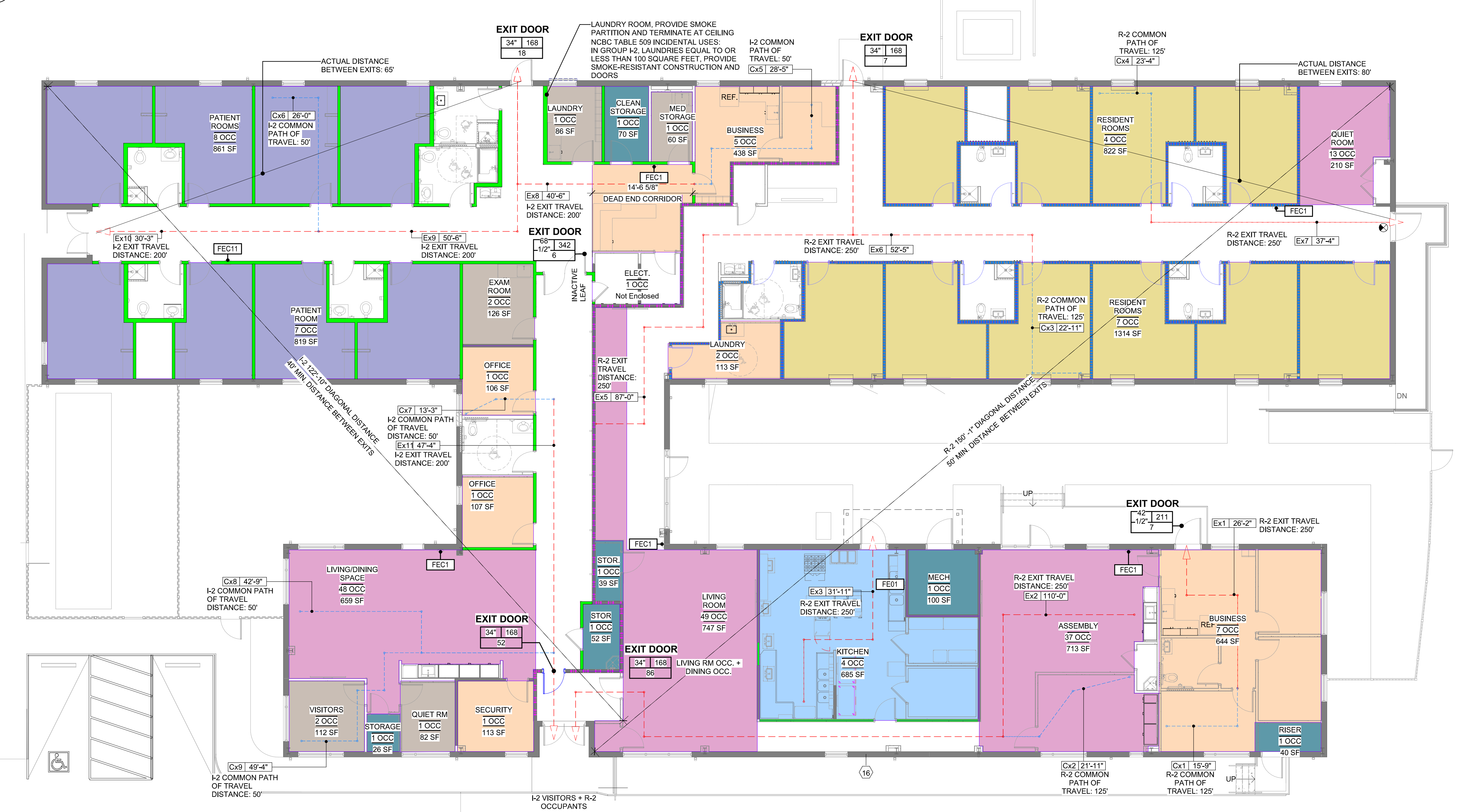
- EXISTING PARTITION TO REMAIN
- 30 MIN-RATED PARTITION
- 1 HOUR-RATED PARTITION
- 2 HOUR-RATED PARTITION
- 3 HOUR-RATED PARTITION
- 4 HOUR-RATED PARTITION

COLOR LEGEND

- NON-RATED PARTITION TO 6" ABOVE CEILING, U.N.O.
- NON-RATED PARTITION TO DECK
- NON-RATED SMOKE PARTITION. SEE DETAIL D3/A-121
- RATED SMOKE BARRIER TO DECK
- RATED FIRE PARTITION. SEE DETAIL D3/A-121
- RATED FIRE/SMOKE BARRIER TO DECK
- RATED FIRE BARRIER TO DECK
- RATED FIRE WALL TO DECK



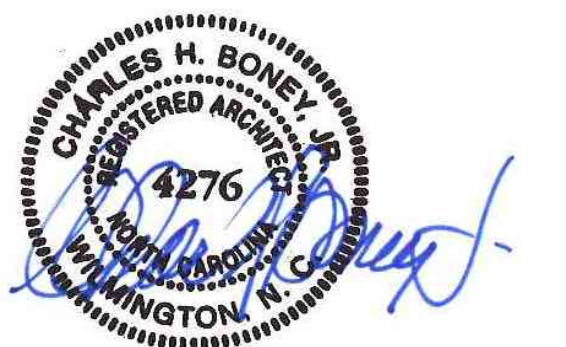
D1 CODE COMPLIANCE PLAN - OVERALL OCCUPANCIES
3/64" = 1'-0"



A1 CODE COMPLIANCE PLAN- LEVEL 1
1/8" = 1'-0"



101 NORTH THIRD STREET, SUITE 500
WILMINGTON, NORTH CAROLINA 28401
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STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

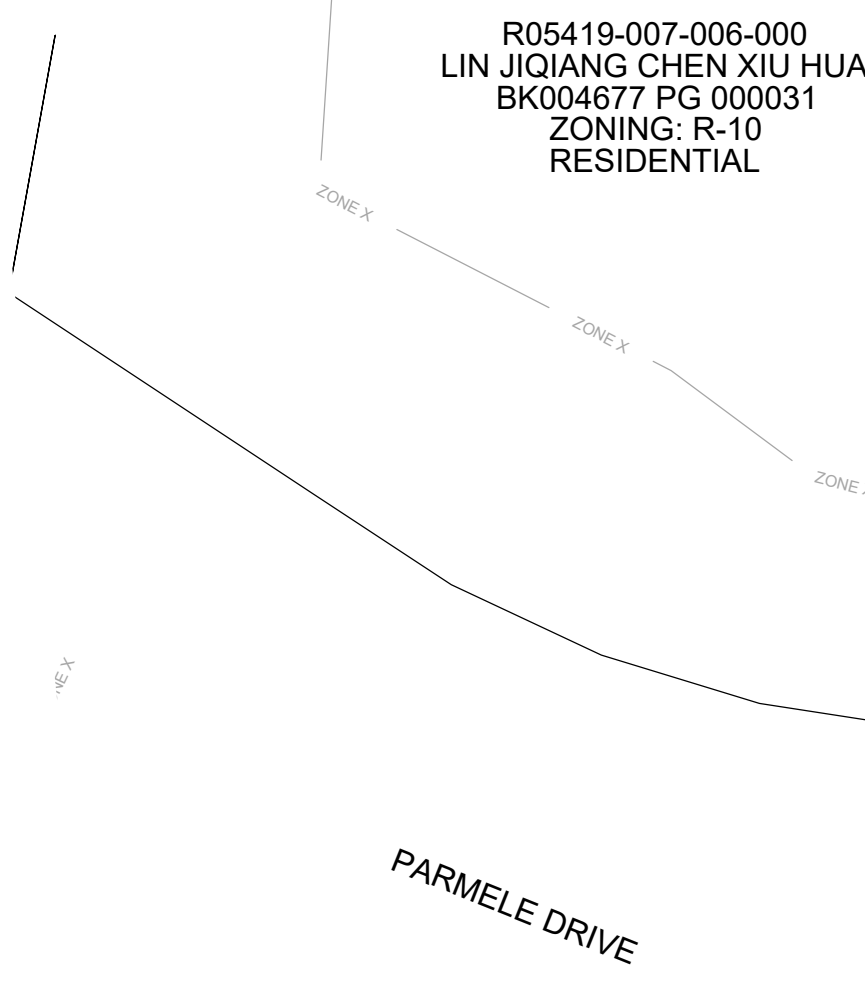
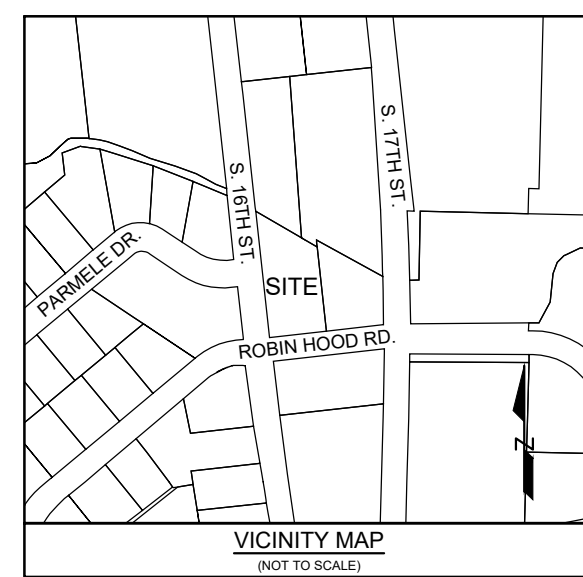
DATE	DESCRIPTION
A	2024.01.31 100% Design Development
0	2024.08.21 Bid/Permit Set

SHEET NAME:
LIFE SAFETY PLAN-
LEVEL 1

ORIG SUBMISSION: 2024.01.31

SHEET: **G-101**

BID/ PERMIT SET



R05419-006-004-000
SUNSET PARK JEHOVAHS WITNESSES
BK002022 PG 000037
ZONING: R-10
RELIGIOUS

R05419-008-001-000
FRIAR TUCK PROPERTIES LLC
BK006039 PG 000792
ZONING: O&I-1
COMMERCIAL

R05419-005-002-000
16TH STREET LLC
BK005362 PG 000947
ZONING: O&I-1
COMMERCIAL / OFFICE

R05419-005-001-000
BEACON EDUCATION, INC.
BK006667 PG 002707
ZONING: O&I-1
COMMERCIAL / OFFICE

R05419-005-001-001
NEW HANOVER COUNTY
BK006666 PG 001738
ZONING: O&I-1
GOVERNMENT

R05419-005-001-002
STEPHENS MELVIN J JUDY F
BK006666 PG 001738
ZONING: O&I
COMMERCIAL / OFFICE

R05419-004-002-000
SIVE STAR PARTNERS LLC
BK005860 PG 002294
ZONING: O&I
RESTAURANT

- IRON PIPE FOUND
- RIGHT-OF-WAY MONUMENT
- NO POINT FOUND/SET
- UTILITY POLE
- GUY ANCHOR
- ☒ TRAFFIC SIGNAL CONTROL BOX
- ☒ ELECTRIC PANEL
- ☒ HVAC UNIT
- ☒ TELEPHONE PEDESTAL/VAULT
- WATER METER
- WATER VALVE
- ☒ BACKFLOW PREVENTER
- FIRE HYDRANT
- SANITARY SEWER MANHOLE
- CLEANOUT
- ROAD SIGN
- SUBJECT BOUNDARY LINE
- ADJOINER LINE
- RIGHT-OF-WAY
- CONTOUR
- STORM DRAIN
- SS SANITARY SEWER
- W WATERLINE
- UE UNDERGROUND ELECTRIC
- FO UNDERGROUND FIBER OPTIC
- UG UNDERGROUND GAS
- OHE OVERHEAD UTILITY
- TREE

S. 17TH STREET

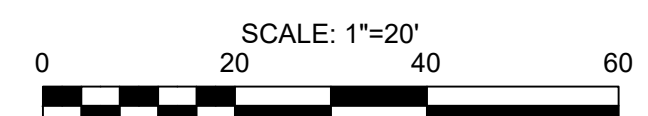
ROBIN HOOD ROAD - 60' PUBLIC RW

S. 16TH STREET - 66' PUBLIC RW

PARMELE DRIVE



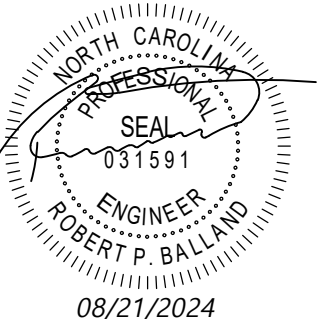
- NOTES
1. AREA CALCULATED BY COORDINATE METHOD.
 2. HORIZONTAL (NAD 83-2011) AND VERTICAL (NAVD 83) DATUMS WERE ESTABLISHED UTILIZING A TYPICAL HORIZONTAL AND VERTICAL OBSERVATION.
 3. PORTIONS OF THIS PARCEL ARE LOCATED IN ZONES AE (RFE + 16.3) AND AE (FLOODWAY). SPECIAL FLOOD HAZARD AREAS - AS SHOWN ON FEMA FLOOD MAP NO. 37201270K BEARING A REVISED DATE OF AUGUST 28, 2019.
 4. UTILITIES AS SHOWN ARE PLOTTED FROM INFORMATION VISIBLE IN THE FIELD AND FROM INFORMATION PROVIDED BY UTILITY COMPANIES. LOCATION OF UNDERGROUND LINES AS SHOWN IS APPROXIMATE BASED ON MARKING AND VISIBLE FEATURES. ADDITIONAL UTILITIES NOT SHOWN MAY EXIST. THE APPROPRIATE UTILITY COMPANIES SHOULD BE CONTACTED PRIOR TO LAND DISTURBING ACTIVITIES.
 5. THIS LOT IS SUBJECT TO ALL UTILITY EASEMENTS, RESTRICTIONS, OR COVENANTS OF RECORD.
 6. CONTOUR INTERVAL: 1'.



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WWW.LS3P.COM



122 CINEMA DRIVE
WILMINGTON, NORTH CAROLINA 28403
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NC LIC. #C-2846



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NEW HANOVER COUNTY STAR CENTER

1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Bid / Permit Set

SHEET NAME:
EXISTING
CONDITIONS

ORIG SUBMISSION: 2024.01.17

SHEET:
C-0.1

BID / PERMIT SET

FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)

COORDINATION NOTES:

- 1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANNUAL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND WITH THE CITY OF WILMINGTON, NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY (CPFA), AND THE STATE OF NORTH CAROLINA.
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO MAINTAIN ALL CONTROLS THROUGHOUT THE ENTIRE DURATION OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS BY OTHERS FOR ALL BUILDING DIMENSIONS AND DETAILS.

GENERAL NOTES:

- 1. TREE INVENTORY AND TOPOGRAPHIC SURVEY COMPLETED BY PARAMOUNT ENGINEERING, INC. THE SURVEY SHALL BE FIELD VERIFIED BY CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE OWNER AND ENGINEER.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DIGGING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BY THE USDOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 811 AN ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
9. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
10. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
11. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
12. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
13. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE 'CONSTRUCTION LIMITS' BROOM CLEAN AT ALL TIMES.
14. ALL STREET SURFACES, DRIVEWAYS, CURBS AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
15. CONTRACTOR SHALL MAINTAIN AN 'AS-BUILT' SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING FROM CONCRETE. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
16. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER, THE CITY OF WILMINGTON OR CPFA, RESPECTIVELY.
17. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL, ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY, NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPES OR OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE-CALL TOLL FREE 1-800-452-4849 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
18. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
19. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
20. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE REFLECTIVE MARKINGS AND SHALL CONFORM TO MUTCD. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
21. LANDSCAPE PLANTINGS AT ENTRANCE EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS IN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS PER LOCAL STANDARDS.
22. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.

- 1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUND COVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 AND ALL SLOPES TO BE REVEALED, WHETHER AS A WHOLE OR IN PHASES. ANY EROSION CONTROL DEVICES MEASURES MUST REMAIN IN PLACE UNTIL THE ENTIRE DISTURBANCE IS STABILIZED AND ALL IMPROVEMENTS WITHIN THE DISTURBANCE LIMITS ARE COMPLETE.
2. CLEAR AND REMOVE FROM SITE TREES AS DESIGNATED, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
3. INSTALL REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLANS WITHIN THE AREA DISTURBED. ALL EROSION CONTROL MEASURES MUST BE INSTALLED BEFORE COMMENCING CONSTRUCTION.
4. PLANT GRASS OVER ALL GRADED AREAS WITHIN 14 WORKING DAYS OF CEASE OF ANY GRADING ACTIVITY.
5. IMMEDIATELY UPON THE INSTALLATION OF ANY STORM DRAINAGE CATCH BASIN, DROP INLET, ETC., THE CONTRACTOR SHALL INSTALL INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY HAVE INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION CONTROL MEASURES.
7. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETE, THE CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL APPROVAL BY ENGINEER OR EROSION CONTROL INSPECTOR.
8. UPON RECEIVING FINAL APPROVAL, THE CONTRACTOR CAN REMOVE TEMPORARY EROSION CONTROL MEASURES.
9. THE CONTRACTOR SHALL CONTINUE TO WATER, FERTILIZE, MOW AND MAINTAIN GRASS & PLANTED AREAS UNTIL ALL CONSTRUCTION IS COMPLETE.

TRAFFIC NOTES:

- 1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY & FOR DRIVEWAY(S) ARE TO BE THERMOPLASTIC & MEET NCDOT STANDARDS.
2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS NOT WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING SHALL BE REPLACED.
6. TACTILE WARNING MATS TO BE INSTALLED AT ALL WHEELCHAIR RAMPS AND CURB CUTS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

- 1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUND COVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 AND ALL SLOPES TO BE REVEALED, WHETHER AS A WHOLE OR IN PHASES. ANY EROSION CONTROL DEVICES MEASURES MUST REMAIN IN PLACE UNTIL THE ENTIRE DISTURBANCE IS STABILIZED AND ALL IMPROVEMENTS WITHIN THE DISTURBANCE LIMITS ARE COMPLETE.
2. CLEAR AND REMOVE FROM SITE TREES AS DESIGNATED, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
3. INSTALL REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLANS WITHIN THE AREA DISTURBED. ALL EROSION CONTROL MEASURES MUST BE INSTALLED BEFORE COMMENCING CONSTRUCTION.
4. PLANT GRASS OVER ALL GRADED AREAS WITHIN 14 WORKING DAYS OF CEASE OF ANY GRADING ACTIVITY.
5. IMMEDIATELY UPON THE INSTALLATION OF ANY STORM DRAINAGE CATCH BASIN, DROP INLET, ETC., THE CONTRACTOR SHALL INSTALL INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY HAVE INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION CONTROL MEASURES.
7. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETE, THE CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL APPROVAL BY ENGINEER OR EROSION CONTROL INSPECTOR.
8. UPON RECEIVING FINAL APPROVAL, THE CONTRACTOR CAN REMOVE TEMPORARY EROSION CONTROL MEASURES.
9. THE CONTRACTOR SHALL CONTINUE TO WATER, FERTILIZE, MOW AND MAINTAIN GRASS & PLANTED AREAS UNTIL ALL CONSTRUCTION IS COMPLETE.

DEMOLITION NOTES:

- 1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE CONSIDERED UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PAVES, CONCRETE DITCHES, FOUNDATIONS, CURBS, STEPS, AND STRUCTURES, ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE GEOTECHNICAL ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL PRODUCE A PHOTOGRAPHIC RECORD (DIGITAL) OF DEVELOPMENT COMMENCING WITH A RECORD OF THE SITE AS IT APPEARS BEFORE DEMOLITION HAS BEGUN. AFTERWARDS, A PHOTOGRAPHIC RECORD SHALL BE MAINTAINED WEEKLY DURING CONSTRUCTION AND ENDING WITH A PHOTOGRAPHIC RECORD OF THE DEVELOPMENT AS IT APPEARS AFTER DEMOLITION. THIS RECORD SHALL BE DELIVERED TO THE OWNER.
7. EXISTING CURB AND GUTTER, LIGHTS, SIDEWALK, AND UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED, AND UNDISTURBED DURING DEMOLITION.
8. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
9. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
10. CONTRACTOR SHALL MAINTAIN REQUIRED DISTANCES FROM HIGH VOLTAGE OVERHEAD LINES AND REMOVE TREES SO THEY DO NOT FALL TOWARDS OVERHEAD ELECTRICITY.
11. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
12. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
13. EXISTING FIRE HYDRANTS OR NEAR THE SITE ARE TO REMAIN IN SERVICE.
14. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS.

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

- NOTE: THESE EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES ARE INTENDED FOR EACH PHASE OF CONSTRUCTION. THE ORDER AND STEPS TAKEN MUST BE IMPLEMENTED AS EACH PART OF THE PROJECT IS DEVELOPED, WHETHER AS A WHOLE OR IN PHASES. ANY EROSION CONTROL DEVICES MEASURES MUST REMAIN IN PLACE UNTIL THE ENTIRE DISTURBANCE IS STABILIZED AND ALL IMPROVEMENTS WITHIN THE DISTURBANCE LIMITS ARE COMPLETE.
1. CONSTRUCT TEMPORARY GRAVEL CONSTRUCTION ENTRANCES, ESTABLISH THE LIMITS OF DISTURBANCE, TREE PROTECTION FENCING, AND TEMPORARY SILT FENCE.
2. CLEAR AND REMOVE FROM SITE TREES AS DESIGNATED, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
3. INSTALL REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLANS WITHIN THE AREA DISTURBED. ALL EROSION CONTROL MEASURES MUST BE INSTALLED BEFORE COMMENCING CONSTRUCTION.
4. PLANT GRASS OVER ALL GRADED AREAS WITHIN 14 WORKING DAYS OF CEASE OF ANY GRADING ACTIVITY.
5. IMMEDIATELY UPON THE INSTALLATION OF ANY STORM DRAINAGE CATCH BASIN, DROP INLET, ETC., THE CONTRACTOR SHALL INSTALL INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY HAVE INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION CONTROL MEASURES.
7. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETE, THE CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL APPROVAL BY ENGINEER OR EROSION CONTROL INSPECTOR.
8. UPON RECEIVING FINAL APPROVAL, THE CONTRACTOR CAN REMOVE TEMPORARY EROSION CONTROL MEASURES.
9. THE CONTRACTOR SHALL CONTINUE TO WATER, FERTILIZE, MOW AND MAINTAIN GRASS & PLANTED AREAS UNTIL ALL CONSTRUCTION IS COMPLETE.

EROSION CONTROL MAINTENANCE PLAN:

- 1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY 12 INCH OR GREATER RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #8 STONE TO MAINTAIN PROPER DRAIN. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT FENCE / SEDIMENT FENCE OUTLETS - SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL, AND SPACED 8 FEET WITH EXTRA STRENGTH FABRIC AND NO WIRE BACKING. STAKE SPACING CAN BE 8 FEET WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS (OR EXCELISOR WATTLERS) ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE THE ROCK OR WATTLE WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS, OR IS DAMAGED.
4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS ON THESE PLANS AND CONTRACT SPECIFICATIONS TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. INLET PROTECTION - SEDIMENT SHALL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL BLOCK AND GRAVEL OR ROCK INLETS WHEN IT REACHES HALF FILLED. ROCK WILL BE CLEANED OR REPLACED WHEN NO LONGER DRAINS. SILT SACKS, BEAVER DAMS, SANDY SACKS, AND SOCKS NEED CHECKING EVERY WEEK AND AFTER RAIN.
6. CONCRETE WASHOUTS - CONCRETE WASHOUTS SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS. DAMAGES SHOULD BE REPAIRED PROMPTLY. IF FILLED TO OVER 75% CAPACITY WITH RAIN WATER IT SHOULD BE VACUUMED OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. BEFORE HEAVY RAINS THE CONTAINERS LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER COVERED TO AVOID AN OVER FLOW DURING RAIN. WHEN SOLIDS HAVE HARDENED THEY SHOULD BE REMOVED AND RECYCLED.

PERMANENT SEEDING table with columns: GRASS TYPE, LBS/ACRE, TIME OF SEEDING, FERTILIZER LIMESTONE. Includes rows for Bermuda, Centipede, Tall Fescue, and Slopes > 2:1.

TEMPORARY SEEDING table with columns: GRASS TYPE, LBS/ACRE, TIME OF SEEDING, FERTILIZER LIMESTONE. Includes rows for Rye Grass, Sweet Sudan Grass, German or Broomtop Millet, and Straw Mulch.

STABILIZATION TIME FRAME: TO THE EVENT THAT THE GOVERNING AGENCIES TIMEFRAME FOR STABILIZATION VARY, CONTRACTOR SHALL MEET THE MORE STRINGENT REQUIREMENT.

NC ACCESSIBILITY NOTES:

- GENERAL NOTES:
1. SPECIAL ATTENTION SHALL BE GIVEN TO COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE(ANSI A117.1) AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. IT IS ESSENTIAL THAT CONTRACTORS ARE AWARE OF THE SITE ACCESSIBILITY REQUIREMENTS. CONTRACTORS ARE AWARE OF THE REQUIREMENTS AT THE POINT IN TIME WHEN THEY ARE BIDDING THE PROJECT. IN ADDITION, PARAMOUNT ENGINEERING HAS MADE A POINT IN THESE NOTES AND DETAILS, AS WELL AS IN OUR DRAWINGS, TO PROVIDE SLOPES / GRASSES AND DIMENSIONS THAT COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE(ANSI A117.1) AND APPLICABLE LOCAL LAWS & REGULATIONS. IF THESE SLOPES / GRASSES AND DIMENSIONS ARE NOT ACHIEVABLE, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER IMMEDIATELY AND BEFORE MOVING FORWARD WITH THE WORK.
3. THE CONTRACTOR SHALL NOTIFY PARAMOUNT ENGINEERING IMMEDIATELY OF ANY CONFLICT BETWEEN THESE NOTES AND DETAILS AND OTHER PROJECT DRAWINGS, WHETHER BY PARAMOUNT ENGINEERING OR OTHERS. THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK FOR WHICH THE ALLEGED CONFLICT HAS BEEN DISCOVERED UNTIL SUCH ALLEGED CONFLICT HAS BEEN RESOLVED. NO CLAIM SHALL BE MADE BY THE CONTRACTOR FOR DELAY OR DAMAGES AS A RESULT OF RESOLUTION OF ANY SUCH CONFLICTS.
4. THESE ACCESSIBILITY NOTES AND DETAILS ARE INTENDED TO DEFINE SLOPE AND DIMENSIONAL REQUIREMENTS ONLY. REFER TO SIDEWALK, CURBING, AND PAVEMENT DETAILS FOR ADDITIONAL INFORMATION.
ACCESSIBLE ROUTE NOTES:
1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES, PUBLIC STREETS OR SIDEWALKS AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE.
3. WALKING SURFACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL HAVE A MAXIMUM RUNNING SLOPE OF 2.0% AND A MAXIMUM CROSS SLOPE OF 2.0%.
4. ANY WALKING SURFACE THAT IS PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5.0% IS A RAMP AND SHALL COMPLY WITH THE GUIDELINES FOR RAMPS OR CURB RAMPS.
5. TRANSITIONS BETWEEN RAMPS, WALKS, LANDINGS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (14 INCH MAXIMUM VERTICAL CHANGE IN LEVEL PERMITTED).
6. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
7. THE MINIMUM CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES SHALL BE FORTY-EIGHT (48) INCHES MINIMUM MEASURED BETWEEN HANDRAILS WHERE HANDRAILS ARE PROVIDED (NC BUILDING CODE 1104.1 & 1104.2).
8. WHERE AN ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN OBJECT THAT IS LESS THAN FORTY-EIGHT (48) INCHES IN WIDTH, CLEAR WIDTH SHALL BE FORTY-TWO (42) INCHES MINIMUM.
9. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN SIXTY (60) INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF TWO HUNDRED (200) FEET MAXIMUM. PASSING SPACES SHALL BE EITHER A SIXTY (60) INCH MINIMUM BY SIXTY (60) INCH MINIMUM SPACE, OR AN INTERSECTION OF TWO (2) WALKING SURFACES THAT PROVIDE A COMPLIANT T-SHAPED TURNING SPACE. PROVIDED THE BASE AND AREAS OF THE T-SHAPED SPACE EXTEND FORTY-EIGHT (48) INCHES MINIMUM BEYOND THE INTERSECTION.
10. DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE(ANSI A117.1) AND APPLICABLE LOCAL LAWS & REGULATIONS.
11. DIRECTIONAL SIGNAGE INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE BUILDING ENTRANCE SHALL BE PROVIDED AT INACCESSIBLE BUILDING ENTRANCES.
12. WHERE POSSIBLE, DRAINAGE INLETS SHALL NOT BE LOCATED ON AN ACCESSIBLE ROUTE. IN THE EVENT THAT A DRAINAGE INLET MUST BE LOCATED ON AN ACCESSIBLE ROUTE, THE GRATE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), 117.1. THE NC BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS.
RAMPS NOTES:
1. ANY PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5% SHALL BE CONSIDERED A RAMP.
2. THE MAXIMUM RUNNING SLOPE FOR A RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
3. THE CLEAR WIDTH OF AN EXTERIOR RAMP RUN SHALL BE FORTY EIGHT INCHES (NC BUILDING CODE 1104.1). WHERE HANDRAILS ARE PROVIDED ON THE RAMP RUN, THE CLEAR WIDTH SHALL BE MEASURED BETWEEN THE HANDRAILS.
4. THE RISE FOR ANY RAMP RUN SHALL BE THIRTY (30) INCHES MAXIMUM.
5. LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF RAMPS. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2.0% IN ANY DIRECTION. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING. THE LANDING CLEAR LENGTH SHALL BE SIXTY (60) INCHES MINIMUM. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING OF SIXTY (60) INCHES BY SIXTY (60) INCHES MINIMUM.
6. RAMP RUNS WITH A RISE GREATER THAN SIX (6) INCHES SHALL HAVE HANDRAILS ON BOTH SIDES COMPLYING WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE(ANSI A117.1) AND APPLICABLE LOCAL LAWS & REGULATIONS.
7. FLOOR SURFACES OF RAMPS AND LANDINGS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
8. EDGE PROTECTION COMPLYING WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE(ANSI A117.1) AND APPLICABLE LOCAL LAWS & REGULATIONS SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND ON EACH SIDE OF RAMP LANDINGS.
9. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE(ANSI A117.1) SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA. WHERE DOORS THAT ARE SUBJECT TO LOCKING ARE ADJACENT TO A RAMP LANDING, LANDINGS SHALL BE SIZED TO PROVIDE A COMPLIANT TURNING SPACE.
CURB RAMP NOTES:
1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE 36 INCHES (30) MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED. NOTE: NC BUILDING CODE REQUIRES EXTERIOR ACCESSIBLE ROUTES TO BE 48 INCHES MINIMUM WIDE (1104.1 & 1104.2).
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10".
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESSIBLE ROUTES AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. IT IS RECOMMENDED TO PROVIDE CURB RAMPS WITH A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH 205.2.2 A117.1, EXTENDING THE FULL WIDTH OF THE RAMP. REFER TO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES. THE NC BUILDING CODE DOES NOT CURRENTLY REQUIRE DETECTABLE WARNINGS AT CURB RAMPS, NOR DO THE 2010 ADA STANDARDS - HOWEVER US DOT ADA REGULATIONS DO REQUIRE THESE.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, 1/2 INCH WIDE BY 1/2 INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

NC ACCESSIBILITY NOTES CONTD.

- PARKING SPACE NOTES:
1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESSIBLE ASILES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE ASILE. THE ASILE SHOULD BE 80 INCHES WIDE OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS ASILE IS FIVE FEET.) WHERE PARKING SPACES AND ACCESSIBLE ASILES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESSIBLE ASILES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESSIBLE ASILES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESSIBLE ASILE.
3. PARKING ACCESSIBLE ASILES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FOR ACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES, WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS ASILE.
5. ACCESS ASILES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS ASILES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS ASILES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS ASILES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS ASILES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESSIBLE ASILES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS ASILES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESSIBLE ASILES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 0.2% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS ASILES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL BE INSTALLED AT A MINIMUM CLEAR HEIGHT OF SIXTY (60) INCHES ABOVE THE FINISHED GRADE. WHERE SIGNAGE IS NOT PERMITTED BY THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES, A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY SHALL BE PROVIDED AT EACH ACCESSIBLE SPACE.
13. SIGNAGE AT ACCESSIBLE PARKING SPACES REQUIRED BY THE NC BUILDING CODE SECTION 1106.1 SHALL COMPLY WITH THE REQUIREMENTS OF NORTH CAROLINA GENERAL STATUTE 20-27.6 AND 138-30 AND THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES. A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY SHALL BE PROVIDED AT EACH ACCESSIBLE SPACE.
14. ACCESSIBLE PARKING SPACE ACCESS ASILE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE (OR ANOTHER COLOR THAT CAN BE DISTINGUISHED FROM PAVEMENT).
PASSENGER LOADING ZONE NOTES:
1. PASSENGER LOADING ZONES SHALL PROVIDE VEHICULAR PULL-UP SPACE NINETY-SIX (96) INCHES WIDE MINIMUM AND TWENTY (20) FEET LONG MINIMUM.
2. PASSENGER LOADING ZONES SHALL PROVIDE A CLEARLY MARKED ACCESSIBLE ASILE THAT IS SIXTY (60) INCHES WIDE MINIMUM AND EXTENDS THE FULL LENGTH OF THE VEHICLE PULL-UP SPACE THEY SERVE.
3. ACCESS ASILE SHALL ADJOIN AN ACCESSIBLE ROUTE AND NOT OVERLAP THE VEHICULAR WAY.
4. VEHICLE PULL-UP SPACES AND ACCESSIBLE ASILES SERVING THEM SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS. ACCESS ASILES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
5. FLOOR SURFACES OF VEHICLE PULL-UP SPACES AND ACCESS ASILES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT.
6. VEHICLE PULL-UP SPACES, ACCESSIBLE ASILES SERVING THEM AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SERVING THEM, SHALL PROVIDE A VERTICAL CLEARANCE OF ONE HUNDRED FOURTEEN (114) INCHES MINIMUM.
ACCESSIBLE ENTRANCE NOTES:
1. ACCESSIBLE ENTRANCES SHALL BE PROVIDED AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) AND THE NORTH CAROLINA BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. ENTRANCE DOORS, DOORWAYS AND GATES SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) THE NC BUILDING CODE(ANSI A117.1) AND SHALL BE ON AN ACCESSIBLE ROUTE.

GENERAL STORM SEWER NOTES:

- 1. ALL STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NEW HANOVER COUNTY REQUIREMENTS AS SPECIFIED ON THE DRAWINGS AND IN THE PROJECT SPECIFICATIONS.
2. BEDDING FOR ALL STORM SEWER PIPE SHALL BE AS SPECIFIED ON THE DRAWINGS.
3. ALL STORM SEWER PIPES SHOWN AS RCP ON THE PLANS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, UNLESS INDICATED OTHERWISE ON PLANS.

ROOF DRAIN NOTE:

- 1. PROPOSED BUILDING SHALL DIVERF ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM OR AS SHOWN ON THE PLANS.

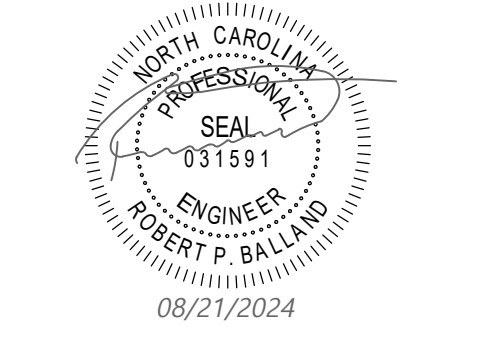
EXISTING UTILITY NOTES:

- 1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNERS REPRESENTATIVE IMMEDIATELY.



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NEW HANOVER COUNTY STAR CENTER 1605 Robin Hood Rd. - Wilmington, NC 28401 LSP PROJECT: 7405-230775

Revision table with columns: DATE, DESCRIPTION. Includes entries for 2023.08.04, 2023.11.16, 2024.01.31, and 2024.08.21.

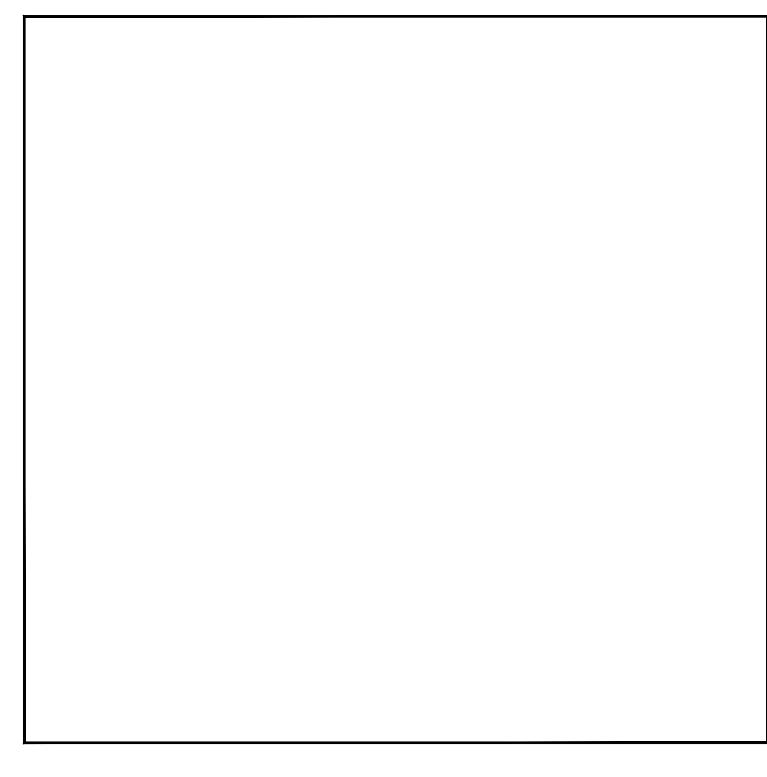
SHEET NAME: GENERAL NOTES

ORIG SUBMISSION: 2024.04.17

SHEET: C-1.0

BID / PERMIT SET

FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)



GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed. -7 days for slopes greater than 50' in length and with slopes steeper than 4:1
(d) Slopes 3:1 to 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

NOTE: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Roll-on erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Strips or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Roll-on erosion control products with grass seed

- POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**
- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWI List of Approved PAMS/Flocculants.
 - Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
 - Apply flocculants at the concentrations specified in the NC DWI List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
 - Provide ponding area for containment of treated Stormwater before discharging offsite.
 - Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

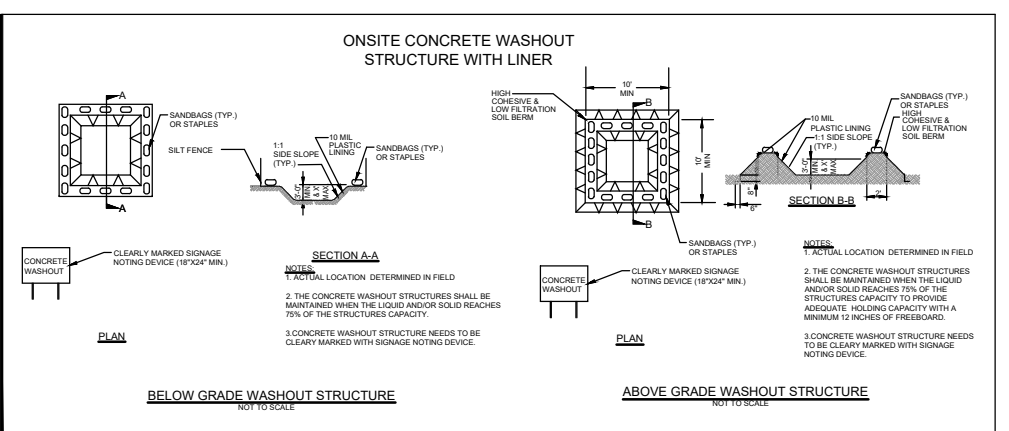
- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
 - Provide drip pans under any stored equipment.
 - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
 - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
 - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
 - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
 - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
 - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
 - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
 - Anchor all lightweight items in waste containers during times of high winds.
 - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
 - Dispose waste off-site at an approved disposal facility.
 - On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
 - Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Containment must be labeled, sized and placed appropriately for the needs of site.
 - Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
 - Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
 - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
 - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
 - Provide stable stone access point when feasible.
 - Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



- CONCRETE WASHOUTS**
- Do not discharge concrete or cement slurry from the site.
 - Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
 - Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
 - Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the types of temporary concrete washouts provided on this detail.
 - Do not use concrete washouts for decontaminating or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
 - Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
 - Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
 - Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
 - Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
 - At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- HERBICIDES, PESTICIDES AND RODENTICIDES**
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
 - Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
 - Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
 - Do not stockpile these materials on-site.

- HAZARDOUS AND TOXIC WASTE**
- Create designated hazardous waste collection area on site.
 - Place hazardous waste containers under cover or in secondary containment.
 - Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the inspection record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Day of rainfall amounts. If no rain, air shower observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rainfall measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rain occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measures. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (DQOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the discharge outfall inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheens, floating or suspended solids or discoloration. 5. Indication of any and when leaving the site. 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	Perimeter and condition is found outside site limits, then a record of the following shall be made: 1. Date and time of the inspection. 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future events.
(5) Streams or wetlands on-site or off-site (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Date and time of the inspection. 2. Description, evidence and date of corrective actions taken, and 3. Record of the required reports to the appropriate Division Region Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S measures, clearing and grading, installation of storm drainage facilities, completion of all land-disturbing activity, completion of restoration, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an explanation that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&S Plan Documentation

The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan.	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. (40 CFR 122.41)

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

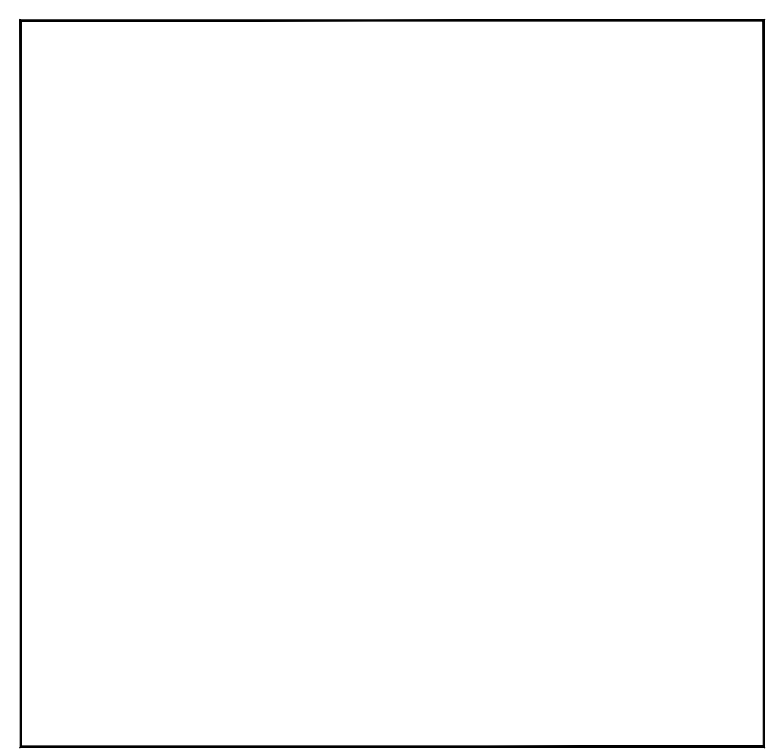
- Visible sediment deposition in a stream or wetland.
- Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 663-7956, (800) 858-0368 or (919) 733-3300.

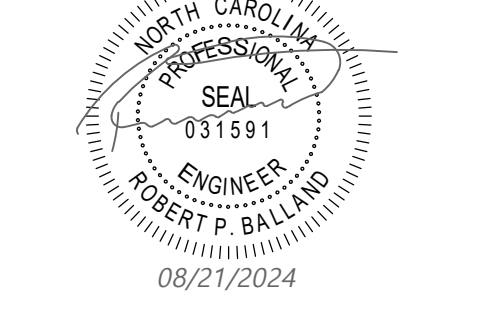
Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. The report shall include a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per item 1(b)(5) above	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. A report of least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(c) Anticipated bypasses (40 CFR 122.41(m)(5))	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification.
(d) Unanticipated bypasses (40 CFR 122.41(m)(5))	<ul style="list-style-type: none"> Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. Within 24 hours, an oral or electronic notification.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment (40 CFR 122.41(f)(7))	<ul style="list-style-type: none"> Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. (40 CFR 122.41(f)(6)). Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19



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NEW HANOVER COUNTY STAR CENTER
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

A	DATE	DESCRIPTION
A	2023.08.04	50% Schematic Design
B	2023.11.16	100% Schematic Design
C	2024.01.31	100% Design Development
D	2024.08.21	Bid / Permit Set

SHEET NAME:
GENERAL NOTES

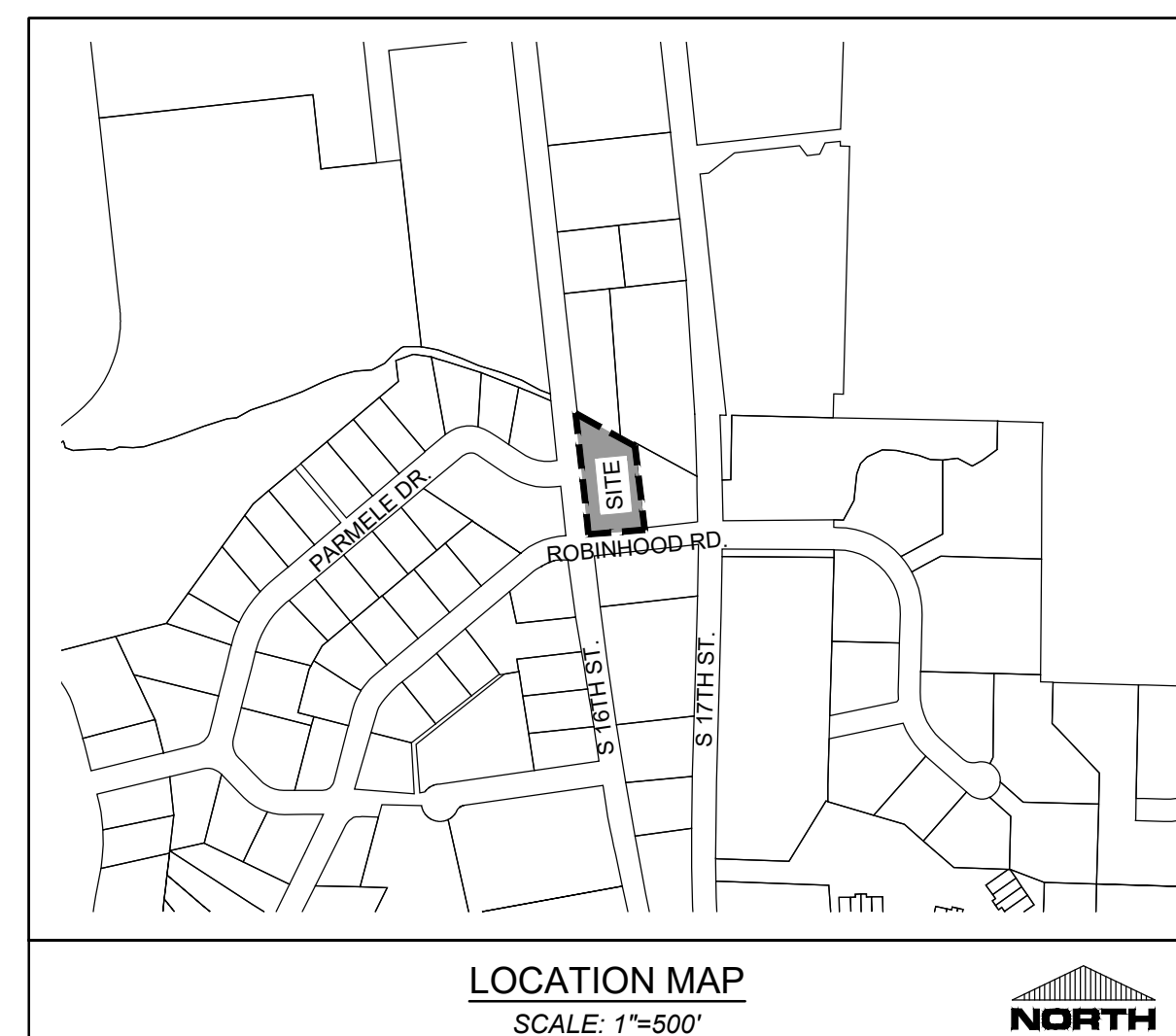
ORIG SUBMISSION: 2024.04.17

SHEET: C-1.1

BID / PERMIT SET

FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)

E
D
C
B
A



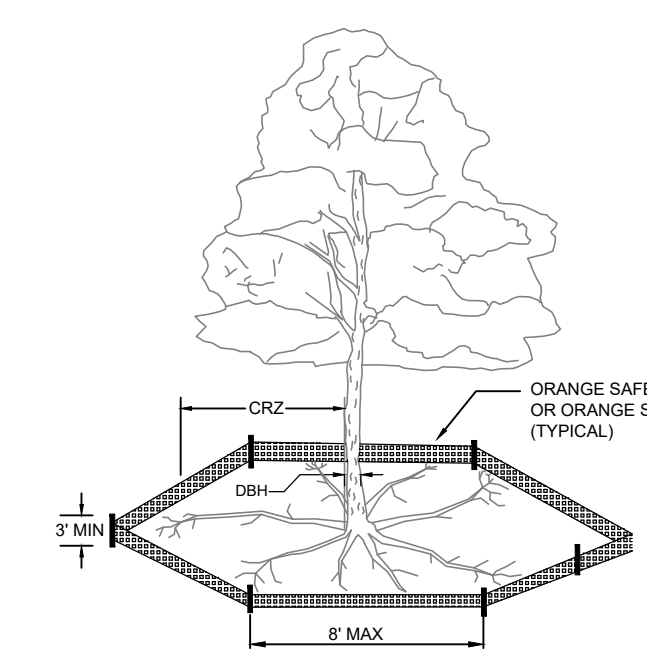
SITE INFORMATION
 PROJECT NAME: NEW HANOVER COUNTY SUBSTANCE ABUSE CENTER
 OWNER INFORMATION: NEW HANOVER COUNTY 205 GOVERNMENT CENTER DR. WILMINGTON, NC 28403
 PROJECT ADDRESS: 1605 ROBIN HOOD RD. WILMINGTON, NC 28401
 TAX PARCEL IDENTIFICATION #: R05419-005-001-001
 RECORDED DEED BOOK: DB6624, PG 264
 CURRENT ZONING: O&I-1 (OFFICE & INDUSTRIAL)
 EXISTING USE: 805-NURSING HOME
 PROPOSED USE: 801-MEDICAL SERVICES CHEMICAL DEPENDENCY TREATMENT FACILITY
 TOTAL SITE AREA: 0.88 ACRE
 CAMA LAND USE CLASSIFICATION: URBAN
 CONSERVATION DISTRICT: FRESHWATER FORESTED / SHRUB WETLAND (PF04AD)
 CONSERVATION DISTRICT SETBACK: 404 USACE WETLANDS, 30' SETBACK

DEMOLITION NOTES:
 1) CONTRACTOR SHALL REFER TO SHEET C-1.0 GENERAL NOTES FOR DEMOLITION NOTES.
 2) ALL UTILITIES SHALL BE ABANDONED AND/OR DEMOLISHED AND CAPPED PROPERLY IN ACCORDANCE WITH THE UTILITY OWNERS' RULES AND REGULATIONS.
 3) CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY OWNERS/PROVIDERS FOR RELOCATION AND/OR DEMOLITION REQUIRED.

EXISTING VEGETATION NOTES:
 1) EXISTING TREES ON-SITE ARE TO REMAIN APART FROM TREES NOTED FOR REMOVAL ON THIS SHEET.

LAND CLEARING:
 1) PRIOR TO ANY LAND CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

NOTE:
 THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24\"/>



NOTES:
 1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12\"/>

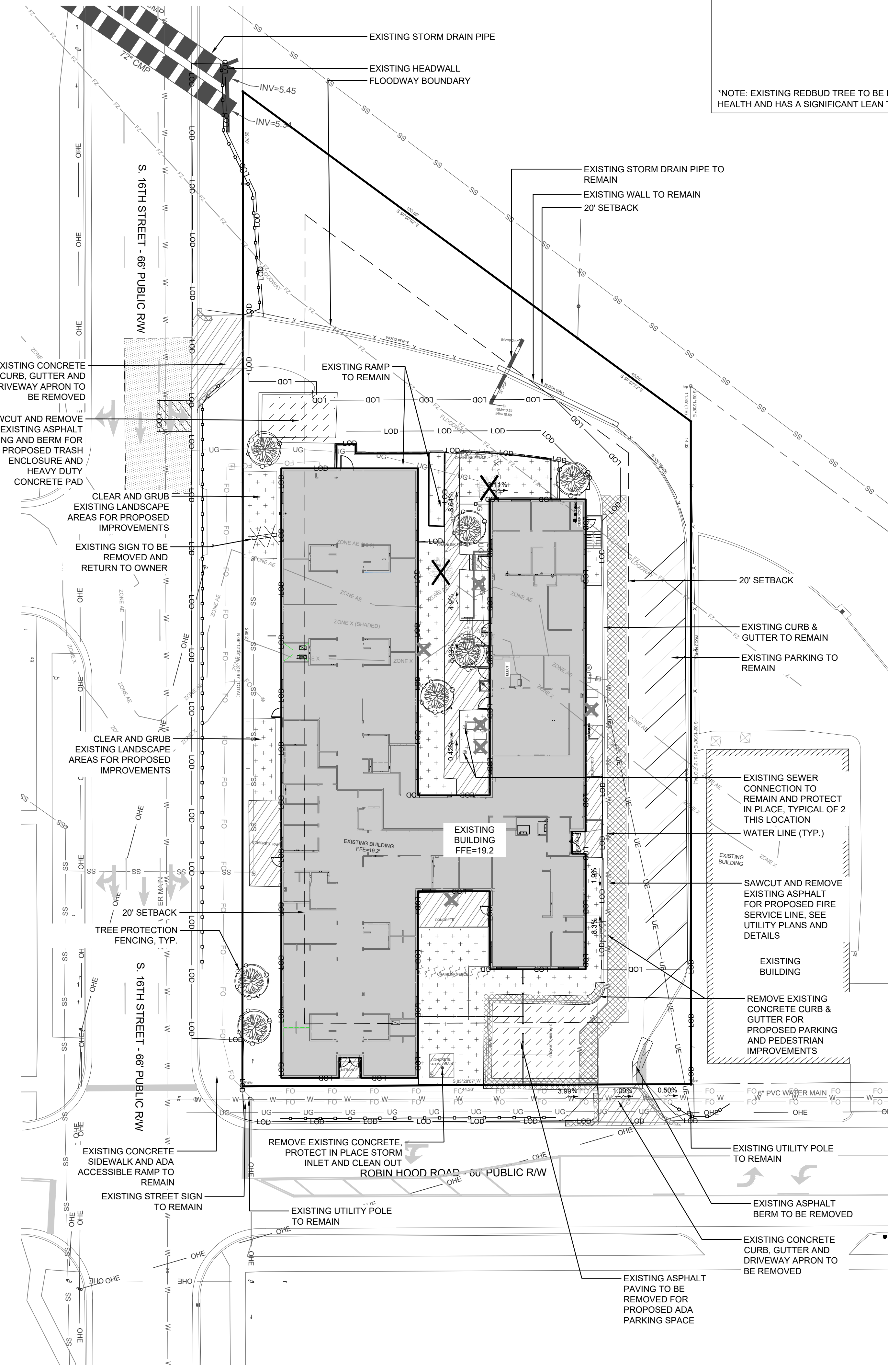
TREE PROTECTION FENCE DETAILS
 NOT TO SCALE

LEGEND

---	BOUNDARY LINE
- - -	ADJ. BOUNDARY LINE
SS	SEWER LINE
W	WATER LINE
- - - 25	EXISTING CONTOUR
⊕	FIRE HYDRANT
⊙	STREET LIGHT
⊗	SANITARY SEWER MANHOLE
⊠	CATCH BASIN
⊞	CURB INLET
⊞	WATER VALVE

SYMBOLS LEGEND

[Hatched]	EXISTING ASPHALT TO BE REMOVED
[Dashed]	EXISTING FENCE TO BE REMOVED
[Diagonal Lines]	EXISTING CONCRETE STAIRS TO BE REMOVED
[Diagonal Lines]	EXISTING CONCRETE TO BE REMOVED
[Diagonal Lines]	EXISTING CONCRETE CURB & GUTTER TO BE REMOVED
X	EXISTING TREE TO BE REMOVED
[Circle]	TREE PROTECTION FENCING (SEE DETAIL)
[Star]	EXISTING SIGN TO BE REMOVED
X	EXISTING A/C UNIT TO BE REMOVED



TREE REMOVAL CALCULATION

QUANTITY	TREE CALIPER	TREE TYPE	REGULATED IN. REMOVED	SIGNIFICANT IN. REMOVED	SPECIMEN IN. REMOVED	NATIVE
1	17"	REDBUD*	7	17"	-	YES
1	7"	AMERICAN HOLLY	-	-	-	YES

REGULATED NATIVE INCHES TO BE REMOVED: 7"
 SIGNIFICANT NATIVE INCHES TO BE REMOVED: 17" (* EXEMPT - SEE NOTES)
 TOTAL INCHES REMOVED: 7"
 MITIGATION REQUIRED (NATIVE, REGULATED TREE) 7" X 100% = 7"
 NUMBER OF MITIGATION INCHES REQUIRED (TO BE PAID IN LIEU): 7"

*NOTE: EXISTING REDBUD TREE TO BE REMOVED IS GREATER THAN 50% DAMAGED OR DISEASED, DEMONSTRATING SEVERE DECLINE, POOR HEALTH AND HAS A SIGNIFICANT LEAN TOWARDS THE EXISTING BUILDING. IT WILL BE REMOVED WITH MITIGATION PER SECTION 18-316.B

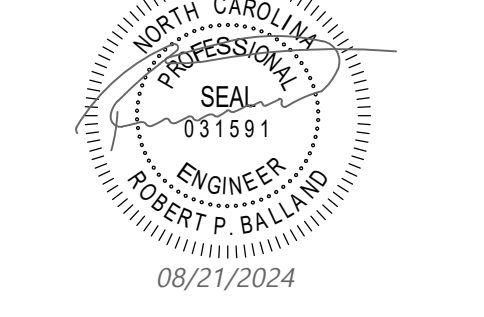


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NEW HANOVER COUNTY
STAR CENTER
 1605 Robin Hood Rd. Wilmington, NC 28401
 LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Bid / Permit Set

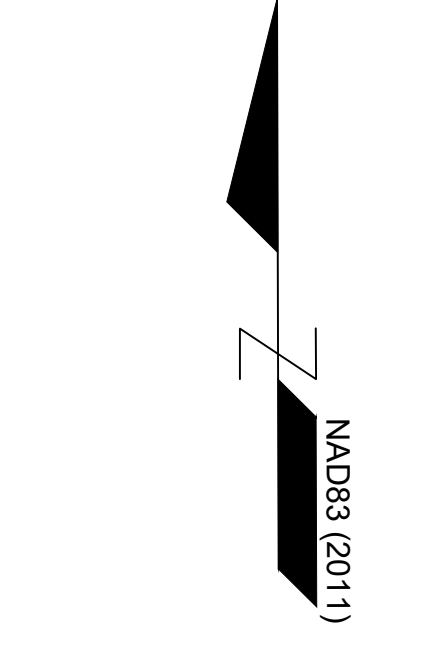
SHEET NAME:
 DEMOLITION PLAN

ORIG SUBMISSION: 2024.04.17

SHEET: C-2.0

BID / PERMIT SET

FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)



1

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THE LINE SHOWN ABOVE IS EXACTLY ONE FOOT FROM THE ADJACENT PARCEL BOUNDARY

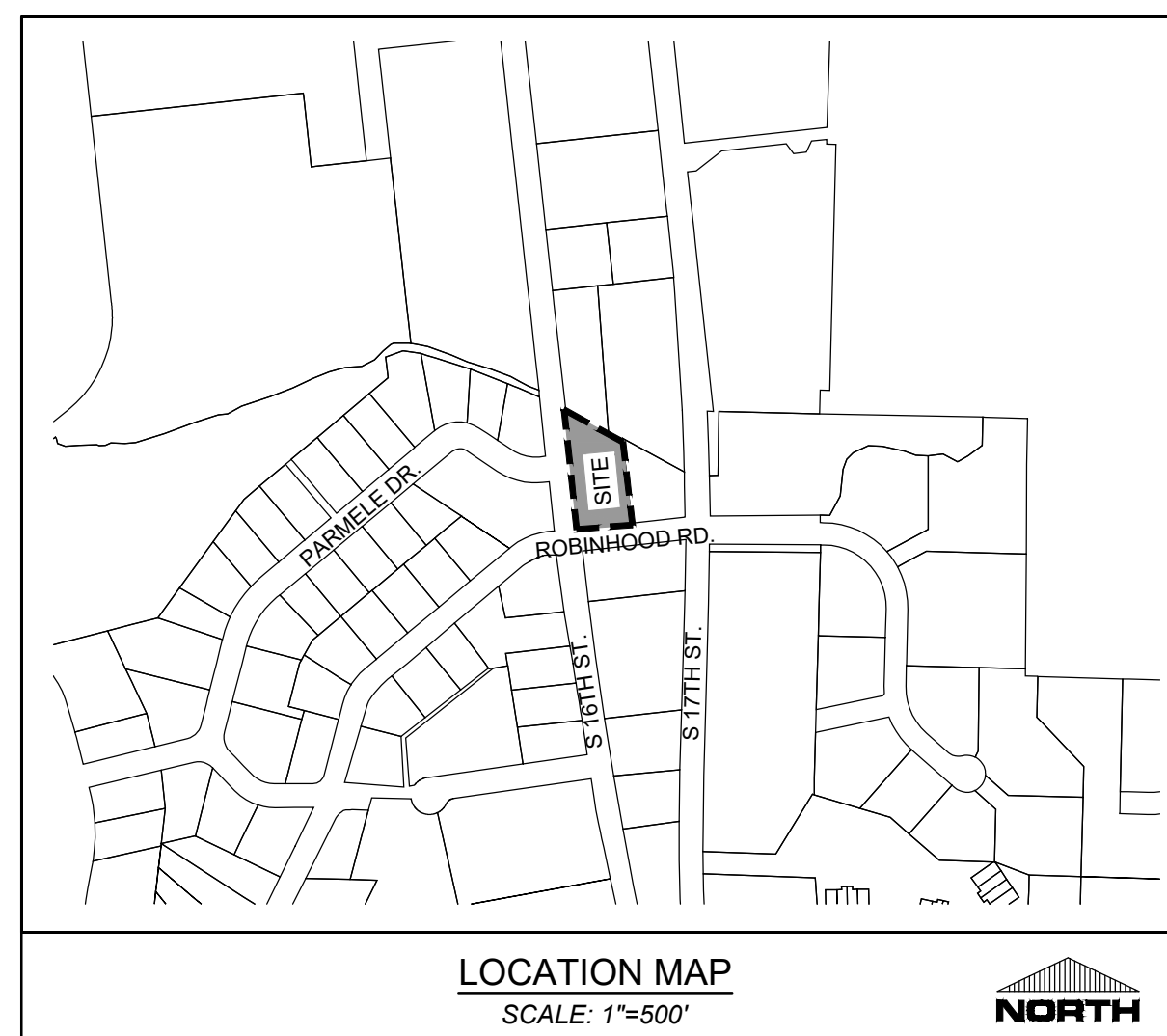
E

D

C

B

A



SITE INFORMATION
 PROJECT NAME: NEW HANOVER COUNTY SUBSTANCE ABUSE CENTER
 OWNER INFORMATION: NEW HANOVER COUNTY 205 GOVERNMENT CENTER DR. WILMINGTON, NC 28403
 PROJECT ADDRESS: 1605 ROBIN HOOD RD. WILMINGTON, NC 28401
 TAX PARCEL IDENTIFICATION #: R05419-005-001-001
 RECORDED DEED BOOK: DB6624, PG 264
 CURRENT ZONING: O&I-1 (OFFICE & INDUSTRIAL)
 EXISTING USE: 805 NURSING HOME
 PROPOSED USE: 801-MEDICAL SERVICES CHEMICAL DEPENDENCY TREATMENT FACILITY
 0.88 ACRE URBAN
 TOTAL SITE AREA: 0.88 ACRE
 CAMA LAND USE CLASSIFICATION: URBAN
 CONSERVATION DISTRICT: FRESHWATER FORESTED / SHRUB WETLAND (PF04D) (TO BE VERIFIED)
 CONSERVATION DISTRICT SETBACK: 404 USACE WETLANDS, 30' SETBACK

BUILDING DATA
 NUMBER OF BUILDINGS: 1 (EXISTING TO REMAIN)
 NUMBER OF STORIES: 1 STORY
 TOTAL BUILDING AREA (FOOTPRINT): 13,931 SQ. FT. (NO CHANGE IN GSF)

PARKING STANDARDS
 STANDARD: (1) SPACE PER 2 BEDS
 PLUA (1) SPACE PER EMPLOYEE ON TYP. SHIFT

REQUIRED: 36 BEDS / 2 = 18 SPACE
 10 EMPLOYEES = 10 SPACES
 TOTAL REQUIRED: 28 SPACES

PROVIDED: 13 SPACES (INCLUDES 1 ADA VAN SPACE)
 ADDITIONAL PARKING AVAILABLE ON ADJACENT PARCEL: RHA HEALTH SERVICES, 1920 16TH STREET, WILMINGTON, NC 28401

FLOOD NOTES
 PORTIONS OF THE SUBJECT PARCEL LIE WITHIN FLOOD ZONE X (MINIMAL FLOOD RISK), FLOOD ZONE AE AS INDICATED BY FEMA FLOOD ZONE PANEL 3127, MAP NUMBER 3720312700K, BEARING AN EFFECTIVE DATE OF AUGUST 28, 2018.
 FLOOD SOURCE: GREENFIELD LAKE NORTH BRANCH

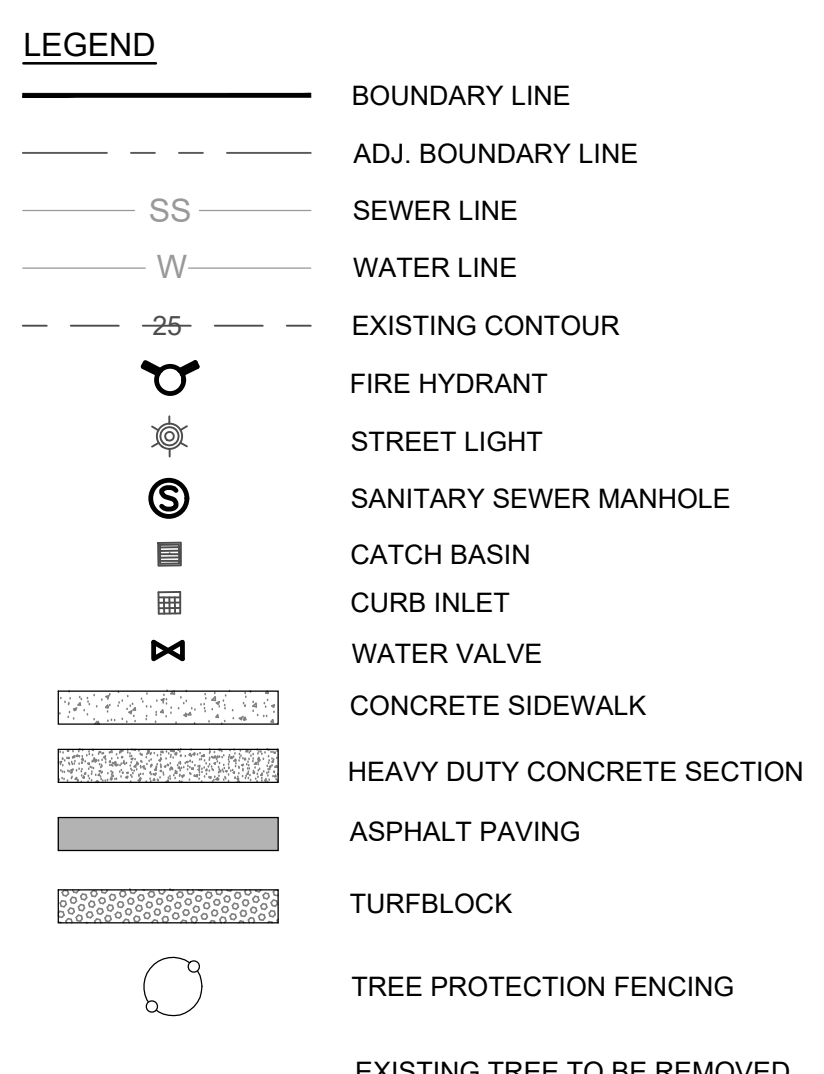
DIMENSIONAL REQUIREMENTS
 O&I - OFFICE AND INSTITUTIONAL ZONING DISTRICT

MINIMUM LOT AREA: 15,000 SF
 MINIMUM LOT WIDTH: 80'
 FRONT SETBACK: 20'
 SIDE INTERIOR SETBACK: 0'
 SIDE STREET SETBACK: 20'
 REAR SETBACK: 20'
 MAXIMUM BUILDING HEIGHT: 45'
 MAXIMUM BUILDING FOOTPRINT: 40%

PROPOSED BUILDING SETBACKS: N/A (NO CHANGES - NO STRUCTURE PROPOSED)

UTILITY NOTES
 1. WATER SERVICES PROVIDED BY CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA). THERE IS AN EXISTING 6" WATER MAIN THAT RUNS ALONG ROBIN HOOD ROAD ON THE SHORT SIDE. CONTRACTOR SHALL CONFIRM LOCATION OF THIS EXISTING MAIN.
 2. SPRINKLERS ARE PROPOSED FOR THE PROPOSED BUILDING. THERE IS A PROPOSED 6-INCH FIRE SERVICE BEING INSTALLED.
 3. CONTRACTOR SHALL CONTACT CFPUA PRIOR TO CONSTRUCTION START TO SCHEDULE A PRE-CONSTRUCTION MEETING. FOR SHUTDOWN OF ANY EXISTING UTILITY MAINS/SERVICES, CONTRACTOR TO INFORM AND COORDINATE WITH THE APPLICABLE OWNERS.

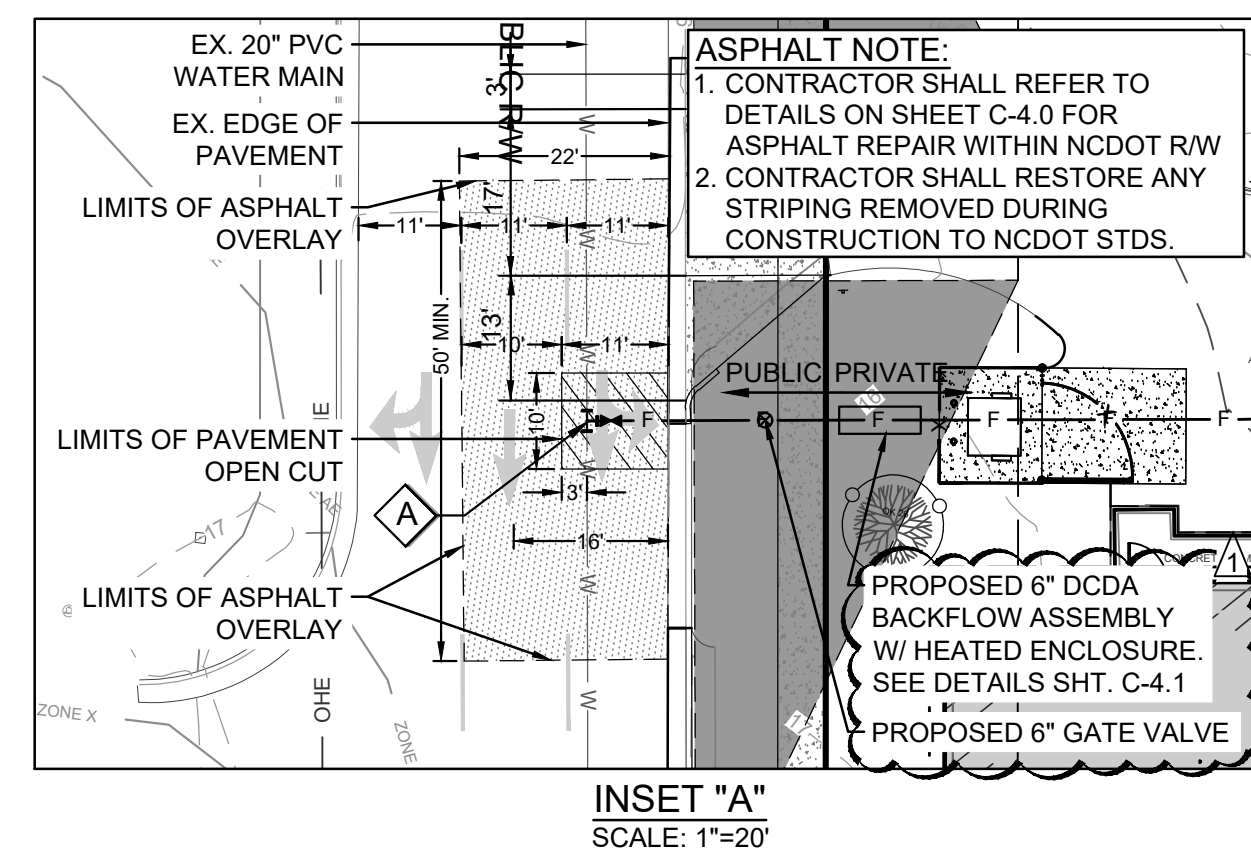
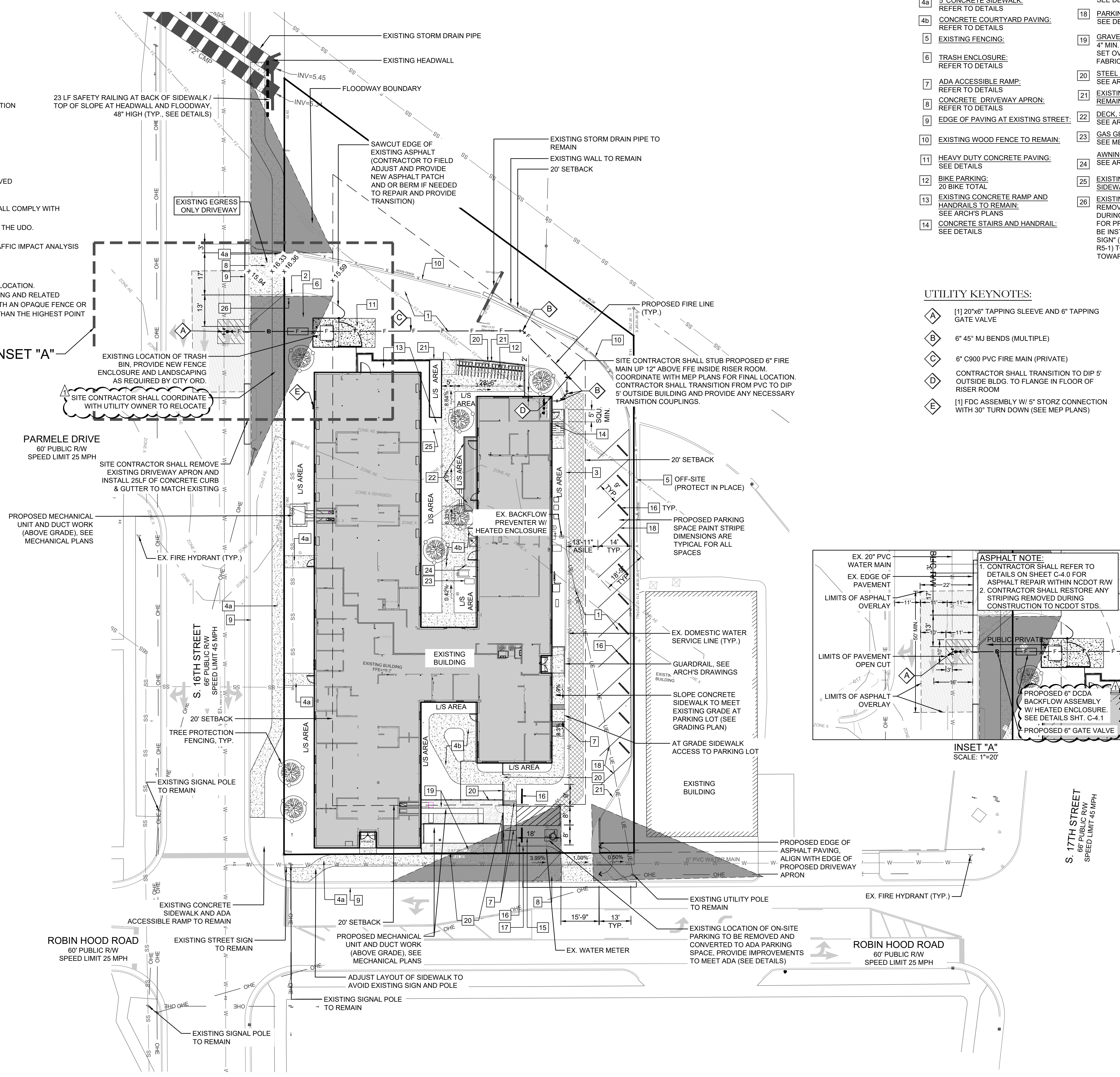
UTILITY NOTES: (TEN STATE STANDARDS)
 1. WATER MAINS SHALL BE LAID SO AS TO PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FROM SEWERS. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN CAN BE INSTALLED AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, EITHER IN A SEPARATE TRENCH, OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.
 2. WHEN CROSSING A WATER MAIN OVER A SEWER, THE WATER MAIN SHALL BE LAID AT LEAST 18 INCHES ABOVE THE SEWER. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS THAT MEET WATER MAIN STANDARDS. THE DUCTILE IRON PIPE SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING WITH A SECTION OF WATER MAIN PIPE CENTERED ON THE CROSSING.
 3. CROSSING A WATER MAIN UNDER A SEWER, WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
 4. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.
 5. WHERE VERTICAL CLEARANCE IS LESS THAN 18" BETWEEN WATER MAIN AND STORM DRAIN WHEN STORM IS ABOVE WATER, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE. OTHERWISE, A 12" MIN. SEPARATION SHALL BE CONSTRUCTED.
 6. MATERIALS, INSTALLATION, AND TESTING FOR PRIVATE UTILITIES SHALL BE IN ACCORDANCE WITH CFPUA SPECIFICATIONS.
 7. CONTRACTOR SHALL ABANDON ALL UNUSED SEWER AND WATER TAPS AT MAIN.
 8. WATER MAINS SHALL BE BURIED A MIN. OF 36-INCHES OR DEPTH BELOW THE FROST-LINE OR GREATER IF THE LOCAL UTILITY PROVIDER REQUIRES.



GENERAL NOTES:
 1. ALL EXTERIOR SIGNS TO BE PERMITTED SEPARATELY AND SHALL COMPLY WITH SECTION 5.6 AND 3.5.3 OF THE UDO.
 2. ALL EXTERIOR LIGHTING SHALL COMPLY WITH SECTION 5.5 OF THE UDO.
 3. NO CONSERVATION AREAS EXIST ON THE SITE.
 4. TRIP GENERATION IS LESS THAN 100 PEAK HOUR TRIPS. A TRAFFIC IMPACT ANALYSIS IS NOT REQUIRED.

WASTE DISPOSAL
 WASTE DISPOSAL WILL BE PROVIDED WITH A CENTRAL DUMPSTER LOCATION. THIS LOCATION HAS BEEN NOTED ON THE PLAN. ALL TRASH-HANDLING AND RELATED EQUIPMENT SHALL BE COMPLETELY ENCLOSED AND SCREENED WITH AN OPAQUE FENCE OR WALL. THE ENCLOSURE SHALL BE AT LEAST ONE (1) FOOT TALLER THAN THE HIGHEST POINT OF THE TRASH RECEPTACLE.

SEE INSET "A"



- SITE KEY NOTES:**
- EXISTING ASPHALT PAVING TO REMAIN.
 - EXISTING EDGE OF ASPHALT PAVING.
 - EXISTING CONCRETE CURB AND/OR GUTTER TO REMAIN.
 - CONCRETE SIDEWALK; REFER TO DETAILS.
 - CONCRETE COURTYARD PAVING; REFER TO DETAILS.
 - EXISTING FENCING; REFER TO DETAILS.
 - TRASH ENCLOSURE; REFER TO DETAILS.
 - ADA ACCESSIBLE RAMP; REFER TO DETAILS.
 - CONCRETE DRIVEWAY APRON; REFER TO DETAILS.
 - EDGE OF PAVING AT EXISTING STREET; REFER TO DETAILS.
 - EXISTING WOOD FENCE TO REMAIN; REFER TO DETAILS.
 - HEAVY DUTY CONCRETE PAVING; REFER TO DETAILS.
 - BIKE PARKING; 20 BIKE TOTAL.
 - EXISTING CONCRETE RAMP AND HANDRAILS TO REMAIN; SEE ARCH'S PLANS.
 - CONCRETE STAIRS AND HANDRAIL; SEE DETAILS.
 - ADA ACCESSIBLE PARKING SPACE PAINT STRIPES AND SIGNAGE; SEE DETAILS.
 - WHEELSTOP; SEE DETAILS, TYPICAL ALL PARKING SPACES.
 - CONCRETE CURB & GUTTER; SEE DETAILS.
 - PARKING LOT PAINT STRIPE; SEE DETAILS.
 - GRAVEL OVER FILTER FABRIC; 4" MIN. NO. 57 GRAVEL PAD 30" X 20" - SET OVER 5 OZ. NON-WOVEN FILTER FABRIC.
 - STEEL COURTYARD FENCE AND GATES; SEE ARCH'S PLANS.
 - EXISTING ASPHALT BERM/CURB TO REMAIN.
 - DECK, STAIRS AND HANDRAIL; SEE ARCH'S PLANS.
 - GAS GENERATOR; SEE MECHANICAL PLANS.
 - AWNING POST, (TYP OF 2); SEE ARCH'S PLANS.
 - EXISTING EDGE OF CONCRETE SIDEWALK / RAMP TO REMAIN.
 - EXISTING "ONE WAY" SIGN TO REMAIN; REMOVE AND REPLACE IF NEEDED DURING CONSTRUCTION TO ALLOW FOR PROPOSED IMPROVEMENTS TO BE INSTALLED. ADD "DO NOT ENTER SIGN" (MUTCD COMPLIANT 30" X 30", R5-1) TO SAME POST AND FACE TOWARDS 16TH STREET.

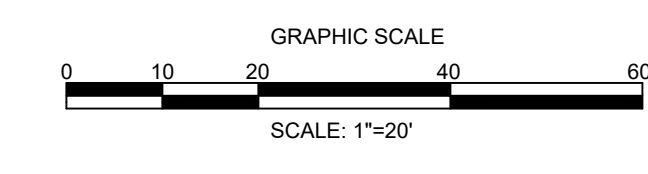
- UTILITY KEYNOTES:**
- 20"x6" TAPPING SLEEVE AND 6" TAPPING GATE VALVE.
 - 6" 45° MJ BENDS (MULTIPLE).
 - 6" C900 PVC FIRE MAIN (PRIVATE).
 - CONTRACTOR SHALL TRANSITION TO DIP 5' OUTSIDE BLDG. TO FLANGE IN FLOOR OF RISER ROOM.
 - 1" FDC ASSEMBLY W/ 5" STORZ CONNECTION WITH 30" TURN DOWN (SEE MEP PLANS).

ASPHALT NOTE:
 1. CONTRACTOR SHALL REFER TO DETAILS ON SHEET C-4.0 FOR ASPHALT REPAIR WITHIN NDOT RW.
 2. CONTRACTOR SHALL RESTORE ANY STRIPING REMOVED DURING CONSTRUCTION TO NDOT STDS.

PROPOSED 6" DDDA BACKFLOW ASSEMBLY W/ HEATED ENCLOSURE; SEE DETAILS SHIT. C-4.1

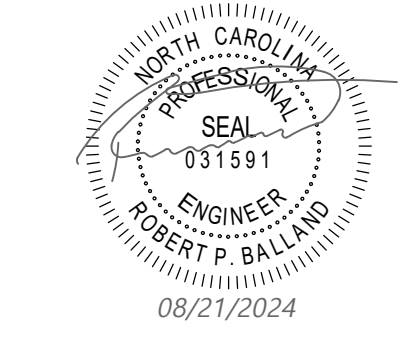
PROPOSED 6" GATE VALVE

INSET "A" SCALE: 1\"/>



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NEW HANOVER COUNTY STAR CENTER
 1605 Robin Hood Rd. Wilmington, NC 28401
 LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
2023.08.04	50% Schematic Design
2023.11.16	100% Schematic Design
2024.01.31	100% Design Development
2024.08.21	60% / Permit Set
07/29/24	REVISED PER CFPUA COMMENTS

SHEET NAME: SITE PLAN

ORIG SUBMISSION: 2024.04.17

SHEET: C-2.1

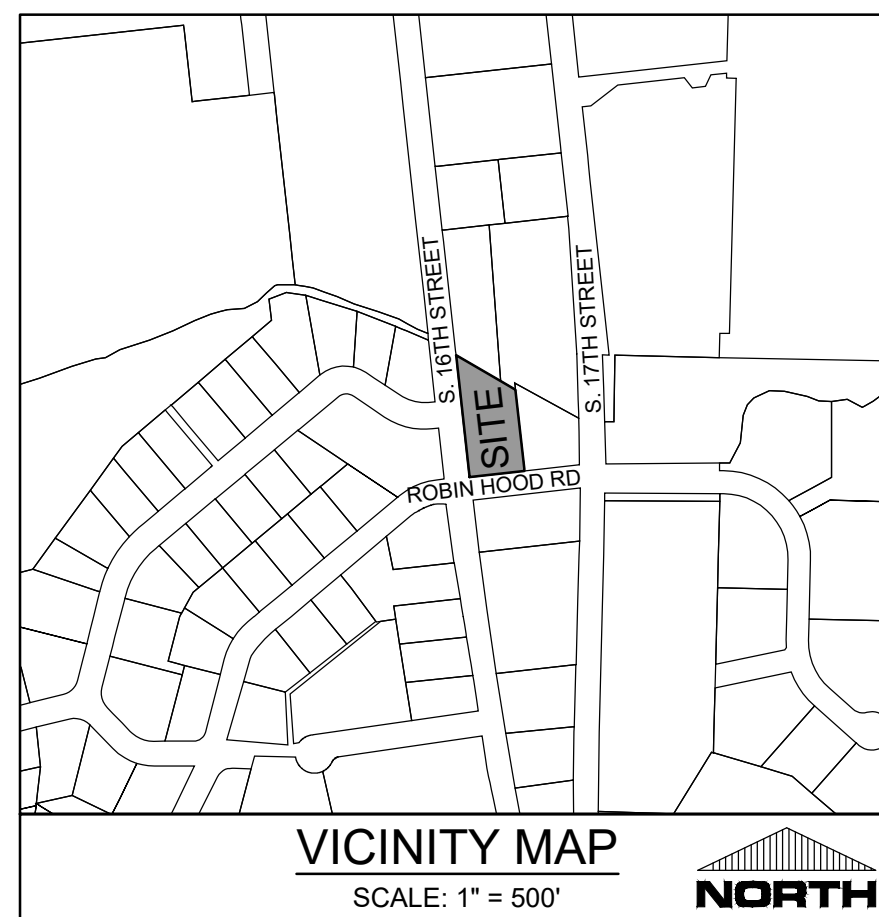
BID / PERMIT SET

FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)

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THE LINE SHOWN ABOVE IS EXACTLY ONE FOOT EQUAL TO THE DISTANCE SHOWN BELOW.

E



ASPHALT AREA NOTE:
 1. SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

STORMWATER NOTE:
 1. THIS SITE WAS PREVIOUSLY CONSTRUCTED PRIOR TO THE 1988 CLEAN WATER ACT AND ANY EXISTING IMPERVIOUS COVERAGE IS EXEMPT FROM CURRENT STORMWATER RULES. ANY NEW IMPERVIOUS ABOVE THE EXISTING AMOUNT IS SUBJECT TO THE CURRENT STORMWATER REQUIREMENTS ONCE THAT AMOUNT IS CUMULATIVELY ABOVE 10,000 SF.

GENERAL NOTES:
 1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL STATE OF NC, CITY OF WILMINGTON, AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.
 2. THE CONTRACTOR SHALL PLACE INLET PROTECTION AROUND ALL STORM DRAIN INLETS TO PROTECT THE SYSTEM FROM COLLECTING SEDIMENTATION DURING CONSTRUCTION.
 3. CONTRACTOR SHALL ADJUST ALL FRAMES OF EX. UTILITY INFRASTRUCTURE WITHIN ASPHALT OVERLAY AND NEW ASPHALT AREAS TO MATCH PROPOSED GRADES.
 4. ALL PROPOSED SPOT ELEVATIONS SHOWN IN THE PARKING LOT ARE PROPOSED EDGE OF PAVEMENT OR FACE OF CURB @ GUTTER FOR CURB SECTIONS, UNLESS NOTED OTHERWISE.
 5. ALL PRIMARY ROOF DRAINS SHALL BE DIRECTED ONTO SPLASH PADS AND AWAY FROM BUILDING.
 6. ALL SIDEWALK CROSS SLOPES HAVE BEEN GRADED TO MEET ADA REGULATIONS. CONTRACTOR SHALL CONFIRM GRADES BEFORE PLACING PAVEMENT OR SIDEWALKS AND REPORT ANY DISCREPANCIES TO OWNER AND/OR ENGINEER.

IMPERVIOUS AREA
 EXISTING IMPERVIOUS: 25,489 SF (0.865 AC)

EXISTING IMPERVIOUS TO BE REMOVED:
 STRUCTURES 0 SF
 ASPHALT PAVING 1,870 SF
 CONCRETE 1,748 SF
 TOTAL EXISTING IMP. AREA TO BE REMOVED 3,618 SF

PROPOSED IMPERVIOUS AREA:
 BUILDINGS 0 SF
 PARKING/DRIVEWAY 1,170 SF
 ON-SITE CONCRETE & SIDEWALKS 3,312 SF
 TOTAL PROPOSED IMP. AREA 4,482 SF

NET IMPERVIOUS AREA = PROPOSED - EXISTING = 864 SF

DISTURBED AREA: 15,225 SF (0.35 AC)

SPOT GRADE LEGEND:

CB = CATCH BASIN	HP = HIGH POINT ELEVATION
DCB = DOUBLE CATCH BASIN	LP = LOW POINT ELEVATION
CI = CURB INLET	SW = TOP OF WALL (SIDEWALK) ELEVATION
DI = DROP INLET	DG = DITCH GRADE ELEVATION
DDI = DOUBLE DROP INLET	CL = CENTERLINE
YI = YARD INLET	INV = INVERT
MH = STORM MANHOLE	FES = FLARED END SECTION
BC = TOP OF CURB ELEVATION	TWL = TOP OF WALL ELEVATION
GC = GUTTER CURB (FLOW LINE) ELEVATION	BWL = BOTTOM OF WALL ELEVATION
PG = PROPOSED GRADE (GROUND)	(EG) = EXISTING GRADE
EP = EDGE OF PAVEMENT	(XX) = EXISTING ELEVATIONS, TYP.
EC = EDGE OF CONCRETE	
TC = TOP OF CONCRETE	

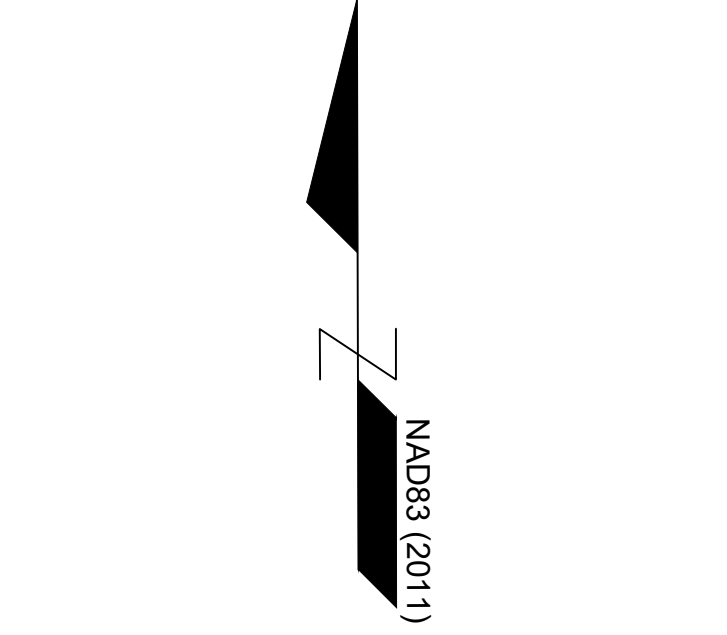
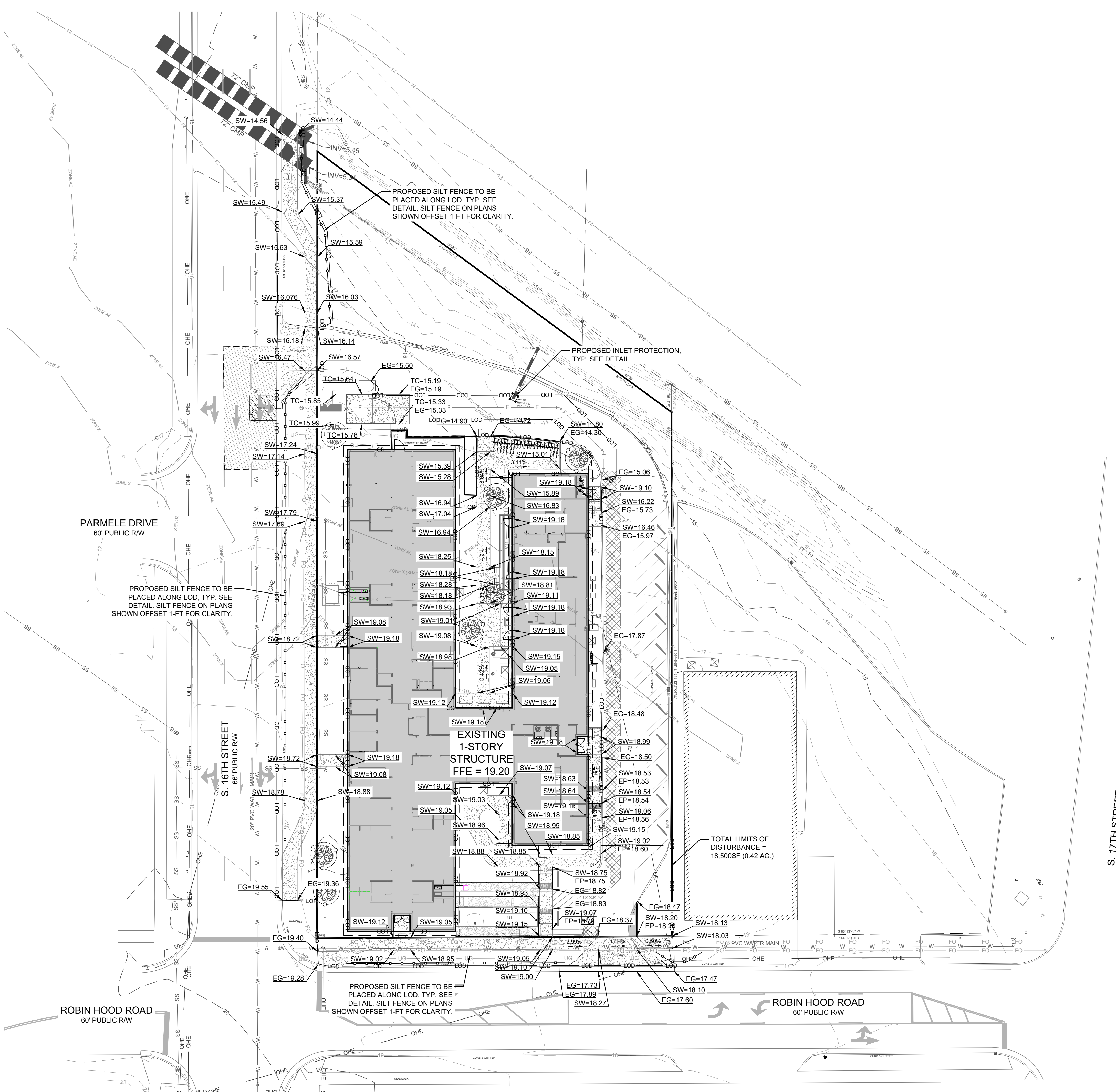
LEGEND:

16	EXISTING CONTOUR
29	PROPOSED CONTOUR
EG 25.05	EXISTING GRADE ELEVATION
EP 25.05	PROPOSED EDGE OF PAVEMENT
BC 25.05	PROPOSED BACK OF CURB
SW 25.05	PROPOSED SIDEWALK ELEVATION
PG 25.05	PROPOSED GRADE
TW 25.05	PROPOSED TOP OF WALL
TC 25.05	PROPOSED TOP OF CONCRETE
TS 25.05	TOP OF STEP
LOD	INLET PROTECTION
LOD	LIMITS OF DISTURBANCE
SF	SILT FENCE
○	TREE PROTECTION FENCING
→	DRAINAGE FLOW PATH

B

A

1/30/2024 9:39:05 AM



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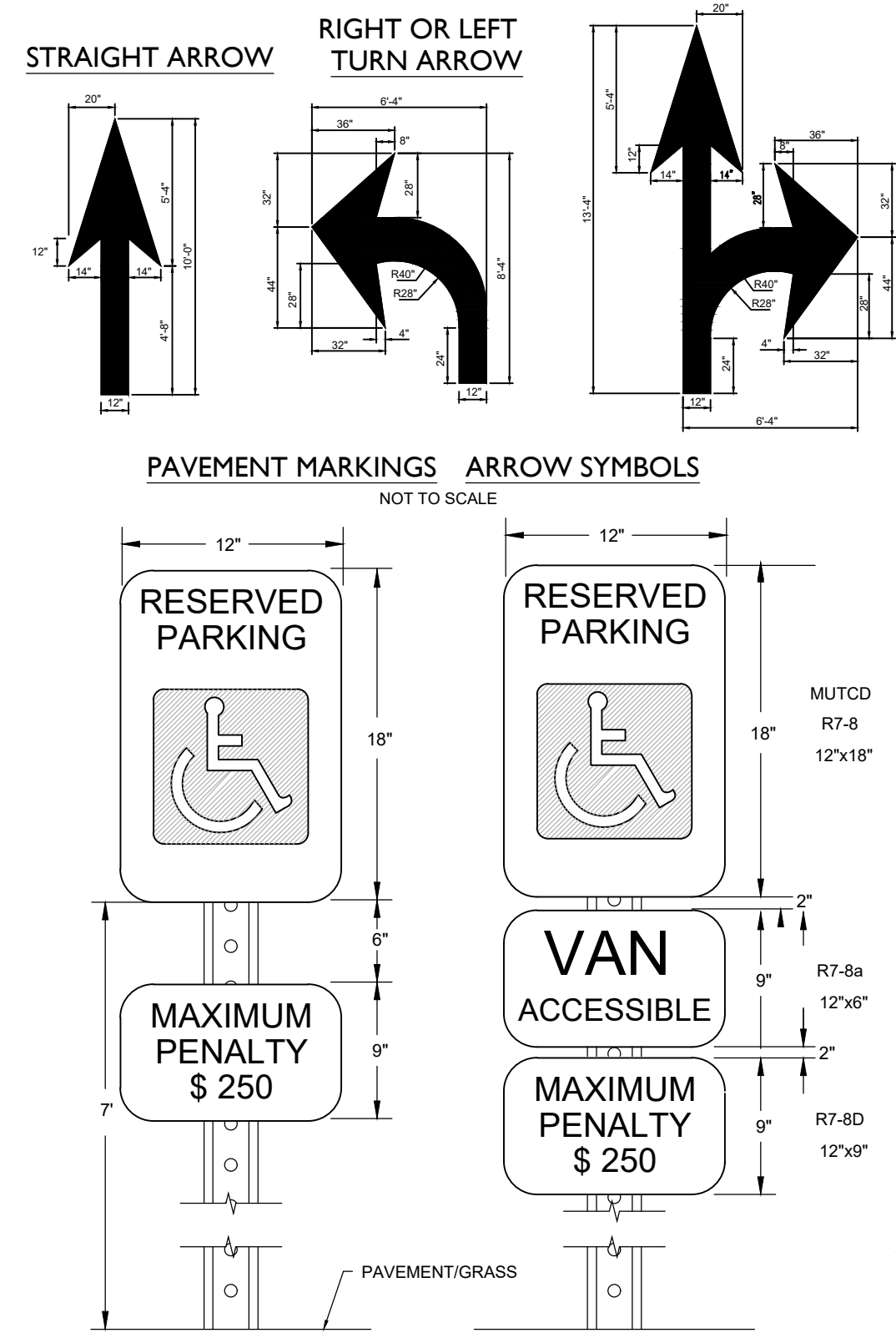
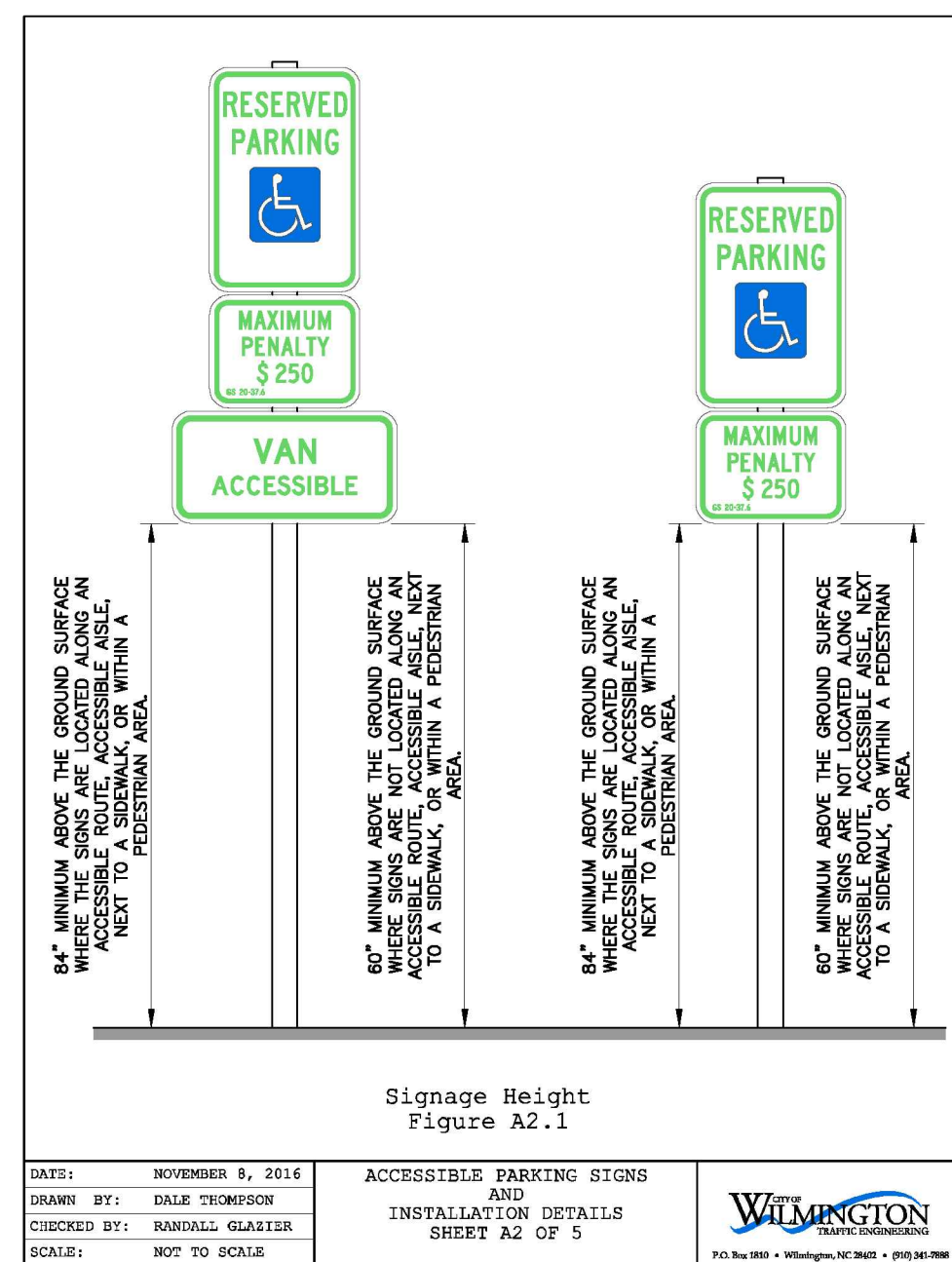
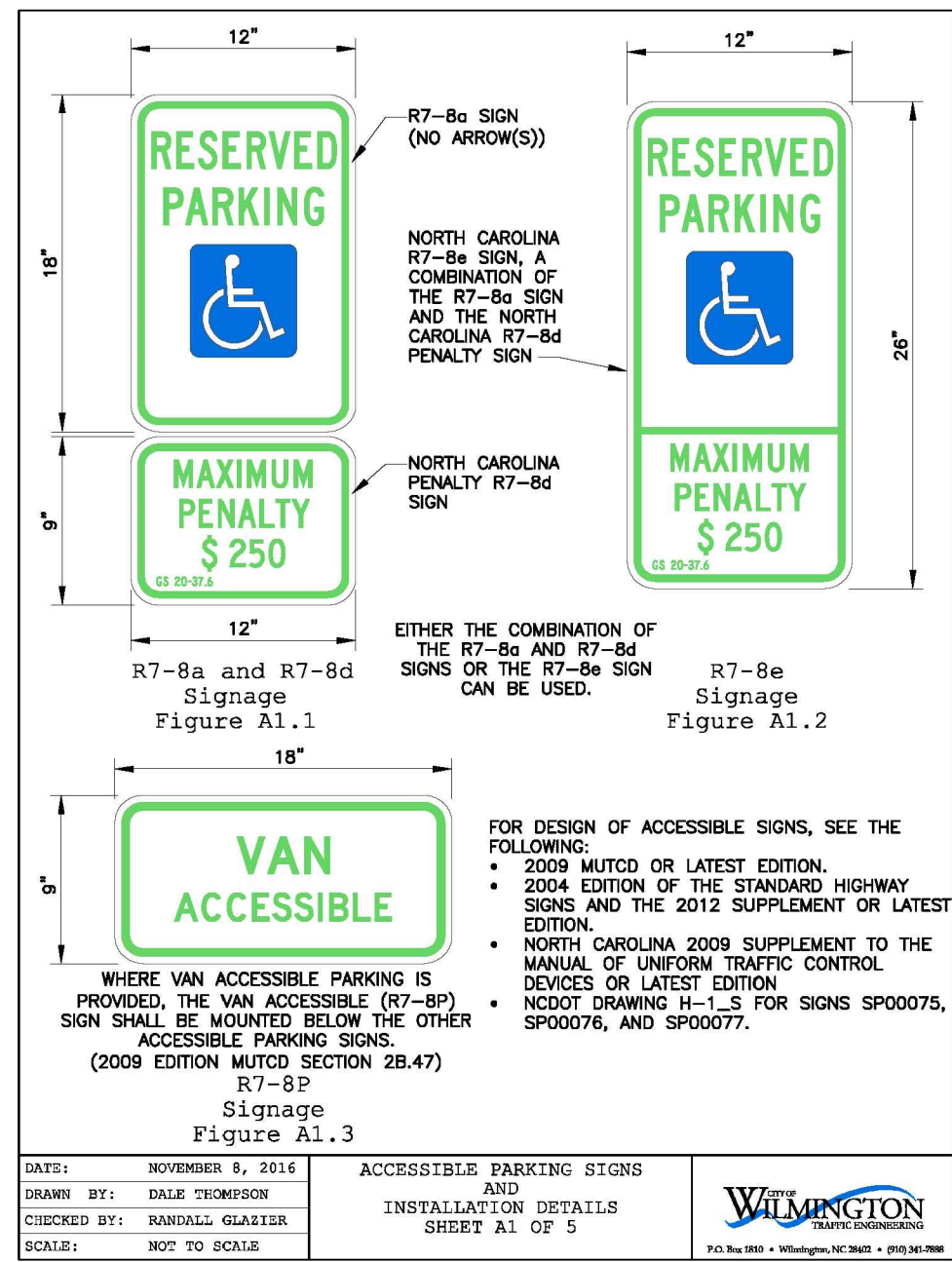
DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Bid / Permit Set

SHEET NAME:
 GRADING-
 DRAINAGE &
 EROSION
 CONTROL PLAN
ORIG 2024.04.17
SUBMISSION:

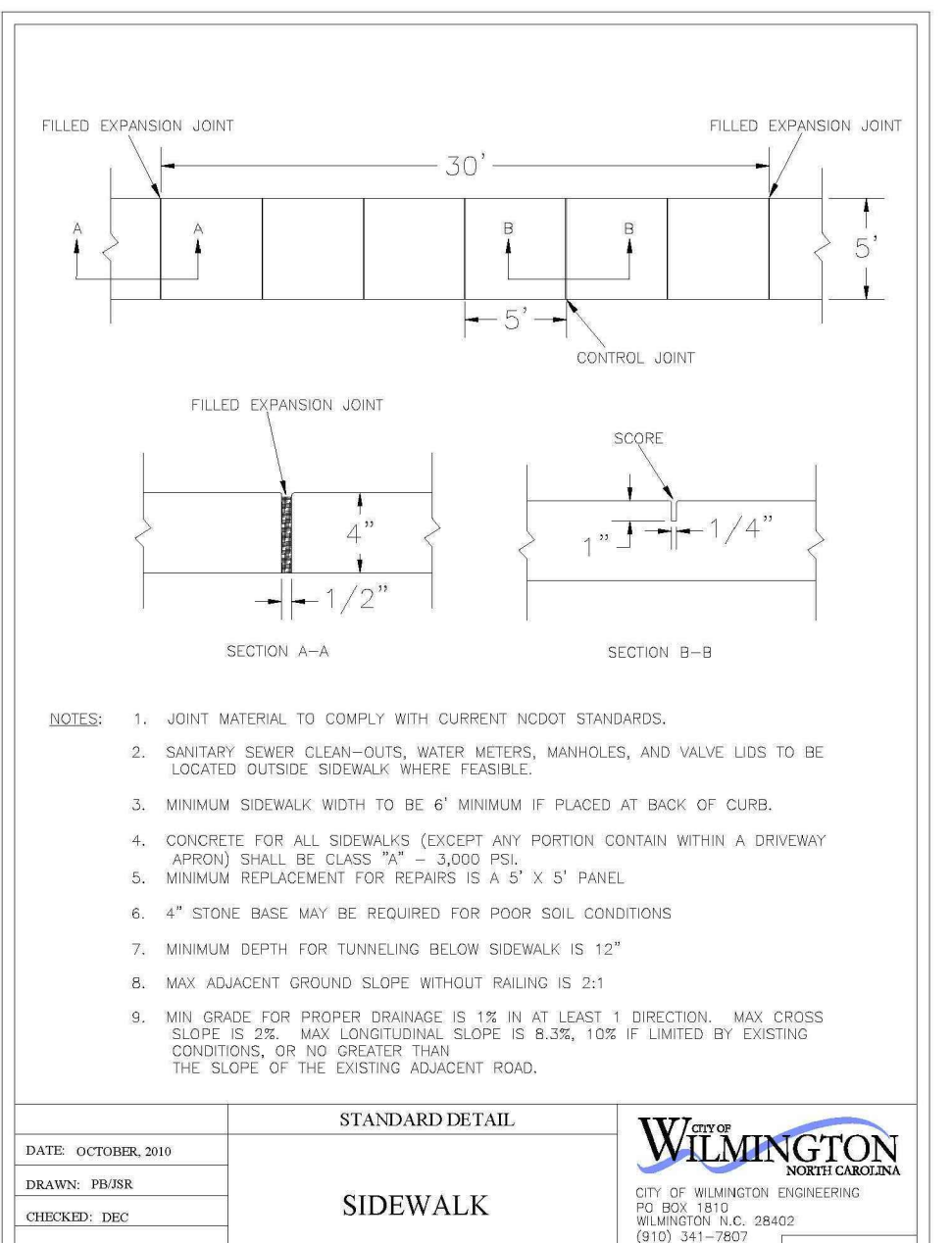
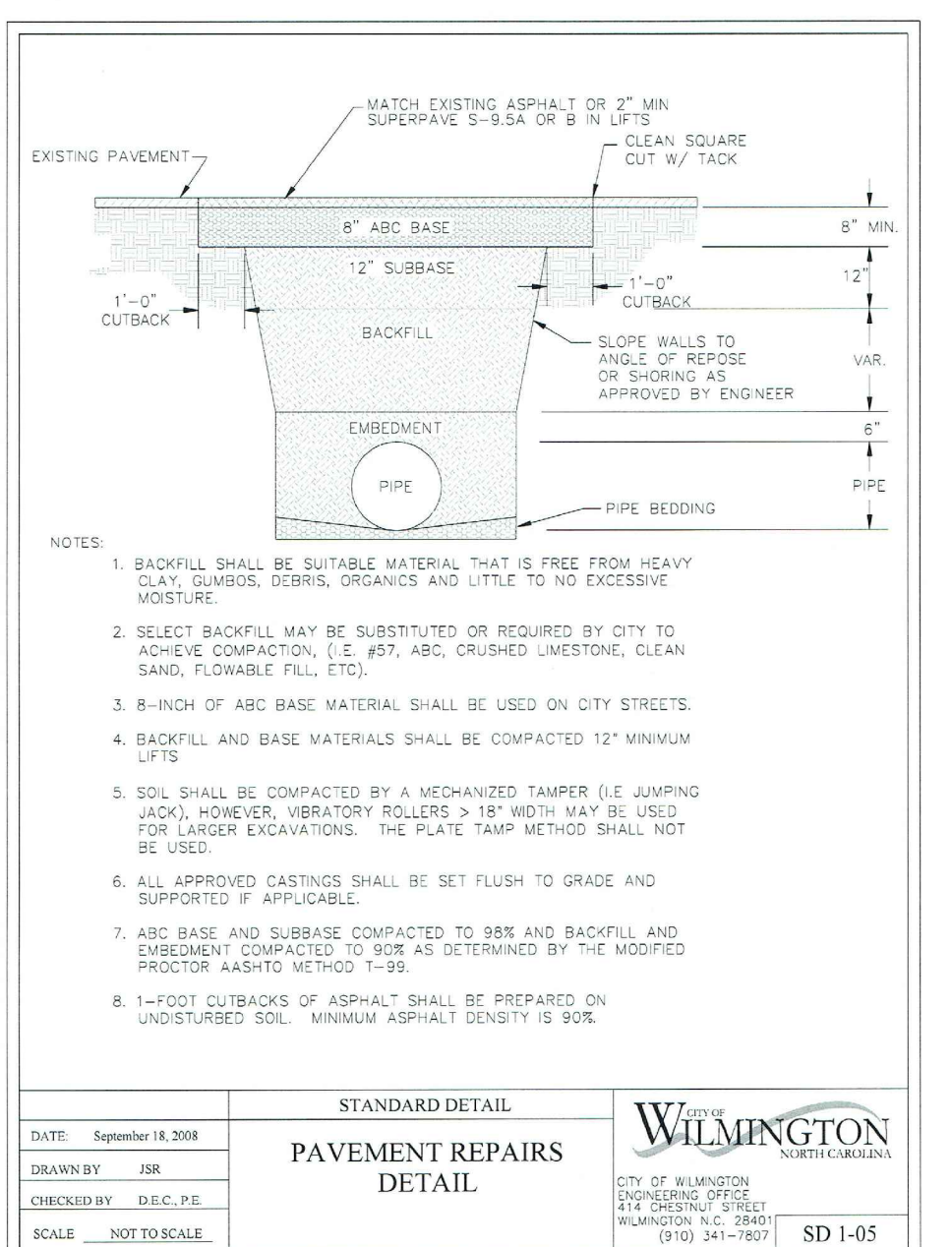
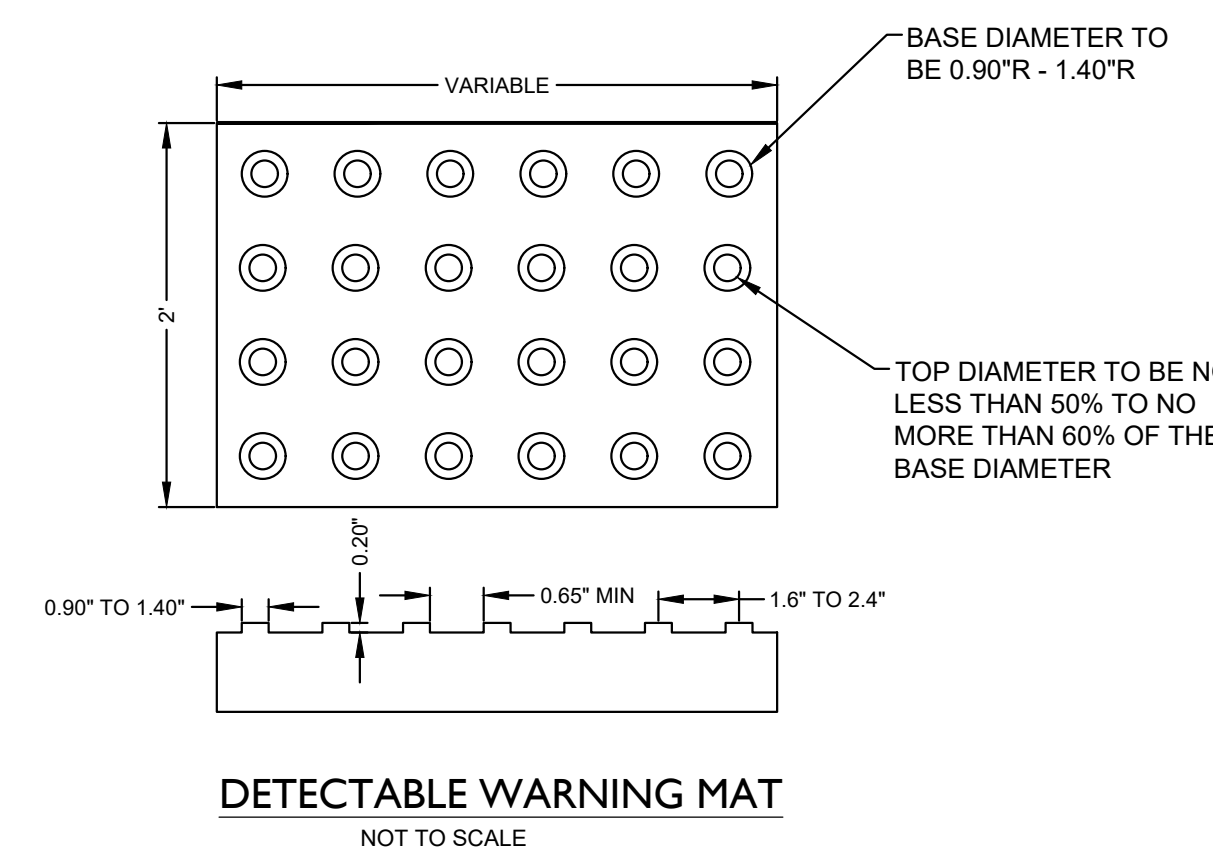
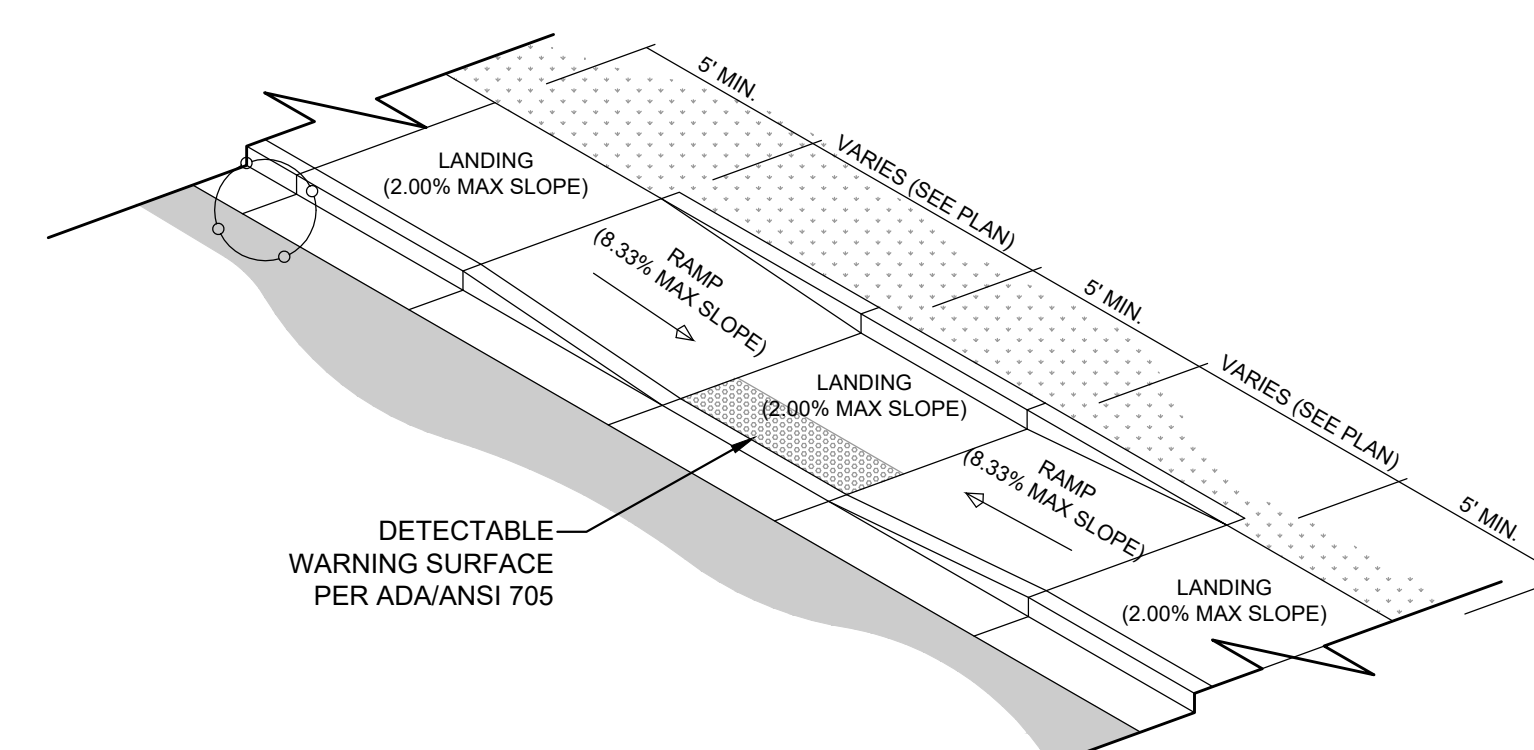
SHEET:
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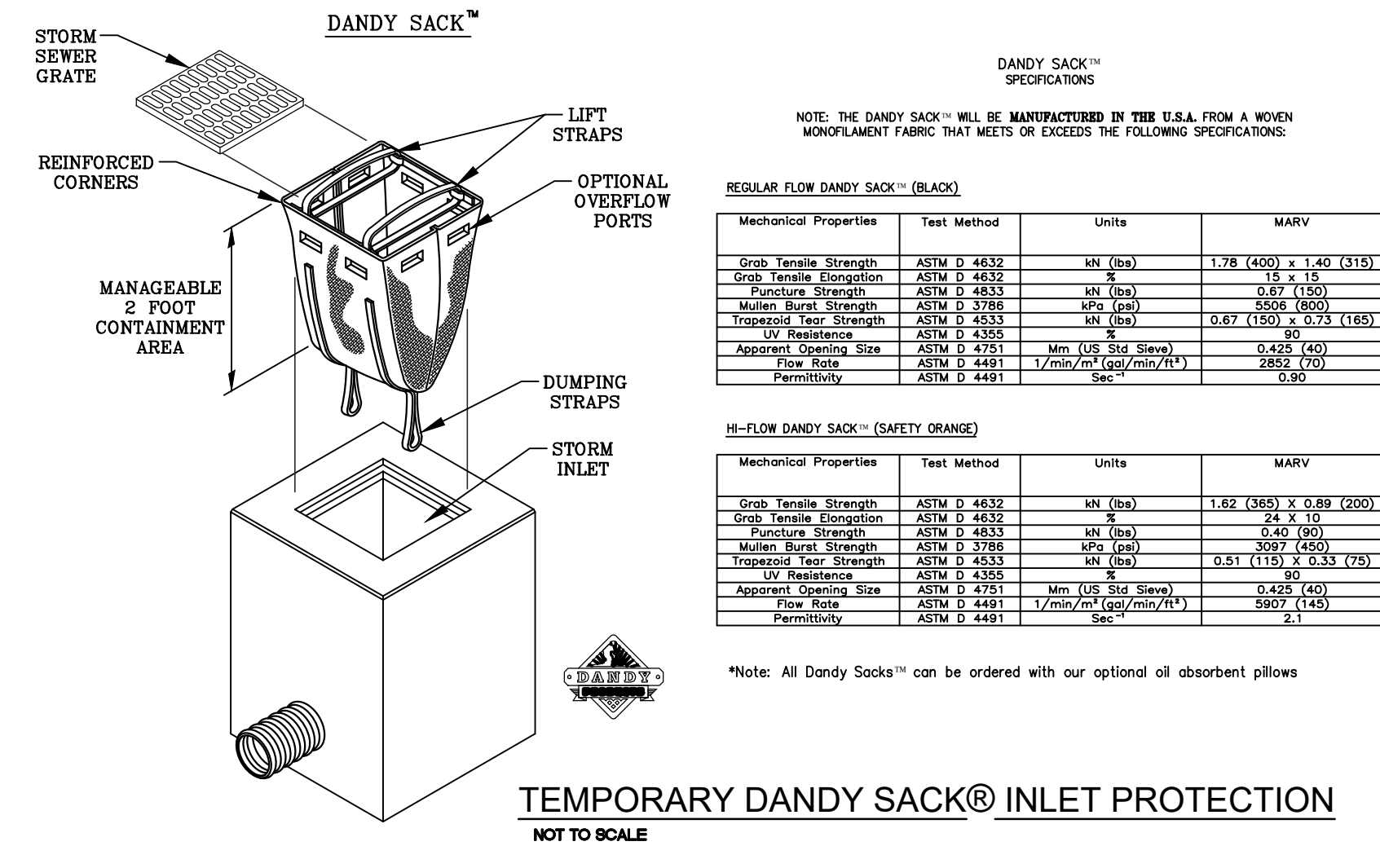
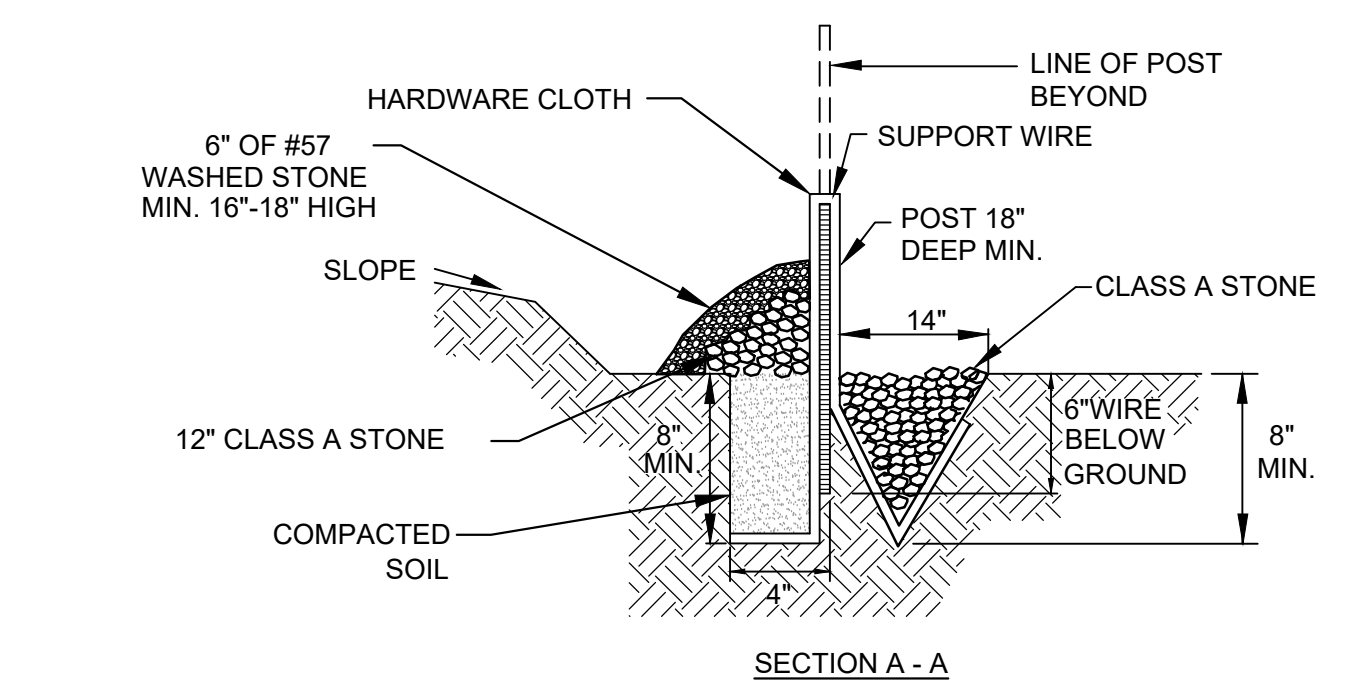
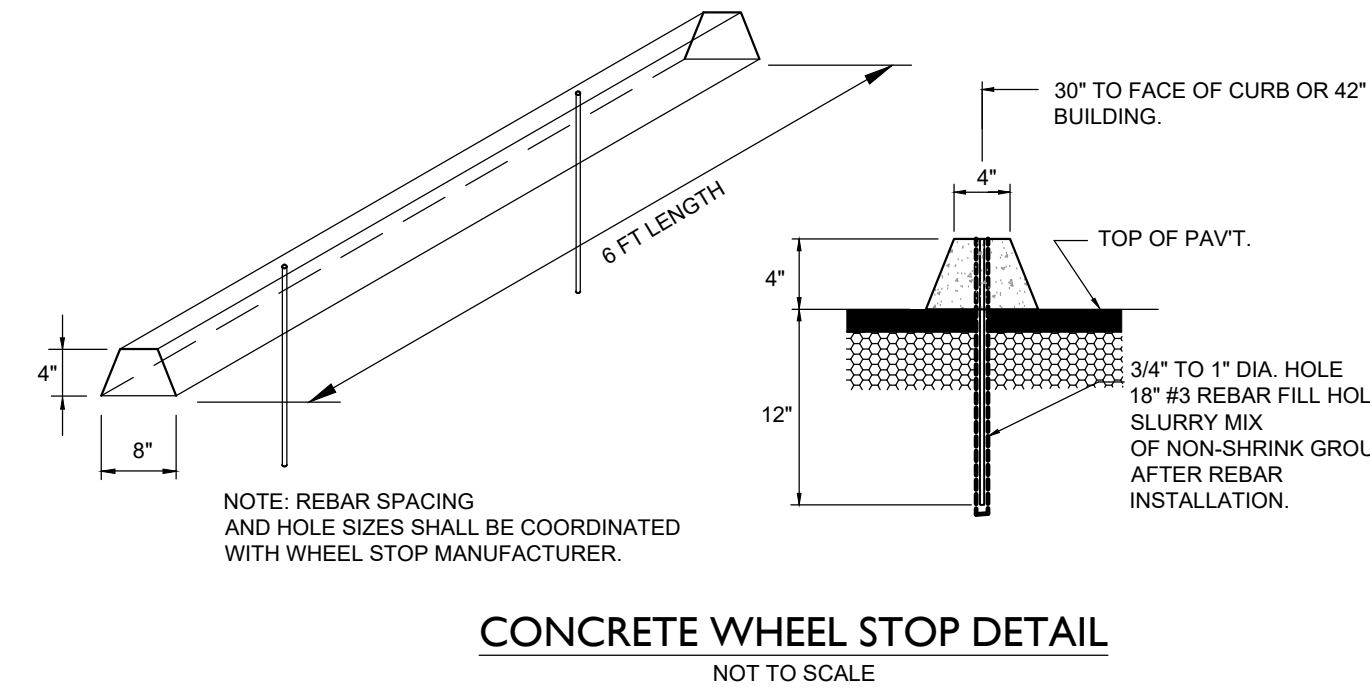
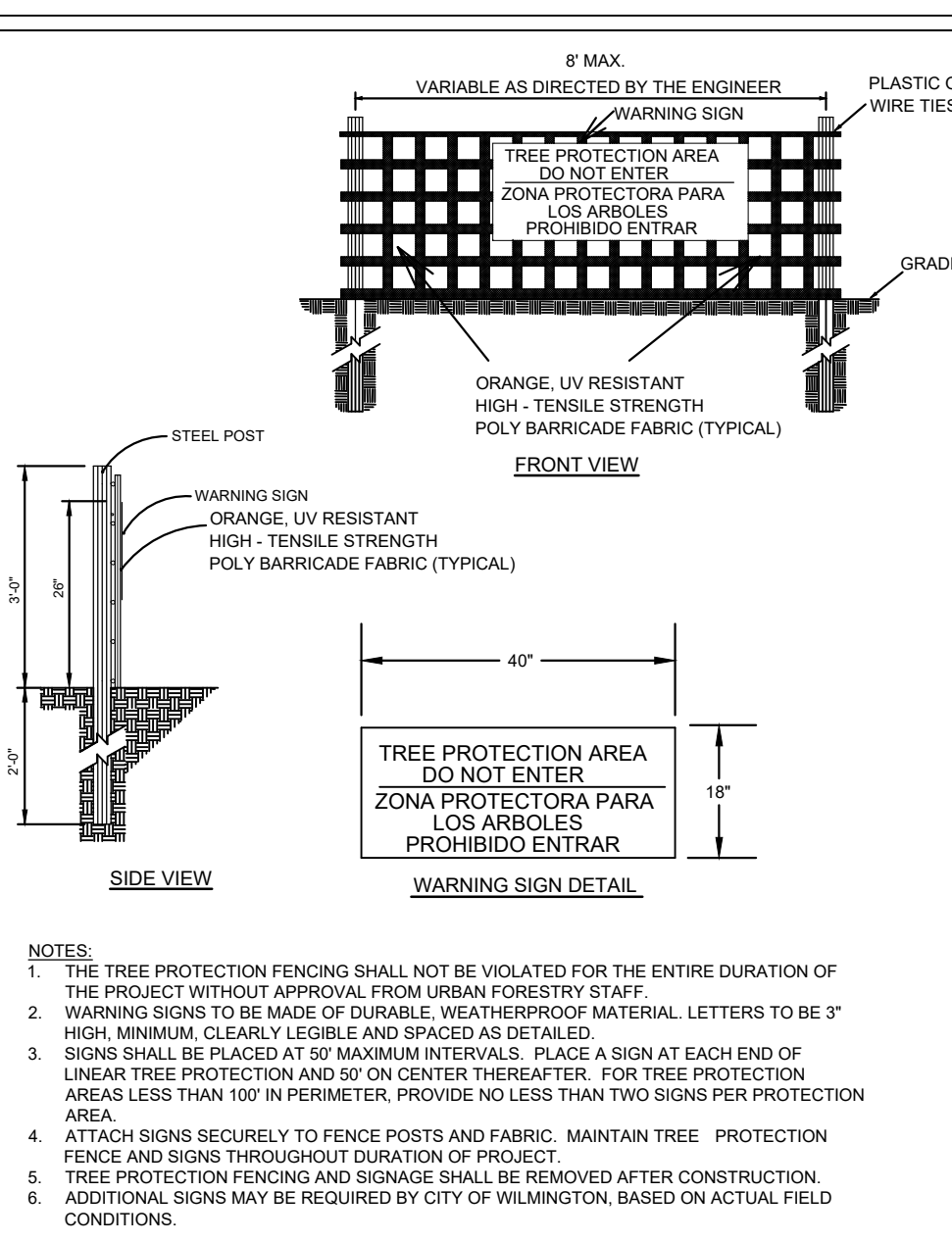
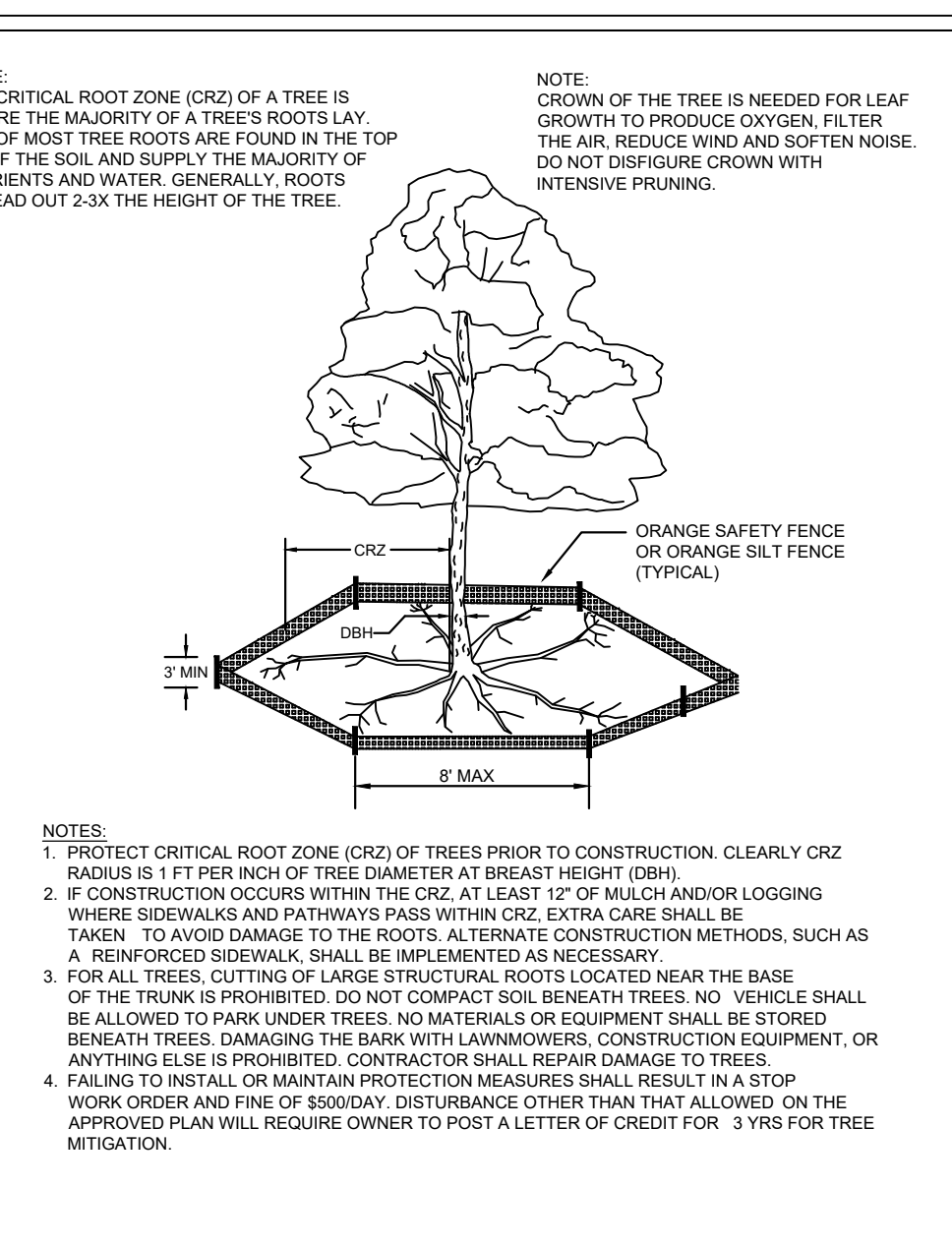
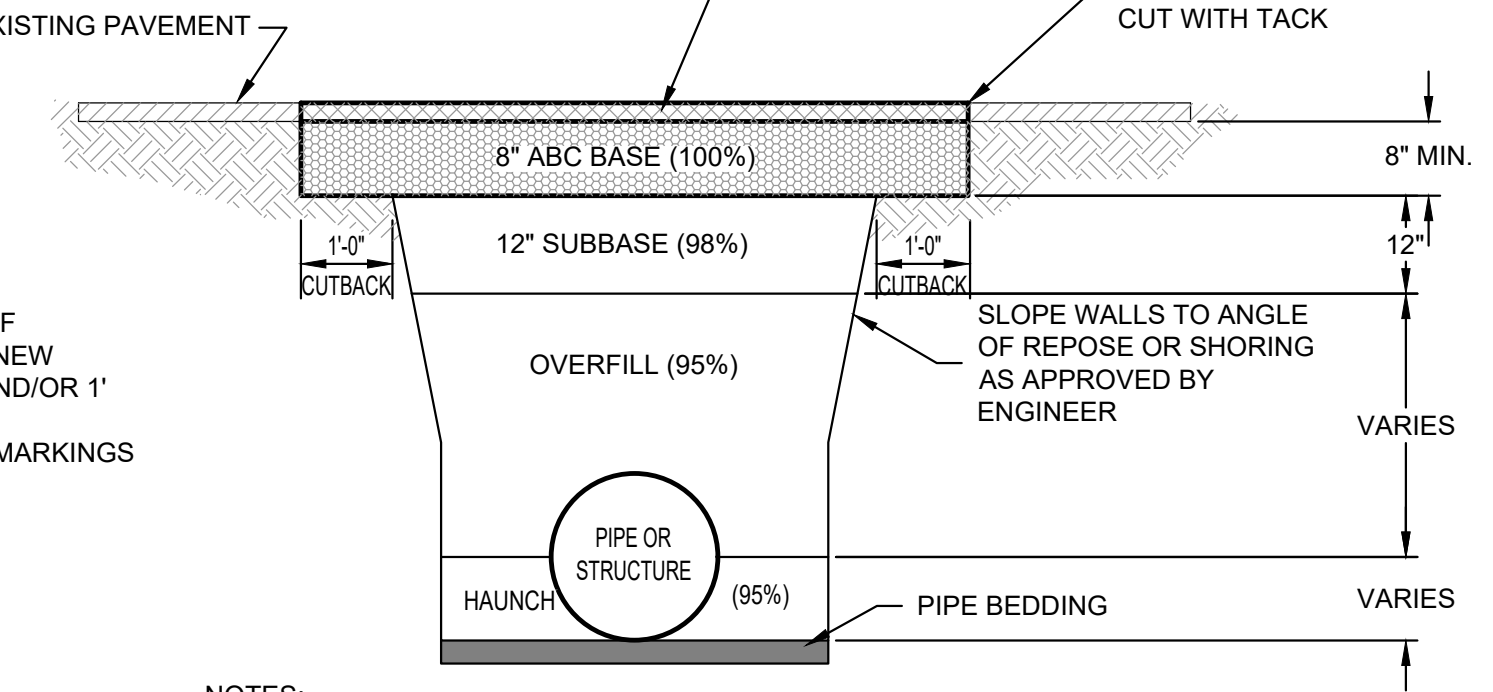
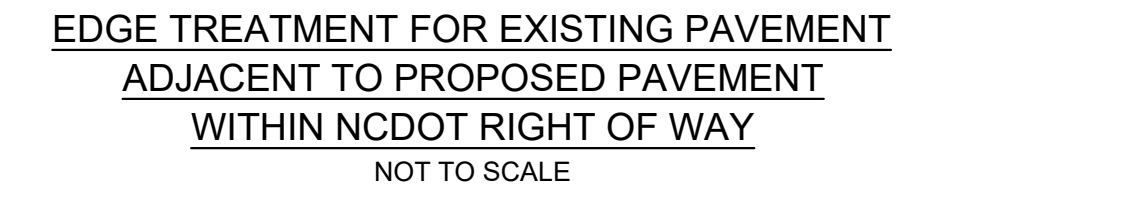
FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)



GENERAL NOTES
ALL PAVEMENT MARKING SYMBOLS SHALL BE WHITE IN COLOR
PAVEMENT MARKING SYMBOLS SHALL NOT BE LOCATED AS TO ENCRUSCH INTO INTERSECTION AREAS
CONCRETE AND CEMENT CONCRETE PAVEMENTS, PAVEMENT MARKING SYMBOLS SHALL NOT BE PLACED ACROSS TRANSVERSE EXPANSION JOINTS UNLESS APPROVED BY THE ENGINEER.

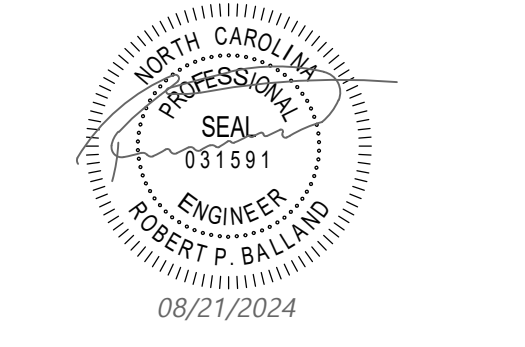


- NOTES:**
- METAL POST AND ALL HARDWARE SHALL BE GALVANIZED STEEL, ASTM A307-90.
 - POST HOLES SHALL BE FILLED WITH GRANULAR BACKFILL IN 3-INCH TO 4-INCH LIFTS, THOROUGHLY HAND TAMP EACH LIFT AND CROWN BACKFILL AT TOP TO SHED WATER.
 - CONCRETE FOR FOOTING SHALL BE PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
 - SIGNS SHALL BE CONSTRUCTED OF ALUMINUM, TYPE 6061-T6 AND IN CONFORMANCE WITH ASTM STD B-209. THICKNESS SHALL BE 0.80 INCHES.
 - TOP EDGE TREATMENT FILM SHALL BE 3" WIDE, CLEAR AND TRANSPARENT WITH A SUB-RESISTANT PRESSURE SENSITIVE NON-YELLOWING ADHESIVE, "SKOTCHCAL" TRANSPARENT FILE #639.
 - REFLECTIVE FACING MATERIAL SHALL BE SCOTCHLITE HIGH INTENSITY, MANUFACTURED BY 3M COMPANY.
 - SIGN LETTERING SHALL BE NPS MODIFIED CLARENDON TYPEFACE. UPPERCASE LETTERS SHALL BE 3.75" HEIGHT AND LOWERCASE LETTERS SHALL BE 2.5" HEIGHT WITH 3.75" SPACING BETWEEN LINES.
 - CORNER RADIUS OF SIGNS SHALL BE 2.5".
 - ARROWS SHALL BE 5.625" LONG BY 3.75" HIGH.
 - MOUNT ON BUILDING OR METAL POST AS DIRECTED.



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NEW HANOVER COUNTY STAR CENTER
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Bid / Permit Set

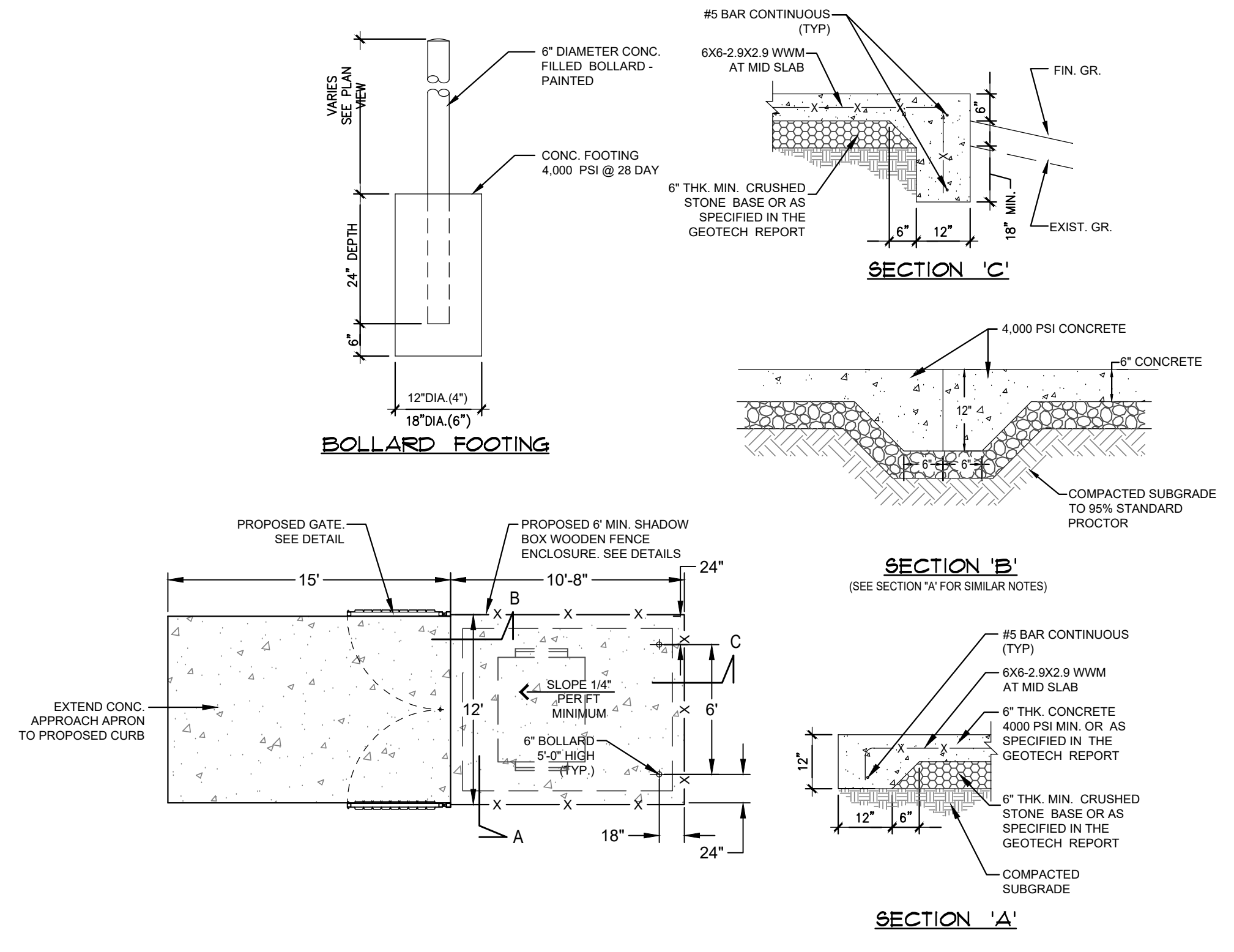
SHEET NAME: DETAILS

ORIG SUBMISSION: 2024.01.17

SHEET: C-4.0

BID / PERMIT SET

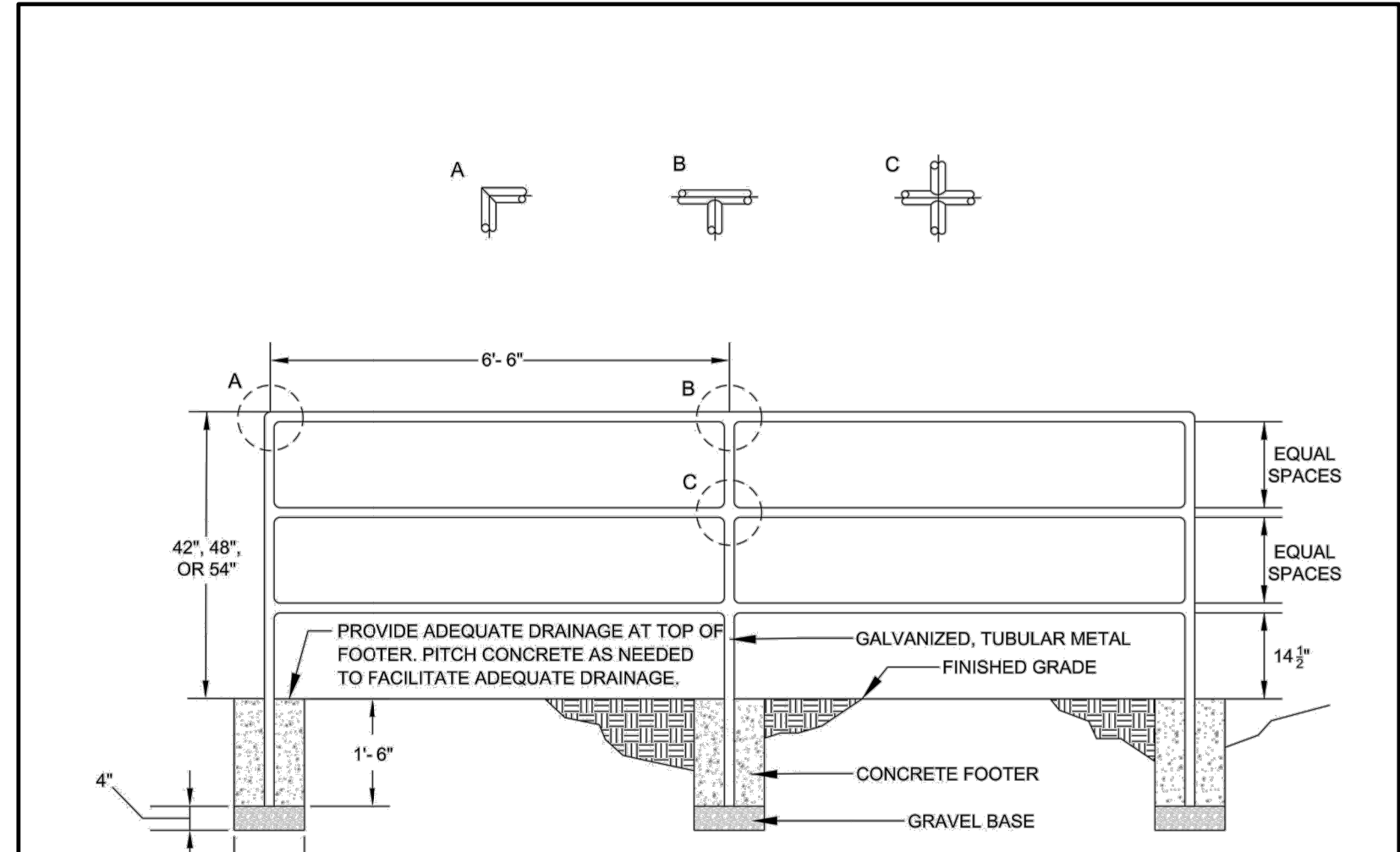
FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)



NOTE II - CONTRACTOR SHALL PROVIDE PHOTOGRAPHIC OR SIMILAR ACCEPTABLE EVIDENCE TO THE OWNER'S CONSTRUCTION MANAGER UPON COMPLETION OF STEEL PLACEMENT.

- NOTES:**
- FOOTINGS SHALL EXTEND 18" MINIMUM BELOW ADJACENT EXISTING GRADE BELOW FROST DEPTHS PER LOCAL CODES. SEE SOILS REPORT FOR ANY ADDITIONAL DESIGN CRITERIA.
 - ENCLOSURE SHALL BE SHADOW BOX FENCE. SEE THIS SHEET FOR DETAILS.

DUMPSTER PAD DETAILS
NOT TO SCALE



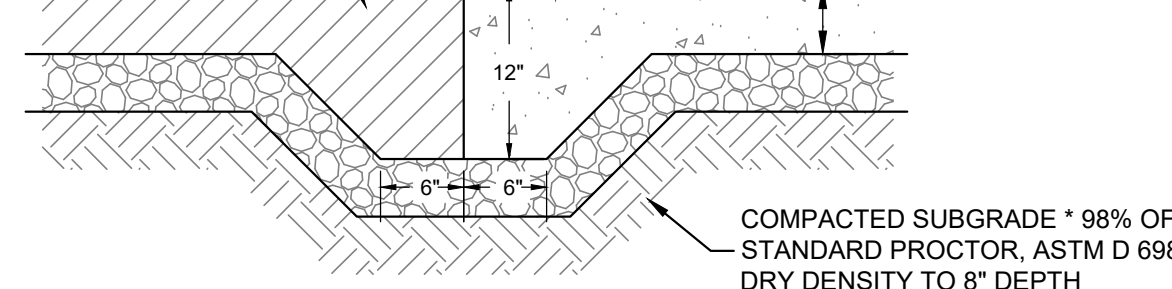
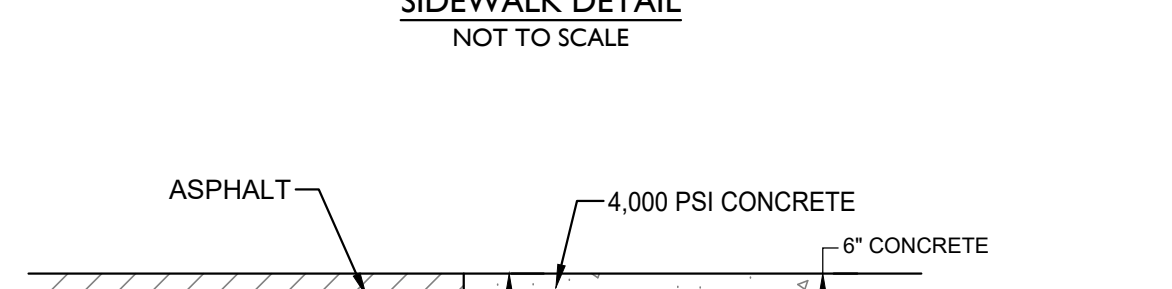
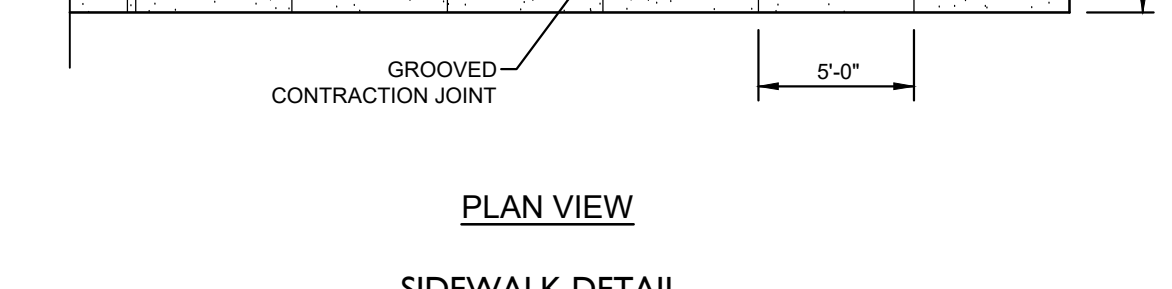
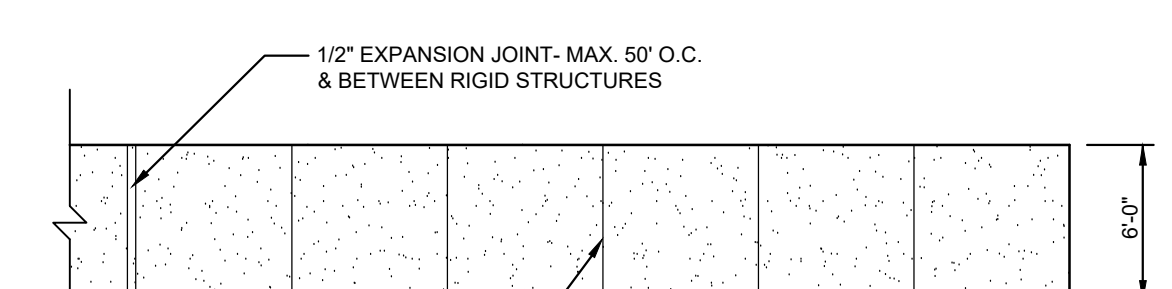
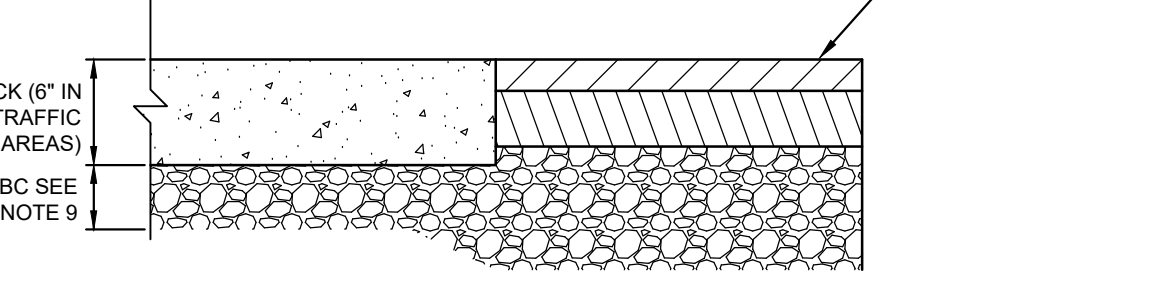
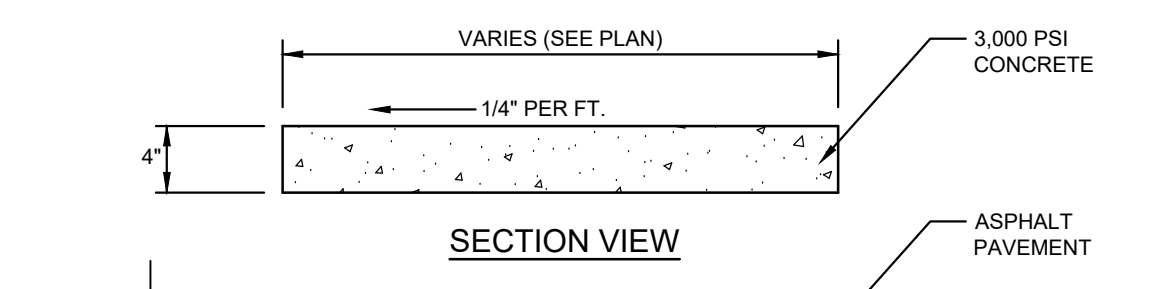
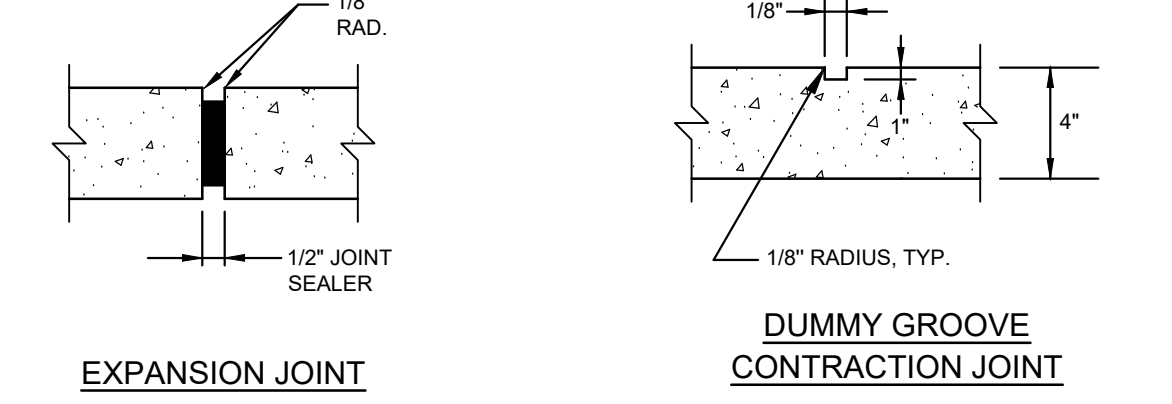
GALVANIZED SAFETY RAILING - VARIABLE HEIGHT

- NOTES:**
- PROVIDE A SAFETY RAIL FOR THE FOLLOWING CIRCUMSTANCES WITHIN 6' OF THE EDGE OF PAVEMENT, WHICH ARE CONSIDERED HAZARDOUS DROP-OFFS:
 - ALL CONCRETE TO BE CLASS 'A' AT 3000 PSI COMPRESSIVE STRENGTH.
 - TYPE OF PIPE TO BE USED IS 1 1/2" MAX O.D. BLACK IRON, LOW CARBON PIPE, OR GALVANIZED.
 - ALL JOINTS TO HAVE A 3/8" FILLET WELD.
 - ALL METAL SHALL BE GALVANIZED.
 - SAFETY RAIL SHALL BE UNIFORM IN HEIGHT ALONG EACH PROPOSED SEGMENT. 42" RAIL HEIGHT SHALL BE THE MINIMUM. 48" RAIL HEIGHT SHALL BE UTILIZED ALONG BRIDGES, BRIDGE APPROACHES, AND AT OTHER LOCATIONS WHERE HIGH-SPEED, STEEP-ANGLE (25 DEGREES OR GREATER) IMPACTS BETWEEN A BICYCLIST AND THE RAILING MAY OCCUR, SUCH AS AT A CURVE AT THE FOOT OF A LONG, DESCENDING GRADE WHERE THE CURVE RADIUS IS LESS THAN THAT APPROPRIATE FOR THE DESIGN SPEED OR ANTICIPATED SPEED. 54" RAIL HEIGHT SHALL BE UTILIZED IN EXTREME CONDITIONS AND WHERE CITY REGULATIONS DICTATE.
 - SAFETY RAIL LATERAL OFFSET FROM EDGE OF PAVEMENT WILL VARY BUT SHOULD BE 1" MINIMUM. THE ENDS OF THE SAFETY RAIL SHOULD BE FLARED AWAY FROM THE PATH EDGE.

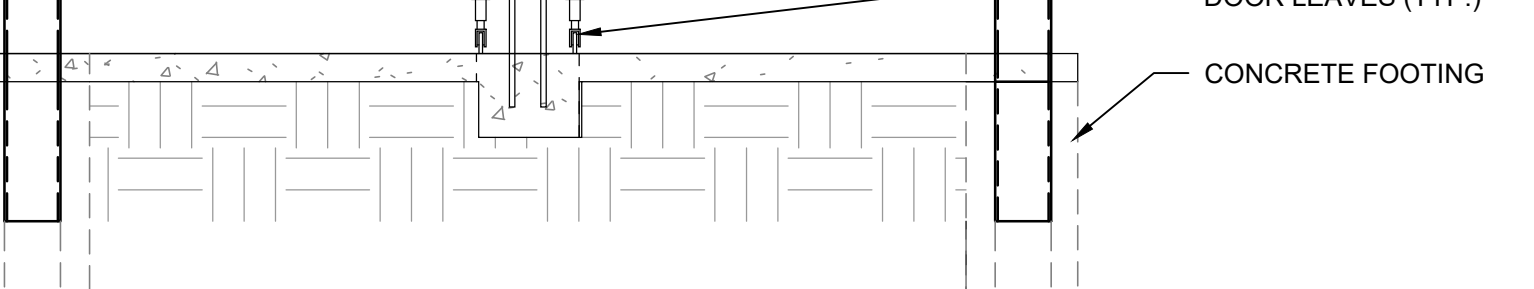
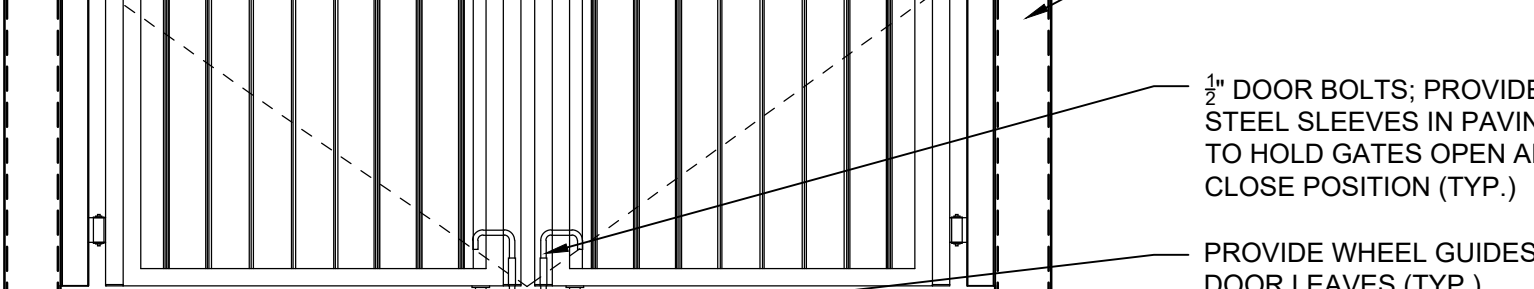
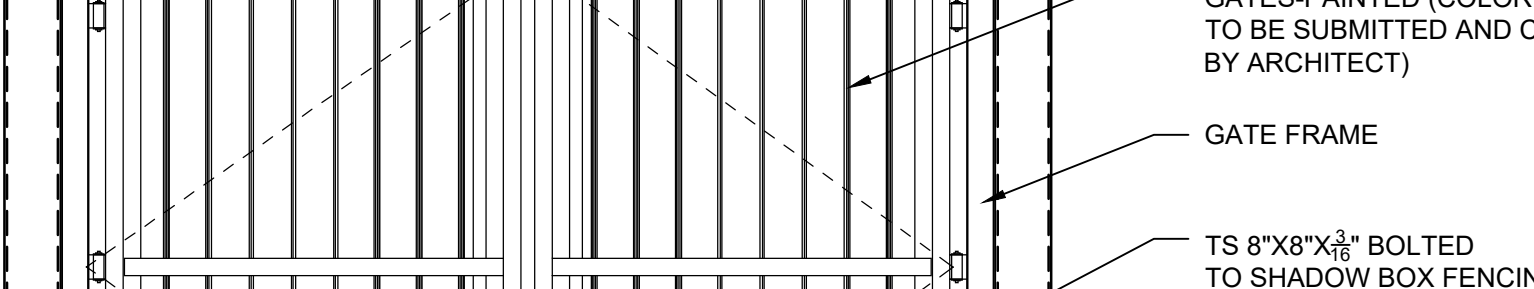
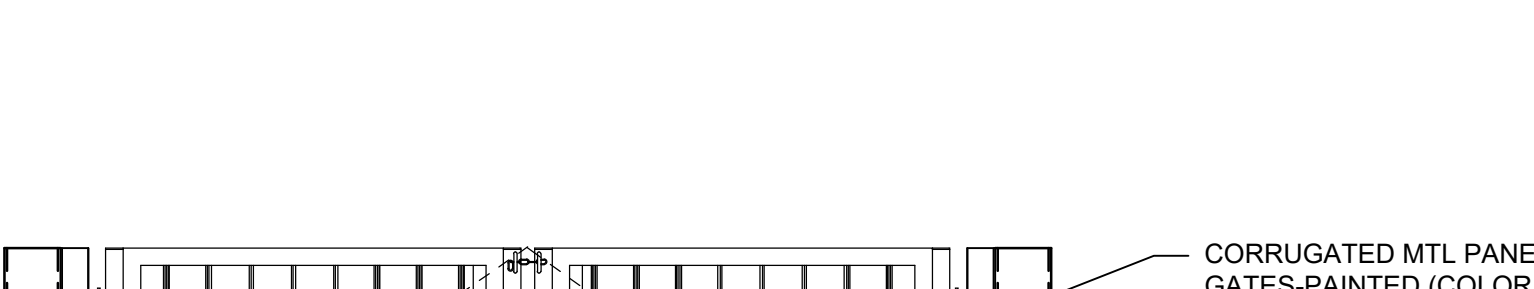
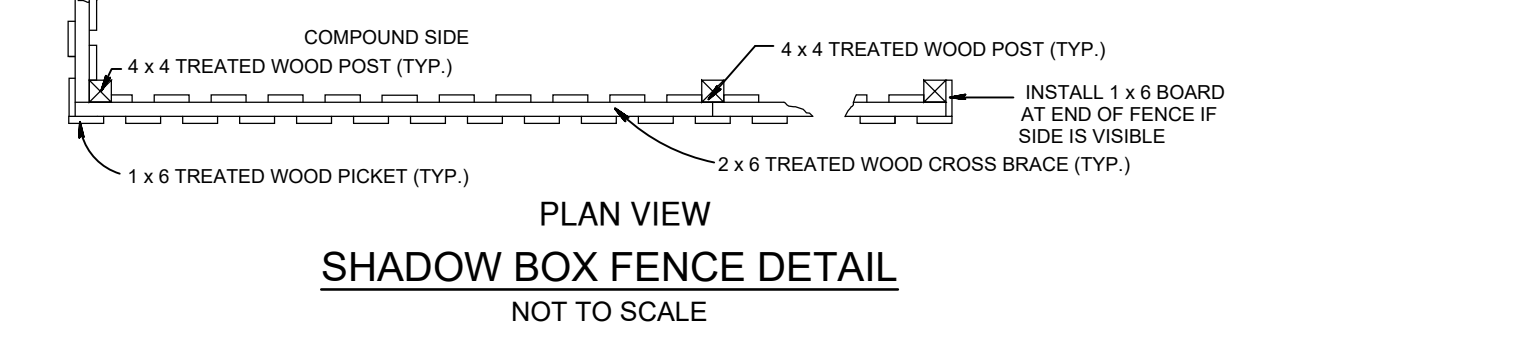
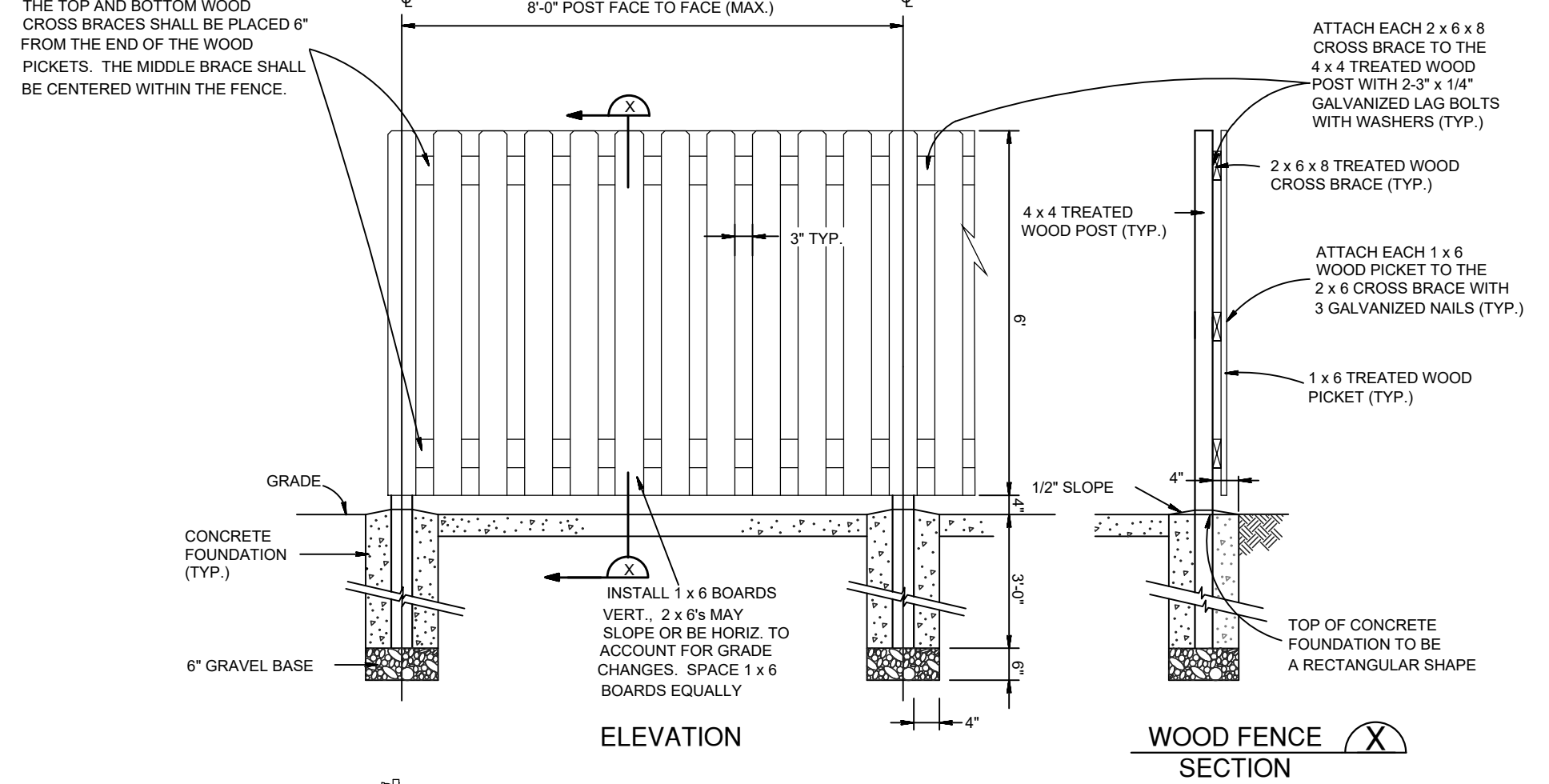
- NOTES:**
- CONTRACTOR SHALL COORDINATE WITH STRUCTURAL ENGINEER TO VERIFY ALL RAILING REQUIREMENTS PRIOR TO CONSTRUCTION.
 - FOOTINGS SHALL EXTEND 18" MINIMUM BELOW ADJACENT EXISTING GRADE BELOW FROST DEPTHS PER LOCAL CODES. SEE SOILS REPORT FOR ANY ADDITIONAL DESIGN CRITERIA.

SAFETY RAILING
NOT TO SCALE

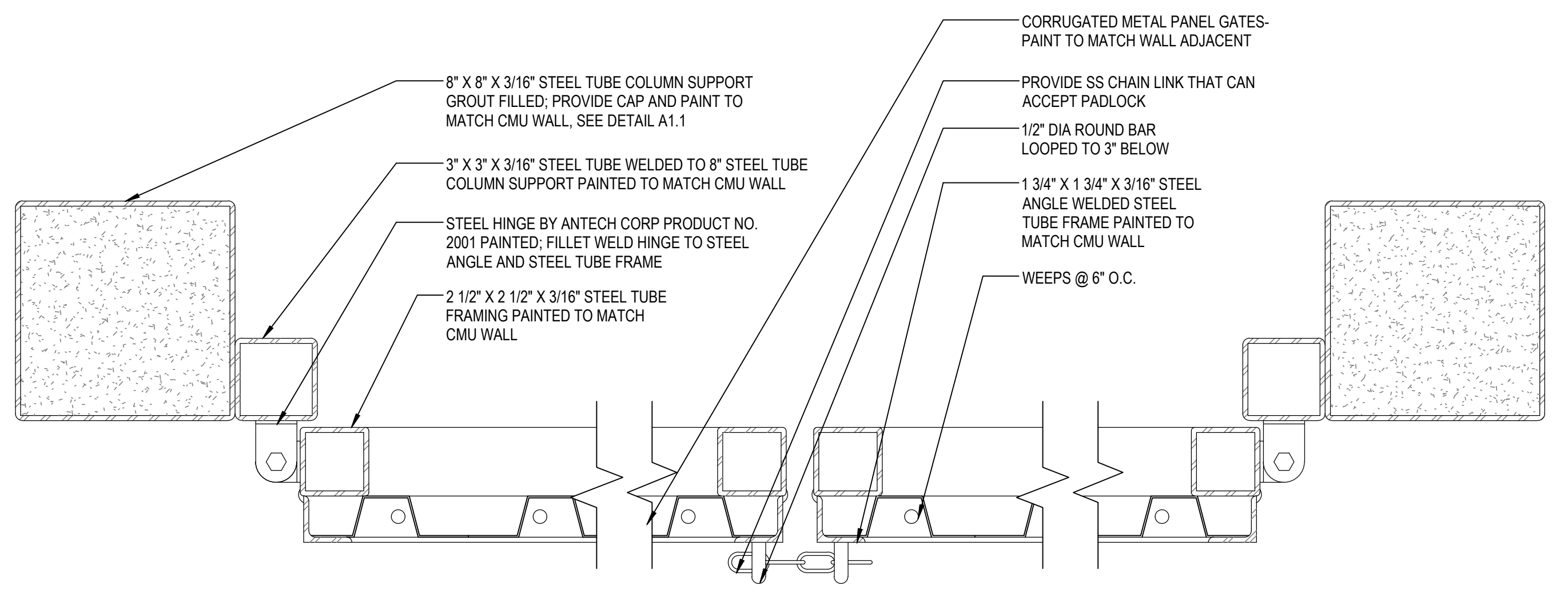
- GENERAL NOTES:**
- A GROOVE JOINT 1" DEEP WITH 1/8" RADI SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 30' INTERVALS NOT TO EXCEED 35' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SEALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
 - SIDEWALK AT DRIVEWAY ENTRANCES AND AS INDICATED TO BE 6" THICK.
 - ALL 6" THICK SIDEWALK TO BE MACRO SYNTHETIC FIBER REINFORCED (20lb./CY).
 - WIDTH OF SIDEWALKS SHALL BE AS NOTED.
 - SIDEWALK TO BE POLURED TO END OF RADIUS AT INTERSECTING STREETS.
 - CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI IN 28 DAYS.
 - ZONING CONDITIONS MAY REQUIRE ADDITIONAL WIDTH SIDEWALKS WHICH SHALL SUPERSEDE THESE STANDARD DIMENSIONS SHOWN.
 - LIGHT BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL.
 - STRUCTURAL SUB-GRADE COMPACTED TO MIN. 98% STD. PROCTOR MAY BE SUBSTITUTED FOR ABC UNDER SIDEWALKS.



ASPHALT TO CONCRETE PAVEMENT TRANSITION
NOT TO SCALE



DUMPSTER GATE - ELEVATION
NOT TO SCALE



DUMPSTER GATE - PLAN VIEW
NOT TO SCALE

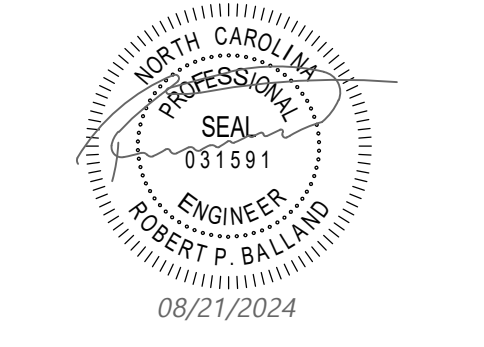


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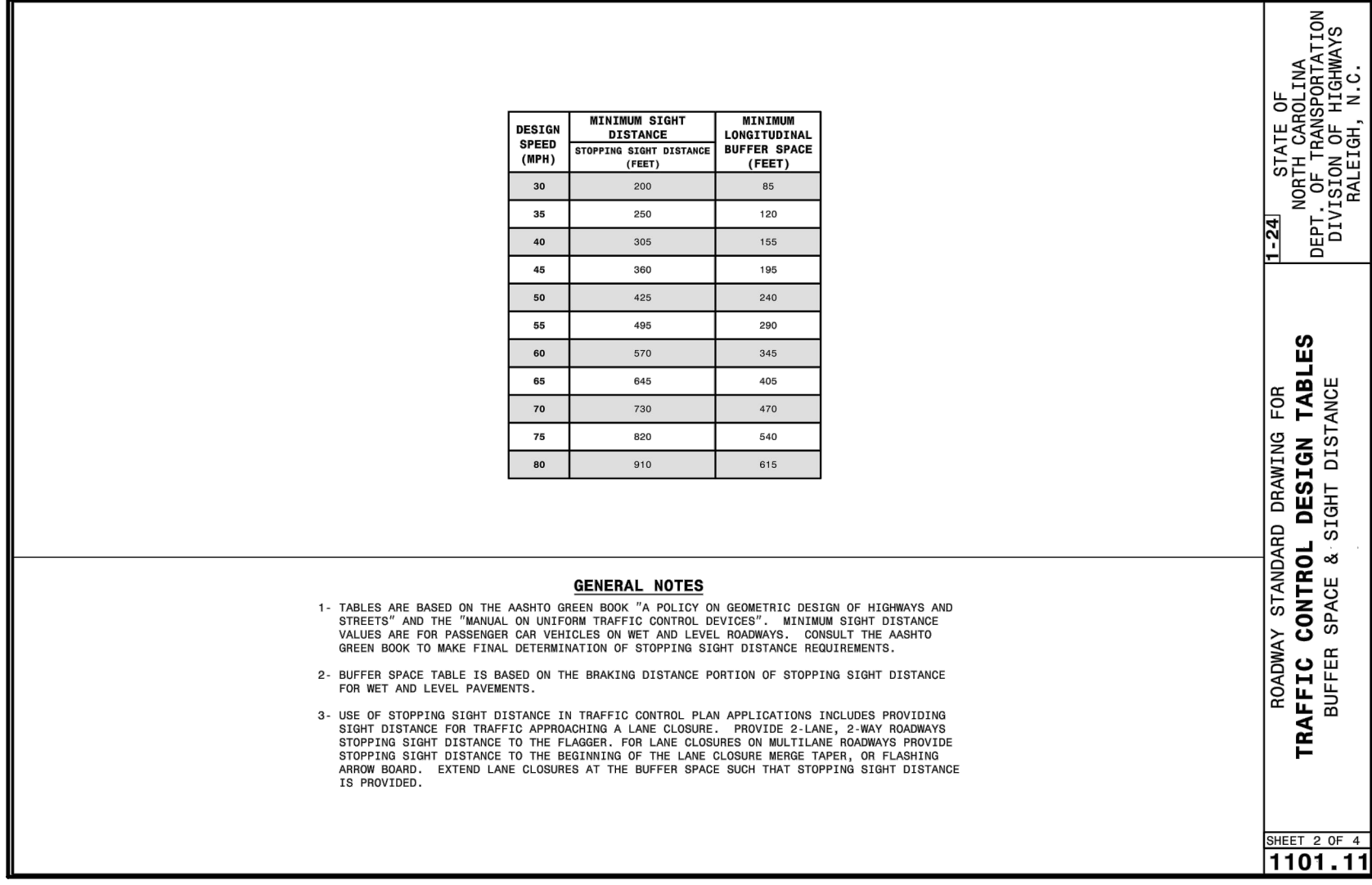
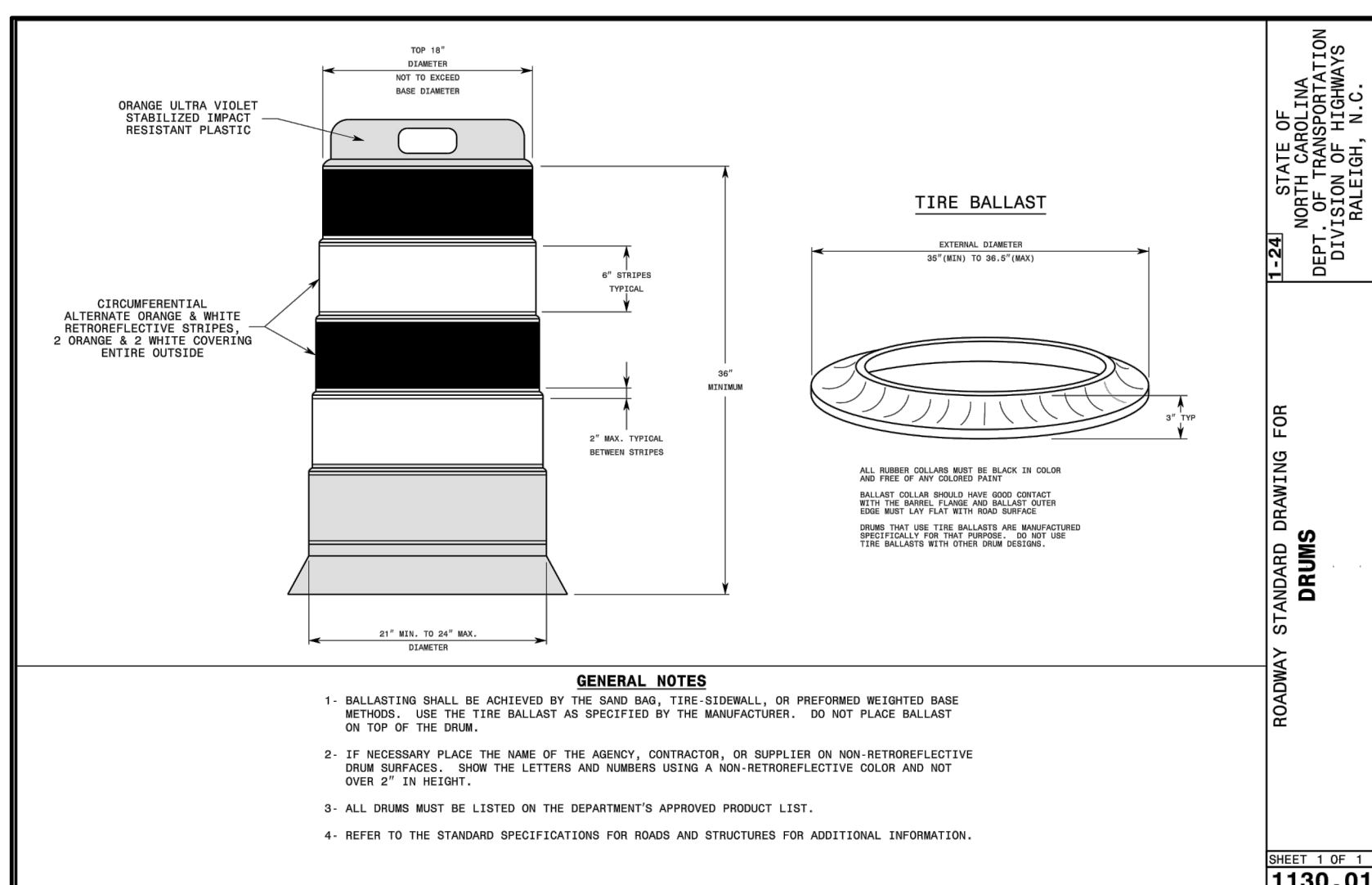
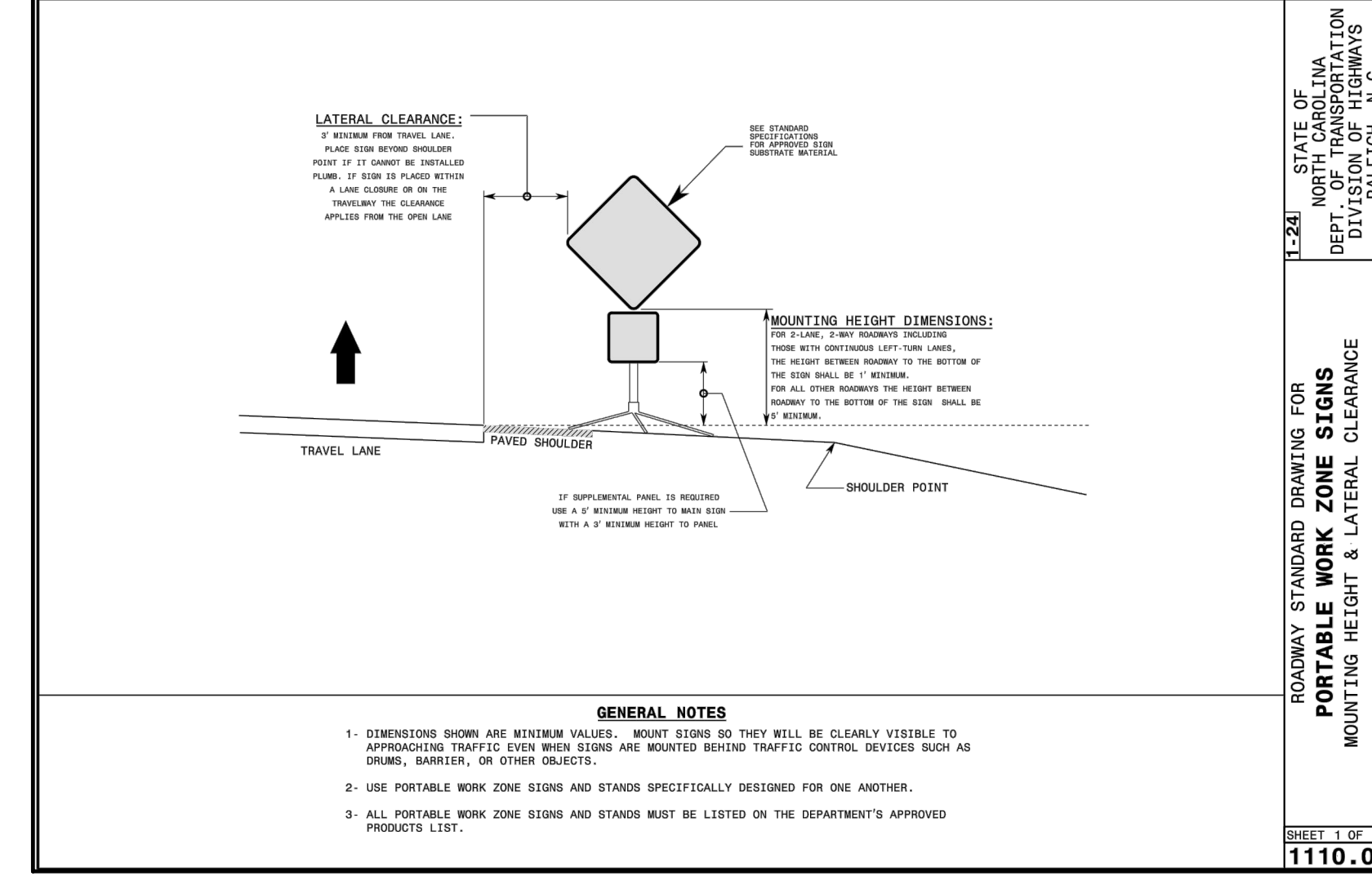
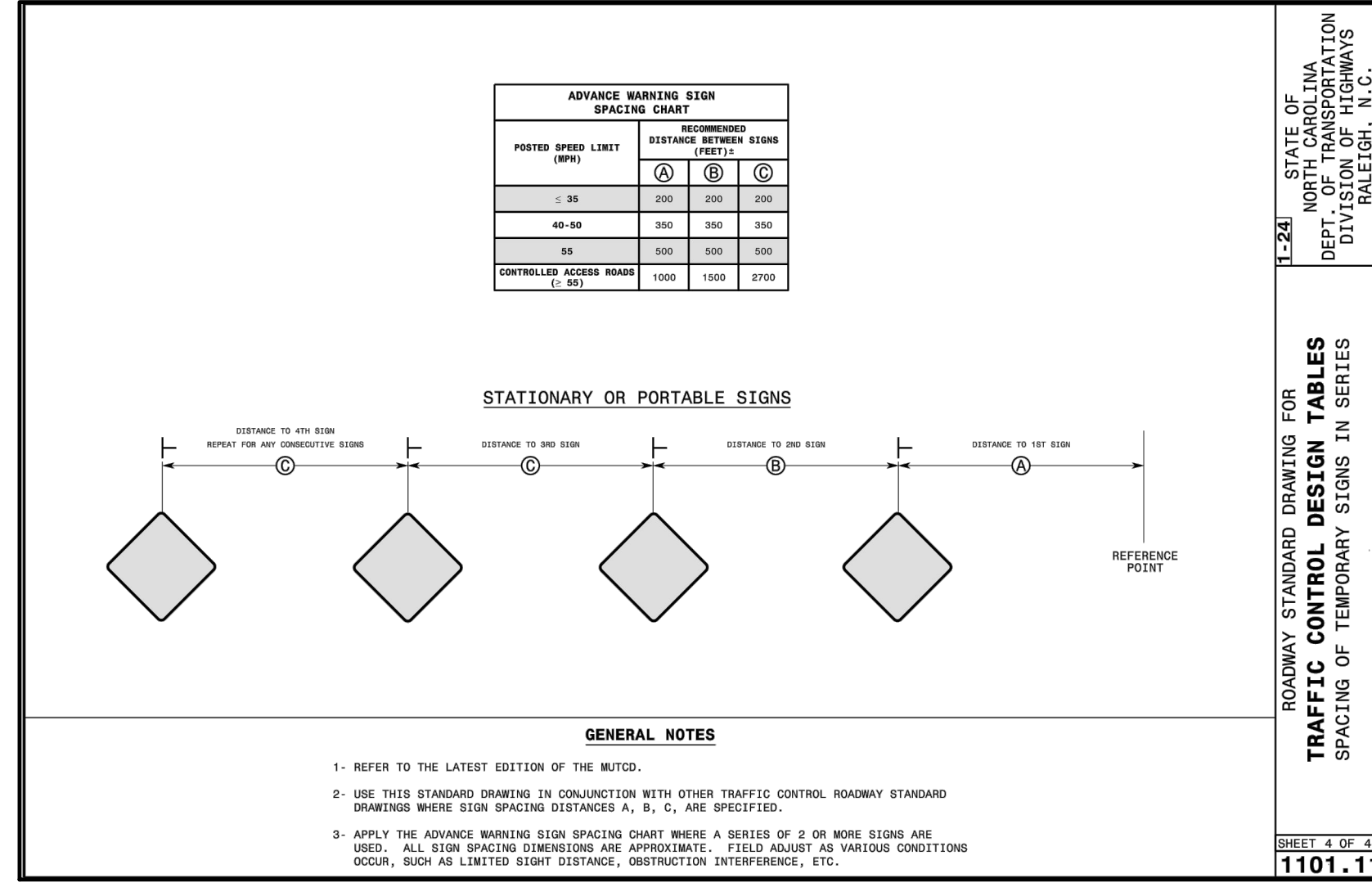
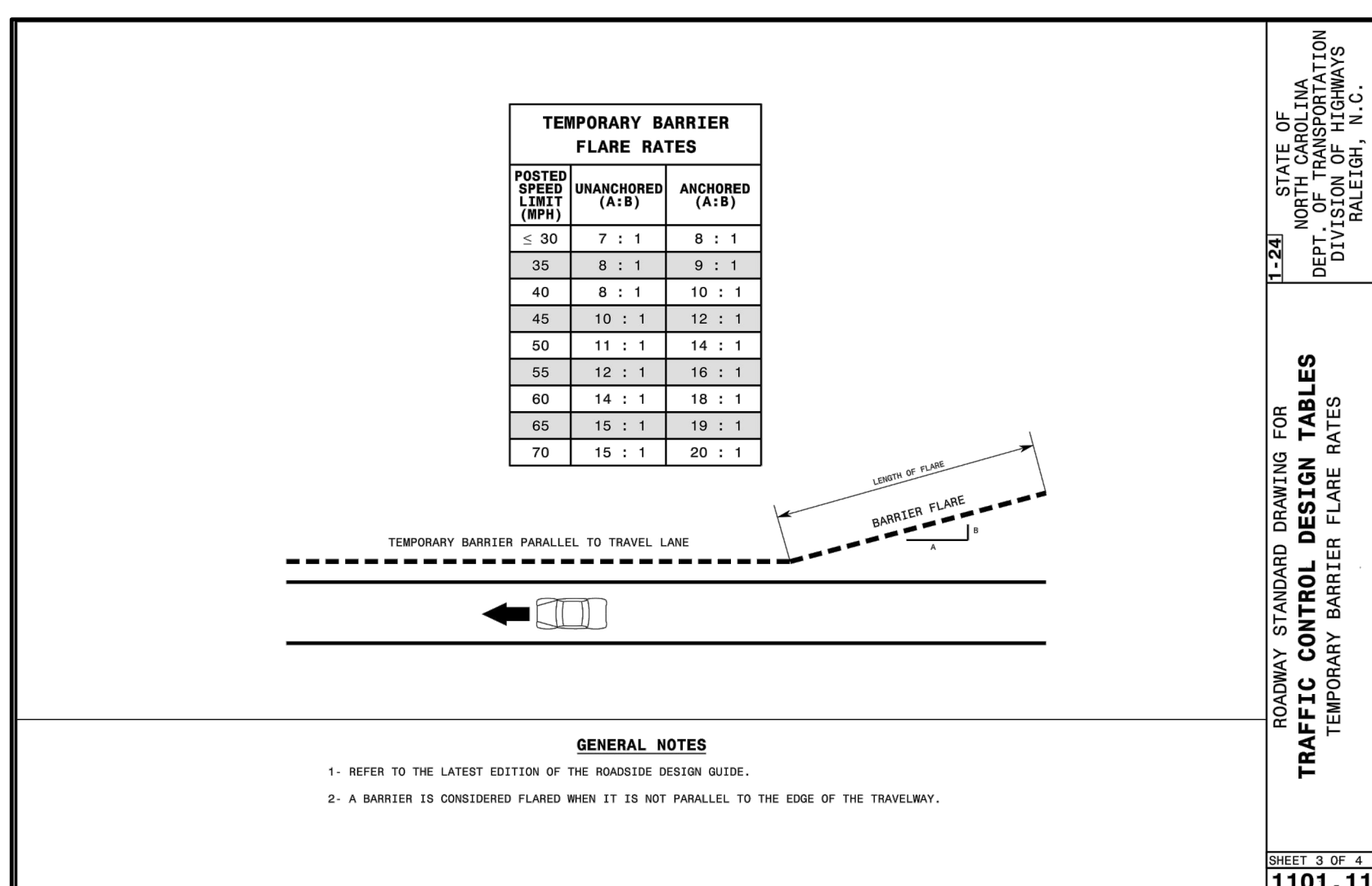
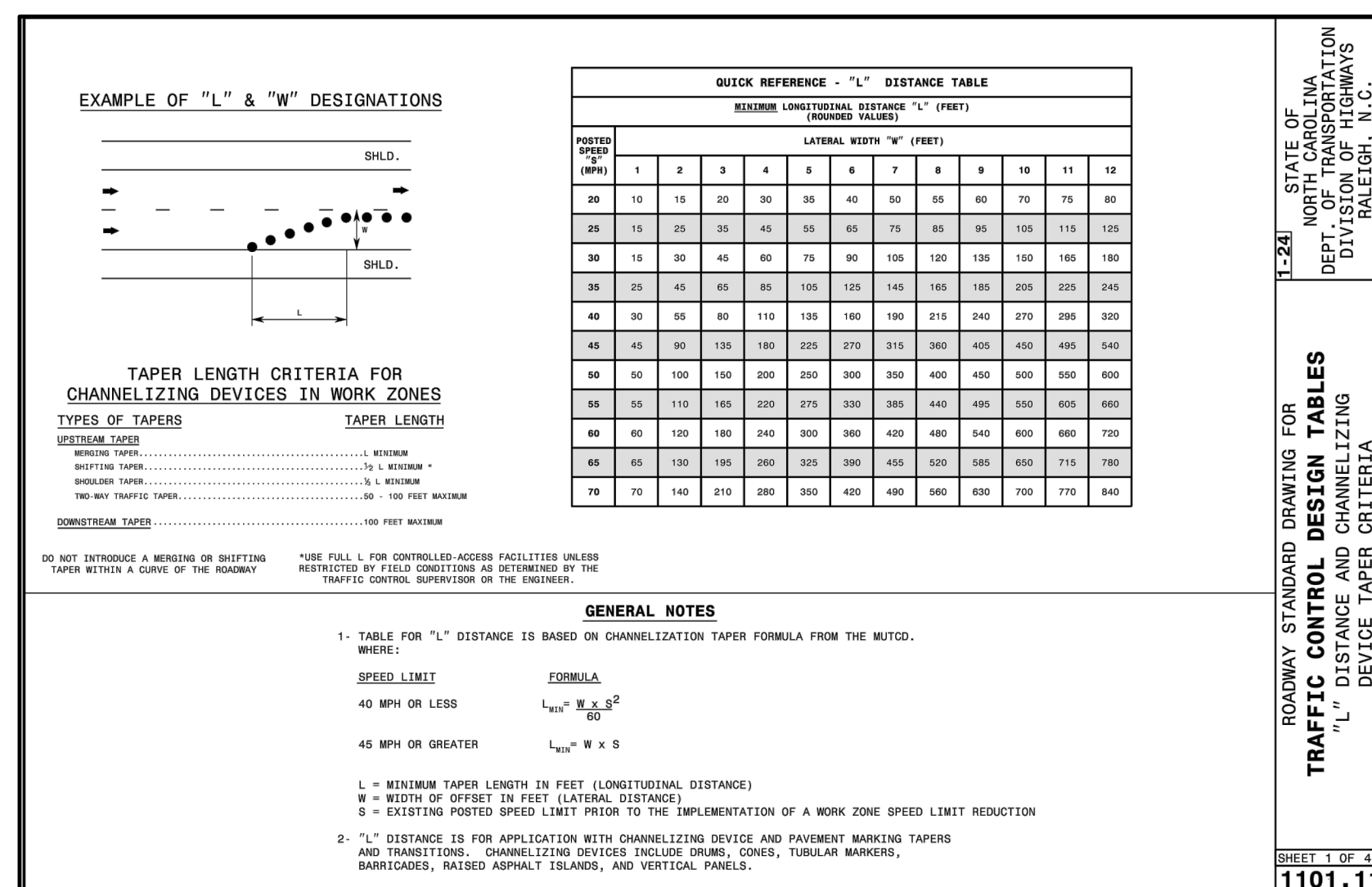
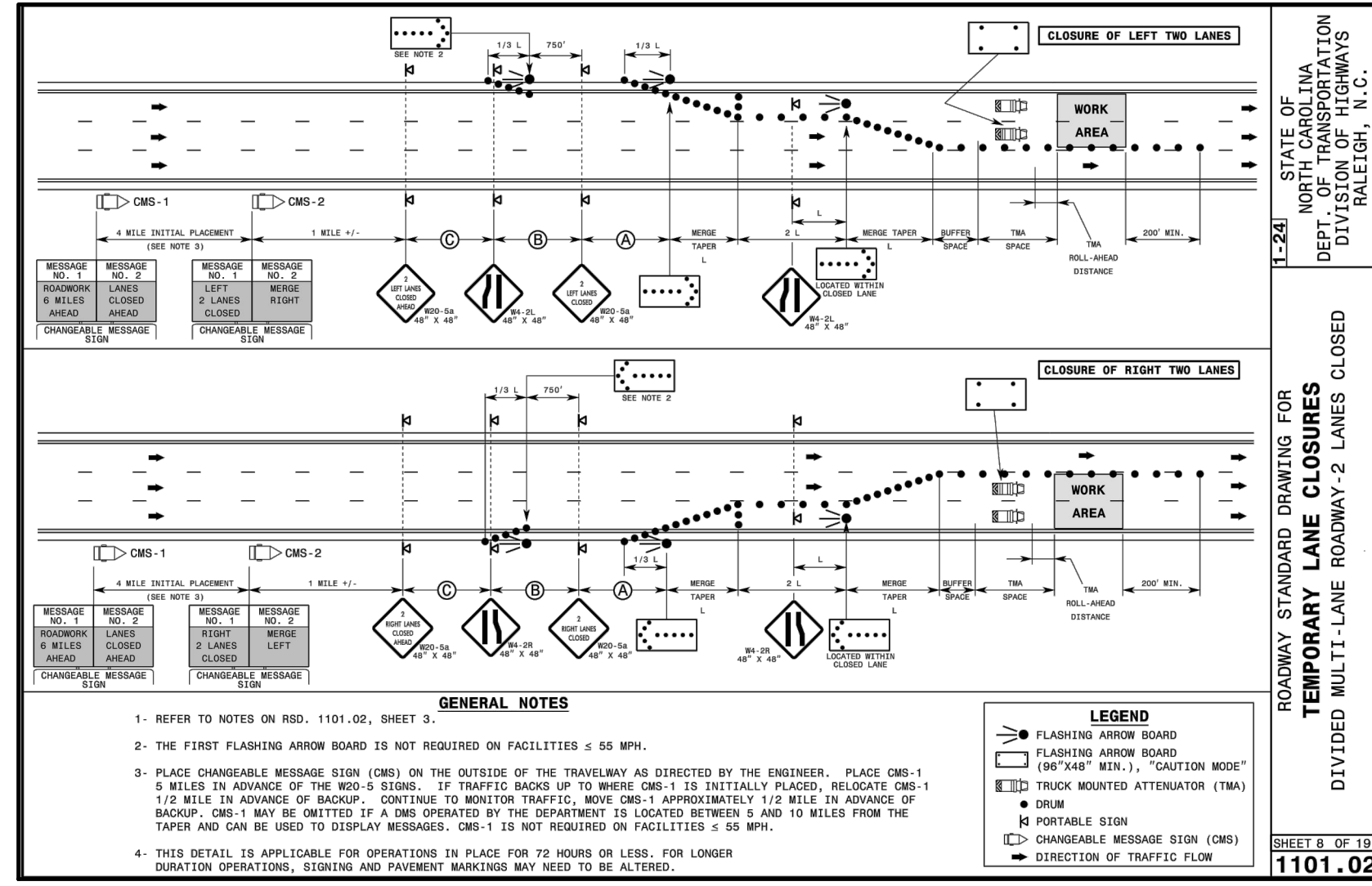
SHEET NAME:
DETAILS

ORIG SUBMISSION: 2024.04.17

SHEET:
C-4.2

BID / PERMIT SET

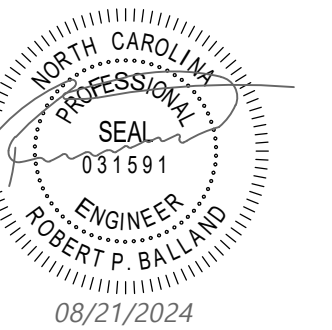
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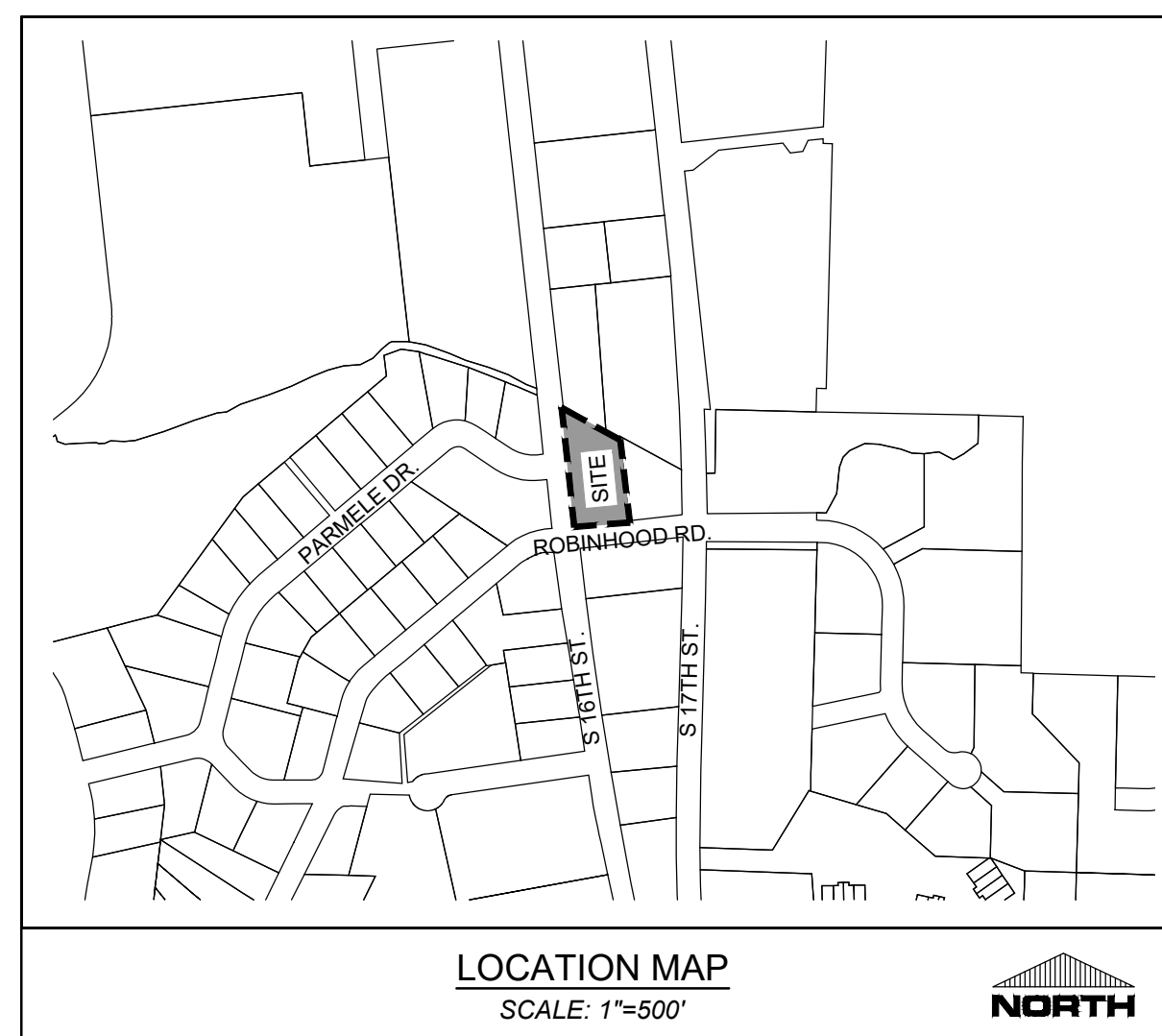
ORIG SUBMISSION: 2024.01.17

SHEET: C-4.3

BID / PERMIT SET

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1/30/2024 9:39:05 AM E D C B A



SITE INFORMATION

PROJECT NAME: NEW HANOVER COUNTY SUBSTANCE ABUSE CENTER

OWNER INFORMATION: NEW HANOVER COUNTY 205 GOVERNMENT CENTER DR. WILMINGTON, NC 28403

PROJECT ADDRESS: 1605 ROBIN HOOD RD. WILMINGTON, NC 28401

TAX PARCEL IDENTIFICATION #: R05419-005-001-001

RECORDED DEED BOOK: D86624, PG 264

CURRENT ZONING: O&I-1 (OFFICE & INDUSTRIAL)

EXISTING USE: 806-NURSING HOME

PROPOSED USE: 801-MEDICAL SERVICES CHEMICAL DEPENDENCY TREATMENT FACILITY

TOTAL SITE AREA: 0.88 ACRE

CAMALAND USE CLASSIFICATION: URBAN

CONSERVATION DISTRICT: FRESHWATER FORESTED / SHRUB WETLAND (PFO4AD)

CONSERVATION DISTRICT SETBACK: 404 USACE WETLANDS, 30' SETBACK

BUILDING DATA

NUMBER OF BUILDINGS: 1 (EXISTING TO REMAIN)

NUMBER OF STORIES: 1 STORY

TOTAL BUILDING AREA (FOOTPRINT): 13,931 SQ. FT. (NO CHANGE IN GSF)

PARKING STANDARDS

STANDARD: (1) SPACE PER 2 BEDS
PLUA (1) SPACE PER EMPLOYEE ON TYP. SHIFT

REQUIRED: 36 BEDS / 2 = 18 SPACE
10 EMPLOYEES = 10 SPACES
TOTAL REQUIRED: 28 SPACES

PROVIDED: 12 SPACES (INCLUDES 1 ADA VAN SPACE)
ADDITIONAL PARKING AVAILABLE ON ADJACENT PARCEL: RHA HEALTH SERVICES, 1920 16TH STREET, WILMINGTON, NC 28401

FLOOD NOTES

PORTIONS OF THE SUBJECT PARCEL LIE WITHIN FLOOD ZONE X (MINIMAL FLOOD RISK), FLOOD ZONE AE AND FLOODWAY AS INDICATED BY FEMA FLOOD ZONE PANEL 3127, MAP NUMBER 3720312700K, BEARING AN EFFECTIVE DATE OF AUGUST 28, 2018.

FLOOD SOURCE: GREENFIELD LAKE NORTH BRANCH

DIMENSIONAL REQUIREMENTS

O&I - OFFICE AND INSTITUTIONAL ZONING DISTRICT

MINIMUM LOT AREA: 15,000 SF

MINIMUM LOT WIDTH: 80'

FRONT SETBACK: 20'

SIDE INTERIOR SETBACK: 0'

SIDE STREET SETBACK: 20'

REAR SETBACK: 20'

MAXIMUM BUILDING HEIGHT: 45'

MAXIMUM BUILDING FOOTPRINT: 40%

PROPOSED BUILDING SETBACKS: N/A (NO CHANGES - NO STRUCTURE PROPOSED)

LANDSCAPE NOTES

- CONTRACTOR SHALL INCLUDE AND PROVIDE FOR ALL DISTURBED AREAS TO BE SEEDED FOR EROSION CONTROL REQUIREMENTS AND/OR RE-ESTABLISHMENT OF TURF AREAS OR LANDSCAPE AREAS AS PART OF THIS PROJECT'S SCOPE OF WORK
- SEED SHALL BE APPLIED BY QUALIFIED HYDROSEED CONTRACTOR OR LANDSCAPE CONTRACTOR.
- INCLUDE TACKIFIER IN HYDROSEED / MULCH SLURRY MIX. DEPENDING ON ENVIRONMENTAL WEATHER CONDITIONS, FOLLOW UP WITH TOP-DRESSING OF SEEDING STRAW TO HYDROSEED AREAS TO ASSIST WITH MOISTURE RETENTION, EROSION CONTROL AND GERMINATION. USE HAY OR SMALL GRAIN STRAW MULCH, AT LEAST 50% OF STRAW SHALL BE (10) TEN INCHES LONG, MIN. AND FREE OF MOLD, FUNGUS, NOXIOUS WEED SEED, SEED OF OTHER COMPETITIVE PLANTS OR OTHER FOREIGN MATERIAL. USE STRAW TO REDUCE EROSION IF HEAVY RAINS AND WINDS OCCUR, OR TO RETAIN MOISTURE IF WEATHER CONDITIONS ARE EXCESSIVELY DRY AND HOT DURING TURF GERMINATION AND ESTABLISHMENT. CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT AND HEALTHY GROWTH OF TURF AS REQUIRED. FAILURE TO ESTABLISH TURF BY THE DATE OF FINAL ACCEPTANCE WILL EXTEND DATE OF FINAL ACCEPTANCE UNTIL SUCH TIME AS LAWN IS RE-SEEDED AND DEEMED ACCEPTABLE BY OWNER'S PROJECT MANAGER.
- THE CONTRACTOR SHALL PREPARE ALL SEEDED AREAS IN A MANNER TO ACCEPT SEED. AREAS SHOULD SCARIFIED BY RAKE OR OTHER MEANS AND BE FREE OF DIPS OR UNLEVEL GROUND.
- ALL SEEDED AREAS MUST BE WATERED BY HAND OR TEMPORARY MECHANICAL MEANS BY CONTRACTOR TO SUPPORT GERMINATION AND HEALTHY GROWTH OF TURF UNTIL FINAL PROJECT ACCEPTANCE - SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.
- RESTORATION OF FIELD TURF / SOD IS EXCLUDED FROM THE SCOPE OF WORK AND SHALL BE DONE BY OTHERS. CONTRACTOR IS RESPONSIBLE FOR ALL RE-ESTABLISHMENT OF ALL TURF AREAS OR EXISTING LANDSCAPING THAT IS DISTURBED AS A RESULT OF THIS PROJECT AND LOCATED OUTSIDE OF THE PERIMETER FIELD FENCING.
- CONTRACTOR SHALL PROVIDE NEW OR MAKE ADJUSTMENTS TO THE EXISTING IRRIGATION SYSTEM (WHERE EXISTS) TO PROVIDE 100% COVERAGE OVER ALL LANDSCAPE OR TURF (SEED OR SOD) AREAS INCLUDED IN THIS PROJECT.

LEGEND

---	BOUNDARY LINE
- - - -	ADJ. BOUNDARY LINE
SS	SEWER LINE
W	WATER LINE
- - - -	EXISTING CONTOUR
⊕	FIRE HYDRANT
⊙	STREET LIGHT
⊗	SANITARY SEWER MANHOLE
⊕	CATCH BASIN
⊕	CURB INLET
⊕	WATER VALVE
▨	CONCRETE SIDEWALK
▨	HEAVY DUTY CONCRETE SECTION
▨	ASPHALT PAVING
▨	TURFBLOCK
⊗	TREE PROTECTION FENCING
X	EXISTING TREE TO BE REMOVED

GENERAL NOTES:

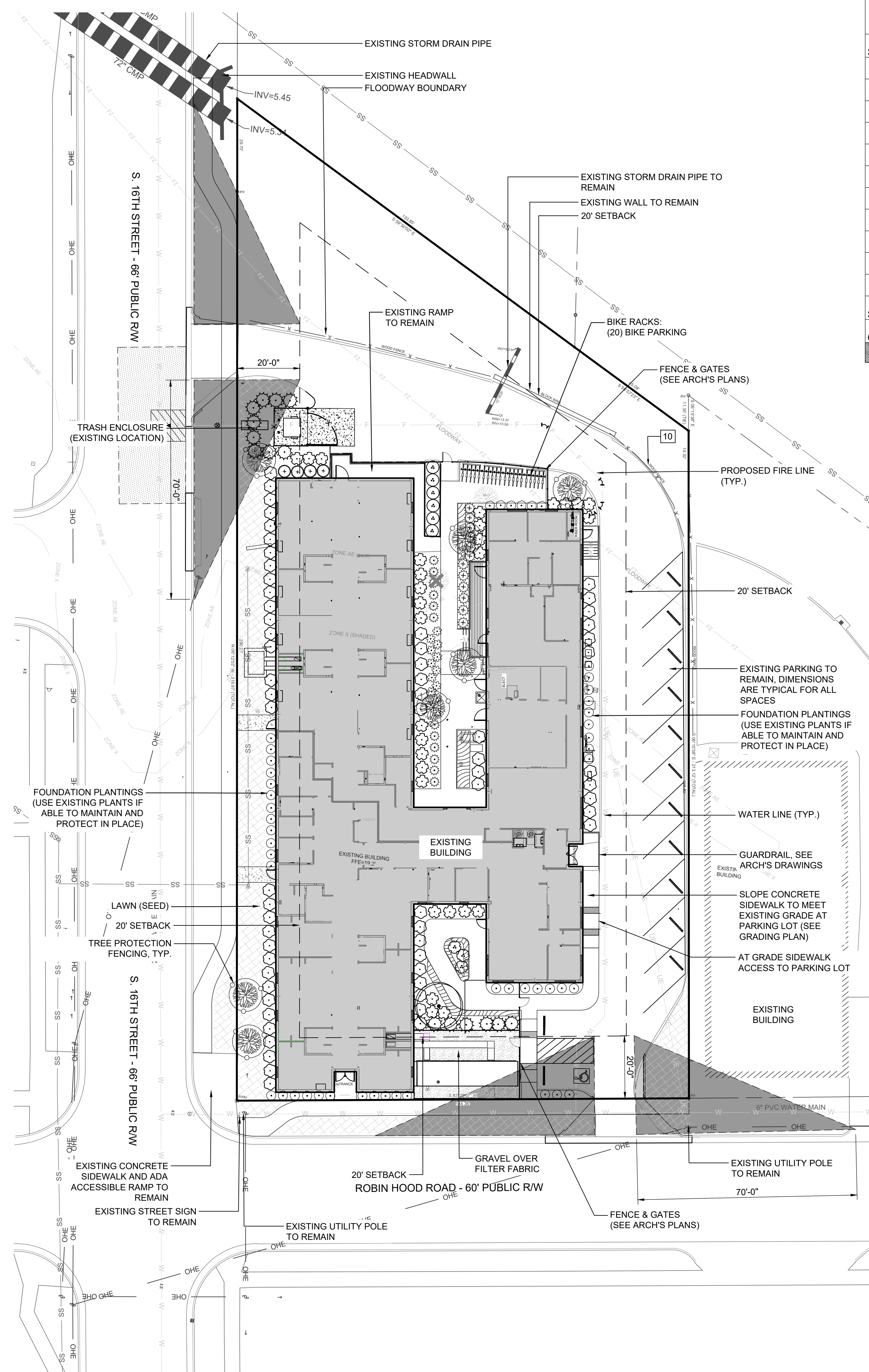
- ALL EXTERIOR SIGNS TO BE PERMITTED SEPARATELY AND SHALL COMPLY WITH SECTION 5.6 AND 3.5.3 OF THE UDC.
- ALL EXTERIOR LIGHTING SHALL COMPLY WITH SECTION 5.5 OF THE UDC.
- NO CONSERVATION AREAS EXIST ON THE SITE.
- TRIP GENERATION IS LESS THAN 100 PEAK HOUR TRIPS. A TRAFFIC IMPACT ANALYSIS IS NOT REQUIRED.

WASTE DISPOSAL

WASTE DISPOSAL WILL BE PROVIDED WITH A CENTRAL DUMPSTER LOCATION. THIS LOCATION HAS BEEN NOTED ON THE PLAN. ALL TRASH-HANDLING AND RELATED EQUIPMENT SHALL BE COMPLETELY ENCLOSED AND SCREENED WITH AN OPAQUE FENCE OR WALL. THE ENCLOSURE SHALL BE AT LEAST ONE (1) FOOT TALLER THAN THE HIGHEST POINT OF THE TRASH RECEPTACLE.

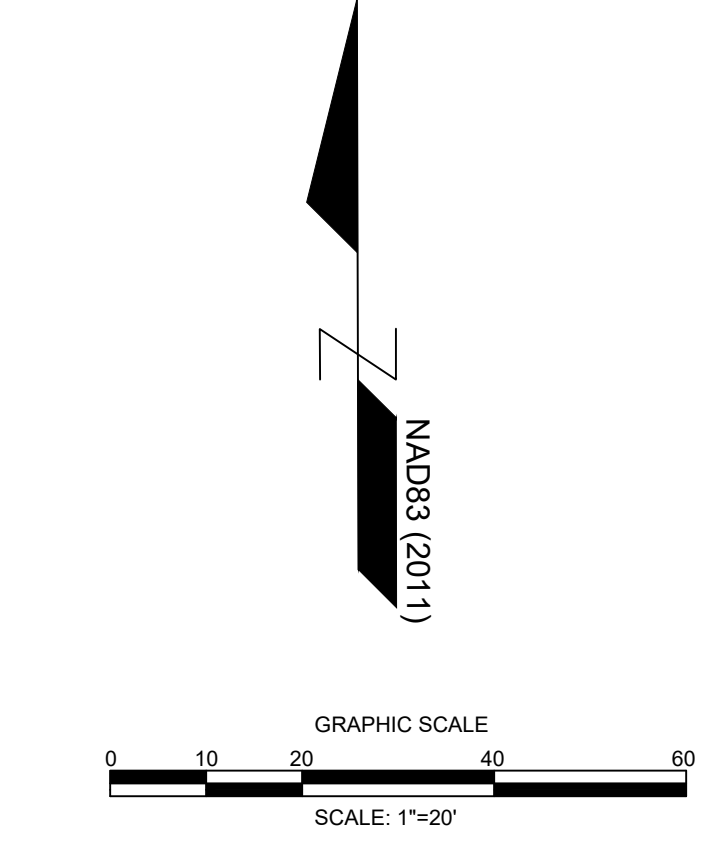
LANDSCAPING FOR EXPANSIONS TO EXISTING PRINCIPAL STRUCTURES OR USES:

THE PROPOSED EXPANSION RESULTS IN NO ADDITIONAL GROSS SQUARE FLOOR AREA. THE EXISTING PARKING FIELD IS NOT INCREASING SF OF VEHICULAR USE AREA OR NUMBER OF PARKING SPACES. FOUNDATION PLANTINGS WILL BE PROVIDED WHERE EXISTING SHRUBS THAT REMAIN IN PLACE DO NOT MEET THE CITY REQUIREMENTS. THE PROPOSED TRASH ENCLOSURE IS PROPOSED IN THE LOCATION OF THE EXISTING TRASH BIN. NEW LANDSCAPING AND WALLS WILL BE PROVIDED TO MEET CODE.



PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	MIN. SIZE AT INSTALL
TREES			
⊙	1	LAGERSTROEMIA INDICA X FAURIEI 'MUSKOGEE' MUSKOGEE CRAPE MYRTLE	8' HT. SINGLE TRUNK
SHRUBS			
⊙	42	ABELIA X GRANDIFLORA 'FRANCIS MASON' FRANCIS MASON GLOSSY ABELIA	7 GAL
⊙	6	ASPIDISTRA ELATOR CAST IRON PLANT	3 GAL
⊙	4	FATSIA JAPONICA JAPANESE ARALIA	7 GAL
⊙	6	GARDENIA JASMINOIDES 'FROSTPROOF' FROSTPROOF GARDENIA	7 GAL
⊙	13	HEMEROCALLIS X 'HAPPY RETURNS' HAPPY RETURNS DAYLILY	3 GAL
⊙	29	HYDRANGEA MACROPHYLLA 'HORTMABLO' SEASIDE SERENADE® CAPE LOOKOUT HYDRANGEA	7 GAL
⊙	61	LOROPETALUM CHINENSE RUBRUM 'DARUMA' DARUMA FRINGE FLOWER	7 GAL
⊙	12	NANDINA DOMESTICA 'FIREPOWER' FIREPOWER HEAVENLY BAMBOO	7 GAL
⊙	12	PITTOSPORUM TOBIRA 'DWARF VARIEGATA' DWARF VARIEGATED PITTOSPORUM	7 GAL
⊙	16	PODOCARPUS MACROPHYLLUS YEW PODOCARPUS	6' HT.
⊙	3	ROSA FLORIBUNDA 'BRILLIANT PINK' FLORIBUNDA ROSE	7 GAL
GROUND COVERS			
▨	109	LIRIOPE MUSCARI LILYTURF	1 GAL @ 18" O.C.



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SHEET NAME:
LANDSCAPE PLAN

ORIG SUBMISSION: 2024.04.17

SHEET:
L-1.0

BID / PERMIT SET

FINAL DESIGN - RELEASED FOR CONSTRUCTION (ON SITE IMPROVEMENTS ONLY)

1.0 CODES AND STANDARDS:

- 1.1 "2018 North Carolina State Building Code" and "International Building Code", 2015.
- 1.2 "Minimum Design Loads for Buildings and other Structures" SEIASC 7-16.
- 1.3 "Building Code Requirements for Structural Concrete (ACI 318-14)" American Concrete Institute 2014.
- 1.4 "Manual of Standard Practice", Concrete Reinforcing Steel Institute, latest edition.
- 1.5 "Specification for the Design of Cold-Formed Steel Structural Members", American Iron and Steel Institute (AISI), S100-12.

2.0 DESIGN LOADS:
Project Located in: City of Wilmington, County of New Hanover, State of North Carolina.

2.1 Gravity Loads: (Reduced where allowed)

GRAVITY LOADS		
Location	Uniform (psf)	Concentrated (lbs) (Over 2.5x2.5)
Roof Loads:		
Dead Load	20	
Live Load	20	300
Floor Loads:		
Dead Load	55	
Floor Live Loads:		
Ground Floor	100	

2.2 Drifting Snow Loads per Referenced Code:

$P_g = 10 \text{ psf}$
 $I = 1.0$
 $C_e = 0.9$
 $C_t = 1.0$

2.3 Risk Category = II

2.4 Wind Loads per Referenced Code:

Basic Design Wind Speed:
 Sspeed Gust PER ASCE
 $V = 144 \text{ mph}$
 Exposure "B"

Main Wind Force Resisting System:
 Building is enclosed & Internal Pressure coefficient (GCp) = +0.18 & -0.18
 Topographic Factor Kzt = 1.0
 Wind Directionality Factor, Kd = 0.85

Calculated Wind Base Shear (For MWFRS)
 $V_x = NA$ $V_y = NA$

Per Section 3404 Alterations to existing buildings.

Alterations are permitted to be made to any structure without requiring the structure to comply with Sections 1609 provided the alteration complies with requirements for new structures and the following conditions are met:

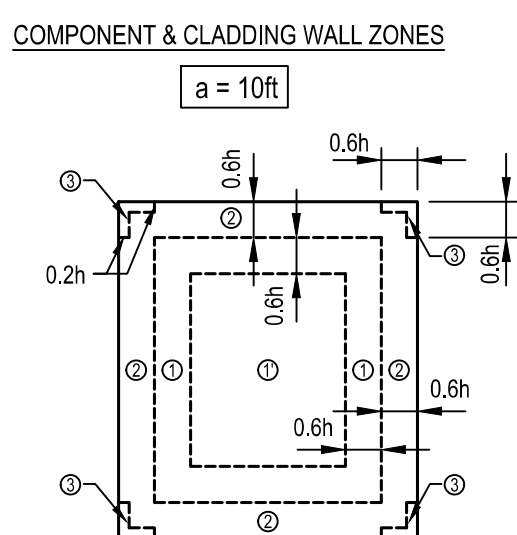
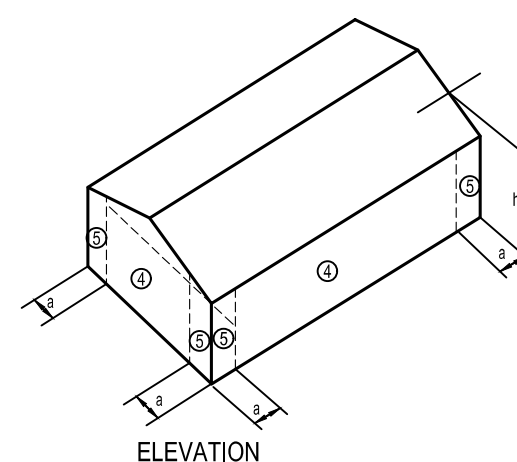
1. The alteration does not increase the seismic force in any element by more than 10% or decrease the strength of any existing member by more than 10%.
2. The alteration does not decrease the design strength of any existing structural element to resist seismic forces by more than 10%.

The alteration does comply with the new structure requirement and does not increase forces or decrease strength therefore the existing structure is not required to comply with Section 1609.

Components & Cladding

Components and Cladding Wind Pressure (psf)						
Walls	Area < 10ft ²	Area < 20ft ²	Area < 50ft ²	Area < 100ft ²	Area < 500ft ²	
Zone 4	37.9	-41.1	36.3	-39.5	33.8	-37.1
Zone 5	37.9	-50.7	36.3	-47.5	33.8	-42.7
Roof						
Zone 1'	17.1	-38.5	16.0	-38.5	16.0	-38.5
Zone 1	17.1	-67.0	16.0	-63.4	16.0	-52.8
Zone 2	17.1	-88.4	16.0	-83.1	16.0	-68.8
Zone 3	17.1	-120.5	16.0	-109.8	16.0	-83.1

- Notes:
1. Areas noted are effective wind areas as per ASCE 7, 26.2 definitions.
 2. See figures this sheet for Zone locations.
 3. Plus and minus signs signify pressures acting toward and away from surfaces, respectively.
 4. Design pressures shown in table are strength design wind pressures. Allowable stress design wind pressures may be calculated by factoring the pressures by 0.5.
 5. Design pressures for effective wind areas between those noted in schedule may be interpolated.
 6. Tributary area = greater of LxW or LxL/2.
 7. Deflections may be calculated based on 42% of these loads.



2.5 Seismic Loads per Referenced Code:

Risk Category = II
 Site class = "D" (Assumed)
 Spectral Response Coefficients:
 $S_S = 0.156g$
 $S_1 = 0.069g$
 $S_0.5 = 0.167g$
 $SD_1 = 0.109g$
 $C_s = NA$

Seismic Design Category = "B"
 Seismic Importance Factor = 1.0
 Basic Seismic - Force - Resisting System: Not Applicable - Structure is Existing
 $R_X = R_Y = NA$ $C_X = C_Y = NA$ $C_D = C_D = NA$
 Design Base Shear $V_x = NA$ $V_y = NA$
 Building Height Limit = NL
 Analysis Procedure = NA

PER SECTION 3404 Alterations to existing buildings.

Alterations are permitted to be made to any structure without requiring the structure to comply with Sections 1613 provided the alteration complies with requirements for new structures and the following conditions are met:

1. The alteration does not increase the seismic force in any element by more than 10 percent or decrease the strength of any existing member by more than 10 percent.
2. The alteration does not decrease the design strength of any existing structural element to resist seismic forces by more than 10%.

The alteration does comply with new structure requirements and does not increase forces or decrease strength therefore the existing structure is not required to comply with Section 1613.

3.0 FOUNDATIONS:

- 3.1 Foundation design is based upon a presumptive bearing capacity of 2000 psf., as allowed by 2018 NCSBC Section 1606. A qualified geotechnical engineer shall be present to verify bearing capacity and the results shall be sent to the engineer.
- 3.2 Footings shall bear on strata capable of sustaining a minimum bearing pressure of 2000 psf.
- 3.3 Top of footing (FTFG) elevations are shown on the drawings or are to be determined by the Contractor in the field in accordance with the guidelines set forth in the drawings.
- 3.4 Bottom of exterior footings, grade beams and walls shall bear at a minimum depth of 1'-0" below final grade for frost protection.
- 3.5 Testing and Inspection:
 - a. All areas to have slabs on grade shall be proof rolled in accordance with and under observation of the Geotechnical Engineer and approved prior to preparation for concrete placement.
 - b. All foundation bearing strata shall be inspected and approved by the Geotechnical Engineer prior to any concrete placement.
 - c. Geotechnical Engineer shall be the sole judge as to suitability of all foundation and/or slab bearing strata.
 - d. Footing bearing elevations shall be adjusted in the field as required to meet the design bearing pressures by additional excavation or compaction and/or backfilling or by other means acceptable to the Geotechnical Engineer.
- 3.6 Undercutting to remove existing fill beneath footings and slab shall be performed at the direction of the Geotechnical Engineer.
- 3.7 Engineered Fill: All fill material shall be selected in accordance with the Geotechnical Report Material shall be a clean, low plastic soil with a plasticity index less than 30 (less than 15 is preferred), liquid limit less than 50, and unit weight of 120 pcf (+ 5 pcf)
- 3.8 Compaction: All fill shall be placed in loose lifts not exceeding 8 inches in thickness and compacted to a minimum of 96 percent Standard Proctor (ASTM D-998) except that the top 12 inches shall be compacted to a minimum of 98 percent Standard Proctor. Moisture shall be controlled to within 3 percent above or below optimum content.
- 3.9 Remove all topsoil and organic materials. The stripping should extend at least 10' beyond the proposed construction limits.

4.0 CONCRETE:

- 4.1 Concrete Strength: All concrete shall be in accordance with the American Concrete Institute (ACI) 301 and 318.
- 4.2 Concrete shall have a 28 day compressive strength and density as follows:
 - a. Footings, Grade Beams, and Interior Slab-on-grade.....3,000psi, Density = +145pcf
 - b. Exterior Slab on Grade.....4,000psi, Density = +145pcf
- 4.3 Concrete Mix Design:
 - a. Submittals: Submit mix designs of each proposed concrete mix not less than 15 days prior to the start of work.
 - b. Mix designs, including water, cement ratios and slumps, shall be prepared in accordance with ACI 301-05, Section 4. Cement shall conform to ASTM C 150 Type 1 or at contractor's option, ASTM C 595 Type IP where fly ash is permitted. Normal weight aggregate shall conform to ASTM C 33 and light weight aggregate shall conform to ASTM C 330. No admixtures containing calcium chloride shall be permitted in any concrete.
 - c. Aggregate size shall be #67 stone for supported slabs or other formed concrete elements; #57 stone for slabs on grade and footings or other concrete elements formed from and poured against earth; #89 stone for masonry grout.
 - d. Water reducing admixture shall be used in all concrete.
 - e. Air entraining admixture in accordance with ACI 301 shall be used in all concrete exposed to freezing and thawing during construction or service conditions.
 - f. Concrete subjected to freezing/thawing shall have a maximum water/cement ratio of 0.45 and shall contain the amount of air entraining agent specified in ACI 301-05 Section 4.
- 4.4 Curing: See specifications for curing method options and apply within two (2) hours after completion of finishing to all concrete flatwork and walls, U.N.O., other than footings and grade beams.

- 4.5 Use a non-corrosive, non-chloride accelerating admixture in concrete exposed to temperatures below 40°. Uniformly heat the water and aggregates to a temperature of not less than 50°. Place and cure concrete in accordance with ACI 306.

- 4.6 When hot weather conditions exist, place and cure concrete in accordance with ACI 301. Cool ingredients before mixing to maintain concrete temp. at time of placement below 90°.

- 4.7 Reinforcing in all abutting concrete, including footings shall be continuous through or around all corners or intersections. Dowels or splices shall be equal in size and spacing to the reinforcing in the abutting members.

- 4.8 Refer to architectural drawings for door and window openings, drips, reglets, washes, masonry anchors, brick ledge elevations, slab depressions and miscellaneous embedded plates, bolts, anchors, angles, etc.

- 4.9 Refer to plumbing, mechanical and electrical drawings for underfloor, perimeter and other drains and for sleeves, outlet boxes, conduit, anchors, etc. The various trades are responsible for their items.

- 4.10 Base plates, anchor rods, support angles and other steel exposed to earth or granular fill shall be covered with a minimum of 3" of concrete.

- 4.11 Fill slabs, not shown on the structural drawings and all exterior slabs to be broom finished, shall be reinforced with a minimum of 6 x 6 x W2.0 x W2.0 WMM unless noted otherwise on other drawings.

- 4.12 Finish surfaces to the following tolerances, according to ASTM E 1155, for a randomly trafficked floor surface equal to 3/4 of the overall finish and levelness values.
 - a. Specified overall values of flatness, F(1) 25; and of levelness, F(L) 20; with minimum local values equal to 3/4 of the overall flatness and levelness values.
 - b. The composite F(1) and F(L) numbers shall be measured and reported within 72 hours after completion of slab concrete finishing operations and before removal of any supporting shores.

- 4.13 Non-shrink grout shall be pre-mixed, non-corrosive, non-metallic, non-staining containing silica sands, Portland cement, shrinkage compensating and water reducing agents. Product shall only require the addition of water. Minimum compressive strength shall be 2500 psi after one day and 7000 psi after 28 days. Grout shall be free of gas producing or air releasing and oxidizing agents and contain no corrosive iron, aluminum or gypsum.

- 4.14 Provide concrete grout - not mortar - for reinforced masonry lintel and bond beams where indicated on drawing or as scheduled.

- 4.15 Tolerance for anchor rods and other embedded items shall be per the AISI Code of Standard Practice Section 7.5.

- 4.16 Unless otherwise shown in the architectural drawings, provide 3/4" chamfers at all column, wall, slab or beam edges that are exposed to view in the finished structure.

- 4.17 Concrete cover for cast-in-place concrete reinforcement:
 - Concrete cast against & permanently exposed to earth.....3"
 - Concrete exposed to earth or weather.....2"
 - No. 6 through No. 18 Bars.....2"
 - No. 5 Bar and smaller.....1 1/2"

Concrete not exposed to weather or in contact with ground:
Slabs, Walls, Joists:
No. 11 Bar and smaller.....3/4"
Beams, Columns:
Primary Reinforcement, Ties, Stirrups.....1 1/2"

5.0 REINFORCING STEEL:

- 5.1 Reinforcing shall be domestic non-billet steel conforming to ASTM A615, Grade 60 or 60S including stirrups and ties, except that reinforcing which is required to be welded shall conform to ASTM A706.

- 5.2 Field bending of concrete reinforcing steel is not permitted.

- 5.3 Welded wire mat and fabric shall conform to ASTM A184 and A185 respectively and shall be provided in flat sheets. Welded wire mat/fabric shall be lapped 0'-6" at all splices.

5.4 Bar Splices:

Bar Size	F _c = 3,000psi		F _c = 4,000psi		F _c = 5,000psi	
	Ld (in)	Class "B" Lap Splice (in)	Ld (in)	Class "B" Lap Splice (in)	Ld (in)	Class "B" Lap Splice (in)
#3	17	22	15	19	13	17
#4	22	29	19	25	17	23
#5	28	36	24	31	22	28
#6	33	43	29	37	26	34
#7	48	63	42	54	38	49
#8	55	72	48	62	43	56
#9	62	81	54	70	48	63
#10	69	90	60	78	54	69
#11	76	98	66	85	59	76

- NOTES:
1. Values are based on normal weight concrete.
 2. Ld = minimum embed of rebar
 3. Class "B" lap splice refers to minimum distance bars must be lapped for a full tension splice.
 4. For Epoxy Coated bars multiply table values by 1.2
 5. For Beam Top Bars multiply table values by 1.3
 6. For Top Bars in Slabs 13in and thicker multiply table values by 1.3

6.0 COLD-FORMED STEEL FRAMING:

- 6.1 All members shall be designed in accordance with the American Iron and Steel Institute (AISI) "Specifications for the Design of Cold-formed Steel Structural Members", Latest Edition.
- 6.2 All framing members shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 33 ksi for joists and studs and 33 ksi for runners.
- 6.3 All members shown are standard designations of Steel Stud Manufacturers Association (SSMA)
- 6.4 Design of members indicated in structural drawings is based on minimum properties of products produced per SSMA standards of members specified. No substitution of materials is acceptable for use without prior approval of the structural engineer. Substitutions shall meet or exceed all properties produced per SSMA standards of members specified.
- 6.5 All shop drawing submittals shall show layout, spacing, sizes, thicknesses and types of cold-formed metal framing, fabrication, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details and attachment to adjoining work.
- 6.6 Shop drawings, design calculations and other structural data shall be prepared and sealed by a qualified engineer. The Structural Engineer shall be legally qualified to practice in the jurisdiction where the project is located and shall be experienced in providing engineering services of the kind indicated.
- 6.7 All framing components shall be cut squarely for attachment to perpendicular members or as required for an angular fit tight against abutting members. All load bearing studs/walls shall be factory assembled into panels with studs bearing squarely and fully in top and bottom tracks.
- 6.8 Fastening components shall be by self-drilling screws or by welding as defined below UNO on the drawings.
- 6.9 Screwed connections:
 - a. Screws shall be type S-12 or type S-4 for all framing members per manufacturer's recommendations.
 - b. A minimum of three (3) exposed threads shall penetrate through at joined materials.
 - c. Corrosion-resistant cadmium-plated screws shall be used for screws attaching metal lath, masonry ties, and other exterior materials.
- 6.10 Welded connections:
 - a. Gas metal arc welding (GMAW) shall be used for 20 ga. Or lighter members. AWS-E-705-3, E-705-E, E-705-6 wire electrodes 3/32"-035" diameter shall be used with carbon dioxide, argon-oxygen or argon-carbon dioxide shielding. Welding equipment 60-100 amperes at 25 volts using 220-volt 3-phase electric service.
 - b. Shielded metal arc welding (SMAW) shall be used for 18 ga' and heavier members. AWS E-6012, E-6013, or E-7014 electrodes of 3/8" or 1/2" diameter shall be used. Welding equipment heat setting shall be varied dependent on material thickness.
 - c. All welds shall be touched up with zinc rich paint, or paint similar to that used by the framing member manufacturer.
- 6.11 Alignment of studs (plumbness) and walls (straightness) shall be within 1/860 of their respective heights and lengths.
- 6.12 Studs shall be plumbed, aligned, and securely attached to top and bottom runners. Splices in studs are not permitted.
- 6.13 Where manufacturer's recommendations for erection, attachment, assembly, bracing, alignment, or other installation, or assembly requirements are more stringent than indicated in these drawings, the manufacturer's recommendations shall apply.

STEEL THICKNESS						
Gauge	Mils	Design Thickness		Minimum Thickness		Yield Strength ksi
		Inches	mm	Inches	mm	
20	33	0.0346	0.879	0.0329	0.836	33
18	43	0.0451	1.146	0.0428	1.087	33
16	54	0.0566	1.438	0.0538	1.367	50
14	68	0.0713	1.811	0.0677	1.720	50
12	97	0.1017	2.583	0.0986	2.454	50

7.0 CONSTRUCTION AND SAFETY:

- 7.1 Woods Engineering P.A.'s responsibility is limited to the details and information shown on these drawings. It is the responsibility of the Contractor to provide adequate safety measures required by local codes as well as OSHA Standards for the Construction Industry. This should include, but not be limited to the following:
Shoring to protect new as well as existing structures.
Necessary Scaffolding.
Material Handling Equipment.
Trench Boxing.

8.0 SHOP DRAWING SUBMITTAL:

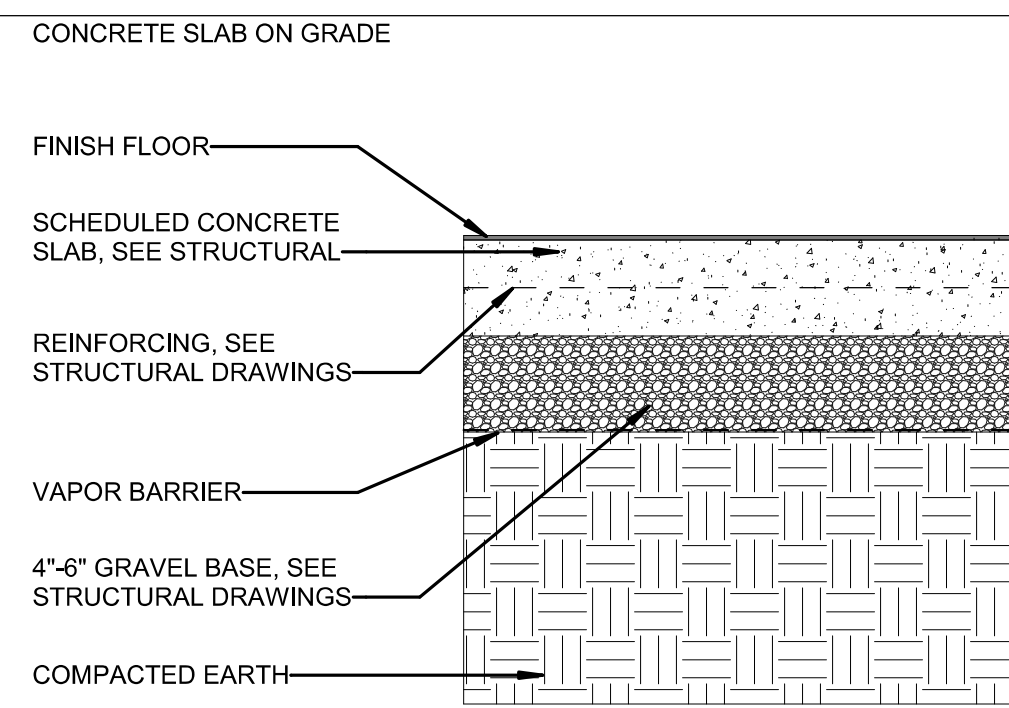
- 8.1 See Project Manual
- 8.2 Contractor shall submit Electronic copies (PDF format) of each shop drawing for review. Shop drawings shall be reviewed by the Contractor prior to submission to the Engineer. The Contractor shall allow 10 working days for shop drawing approval.

ABBREVIATIONS

@	AT	IFM	INSIDE FACE OF MASONRY
&	AND	INT	INTERIOR
AB	ANCHOR BOLTS	JBE	JOIST BEARING ELEVATION
ACI	AMERICAN CONCRETE INSTITUTE	JT	JOINT
ADDL	ADDITIONAL	K	KIPS
ADFF	ABOVE FINISHED FLOOR	KB	KICKER BRACE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	KSI	KIPS PER SQUARE INCH
AISI	AMERICAN IRON AND STEEL INSTITUTE	(L)	LONG SIDE REINFORCEMENT
ALT	ALTERNATE	LONG BAR	LONG BAR
ARCH	ARCHITECTS - ARCHITECTURAL	LBS	POUNDS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LLH	LONG LEG HORIZONTAL
AVS	AMERICAN WELDING SOCIETY	LLV	LONG LEG VERTICAL
B BOT	BOTTOM	LOC	LOCATION
BXC	BOTTOM CHORD EXTENSION	LWC	LIGHT WEIGHT CONCRETE
BFF	BELOW FINISHED FLOOR	MAX	MAXIMUM
BLDG	BUILDING	MC	MOMENT CONNECTION
BH	BEARING	MECH	MECHANICAL
BOS	BOTTOM OF STEEL	MFR	MANUFACTURER
BRG	BEARING	MIS	MISCELLANEOUS
BTWN	BETWEEN	MOW	MIDDLE OF WALL
CFS	COLD FORMED STEEL	MPL	MASONRY PLASTER
CJ	CONTRACTION JOINT	N	NUMBER
CL	CENTRAL	NS	NEAR SIDE
CLR	CLEAR	NOT TO SCALE	NOT TO SCALE
CMU	CONCRETE MASONRY UNITS	NVC	NORMAL WEIGHT CONCRETE
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OFB	OUTSIDE FACE OF BRICK
CONN	CONNECTION	OFD	OUTSIDE FACE OF MASONRY
CONST JT	CONSTRUCTION JOINT	OFS	OUTSIDE FACE OF STUD
CONT	CONTINUOUS	OPENING	OPENING
CONTR	CONTRACTOR	OPPOSITE HAND	OPPOSITE HAND
CSJ	COMPOSITE STEEL JOIST	PEBS	PRE-ENGINEERED BUILDING SUPPLIER
CTRD	CENTERED	PEL	PEDESTAL
DBA	DEFORMED BAR ANCHOR	PL	PLATE
DD	DELEGATED DESIGN	PSF	POUNDS PER SQUARE FOOT
DEFL	DEFLECTION	PSI	POUNDS PER SQUARE INCH
DEPR	DEPRESSION - DEPRESSED	PST	PARALLEL STRAND LUMBER
DET	DETAIL	PLF	POUNDS PER LINEAR FOOT
DIAG	DIAGONAL	PT	PRESSURE TREATED
D	DIAMETER	REF	REFERENCE
DIM	DIMENSION	REIN	REINFORCING
DIST	DISTANCE	REQD	REQUIRED
DWG(S)	DRAWING(S)	(S)	SHORT SIDE REINFORCEMENT
DW(L)(S)	DOWEL(S)	SB	SHORT BAR
EA	EACH	SCHD	SCHEDULE
ELEV	ELEVATION	SF	STEP FOOTING
EMBED	EMBEDDED - EMBEDMENT	SOG	SLAB ON GRADE
ENG	ENGINEER	SPEC(S)	SPECIFICATION(S)
EOR	ENGINEER OF RECORD	SFF	SPRUCE PINE FIR
EQ	EQUAL	SQ	SQUARE
EQUIP	EQUIPMENT	STD	STANDARD
EF	END FACE	STIFF	STIFFENER
EJ	EXPANSION JOINT	STRIP	STRIP
EOD	EDGE OF DECK	STL	STEEL
EDM	EDGE OF MASONRY	STR	STRUCTURAL
EDS	EDGE OF SLAB	SW	SHEAR WALL
EOW	EDGE OF WALL	SYP	SOUTHERN YELLOW PINE
EW	EACH WAY	T	TOP
EXIST	EXISTING	TCX	TOP CHORD EXTENSION
EXP	EXPANSION	TCC	TOP OF CONCRETE
EXT	EXTERIOR	TOS	TOP OF STEEL
FN	FOUNDATION	TOF	TOP OF WALL
FFE			

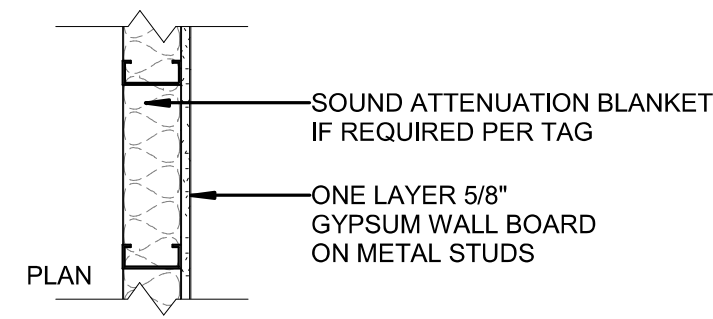
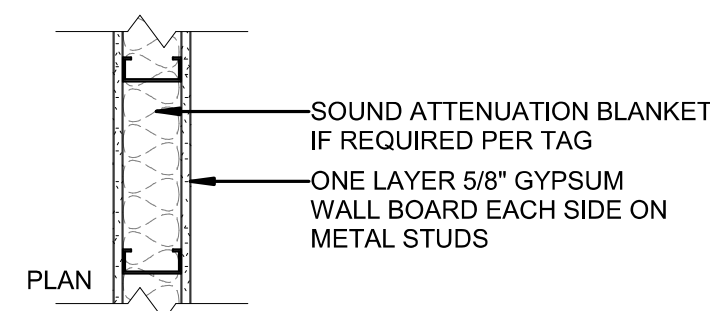
THESE SUBSYSTEMS ARE SEPARATE FROM THE PARTITION TAG KEY

E



F1- CONCRETE SLAB ON GRADE

PARTITION TYPES

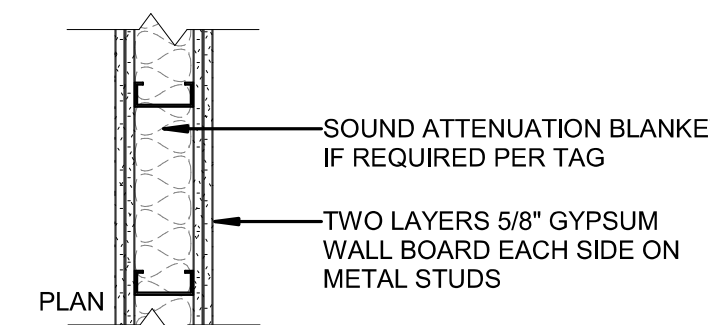


TAG	STUD SIZE	OVERALL THICK	RATING	UL ASSEMBLY	STC	HEAD DETAIL
2A	2-1/2"	3 3/4"				
3A	3-5/8"	4 7/8"				
3A	3-5/8"	4 7/8"				
3AD	3-5/8"	4 7/8"				
3AS	3-5/8"	4 7/8"				
3AS	3-5/8"	4 7/8"	SMK			
3AS	3-5/8"	4 7/8"	SMK			
3AS5	3-5/8"	4 7/8"	SMK			
3A30	3-5/8"	4 7/8"	30 MIN	U407		
3A30	3-5/8"	4 7/8"	30 MIN	U407		
3A30S	3-5/8"	4 7/8"	30 MIN	U407		
6A	6"	7 1/4"				
6AS	6"	7 1/4"				
6AS	6"	7 1/4"	SMK			
6AS5	6"	7 1/4"	SMK			
6A30	6"	7 1/4"	30 MIN	U407		
6A30S	6"	7 1/4"	30 MIN	U407		

TAG	STUD SIZE	OVERALL THICK	RATING	UL ASSEMBLY	STC	HEAD DETAIL
1F	1-5/8"	2 1/4"				
2F	2-1/2"	3 1/8"				
3F	3-5/8"	4 1/4"				
3FS	3-5/8"	4 1/4"				

F FURRING CHANNEL - ONE LAYER

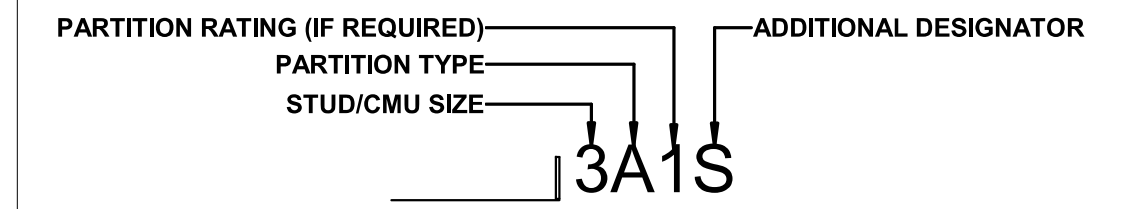
A METAL STUD - ONE LAYER



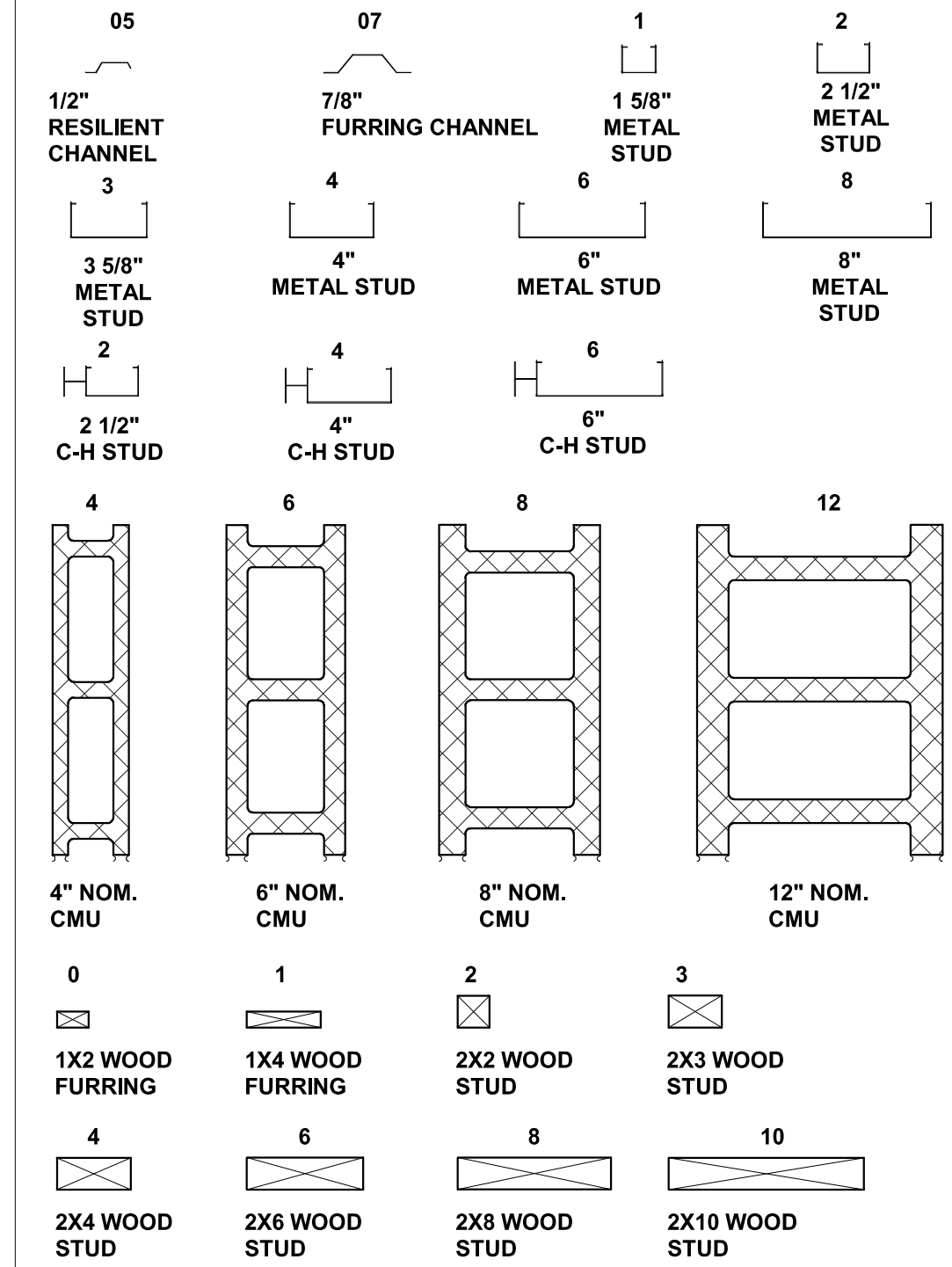
TAG	STUD SIZE	OVERALL THICK	RATING	UL ASSEMBLY	STC	HEAD DETAIL
3A2	3-5/8"	6 1/8"	2	U419		CJD-0004
3A2S	3-5/8"	6 1/8"	2	U419		B3A-002

A METAL STUD - TWO LAYER

PARTITION TAG KEY



PARTITION MATERIAL & SIZE



PARTITION TYPES LEGEND

- A - METAL STUD BALANCED WALL
- B - METAL STUD UNBALANCED WALL
- C - METAL STUD CHASE WALL
- D - METAL STUD SECURE WALL
- E - METAL STUD SECURE RESILIENT WALL
- F - METAL STUD FURRED WALL
- J - METAL STUD RADIO FREQUENCY (RF) SHIELDING WALL
- K - METAL STUD LEAD LINED TWO SIDES WALL
- L - METAL STUD LEAD LINED ONE SIDE WALL
- S - METAL STUD SHAFT WALL
- R - METAL STUD RESILIENT SOUND WALL
- M - CONCRETE MASONRY UNIT WALL
- T - CONCRETE WALL
- W - WOOD STUD BALANCED WALL
- X - WOOD STUD UNBALANCED WALL
- Y - WOOD STUD FURRED WALL
- U - WOOD DOUBLE STUD WALL
- V - WOOD STAGGERED STUD WALL
- Q - WOOD STUD RESILIENT SOUND WALL
- Z - TWO LAYERS OF GWB ON EACH SIDE FOR SOUND, NON - RATED

PARTITION FIRE RATING

- 30 - 30 MINUTES RATED FIRE PARTITION
- 1 - 1HR RATED FIRE BARRIER, UNLESS W/ DESIGNATOR "C,K,P"
- 2 - 2HR RATED FIRE BARRIER, UNLESS W/ DESIGNATOR "C,W"
- 3 - 3HR RATED FIRE WALL, UNLESS W/ DESIGNATOR "B"
- 4 - 4HR RATED FIRE WALL, UNLESS W/ DESIGNATOR "B"
- 5 - NOT RATED, SMOKE PARTITION

ADDITIONAL DESIGNATORS

- B - FIRE BARRIER
- C - FIRE/SMOKE BARRIER
- W - FIRE WALL
- P - FIRE PARTITION
- K - SMOKE PARTITION
- D - NON-RATED EXTEND TO DECK ABOVE
- J - IMPACT RESISTANT GWB PARTITION
- S - SOUND ATTENUATION BLANKET IN STUD WALL OR ACOUSTIC FILL IN CMU WALL, PARTITION SHALL EXTEND TO ADJACENT WALLS AND STRUCTURE ABOVE, PROVIDE ACOUSTICAL SEALANT AT BOTTOM, TOP AND SIDES
- G - FULLY GROUTED CMU
- H - HALF WALL OR PARTIAL HEIGHT WALL
- F - RADIO FREQUENCY SHIELDING (USED FOR SECURE PARTITIONS)

PARTITION NOTES

1. ALL NON-DESIGNATED PARTITIONS SHALL BE 24"
2. NON-RATED PARTITIONS, EXCEPT THOSE WITH "D" OR "S" DESIGNATOR, GWB SHALL EXTEND 6" ABOVE THE CEILING U.N.O.
3. NON-RATED SMOKE PARTITIONS SHALL EXTEND TO THE STRUCTURE ABOVE.
4. FIRE RATED PARTITIONS SHALL EXTEND TO THE STRUCTURE ABOVE, SEE UL DETAILS FOR ADDITIONAL REQUIREMENTS
5. TYPE "D,E,R,Q" PARTITIONS SHALL EXTEND TO ADJACENT WALLS AND STRUCTURE ABOVE, PROVIDE ACOUSTICAL SEALANT AT BOTTOM, TOP, AND SIDES
6. AT WET AREAS, PROVIDE MOISTURE RESISTANT GWB OR MOLD & MOISTURE RESISTANT GWB AT NON-RATED PARTITIONS. PROVIDE FIRE RATED MOISTURE RESISTANT GWB OR FIRE RATED MOLD & MOISTURE RESISTANT GWB AT RATED PARTITIONS.
7. ON PARTITIONS RECEIVING WALL TILE (REFER TO FINISH SCHEDULE) PROVIDE CEMENTITIOUS BACKER BOARD BEHIND PORTIONS OF PARTITION RECEIVING TILE ONLY.

PARTITION TAG EXAMPLES

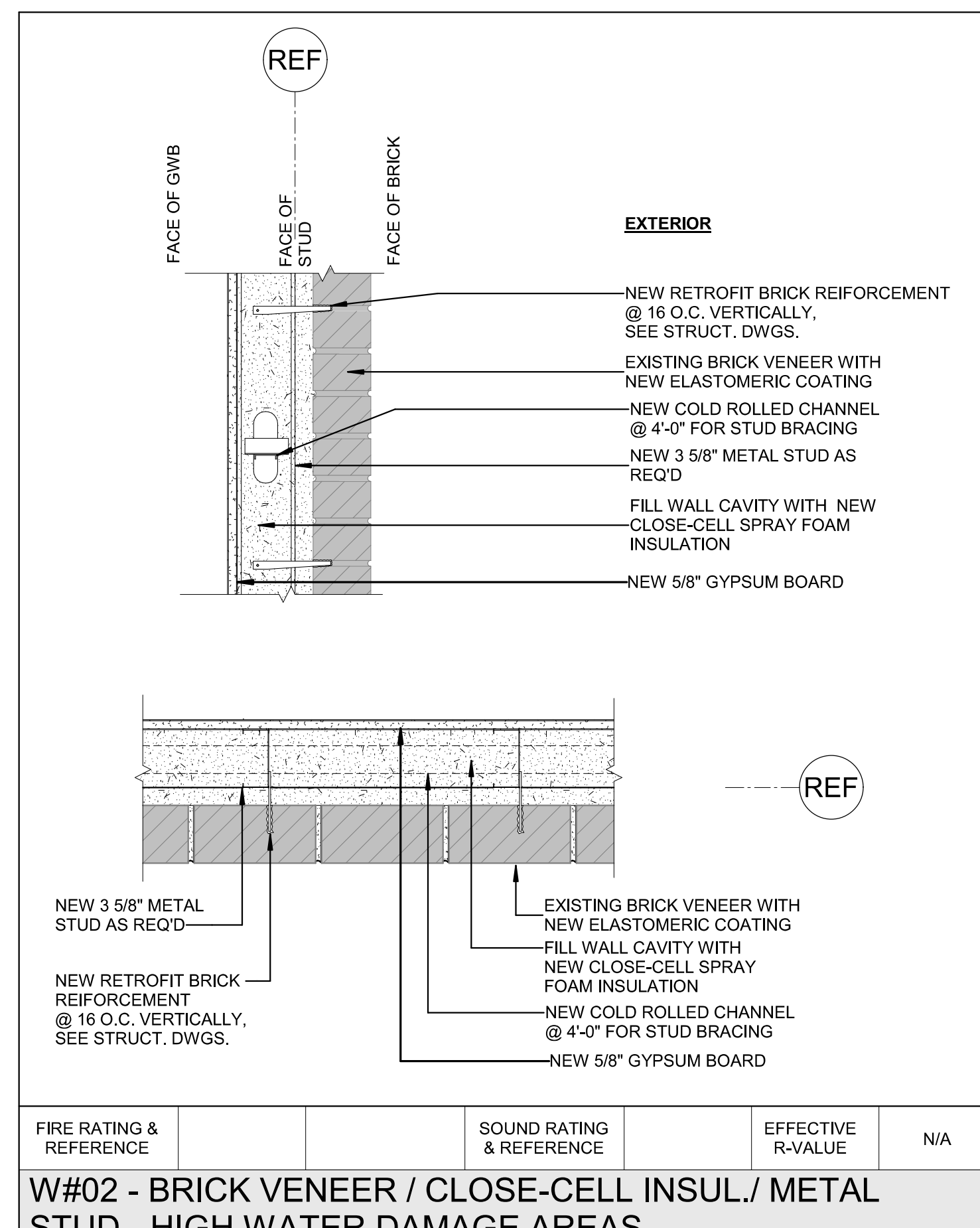
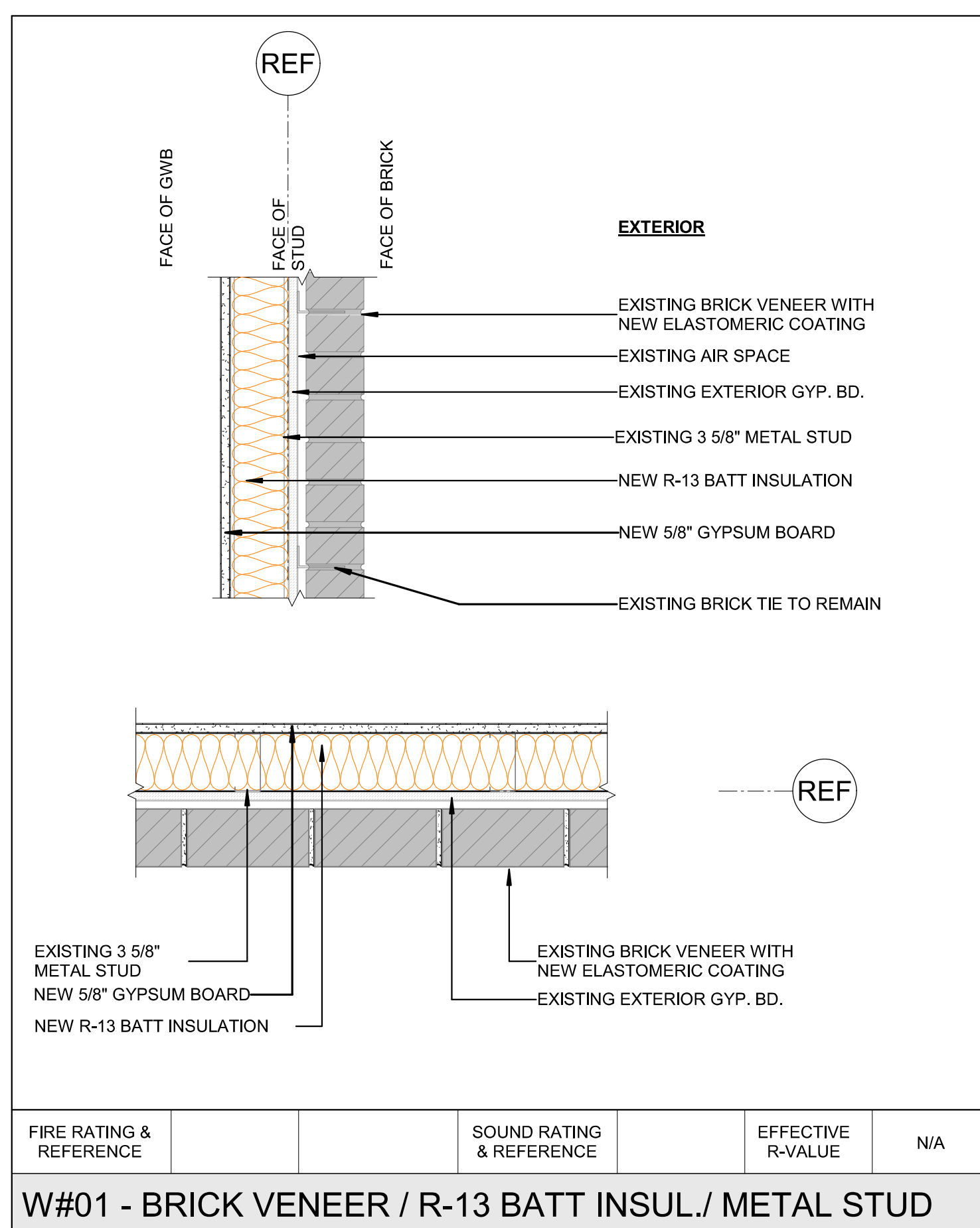
- 3A 3 5/8" METAL STUD, NON-RATED, GWB 6" ABOVE CLG
- 3AD 3 5/8" METAL STUD, NON-RATED, EXTEND TO DECK ABOVE
- 3AS 3 5/8" METAL STUD, NON-RATED W/ SOUND ATTENUATION
- 3A1K 3 5/8" METAL STUD, 1 HOUR RATED SMOKE BARRIER
- 3A1S 3 5/8" METAL STUD, 1 HOUR RATED FIRE BARRIER W/ SOUND ATTENUATION
- 3A2S 3 5/8" METAL STUD, NON-RATED, (2) LAYERS OF GWB EACH SIDE W/ SOUND ATTENUATION
- 3A3 3 5/8" METAL STUD, 3 HOUR RATED FIRE WALL
- 3A5 3 5/8" METAL STUD, NON RATED SMOKE PARTITION
- 4S2 4" C-H METAL STUD, 2 HOUR RATED FIRE BARRIER
- 6MS 6" NOM. CMU W/ ACOUSTIC FILL
- 8M 8" NOM. CMU, NON-RATED, MIN. COURSING ABOVE CLG
- 8M3 8" NOM. CMU, 3 HOUR RATED FIRE WALL
- 12MD 12" NOM. CMU, NON-RATED, EXTEND TO DECK ABOVE

D

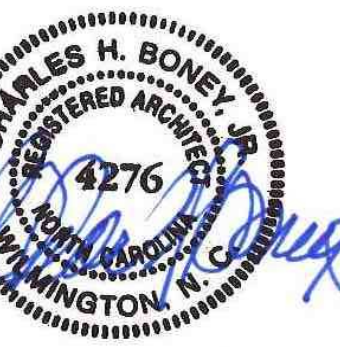
C

B

A



101 NORTH THIRD STREET, SUITE 500 WILMINGTON, NORTH CAROLINA 28401 TEL. 910.790.9901 FAX. 910.790.3111 WWW.LS3P.COM



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LS3P PROJECT: 7405-230775

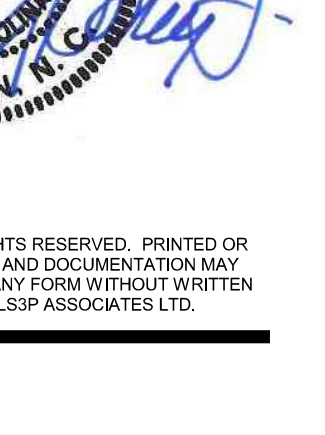
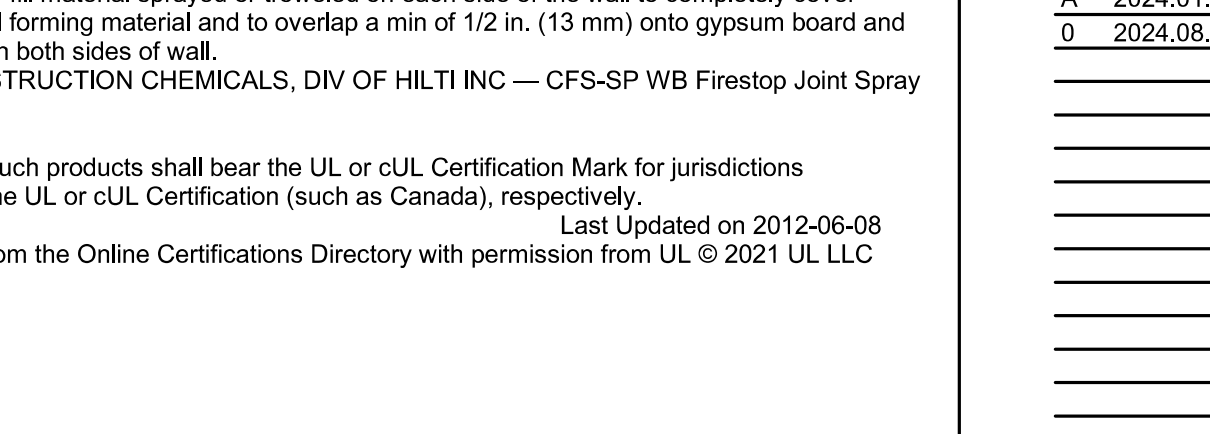
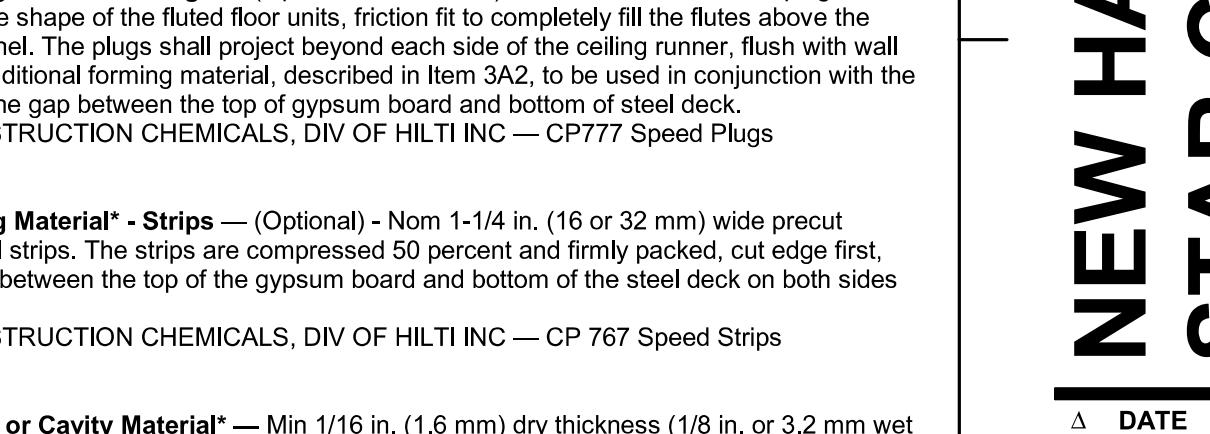
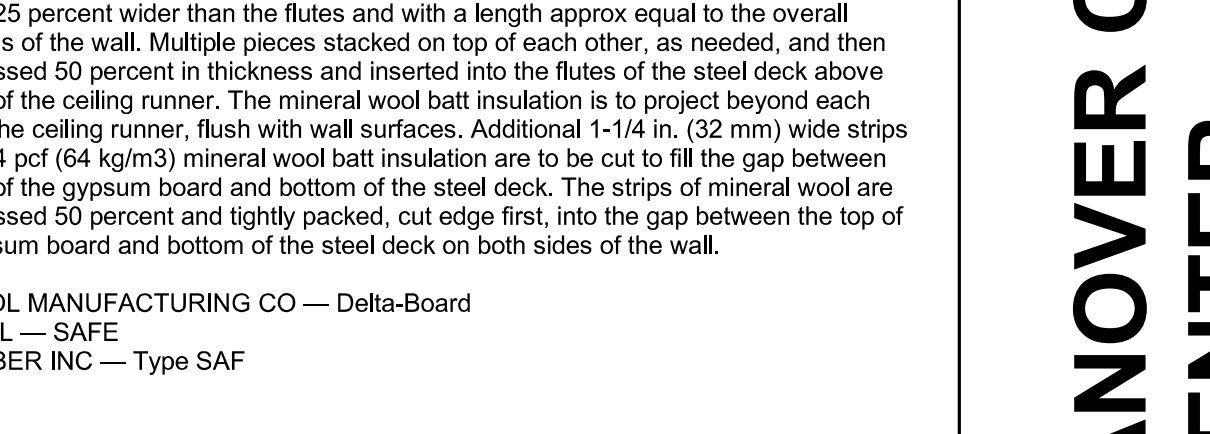
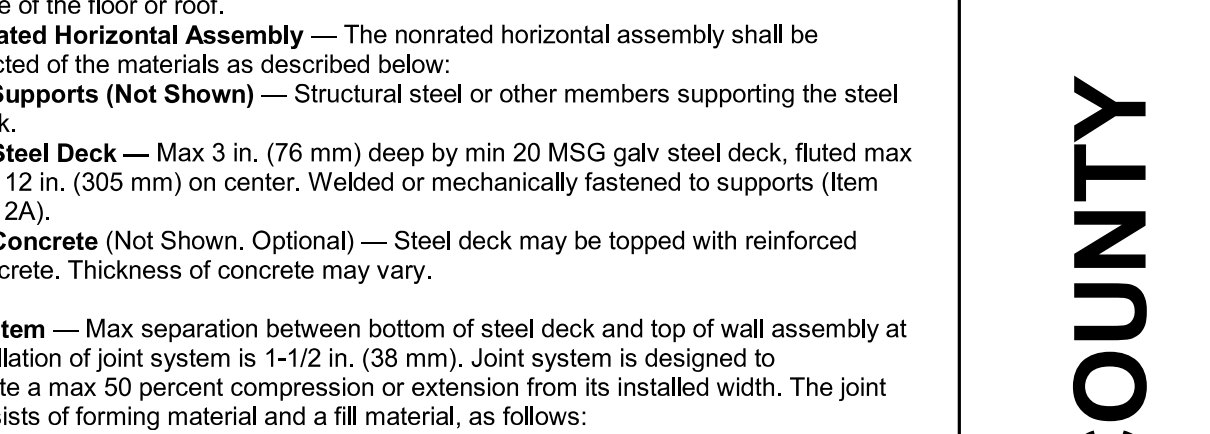
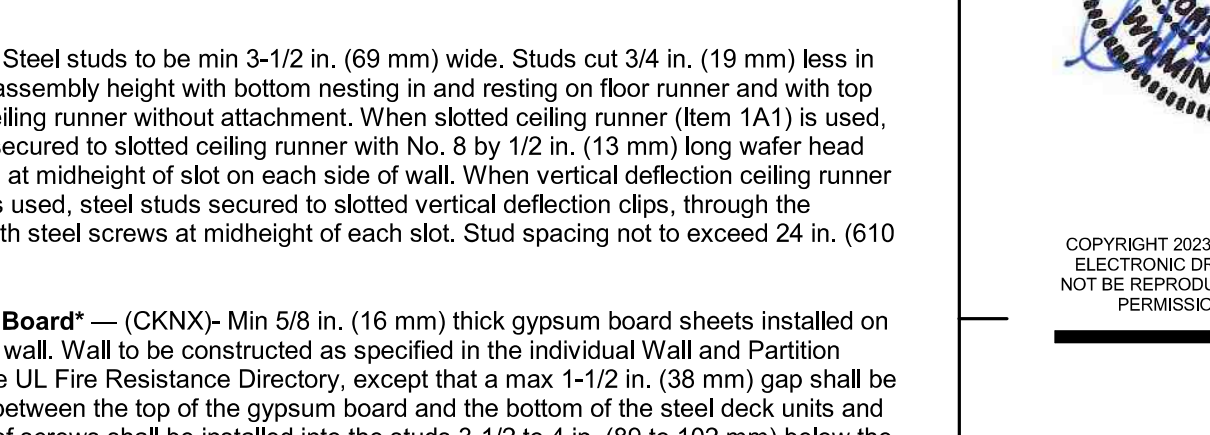
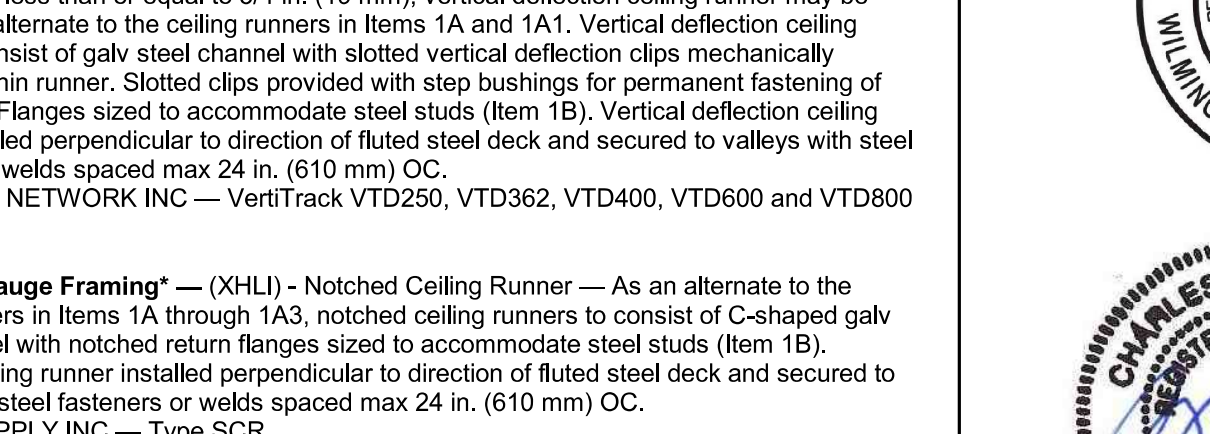
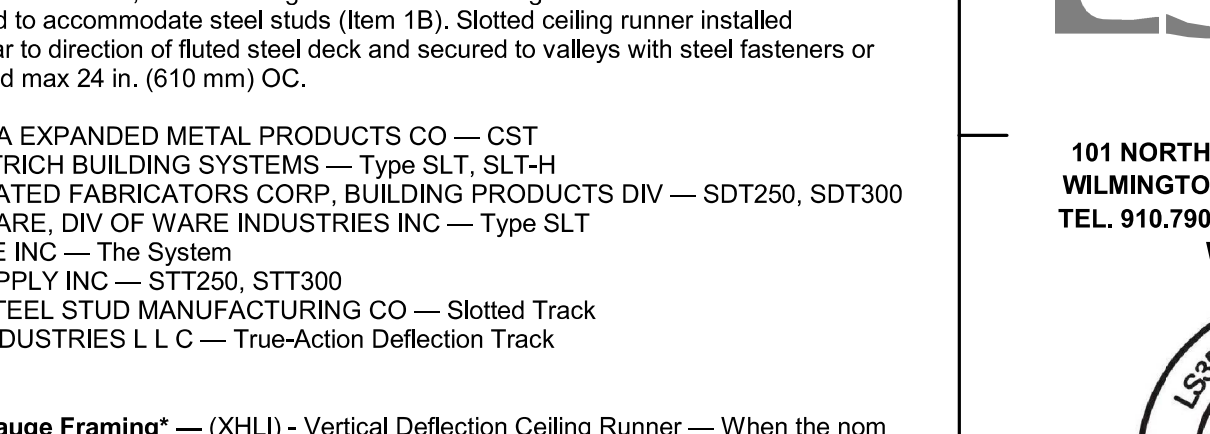
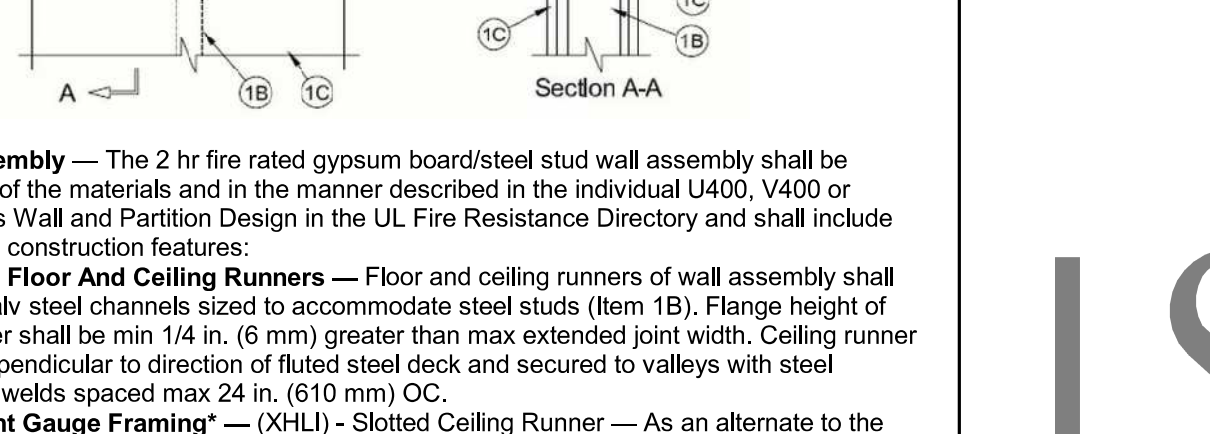
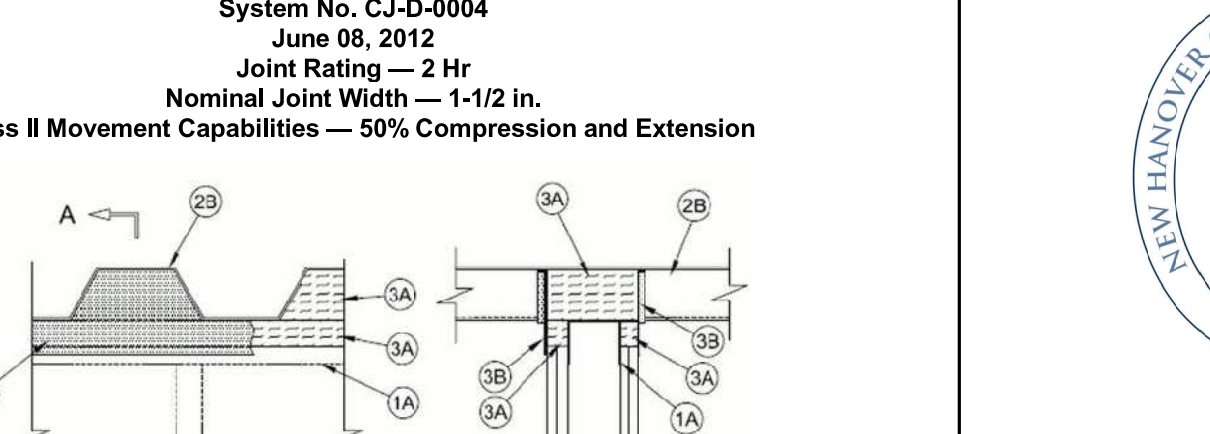
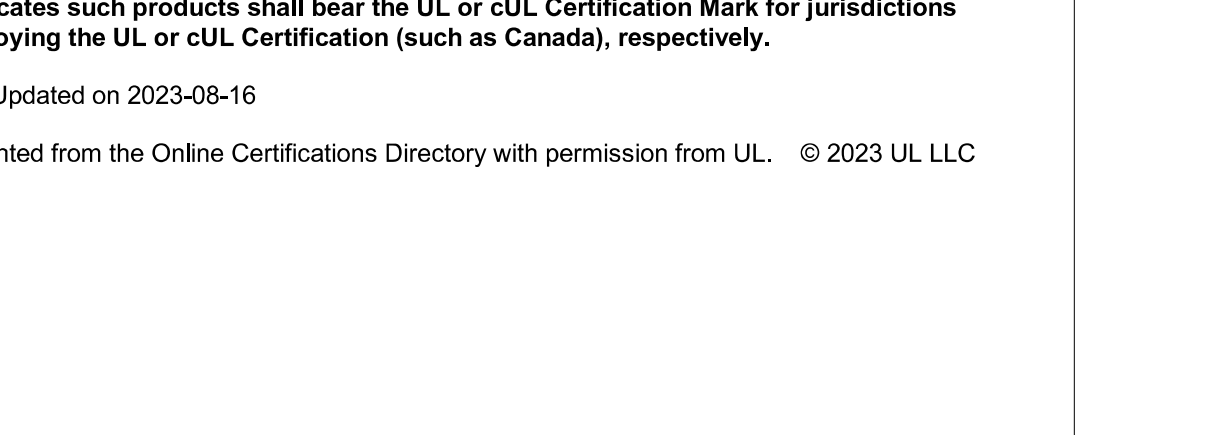
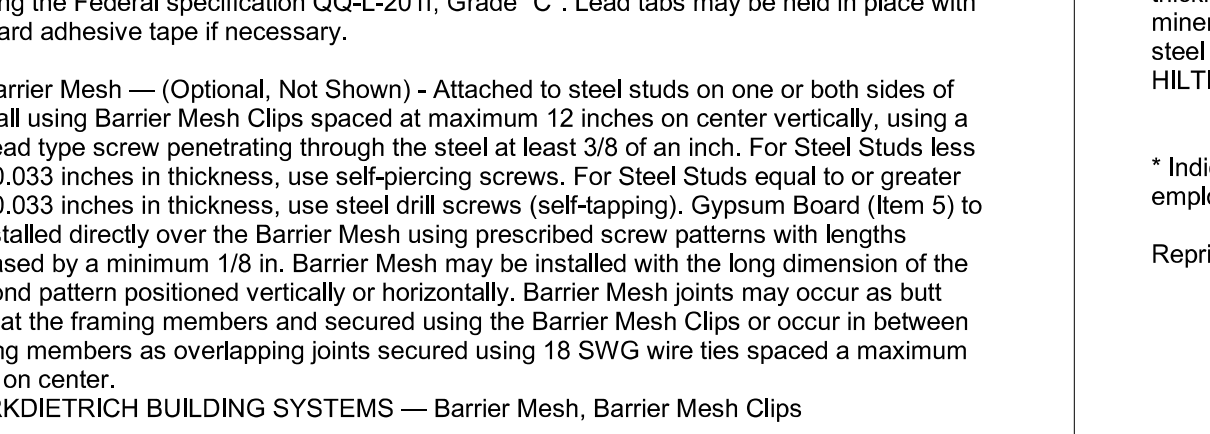
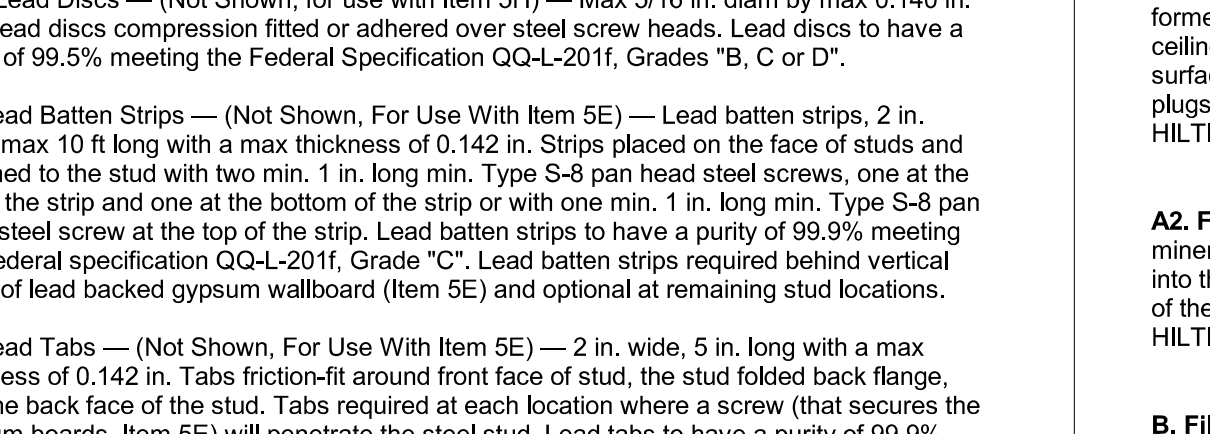
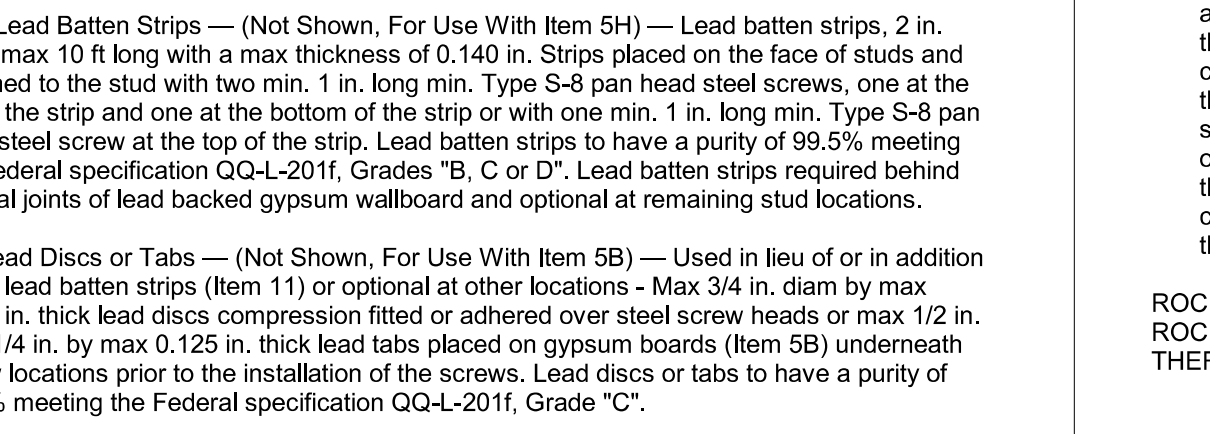
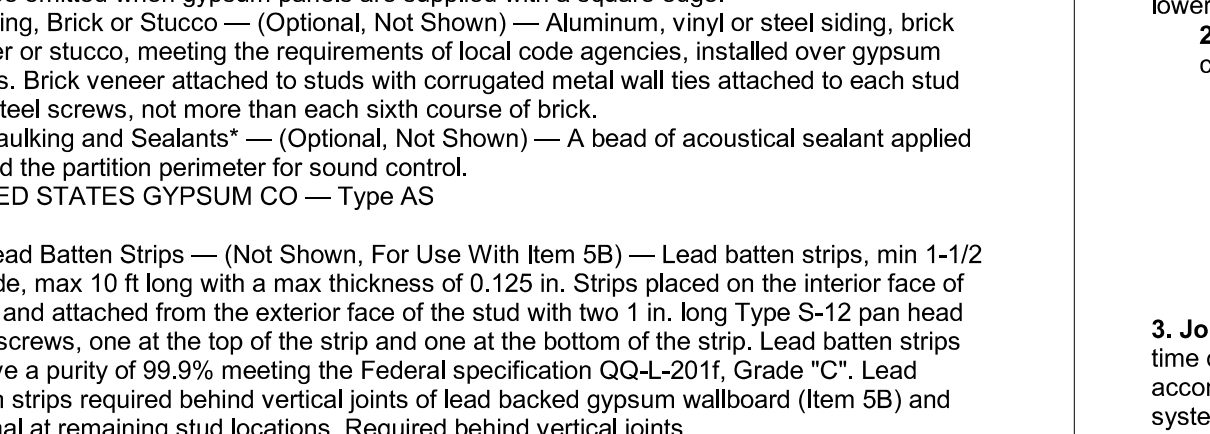
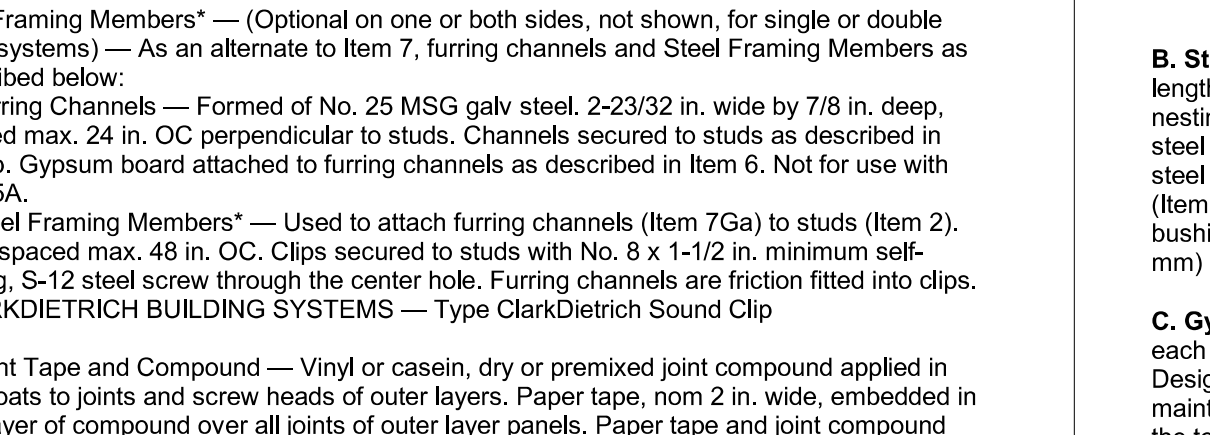
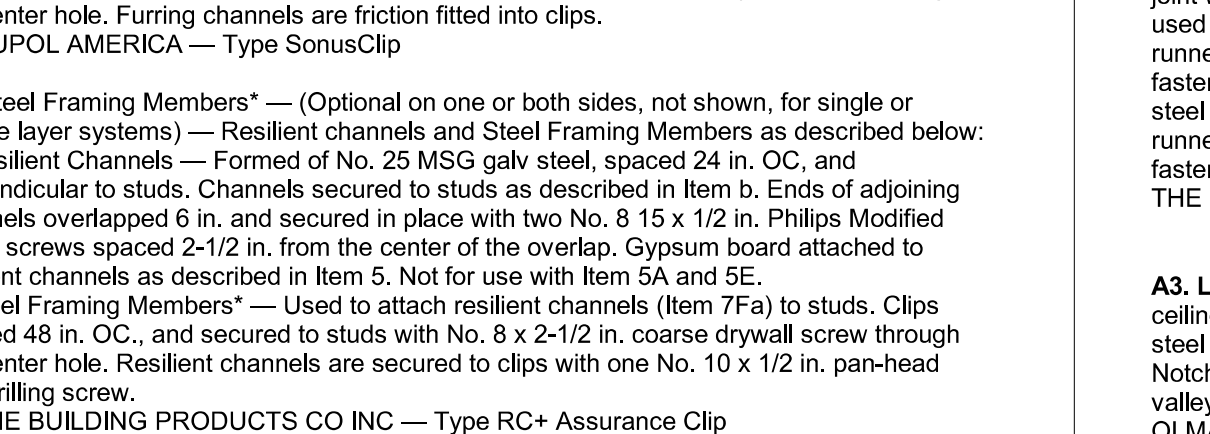
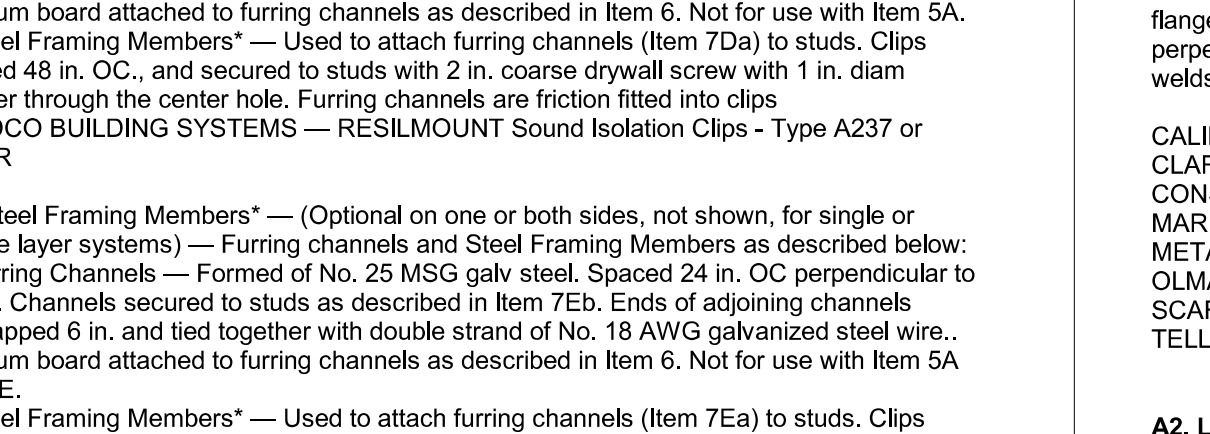
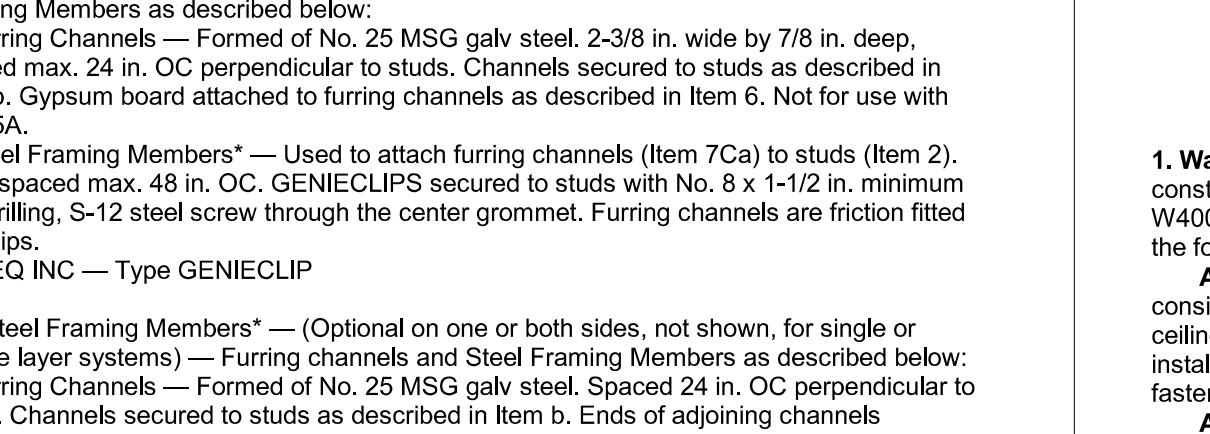
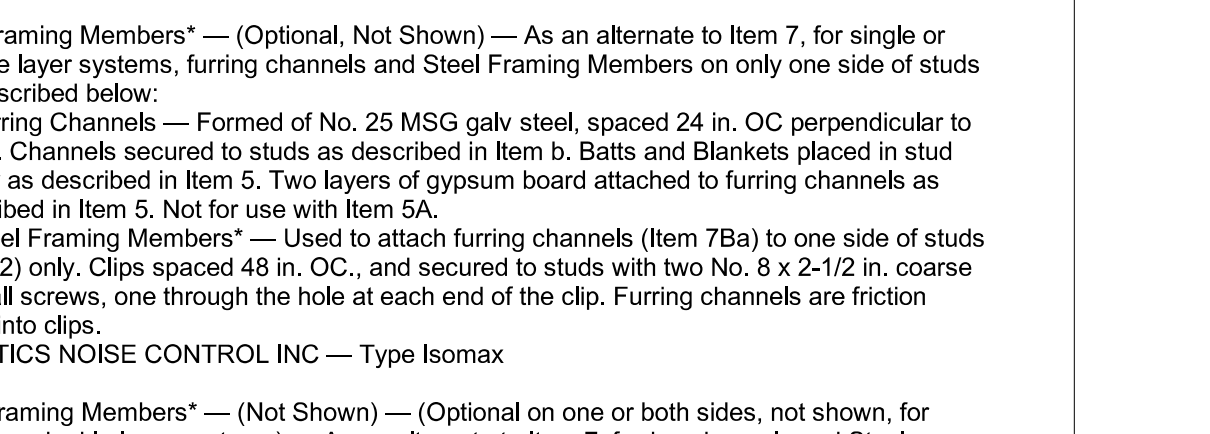
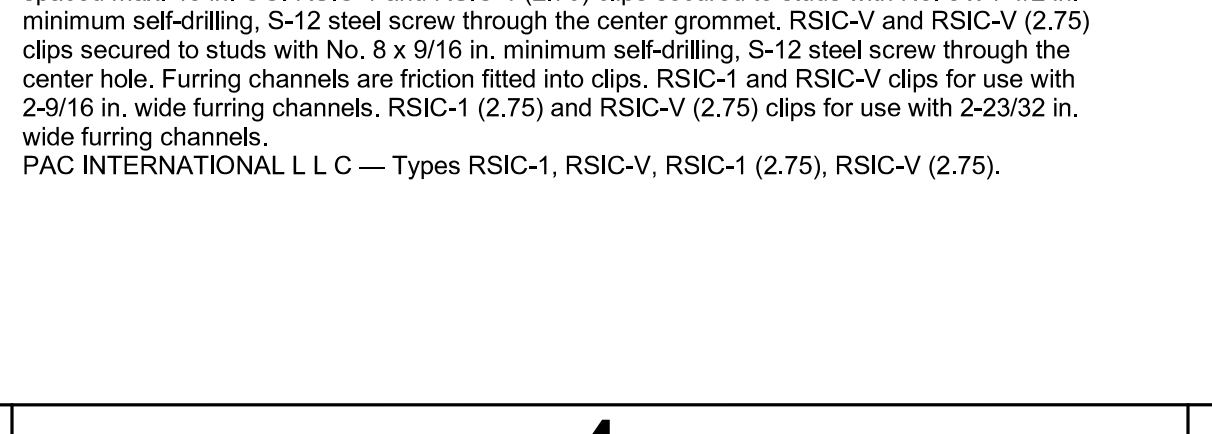
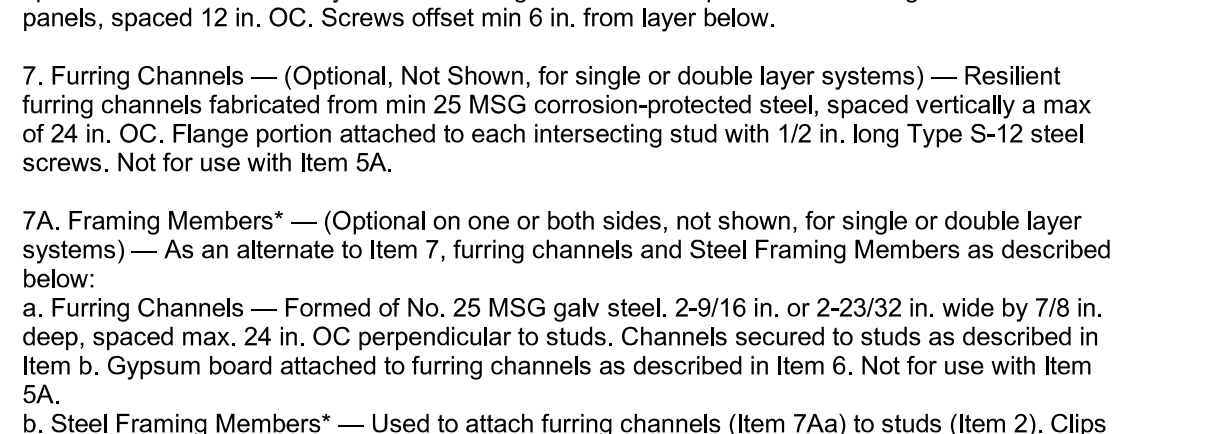
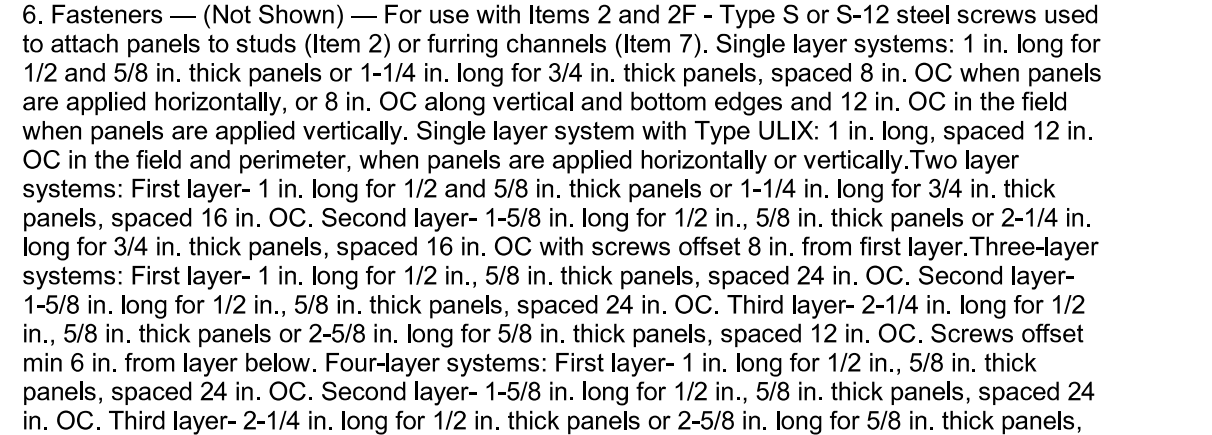
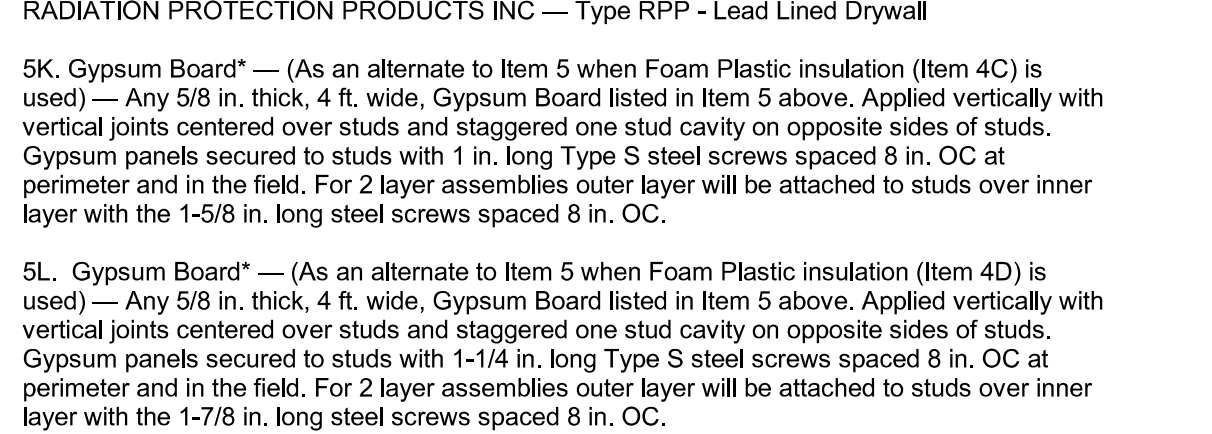
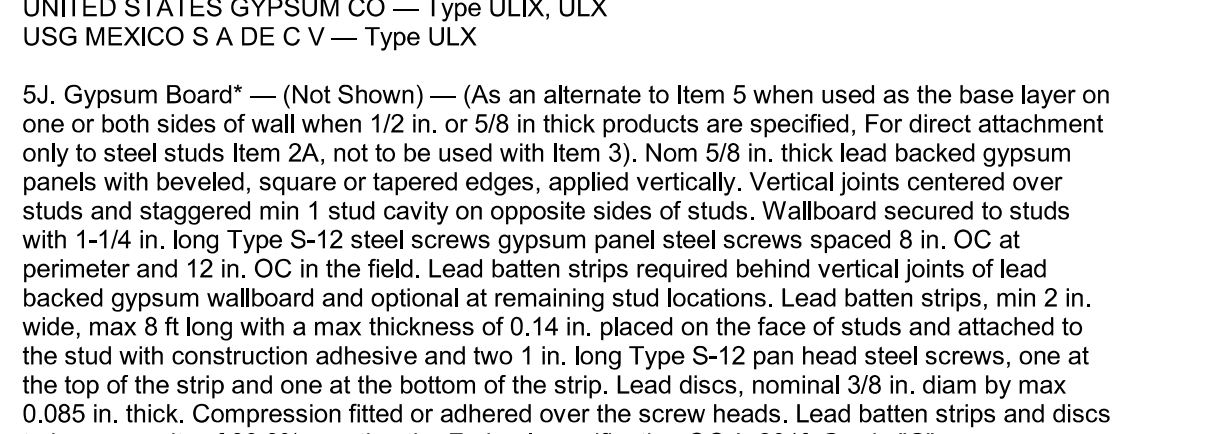
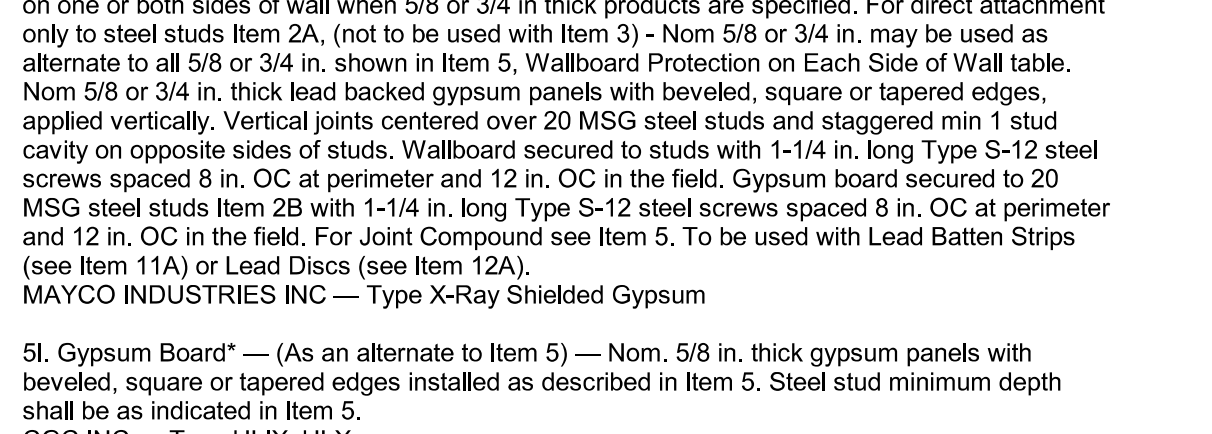
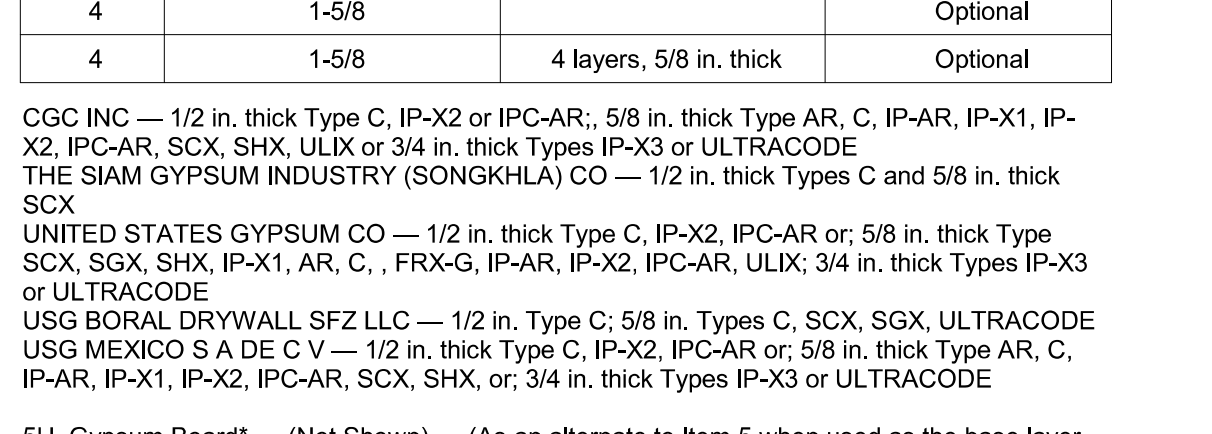
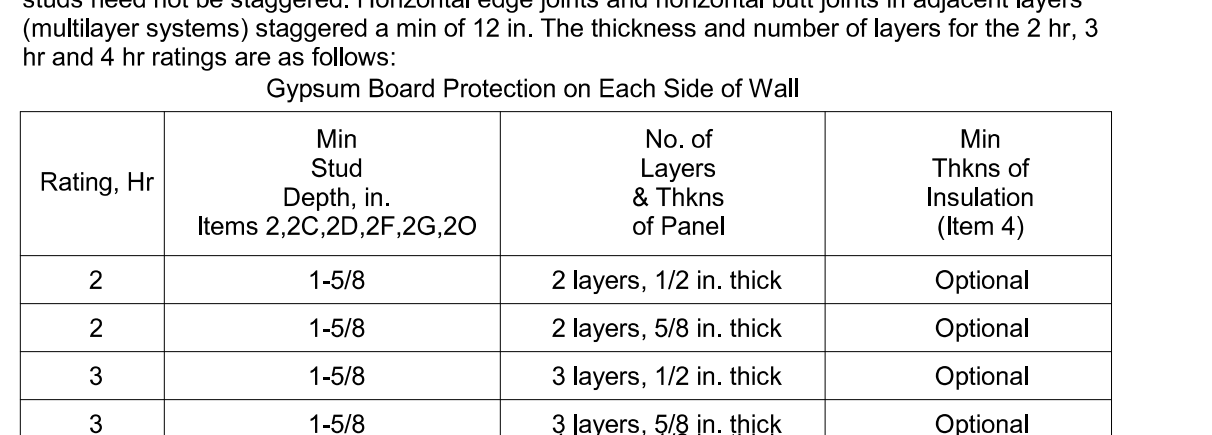
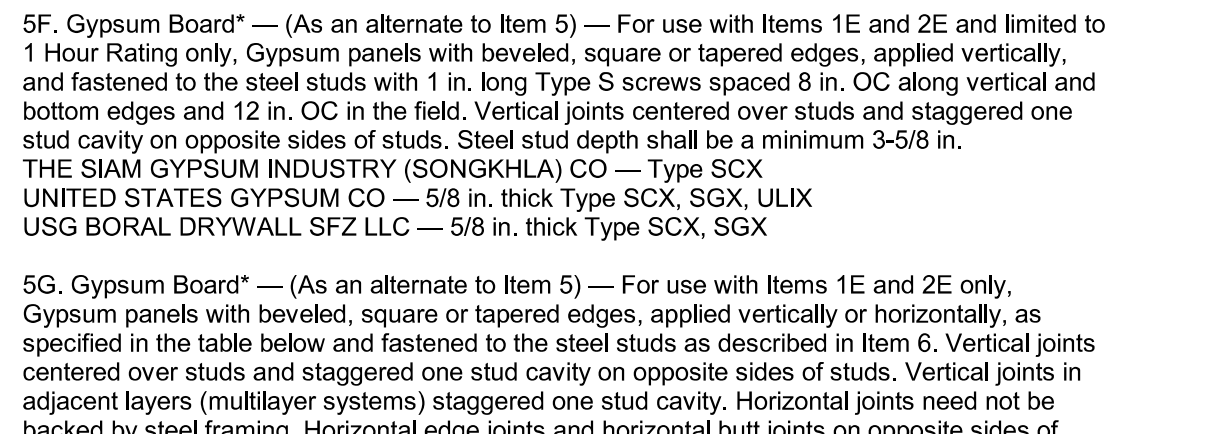
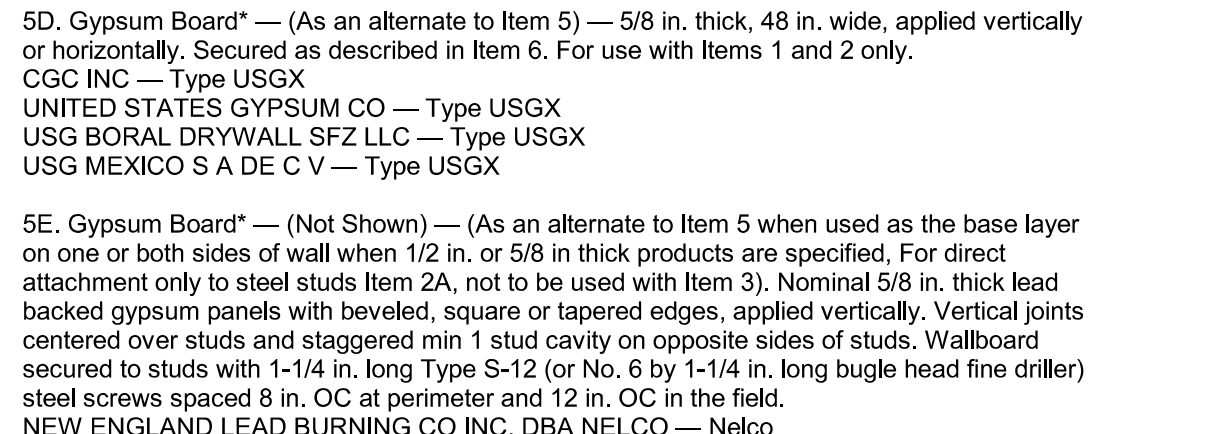
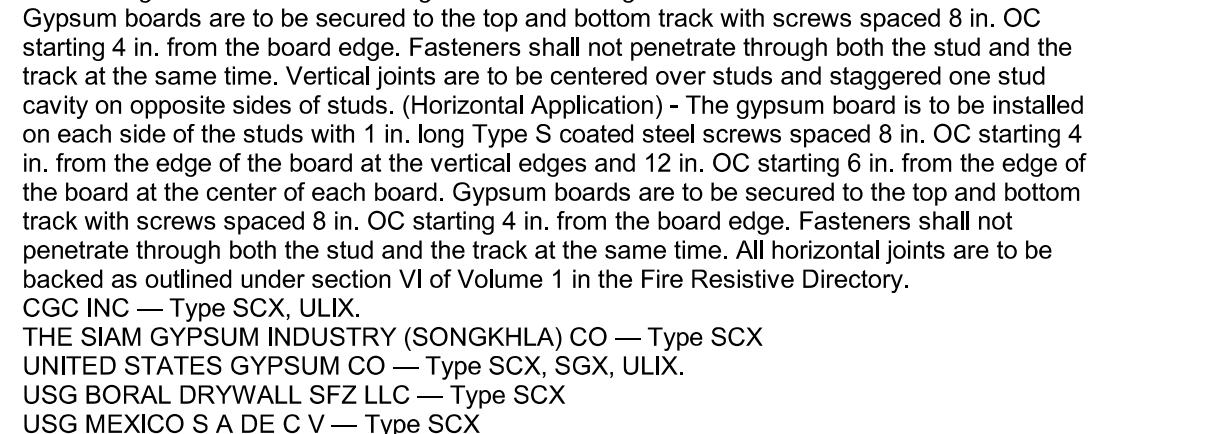
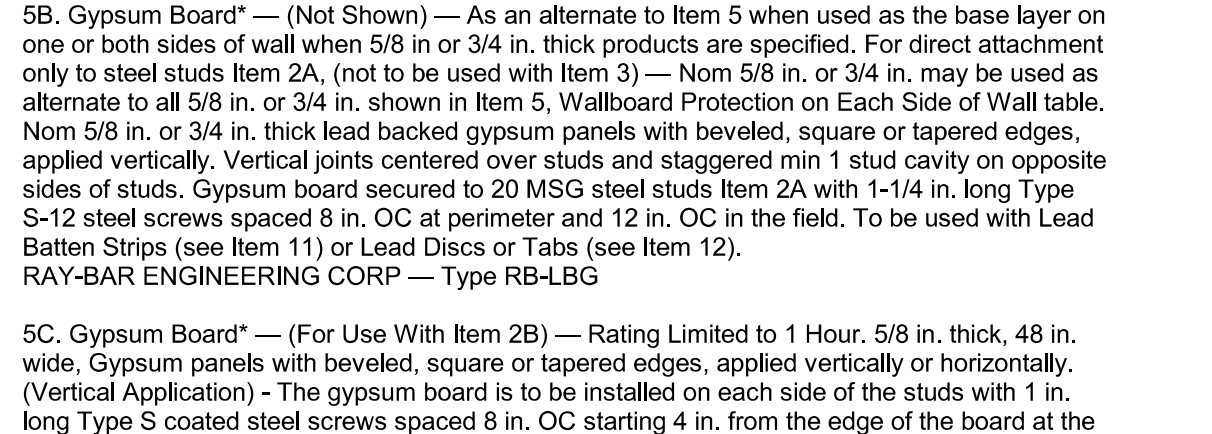
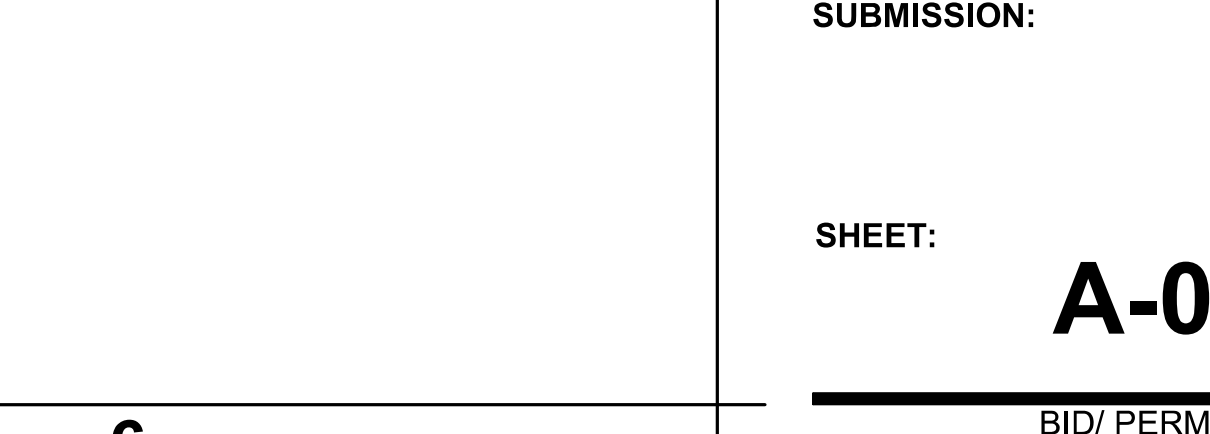
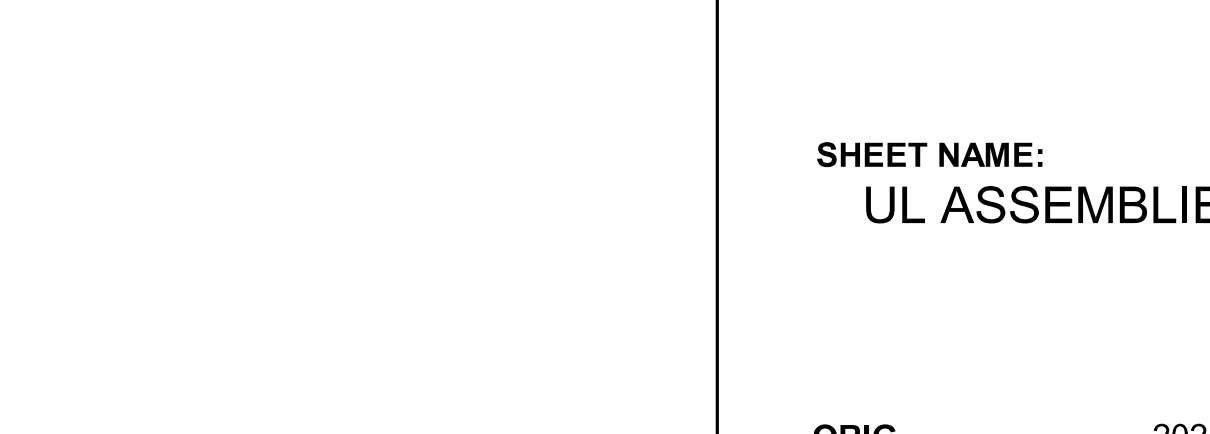
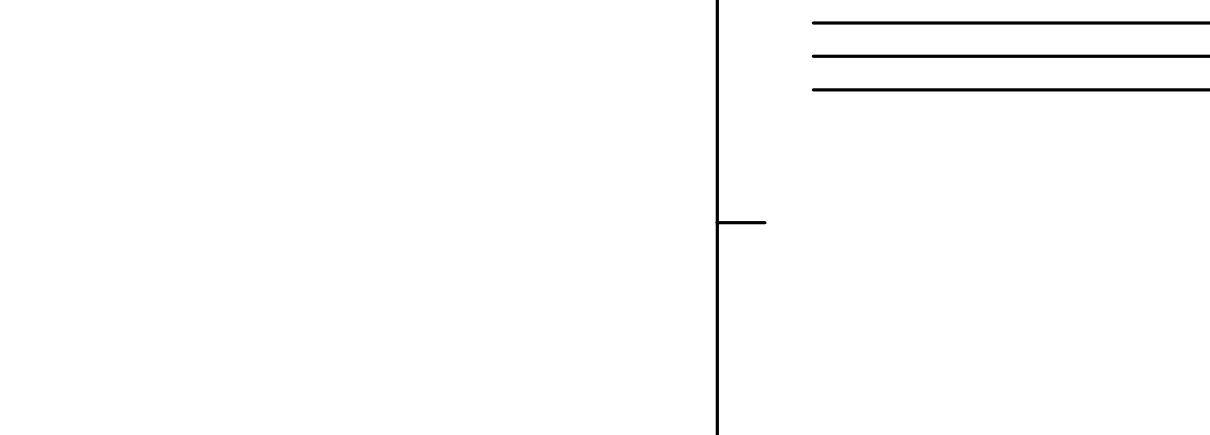
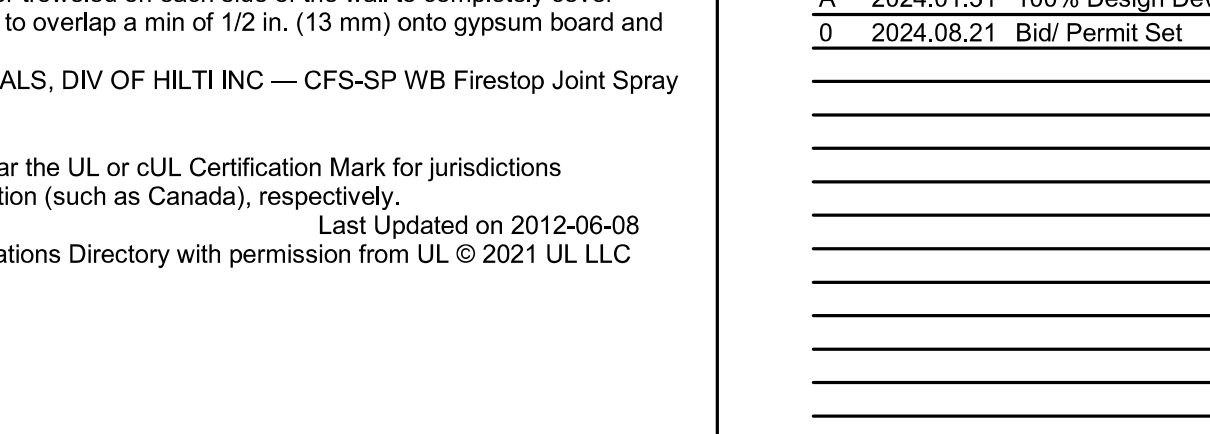
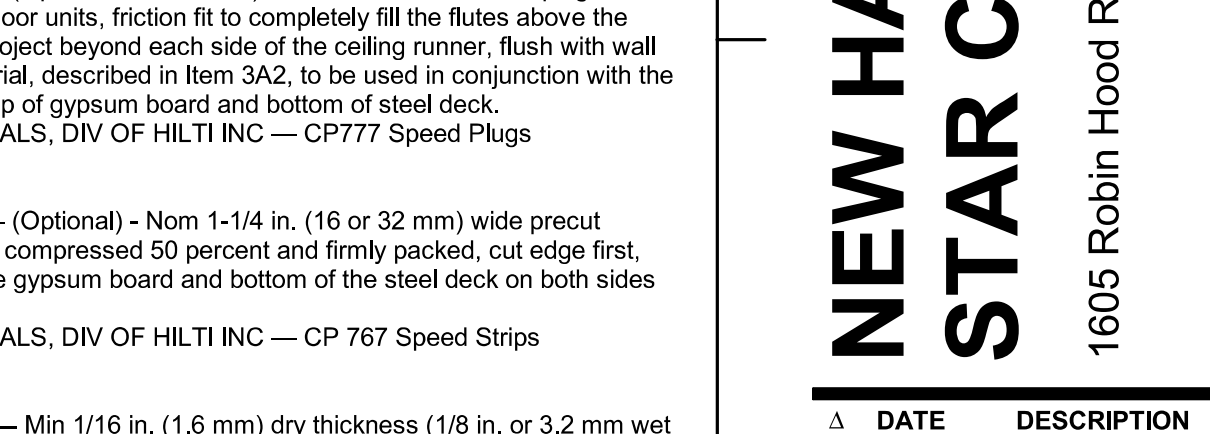
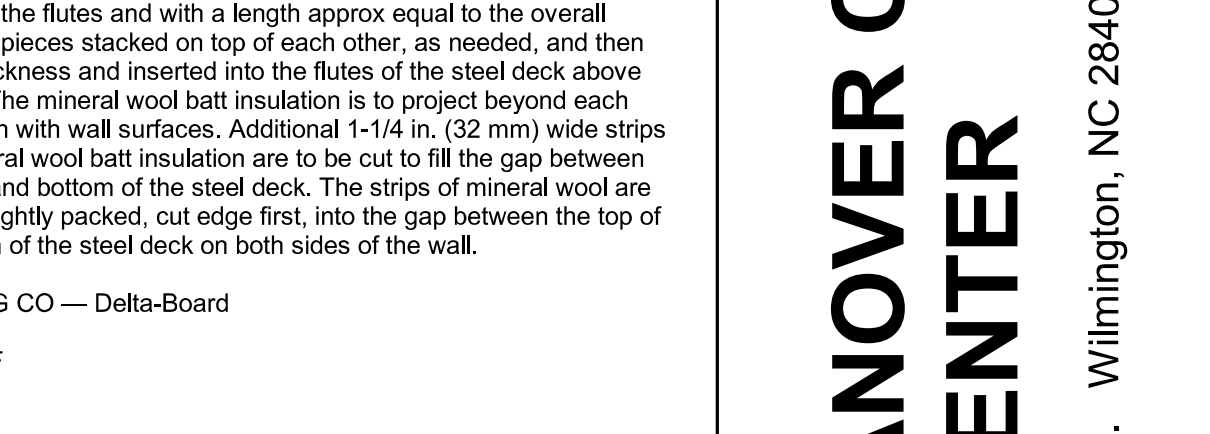
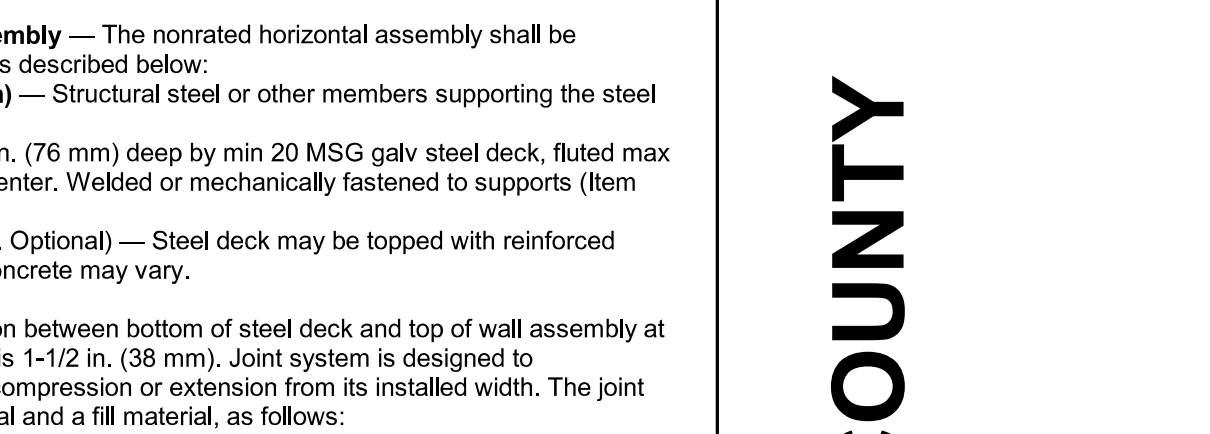
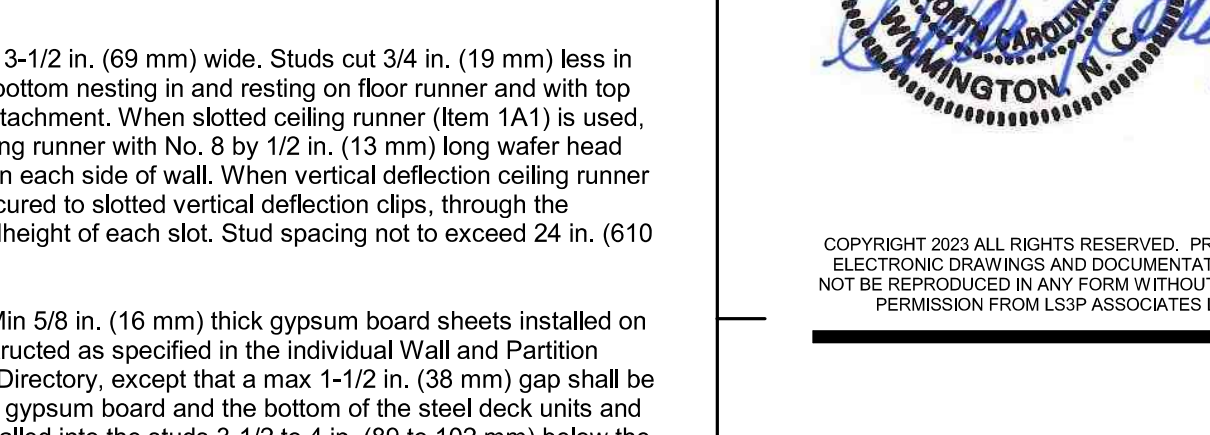
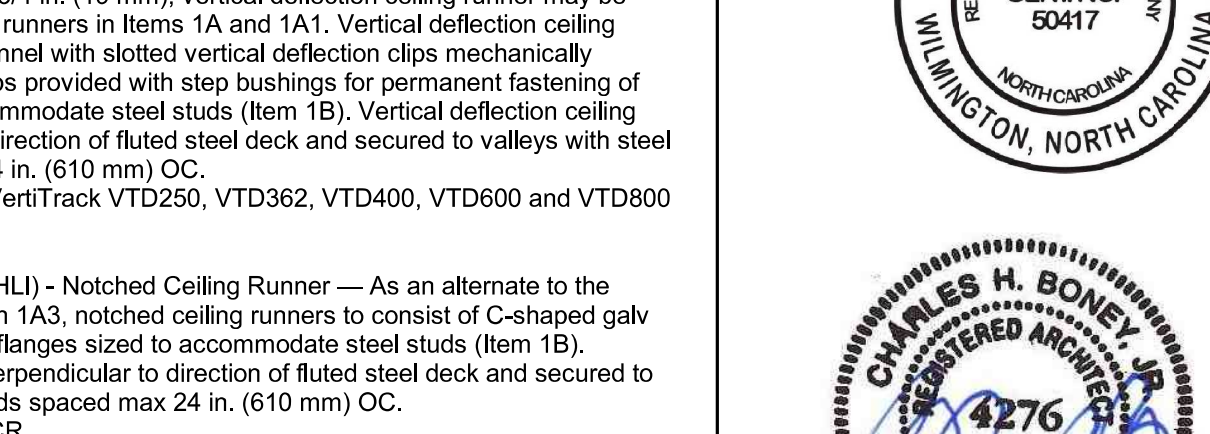
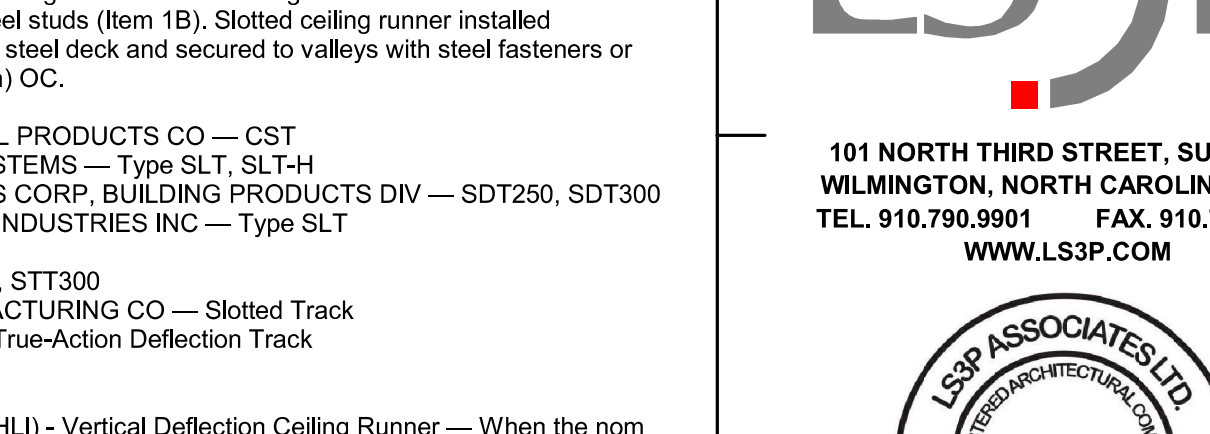
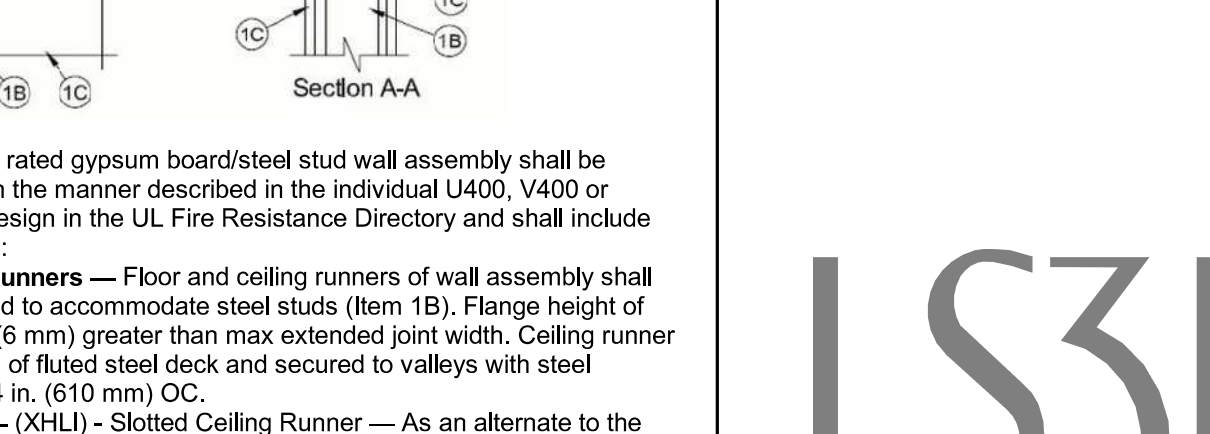
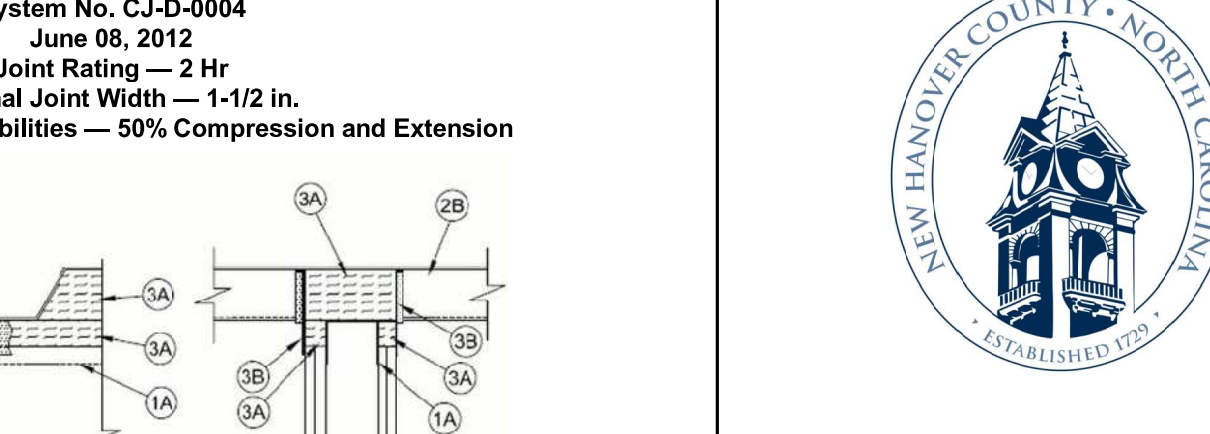
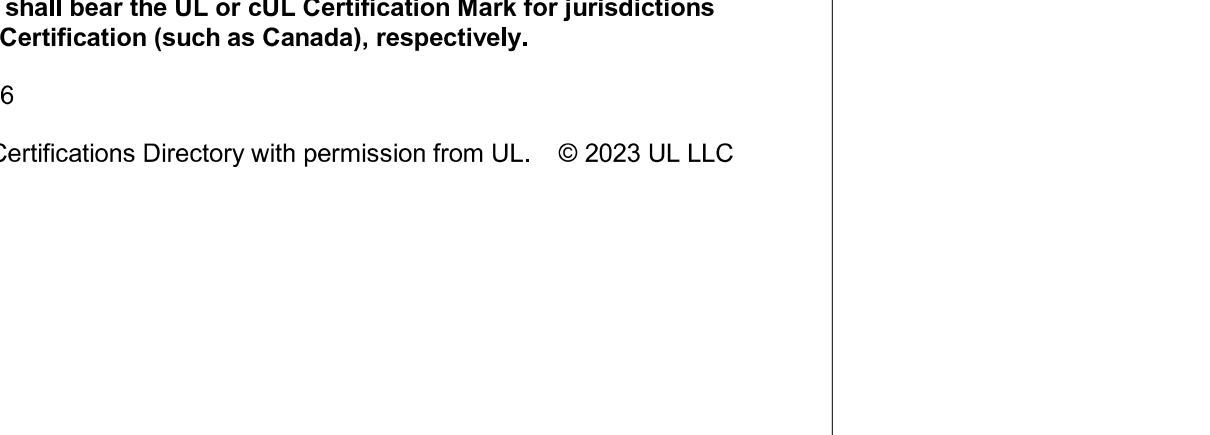
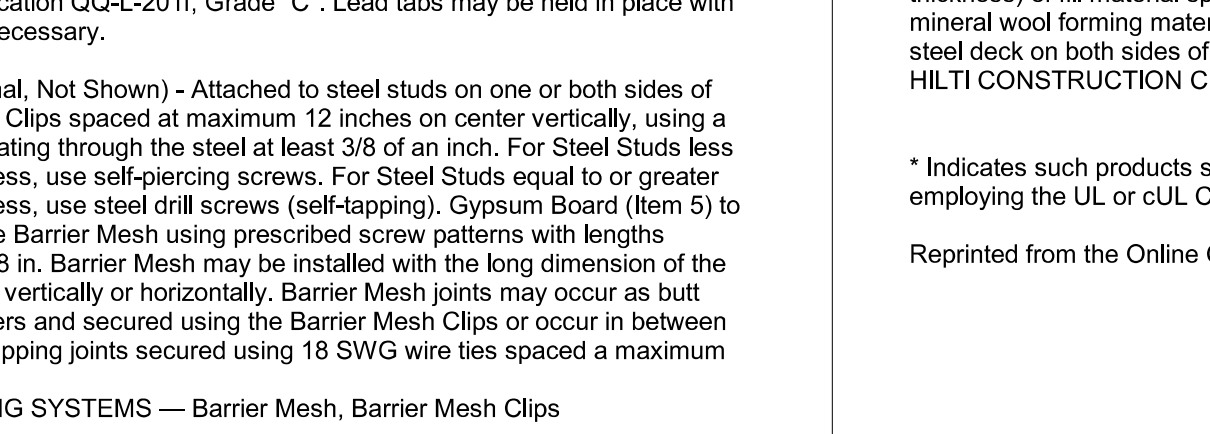
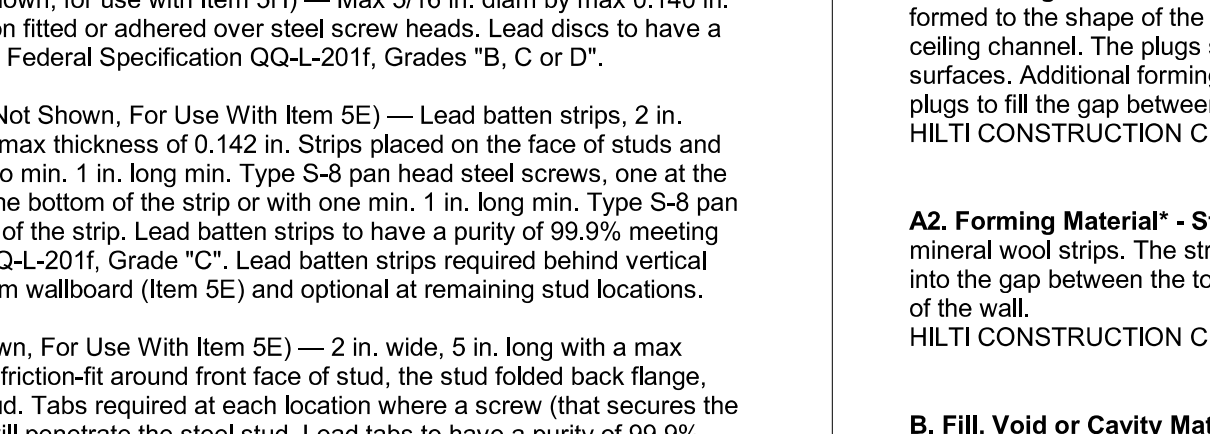
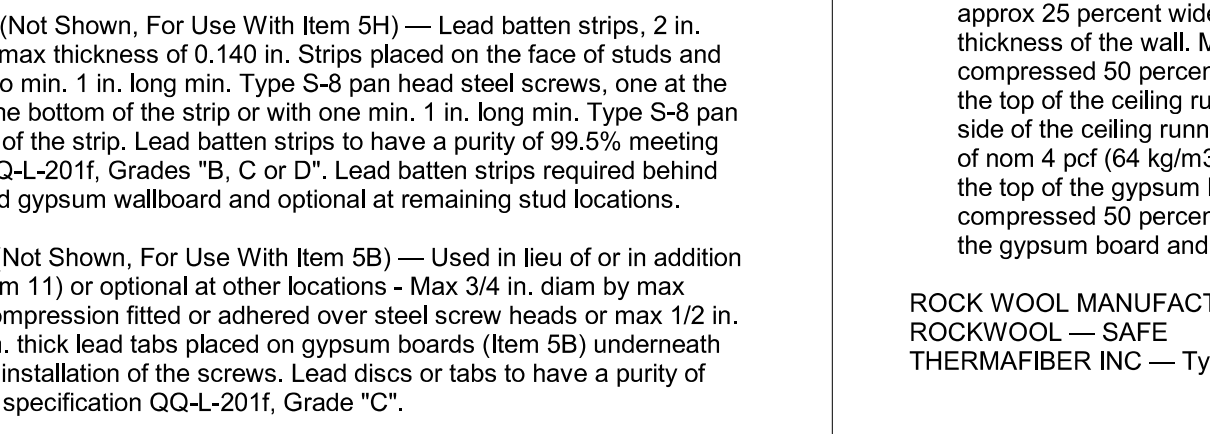
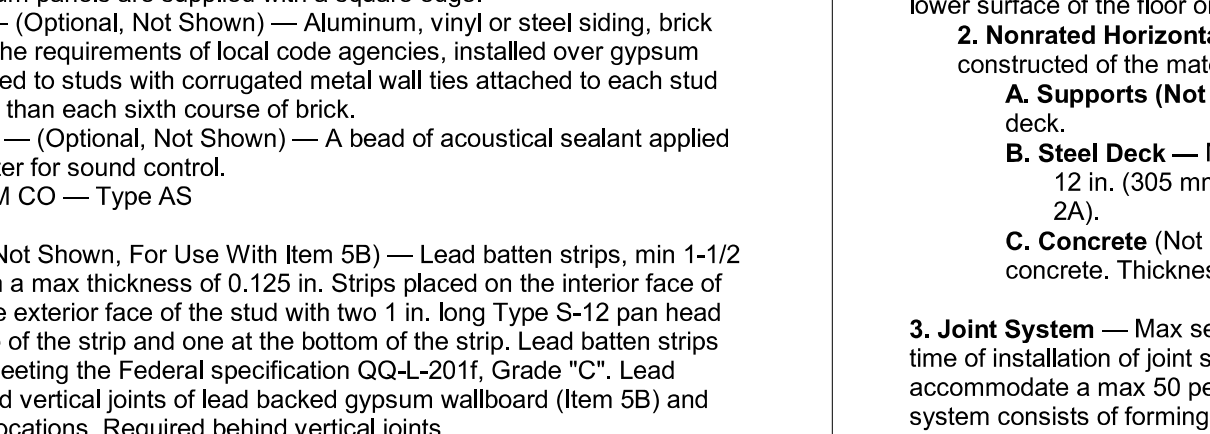
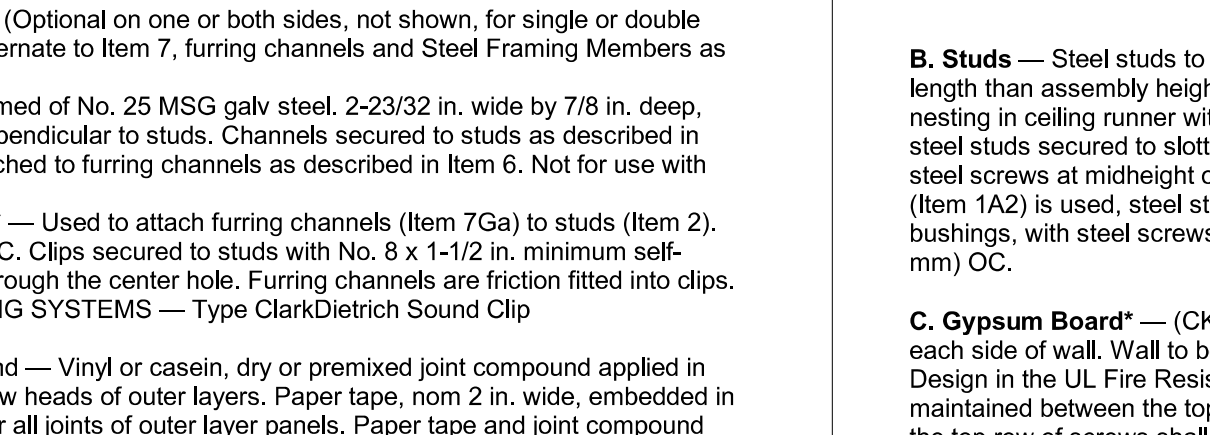
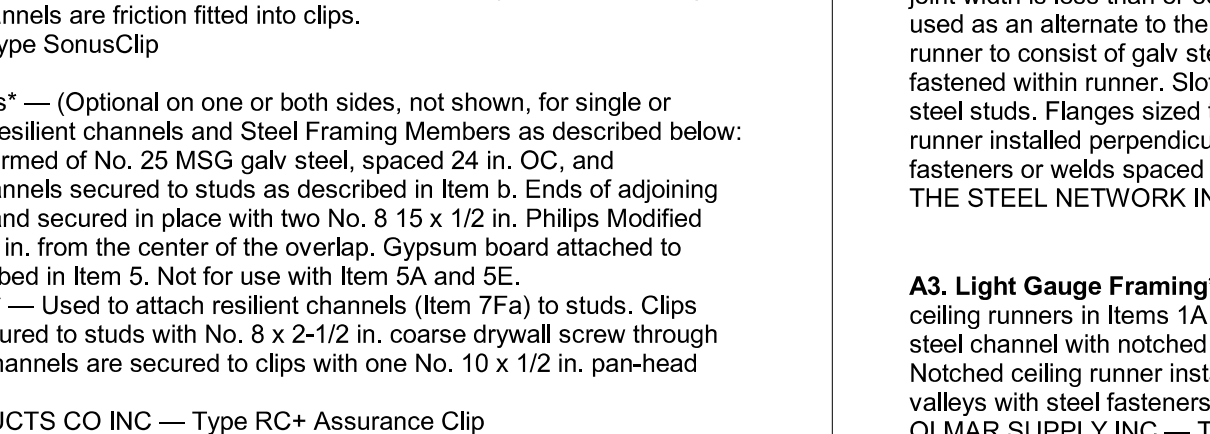
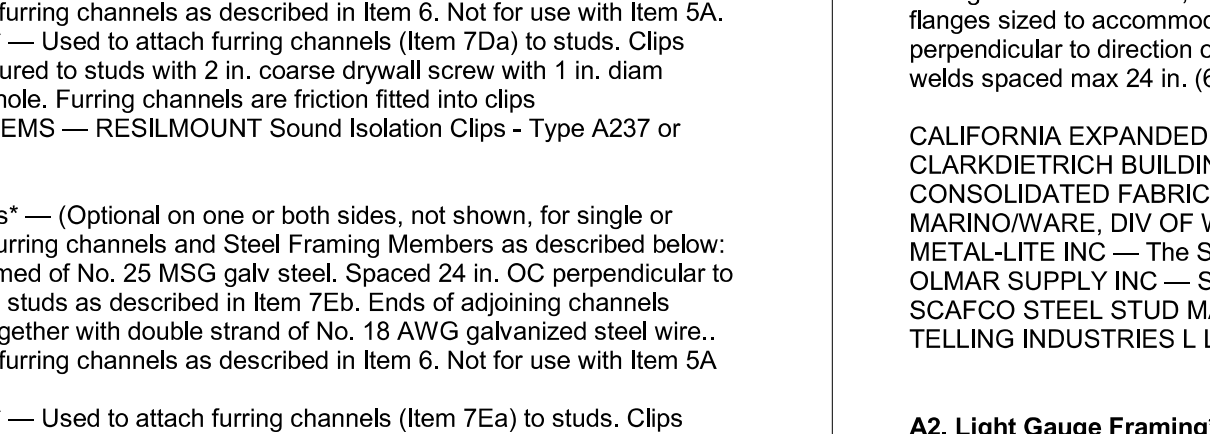
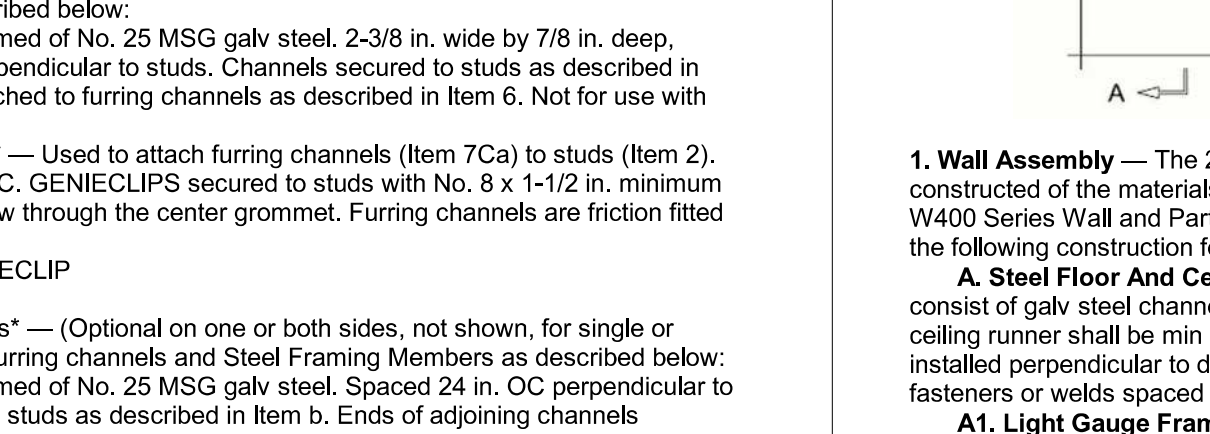
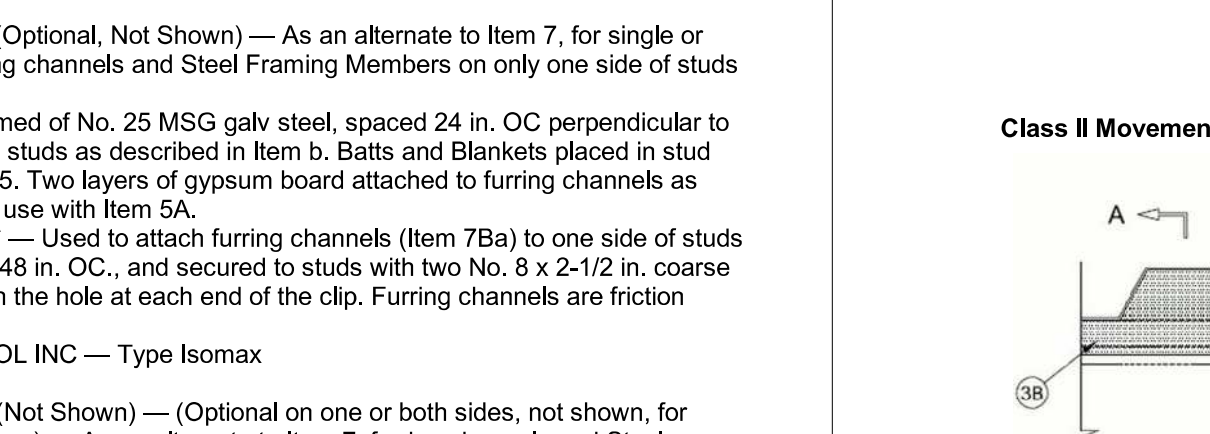
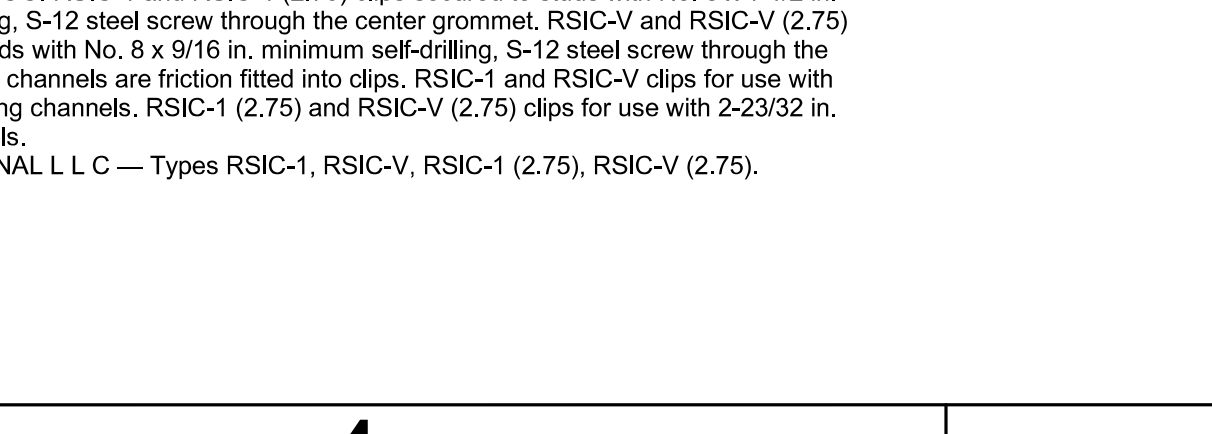
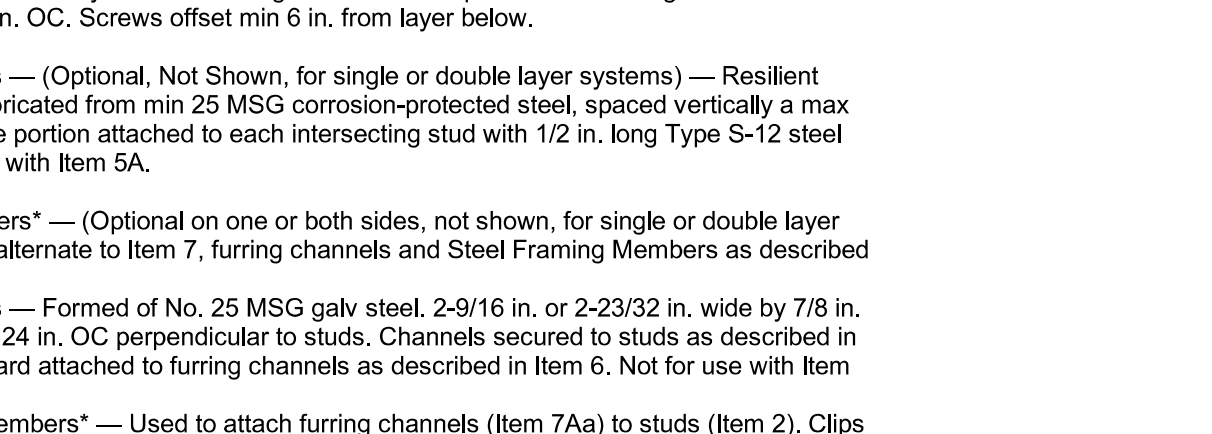
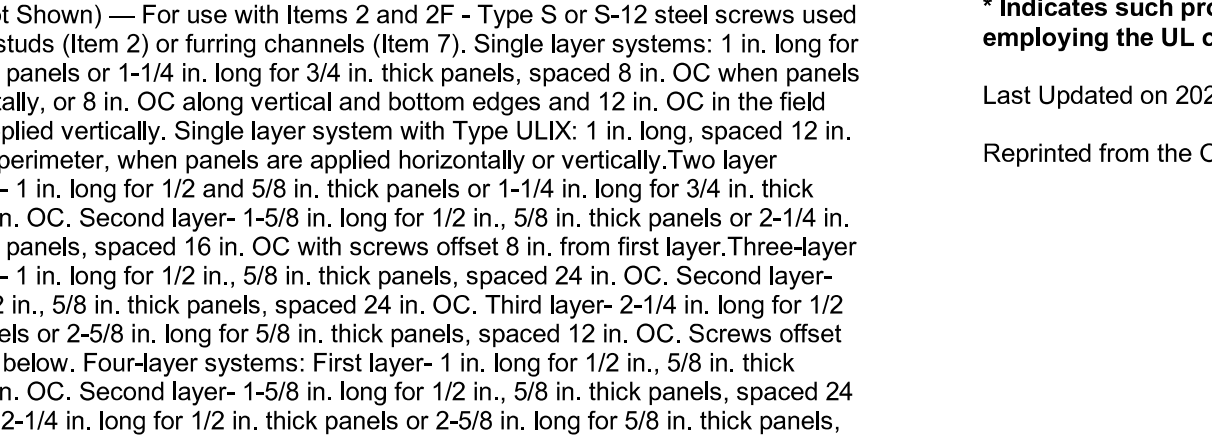
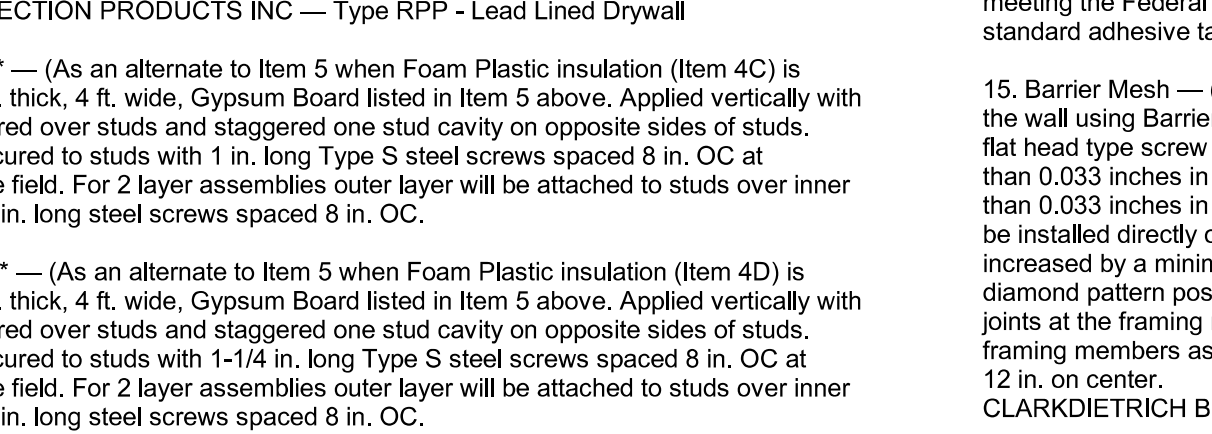
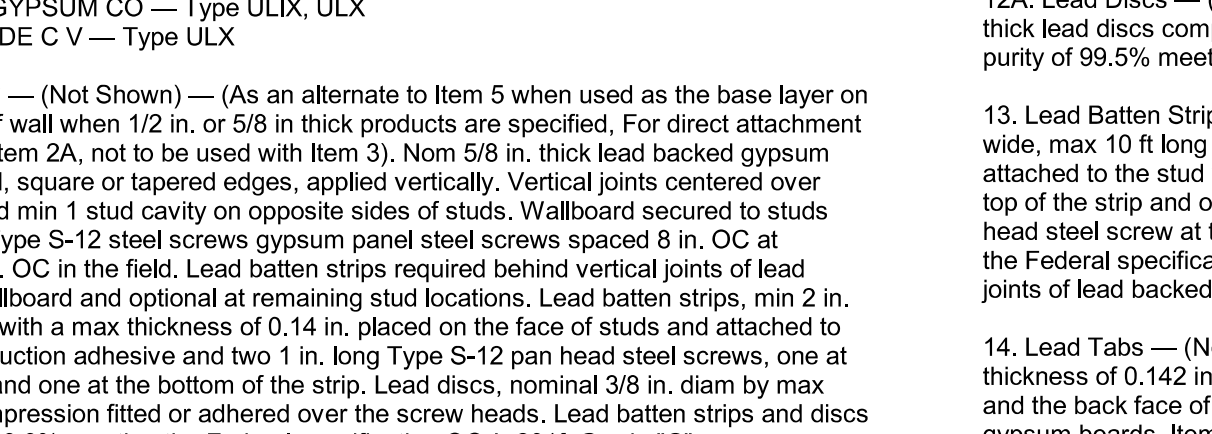
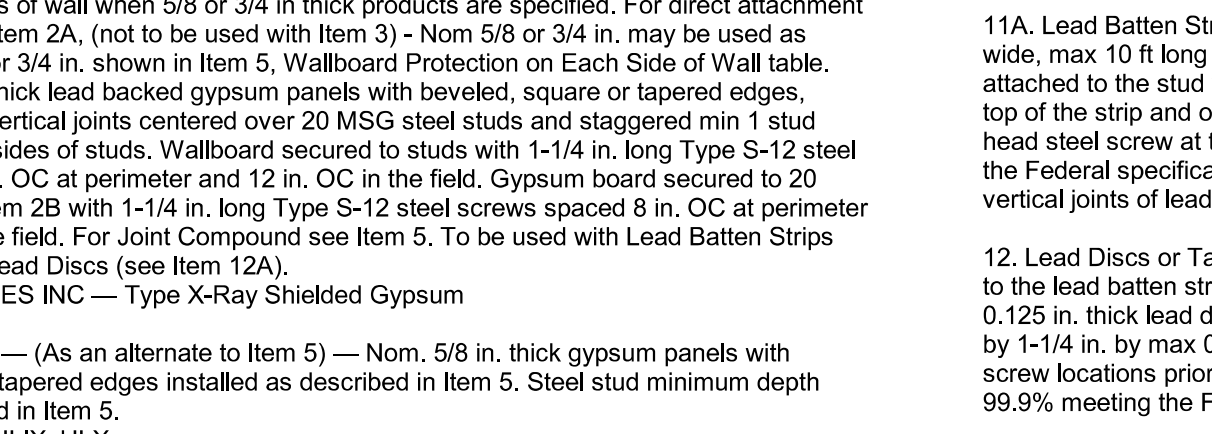
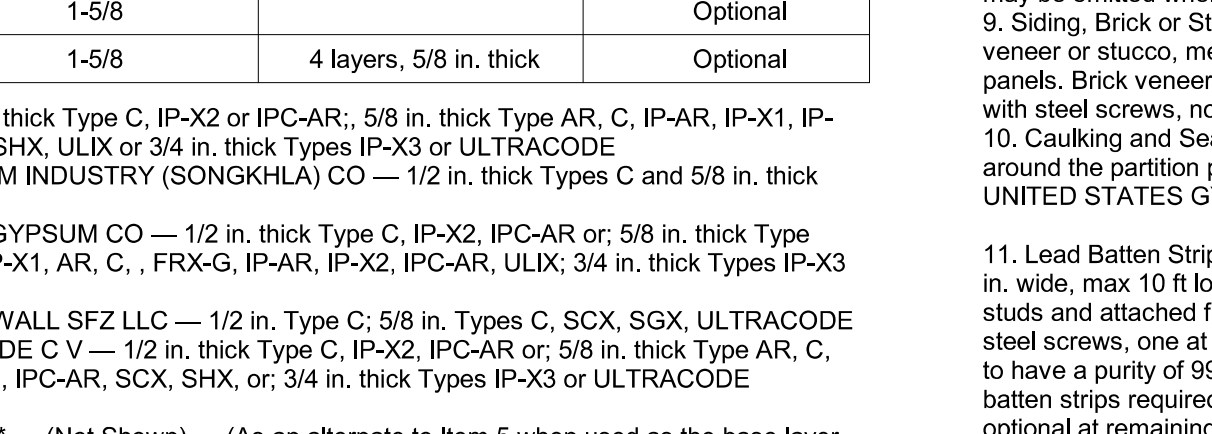
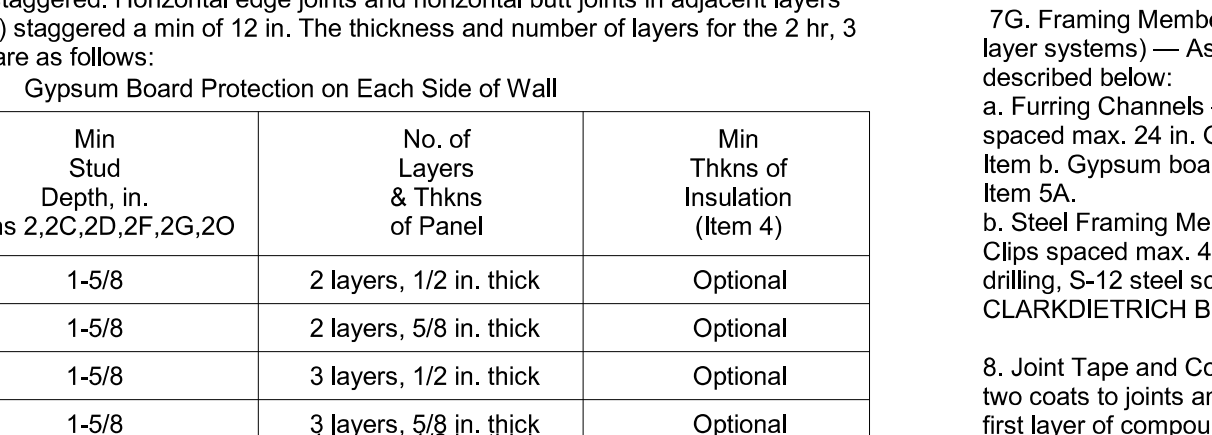
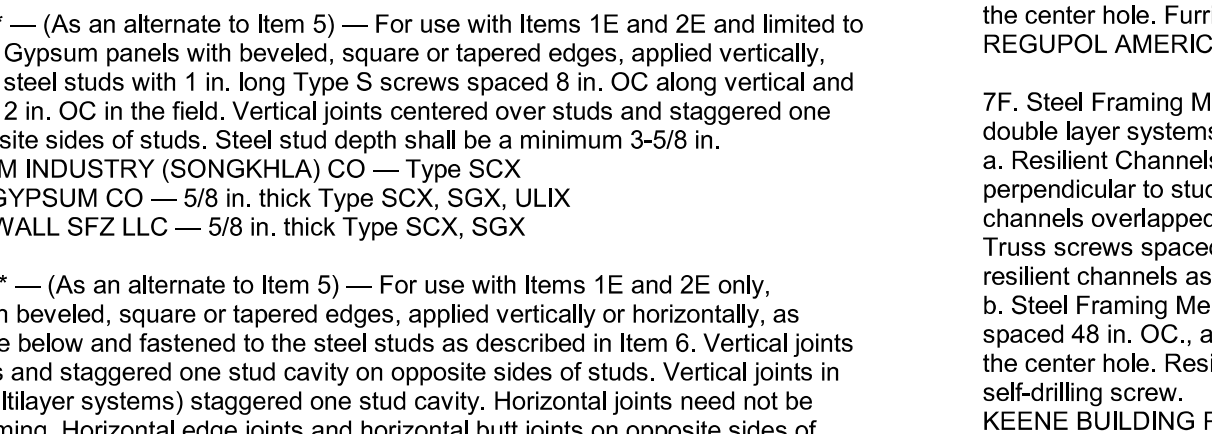
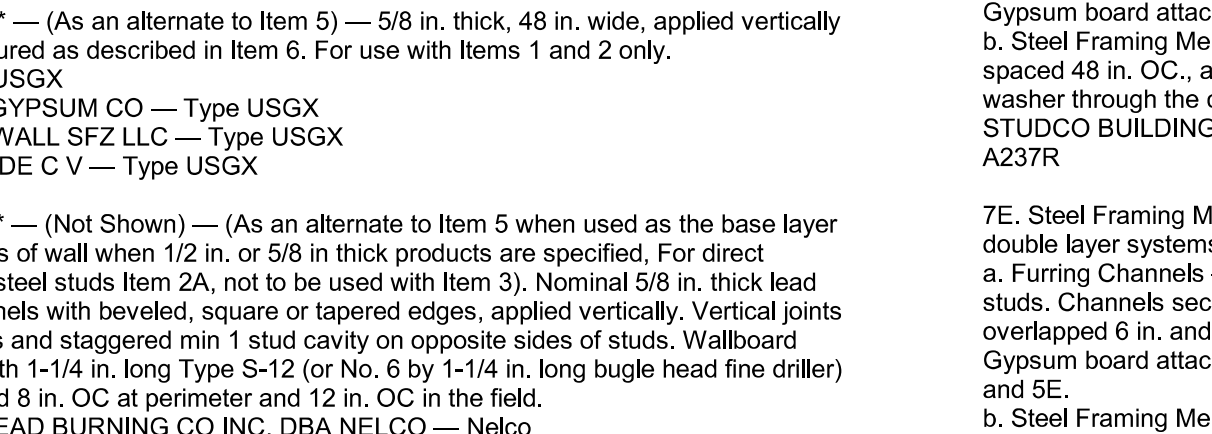
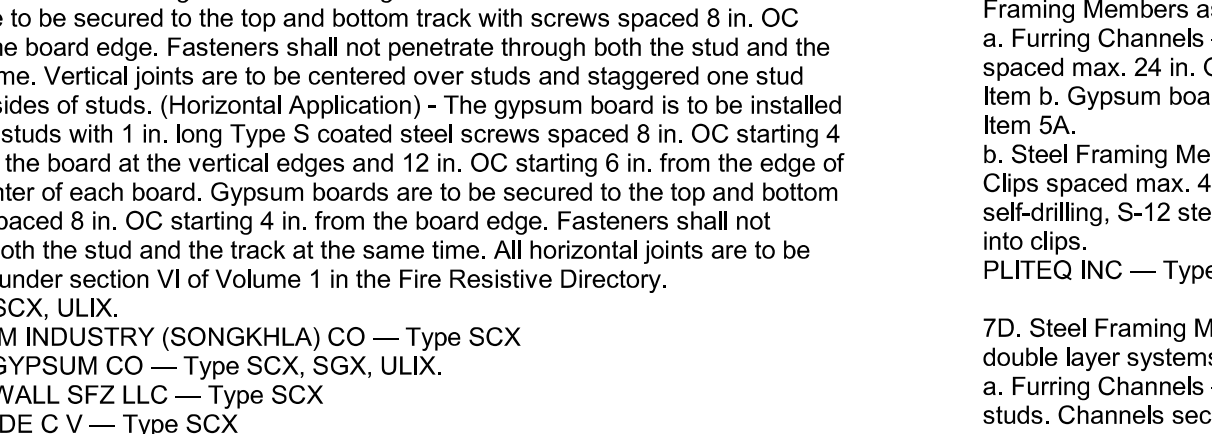
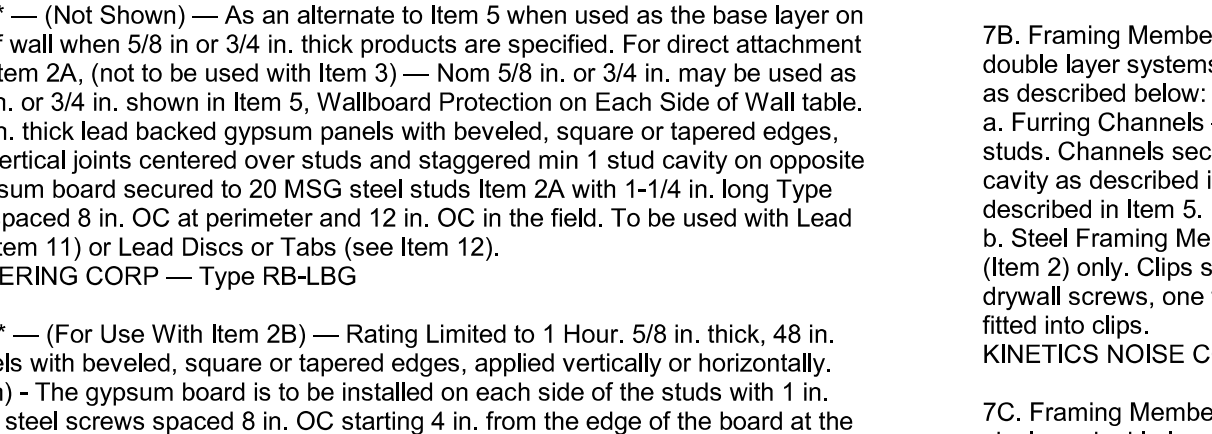
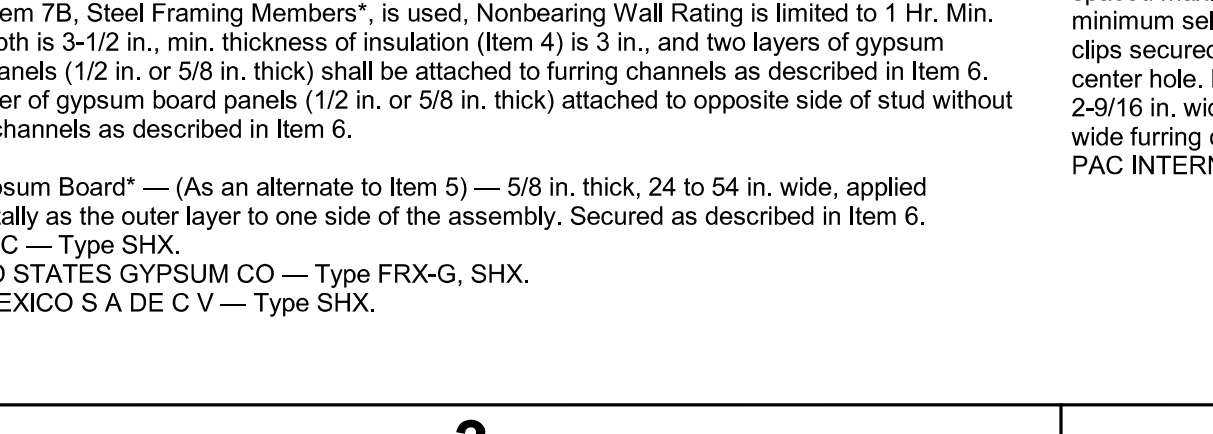
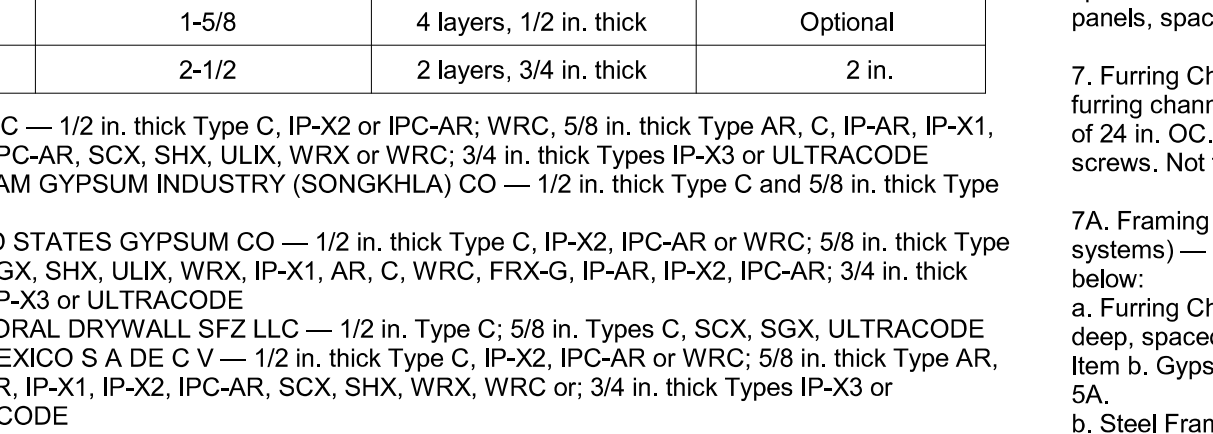
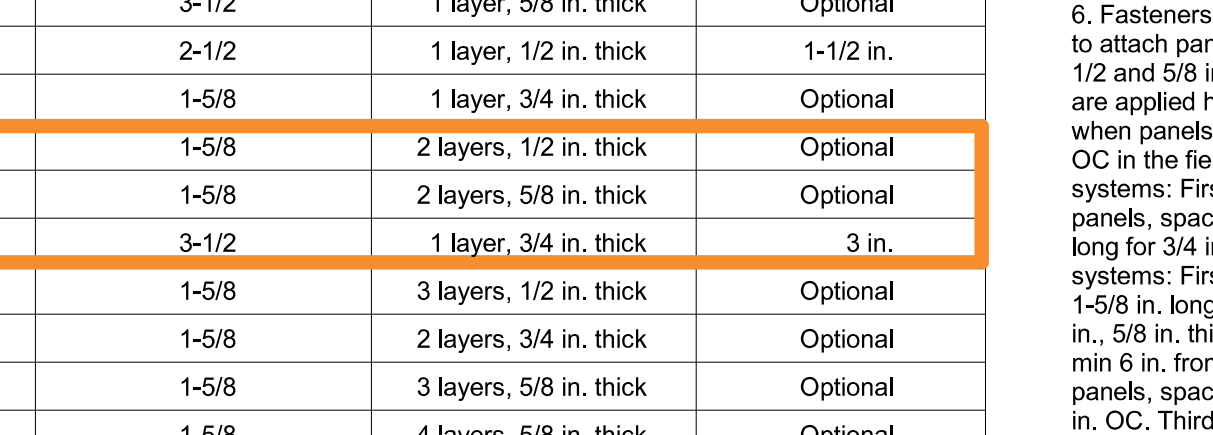
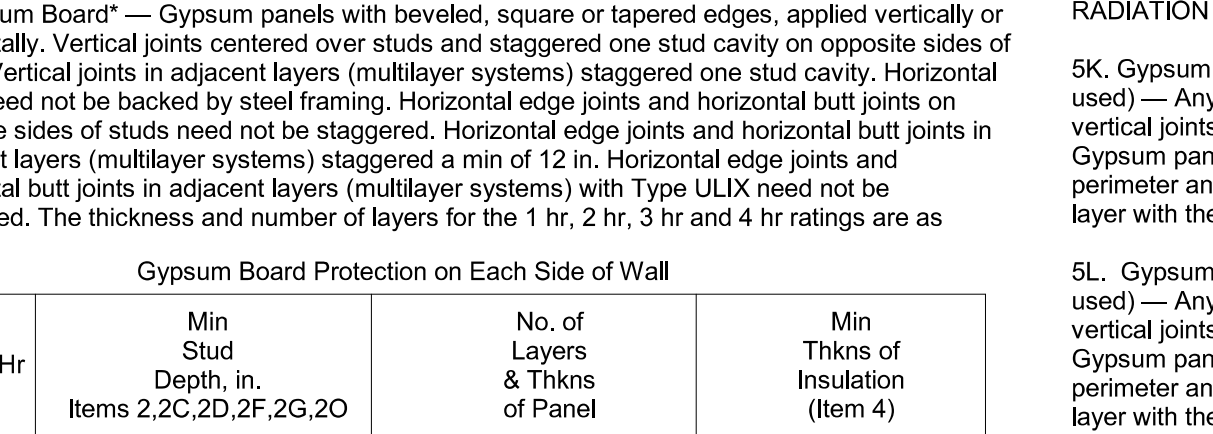
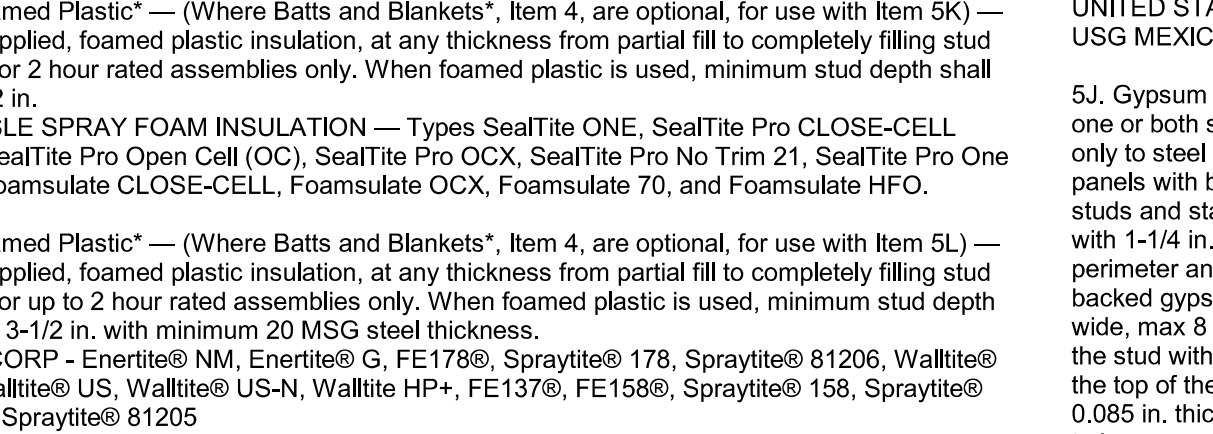
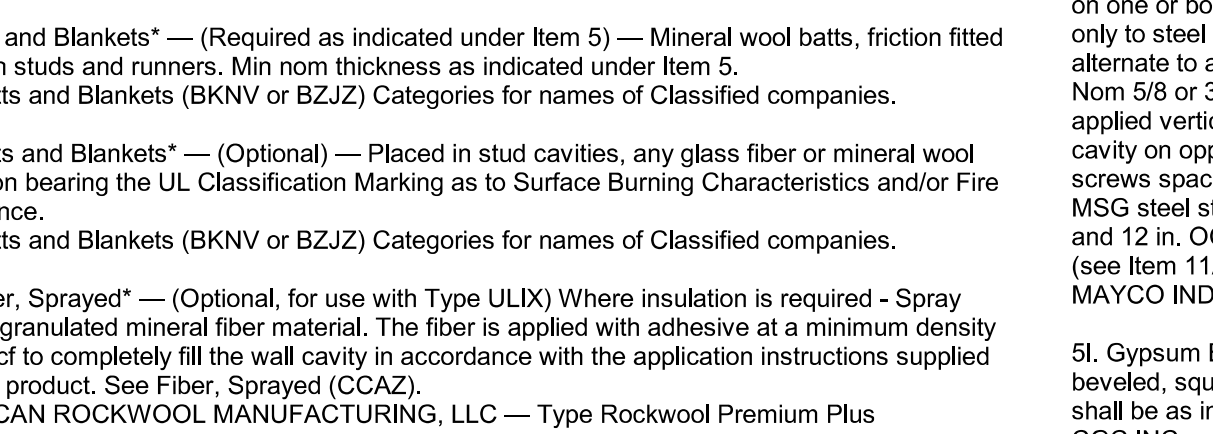
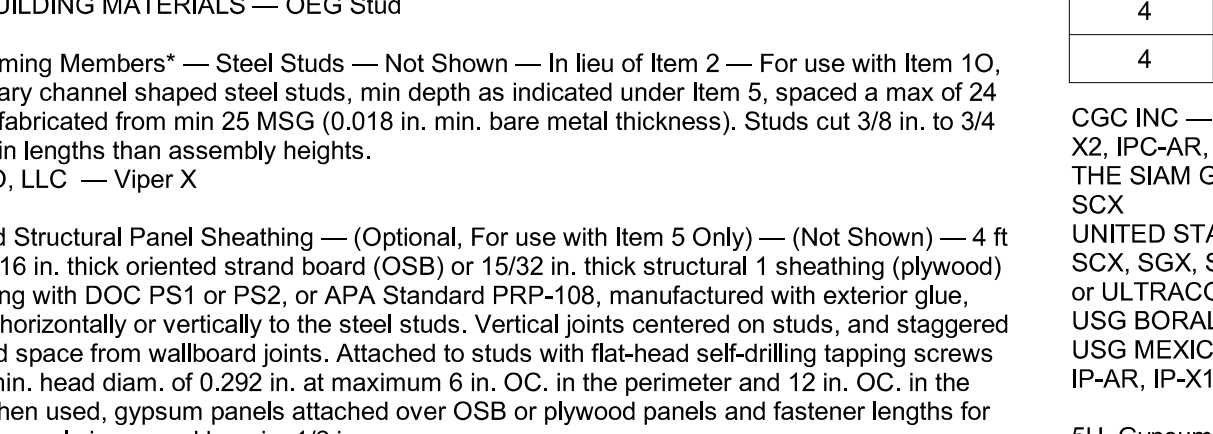
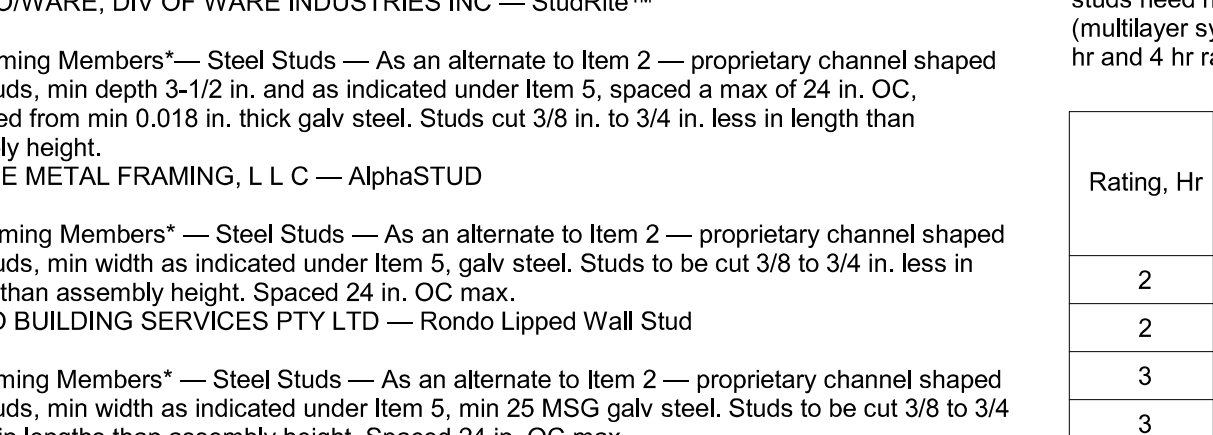
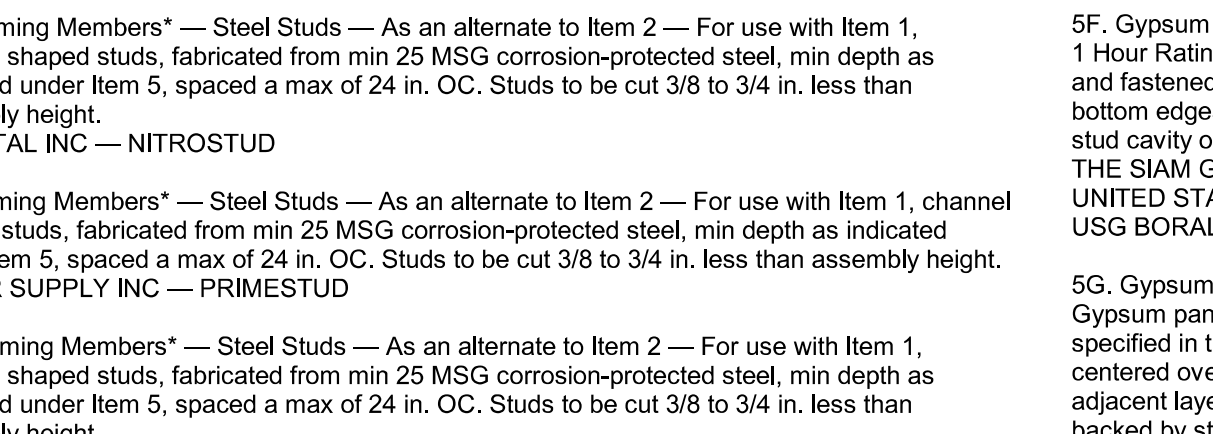
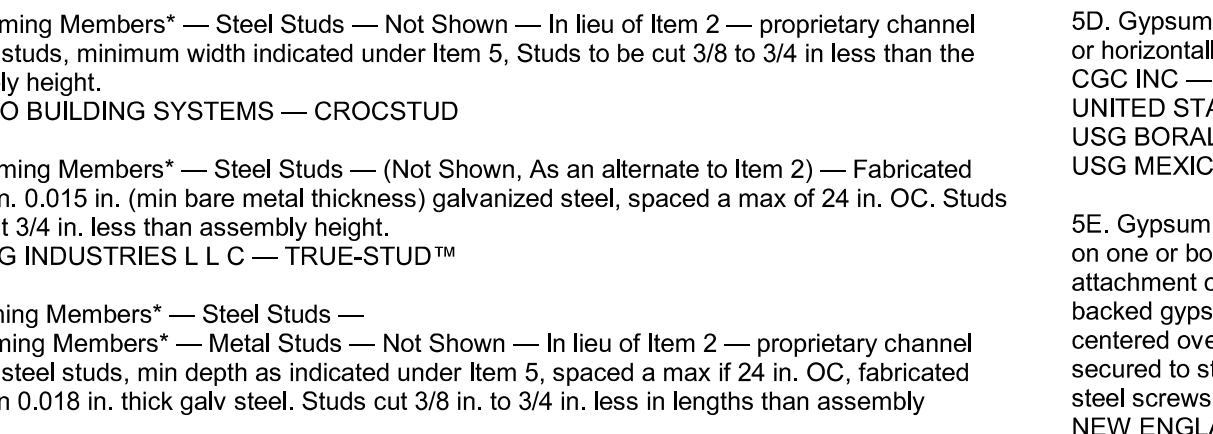
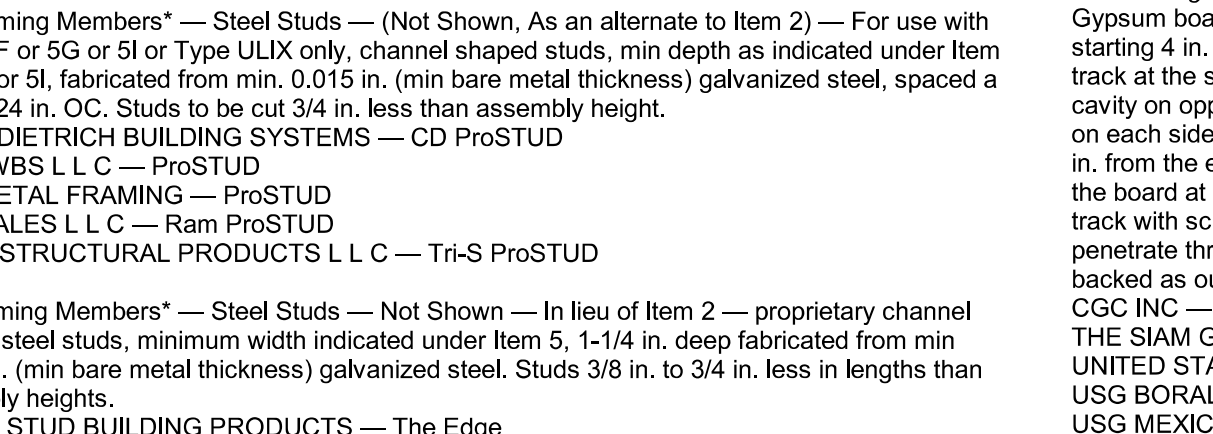
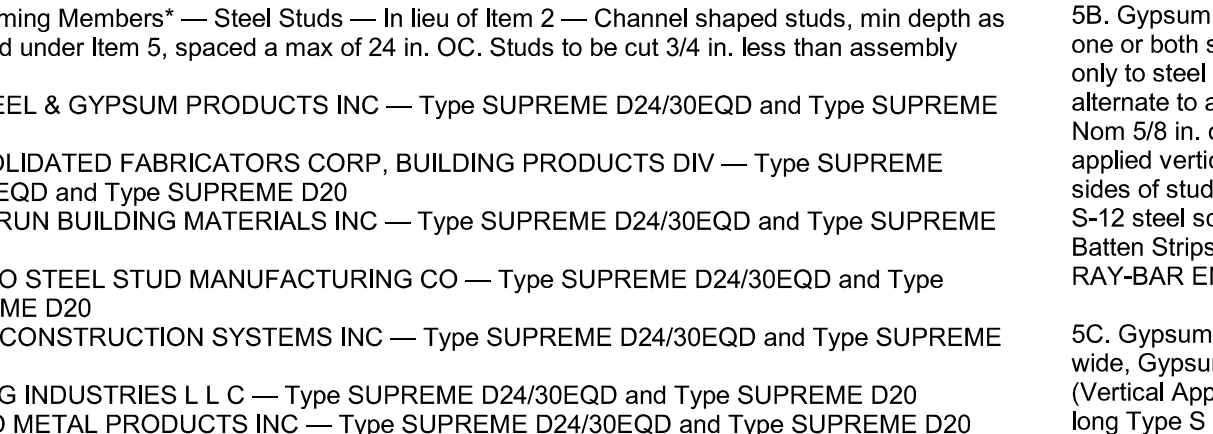
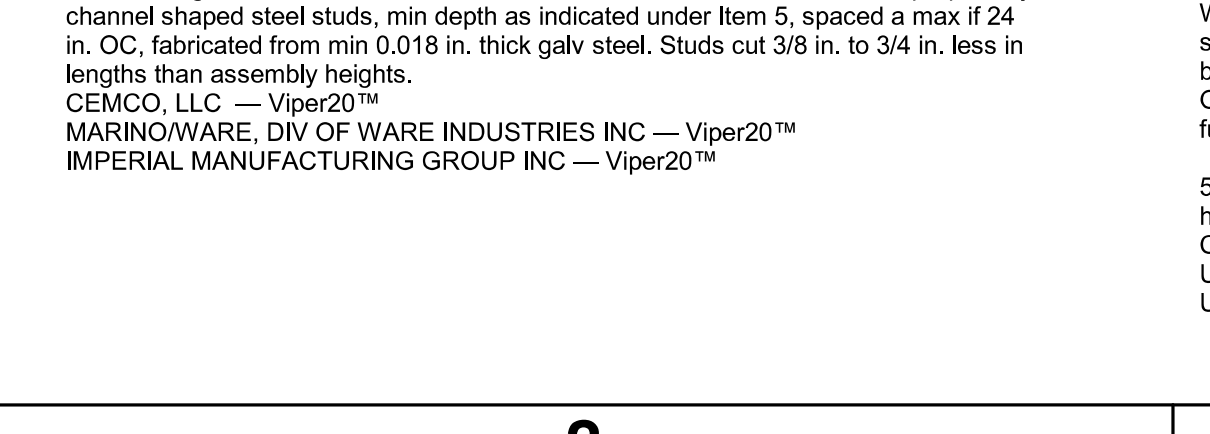
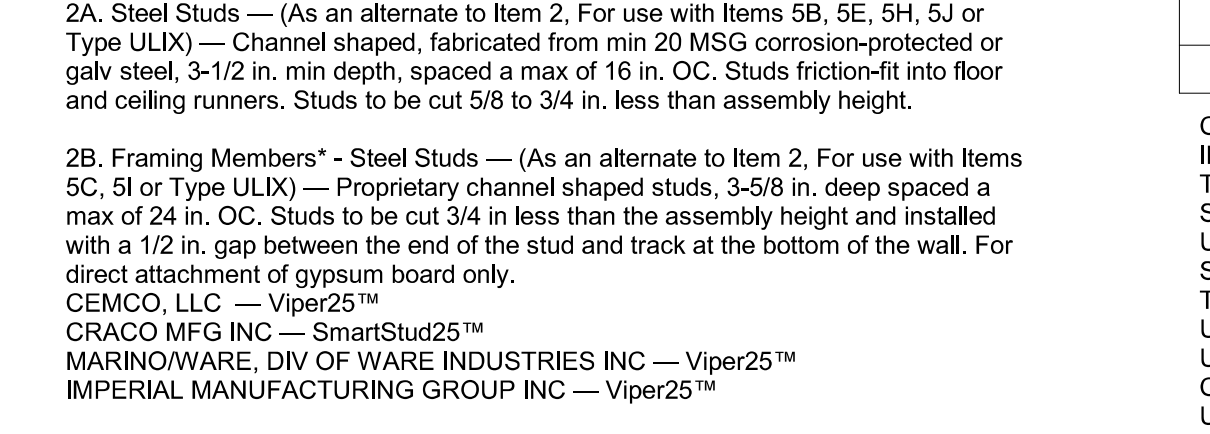
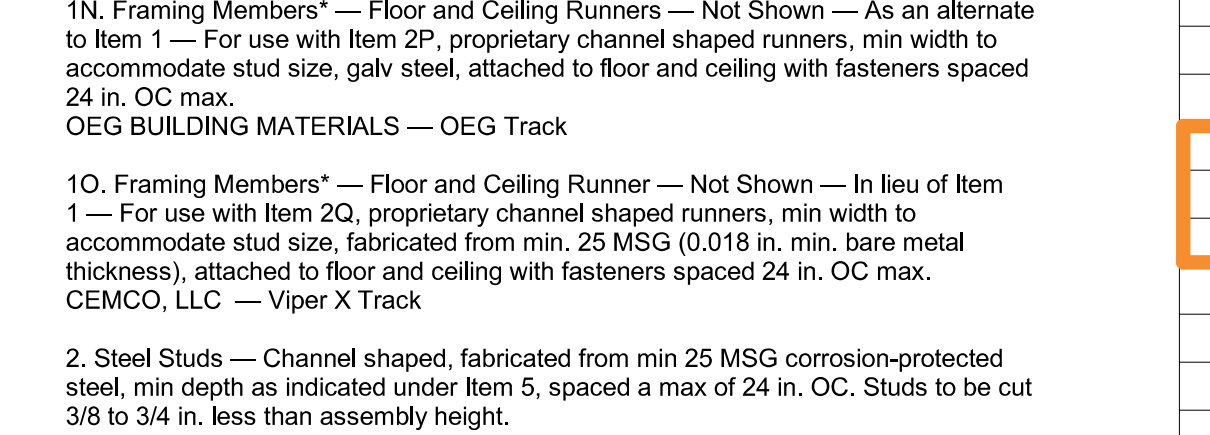
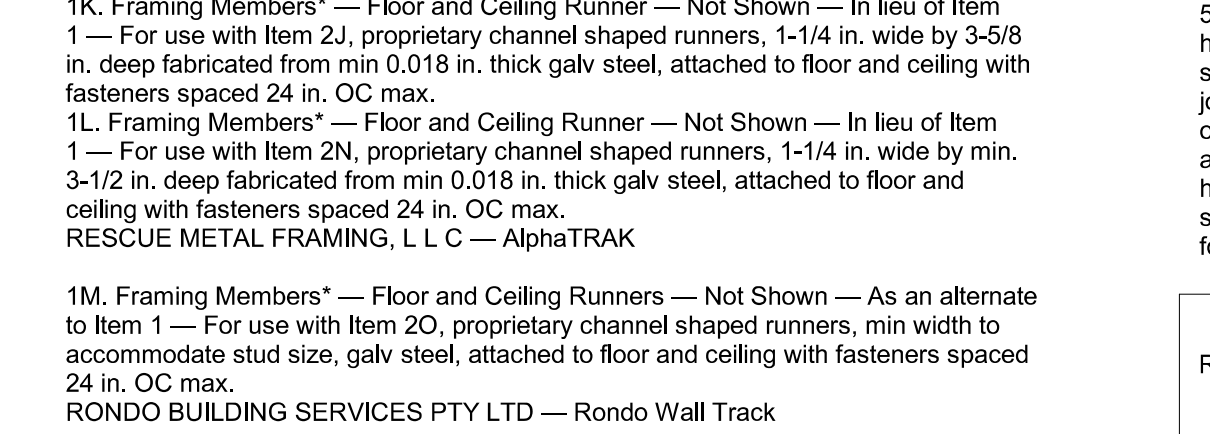
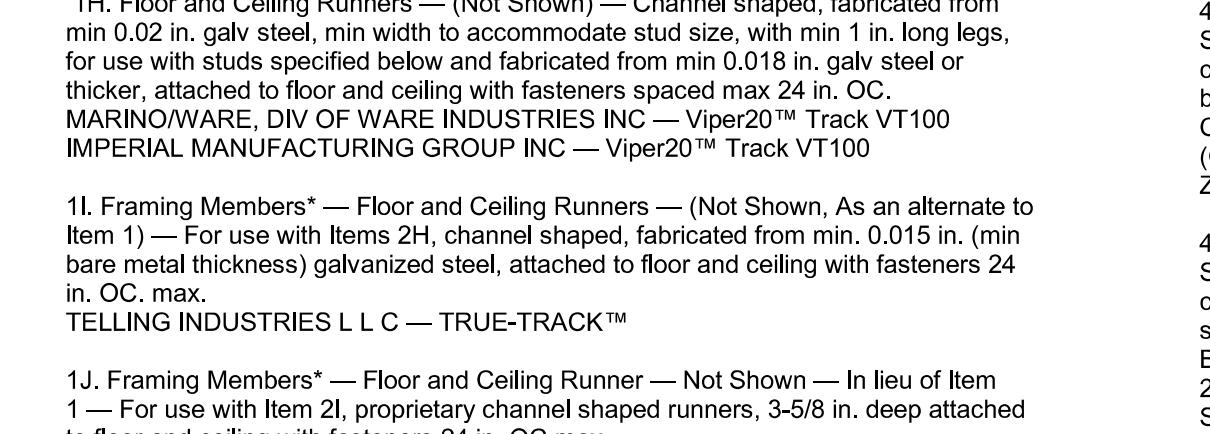
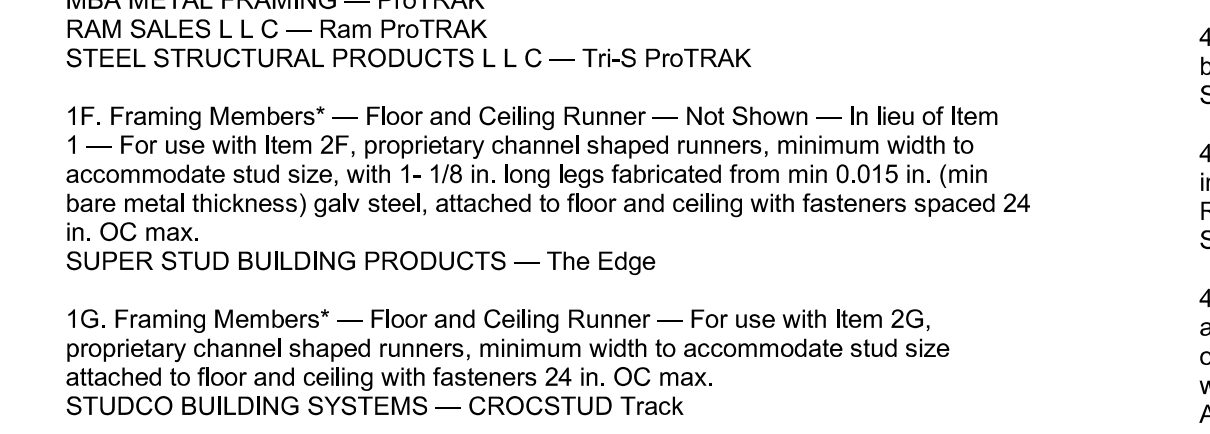
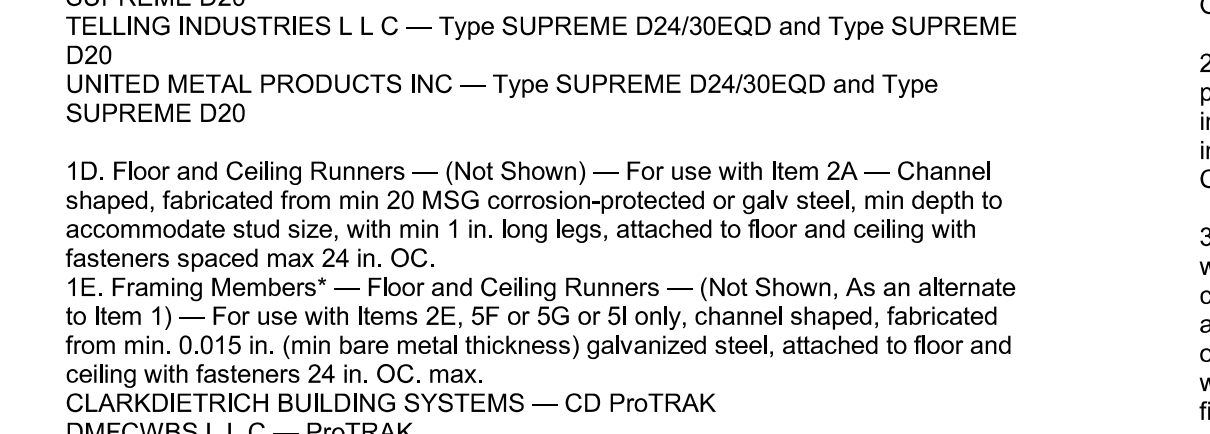
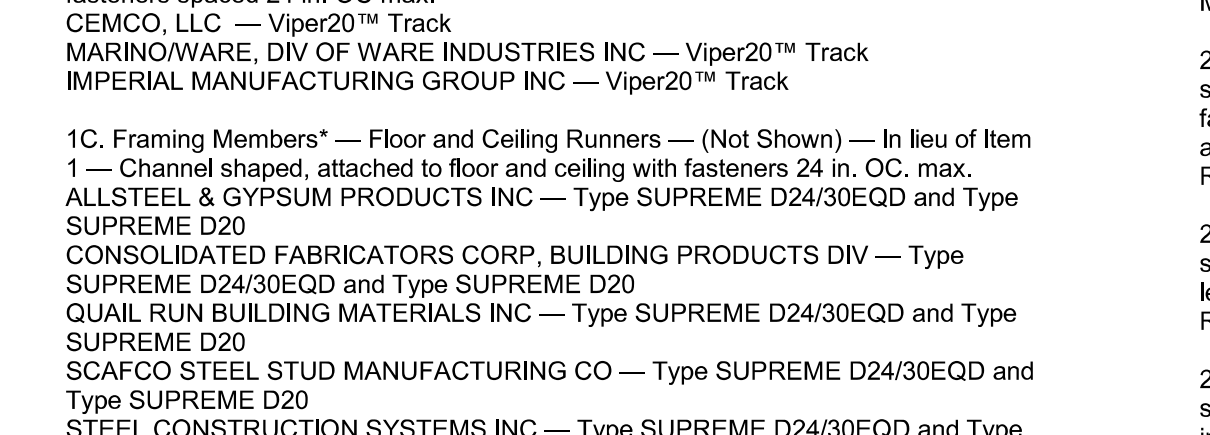
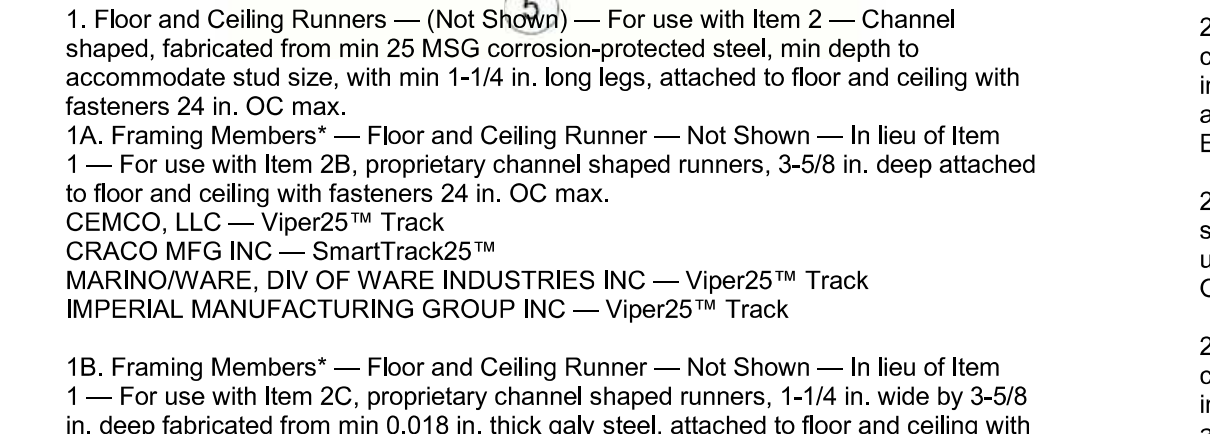
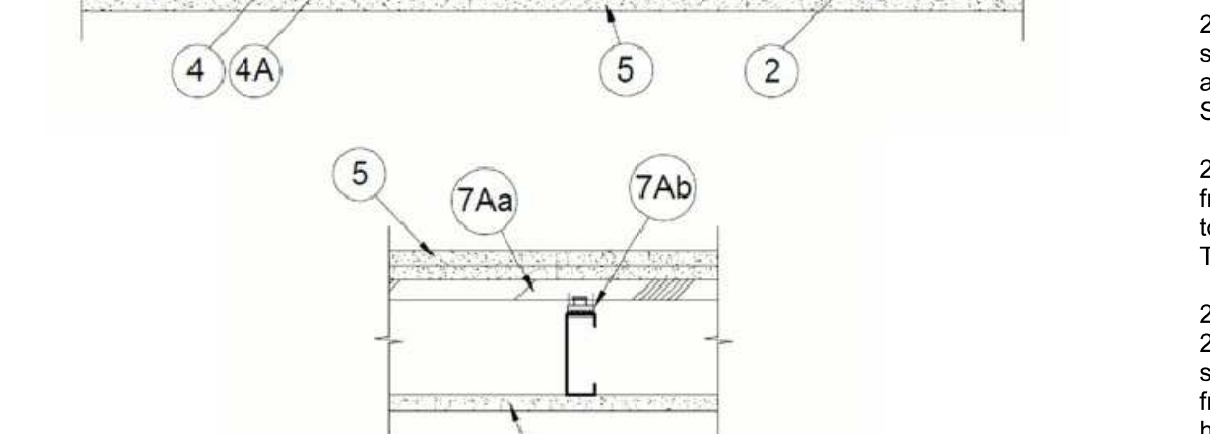
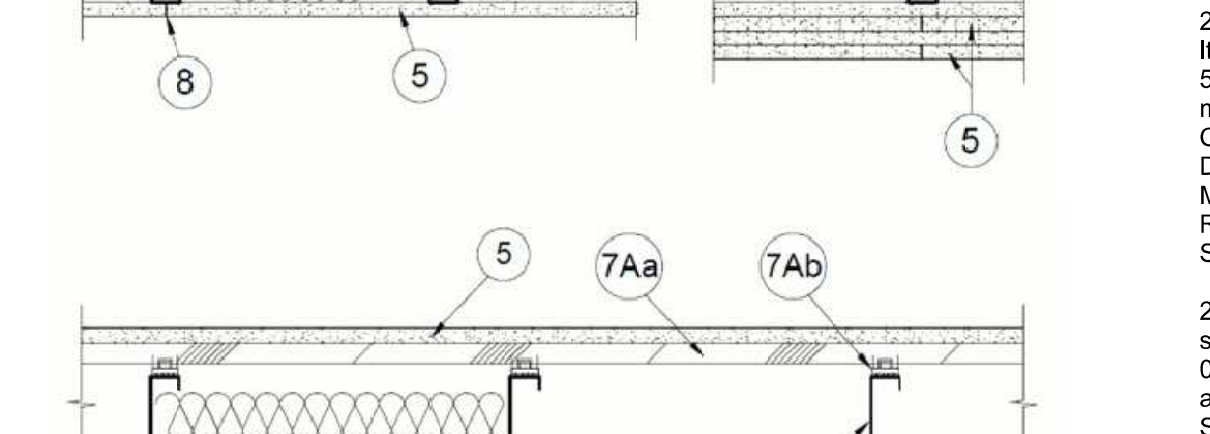
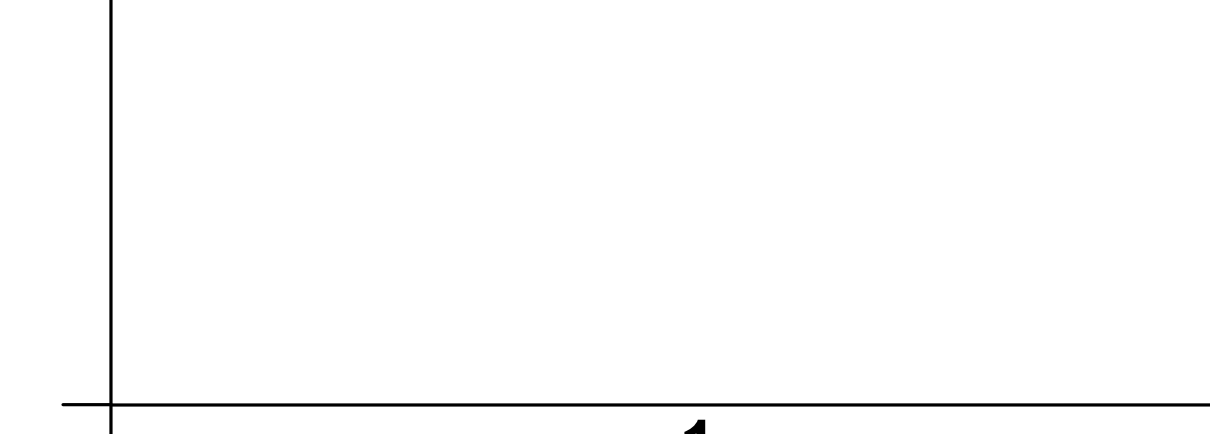
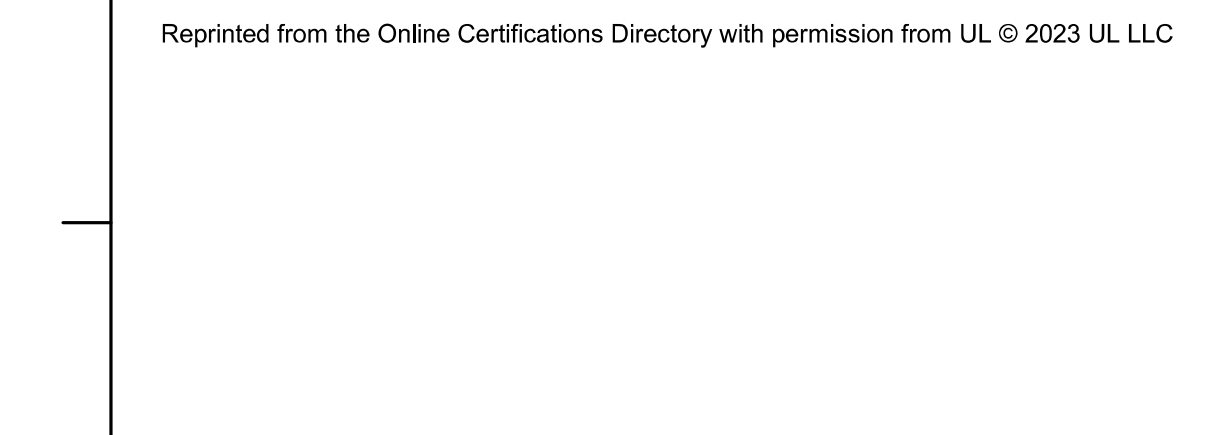
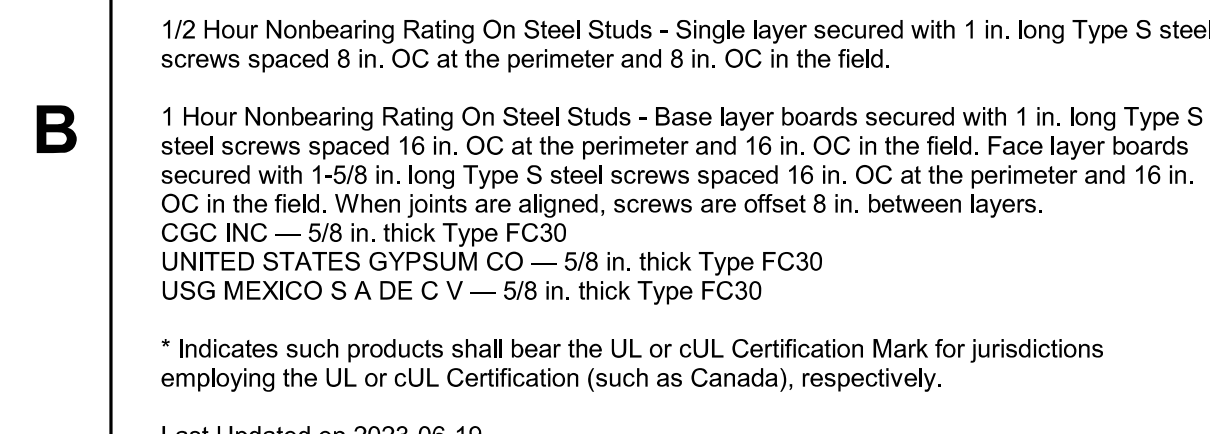
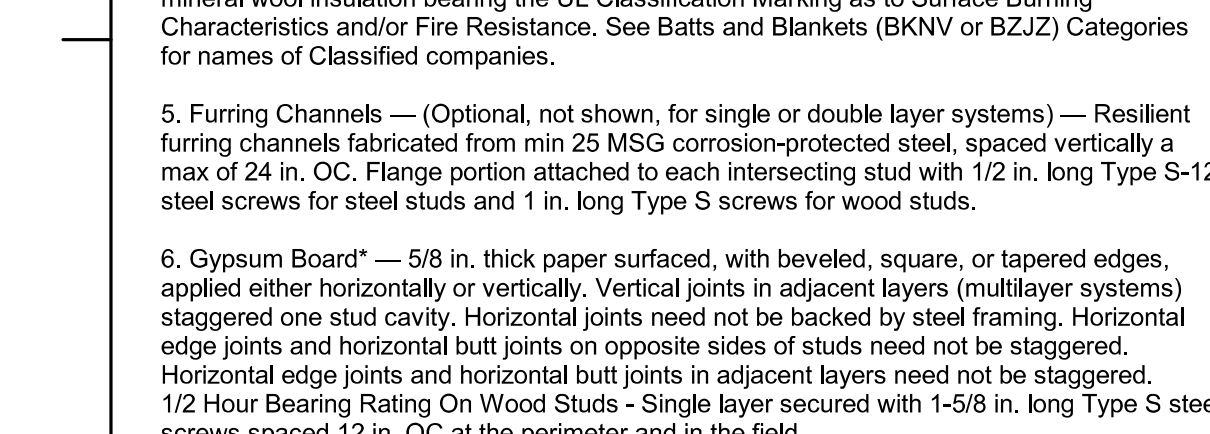
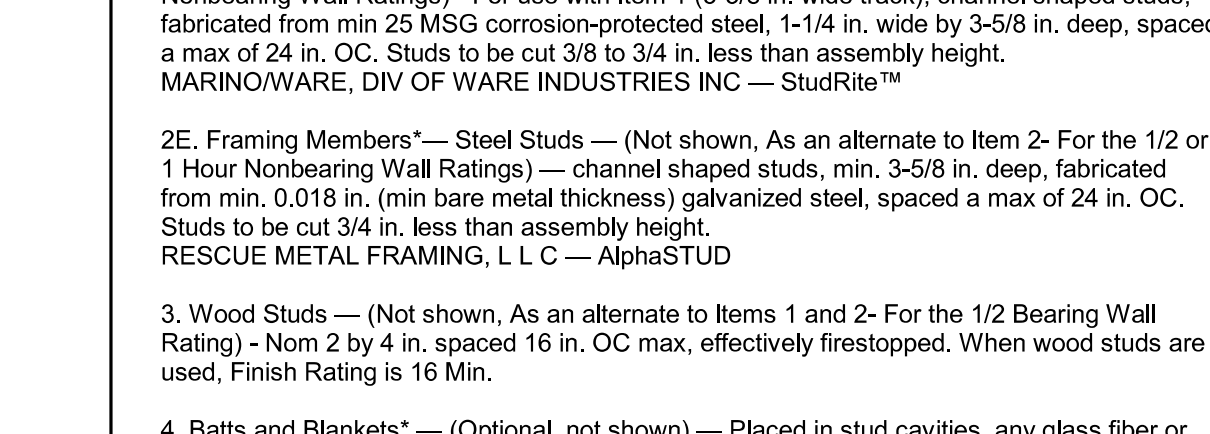
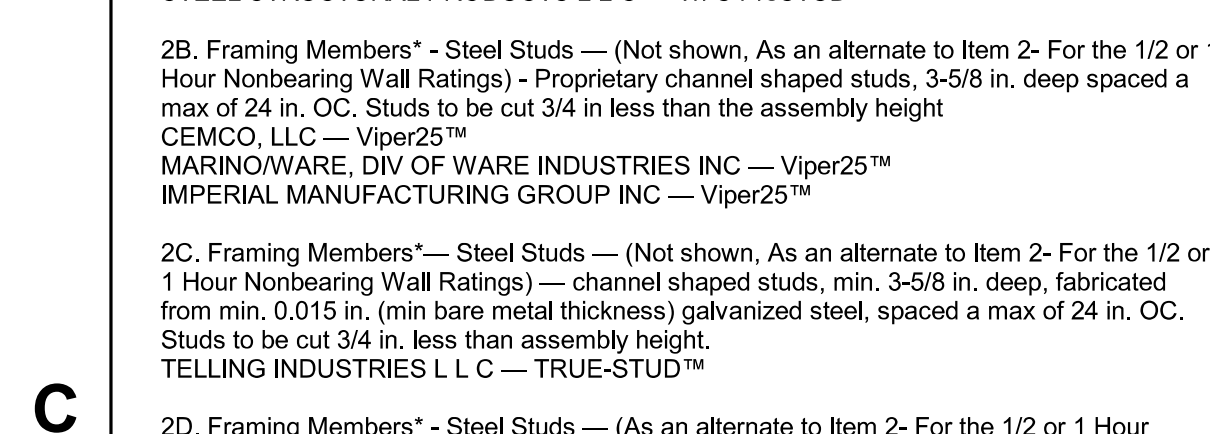
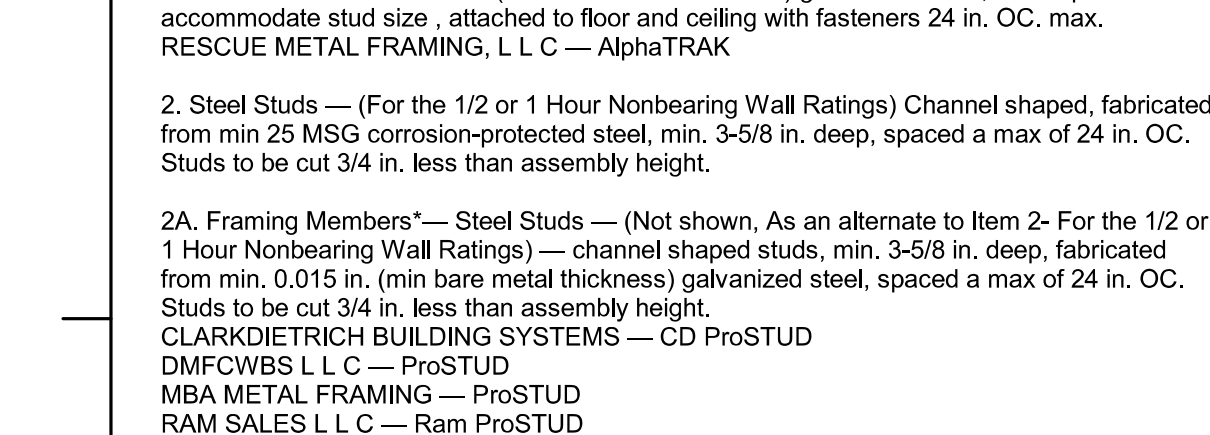
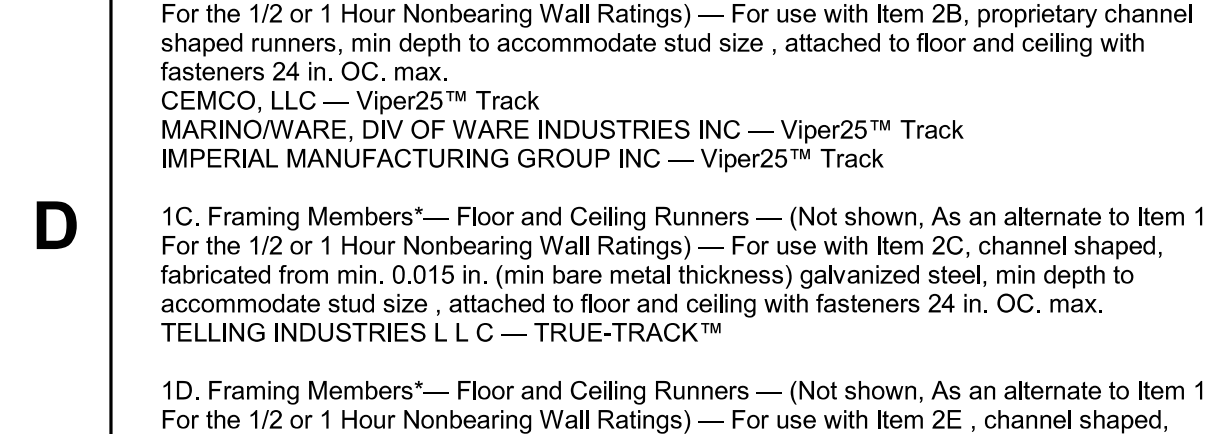
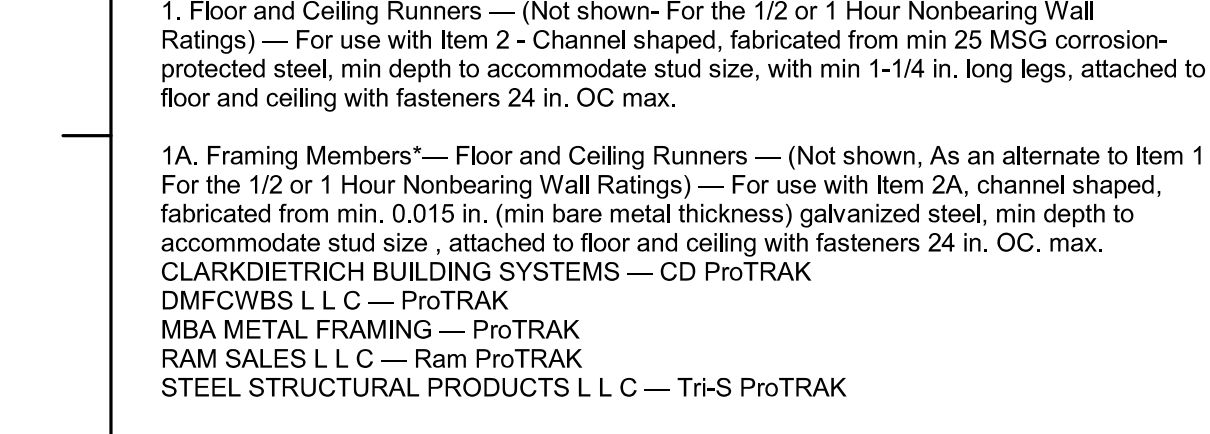
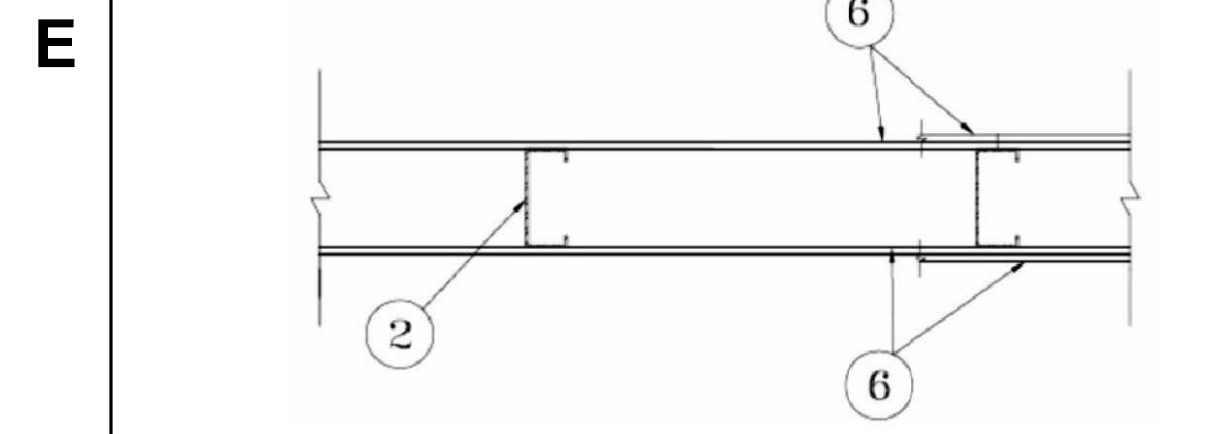
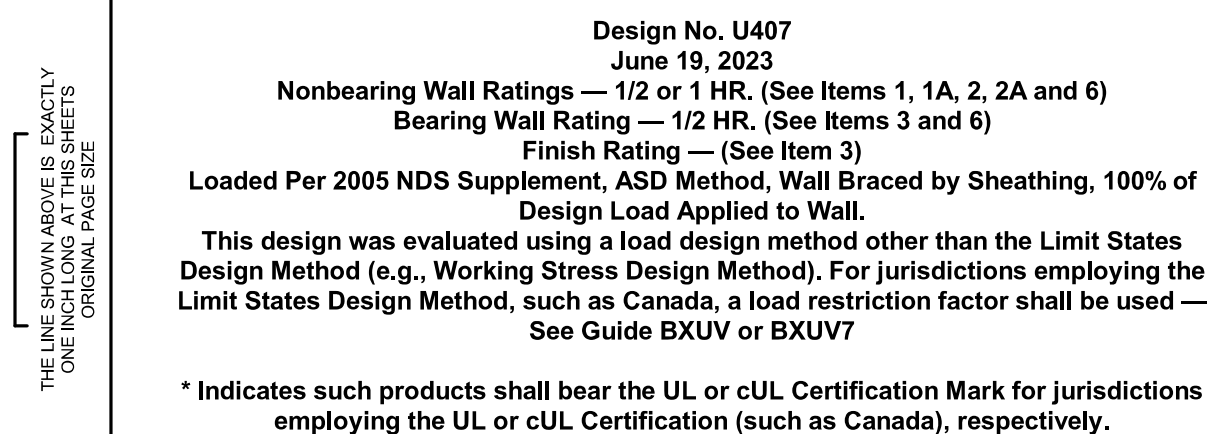
DATE	DESCRIPTION
A 2024.01.31	100% Design Development
0 2024.08.21	Bid/Permit Set

SHEET NAME: CONSTRUCTION SUBSYSTEMS AND PARTITION TYPES

ORIG SUBMISSION: 2024.01.31

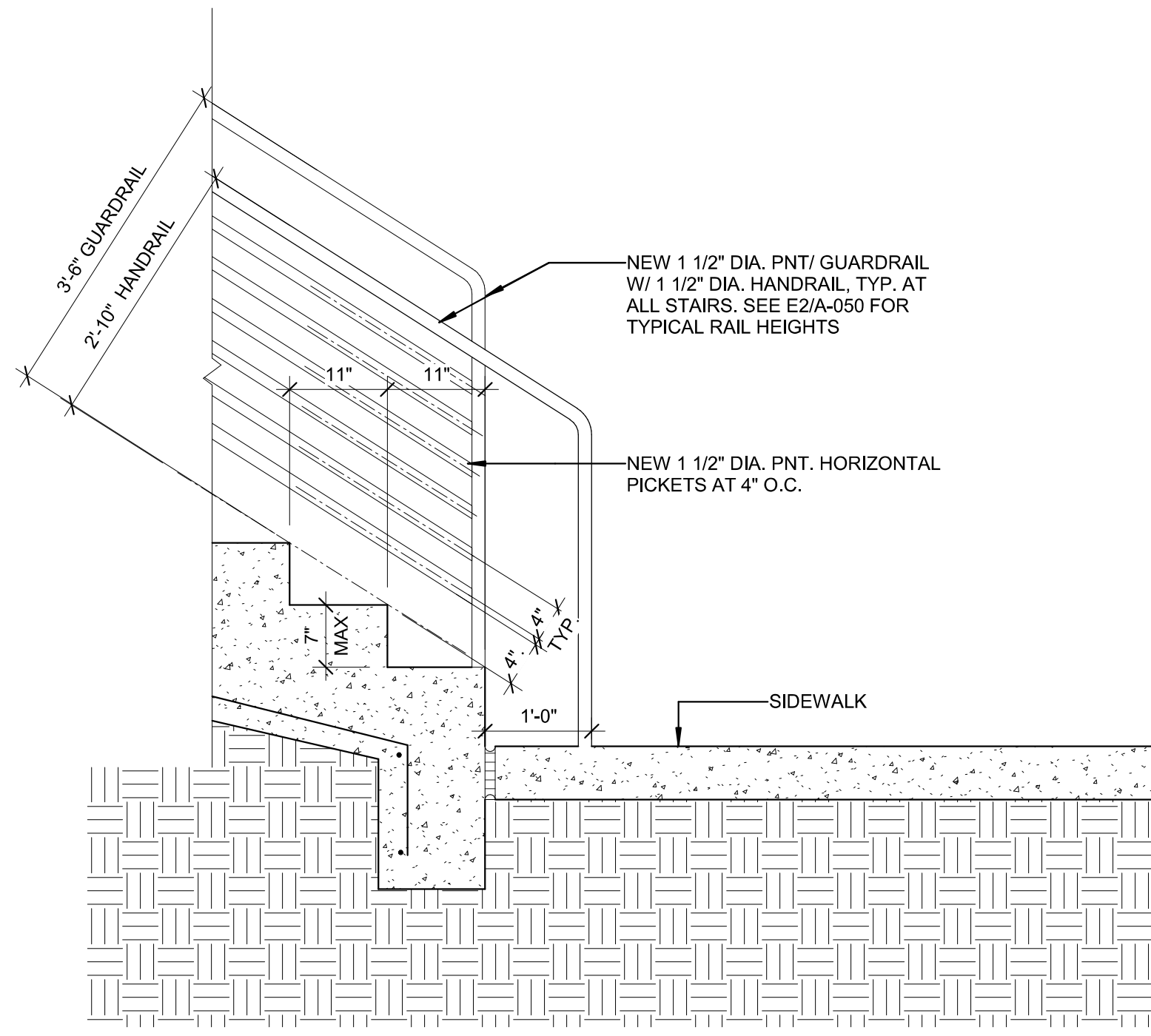
SHEET: A-001

BID/ PERMIT SET

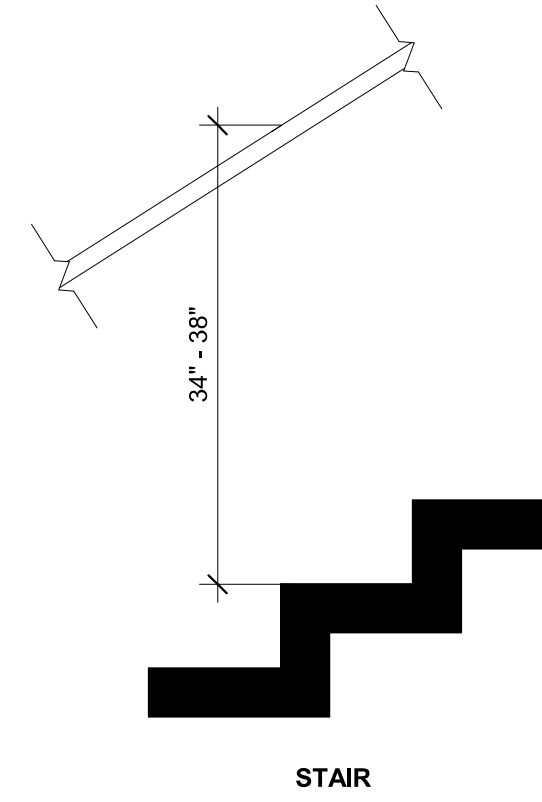


THE LINE SHOWN ABOVE IS DIMENSIONED TO THE CENTERLINE OF THE ROADWAY AND SHALL BE MAINTAINED AS SUCH.

E



E1 DETAIL SECTION - EXTERIOR RAILING
3/4" = 1'-0"



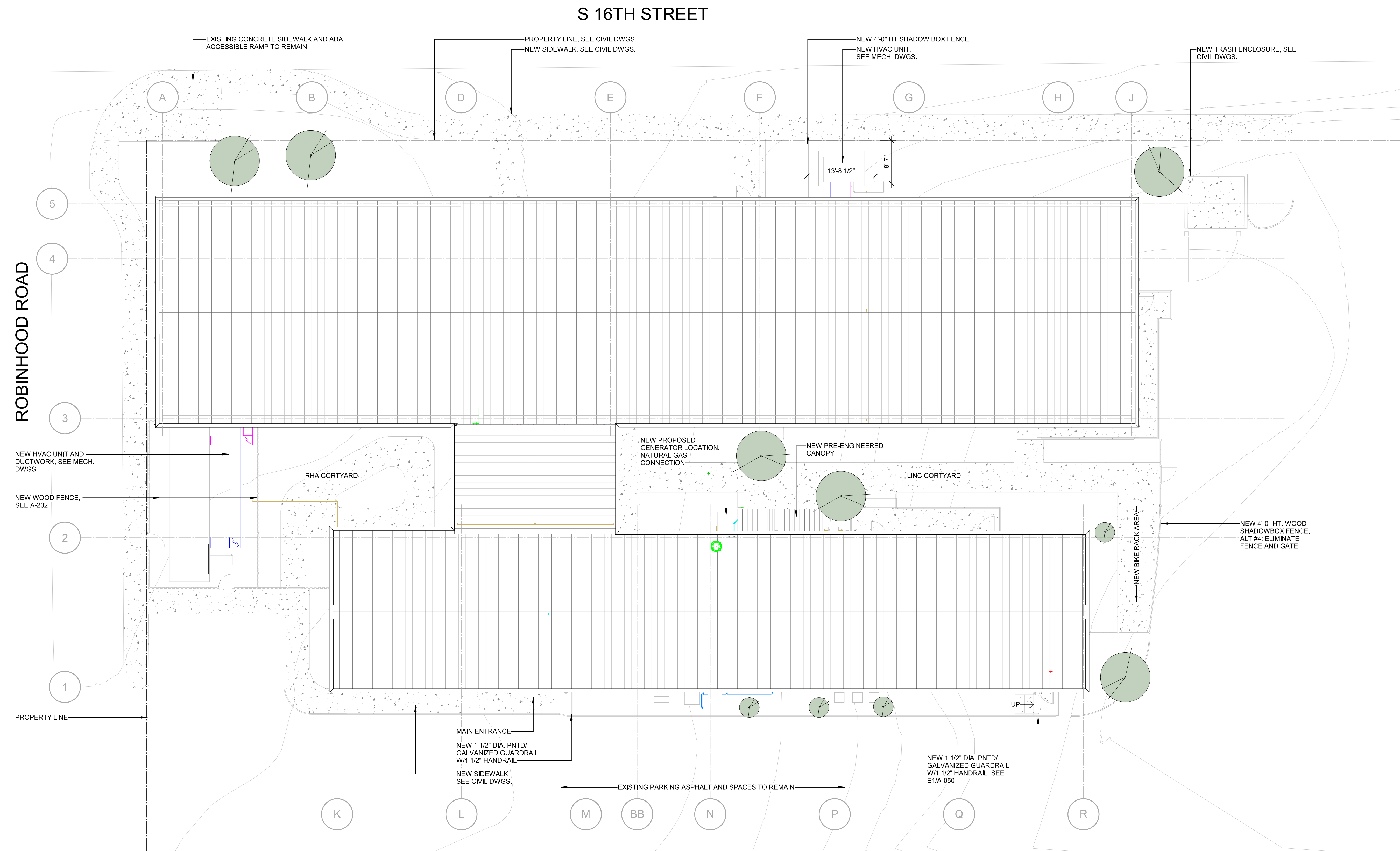
E2 HANDRAIL HEIGHT
3/4" = 1'-0"

D

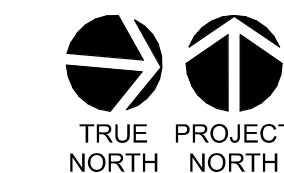
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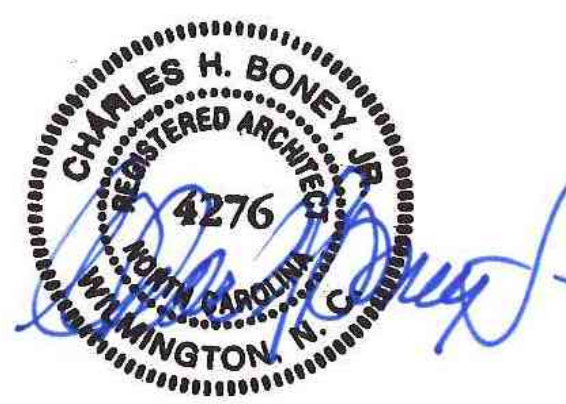
A



A1 SITE PLAN
1" = 10'-0"



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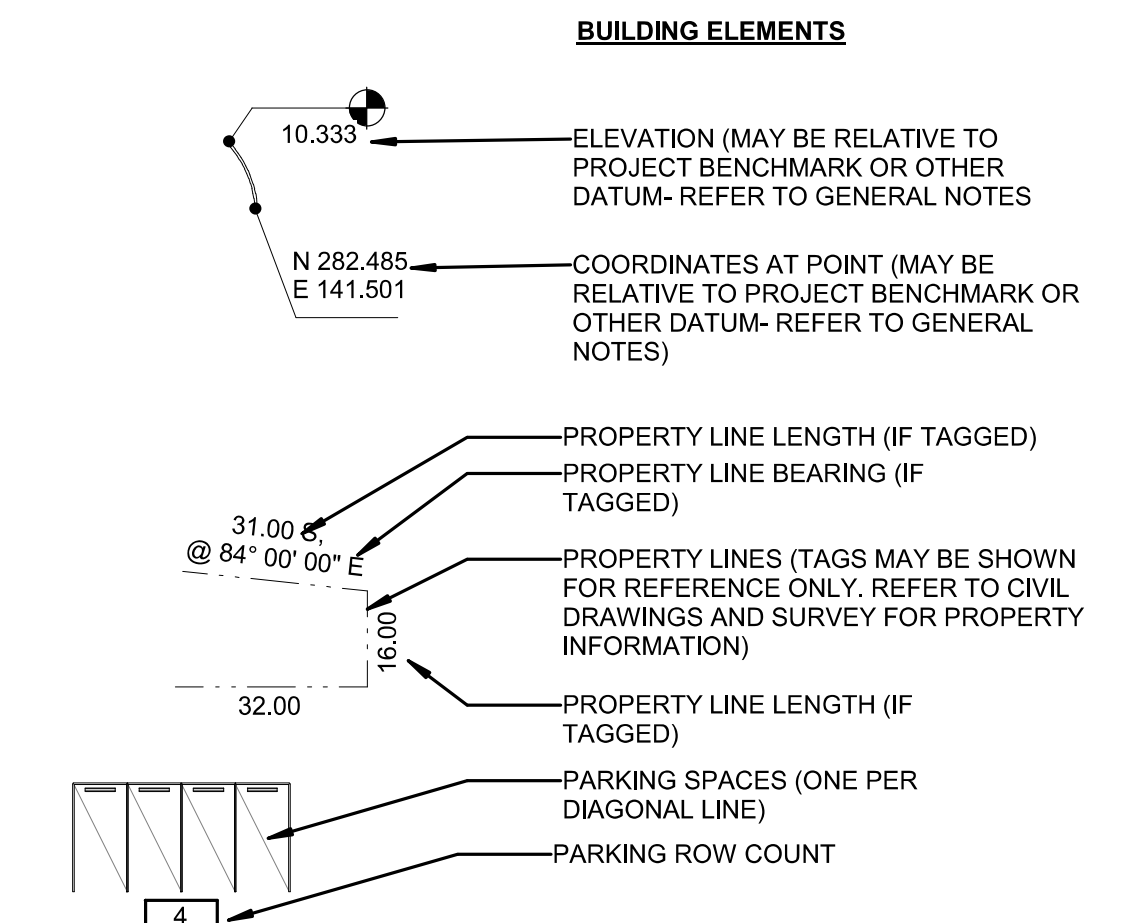


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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A	2023.11.16 100% Schematic Design
B	2024.01.31 100% Design Development
D	2024.08.21 Bid/ Permit Set

SITE PLAN LEGEND



SHEET NAME:
ARCHITECTURAL
SITE PLAN

ORIG SUBMISSION: 2024.01.31

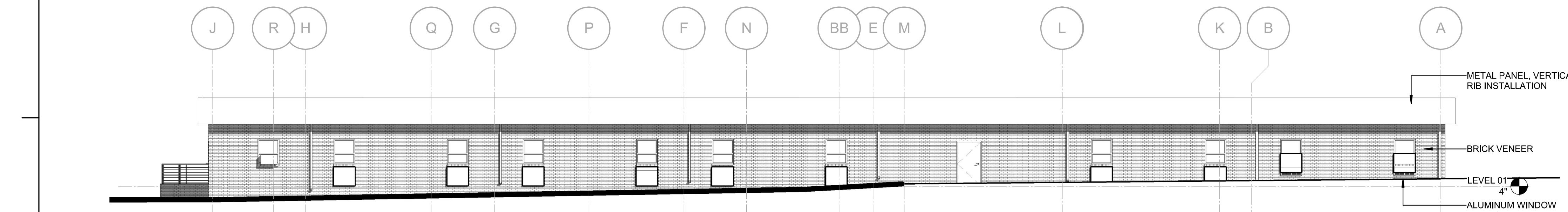
SHEET:
A-050

BID/ PERMIT SET

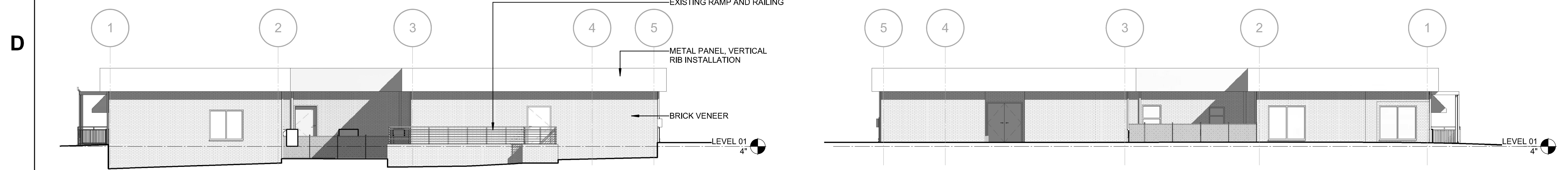
THE LINE SHOWN ABOVE IS EXACTLY ON THE CENTERLINE OF THE PROPERTY



E1 EXISTING BUILDING ELEVATION - EAST
3/32" = 1'-0"

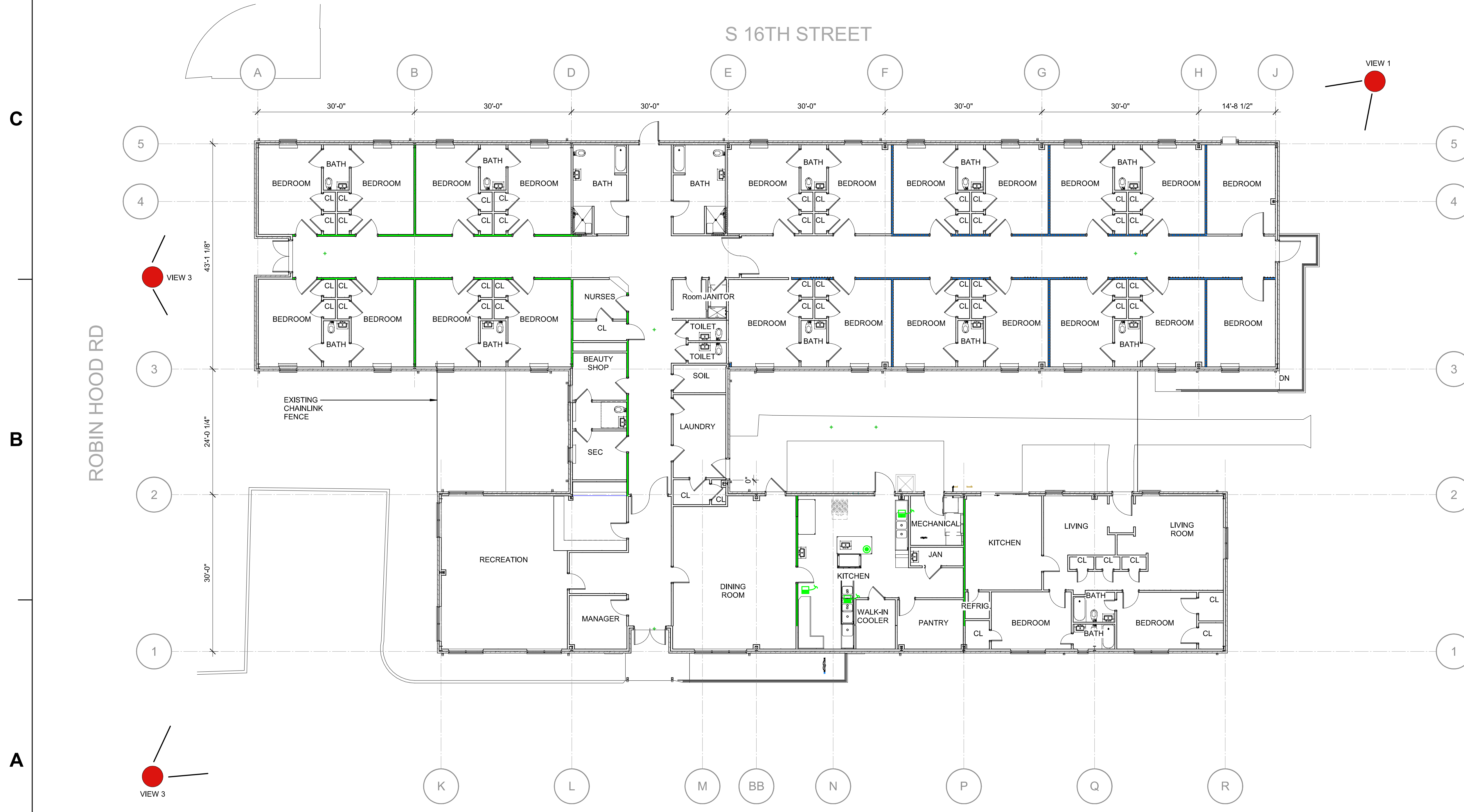


D1 EXISTING BUILDING ELEVATION - WEST
3/32" = 1'-0"



C1 EXISTING BUILDING ELEVATION - NORTH
3/32" = 1'-0"

C3 EXISTING BUILDING ELEVATION - SOUTH
3/32" = 1'-0"



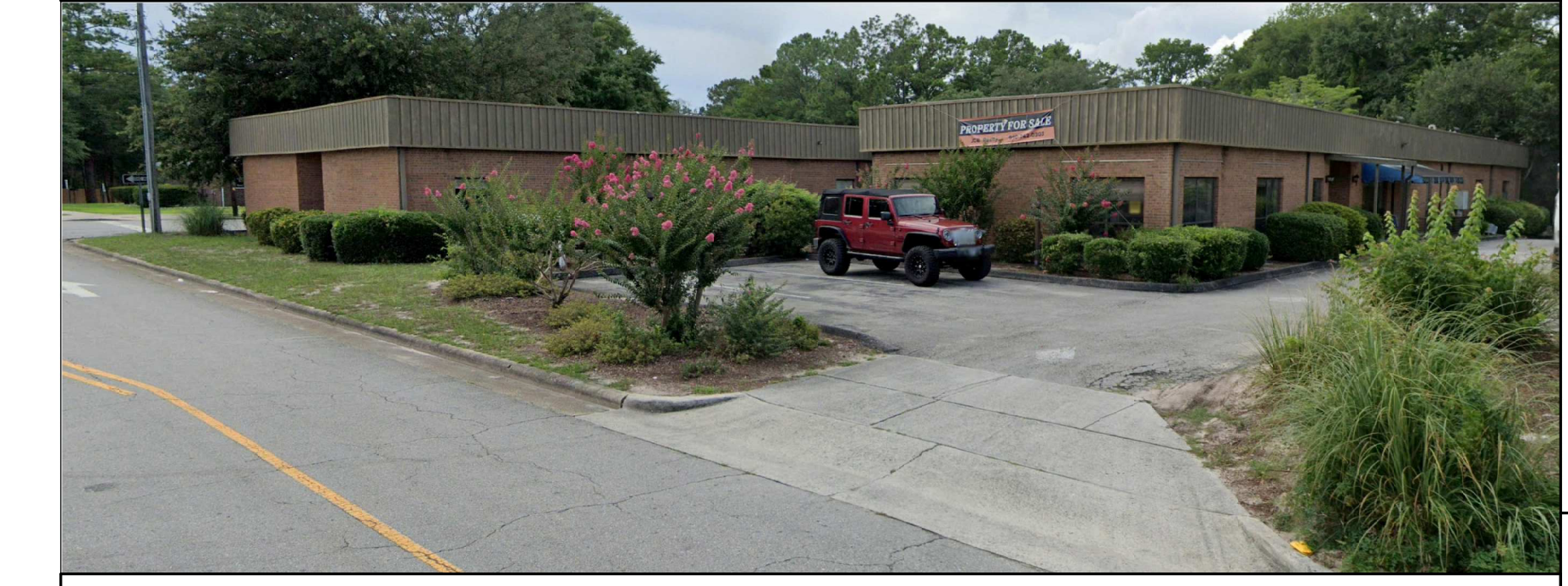
A1 EXISTING CONDITIONS FLOOR PLAN
3/32" = 1'-0"



VIEW 1 - 16TH STREET



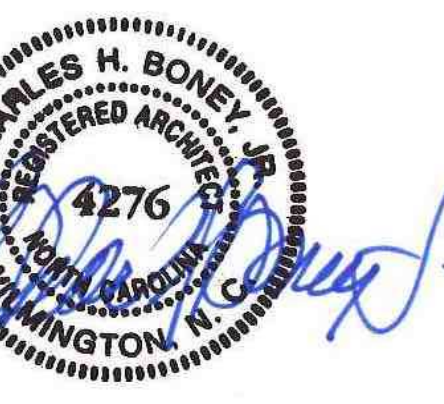
VIEW 2 - ROBIN HOOD STREET



VIEW 3 - ROBIN HOOD STREET



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LS3P PROJECT: 7405-230775

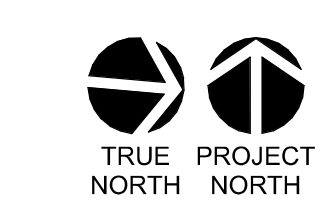
DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Blr/ Permit Set

SHEET NAME:
SITE AND BUILDING
- EXISTING
CONDITIONS

ORIG SUBMISSION: 2024.01.31

SHEET:
A-100

BID/ PERMIT SET



THESE DRAWINGS ARE EXACTLY AS SHOWN ON THESE SHEETS UNLESS OTHERWISE NOTED

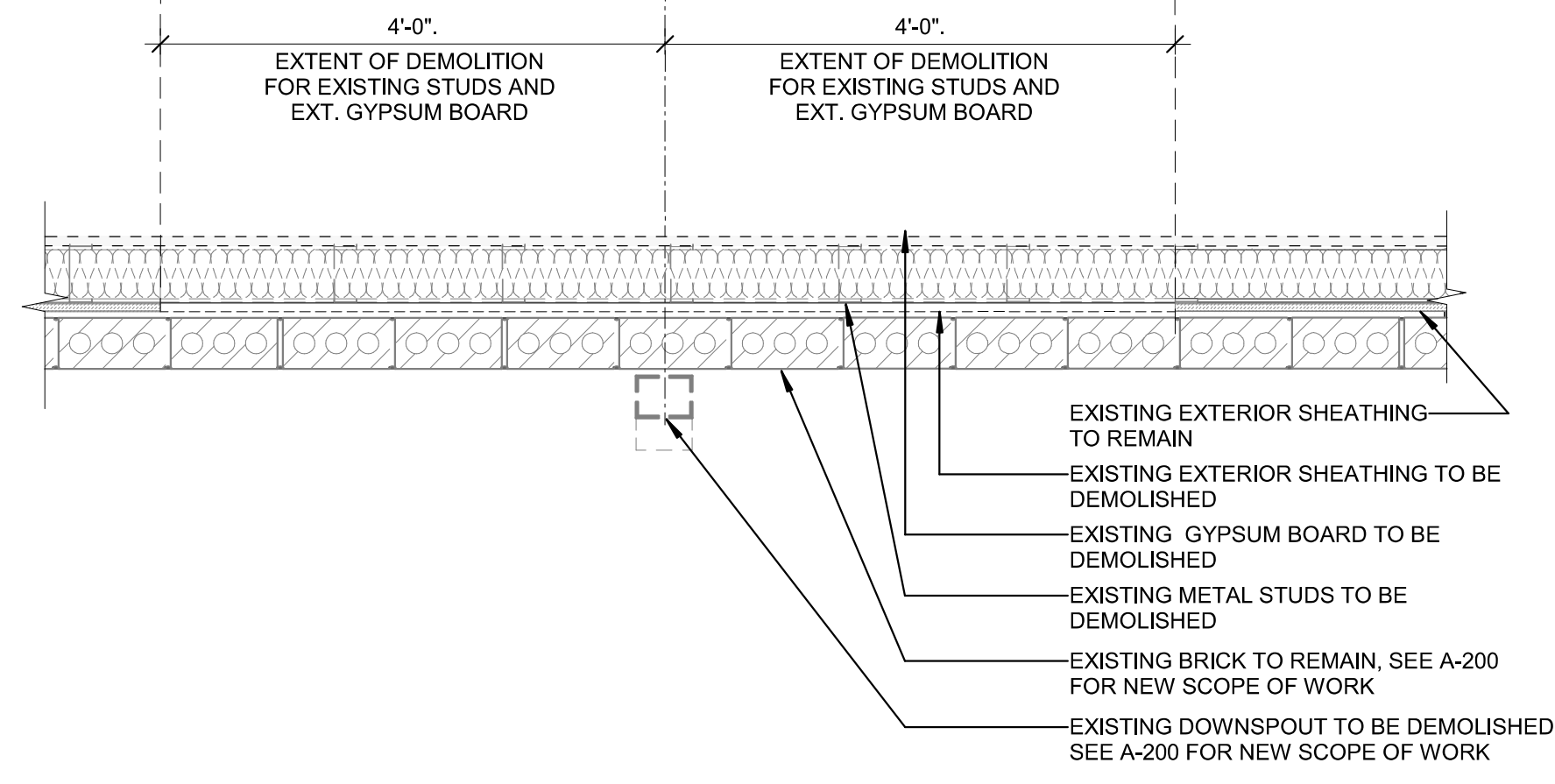
E

D

C

B

A



E4 TYP DEMO AT HEAVY WATER DAMAGE
1" = 1'-0"

#	DEMOLITION NOTES BY NUMBER
1	PLUMBING FIXTURE TO BE DEMOLISHED.
2	DEMO EXISTING SLAB AND FLOORING AS NEEDED TO UPDATE PLUMBING
3	DEMOLISH MILLWORK AND COUNTERS
4	DEMO AND REPLACE ALL WINDOWS
5	REMOVE WINDOW AC UNITS
6	ALL CEILING AND ACCESSORIES TO BE DEMOLISHED
7	KEEP PLUMBING PIPES AT ALL SLEEPING AREAS FOR FUTURE REUSE
8	ALL KITCHEN EQUIPMENT TO REMAIN. GC TO PROVIDE TEMPORARY PROTECTION TO EQUIPMENT DURING DEMOLITION WORK.
9	REMOVE AND REPLACE EXISTING BASE THROUGHOUT
10	EXISTING CHAIN LINK FENCE TO BE DEMOLISHED
11	EXISTING INSULATION AND GYP BD TO BE REMOVED. SEE SHEET O A-301 FOR EXTENT OF WORK
12	EXISTING METAL PANEL, COPING, AND SOFFIT TO BE DEMOLISHED. SEE A-301 FOR EXTENT OF WORK
13	EXISTING GYPSUM BOARD TO BE DEMOLISHED. ONLY ITEM REMAINING IS METAL STUD.
14	EXISTING DOWNSPOUT TO BE REMOVED. SEE DETAIL E4/AD-101 FOR EXTENT OF WALL DEMOLITION
15	EXISTING REFRIGERATOR/FREEZER TO BE DISASSEMBLED AND RELOCATED. SEE A3/A-402
16	CLEAN AND LEVEL EXISTING SLAB AFTER WALK IN FRIDGE RELOCATION. PREPARE TO RECEIVE NEW FLOORING
17	EXISTING FLOORING TO BE REMOVED AND PREPARED TO RECEIVE NEW FLOORING. SEE A-800 FOR FLOOR FINISH
18	EXISTING SIDEWALK AND RAILING TO BE DEMOLISHED
19	EXISTING CURB TO BE DEMOLISHED
20	EXISTING PLANTINGS TO BE DEMOLISHED
21	INDICATES ALTERNATE #1 FOOTINGS DEMOLITION AREA. SEE A-201

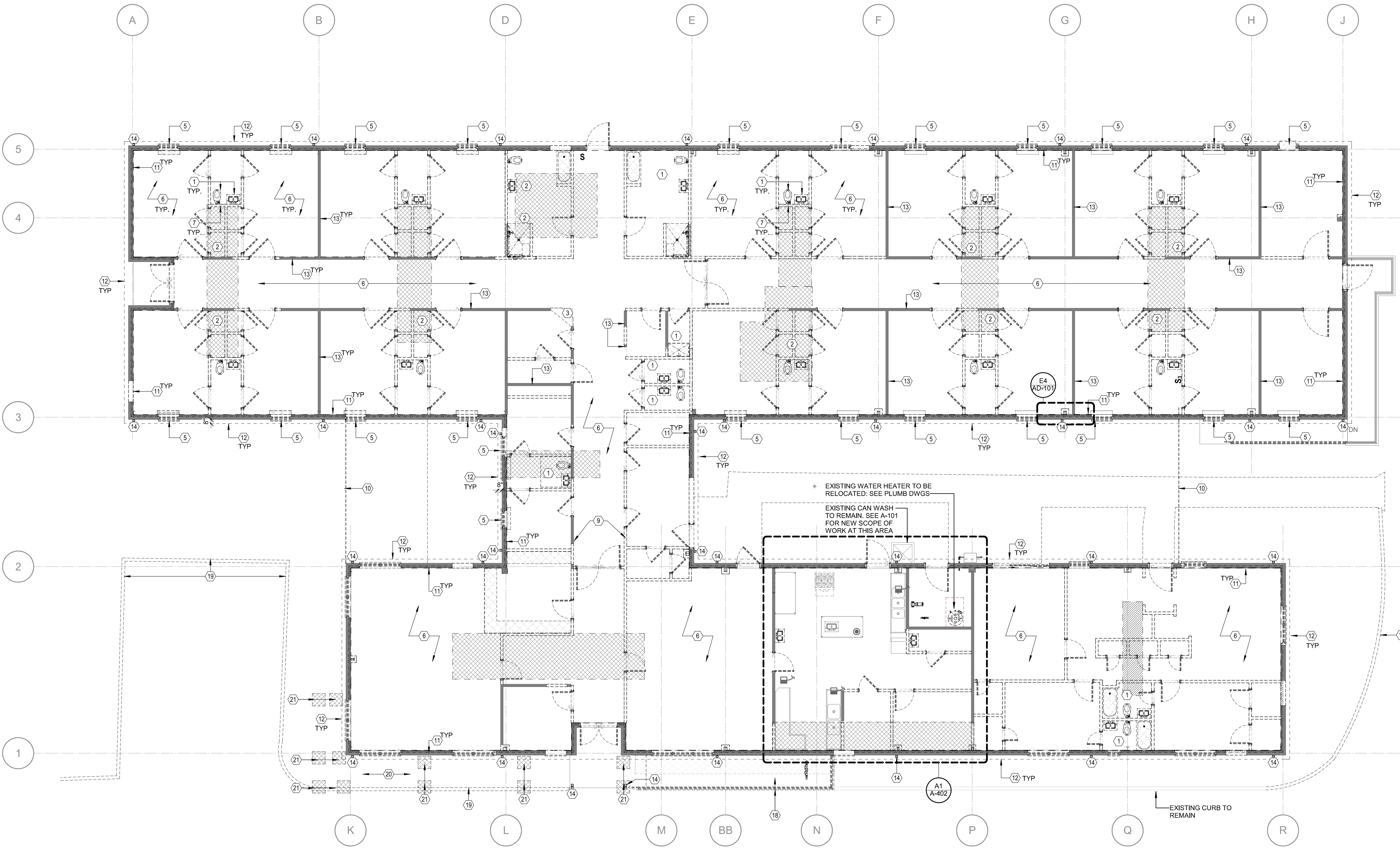


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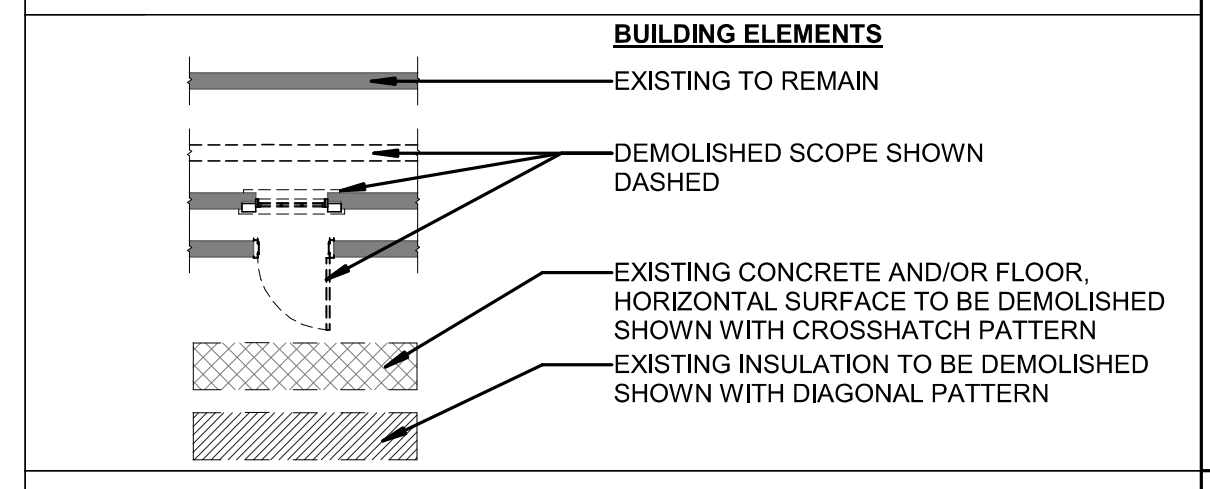


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A1 DEMOLITION PLAN
1/8" = 1'-0"

DEMOLITION GRAPHICS



HAZ. MAT. ABATEMENT - GENERAL NOTES

- A. ASBESTOS ABATEMENT CONTRACTOR SHALL REMOVE AND RECYCLE OR DISPOSE OF THE FOLLOWING BUILDING MATERIALS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS:
- MERCURY CONTAINING FLUORESCENT LIGHT BALLBS
 - MERCURY CONTAINING THERMOSTATS
 - PCBs IN LIGHT BALLASTS
 - IONIZING RADIATION SMOKE DETECTORS
 - EXIT SIGNS AND EMERGENCY LIGHTING THAT MAY CONTAIN LEAD-ACID BATTERIES
 - METAL DOOR FRAMES WITH LEAD-BASED PAINT

DEMOLITION PLAN SHEET NOTES

- A. SEE AD-101 FOR SHEET-SPECIFIC GRAPHICS & SYMBOLS.
 B. NUMBERED KEY NOTES DO NOT IMPLY SEQUENCE. CONTRACTOR TO PERFORM DEMOLITION WORK AS REQUIRED PER WORK SEQUENCE
 C. DEMOLITION DRAWINGS ARE INTENDED TO SHOW GENERAL AREAS OF DEMOLITION AS WELL AS GENERAL EXISTING CONDITIONS. THEY DO NOT SHOW ALL WORK WHICH MAY BE NECESSARY. COMPARE WITH DRAWINGS INDICATING NEW CONSTRUCTION.
 D. REFER TO OTHER DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON DEMOLITION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.
 E. EXISTING WORK TO REMAIN SHALL BE TEMPORARILY SECURED, BRACED, STABILIZED AND PROTECTED UNTIL PERMANENT CONSTRUCTION IS IN PLACE.
 F. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORT FOR INSULATION, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.
 G. VERIFY FIELD CONDITIONS PRIOR TO START OF DEMOLITION/CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
 H. VERIFY THAT CONSTRUCTION INDICATED FOR REMOVAL IS NOT LOAD BEARING OR IS ADEQUATELY SHORED AS INDICATED ON STRUCTURAL DRAWINGS PRIOR TO STARTING ANY WORK.
 I. ERECT BARRICADES, FENCES OR OTHER SECURABLE MEANS TO PREVENT UNAUTHORIZED ACCESS INTO CONSTRUCTION ZONES.
 J. DO NOT ALLOW MATERIAL AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON-SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
 K. TERMINATE AND CAP UTILITIES IN WALLS, CEILINGS, AND FLOORS, NOTED TO BE REMOVED AND NOT INTENDED FOR REUSE.
 L. PREPARE AND PATCH SURFACES THAT ARE TO RECEIVE NEW FINISHES REQUIRED AFTER REMOVING OR RELOCATING DEVICES. WIRING OR OTHER APPURTENANCES, REFER TO FINISH SCHEDULE FOR NEW FINISHES.
 M. MAINTAIN EXISTING FINISHES, OPERATIONAL CHARACTERISTICS, AND APPEARANCE OF ITEMS SCHEDULED TO REMAIN OR BE REUSED.
 N. IN THE EVENT THAT ANY PARTY ENCOUNTERS SUSPECTED ASBESTOS, HAZARDOUS OR OTHER TOXIC MATERIAL AT THE JOB SITE, OR SHOULD IT BECOME KNOWN THAT SUCH MATERIAL MAY BE PRESENT AT THE JOB SITE, CONTRACTOR SHALL NOTIFY THE OWNER AND THE ARCHITECT IMMEDIATELY IN WRITING.
 O. GC TO INVESTIGATE LOCATIONS WHERE WATER DAMAGE IS EVIDENT AND REPLACE EXTERIOR SHEATHING, AND METAL STUDS AS REQUIRED. SEE DETAIL E4/AD-101 FOR SUGGESTED SCOPE OF WORK AT THOSE AREAS.

**NEW HANOVER COUNTY
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LS3P PROJECT: 7405-230775

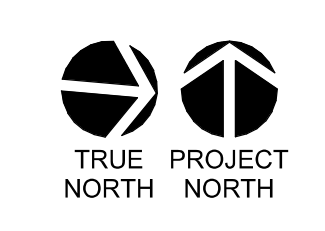
A	DATE	DESCRIPTION
A	2023.08.04	50% Schematic Design
B	2023.11.16	100% Schematic Design
C	2024.01.31	100% Design Development

SHEET NAME:
DEMOLITION FLOOR PLAN

ORIG SUBMISSION: 2024.01.31

SHEET:
AD-101

BID/ PERMIT SET



THE LINE SHOWS THE EXACT LOCATION OF THE PARTITION WALLS.

E

D

C

B

A

FLOOR PLAN NOTES BY NUMBER

NUMBER	NOTE
1	ALL DOOR HARDWARE, PLUMBING FIXTURES, LIGHT FIXTURES, BATHROOM ACCESSORIES AND HVAC COMPONENTS IN ROOMS 115 THROUGH 126 TO COMPLY WITH ANTI-LIGATURE SPECS.

PARTITION NOTES

- A. ALL NON-DESIGNATED PARTITIONS SHALL BE TYPE 3A.
- B. ALL PENETRATIONS THRU RATED PARTITIONS, FLOORS, ROOF, ETC. SHALL BE SEALED WITH A UL APPROVED RATED FIRE BARRIER PENETRATION SEALING SYSTEM.
- C. CEMENTITIOUS BACKER BOARD SHALL BE USED IN ALL LOCATIONS TO RECEIVE TILE FINISHES. REFER TO FINISH SCHEDULE AND INTERIOR ELEVATIONS FOR LOCATIONS.
- D. SEE FINISH SCHEDULE FOR LOCATION OF APPLIED FINISHES (SUCH AS CERAMIC TILE, WALL COVERING, ETC) THAT MAY AFFECT THE PARTITION SURFACE AND CONSTRUCTION REQUIREMENTS.
- E. SHOULD CONDITIONS OCCUR WHERE A PARTITION IS UNABLE TO EXTEND VERTICALLY UP TO STRUCTURE DUE TO PIPING, DUCTWORK, ETC., THE PARTITION (GYPSUM BOARD AND FRAMING) MAY JOG HORIZONTALLY ABOVE THE CEILING TO AVOID THE CONFLICT. RATED WALL INTEGRITY SHALL BE MAINTAINED.
- F. DIMENSIONAL CONFLICTS BETWEEN PARTITION TYPES AND THE ARCHITECTURAL FLOOR PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- G. REFER TO UNDERWRITERS LABORATORIES, INC. FIRE RESISTANCE VOLUMES - CURRENT EDITION FOR SPECIFIC CONSTRUCTION REQUIREMENTS OF U.L. LISTED ASSEMBLIES.
- H. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR U.L. LISTED PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING APPROPRIATE PROJECT-SPECIFIC U.L. LISTED ASSEMBLIES FOR PENETRATIONS.
- I. RATED WALLS CONTAINING FIRE DAMPERS SHALL BE COORDINATED, FRAMED, AND FINISHED IN ACCORDANCE WITH DAMPER MANUFACTURERS APPROVED UL DETAIL.
- J. CONTRACTOR SHALL MAINTAIN INTEGRITY OF EXISTING RATED PARTITIONS.
- K. CONTRACTOR AND STEEL STUD SUPPLIER SHALL PROVIDE COMPONENTS, I.E. STUDS, TRACKS, BRACING, ETC. IN THICKNESS/GAUGE REQUIRED FOR ACTUAL HEIGHT TO COMPLY WITH DEFLECTION LIMITS SPECIFIED.
- L. SEE LIFE SAFETY PLANS FOR THE LOCATIONS OF SMOKE BARRIERS, SMOKE PARTITIONS, AND FIRE-RATED PARTITIONS.
- M. WHERE STUDS EXTEND TO STRUCTURE AND GYPSUM WALLBOARD AND SOUND PARTITION FINISHES WITH A RUNNER CHANNEL WHEN CEILING PLENUM IS USED AS A RETURN AIR PLENUM.
- N. CONTRACTOR SHALL COORDINATE WITH MECHANICAL DUCTWORK PRIOR TO FABRICATION OF PARTITION WALLS.

FLOOR PLAN SHEET NOTES

- A. EXTERIOR DIMENSIONS AT MASONRY VENEER ARE COURSING AND ARE TO FACE OF MASONRY.
- B. INTERIOR DIMENSIONS INDICATED ARE TO FACE OF STUD, FACE OF MASONRY AND CENTERLINES OF COLUMNS, LINO.
- C. LOCATE DOOR OPENINGS 4" FROM NEAREST PERPENDICULAR WALL.
- D. RATED WALLS/PARTITIONS TO BE CONSTRUCTED TIGHT TO STRUCTURE. ALL PENETRATIONS AND TERMINAL JOINTS ARE TO BE INSTALLED AS SHOWN IN APPLICABLE UL JOINT OR PENETRATION DETAIL.
- E. WHERE PARTITIONS OF DIFFERENT FIRE RATINGS INTERSECT, THE HIGHEST RATED PARTITION SHALL CONTINUE THROUGH. MAINTAIN PARTITION FIRE RATING BEHIND RECESSED FIRE EXTINGUISHER CABINETS.
- F. RATED WALLS INTERSECTING EXTERIOR WALLS SHALL EXTEND TO THE INSIDE FACE OF EXTERIOR SHEATHING.
- G. INSTALL BLOCKING IN PARTITIONS FOR CASEWORK, WALL MOUNTED EQUIPMENT, TRM, AND RELATED CONSTRUCTION.
- H. SEE LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED AND SMOKE WALLS.
- I. SEE SHEET A-101 FOR CONSTRUCTION SUBSYSTEMS (OR PARTITION SCHEDULE).
- J. SEE SHEET A-101 FOR INTERIOR ELEVATIONS, ACCESSORY DESCRIPTIONS & MOUNTING HEIGHTS.
- K. SEE STRUCTURAL DRAWINGS FOR SLAB DEPRESSIONS AND CUTOUTS.
- L. SEE BUILDING ELEVATION DRAWINGS FOR LOCATION OF EXTERIOR MASONRY CONTROL JOINTS.
- M. FIELD VERIFY LOCATION OF INTERIOR WALL & CEILING CONTROL JOINTS REQUIRED IN THE SPECIFICATION WITH ARCHITECT PRIOR TO INSTALLATION.
- N. WALLS, INCLUDING GYP. BD. AT PERIMETER OF ROOMS/SPACES WITHOUT CEILINGS, I.E. EXPOSED STRUCTURE, SHALL EXTEND TO STRUCTURE ABOVE.
- O. ALL DOOR HARDWARE, PLUMBING FIXTURES, LIGHT FIXTURES, BATHROOM ACCESSORIES AND HVAC COMPONENTS IN ROOMS 1-115 THROUGH 1-126 TO COMPLY WITH ANTI-LIGATURE SPECS.

PARTITION GRAPHICS

GRAPHIC SAMPLE: 1 HOUR RATED CMU FIRE/SMOKE BARRIER:

- SEE FILL PATTERN LEGEND FOR FIRE-RESISTANCE RATING
- SEE COLOR LEGEND FOR HEIGHT CONDITION AND FIRE/SMOKE PROTECTION TYPE
- SEE PARTITION TAG AND SCHEDULE FOR COMPLETE PARTITION INFORMATION

FILL PATTERN LEGEND

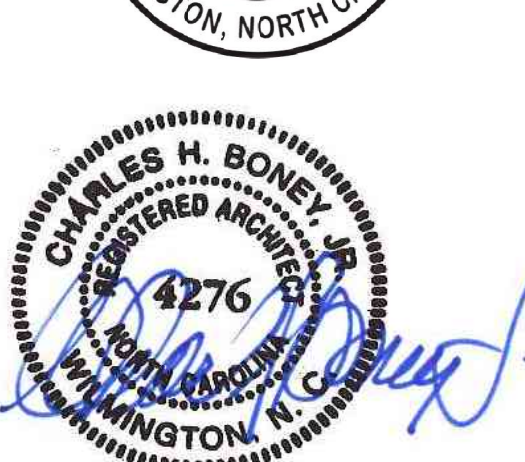
- EXISTING PARTITION TO REMAIN
- 30 MIN-RATED PARTITION
- 1 HOUR-RATED PARTITION
- 2 HOUR-RATED PARTITION
- 3 HOUR-RATED PARTITION
- 4 HOUR-RATED PARTITION

COLOR LEGEND

- NON-RATED PARTITION TO 6" ABOVE CEILING, U.N.O.
- NON-RATED PARTITION TO DECK
- NON-RATED SMOKE PARTITION. SEE DETAIL D3/A-121
- RATED SMOKE BARRIER TO DECK
- RATED FIRE PARTITION. SEE DETAIL D3/A-121
- RATED FIRE/SMOKE BARRIER TO DECK
- RATED FIRE BARRIER TO DECK
- RATED FIRE WALL TO DECK



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NEW HANOVER COUNTY STAR CENTER

1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Blr/ Permit Set

SHEET NAME:
OVERALL FLOOR PLAN

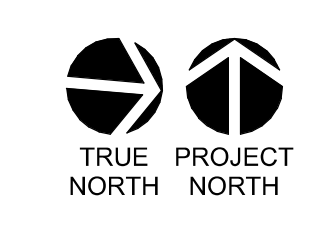
ORIG SUBMISSION: 2024.10.17

SHEET: A-101

BID/ PERMIT SET

A1 FLOOR PLAN - OVERALL

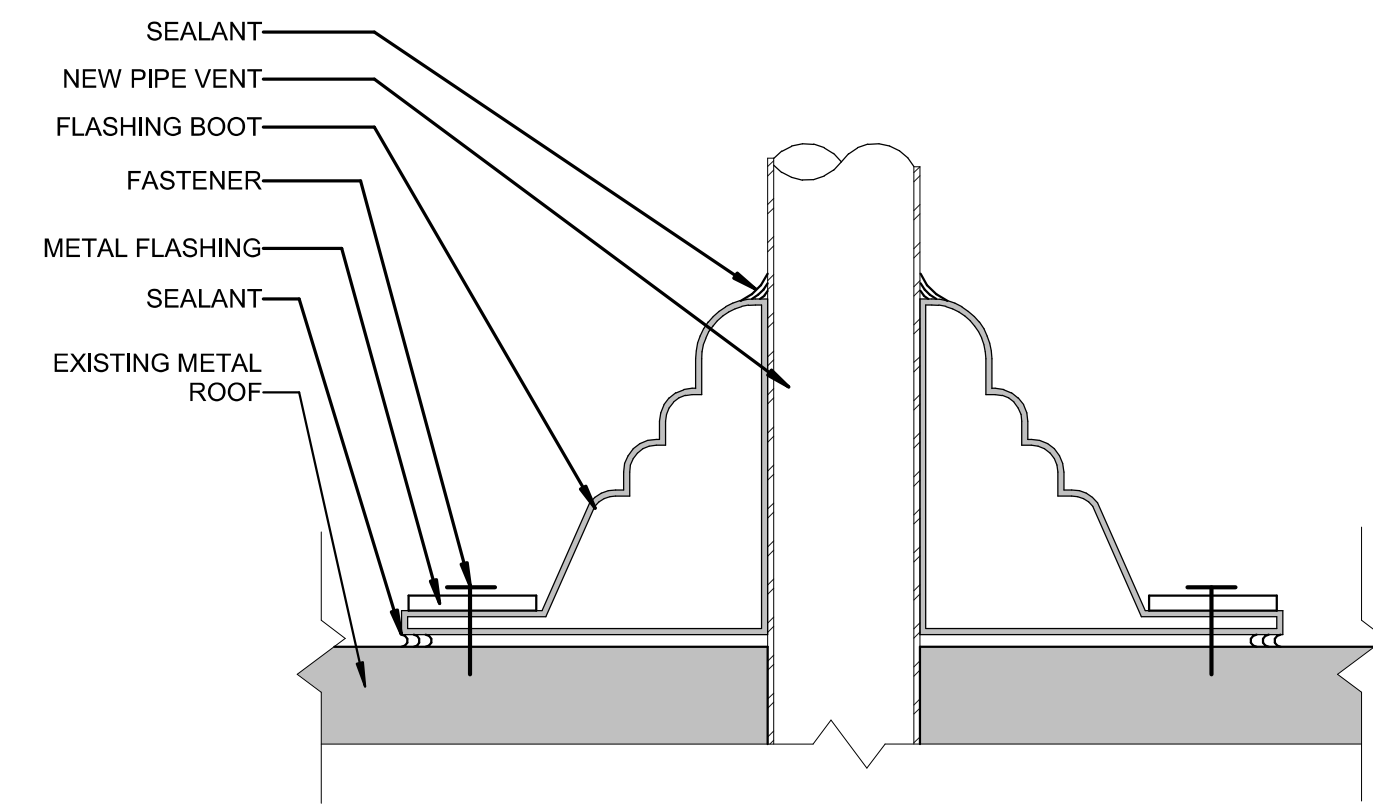
1/8" = 1'-0"



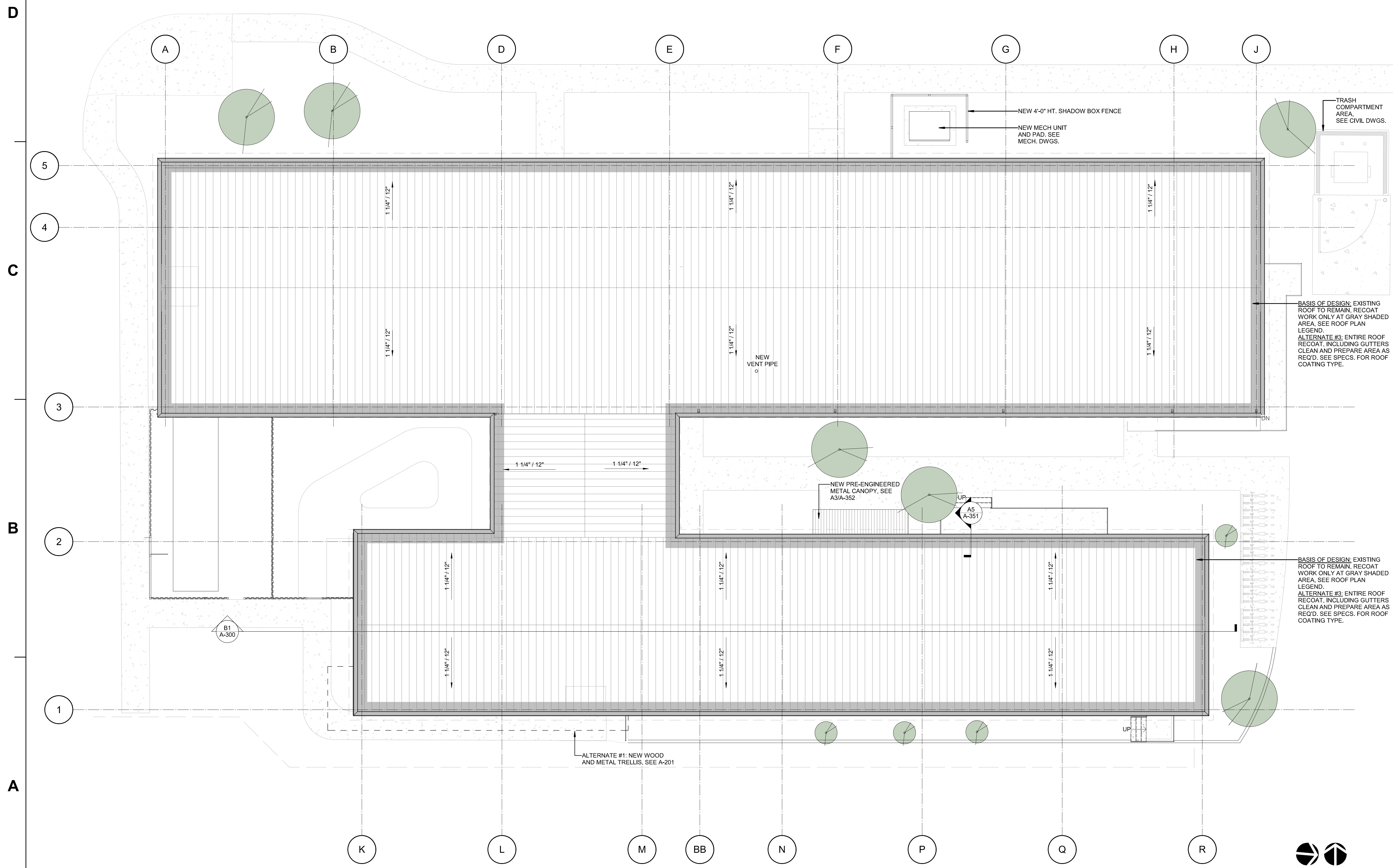
TRUE PROJECT NORTH

1 2 3 4 5 6

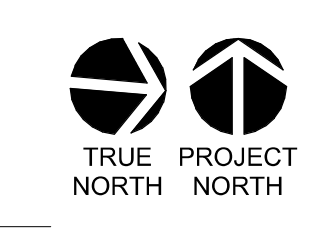
THE LINE SHOWN ABOVE IS EXACTLY ON THE CENTERLINE OF THE PIPE



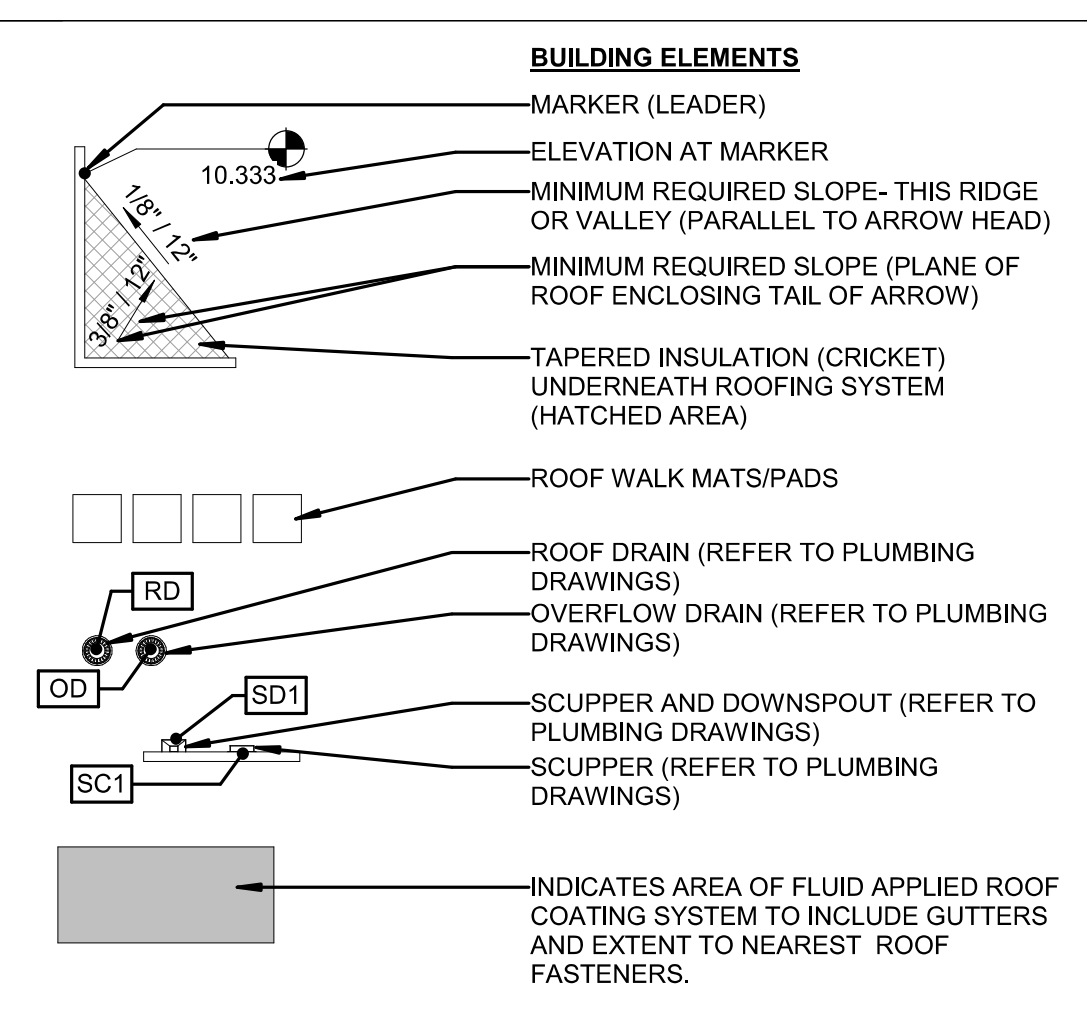
E1 PIPE FLASHING
1/12" = 1'-0"



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



ROOF PLAN LEGEND

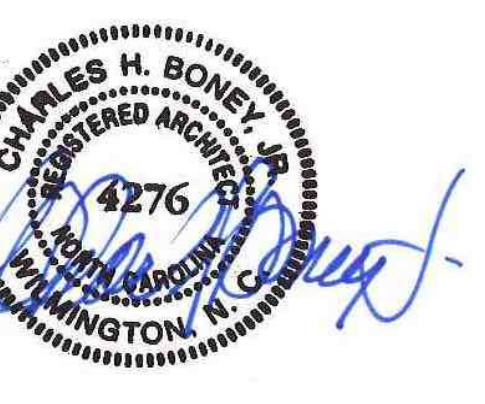


ROOF PLAN SHEET NOTES

- A. SEE A-102 FOR SHEET-SPECIFIC GRAPHICS & SYMBOLS.
- B. LOCATIONS AND SIZES OF MECHANICAL EQUIPMENT ARE APPROXIMATE. COORDINATE WITH STRUCTURAL, MECHANICAL PLAN AND EQUIPMENT SHOP DRAWINGS.
- C. SEE PLUMBING DRAWINGS FOR VENTS THROUGH ROOF LOCATIONS.
- D. SEE STRUCTURAL DRAWINGS FOR DESIGN LOAD REQUIREMENTS
- E. ALL LOW SLOPED ROOFS TO BE MINIMUM 1/4" PER FOOT. ALL ROOF DRAINS TO BE INSTALLED IN 3'-0" X 3'-0" SUMP TYPICAL UNO.
- F. PROVIDE CRICKETS AT ALL CURBS AND EQUIPMENT RAILS SET PERPENDICULAR TO ROOF SLOPE WHICH ARE GREATER THAN 24" WIDE.
- G. SLOPE ALL COPINGS BACK TO ROOF UNO.
- H. WOOD BLOCKING SHOWN IN ROOF DETAILING SHALL BE PRESERVATIVE TREATED. USE FASTENERS COMPATIBLE WITH PRESERVATIVE TREATED WOOD.
- I. EXTEND ALL PENETRATIONS, CURBS, AND COMPONENTS A MINIMUM OF 8" ABOVE THE ROOF SURFACE. PROVIDE 12" CLEAR DISTANCE BETWEEN PENETRATIONS AND TO ANY VERTICAL SURFACE.
- J. IF NOT DETAILED, APPLY MOST STRINGENT CONDITION OF NRCA AND SMACNA (CURRENT EDITIONS) STANDARDS FOR ROOF DETAIL CONDITIONS.
- K. PROVIDE AND INSTALL A CONTROL JOINT IN ROOF ASSEMBLY AT ALL LOCATIONS WHERE METAL ROOF DECK CHANGES DIRECTION.



101 NORTH THIRD STREET, SUITE 500
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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.08.04	50% Schematic Design
B 2023.11.16	100% Schematic Design
C 2024.01.31	100% Design Development
D 2024.08.21	Blr Permit Set

SHEET NAME:
ROOF PLAN

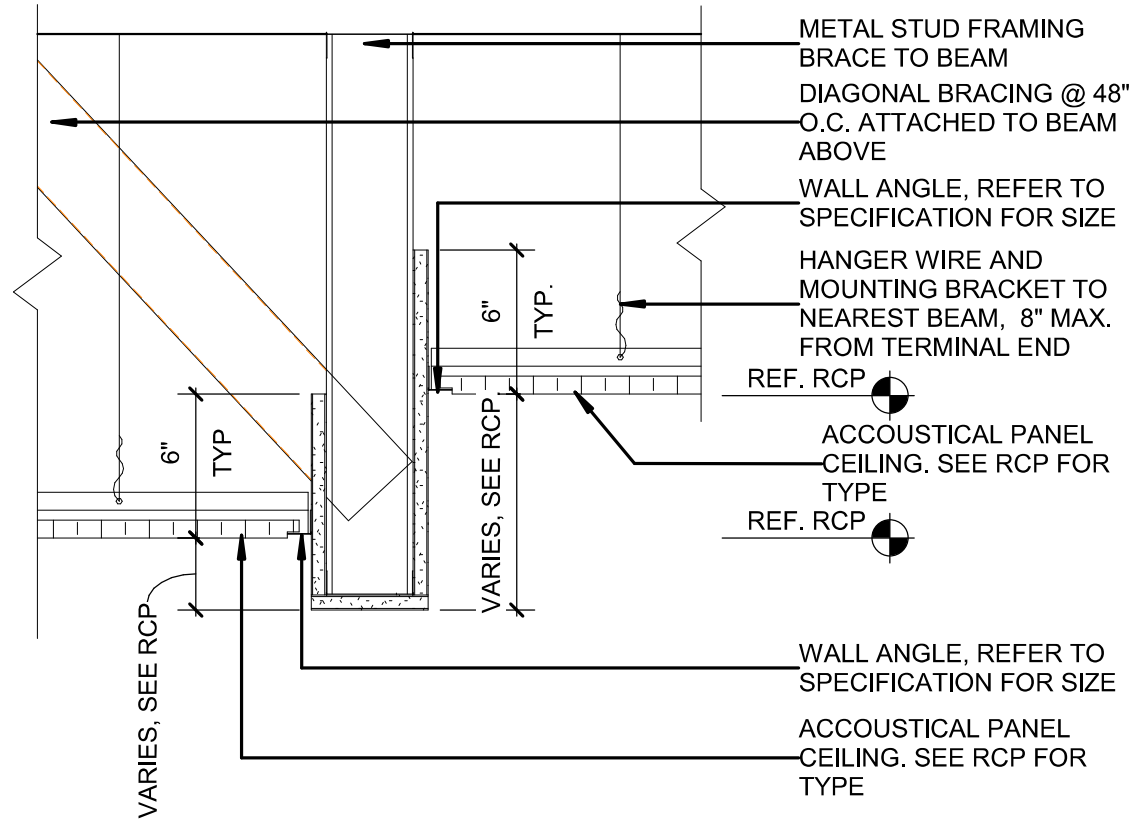
ORIG SUBMISSION: 2024.01.31

SHEET:
A-102

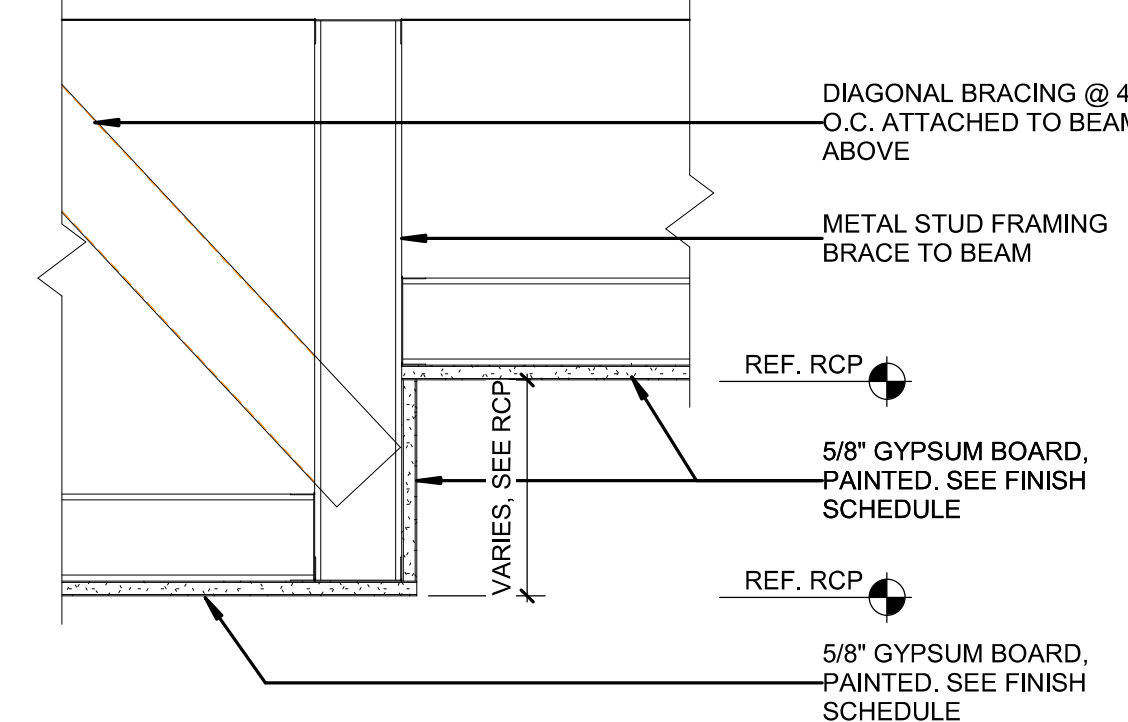
BID/ PERMIT SET

THE LINE SHOWS ABOVE IS EXACTLY ON THE FINISH FLOOR

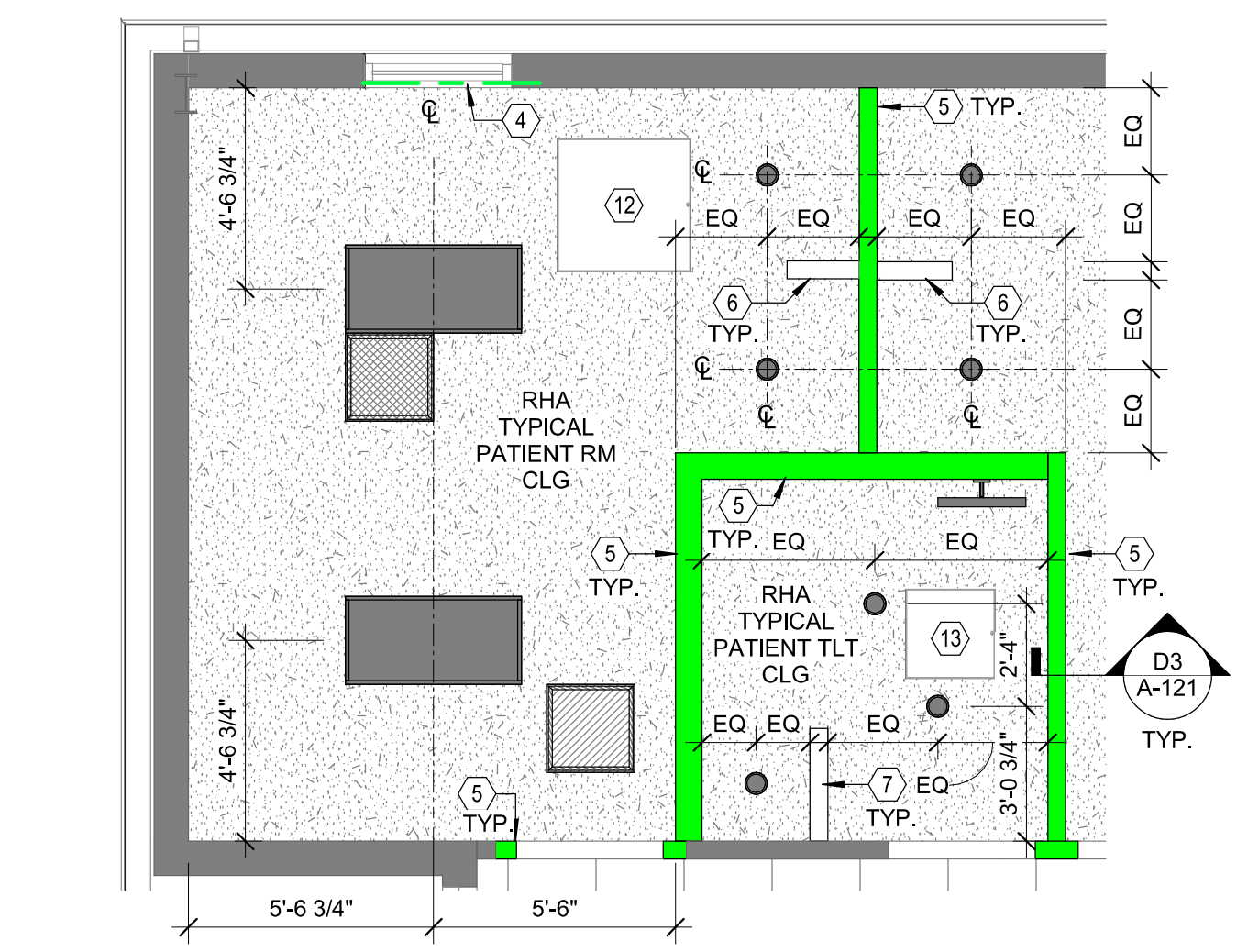
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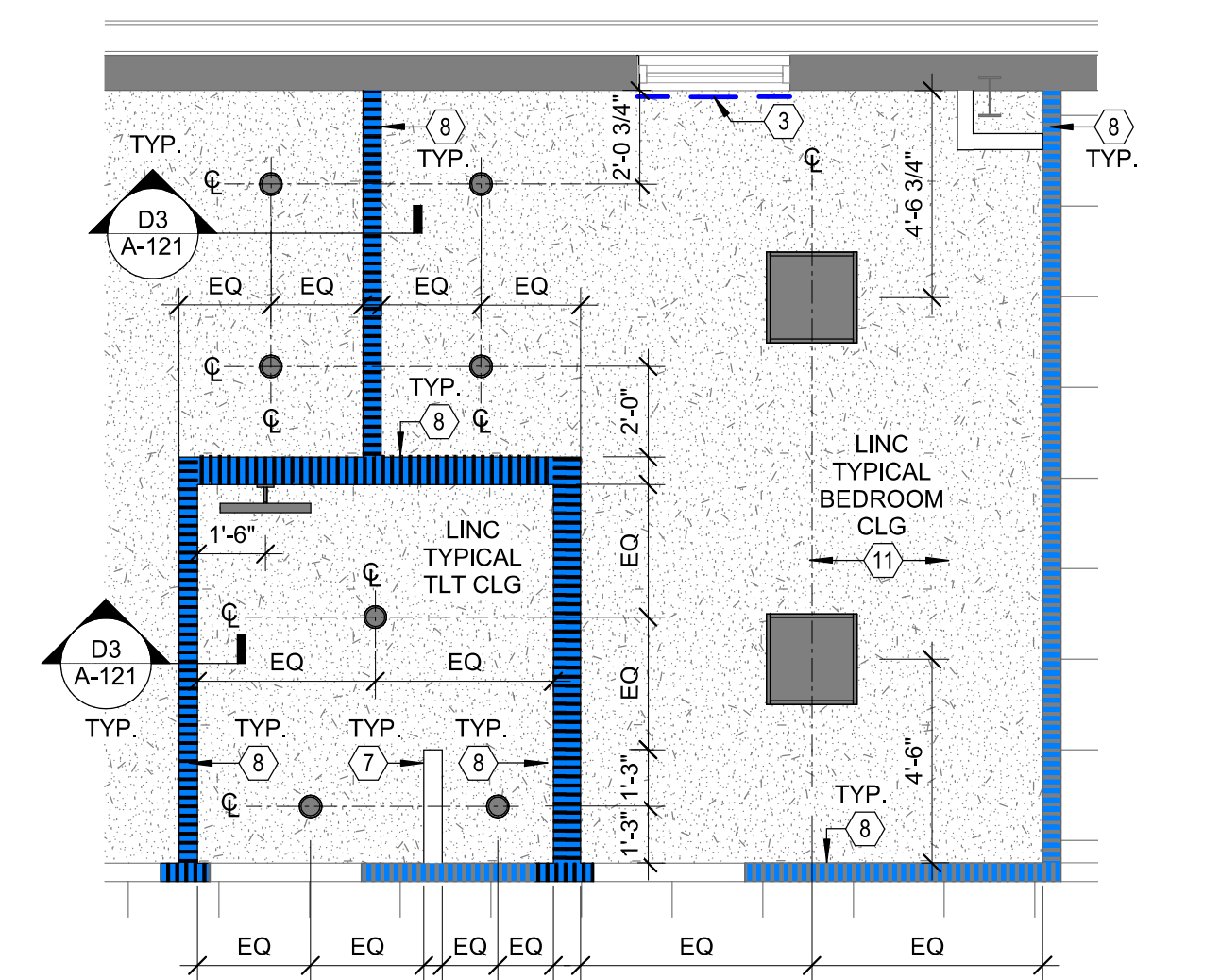
E1 BULKHEAD -ACT TO ACT
1 1/2" = 1'-0"



E2 HIGH GWB TO LOW GWB
1 1/2" = 1'-0"

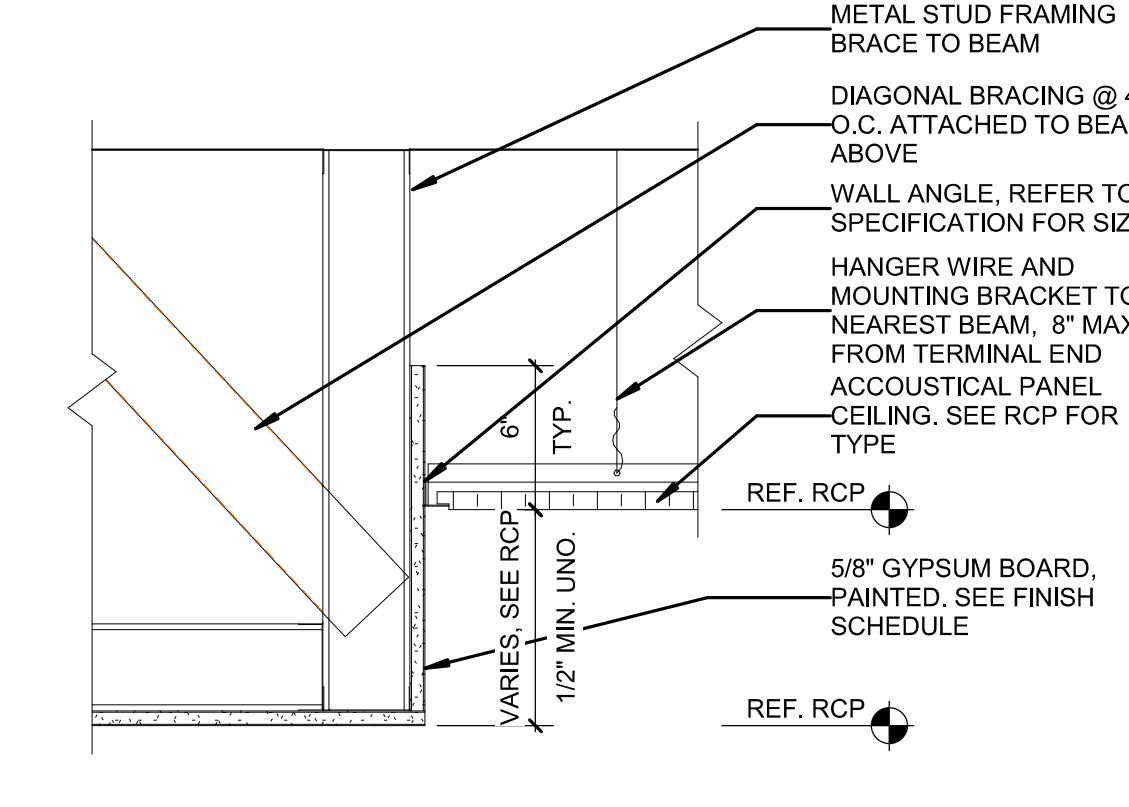


E3 ENL RCP - TYP RHA PATIENT RM CLG
1/4" = 1'-0"

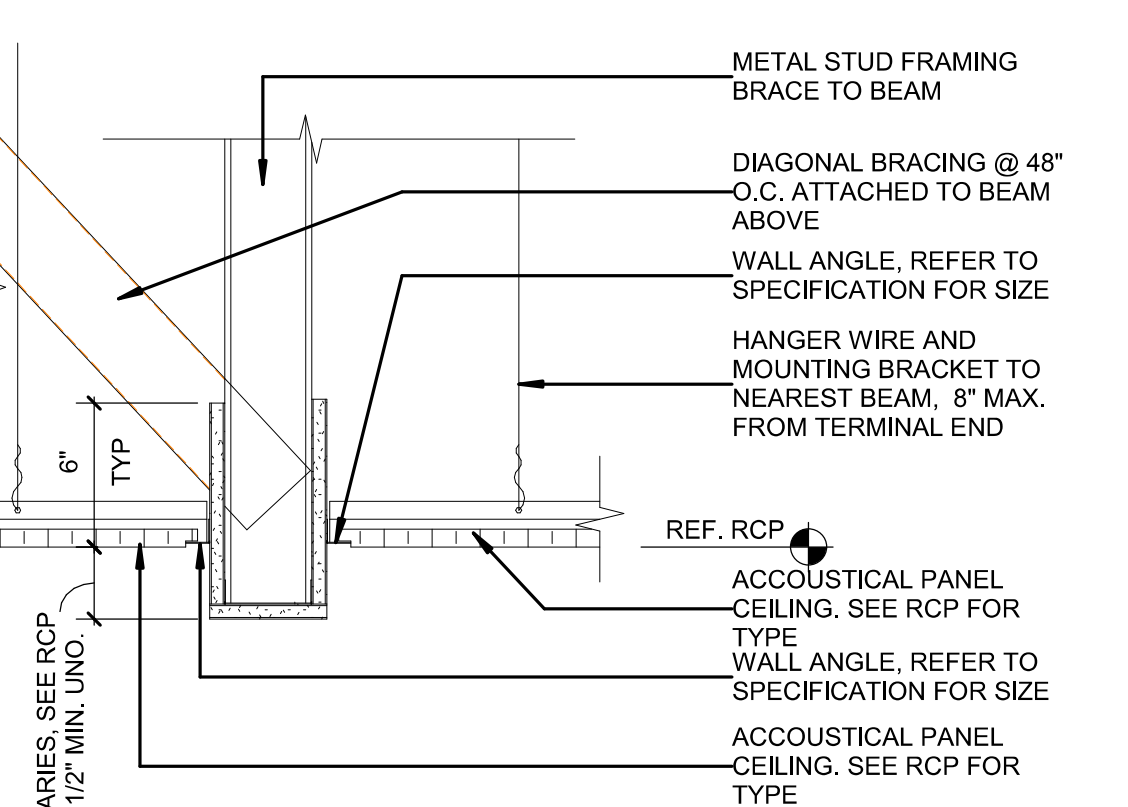


E4 ENL RCP - TYP LINC BEDROOM
1/4" = 1'-0"

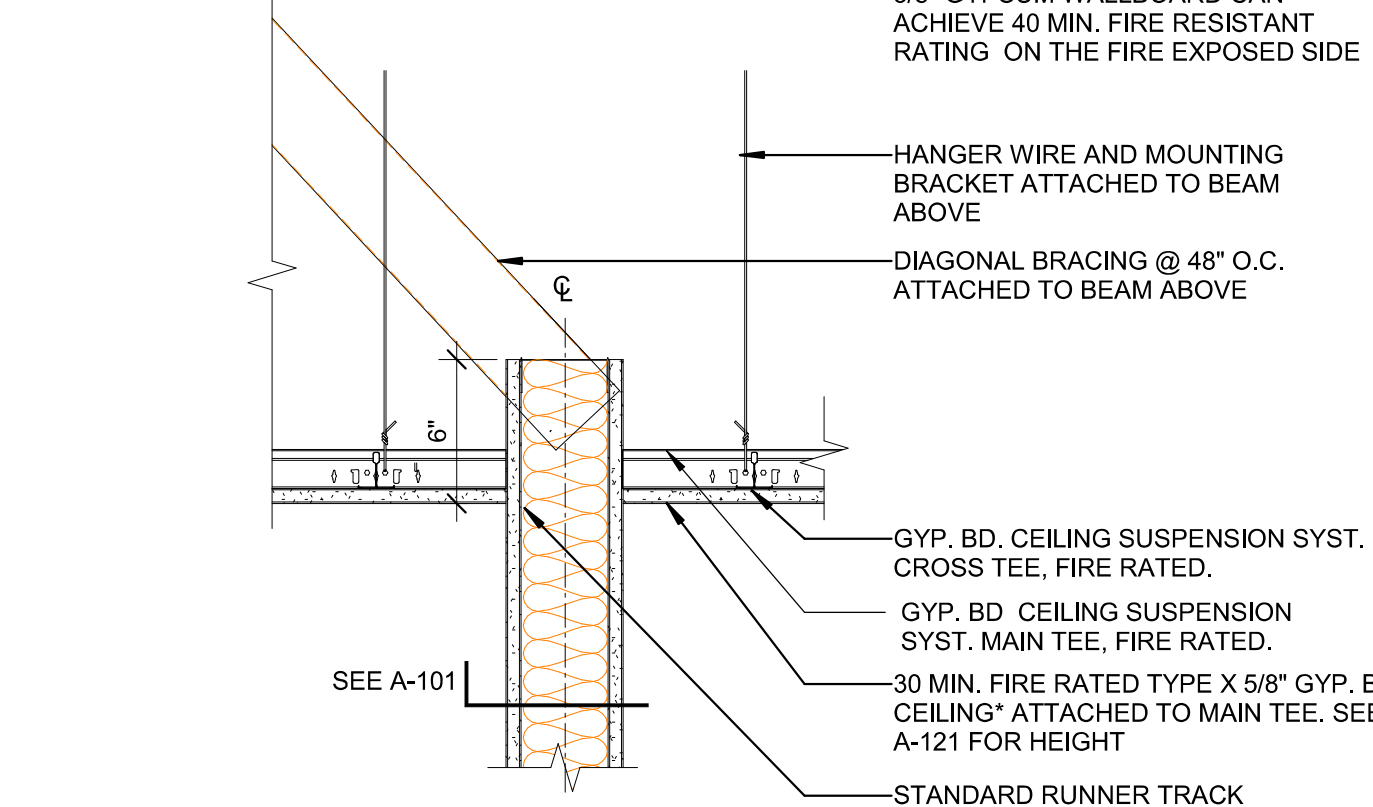
D



D1 HIGH ACT TO LOW GWB
1 1/2" = 1'-0"

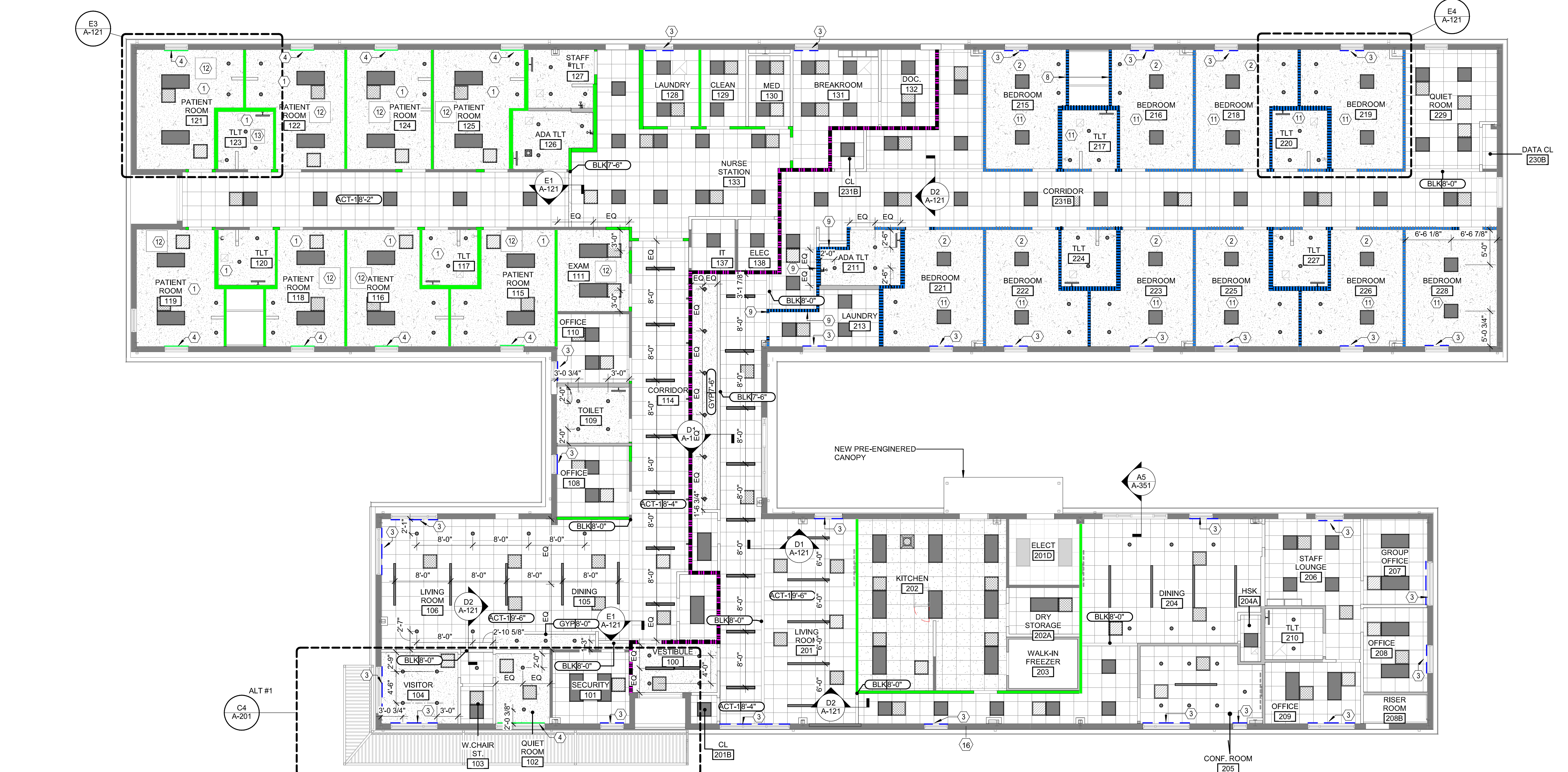


D2 BULKHEAD -ACT TO ACT
1 1/2" = 1'-0"



D3 DETAIL - WALL TERMINATION AT BEDROOMS
1 1/2" = 1'-0"

C



A1 RCP- LEVEL 1
1/8" = 1'-0"

B

A

RCP NOTES BY NUMBER

Table with 2 columns: NUMBER, NOTE. Contains 13 numbered notes regarding ceiling dimensions, partitions, and materials.

RCP LEGEND

Legend defining material patterns and building elements. Includes symbols for GYP ceiling, ACT-1/2 partitions, cordless mini-blinds, ligature resistant window blinds, return air grilles, supply air grilles, recessed LEDs, wall sconces, recessed LEDs, linear pendants, and recessed linear light fixtures.

REFLECTED CEILING PLAN SHEET NOTES

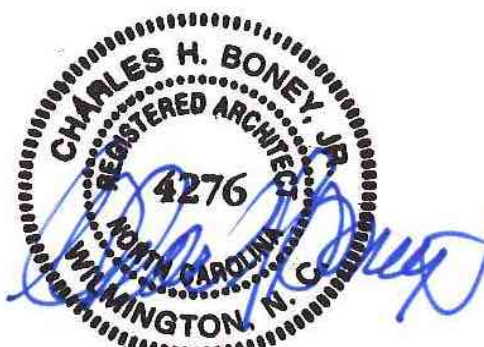
- A. PROVIDE SEISMIC RESTRAINT OF SUSPENDED CEILING SYSTEMS IN SITE CLASSIFICATIONS C, D, E & F.
B. INTERIOR DIMENSIONS INDICATED ARE TO FACE OF STUD, FACE OF MASONRY AND CENTERLINES OF COLUMNS, UNO.
C. CEILING GRID/TILES TO BE CENTERED IN ALL ROOMS UNLESS NOTED OTHERWISE. PARTIAL TILES AT ROOM PERIMETERS SHALL NOT BE LESS THAN 6" IN EITHER DIMENSION. OVERSIZED TILES SHALL BE INSTALLED WHERE TILES UNDER 6" OCCUR.
D. ALL CEILING TO BE 9'-0" AFF. UNO. CEILING HEIGHTS SHOWN ON THE REFLECTED CEILING PLANS ARE NON-TYPICAL AND SPECIFIC TO THE AREA INDICATED. REFER TO INTERIOR ELEVATIONS FOR THE HEIGHTS OF SOFFITS ABOVE CASEWORK.
E. SEE ELECTRICAL, FIRE ALARM AND FIRE PROTECTION DRAWINGS FOR SPECIAL SYSTEMS, SMOKE DETECTORS, LIGHTING AND WALL MOUNTED FIXTURES NOT SHOWN ON THIS SHEET. COORDINATE LOCATIONS OF ALL FIXTURES NOT INDICATED WITH LAYOUT INDICATED ON THIS SHEET.
F. LIGHT FIXTURES AND MECHANICAL DIFFUSERS ARE SHOWN FOR POSITIONING IN FINISH CEILING SYSTEM. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR FIXTURE TYPES, MECHANICAL DIFFUSERS, WALL MOUNTED FIXTURES AND INSTALLATION OF FIXTURES IN SPACES WITHOUT CEILINGS. (LIGHTING AND HVAC DIFFUSERS ARE SHOWN FOR COORDINATION ONLY - SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SPECIFIC INFORMATION).
G. CENTER LIGHTS, DIFFUSERS, EXIT SIGNS, SMOKE DETECTORS, SPRINKLER HEADS, SPEAKERS, FIRE ALARM HORNS/STROBES & MISC DEVICES IN CEILING TILES WHERE THEY ARE LOCATED. ALIGN SIMILAR ITEMS ALONG A COMMON AXIS.
H. LOCATE MECHANICAL GRILLES AND DIFFUSERS SHOWN IN CORNERS OR NEAR WALL TO 12" OFF WALLS, UNO.
I. PROVIDE AND INSTALL CEILING ACCESS PANEL IN GYPSUM BOARD CEILINGS AT DEVICES REQUIRING ACCESS INCLUDING BUT NOT LIMITED TO BALANCING DAMPERS, SMOKE DETECTORS, VAV CONTROLS, PLUMBING VALVES, ELECTRICAL JUNCTION BOXES, ETC. MINIMIZE ACCESS DOORS WHERE POSSIBLE.
J. HEIGHT OF GYPSUM BOARD SOFFITS SHALL BE 1" BELOW HEIGHT OF ADJACENT CEILING(TYP) UNLESS NOTED OTHERWISE.
K. TOUCH-UP PAINT EXPOSED EDGES OF CUT ACOUSTICAL CEILING TILE TO MATCH SURF-FACE(TYP).
L. INDIVIDUAL TRADE COMPONENTS, INCLUDING BUT NOT LIMITED TO LIGHT FIXTURE WHIPS, FLEXIBLE FIRE PROTECTION PIPING, LOW VOLTAGE WIRING, ETC. SHALL NOT BE SUPPORTED BY ACOUSTICAL CEILING SYSTEM.

PARTITION GRAPHICS

Graphic sample and fill pattern legend for partitions. Includes color legend for non-rated partitions, smoke barriers, fire partitions, and fire walls.



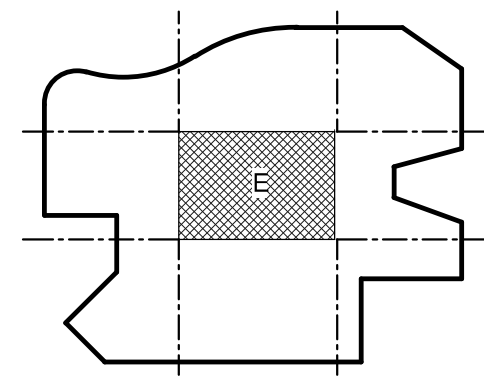
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NEW HANOVER COUNTY STAR CENTER 1605 Robin Hood Rd. Wilmington, NC 28401 LSP PROJECT: 7405-230775

KEY PLAN:

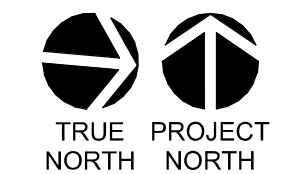


SHEET NAME: REFLECTED CEILING PLAN- LEVEL 1

ORIG SUBMISSION: 2024.01.31

SHEET: A-121

BID/ PERMIT SET



THE LINE SHOWN ABOVE IS EXACTLY
ON THE CENTERLINE OF THE
PROPOSED DRIVE

E

D

C

B

A

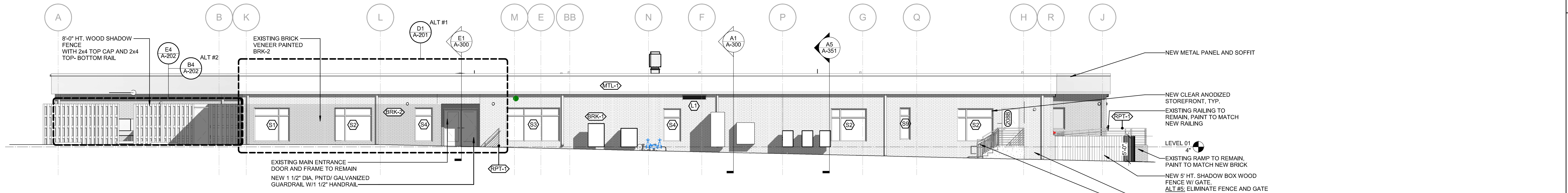
ARCH- MATERIAL FINISHES (EXTERIOR)							
TAG	PRODUCT TYPE	MANUFACTURER	PRODUCT NAME	PRODUCT SIZE	PRODUCT COLOR	CONTACT	ADDITIONAL NOTES
09-FINISHES-MISC							
RPT-1	PAINT	SHERWIN WILLIAMS	EXTERIOR PAINT		SW 2846 ROYCROFT BRONZE GREEN	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM	
09-FINISHES-WALLS							
BRK-1	PAINT	BENJAMIN MOORE	EXTERIOR PAINT		SEAPEARL		NA
BRK-2	PAINT	BENJAMIN MOORE	EXTERIOR PAINT		SPRING HAS SPRUNG		NA
MTL-1	EXTERIOR METAL PANEL	PAC-CLAD	EXTERIOR PAINT		BURNISHED SLATE		ALT #5



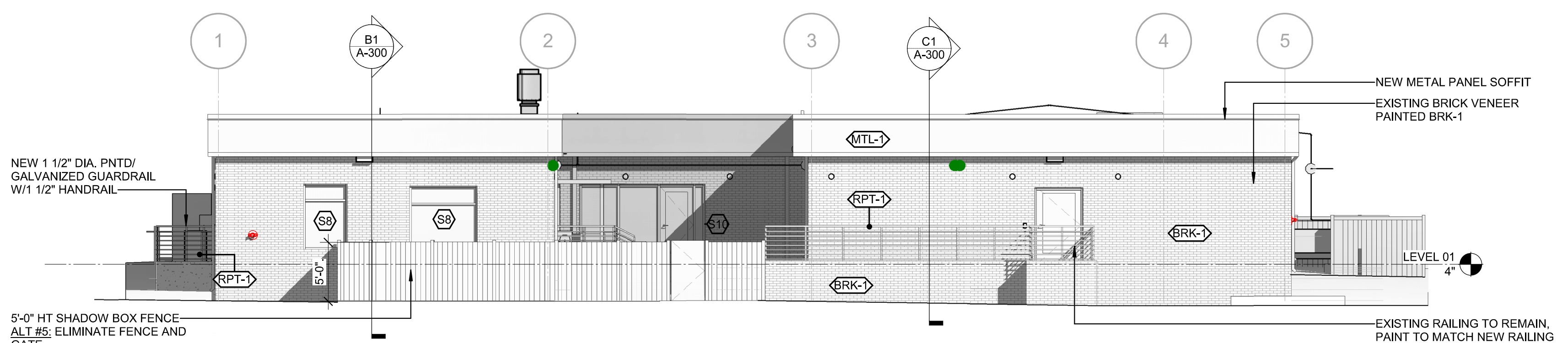
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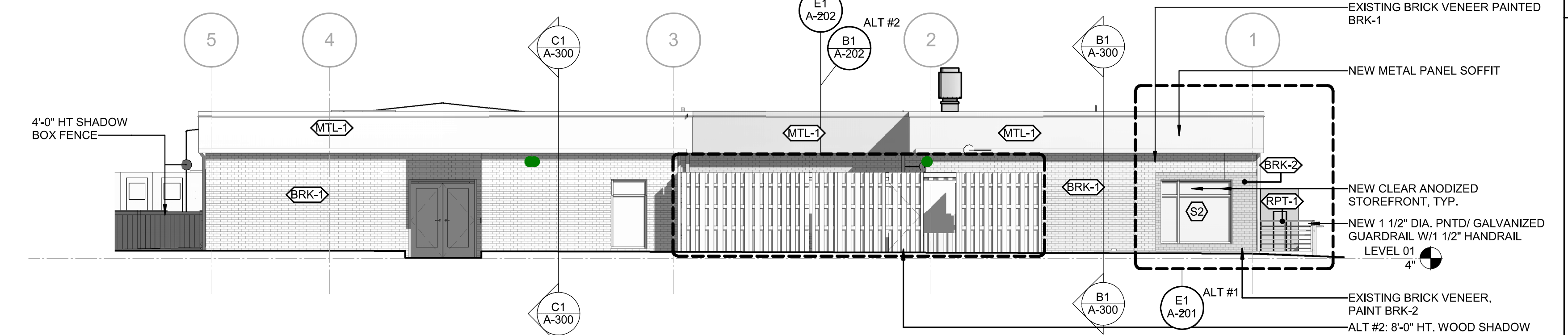
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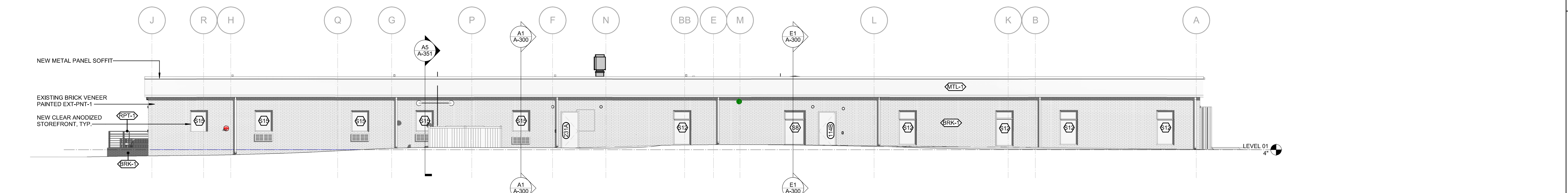
C1 ELEVATION- EXTERIOR- SOUTH
1/8" = 1'-0"



B1 ELEVATION- EXTERIOR- EAST
1/8" = 1'-0"



B3 ELEVATION- EXTERIOR- WEST
1/8" = 1'-0"



A1 ELEVATION- EXTERIOR- NORTH
1/8" = 1'-0"

**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.11.16	100% Schematic Design
B 2024.01.31	100% Design Development
D 2024.08.21	Bid/ Permit Set

SHEET NAME:
**BUILDING
ELEVATIONS**

ORIG SUBMISSION: 2024.01.31

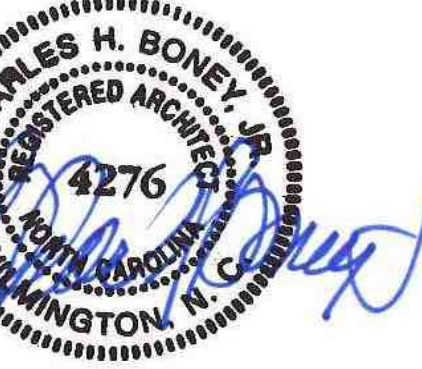
SHEET:
A-200

BID/ PERMIT SET

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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A 2023.11.16	100% Schematic Design
B 2024.01.31	100% Design Development
D 2024.08.21	Blk/ Permit Set

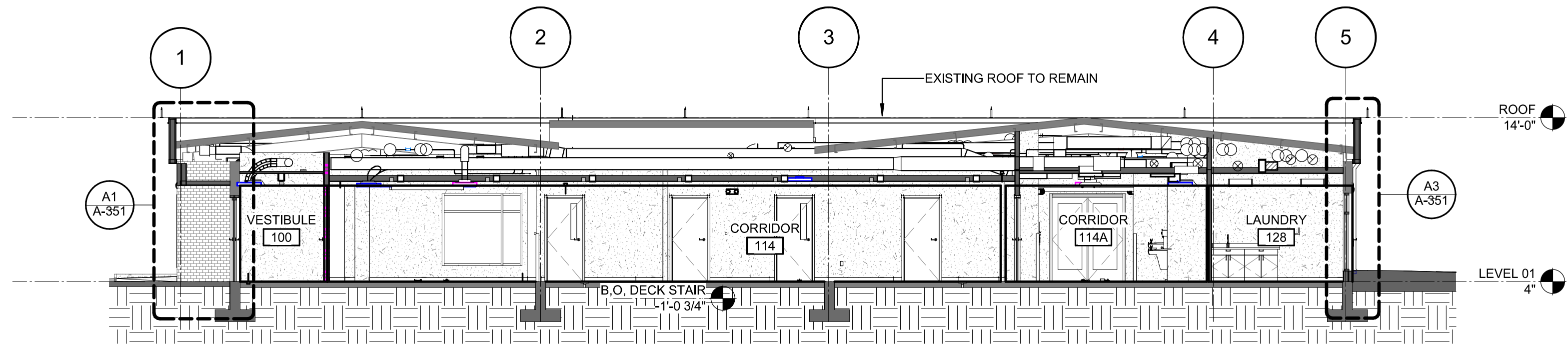
SHEET NAME:
BUILDING SECTIONS

ORIG SUBMISSION: 2024.01.31

SHEET:
A-300

BID/ PERMIT SET

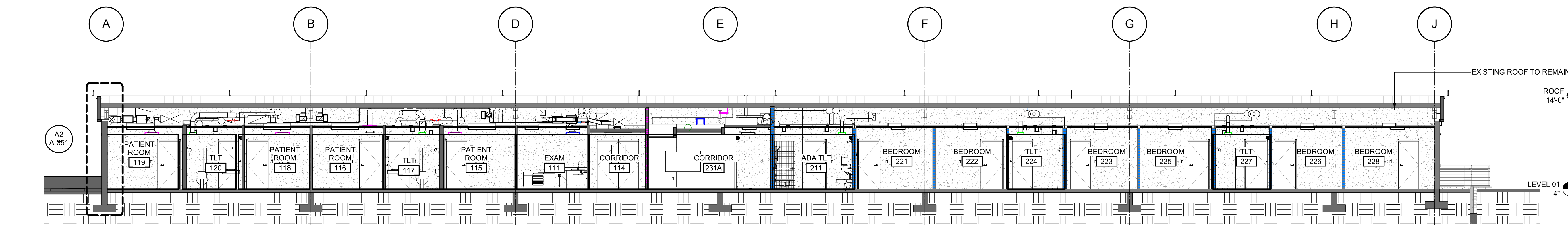
E



E1 BUILDING SECTION 1

1/8" = 1'-0"

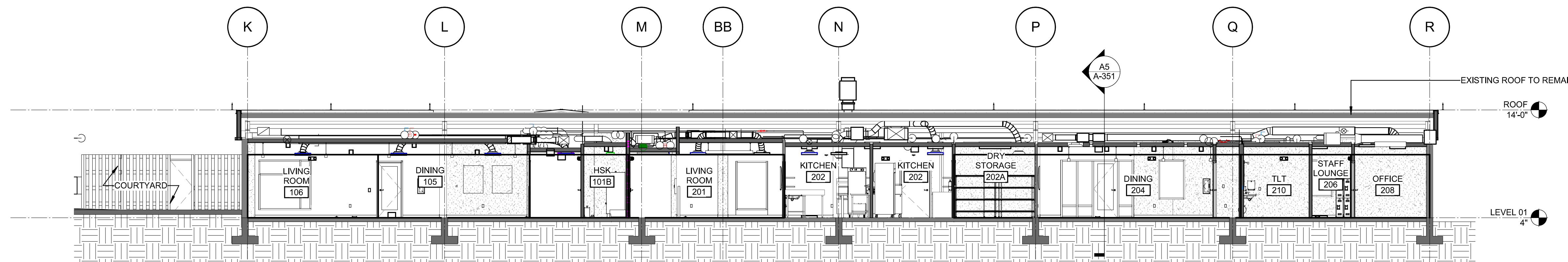
D



C1 BUILDING SECTION 3

1/8" = 1'-0"

C

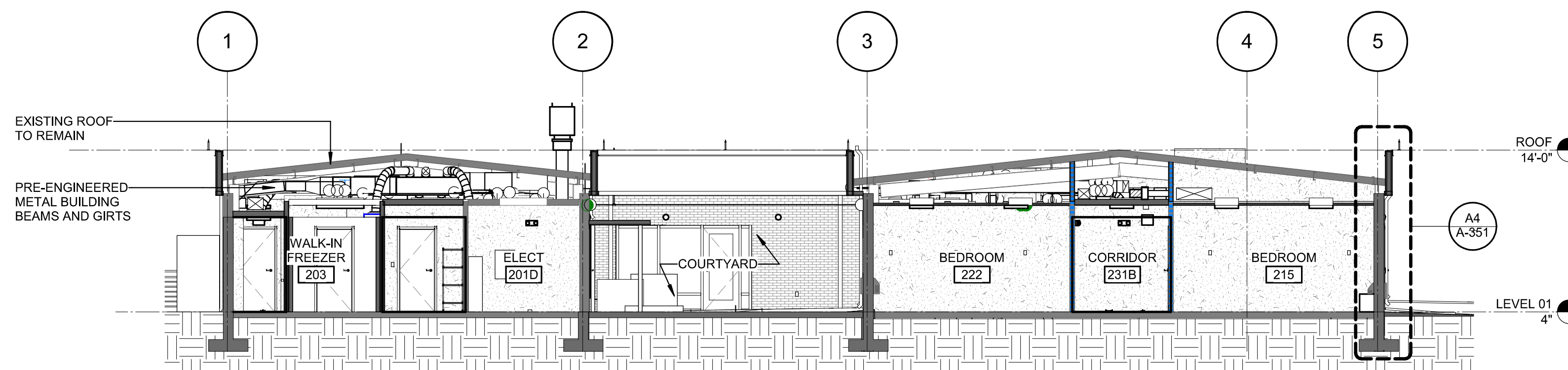


B1 BUILDING SECTION 4

1/8" = 1'-0"

B

A



A1 BUILDING SECTION 2

1/8" = 1'-0"

1

2

3

4

5

6



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 STAR CENTER**
 1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

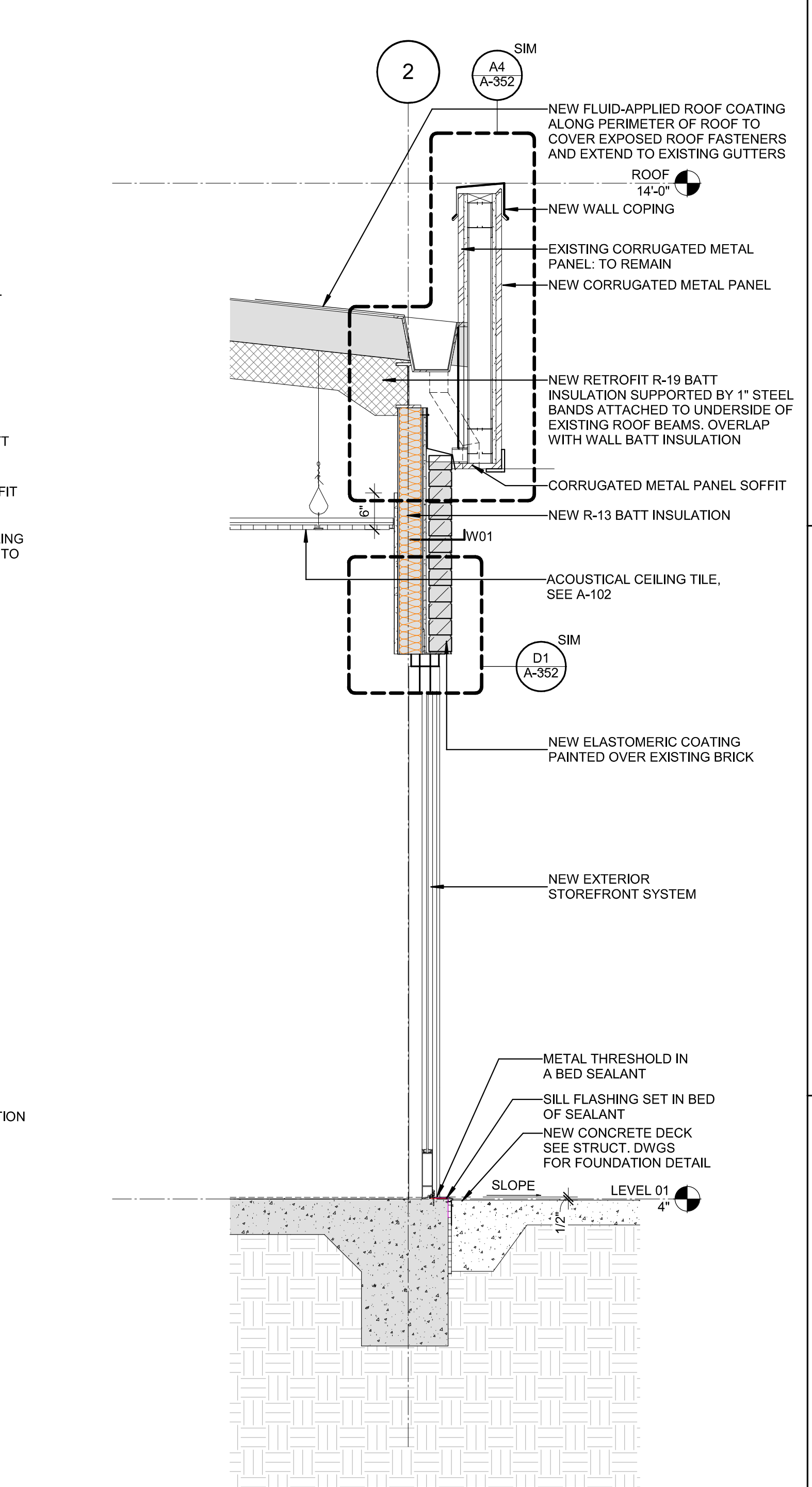
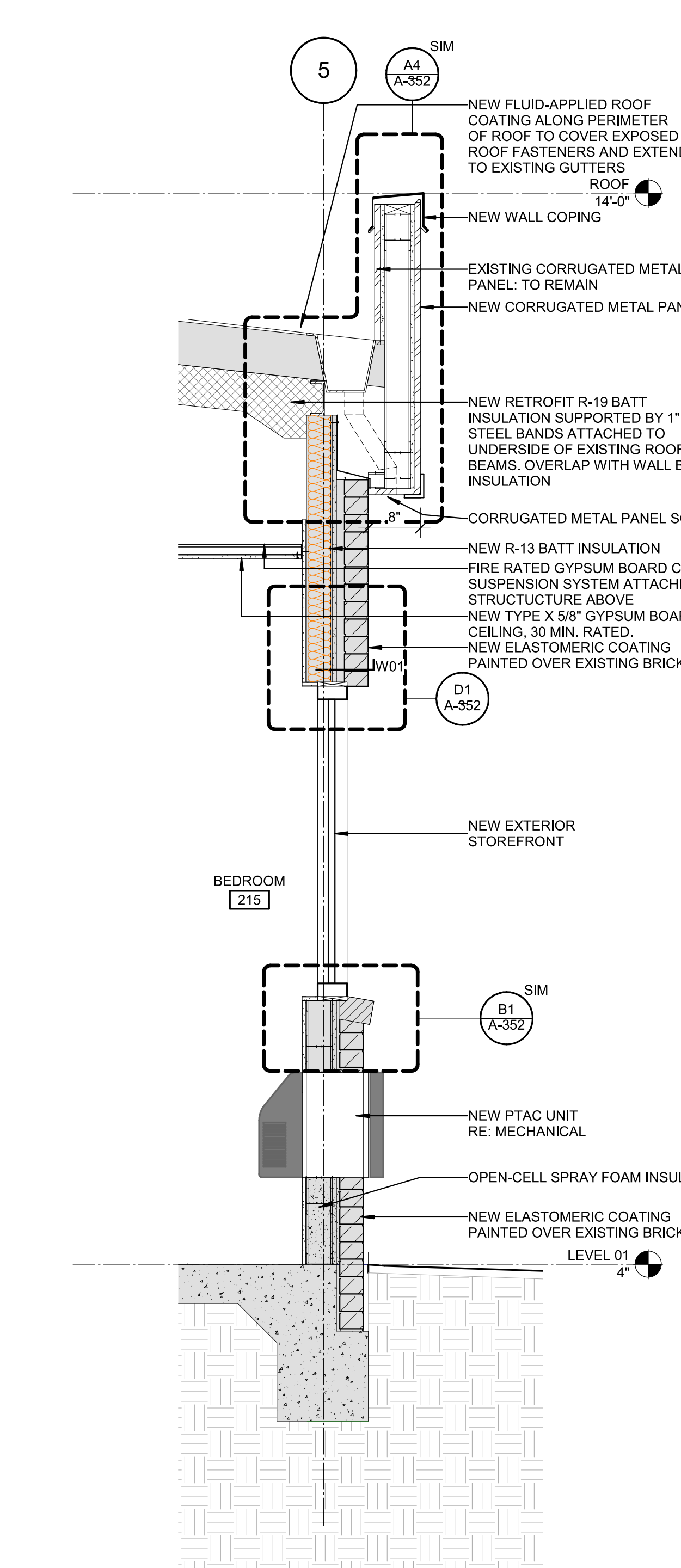
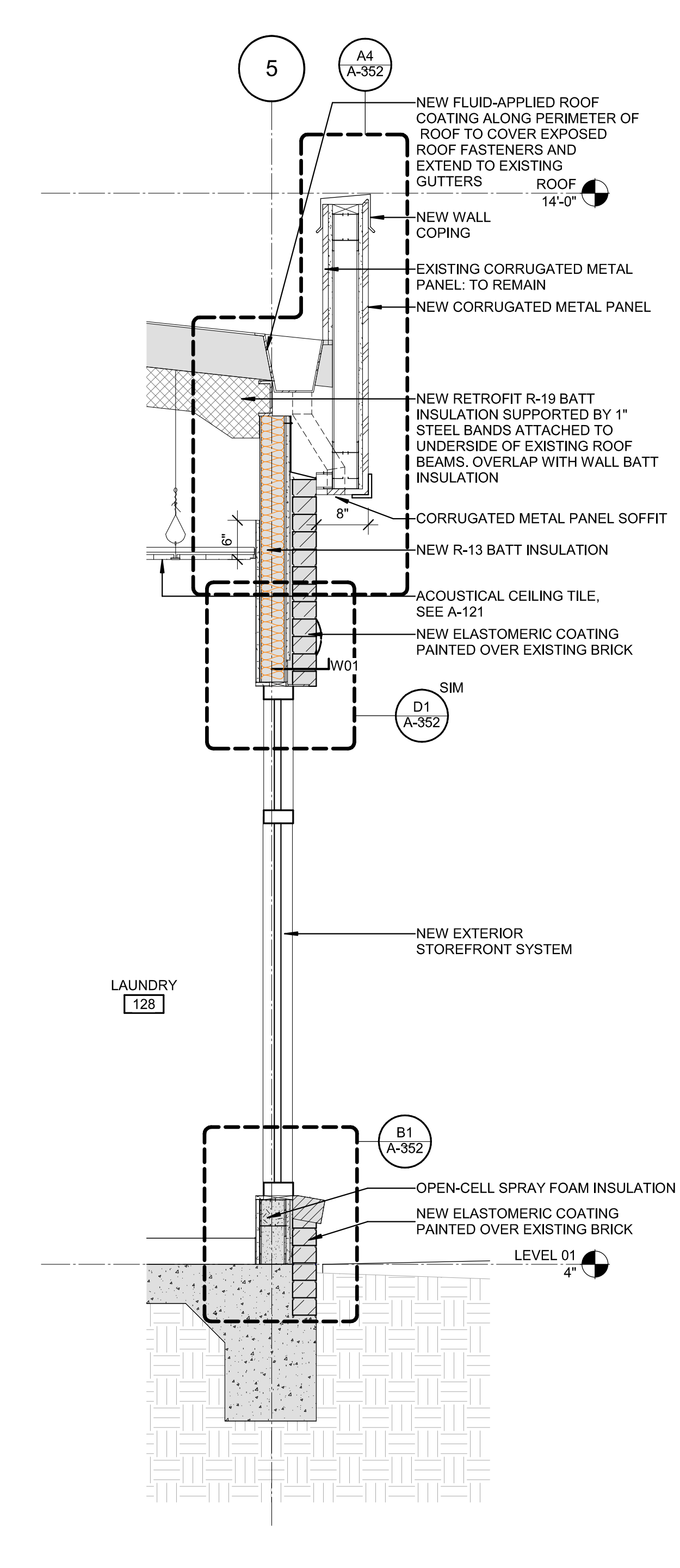
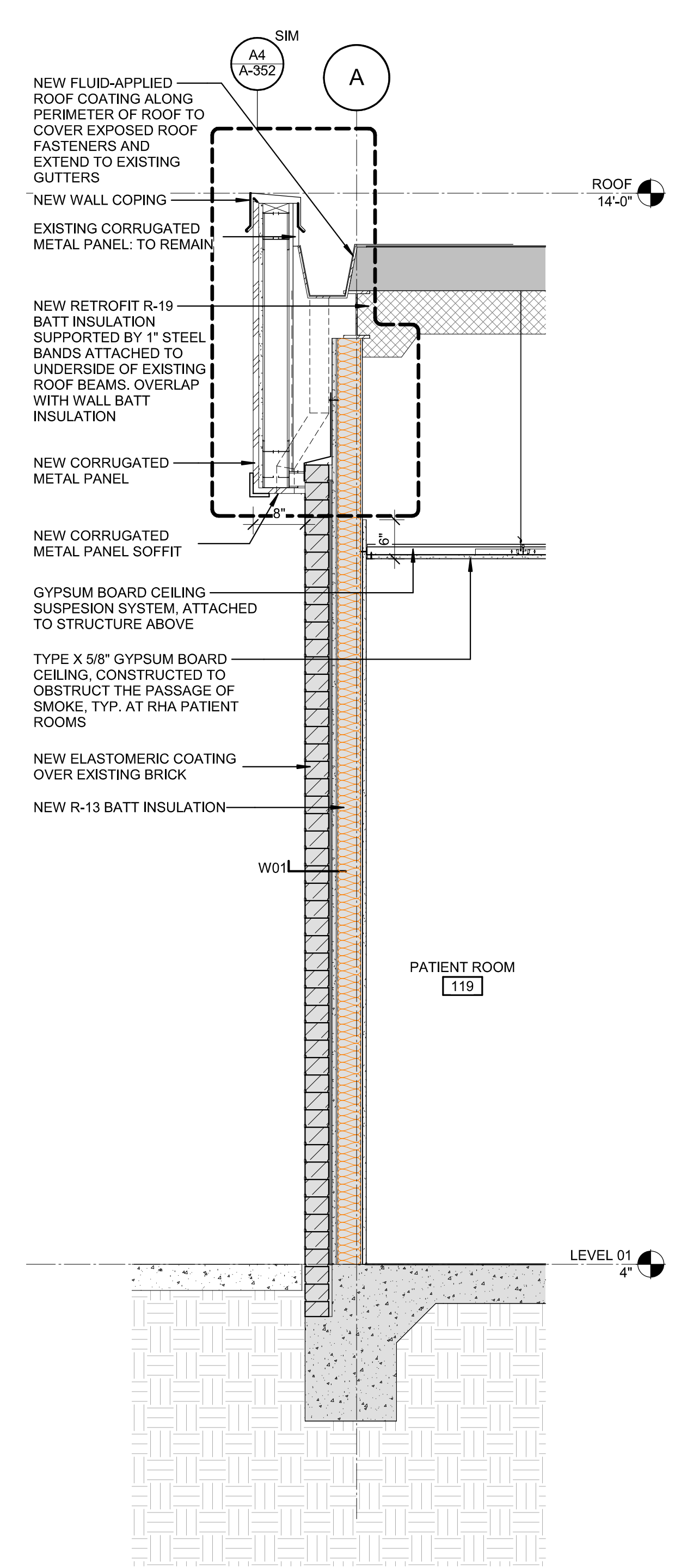
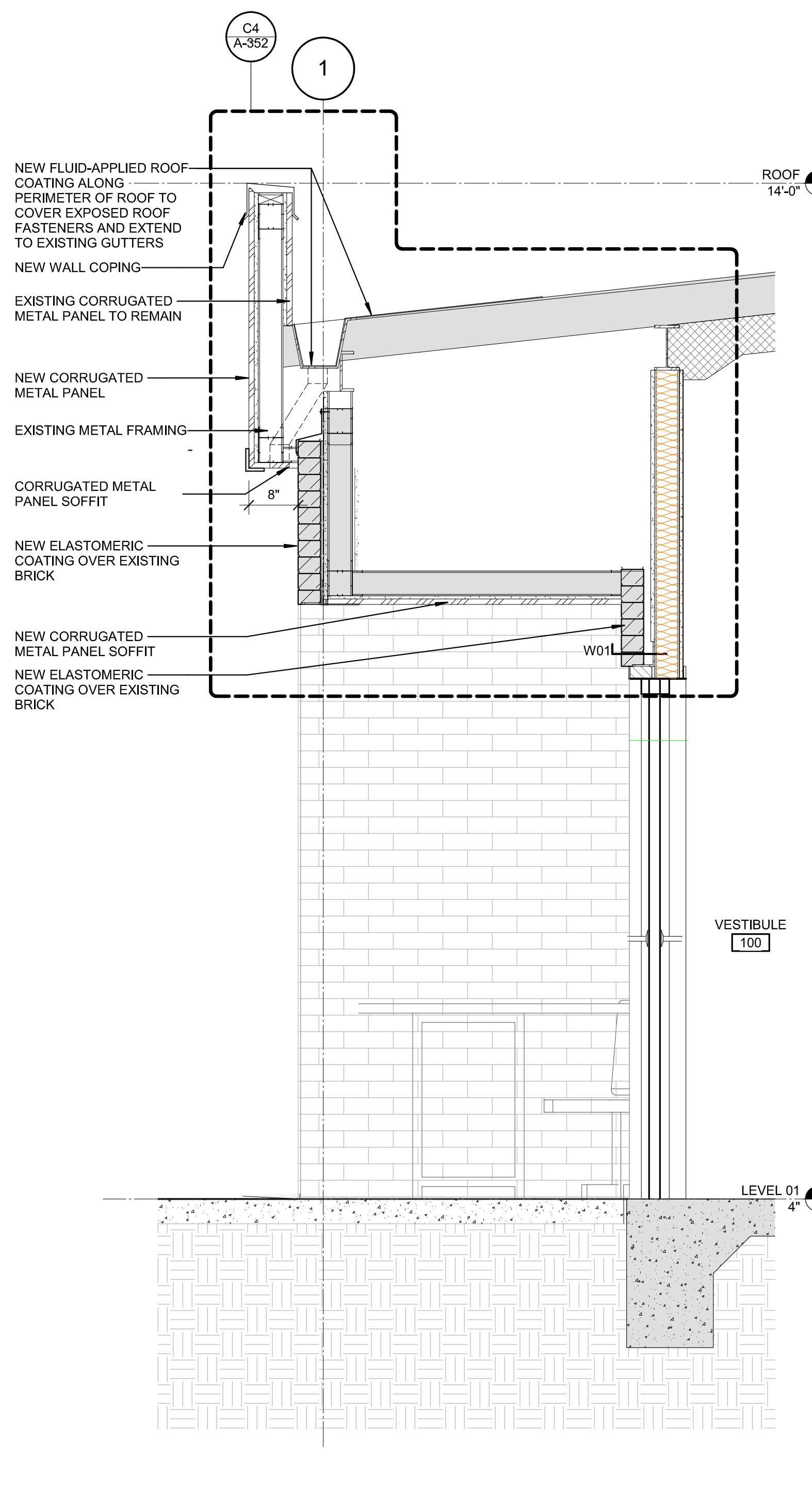
DATE	DESCRIPTION
A 2024.01.31	100% Design Development
0 2024.08.21	Bid/Permit Set

SHEET NAME:
 WALL SECTIONS

ORIG SUBMISSION: 2024.01.31

SHEET:
A-351

BID/PERMIT SET



A1 WALL SECTION - ENTRY VESTIBULE
 3/4" = 1'-0"

A2 EXISTING WALL SECTION - TYP.
 3/4" = 1'-0"

A3 WALL SECTION - STOREFRONT TYP.
 3/4" = 1'-0"

A4 WALL SECTION - SF @ PTAC UNIT
 3/4" = 1'-0"

A5 WALL SECTION - HM DOOR @ DINING
 3/4" = 1'-0"

1

2

3

4

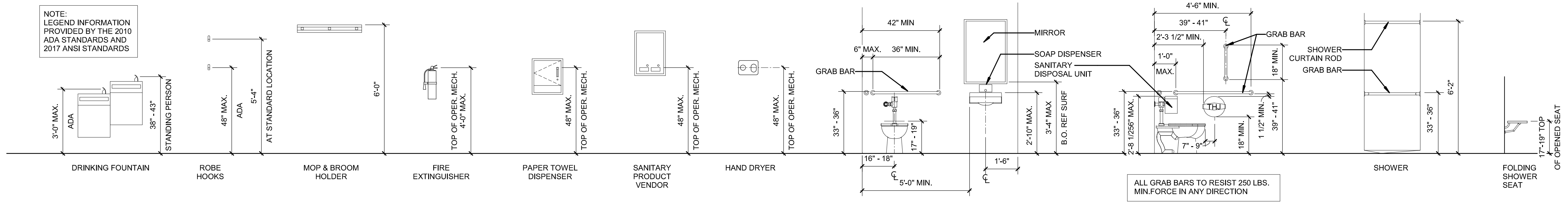
5

6

TYPICAL MOUNTING HEIGHTS - RESTROOMS

THE LINE SHOWN ABOVE IS DIMENSIONED TO THE CENTERLINE UNLESS OTHERWISE NOTED

NOTE:
LEGEND INFORMATION
PROVIDED BY THE 2010
ADA STANDARDS AND
2017 ANSI STANDARDS



TOILET ACCESSORIES LEGEND

TAG	DESCRIPTION	MANUFACTURER	LOCATION	INSTALL
TT-1	TOILET TISSUE DISPENSER- RECESSED	WHITEHALL BEST-CARE WH1845B	RHA	CFCI
TT-2	TOILET TISSUE DISPENSER	--	LINC	OFCl
SD-1	LIQUID SOAP DISPENSER - ONE AT SHOWER, ONE AT SINK	BSP SD 750	RHA	CFCl
SD-2	LIQUID SOAP DISPENSER	--	LINC	OFCl
GB60-1	60" GRAB BAR - LIGATURE-RESISTANT	SECURING COSMOS 811-503 SAFE SUPPORT BAR W/ SELF-DRAINING END CAPS	RHA	CFCl
GB42-1	42" GRAB BAR - LIGATURE-RESISTANT			
GB36-1	36" GRAB BAR - LIGATURE-RESISTANT			
GB24-1	24" GRAB BAR - LIGATURE-RESISTANT			
GB18-1	18" GRAB BAR - LIGATURE-RESISTANT			
GB36-2	36" GRAB BAR	SEE SPECS	LINC	CFCl
GB42-2	42" GRAB BAR	SEE SPECS	LINC	CFCl
GB18-2	18" GRAB BAR	SEE SPECS	LINC	CFCl
MM-1	STAINLESS STEEL MIRROR W. HARDWOOD FRAME	BSP FM 160, W/ HARDWOOD FRAME, MECH FASTENED	RHA	CFCl
MM-2	MIRROR UNIT	SEE SPECS	LINC	CFCl
PTR-1	PAPER TOWEL DISPENSER - LIGATURE RESISTANT	BSP PH235	RHA	CFCl
PTR-2	PAPER TOWEL DISPENSER	--	LINC	OFCl
SSPD	SOFT SUICIDE PREVENTION SHOWER DOOR	KENNON SSPD	RHA	CFCl
SCR	SHOWER CURTAIN ROD	SEE SPECS	LINC	CFCl
SC	SHOWER CURTAIN	SEE SPECS	LINC	CFCl
RH-1	ROBE AND TOWEL HOOK - 2 FLEXIBLE HOOKS	KINGSWAY KG 180	RHA	CFCl
RH-2	ROBE/ COAT HOOK	SEE SPECS	LINC	CFCl
LRSS	LIGATURE RESISTANT SHOWER SEAT	SEE SPECS	RHA	CFCl



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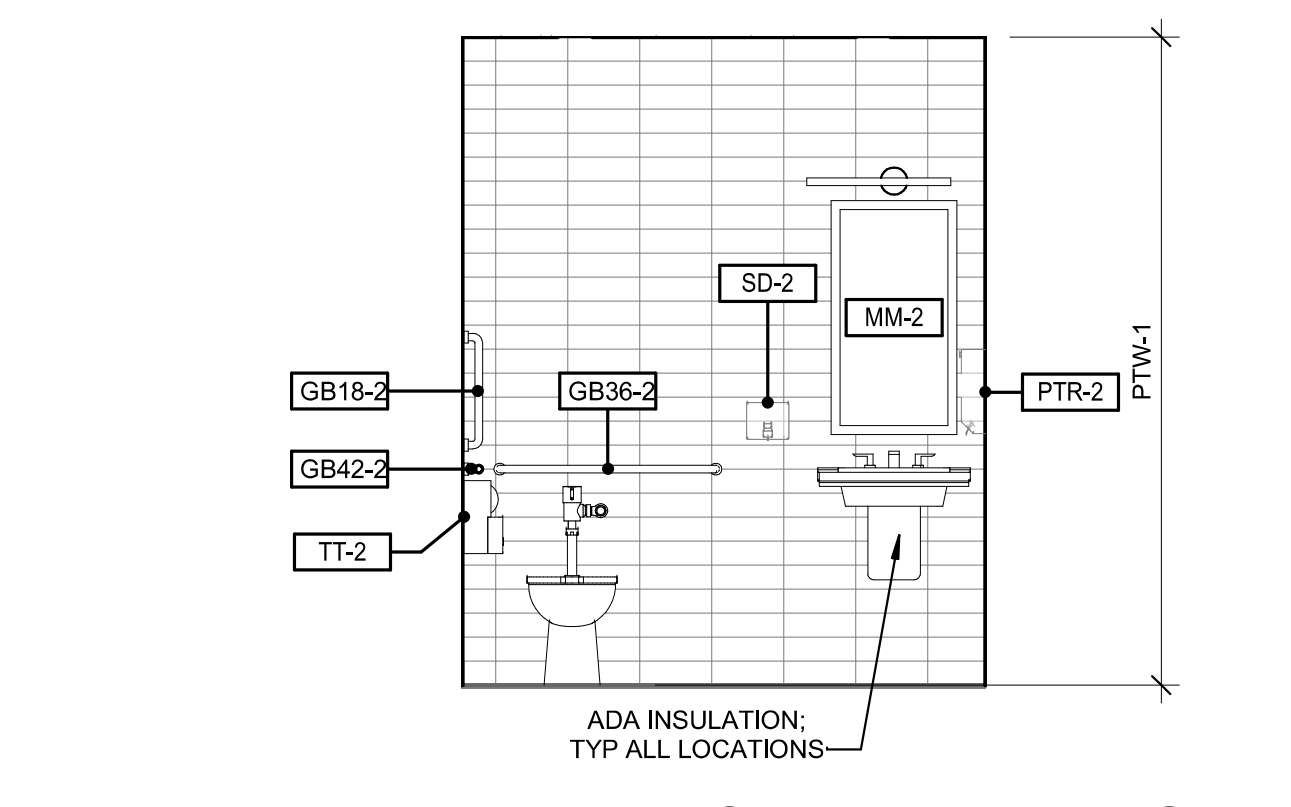
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D

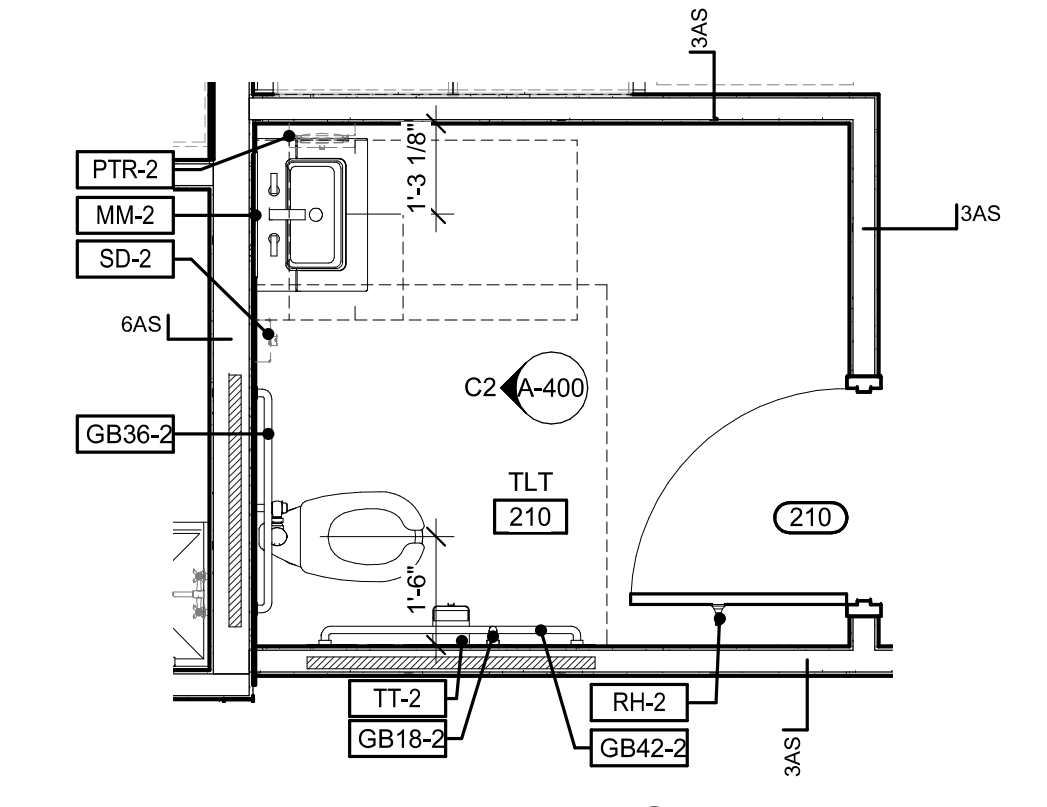
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B

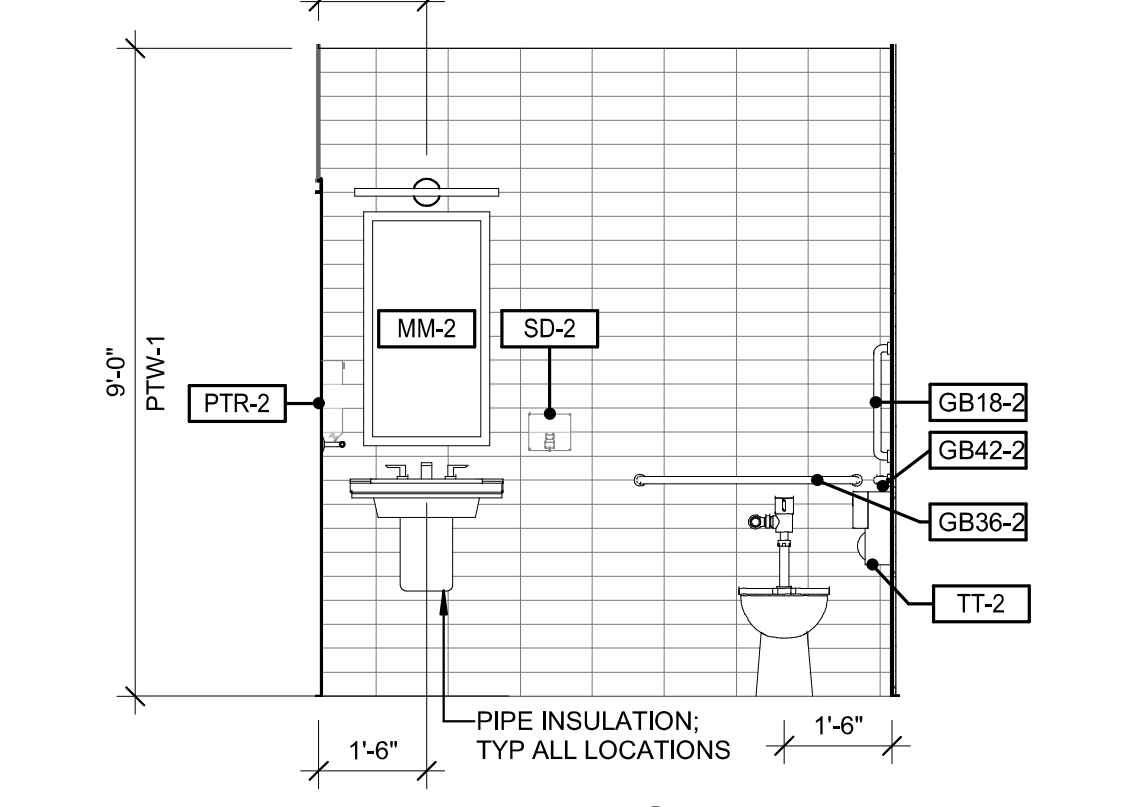
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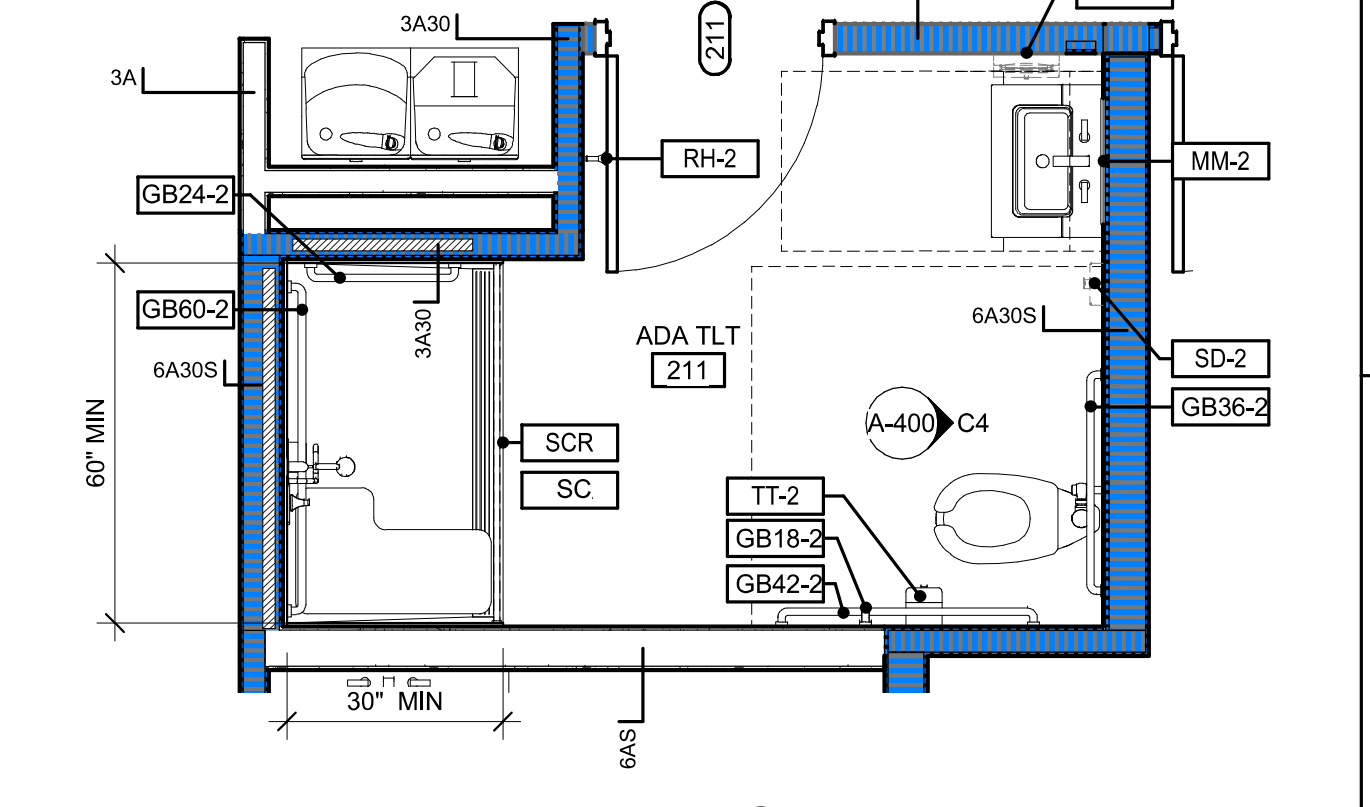
C2 INT ELEV. - LINC TLT 210 WEST
3/8" = 1'-0"



C3 ENL PLAN - LINC TLT 210
3/8" = 1'-0"

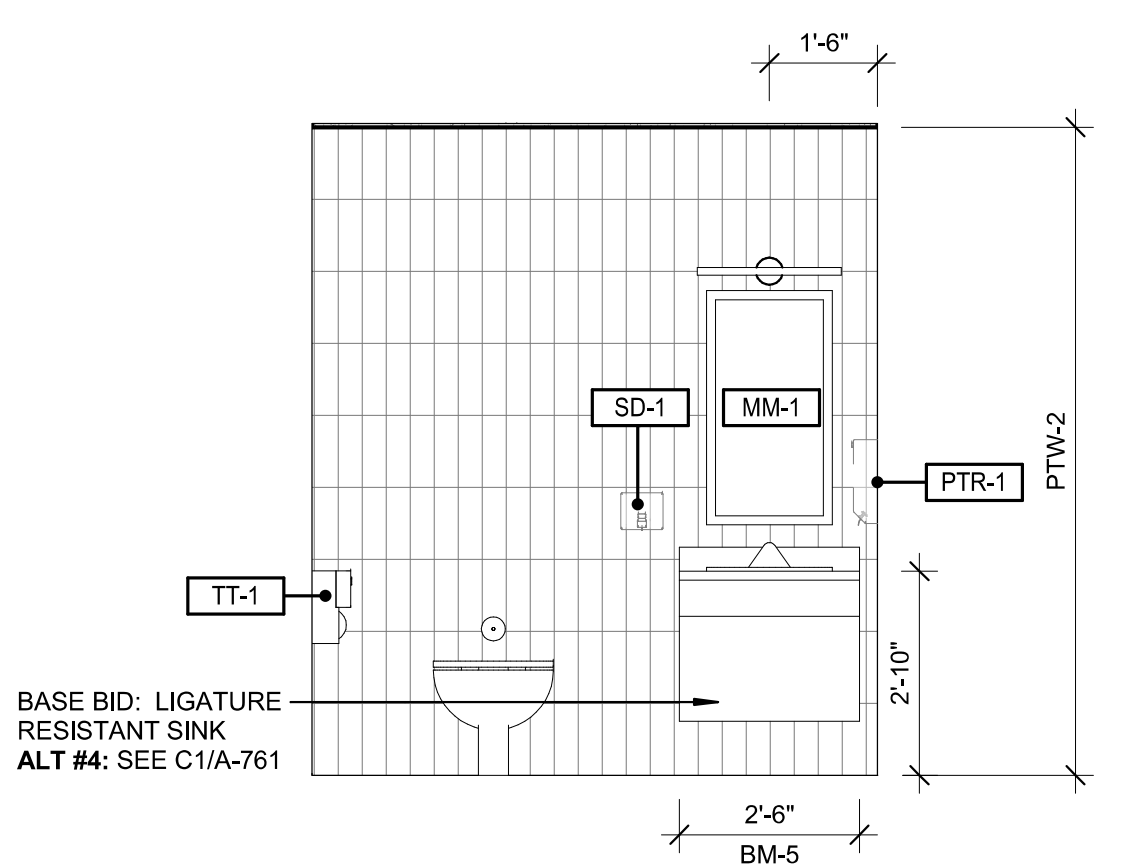


C4 INT ELEV. - LINC ADA TLT 211 E
3/8" = 1'-0"

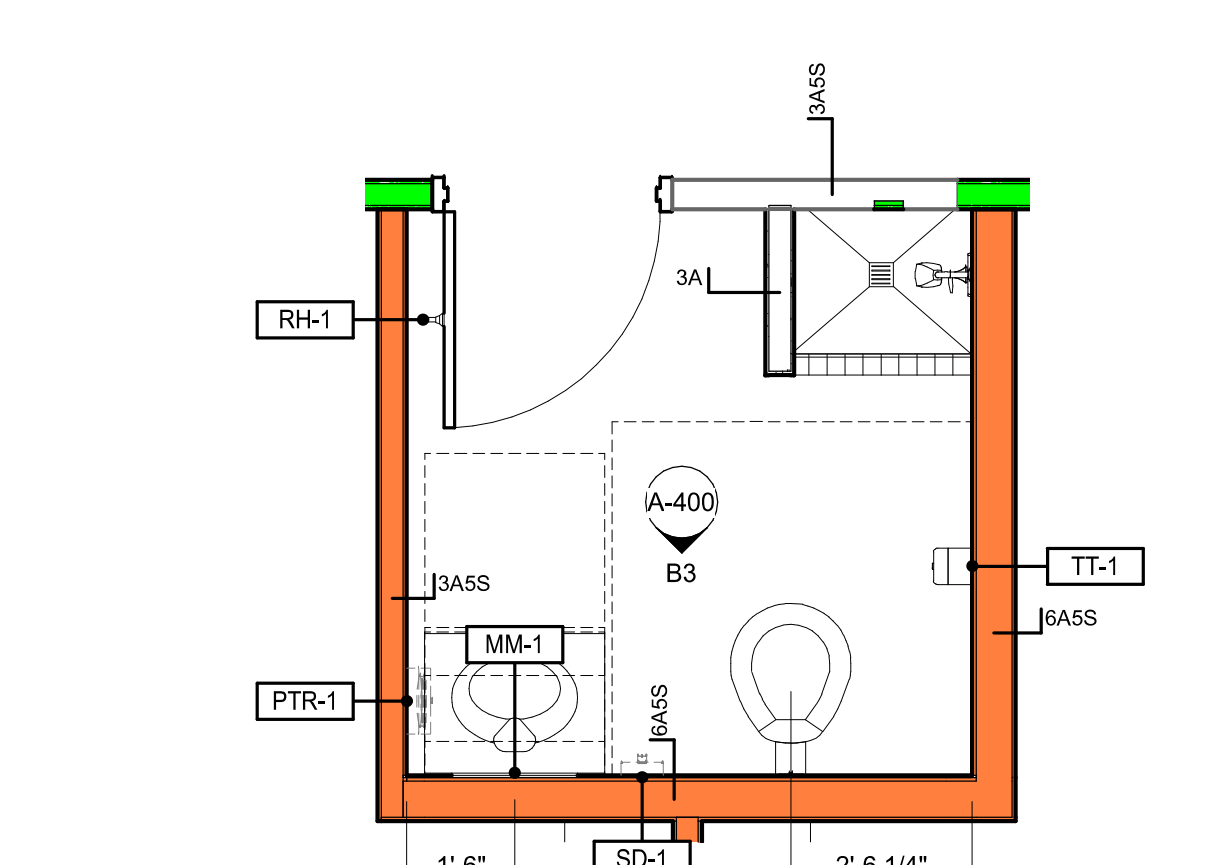


C5 ENL PLAN - LINC ADA TLT 211
3/8" = 1'-0"

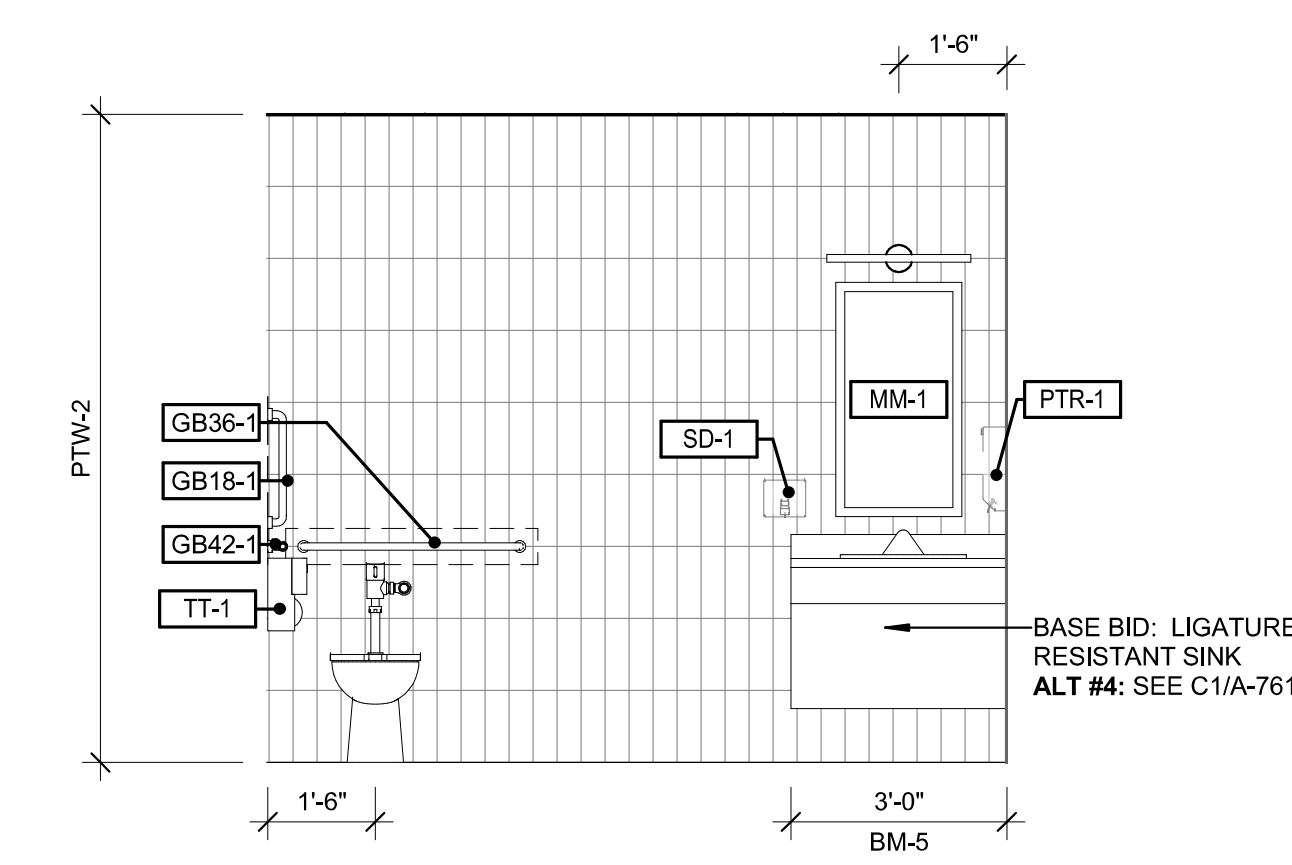
**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. - Wilmington, NC 28401
LSP PROJECT: 7405-230775



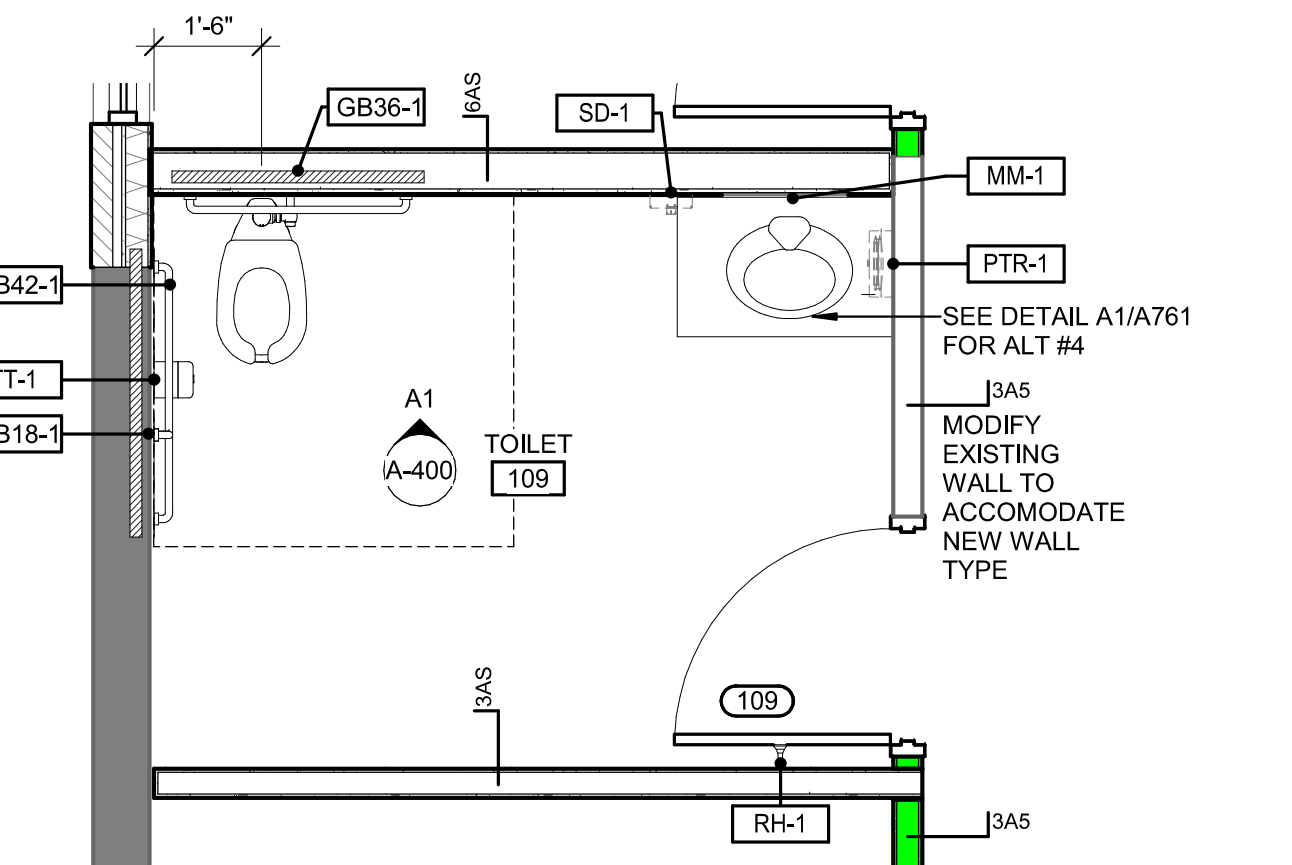
B3 INT ELEV. - TYP RHA PAT. TLT
3/8" = 1'-0"



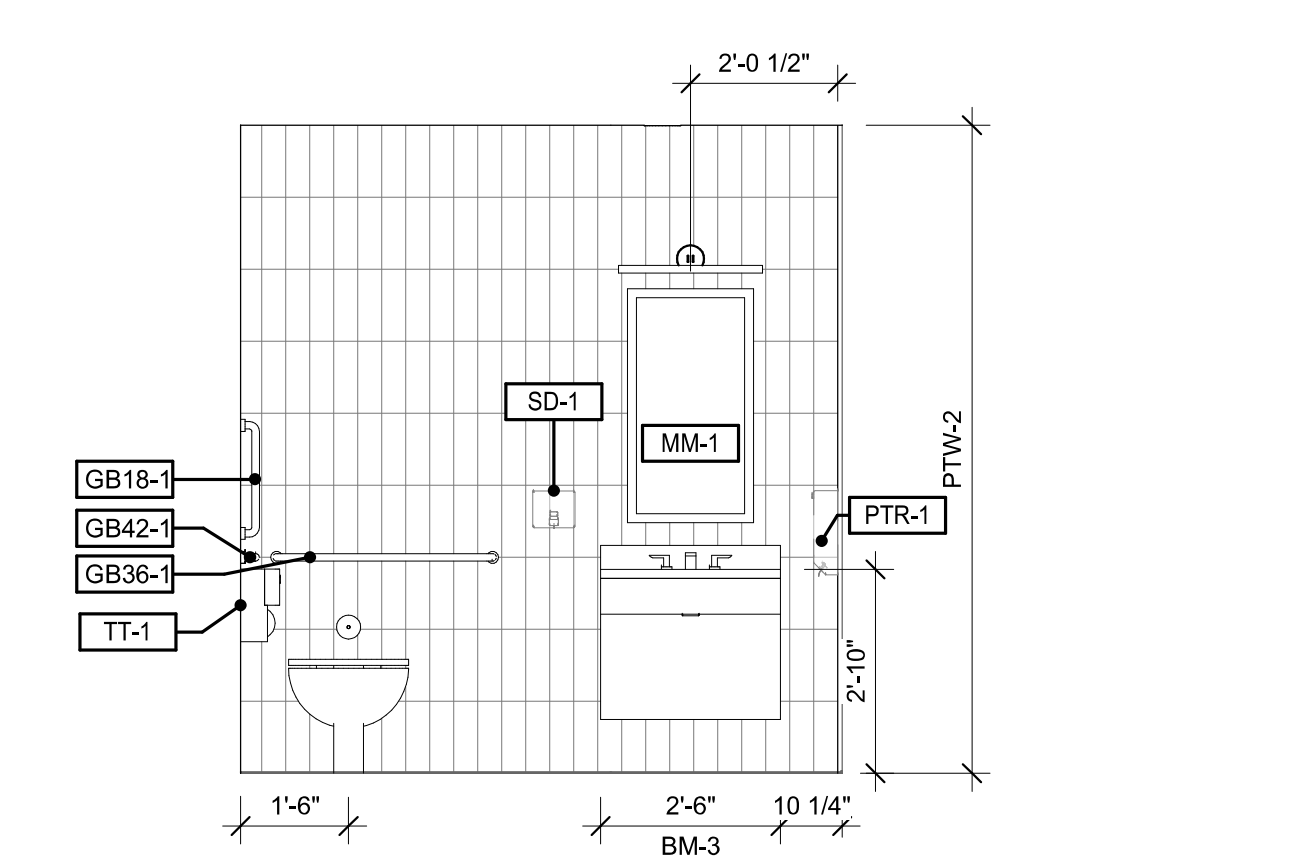
B4 ENL PLAN - TYP RHA PAT. TLT
3/8" = 1'-0"



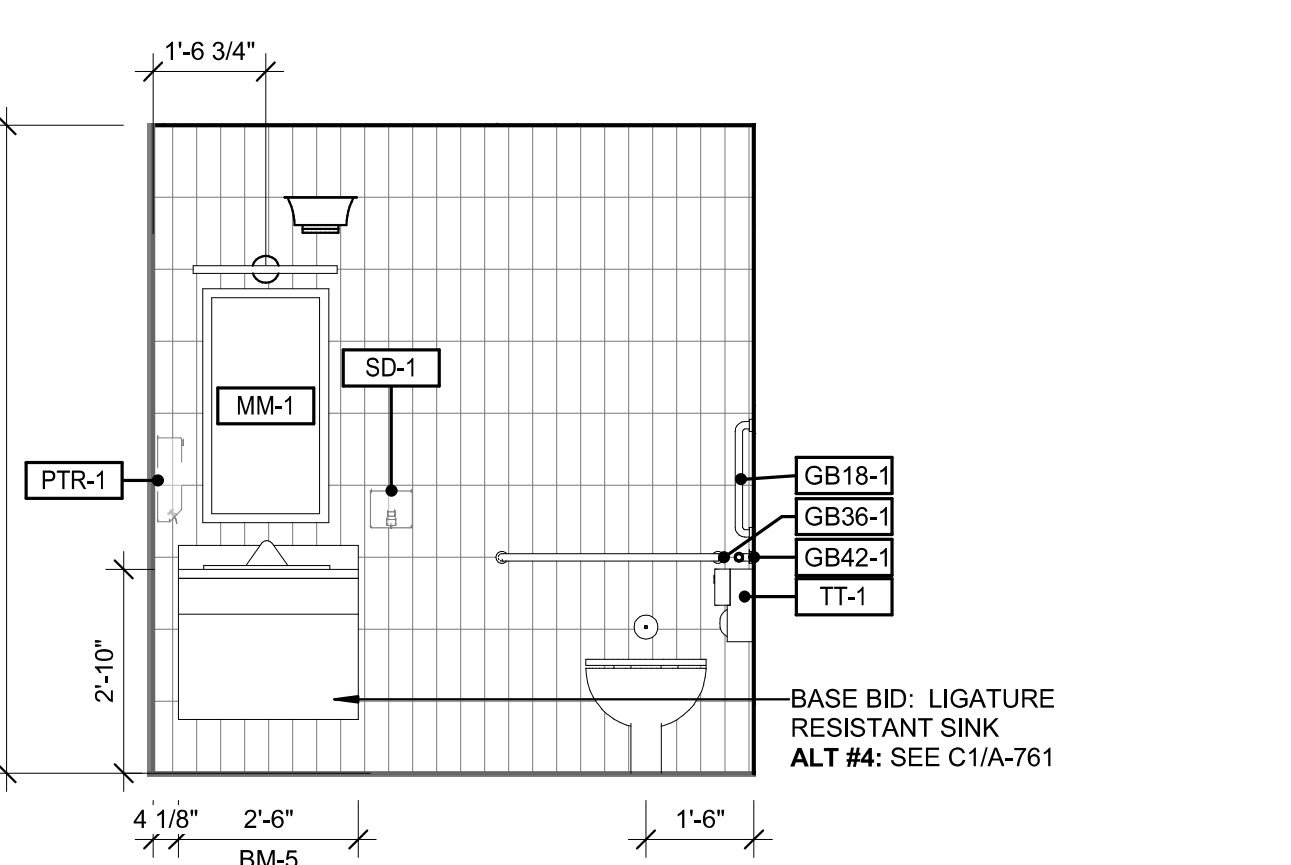
A1 INT ELEV. - RHA TLT 109 N
3/8" = 1'-0"



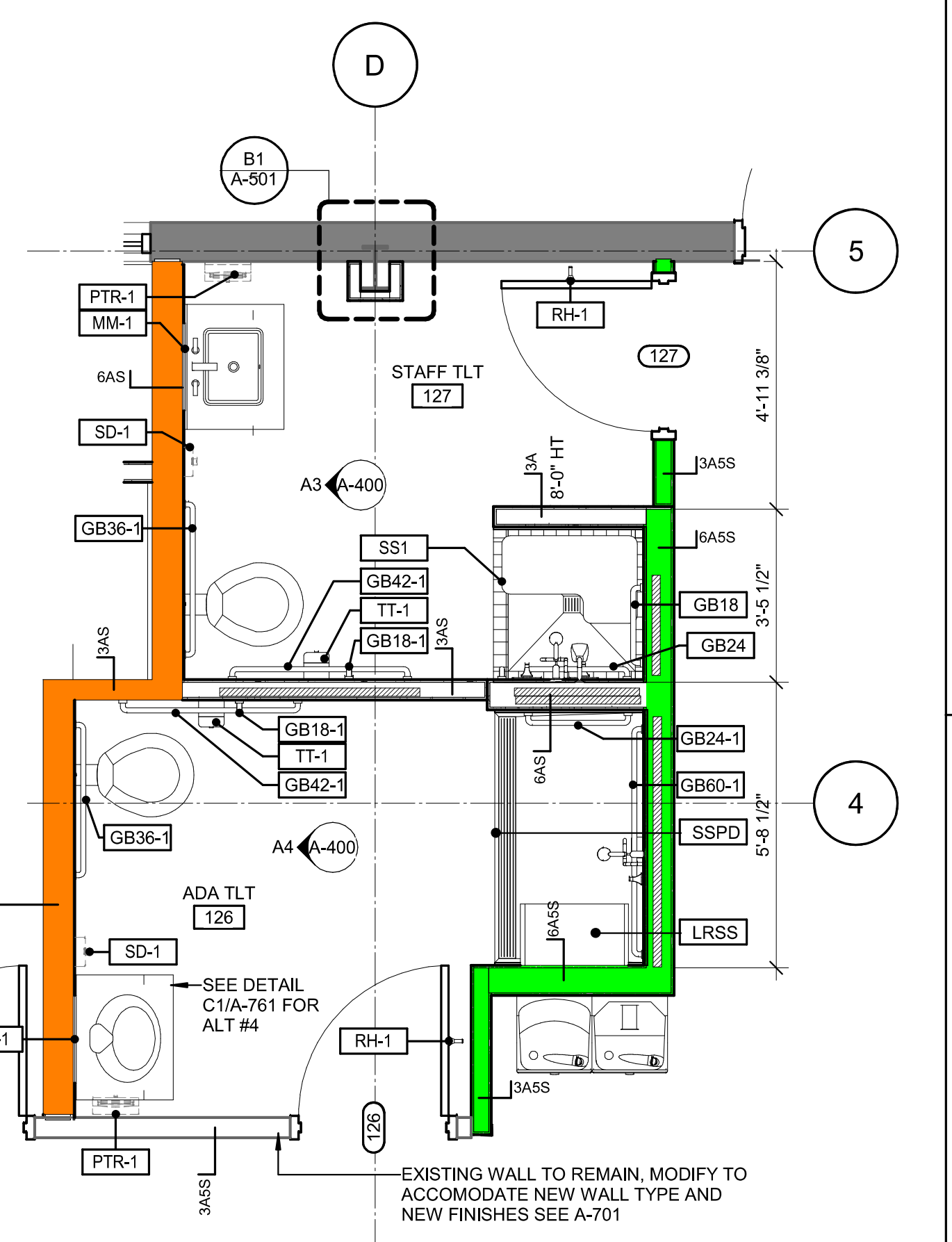
A2 ENL PLAN - RHA TLT 109
3/8" = 1'-0"



A3 INT ELEV. - RHA TLT 127 W
3/8" = 1'-0"



A4 INT ELEV. - ADA TLT 126 W
3/8" = 1'-0"



A5 ENL PLAN - ADA BATH 126 & STAFF 127
3/8" = 1'-0"

DATE	DESCRIPTION
2024.01.31	100% Design Development
2024.08.21	Bid/ Permit Set

SHEET NAME:
ENLARGED TOILET ROOM PLANS AND ELEVATIONS

ORIG SUBMISSION: 2024.01.31

SHEET: **A-400**

BID/ PERMIT SET

ARCH- DOOR SCHEDULE- CORE AND SHELL

LEVEL	DOOR NUMBER	FIRE RATING (MIN)	DOOR PANELS		DOOR PANELS		DOOR PANELS		DOOR FRAME					FRAME FINISH	HW SET	COMMENTS	NUMBER		
			PANEL TYPE		PANEL DIMENSIONS		HEIGHT	THICKNESS	DOOR FINISH	TYPE	FACE DIMENSIONS								
			PANEL 1	PANEL 2	PANEL 1	PANEL 2					WIDTH	HEIGHT	JAMB WIDTH					HEAD HEIGHT	DEPTH
LEVEL 01			PNL-FG-AL	PNL-FG-AL	3'-0"	3'-0"	7'-0"	1 3/4"	CLEAR ANODIZED	FRM-00AL(CW)	5'-11"	6'-9 1/2"	0"	0"	4 3/4"	CLEAR ANODIZED	R01		100A
	100B	90	PNL-FG-WD	PNL-FG-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	7"	PAINTED	R16	ACCESS CONTROL	100B
	100C		PNL-FG-WD	PNL-FG-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R15	ACCESS CONTROL	100C
	101		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L05		101
	101B		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L08		101B
	102		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L02		102
	103		PNL-F-WD	PNL-F-WD	2'-8"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	2'-8"	7'-0"	2"	2"	5 3/4"	PAINTED	L12		103
	104		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L02		104
	105		PNL-FG-HM	PNL-FG-HM	3'-0"	3'-0"	7'-0"	1 3/4"	PAINTED	FRM-00HM1	3'-0"	7'-0"	2"	2"	10 1/4"	PAINTED	L11	ACCESS CONTROL	105
	108		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L05	DOOR LOCATED IN A SMOKE PARTITION	108
	109		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L04	DOOR LOCATED IN A SMOKE PARTITION	109
	110		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L05	DOOR LOCATED IN A SMOKE PARTITION	110
	111		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	111
	114		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-01HM4	6'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L17	ACCESS CONTROL	114
	114A		PNL-FG-AL	PNL-FG-AL	3'-0"	3'-0"	7'-0"	1 3/4"	CLEAR ANODIZED	FRM-00AL(CW)	5'-11"	7'-1 1/2"	0"	0"	4 3/4"	CLEAR ANODIZED	L17	ACCESS CONTROL	114A
	114B		PNL-F-HM	PNL-F-HM	3'-0"	3'-0"	7'-0"	1 3/4"	PAINTED	FRM-00HM1	3'-0"	7'-0"	2"	2"	10 1/4"	PAINTED	L11	ACCESS CONTROL	114B
	115		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	115
	116		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	116
	117		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	117
	118		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	118
	119		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	119
	120		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	120
	121		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	121
	122		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	122
	123		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	123
	124		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	124
	125		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	125
	126		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L03	DOOR LOCATED IN A SMOKE PARTITION	126
	127		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L10	DOOR LOCATED IN A SMOKE PARTITION	127
	128		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L13	DOOR LOCATED IN A SMOKE PARTITION	128
	129		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L06	DOOR LOCATED IN A SMOKE PARTITION	129
	130		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L09	DOOR LOCATED IN A SMOKE PARTITION	130
	131		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L16	DOOR LOCATED IN A SMOKE PARTITION, ACCESS CONTROL	131
	132		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L07		132
	137		PNL-F-WD	PNL-F-WD	2'-8"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	2'-8"	7'-0"	2"	2"	5 3/4"	PAINTED	L15	DOOR LOCATED IN A SMOKE PARTITION, ACCESS CONTROL	137
	138		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	L14		138
	201A		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R15	ACCESS CONTROL	201A
	201B		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R12		201B
	201D		PNL-F-HM	PNL-F-HM	3'-8"	3'-0"	7'-0"	1 3/4"	PAINTED	FRM-00HM1	3'-8"	7'-0"	2"	2"	10 1/4"	PAINTED	R07	PANIC HARDWARE	201D
	202		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R02		202
	202A		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R15		202A
	202B		PNL-F-HM	PNL-F-HM	3'-8"	3'-0"	7'-0"	1 3/4"	PAINTED	FRM-00HM1	3'-8"	7'-0"	2"	2"	10 1/4"	PAINTED	R12		202B
	204		PNL-FG-AL	PNL-FG-AL	3'-0"	3'-0"	7'-4"	1 3/4"	CLEAR ANODIZED	FRM-00AL(CW)	3'-0"	7'-2"	0"	0"	4 3/4"	CLEAR ANODIZED	R05		204
	204A		PNL-F-WD	PNL-F-WD	2'-8"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	2'-8"	7'-0"	2"	2"	5 3/4"	PAINTED	R08		204A
	205		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R03		205
	206		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R15	ACCESS CONTROL	206
	206A		PNL-F-HM	PNL-F-HM	3'-8 1/2"	3'-0"	7'-0"	1 3/4"	PAINTED	FRM-00HM1	3'-8 1/2"	7'-0"	2"	2"	10 1/4"	PAINTED	R13	ACCESS CONTROL	206A
	207		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R03		207
	208		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R03		208
	208B		PNL-F-HM	PNL-F-HM	3'-0"	3'-0"	7'-0"	1 3/4"	PAINTED	FRM-00HM1	3'-0"	7'-0"	2"	2"	10 1/4"	PAINTED	R07		208B
	209		PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R03		209
	210		PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R18		210
	211	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		211
	213	20	PNL-N-WD	PNL-N-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R09		213
	215	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		215
	216	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		216
	217	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		217
	218	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		218
	219	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		219
	220	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		220
	221	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		221
	222	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		222
	223	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		223
	224	20	PNL-F-WD	PNL-F-WD	3'-0"	3'-0"	7'-0"	1 3/4"	STAINED	FRM-00HM1	3'-0"	7'-0"	2"	2"	5 3/4"	PAINTED	R17		

ARCH- ROOM FINISH SCHEDULE

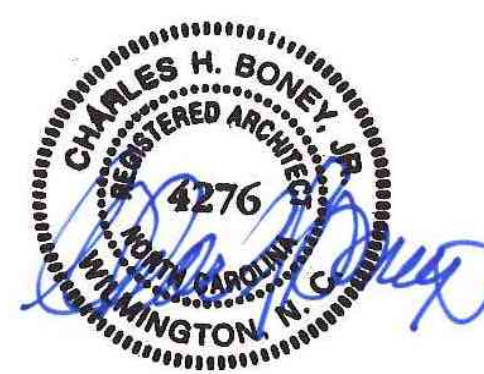
NUMBER	NAME	FLOOR	BASE	WALL				CEILING	NOTES
				NORTH	EAST	SOUTH	WEST		
LEVEL 01									
100	VESTIBULE	CPT-2	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
101	SECURITY	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
101B	HSK	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
102	QUIET ROOM	LVT-1	RBS-1	PNT-7	PNT-7	PNT-7	PNT-7	GYP/ PNT-1	
103	W.CHAIR ST.	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
104	VISITOR	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
105	DINING	LVT-1, LVT-2	RBS-1	PNT-2, PNT-7	PNT-2, PNT-8	PNT-2, PNT-8	PNT-2, PNT-8	ACT-1	SEE INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
106	LIVING ROOM	LVT-1, LVT-2	RBS-1	PNT-2, PNT-7	PNT-2, PNT-8	PNT-2, PNT-8	PNT-2, PNT-8	ACT-1	SEE INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
108	OFFICE	LVT-2	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
109	TOILET	RSF-2	SHB-1	PTW-2	PNT-2	PNT-2	PNT-2	GYP/ PNT-1	
110	OFFICE	LVT-2	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
111	EXAM	RSF-2	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
114	CORRIDOR	LVT-1, LVT-2	RBS-1	PNT-2	PNT-2, PNT-8	PNT-2	PNT-2	ACT-1	
114A	CORRIDOR	RSF-1, RSF-2	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
115	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2	PNT-2, PNT-7	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
116	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2, PNT-7	PNT-2	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
117	TLT	PTF-1	SHB-1	PNT-2	PNT-2	PTW-2	PNT-2	GYP/ PNT-1	
118	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2	PNT-2, PNT-7	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
119	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2, PNT-7	PNT-2	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
120	TLT	RSF-1	SHB-1	PNT-2	PNT-2	PTW-2	PNT-2	GYP/ PNT-1	
121	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2, PNT-7	PNT-2	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
122	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2	PNT-2, PNT-7	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
123	TLT	PTF-1	SHB-1	PNT-2	PNT-2	PTW-2	PNT-2	GYP/ PNT-1	
124	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2, PNT-7	PNT-2	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
125	PATIENT ROOM	RSF-1	SHB-1	PNT-2	PNT-2, PNT-7	PNT-2	PNT-2	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
126	ADA TLT	PTF-1	SHB-1	PNT-2	PNT-2	PTW-2	PNT-2	GYP/ PNT-1	
127	STAFF TLT	PTF-1	SHB-1	PNT-2	PNT-2	PTW-2	PNT-2	GYP/ PNT-1	
128	LAUNDRY	RSF-1	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
129	CLEAN	RSF-1	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
130	MED	RSF-1	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
131	BREAKROOM	LVT-1	SHB-1	PNT-7	PNT-2	PNT-2	PNT-2	ACT-1	
132	DOC.	LVT-1	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
133	NURSE STATION	RSF-2	SHB-1	PNT-2	PNT-2	PNT-8	PNT-2	ACT-1	
137	IT	SDT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
138	ELEC	SEALED CONCRETE	SHB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
201	LIVING ROOM	LVT-1, LVT-2, CPT-1	RBS-1	PNT-5	PNT-2, PNT-3, PNT-5	PNT-2	PNT-2	ACT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
201A	IT CL	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
201B	CL	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
201D	ELECT	EXISTING	EXISTING	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	EXISTING CONCRETE FLOOR TO REMAIN.
202	KITCHEN	QZT	EXISTING	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	PATCH AND REPAIR EXISTING QUARRY TILE.
202A	DRY STORAGE	QZT	EXISTING	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	PATCH AND REPAIR EXISTING QUARRY TILE.
203	WALK-IN FREEZER	SEALED CONCRETE	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
204	DINING	LVT-1	RBS-1	PNT-2, PNT-4 *SEE ELEVATION	PTW-1, PNT-5 *SEE ELEVATIONS	PNT-2, PNT-4 *SEE ELEVATIONS	PNT-2, PNT-4 *SEE ELEVATIONS	ACT-1	SEE INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
204A	HSK	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
205	CONF. ROOM	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
206	STAFF LOUNGE	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
207	GROUP OFFICE	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
208	OFFICE	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
208B	RISER ROOM	SEALED CONCRETE	+	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
209	OFFICE	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
210	TLT	LVT-1	PTB-1	PNT-2	PNT-2	PTW-1	PNT-2	ACT-1	
211	ADA TLT	PTF-1	PTB-1	PNT-2	PNT-2	PTW-1	PNT-2	GYP/ PNT-1	
213	LAUNDRY	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
215	BEDROOM	LVT-1	RBS-1	PNT-2, PNT-9	PNT-2, PNT-9	PNT-2, PNT-9 *SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
216	BEDROOM	LVT-1	RBS-1	PNT-2, PNT-9	PNT-2, PNT-9 *SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	PNT-2, PNT-9	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
217	TLT	PTF-1	PTB-1	PNT-2	PNT-2	PTW-1	PNT-2	GYP/ PNT-1	
218	BEDROOM	LVT-1	RBS-1	PNT-2, PNT-9	PNT-2, PNT-9	PNT-2, PNT-9 *SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
219	BEDROOM	LVT-1	RBS-1	PNT-2, PNT-9	PNT-2, PNT-9	PNT-2, PNT-9 *SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
220	TLT	PTF-1	PTB-1	PNT-2	PNT-2	PTW-1	PNT-2	GYP/ PNT-1	
221	BEDROOM	LVT-1, LVT-2	RBS-1	PNT-2, PNT-9; SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	PNT-2	PNT-2, PNT-9	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
222	BEDROOM	LVT-1, LVT-2	RBS-1	PNT-2, PNT-9; SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	PNT-2	PNT-2, PNT-9, SEE ELEVATION	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
223	BEDROOM	LVT-1, LVT-2	RBS-1	PNT-2, PNT-9; SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	PNT-2	PNT-2, PNT-9	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
224	TLT	PTF-1	PTB-1	PNT-2	PNT-2	PTW-1	PNT-2	GYP/ PNT-1	
225	BEDROOM	LVT-1, LVT-2	RBS-1	PNT-2, PNT-9; SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	PNT-2	PNT-2, PNT-9, SEE ELEVATION	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
226	BEDROOM	LVT-1, LVT-2	RBS-1	PNT-2	PNT-2, PNT-5	PNT-2, PNT-5	PNT-2, PNT-5	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
227	TLT	PTF-1	PTB-1	PNT-2	PNT-2	PTW-1	PNT-2	GYP/ PNT-1	
228	BEDROOM	LVT-1, LVT-2	RBS-1	PNT-2, PNT-9; SEE ELEVATION	PNT-2, PNT-9 *SEE ELEVATION	PNT-2	PNT-2, PNT-9 *SEE ELEVATION	GYP/ PNT-1	SEE INTERIOR ELEVATIONS FOR PAINT STRIPING PATTERN AND LOCATIONS.
229	QUIET ROOM	LVT-1	RBS-1	PNT-2	PNT-2, PNT-7	PNT-2	PNT-2	GYP/ PNT-1	
230B	DATA CL	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	GYP/ PNT-1	
231A	CORRIDOR	LVT-1, CPT-1	RBS-1	PNT-4, ADD WALL REVEAL TO ALIGN W/ EDGE OF CARPET & TRANSITION PAINT	PNT-2	PNT-4	PNT-4	GWB/ PNT-4 & ACT-1	
231B	CORRIDOR	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
231B	CL	LVT-1	RBS-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT-1	
231C	STAFF DESK	LVT-2	RBS-1	PNT-3	--	--	PNT-2		

ARCH- MATERIAL FINISHES LEGEND

TAG	DESCRIPTION	MANUFACTURER	STYLE/PATTERN	PRODUCT COLOR	PRODUCT FINISH	PRODUCT SIZE	INSTALLATION	ADDITIONAL NOTES	CONTACT
08-WOOD AND PLASTICS									
PLM-1	PLASTIC LAMINATE	FORMICA		WHITE TWILL 9285	MATTE	-	-	TYP. CASEWORK FINISH	SHERI REID SHERI.REID@FORMICA.COM
PLM-2	PLASTIC LAMINATE	WILSONART		CARTER OAK 17004	MATTE	-	-	RHA AND LINC RECEPTION DESK	APRIL BRICKLE BRICKLE@WILSONART.COM
PLM-3	PLASTIC LAMINATE	FORMICA		8688 PALOMA POLAR	MATTE	-	-	RHA AND LINC RECEPTION DESK	SHERI REID SHERI.REID@FORMICA.COM
PLM-4	PLASTIC LAMINATE	FORMICA		918 NEUTRAL WHITE	MATTE	-	-	RHA RECEPTION DESK	SHERI REID SHERI.REID@FORMICA.COM
GSS-1	QUARTZ SOLID SURFACING	CORIAN		CLOUD WHITE	-	-	-	ALL BATHROOMS AND OTHERWISE NOTED.	BARBARA DAVIS BDavis@hlmark.com
09-FINISHES-CEILING									
ACT-1	ACOUSTICAL CEILING TILE	ARMSTRONG	ULTIMA 1912	WHITE		24" X 24"		TYP. CEILING FINISH	MARY HADDAD MRHADDAD@ARMSTRONGCEILING.COM
ACT-2	ACOUSTICAL CEILING TILE	ARMSTRONG	CLEAN ROOM FL 1715	WHITE		24" X 24"		KITCHEN	MARY HADDAD MRHADDAD@ARMSTRONGCEILING.COM
09-FINISHES-FLOORS									
CPT-1	CARPET TILE	MOHAWK GROUP	RELAXING FLOORS RESTD Q1427	SANCTUARY 922	-	12" X 36"	ASHLAR	LINC CORRIDOR	
GPT-2	CARPET TILE	MILLIKEN	OBEX TILE CUT/FOOTPATH	FOC119 DARK GREY	-	50CM X 50CM	ASHLAR	WALK-OFF ENTRY CPT	DAVID POTTER DAVID.POTTER@MILLIKEN.COM
LVT-1	LUXURY VINYL TILE	PATCRAFT	PURSUE TILE 1633V	RESTFUL		7.09" X 47.24"	STAGGER	TYP LVT	MARIA KEBSCHULL MARIA.KEBSCHULL@PATCRAFT.COM
LVT-2	LUXURY VINYL TILE	PATCRAFT	PURSUE TILE 1633V	MINDFUL		7.09" X 47.24"	STAGGER	ACCENT LVT	MARIA KEBSCHULL MARIA.KEBSCHULL@PATCRAFT.COM
PTF-1	PORCELAIN TILE FLOORING	MOSAIC TILE COMPANY	ENDURING TILE	75ENDWH1224	MATTE	12" X 24"		STACKED VERTICAL INSTALLED WITH LATICRETE PERMACOLOR SELECT GROUT IN 16 SILTSTONE.	ANN HARTLEY AHARTLEY@MOSAICTILECOMPANY.COM
RSF-1	RESILIENT SHEET FLOORING	PATCRAFT	PURSUE SHEET 1623V	RESTFUL				TYP RSF	MARIA KEBSCHULL MARIA.KEBSCHULL@PATCRAFT.COM
RSF-2	RESILIENT SHEET FLOORING	PATCRAFT	PURSUE SHEET 1623V	MINDFUL				ACCENT RSF	MARIA KEBSCHULL MARIA.KEBSCHULL@PATCRAFT.COM
SDT-1	FLOORING- RESILIENT	TARKETT	IQ GRANT	LIGHT GRAY 0160		12" X 12"	STACKED	IT AND DATA CLOESTS	LISA ELLISE, LISA.ELLIS@TARKETT.COM; 919 606 6639
09-FINISHES-WALL BASES									
PTB-1	PORCELAIN TILE BASE	MOSAIC TILE COMPANY	ENDURING UNPOLISHED BULLNOSE	75ENDWH1224	MATTE	3" X 24"	-	ALL RESTROOMS.	ANN HARTLEY AHARTLEY@MOSAICTILECOMPANY.COM
RBS-1	RUBBER BASE	TARKETT	4" TRADITIONAL RUBBER BASE	TBD		4"H	-	ALL LVT-1 AND LVT-2 LOCATIONS.	LISA ELLISE, LISA.ELLIS@TARKETT.COM; 919 606 6639
SHB-1	SHEET VINYL INTEGRAL COVE BASE	W/ RSF-1 AND RSF-2	SEE RSF-1 AND RSF-2	SEE RSF-1 AND RSF-2	-	6" H	-	ALL RSF-1 AND RSF-2 LOCATIONS.	MARIA KEBSCHULL MARIA.KEBSCHULL@PATCRAFT.COM
09-FINISHES-WALLS									
PNT-2	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW 7003 TOQUE WHITE	EGGSHELL	-	-	FIELD PAINT	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PNT-3	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW 6079 DIVERSE BEIGE	EGGSHELL	-	-	LINC ACCENT PAINT AT LIVING ROOM.	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PNT-4	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW6346 FAME ORANGE	EGGSHELL	-	-	LINC ACCENT PAINT	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PNT-5	PAINT	BENJAMIN MOORE	INTERIOR PAINT	AF-510 DRAGONFLY	EGGSHELL	-	-	LINC ACCENT PAINT	
PNT-6	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW 7023 REQUISITE GRAY	EGGSHELL	-	-	RHA ACCENT PAINT AT DINING.	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PNT-7	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW 9137 NIEBLA AZUL	EGGSHELL	-	-	RHA ACCENT PAINT AT LIVING ROOM AND PATIENT ROOMS.	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PNT-8	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW 0086 CASCADE GREEN	EGGSHELL	-	-	RHA ACCENT PAINT AT LIVING ROOM HALLWAY.	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PNT-9	PAINT	SHERWIN WILLIAMS	INTERIOR PAINT	SW 7617 MEDITERRANEAN	-	-	-	LINC ACCENT PAINT AT BEDROOMS	STEVE GOODE STEVEN.R.GOODE@SHERWIN.COM
PTW-1	PORCELAIN WALL TILE	NASCO TILE	FLATIRON	AVIO R8FQ	POLISHED	2 3/8" X 9 7/16"	STACKED HORIZONTAL, INSTALLED WITH LATICRETE PERMACOLOR SELECT GROUT IN 24 SANDSTONE.	RHA COFFEE BAR, LINC RESTROOM WET WALL TILE AND LINC DINING.	SOL TAWIL SNT@NASCOSTONETILE.COM
PTW-2	PORCELAIN WALL TILE	TILEBAR	SEAPORT CERAMIC TILE	CHAMELEON SAGE GRAY	POLISHED	2" X 10"	STACKED VERTICAL, INSTALLED WITH LATICRETE PERMACOLOR SELECT GROUT IN 16 SILTSTONE.	RHA RESTROOM WET WALL TILE	ERIN SALIN ESALIN@TILEBAR.COM



101 NORTH THIRD STREET, SUITE 500
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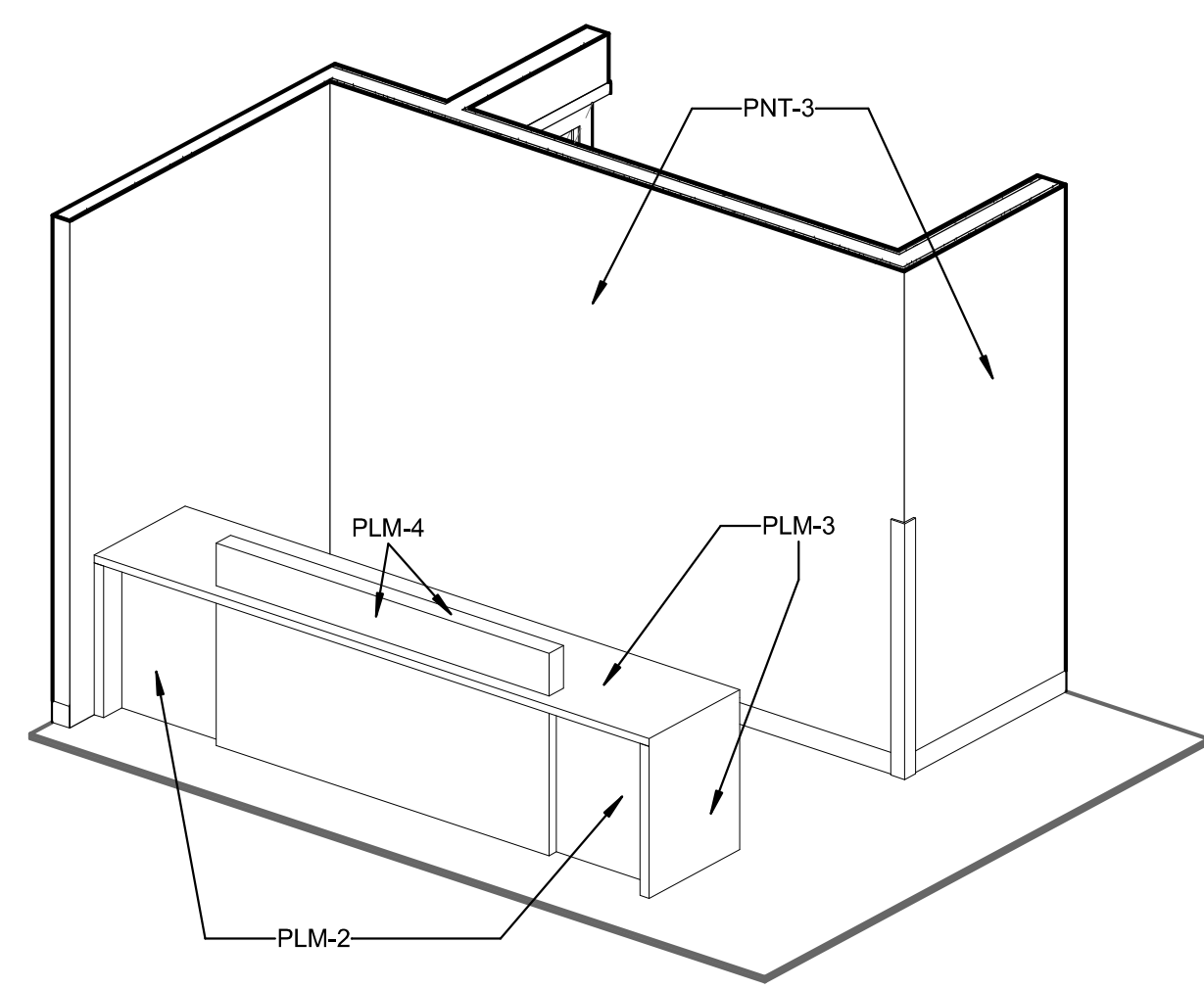
**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401
LSP PROJECT: 7405-230775

DATE	DESCRIPTION
A 2024.01.31	100% Design Development
0 2024.08.21	Bid/ Permit Set

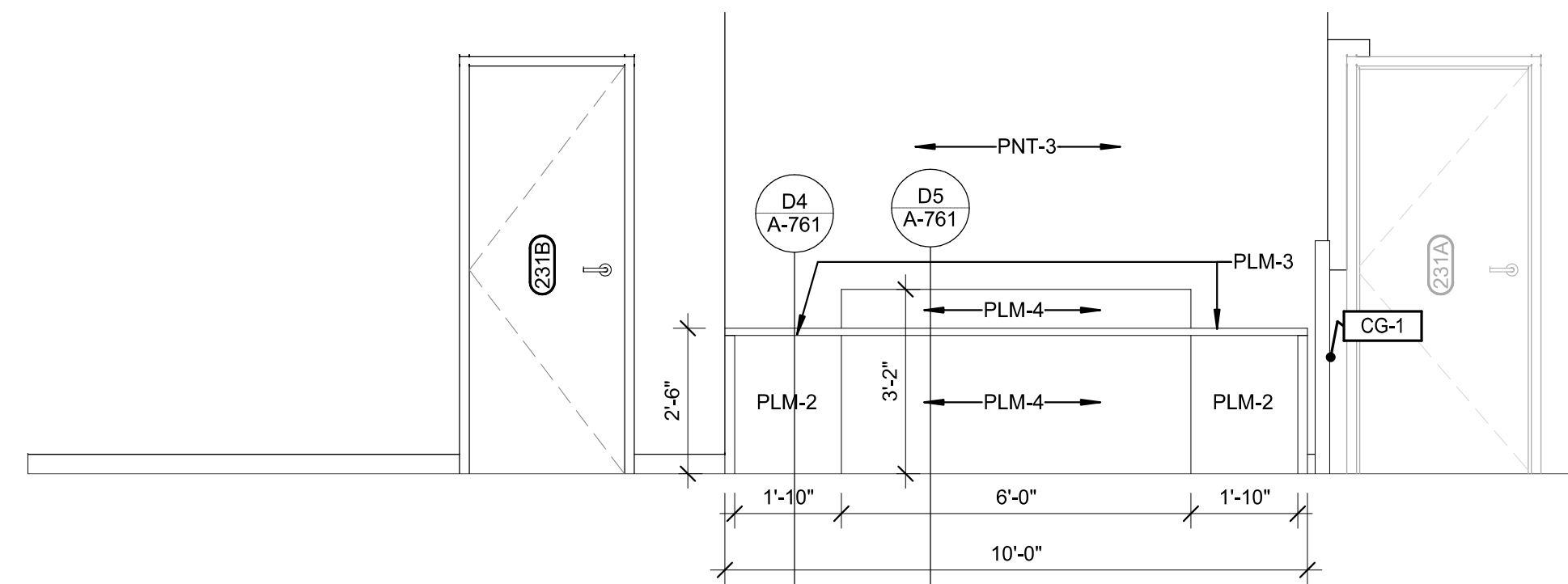
SHEET NAME:

THESE DRAWINGS ARE QUANTITATIVE ONLY. SEE PERMITS FOR DIMENSIONS AND FINISHES.

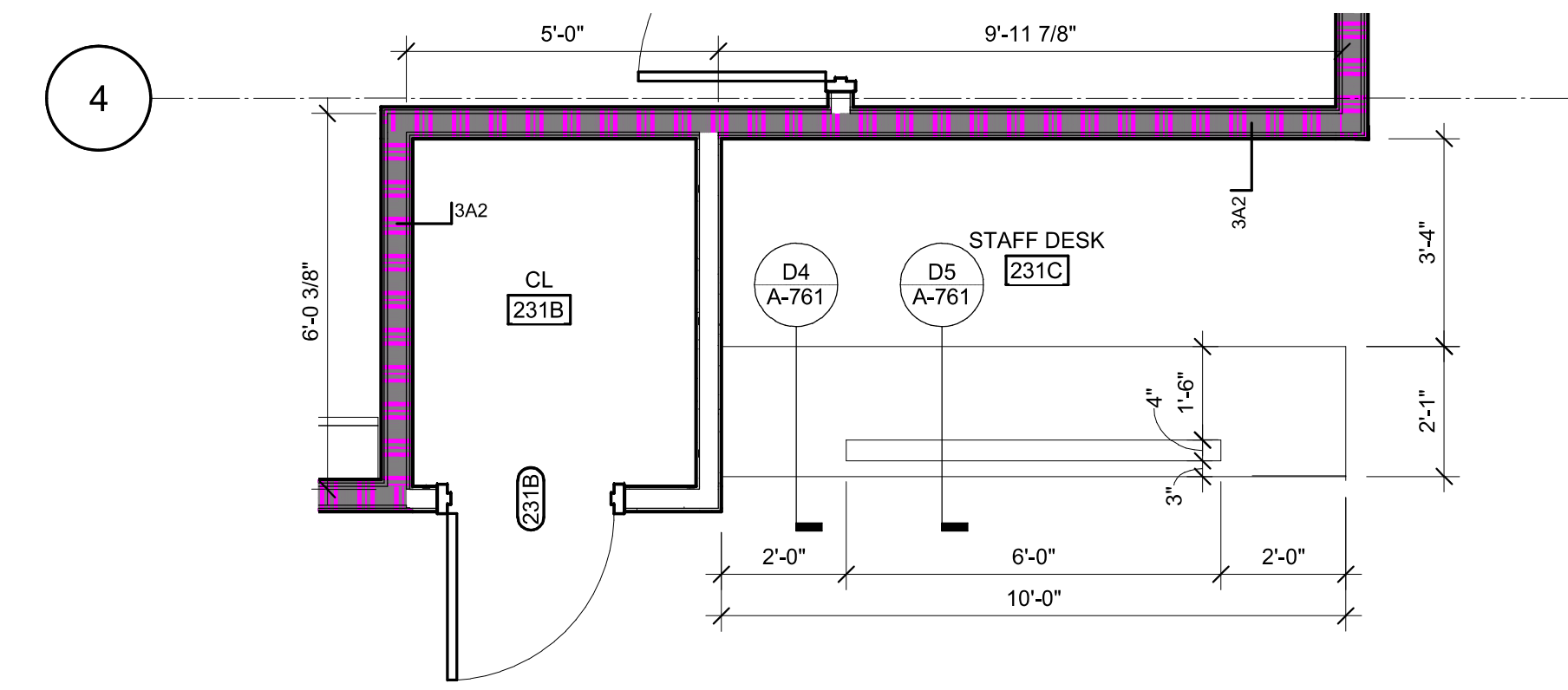
LINC



D1 3D VIEW - LINC STAFF DESK 231C

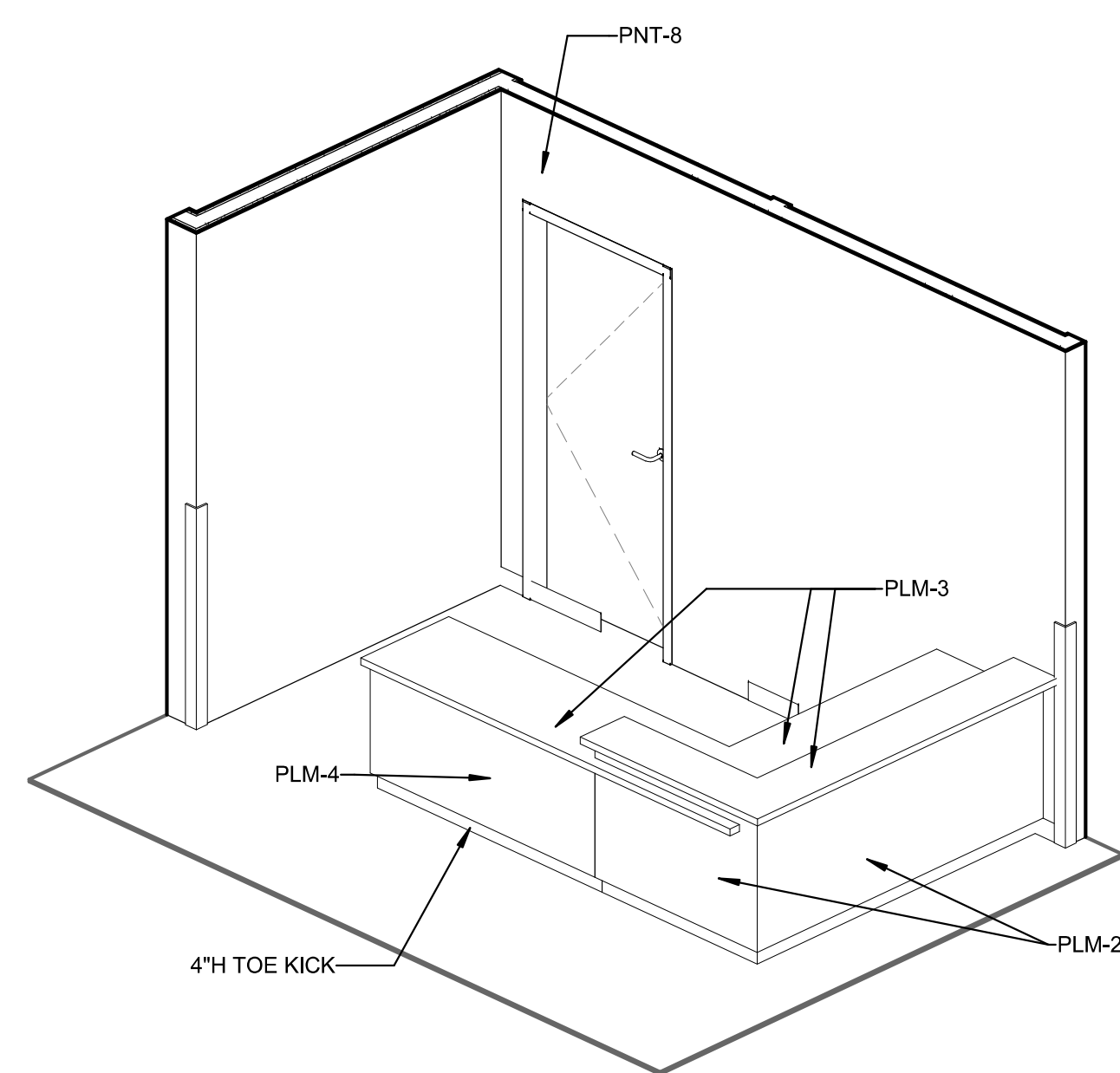


D2 INT. ELEV. - LINC STAFF DESK 231C N

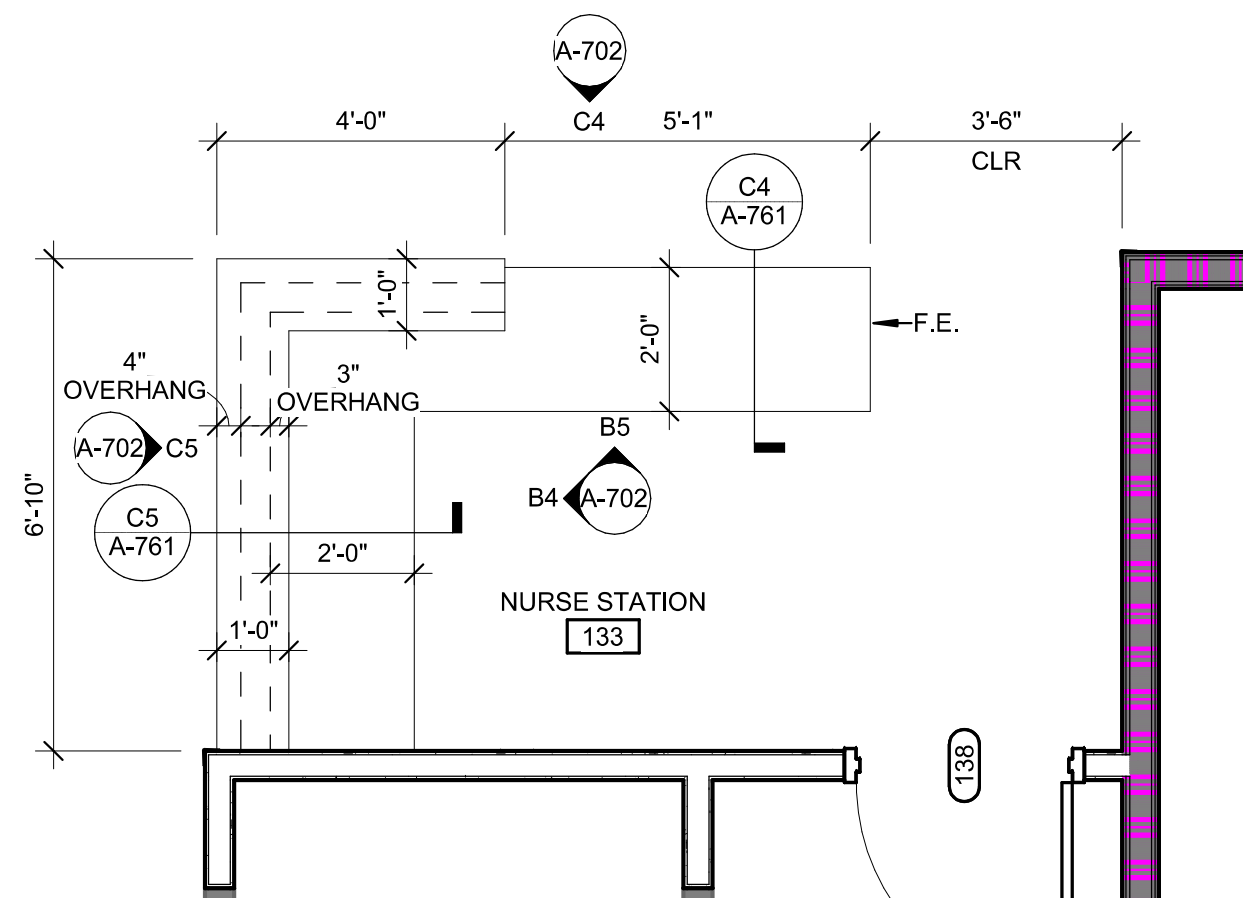


D5 ENL PLAN - LINC STAFF DESK 231C

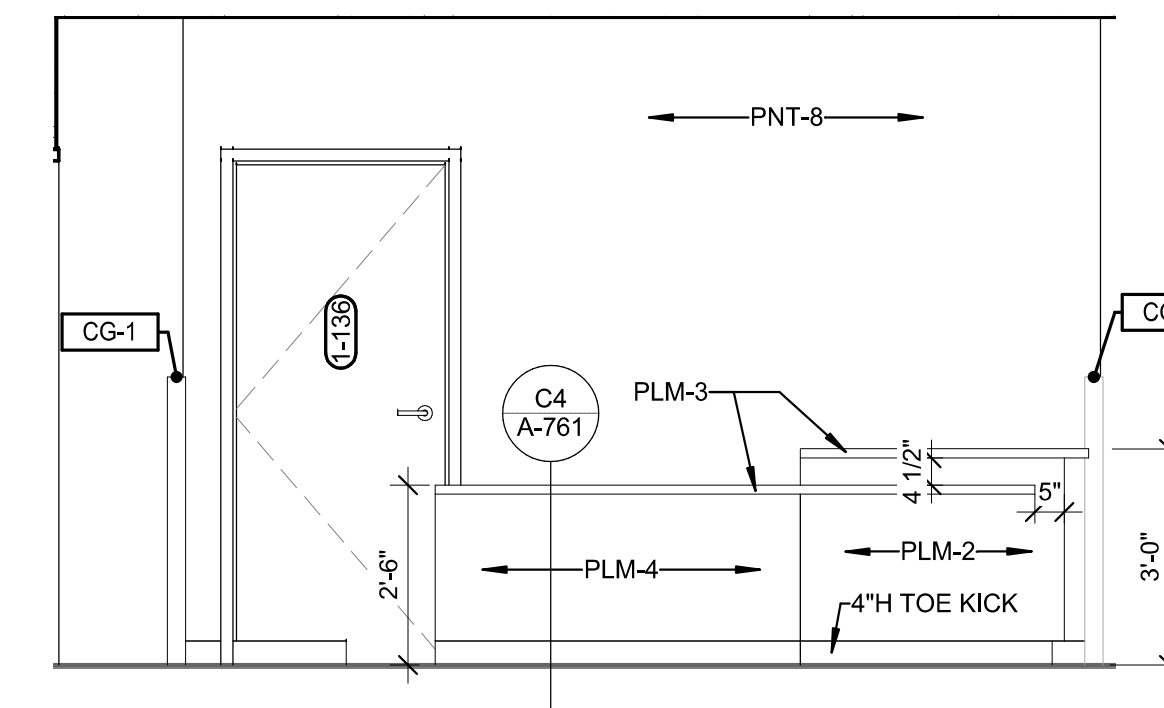
RHA



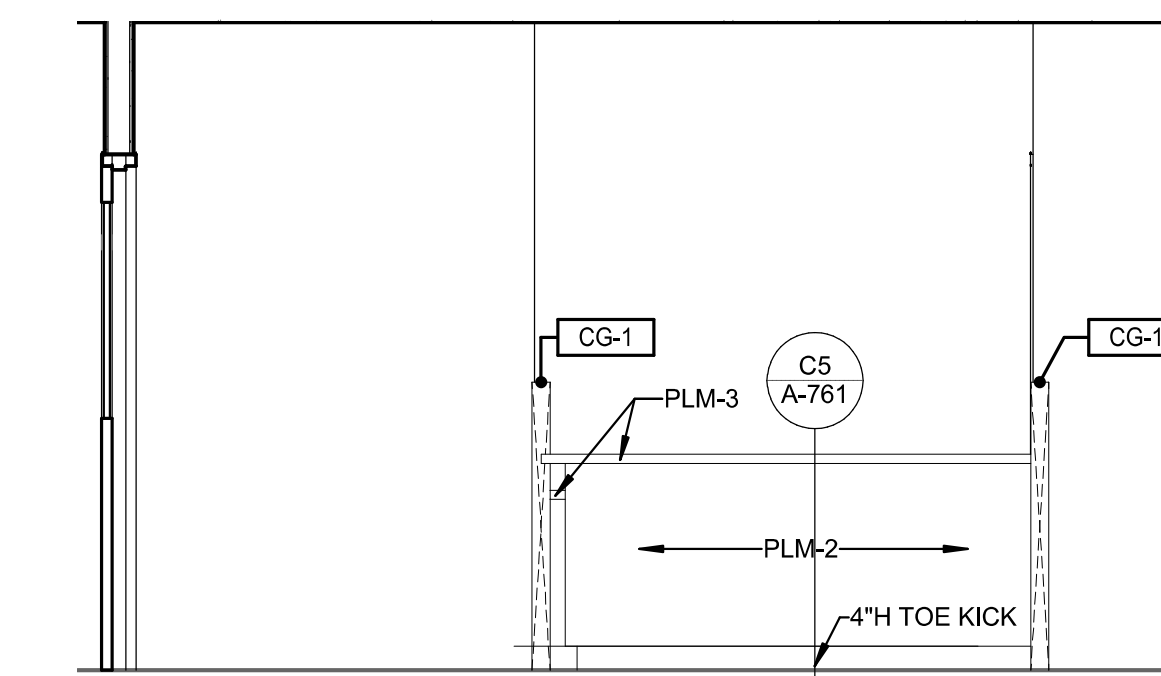
B1 3D VIEW - RHA NURSE STATION 133



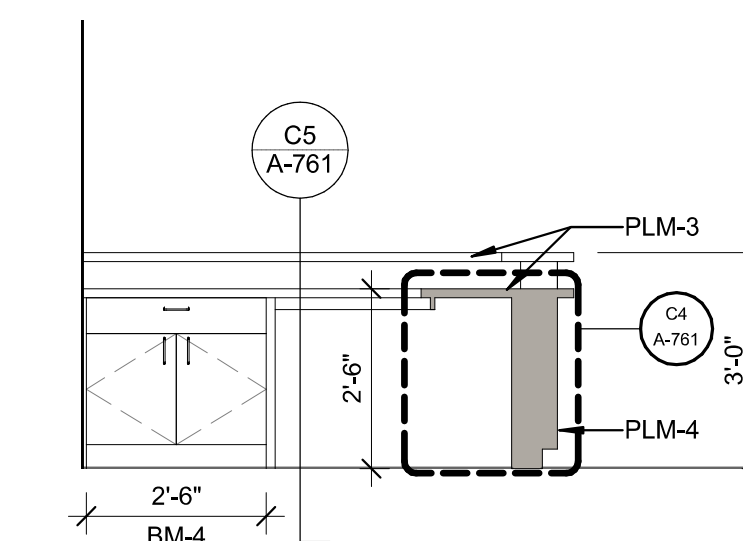
B2 ENLG. PLAN - RHA NURSE STATION 133



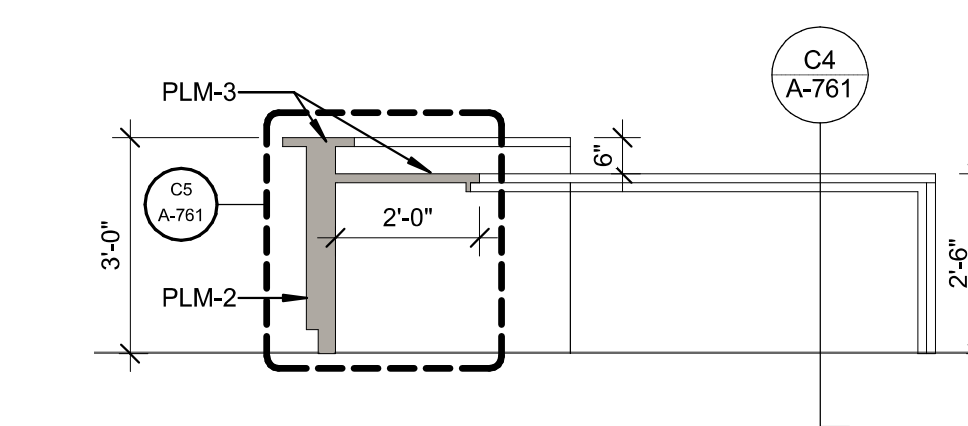
C4 INT. ELEV. - NURSE STATION 133 S



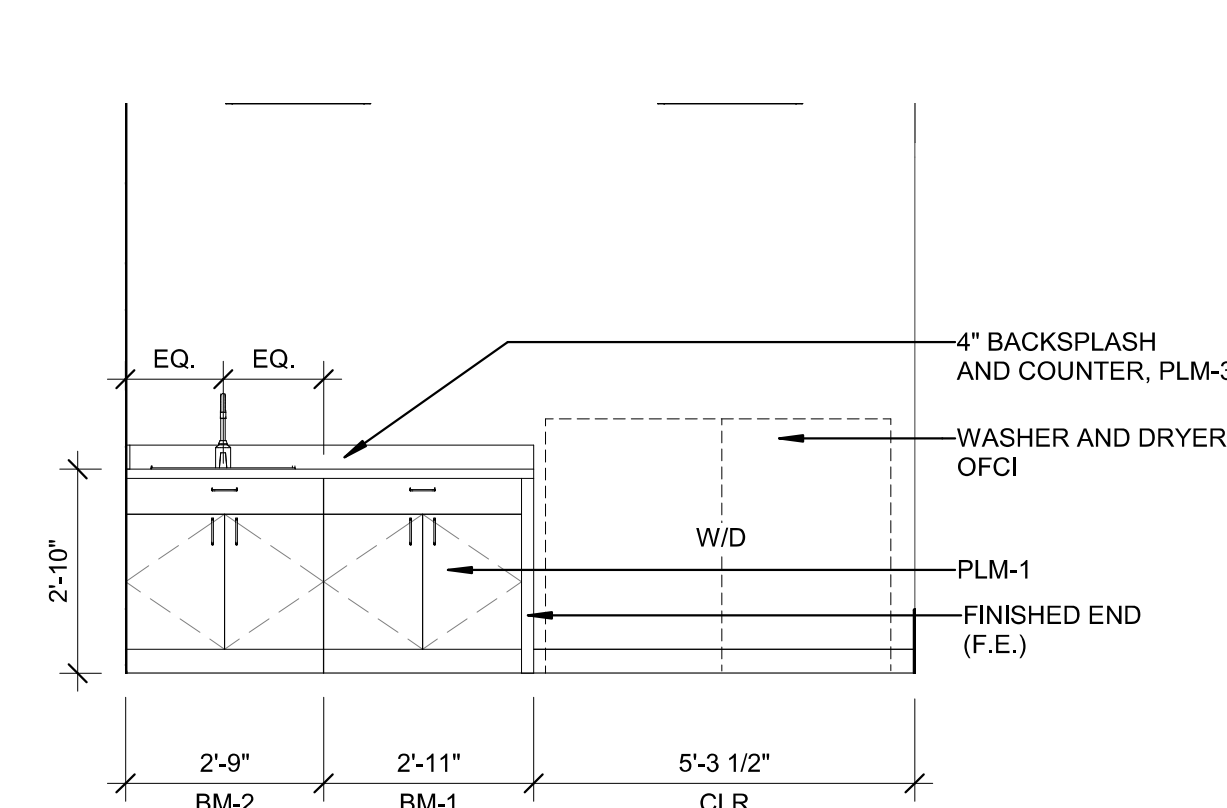
C5 INT. ELEV. - NURSE STATION 1-133 E



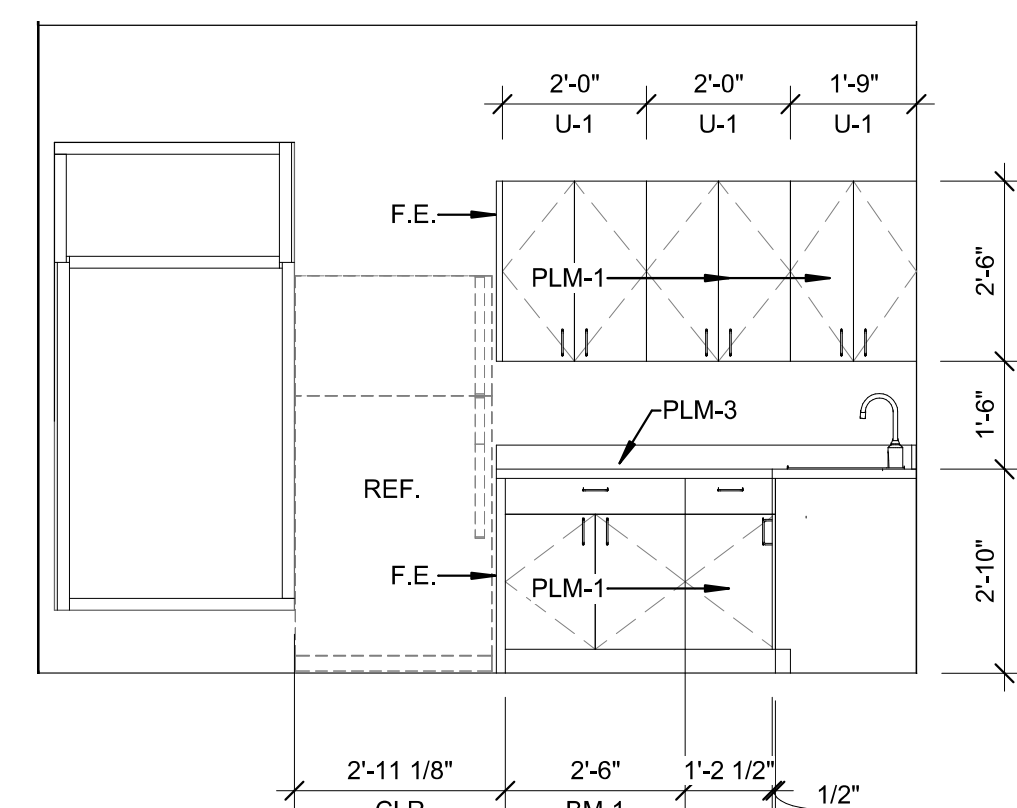
B4 INT. ELEV. - NURSE STATION 133



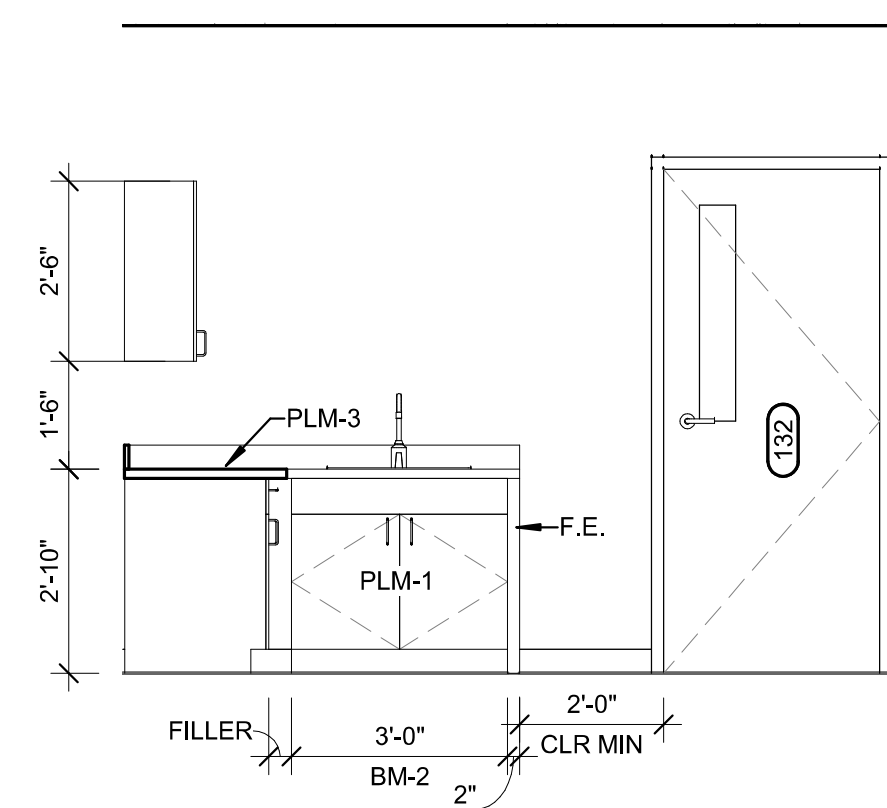
B5 INT. ELEV. - NURSE STATION 133 -



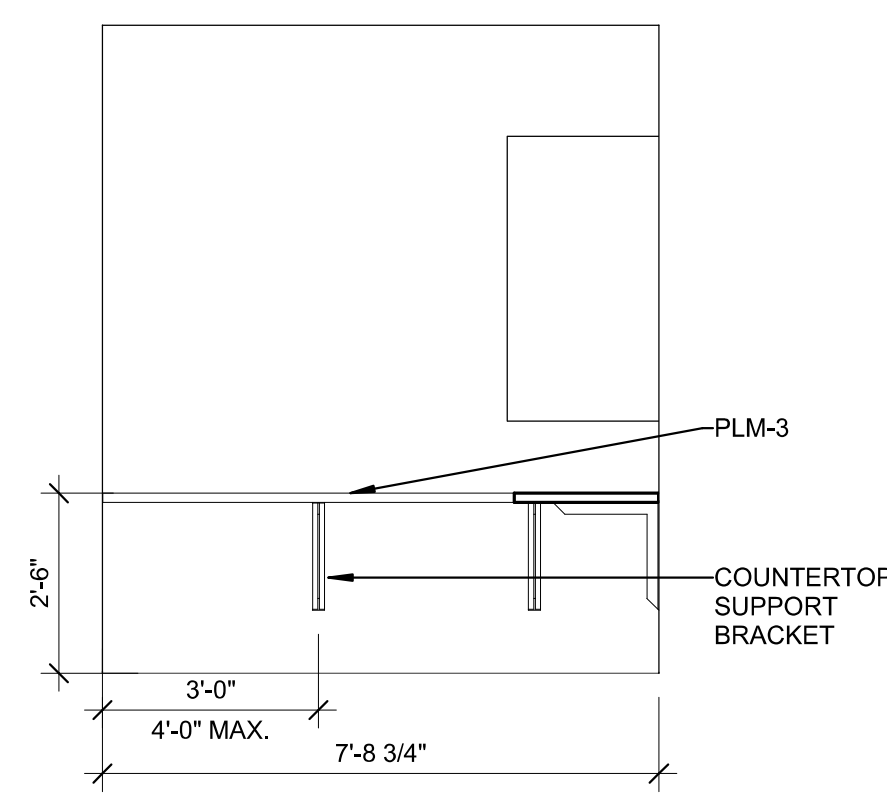
A1 INT. ELEV. RHA LAUNDRY 128 W



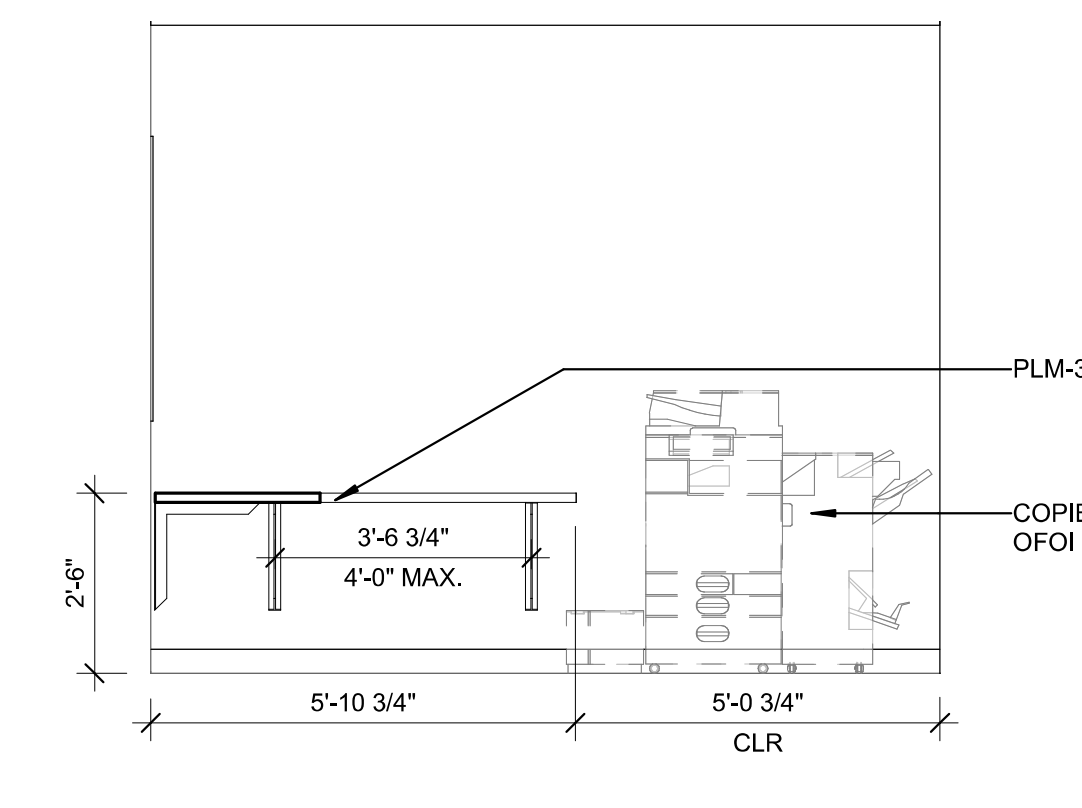
A2 INT. ELEV. - RHA BREAKROOM 1-131 N



A3 INT. ELEV. - RHA BREAKROOM 131 E



A4 INT. ELEV. - RHA DOC. RM 132 N



A5 INT. ELEV. - RHA DOC. RM 132 E



101 NORTH THIRD STREET, SUITE 500
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NEW HANOVER COUNTY
STAR CENTER

1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
2024.01.31	100% Design Development
2024.08.21	Bid/Permit Set

SHEET NAME:
ENLARGED PLANS
AND ELEVATIONS -
RHA & LINC

ORIG SUBMISSION: 2024.01.31

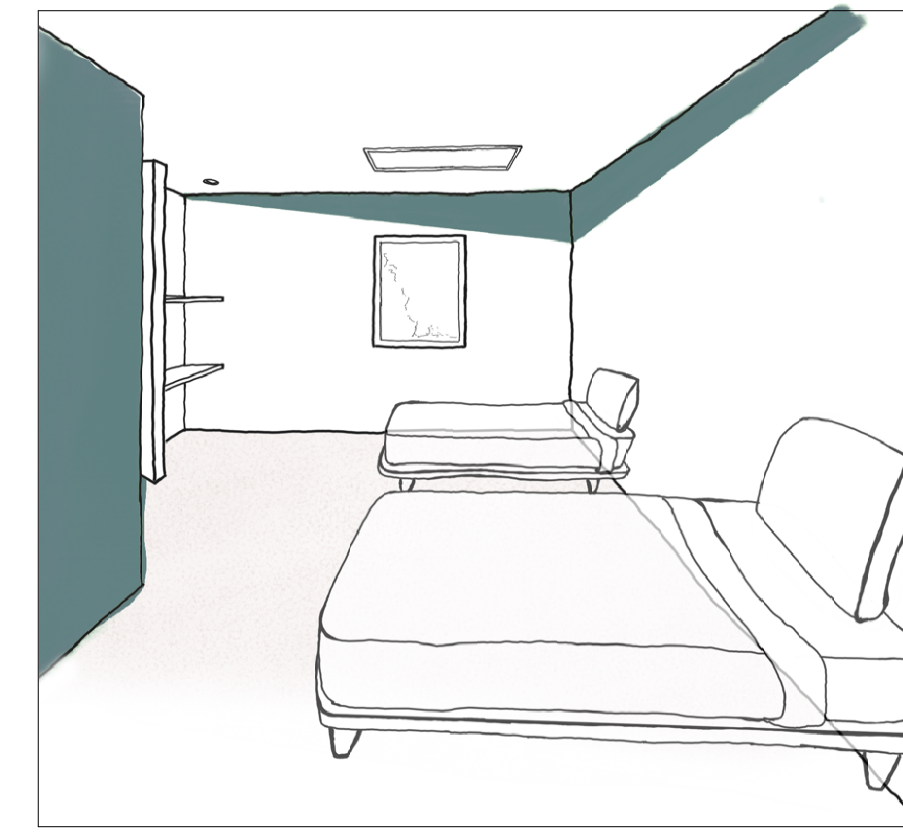
SHEET:
A-702

BID/PERMIT SET

THESE DRAWINGS ARE EMANATING FROM THE PROJECT'S ORIGINAL FILE SIZE

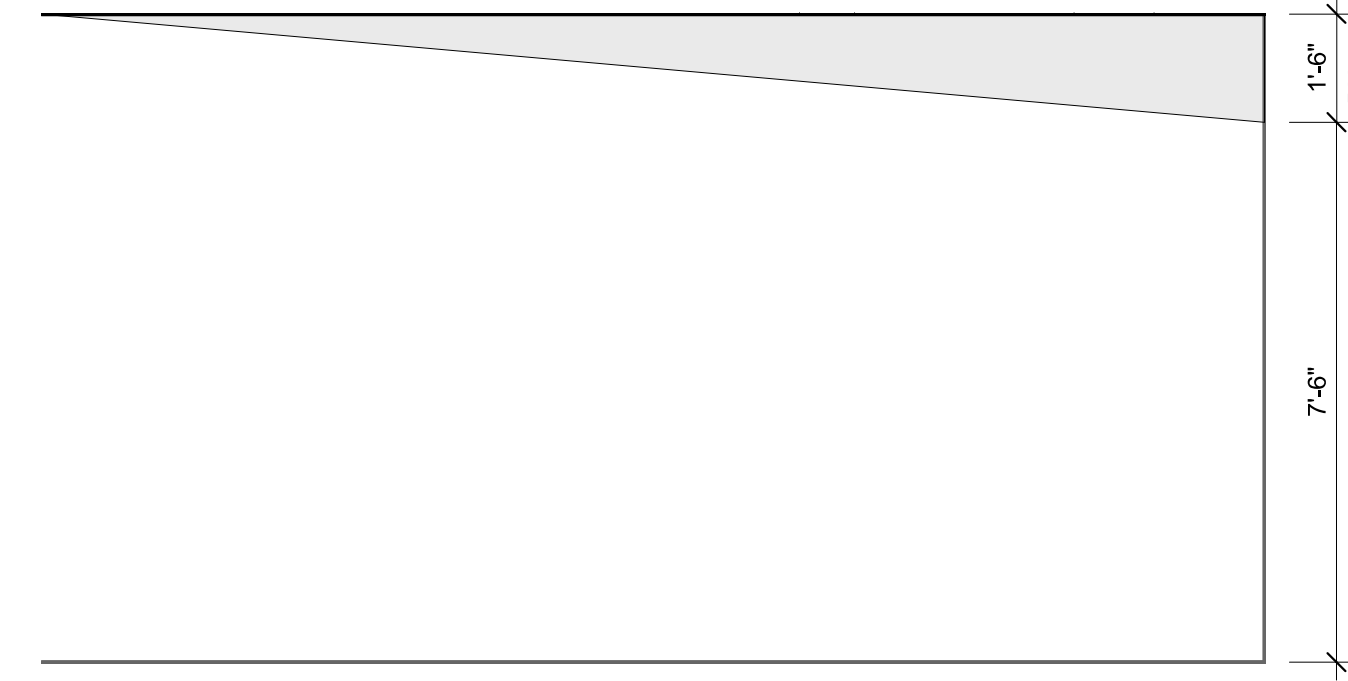
E

SEE A-800 FOR ALL ACCENT WALL LOCATIONS



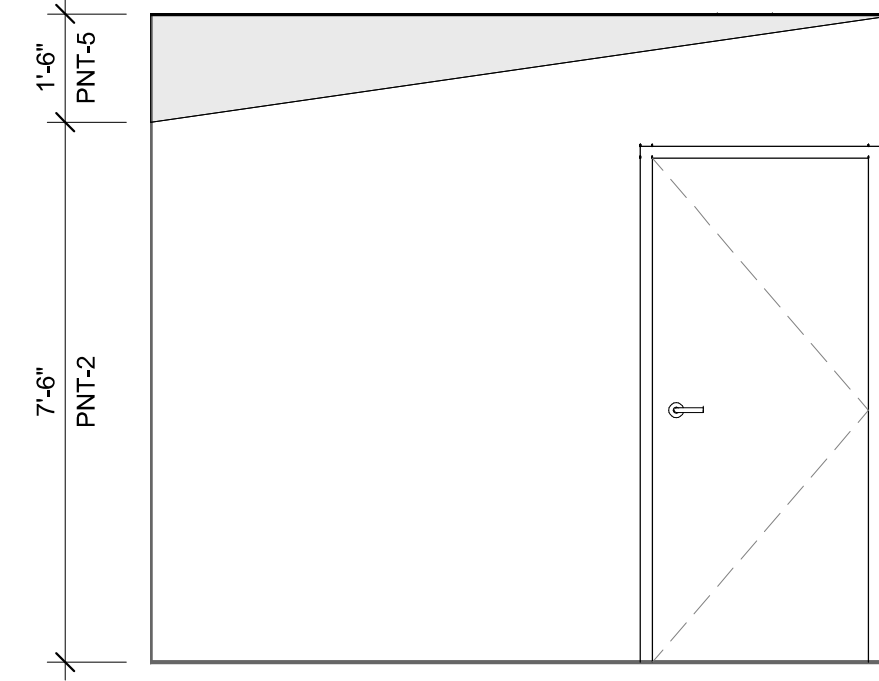
RENDERING 4 - LINC BEDROOM ACCENT WALLS

SEE A-800 FOR ALL ACCENT WALL LOCATIONS

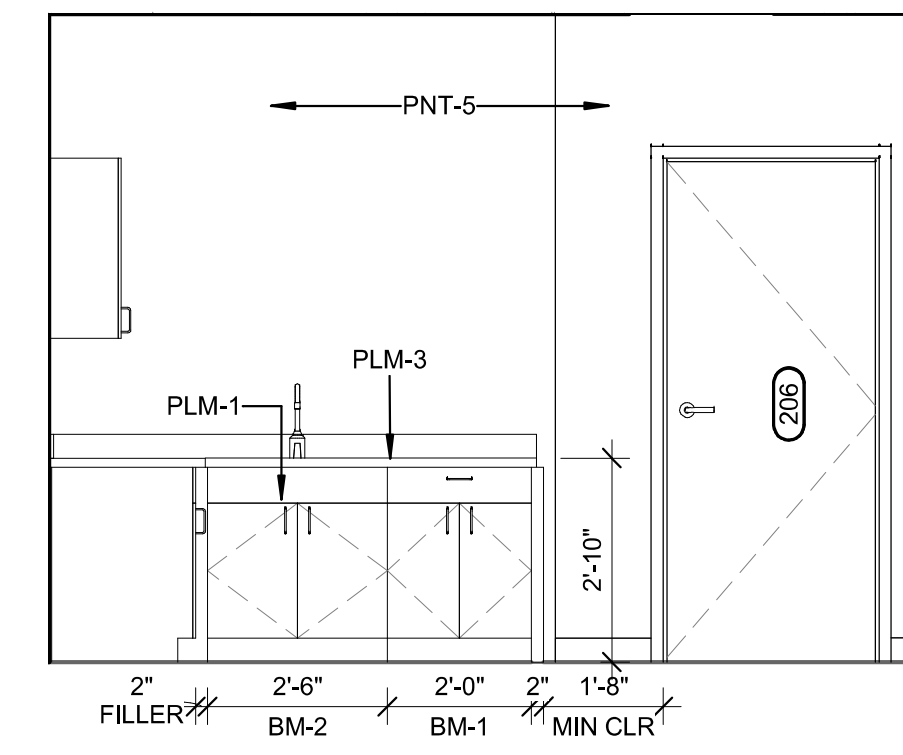


E2 INT ELEV - LINC BEDROOM TYP WALL ACCENT 1
3/8" = 1'-0"

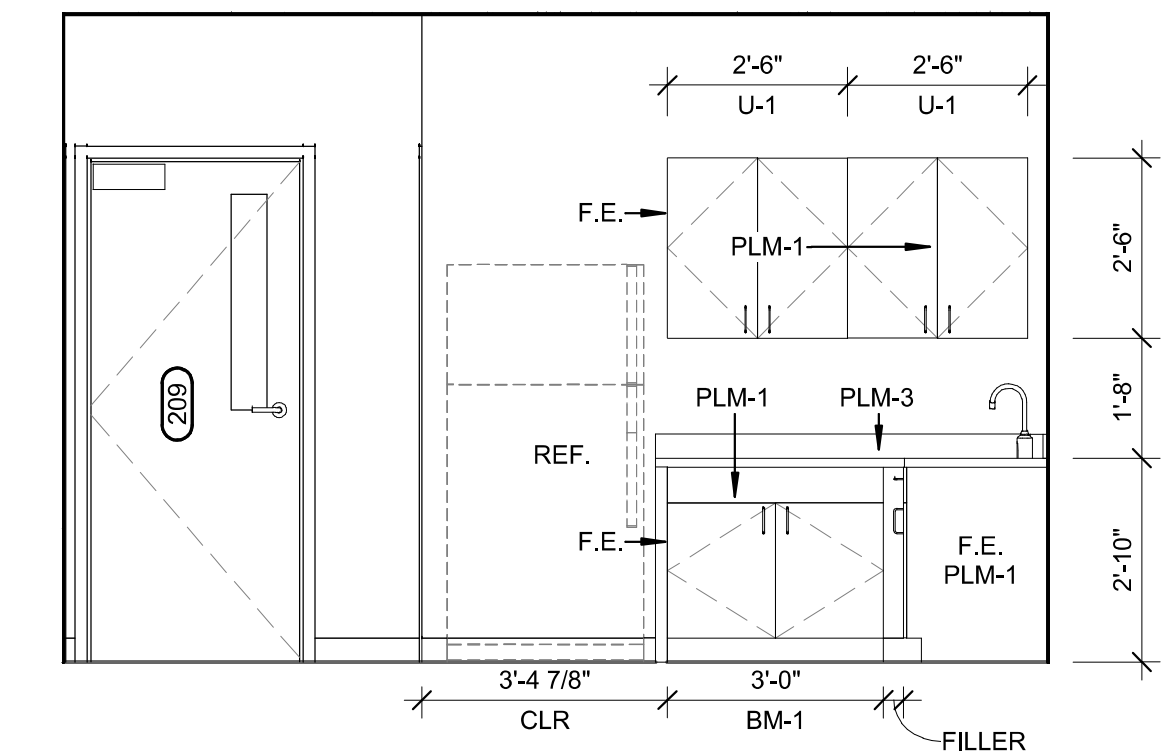
SEE A-800 FOR ALL ACCENT WALL LOCATIONS



E3 INT ELEV - LINC BEDROOM TYP WALL ACCENT 2
3/8" = 1'-0"



E4 INT. ELEV. - STAFF LOUNGE 206 W
3/8" = 1'-0"

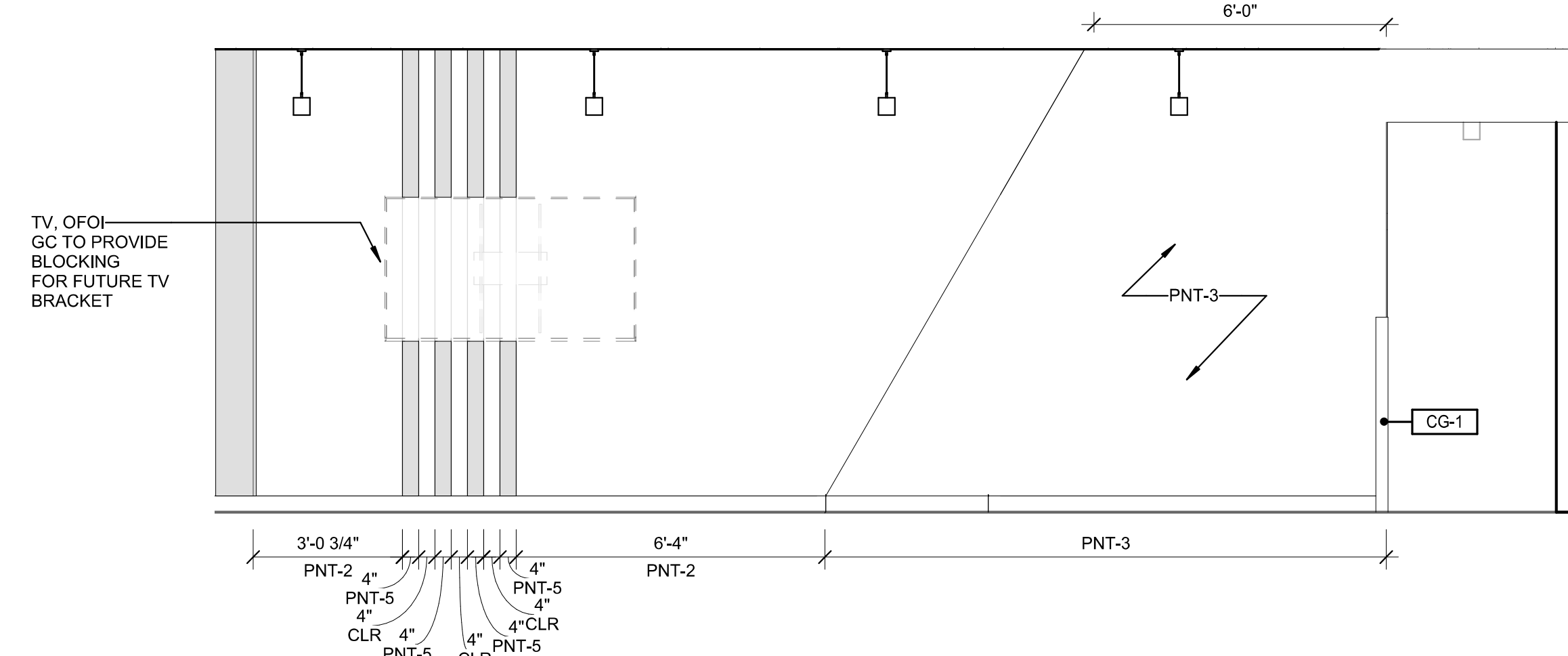


E5 INT ELEV - STAFF LOUNGE 206 S
3/8" = 1'-0"

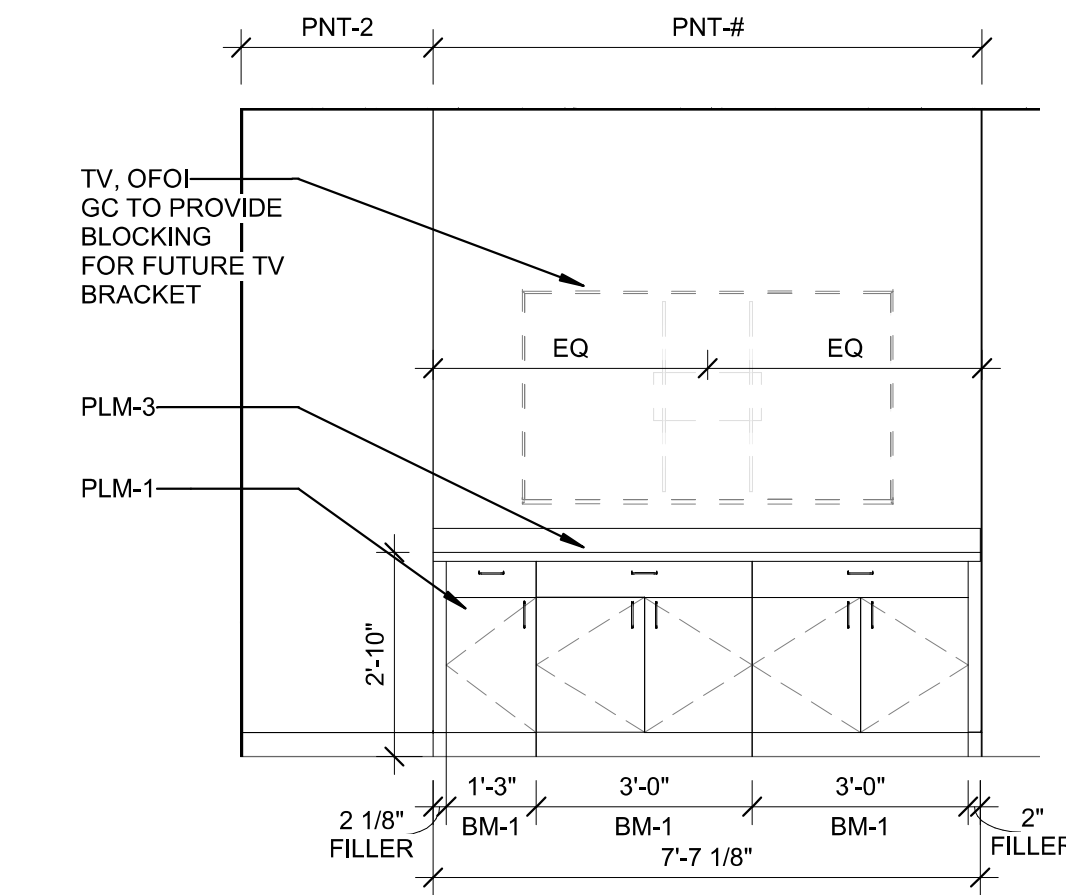
D



RENDERING 3 - LINC LIVING RM 201

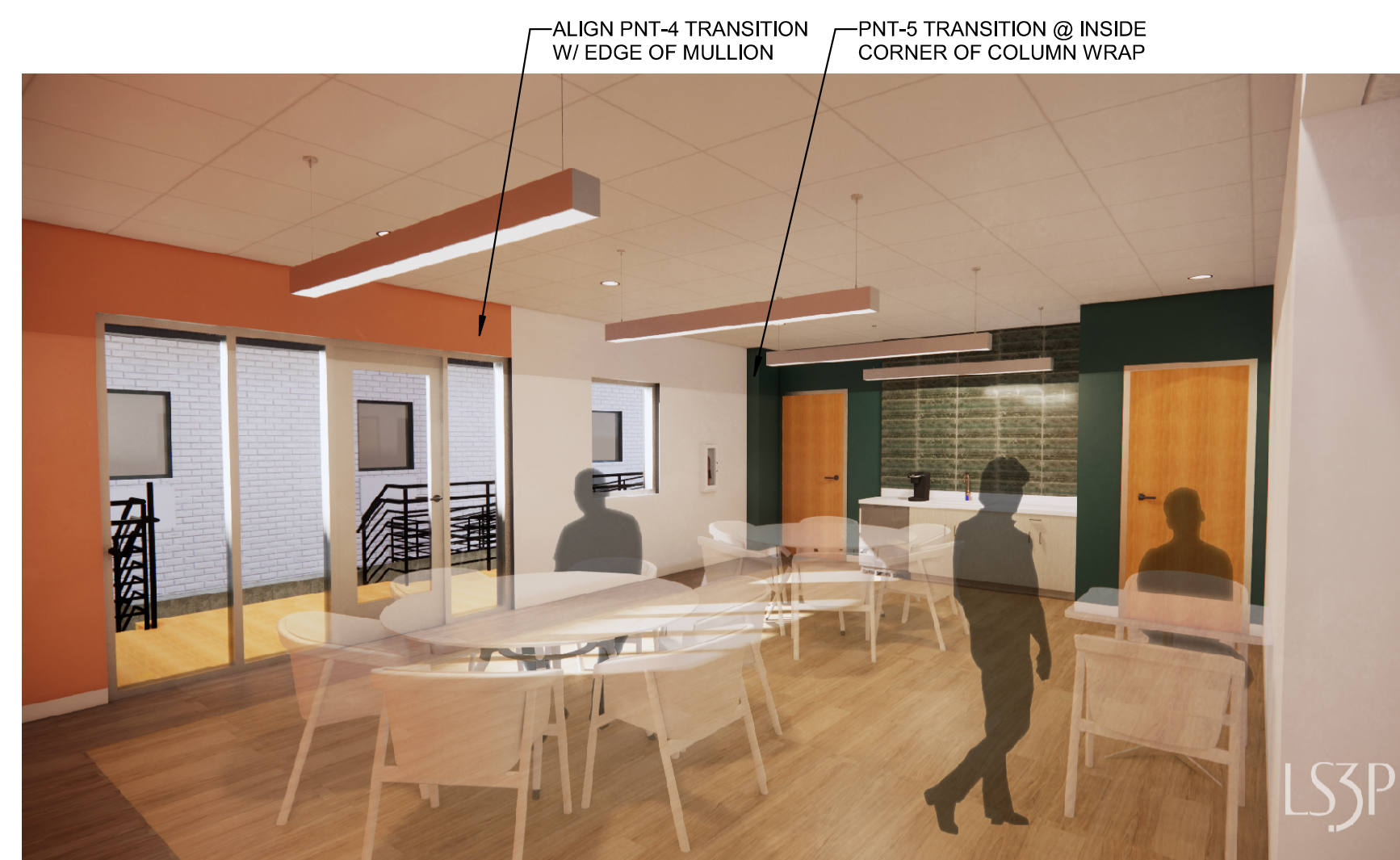


C2 INT ELEV - LINC LIVING RM 201 EAST
3/8" = 1'-0"

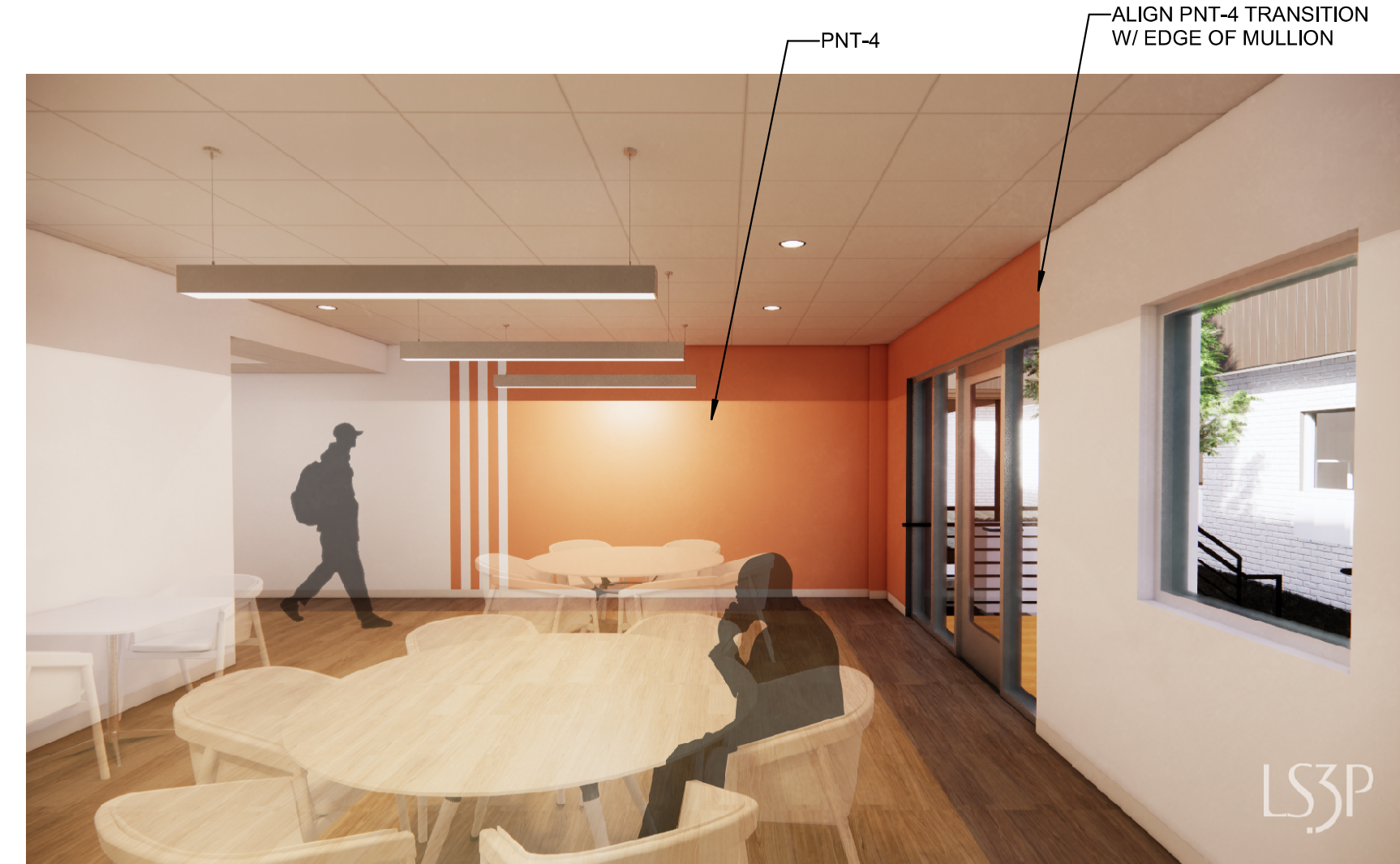


C5 INT ELEV - LINC CONF. ROOM 205 E
3/8" = 1'-0"

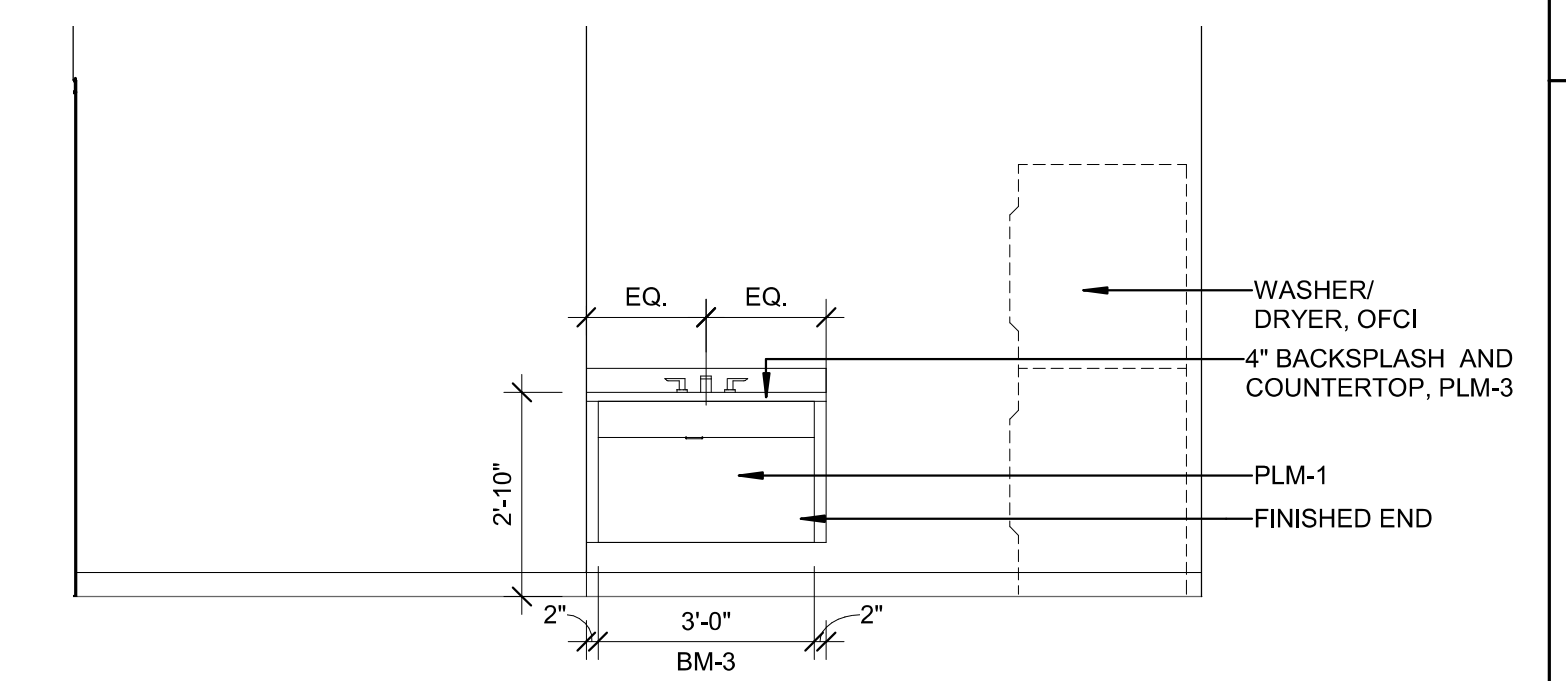
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RENDERING 1 - LINC DINING 104

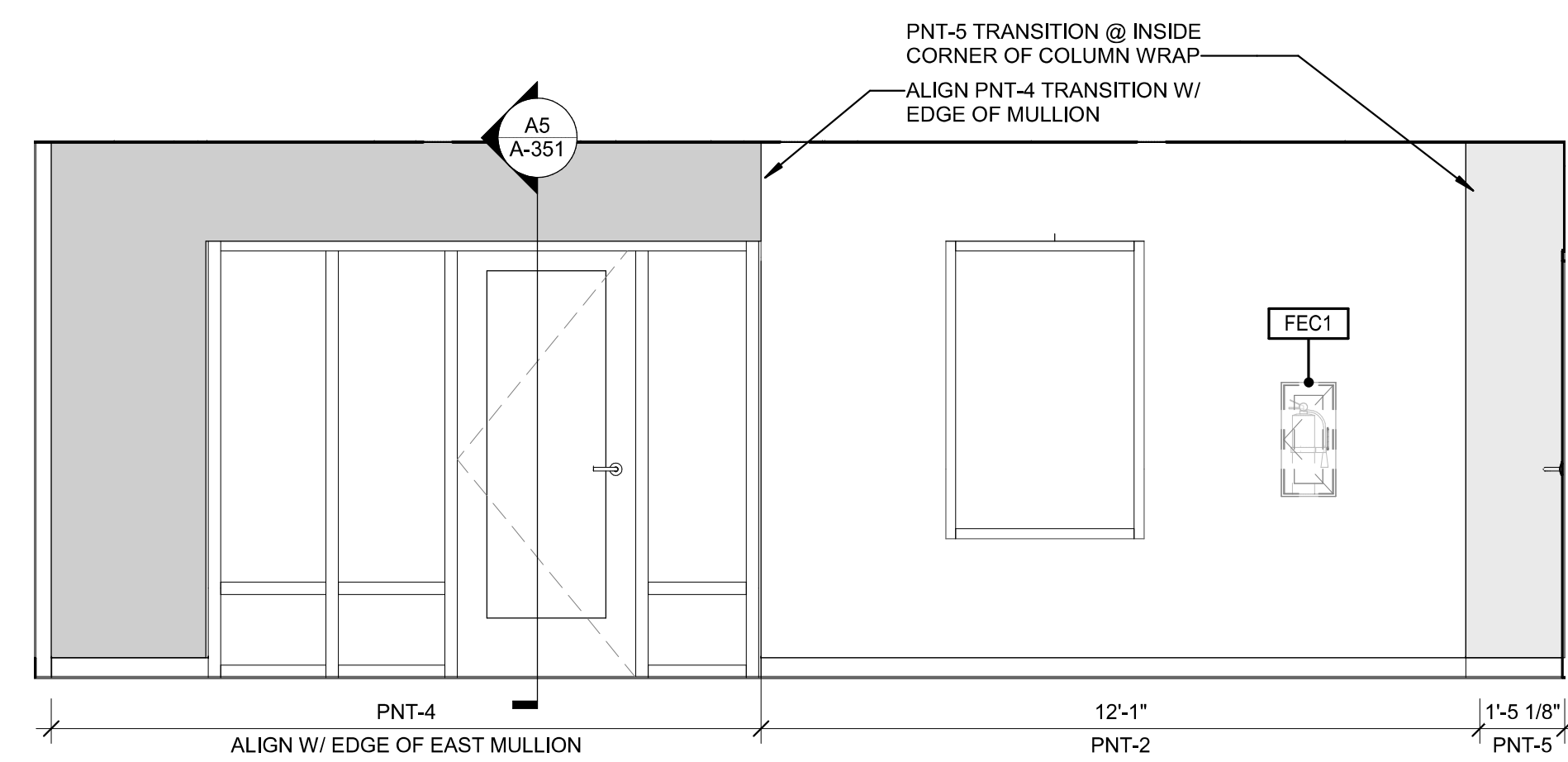


RENDERING 2 - LINC DINING 104

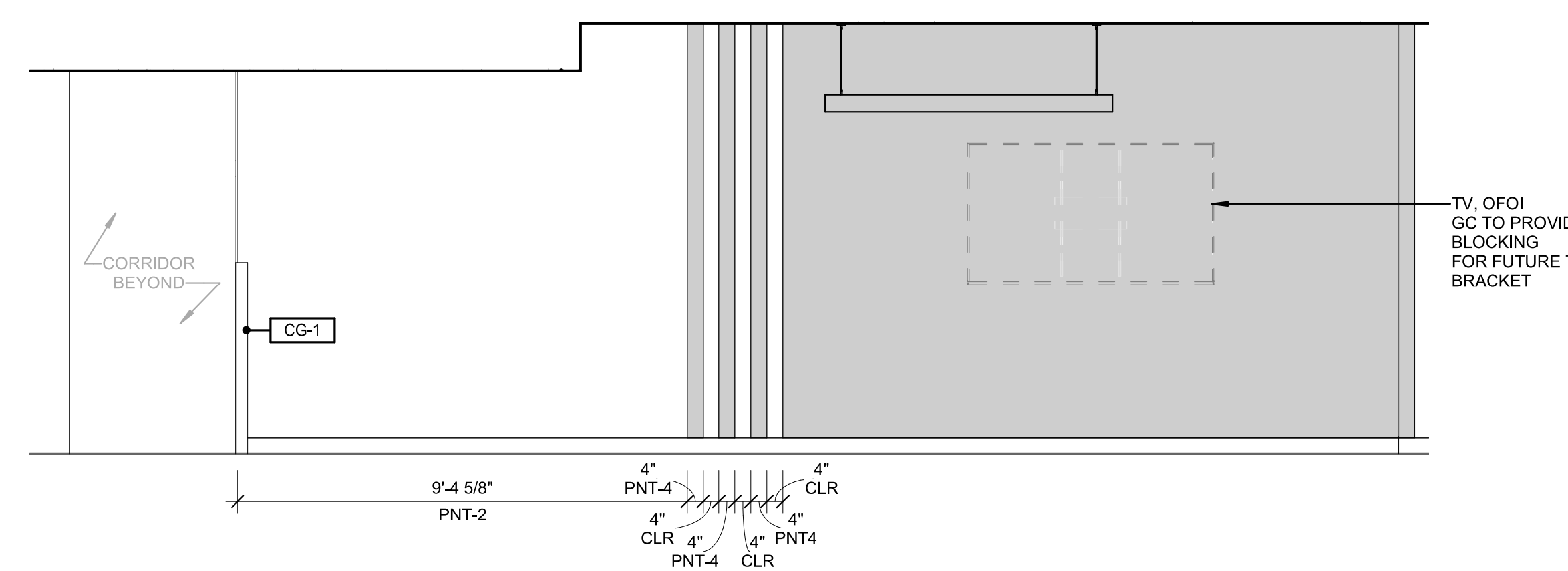


B5 INT. ELEV. - LINC LAUNDRY 213 N
3/8" = 1'-0"

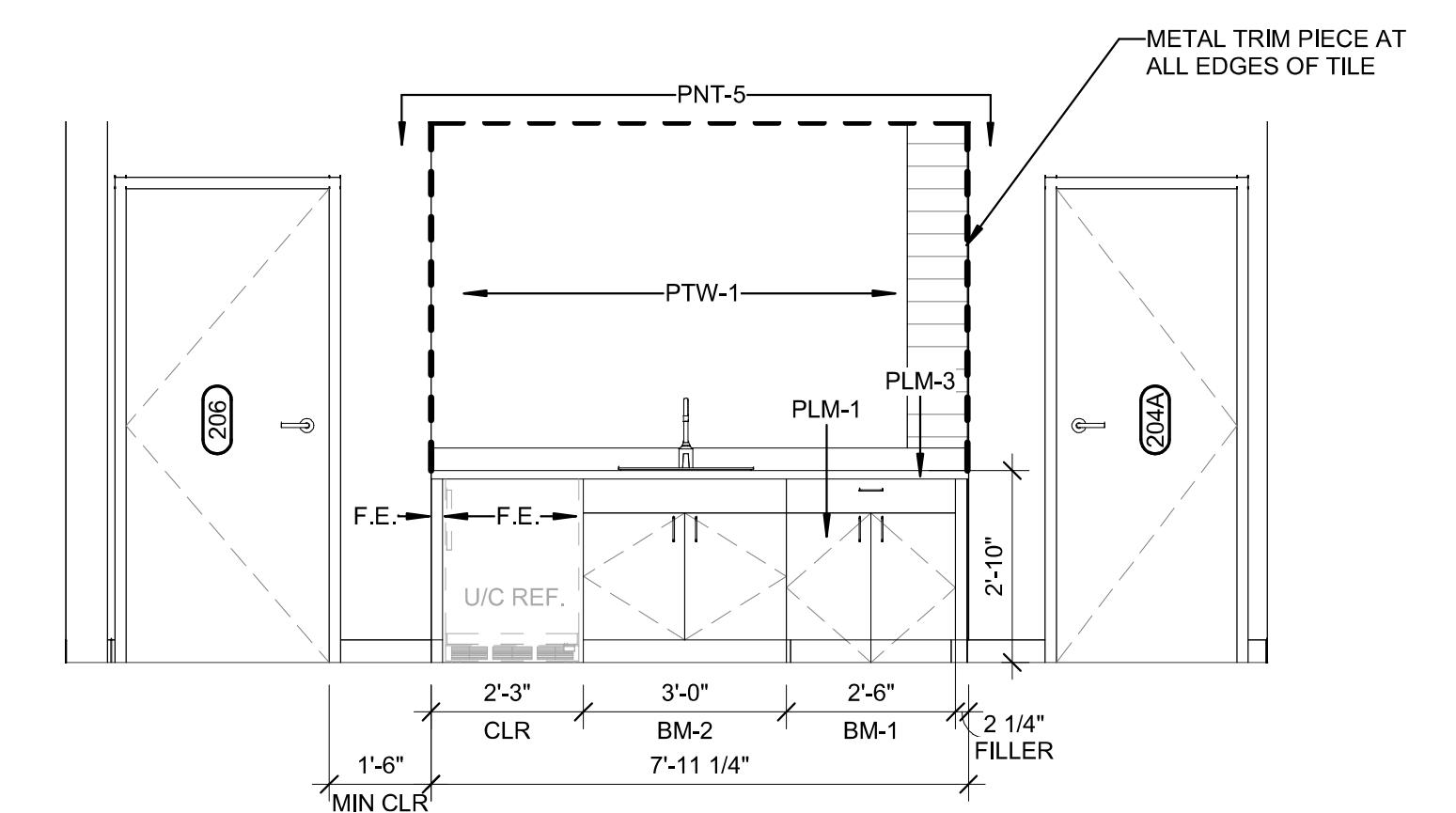
B



A1 INT. ELEV. - LINC DINING 204 NORTH
3/8" = 1'-0"



A2 INT. ELEV. - LINC DINING 204 WEST
3/8" = 1'-0"

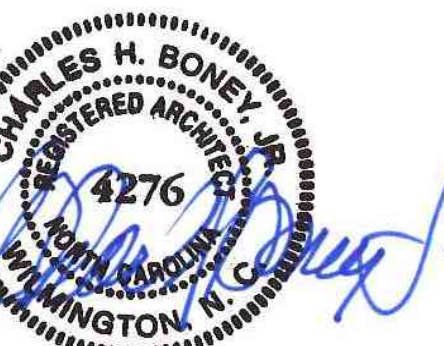


A5 INT. ELEV. - DINING 204 E
3/8" = 1'-0"

A



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NEW HANOVER COUNTY
STAR CENTER
1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A	2024.01.31 100% Design Development
0	2024.08.21 Bid/Permit Set

SHEET NAME:
INTERIOR ELEVATIONS - LINC

ORIG SUBMISSION: 2024.04.17

SHEET:
A-703

BID/PERMIT SET

1

2

3

4

5

6

THESE DIMENSIONS ARE EXACTLY
AS SHOWN ON THESE
DRAWINGS AND SHALL BE
MAINTAINED THROUGHOUT
CONSTRUCTION.

E

D

C

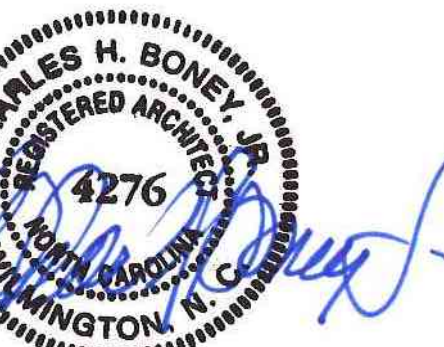
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A

#	FINISH PLAN NOTES BY NUMBER
NUMBER	NOTE
1	PATCH AND REPAIR EXISTING QUARRY TILE WHERE PLUMBING LINES HAVE BEEN DEMOLISHED. PROVIDE NEW QUARRY TILE TO MATCH EXISTING AS REQ'D.
2	EXISTING CONCRETE TO REMAIN
3	NEW STATIC DISSIPATIVE TILE
4	EXISTING QUARRY TILE TO REMAIN UNDER RELOCATED WALK IN FREEZER
5	ACCENT PAINT: PNT-9
6	ACCENT PAINT: PNT-9. SEE ELEVATION
7	ACCENT PAINT: PNT-3
8	FLOORING TRANSITION TO ALIGN WITH EDGE OF PARALLEL WALL
9	ACCENT PAINT: PNT-4
10	ACCENT PAINT: PNT-4. ADD WALL REVEAL TO ALIGN W/ EDGE OF CARPET & TRANSITION PAINT
11	ACCENT PAINT: PNT-5. SEE ELEVATIONS
12	ACCENT PAINT: PNT-4. PAINT TERMINATES AT EDGE OF MULLION. SEE ELEVATIONS
13	ACCENT PAINT: PNT-4. SEE ELEVATIONS
14	ACCENT PAINT: PNT-3. SEE ELEVATIONS
15	ACCENT PAINT: PNT-7
16	ACCENT PAINT: PNT-8. SEE ELEVATION
17	PTW-1 @ BACK WALL. PNT-6 @ GYP SURROUND
18	PNT-6 CONTINUES TO INSIDE CORNER
19	ACCENT PAINT: PNT-7. SEE ELEVATIONS
20	ALIGN PNT-7 TRANSITION W/ EDGE VERTICAL OF MULLION
21	ACCENT PAINT: PNT-8

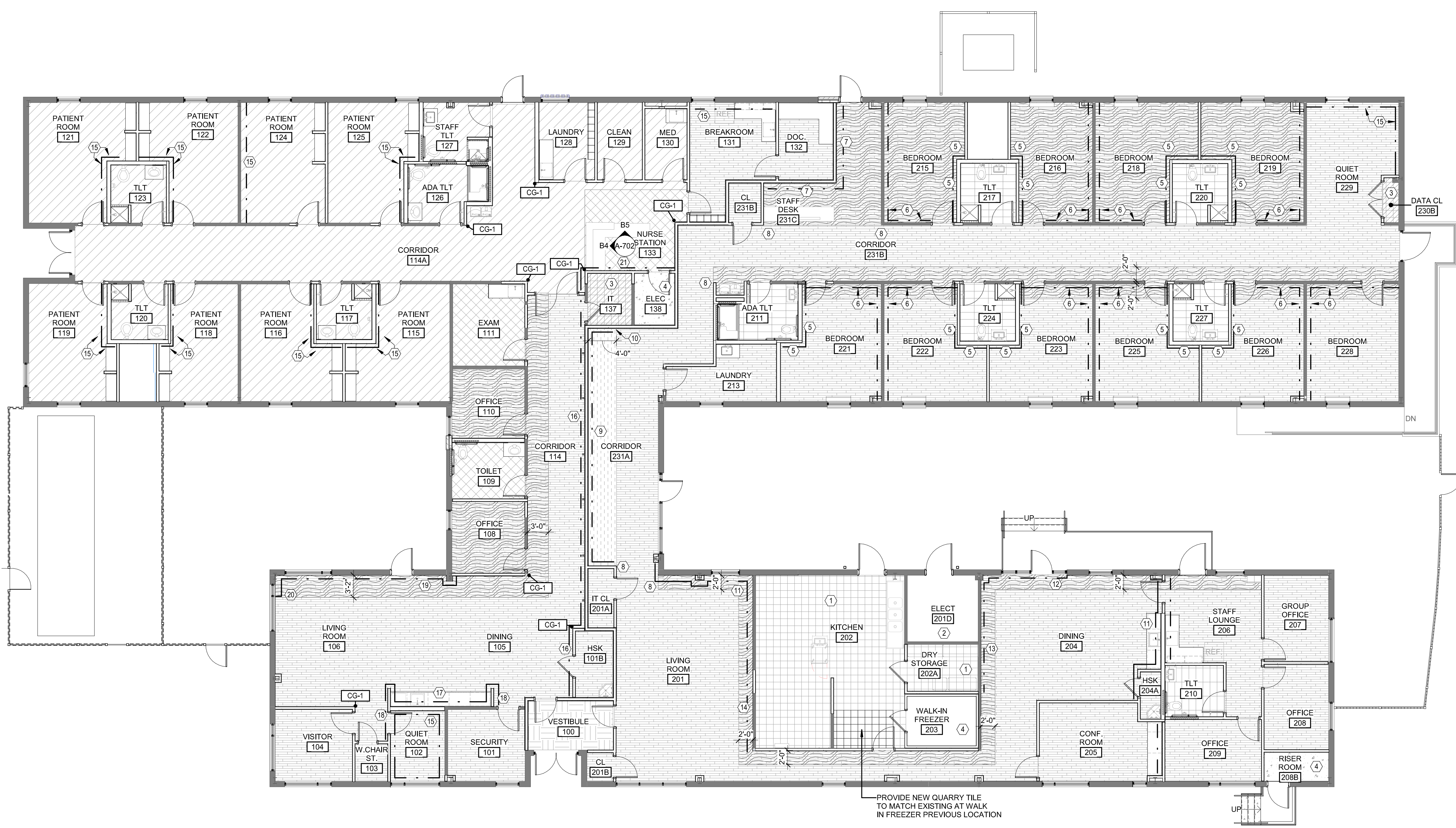


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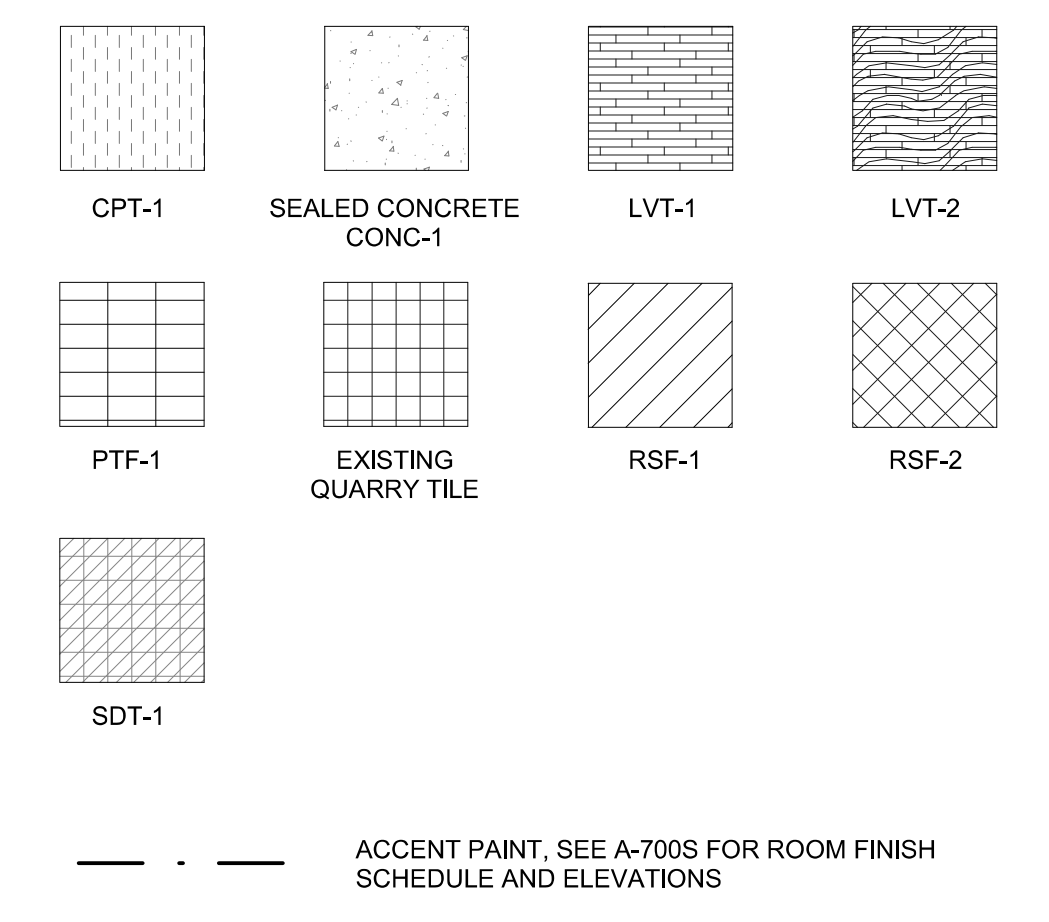


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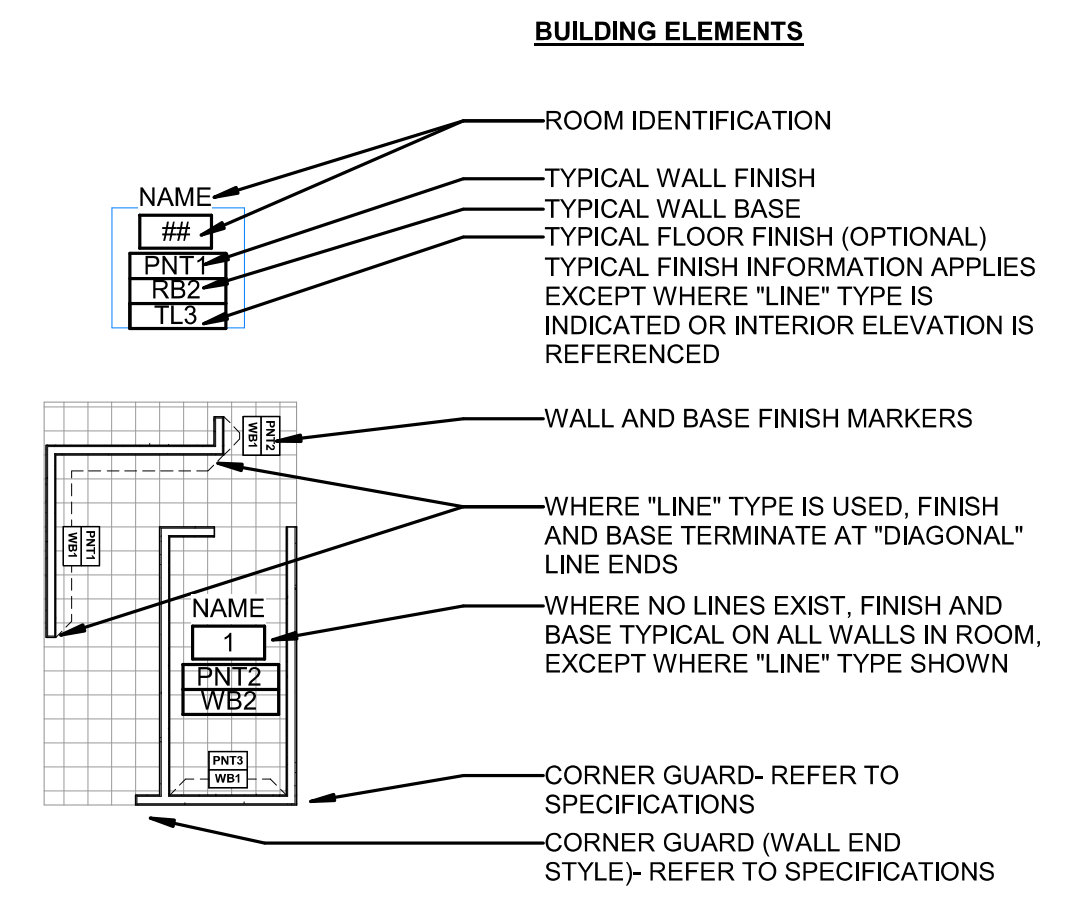
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STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401
LSP PROJECT: 7405-230775



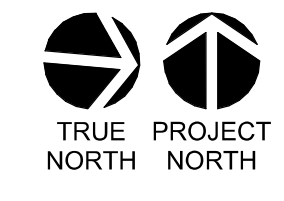
FLOOR PATTERN LEGEND



FINISH PLAN LEGEND



A1 FLOOR FINISH PLAN
1/8" = 1'-0"



SHEET NAME:
FLOOR FINISH PLAN

ORIG SUBMISSION: 2024.01.31

SHEET: **A-800**

BID/ PERMIT SET

THE LINE SHOWN ABOVE IS EXACTLY THE LOCATION OF THE PROPERTY LINE

E

D

C

B

A

PROJECT GENERAL NOTES

HVAC GENERAL

- 1. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND, UNLESS EXPLICITLY DIMENSIONED, INDICATE APPROXIMATE LOCATIONS OF APPARATUS, EQUIPMENT, DUCTWORK AND PIPING, CHANGES IN THE LOCATION, AND OFFSETS, OF SAME WHICH ARE NOT SHOWN ON THE DRAWINGS BUT ARE NECESSARY IN ORDER TO ACCOMMODATE BUILDING CONDITIONS AND COORDINATION WITH THE WORK OF OTHER TRADES, SHALL BE MADE DURING THE PREPARATION OF COORDINATION DRAWINGS AND PRIOR TO INITIAL INSTALLATION, WITHOUT ADDITIONAL COST TO THE OWNER.
2. DO NOT LOCATE VALVES, DAMPERS, ACTUATORS, CONTROL COMPONENTS, ANY EQUIPMENT WITH MOVING PARTS OR ANY EQUIPMENT REQUIRING ACCESS OR REGULAR MAINTENANCE ABOVE UNACCESSIBLE CEILINGS, OBTAIN PRIOR APPROVAL IF UNAVOIDABLE & PROVIDE AN ACCESS PANEL THAT WILL ALLOW SAFE AND PRACTICAL ACCESS.
3. PIPING, EQUIPMENT, OR DUCTWORK SHALL NOT BE INSTALLED IN ELECTRICAL EQUIPMENT ROOMS, ELEVATOR EQUIPMENT ROOMS, OR ELEVATOR SHAFTS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS. IN ADDITION, PIPING, DUCTWORK, OR MECHANICAL EQUIPMENT SHALL NOT BE INSTALLED IN THE SPACE EQUAL TO THE WIDTH AND DEPTH OF SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, AND MOTOR CONTROL CENTERS FROM FLOOR TO STRUCTURE ABOVE NOR WITHIN THE WORKING SPACE IN FRONT, REAR AND/OR SIDE (WHERE REAR AND/OR SIDE ACCESS IS REQUIRED) TO WORK ON EQUIPMENT OF ELECTRICAL EQUIPMENT (SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS, VARIABLE FREQUENCY DRIVES, TRANSFORMERS, AND STARTERS). DIMENSIONS OF THE WORKING SPACE SHALL BE A MINIMUM DEPTH OF 42" HORIZONTALLY, THE WIDTH OF THE EQUIPMENT OR 30", WHICHEVER IS GREATER, AND THE HEIGHT OF THE EQUIPMENT OR 72", WHICHEVER IS GREATER. MINIMUM DEPTH SHALL BE INCREASED TO 60" FOR EQUIPMENT RATED OVER 600 V.
4. NEW EQUIPMENT SHALL NOT BE USED TO CONDITION THE BUILDING DURING CONSTRUCTION UNTIL SUBSTANTIAL COMPLETION OR WITH THE OWNERS APPROVAL.
5. HVAC/ELECTRICAL DESIGN COORDINATION:
A. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT WITH POWER RATINGS LESS THAN THOSE INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN BE PROVIDED.
6. ALL FLOOR OR SLAB-ON-GRADE MOUNTED EQUIPMENT SHALL BE MOUNTED ON A MINIMUM OF 4" HIGH CONCRETE HOUSEKEEPING PAD(S) OR AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER. FOR EQUIPMENT WITH CONDENSATE DRAINAGE, PROVIDE SUFFICIENT PAD HEIGHT FOR INSTALLATION OF CONDENSATE TRAP.
7. INSTALLATION OF ALL EQUIPMENT SHALL PERMIT ACCESSIBILITY FOR SERVICE AND/OR REPLACEMENT.
8. SEAL ALL EXTERIOR WALL PENETRATIONS WATERPROOF.
9. PROVIDE ALL MISCELLANEOUS STRUCTURAL SUPPORTS REQUIRED FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATIONS.
10. PROTECT DUCTWORK DURING CONSTRUCTION. ALL DUCTWORK TO BE ENCLOSED BY PLASTIC WRAP WHILE ON JOB SITE.

MOTORS

- 1. SELECT MOTORS FOR OPERATION NOT EXCEEDING A 1.0 SERVICE FACTOR AND WITHIN THE NAMEPLATE AMPERAGE AND NOMINAL POWER RATING.

VIBRATION ISOLATION

- 1. VIBRATION ISOLATORS SHALL BE INSTALLED AND CONNECTED AS SPECIFIED OR INDICATED ON THE DRAWINGS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND CERTIFIED SUBMITTAL DATA.
2. NO RIGID CONNECTION SHALL BE MADE THAT DEGRADES THE NOISE AND VIBRATION CONTROL SYSTEMS PROVIDED IN THE SPECIFICATIONS OR DRAWING.
3. CONFLICTS WITH OTHER TRADES THAT WILL RESULT IN DIRECT CONTACT WITH ISOLATED EQUIPMENT, PIPING, OR DUCTWORK, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO INSTALLATION.
4. DISCREPANCIES BETWEEN THE SPECIFICATIONS AND THE FIELD CONDITIONS, OR CHANGES REQUIRED DUE TO SPECIFIC EQUIPMENT SELECTION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO INSTALLATION.
5. ISOLATED EQUIPMENT MOUNTING SYSTEMS SHALL PERMIT EQUIPMENT MOTION IN ALL DIRECTIONS.
6. ALL DUCTWORK AND PLENUM BOXES LOCATED IN MECHANICAL ROOMS AND BUILDING ROOFTOPS SHALL BE ISOLATED WITH TYPE SH, NP, OR ND NEOPRENE ISOLATORS SIZED FOR 0.75" O.25" STATIC DEFLECTION UNLESS OTHER REQUIREMENTS FOR VIBRATION ISOLATION ARE PROVIDED. ADDITIONALLY, ALL DUCTWORK AND ALL PLENUM BOXES SERVING AIR MOVEMENT EQUIPMENT SHALL BE VIBRATION ISOLATED FROM THE BUILDING STRUCTURE FOR ALL FLOOR MOUNTED OR CEILING SUSPENDED CONDITIONS ABOVE, BELOW, OR HORIZONTALLY ADJACENT TO TYPICAL OCCUPIED OR NOISE AND/OR VIBRATION SENSITIVE SPACES PER THE REQUIREMENTS AS SHOWN ON THE DRAWINGS PLANS, NOTES, AND DETAILS.

PROJECT EXISTING CONDITIONS AND DEMOLITION GENERAL NOTES

- 1. THE DRAWINGS DEPICT ONLY GENERALLY THE EXISTING CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD OBSERVATIONS AND VERIFY LOCATIONS OF ALL EXISTING DUCTWORK, PIPING, AND EQUIPMENT.
2. ALL CONFLICTS AND ITEMS FOR CLARIFICATION SHALL BE BROUGHT TO THE ARCHITECT/ENGINEERS ATTENTION PRIOR TO WORK IN THE AREA.
3. IF PIPING, DUCTWORK, OR EQUIPMENT WHICH IS TO BE REUSED CANNOT BE REUSED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL INFORM THE OWNER AND RECEIVE SCHEDULE APPROVAL FOR ANY REQUIRED UTILITY SHUTDOWN.

HVAC PERFORMANCE VERIFICATION

- 1. SUBMITTALS
A. SUBMIT ADDITIONAL DOCUMENTATION AS REQUIRED TO SUPPORT THE PERFORMANCE VERIFICATION PROCESS. THIS ADDITIONAL SUBMITTAL DOCUMENTATION SHALL INCLUDE, AT A MINIMUM, THE PROPOSED START-UP AND INITIAL CHECK-OUT PROCEDURES, AND PREFUNCTIONAL CHECKLISTS.
2. START-UP PLAN AND PREFUNCTIONAL TESTING
A. PREFUNCTIONAL TESTING SHALL BE REQUIRED FOR EACH PIECE OF EQUIPMENT TO ENSURE THAT THE EQUIPMENT AND SYSTEMS ARE PROPERLY INSTALLED AND READY FOR OPERATION, SO THAT FUNCTIONAL TESTING MAY PROCEED WITHOUT DELAYS. FOLLOW THE APPROVED START-UP, INITIAL CHECK-OUT, AND PREFUNCTIONAL TESTING PROCEDURES. SAMPLING STRATEGIES SHALL NOT BE USED FOR PREFUNCTIONAL TESTING. THE PREFUNCTIONAL TESTING FOR EQUIPMENT AND SUBSYSTEMS OF A GIVEN SYSTEM SHALL BE SUCCESSFULLY COMPLETED AND DOCUMENTED PRIOR TO FUNCTIONAL TESTING OF THE SYSTEM.
B. PROCEDURES FOR PERFORMANCE VERIFICATION SHALL INCLUDE:
1) START-UP AND INITIAL CHECK-OUT PLAN: DEVELOP THE DETAILED START-UP AND PREFUNCTIONAL TESTING PLANS FOR EQUIPMENT AND SYSTEMS THAT ARE TO BE PERFORMANCE VERIFIED, AS SPECIFIED HEREIN. REVIEW THE PROPOSED PROCEDURES AND PREFUNCTIONAL TESTING DOCUMENTATION TO ENSURE THAT THERE IS WRITTEN DOCUMENTATION THAT EACH OF THE MANUFACTURER-RECOMMENDED PROCEDURES HAVE BEEN COMPLETED.
2) THE START-UP AND INITIAL CHECK-OUT PLAN SHALL CONSIST, AS A MINIMUM, OF THE FOLLOWING:
A) THE MANUFACTURER'S STANDARD WRITTEN START-UP AND CHECK-OUT PROCEDURES COPIED FROM THE INSTALLATION MANUALS AND MANUFACTURER'S NORMALLY USED FIELD CHECK-OUT SHEETS. THE PLAN SHALL INCLUDE CHECKLISTS AND PROCEDURES WITH SPECIFIC BOXES OR LINES FOR RECORDING AND DOCUMENTING THE CHECKING AND INSPECTIONS OF EACH PROCEDURE AND A SUMMARY STATEMENT WITH A SIGNATURE BLOCK AT THE END OF THE PLAN.
B) FIRST-RUN CHECKLIST FOR EQUIPMENT PER SPECIFICATIONS FOR EACH PIECE OF EQUIPMENT.
C) CONTRACTOR-DEVELOPED PREFUNCTIONAL CHECKLISTS.
3) IDENTIFY WHICH TRADE IS RESPONSIBLE FOR EXECUTING AND DOCUMENTING EACH OF THE LINE ITEM TASKS AND NOTE THAT TRADE ON THE FORM. EACH FORM MAY HAVE MORE THAN ONE TRADE RESPONSIBLE FOR ITS EXECUTION.
C. FOUR WEEKS PRIOR TO START-UP, SCHEDULE EQUIPMENT AND SYSTEMS START-UP AND CHECK-OUT, AND NOTIFY THE OWNER IN WRITING. THE EXECUTION OF THE PREFUNCTIONAL CHECKLISTS, START-UP AND CHECK-OUT SHALL BE DIRECTED AND PERFORMED BY THE CONTRACTOR, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED PROCEDURES. THE OWNER SHALL BE PRESENT FOR THE START-UP, CHECK-OUT, AND PREFUNCTIONAL TESTING OF THE FIRST UNIT OF EACH TYPE OF EQUIPMENT, AND ANY OTHER TESTS HE DESIGNATES.

- D. SENSOR CALIBRATION: CALIBRATION OF SENSORS ASSOCIATED WITH A GIVEN PIECE OF EQUIPMENT OR SYSTEM SHALL BE INCLUDED AS PART OF THE PREFUNCTIONAL TESTING, AND LISTED ON THE APPROPRIATE TEST CHECKLISTS AND REPORTS FOR THE SYSTEM. THIS REQUIREMENT MAY BE MET DURING THE PREFUNCTIONAL TESTING OF THE BUILDING CONTROL SYSTEM, BUT SHALL ALSO BE DOCUMENTED WITH THE FUNCTIONAL TESTING PROCEDURES.
E. COMPLETED START-UP, CHECK-OUT, AND PREFUNCTIONAL TEST FORMS SHALL BE COMPLETED AND MADE AVAILABLE FOR REVIEW UPON REQUEST. TO THE OWNER FOR REVIEW. LIST OUTSTANDING ITEMS OF THE INITIAL START-UP AND PREFUNCTIONAL PROCEDURES THAT WERE NOT COMPLETED SUCCESSFULLY, AT THE BOTTOM OF THE PROCEDURES FORM OR ON AN ATTACHED SHEET. THE PROCEDURES FORM AND ANY OUTSTANDING DEFICIENCIES SHALL BE PROVIDED TO THE OWNER WITHIN 2 DAYS OF TEST COMPLETION. THE OWNER SHALL REVIEW THE CONTRACTOR'S START-UP AND PREFUNCTIONAL TESTING REPORTS AND SHALL SUBMIT EITHER A NONCOMPLIANCE REPORT OR AN APPROVAL FORM TO THE CONTRACTOR. THE CONTRACTOR SHALL CORRECT ITEMS THAT ARE DEFICIENT OR INCOMPLETE IN THE CHECKLISTS AND TESTS IN A TIMELY MANNER, AND SHALL NOTIFY THE OWNER AS SOON AS OUTSTANDING ITEMS HAVE BEEN CORRECTED AND RESUBMIT AN UPDATED START-UP REPORT AND A STATEMENT OF CORRECTION ON THE ORIGINAL NONCOMPLIANCE REPORT. WHEN REQUIREMENTS ARE COMPLETED, THE OWNER SHALL RECOMMEND APPROVAL OF THE START-UP AND PREFUNCTIONAL TESTING OF EACH SYSTEM AND SCHEDULE THE FUNCTIONAL TESTING OF THE EQUIPMENT OR SYSTEM.
F. COMPLETE START-UP AND PREFUNCTIONAL TESTING FOR A SYSTEM BEFORE FUNCTIONAL TEST OF THAT SYSTEM MAY PROCEED.
G. DO NOT OPERATE HVAC SYSTEMS IN A MANNER THAT WOULD INDUCE UNCONDITIONED, HUMID OUTSIDE AIR INTO THE BUILDING.
3. RETESTING OF EQUIPMENT AND/OR SYSTEMS
A. PROVIDE LABOR AND MATERIALS REQUIRED FOR RETESTING OF ANY FUNCTIONAL TEST FOUND TO BE DEFICIENT.
B. PRIOR TO RETESTING, SUBMIT REQUIRED DATA INDICATING THAT THE DEFICIENT ITEMS HAVE BEEN COMPLETED AND/OR CORRECTED TO THE OWNER FOR APPROVAL AND RESCHEDULING OF THE FUNCTIONAL TEST. IF DURING THE RETESTING IT BECOMES APPARENT THAT THE DEFICIENT ITEMS HAVE NOT BEEN COMPLETED AND/OR CORRECTED AS INDICATED IN THE DATA PROVIDED BY THE CONTRACTOR, THE RETESTING SHALL BE STOPPED. COSTS FOR THE DESIGN TEAM TO FURTHER SUPERVISE THE RETESTING OF A FUNCTIONAL TEST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. DEFERRED TESTING
A. SCHEDULE AND COORDINATE, WITH THE APPROVAL OF THE OWNER ANY REQUIRED SEASONAL TESTING. TESTS DELAYED UNTIL BUILDING CONSTRUCTION IS COMPLETED, INCLUDING OCCUPANCY OR LOADING, WEATHER, OR OTHER CONDITIONS ARE SUITABLE FOR THE DEMONSTRATION OF EQUIPMENT OR SYSTEMS PERFORMANCE. AS SPECIFIED HEREIN, DEFERRED TESTING SHALL BE EXECUTED, DOCUMENTED, AND DEFICIENCIES CORRECTED AS SPECIFIED HEREIN FOR FUNCTIONAL TESTING. ADJUSTMENTS OR CORRECTIONS TO THE OPERATIONS AND MAINTENANCE MANUALS AND AS-BUILT DOCUMENTS REQUIRED BY THE RESULTS OF THE TESTING SHALL BE MADE BEFORE THE SEASONAL TESTING PROCESS IS CONSIDERED COMPLETE.
5. SEASONAL ADJUSTMENTS
A. THE HVAC PERFORMANCE VERIFICATION SUPERVISOR SHALL SCHEDULE, COORDINATE AND COMPLETE THE SEASONAL ADJUSTMENT PROCESS. DURING THIS EFFORT, THE HVAC PERFORMANCE VERIFICATION SUPERVISOR SHALL:
1) CHECK AND VERIFY THE CALIBRATION OF TEMPERATURE CONTROL DEVICES AND THERMOSTATS. TEST AND VERIFY CONTROL SEQUENCES FOR PROPER OPERATION FOR THE SEASON.
2) CHECK THE OPERATION, PERFORMANCE, AND BALANCE OF AIR SYSTEMS TO PROVIDE UNIFORM DISTRIBUTION AND COMFORT CONDITIONS.
B. WHERE DEFICIENT OPERATION OR DEFECTIVE EQUIPMENT IS DISCOVERED, PROVIDE CORRECTIVE MEASURES.
6. TESTING DOCUMENTATION, NONCONFORMANCE, AND APPROVALS
A. LIST OUTSTANDING ITEMS OF THE INITIAL START-UP AND PREFUNCTIONAL PROCEDURES THAT WERE NOT COMPLETED SUCCESSFULLY, AT THE BOTTOM OF THE FUNCTIONAL TEST PROCEDURE FORMS OR ON AN ATTACHED SHEET. THE FUNCTIONAL TEST PROCEDURE FORMS AND ANY OUTSTANDING DEFICIENCIES SHALL BE PROVIDED TO THE OWNER WITHIN 2 DAYS OF TEST COMPLETION. THE OWNER SHALL REVIEW THE CONTRACTOR'S START-UP AND PREFUNCTIONAL TESTING DOCUMENTATION AND SHALL SUBMIT EITHER A NONCOMPLIANCE REPORT OR AN APPROVAL FORM TO THE CONTRACTOR. WORK WITH THE OWNER TO CORRECT AND RETEST DEFICIENCIES OR UNCOMPLETED ITEMS. CORRECT ITEMS THAT ARE DEFICIENT OR INCOMPLETE IN A TIMELY MANNER, AND NOTIFY THE OWNER AS SOON AS OUTSTANDING ITEMS HAVE BEEN CORRECTED AND RESUBMIT AN UPDATED START-UP REPORT AND A STATEMENT OF CORRECTION ON THE ORIGINAL NONCOMPLIANCE REPORT. WHEN REQUIREMENTS ARE COMPLETED, SCHEDULE THE FUNCTIONAL TESTING OF THE EQUIPMENT OR SYSTEM.
B. AS FUNCTIONAL PERFORMANCE TESTING PROGRESSES AND DEFICIENCIES ARE IDENTIFIED, WORK WITH THE OWNER TO RESOLVE THE ISSUES.
7. OPERATION AND MAINTENANCE MANUALS
A. THE CONTRACTOR SHALL COMPLETE AND PREPARE DOCUMENTATION FOR EQUIPMENT AND SYSTEMS COVERED IN DIVISIONS 23 AND DELIVER THIS DOCUMENTATION FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS PRIOR TO THE TRAINING OF THE OWNERS PERSONNEL.
8. INSTRUCTION OF OPERATING PERSONNEL
A. THE CONTRACTOR SHALL SCHEDULE, COORDINATE AND ASSEMBLE, AND DELIVER THE DOCUMENTATION OF TRAINING REQUIRED BY DIVISION 23.
9. FUNCTIONAL TESTS
A. FUNCTIONAL TEST REQUIREMENTS FOR THE DEMONSTRATION OF PROPER SYSTEM AND EQUIPMENT OPERATION SHALL BE DEFINED BY THE HVAC PERFORMANCE VERIFICATION SUPERVISOR. EXECUTION OF THESE TESTS AND DEMONSTRATION OF THE REQUIRED PERFORMANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
B. FUNCTIONAL TESTING IS INTENDED TO BEGIN UPON COMPLETION OF A SYSTEM. FUNCTIONAL TESTING MAY PROCEED PRIOR TO THE COMPLETION OF SYSTEMS OR SUBSYSTEMS AT THE DISCRETION OF THE CONTRACTOR, BEGINNING SYSTEM TESTING BEFORE FULL COMPLETION OF CONSTRUCTION SHALL NOT RELIEVE THE CONTRACTOR FROM FULLY COMPLETING THE SYSTEM, INCLUDING PREFUNCTIONAL CHECKLISTS.
C. FUNCTIONAL TESTING SHALL BE COMPLETED AND TEST DOCUMENTATION APPROVED BY THE OWNER.

AIR DISTRIBUTION

- 1. SHEET METAL WORK - GENERAL
A. CHANGES IN SHAPE, DIMENSION, OR DIRECTION SHALL BE MADE WITH A MAXIMUM TRANSITION OFFSET, OR COMBINATION THEREOF OF 1 TO 7.
B. EXCEPT WHERE INDICATED OTHERWISE ON THE DRAWINGS, USE METAL HAT SECTIONS OR STANDOFF BRACKETS IN LINED DUCTWORK TO INSTALL DAMPERS, TURNING VANES OR COILS. HAT SECTIONS OR STANDOFF BRACKETS SHALL BE THE SAME HEIGHT AS THE LINING THICKNESS.
C. INSTALL INSULATED DUCTWORK WITH A MINIMUM CLEARANCE OF 18" TO GREASE HOODS, UNLESS A REDUCED CLEARANCE IS ALLOWED BY THE MANUFACTURER.
2. FLEXIBLE DUCTWORK
A. FOR DIFFUSERS, SIZE SAME DIAMETER AS DIFFUSER NECK TO WHICH IT CONNECTS.
3. SIDE TAKEOFF FITTINGS
A. INSTALL 45° TAKEOFF FITTINGS TO CORRESPOND WITH DIRECTION OF AIRFLOW.
4. PRESS-ON COLLAR FITTINGS
A. PROVIDE FOR EACH FLEXIBLE DUCT TAKEOFF AND FOR EACH ROUND SHEET METAL DUCT ROUND TO FLEXIBLE DUCTS SERVING DIFFUSERS.
B. FASTEN WITH SHEET METAL SCREWS AT PRE-PUNCHED MOUNTING HOLES.
5. FIRE DAMPERS
A. INSTALL WITHIN THE THICKNESS OF THE RATED CONSTRUCTION
B. VERIFY ACCESSIBILITY OF EACH FIRE DAMPER THROUGH DUCT AND BUILDING ACCESS PANELS, AND OPERATION OF EACH FIRE DAMPER BY REMOVING LINK AND OPERATING DAMPER.
C. PROVIDE MINIMUM OF 12" X 12" ACCESS PANEL.
6. FANS
A. INSTALL CENTRIFUGAL FANS WITH A MINIMUM OF 2.5 DUCT DIAMETERS OF STRAIGHT DUCT AT THE INLET.
7. FILTERS
A. INSTALL FILTERS TO BE USED WHILE THE BUILDING IS UNDER CONSTRUCTION. REPLACE DURING CONSTRUCTION AS FILTERS BECOME LOADED. PRIOR TO FINAL INSPECTION, REMOVE THESE FILTERS AND REPLACE WITH NEW FILTERS.
8. SMOKE DETECTORS
A. DUCTMOUNTED SMOKE DETECTORS SHALL BE LOCATED AS FOLLOWS:
1) WITHIN 60" OF ITS RESPECTIVE SMOKE DAMPER WITH NO OUTLETS OR INLETS BETWEEN THE DETECTORS AND DAMPER.
2) BETWEEN THE SMOKE DAMPER AND ANY DUCT OPENING OR CONNECTION.
3) IN A STRAIGHT SECTION OF DUCT. TO BE ACCESSIBLE.

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2. ALL CONFLICTS AND ITEMS FOR CLARIFICATION SHALL BE BROUGHT TO THE ARCHITECT/ENGINEERS ATTENTION PRIOR TO WORK IN THE AREA.
3. IF PIPING, DUCTWORK, OR EQUIPMENT WHICH IS TO BE REUSED CANNOT BE REUSED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL INFORM THE OWNER AND RECEIVE SCHEDULE APPROVAL FOR ANY REQUIRED UTILITY SHUTDOWN.

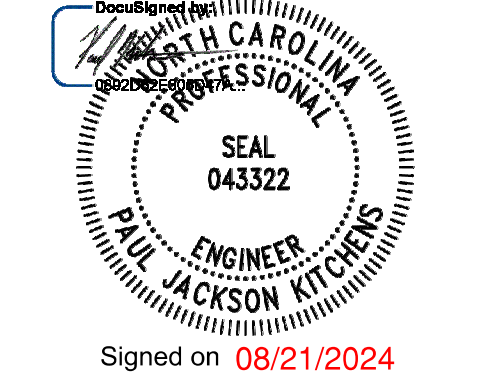
Table with 2 columns: STATIC PRESSURE CLASSIFICATION, WG and LEAKAGE CLASS. Row 1: 0.5", 1", 2" 3" -> 16, 8. Row 2: 0.5", 1", 2" 3" -> 8, 4.



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5425 Page Road Suite 215 Durham, NC 27703 T 919 783-7812 NB Contact: Brandon R. Nevin N&B PROJECT: 23-0812 Firm Lic. # F-0312



Signed on 05/21/2024 using a Digital Signature.

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Table with 2 columns: DATE and DESCRIPTION. Row 1: 2024.01.31 100% Design Development. Row 2: 2024.08.21 Bid / Permit Set.

SHEET NAME: HVAC GENERAL NOTES

ORIG SUBMISSION: 2024.04.17

SHEET: M-001

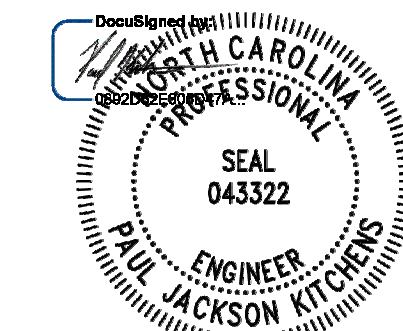
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N&B PROJECT: 23-0812
Firm Lic. # F-0312



Seal 043522

Signed on 08/21/2024
using a Digital Signature.

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- KEY NOTES:**
- PLACE TEMPERATURE SENSOR IN RETURN DUCTWORK SERVING SPACE.
 - ROUTE DRYER VENT THROUGH ROOF AND TERMINATE WITH GOOSENECK.
 - 3'-0" W X 2'-5" H LOUVER SIZED AT 50% FREE AREA.
 - 1'-6" W X 1'-6" H LOUVER SIZED AT 50% FREE AREA.
 - 1'-6" W X 1'-0" H LOUVER SIZED AT 50% FREE AREA.
 - PROVIDE AHU EMERGENCY POWER OFF SWITCH.
 - MOUNT UNIT HEATER 4" ABOVE FINISHED FLOOR.
 - ROUTE CONDENSATE TO NEAREST DRYWELL.
 - PROVIDE DUCTWORK SUPPORT SIMILAR TO MIRO-DS
 - PROVIDE CABLE OPERATED MANUAL DAMPER.
 - COVER RETURN AIR OPENING WITH BIRDSCREEN.
 - 14" X 14" CONNECTION TO EXISTING HOOD.
 - MAU-1 TO ENERGIZE UPON ACTIVATION OF EXISTING HOOD EXHAUST FAN. INTERLOCK WITH MOTOR RELAY.
 - EXTEND DISHWASHER EXHAUST DUCTWORK TO NEW LOCATION.
 - EXTEND EXISTING REFRIGERANT SUCTION/VAPOR LINES TO NEW FREEZER LOCATION.
 - 4'-6" W X 1'-0" H LOUVER SIZED AT 50% FREE AREA.
 - PROVIDE 2' X 2' FIRE RATED ACCESS PANEL WITHIN CLEARANCE REGION NOTED BY DASHED LINE TO ALLOW ACCESS TO HEATING COIL AND TERMINAL UNIT CONTROLLER.
 - PROVIDE 3' X 3' FIRE RATED ACCESS PANEL DIRECTLY BELOW EXHAUST FAN.

**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401

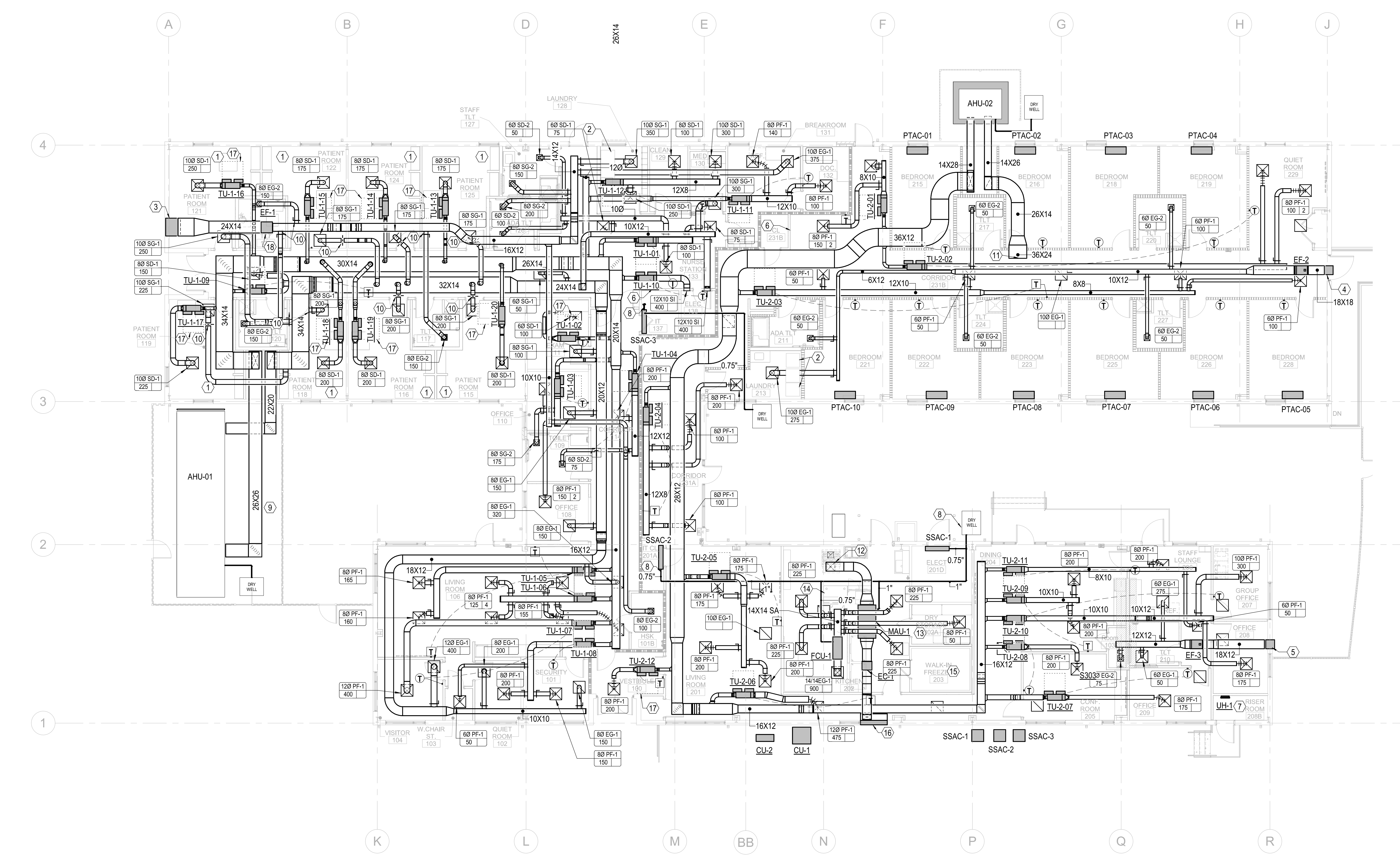
DATE	DESCRIPTION
A	2024.01.31 100% Design
C	2024.01.31 100% Design Development
D	2024.08.21 Bid / Permit Set

SHEET NAME:
HVAC DUCTWORK -
FLOOR PLAN

ORIG SUBMISSION: 2024.04.17

SHEET: **M-101**

BID/ PERMIT SET



1 HVAC DUCTWORK - LEVEL 01
1/8" = 1'-0"

THE LINE SHOWN ABOVE IS EXACTLY
ON THE PLUMB AND LEVEL
INDICATED THEREIN

E

D

C

B

A

8/21/2024, 2:18:20 PM

AIR HANDLING UNIT SCHEDULE

NO.	AREA SERVED (NOTE 1)	SUPPLY FAN						EXHAUST FAN						MINIMUM OA CFM	FILTERS		COOLING COIL (NOTE 4)				HEATING COIL (NOTE 5)			VIBRATION ISOLATION		NOTES		
		CFM	MAXIMUM RPM	TYPE (NOTE 2)	ESP. IN. WG (NOTE 3)	MOTOR		CFM	MAXIMUM RPM	TYPE (NOTE 2)	ESP. IN. WG (NOTE 3)	MOTOR			PRE	FINAL (NOTE 7)	EAT °F		DB	WB	DB	WB	CFM	EAT °F	LAT °F		TYPE	MIN. STATIC DEFLECTION
						MINIMUM HP	MAXIMUM BRAKE HP					MINIMUM HP	MAXIMUM BRAKE HP				DB	WB										
AHU-1	RHA	5,500	1,500	DDP-VV	3.5	10	6.5	5,500	700	FC-VV	1	3	1.6	2,100	MERV 7	MERV 14	83	68	55	55	5,500	40.0	72	FS	0.75	7		
AHU-2	LINC	3,750	1,250	FC-VV	2.0	5.3	3.5	-	-	-	-	-	-	925	MERV 7	-	80	65	53	53	4,000	60.0	72	FS	0.75	6		

NOTES:
1. DESIGN CONDITIONS:

	SUMMER	WINTER
OUTSIDE	95.0°F DB, 78.0°F WB	15°F
LINC	74°F DB, 50% RH	70°F
RHA	74°F DB, 50% RH	70°F
REMAINING SPACES	74°F DB, 50% RH	70°F

2. FAN TYPE:

FAN TYPE:
FC FORWARD CURVED
VV VARIABLE VOLUME
DDP DIRECT DRIVE PLENUM

3. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE UNIT CASING, PLENUMS, DIFFUSER SECTION, UNIT MOUNTED HEATING AND COOLING COILS, OR FILTERS. THE TOTAL STATIC PRESSURE SHALL INCLUDE A FILTER PRESSURE DROP NO LOWER THAN THE MINIMUM FILTER ALLOWANCE AND CASING ENTRY AND EXIT LOSSES BASED ON THE ACTUAL OPENING SIZES.

4. MAXIMUM FACE VELOCITY: 425 FPM
MAXIMUM APD: 0.8" WG

5. MAXIMUM APD: 0.3" WG
MODULATING GAS FURNACE

6. REFER TO THE ELECTRICAL DRAWINGS FOR EQUIPMENT ELECTRICAL CHARACTERISTICS.

7. FILTER SECTION TO BE CARTRIDGE TYPE LOCATED AFTER THE COOLING COIL

UNIT HEATER SCHEDULE

NO.	AREA SERVED	TYPE (NOTE 1)	CAPACITY, KW (NOTE 2)	NOMINAL CFM	NOTES
UH-1	RISER RM.	W	1	150	3

NOTES:

1. TYPE:

W WALL

2. BASED ON 60°F EAT.

3. REFER TO THE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.

FAN SCHEDULE

NO.	AREA SERVED	TYPE (NOTE 1)	CFM	STATIC PRESSURE, IN. WG	NOMINAL WHEEL DIAMETER, IN.	MAXIMUM RPM	MOTOR		DRIVE (NOTE 2)
							MINIMUM HP	MAXIMUM BRAKE HP	
EF-1	LINC	SI	1800	1	15	1,500	0.75	0.60	D
EF-2	RHA	SI	550	0.5	11	1,800	0.16	0.13	D
EF-3	RHA	SI	400	0.4	11	1,600	0.1	0.07	D

NOTES:

1. TYPE:

SI SQUARE INLINE

2. DRIVE:

D DIRECT

3. REFER TO THE ELECTRICAL DRAWINGS FOR THE EQUIPMENT ELECTRICAL CHARACTERISTICS.

PACKAGED TERMINAL AIR CONDITIONER SCHEDULE

NO.	AREA SERVED	CFM (NOTE 1)	OA CFM	CAPACITY		NOTES
				ELECTRIC HEATING, BTU	TOTAL COOLING, BTU (NOTE 2)	
PTAC-1	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-2	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-3	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-4	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-5	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-6	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-7	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-8	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-9	PATIENT ROOMS	290	65	5,100	7,000	ALL
PTAC-10	PATIENT ROOMS	290	65	5,100	7,000	ALL

NOTES:

1. CFM BASED ON HIGH SPEED.

2. CAPACITY BASED ON ARI STANDARD 380.

3. REFER TO THE ELECTRICAL DRAWINGS FOR EQUIPMENT ELECTRICAL CHARACTERISTICS.

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE

NO.	AREA SERVED	INDOOR UNIT NOMINAL CFM	MINIMUM KW	COOLING			MAXIMUM CONDENSING UNIT REQUIRED CIRCUIT AMPERES	NOTES
				SENSIBLE CAPACITY, MBH	TOTAL CAPACITY, MBH	MINIMUM EER		
SSAC-1	ELEC. RM.	460	1.7	15	18	10.9	15	1-3
SSAC-2	IDF. RM.	460	1.7	15	18	10.9	15	1-3
SSAC-2	IDF. RM.	460	1.7	15	18	10.9	15	1-3

NOTES:

1. DUCTLESS SPLIT SYSTEM SHALL BE A STAND-ALONE SYSTEM WITH LOCAL SPACE TEMPERATURE SENSOR. CONTROLLER SHALL BE PROVIDED WITH RELAY TO BMS FOR SYSTEM MONITORING.

2. REFER TO THE ELECTRICAL DRAWINGS FOR EQUIPMENT ELECTRICAL CHARACTERISTICS.

3. INDOOR UNIT TO BE POWERED BY OUTDOOR UNIT.

TERMINAL UNIT SCHEDULE - ELECTRIC

NO.	TYPE (NOTE 1)	PRIMARY CFM			ELECTRIC HEATING COIL	
		COOLING MAXIMUM	MINIMUM	HEATING MAXIMUM	KW (NOTE 2)	TYPE
TU-1-01	CV-R	400	400	400	4	SCR
TU-1-02	CV-R	100	100	100	1	SCR
TU-1-03	CV-R	300	300	300	3	SCR
TU-1-04	CV-R	275	275	275	3	SCR
TU-1-05	CV-R	325	325	325	3.5	SCR
TU-1-06	CV-R	655	655	655	6.5	SCR
TU-1-07	CV-R	400	400	400	4	SCR
TU-1-08	CV-R	400	400	400	4	SCR
TU-1-09	CV-R	150	150	150	1.5	SCR
TU-1-10	CV-R	400	400	400	4	SCR
TU-1-11	CV-R	240	240	240	2.5	SCR
TU-1-12	CV-R	650	650	650	6.5	SCR
TU-1-13	CV-R	175	175	175	2	SCR
TU-1-14	CV-R	175	175	175	2	SCR
TU-1-15	CV-R	175	175	175	2	SCR
TU-1-16	CV-R	250	250	250	2.5	SCR
TU-1-17	CV-R	225	225	225	2.5	SCR
TU-1-18	CV-R	200	200	200	2	SCR
TU-1-19	CV-R	200	200	200	2	SCR
TU-1-20	CV-R	200	200	200	2	SCR
TU-2-01	CV-R	300	300	300	3	SCR
TU-2-02	CV-R	200	200	200	2	SCR
TU-2-03	CV-R	300	700	300	3	SCR
TU-2-04	CV-R	400	400	400	4	SCR
TU-2-05	CV-R	750	750	750	7.5	SCR
TU-2-06	CV-R	475	475	475	5	SCR
TU-2-07	CV-R	175	175	175	2	SCR
TU-2-08	CV-R	200	200	200	2	SCR
TU-2-09	CV-R	400	400	400	4	SCR
TU-2-10	CV-R	475	475	475	5	SCR
TU-2-11	CV-R	250	250	250	2.5	SCR
TU-2-12	CV-R	200	200	200	2	SCR

NOTES:

1. TYPE:

CV CONSTANT VOLUME - R REHEAT

2. CAPACITY BASED ON 55°F EAT.

3. TERMINAL UNIT CASING RADIATED AND DISCHARGE SOUND POWER LEVELS SHALL BE TESTED IN ACCORDANCE WITH AHRI 890-2017 AND SHALL BE CERTIFIED BY AHRI. MANUFACTURER SHALL PROVIDE ATTENUATOR SECTION AS NEEDED TO MEET THE SOUND POWER OR NC REQUIREMENTS. FOR TERMINAL UNITS WHERE THE SOUND POWER LEVEL AND NC FIELD OF THE SCHEDULE ABOVE ARE LEFT BLANK, THE MAXIMUM ALLOWABLE SOUND POWER LEVELS IN dB @ 10 pW, SHALL BE THE FOLLOWING LEVELS:

	OCTAVE BAND		
	2	3	4
CASING RADIATED	71	66	63
DISCHARGE, LESS THAN 900 CFM	66	63	59
DISCHARGE, 900 CFM OR MORE	68	63	61

LEVELS BASED ON MAXIMUM PRIMARY CFM AND MINIMUM DIFFERENTIAL STATIC PRESSURE OF 1" WG.

4. DIFFERENTIAL STATIC PRESSURE DROP ACROSS COMPLETE ASSEMBLY, INCLUDING HEATING COIL, FOR ALL UNITS SHALL NOT EXCEED 0.3" WG APD.

5. REFER TO THE ELECTRICAL DRAWINGS FOR THE EQUIPMENT ELECTRICAL CHARACTERISTICS.

6. THE DRAWINGS INDICATE THE DESIGN INTENT TO PROVIDE ACCESS TO HEATING COILS, CONTROL PANELS, AND ACCESS DOORS. IF TERMINAL UNITS PROVIDED ARE CONFIGURED DIFFERENTLY, THE ACCESS REQUIREMENTS SHALL BE ADJUSTED IN THE FIELD.

AIR DISTRIBUTION SCHEDULE

PRODUCT SPECIFICATIONS:

- ACTION SUBMITTALS - PRODUCT DATA: FOR EACH TYPE OF PRODUCT.
 - DATA SHEET: INDICATE MATERIALS OF CONSTRUCTION, FINISH, AND MOUNTING DETAILS; AND PERFORMANCE DATA INCLUDING THROW AND DROP, STATIC-PRESSURE DROP, AND NOISE RATINGS.
- SELECTION OF GRILLES, REGISTERS AND DIFFUSERS SHALL BE BASED ON AIR INTRODUCED AT A 20°F TEMPERATURE DIFFERENTIAL.
- GRILLES AND REGISTERS WITH BORDERS SHALL HAVE FELT OR RUBBER GASKETS CEMENTED TO THE BACK FACE AND HOLDING SCREWS NOT OVER 18" ON CENTER AROUND THE PERIMETER.
- WALL-MOUNTED GRILLES AND REGISTERS LOCATED LESS THAN 7' ABOVE FINISHED FLOOR SHALL BE HEAVY DUTY, IMPACT-RESISTANT TYPE.
- DIFFUSERS IN LAY-IN CEILINGS SHALL LAY IN A NOMINAL 24" X 24" GRID OPENING AND SHALL BE FURNISHED WITHOUT EXPOSED FLANGES.
- INTERNAL PARTS OF DIFFUSERS SHALL BE DESIGNED SO THEY CAN BE ADJUSTED, REMOVED, AND ASSEMBLED WITHOUT SPECIAL TOOLS.
- DIFFUSERS SHALL HAVE ROUND NECKS OR SHALL BE PROVIDED WITH SQUARE-TO-ROUND COLLARS WHERE CONNECTED TO ROUND OR FLEXIBLE DUCT.
- FINISHES, UNLESS OTHERWISE SPECIFIED HEREIN:
 - STEEL GRILLES AND REGISTERS: WHITE BAKED ENAMEL.
 - DIFFUSER FACES AND FRAMES: WHITE BAKED ENAMEL.
 - DIFFUSERS INTERIOR: FLAT BLACK.
- GRILLES, REGISTERS AND DIFFUSERS SHALL BE PROVIDED WITH FRAMES, BORDERS, AND MOUNTING ATTACHMENTS FOR INSTALLATION IN THE ACTUAL WALL, SOFFIT, AND CEILING CONSTRUCTION IN WHICH INSTALLED.
- WALL RETURN AND RELIEF GRILLES INSTALLED ABOVE EYE LEVEL SHALL BE INSTALLED WITH BLADES ANGLED SO THE INSIDE OF THE DUCT OR THE ADJACENT SPACE WILL NOT BE VISIBLE THROUGH THE GRILLES.
- EXAMINATION
 - EXAMINE AREAS WHERE DIFFUSERS ARE INSTALLED FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF EQUIPMENT.
 - PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- INSTALLATION
 - INSTALL DIFFUSERS LEVEL AND PLUMB.
 - OUTLETS AND INLETS: DRAWINGS INDICATE GENERAL ARRANGEMENT OF DUCTS, FITTINGS, AND ACCESSORIES. AIR OUTLET AND INLET LOCATIONS HAVE BEEN INDICATED TO ACHIEVE DESIGN REQUIREMENTS FOR AIR VOLUME, NOISE CRITERIA, AIRFLOW PATTERN, THROW, AND PRESSURE DROP. MAKE FINAL LOCATIONS WHERE INDICATED, AS MUCH AS PRACTICAL. FOR UNITS INSTALLED IN LAY-IN CEILING PANELS, LOCATE UNITS IN THE CENTER OF PANEL. WHERE ARCHITECTURAL FEATURES OR OTHER ITEMS CONFLICT WITH INSTALLATION, NOTIFY ENGINEER FOR A DETERMINATION OF FINAL LOCATION.
 - INSTALL DIFFUSERS WITH AIRTIGHT CONNECTIONS TO DUCTS AND TO ALLOW SERVICE AND MAINTENANCE OF DAMPERS, AIR EXTRACTORS, AND FIRE DAMPERS.
 - INSTALL REGISTERS AND GRILLES WITH AIRTIGHT CONNECTIONS TO DUCTS AND TO ALLOW SERVICE AND MAINTENANCE OF DAMPERS, AIR EXTRACTORS, AND FIRE DAMPERS.
- AFTER INSTALLATION, ADJUST DIFFUSERS TO AIR PATTERNS INDICATED, OR AS DIRECTED, BEFORE STARTING AIR BALANCING.

TYPE	CHARACTERISTICS	MANUFACTURER	DESCRIPTION
PF	SIZE 24"x24"	NOTE 1	SQUARE PLATE FACE DIFFUSER TYPE WITH SINGLE SQUARE AIR DIFFUSION PANEL. DIFFUSERS SHALL HAVE AN 18" X 18" STEEL FACE PANEL MOUNTED ON AN AERODYNAMICALLY SHAPED, ONE-PIECE, SEAMLESS 24" X 24" BACKPAN. EXPOSED SURFACES OF FACE PANELS SHALL BE SMOOTH, FLAT, AND FREE OF VISIBLE FASTENERS.
PF-1	---	---	---
PF-2	12"x12"	---	---
SI	SIZE PER PLANS	NOTE 1	SIDEWALL GRILLE, SINGLE DEFLECTION, 35°FIXED POSITION, 0.5" ON CENTER, HORIZONTAL BLADES
SD	SIZE 24"x24"	NOTE 1	SECURITY SUPPLY DIFFUSER, 0.1875" DIMAETER HOLES ON FACE. MOUNTED TO HARD CEILING. PRICE MSRRP OR APPROVED EQUAL.
SD-1	---	---	---
SD-2	12"x12"	---	---
EG	SIZE 24"x24"	NOTE 1	EGGCRATE GRILLE, 0.5" X 0.5" X 0.5" FABRICATED ALUMINUM EGGCRATE.
EG-1	---	---	---
EG-2	12"x12"	---	---
SG	SIZE 24"x24"	NOTE 1	SECURITY GRILLE, 0.1875" DIMAETER HOLES ON FACE. MOUNTED TO HARD CEILING. PRICE MSRRP OR APPROVED EQUAL.
SG-1	---	---	---
SG-2	12"x12"	---	---

NOTES:

1. MANUFACTURER: NAILOR, E.H. PRICE, OR TITUS.

MAKEUP AIR UNIT SCHEDULE

INDOOR/ OUTDOOR NO.	AREA SERVED	INDOOR UNIT CFM (NOTE 2)	ESP. IN. WG (NOTE 3)	MINIMUM MOTOR HP	MINIMUM OA CFM	COOLING (NOTE 4)			ELECTRIC PRE-HEAT KW	HEAT PUMP COIL CAPACITY MBH	MAXIMUM CONDENSING UNIT REQUIRED CIRCUIT AMPERES	FILTRATION MERV	NOTES
						SENSIBLE CAPACITY, MBH	TOTAL CAPACITY, MBH	MINIMUM EER					
MAU-1/OU-2	HOOD MAKEUP	700	1	1	700	30	60	9.2	3	30.2	29.1	13	ALL

NOTES:

1. DESIGN CONDITIONS:

OUTSIDE

SUMMER	WINTER
93.4°F DB, 77.7°F WB	24.2°F

2. EVAPORATOR COIL, HEATING COIL, AND FILTER NOT INCLUDED.

3. BASED ON 76°F DB 63°F WB ENTERING INDOOR COIL, AND 93.4°F DB ENTERING OUTSIDE COIL.

4. SERVICE: 208 V, 1-PHASE, 60 Hz.

5. UNIT AND CONTROLLER WILL BE SINGLE POINT POWER. MAIN POWER TO GO THROUGH ELECTRICAL HEATER EC-1.

SPLIT SYSTEM FAN COIL UNIT SCHEDULE

INDOOR/ OUTDOOR NO.	AREA SERVED	INDOOR UNIT NOMINAL CFM	ESP. IN. WG (NOTE 2)	MINIMUM MOTOR HP	MINIMUM OA CFM	COOLING (NOTE 4)			HEAT PUMP COIL CAPACITY MBH	MAXIMUM CONDENSING UNIT REQUIRED CIRCUIT AMPERES	FILTRATION MERV	NOTES
						SENSIBLE CAPACITY, MBH	TOTAL CAPACITY, MBH	MINIMUM SEER				
FCU-1/OU-1	KITCHEN	950	0.5	0.333	-	36	36	17	36	21	8	ALL

NOTES:

1. NOMINAL CFM IS BASED ON PROJECTED AIRFLOW.

2. EVAPORATOR COIL, HEATING COIL, AND FILTER NOT INCLUDED.

3. BASED ON 76°F DB 63°F WB ENTERING INDOOR COIL, AND 105°F DB ENTERING OUTSIDE COIL.

4. SERVICE: 208 V, 1-PHASE, 60 Hz.



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Signature: 08/21/2024
using a Digital Signature

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NEW HANOVER COUNTY
STAR CENTER
1605 Robin Hood Rd. - Wilmington, NC 28401
LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
2024.01.31	100% Design Development
2024.08.21	Blg 7 Permit Set

SHEET NAME:
HVAC SCHEDULES

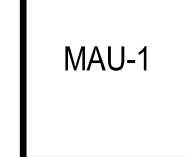
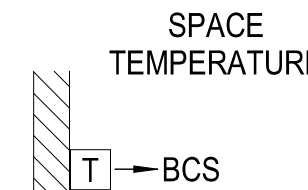
ORIG: 2024.01.17
SUBMISSION:

SHEET:
M-

SEQUENCE OF OPERATIONS

THE CONTROLS FOR DUCTLESS SPLIT SYSTEM SHALL FUNCTION AS FOLLOWS.

- 1. PROVIDE CONTROL WIRING BETWEEN WALL MOUNTED THERMOSTATS, INDOOR FAN COIL UNITS, AND OUTDOOR CONDENSING UNITS AND KITCHEN HOOD RELAY.
2. SYSTEM TO RUN ON INTERNAL CONTROLS TO MAINTAIN TEMPERATURE SETPOINT.
3. SYSTEM TO ENERGIZE UPON ACTIVATION OF KITCHEN HOOD RELAY AND OPERATE AT SCHEDULED CONSTANT CFM SETPOINT.
4. SYSTEM TO DE-ENERGIZE UPON DEACTIVATION OF KITCHEN HOOD RELAY.



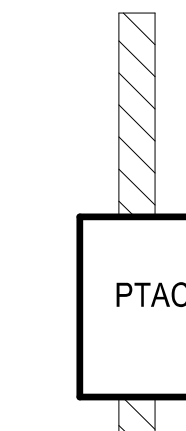
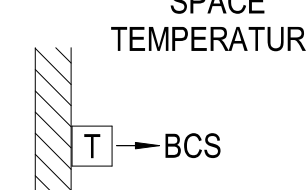
7 CONTROL SCHEMATIC FOR MAKEUP AIR UNIT

NO SCALE

SEQUENCE OF OPERATIONS

THE CONTROLS FOR PTAC UNITS SHALL FUNCTION AS FOLLOWS.

- 1. PROVIDE CONTROL WIRING BETWEEN WALL MOUNTED THERMOSTATS AND PTAC UNITS
2. UNITS SHALL OPERATE UNDER INTERNAL CONTROLS TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. THE BCS SHALL ANNUNCIATE WITH SPACE TEMPERATURES IS GREATER THAN 78°F (ADJUSTABLE) FOR MORE THAN 15 MINUTES(ADJUSTABLE)
4. INTEGRAL OUTDOOR AIR FAN SHALL RUN CONTINUOUSLY.



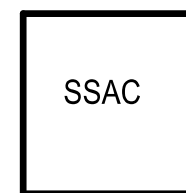
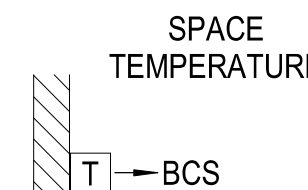
6 CONTROL SCHEMATIC FOR PTAC UNITS

NO SCALE

SEQUENCE OF OPERATIONS

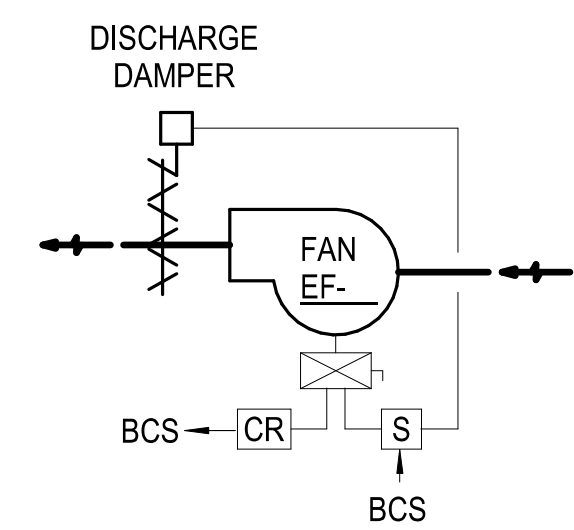
THE CONTROLS FOR DUCTLESS SPLIT SYSTEM SHALL FUNCTION AS FOLLOWS.

- 1. PROVIDE CONTROL WIRING BETWEEN WALL MOUNTED THERMOSTATS, INDOOR FAN COIL UNITS, AND OUTDOOR CONDENSING UNITS.
2. UNITS SHALL OPERATE UNDER INTERNAL CONTROLS TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. THE BCS SHALL ANNUNCIATE WITH SPACE TEMPERATURES IS GREATER THAN 78°F (ADJUSTABLE) FOR MORE THAN 15 MINUTES(ADJUSTABLE)



5 CONTROL SCHEMATIC FOR DUCTLESS SPLIT SYSTEMS

NO SCALE



SEQUENCE OF OPERATIONS

THE CONTROLS FOR FAN EF-1 (SERVING GENERAL EXHAUST), EF-2 (SERVING GENERAL EXHAUST), AND EF-3 (STAFF LOUNGE AREA) SHALL EACH FUNCTION AS FOLLOWS:

- 1. THE FAN SHALL BE INTERLOCKED TO OPERATE WITH ITS RESPECTIVE SYSTEM, EXCEPT WHEN ITS SYSTEM IS IN THE NIGHT SET-BACK OR WARM-UP, OR PRESSURIZATION MODES.
2. THE MOTORIZED DISCHARGE DAMPER SHALL OPEN WHEN THE FAN IS ON AND CLOSE WHEN THE FAN IS OFF.

4 CONTROL SCHEMATIC FOR EXHAUST FANS

NO SCALE

Table with columns: PHYSICAL OUTPUTS (DIGITAL, ANALOG), PHYSICAL INPUTS (DIGITAL, ANALOG), ALARM, BCS, GRAPHICS, TRENDS, ENERGY MGMT., SOFTWARE. Rows include equipment points like PRIMARY AIR FLOW, SPACE TEMPERATURE, etc.

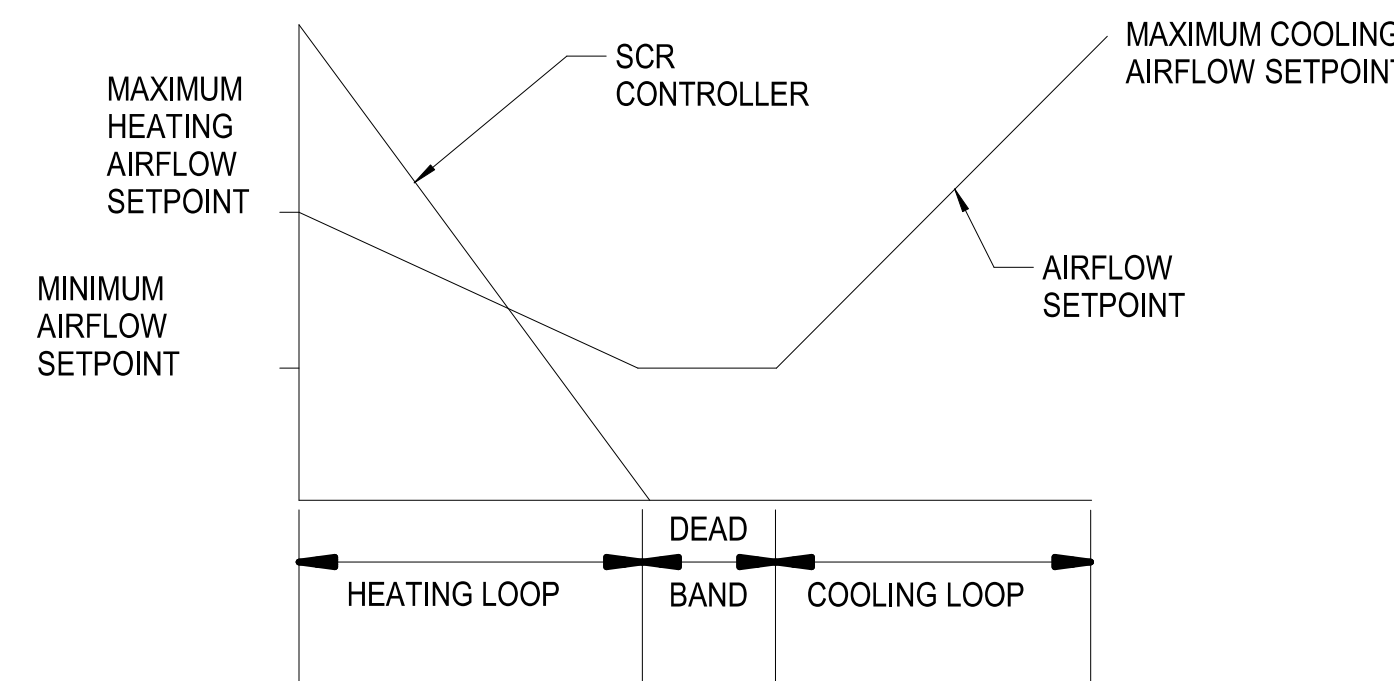
NOTES:

- 1. FAILURE MODE
L - LAST COMMAND
2. TERMINAL UNIT CONTROLS AND INTERFACES SHALL BE ARRANGED SO THAT EQUIPMENT CONTROLLED BY THE BCS OPERATES AS INDICATED ON FAILURE OF THE TERMINAL UNIT CONTROLLER FOR ANY REASON, INCLUDING LOGIC POWER SUPPLY FAILURE.
3. PROVIDE TERMINAL UNIT BCS CONTROLLER WITH IDENTICAL CONTROL POINTS AND FUNCTIONS FOR EACH TERMINAL UNIT.
4. SETPOINT ADJUST TO BE CONNECTED TO BMS.

VARIABLE VOLUME TERMINAL UNIT

SEQUENCE OF OPERATION:

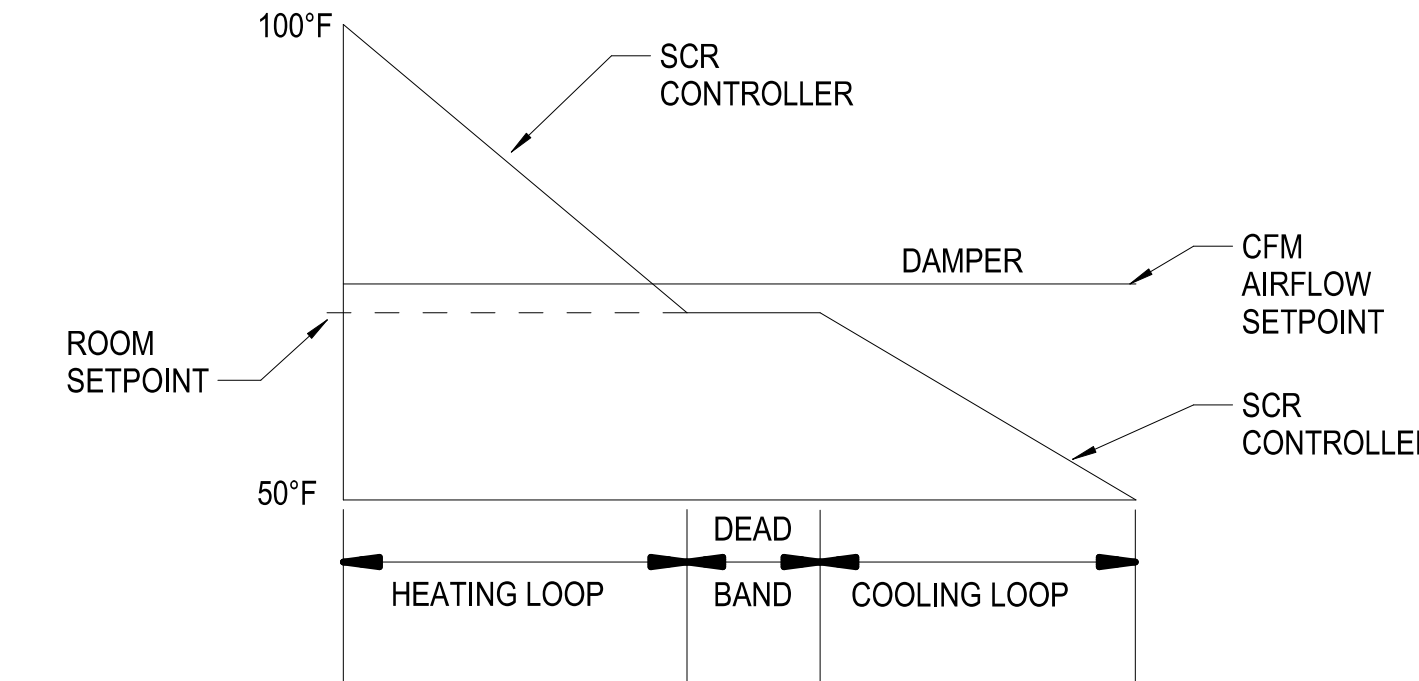
- 1. ON A DROP IN SPACE TEMPERATURE BELOW COOLING SETPOINT, EACH TERMINAL UNIT CONTROLLER SHALL MODULATE THE PRIMARY AIR VALVE TO THE MINIMUM FLOW.
2. IF THE SPACE TEMPERATURE FALLS THROUGH THE 5°F SPACE TEMPERATURE DEADBAND TO THE HEATING SETPOINT, THE TERMINAL UNIT CONTROLLER SHALL MODULATE THE PRIMARY AIR VALVE BETWEEN THE MINIMUM AND MAXIMUM HEATING FLOWS TO THE MAXIMUM HEATING FLOW AND MODULATE THE ELECTRIC HEATING COIL IN PARALLEL TO MAINTAIN THE HEATING SPACE TEMPERATURE SETPOINT.



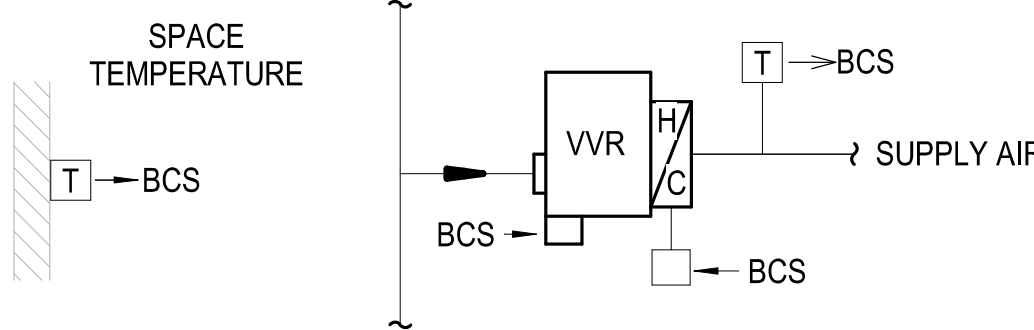
CONSTANT VOLUME TERMINAL UNIT

SEQUENCE OF OPERATION:

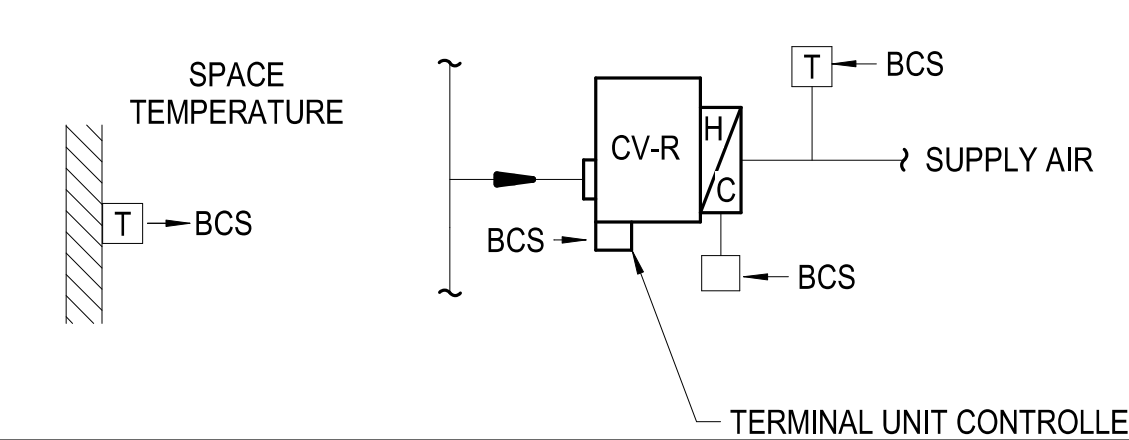
- 1. CONSTANT VOLUME REHEAT. EACH TERMINAL UNIT CONTROLLER SHALL MODULATE THE ELECTRIC HEATING COIL TO MAINTAIN SPACE TEMPERATURE SETPOINT.



ELECTRIC HEATING COIL OPTION:



ELECTRIC HEATING COIL OPTION:



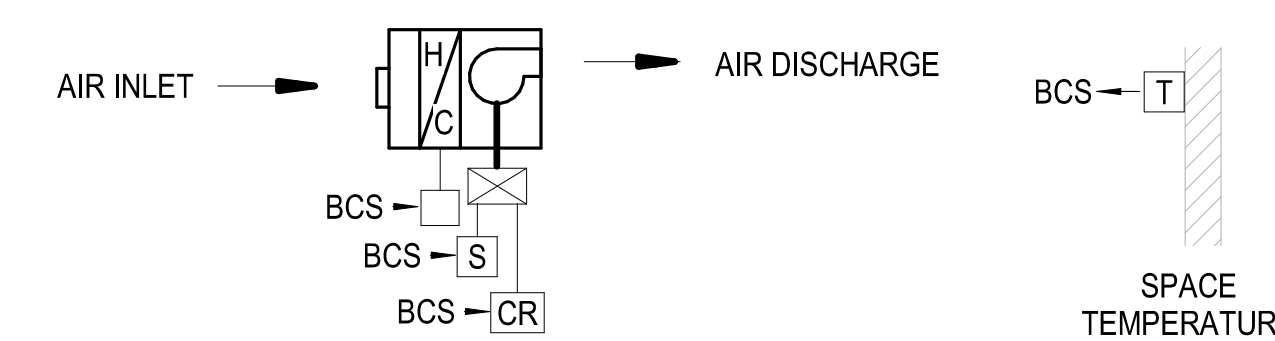
3 CONTROL SCHEMATIC FOR TERMINAL UNITS

NO SCALE

SEQUENCES OF OPERATION

THE CONTROLS FOR UNIT HEATER UH-1 SHALL FUNCTION AS FOLLOWS:

THE BCS CONTROLLER SHALL START THE UNIT HEATER FAN AND ACTIVATE THE STEPS OF ELECTRIC HEAT WHENEVER SPACE TEMPERATURE DROPS BELOW SETPOINT.



2 CONTROL SCHEMATIC FOR UNIT HEATER

NO SCALE

SEQUENCE OF OPERATION:

THE CONTROLS FOR AIR CONDITIONING UNITS AHU-2 SHALL EACH FUNCTION AS FOLLOWS:

- 1. INSTALL THE STATIC PRESSURE SENSOR IN THE DUCTWORK WHERE RECOMMENDED BY THE UNIT MANUFACTURER, AND CONNECT TO THE STATIC PRESSURE CONTROLLER IN THE UNIT.
2. INSTALL THE REMOTE READOUT PANEL AND CONNECTING WIRING.
3. INSTALL THE NIGHT SETBACK THERMOSTAT AND CONNECTING WIRING.
4. INSTALL CONTROL WIRING BETWEEN AIR HANDLING UNIT CONTROL PANNEL AND BUILDING DDC SYSTEM.

1 AHU-2 PACKAGED SYSTEM

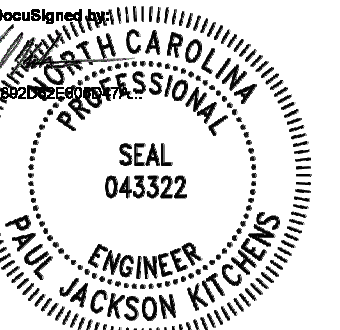
NO SCALE



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NEW HANOVER COUNTY STAR CENTER 1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

Table with columns: DATE, DESCRIPTION. Rows include design and permit set dates.

SHEET NAME: HVAC CONTROLS

ORIG SUBMISSION: 2024.04.17

SHEET: M-701

BID/ PERMIT SET

THE LINE SHOWN ABOVE IS EXACTLY
DUAL TO THE LINE SHOWN BELOW
FOR THE SAME PURPOSE

E

D

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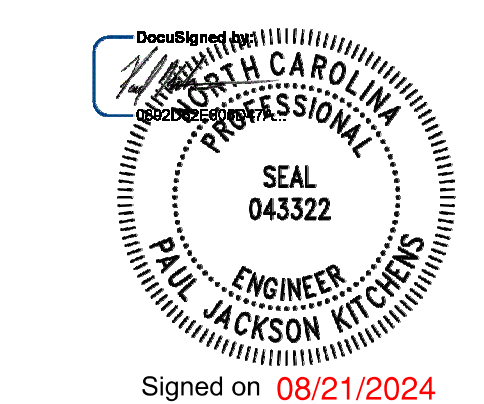
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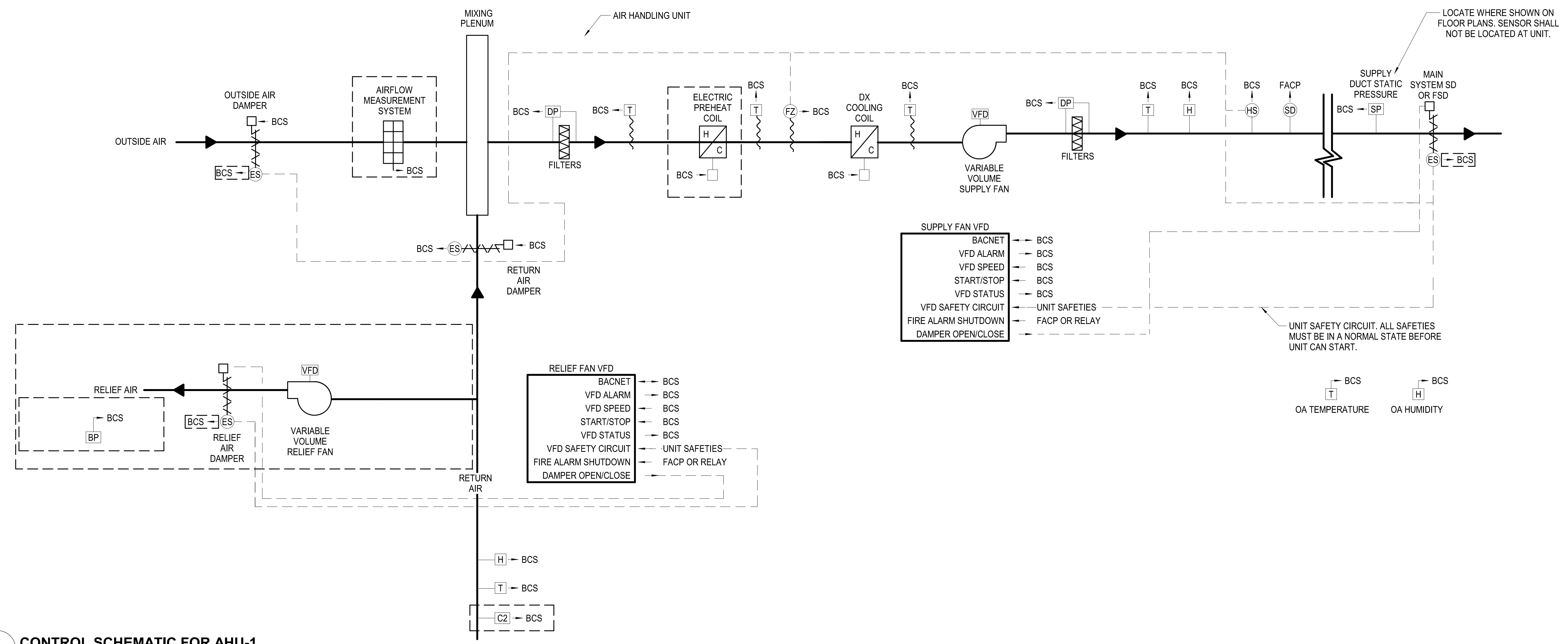
NEW HANOVER COUNTY STAR CENTER

1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A	2024.01.31 100% Design
C	2024.01.31 100% Design Development
D	2024.08.21 Bid / Permit Set

1 CONTROL SCHEMATIC FOR AHU-1
NO SCALE



- SUPPLY FAN VFD**
- BACNET
 - VFD ALARM
 - VFD SPEED
 - START/STOP
 - VFD STATUS
 - VFD SAFETY CIRCUIT
 - FIRE ALARM SHUTDOWN
 - DAMPER OPEN/CLOSE

- RELIEF FAN VFD**
- BACNET
 - VFD ALARM
 - VFD SPEED
 - START/STOP
 - VFD STATUS
 - VFD SAFETY CIRCUIT
 - FIRE ALARM SHUTDOWN
 - DAMPER OPEN/CLOSE

UNIT SAFETY CIRCUIT. ALL SAFETIES
MUST BE IN A NORMAL STATE BEFORE
UNIT CAN START.

OA TEMPERATURE OA HUMIDITY

LOCATE WHERE SHOWN ON
FLOOR PLANS. SENSOR SHALL
NOT BE LOCATED AT UNIT.

SHEET NAME:
HVAC CONTROLS

ORIG SUBMISSION: 2024.04.17

SHEET:
M-702

BID/ PERMIT SET

BCS PANEL INPUT/OUTPUT SUMMARY AIR HANDLING UNIT	PHYSICAL INPUTS		PHYSICAL OUTPUTS		SOFTWARE					NOTES
	DIGITAL	ANALOG	DIGITAL	ANALOG	ALARM	BCS LOGIC CTRL	GRAPHICS	TRENDS	ENERGY MGMT.	
EQUIPMENT										
AIR HANDLING UNIT (AHU)							X X X		X X X X	8
POINTS										
OUTSIDE AIR TEMPERATURE		X						900 X		
OUTSIDE AIR RELATIVE HUMIDITY		X						900 X		
AIRFLOW STATION			X					900 X		
MIXED AIR TEMPERATURE		X						900 X		
PREHEAT COIL LEAVING AIR TEMPERATURE		X						900 X		
COOLING COIL LEAVING AIR TEMPERATURE		X						900 X		
SUPPLY AIR TEMPERATURE		X						900 X		
LOW LIMIT THERMOSTAT	X							X X		
SUPPLY AIR RELATIVE HUMIDITY			X					900 X		9
SUPPLY FAN VFD KW								X X	X	
RELIEF FAN VFD KW								X X	X	9
DUCT HIGH PRESSURE SAFETY	X X							X X		
FILTER DP			X					900 X		
SUPPLY DUCT STATIC PRESSURE			X					900 X		7
RELIEF DAMPER CLOSED STATUS			X					X X		6
RETURN AIR TEMPERATURE			X					900 X		
RETURN AIR RELATIVE HUMIDITY			X					900 X		
MINIMUM OUTSIDE AIR DAMPER OPEN STATUS		X						X X		6
MINIMUM OUTSIDE AIR DAMPER CLOSED STATUS		X						X X		6
MAIN SYSTEM SD OR FSD END SWITCH OPEN STATUS		X						X X		6
MAIN SYSTEM SD OR FSD END SWITCH CLOSED STATUS		X						X X		6
MINIMUM OUTSIDE AIR DAMPER				X	X			X X		
RETURN AIR DAMPER					X			900 X		
RETURN AIR DAMPER OPEN STATUS		X						X X		6
RETURN AIR DAMPER CLOSED STATUS		X						X X		6
MAXIMUM OUTSIDE AIR DAMPER						X		900 X		C
COOLING COIL CONTROL				X	X			900 X		
HEATING COIL CONTROL				X	X			900 X		
SUPPLY FAN START/STOP				X	X			X X		
SUPPLY FAN SPEED CONTROL				X	X			900 X		
SUPPLY FAN VFD RUN STATUS	X					X		X X		3
SUPPLY FAN VFD FAULT STATUS		X						X X		
SUPPLY FAN VFD ALARM STATUS		X						X X		
RELIEF FAN START/STOP				X	X			X X		
RELIEF FAN SPEED CONTROL				X	X			X X		
RELIEF FAN VFD RUN STATUS	X					X		X X		3
RELIEF FAN VFD FAULT STATUS		X						X X		
RELIEF FAN VFD ALARM STATUS		X						X X		
RELIEF FAN AIRFLOW				X				300 X		
RELATIVE HUMIDITY HIGH LIMIT		X		X				X X		
BRANCH SYSTEM SD OR FSD END SWITCH OPEN STATUS		X						X X		6
BRANCH SYSTEM SD OR FSD END SWITCH CLOSED STATUS		X						X X		6

- NOTES:
- FAILURE MODE
 - O - ON OR OPEN
 - C - OFF OR CLOSE
 - L - LAST COMMAND
 - WHERE FAILURE MODE IS INDICATED, THE INDICATED POSITION SHALL OCCUR ON FAILURE OF THE BCS CONTROLLER OR ITS OUPUT FOR ANY REASON.
 - FAN SHALL FAIL TO 50% SPEED.
 - SELECT APPROPRIATE NUMBER OF STAGES FOR PREHEAT OR SELECT SCR. DO NOT SELECT BOTH.
 - PROVIDE BAGNET INTEGRATION OF ALL AVAILABLE POINTS FROM VFD
 - MONITOR OPEN AND CLOSED STATUS OF DAMPER END SWITCHES FROM TWO SEPARATE END SWITCHES INSTALLED ON DAMPER SHAFT.
 - DUCT STATIC PRESSURE SENSORS ARE SHOWN ON THE DUCTWORK FLOORPLANS.
 - PROVIDE GRAPHICS AND TRENDS FOR ALL POINTS LISTED IN I/O SUMMARY.
 - PROVIDE HOURLY, DAILY, WEEKLY, MONTHLY, & YEARLY TOTALIZATION OF KWH. KWH VALUE SHALL BE TRENDED AND RESET AT THE END OF EACH PERIOD.

2 CONTROL POINTS FOR AHU-1
NO SCALE

SEQUENCE OF OPERATION:

THE CONTROLS FOR SYSTEM AHU-1 (SERVING PATIENT CARE) SHALL FUNCTION AS FOLLOWS:

- SYSTEM START-UP:** THE SYSTEM SHALL BE AUTOMATICALLY STARTED AND STOPPED BY THE BCS CONTROLLER WHENEVER THE SYSTEM IS IN THE MANUAL MODE, OR IN AUTOMATIC MODE AND ANY OF THE BELOW ARE TRUE:
 - THE TIME OF DAY IS BETWEEN THE SCHEDULED OCCUPIED START AND STOP TIMES.
 - THE SCHEDULE HAS BEEN OVERRIDDEN BY THE OPERATOR.
 - ANY ZONE LOCAL OVERRIDE TIMER (INITIATED BY LOCAL OVERRIDE BUTTON) IS NONZERO.
 - THE UNIT OPERATES 24/7.

- DAMPER AND FAN PRE-START STATUS:** PRIOR TO FAN STARTING, THE SYSTEM DAMPERS AND FANS SHALL HAVE THE FOLLOWING STATUSES:

DAMPER/FAN	STATUS	PROVEN STATUS
OUTSIDE AIR DAMPER	CLOSED	CLOSED
DISCHARGE DAMPER	OPEN	OPEN
SMOKE DAMPER	OPEN	OPEN
MAIN ISOLATION DAMPER	OPEN	OPEN
RETURN AIR DAMPER	OPEN	OPEN FOR 1 MINUTE
RELIEF AIR DAMPER	CLOSED	CLOSED
RELIEF FAN	OFF	OFF
EXHAUST FAN EF-1	OFF	OFF

*INCLUDES SMOKE AND FIRE/SMOKE DAMPERS.
**IF COMPLETE FLOW PATH IS BLOCKED BY BRANCH DAMPERS BEING CLOSED THE UNIT SHALL NOT START.

- UNIT START-UP (PRE-HEAT & PRE-COOL):** ON UNIT START-UP, THE SYSTEM SHALL RUN. IF OUTSIDE AIR TEMPERATURE IS BELOW 55°F (ADJUSTABLE) CLOSE THE CHILLED WATER VALVE MODULATE THE HEATING COIL TO THE MAXIMUM DISCHARGE AIR TEMPERATURE SETPOINT. IF OUTSIDE AIR TEMPERATURE IS 55°F (ADJUSTABLE) OR HIGHER, DISABLE THE HEATING COIL, AND MODULATE THE DX COIL TO MAINTAIN MINIMUM DISCHARGE AIR TEMPERATURE SETPOINT. MODULATE THE SUPPLY FAN VARIABLE FREQUENCY DRIVE TO MAINTAIN ALL SUPPLY DUCT STATIC PRESSURES AT OR ABOVE THEIR RESPECTIVE SETPOINT, AS DETERMINED DURING THE TESTING, ADJUSTING AND BALANCING PROCESS. UNIT START-UP SHALL CONTINUE FOR 30 MINUTES (ADJUSTABLE) OR UNTIL RETURN AIR TEMPERATURES IS WITHIN 2°F (ADJUSTABLE) OF THE OCCUPIED SPACE TEMPERATURE SETPOINTS FOR A PERIOD OF 5 MINUTES (ADJUSTABLE). UPON COMPLETION OF UNIT START-UP, OPEN THE MINIMUM OUTSIDE AIR DAMPER, START EXHAUST FAN ASSOCIATE WITH AHU AND START NORMAL OPERATION.

- HEATING COIL CONTROL:** THE PREHEAT COIL LEAVING AIR TEMPERATURE SETPOINT SHALL BE 3°F (ADJUSTABLE) LESS THAN THE SYSTEM DISCHARGE AIR TEMPERATURE SETPOINT, WITH A LOWER LIMIT OF 45°F. UPON A DROP IN MIXED AIR TEMPERATURE BELOW PREHEAT COIL LEAVING AIR TEMPERATURE SETPOINT, MODULATE THE CAPACITY OF ELECTRIC HEAT TO MAINTAIN PREHEAT COIL LEAVING AIR TEMPERATURE SETPOINT. THIS CONTROL SHALL REMAIN ACTIVE AT ALL TIMES, INCLUDING UNIT SHUTDOWN.

- DISCHARGE AIR TEMPERATURE CONTROL:** MODULATE THE DX COIL TO MAINTAIN THE SYSTEM DISCHARGE AIR TEMPERATURE SETPOINT.

- SUPPLY DUCT STATIC PRESSURE CONTROL:** MODULATE THE SUPPLY FAN VARIABLE FREQUENCY DRIVE TO MAINTAIN ALL SUPPLY DUCT STATIC PRESSURES AT OR ABOVE THEIR RESPECTIVE SETPOINTS, AS DETERMINED DURING THE TESTING, ADJUSTING AND BALANCING PROCESS.

- AIR RELATIVE HUMIDITY CONTROL:** EVERY 10 MINUTES (ADJUSTABLE), THE BCS CONTROLLER SHALL EVALUATE RETURN AIR RELATIVE HUMIDITY. IF RETURN AIR RELATIVE HUMIDITY EXCEEDS 54% RH (ADJUSTABLE), DECREASE THE CURRENT SYSTEM DISCHARGE AIR TEMPERATURE SETPOINT BY 2°F. BETWEEN THE LIMITS OF THE INITIAL SETPOINT AND 5°F (ADJUSTABLE) BELOW THE INITIAL SETPOINT, IF, FOR 2 CONSECUTIVE EVALUATION CYCLES, THE RETURN AIR RELATIVE HUMIDITY IS BELOW 49% RH (ADJUSTABLE), RETURN THE SYSTEM DISCHARGE AIR TEMPERATURE SETPOINT TO THE INITIAL SETPOINT.

- MINIMUM OUTSIDE AIR CONTROL:** FIVE MINUTES AFTER UNIT STARTUP, ALLOW THE RETURN AIR DAMPER TO MODULATE TO MAINTAIN THE MINIMUM OUTDOOR AIR SETPOINT AS MEASURED BY THE OUTDOOR AIR AIRFLOW MEASUREMENT SYSTEM. EVALUATE THE OUTSIDE AIR VOLUME ON 5-MINUTE INTERVALS (ADJUSTABLE).
- ECONOMIZER MODE:** INITIATE ECONOMIZER OPERATION ON A DROP IN OUTSIDE AIR (ADJUSTABLE) DRY BULB TEMPERATURE BELOW SETPOINT FOR 15 MINUTES (ADJUSTABLE). DURING ECONOMIZER OPERATION, MODULATE THE OUTSIDE AIR DAMPER TO MAINTAIN A MIXED AIR TEMPERATURE EQUAL TO 2°F LESS THAN DISCHARGE AIR TEMPERATURE SETPOINT. A DROP IN MIXED AIR TEMPERATURE BELOW 45°F SHALL OVERRIDE OTHER DAMPER CONTROLS AND MODULATE THE OUTSIDE AIR DAMPER TO LIMIT MIXED AIR TEMPERATURE TO 45°F

A. RELIEF FAN AND RELIEF DAMPER CONTROL:

- MEASURE OUTSIDE AIR AND RELIEF AIRFLOWS:** VOLUMETRIC AIRFLOW FOR MAXIMUM OUTSIDE AIR AND RELIEF AIR SHALL BE MEASURED BY AN AIRFLOW MEASUREMENT STATION IN EACH AIR PATH. THE PRESSURIZATION AIRFLOW SHALL BE CALCULATED AS THE DIFFERENCE BETWEEN THE TWO AIRFLOWS.
- IF CONDITIONS ARE MET, START THE RELIEF FAN AND MODULATE THE VFD:** ON A RISE IN MEASURED MAXIMUM OUTSIDE AIRFLOW ABOVE 1000 CFM, OPEN THE RELIEF DAMPER. ONCE THE RELIEF DAMPER IS PROVEN OPEN, START THE RELIEF FAN AND MODULATE THE FAN VARIABLE FREQUENCY DRIVE TO MAINTAIN A PRESSURIZATION AIRFLOW OF 600 (ADJUSTABLE).
- IF CONDITIONS ARE MET, STOP THE RELIEF FAN AND CLOSE THE RELIEF DAMPER:** IF THE RELIEF FAN HAS BEEN OPERATING AT MINIMUM SPEED FOR 10 MINUTES, STOP THE RELIEF FAN AND CLOSE THE RELIEF DAMPER.

- HIGH PRESSURE SAFETY:** A HIGH PRESSURE SAFETY SENSING DISCHARGE STATIC PRESSURE SET AT 20% LESS THAN DUCT PRESSURE RATING SHALL STOP THE FAN.

- SHUTDOWN:** ON POWER INTERRUPTION OR FAN SHUTDOWN, CLOSE THE MINIMUM AND MAXIMUM OUTSIDE AIR, RELIEF, SMOKE, AND RETURN DAMPERS, CLOSE DX COIL CONTROL AND THE HEATING COIL CONTROL. DEACTIVATE THE ELECTRIC HEATING COILS.

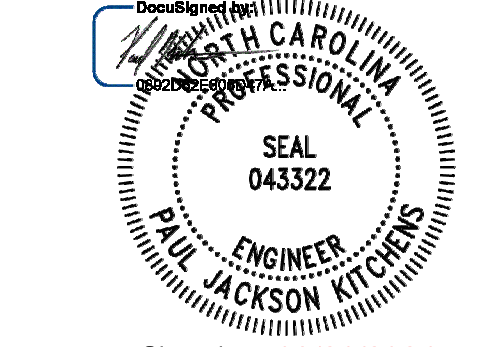
- FIRE ALARM SYSTEM:** ON ACTIVATION OF THE FIRE ALARM SYSTEM RELAY, THE SYSTEM SHALL SHUT DOWN.



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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401

DATE	DESCRIPTION
2024.01.31	100% Design Development
2024.08.21	Big / Permit Set

SHEET NAME:
HVAC CONTROLS

ORIG SUBMISSION: 2024.04.17

SHEET: **M-703**

BID/ PERMIT SET

THE LINE SHOWN ABOVE IS EXACTLY
THE POSITION OF THE CENTER
OF THE DUCT OR CABLE

E

D

C

B

A

8/27/2024, 2:14:45 PM

LIGHTNING PROTECTION SYSTEM GENERAL NOTES

- CONDUCTORS SHALL INTERCONNECT AIR TERMINALS AND FORM A TWO-WAY PATH FROM EACH POINT, HORIZONTALLY OR DOWNWARD, TO CONNECTIONS WITH GROUND TERMINALS.
- LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED NO MORE THAN 36" OC.
- NO BEND OF CONDUCTOR SHALL FORM A FINAL INCLUDED ANGLE OF LESS THAN 90° OR HAVE A RADIUS OF BEND LESS THAN 8". ANY RISE IN A HORIZONTAL CONDUCTOR RUN SHALL NOT EXCEED 6".
- AIR TERMINALS SHALL BE PLACED 20" OC MAXIMUM AROUND ROOF PERIMETER OR RIDGE AND WITHIN 2' OF OUTSIDE EDGE AND SHALL PROJECT A MINIMUM OF 10" ABOVE THE AREA PROTECTED.
- MIDROOF AIR TERMINALS SHALL BE PLACED 50" OC MAXIMUM.
- PRIMARY METAL BODIES (OF CONDUCTANCE) LOCATED ABOUT THE ROOF (EXHAUST FANS, COOLING TOWERS, ETC) SHALL BE BONDED WITH FULL SIZE CONDUCTORS FITTED WITH AIR TERMINALS IF THEY ARE AS HIGH, OR HIGHER, THAN ADJACENT AIR TERMINALS, UNLESS LOCATED ENTIRELY WITHIN A ZONE OF PROTECTION AS DEFINED BY CODE.
- SECONDARY METAL BODIES (OF INDUCTANCE) LOCATED ABOUT THE ROOF (FLASHINGS, GRAVEL STOPS, ROOF DRAINS, SOIL PIPE VENTS, LOUVERS, DOOR FRAMES, ETC) WITHIN 6' OF THE MAIN CONDUCTOR OR BONDED BODY SHALL BE INTERCONNECTED WITH SECONDARY BONDING CONDUCTORS.
- BIMETAL CONNECTORS SHALL BE USED WHERE DISSIMILAR METALS COME IN CONTACT WITH EACH OTHER. COPPER LIGHTNING PROTECTION MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM SURFACES NOR SHALL ALUMINUM BE INSTALLED ON COPPER SURFACES.
- CONNECTIONS TO GROUND RODS (OR COUNTERPOISE) SHALL BE MADE NO LESS THAN 2' BELOW GRADE AND 2' FROM FOUNDATION.
- THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN A NEAT AND INCONSPICUOUS MANNER.
- ELECTRIC AND TELEPHONE SERVICE ENTRANCE GROUNDS SHALL BE INTERCONNECTED TO THE LIGHTNING PROTECTION SYSTEM GROUND OR WATER PIPE.
- CONNECTIONS OF UNDERGROUND METAL PIPING SYSTEMS TO THE LIGHTNING PROTECTION SYSTEM GROUND SHALL BE MADE AT THEIR SERVICE ENTRANCE TO STRUCTURE.
- ADHESIVE FIXTURES SHALL BE SET WITH AN ADHESIVE COMPOUND COMPATIBLE WITH THE ROOFING MATERIALS. ADHESIVE SHALL BE APPROVED IN ADVANCE BY ROOFING CONTRACTOR.
- SEAL ENDS OF CONDUITS MOISTURE-TIGHT WITH DUCT SEAL OR LEAD WEDGES UNLESS OTHERWISE INDICATED.
- WHERE THE STRUCTURAL STEEL FRAMEWORK IS UTILIZED AS MAIN CONDUCTORS FOR THE SYSTEM, PERIMETER COLUMNS SHALL BE GROUNDED AT INTERVALS AVERAGING NOT MORE THAN 60' APART. COLUMNS SHALL BE GROUNDED USING BONDING PLATES HAVING 8 SQUARE INCHES OF SURFACE CONTACT AREA OR BY EXOTHERMIC WELDED CONNECTIONS.
- LIGHTNING PROTECTION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE APPLICABLE VERSION OF NFPA 780 AND UL 96A.

UNDERGROUND DUCTS & CABLES	
SYMBOL	DESCRIPTION (ITEMS SHOWN DASHED AND HALFTONE ARE EXISTING, UON)
PB #	MANHOLE, WITH IDENTIFICATION NUMBER.
○	
— UP —	UNDERGROUND PRIMARY.
— US —	UNDERGROUND SECONDARY.
— UE —	UNDERGROUND EMERGENCY.
— UC —	UNDERGROUND COMMUNICATIONS.

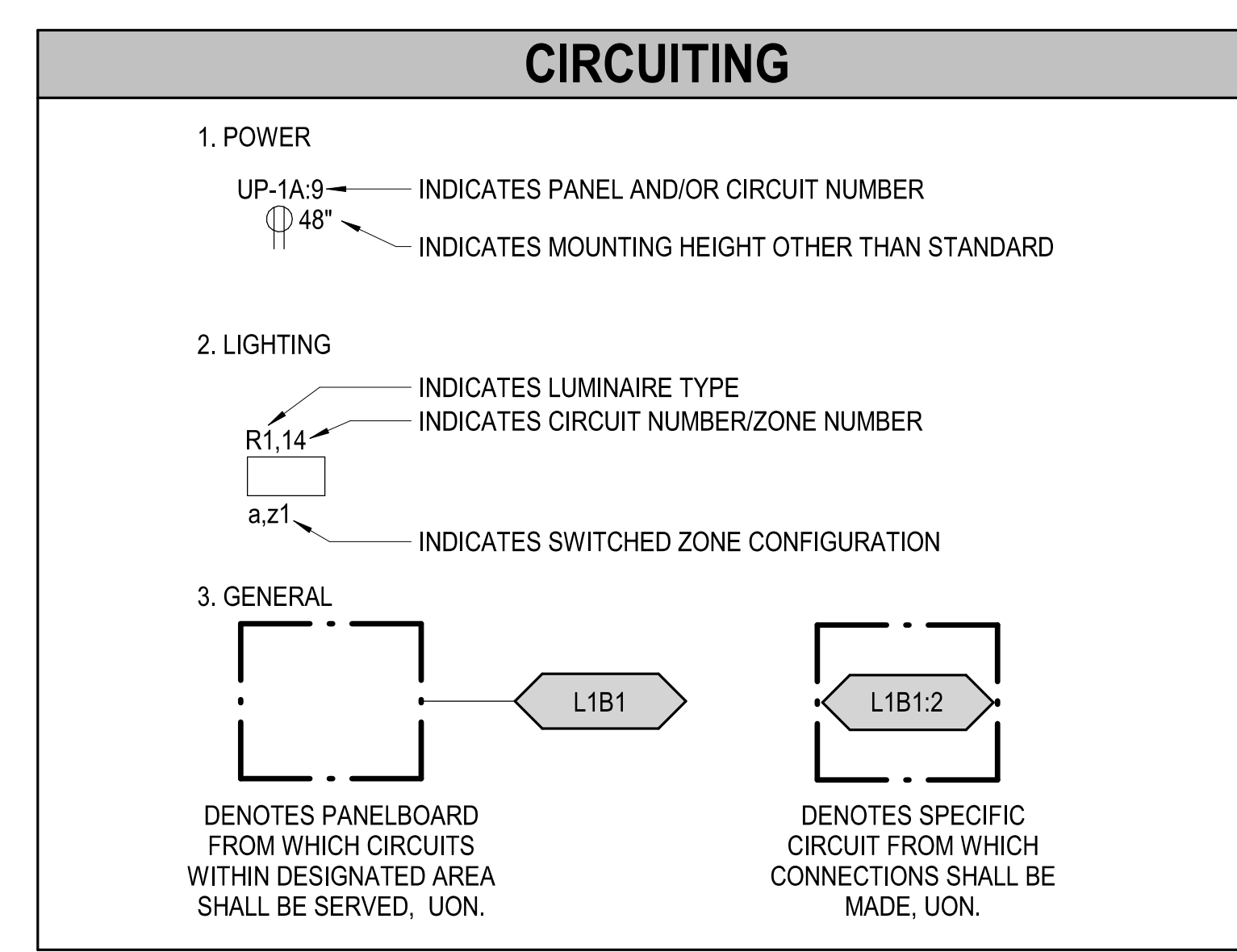
ELECTRICAL EQUIPMENT	
SYMBOL	DESCRIPTION (ITEMS SHOWN HALFTONE ARE EXISTING)
	BRANCH PANELBOARD - WALL-MOUNTED, RECESSED-MOUNTED SURFACE-MOUNTED 480/277 V, 208/120 V
	WALL-MOUNTED LOAD CENTER, 208/120 V SINGLE-PHASE.
	DISTRIBUTION PANELBOARD, 480/277 V, 208/120 V
	PAD-MOUNT TRANSFORMER, SHOWN WITH CONCRETE PAD AND WORKING CLEARANCE.
	MISCELLANEOUS EQUIPMENT AS IDENTIFIED, SHOWN WITH CONCRETE PAD.
	DRY-TYPE TRANSFORMER, FLOOR MOUNTED.
	DRY-TYPE TRANSFORMER, SUSPENDED TO STRUCTURE.
	DRY-TYPE TRANSFORMERS, FLOOR MOUNTED, WITH SECOND DRY-TYPE TRANSFORMER STACKED ABOVE. STAND CONSTRUCTION SHALL BE REVIEWED AND APPROVED BY A LICENSED STRUCTURAL ENGINEER.
	INDIVIDUAL CIRCUIT BREAKER, TRIP/POLES, MOUNT 48" AFF, UNLESS OTHERWISE NOTED.
	DISCONNECT SWITCH, SIZE/POLES/FUSE/ENCLOSURE TYPE IF OTHER THAN NEMA 1, MOUNT 48" AFF, UNLESS OTHERWISE NOTED.
	MOTOR, NUMERAL INDICATES HP, "F" INDICATES FRACTIONAL HORSE POWER.
	MOTOR CONTROLLER, MOUNT 48" AFF, UNLESS OTHERWISE NOTED.
	COMBINATION MOTOR CONTROLLER/DISCONNECT, MOUNT 48" AFF, UON.
	MOTOR STARTER, MANUAL WITH THERMAL OVERLOAD, MOUNT 48" AFF, UON.
	GROUNDING ELECTRODE.
	WOOD BACKBOARD.
	PULLBOX.
	ELECTRIC METER, LABEL INDICATES METER IDENTIFICATION.

RACEWAYS AND WIRES	
SYMBOL	DESCRIPTION
	RACEWAY CONCEALED IN FLOOR OR UNDERGROUND.
	RACEWAY CONCEALED IN CEILING CAVITY OR WALL.
	RACEWAY EXPOSED TO VIEW UNLESS OTHERWISE NOTED.
	FLEXIBLE RACEWAY.
	RACEWAY HOMERUN TO PANEL, ONE ARROWHEAD PER CIRCUIT.
	3 WIRES #12 AWG IN CABLE OR CONDUIT, EXCLUDING GROUNDING CONDUCTOR. NOTE: NUMBER OF CROSS HATCHES INDICATES NUMBER OF #12 AWG CONDUCTORS, LESS GROUNDING CONDUCTOR. SHORT CROSS HATCH = PHASE CONDUCTOR, LONG CROSS HATCH = NEUTRAL, NO CROSS HATCHES INDICATES 2 #12 AWG EXCLUDING GROUNDING CONDUCTOR IN CABLE OR CONDUIT.

LUMINAIRES	
SYMBOL	DESCRIPTION
	RECESSED- OR SURFACE-MOUNTED, 2'x2', 2'x4', AND 1'x4'
	RECESSED- OR SURFACE-MOUNTED "NIGHT LIGHT" FIXTURE, UNSWITCHED AND TO REMAIN "ON" 24/7, 2'x2'
	LINEAR LUMINAIRE, RECESSED-, SURFACE-, OR PENDANT MOUNTED, LENGTH PER FLOOR PLANS.
	RECESSED DOWNLIGHT.
	WALL-MOUNTED LUMINAIRE.
	INDUSTRIAL STRIP LUMINAIRE.
	EXIT LIGHT, CEILING-, PENDANT-, OR WALL-MOUNTED. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ARROW AND FACE REQUIREMENTS. ELECTRICAL DRAWINGS REFERENCE LOCATIONS AND INDICATED CODE REQUIRED CIRCUIT INFORMATION.
	BATTERY-POWERED WALL-MOUNTED EMERGENCY LUMINAIRE.

WIRING DEVICES		
SYMBOL	DESCRIPTION	MOUNTING HEIGHT, AFF, UON
<ul style="list-style-type: none"> LETTER(S) ADJACENT TO SYMBOLS INDICATE TYPE, AS LISTED BELOW. SEE SPECIFICS RELATED TO EACH TYPE. SHADED REGION INDICATES PROVISIONS FOR EMERGENCY POWER, UNLESS OTHERWISE NOTED. ITEMS SHOWN HALFTONE ARE EXISTING. 		
WALL MOUNTED WIRING DEVICE NOTATION (X) LEGEND: BLANK - STANDARD DEVICE. S - AUTOMATICALLY CONTROLLED RECEPTACLE. USB - USB RECEPTACLE. IG - ISOLATED GROUND. WP - WEATHER RESISTANT, WITH WEATHERPROOF FACEPLATE. TV - RECEPTACLE FOR TV MONITOR, MOUNT WITHIN DISPLAY BOX, COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND OTHER DETAILS.		
	DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED.	18"
	DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED, ABOVE COUNTER.	
	GFCI DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED.	18"
	GFCI DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED, ABOVE COUNTER.	
	DOUBLE DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED.	18"
	GFCI DOUBLE DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED.	18"
	DOUBLE DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED, ABOVE COUNTER.	
	GFCI DOUBLE DUPLEX RECEPTACLE OUTLET, WALL-MOUNTED, ABOVE COUNTER.	
	SINGLE RECEPTACLE OUTLET, STRAIGHT-BLADE, WALL-MOUNTED.	18"
	JUNCTION BOX, WALL-MOUNTED.	
	EMERGENCY POWER OFF SWITCH.	60"
	SPECIAL RECEPTACLE, WALL-MOUNTED, TYPE AS INDICATED.	
	JUNCTION BOX, FLOOR MOUNTED, FLUSH WITH FLOOR.	
	JUNCTION BOX, ABOVE CEILING.	
	DUPLEX RECEPTACLE, CEILING-MOUNTED.	
FLOOR BOX: A - POWER AND DATA FLOOR BOX WITH CONNECTRAC EXPRESS KIT CONNECTION, LEGRAND WIREMOLD SERIES, COORDINATE FINISH WITH ARCHITECT. COORDINATE DATA WITH TELECOM DRAWINGS.		

LIGHTING CONTROL DEVICES		
SYMBOL	DESCRIPTION	MOUNTING HEIGHT, AFF, UON.
WALL MOUNTED LIGHTING CONTROL NOTATION (X) LEGEND: BLANK - SINGLE-POLE, SINGLE-THROW 3 - 3-WAY, SINGLE-POLE, DOUBLE-THROW 4 - 4-WAY, DOUBLE-POLE, DOUBLE-THROW OS - OCCUPANCY SENSOR TYPE VS - VACANCY SENSOR TYPE TS - TIMER SWITCH WP - WEATHERPROOF, SINGLE-POLE, SINGLE-THROW		
	LOW VOLTAGE SWITCH, WALL-MOUNTED.	
	LOW VOLTAGE DIMMER, WALL-MOUNTED. BLANK - 0-10 VOLT	COORD WITH ARCH
	NETWORKED LIGHTING CONTROL STATION, DESIGNATION INDICATED. SEE LIGHTING CONTROL MATRIX SCHEDULE FOR SEQUENCE OF OPERATIONS.	COORD WITH ARCH
	CEILING-MOUNTED LIGHTING CONTROL DEVICE, (X - SWITCHED ZONE CONTROL AS INDICATED), TYPE AS INDICATED. OS - OCCUPANCY SENSOR VS - VACANCY SENSOR PS - PHOTOSENSOR	
	EMERGENCY LIGHTING CONTROL RELAY.	
	TIME SWITCH.	
	PHOTOCELL.	
	CONTACTS, NORMALLY OPEN.	
	CONTACTS, NORMALLY CLOSED.	



APPLICABLE BUILDING CODES	
CODES AND STANDARDS:	
MECHANICAL CODE:	2018 NORTH CAROLINA STATE MECHANICAL CODE
PLUMBING CODE:	2018 NORTH CAROLINA STATE PLUMBING CODE
ELECTRICAL CODE:	2020 NORTH CAROLINA STATE ELECTRICAL CODE
FIRE CODE:	2018 NORTH CAROLINA STATE FIRE CODE
ENERGY CODE:	2018 NORTH CAROLINA STATE ENERGY CODE

ABBREVIATIONS			
A	AMPERES	IG	ISOLATED GROUND
AFF/AFG	ABOVE FINISHED FLOOR/GRADE	IMC	INTERMEDIATE METAL CONDUIT
ABV	ABOVE	JB	JUNCTION BOX
AC	ALTERNATING CURRENT	K	CAP EXISTING OUTLET
AFCI	ARC FAULT CIRCUIT INTERRUPTER	kmil	THOUSAND CIRCULAR MILLS
AHU	AIR HANDLING UNIT	KVA	KILOVOLT AMPERES
AIC	AVAILABLE INTERRUPTING CAPACITY	kW	KILOWATTS
AL	ALUMINUM	LCM	LIGHTING CONTROL MODULE
ARCH	ARCHITECT/ARCHITECTURAL	LED	LIGHT-EMITTING DIODE
ATS	AUTOMATIC TRANSFER SWITCH	LUMNR	LUMINAIRE
AV	AUDIO/VISUAL	LSIG	LONG-TIME/SHORT-TIME/INSTANTEOUS/GROUND-FAULT LIGHTING
BAS	BUILDING AUTOMATION SYSTEM	LTG	LOW VOLTAGE
BEL	BELOW	LV	LOW VOLTAGE
BF	BELOW FLOOR	MC	METAL-CLAD CABLE
BFC	BELOW FINISHED CEILING	MCB	MAIN CIRCUIT BREAKER
BM	BEAM	MCC	MOTOR CONTROL CENTER
C	CONDUIT	MECH	MECHANICAL
CB	CIRCUIT BREAKER	MGB	MAIN GROUND BAR
CIS	CENTRAL INVERTER SYSTEM	MLO	MAIN LUGS ONLY
CKT	CIRCUIT	MTS	MANUAL TRANSFER SWITCH
CLG	CEILING	NC	NORMALLY CLOSED
COL	COLUMN	NEC	NATIONAL ELECTRIC CODE (NFPA 70)
COMM	COMMUNICATION	NF	NON-FUSIBLE
CONN	CONNECT/CONNECTION	NO	NORMALLY OPEN
CONT	CONTINUATION/CONTINUOUS	OAH	OVERALL HEIGHT
CR	CARD READER	OC	ON CENTER
CTE	CONNECT TO EXISTING	OC	OVERCURRENT PROTECTION
CU	COPPER	OS	OCCUPANCY SENSOR
DC	DIRECT CURRENT	PC	PHOTOCELL
DISC	DISCONNECT	PH OR Ø	PIR
DOAS	DEDICATED OUTSIDE AIR SYSTEM	PL	PILOT LIGHT
DN	DOWN	PNL	PANEL
DT	DUAL-TECHNOLOGY	PS	PHOTOSENSOR
EC	EMPTY CONDUIT	PT	POKE-THRU FITTING
ELEC	ELECTRICAL	PV	PHOTO-VOLTAIC
ELEV	ELEVATOR	PVC	POLYVINYL CHLORIDE CONDUIT
EMT	ELECTRICAL METALLIC TUBING	RC	REMOTE CONTROL
ENT	ELECTRICAL NONMETALLIC TUBING	RCPT	RECEPTACLE
EPM	ELECTRONIC POWER MONITORING	REL	RELOCATE
EPO	EMERGENCY POWER OFF	REM	REMOVE
EPSS	EMERGENCY POWER SUPPLY SYSTEM	RPM	ROTATION PER MINUTE
ERU	ENERGY RECOVERY UNIT	SC	SPLIT CIRCUIT
EV	ELECTRICAL VEHICLE	SCCR	SHORT CIRCUIT CURRENT RATING
EX	EXISTING	SEC	SECURITY
EXP	EXPOSED	SPEC	SPECIFICATION
F	FUSED	SPDT	SINGLE-POLE DOUBLE-THROW
F	FUSED PER MANUFACTURER'S REQUIREMENTS	ST	SHUNT TRIP
FA	FIRE ALARM	SW	SWITCH
FACP	FIRE ALARM CONTROL PANEL	SWBD	SWITCHBOARD
FCU	FAN COIL UNIT	SWGR	SWITCHGEAR
FL	FLOOR	TELE	TELEPHONE
FLA	FULL LOAD AMPS	TS	TIME SWITCH
G	GROUND	TYP	TYPICAL
GB	GROUND BAR	UG	UNDERGROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UH	UNIT HEATER
GFP	GROUND FAULT PROTECTION	UON	UNLESS OTHERWISE NOTED
GR	GRADE	UPS	UNINTERRUPTIBLE POWER SUPPLY
GRC	RIGID METAL CONDUIT	V	VOLTAGE
GRS	GALVANIZED RIGID STEEL CONDUIT	VFC	VARIABLE FREQUENCY CONTROLLER
HP	HORSEPOWER	VS	VACANCY SENSOR
HOA	HAND-OFF-AUTOMATIC	WH	WATER HEATER
H	HERTZ	WP	WEATHER PROOF
		WSP	WATER SOURCE HEAT PUMP
		XFMR	TRANSFORMER

MECHANICAL CONNECTIONS	
MECHANICAL EQUIPMENT IS DENOTED WITH SYMBOLS WHICH REPRESENT THE ACTUAL EQUIPMENT.	
SYMBOLS INDICATED WITH AN UNDERLINED TAG ARE MECHANICAL EQUIPMENT WHICH REQUIRE AN ELECTRICAL CONNECTION. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO:	
REFER TO BUILDING-SPECIFIC MECHANICAL EQUIPMENT CONNECTION SCHEDULE AND REFER TO ONE-LINES, SWITCHBOARD SCHEDULES, OR PANELBOARD SCHEDULES FOR CIRCUIT INFORMATION.	

SPECIAL OUTLET SCHEDULE	
TYPE	DESIGNATION
A	NEMA 14-30R RECEPTACLE FOR USE WITH LAUNDRY DRYER, 3 PHASE, 4 WIRE, COORDINATE CONNECTION WITH EQUIPMENT PROVIDED.

DISCLAIMER

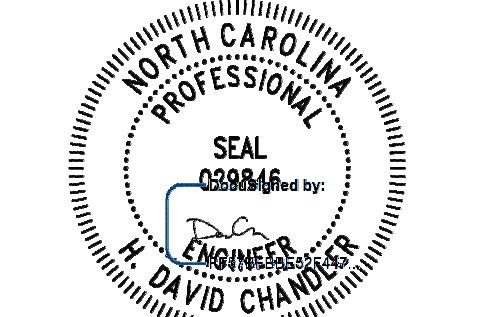
SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION DEPICTED ON THIS SHEET ARE FOR INFORMATION ONLY AND SHALL NOT CONSTITUTE A CHECKLIST FOR SCOPE INCLUDED IN THIS CONTRACT. ITEMS SHOWN ON THIS SHEET MAY NOT APPEAR AGAIN IN THE ELECTRICAL SERIES.



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**NEW HANOVER COUNTY
 STAR CENTER**
 1605 Robin Hood Rd. - Wilmington, NC 28401
 LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
C 2024.01.31	100% Design Development
D 2024.08.21	Big / Permit Set

SHEET NAME:
 ELECTRICAL GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS
ORIG SUBMISSION: 2024.04.17

SHEET:
E-001

BID/ PERMIT SET

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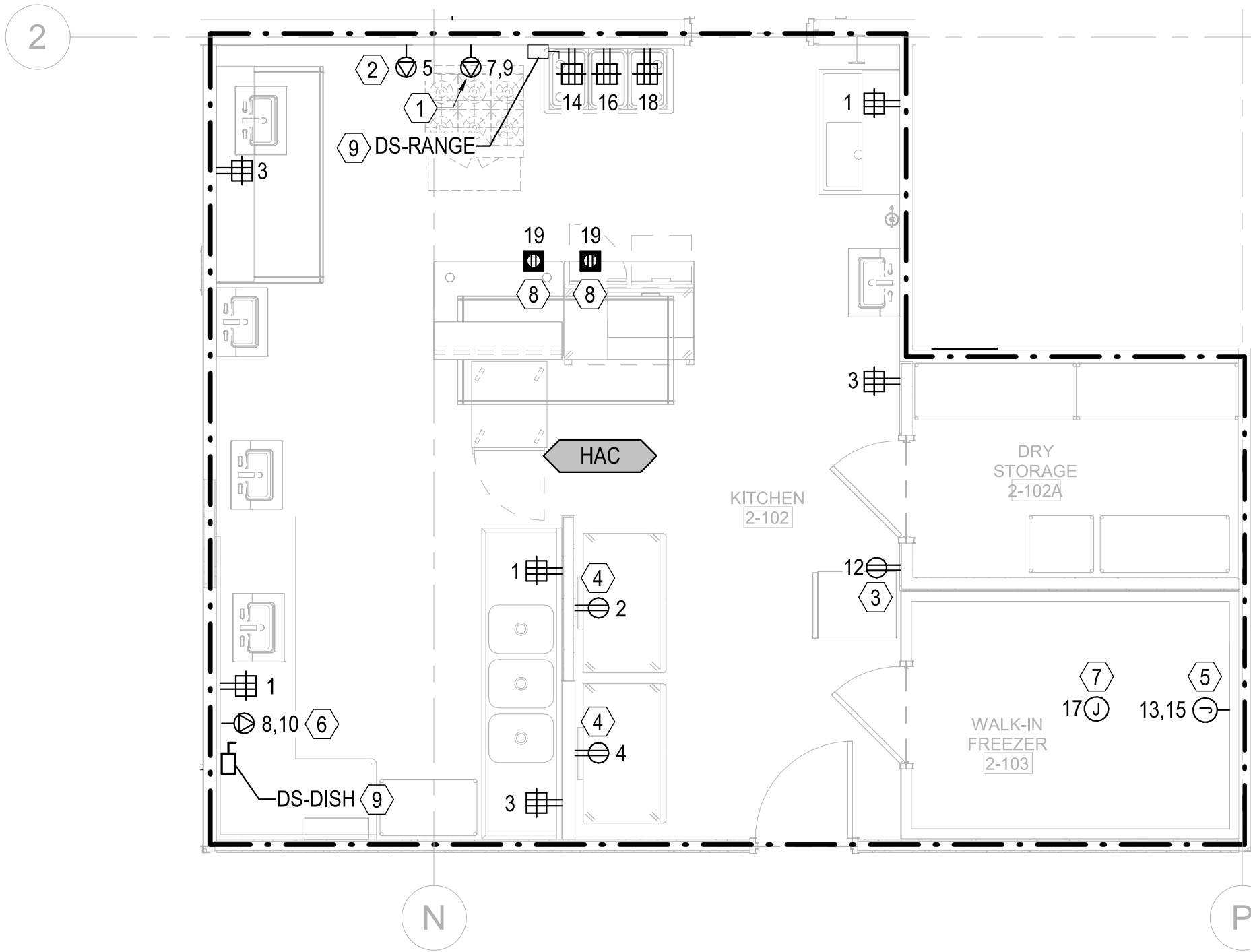
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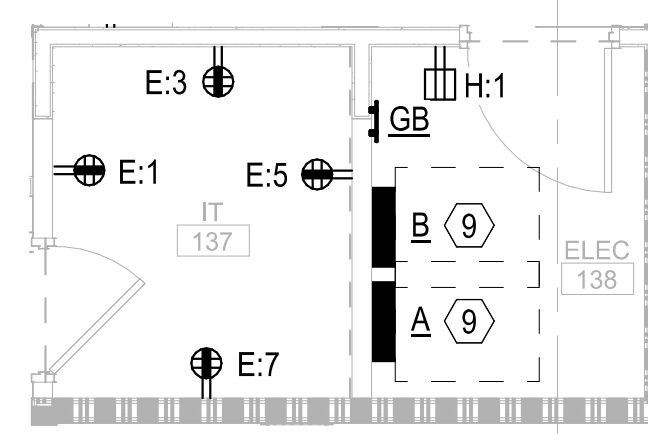
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KEY NOTES (KITCHEN VIEW ONLY):

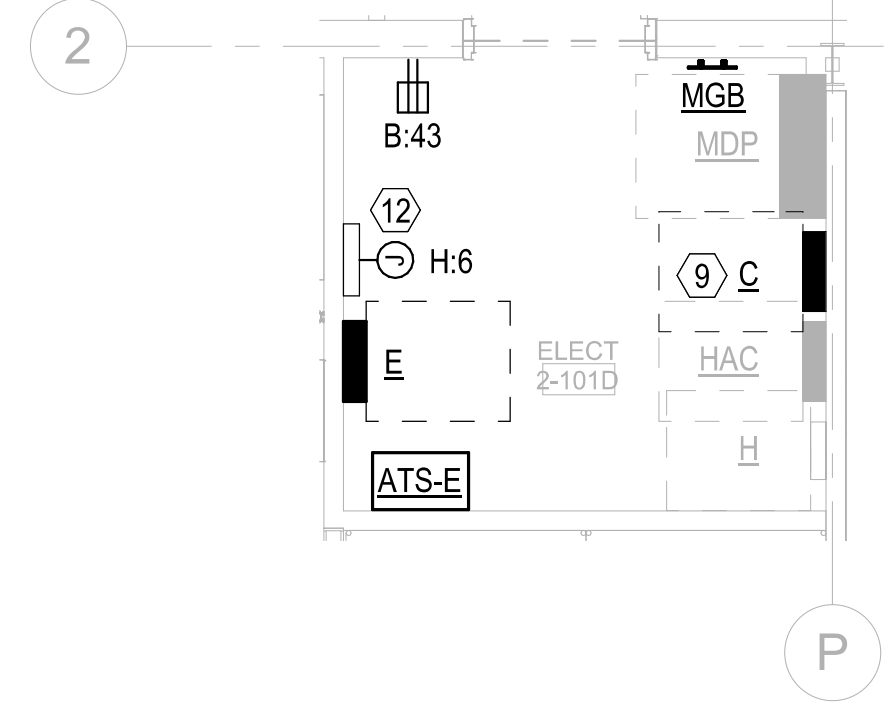
- 1 FOR CONNECTIONS TO ELECTRIC RANGE. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT PROVIDED. PROVIDE SHUNT TRIP BREAKER.
- 2 FOR CONNECTION TO KITCHEN EXHAUST HOOD. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT PROVIDED.
- 3 FOR CONNECTION TO ICE MAKER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT PROVIDED. PROVIDE GFCI TYPE BREAKER.
- 4 FOR CONNECTIONS TO REFRIGERATED CABINET. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT PROVIDED. PROVIDE GFCI TYPE BREAKER.
- 5 FOR CONNECTION TO COMPRESSOR FOR WALK-IN FREEZER. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH EQUIPMENT.
- 6 FOR CONNECTION TO DISHWASHER. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH EQUIPMENT PROVIDED.
- 7 FOR CONNECTION TO FREEZER LIGHTS AND HOOD FAN. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT.
- 8 PROVIDE GFCI TYPE BREAKER.
- 9 EXISTING EQUIPMENT DISCONNECT TO BE REUSED IN NEW WORK. DISCONNECTS WHICH CANNOT BE REUSED IN THE NEW WORK SHALL MATCH EXISTING IN RATING AND BE PROVIDED A NEMA 4X ENCLOSURE.



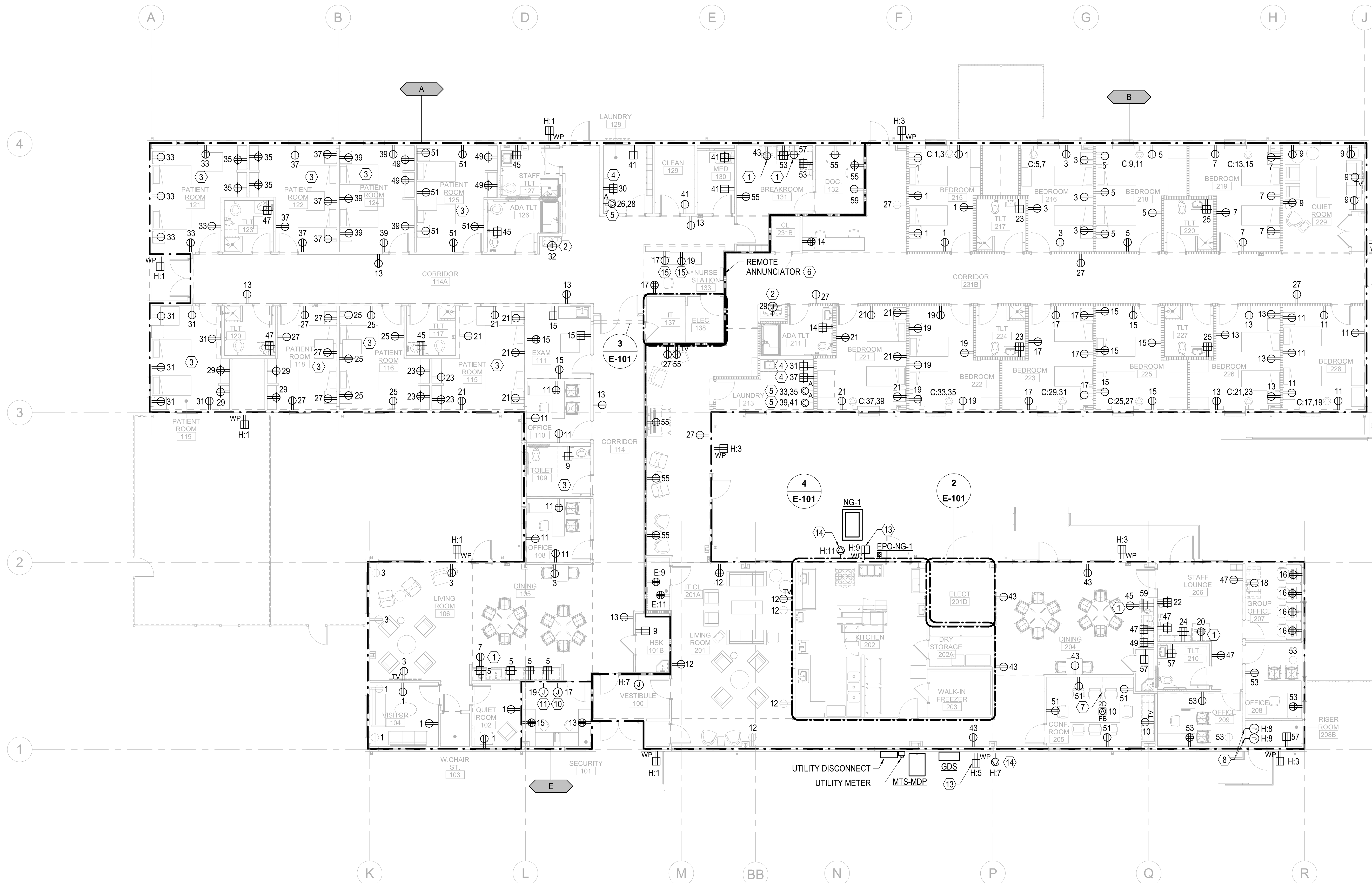
4 ELECTRICAL POWER - KITCHEN - 2-102
1/4" = 1'-0"



3 ELECTRICAL POWER - I.T. & ELEC - 1-137 & 1-138
1/4" = 1'-0"



2 ELECTRICAL POWER - ELECT 2-101D
1/4" = 1'-0"



1 ELECTRICAL POWER - LEVEL 01
1/8" = 1'-0"

GENERAL NOTES:

1. EXISTING EQUIPMENT AND DEVICES ARE SHOWN AS HALFTONED.
2. REFER TO ELECTRICAL SCHEDULE SHEETS FOR MECHANICAL AND ELECTRICAL EQUIPMENT CONNECTION SCHEDULES.
3. PROVIDE LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH APPLICABLE NFPA 780 AND UL 96A CODES. REFERENCE SHEET E-001 LIGHTNING PROTECTION NOTES AND SPECIFICATION SECTION 264113 FOR ADDITIONAL INFORMATION.
4. REFER TO SHEET E-010 FOR INFORMATION REGARDING OUTDOOR SITE EQUIPMENT AND CONNECTIONS.
5. ALL RECEPTACLES SHALL BE TAMPER-RESISTANT, UON. REPLACE ANY EXISTING RECEPTACLES WITH NEW TAMPER-RESISTANT DEVICES AND REUSE EXISTING BACKBOX AS FEASIBLE.

KEY NOTES:

- 1 PROVIDE BLANK FACE GFCI TEST OUTLET IN AN ACCESSIBLE LOCATION MOUNTED ABOVE COUNTER. LABEL WITH CORRESPONDING DEVICE PROTECTED (REFRIGERATOR, MICROWAVE, ETC.).
- 2 FOR CONNECTION TO WATER FOUNTAIN. COORDINATE CONNECTION WITH EQUIPMENT PROVIDED.
- 3 PROVIDE AFCI PROTECTION IN CIRCUIT BREAKER SERVING CIRCUITS IN SPACE. REFER TO PANEL SCHEDULES FOR MORE INFORMATION.
- 4 FOR CONNECTION TO LAUNDRY ROOM WASHER. COORDINATE MOUNTING HEIGHT WITH EQUIPMENT PROVIDED.
- 5 FOR CONNECTION TO LAUNDRY ROOM DRYER. COORDINATE MOUNTING HEIGHT WITH EQUIPMENT PROVIDED. REFER TO THE SPECIAL OUTLET SCHEDULE ON SHEET E-001 FOR MORE INFORMATION.
- 6 REMOTE ANNUNCIATOR FOR GENERATOR AND TRANSFER SWITCHES POWERED FROM GENERATOR BATTERY. USE 1" C FOR CONNECTION.
- 7 PROVIDE AND INSTALL UNDERCARPET RACEWAY SYSTEM FOR POWER AND DATA CONNECTION TO FLOOR BOX. RACEWAY SHALL BE MINIMUM 0.75". MANUFACTURER SHALL BE LEGRAND CONNECTRAC OR APPROVED EQUAL. REFER TO TELECOM DRAWINGS FOR MORE INFORMATION REGARDING QUANTITY OF DATA POTS.
- 8 FOR CONNECTION TO FIRE ALARM CONTROL PANEL. COORDINATE LOCATION AND HEIGHT WITH EQUIPMENT PROVIDED.
- 9 EXISTING PANELBOARD TO BE UPSIZED FROM 42P TO 60P. REUSE EXISTING BACKBOX IF FEASIBLE. EXISTING FEEDERS AND CONDUIT TO BE REUSED.
- 10 FOR CONNECTION TO SECURITY LOADS. COORDINATE WITH TELECOM DRAWINGS FOR EXACT DEVICE LOCATIONS.
- 11 FOR CONNECTION TO LOW VOLTAGE LOADS. COORDINATE WITH TELECOM DRAWINGS FOR EXACT DEVICE LOCATIONS.
- 12 FOR CONNECTION TO LIGHTING CONTROL PANEL AND TIMECLOCK. COORDINATE CONNECTION WITH THE LIGHTING CONTROL SEQUENCE OF OPERATIONS ON SHEET E-602.
- 13 FOR CONNECTION TO GENERATOR BATTERY CHARGER. REFER TO SCHEDULES ON SHEET E-601 FOR MORE INFORMATION.
- 14 NEMA L5-30 OUTLET WITH WEATHERPROOF ENCLOSURE FOR CONNECTION TO GENERATOR BLOCK HEATER. REFER TO SCHEDULES ON SHEET E-601 FOR MORE INFORMATION.
- 15 INSTALL DESK RECEPTACLES INTO MILLWORK.



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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. - Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
C 2024.01.31	100% Design Development
D 2024.08.21	Blg / Permit Set

SHEET NAME:
ELECTRICAL
POWER - FLOOR
PLAN

ORIG SUBMISSION: 2024.04.17

SHEET: E-101

BID/ PERMIT SET

THE LINE SHOWN ABOVE IS EXACTLY
THE LOCATION OF THE
MECHANICAL EQUIPMENT

E

D

C

B

A



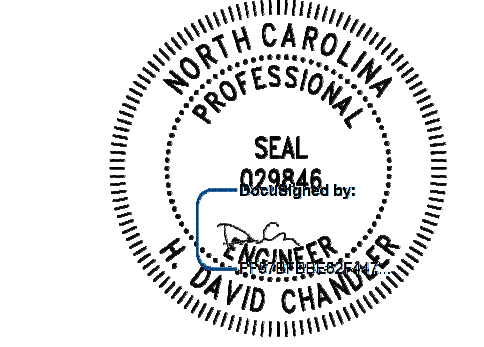
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GENERAL NOTES:
1. SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE
ON SHEET E-601 FOR ADDITIONAL CIRCUITING
INFORMATION.

KEY NOTES:
① FOR CONNECTION TO AHU LIGHTS AND RECEPTACLES.
② FOR CONNECTION TO AHU CONTROLS.



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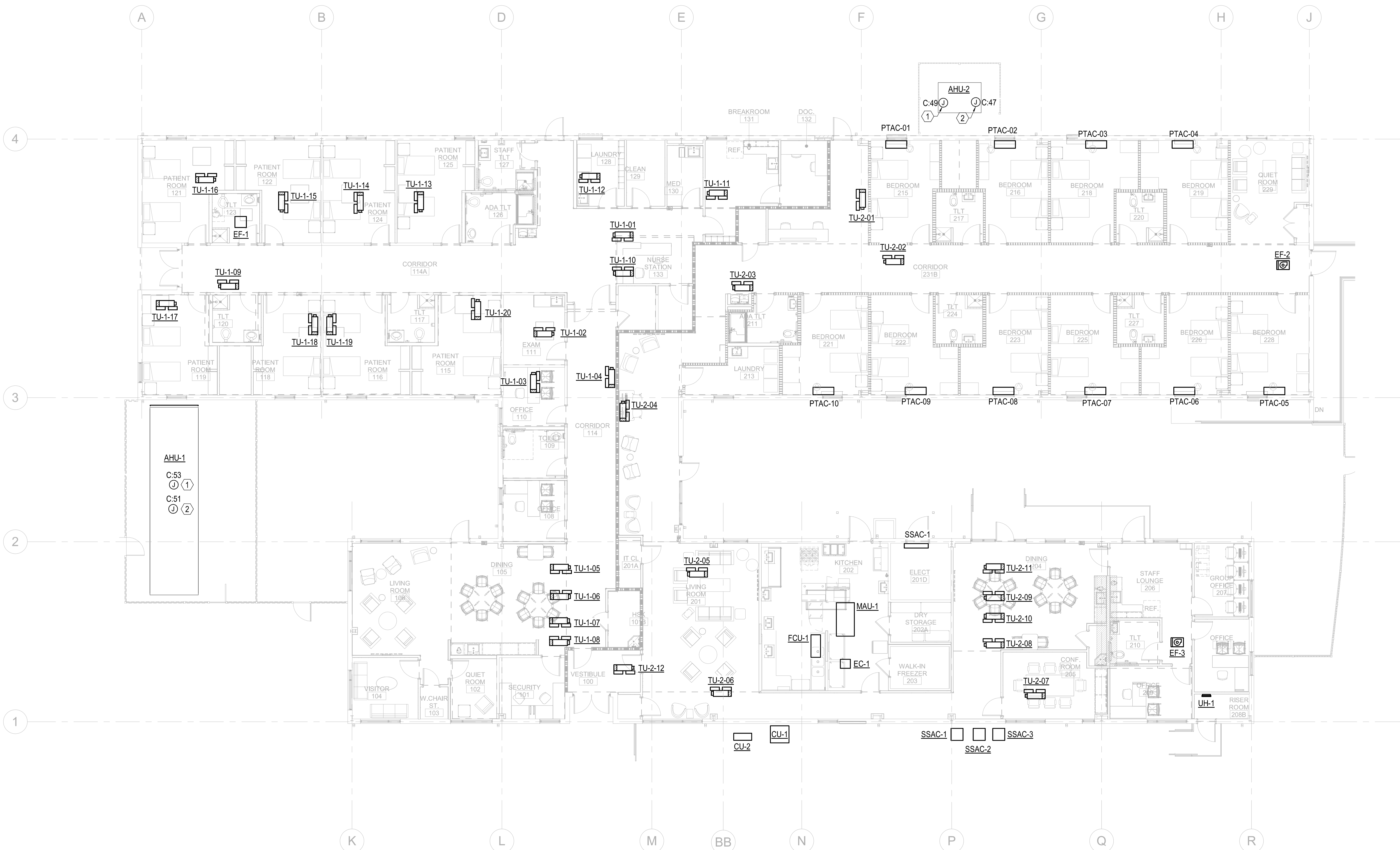
DATE	DESCRIPTION
2024.01.31	100% Design
	Development
2024.08.21	Blg / Permit Set

SHEET NAME:
ELECTRICAL MECH
POWER - FLOOR
PLAN

ORIG SUBMISSION: 2024.04.17

SHEET:
E-101M

BID/ PERMIT SET



1 ELECTRICAL MECHANICAL POWER
1/8" = 1'-0"

1

2

3

4

5

6

8/21/2024, 2:15:18 PM

E

D

C

B

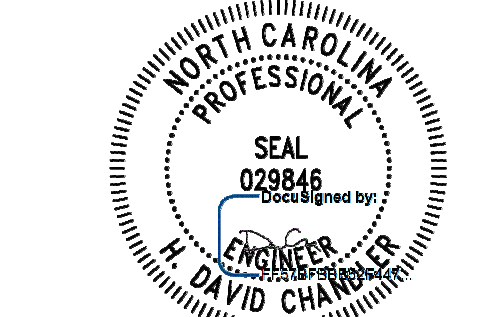
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- GENERAL NOTES:**
- REFER TO THE LUMINAIRE SCHEDULE ON SHEET E-602 FOR FIXTURE TYPES AND DESCRIPTIONS.
 - REFER TO THE LIGHTING CONTROL SEQUENCE OF OPERATIONS ON SHEET E-602 FOR MORE INFORMATION.

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LS3P PROJECT: 7405-230775

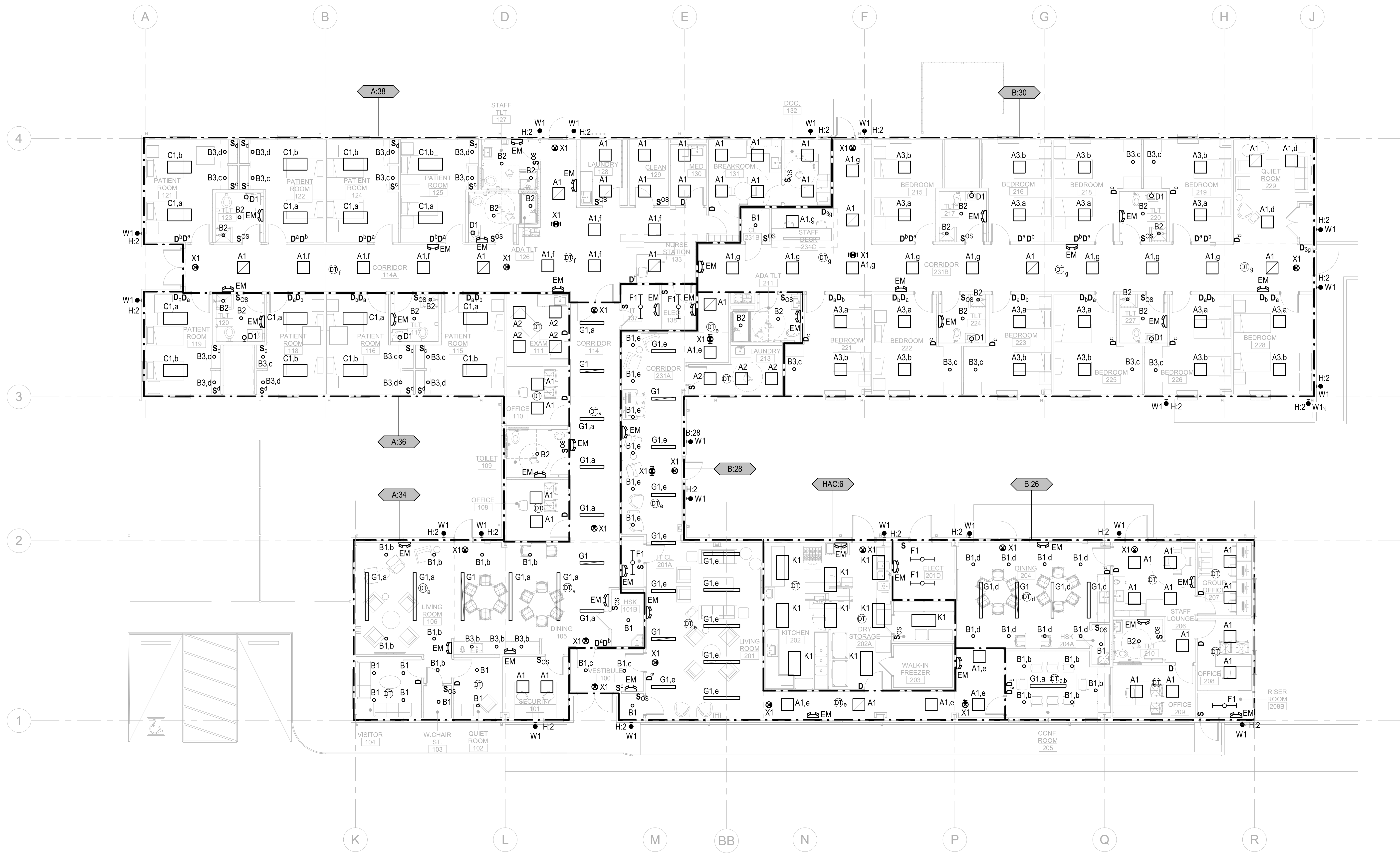
DATE	DESCRIPTION
C 2024.01.31	100% Design Development
D 2024.08.21	Big / Permit Set

SHEET NAME:
ELECTRICAL
LIGHTING - FLOOR
PLAN

ORIG SUBMISSION: 2024.04.17

SHEET:
E-201

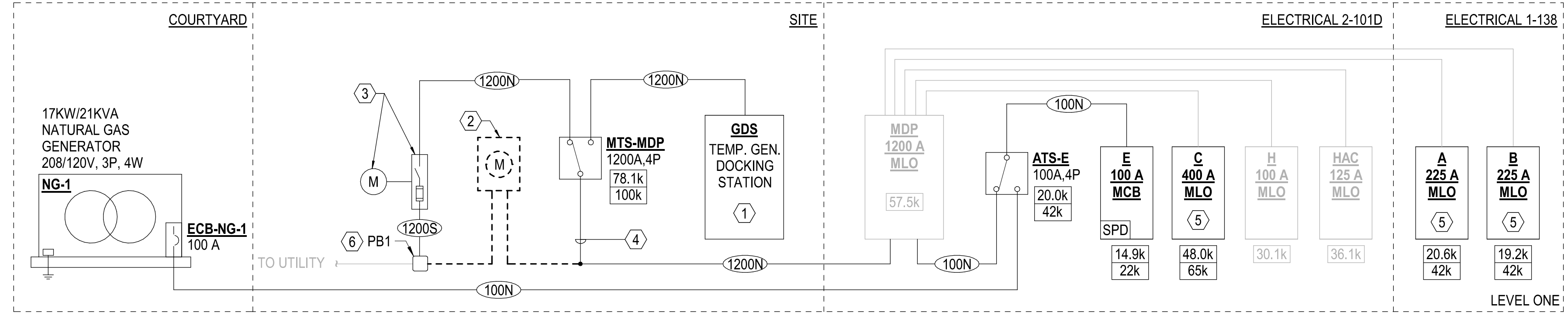
BID/ PERMIT SET



1 ELECTRICAL LIGHTING- LEVEL 01
1/8" = 1'-0"

THE LINE SHOWN ABOVE IS EXACTLY THE LOCATION OF THE PANEL

E



- GENERAL NOTES (RISER DIAGRAM ONLY):**
- MANUFACTURER OF NEW BREAKERS SHALL MATCH EXISTING EQUIPMENT IN BUILDING. EXISTING EQUIPMENT IS BY SQUARE D.
 - EXISTING RACEWAY, WIRING, AND EQUIPMENT ARE SHOWN AS HALFTONED. RACEWAY AND EQUIPMENT TO BE DEMOLISHED IS SHOWN AS DASHED.
 - NEW RACEWAY, WIRING, AND EQUIPMENT ARE SHOWN AS BOLD.
- KEY NOTES (RISER DIAGRAM ONLY):**
- SEE GENERATOR DOCKING STATION DETAIL FOR MORE INFORMATION.
 - EXISTING UTILITY PULL BOX TO BE DEMOLISHED. DEMOLISH EXISTING FEEDERS FROM UTILITY AND TO PANEL MDP AS NECESSARY FOR CONNECTION TO NEW EQUIPMENT. ESTABLISH NEW GROUND AS NECESSARY FOR THE NEW SERVICE ENTRANCE.
 - NEW FUSED UTILITY DISCONNECT AND METER (METER PROVIDED BY OTHERS). CONNECT NEW FEEDERS FROM NEW PULL BOX PB1. INCLUDE CURRENT TRANSFORMERS FOR METER MOUNTED ADJACENT TO UTILITY DISCONNECT. ESTABLISH GROUND AT DISCONNECT.
- KEY NOTES (RISER DIAGRAM ONLY, CONTINUED):**
- FOR CONNECTION INTO EXISTING UNDERGROUND POWER TO PANEL MDP FROM DEMOLISHED UTILITY PULL BOX. PROVIDE NEW FEEDER AS INDICATED.
 - EXISTING PANEL TO BE EXPANDED FROM 42P TO 60P. REUSE EXISTING PANEL BACKBOX IF FEASIBLE.
 - NEW PULL BOX. PULL BOX SHALL BE FED BY EXISTING UTILITY PRIMARY POWER AND CONNECT TO NEW UTILITY DISCONNECT WITH NEW FEEDERS AS INDICATED. SPLICE INTO EXISTING CONNECTION WHERE INDICATED ON THE NEW WORK PLANS.

1 ELECTRICAL RISER DIAGRAM
NO SCALE

FEEDER SIZE SCHEDULE

FEEDER MARK	COPPER CONDUCTORS AND CONDUIT SIZE
100N	4 #2 AND 1 #8 G ~ 1.5" C
1200N	4 SETS (4-350 kcmil AND 1 #3/0 G ~ 3" C)
1200S	4 SETS (4-350 kcmil ~ 4" C)

TRANSFER SWITCH SCHEDULE

NAME	VOLTAGE	AMPERES	POLES	BYPASS ISOLATION	CLOSED TRANSITION	AVAILABLE SHORT CIRCUIT CURRENT	WITHSTAND RATING	AUTOMATIC / MANUAL	ENCLOSURE
ATS-E	208 V	100 A	4	No	No	20000	22000	AUTOMATIC	NEMA 1
MTS-MDP	208 V	1200 A	4	No	No	78000	100000	MANUAL	NEMA 3R

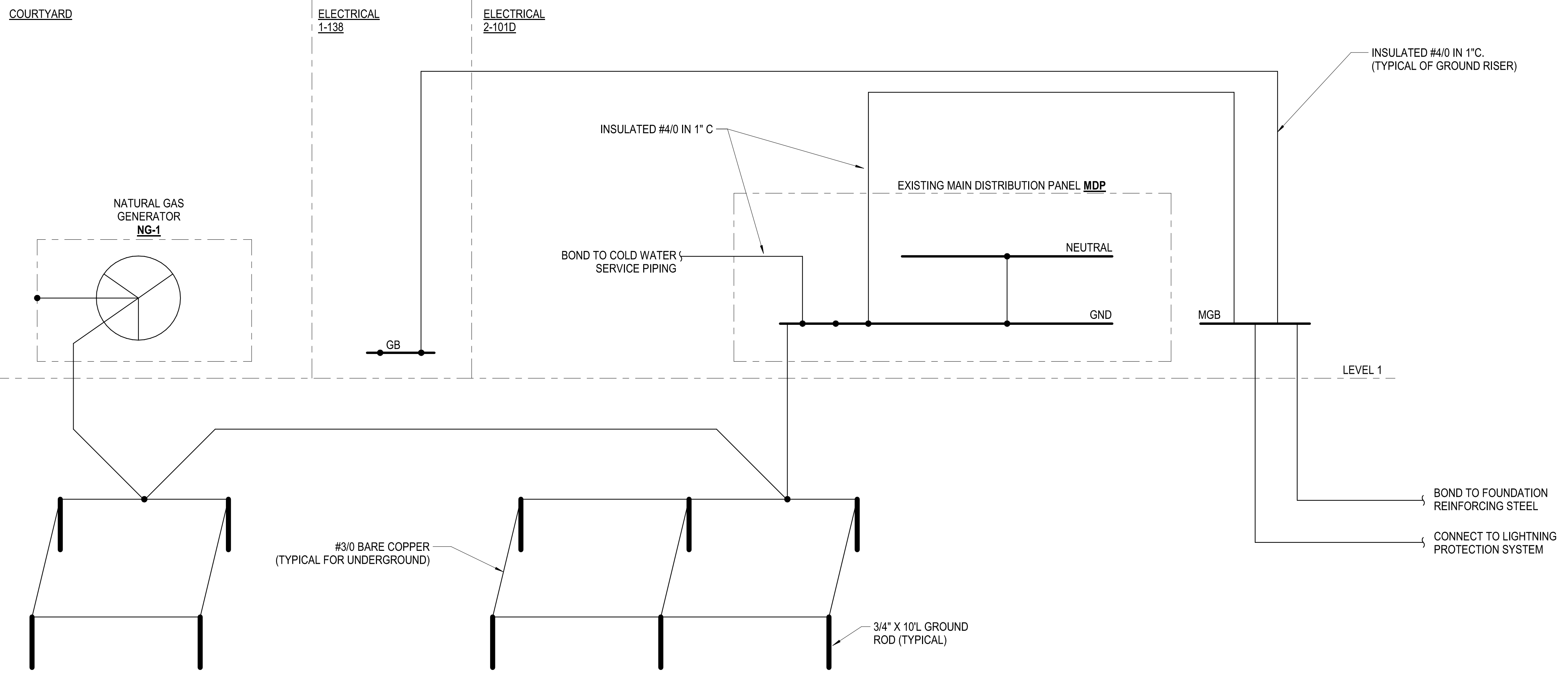
NATURAL GAS GENERATOR SCHEDULE

NAME	RATING		VOLTAGE	Hz	RPM
	KW	KVA			
NG-1	17 KW	21 KVA	120Y/208V	60	1800

- NOTES:**
- UNIT MOUNTED CIRCUIT BREAKERS SHALL BE 100% RATED. MANUFACTURER SHALL BE THE SAME AS MAIN DISTRIBUTION PANEL.
 - UNIT SHALL BE STANDBY RATED. 3-PHASE, 4 WIRE, WYE CONNECTED.
 - CIRCUIT BREAKER SHALL BE PROVIDED WITH LSIA TYPE WITH ARC GROUND FAULT ALARM ONLY.

GENERATOR DOCKING STATION SCHEDULE

NAME	VOLTAGE PHASE WIRE	RATING AMPS	CAMLOCK CONNECTORS	NEUTRAL	GROUND	ENCLOSURE	ACCESSORIES	REMARKS
GDS	208Y/120 3-PHASE 4-WIRE	1200	YES MALE DOCKING STATION	YES MALE DOCKING STATION	YES MALE DOCKING STATION	NEMA 3R	1. TERMINAL STRIP FOR TWO WIRE AUTO START. 2. PROVIDE UTILITY "ON" INDICATOR UNIT MOUNTED. 3. PROVIDE 120V, 20A, GFCI TYPE OUTLET FOR TEMPORARY GENERATOR BATTERY CHARGER. 4. PROVIDE 120V, 30A, L5-30 OUTLET FOR TEMPORARY GENERATOR BLOCK HEATER.	1. TEMPORARY GENERATOR DOCKING STATION SHALL HAVE A MINIMUM 65KAIC RATING. 2. GENERATOR DOCKING STATION BASIS OF DESIGN IS TRYSTAR.



2 ELECTRICAL GROUNDING RISER DIAGRAM
NO SCALE

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

NAME	DESCRIPTION	LOAD	CONNECTION INFO		MOTOR INFO		HOMERUN INFO		DISCONNECT INFO	NOTES
			VOLTAGE	NUMBER OF POLES	QUANTITY	HP	PANEL	CIRCUIT		
AHU-1	AIR HANDLING UNIT	22.1 kVA	208 V	3	1	10	MDP	7	VFD	4
AHU-2	AIR HANDLING UNIT	12.5 kVA	208 V	3	1	5.75	C	41,43,45	VFD	4
EF-1	EXHAUST FAN	1.3 kVA	208 V	2	1	0.75	C	42,44	30/2/NF/1	
EF-2	EXHAUST FAN	0.5 kVA	120 V	1	1	0.17	C	46	30/1/NF/1	
EF-3	EXHAUST FAN	0.5 kVA	120 V	1	1	0.1	C	48	30/1/NF/1	
FCU-1/FCU-1	SPLIT-SYSTEM FAN COIL UNIT	4.4 kVA	208 V	2	1	1.3	C	50,52	30/2/NF/3R	
MAU-1/MAU-2/EC-1	MAKEUP AIR UNIT	3.9 kVA	208 V	2			C	54,56	30/2/NF/3R	
SSAC-1	SPLIT-UNIT	2.2 kVA	208 V	2			E	2,4	30/2/NF/3R	
SSAC-2	SPLIT-UNIT	2.2 kVA	208 V	2			E	6,8	30/2/NF/3R	
SSAC-3	SPLIT-UNIT	2.2 kVA	208 V	2			E	10,12	30/2/NF/3R	
TU-1-01	TERMINAL UNIT	4.0 kVA	208 V	2			C	2,4	INTEGRAL	
TU-1-02	TERMINAL UNIT	1.0 kVA	208 V	2			A	2,4	INTEGRAL	
TU-1-03	TERMINAL UNIT	3.0 kVA	208 V	2			A	2,4	INTEGRAL	
TU-1-04	TERMINAL UNIT	3.0 kVA	208 V	2			A	2,4	INTEGRAL	
TU-1-05	TERMINAL UNIT	3.5 kVA	208 V	2			C	6,8	INTEGRAL	
TU-1-06	TERMINAL UNIT	6.5 kVA	208 V	2			C	10,12	INTEGRAL	
TU-1-07	TERMINAL UNIT	4.0 kVA	208 V	2			C	14,16	INTEGRAL	
TU-1-08	TERMINAL UNIT	4.0 kVA	208 V	2			C	18,20	INTEGRAL	
TU-1-09	TERMINAL UNIT	1.5 kVA	208 V	2			A	6,8	INTEGRAL	
TU-1-10	TERMINAL UNIT	4.0 kVA	208 V	2			A	10,12	INTEGRAL	
TU-1-11	TERMINAL UNIT	2.5 kVA	208 V	2			C	2,4	INTEGRAL	
TU-1-12	TERMINAL UNIT	6.5 kVA	208 V	2			A	14,16	INTEGRAL	
TU-1-13	TERMINAL UNIT	2.0 kVA	208 V	2			A	18,20	INTEGRAL	
TU-1-14	TERMINAL UNIT	2.0 kVA	208 V	2			A	18,20	INTEGRAL	
TU-1-15	TERMINAL UNIT	2.0 kVA	208 V	2			A	22,24	INTEGRAL	
TU-1-16	TERMINAL UNIT	2.5 kVA	208 V	2			A	22,24	INTEGRAL	
TU-1-17	TERMINAL UNIT	2.5 kVA	208 V	2			A	6,8	INTEGRAL	
TU-1-18	TERMINAL UNIT	2.0 kVA	208 V	2			A	6,8	INTEGRAL	
TU-1-19	TERMINAL UNIT	2.0 kVA	208 V	2			A	18,20	INTEGRAL	
TU-1-20	TERMINAL UNIT	2.0 kVA	208 V	2			A	10,12	INTEGRAL	
TU-2-01	TERMINAL UNIT	3.0 kVA	208 V	2			B	2,4	INTEGRAL	
TU-2-02	TERMINAL UNIT	2.0 kVA	208 V	2			B	2,4	INTEGRAL	
TU-2-03	TERMINAL UNIT	3.0 kVA	208 V	2			C	22,24	INTEGRAL	
TU-2-04	TERMINAL UNIT	4.0 kVA	208 V	2			C	22,24	INTEGRAL	
TU-2-05	TERMINAL UNIT	7.5 kVA	208 V	2			B	6,8	INTEGRAL	
TU-2-06	TERMINAL UNIT	5.0 kVA	208 V	2			C	26,28	INTEGRAL	
TU-2-07	TERMINAL UNIT	2.0 kVA	208 V	2			C	26,28	INTEGRAL	
TU-2-08	TERMINAL UNIT	2.0 kVA	208 V	2			C	30,32	INTEGRAL	
TU-2-09	TERMINAL UNIT	4.5 kVA	208 V	2			C	34,36	INTEGRAL	
TU-2-10	TERMINAL UNIT	5.0 kVA	208 V	2			C	30,32	INTEGRAL	
TU-2-11	TERMINAL UNIT	2.5 kVA	208 V	2			C	34,36	INTEGRAL	
TU-2-12	TERMINAL UNIT	2.0 kVA	208 V	2			C	38,40	INTEGRAL	
UH-1	UNIT HEATER	1.0 kVA	120 V	1			H	4	TOGGLE	

- MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES:**
- STARTERS WILL BE FURNISHED UNDER OTHER DIVISIONS OF THIS WORK AND MOUNTED AND INSTALLED BY DIVISION 26. COORDINATE AND THE LOCATIONS OF STARTERS OR OTHER CONTROL DEVICES WITH THE EQUIPMENT BEING CONTROLLED, AND IN ACCORDANCE WITH NFPA 70 - 2020. THE INSTALLED LOCATION OF MOTORS, EQUIPMENT, AND ASSOCIATED DUCTWORK SHALL BE CONSIDERED TO ENSURE CLEARANCE, ACCESS, AND SIGHT REQUIREMENTS.
 - SEE ELECTRICAL PANELBOARD SCHEDULES FOR CIRCUIT OCPD, CONDUCTOR, AND RACEWAY SIZES.
 - PROVIDE DISCONNECT SWITCH AS INDICATED. IF EQUIPMENT IS PROVIDED WITH INTEGRAL DISCONNECT SWITCH, AN ADDITIONAL DISCONNECT SWITCH IS NOT REQUIRED EXCEPT FOR LOCATIONS WHERE VFD IS LOCATED OUT OF SIGHT OF THE EQUIPMENT, THEN A SEPARATE DISCONNECT SHALL BE PROVIDED AS NOTED.
 - PROVIDE LIQUID TIGHT CONDUIT CONNECTIONS TO DISCONNECTS.

D

C

B

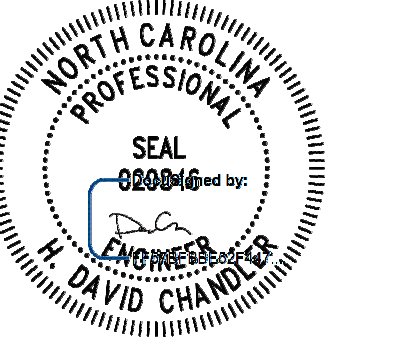
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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401
LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A	2024.01.31 100% Design
C	2024.01.31 100% Design Development
D	2024.08.21 Bid / Permit Set

SHEET NAME:
ELECTRICAL RISER
DIAGRAM AND
SCHEDULES

ORIG SUBMISSION: 2024.04.17

SHEET:
E-601

BID/ PERMIT SET

THEME: SHOWN ABOVE IN DENSITY
ON THE PANEL SCHEDULES

E

D

C

B

A

EMERGENCY PANELBOARD "E" SCHEDULE											
VOLTS: 120/208 Wye PHASES: 3 WIRE: 4				BUS: 100 A MAIN: 50A/3P MCB SCCR: 22 KAIC				MOUNTING: SURFACE SECTIONS: 1 LOCATION: ELECTRICAL 2-101D			
NOTES:											
LOAD DESCRIPTION	WIRE & CONDUIT	CB TRIP / POLES	CKT #	A	B	C	CKT #	CB TRIP / POLES	WIRE & CONDUIT	LOAD DESCRIPTION	
REC-I.T. 1-137	2#10 & 1#10G - 0.75°C	20 A	1	0.4	1.1		2	20 A	2#12 & 1#12G - 0.75°C	SSAC-1	
REC-I.T. 1-137	2#10 & 1#10G - 0.75°C	20 A	1		0.4	1.1	6	20 A	2#12 & 1#12G - 0.75°C	SSAC-2	
REC-I.T. 1-137	2#10 & 1#10G - 0.75°C	20 A	1	0.4	1.1		8	20 A	2#12 & 1#12G - 0.75°C	SSAC-3	
REC-I.T. 2-101A	2#12 & 1#12G - 0.75°C	20 A	1		0.4	1.1	10	20 A	2#10 & 1#10G - 0.75°C		
REC-I.T. 2-101A	2#12 & 1#12G - 0.75°C	20 A	1	11			12	20 A	2#10 & 1#10G - 0.75°C		
REC-SECURITY 1-101	2#10 & 1#10G - 0.75°C	20 A	1	0.4	--		14	1	--	SPACE	
REC-SECURITY 1-101	2#10 & 1#10G - 0.75°C	20 A	1	0.4	--		16	1	--	SPACE	
REC-SECURITY 1-101	2#10 & 1#10G - 0.75°C	20 A	1	15			18	1	--	SPACE	
REC-SECURITY 1-101	2#10 & 1#10G - 0.75°C	20 A	1	17			20	1	--	SPACE	
REC-LV LOADS 1-101	2#10 & 1#10G - 0.75°C	20 A	1	19	1.0	--	22	1	--	SPACE	
SPARE	--	20 A	1	21			24	1	--	SPACE	
SPARE	--	20 A	1	23			26	1	--	SPACE	
SPARE	--	20 A	1	25	0.0	--	28	1	--	SPACE	
SPARE	--	20 A	1	27			30	1	--	SPACE	
SPARE	--	20 A	1	29			32	1	--	SPACE	
PHASE TOTALS:				4.2 kVA	3.2 kVA	3.9 kVA					
CONNECTED LOAD:				31.5 A	11.4 kVA						
CALCULATED LOAD:				31.5 A	11.4 kVA						

EXISTING PANELBOARD "C" SCHEDULE											
VOLTS: 120/208 Wye PHASES: 3 WIRE: 4				BUS: 400 A MAIN: MLO SCCR: 65 KAIC				MOUNTING: SURFACE SECTIONS: 1 LOCATION: ELECTRICAL 2-101D			
NOTES:											
LOAD DESCRIPTION	WIRE & CONDUIT	CB TRIP / POLES	CKT #	A	B	C	CKT #	CB TRIP / POLES	WIRE & CONDUIT	LOAD DESCRIPTION	
PTAC-01	2#10 & 1#10G - 0.75°C	30 A	2	1	0.4	3.3	2	2	40 A	3#6 & 1#6G - 1°C	TU-1-01,11
PTAC-02	2#10 & 1#10G - 0.75°C	30 A	2	5			6	2	30 A	3#10 & 1#10G - 1°C	TU-1-05
PTAC-03	2#10 & 1#10G - 0.75°C	30 A	2	7	0.4	1.8	10	2	40 A	3#6 & 1#10G - 1°C	TU-1-06
PTAC-04	2#10 & 1#10G - 0.75°C	30 A	2	9			12	2	40 A	3#6 & 1#10G - 1°C	TU-1-07
PTAC-05	2#10 & 1#10G - 0.75°C	30 A	2	11			14	2	30 A	3#10 & 1#10G - 1°C	TU-1-08
PTAC-06	2#10 & 1#10G - 0.75°C	30 A	2	13	0.4	2.0	16	2	50 A	3#6 & 1#6G - 1.25°C	TU-2-03,04
PTAC-07	2#10 & 1#10G - 0.75°C	30 A	2	15			18	2	50 A	3#4 & 1#10G - 1.25°C	TU-2-06,07
PTAC-08	2#10 & 1#10G - 0.75°C	30 A	2	17			20	2	50 A	3#6 & 1#6G - 1.25°C	TU-2-08,10
PTAC-09	2#10 & 1#10G - 0.75°C	30 A	2	19	0.4	2.0	22	2	50 A	3#6 & 1#10G - 1°C	TU-2-09,11
PTAC-10	2#10 & 1#10G - 0.75°C	30 A	2	21			24	2	20 A	3#12 & 1#12G - 0.75°C	TU-2-12
AHU-2	3#10 & 1#10G - 0.75°C	70 A	3	43	4.2	0.6	44	2	20 A	2#10 & 1#10G - 0.75°C	EF-1
AHU-2 LIGHTS	3#12 & 1#12G - 0.75°C	20 A	1	47			48	1	20 A	2#10 & 1#10G - 0.75°C	EF-2
AHU-4 CONTROLS	3#12 & 1#12G - 0.75°C	20 A	1	49	0.5	2.2	50	2	30 A	3#10 & 1#10G - 1°C	SPLIT FCU-1
AHU-4 LIGHTS	3#12 & 1#12G - 0.75°C	20 A	1	51			52	2	30 A	3#10 & 1#10G - 1°C	MAKE-UP AIR
AHU-4 CONTROLS	3#12 & 1#12G - 0.75°C	20 A	1	53			54	2	30 A	3#10 & 1#10G - 1°C	MAKE-UP AIR
SPARE (2)	--	20 A	1	55	0.0	2.0	56	1	20 A	--	SPARE (2)
SPARE (2)	--	20 A	1	57			58	1	20 A	--	SPARE (2)
SPARE (2)	--	20 A	1	59			60	1	20 A	--	SPARE (2)
PHASE TOTALS:				29.3 kVA	30.2 kVA	28.2 kVA					
CONNECTED LOAD:				243.2 A	87.6 kVA						
CALCULATED LOAD:				243.2 A	87.6 kVA						

EXISTING PANELBOARD "H" SCHEDULE												
VOLTS: 120/208 Single PHASES: 1 WIRE: 3				BUS: 100 A MAIN: MLO SCCR: EXISTING				MOUNTING: SURFACE SECTIONS: 1 LOCATION: ELECTRICAL 2-101D				
NOTES:												
LOAD DESCRIPTION	WIRE & CONDUIT	CB TRIP / POLES	CKT #	A	B	C	CKT #	CB TRIP / POLES	WIRE & CONDUIT	LOAD DESCRIPTION		
REC-EXTERIOR	2#10 & 1#10G - 0.75°C	20 A	1	1.1	0.4		2	1	20 A	2#10 & 1#10G - 0.75°C	LTG-EXTERIOR	
REC-EXTERIOR	2#10 & 1#10G - 0.75°C	20 A	1	3		0.9	1.0	4	1	20 A	2#10 & 1#10G - 0.75°C	
REC-GDS BATT CHARGE	2#12 & 1#12G - 0.75°C	20 A	1	5	0.2	1.0	6	1	20 A	2#12 & 1#12G - 0.75°C	PWR-LCP	
REC-GDS BLOCK HEAT	2#10 & 1#10G - 0.75°C	30 A	1	7		0.7	1.3	8	1	20 A	2#10 & 1#10G - 0.75°C	
REC-NG-1 BATT CHARGE	2#12 & 1#12G - 0.75°C	20 A	1	9	0.2	0.0	10	1	20 A	--	SPARE (2)	
REC-NG-1 BLOCK HEAT	2#10 & 1#10G - 0.75°C	20 A	1	11		0.2	0.0	12	1	20 A	--	SPARE (2)
PHASE TOTALS:				2.8 kVA	4.1 kVA							
CONNECTED LOAD:				33.4 A								
CALCULATED LOAD:				33.4 A								

EXISTING PANELBOARD "HAC" SCHEDULE											
VOLTS: 120/208 Wye PHASES: 3 WIRE: 4				BUS: 125 A MAIN: MLO SCCR: EXISTING				MOUNTING: SURFACE SECTIONS: 1 LOCATION: ELECTRICAL 2-101D			
NOTES:											
LOAD DESCRIPTION	WIRE & CONDUIT	CB TRIP / POLES	CKT #	A	B	C	CKT #	CB TRIP / POLES	WIRE & CONDUIT	LOAD DESCRIPTION	
REC-KITCHEN 2-102	2#12 & 1#12G - 0.75°C	20 A	1	0.5	1.3		2	1	20 A	2#12 & 1#12G - 0.75°C	REC-CABINET 2-102 (2)
REC-KITCHEN 2-102	2#12 & 1#12G - 0.75°C	20 A	1	3		0.5	1.3	4	1	20 A	2#12 & 1#12G - 0.75°C
PWR-EXHAUST 2-102 (2)	2#12 & 1#12G - 0.75°C	20 A	1	5			1.0	0.7	6	1	20 A
PWR-RANGE 2-102 (2)	3#12 & 1#6G - 1°C	50 A	2	7	4.2	6.7	8	2	80 A	3#12 & 1#6G - 1°C	PWR-DISH 2-102 (2)
SHUNT TRIP	--	--	1	11			12	1	20 A	2#12 & 1#12G - 0.75°C	REC-CE 2-102 (2)
PWR-FREEZER 2-102	2#10 & 1#10G - 0.75°C	30 A	2	13	2.5	1.4	14	1	20 A	2#12 & 1#12G - 0.75°C	REC-HEATER 2-102
PWR-FREEZER LTG 2-102	2#12 & 1#12G - 0.75°C	20 A	1	15			16	1	20 A	2#12 & 1#12G - 0.75°C	REC-HEATER 2-102
REC-KITCHEN 2-102 (2)	2#12 & 1#12G - 0.75°C	20 A	1	17			18	1	20 A	2#12 & 1#12G - 0.75°C	REC-HEATER 2-102
REC-KITCHEN 2-102 (2)	2#12 & 1#12G - 0.75°C	20 A	1	19	0.7	0.0	20	1	20 A	--	SPARE (2)
PHASE TOTALS:				17.3 kVA	16.5 kVA	5.2 kVA					
CONNECTED LOAD:				108.2 A	39.0 kVA						
CALCULATED LOAD:				78.3 A	28.2 kVA						

EXISTING DISTRIBUTION PANELBOARD "MDP" SCHEDULE											
VOLTS: 120/208 Wye PHASES: 3 WIRE: 4				BUS: 1200 A MAIN: MLO SCCR: EXISTING				MOUNTING: SURFACE LOCATION: ELECTRICAL 2-101D			
NOTES:											
CKT #	LOAD DESCRIPTION	POLES	FRAME	TRIP	Load	REMARKS					
1	SPACE	3	--	--	--						
2	PANEL B	3	400 A	250 A	58 kVA						
3	PANEL A	3	400 A	250 A	71 kVA						
4	PANEL C	3	400 A	400 A	88 kVA						
5	PANEL HAC	3	250 A	125 A	39 kVA						
6	PANEL H	2	250 A	100 A	7 kVA						
7	AHU-1	3	250 A	100 A	22 kVA	3#2 & 1#6G - 1.5°C					
8	ATS-E	3	250 A	100 A	11 kVA	SEE RISER DIAGRAM					
CONNECTED LOAD:				822 A	296 kVA						
CALCULATED LOAD:				673 A	242 kVA						

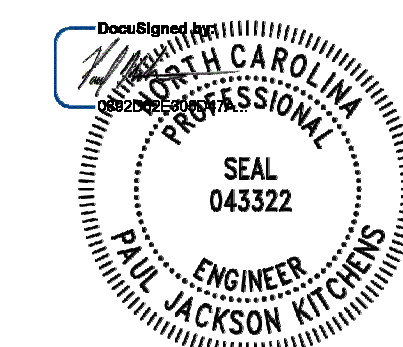
EXISTING PANELBOARD "A" SCHEDULE											
VOLTS: 120/208 Wye PHASES: 3 WIRE: 4				BUS: 225 A MAIN: MLO SCCR: 42 KAIC				MOUNTING: SURFACE SECTIONS: 1 LOCATION: ELECTRICAL 1-138			
NOTES:											
LOAD DESCRIPTION	WIRE & CONDUIT	CB TRIP / POLES	CKT #	A	B	C	CKT #	CB TRIP / POLES	WIRE & CONDUIT	LOAD DESCRIPTION	
REC-1-104	2#10 & 1#10G - 0.75°C	20 A	1	1.1	3.5		2	2	50 A	3#6 & 1#6G - 1.25°C	TU-1-02,03,04
REC-105,106	2#12 & 1#12G - 0.75°C	20 A	1	3		0.9	3.5	4	2	40 A	3#6 & 1#10G - 1°C
REC-DINING 1-105	2#12 & 1#12G - 0.75°C	20 A	1	5			0.7	3.0	6	2	40 A
REC-FRIDGE 1-105	2#12 & 1#12G - 0.75°C	20 A	1	7	1.0	3.0	8	1	20 A	--	SPARE (3)
REC-1-101B,109	2#12 & 1#12G - 0.75°C	20 A	1	9		0.4	3.0	10	2	40 A	3#6 & 1#10G - 1°C
REC-1-108,110	2#12 & 1#12G - 0.75°C	20 A	1	11			1.4	3.0	12	2	40 A
REC-CORR 1-114 A	2#12 & 1#12G - 0.75°C	20 A	1	13	1.1	3.3	14	2	40 A	3#6 & 1#10G - 1°C	TU-1-12
REC-1-111	2#12 & 1#12G - 0.75°C	20 A	1	15			0.9	3.3	16	2	40 A
REC-1-133	2#12 & 1#12G - 0.75°C	20 A	1	17			0.5	3.0	18	2	40 A
REC-PRINTER 1-133	2#12 & 1#12G - 0.75°C	20 A	1	19	0.2	3.0	20	2	40 A	3#6 & 1#10G - 1°C	TU-1-13,14,19
REC-1-115 (2)	2#12 & 1#12G - 0.75°C	20 A	1	21			1.1	2.3	22	2	30 A
REC-1-116 (2)	2#12 & 1#12G - 0.75°C	20 A	1	23				0.7	2.3	24	2
REC-1-116 (2)	2#12 & 1#12G - 0.75°C	20 A	1	25	1.1	2.5	26	2	40 A	3#6 & 1#10G - 0.75°C	TU-1-15,16
REC-1-118 (2)	2#12 & 1#12G - 0.75°C	20 A	1	27			1.1	2.5	28	2	40 A
REC-1-118,119 (2)	2#12 & 1#12G - 0.75°C	20 A	1	29			0.7	1.0	30	1	20 A
REC-1-119 (2)	2#10 & 1#10G - 0.75°C	20 A	1	31	1.1	0.5	32	1	20 A	2#12 & 1#12G - 0.75°C	REC-WASHER 1-114A (2)
REC-1-121 (2)	2#10 & 1#10G - 0.75°C	20 A	1	33			1.1	1.3	34	1	20 A
REC-1-121, 123 (2)	2#10 & 1#10G - 0.75°C	20 A	1	35			0.7	0.9	36	1	20 A
REC-1-122 (2)	2#12 & 1#12G - 0.75°C	20 A	1	37	1.1	1.4	38	1	20 A	2#10 &	



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KEY NOTES

- 1. PROVIDE NEW 2-1/2 BACKFLOW PREVENTER AND CONNECT TO EXISTING COLD WATER PIPING AS SHOWN.
- 2. PROVIDE 1" GAS LINE TO GENERATOR. REFER TO THE ELECTRICAL PLAN FOR EXACT LOCATION AND FINAL HOOKUP DETAIL.

GENERAL NOTES

- 1. ACCESS PANELS TO MATCH MAKE AND MATERIAL OF CEILING.

**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. - Wilmington, NC 28401
LSP PROJECT: 7405-230775

DATE	DESCRIPTION
A	2024.01.31 100% Design
C	2024.01.31 100% Design Development
D	2024.08.21 Bid / Permit Set

SHEET NAME:
PLUMBING
PRESSURE -
FLOOR PLAN

ORIG SUBMISSION: 2024.04.17

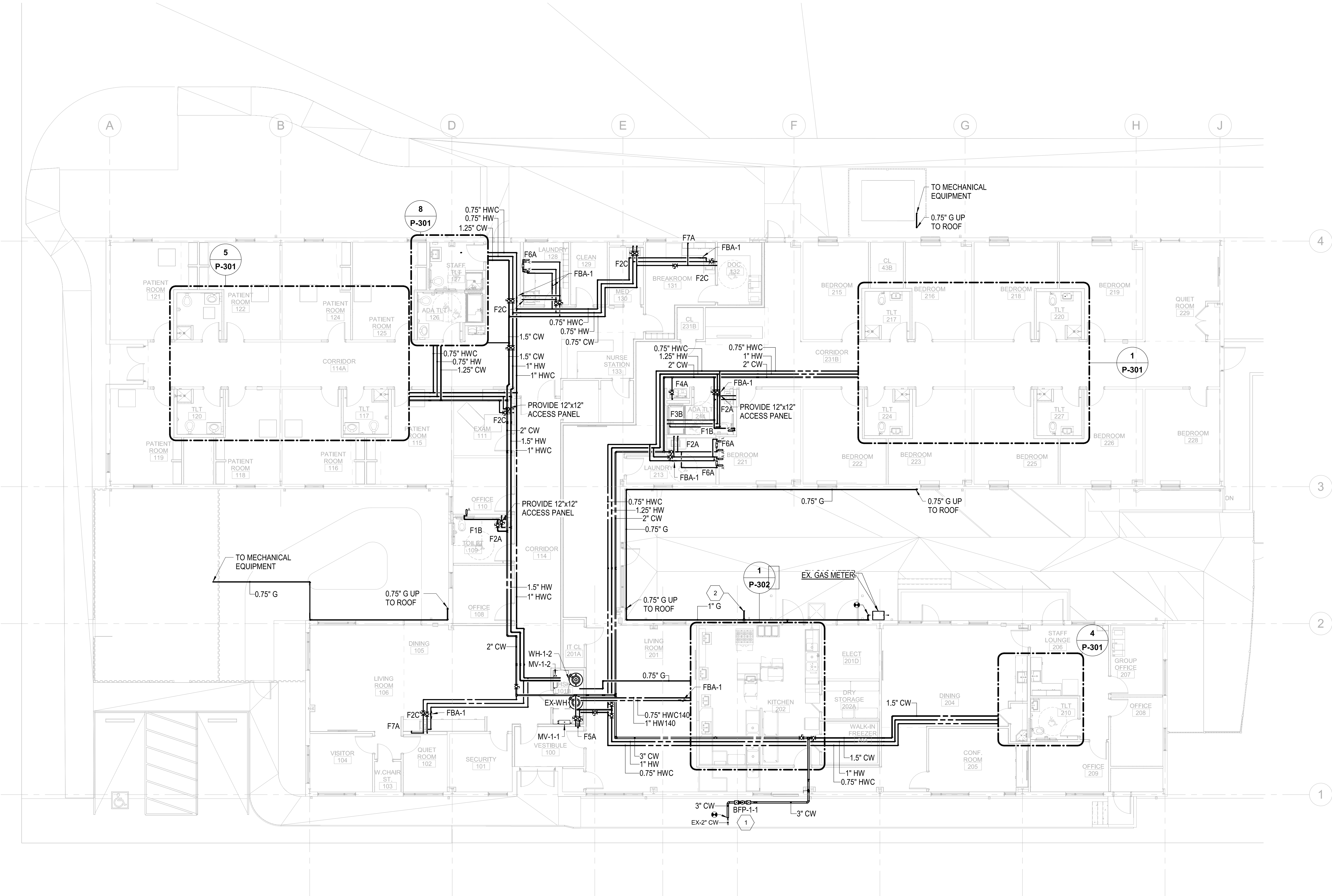
SHEET: **P-101**

BID / PERMIT SET

1 PLUMBING PRESSURE - LEVEL 01
1/8" = 1'-0"

8/21/2024, 2:19:23 PM

1 2 3 4 5 6

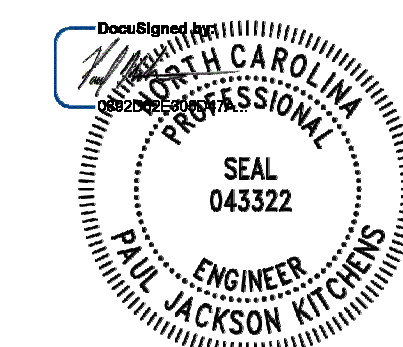




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NEW HANOVER COUNTY STAR CENTER

1605 Robin Hood Rd. - Wilmington, NC 28401

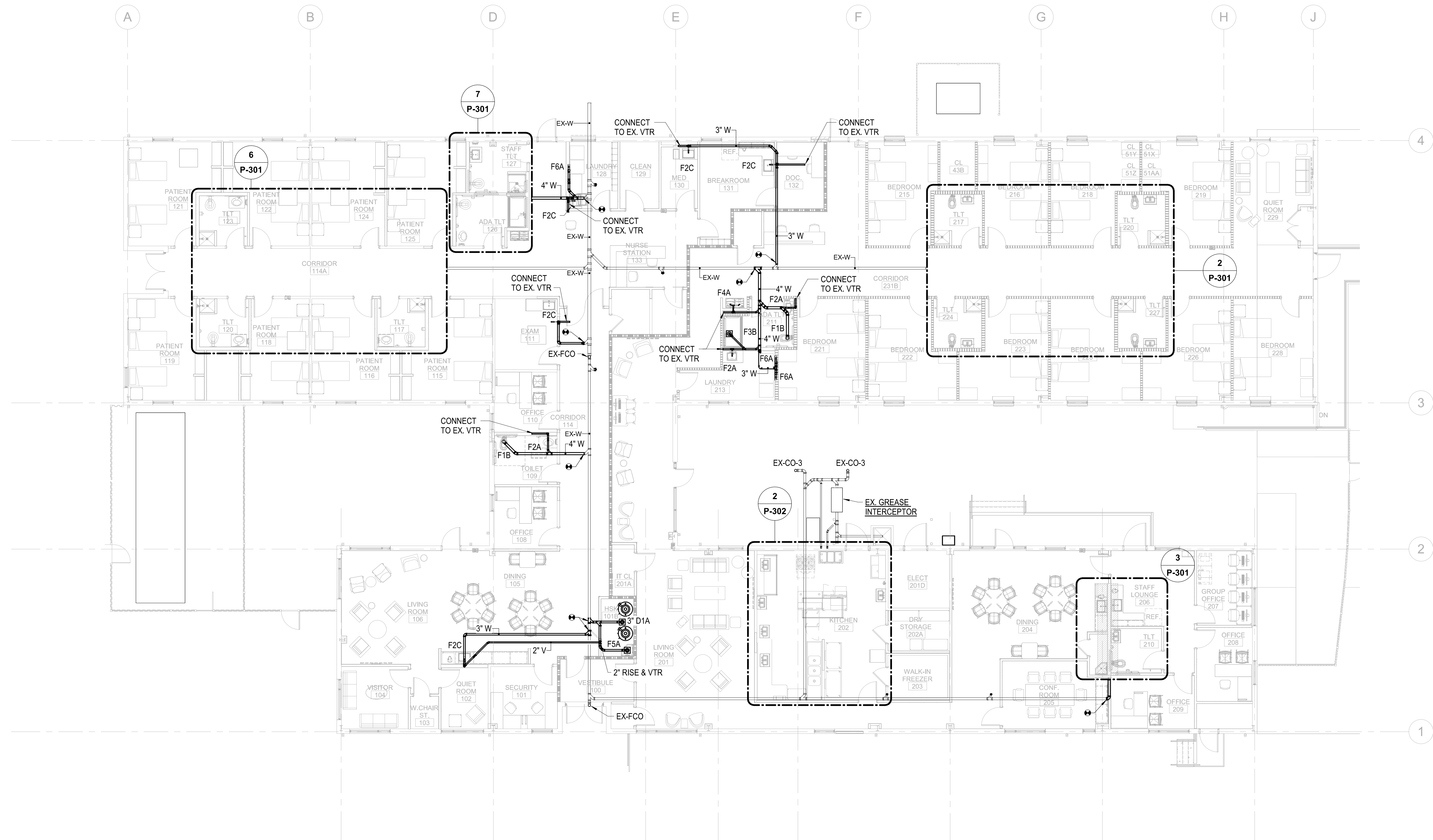
DATE	DESCRIPTION
C 2024.01.31	100% Design Development
D 2024.08.21	Big / Permit Set

SHEET NAME:
PLUMBING WASTE -
FLOOR PLAN

ORIG SUBMISSION: 2024.04.17

SHEET: **P-201**

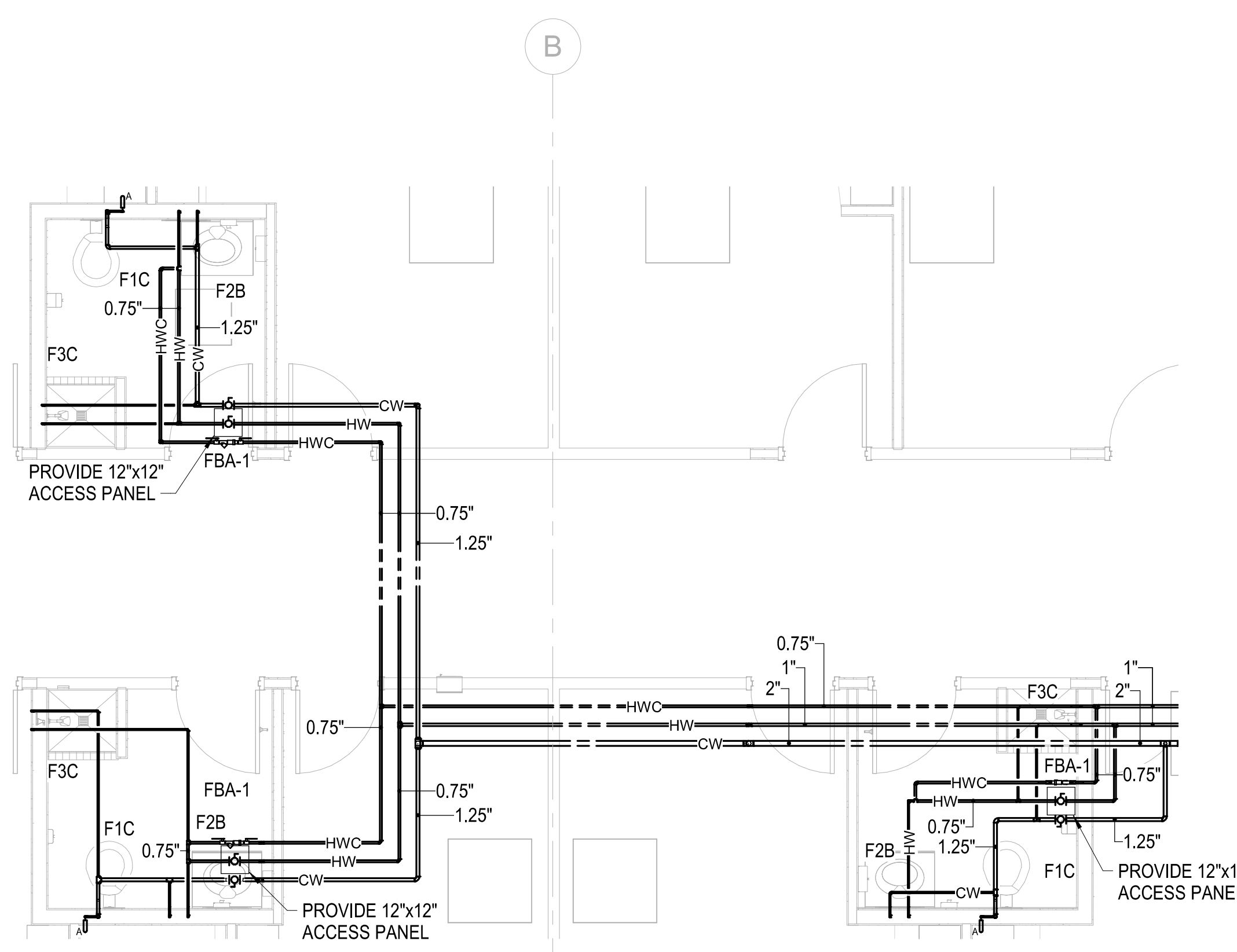
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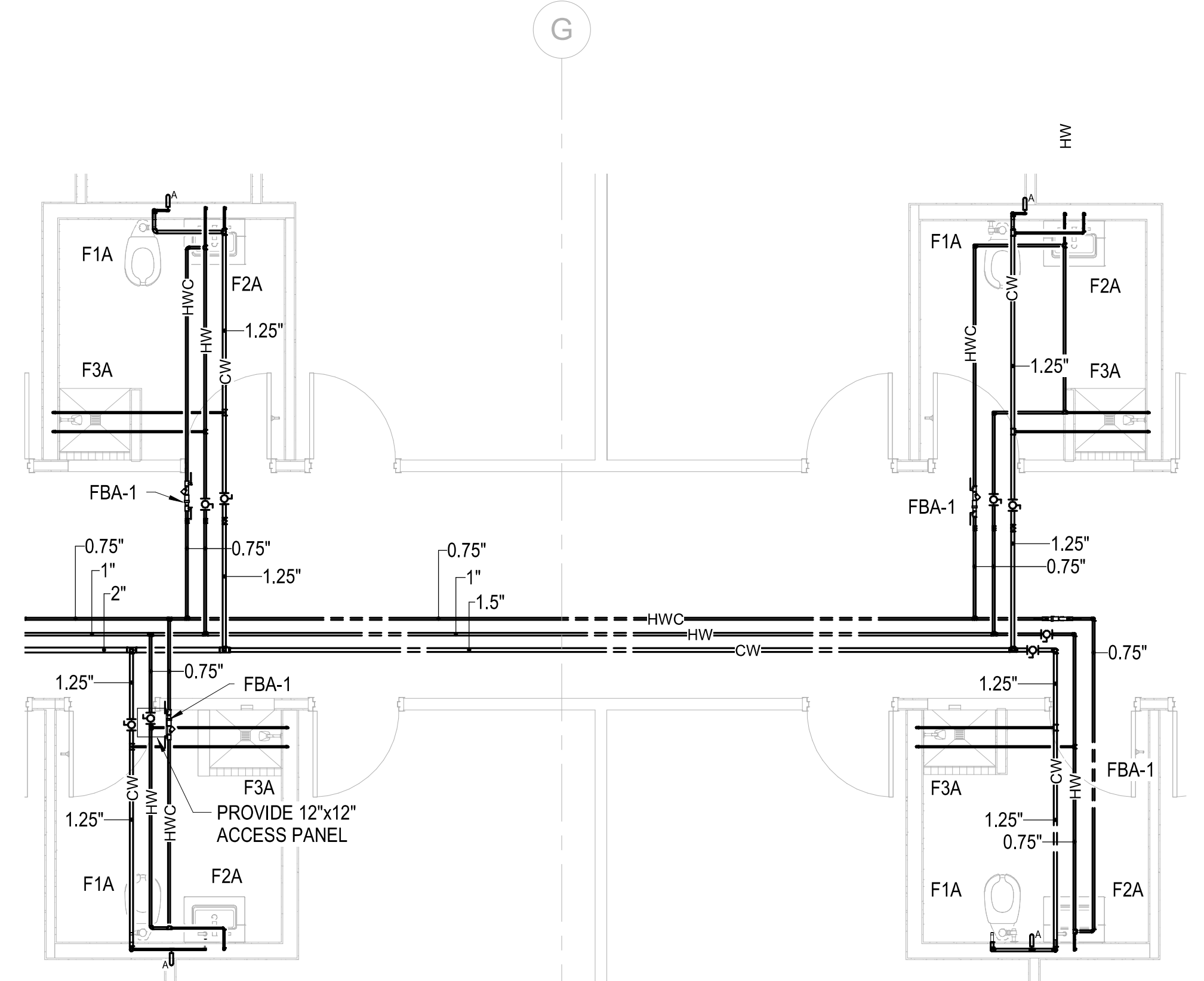
1 PLUMBING WASTE - LEVEL 01

1/8" = 1'-0"

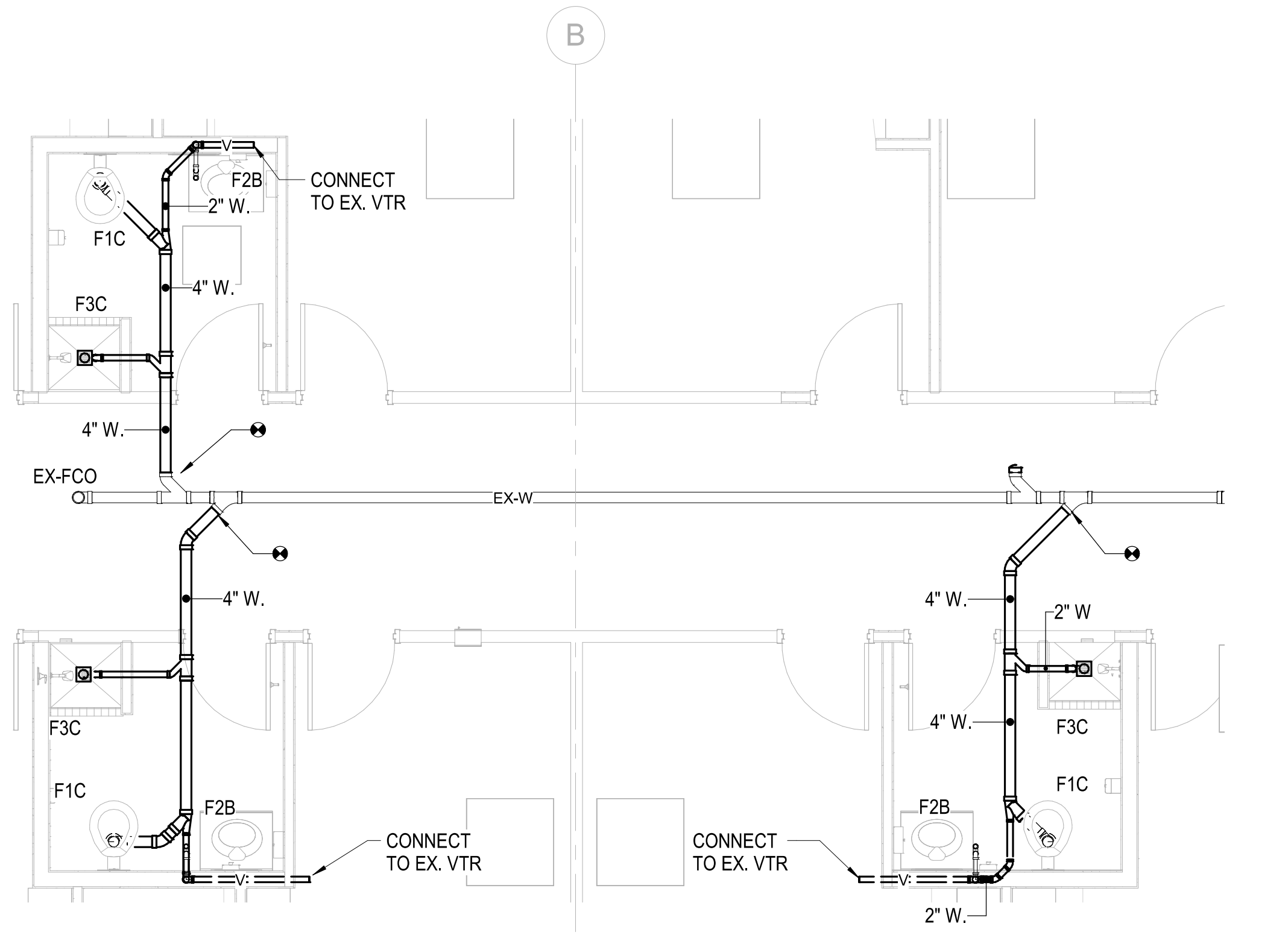
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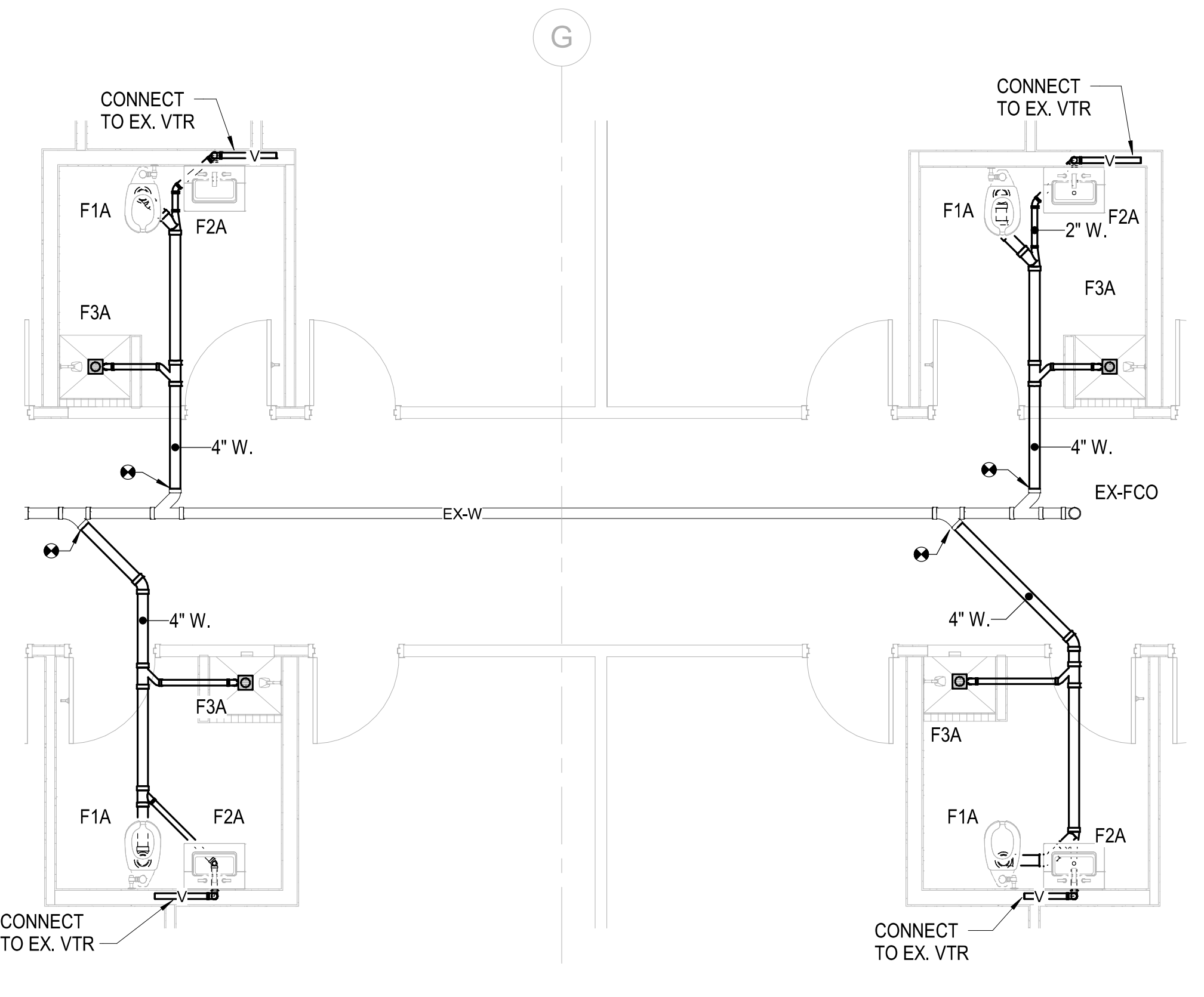
5 PLUMBING ENLARGED PRESSURE - RHA PATIENT BATHROOMS
1/4" = 1'-0"



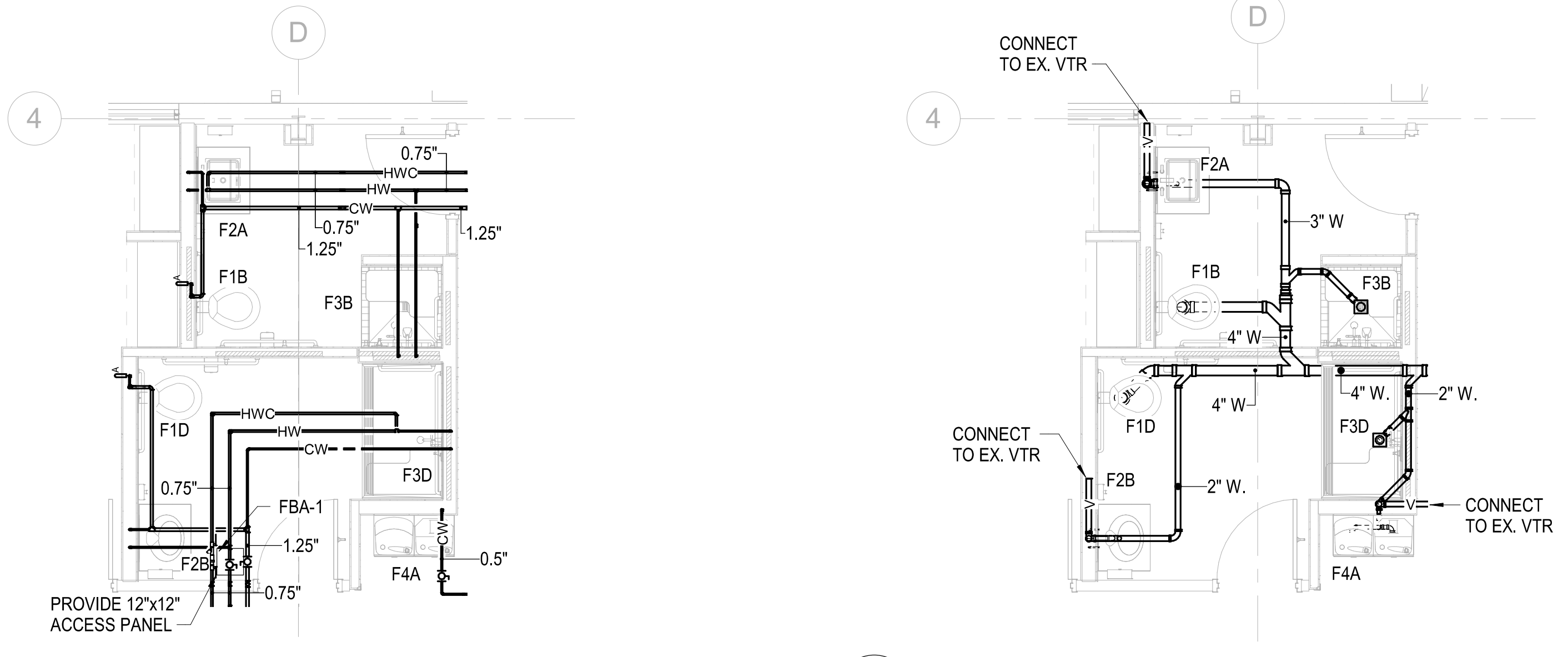
1 PLUMBING ENLARGED PRESSURE - LINC BATHROOMS
1/4" = 1'-0"



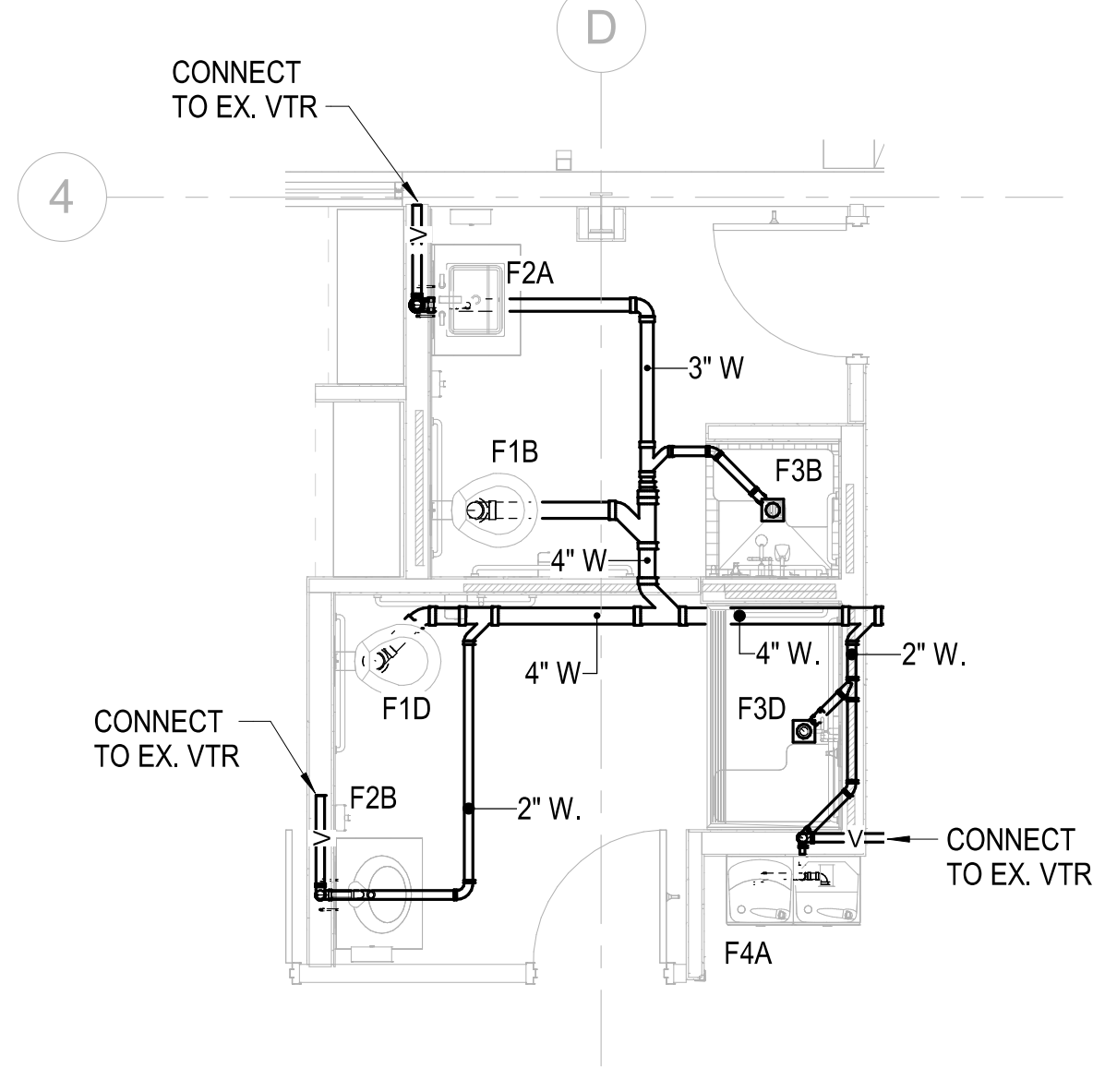
6 PLUMBING ENLARGED WASTE - RHA PATIENT BATHROOMS
1/4" = 1'-0"



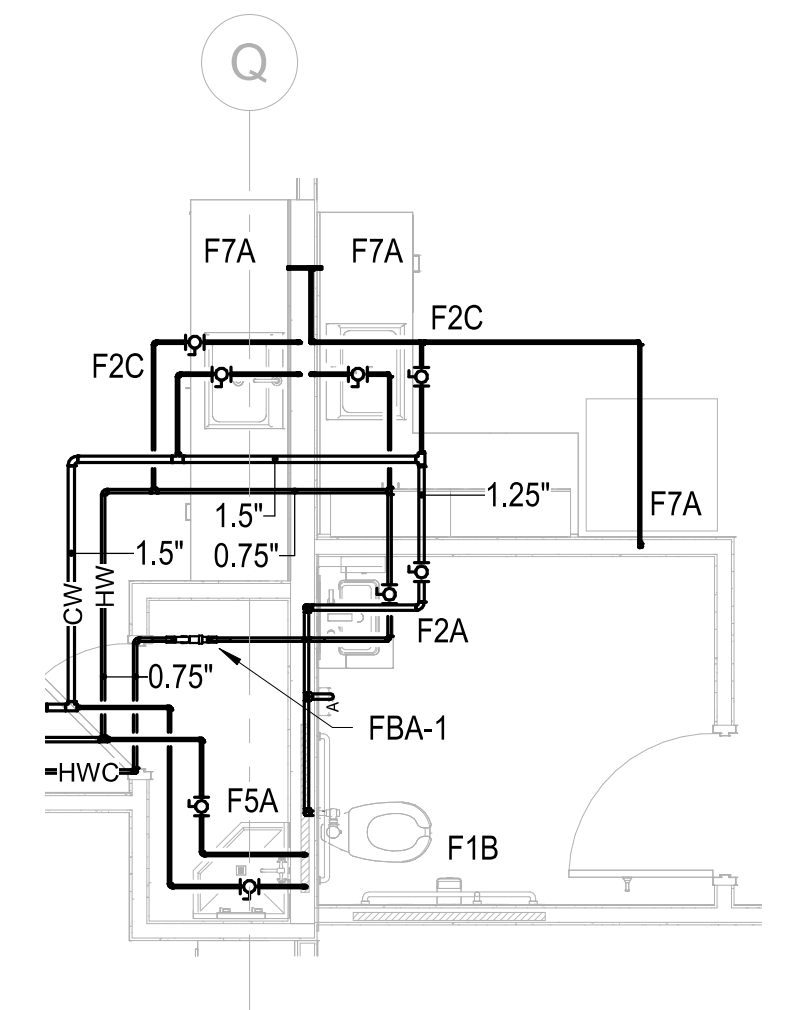
2 PLUMBING ENLARGED WASTE - LINC BATHROOMS
1/4" = 1'-0"



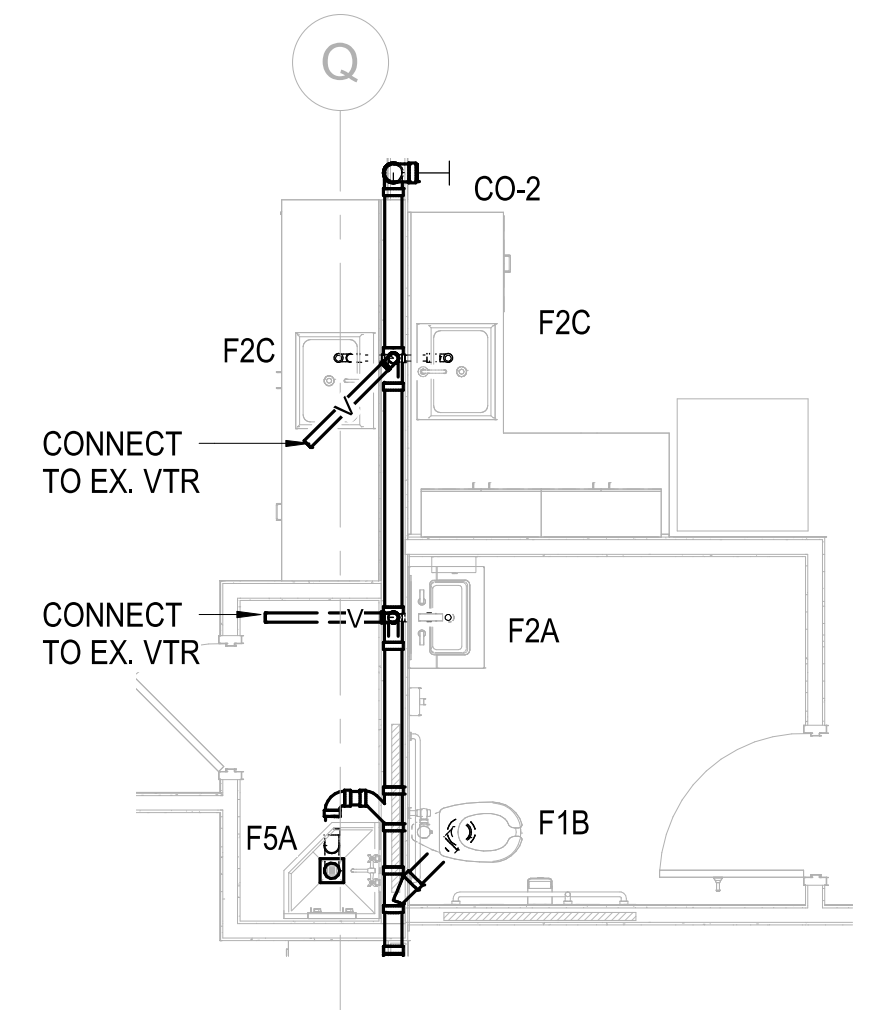
8 PLUMBING ENLARGED PRESSURE - NORTH BATHROOMS
1/4" = 1'-0"



7 PLUMBING ENLARGED WASTE - NORTH BATHROOMS
1/4" = 1'-0"



4 PLUMBING ENLARGED PRESSURE - SOUTH FIXTURE GROUP
1/4" = 1'-0"



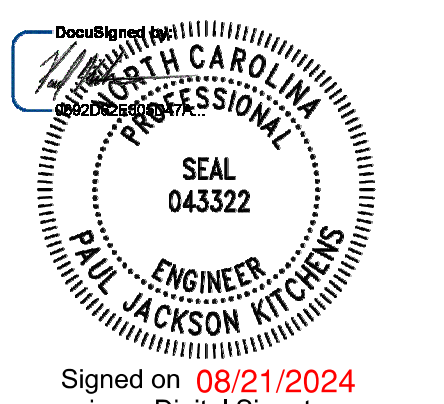
3 PLUMBING ENLARGED WASTE - SOUTH FIXTURE GROUP
1/4" = 1'-0"



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NEW HANOVER COUNTY
STAR CENTER
1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
2024.01.31	100% Design Development
2024.08.21	Big / Permit Set

SHEET NAME:
PLUMBING
ENLARGED VIEWS

ORIG SUBMISSION: 2024.04.17

SHEET: P-301

BID/ PERMIT SET

THE LINE SHOWN ABOVE IS EXACTLY
 THE LOCATION OF THE
 NOTIFICATION APPLIANCE

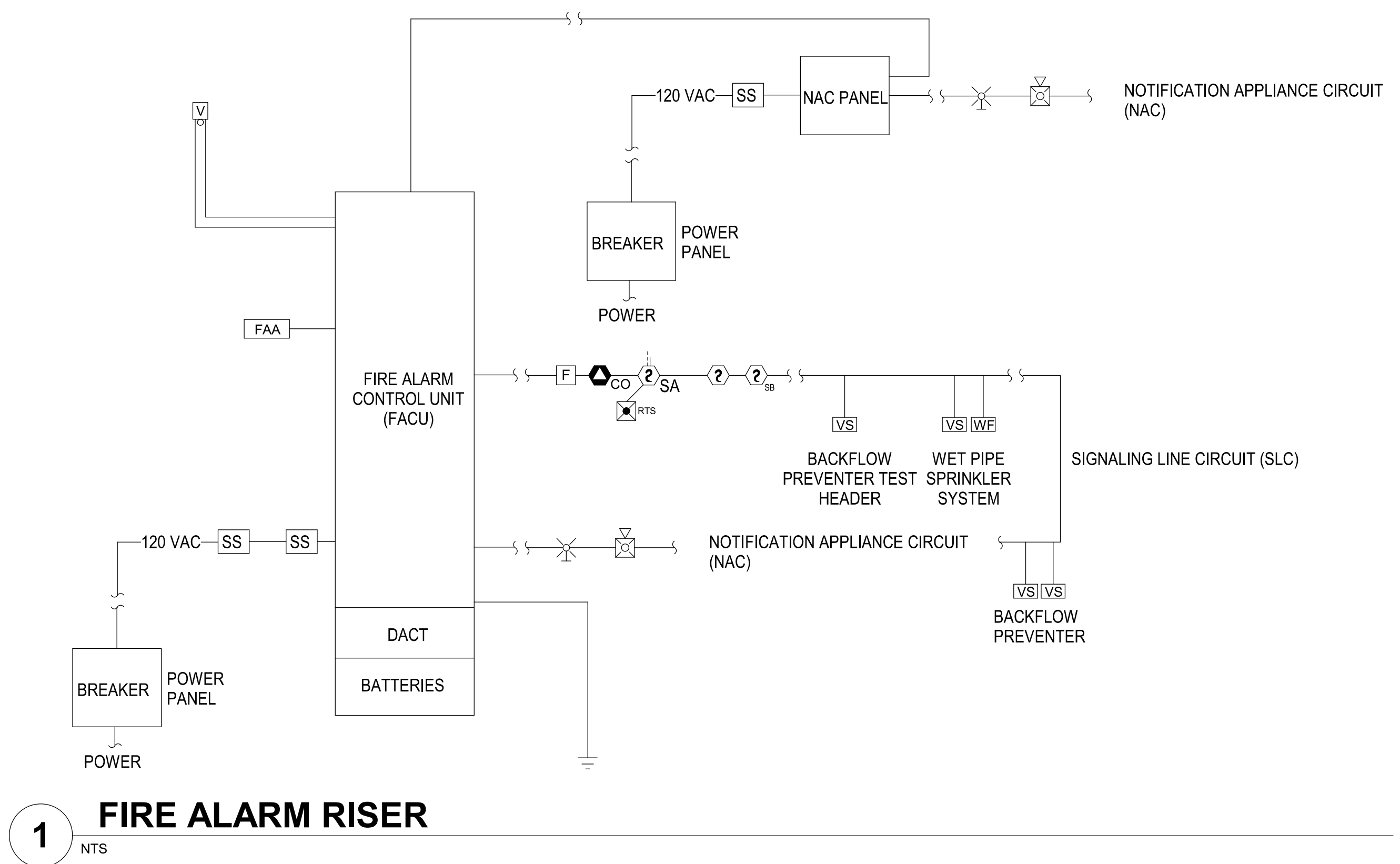
E

D

C

B

A



1 FIRE ALARM RISER
 NTS

FIRE ALARM LEGEND

- FAFU FIRE ALARM CONTROL UNIT
- FAA FIRE ALARM ANNUNCIATOR
- DACT DIGITAL ALARM COMMUNICATOR TRANSMITTER
- NAC NOTIFICATION CIRCUIT POWER BOOSTER
- F MANUAL FIRE ALARM PULL STATION
- 15 FIRE ALARM COMBINATION HORN/STROBE. NUMBER "15" INDICATES CANDELA LEVEL. C = CEILING MOUNTED
- SA FIRE ALARM STROBE, WALL MOUNT. NUMBER "15" INDICATES CANDELA LEVEL.
- SA ELECTRIC ALARM BELL, PROVIDED BY SPRINKLER CONTRACTOR, WIRED BY FIRE ALARM CONTRACTOR.
- SA DUCT SMOKE DETECTOR - PHOTOELECTRIC SA = SUPPLY RA = RETURN
- SA SMOKE DETECTOR - PHOTOELECTRIC SB = W/ SOUNDER BASE - 520 HZ
- RTS REMOTE ALARM INDICATING AND TEST SWITCH
- IM INPUT/OUTPUT MODULE
- WFS FLOW DETECTOR/SWITCH
- VS VALVE SUPERVISORY SWITCH
- SS SURGE SUPPRESSOR
- CO CARBON MONOXIDE DETECTOR
- AREA TO BE DEMOLISHED

GENERAL NOTES

1. DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION; INTERNATIONAL FIRE CODE (IFC) 2018 EDITION; NFPA 72, "NATIONAL FIRE ALARM & SIGNALING CODE" 2019 EDITION; NFPA 70, "NATIONAL ELECTRICAL CODE" 2020 EDITION; NFPA 101, "LIFE SAFETY CODE" 2021 EDITION.
2. FIRE ALARM FLOOR PLANS AND RISER DIAGRAM ARE DIAGRAMMATIC AND NOT INTENDED TO SHOW EACH AND EVERY COMPONENT, DEVICE, APPLIANCE, ETC. CONDUIT PATHWAYS AND INTERCONNECTIONS SHALL BE DETERMINED BY THE BUILDING FEATURES, NFPA 70, NFPA 72, SYSTEM MANUFACTURER REQUIREMENTS AND RECOMMENDATIONS.
3. CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BID WITH THE PROJECT DOCUMENTS AND SPECIFICATIONS TO BECOME FAMILIAR WITH THE SITE AND SCOPE OF WORK; NOTIFY ENGINEER OF RECORD WITH ANY DISCREPANCIES OUTSIDE THIS DESIGN INTENT. ANY CHANGE ORDER REQUEST AS A RESULT OF COORDINATION BETWEEN TRADES SHALL BE DENIED.
4. ADHERE TO AND OBTAIN ALL PERMITS, LICENSES AND ALL LOCAL GOVERNMENT REQUIREMENTS.
5. DO NOT SCALE PLANS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS. FIELD DIMENSIONS GOVERN.
6. FIRE STOP ALL PENETRATIONS OF SMOKE/FIRE PARTITIONS. FIRE STOPPING SHALL BE OF UL LISTED ASSEMBLY.

FIRE ALARM NOTES

1. CONTRACTOR SHALL SUBMIT COMPLETE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, MATERIAL SPECIFICATION BROCHURE, AND SHOP DRAWINGS TO OWNER'S TECHNICAL REPRESENTATIVE FOR REVIEW PRIOR TO COMMENCING ORDERING/PURCHASING. FAILURE TO COMPLY IS AT THE RISK OF THE CONTRACTOR.
2. CONTRACTOR SHALL PROVIDE AUDIBILITY PER NFPA 72 REQUIREMENTS. AUDIBLE SIGNALS SHALL HAVE A SOUND LEVEL AT LEAST 15 dB ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dB ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, MEASURED 5 FEET ABOVE FINISHED FLOOR.
3. ALL NOTIFICATION APPLIANCES CIRCUITS (NAC), SIGNALING LINE CIRCUITS (SLC), AND INDICATING DEVICE CIRCUITS (IDC) SHALL PERFORM TO CLASS "B".
4. THE INSTALLATION OF WIRING BETWEEN THE FAU AND RELAY MODULES OR APPLIANCES SHALL PERFORM TO CLASS "B".
5. CONDUCTORS FOR THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70. THE CONDUCTORS SHALL NOT BE INSTALLED WITH CONDUCTORS OF LIGHTING OR POWER SYSTEMS. THE SUM OF THE CROSS-AREA OF INDIVIDUAL CONDUCTORS SHALL NOT EXCEED 40% OF THE INTERIOR CROSS SECTION OF THE CONDUIT. ALL FIRE ALARM SYSTEM CONDUIT SHALL NOT BE LESS THAN 3/4". EXPOSED WIRING IS ACCEPTABLE AT CEILING LEVEL WITHIN PLENUM. EXPOSED WIRING SHALL BE PLENUM RATED.
6. WALL MOUNTED FIRE ALARM DEVICES IN UNFINISHED AREAS MAY BE SURFACED MOUNTED, THE CONDUIT MAY BE INSTALLED EXPOSED ON WALLS AND ON CEILINGS.
7. IN FINISHED AREAS, WALL MOUNTED DEVICES SHALL BE SURFACE MOUNTED. THE CONDUIT SHALL BE INSTALLED CONCEALED IN THE WALLS AND CEILINGS UNLESS REFERENCED AS CEILING MOUNTED.
8. COORDINATE WITH FIRE ALARM VENDOR FOR SYSTEM OPERATING INSTRUCTIONS AND WIRING DIAGRAMS.
9. ALL DUCT DETECTORS SHALL BE PROVIDED WITH REMOTE STATUS INDICATION. PROVIDE INDICATING LAMP FOR ALL CONCEALED DETECTORS.
10. DUCT SMOKE SENSORS SHALL BE IN ACCORDANCE WITH NFPA 72, NFPA 90A, IMC, AND AS INDICATED ON THE CONTRACT DOCUMENTS.
11. DUCT DETECTORS SHALL BE PROVIDED IN SUPPLY AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000-CFM. ACCESS TO DETECTORS SHALL BE PROVIDED FOR INSPECTION AND MAINTENANCE PURPOSES. ACTUATION OF THE DUCT DETECTOR SYSTEM SHALL SHUT DOWN ALL OPERATIONAL CAPABILITIES OF THE AFFECTED UNIT.
12. FIRE ALARM MANUAL PULL STATIONS AT DOOR OPENINGS SHALL BE WITHIN 5' - 0" HORIZONTALLY OF THE DOOR OPENING.
13. PROVIDE SYNCHRONIZATION FOR ALL NEW AUDIBLE (SPEAKER) AND VISIBLE (STROBE) NOTIFICATION APPLIANCES WHERE THERE ARE MORE THAN TWO DEVICES WITHIN A FIELD OF VIEW TO COMPLY WITH THE REQUIREMENTS OF NFPA 72.
14. PROVIDE TRANSIENT VOLT SURGE SUPPRESSION DEVICE WHERE CIRCUITS PENETRATE THE BUILDING ENVELOPE AND, FIRE ALARM EQUIPMENT SUPPLIED FROM THE BUILDING ELECTRICAL SYSTEM, (I.E. NAC BOOSTER PANELS, ETC), IN ACCORDANCE WITH NFPA 70 AND NFPA 72 REQUIREMENTS.
15. PROVIDE PATHWAY SURVIVABILITY OF LEVEL 1 IN ACCORDANCE WITH NFPA 72.
16. STROBE FOR VISUAL FIRE ALARM APPLIANCES SHALL HAVE WHITE/ CLEAR LENS WITH RED HOUSING AND BE LABELED "FIRE".
17. INSTALL SMOKE DETECTORS NO CLOSER THAN 3' - 0" TO HVAC AIR SUPPLY DIFFUSERS.
18. CONTRACTOR SHALL PROVIDE REQUIRED DOCUMENTATION IN A DOCUMENT CABINET AS REQUIRED BY NFPA 72 SECTIONS 7.7.2 AND 23.2.2.
19. REFER TO FIRE ALARM SYSTEM SPECIFICATION 28.46.21.11 FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
20. CONTRACTOR IS RESPONSIBLE FOR DESIGN CHANGES. ANY CHANGES TO DESIGN SHALL BE CAPTURED IN THE AS-BUILT DRAWINGS.

SYSTEM OUTPUTS

		SYSTEM INPUTS				SYSTEM OUTPUTS			
		FIRE ALARMS				FAFU	FIRE SAFETY	CENTRAL STATION	EVAC SIGNALS
		A	B	C	D	E	F	G	H
F1	MANUAL PULL STATION	X					X		
F2	SMOKE DETECTOR	X					X		
F3	WATER FLOW SWITCH	X					X		
F4	CARBON MONOXIDE			X					X
SUPERVISORY SIGNALS									
S1	SPRINKLER CONTROL VALVE		X				X		
S2	DUCT SMOKE DETECTOR		X			X	X		
S3	DWELLING UNIT SMOKE DETECTOR		X						X
TROUBLE CONDITIONS									
T1	FIRE ALARM AC POWER FAILURE		X					X	
T2	FIRE ALARM SYSTEM LOW BATTERY		X					X	
T3	OPEN CIRCUIT		X					X	
T4	GROUND FAULT		X					X	
T5	NOTIFICATION APPLIANCE CIRCUIT SHORT		X					X	



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**NEW HANOVER COUNTY
 STAR CENTER**
 1605 Robin Hood Rd. Wilmington, NC 28401
 LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
A	2024.01.31 100% Design Development
C	2024.01.31 100% Design Development
D	2024.08.21 Bid / Permit Set

SHEET NAME:
 FIRE ALARM-
 GENERAL NOTES

ORIG SUBMISSION: 01/31/24

SHEET:
FA-001

BID/ PERMIT SET

THE LINE SHOWN ABOVE IS EXACTLY
WHERE THE PANELS ARE TO BE
INSTALLED.

E

D

C

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GENERAL NOTES

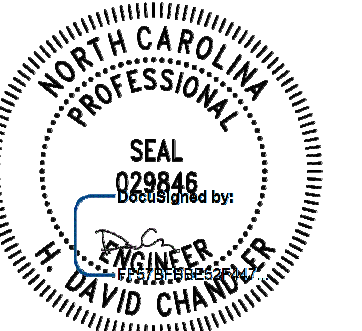
1. SEE SHEET FA-001 FOR GENERAL NOTES AND LEGEND.
2. FIRE ALARM SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 72.
3. ALL FIRE ALARM STROBES ARE 15 CANDELA UNLESS OTHERWISE NOTED.



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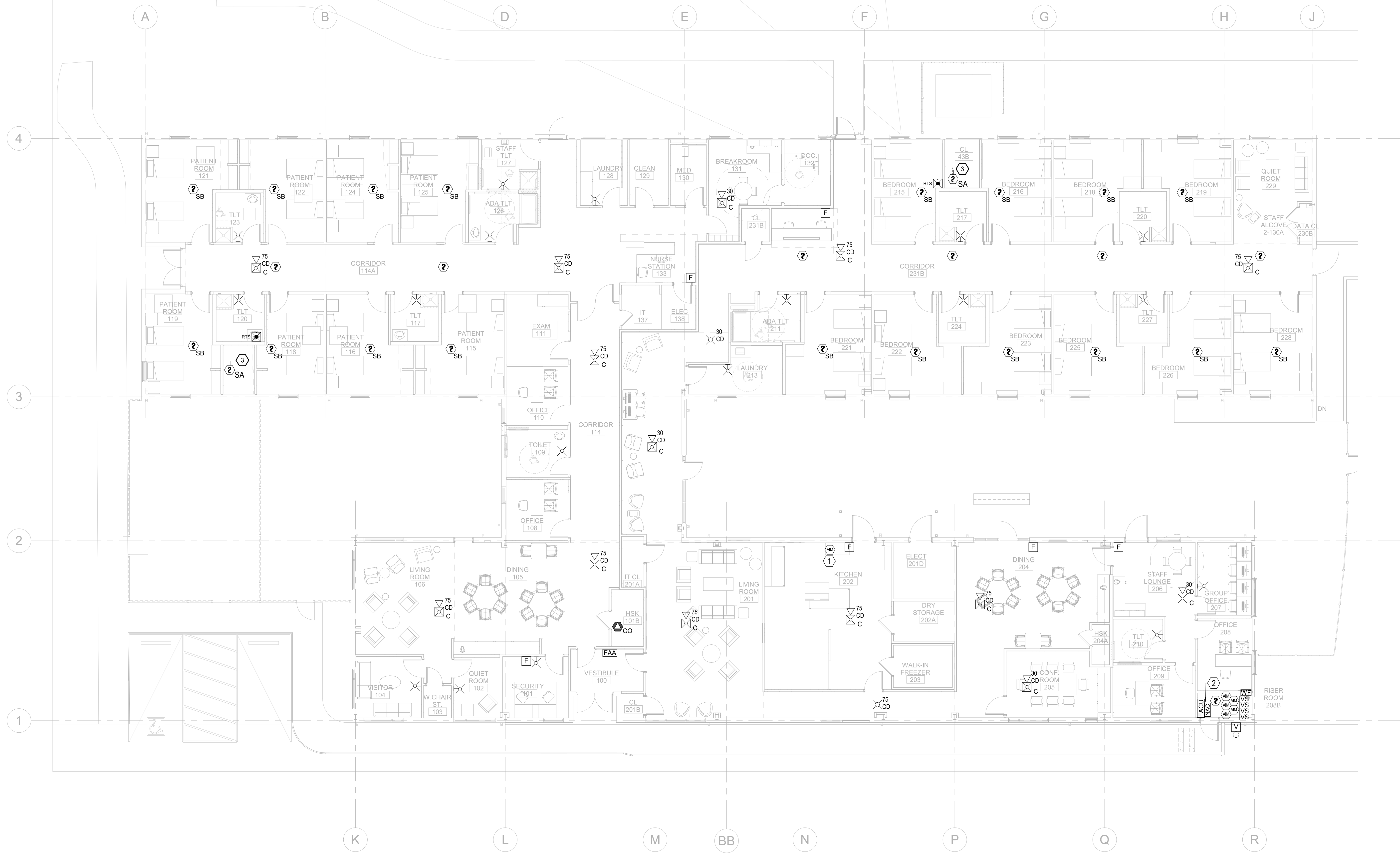


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KEY NOTES:

- 1 COORDINATE EXACT LOCATION OF HOOD SUPPRESSION SYSTEM MONITORING POINTS ON SITE.
- 2 PANELS ARE INSTALLED VERTICALLY ON THE WALL.
- 3 COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.



**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. - Wilmington, NC 28401
LSP PROJECT: 7405-230775

DATE	DESCRIPTION
A	2024.01.31 100% Design
C	Development
D	2024.08.21 Bid / Permit Set

SHEET NAME:
**FIRE ALARM -
FLOOR PLAN**

ORIG SUBMISSION: 01/31/24

SHEET:
FA-101

BID / PERMIT SET

1 FIRE ALARM - FLOOR PLAN
1/8" = 1'-0"

8/21/2024, 2:16:40 PM

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E

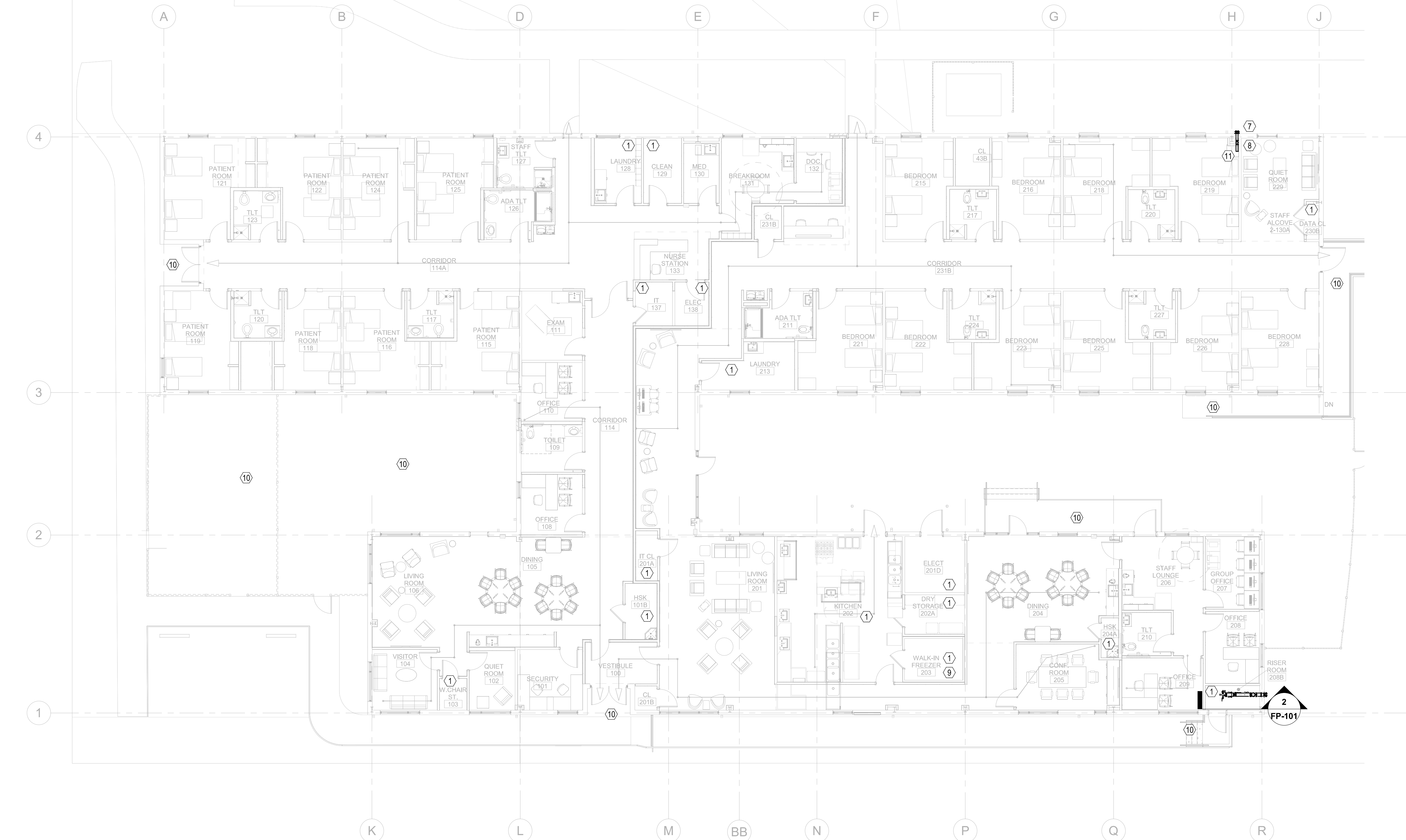
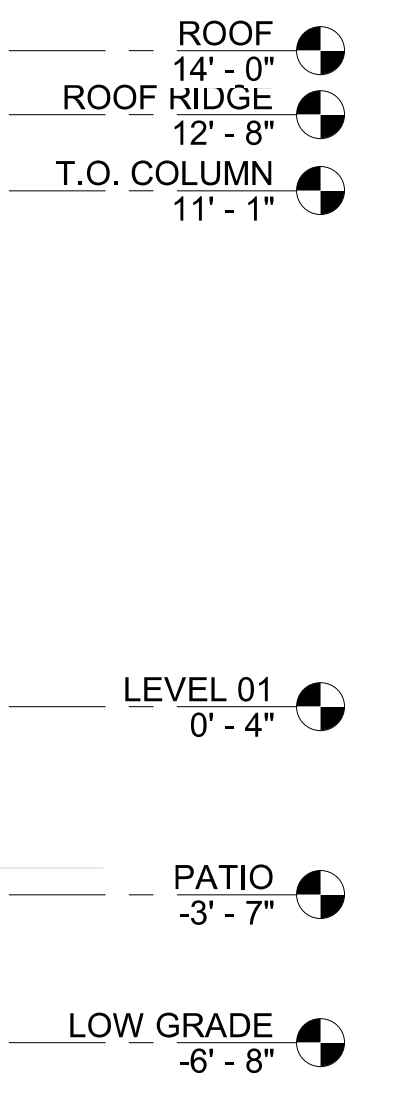
D

C

B

A

2 RISER ROOM SECTION
1/4" = 1'-0"



1 FIRE PROTECTION - FLOOR PLAN
1/8" = 1'-0"

- GENERAL NOTES:**
- SEE SHEET FP-001 FOR GENERAL NOTES & LEGEND.
 - FIRE SUPPRESSION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13.
 - CONTRACTOR SHALL COORDINATE ALL NEW SPRINKLER WORK WITH OTHER TRADES.
 - ALL AREAS ARE NFPA 13 DEFINED LIGHT HAZARD CRITERIA UNLESS NOTED OTHERWISE.
 - PROVIDE INSTITUTIONAL TYPE PENDENT SPRINKLERS IN ALL PATIENT ACCESSIBLE AREAS, UNLESS NOTED OTHERWISE.

- KEY NOTES:**
- PROVIDE ORDINARY HAZARD GROUP 1 DESIGN DENSITY IN THIS AREA. 0.15 GPM/SQ.FT. OVER THE MOST REMOTE 1,500 SQ.FT. WITH 130 SQ.FT. MAXIMUM COVERAGE PER SPRINKLER.
 - RISER MANIFOLD W/ FLOW SWITCH AND TEST AND DRAIN.
 - INCOMING 6" UNDERGROUND FIRE MAIN. REFERENCE CIVIL DRAWINGS FOR CONTINUATION.
 - 6" DOUBLE CHECK BACKFLOW ASSEMBLY
 - BUTTERFLY VALVE
 - BACKFLOW TEST HEADER OUTLET
 - FIRE DEPARTMENT CONNECTION
 - CHECK VALVE
 - PROVIDE CONCEALED DRY PENDENTS IN THIS AREA.
 - SPRINKLER PROTECTION NOT REQUIRED IN THIS AREA.
 - CONNECT TO INTERIOR FIRE SPRINKLER MAIN.



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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. - Wilmington, NC 28401
LSP PROJECT: 7405-230775

DATE	DESCRIPTION
2024.01.31	100% Design
	Development
2024.08.21	Big / Permit Set

SHEET NAME:
FIRE PROTECTION - FLOOR PLAN

ORIG SUBMISSION: 01/31/24

SHEET: **FP-101**

BID/ PERMIT SET

DEFINITIONS:

A. "PROVIDE" OR "FURNISH" MEANS TO SUPPLY, PURCHASE, TRANSPORT, PLACE, ERECT, CONNECT, LABEL, TEST AND TURN OVER TO OWNER, COMPLETE AND READY FOR REGULAR OPERATION. ALL MATERIALS, LABOR, EQUIPMENT, TESTING APPARATUS, CONTROLS, TESTS, ACCESSORIES AND ALL OTHER ITEMS CUSTOMARILY REQUIRED FOR A COMMUNICATIONS CABLING SYSTEM.

B. "SUPPLY" MEANS TO PURCHASE, PROCURE, ACQUIRE, AND DELIVER COMPLETE WITH RELATED ACCESSORIES.

C. "INSTALL" MEANS TO MOVE FROM PROPERTY LINE, SET IN PLACE, JOIN, UNITE, FASTEN, LINK, ATTACH, SET UP OR OTHERWISE CONNECT TOGETHER BEFORE TESTING AND TURNING OVER TO OWNER AND/OR COMPONENTS. IT MEANS THE INSTALLATION IS TO BE COMPLETE AND READY FOR REGULAR OPERATION, EXCEPT AS OTHERWISE NOTED.

D. "WIRING" OR "CABLING" INCLUDES FURNISHING, UNLESS OTHERWISE NOTED, OF ALL FITTINGS, HANGERS, SUPPORTS, SLEEVES, ETC.

E. "CONDUIT" AND "CABLE TRAY" INCLUDES FURNISHING, UNLESS OTHERWISE NOTED, OF ALL FITTINGS, HANGERS, SUPPORTS, SLEEVES, ETC.

F. "AS DIRECTED" MEANS AS INSTRUCTED BY THE PROJECT MANAGER OR HIS REPRESENTATIVE.

G. "CONCEALED" MEANS EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED BEHIND WALL FURRING OR WITHIN DOUBLE PARTITIONS, OR INSTALLED WITHIN HUNG CEILING.

H. "EXPOSED" MEANS NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.

I. "PERMANENT LINK" MEANS THE END-TO-END TEST CONFIGURATION FOR A LINK EXCLUDING TEST CORDS AND PATCH CORDS BUT INCLUDING THE MATED CONNECTION WITH THE LINK.

DESCRIPTION OF WORK:

A. IT IS THE INTENT OF THE LISTED SPECIFICATIONS TO CREATE AN ANSII/TIA-568-C COMPLIANT CABLING SYSTEM TO SUPPORT HIGH-SPEED DATA, VOICE AND VIDEO APPLICATIONS INCLUDING ETHERNET STANDARDS. SYSTEM ACCEPTANCE SHALL BE JUDGED ON ITS ABILITY TO PERFORM AS WELL AS THE SUCCESSFUL ADHERENCE TO THE INSTALLATION INSTRUCTIONS OF THIS SPECIFICATION, AND COMPLIANCE WITH PARTS AND WORKSMANSHIP WARRANTIES.

B. THE WORK COVERED BY THE LISTED SPECIFICATIONS INCLUDES THE INSTALLATION OF A COMPLETE CABLING SYSTEM, INCLUDING ALL LABOR NECESSARY TO PERFORM AND COMPLETE SUCH INSTALLATION, ALL MATERIALS AND EQUIPMENT INCORPORATED OR TO BE INCORPORATED IN SUCH INSTALLATION, AND ALL SERVICES, SUPERVISION, CONSUMABLE ITEMS, FEES, LICENSES, FACILITIES, TOOLS, AND EQUIPMENT NECESSARY OR USED TO PERFORM AND COMPLETE SUCH INSTALLATION.

C. THE LISTED SPECIFICATIONS ARE MATERIAL, EQUIPMENT, AND PERFORMANCE SPECIFICATIONS. PROVIDE PROJECT MANAGEMENT AND OVERSIGHT FOR THE INSTALLATION OF THE DRAWINGS. INSTALLATION DETAILS INDICATED ON THE DRAWINGS SHALL GOVERN IF THEY DIFFER FROM THE SPECIFICATIONS. CONTRACTOR IS OBLIGATED TO IDENTIFY SUCH DIFFERENCES AT THE TIME OF BID SUBMISSION.

D. IT IS THE INTENT OF THE LISTED SPECIFICATIONS THAT ALL ITEMS UNDER THESE SECTIONS BE ENGINEERED, ASSEMBLED, INSTALLED AND MAINTAINED BY, AND UNDER THE FULL RESPONSIBILITY OF A SINGLE CONTRACTOR, WHETHER THESE PROCESSES ARE ACTUALLY PERFORMED BY THE CONTRACTOR OR NOT.

E. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE GOVERNMENTAL REGULATIONS AND WITH ALL FEDERAL, STATE, CITY, AND OTHER APPLICABLE CODES AND ORDINANCES. IF THE CONTRACTOR PERFORMS ANY WORK WHICH IS CONTRARY TO SUCH REGULATIONS, CODES, AND ORDINANCES, CONTRACTOR SHALL MAKE ALL CHANGES TO COMPLY THEREWITH AND BEAR ALL COSTS ARISING THEREFROM.

F. PREPARATION OF SHOP DRAWINGS, RECORD OR AS-BUILT DRAWINGS, MANUFACTURER CUT SHEETS, AND OTHER DOCUMENTATION DESCRIBED HEREIN.

G. THE WORK INCLUDED IS DEFINED BY THE FOLLOWING AND FURTHER DEFINED IN THE DRAWINGS AND SECTIONS OF DIVISION 27:

1. PROVIDE PROJECT MANAGEMENT AND OVERSIGHT FOR THE INSTALLATION OF A COMPLETE STRUCTURED CABLING SYSTEM.
2. PREPARE AND SUBMIT COMPONENT / EQUIPMENT DOCUMENTATION SHOP DRAWINGS, OUTLET LABELING DRAWINGS, CABLE PULL/TERMINATION SCHEDULES, CABLE TEST RESULTS AND AS BUILT DRAWINGS AS DESCRIBED WITHIN THIS SPECIFICATION AND PER THE GENERAL CONDITIONS.

VENDOR QUALIFICATIONS

A. THE OWNER SEEKS TO IDENTIFY A QUALIFIED LOW VOLTAGE COMMUNICATIONS CABLING CONTRACTOR CAPABLE OF PERFORMING THE SCOPE OF WORK AS IDENTIFIED IN THE CONTRACT DOCUMENTS.

B. STRUCTURED CABLING SYSTEM INSTALLER SHALL CURRENTLY BE A MANUFACTURER'S CERTIFIED SYSTEM INSTALLER IN GOOD STANDING WITH FIVE YEARS MINIMUM EXPERIENCE WITHIN THE SCOPE OF THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. INSTALLATION CREW SHALL HAVE A MINIMUM OF 1 BICSI CERTIFIED LEVEL 1 INSTALLER AND 1 BICSI CERTIFIED LEVEL 2 INSTALLER PER EVERY 3 PERSONNEL, AND SYSTEM INSTALLATION SHALL BE MANAGED BY A REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER (RCDD). SUBMITTAL SHOP DRAWINGS SHALL HAVE THE RCDD REGISTRATION STAMP ON EACH SHEET.

C. CRAFT PERSONNEL WILL BE REQUIRED TO PROVIDE AND USE THE PROPER TOOLS AND TEST EQUIPMENT IN THE PERFORMANCE OF EACH ACTIVITY. THE TOOLS MUST BE IN GOOD WORKING ORDER, AND THE TEST EQUIPMENT MUST HAVE CURRENT CALIBRATION CERTIFICATES, AS APPLICABLE. THE OWNER RESERVES THE RIGHT TO REVIEW THE TOOL AND TEST EQUIPMENT LISTS AND MAINTENANCE PROCEDURES OF THE CONTRACTOR.

D. THE CONTRACTOR REPRESENTS THAT HE/SHE IS FAMILIAR WITH AND HAS EXPERTISE IN THE WORK OF THIS NATURE AND SCOPE. THE CONTRACTOR FURTHER AGREES THAT HE/SHE SHALL PROVIDE ALL WORK AS MAY BE REQUIRED TO MAKE A COMPLETE JOB OF THAT WHICH MAY NOT BE FULLY DEFINED IN THE CONTRACT DOCUMENTS.

WARRANTY

A. EQUIPMENT SHALL BE FREE OF FAULTY WORKMANSHIP AND DEFECTS FOR A PERIOD OF 1 YEAR FROM DATE OF SUBSTANTIAL COMPLETION, AND AS SPECIFIED IN GENERAL CONDITIONS.

B. REPLACE DEFECTIVE MATERIALS AND REPAIR FAULTY WORKMANSHIP WITHIN THREE DAYS OF NOTIFICATION AT NO COST TO THE OWNER DURING WARRANTY PERIOD.

C. IN ADDITION TO WARRANTY, PROVIDE MAINTENANCE SERVICE FOR THE WARRANTY PERIOD, INCLUDING AT LEAST 2 SEMI-ANNUAL VISITS TO SITE FOR CHECKING AND ADJUSTMENT OF EQUIPMENT. DURING THIS PERIOD, ANSWER SERVICE CALLS WITHIN 24 HOURS. DURING THIS PERIOD, MAINTENANCE CALLS SHALL BE COMPLETED WITHIN THREE DAYS OF NOTIFICATION AND AT NO COST TO THE OWNER.

D. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER THE ISSUANCE OF A FULL WARRANTY ON THE ENTIRE COPPER AND FIBER OPTIC CABLE PLANT INCLUDING THE HORIZONTAL CABLING FOR BOTH PARTS AND LABOR. THE CABLING CONTRACTOR AT HIS SOLE EXPENSE WILL CORRECT ANY DEFICIENCIES DETERMINED BY THE MANUFACTURER.

E. MANUFACTURER'S EXTENDED WARRANTY:

1. ALL MANUFACTURER EXTENDED PRODUCT WARRANTIES SHALL BE AFFORDED TO THE OWNER. A COPY OF CERTIFICATION BY THE MANUFACTURER FOR ALL PRODUCTS LISTED IN THIS SPECIFICATION IS TO BE PROVIDED.
2. PROVIDE A 25-YEAR MINIMUM PRODUCT WARRANTY AND SYSTEM ASSURANCE WARRANTY FOR THIS CABLING SYSTEM COVERING HARDWARE AND LABOR TO REPLACE ANY CHANNEL THAT FAILS THE PERFORMANCE REQUIREMENTS SPECIFIED HEREIN WITHIN THE WARRANTY PERIOD. PROVIDE CABLING AND CONNECTOR PRODUCTS FROM MANUFACTURERS WHO EITHER MANUFACTURE BOTH CABLE AND TERMINATING HARDWARE OR HAVE PARTNERED WITH OTHER MANUFACTURERS TO PROVIDE SUCH AN EXTENDED WARRANTY.
3. PRIOR TO COMMENCEMENT OF THE WORK, THE SUCCESSFUL BIDDER SHALL CONTACT AN AUTHORIZED MANUFACTURER'S REPRESENTATIVE TO INFORM THEM THAT THIS JOB IS BEING REGISTERED UNDER THE WARRANTY PROGRAM.
4. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER THE ISSUANCE OF A FULL WARRANTY ON THE ENTIRE COPPER AND FIBER OPTIC CABLE PLANT INCLUDING THE HORIZONTAL CABLING FOR BOTH PARTS AND LABOR. THE CABLING CONTRACTOR AT HIS SOLE EXPENSE WILL CORRECT ANY DEFICIENCIES DETERMINED BY THE MANUFACTURER.

WORK INCLUDED:

A. PROVIDE LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE WORK DEFINED IN, BUT NOT LIMITED TO, THE FOLLOWING SPECIFICATION SECTIONS:

1. ALL WORK OF SECTION 270526 - GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS
2. ALL WORK OF SECTION 270528 - PATHWAYS FOR COMMUNICATIONS SYSTEMS
3. ALL WORK OF SECTION 270529 - HANGERS AND SUPPORTS FOR COMMUNICATIONS SYSTEMS
4. ALL WORK OF SECTION 270543 - UNDERGROUND PATHWAYS AND STRUCTURES FOR COMMUNICATIONS SYSTEMS
5. ALL WORK OF SECTION 270544 - SLEEVES AND SLEEVE SEALS FOR COMMUNICATIONS PATHWAYS AND CABLING
6. ALL WORK OF SECTION 270548 - SEISMIC CONTROLS FOR COMMUNICATIONS SYSTEMS
7. ALL WORK OF SECTION 270553 - IDENTIFICATION FOR COMMUNICATIONS SYSTEMS
8. ALL WORK OF SECTION 270800 - TESTING OF COMMUNICATIONS CABLING
9. ALL WORK OF SECTION 271100 - COMMUNICATIONS EQUIPMENT ROOM FITTINGS
10. ALL WORK OF SECTION 271116 - COMMUNICATIONS CABINETS, RACKS FRAMES AND ENCLOSURES
11. ALL WORK OF SECTION 271323 - COMMUNICATIONS OPTICAL FIBER CABLING
12. ALL WORK OF SECTION 271513 - COMMUNICATIONS COPPER HORIZONTAL CABLING

1. REFER TO THE GENERAL AND SUPPLEMENTARY CONDITIONS FOR SPECIAL REQUIREMENTS AND CONDITIONS WHICH APPLY TO ALL SECTIONS OF DIVISION 27.
2. REFER TO THE LEGEND SHEET FOR ADDITIONAL PROJECT REQUIREMENTS, WHERE APPLICABLE.

CODES AND STANDARDS:

A. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE GOVERNMENTAL REGULATIONS AND WITH ALL FEDERAL, STATE, CITY, AND OTHER APPLICABLE CODES AND ORDINANCES. IF THE CONTRACTOR PERFORMS ANY WORK WHICH IS CONTRARY TO SUCH REGULATIONS, CODES, AND ORDINANCES, CONTRACTOR SHALL MAKE ALL CHANGES TO COMPLY THEREWITH AND BEAR ALL COSTS ARISING THEREFROM.

B. ALL PRODUCTS, SERVICES AND MATERIALS PROVIDED AND PERFORMED UNDER THE SCOPE OF THIS SPECIFICATION SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS. REFER TO THE MOST RECENT VERSION, UPDATE OR ADDENDA:

1. NFPA 70-2020
2. NORTH CAROLINA STATE ELECTRICAL CODE-2018
3. ANSII/TIA-568-1-E, COMMERCIAL BUILDING TELECOMMUNICATIONS CABLING STANDARD
4. ANSII/TIA-568-2-D BALANCED TWISTED-PAIR TELECOMMUNICATIONS CABLING AND COMPONENTS STANDARD
5. ANSII/TIA-568-3-D, OPTICAL FIBER CABLING COMPONENTS STANDARD
6. ANSII/TIA-568-E-1, COMMERCIAL BUILDING STANDARDS FOR TELECOMMUNICATIONS PATHWAYS AND SPACES
7. ANSII/TIA-606-D, ADMINISTRATION STANDARD FOR TELECOMMUNICATIONS INFRASTRUCTURE
8. ANSII/TIA-607-D, GENERIC TELECOMMUNICATIONS BONDING AND GROUNDING (EARTHING) FOR CUSTOMER PREMISES
9. ANSII/TIA-758-B, CUSTOMER-OWNED OUTSIDE PLANT TELECOMMUNICATIONS INFRASTRUCTURE STANDARD
10. ANSII/TIA-818-B, BUILDING AUTOMATION SYSTEMS CABLING STANDARD
11. ANSII/TIA-942-B, TELECOMMUNICATIONS INFRASTRUCTURE FOR DATA CENTERS
12. FCC PART 15
13. FCC PART 68
14. IEEE 802.3AB, 1000BASE-T ETHERNET SPECIFICATION
15. IEEE 802.3AF POWER OVER ETHERNET (POE) STANDARD
16. IEEE 802.3AT POWER OVER ETHERNET+ (PDS) STANDARD
17. IEEE 802.3AN PHYSICAL LAYER AND MANAGEMENT PARAMETERS FOR 10 GBPS OPERATION TYPE 10GBASE-T
18. IEEE 802.3BA MEDIA ACCESS CONTROL PARAMETERS, PHYSICAL LAYERS AND MANAGEMENT PARAMETERS FOR 40 GBPS AND 100 GBPS OPERATION
19. IEEE 802.11, WIRELESS ETHERNET SPECIFICATIONS, INCLUDING, 802.11N (WIFI 4), 802.11AC (WIFI 5) AND 802.11 AX (WIFI 6)
20. IEEE 802.12, 100BASE-TX ETHERNET
21. NEC ARTICLE 770, OPTICAL FIBER CABLES
22. NEC ARTICLE 800, COMMUNICATIONS CIRCUITS
23. NFPA 70, NATIONAL ELECTRICAL CODE
24. NFPA 75, PROTECTION OF ELECTRONIC COMPUTER / DATA PROCESSING EQUIPMENT
25. NFPA 101, LIFE SAFETY CODE
26. UNDERWRITERS LABORATORIES INC. (UL) — FIRE RESISTANCE DIRECTORY
27. ASTM E 84, SURFACE CHARACTERISTICS OF BUILDING MATERIALS
28. ASTM E 119, FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS
29. ASTM E 814, FIRE TESTS OF PENETRATION FIRESTOP SYSTEMS
30. ANSI/UL263, FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS
31. ANSI/UL723, SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS
32. ANSI/UL1479, FIRE TESTS OF THROUGH PENETRATION FIRESTOPS.

QUALITY ASSURANCE

A. PROVISION OF MANUFACTURED COMPONENTS, INSTALLATION, WIRING AND TESTING SHALL BE THE RESPONSIBILITY OF A SINGLE CONTRACTOR.

B. SUPPLY ONLY NEW EQUIPMENT, PARTS AND MATERIAL CURRENTLY MANUFACTURED AT THE TIME OF SUBMITTAL, AND OPERATE ONLY FOR TESTING AS PART OF INSTALLATION PROCEDURE. EQUIPMENT AND MATERIALS OF THE SAME TYPE SHALL BE A PRODUCT OF THE SAME MANUFACTURER UNLESS SPECIFICALLY EXEMPTED IN ADVANCE. A SPECIFIC EXAMPLE IS ALL PRODUCTS COMPRISING THE PERMANENT LINK (STATION CABLE, PATCH PANELS, JACKS, FACEPLATES, ETC.). ALL EQUIPMENT SHALL BE EQUAL TO OR EXCEED THE MINIMUM REQUIREMENTS OF OSHA, NEMA, IEEE, ASME, ANSI, NEC AND UNDERWRITERS LABORATORIES.

C. CONDUIT SIZES SPECIFIED HEREIN OR INDICATED ON THE DRAWINGS REFER TO THE STANDARD TRADE SIZES. ARE FOR IDENTIFICATION PURPOSES ONLY, AND ARE NOT ACTUAL DIMENSIONS.

D. CODES, STANDARDS AND REGULATIONS REFERRED TO ARE MINIMUM STANDARDS. WHERE THE REQUIREMENTS OF THESE SPECIFICATIONS OR DRAWINGS EXCEED THOSE OF THE CODES, STANDARDS AND REGULATIONS, THE DRAWINGS OR SPECIFICATIONS GOVERN. LOCAL ELECTRICAL AND BUILDING CODES IN NORTH CAROLINA MAY BE MORE STRINGENT THAN NATIONAL CODES, RECOMMENDATIONS OR PRACTICE. FOLLOW THE MOST RESTRICTIVE CODE OR RECOMMENDATIONS.

E. COMPONENT MANUFACTURER SHALL BE ISO 9001:2008 CERTIFIED AND OFFER PRODUCTS THAT ARE ROHS COMPLIANT.

F. PRIOR TO CONDUCTING ANY TRANSMISSION OR PERFORMANCE TESTING, THE FOLLOWING VISUAL INSPECTIONS WILL BE PERFORMED:

1. VERIFY THAT ALL CABLES HAVE BEEN INSTALLED TO FULL COMPLIANCE WITH THE SPECIFICATIONS AND PER MANUFACTURER RECOMMENDATIONS.
2. CHECK FOR PHYSICAL DAMAGE TO THE COPPER AND OPTICAL FIBER DISTRIBUTION PANELS AND TERMINATION HARDWARE.
3. CHECK THAT ALL CABLING IS PROPERLY JACKETED, INSTALLATION PROPERLY LABELED AT BOTH ENDS OF THE CABLE, INNERDUCT AND TERMINATION HARDWARE IS COMPLETED IN ALL TELECOM ROOMS AND EQUIPMENT ROOMS.
4. VERIFY THAT ALL CABLE BENDS ARE WITHIN THE MANUFACTURER'S SPECIFIED BEND RADIUS.
5. VERIFY THAT ALL CABINETS AND RACKS (WHICH REQUIRE GROUNDING) ARE PROPERLY GROUNDED AND COMPLY WITH THE NATIONAL AND LOCAL ELECTRICAL CODES FOR GROUNDING.
6. VERIFY THAT THE CABLES ARE PROPERLY APPROVED AND STRUCTURALLY SUPPORTED FOR TERMINATION.
7. VERIFY THAT THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION HAVE BEEN SATISFIED.

RECORD DRAWINGS

A. A RECORD OF FIELD AND AS-INSTALLED CONDITIONS SHALL BE MAINTAINED AT THE SITE. SHALL BE KEPT CURRENT THROUGHOUT THE PROJECT, AND SHALL BE USED IN PREPARATION OF THE FINAL RECORD DRAWINGS. FIELD AND AS-INSTALLED CONDITIONS SHALL BE RECORDED ON DESIGN DRAWINGS AND SHALL BE MARKED TO INCLUDE ADDENDA, CHANGE ORDERS, FIELD CHANGES AND SELECTIONS MADE DURING CONSTRUCTION.

B. UPON COMPLETION OF THE PROJECT, SUBMIT MARKED-UP DRAWINGS INDICATING FIELD AND AS-INSTALLED CONDITIONS, AND SHOP DRAWINGS INCORPORATING CHANGES MADE DURING CONSTRUCTION FOR RACEWAYS AND EQUIPMENT. SUBMIT FULL-SIZE PDFS.

C. REFER TO ADDITIONAL RECORD DRAWING REQUIREMENTS LISTED IN DIVISION 01.

SUBMITTALS

A. SUBMITTAL PROCEDURES

1. WITHIN 14 DAYS AFTER NOTICE TO PROCEED, SUBMIT AN ANTICIPATED PROJECT SCHEDULE AND A SCHEDULE INDICATING THE PROPOSED SUBMISSION DATE OF EACH SUBMITTAL SPECIFIED HEREIN. SCHEDULE SHALL ANTICIPATE THE SUBMITTAL REVIEW TIME, THE POSSIBLE NEED FOR RESUBMITTALS, AND THE TIME REQUIRED FOR FABRICATION, SHIPPING AND INTEGRATION INTO THE CONSTRUCTION SEQUENCE. ARCHITECT AND/OR ENGINEER WILL ADVISE OF ANY CONFLICTS IN REVIEWING SUBMITTALS THAT THE PROPOSED SCHEDULE PRESENTS.
2. SUBMITTALS SHALL BE PREPARED IN A LINE-BY-LINE FORMAT CORRESPONDING TO THESE SPECIFICATIONS AND SHALL INDICATE COMPLIANCE WITH EACH REQUIREMENT SPECIFIED HEREIN AND INDICATED IN THE DRAWINGS.
3. RESUBMITTALS THAT ARE REQUIRED TO ADDRESS REVIEW COMMENTS SHALL INCLUDE A COVER TRANSMITTAL WITH A WRITTEN EXPLANATION OF HOW EACH REVIEW COMMENT HAS BEEN ADDRESSED.
4. SUBMITTAL DATA FOR EACH SPECIFICATION SECTION SHALL BE SUBMITTED AS A SINGLE PACKAGE.
5. SUBMITTALS NOT SPECIFICALLY REQUIRED, OR NOT COMPLYING WITH THE FORMAT REQUIREMENTS, WILL BE RETURNED UNREVIEWED.
6. ALL SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT UNLESS STATED OTHERWISE.
7. SUBMITTALS ARE REQUIRED BEFORE INSTALLATION BEGINS. EQUIPMENT SHALL NOT BE ORDERED, AND PAY REQUESTS WILL NOT BE APPROVED PRIOR TO RECEIPT AND APPROVAL OF SUBMITTALS.

SHOP DRAWING SUBMITTALS

1. PRODUCT SUBMITTALS SHALL INCLUDE ALL EQUIPMENT, MATERIALS AND CABLES BEING UTILIZED ON THE PROJECT.
 2. DATA SHEETS SHALL CLEARLY INDICATE THE SPECIFIC MODEL OR PART NUMBER BEING SUBMITTED FOR REVIEW INCLUDING SIZES, COLOR, FINISHES, AND OTHER ATTRIBUTES TO ADEQUATELY ALLOW SUBMITTED PRODUCT TO BE REVIEWED.
 3. ALL RELATED SYSTEM COMPONENTS SHALL BE SUBMITTED AS PART OF THE SAME SUBMISSION (I.E. PATCH PANELS, JACKS, FACEPLATES, CABLE, ETC.). INDICATE MANUFACTURER'S INSTALLATION INSTRUCTIONS, WHERE APPLICABLE, INCLUDING ANY DEVIATIONS REQUIRED DUE TO PROJECT CONDITIONS.
 4. FURNISH SAMPLE PRODUCTS AS REQUIRED FOR REVIEW BY ENGINEER AND/OR ARCHITECT INCLUDING ANY ASSEMBLY MOCKUPS.
- C. SHOP DRAWING SUBMITTALS
1. REPRODUCTIONS OR ELECTRONIC VERSIONS OF DESIGN DRAWINGS SHALL NOT BE USED IN THE PREPARATION OF SHOP DRAWINGS.
 2. WIRING DIAGRAMS INDICATING PROPOSED CONNECTIONS OF EQUIPMENT, EQUIPMENT TYPES, MODEL NUMBERS, AND DESIGNATIONS FOR CABLES AND TERMINATION POINTS.
 3. FLOOR PLANS INDICATING EQUIPMENT LOCATIONS INCLUDING EQUIPMENT IDENTIFICATION AND REFERENCES TO WIRING DETAILS.
 4. MAJOR, COORDINATED CONDUIT AND CABLE TRAY PATHWAYS.
 5. SHOP DRAWINGS OF FABRICATED OR MODIFIED UNITS, IF ANY.
 6. SEISMIC AND WIND RESTRAINT DEVICES, INCLUDING CALCULATIONS, RESTRAINT SELECTION, INSTALLATION DETAILS AND WRITTEN CONFIRMATION THAT A LICENSED ENGINEER PREPARED THE CALCULATIONS.
 7. DESCRIPTION OF LABELING METHODS (INCLUDING THE LABEL SCHEME AND METHOD OF ATTACHMENT) AND SPECIFIC LABELS BEING USED FOR CABLE AND OUTLETS.
 8. SEPARATE ONE-LINE DIAGRAMS INDICATING THE PROPOSED BACKBONE DISTRIBUTION, AND THE HORIZONTAL DISTRIBUTION (TYPICALLY ONE DIAGRAM FOR EACH OUTLET TYPE).
 9. ELEVATIONS OF EQUIPMENT RACKS, CABINETS, AND TELEPHONE BACKBOARDS INDICATING EQUIPMENT PLACEMENT.

LEED REQUIREMENTS

A. FOR PROJECTS SEEKING LEED CERTIFICATION, THE FOLLOWING REQUIREMENTS APPLY:

1. ADHESIVES AND SEALANTS

ADHESIVES, SEALANTS, AND SEALANT PRIMERS USED INSIDE THE BUILDING (DEFINED AS INSIDE THE WEATHER ENVELOPE AND APPLIED ON SITE) SHALL COMPLY WITH SCAMOD RULE 1168-2005 FOR VOLATILE ORGANIC COMPOUND CONTENT LIMITS. AEROSOL ADHESIVES SHALL COMPLY WITH GS 36-2013 FOR VOLATILE ORGANIC COMPOUND CONTENT LIMITS.

2. PAINTS AND COATINGS

ANTICORROSIVE AND ANTI-RUST PAINTS APPLIED TO INTERIOR FERROUS METAL SHALL NOT EXCEED A VOLATILE ORGANIC COMPOUND CONTENT LIMIT OF 250 G/L PER GS 11-2015.

SPACE CONDITIONS

A. VERIFY DIMENSIONS OF EQUIPMENT, EQUIPMENT ARRANGEMENTS, SPACE AVAILABILITY (INCLUDING ANY MILLWORK OR CABINETS PROVIDED BY OTHERS) AND PROVIDE SYSTEMS THAT WORK WITHIN THE CONSTRAINTS OF THE SPACE. AVAILABILITY. NOTIFY THE ARCHITECT AND/OR ENGINEER OF ANY SITUATION WHERE SPACE CONSTRAINTS ARE A PROBLEM PRIOR TO THE ORDERING OR PURCHASE OF EQUIPMENT. THE CONTRACTOR SHALL BEAR THE EXPENSE OF PROVIDING ALTERNATE EQUIPMENT WHICH WILL WORK WITHIN THE AVAILABLE SPACE, IF SPACE AVAILABILITY PROBLEMS ARE DISCOVERED AFTER EQUIPMENT IS ORDERED.

B. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND, UNLESS EXPLICITLY DIMENSIONED, INDICATE APPROXIMATE EQUIPMENT AND COMPONENTS. CHANGES IN THE LOCATION, AND OFFSETS, OF SAME WHICH ARE NOT SHOWN ON THE DRAWINGS BUT ARE NECESSARY IN ORDER TO ACCOMMODATE BUILDING CONDITIONS AND COORDINATION WITH THE WORK OF OTHER TRADES, SHALL BE MADE DURING THE PRODUCTION OF SHOP DRAWINGS (WHERE APPLICABLE) AND PRIOR TO INITIAL INSTALLATION, WITHOUT ADDITIONAL COST TO THE OWNER.

C. REFER TO ADDITIONAL COORDINATION REQUIREMENTS LISTED IN DIVISION 01.

D. PROVIDE ACCESS TO EQUIPMENT AND COMPONENTS REQUIRING OPERATION, SERVICE OR MAINTENANCE WITHIN THE LIFE OF THE SYSTEM.

ENVIRONMENTAL REQUIREMENTS

A. SYSTEMS OR EQUIPMENT INSTALLED IN ENVIRONMENTALLY CONTROLLED AREAS SHALL MEET PERFORMANCE REQUIREMENTS SPECIFIED HEREIN IN THE FOLLOWING CONDITIONS:

1. TEMPERATURE: 40°F TO 95°F.
 2. HUMIDITY: 20% TO 80% RH.
 3. AIR PURITY: SYSTEMS SHALL BE CAPABLE OF CONTINUOUS OPERATION IN AN ENVIRONMENT WHERE THE LEVEL OF DUST, LINT, PAPER FIBER, AND OTHER AIRBORNE PARTICLES IS EQUAL TO THAT FOUND IN A STANDARD OFFICE.
- B. SYSTEMS OR EQUIPMENT INSTALLED IN ENVIRONMENTALLY UNCONTROLLED AREAS SHALL MEET PERFORMANCE REQUIREMENTS SPECIFIED HEREIN IN THE FOLLOWING CONDITIONS:
1. TEMPERATURE: 0°F TO 120°F.
 2. HUMIDITY: 5% TO 95% RH.
- C. SYSTEMS OR EQUIPMENT INSTALLED IN OUTDOOR AREAS SHALL MEET PERFORMANCE REQUIREMENTS SPECIFIED HEREIN IN THE FOLLOWING CONDITIONS:
1. WIND-DRIVEN DUST, DIRT, SAND, AND SNOW FOR 6 HOURS.
 2. RAIN AT A MAXIMUM RATE OF 4" PER HOUR.
 3. ICE LOADS UP TO 2" MEASURED RADIALLY TO EXPOSED SURFACES.
 4. WIND: 85 MPH, MAXIMUM.
 5. SLEET WITH WIND: 55 MPH, MAXIMUM.
 6. SNOW COVER: 2" MAXIMUM, MEASURED VERTICALLY.
 7. HUMIDITY: 0% TO 100% RH.
 8. TEMPERATURE: -30°F TO 150°F.

OPERATIONS AND MAINTENANCE MANUALS

A. THESE OPERATION AND MAINTENANCE MANUAL REQUIREMENTS SUPPLEMENT OPERATION AND MAINTENANCE MANUAL DOCUMENTATION REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

B. OPERATION AND MAINTENANCE DOCUMENTATION SHALL BE SUBMITTED IN PDF FORMAT UNLESS OTHERWISE STATED.

C. THE OPERATING AND MAINTENANCE DOCUMENTATION PACKAGE SHALL BE SUBMITTED AS ONE COMPREHENSIVE PACKAGE 3 WEEKS BEFORE SYSTEMS ACCEPTANCE TESTING, AND SHALL BE UPDATED, REVISED AND COMPLETED DURING, AND AT COMPLETION OF, PERFORMANCE VERIFICATION.

D. DOCUMENTATION SHALL BE TYPE WRITTEN AND SHALL CONTAIN, AT A MINIMUM, THE FOLLOWING INFORMATION:

1. INTRODUCTION:
 - A. PROJECT NAME, CONTRACTORS' AND SUBCONTRACTORS' NAMES, ADDRESSES, TELEPHONE NUMBERS AND EMAIL ADDRESSES.
 - B. INDEX.
 2. OPERATIONS AND MAINTENANCE DOCUMENTATION DIRECTORY:
 - A. LIST OF THE IDENTIFICATION SYSTEM USED, INCLUDING LISTS OF SYSTEMS, EQUIPMENT AND COMPONENT IDENTIFIERS AND NAMES.
 3. CONTACT INFORMATION:
 - A. EMERGENCY CONTACT INFORMATION FOR THE WARRANTY PERIOD.
 - B. CHANNEL WARRANTY MANUFACTURER CONTACT INFORMATION FOR WARRANTY ISSUES.
 4. EMERGENCY INFORMATION (FOR ACTIVE ELECTRONICS)
 - A. INFORMATION FOR TECHNICAL AND NONTECHNICAL PERSONNEL ABOUT ACTIONS RECOMMENDED DURING EMERGENCY SITUATIONS TO PROTECT PROPERTY AND TO MINIMIZE DISRUPTION TO THE BUILDING OCCUPANTS. EMERGENCIES INCLUDE BUT ARE NOT LIMITED TO POWER FAILURE, HEATING FAILURE, COOLING FAILURE.
 5. APPROVED SUBMITTALS.
 6. MAINTENANCE MANUAL:
 - A. DESCRIPTIONS (SPECIFICATIONS) OF THE EQUIPMENT AND COMPONENTS.
 - B. RECOMMENDED MAINTENANCE PROCEDURES AND THEIR RECOMMENDED FREQUENCY FOR THIS PROJECT.
 - C. RECOMMENDED LIST OF SPARE PARTS, PART NUMBERS, AND THE PLACE(S) FROM WHICH THEY CAN BE OBTAINED.
 - D. ORIGINAL PURCHASE ORDER NUMBER, DATE OF PURCHASE; NAME, ADDRESS, AND THE TELEPHONE NUMBER OF THE VENDOR; AND WARRANTY INFORMATION.
 - E. MANUFACTURERS RECOMMENDED PROCEDURES.
 7. TEST REPORTS AND CERTIFICATIONS:
 - A. COMMUNICATIONS CABLE HORIZONTAL CHANNEL TEST REPORTS.
 - B. BROADBAND CABLE TEST REPORTS.
 - C. OTHER COPPER CABLE TEST REPORTS.
 - D. FIBER OPTIC CABLE TEST REPORTS.
 8. CONSTRUCTION DOCUMENTS:
 - A. RECORD DRAWINGS.
 - B. WARRANTY CERTIFICATES.
- E. AN ELECTRONIC COPY OF CONSTRUCTION DOCUMENTS SHALL BE INCLUDED ON CD-ROM WITHIN EACH OPERATION AND MAINTENANCE BINDER. CLOSE-OUT MATERIALS PROVIDED IN ELECTRONIC FORMAT SHALL INCLUDE RECORD DRAWINGS, APPROVED SUBMITTALS, WARRANTY CERTIFICATES, AND TEST REPORTS.
- F. SUBMIT A RECEIPT SIGNED BY THE OWNER ACKNOWLEDGING RECEIPT OF THE OPERATION AND MAINTENANCE DOCUMENTATION PACKAGE.

GENERAL INSTALLATION REQUIREMENTS

A. INSTALL PLENUM RATED CABLES WHERE CABLES ARE NOT INSTALLED IN CONDUITS OR ENCLOSED WIREWAYS.

B. INSTALL CABLES DESIGNED FOR THE INSTALLATION ENVIRONMENT.

1. FOR EACH CABLE DISTRIBUTION APPLICATION, INSTALL FIBER OPTIC AND COPPER CABLES UL LISTED FOR THE APPLICATION.
2. FOR CABLE DISTRIBUTION APPLICATIONS INCLUDING ENCLOSURES OR RACEWAYS UNDERGROUND OR IN SLABS ON GRADE, INSTALL FIBER OPTIC AND COPPER CABLES DESIGNED FOR USE IN WET LOCATIONS.

C. PROVIDE INCIDENTAL EQUIPMENT OR DEVICES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM.

D. VERIFY CORRECTNESS OF PARTS LISTS AND EQUIPMENT MODEL NUMBERS AND CONFORMANCE OF EACH COMPONENT WITH MANUFACTURER'S SPECIFICATIONS.

E. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

F. EQUIPMENT, EXCEPT PORTABLE EQUIPMENT, SHALL BE HELD IN PLACE. THIS SHALL INCLUDE EQUIPMENT, ELABORATE COMPONENTS, AND CABLES, FASTENINGS AND SUPPORTS SHALL SUPPORT THEIR LOADS WITH A SAFETY FACTOR OF AT LEAST 3 UNLESS OTHERWISE SPECIFIED HEREIN.

G. PREVENT AND GUARD AGAINST ELECTROMAGNETIC AND ELECTROSTATIC HUM, AND INSTALL THE EQUIPMENT TO PROVIDE SAFETY FOR THE OPERATOR.

H. REPAIR OR REPLACE ANY EQUIPMENT OR MATERIALS DAMAGED DURING THE CONSTRUCTION PERIOD.

I. COORDINATE ELECTRICAL RECEPTACLE LOCATIONS FOR SPECIALTY EQUIPMENT (RACKS, CABINETS, WALL-MOUNT EQUIPMENT, ETC.) WITH THE ELECTRICAL CONTRACTOR.

J. ALL INTERIOR ABOVE-GRADE CONDUITS FOR COMMUNICATIONS SHALL BE EMT, AND ALL EXTERIOR AND UNDERGROUND CONDUITS FOR COMMUNICATIONS SHALL BE RGC, UNLESS OTHERWISE NOTED. FLEXIBLE METALLIC AND NON-METALLIC CONDUITS SHALL NOT BE USED UNLESS SPECIFICALLY NOTED.

K. EXPOSED EQUIPMENT, EQUIPMENT SUPPORTS, AND COMPONENTS IN THE TELECOMMUNICATIONS ROOMS SHALL HAVE A FLAT BLACK FINISH UNLESS OTHERWISE SPECIFIED HEREIN.

L. KEEP ALL ITEMS PROTECTED BEFORE AND AFTER INSTALLATION. PROVIDE PROTECTION FOR EXPOSED CABLES ROUGHED OUT ON THE FLOOR PRIOR TO THEIR INSTALLATION INTO THE FURNITURE SYSTEMS. CLEAN UP AND REMOVE ALL DEBRIS.

M. IF PRODUCTS AND MATERIALS ARE SPECIFIED HEREIN FOR A SPECIFIC ITEM OR SYSTEM, USE THOSE PRODUCTS OR MATERIALS. IF PRODUCTS AND MATERIALS ARE NOT LISTED, USE FIRST-CALASS PRODUCTS AND MATERIALS, SUBJECT TO ACCEPTANCE OF PRODUCT SUBMITTALS AND SHOP DRAWINGS.

N. THE LOCATIONS OF STRUCTURAL AND ARCHITECTURAL FEATURES, EXISTING SLEEVES, FLOOR SLOTS, TERMINATION AND CROSS CONNECT FIDES, PANELS, RACKS AND OTHER EQUIPMENT INDICATED ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATIONS, AND SUITABILITY OF ALL SUCH ITEMS, AND MAKE ANY REQUIRED MODIFICATIONS TO CONTRACT DOCUMENTS NECESSARY TO COMPLETE THIS WORK.

O. EXAMINE AND COMPARE THE COMMUNICATIONS CABLING DRAWINGS AND SPECIFICATIONS WITH THE DRAWINGS AND SPECIFICATIONS OF OTHER TRADES; REPORT ANY DISCREPANCIES BETWEEN THEM, AND OBTAIN WRITTEN INSTRUCTIONS FOR CHANGES NECESSARY IN THE WORK.

P. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ASSURE THAT THE MAXIMUM TENSILE LOAD AND MINIMUM BEND RADIUS OF ALL CABLES (FIBER AND COPPER) ARE NOT EXCEEDED. WHEN TERMINATING UTP CABLE, THE CONTRACTOR MUST MAINTAIN PAIR TWISTS UP TO THE TERMINATION POINT AND THE CABLE SHEATH SHALL NOT BE REMOVED MORE THAN 0.5" FROM THE TERMINATION POINT. VELCRO WRAPS ARE TO BE HAND TIGHTENED ON CABLES TO PREVENT CRIMPING CABLE SHEATH. PLASTIC WRAPS ARE TO BE USED ON ANY CABLES. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONNECTORIZED CABLES FROM DAMAGE BY OTHER CONTRACTORS AT THE INFORMATION OUTLET BEFORE AND AFTER INSTALLATION OF THE OUTLET FACEPLATES.

Q. EQUIPMENT OPERATED PRIOR TO THE DATE OF SUBSTANTIAL COMPLETION SHALL BE MAINTAINED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

R. FURNISH, INSTALL, TERMINATE AND TEST ALL HORIZONTAL (STATION) AND BACKBONE CABLING FOR ALL FLOORS SHOWN IN THE ATTACHED AND ASSOCIATED DRAWINGS AND AS DESCRIBED BELOW:

1. THE CONTRACTOR SHALL ROUTE ALL COPPER AND FIBER CABLING, UNLESS OTHERWISE IDENTIFIED, VIA HUNG CEILING, CABLE TRAY, LADDER RACK, CONDUITS, RAISED FLOORS, POKE-THROUGHS, AND FURNITURE SYSTEMS UNLESS OTHERWISE NOTED. CONTRACTOR SHALL INSTALL ALL OVERHEAD STATION CABLES IN SUCH A MANNER THAT THE SELECTED ROUTE DOES NOT IN ANY WAY COMPROMISE CEILING INTEGRITY. CABLES THAT ARE ROUTED IN OPEN CEILING AREAS MUST BE NEATLY WRAPPED WITH VELCRO OR HOOK AND LOOP TAPE AND SUSPENDED WITH THE APPROPRIATE HANGERS. CABLES SHALL NOT BE ALLOWED TO REST ON DUCTS, PIPES AND CONDUITS. AT NO TIME WILL CABLE BE SUPPORTED FROM HUNG CEILING OR CEILING SUPPORT WIRES. ALL OVERHEAD CABLING MUST BE NEATLY BUNDLED AND SECURED AS SUCH. PLASTIC WRAPS ARE TO BE USED ON ALL OVERHEAD CABLES. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONNECTORIZED CABLES FROM DAMAGE BY OTHER CONTRACTORS AT THE INFORMATION OUTLET BEFORE AND AFTER INSTALLATION OF THE OUTLET FACEPLATES.
2. INSTALL CABLES IN RACEWAYS AND CABLE TRAYS EXCEPT WITHIN CONSOLES, CABINETS, DESKS, AND COUNTERS. CONCEAL RACEWAY AND CABLES EXCEPT IN UNFINISHED SPACES.
3. INSTALL PLENUM CABLE IN ENVIRONMENTAL AIR SPACES, INCLUDING PLENUM CEILING.
4. FIBER OPTIC AND COPPER CABLES INSTALLED IN ENCLOSURES OR RACEWAYS UNDERGROUND OR IN SLABS ON GRADE SHALL BE DESIGNED FOR USE IN WET LOCATIONS.
5. CABLE RACEWAYS SHALL NOT BE FILLED GREATER THAN THE ANSII/TIA-568-C MAXIMUM FILL FOR THE PARTICULAR RACEWAY TYPE OR 40%.
6. HORIZONTAL DISTRIBUTION CABLES SHALL BE BUNDLED IN GROUPS OF NO MORE THAN 50 CABLES FOR CATEGORY 5E AND 6, AND NO MORE THAN 24 CABLES FOR CATEGORY 6A. CABLES BUNDLED TOGETHER EXCEEDING THESE LIMITS MAY CAUSE DEFORMATION OF THE BOTTOM CABLES WITHIN THE BUNDLE AND DEGRADE CABLE PERFORMANCE.
7. CABLE SHALL BE INSTALLED ABOVE FIRE-SPRINKLER SYSTEMS AND SHALL NOT BE ATTACHED TO THE SYSTEM OR ANY AUXILIARY EQUIPMENT OR HARDWARE. THE CABLE SYSTEM AND SUPPORT HARDWARE SHALL BE INSTALLED SO THAT IT DOES NOT OBSCURE ANY VALVES, FIRE ALARM CONDUIT, OR OTHER CONTROL DEVICES.
8. CORE DRILLING AND THE INSTALLATION OF AFTERSETS, GROMMETED ACCESS SLOTS, SLEEVES, CONDUITS, FIRE-RATED POKE-THROUGHS, AND RACEWAYS REQUIRED TO ROUTE COPPER AND FIBER OPTIC CABLING WILL BE FURNISHED AND INSTALLED BY PARTIES AS INDICATED BY CONTRACT DOCUMENTS, WHERE PATHWAYS FURNISHED BY OTHERS ARE NOT SUFFICIENT FOR THE ROUTING OF CABLING. THIS CONDITION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER IN WRITING, BY THIS CONTRACTOR.
9. AS INDICATED, CABLING SHALL RUN TO WORKSTATION AND OTHER OUTLETS THROUGH CAVITIES IN THE DRYWALL AND OPENINGS IN SHEET METAL OR WOODEN STUDS WITHIN THE DRYWALL CONSTRUCTION. THE SHEET METAL STUDS WILL NOT BE GASKETED FOR THIS PURPOSE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXERCISE EXTREME CARE IN SNAKING CABLE THROUGH THESE OPENINGS TO AVOID DAMAGE TO THE CABLE JACKETING. THIS INSTALLATION METHOD IS ONLY APPROVED FOR INSTALLATION OF CABLES IN EXISTING WALLS. ALL NEW CONSTRUCTION SHALL RECEIVE CONDUIT AND BACKBOX AT EACH OUTLET LOCATION PER THE REQUIREMENTS OF THE DIVISION 27 SPECIFICATIONS AND PER THE PROJECT DRAWING DETAILS.
10. INFORMATION OUTLET FACEPLATES FOR ALL BOXES WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AND MATCH THE COLOR AND FINISH OF THE ADJACENT POWER RECEPTACLE.

S. UNDER NO CIRCUMSTANCE SHALL ANY DEVICE BE CONNECTED TO OWNER'S DATA NETWORK WITHOUT APPROVAL FROM THE OWNER. THIS INCLUDES ANY LAPTOP, PC, NETWORK SWITCH, HUB, WIRELESS ACCESS POINT, SECURITY CAMERA, INTERCOM STATION, NETWORK DIAGNOSTIC TOOL, OR ANY OTHER DEVICE CAPABLE OF CONNECTING TO THE DATA NETWORK.

T. IP ADDRESSES FOR ANY CONTRACTOR-INSTALLED EQUIPMENT WILL BE FURNISHED BY THE OWNER. ONLY DEVICES THAT HAVE BEEN CONFIGURED WITH AN OWNER PROVIDED IP ADDRESS, SUBNET MASK, GATEWAY ADDRESS, DHCP RESERVATION, ETC. MAY BE PLACED ON THE NETWORK, AND ONLY AFTER RECEIVING APPROVAL FROM THE OWNER.

1. REQUESTS FOR IP ADDRESSES SHALL BE MADE AT LEAST 14 DAYS IN ADVANCE.
2. PROVIDE OWNER WITH A LIST OF DEVICES REQUIRING IP ADDRESSES, INCLUDING THE SERIAL NUMBER AND MAC ADDRESS OF EACH DEVICE.

10. DETAILED COORDINATED LAYOUTS OF COMMUNICATIONS ROOMS AT 1/4" = 1'-0" SCALE INDICATING EACH COMPONENT DRAWN TO SCALE, INCLUDING COORDINATED POWER CONNECTIONS, LIGHTING, HVAC, AND OTHER TRADES' EQUIPMENT SUCH AS SECURITY PANELS, PAGING, FIRE ALARM PANELS, AND SERVICE PROVIDER EQUIPMENT.

D. QUALIFICATIONS AND CERTIFICATES

1. SUBMIT MANAGEMENT AND INSTALLATION TEAM REFERENCE DOCUMENTATION VERIFYING THAT:
 - A. THE PROJECT MANAGER IS A RCDD IN GOOD STANDING WITH BICSI AND IS QUALIFIED TO MANAGE THE SCOPE OF WORK DESCRIBED IN THE CONTRACT DOCUMENTS AND HAS FIVE (5) YEARS OF EXPERIENCE MANAGING SIMILAR PROJECTS IN SIZE AND SCOPE. THE DOCUMENTATION SHALL INCLUDE THE RCDD REGISTRATION NUMBER. THE FIELD SUPERVISOR IS A BICSI TRAINED TECHNICIAN THAT IS QUALIFIED TO PERFORM AND OVERSEE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS.
 - B. THE CONTRACTOR IS CERTIFIED BY THE MANUFACTURER OF THE STRUCTURED CABLING SYSTEM BEING INSTALLED AND IS AUTHORIZED TO ISSUE A MANUFACTURER'S WARRANTY FOR THE INSTALLED SOLUTION.
2. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION THAT WITHIN THE PAST 12 MONTHS, A MINIMUM OF 75% OF ALL INSTALLATION PERSONNEL HAVE BEEN TRAINED OR CERTIFIED BY THE MANUFACTURER OF THE PRODUCTS THEY ARE INSTALLING.
3. A COPY OF THE CALIBRATION CERTIFICATE FOR ALL FIELD-TEST INSTRUMENTS INDICATING THAT THE TESTER HAS BEEN CALIBRATED WITHIN THE CALIBRATION PERIOD RECOMMENDED BY THE MANUFACTURER.

INSTRUCTION OF OPERATING PERSONNEL

A. WHERE REQUIRED FOR INSTALLED SPECIALTY SYSTEMS (I.E. PAGING SYSTEMS, CLOCK SYSTEMS, NURSE CALL, NETWORKING EQUIPMENT, ETC.), CONDUCT FORMAL INSTRUCTION SESSIONS FOR OPERATING PERSONNEL. CONDUCT 2 SIMILAR SESSIONS. THE FIRST SESSION SHALL BE CONDUCTED AT THE TIME OF START-UP AND CHECK-OUT, AND THE SECOND SESSION SHALL BE APPROXIMATELY 2 MONTHS LATER. SESSIONS SHALL BE CONDUCTED AT THE SITE.

B. PREPARE AND SUBMIT A SYLLABUS DESCRIBING AN OVERVIEW OF THE PROGRAM, DESCRIBING HOW THE PROGRAM WILL BE CONDUCTED, WHEN AND WHERE MEETINGS ARE TO BE HELD, NAMES AND COMPANY AFFILIATIONS OF LECTURERS, DESCRIPTION OF CONTENTS AND OUTLINE FOR EACH LECTURE, AND RECOMMENDED REFERENCE MATERIAL AND OUTSIDE READING. OBTAIN DIRECTION FROM THE OWNER ON WHICH OPERATING PERSONNEL SHALL BE INSTRUCTED IN EACH SYSTEM.

C. SESSIONS SHALL INCLUDE AND HAVE ADEQUATE DURATION TO PROVIDE:

1. GENERAL FAMILIARIZATION AND OPERATING PROCEDURES FOR EACH SPECIALTY SYSTEMS INSTALLATION.
2. ROUTINE MAINTENANCE PROCEDURES FOR EQUIPMENT.
3. USER LEVEL PROGRAMMING OF PROGRAMMABLE SYSTEMS.

D. SESSIONS SHALL BE PROVIDED BY FACTORY-TRAINED TECHNICIANS OR OTHER PERSONNEL PROFICIENT IN THE OPERATION OF THE SYSTEM TRAINING BEING CONDUCTED.

E. PROVIDE MP4 FORMAT VIDEO OF TRAINING SESSIONS AND A COMPLETE RECORD COPY OF TRAINING MATERIALS, HANDOUTS, AND OTHER PRINTED MATERIALS USED IN EACH TRAINING SESSION.

F. OBTAIN RECEIPT ACKNOWLEDGING COMPLETION OF EACH ITEM OF INSTRUCTION.

OPERATIONS AND MAINTENANCE MANUALS

A. THESE OPERATION AND MAINTENANCE MANUAL REQUIREMENTS SUPPLEMENT OPERATION AND MAINTENANCE MANUAL DOCUMENTATION REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

B. OPERATION AND MAINTENANCE DOCUMENTATION SHALL BE SUBMITTED IN PDF FORMAT UNLESS OTHERWISE STATED.

C. THE OPERATING AND MAINTENANCE DOCUMENTATION PACKAGE SHALL BE SUBMITTED AS ONE COMPREHENSIVE PACKAGE 3 WEEKS BEFORE SYSTEMS ACCEPTANCE TESTING, AND SHALL BE UPDATED, REVISED AND COMPLETED DURING, AND AT COMPLETION OF, PERFORMANCE VERIFICATION.

D. DOCUMENTATION SHALL BE TYPE WRITTEN AND SHALL CONTAIN, AT A MINIMUM, THE FOLLOWING INFORMATION:

1. INTRODUCTION:
 - A. PROJECT NAME, CONTRACTORS' AND SUBCONTRACTORS' NAMES, ADDRESSES, TELEPHONE NUMBERS AND EMAIL ADDRESSES.
 - B. INDEX.
2. OPERATIONS AND MAINTENANCE DOCUMENTATION DIRECTORY:
 - A. LIST OF THE IDENTIFICATION SYSTEM USED, INCLUDING LISTS OF SYSTEMS, EQUIPMENT AND COMPONENT IDENTIFIERS AND NAMES.
3. CONTACT INFORMATION:
 - A. EMERGENCY CONTACT INFORMATION FOR THE WARRANTY PERIOD.
 - B. CHANNEL WARRANTY MANUFACTURER CONTACT INFORMATION FOR WARRANTY ISSUES.
4. EMERGENCY INFORMATION (FOR ACTIVE ELECTRONICS)
 - A. INFORMATION FOR TECHNICAL AND NONTECHNICAL PERSONNEL ABOUT ACTIONS RECOMMENDED DURING EMERGENCY SITUATIONS TO PROTECT PROPERTY AND TO MINIMIZE DISRUPTION TO THE BUILDING OCCUPANTS. EMERGENCIES INCLUDE BUT ARE NOT LIMITED TO POWER FAILURE, HEATING FAILURE, COOLING FAILURE.
5. APPROVED SUBMITTALS.
6. MAINTENANCE MANUAL:
 - A. DESCRIPTIONS (SPECIFICATIONS) OF THE EQUIPMENT AND COMPONENTS.
 - B. RECOMMENDED MAINTENANCE PROCED

THE LINE SHOWN ABOVE IS EXACTLY
OUTLINE OF THE
INDICATED AREA

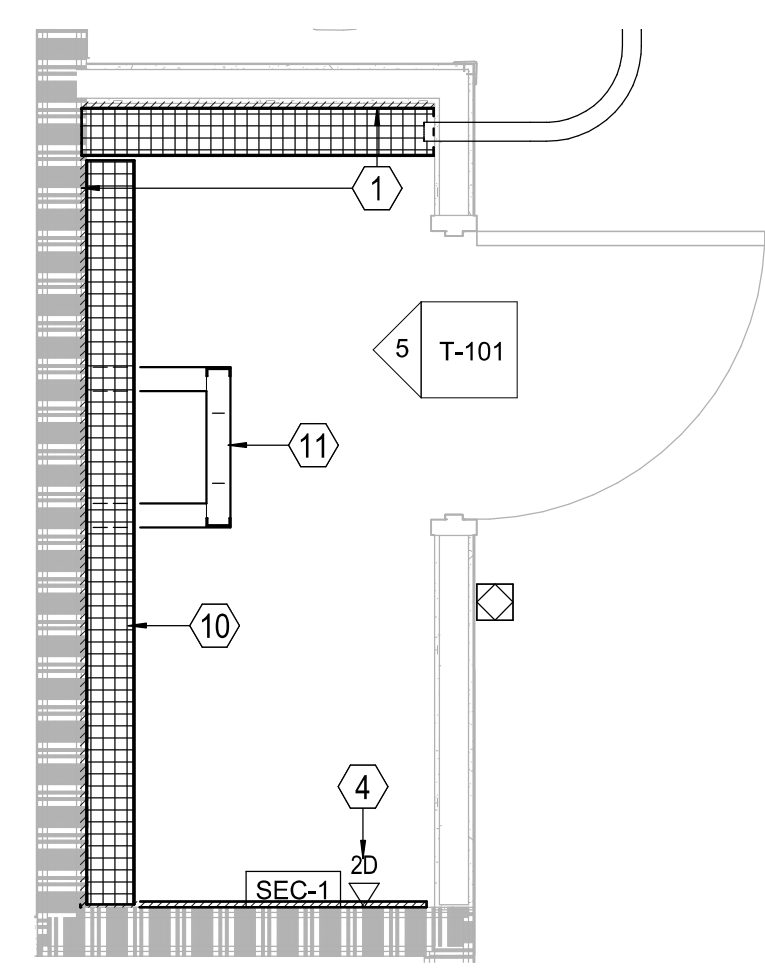
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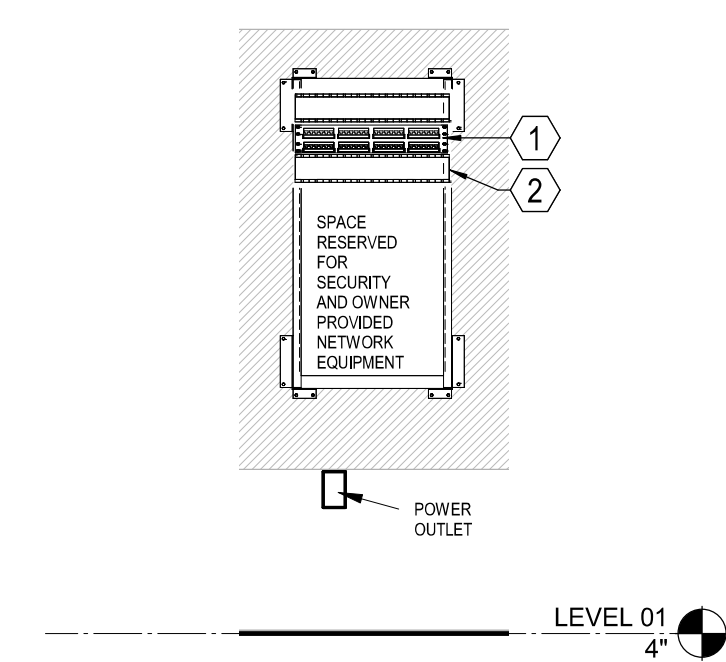
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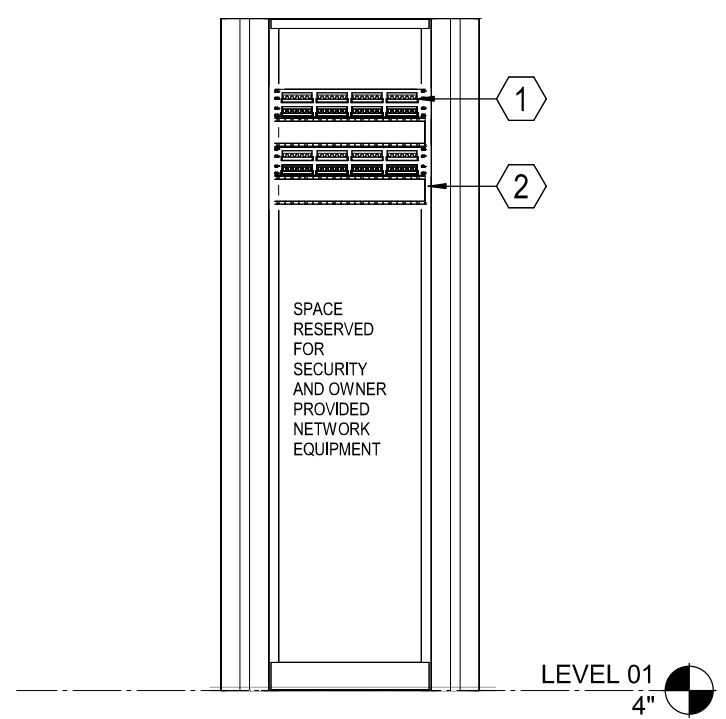
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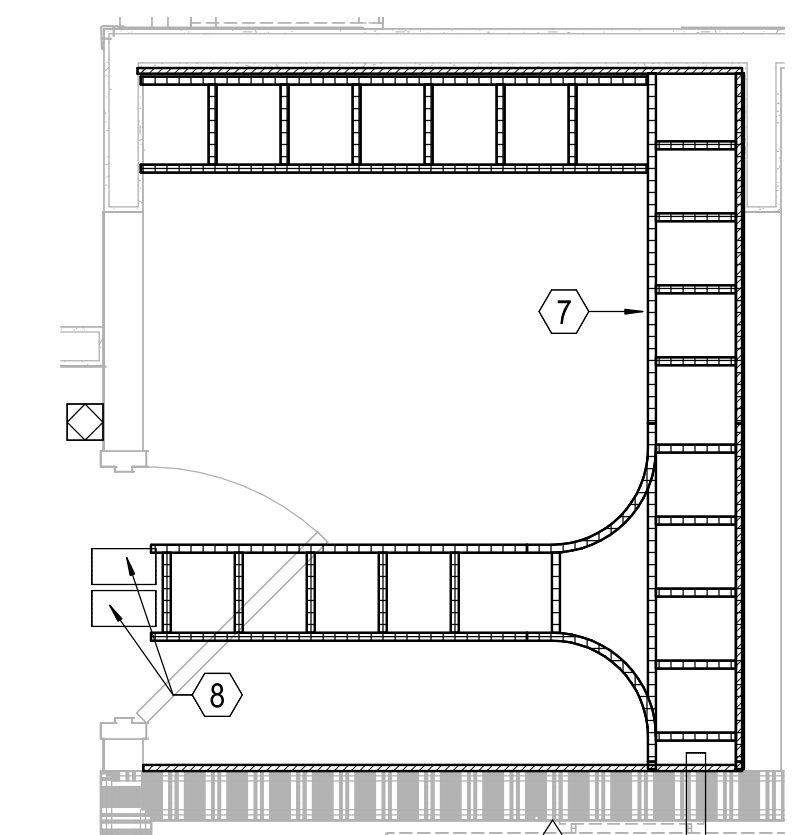
6 **IDF - 201A**
1/2" = 1'-0"



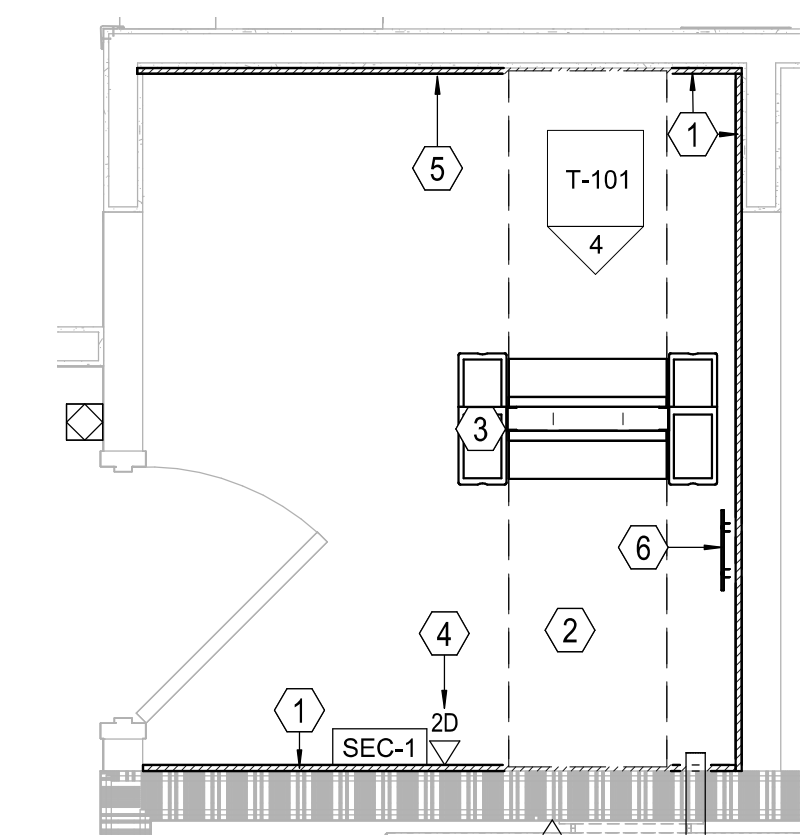
5 **WALL MOUNTED RACK ELEVATION**
1/2" = 1'-0"



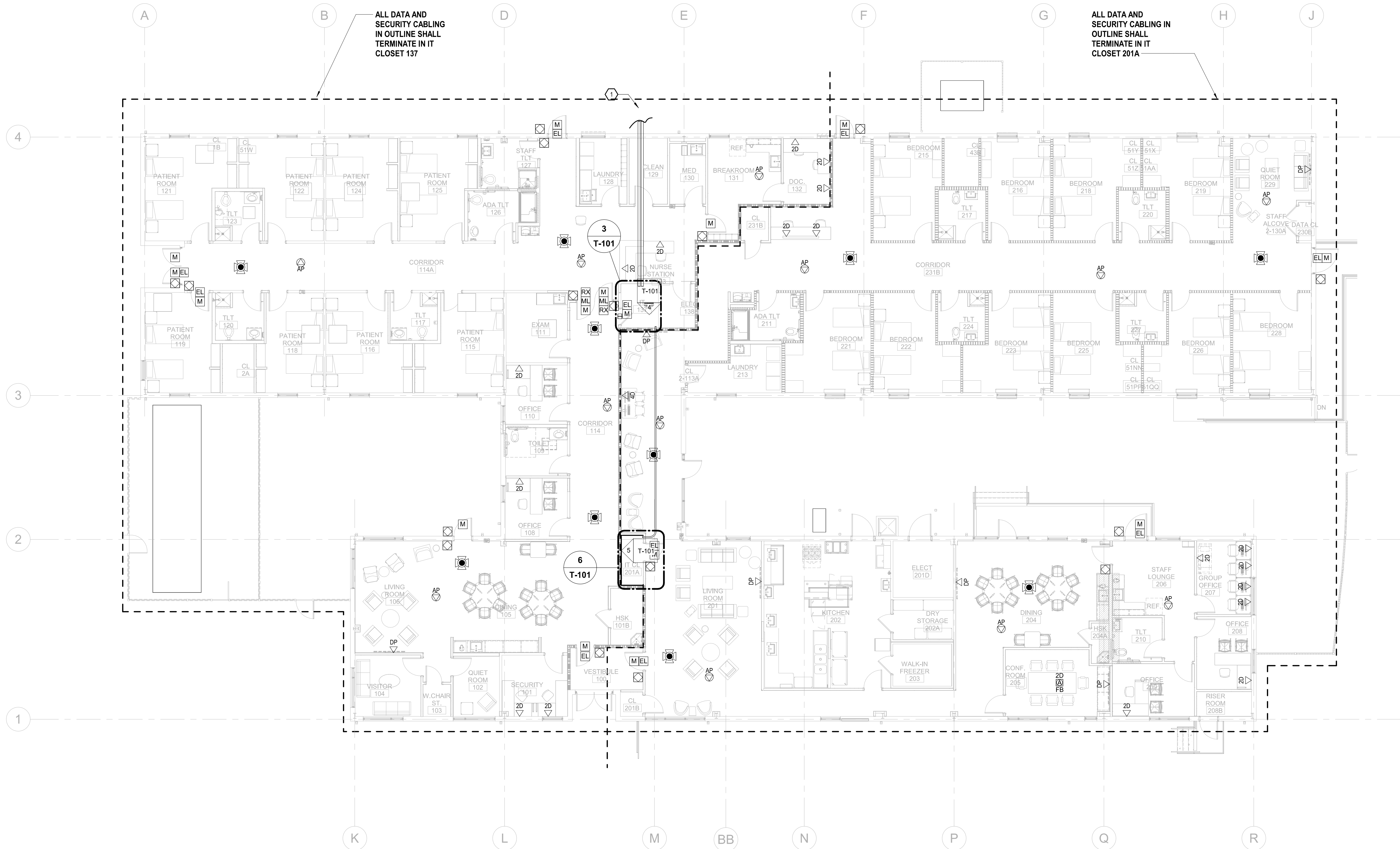
4 **TELECOM RACK ELEVATION**
1/2" = 1'-0"



3 **IDF 137 - ABOVE 7'6"**
1/2" = 1'-0"



2 **IDF 137 - BELOW 7'6"**
1/2" = 1'-0"



1 **TELECOM - LEVEL 01**
1/8" = 1'-0"

GENERAL NOTES:

- 1. DASHED LINES IN FRONT OF THE RACKS IS THE REQUIRED 3' WORKABLE CLEARANCE.
- 2. FIRESTOP ALL PENETRATIONS THROUGH RATED PARTITIONS.
- 3. ALL VIEWS ARE DIAGRAMMATIC IN NATURE AND EXACT QUANTITIES SHALL BE PROVIDED

KEYNOTES: VIEW 2, 3 & 5 ONLY

- ① 75" PLYWOOD BACKPLANE- 96"W FROM 6" AFF TO 8'6" AFF. PROVIDE ON ALL WALLS
- ② 7H X 19"W 2-POST TELECOM RACK
- ③ 6"W VERTICAL CABLE MANAGER.
- ④ DATA FOR ACCESS CONTROL SECURITY PANEL(S), TERMINATED IN WALL MOUNT 2-PORT BISCUIT BOX.
- ⑤ SPACE RESERVED FOR SERVICE PROVIDER DEMARC
- ⑥ TELECOM MAIN GROUNDING BUSBAR (TMGB) MOUNTED AT 72" AFF. GROUND TO NEAREST ELECTRICAL PANEL TIED TO BUILDING GROUND
- ⑦ 12"X2" OVERHEAD LADDER TYPE CABLE RUNWAY
- ⑧ (2) 4" CONDUIT FOR SERVICE PROVIDER PATHWAY
- ⑨ (2) 4" CONDUIT SLEEVES FOR CABLING PATHWAY.
- ⑩ 6"X2" OVERHEAD LADDER TYPE CABLE RUNWAY
- ⑪ 24RU 19" WALL MOUNT RACK.

KEYNOTES: VIEW 4 & 5 ONLY

- ① 48 PORT FLAT MODULAR TYPE PATCH PANEL
- ② HORIZONTAL CABLE MANAGER.

GENERAL NOTES:

- 1. PROVIDE CONDUIT CABLE PASSTROUGH SLEEVES AND FIRESTOP ALL RATED PENETRATIONS THROUGH RATED PARTITIONS.
- 2. ALL CABLING GOING THROUGH OPEN OR HARD CEILINGS SHALL BE IN CONDUIT.
- 3. ALL CABLING GOING THROUGH ACCESSIBLE CEILING SHALL BE ON J-HOOKS.

KEYED NOTES: VIEW 1 ONLY

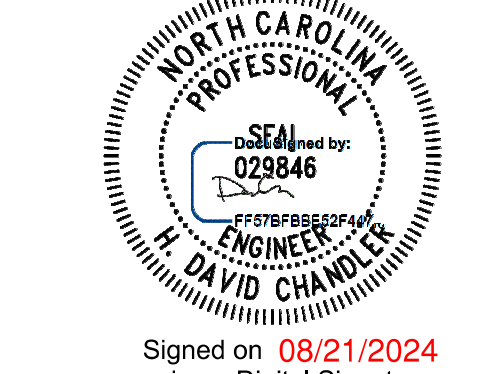
- ① PROVIDE (2) 4" UNDERGROUND CONDUITS IS CONCRETE ENCASED DUCTBANK FOR SERVICE PROVIDER PATHWAY. COORDINATE WITH SERVICE PROVIDER FOR TIE INTO THEIR NEAREST HANDHOLE.
- ② PROVIDE (1) 2" CONDUIT FROM IT CLOSET 137 TO IT CLOSET 201A. FOR SERVICE PROVIDER CABLING CONNECTION.



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Firm Lic. # F-0312



Signed on 08/21/2024
using a Digital Signature.
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**NEW HANOVER COUNTY
STAR CENTER**
1605 Robin Hood Rd. Wilmington, NC 28401

LS3P PROJECT: 7405-230775

DATE	DESCRIPTION
C 2024.01.31	100% Design Development
D 2024.08.21	Big / Permit Set

SHEET NAME:
TELECOM - FLOOR PLAN

ORIG SUBMISSION: 2024.04.17

SHEET:
T-101

BID/ PERMIT SET

