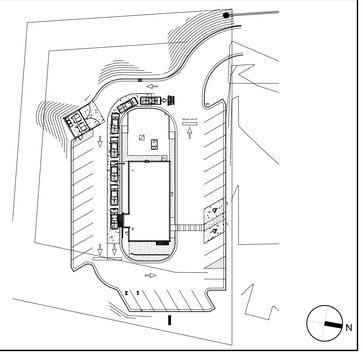
PROJECT GENERAL NOTES

A. IN ADDITION TO THE GENERAL NOTES LISTED HEREIN, THE LATEST EDITION OF AIA DOCUMENT A201 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION SHALL APPLY.
B. WORK SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES, ORDINANCES, LAWS AND REQUIREMENTS.
C. WORK, WHEN COMPLETED, SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT AND LOCAL ACCESSIBILITY REQUIREMENTS.
D. THE CONSTRUCTION DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. COORDINATE PORTIONS OF WORK AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS.
E. THE CONSTRUCTION DOCUMENTS, AS DEFINED BY THE DRAWING AND SPECIFICATION INDEX, ARE NECESSARY TO DEFINE THE TOTAL PROJECT. PARTIAL PLANS OR SPECIFICATIONS SHOULD NOT BE ISSUED BY ANY PARTIES FOR BIDDING OR CONSTRUCTION.
F. IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS TO DESCRIBE A COMPLETE AND FINISHED PROJECT, OTHER THAN ITEMS NOTED "NIC" (NOT IN CONTRACT). ERRORS, OMISSIONS AND INCONSISTENCIES THAT MAY OCCUR BETWEEN THE CONSTRUCTION DOCUMENTS AND/OR EXISTING CONDITIONS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ARCHITECT IN WRITING AND WRITTEN INSTRUCTIONS SHALL BE OBTAINED PRIOR TO PROCEEDING WITH THE WORK. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY ERRORS, DISCREPANCIES AND/OR OMISSIONS WHICH THE GENERAL CONTRACTOR FAILED TO NOTIFY THE ARCHITECT PRIOR TO CONSTRUCTION AND/OR FABRICATION OF THE WORK.
G. GENERAL CONTRACTOR SHALL INCLUDE AND PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION AND PAY EXPENSES INCURRED IN THE PROPER COMPLETION OF WORK UNLESS SPECIFICALLY NOTED TO BE THE WORK OF OTHERS. GENERAL CONTRACTOR SHALL PERFORM WORK NECESSARY FOR PRODUCTION OF A COMPLETE, HABITABLE PROJECT AS DEFINED BY THE SCOPE OF WORK.
H. DO NOT SCALE DRAWINGS. BIDDER (CONTRACTOR) SHALL VERIFY CONDITIONS AND DIMENSIONS AT JOB SITE PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, WHETHER BUILT OR NOT, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION BEFORE COMMENCING WORK.
I. THE STATED DIMENSIONS SHALL TAKE PRECEDENCE OVER GRAPHIC. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES.
J. NOTE THAT ERRORS IN THE TRANSMISSION OR REPRODUCTION OF THESE CONSTRUCTION DOCUMENTS COULD RESULT IN ALTERATIONS TO LINE TYPES, THICKNESSES, TONES, COLORS, HATCH PATTERNS AND SCALE. WILKUS ARCHITECTS IS NOT RESPONSIBLE FOR ANY CLAIMS, DAMAGES OR EXPENSES ARISING FROM THE UNAUTHORIZED USE OF THE INFORMATION CONTAINED WITHIN.
K. IF THE CONSTRUCTION DOCUMENTS APPEAR TO BE UNCLEAR, AMBIGUOUS OR CONTRADICTORY, AND IN THE EVENT THAT THE CONTRACTOR, OR SUBCONTRACTOR, DETERMINES CLARIFICATION OR INTERPRETATION BY THE ARCHITECT IS REQUIRED, THE GENERAL CONTRACTOR SHALL SUBMIT A REQUEST FOR INFORMATION IN WRITING TO THE ARCHITECT PRIOR TO START OF THE WORK.
   a. REQUESTS FOR INFORMATION MAY ONLY BE MADE BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL CLEARLY AND CONCISELY SET FORTH THE ISSUE FOR WHICH CLARIFICATION IS SOUGHT AND WHY A RESPONSE IS NEEDED FROM THE ARCHITECT AND/OR CONSULTANTS. IN THE REQUEST FOR INFORMATION, THE CONTRACTOR SHALL SET FORTH AN UNDERSTANDING OF THE REQUIREMENT, ALONG WITH A REASON WHY SUCH AN UNDERSTANDING WAS REACHED.
   b. THE ARCHITECT WILL REVIEW THE REQUEST FOR INFORMATION TO DETERMINE IF IT IS WITHIN THE MEANING OF THIS TERM. IF THE ARCHITECT DETERMINES THAT IT IS NOT A REQUEST FOR INFORMATION, IT WILL BE RETURNED TO THE CONTRACTOR UNREVIEWED AS TO CONTENT OR FOR RE-SUBMITTAL IN THE PROPER FORM AND MANNER.
   c. RESPONSES TO REQUESTS FOR INFORMATION SHALL BE ISSUED UPON RECEIPT, BUT NO LATER THAT FIVE WORKING DAYS OF RECEIPT, UNLESS IT IS DETERMINED THAT A LONGER PERIOD OF TIME IS NEEDED IN ORDER TO PROVIDE ADEQUATE RESPONSE. IF A LONGER PERIOD OF TIME IS NECESSARY, THE ARCHITECT WILL, WITHIN FIVE WORKING DAYS OF THE RECEIPT OF THE REQUEST FOR INFORMATION, NOTIFY THE GENERAL CONTRACTOR OF THE ANTICIPATED RESPONSE TIME.
   d. IF THE REQUEST FOR INFORMATION IS SUBMITTED WITH FIVE WORKING DAYS OR LESS FLOAT ON THE PROJECT SCHEDULE, THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY TIME EXTENSION DUE TO THE TIME REQUIRED TO REVIEW AND RESPOND, PROVIDED A RESPONSE IS GIVEN WITHIN THE FIVE WORKING DAYS AS SET FORTH ABOVE.
   e. RESPONSES FROM THE ARCHITECT ARE NOT INTENDED TO CHANGE ANY OF THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. IN THE EVENT THAT THE CONTRACTOR BELIEVES A RESPONSE WILL CAUSE A CHANGE TO THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL IMMEDIATELY GIVE WRITTEN NOTICE TO THE ARCHITECT AND LANDLORD STATING THAT THEY CONSIDER THE RESPONSE TO BE A CHANGE ORDER. FAILURE TO GIVE SUCH WRITTEN NOTICE IMMEDIATELY SHALL WAIVE THE CONTRACTORS RIGHT TO SEEK ADDITIONAL TIME AND/OR COST.
L. ANY DIMENSIONS, DETAILS, NOTES AND/OR SYMBOLS THAT APPLY TO ONE UNIT, APPLY TO ALL UNITS IN LIKE SITUATIONS, UNLESS NOTED OTHERWISE.
M. FOR THE PURPOSE OF THESE DOCUMENTS, "INSTALL" SHALL MEAN TO PROVIDE FASTENERS, MISCELLANEOUS HARDWARE, BLOCKING, ELECTRICAL CONNECTIONS, PLUMBING CONNECTIONS AND ANY OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION, UNLESS NOTED OTHERWISE.
N. FOR THE PURPOSE OF THESE DOCUMENTS, "BY GC" WILL REFER TO ITEMS PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR, THEIR SUBCONTRACTORS AND/OR AGENTS. THE TERM "BY LANDLORD" WILL REFER TO ITEMS PROVIDED BY THE LANDLORD AND INSTALLED BY THE GENERAL CONTRACTOR.
O. PRODUCTS THAT HAVE BEEN USED IN PREPARING THESE DOCUMENTS, ARE TO ESTABLISH MINIMUM QUALITIES. PROPOSED SUBSTITUTIONS MUST MEET THESE QUALITIES, OR BETTER, TO BE CONSIDERED ACCEPTABLE. THE BURDEN OF PROOF OF EQUALITY RESTS WITH THE GENERAL CONTRACTOR. ADEQUATE SUPPORTING DOCUMENTATION MUST ACCOMPANY SUBSTITUTION REQUEST SUBMITTALS, WHICH MUST BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO BIDDING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
P. GENERAL CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMISSION OF BID AND BEGINNING OF ANY WORK TO EXAMINE AND COMPARE THE DRAWINGS AND SPECIFICATIONS TO THE EXISTING CONDITIONS AND BE KNOWLEDGEABLE OF WORK TO BE PERFORMED. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
Q. NOTIFY ALL PARTIES IF HAZARDOUS MATERIALS ARE SUSPECTED OR FOUND TO BE PRESENT.
R. NOTIFY ARCHITECT IMMEDIATELY OF EXISTING CONDITIONS THAT ARE EXPOSED DURING CONSTRUCTION THAT MAY IMPACT ANY PROPOSED NEW WORK.
S. DO NOT ATTEMPT REMOVAL OF ANY STRUCTURE OR ELEMENT SUSPECTED OF BEING STRUCTURAL IN NATURE. STRUCTURAL MODIFICATIONS TO THE BUILDING OR STRUCTURAL SYSTEMS (OF ANY TYPE) REQUIRE APPROVAL FROM THE BUILDING OWNER AND AN APPROVED STRUCTURAL ENGINEER.
T. GENERAL CONTRACTOR TO PROVIDE TEMPORARY BARRICADES, WINDOW BLACKOUTS AND DUST CONTROL AS REQUIRED BY LANDLORD, LANDLORD OR AUTHORITY HAVING JURISDICTION FOR THE DURATION OF CONSTRUCTION.
U. VEHICULAR ACCESS MUST BE PROVIDED AND MAINTAINED SERVICEABLE THROUGHOUT CONSTRUCTION.
V. THROUGHOUT THE PROJECT, THE GENERAL CONTRACTOR SHALL CLOSELY SUPERVISE THE WORK OF SUBCONTRACTORS AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS AND TECHNIQUES, INCLUDING SAFETY PROCEDURES AND FOR COORDINATING/SEQUENCING TRADES.
W. GENERAL CONTRACTOR SHALL TAKE OUT ANY NECESSARY TRADE-LEVEL PERMITS, INSURANCE, LICENSES, BONDS AND CERTIFICATES AND PAY ALL FEES CONNECTED TO THE WORK DESCRIBED HEREIN.
X. ALL CONTRACTORS FOR THE WORK ARE REQUIRED TO HAVE INSURANCE OF ALL TYPES AND LIMITS, AS REQUIRED FOR THIS PROJECT.
Y. REFER TO ENGINEERED CONSTRUCTION DOCUMENTS BY OTHERS FOR ADDITIONAL PERTINENT INFORMATION.
Z. REFER TO INDIVIDUAL DRAWINGS WITHIN THIS SET OF CONSTRUCTION DOCUMENTS FOR ADDITIONAL GENERAL NOTES.

AA. GENERAL CONTRACTOR IS RESPONSIBLE TO CONTACT LANDLORD TO VERIFY, COORDINATE AND COMPLY, DURING THE BIDDING PHASE, WITH REQUIREMENTS INCLUDING, BUT NOT LIMITED TO BARRICADES, STAGING, CONSTRUCTION PROCEDURES, USE OF MANDATED SUBCONTRACTORS, DEBRIS REMOVAL, RESTRICTED HOURS OF CONSTRUCTION, SECURITY, UTILITIES, ETC.
BB. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ITEMS WHICH ARE OBVIOUS AND NECESSARY TO ENSURE QUALITY WORKMANSHIP AND INSTALLATION, EVEN IF NOT SPECIFICALLY MENTIONED IN THE DRAWINGS, INCLUDING BUT NOT LIMITED TO BLOCKING AND BRACING.
CC. ANY DEVIATION FROM THESE CONSTRUCTION DOCUMENTS ON THE PART OF THE GENERAL CONTRACTOR, ANY SUBCONTRACTOR, VENDOR AND/OR SUPPLIER, OR USE OF THESE CONSTRUCTION DOCUMENTS FOR USE AT ANY LOCATION OTHER THAN THAT FOR WHICH THEY WERE INTENDED, SHALL RELEASE WILKUS ARCHITECTS, AND ITS SUBSIDIARIES, AND THEIR OFFICERS, DIRECTORS, SHAREHOLDERS, AGENTS, EMPLOYEES, REPRESENTATIVES, SUCCESSORS AND ASSIGNEES, FROM ANY AND ALL LIABILITY INCURRED IN LITIGATION OR OTHERWISE WITH RESPECT TO THE CONSTRUCTION OF THIS PROJECT.
DD. GENERAL CONTRACTOR IS RESPONSIBLE FOR THEIR WORK AND THAT OF THEIR SUBCONTRACTORS FOR THE LOSSES AND DAMAGES TO EQUIPMENT, EXISTING CONSTRUCTION, TOOLS AND MATERIALS USED IN CONJUNCTION WITH THE WORK, FOR THE ACTS OF THEIR EMPLOYEES AND SUBCONTRACT WORKERS.
EE. GENERAL CONTRACTOR SHALL ADHERE AND COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS REGARDING JOB SAFETY.
FF. GENERAL CONTRACTOR IS RESPONSIBLE TO CARRY WORKER'S COMPENSATION AS REQUIRED BY LAW AND/OR GOVERNING AUTHORITY.
GG. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION.
HH. GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A COMPLETE AS-BUILT SET OF CONSTRUCTION DRAWINGS AT THE JOB SITE AND TURNING THE AS-BUILT DRAWINGS OVER TO THE LANDLORD UPON COMPLETION OF THE PROJECT.
II. THE APPROVED PLANS (FOR CONSTRUCTION SET) SHALL BE KEPT ON SITE AT ALL TIMES, INCLUDING ALL ADDENDA, SUPPLEMENTAL INSTRUCTIONS, CHANGE ORDERS, COPIES OF APPROVED SUBMITTALS, ETC.
JJ. IF REQUIRED, THE GENERAL CONTRACTOR SHALL PROVIDE SCHEDULING AND/OR COORDINATION WITH THE APPROPRIATE REPRESENTATIVE FOR THE FOLLOWING INSTALLATIONS OR PROCEDURES:
   a. INSTALLATION OF CONDUIT AND PIPING IN OR BELOW THE FLOOR SLAB.
   b. CONNECTIONS TO DOMESTIC WATER, SANITARY AND GREASE WASTE, SANITARY VENT AND SMOKE/FIRE ALARMS.
   c. INSTALLATION OF PRIMARY DUCTWORK, VAV BOXES AND CONTROLS.
   d. PROGRAMMING OF THE VAV BOX CONTROL AND SENSORS.
   e. ANY WORK REQUIRED AT THE BUILDING SWITCHGEAR.
   f. UPON SUBSTANTIAL COMPLETION OF WORK IN THE PREMISES, LANDLORD AND THE CONTRACTOR MUST SCHEDULE A FINAL INSPECTION AND PREPARE A PUNCHLIST WHICH ENUMERATES ANY AREAS OF CONSTRUCTION, FIXTURING, LIGHTING OR LAMPING, MERCHANDISING, ETC., THAT ARE NOT IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. ANY STOREFRONT BARRICADE MAY NOT BE REMOVED UNTIL THE INSPECTION AND REQUIRED CORRECTIONS HAVE BEEN COMPLETED.
   g. PROVIDE LANDLORD REQUIRED PROOF OF BUILDERS RISK INSURANCE AND DAMAGE DEPOSIT PRIOR TO BEGINNING OF ANY SELECTIVE DEMOLITION OR CONSTRUCTION PROCEDURES.
KK. GENERAL CONTRACTOR ASSUMES COMPLETE RESPONSIBILITY WHEN LANDLORD FURNISHED ITEMS ARE ACCEPTED AND RECEIVED BY THE GENERAL CONTRACTOR OR THEIR AGENTS.
LL. PROVIDE PROTECTION FOR EXISTING OR NEWLY INSTALLED SYSTEMS AND FINISHES FOR THE DURATION OF CONSTRUCTION.
MM. GENERAL CONTRACTOR TO INSTALL DUST PROOFING AND/OR RIGID BARRIERS AS APPROPRIATE TO DEFINE VARIOUS SEGMENTS, BARRIERS TO MAINTAIN EXITING, MECHANICAL, AND FIRE/LIFE SAFETY REQUIREMENTS FOR BUILDING OCCUPANTS.
NN. GENERAL CONTRACTOR IS RESPONSIBLE FOR INSPECTION OF PORTIONS OF WORK ALREADY PERFORMED TO DETERMINE THAT SUCH PORTIONS ARE IN PROPER CONDITION TO RECEIVE SUBSEQUENT WORK.
OO. MOLD AND MOISTURE MITIGATION - GENERAL CONTRACTOR TO COORDINATE AND ENSURE THAT ANY AREA OF THE BUILDING, MATERIAL, OR ASSEMBLY WITHIN THE BUILDING ENVELOPE IS THOROUGHLY CLEANED AND DRY BEFORE BEING COVERED BY CONSTRUCTION. ANY MOLD, MILDEW OR OTHER MOISTURE CONDITION DEVELOPED WITHIN THE SCOPE OF WORK OF THIS CONTRACT (DEMOLITION OR NEW CONSTRUCTION) SHALL BE CORRECTED AND/OR MITIGATED BY THE GENERAL CONTRACTOR PRIOR TO ADDITIONAL WORK.
PP. CONTACT BETWEEN DISSIMILAR METALS SHALL BE LIMITED. WHEN REQUIRED, THE CONTACT SHALL BE PROTECTED AS REQUIRED.
QQ. REMOVE COMBUSTIBLE RUBBISH DURING CONSTRUCTION FROM THE PROJECT LIMITS CONTINUOUSLY AND DISPOSE OF IN A LEGAL MANNER.
RR. VENDORS ARE RESPONSIBLE FOR DISPOSAL OF SHIPPING/CRATING MATERIALS. VERIFY WITH THE GENERAL CONTRACTOR THE USE OF THE DUMPSTER ON SITE. SUBCONTRACTORS MUST DISPOSE OF THEIR CONSTRUCTION DEBRIS. IF NOT COMPLETED, IT WILL BE COMPLETED AND BACK CHARGED FOR CLEANING. COORDINATE DISPOSAL WITH JOB SUPERINTENDENT.
SS. AT THE TIME OF PROJECT COMPLETION, THE PROJECT LIMITS ARE TO BE THOROUGHLY CLEANED PRIOR TO TURNOVER TO LANDLORD.

CAMERON, NC
SHELL BUILDING

SITE MAP



LOCATION MAP

PROJECT DATA

PROJECT :	CAMERON, NC SHELL BUILDING
ADDRESS :	NC 24-87 CAMERON, NC 28326
ZONING :	COMMERCIAL
CURRENT USE :	VACANT
OCCUPANCY TYPE :	(FUTURE) ASSEMBLY GROUP A-2

SCOPE OF WORK

NEW FREESTANDING BUILDING FOR QUICK SERVE RESTAURANT. WORK INCLUDES, BUT NOT LIMITED TO, SITE WORK, BUILDING ENVELOPE AND STRUCTURAL.

INTERIOR BUILD-OUT (TENANT) PLANS WILL BE SUBMITTED AT A LATER DATE WHICH WILL INCLUDE COMPLETE SUBMITTAL AS APPLICABLE.

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SHEET INDEX

SYMBOL LEGEND

ELEVATION MARKER (1 / A101 / 1)
SECTION MARKER (SIM / 1 / A101)
SECTION / DETAIL (SIM / 1 / A101)
1 VIEW NAME — SCALE:1/8" = 1'-0" — VIEW LABEL
KEYNOTE NUMBER (X)
WALL TAG (W1)
LEVEL TARGET
COLUMN GRID LABEL (0)
ROOM NAME & NUMBER (ROOM NAME 101)
REVISION NUMBER (1)
DOOR NUMBER (101)
NORTH ARROW (N)
DIMENSION TARGET
FINISH TAG (XX-X)
CENTERLINE

MATERIAL HATCHES

BATT INSULATION
EIFS
CONCRETE
BRICK MASONRY
FINISHED WOOD
PLYWOOD
GYPSUM BOARD
CONCRETE MASONRY
STEEL
RIGID INSULATION / EXTERIOR INSULATION FINISH SYSTEM (E.I.F.S.)
EARTH
ALUMINUM
SAND / GROUT

CONSULTANT

WILKUS ARCHITECTS

CLIENT

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PROJECT INFORMATION

CAMERON, NC SHELL BUILDING
NC 24-87
CAMERON, NC 28326

SEAL

WILKUS ARCHITECTS, P.A. — REGISTERED ARCHITECTURAL CORPORATION — 53611 — NORTH DAKOTA — HOPKINS, MN

MATTHEW M. WILKUS — REGISTERED ARCHITECT — 14006 — NORTH CAROLINA — HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

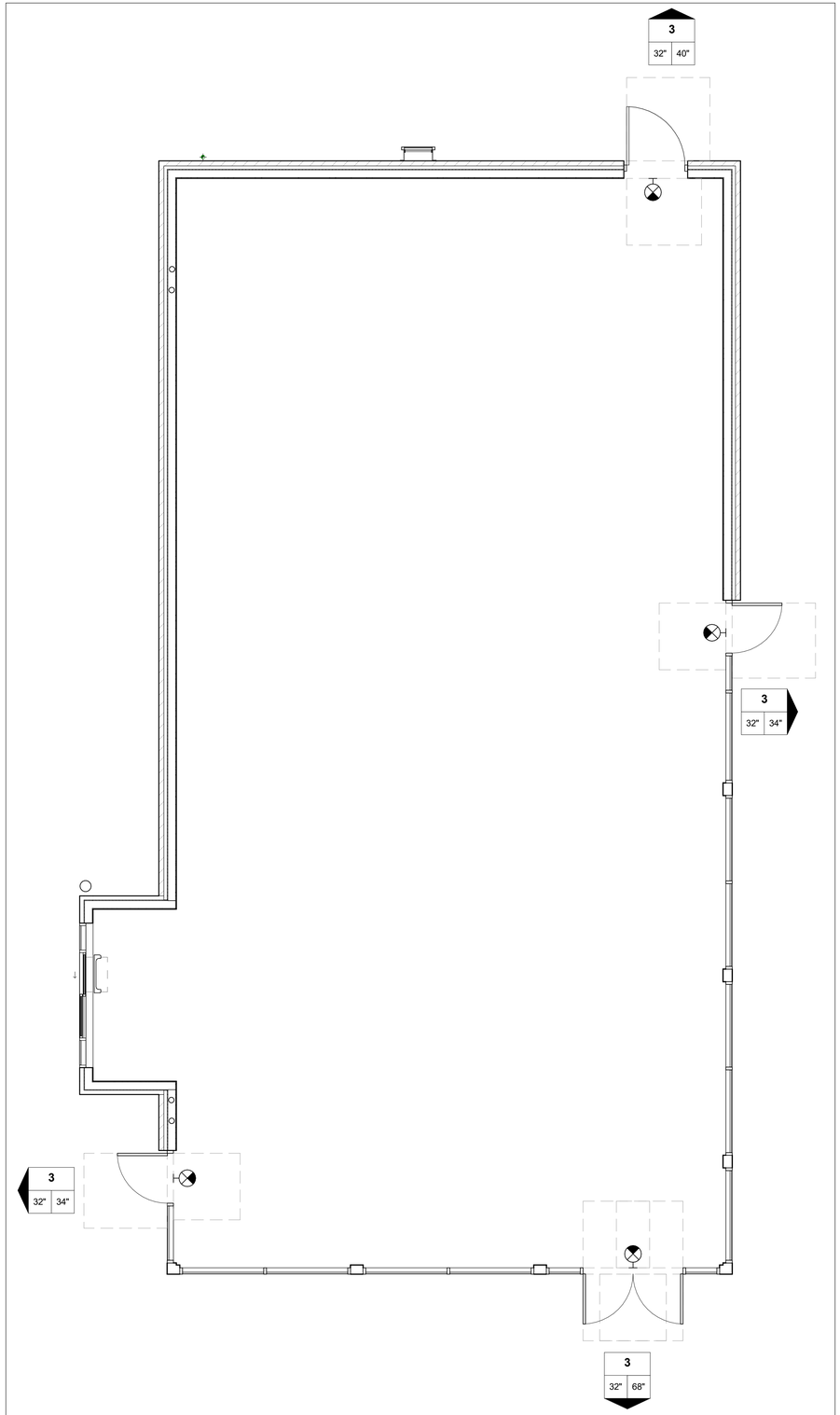
REVISION	DATE

TITLE:

COVER SHEET

SHEET NUMBER:

G-000



1 LIFE SAFETY PLAN
SCALE: 1/4" = 1'-0"

N

LIFE SAFETY GENERAL NOTES

A. LIFE SAFETY SYSTEMS SHALL BE DESIGNED PER APPLICABLE FIRE PREVENTION CODE, ORDINANCE OR LAW.
B. POST "NO PARKING - FIRE LANE" SIGNS ALONG APPROVED VEHICULAR ACCESS ROADS. COORDINATE LOCATIONS WITH LOCAL AUTHORITY HAVING JURISDICTION.
C. AN ALL WEATHER FIRE ACCESS ROAD SHALL BE IN PLACE BEFORE ANY COMBUSTIBLE MATERIALS ARE PLACED ON SITE. COORDINATE WITH LOCAL AUTHORITY HAVING JURISDICTION.
D. FIRE APPARATUS ACCESS ROADS SHALL BE UNOBSTRUCTED. ACCESS GATES SHALL BE APPROVED PRIOR TO INSTALLATION AND SHALL BE IN COMPLIANCE WITH O.S.H.A. GUIDELINES.
E. COMMERCIAL DUMPSTERS OR CONTAINERS WITH A CAPACITY OF ONE AND A HALF CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN FIVE FEET OF COMBUSTIBLE WALLS OR OPENINGS, UNLESS THESE AREAS ARE PROTECTED BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM.
F. BUILDING ADDRESS NUMBERS SHALL BE PROVIDED AT THE FRONT OF THE TENANT SPACE AND SHALL BE VISIBLE AND LEGIBLE FROM THE PUBLIC RIGHT-OF-WAY AND A MINIMUM OF 6" HIGH. NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR.
G. THE ADDRESS SHALL BE POSTED ON THE BUILDING WHERE IT IS CLEARLY VISIBLE FROM THE FIRE LANE. THE SUITE ADDRESS MUST BE POSTED IN NUMBERS THAT ARE A MINIMUM OF 4" TALL, ARE OF CONTRASTING COLOR WITH THE BACKGROUND ON WHICH THEY ARE MOUNTED AND WILL BE LOCATED SUCH THAT THEY ARE READILY VISIBLE DURING THE NIGHTTIME HOURS.
H. THE ADDRESS SHALL BE PERMANENTLY POSTED ON UTILITY SERVICE DISCONNECTS IN NUMBERS A MINIMUM OF 1" TALL AND ON THE SERVICE DOOR IN NUMBERS A MINIMUM OF 4" TALL.
I. A KNOX BOX IS TO BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. VERIFY WITH THE LOCAL AUTHORITY THIS REQUIREMENT AND COORDINATE LOCATION AS REQUIRED.
J. REQUIRED EGRESS DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT AND SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL. SPECIAL LOCKING DEVICES SHALL BE OF AN APPROVED TYPE.
K. EXITS SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED WITH LIGHTS HAVING AN INTENSITY OF NOT LESS THAN 11.0 LUX AT FLOOR LEVEL, OR AS DIRECTED BY LOCAL CODE.
L. EXIT SIGNS TO BE PROVIDED AND INSTALLED AS REQUIRED BY APPLICABLE CODES, ORDINANCES AND LAWS.
M. PROVIDE APPROVED EXITING ILLUMINATION AND ILLUMINATED EXIT SIGNS WHICH ARE POWERED FROM SEPARATE CIRCUITS AND COMPLY WITH THE BUILDING CODE.
N. OCCUPANT LOAD SIGN WITH MINIMUM 1" LETTERS AND NUMBERS SHALL BE POSTED NEAR MAIN EXIT.
O. EXIT LIGHTING AND SIGNS SHALL HAVE 6" HIGH LETTERING IN ACCORDANCE WITH LOCAL CODES. PROVIDE LOW LEVEL EXIT SIGNS PER CODE REQUIREMENTS.
P. FIRE DEPARTMENT FINAL INSPECTION REQUIRED.
Q. EXITS, EXIT SIGNS, FIRE ALARM PANELS, HOSE CABINETS, FIRE EXTINGUISHER LOCATIONS, AND STANDPIPE CONNECTIONS SHALL NOT BE CONCEALED BY CURTAINS, MIRRORS, OR OTHER DECORATIVE MATERIAL.
R. FIRE EXTINGUISHER NOTES
   a. PROVIDE AND INSTALL FIRE EXTINGUISHERS AS DIRECTED BY AUTHORITY HAVING JURISDICTION. FINAL FIRE EXTINGUISHER LOCATIONS AND QUANTITIES TO BE INSTALLED PER TENANT IMPROVEMENT PACKAGE.

CODE ANALYSIS

APPLICABLE CODES AND REGULATIONS

INCLUDES STATE AND LOCAL PROVISIONS TO THE BUILDING CODE	
BUILDING CODE:	2018 NORTH CAROLINA BUILDING CODE
MECHANICAL CODE:	2018 NORTH CAROLINA MECHANICAL CODE
PLUMBING CODE:	2018 NORTH CAROLINA PLUMBING CODE
ENERGY CODE:	2018 NORTH CAROLINA ENERGY CONSERVATION CODE
FUEL GAS CODE:	2018 NORTH CAROLINA FUEL GAS CODE
ELECTRICAL CODE:	2020 NORTH CAROLINA ELECTRICAL CODE
FIRE CODE:	2018 NORTH CAROLINA FIRE PREVENTION CODE
ACCESSIBILITY CODE(S):	2009 2018 NORTH CAROLINA ACCESSIBILITY CODE

BASIS OF DESIGN

CONSTRUCTION TYPE	TYPE V-B
OCCUPANCY TYPE	A-2
AREA FACTOR	NON SPRINKLERED, SINGLE STORY
BUILDING AREA	2,325 SQ FT
OCCUPANT LOAD	12 OCC.

ENERGY CODE

CLIMATE ZONE/ COUNTY:	4A/ HARNETT COUNTY
ROOF, ABOVE DECK:	R-30ci
WALLS - ABOVE GRADE:	R-20
SLAB-ON-GRADE:	R-15 FOR 24"
OPAQUE SWINGING DOORS:	U-0.50
FIXED FENESTRATION:	U-0.45
ENTRANCE DOORS:	U-0.77

CH3 - USE AND OCCUPANCY CLASSIFICATION

OCCUPANCY GROUP & FUNCTION	GENERAL DESCRIPTION OF SITE
FUTURE A-2; RESTAURANT	SHELL BUILDING FOR FUTURE QUICK SERVE CASUAL RESTAURANT

CH5 - GENERAL BUILDING HEIGHTS & AREAS

OCCUPANCY CLASSIFICATION	A-2 (FUTURE)
TYPE OF CONSTRUCTION	V-B
ALLOWABLE BUILDING HEIGHT	40'-0"
PROPOSED BUILDING HEIGHT (PER CHAPTER 2 DEFINITION)	14'-8"
PROPOSED TOTAL BUILDING HEIGHT (TALLEST PARAPET)	20'-8"
Aa = ACTUAL ALLOWABLE AREA	Aa = 6,000 SQ. FT.
PROPOSED BUILDING AREA	2,325 SQ. FT.

CH6 - TYPES OF CONSTRUCTION

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS		
BUILDING ELEMENT		**FIRE RATING REQUIRED**
PRIMARY STRUCTURAL FRAME		0 HOUR
BEARING WALLS	EXTERIOR	0 HOUR
	INTERIOR	0 HOUR
NON-BEARING WALLS	EXTERIOR	0 HOUR
NON-BEARING WALLS AND PARTITIONS	INTERIOR	0 HOUR
FLOOR CONSTRUCTION		0 HOUR
ROOF CONSTRUCTION		0 HOUR

CH8 - INTERIOR FINISHES

TYPE OF SPACE	FINISH CLASSIFICATION
INTERIOR EXIT PASSAGEWAYS	A
CORRIDORS AND ENCLOSURE FOR EXIT ACCESS STAIRS	A
ROOMS AND ENCLOSED SPACES	B

CH9 - FIRE PROTECTION & LIFE SAFETY

SPRINKLER SYSTEM:	NON-SPRINKLERED
COMMENTS:	AUTOMATIC SPRINKLER SYSTEM NOT REQUIRED AS THE FIRE AREA DOES NOT EXCEED 5,000 SQ. FT. (464 M2).
FIRE ALARM:	NOT REQUIRED

CH10 - MEANS OF EGRESS

FUNCTION OF SPACE	SQUARE FOOTAGE	LOAD FACTOR	OCCUPANT LOAD
STANDING SPACE	2,325	200 SF (GROSS)	12
		PROPOSED OCCUPANT LOAD:	12

EGRESS REQUIREMENTS				
	FACTOR	OCC. LOAD	REQ'D WIDTH	PROP. WIDTH
EXIT DOORS	0.2	12	32"	176"
	2 REQUIRED		4 PROVIDED	

CH29 - PLUMBING SYSTEMS

FINAL FIXTURE COUNTS ARE TO BE DETERMINED BY TENANT BUILD-OUT PLANS WHICH WILL BE UNDER A SEPARATE SUBMITTAL

LIFE SAFETY LEGEND

EMERGENCY LIGHTING & EXIT SIGNS:

WALL MOUNTED EXIT SIGN

NOTE: ALL EXIT LIGHTS ON EXTERIOR DOORS SHALL HAVE AN EXTERIOR EMERGENCY REMOTE HEAD LINKED TO IT

EGRESS AT DOORS

00 / 0.0" 00"
EGRESS BREAKDOWN:
OCCUPANTS SERVED
EXIT WIDTH REQUIRED
EXIT WIDTH PROVIDED

ABBREVIATIONS

℄	CENTER LINE		
@	AT	INSUL	INSULATION
ACT	ACOUSTIC CEILING TILE	MANUF	MANUFACTURER
ADJ	ADJACENT	MAX	MAXIMUM
AFF	ABOVE FINISH FLOOR	MECH	MECHANICAL
APX	APPROXIMATELY	MIN	MINIMUM
		MISC	MISCELLANEOUS
BD	BOARD	MTL	METAL
BLDG	BUILDING		
BLKG	BLOCKING	N/A	NOT APPLICABLE
BO	BOTTOM OF	NIC	NOT IN CONTRACT
CLG	CEILING	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OPNG	OPENING
COL	COLUMN		
CONC	CONCRETE	PLMBG	PLUMBING
CONT	CONTINUOUS	PLYWD	PLYWOOD
DIM	DIMENSION(S)	RDL	RAIN DRAIN LEADER
DWG	DRAWING	REQ'D	REQUIRED
		REV	REVERSE
EA	EACH		
ELEC	ELECTRICAL	SHT	SHEET
ELEV	ELEVATION	SIM	SIMILAR
EQ	EQUAL	SPEC	SPECIFICATION
EXIST	EXISTING	SQ FT	SQUARE FEET
EXT	EXTERIOR	STD	STANDARD
		STL	STEEL
FIN	FINISH	STRUC	STRUCTURAL
FLR	FLOOR	SUSP	SUSPENDED
FOS	FACE OF STUD		
FOSF	FACE OF STOREFRONT	T.O.	TOP OF
FOW	FACE OF WALL	TYP	TYPICAL
FRP	FIBERGLASS REINFORCED PANEL	UNO	UNLESS NOTED OTHERWISE
FT	FEET		
		VERT	VERTICAL
GC	GENERAL CONTRACTOR	VIF	VERIFY IN FIELD
GWB	GYPSUM WALL BOARD	VTK	VIRTUAL TRAINER KIOSK
HGT	HEIGHT	W/	WITH
HORIZ	HORIZONTAL	WD	WOOD
HVAC	HEATING, VENTILATION & AIR CONDITIONING		

CONSULTANT

WILKUS ARCHITECTS

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(704) 954-7216

PROJECT INFORMATION

CAMERON, NC
SHELL BUILDING

NC 24-87
CAMERON, NC 28326

SEAL

WILKUS ARCHITECTS, P.A. REGISTERED ARCHITECTURAL CORPORATION 53611 NORTH CAROLINA HOPKINS, MN

MATTHEW M. WILKUS REGISTERED ARCHITECT 14006 NORTH CAROLINA HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO. 0000-0000
DRAWN BY SAS
CHECKED BY BMT

ISSUE	DATE
PERMIT SET	02/20/2025

REVISION	DATE

TITLE:
CODE ANALYSIS - LIFE SAFETY PLAN

SHEET NUMBER:
G-001

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01100 - SUMMARY

1.1 Contract Documents:

A. Contractor shall use the following Owner provided documents in the negotiation and execution of the Work. Contact Owner office for copies of these documents:
   1. Owner Instructions to Bidders.
   2. Construction Contract for Owner.

B. Definitions:
   1. The term "Owner" used in these documents refers to the building Owner/Landlord.
   2. The term "Tenant" used in these documents refer to the future restaurant Tenant.
   3. The term "Contractor" used in these documents refers to the entity responsible for performing the Work under Construction Contract for the Owner.

1.2 Scope of Work:

A. The Work shall include construction of the site and building facilities as shown and specified in these Specifications and Drawings.

B. When required and necessary, the Owner will provide a subsurface exploration report as an attachment the bidding documents.

SECTION 01300 - ADMINISTRATIVE REQUIREMENTS

1.1 Coordination:

A. Immediately inform the Architect of discrepancies between the information indicated in the Contract Documents and existing project conditions, and of discrepancies between information indicated on the architectural, structural, mechanical, plumbing and electrical documents.

B. Prior to fabrication and installation of new components, field verify all existing and new dimensions and installation conditions that may affect the Work. Do not scale the drawings to establish locations of items that are not located using dimensions.
   1. All dimensions are to rough face of stud or centerline of structure, unless otherwise indicated.
   2. Verify that all Subcontractors have reviewed and coordinated locations of their equipment and furnishings exposed to view with the architectural drawings. Review questions with the Architect.

C. Coordinate new work indicated on the Contract Documents with new work that may be provided by the Owner and Tenant under separate contracts.

D. Coordinate the work of Vendors, Contractors and Subcontractors providing fixtures, furniture and equipment identified as "by Tenant" in these drawings and specifications.
   1. Notify the Tenant in timely fashion if any problems develop with the performance of these Vendors, Contractors or Subcontractors.

E. Coordinate the scheduling, sequencing, and the work of all trades and Subcontractors to assure efficient and orderly sequences of installation of interdependent construction elements.

F. Verify that the utility requirement characteristics of operating equipment are compatible with the building utility services. Coordinate work of the various specification sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.

G. Coordinate the installation and physical space requirements of plumbing, mechanical and electrical work that are indicated diagrammatically on the drawings. Follow routing shown for piping, ducts and conduit as closely as practical. Install runs parallel with and perpendicular to the line of the building. Utilize spaces as efficiently as possible to maximize accessibility for other work installation and for maintenance and for repair.
   1. Conceal piping, ducts and conduit within the construction, except as otherwise indicated.
   2. Coordinate locations of registers, fixtures and outlets with finish elements.

H. Coordinate completion and cleanup work of all trades and Subcontractors in preparation for Substantial Completion.

I. To minimize disruption of Tenant's activities after Tenant occupancy of the property, coordinate access to the property with the Tenant's Construction Manager for correction of defective work and work not in accordance with the Contract Documents.

1.2 Submittals:

A. Only when indicated in the specifications or drawings submit shop drawings, product data, and/or samples to the Architect, and Owner for review. All submittals shall be made directly to the Architect by the general contractor. Only submittals for specified products will be accepted unless prior approval has been obtained for a substitution (refer to Section 01630).

Shop drawings: Submit electronic copies of each sheet of drawings. Shop drawings are original drawings prepared by the subcontractor or vendor for the purpose of conveying information to the Architect and/or Engineer on how a building element or product will be constructed in sufficient detail for the Architect and/or Engineer to determine compliance with the design intent.

In all cases one copy of the submittal shall be returned to the General Contractor. Electronic submittals for shop drawing or product data in either PDF or DWF format are acceptable for review. All submittals, regardless of format, must bear the General Contractor's stamp indicating the submittal has been reviewed and approved. Any submittal not meeting the requirements set forth will be rejected by the Architect.

Submittals shall be made with respect to the construction schedule to allow for adequate review time: allow (5) business days for review of submittals for any structural steel, canopies and trusses and allow (3) business days for review of submittals in all other divisions. Review timeline will commence from the time the submittal with General Contractor's approval stamp is received by the Architect, and Owner.

1.3 Requests For Information

A. In the event that the general contractor, or a subcontractor, at any tier, determines that some portion of the drawings, specifications, or other contract documents requires a clarification or interpretation by the architect, the general contractor shall submit a Request For Information in writing to the architect in an electronic copy.

Requests for Information may only be submitted by the general contractor and may only be submitted to the architect. The general contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed from the architect or the architect's consultants. In the Request for Information, the general contractor shall set forth an interpretation or understanding of the requirement along with an explanation of why such an understanding was reached.

B. The architect will review all Requests for Information to determine whether they are Requests for Information within the meaning of this term. If the architect determines that the document is not a request for information, it will be returned to the general contractor, un-reviewed as to content, for re-submittal in the proper form and in the proper manner.

Responses to Requests for Information shall be issued upon receipt, but no later that five (5) working days of receipt of the Request from the general contractor; unless the architect determines that a longer amount of time is necessary to provide an adequate response. If a longer amount of time is determined necessary by the architect, the architect will, within five (5) working days of receipt of the Request, notify the general contractor of the anticipated response time. If the general contractor submits a Request for Information on an activity with five (5) working days or less of float on the current project schedule the general contractor shall not be entitled to any time extension due to the time it takes the architect to respond to the Request provided that the architect responds within the parameters set forth above.

C. Responses to Requests for Information from the architect will not change any requirements of the contract documents. In the event that the general contractor believes that a response to a Request For Information will cause a change to the requirements of the contract documents, the general contractor shall immediately give written notice to the architect and the tenant stating that the general contractor considers the response to be a Change Order. Failure to give such written notice immediately shall waive the general contractor's (or any subcontractor's) right to seek additional time or cost under the Administrative Requirements of these contract documents.

SECTION 01400 - QUALITY REQUIREMENTS

1.1 Regulatory Requirements:

A. Perform all work in accordance with applicable local, state, and federal building codes, plumbing codes, mechanical codes, electrical codes, ordinances and rules and regulations governing food service establishments.

B. Comply with local, state and federal requirements governing accessibility.

C. Obtain all required demolition and erosion control permits required by authorities having jurisdiction.

1.2 Quality Control:

A. Maintain quality control over manufacturers, suppliers, products, services, site conditions and workmanship, to produce work of specified quality.

B. Comply with manufacturer's instructions and applicable trade standards.

C. Handle, install, connect, clean, condition and adjust products in strict accordance with manufacturer's instructions and complying with specified requirements.
   1. Request clarification from the Architect before proceeding, where manufacturer's instructions conflict with the Contract Documents.

D. Comply with specified standards as a minimum quality for the Work, except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.

E. Perform work by persons qualified to produce workmanship of the specified quality. Secure products in place with positive anchorage devices designed, sized and installed to withstand stress, vibration, physical distortion or disfigurement.

F. All dimensions shall be considered "hold-to" dimensions unless indicated otherwise (e.g. minimum or maximum dimensions.)

1.3 Testing:

A. Employ and pay for the services of an independent testing laboratory to perform inspections, tests and other services when required.

B. Include inspection and tests as indicated in the specification sections, drawings, and as required by authorities having jurisdiction.
   1. Test concrete in accordance with Section 03300 and drawing requirements.
   2. Test structural steel in accordance with Section 05110 and drawing requirements.

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1.1 Provide temporary facilities and controls as shown and specified:

A. Codes and Standards: Provide temporary construction facilities and controls complying with all applicable local, State and Federal local laws, regulations and codes and utility company requirements.

B. Temporary Heating, Ventilating and Cooling:
   1. Provide, pay for and maintain all temporary heating, ventilating and cooling equipment and facilities required during the progress of the work to protect materials, finished work, and equipment against damage from low and high temperatures and humidity.
   2. Provide temporary heating, ventilating and cooling when the outside temperature and humidity is low/high enough to damage or affect in any way the performance or quality of material and product stored in the building, in any temporary storage area, or any material or product incorporated into the work.
   3. Provide temporary heating, ventilating and cooling when the outside temperature and humidity is low/high enough to significantly slow or hamper effectiveness of workers and to provide suitable working conditions.

C. Temporary Electrical Lighting and Power:
   1. Provide, pay for and maintain all temporary electrical service for lighting and power required during the progress of the work. Include all necessary wiring, fuses, disconnect switches, safety devices, junction boxes, panels, ground fault protections, and transformer if required. Include cost for providing temporary electric generators in the Contract Sum, if temporary electric service is not available for use during progress of the work.
   2. Temporary service and lighting and power items and installations shall conform to the requirements of the NFPA National Electric Code and OSHA Occupational Safety and Health Act of 1970.

D. Water: Provide, pay for and maintain all temporary water required during the progress of the work. Include all necessary storage tanks, piping, valves, fittings, hose and hose connections during construction and testing.

E. Temporary Toilets: Provide, pay for and maintain temporary toilet facilities for use by the Contractor, Contractor's employees and all Subcontractors and Subcontractors' employees. Comply with all local requirements for installation, use and maintenance of temporary toilet facilities.

F. Barriers and Enclosures:
   1. Provide temporary construction barriers in accordance with project requirements. Exercise all necessary precautions to protect adjacent properties, outside project contact limits, during progress of the work. Take special precautions to avoid damage to existing overhead and underground utilities and services owned or operated by the Owner or by public or private utility companies.
   2. Provide temporary weather-tight enclosures at exterior openings to provide acceptable working conditions and protection of materials and to allow for temporary heating, ventilating and cooling.

G. Field Office, Telephone and Email:
   1. Provide and maintain a temporary field office at the project site during progress of the work. A designated area within the existing building will be available for use as a temporary field office. Verify area size and location with the Tenant.
   2. Maintain copies of permits, approved shop drawings, specifications, addenda and record documents at field office.
   3. Provide temporary telephone service and internet service with email and photo capabilities to field office throughout progress of the work.
   4. Provide weekly photographic documentation of project progression to Tenant.

H. Safety and Security
   1. Provide and maintain all necessary safety provisions for protection and safety of the project work, workers and general public.
   2. Provide and maintain operable fire extinguishing devices in well-marked, accessible locations throughout the project. Provide types, quantities and locations in compliance with governing codes and ordinances.
   3. Provide all necessary security barriers and enclosures to protect the work and Tenant's operations from unauthorized entry of persons, vandalism and theft. Provide doors, when required, with self-closing hardware and locks.

I. Cleaning
   1. During Construction: Provide an approved on-site container for the use of all Contractors and Subcontractors for the collection of waste materials, debris and rubbish. Execute periodic cleaning to keep the work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations. Remove crates and cartons in which materials, equipment, or fixtures are received to on-site containers daily.
      a. Maintain the property in a clean and orderly condition. Remove waste materials, debris and rubbish from the site on a daily basis and dispose of at legal disposal areas away from the site.
   2. Dust Control:
      a. Remove debris and rubbish from pipe chases, plenums and other similar closed or remote spaces prior to covering or enclosing the space.
      b. Sweep and vacuum clean interior surfaces before start of surface finishing and painting. Continue cleaning on an as-needed basis until finishing and painting is completed.
      c. Cleaning operations shall be acceptable to the Tenant's Construction Manager.

SECTION 01630 - SUBSTITUTIONS

1.1 General:

A. Products, including materials, equipment and systems described in the Contract Documents establish the standards of required function, dimension, appearance, quality and performance of the Work. Base all bids on the "Standards" indicated.

B. Requests by the Contractor for changes in products, manufacturers, fabricators, suppliers, installers, and methods of construction required by the Contract Documents are considered requests for "substitutions:" Substitutions will be considered only under the following conditions:
   1. The indicated "Standard" cannot be provided within the Contract Time
   2. The indicated "Standard" cannot receive necessary approval by the governing authority.
   3. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit as determined by the Architect.

C. Submit each request for substitution to the Architect. Identify the product, manufacturer, fabricator, supplier, installer or the fabrication or installation method to be replaced in each request. Identify related Specification Section and Drawing numbers. Provide documentation as directed by the Architect.

D. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate written request, when requested directly by subcontractor, manufacturer, fabricator, or supplier, or when acceptance will require substantial revision of the Contract Documents.

E. Substitute products, manufacturers, fabricators, suppliers, and installers shall not be used for the Project without Tenant and Architect's written acceptance.

SECTION 01700 - EXECUTION REQUIREMENTS

1.1 Preparation:

A. Protection of existing construction: Use all necessary care and appropriate means and methods to protect and prevent damage to existing construction and property not part of the Contract Work. Repair and refinish or replace construction an property damaged during construction work, at Contractor's expense.

1.2 Selective Demolition: Provide selective demolition as shown and specified.

A. Preparation:
   1. Coordinate work of this Section with work of various Contractors and Tenant's staff.
   2. Maintain protected access at all times.
   3. Erect and maintain weatherproof closures at exterior openings.
   4. Erect and maintain dust-proof interior partitions to prevent spread of dust or fumes.
   5. Erect and maintain barricades, enclosures, bracing, shoring, lights, warning signs and guards necessary for worker and public safety and protection of property.
   6. Disconnect, remove and cap designated utility services. Identify and mark locations of disconnected and capped utilities at the project site and on Project Record Documents.
   7. Notify and coordinate with the Tenant's Construction Manager and the building Owner for any demolition occurring outside the lease limit.
   8. Coordinate hours of operation and construction access with the Tenant's Construction Manager and the building Owner.

B. Selective Demolition
   1. Remove existing construction to accommodate new construction as indicated.
   2. Perform selective demolition in an orderly, systematic and careful manner with least possible disturbance to public and adjacent property. Use of explosives is prohibited.
   3. Immediately remove from the site and legally dispose of demolished materials, except as indicated otherwise. Do not burn or bury materials on the project site.

1.3 Cleaning

A. Final Cleaning: Perform final cleaning upon completion of project work.
   1. Remove waste and surplus materials, rubbish, tools, equipment and temporary construction facilities from the site.
   2. Clean exterior grounds; remove stains, spills and foreign materials from paved areas, power wash and sweep clean. Rake clean landscaped surfaces of the grounds.
   3. Remove temporary protection and labels not required to remain.
   4. Clean all finished surfaces. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from exposed interior and exterior surfaces.
      a. Clean all plumbing, fire protection and electrical fixtures and equipment including ceiling area elevated ductwork and lighting fixtures.
      b. Clean permanent equipment filters and replace temporary disposable filters in mechanical units used during construction.
      c. Clean ducts, blowers and coils if mechanical units were operated without filters during construction.
   5. Clean interior and exterior glazing and mirrors, polish transparent and glossy surfaces and clean floors with appropriate materials and equipment.
   6. Remove waste, foreign material and debris from roofs, areaways and drainage systems.
   7. Before Tenant occupancy, conduct an inspection, with the Tenant, of exposed interior and exterior surfaces at all work areas, to verify that the entire work is clean.

1.4 Starting and Adjusting:

A. Prior to Substantial Completion, coordinate the start-up, test and balance, placement in operation and adjustment all systems, controls and equipment to verify proper operation. All systems shall be complete and operating prior to final inspection.

1.5 Contract Closeout:

A. Operation and Maintenance Data: Submit one operation and maintenance manual, bound in 8-1/2" x 11" text pages, three D side ring capacity expansion binders with durable plastic covers.
   1. Subdivide the binder contents internally with permanent dividers logically organized as described below. Provide tab titles clearly printed under reinforced laminated plastic tabs.
   2. Provide a table of contents with each product or system description identified.
   3. Provide a directory listing names, addresses, and telephone numbers of the project Architect/Engineer, Contractor, Subcontractors and major equipment suppliers.
   4. Prepare operations and maintenance instructions arranged by system and subdivided by specification section. Identify names, addresses, and telephone numbers of project Subcontractors and suppliers. For each category, identify the following:
      a. Significant design criteria.
      b. List of equipment.
      c. Parts list for each component.
      d. Operating instructions.
      e. Maintenance instructions for each equipment item and systems.
      f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions for identifying detrimental agents.
   5. Submit operations and maintenance data to the Tenant with final application for payment in accordance with Exhibit C of the Construction Contract.

B. Record/As Built Documents:
   1. Prepare and maintain on site one set of the following record/as built documents:
      a. Contract Documents.
      b. Construction Documents.
      c. Change orders and other modifications to the Contract.
      d. Shop drawings, product data, and samples.
      e. Construction schedule.
   2. Store record/as built documents separate from documents used for construction.
   3. Record actual revisions to the Work, concurrently with construction progress.
   4. Legibly mark and record a description of actual products installed at each specification section, including the following:
      a. Manufacturer's name and product model and number.
      b. Approved product substitutions or alternates utilized.
      c. Changes made by addenda, change orders, and other modifications.
   5. Legibly mark each item to record actual construction, including the following:
      a. Measured depths of foundations in relation to finish first main floor datum.
      b. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
      c. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
      d. Field changes of dimension and detail.
      e. Details not on original Contract Document drawings.
   6. Submit record/as built documents to the Tenant with final application for payment in accordance with Exhibit C of the Construction Contract.

C. Warranties and Bonds:
   1. Compile warranties and bonds required by the Contract Documents.
   2. Submit duplicate copies of warranties and bonds to the Tenant with final application for payment in accordance with Exhibit C of the Construction Contract.

D. Maintenance Materials and Spare Parts:
   1. Provide extra maintenance materials and spare parts in quantities indicated in the specification sections.
   2. Place in location as directed by the Tenant's Construction Manager.

DIVISION 2 - SITE CONSTRUCTION

1.1 General:
A. Provide site construction work, including services, utilities, earthwork, paving and landscaping in accordance with the site construction work drawings and details.

2.1 Materials:
A. Stencils for pavement markings: Pavement Stencil Company, P: (800) 250-5547, stencils@pavementstencil.com

DIVISION 3 - CONCRETE

SECTION 03300 - CAST-IN-PLACE CONCRETE

1.1 General: Provide cast-in-place concrete work in accordance with the General Structural Notes, structural drawing and details. Follow shell building documents for specifications, joints and geotech.

A. Standards: Materials and construction shall conform to the following:
   1. ACI 117 "Standard Tolerances for Concrete Construction and Materials."
   2. ACI 301 "Structural Concrete for Buildings."
   3. ACI 305R "Recommended Practice for Hot Weather Concreting."
   4. ACI 306R "Recommended Practice for Cold Weather Concreting."
   5. ACI 315 "Details and Detailing of Concrete Reinforcement."
   6. ACI 318 "Building Code Requirements for Reinforced Concrete."

2.1 Materials:

A. Under Slab Vapor Retarder: Stego Industries LLC, 877-464-7834, internet www.stegoindustries.com high density polyethylene Stego Wrap (10 mil) Vapor Barrier meeting or exceeding ASTM E1745 performance criteria for Class C vapor retarders.
   1. Seam Tape: High density polyethylene tape with pressure sensitive adhesive.
   2. Pipe boots: Shop or site fabricated from vapor retarder material and seam tape.

B. Concrete:
   1. Portland Cement: ASTM C150, Type I
   2. Aggregate: ASTM C33.
   3. Water: Clean and potable.
   4. Reinforcement: When required, comply with drawings reinforcement requirements.
   5. Compressive Strength: Minimum 3000 psi at 28 days.
   6. Admixtures: All admixtures shall be approved by the Tenant's Construction Manager prior to placement in the concrete mix.

C. Topping Concrete: When required to suit installation conditions, Ardex Diama-Top of Ardex Engineered Cements (888) 512-7339, internet www.ardex.com
   1. ULTRAFLOR ARDEX DIAMA-TOP, self-leveling concrete repair material.
   2. Any pinholes that need to be filled shall be filled with ARDEX DIAMA-FILL filling compound for polished concrete, concrete terrazzo and other cementitious wear surfaces applied at the appropriate time during the polishing process.
   3. The primer for areas to receive ARDEX DIAMA-TOP will be ARDEX EP 2000 Substrate Preparation Epoxy.
   4. Installation shall be performed by factory-trained professional applicators in strict accordance with manufacturer's installation instructions.

3.1 Installation

A. Vapor Retarder: Place, protect and repair vapor retarder sheets in accordance with ASTM E1643 and manufacturer's installation instructions.
   1. Provide a single layer of vapor retarder material over level compacted slab base.
   2. Lap joints and seams 6 inches and seal with seam tape.
   3. Seal all penetrations and repair damaged areas before concrete placement.

B. Reinforcement Place and inspect all reinforcing steel before concrete is placed.

C. Concrete Placement:
   1. Place cast-in-place concrete in accordance with ACI 301 and ACI 305R and 306R recommended practices for hot weather and cold weather concreting. Do not place concrete when temperature is below 40 degrees F.
   2. Wet cure concrete in accordance with ACI 301, using moist curing or moisture-retaining covers

D. Finish: Except where additional floor finish is scheduled, provide a smooth steel trowel finish.
   1. Exposed concrete used as a finish floor surface shall have a smooth finished surface, uniform in texture and appearance and free of trowel marks and other defects affecting ease of maintenance.
   2. Grind smooth surface defects as directed by the Tenant's Construction Manager.

E. Testing: When required, comply with drawings and specification sections testing requirements.

F. Topping Concrete: Prepare concrete floor slab substrate surfaces, prime substrate surfaces, mix, install and finish topping concrete in accordance with manufacturer's application instructions.

DIVISION 4 - MASONRY

SECTION 04810 - UNIT MASONRY ASSEMBLIES

1.1 General: Provide unit masonry assemblies as shown and specified.

A. Standards: Materials and construction shall conform to the following:
   1. ACI 530.1-02/ASCE 6-02/TMS 602-02 "Specifications for Masonry Structures."
   2. NCMA "TEK Bulletins."
   3. BIA "Technical Notes on Brick Construction."

2.1 Materials:

A. Concrete Masonry Units (CMU): Size and thickness as shown on drawings.
   1. ASTM C 90, load-bearing, normal weight, natural color CMU, properly cured at time of delivery, linear shrinkage not to exceed 0.065%.
   2. Provide special shapes where required.
   3. Provide exterior wall CMU containing an integral polymeric water-repellent admixture.
      a. Manufacturer: W. R. Grace "Dry-BlockR System Block Admix ".

B. Face Brick:
   1. Manufacturer:
      a. Endicott, (402) 729-3315, www.endicott.com (Iron Spot Brick), or as approved by architect
   2. Type: "Face Brick C216" complying with ASTM C216, Grade SW, Type FBS. No efflorescence when tested in accordance with ASTM C67.
   3. Size: Modular size, laying three courses to 8" vertically.
   4. Color: "Manganese Ironspot, Velour" as noted on Exterior Elevations
   5. Provide special shapes where required.

C. Mortar Materials:
   1. Portland cement: ASTM C150, Type I or III, natural color.
   2. Masonry cement: ASTM C91, Type indicated, natural color.
   3. Aggregate: ASTM C144, clean masonry sand.
   4. Water: Clean, fresh and potable.
   5. Provide all exterior wall masonry mortar containing an integral polymeric water-repellent admixture.
      a. Manufacturer W. R. Grace, "Dry-BlockR Integral Water-Repellent Mortar Admixture".

D. Unit Masonry Mortar Mixes: ASTM C270 proportions by volume.
   1. Face brick: Type N mortar.
   2. Dye:
      a. SM #750 "Silverstone" by Spec Mix (Iron Spot)

E. Reinforced Unit Masonry Grout Mixes
   1. Concrete fill: ASTM C94 3,000 psi concrete.

F. Joint Reinforcement, Wall Ties And Anchors: Finish, ASTM A-153 hot-dip galvanized
   1. Manufacturer: Hohman & Barnard, INC.
   2. Horizontal joint reinforcement: Welded ladder type with matching corners and Tee units.
      a. Single Wythe masonry: Standard single 9 gage side and cross rods. H&B - #220 Ladder-Mesh.
   3. Anchoring devices: Provide strap anchors, inserts, bolts and rods of type and size indicated.
      a. CMU to CMU: Strap anchors 1/4" x 1-1/4" x 24" steel with bent ends.
      b. CMU to structural steel: H&B - VBT - Vee Byne-Tie With Plain Steel (Tie) Used In Conjunction With H&B #359 Weld-on Ties (Anchor Rods).
   4. Masonry Veneer To Wood Framing: H&B - DW-10HS Veneer Anchor, With Adjustable 3/16" Cold-Drawn Steel Wire Tie Sections and 14 GA. Screw-On Attachment Plate.
      a. Fasteners: Self-Drilling, Self-Tapping Screws, 1-1/4" X #10, Corrosion-Resistant Coated. Provide Two (2) Screw Fasteners for each Attachment Plate.
   5. Seismic Masonry Veneer to Wood Framing: (When Required) H&B Seismic Plate Pintle HB-213S with HB-213 (T-Lok Tie)
      a. Fasteners: Seld-Drilling, Self-Tapping Screws, 1-1/4" X #10, Corrosion-Resistant Coated. Provide Two (2) Screw Fasteners for each Attachment Plate.

CONSULTANT

WILKUS ARCHITECTS

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PROJECT INFORMATION

CAMERON, NC SHELL BUILDING

NC 24-87
CAMERON, NC 28326

SEAL

WILKUS ARCHITECTS, PA
REGISTERED ARCHITECTURAL CORPORATION
53611
NORTH CAROLINA
HOPKINS, MN

MATTHEW M. WILKUS
REGISTERED ARCHITECT
14006
NORTH CAROLINA
HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

REVISION	DATE

TITLE:

ARCHITECTURAL SPECIFICATIONS

SHEET NUMBER:

A-000

G. Concealed Masonry Through-Wall Flashing: W. R. Grace "Perm-A-Barrier" self-adhering modified bituminous sheet, 40 mils thick.
1. Termination Mastic: W.R. Grace "Bituthene Mastic."
2. Primer: W.R. Grace "Bituthene P-300 Primer."
3. Termination bars: Extruded aluminum or stainless steel, 1" wide and .098" thick pre-punched at 6" on center, secured with stainless steel drive pins.

H. Accessories
1. Reinforcing bars: ASTM A615, Grade 60, deformed billet steel bars of sizes indicated.
2. Wall weeps: Dur-O-Wal D/A 1006 "Cell Vent", clear flexible polypropylene co-polymer.
3. Compressible joint material: Dur-O-Wal "Rapid Soft-Joint" D/A 2010.
4. Bond breaker strips: ASTM D226 No. 15 asphalt saturated roofing felt.
5. Cleaning agents:
a. Face Brick and CMU: ProSoCo, Inc., "Sure Klean New Masonry Cleaners."
b. ACMU: ProSoCo, Inc., "Sure Klean Burnished Custom Masonry Cleaner."
6. Expansion/Control joint sealants: Polyurethane-based, elastomeric joint sealant complying with ASTM C920 and Section 07900 requirements. Color matched to adjacent surfaces.

3.1 Installation

A. Preparation
1. Wet absorbent face brick masonry units requiring wetting, in accordance with BIA recommendations.
2. Lay concrete masonry units dry.
3. Establish, lines, levels and coursing. Ensure ties, anchors and flashing are correctly installed
4. Mix mortar cementitious materials and aggregate in a mechanical mixer. Add water in amount to provide satisfactory workable consistency of mortar. Retemper mortar as required within two hours of mixing to replace water lost be evaporation. Discard mortar after two and one-half hours of initial mixing. Do not use mortar after it has started to set.

B. Installation - General:
1. Build walls and other masonry construction to the full thickness shown. Build single wythe walls to the actual thickness of the masonry units, using units of nominal thickness shown.
2. Cut masonry units using motor-driven masonry saws to provide clean, sharp edges. Cut units to fit adjoining work neatly. Provide 100% solid units where cores would be exposed.
3. Cold weather construction, hot weather construction, and masonry construction tolerances: Comply with unit masonry standard ACI 530.1/ASCE 6/TMS 602 requirements.

C. Laying Masonry
1. Layout walls in advance to ensure accurate spacing of surface bond patterns, with uniform joint widths, and to properly locate openings, movement type joints, returns and offsets. Do not use less than half-size units at corners, jambs and other locations.
2. Lay up walls plumb and true to comply with ACI 530.1 tolerances. Provide square corners and angles, except as otherwise indicated, with courses level, accurately spaced and coordinated with other work.
3. Pattern bond: Running bond. Do not use units with less than 4" of horizontal face dimensions at corners or jambs.
4. Lay hollow CMU/ACMU with full mortar coverage on horizontal and vertical face shells. Bed CMU webs in mortar in starting courses. Maintain uniform 3/8" joint widths.
5. Lay face brick and solid CMU/ACMU with completely filled bed and head joints. Do not slush head joints. Maintain uniform 3/8" joint widths.
6. Compress and cut joints flush for masonry walls below grade or covered by other materials.
7. Tool joints in all exposed masonry work to a concave joint.
8. Provide interlocking masonry bond in each course at corners and intersecting walls.
9. As the work progresses, build in masonry accessories and related items. Fill in solidly with masonry around built-in items.
a. Bed hollow metal frame anchors in mortar and fill space between hollow metal frames and masonry solid with fine mortar grout.
b. Provide solid masonry bearing for all lintels, beams, joists, plates and load-bearing members.
c. Take particular care to embed all conduits and pipes within concrete masonry without fracturing exposed shells and to fit units around switch, receptacle and other boxes set in walls. Where electric conduit, outlets, switch boxes and similar items occur, grind and cut units before building in services.
d. Install anchors, plates and related work built into masonry work.
e. Install reinforcing steel and concrete fill where indicated. Comply with drawing details.
10. Horizontal joint reinforcing: Provide continuous joint reinforcing at all concrete masonry walls as follows:
a. In every second block course, 16" on center vertically, full height of wall and every block course where shown on the drawings.
b. Lap reinforcement a full width at the corners and at intersections or use special fabricated sections.
c. Fully embed side rods in mortar.
11. Anchoring masonry work: Provide anchoring devices of the type indicated or required.
12. Provide vertical expansion, control and isolation joints in masonry where indicated.
a. When not indicated, at maximum 30'-0" on center.
b. Locate control joints at points of natural weakness in masonry and acceptable to Architect.
c. Joint sealant color shall match masonry materials sealed.
13. Lintels: Install loose steel lintels furnished under structural steel work where shown. Set lintels in full bed of mortar.
14. Flashing and weeps:
a. Install concealed through wall masonry flashing at all wall sills, masonry openings in exterior walls with masonry above head, over all horizontal steel members built into masonry and elsewhere as indicated. Provide "drainage wall system" masonry construction.
b. Provide end dams and positive slope to drain. Extend flashing vertically at least 8" and built into or anchor to back-up with a termination bar for a complete watertight installation.
c. Flexible Membrane Flashing:
1.) Install membrane flashing in accordance with manufacturer's installation instructions.
2.) Fully adhere flashing to substrate.
3.) Lap flashing joints a minimum of 6", seal and roll with a hand roller.
4.) Trim bottom edge 1/4" back from exposed face of masonry.
5.) Seal edges, seams, cuts and penetrations with manufacturer's recommended mastic.
15. Install weeps in head joints of final course of exterior masonry wythe above flashing. Space weeps maximum of 24" on center horizontally and located to avoid door openings. Install weeps at head joints with outside face of weep material held 1/8" from the finish face of masonry unit.
16. Install compressible joint material at lintels and horizontal steel members. Build in joint fillers and seal with elastomeric joint sealant.

D. Masonry Veneer Walls:
1. Metal framed walls: Tie exterior masonry veneer wythe to back-up wall with individual metal ties screwed to metal stud framing.
2. Space ties 16" on center vertically and horizontally.
3. Maintain veneer wall cavity free of mortar droppings during masonry installation.

E. Parging:
1. Dampen masonry walls prior to parging.
2. Scarify each parging coat to ensure full bond to subsequent coat.
3. Parge masonry walls in two uniform coats of mortar to a total thickness of 3/4 inch (19mm).
4. Steel trowel surface smooth abs flat with a maximum surface variation of 1/8 inch per foot (1mm/meter).

F. Architectural Concrete Masonry Units: Install ACMU in accordance with the manufacturer's installation instructions and the following:
1. Draw ACMU from more than one pallet at a time during installation.

G. Reinforced Concrete Masonry
1. Reinforce and fill CMU/ACMU wall and column masonry where indicated. Fill all cores solid with concrete fill. Comply with NCMA TEK Bulletins 3-2, 3-3A and 14-2 recommendations.
a. Comply with drawing details for reinforcing steel size and spacing.
2. Install bond beams where indicated. Reinforce and fill units solid with concrete fill. Comply with drawing details for reinforcing steel size and spacing.

H. Repair, Pointing and Cleaning
1. In process cleaning: Wipe off excess mortar as the work progresses. Dry brush with bristle brushes exposed masonry at the end of each day's work. Remove mortar spatters and joint ridges.
2. Clean all exposed masonry. Cleaning agents subject to Architect's approval. Before applying any cleaning agent to the entire wall, clean a sample wall area of approximately 20 square feet in a location acceptable to the Architect. Do not proceed with final cleaning until the sample area has been allowed to dry a minimum of 3 days and the test area cleaning approved. Protect all windows, doors, louvers, metal lintels and other corrodible parts. Damaged materials and work replaced at Contractor's expense.
3. Dry clean exposed surfaces to remove large particles of mortar using hardwood wood paddles and scrapers. Metal tools not acceptable.
4. Presoak exposed masonry surfaces by saturating with water and flush off loose mortar and dirt.
5. Apply cleaning solutions and clean masonry in accordance with the cleaning material manufacturer's cleaning instructions.
6. Muriatic acid cleaning of masonry not permitted.

I. Architectural Concrete Masonry:
1. Keep ACMU walls clean during installation. Remove excess mortar on daily basis using brushes, rags or burlap squares.
2. Clean completed walls with detergent masonry cleaner recommended by the ACMU manufacturer. Acid cleaning agents, abrasive cleaners, tools or powders and metal cleaning tools and brushes are not permitted.
3. After final clean down and when walls are dry, apply ACMU acrylic finish coating in accordance with ACMU manufacturer's application instructions.

DIVISION 5 - METALS

SECTION 05120 - STRUCTURAL STEEL

1.1 General: Provide structural steel in accordance with the General Structural Notes and structural drawings and details.

A. Standards: Materials and construction shall conform to following:
1. AISC "Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings."
2. AISC "Code of Standard Practice."
3. AWS "Structural Welding Code, D1.1-Steel."

2.1 Materials:

A. Materials compliance: When requested, submit acceptable data documenting materials compliance for each type of material required.

B. Structural Shapes: ASTM A36/A36M, 36 ksi steel.

C. Tubular Steel: ASTM A500, 46 ksi yield strength steel, cold-formed welded and seamless.

D. Structural pipe: ASTM A53, type and grade selected by the fabricator as required for design loading, standard finish, standard weight (Schedule 40) except as otherwise indicated.

E. Grout: ASTM C1107, pre-mixed, shrinkage resistant, non-metallic, non-corrosive, non-staining grout.

F. Shop paint primer: Refer to Section 09900 - Paints and Coatings.

G. Fabrication: Fabricate structural steel in accordance with AISC "Specification - Structural Steel for Buildings" and "Code of Standard Practice." Provide welded or bolted connections in accordance with the Structural Drawings connection requirements.
1. Welding: Conform to AWS welding standards. Provide only continuous welds, spot welding is not acceptable. Grind all exposed welds smooth.
2. Splicing: Material, if spliced, shall have maximum one splice per structural member. Perform splicing by full penetration butt-welding using AWS qualified welders and welding methods.
3. Shop painting: Shop paint structural metal members, except members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded and galvanized surfaces. Refer to Section 09900 - Paints and Coatings.

3.1 Installation:

A. Erection: Erect structural steel in accordance with AISC "Specification - Structural Steel for Buildings" and "Code of Standard Practice".
1. Plumb, level and align base plates for structural members with steel shims.
2. Grout structural steel base plates solid that bear on concrete or masonry surfaces.

B. Testing: When required, comply with drawings testing requirements.

DIVISION 6 - WOOD AND PLASTICS

SECTION 06100 - ROUGH CARPENTRY

1.1 General: Provide rough carpentry work as shown and specified.

A. Standards: Materials and construction shall conform to following:
1. NIST PS-1-95 "Construction and Industrial Plywood."
2. NIST PS-2-95 "Performance Standards for Wood-Based Structural-Use Panels."
3. NIST PS-20-99 "American Softwood Lumber Standard."
4. NF&PA NDS-97 "Wood Construction and Supplement."
5. AWPA "Wood Treatment Standards."

2.1 Materials:

A. Lumber: Factory grade-marked, dressed, seasoned dimension lumber, S4S, air-dried, maximum 19% moisture content complying with PS-20, dimensions indicated.
1. Blocking, nailers and similar members: Standard Grade Western Dimension Lumber or Southern Pine species.
a. Provide preservative treated lumber, where indicated.

B. Plywood: Factory grade-marked, complying with PS-1, square edge, 1/2" thick.
1. APA-RATED SHEATHING EXP1.
a. Provide Exterior Grade (EXT) plywood, where indicated.
b. Provide fire-retardant treated plywood, where required by Building Code.

C. Oriented Strand Board (OSB): Factory grade-marked, complying with PS-2, square edge, 1/2" thick

2.2 Wood Treatment:

A. Preservative Treatment: Comply with applicable requirements of AWPA Standards C2 (Lumber).
1. Pressure preservative treat lumber with water-borne preservatives, acceptable to authorities having jurisdiction, to a minimum retention of 0.25 pcf.
2. Treat wood blocking, nailers and similar members in connection with roofing and flashing.
3. Treat wood plates, blocking, furring and similar concealed members in contact with masonry or concrete.

B. Fire-Retardant Treatment: Comply with applicable requirements of AWPA Standards C27 (Plywood). Identify "fire-retardant-treated plywood" with appropriate UL classification marking.
1. Treated materials shall meet "Interior Type A" FR-S ratings of not more than 25 for flame spread, smoke developed and fuel contributed when tested in accordance with UL 723 or ASTM E84, with no increase in flame spread and evidence of significant progressive combustion upon continuation of test for additional 30 minutes.

C. Kiln-dry all treated lumber and plywood materials after treatment to maximum 15% moisture content.

3.1 Installation:

A. Lumber: Provide wood blocking, nailers and similar members where shown and where required for attachment of other work and surface applied items. Attach to substrate as required to support applied loading.
1. Use only sound, seasoned materials of longest practical lengths and sizes to minimize joints.
2. Use materials free of warp. Make tight connections between members.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

SECTION 07210 - BUILDING INSULATION

1.1 General: Provide building insulation as shown and specified.

2.1 Materials:

A. Extruded polystyrene foam rigid board insulation: Dow Chemical Co., 866-583-2583, internet www.dowbuildingmaterials.com
1. Type: Dow "Styrofoam" Type IV, 1.6 pcf minimum density, 25 psi compressive strength complying with ASTM C 578, R-value equal 5 per inch of thickness. Provide lengths and widths as required to coordinate with space insulated.
2. Perimeter foundation walls: Styrofoam SE, R-value indicated.

B. Glass fiber batt/blanket insulation: Owens Corning Corp., (800) 438-7465, internet www.owenscorning.com.
1. Type: Owens Corning " Thermal Batt" Type I unfaced glass fibers and binders formed into flexible blankets or batts complying with ASTM C665,. Provide lengths and widths required to coordinate with spaces insulated.
2. Exterior walls: Unfaced, R-value/thickness indicated

C. Vapor barrier membrane: Polyethylene, minimum 6 mils thick, complying with ASTM D 4397, maximum permeance rating of 0.13 perm.
1. Joint tape: Pressure sensitive tape designed for sealing joints and penetrations of above and below grade vapor barrier sheets.
2. Mounting tape: Double-faced pressure sensitive tape suitable for mounting vapor barriers to steel framing.

3.1 Installation:

A. General:
1. Install insulation in accordance with manufacturer's recommendations for conditions of installation indicated. Install insulation in single layer of required thickness over entire area to be insulated. Cut and fit tightly around obstructions. Fill all voids.
2. Install exterior wall insulation continuous behind electrical boxes, conduit, piping and ductwork.

B. Foundation perimeter walls and slabs:
1. Install rigid foam insulation vertically from top of slab to frost line or horizontally under slabs, extending a minimum 36" in from exterior walls.
2. Protect insulation from displacement and damage during backfilling and slab placement

C. Exterior Walls:
1. Install batt/blanket insulation full height at exterior wall framing. Use blanket widths and lengths that fill cavities formed by framing members and provide a friction fit between edges of insulation and metal framing members.
2. Provide galvanized wire mesh or metal strapping to provide supplementary support when required to maintain insulation in permanent proper location.

D. Vapor Barriers:
1. Install a single layer of vapor barrier membrane over the interior of exterior metal wall framing after installation of insulation. Secure with double faced tape at wall framing.
2. Provide single unsplliced material height. Horizontal joints not acceptable. Minimize vertical joints. Lap vertical joints and secure in place with joints taped. Provide tape sealed contact with door frames, window frames, piping, conduit, ductwork, registers and the vapor barrier.
3. Seal all cuts and penetrations of vapor barrier membrane with tape before installing surface finishes.

SECTION 07240 -EXTERIOR INSULATION AND FINISH SYSTEM (PB)

1.1 General: Provide the exterior insulation and finish system (EIFS) as shown and specified.

A. Standards: Materials and construction shall conform to the following:
1. EIMA (EIFS Industry Members Association) Standards and Publications.
a. 101.01, 101.02, 101.03, 101.86, 105.01, 200.02.
b. EIMA "Guideline Specification for Expanded Polystyrene (EPS) Insulation board."

B. Quality Assurance:
1. System components:
a. Produced by a single manufacturer or by manufacturers approved by the EIFS system manufacturer.
b. Fire performance: Flame spread of 25 or less, smoke developed of 450 or less when tested in accordance with ASTM E84.
2. Installer Qualifications: Performed by the system manufacturer or an applicator trained and approved by the system manufacturer. During application, the work shall be inspected by system manufacturer's representative.

C. Environmental conditions: Comply with manufacturer's requirements. Do not install materials during wet or freezing weather.

2.1 Materials

A. Manufacturer: STO Corp., (800) 221-2397, internet www.stocorp.com
Strategic Accounts Manager: Ray Redmond, P: (616) 437-2230, rredmond@stocorp.com

B. Exterior insulation and finish system: Sto Class PB "Essence NExt" EIFS.
1. Air/Moisture barrier: Sto Guard system.
a. Sto Gold Fill Joint compound for rough opening protection, sheathing joints and inside and outside corners.
b. Sto Guard Mesh: Coated glass fiber fabric reinforcing mesh.
c. Sto Gold coat: Waterproof coating for wall sheathing.
2. Primer/adhesive and base coat: Sto Primer/Adhesive-B, one-component, polymer modified, cement -based factory blended primer/adhesive used to attach insulation board to prepared sheathing substrates and as a base coat in Essence claddings.
3. Insulation board: ASTM C578 Type 1, nominal 1.0 lb/ft³ expanded polystyrene meeting EIMA Guideline specifications for EPS insulation board.
4. Finish coating: Sto Essence DPR, ready-mixed 100% acrylic-based, textured wall coating.
a. Medium/Fine Sand Finish.
b. Color as indicated on the Architectural drawings from manufacturer's full color range or match custom color.
5. System warranty: 10 year labor and material.

C. Portland cement: ASTM C150, Type I or II, white or gray in color.

D. Water: Clean, potable and free of foreign matter.

E. Reinforcing mesh: Sto open-weave glass fiber fabric with alkaline resistant coating.
1. Standard mesh: Sto Mesh, nominal 4.5 oz/yd² fabric.
2. Ultra-High impact mesh: Sto Armor Mat, nominal 15 oz/yd² ultra-high impact fabric.
3. Specialty mesh:
a. Sto Detail Mesh, nominal 4.2 oz/yd² flexible, symmetrical, interlaced glass fiber fabric.
b. Sto Corner Mat, nominal 7.8 oz/yd² pre-creased, heavy-duty, glass fiber fabric.

F. Joint sealants: StoSeal STPE Sealant complying with ASTM C920 and Section 07900 requirements.
1. Adhesion: Evaluated in accordance with ASTM C1382.
2. Color: Matching EIFS finish coating color, and visually acceptable to the Architect.

G. Accessories: Provide plastic stops and trim where indicated. Materials shall be compatible with EIFS materials and acceptable to EIFS manufacturer.
1. Starter Track: Rigid PVC plastic track with weepholes and drip edge.

3.1 Mixing

A. Mix materials in accordance with manufacturer's published instructions.
1. Mix with a clean, rust-free high speed mixer to a uniform consistency.
2. No rapid binder, anti-freeze or accelerator additives permitted.

4.1 Installation

A. Preparation:
1. Coordinate installation of roofing membrane, windows, doors and other wall penetrations to provide a continuous exterior wall air/moisture barrier.
2. Coordinate installation of windows, doors and window and door flashing to provide a continuous exterior wall air/moisture barrier.
3. Install copings and joint sealants immediately after installation of the EIFS, when EIFS coatings are dry.

B. Installation: Install Sto Guard air/moisture barrier system and exterior insulation and finish system (EIFS) in strict accordance with manufacturer's installation instructions, complying with governing regulations and industry standards applicable to the work.
1. Back wrap exposed board edges with mesh.
2. Provide double wrap or corner mat reinforcing at all inside and outside corners.
3. Provide expansion joints in accordance with manufacturer's recommendations for type of substrates and systems required, and visually acceptable to the Architect.
4. Provide drainable starter track horizontal edge trim as base of wall, above windows and doors openings and beneath windows with concealed flashing.

C. Insulation and adhesive application:
1. Install insulation board with long edge horizontal using running bond pattern. Off set insulation joints with substrate joints. Stagger joints and interlock joints at corners.
2. Apply adhesive to insulation board with a stainless steel trowel notched trowel, providing vertical uniform ribbons of adhesive when board is installed. Mount insulation board on substrate. Level, align and tamp insulation in place. Provide uniform contact and bond with joints tightly butted. Rasp edges and high areas as required to produce a level, plane surface.

D. Base coat and reinforcing mesh application:
1. Apply detail mesh at corners of windows, doors, and all penetrations through the EIFS.
2. Standard mesh: Apply base coat over insulation board to a uniform 1/8 inch thickness, including high impact mesh where indicated. Embed standard reinforcing mesh into wet adhesive, lap edges at seams. Smooth surface until mesh is not visible. Allow to base coat to dry.
3. Ultra-High impact mesh: Apply base coat over insulation board to a uniform 1/8 inch thickness. Fully embed ultra-high impact reinforcing mesh into wet adhesive, butt edges at seams. Smooth surface until mesh is not visible. Allow to base coat to dry. Locate at 4'-0" wide perimeter of the rear service door to 6'-0" above grade and as indicated on Architectural drawings.

E. Apply finish coating continuously in one operation to the entire wall surface Provide a uniform finished appearance. Level and texture to the specified finish texture.

F. Install joint sealants at perimeter joints and joints within the system using elastomeric joint sealants, in accordance with drawing details and sealant manufacturer's recommendations.

SECTION 07250 - WEATHER BARRIERS

1.1 Section Includes

A. Weather barrier membrane
B. Seam Tape
C. Flashing
D. Fasteners

1.2 References

A. ASTM International
1. ASTM C920; Standard Specification for Elastomeric Joint Sealants
2. ASTM C1193; Standard Guide for Use of Joint Sealants
3. ASTM D882; Test Method for Tensile Properties of Thin Plastic Sheeting
4. ASTM D1117; Standard Guide for Evaluating Non-woven Fabrics
5. ASTM E84; Test Method for Surface Burning Characteristics of Building Materials
6. ASTM E96; Test Method for Water Vapor Transmission of Materials
7. ASTM E1677; Specification for Air Retarder Material or System for Framed Building Walls.
8. ASTM E2178; Test Method for Air Permeance of Building Materials

B. AATCC - American Association of Textile Chemists and Colorists
1. Test Method 127 Water Resistance: Hydrostatic Pressure Test

C. TAPPI
1. Test Method T-410; Grams or Paper and Paperboard (Weight per Unit Area)
2. Test Method T-460; Air Resistance (Gurley Hill Method)

1.3 Quality Assurance

A. Qualifications
1. Installer shall have experience with installation of commercial weather barrier assemblies under similar conditions.
2. Installation shall be in accordance with weather barrier manufacturer's installation guidelines and recommendations.
3. Source Limitations: Provide commercial weather barrier and accessory materials produced by single manufacturer.

1.4 Delivery, Storage and Handling

A. Refer to Section 01400 Quality Requirements.
B. Deliver weather barrier materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
C. Store weather barrier materials as recommended by weather barrier manufacturer.

1.5 Scheduling

A. Review requirements for sequencing of installation of weather barrier assembly with installation of windows, doors, louvers and flashings to provide a weather-tight barrier assembly.
B. Schedule installation of weather barrier materials and exterior cladding within nine months of weather barrier assembly installation.

2.1 Manufacturer

A. DuPont Building Innovations; 4417 Lancaster Pike, Chestnut Run Plaza 721, Wilmington, D19805;
1.800.44TYVEK (8-9835); http://constructiontyvek.com
Alternate: STO Corp., P: (800) 221-2397, internet www.stocorp.com

2.2 Materials

A. Basis of Design: Hi-performance, spunbonded polyolefin, non-woven, non perforated, weather barrier is based upon DuPont Tyvek CommercialWrap and related assembly components.
Alternate: StoGuard System, See Section 07240

B. Performance Characteristics:
1. Air Penetration: 0.001 CFM/feet squared at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
2. Water Vapor Transmission: 28 perms, when tested in accordance with ASTM E96 Method B.
3. Water Penetration Resistance: 280 cm when tested in accordance with AATCC Test Method 127.
4. Basis Weight: 2.7 oz/yard squared, when tested in accordance with TAPPI Test Method T-410.
5. Air Resistance: Air infiltration at >1500 seconds, when tested in accordance with TAPPI Test Method T-460.
6. Tensile Strength: 38/35 lbs/inch, when tested in accordance with ASTM D882, Method A.
7. Tear Resistance: 12/10 lbs., when tested in accordance with ASTM D1117.
8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E 84. Flame Spread: 10, Smoke Developed: 10.

2.3 Accessories

A. Seam Tape: 3 inch wide, DuPont Tyvek Tape for commercial applications.

B. Fasteners:
1. For steel frame construction - DuPont Tyvek Wrap Cap Screws, as manufactured by DuPont Building Innovations: 1-5/8" rust resistant screw with 2-inch diameter plastic cap or manufacturer approved 1-1/4" or 2" metal gasketed washer.
2. For wood frame construction - Tyvek Wrap Caps, as manufactured by DuPont Building Innovations: #4 nails with large 1-inch plastic cap fasteners.
3. For masonry construction - masonry tap-con fasteners with Tyvek Wrap Caps as manufactured by DuPont Building Innovations: 2 inch diameter plastic cap fasteners.

C. Adhesives:
1. Provide adhesive recommended by weather barrier manufacturer.
2. Products:
a. Liquid Nails LN-109
b. Polyglaze SM 5700
c. Denso Butyl Liquid
d. 3M High Strength 90
e. SIA 665
f. Adhesives recommended by the weather barrier manufacturer.

D. Primers:
1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.
2. Product:
a. 3M High Strength 90
b. Denso Butyl Spray
c. SIA 655
d. Permagrip 105
e. ITW TACC Sta' Put SPH
f. Primers recommended by the flashing manufacturer.

E. Flashing:
1. DuPont FlexWrap, as manufactured by DuPont Building Innovations: flexible membrane flashing materials for window openings and penetrations.
2. DuPont Straightflash, as manufactured by DuPont Building Innovations: straight flashing membrane materials for flashing windows and doors and sealing penetrations such as masonry ties, etc.
3. DuPont Straightflash VF, as manufactured by DuPont Building Innovations: dual-sided straight flashing membrane materials for brick mold and non-flanged windows and doors.

3.1 Examination
A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 Installation - Weather Barrier
A. Install weather barrier per regional requirements in accordance with manufacturer recommendations.
B Install weather barrier prior to installation of windows and doors.
C. Start weather barrier installation at a building corner, leaving 6-12 inches of weather barrier extended beyond corner to overlap.
D. Install weather barrier in a horizontal manner starting at the lower portion of the wall surface with subsequent layers installed in a shingling manner to overlap lower layers. Maintain weather barrier plumb and level.
E. Sill Plate Interface: Extend lower edge of weather barrier over sill plate interface 3-6 inches. Secure to foundation with elastomeric sealant as recommended by weather barrier manufacturer.
F. Window and Door Openings: Extend weather barrier completely over openings.
G. Overlap weather barrier
1. Exterior corners: minimum 12 inches.
2. Seams: minimum 6 inches.

CONSULTANT

WILKUS ARCHITECTS

CLIENT

PRIMAX PROPERTIES, LLC

CHRIS NEIL
PRIMAX PROPERTIES, LLC
1100 E. MOREHEAD STREET
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PROJECT INFORMATION

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SHELL BUILDING

NC 24-87
CAMERON, NC 28326

SEAL

WILKUS ARCHITECTS, PA
REGISTERED ARCHITECTURAL CORPORATION
53611
NORTH CAROLINA
HOPKINS, MN

MATTHEW M. WILKUS
REGISTERED ARCHITECT
14006
NORTH CAROLINA
HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

REVISION	DATE

TITLE:
ARCHITECTURAL SPECIFICATIONS

SHEET NUMBER:
A-001

H. Weather barrier Attachment:
1. For steel or wood frame construction - Attach weather barrier to studs through exterior sheathing. Secure using weather barrier manufacturer recommended fasteners, space 12-18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.
2. For masonry construction - Attach weather barrier to masonry. Secure using weather barrier manufacturer recommended fasteners, spaced 12-18 inches vertically on center and 24 inches maximum horizontally. Weather barrier may be temporarily attached to masonry using recommended adhesive, placed in vertical strips spaced 24 inches on center, when coordinated on the project site.

I. Apply 4 inch by 7 inch piece of DuPont StraightFlash to weather barrier membrane prior to the installation cladding anchors.

3.3 Seaming

A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams.
B. Seal any tears or cuts as recommended by weather barrier manufacturer.

3.4 Opening Preparation (for use with non-flanged windows - all cladding types)

A. Flush cut weather barrier at edge of sheathing around full perimeter of opening.
B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose 8 inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.

3.5 Flashing (for use with non-flanged windows - all cladding types)

A. Cut 9-inch wide DuPont FlexWrap a minimum of 12 inches longer than width of sill rough opening. Apply primer as required by manufacturer.
B. Cover horizontal sill by aligning DuPont FlexWrap edge within side edge of sill. Adhere to rough opening across sill and up jambs a minimum of 6 inches. Secure flashing tightly into corners by working in along the sill before a adhering up the jambs.
C. Fan DuPont FlexWrap at bottom corners onto face of wall. Firmly press into place. Mechanically fasten fanned edges.
D. Apply 9-inch wide strips of DuPont StraightFlash at jambs. Align flashing with interior edge of jamb framing. Start DuPont StraightFlash at head of opening and lap sill flashing down to the sill. Spray-apply primer to top 6 inches of jambs and exposed sheathing.
E. Install DuPont FlexWrap at opening head using same installation procedures used at sill. Overlap jamb flashing a minimum of 2 inches.
F. Coordinate flashing with window installation.
G. On exterior, install backer-rod in joint between window frame and flashed rough framing. Apply sealant at jambs and head. leaving sill unsealed. Apply sealants in accordance with sealant manufacturer's instructions and ASTM C 1193.
H. Position weather barrier head flap across head flashing. Adhere using 4-inch wide DuPont StraightFlash over the 45-degree seams.
I. Tape top of window in accordance with manufacturer recommendations.
J. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealant in accordance with sealant manufacturer's instructions and ASTM C 1193.

3.6 Protection
A. Protect installed weather barrier from damage.

SECTION 07540 - THERMOPLASTIC MEMBRANE (PVC) ROOFING

1.1 General: Provide the thermoplastic membrane (PVC) roofing system as shown and specified.

A. Standards: Materials and construction shall conform to following:
1. ASTM D5036 "Application of Adhered Poly(Vinyl Chloride) Sheet Roofing."
2. FM 1-29 Loss Prevention Data Adhered or Mechanically Attached Single Ply Membrane Roof Systems."
3. NRCA "Single-Ply Roofing Membrane."
4. UL "790 - Tests for Fire Resistance of Roof Covering Materials."

B. Installer Qualifications: An experienced roofing installer approved by roofing system manufacturer and with not less than five years of successful experience installing membrane roofing systems similar to those required for this project.

C. Deliver, store and handle roof system materials in accordance with manufacturer's recommendations to avoid damage and deterioration.
1. Comply with manufacturer's recommendations for handling and protection during installation.

D. Install roofing work only when weather conditions are in compliance with manufacturer's specific environmental requirements and conditions will permit work to be performed in accordance with manufacturer's recommendations and warranty requirements.
1. Protect adjacent materials and surfaces from damage and soiling during roofing system installation.
2. Provide special protection on completed roofing work.
3. Protect paving and structure walls adjacent to hoists before starting work.
4. Do not overload the building structure with storage of materials or installation equipment on the substrate decking.

E. Warranty
1. Contractor and roof system installer shall jointly warrant roofing materials and installation for a period of two years from the date of Substantial Completion. Warranty shall include roofing membrane, flashing, roof insulation, roofing accessories and sheet metal work provided under Section 07600.
2. Manufacturer's warranty: Submit executed copy of roofing system manufacturer's 15 year total system warranty, including labor and materials for the entire roof system. Including perimeter edge metal, Section 07600 Flashing & Sheet Metal

2.1 Materials
A. Manufacturer: Duro-Last Roofing, Inc, (800)248-0280, Austin Russell, austin.russell@holcim.com, www.duro-last.com
1. Basis of Design Product Roofing System
a. Thermoplastic single ply membrane roofing system: DL Membrane (PVC) fully adhered, smooth surface, UL Class A fire-rated single ply membrane roofing system.
b. Thermoplastic fiber reinforced PVC membrane, not less than 40 mils (.040), complying with ASTM D4434 and membrane manufacturer's published physical properties.

B. Comparable Alternate Roof Manufacturers:
1. Versico Roofing Systems, (480) 528-6923, Jeff Kelly, jeff.kelly@versico.com
a. VersiFlex PVC Adhered System
2. Other comparable alternates can be considered when approved by Arch PM and Chipotle DM/CM.

C. The roof covering design must resist a wind load of 100 mph, Exposure C and shall resist impact damage based on results of tests based on the results of tests conducted in accordance with ASTM D 3746, ASTM D 4272, CGSB 37-GP-52M or FM 4470
1. Insulation cover board: Georgia-Pacific Corp. (800) 284-5347, internet www.gp.com, "Dens-Deck" nonstructural fiberglass- faced, silicone-treated gypsum core panels, 1/2"" thickness.
2. Roof insulation: Rigid closed cell polyisocyanurate boards approved by the membrane manufacturer; complying with ASTM C1289, Type II, minimum 20 psi compressive strength, aged R-value equal 5.6 per inch of thickness.
a. Provide a double layer installation. Minimum total R-value as indicated on plans.
b. Specified perimeter edge metal shall be compliant with International Building Code ANSI / SPRI ES-1, ER2 testing requirements.
3. Flashing: Roof system manufacturer's standard sheet flashing of same material, type, and color as sheet membrane. Specified perimeter edge metal will be compliant with International Building Code ANSI / SPRI ES-1, RE2 testing requirements.
4. Membrane Bonding Adhesive: Roof system manufacturer's standard membrane bonding adhesive.
5. Insulation and Cover Board Adhesive: Dow Chemical Company, (888) 868-1183, internet www.flexibeproducts.com, "INSTA-STIK Professional Roof Insulation Adhesive", a single component, moisture cured polyurethane adhesive.
6. Fasteners: Roof system manufacturer's standard fasteners for project conditions indicated.
7. Accessories: Roof system manufacturer's recommended pourable sealers, preformed penetration flashing, preformed corner flashing, seam caulk, termination bars and other accessories required for substrate surfaces and installation conditions indicated.
8. Traffic walkways: Duro-Last Roof Track II walkway pads.3.1Installation

3.1 Installation

A. Preparation:
1. Clean substrate surfaces of debris and other substances detrimental to roofing installation.
2. Correct unsatisfactory conditions before starting roofing. Roof deck surface conditions shall comply with manufacturer's requirements and be acceptable to the roofing system installer.

B. Installation:
1. General: Provide roofing system materials and installation complying with roofing system manufacturer's instructions and governing codes and regulations.
a. Mix and apply roof insulation and cover board adhesive in strict accordance with the adhesive manufacturer's installation instructions. Dispense adhesive at manufacturer's recommended application rate using approved dispensing equipment.
2. Roof insulation.
a. Extend insulation full thickness over entire surface to be insulated. Cut and fit around obstructions; fill all voids with insulation. Provide saddles and tapered edges as required to provide positive proper drainage.
b. Install and secure in place with insulation adhesive, a double layer of insulation units of the required thickness. Run long joints of insulation in continuous straight lines, perpendicular to roof slope, with end joints staggered between rows. Stagger joints of each layer of insulation. Butt edges to moderate contact. Limit joints between adjacent units to maximum 1/4".
3. Insulation cover board: Install and secure in place with insulation adhesive a single layer of insulation cover board on installed roof insulation. Secure cover board in accordance with membrane manufacturer's recommendations. Stagger joints with joints of roof insulation.
4. Thermoplastic membrane: Comply with membrane manufacturer's instructions and recommendations for handling and installing single ply membrane roofing.
a. Unroll and position roofing sheet membrane without stretching. Align top sheet with pr-marked lines on bottom sheet. Allow membrane to "relax" for at least 30 minutes before adhering, splicing and flashing.
b. Adhere membrane to insulation cover board with bonding adhesive. Broom bonded membrane to achieve maximum contact.
c. Join membrane seams using approved heat welding equipment. Check all splices for voids and repair voids with heat gun and roller.
d. When required, mechanically fasten membrane at roof perimeter, curb flashing and similar penetrations in accordance with manufacturer's installation instructions.
e. Flash and make weathertight all equipment curbs, pipes, conduits, drains and other penetrations or projections through sheet roofing using roofing system manufacturer's recommended flashing materials, accessories and procedures.
5. Install roof accessories and traffic walkways in accordance with manufacturer's instructions.
6. Install sheet metal work furnished under section 07600.

SECTION 07600 - FLASHING AND SHEET METAL

General:

A. Standards: Materials and construction shall conform to following:
1. SMACNA "Architectural sheet Metal Manual- 1993."
B. Installation: Performed under Section 07540 work.

1.1 Pre-manufactured perimeter edge metal and accessories

Manufacturer: Duro-Last Roofing / Exceptional Metals, Inc, (800) 248-0280, Jason Dark, www.Duro-Last.com

A. Duro-Last / Exceptional Metals Snap Coping made of 24-gauge galvalume, cover provided with Kynar architectural finish providing a 35 year finish warranty. Meets ANSI/SPRI ES-1 2003 method RE-2 testing requirements. (Color - Refer to Exterior Elevations)
B. Duro-Last / Exceptional Metals Vinyl backed scupper. Scupper profile & size indicated Fig 1-20.

1.2 General: Miscellaneous sheet metal

A. Standards: Materials and construction shall conform to following:
1. SMACNA "Architectural sheet Metal Manual- 1993."
B. Installation: Performed under Section 07540 work.

2.1 Materials:

A. Galvanized steel: ASTM A653 commercial quality sheet steel with 0.2% copper, G90 hot-dip galvanized. Gage indicated.
1. Scuppers: Minimum 16 gage.
2. Coping/Wall caps: Minimum 18 gage.
B. Aluminum sheet: ASTM B209 alloy 3003, temper as required for forming and performance. Thickness indicated.
1. Conductor Boxes: Minimum 0.040"thickness.
2. Downspouts: Minimum 0.025"thickness.
C. Joint sealers: One-component silicone elastomeric joint sealant complying with ASTM C920. Color matched to sheet metal finish.
D. Metal accessories: Provide sheet metal fasteners, clips, straps, anchoring devices and similar accessory units as required for installation of work, matching or compatible with material installed, non-corrosive, size and gage as required for performance and acceptable to the Architect.
E. Fabrication: Shop fabricate sheet metal work to comply with profiles and sizes indicated and to comply with standard industry standards as shown by SMACNA in the "Architectural Sheet Metal Manual."
1. Conductor boxes: SMACNA Chapter 1 - Roof Drainage Systems. Profile and size indicated Fig 1-25.
2. Scuppers: SMACNA Chapter 1 - Roof Drainage Systems. Profile and size indicated Fig 1-20.
3. Downspouts: SMACNA Chapter 1 - Roof Drainage Systems. Profile and size indicated. Installation Fig. 1-31 with strap hanger Fig. 1-35.
4. Formed coping/wall caps: SMACNA Chapter 3 - Copings. Design Fig 3-1. Profile and size indicated with Fig. 3-3 butt joints and concealed back-up plates. Install formed copings with continuous cleat fasteners similar to Fig 3-1 at exposed face and screw fasteners with washers space maximum 24" on center at roof side.

3.1 Installation:

A. Preparation: Coordinate sheet metal work with other work for the correct sequencing of items which make up the entire roof system of weatherproofing and rain drainage:
B. Installation: Comply with SMACNA "Architectural Sheet Metal Manual" recommendations, drawing details and approved shop drawings for installation of the work.
1. Anchor sheet metal items securely in place by methods indicated, providing for thermal expansion. Conceal fasteners and expansion provisions whenever possible. Install joint sealants where required.
2. Set units true to lines and levels indicated. Install work with sealed laps, joints and seams that will be permanently watertight and weatherproof. Bed flanges of sheet metal work in thick coat of roofing cement or sealant compatible with roofing membrane.
3. Separate sheet metal work from dissimilar metals and treated wood materials. Provide rosin-sized paper slipsheet over treated wood.
4. Fabricate, support and anchor conductor boxes and downspouts to withstand thermal expansion, stresses and full loading by ice or water without damage, deterioration or leakage.

SECTION 076113 - SHEET METAL WALL PANELS

1.1 General:

A. Standards:
1. Furnish all labor, material, tools, equipment and services for all preformed fascia and wall panels as indicated, in accord with provisions of Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

B. Related work specified elsewhere:

1. Structural steel: Section 05100
2. Steel joists: Section 05200 or 05400
3. Flashing and sheet metal: Section 07600

1.2 Quality Assurance:

A. Applicable standards:
1. SMACNA: "Architectural Sheet Metal Manual" Sheet Metal and Air Conditioning Contractors National Association, Inc.
2. AISC:"Steel Construction Manual" American Institute of Steel Construction.
3. AISI: "Cold Form Steel Design Manual: American Iron and Steel Institute.
4. ASTM A792-83-A250: Specifications for steel sheet, aluminum-zinc alloy coated (galvanized) by the hot dip process, general requirements (Galvalume).

B. Manufacturer's qualifications:
1. Manufacturer has a minimum of three years experience in manufacturing metal wall systems of this nature. Panels specified in this section shall be produced in a factory environment (not job site roll formed) with fixed base roll forming equipment assuring the highest level of quality control. A letter from the manufacturer certifying compliance will accompany the product material submittals.

1.3 Product Delivery, Storage and Handling

A. Delivery: Deliver metal wall system to job site properly packaged to provide protection against transportation damage.
B. Handling: Exercise extreme care in unloading, storing and erecting metal wall system to prevent bending, warping, twisting and surface damage.
C. Storage: Store all materials and accessories above ground on well skidded platforms. Store under waterproof covering. Provide proper ventilation of metal wall system to prevent condensation build up between each panel or trim/ flashing component.

2.1 Materials

A. Metal wall system profile:
1. Shadow Rib: 3 inch deep x 16 inch width with 1 1/2 inch deep x 5 1/4 inch wide fluting
B. Metal wall system style:
1. Fluted face
2. Concealed fasteners
C. Gauge: 24 gauge
D. Substrate: Per Plans
E. Texture: Smooth
F. Finish: Premium thermoset silicone polyester (20 year warranty)
G. Color: Polar White, to be painted per Exterior Elevations
H. Acceptable Manufacturer: MBCI Houston, Texas (281) 445-8555.

3.1 Surface Conditions

A. Examination:
1. Inspect installed work of other trades and verify that such work is complete to a point where this work may continue.
2. Verify that installation may be made in accordance with approved shop drawings and manufacturer's instructions.

3.2 Installation

A. Install metal wall system system so that it is weathertight, without waves, warps, buckles, fastening stresses or distortion.
B. Install metal wall system in accordance with manufacturer's instructions and shop drawings.
C. Provide concealed anchors at all panel attachment locations.
D. Install panels plumb, level and straight with seams parallel, conforming to design as indicated.

3.3 Cleaning, Protection

A. Dispose of excess materials and remove debris from site.
B. Clean work in accordance with manufacturer's recommendations.
C. Protect work against damage until final acceptance. Replace or repair to the satisfaction of the architect and work that becomes damaged prior to final acceptance.
D. Touch up minor scratches and abrasions.

3.4 Field Painting

A. Refer to section 09900 on G017
B. Follow manufacturer's technical bulletin for Precoated Signature 200 MBCI wall panels.

Section 07900 – JOINT SEALERS

1.1 General: Provide joint sealers as shown and specified.

A. Standards:Comply with ASTM C 920 requirements.

B. Application: Performed by skilled, experienced joint sealer applicators.

2.1 Materials:

A. Poly urethane sealants:
1. Tremco Commercial Sealants (800) 321-7906, internet www.tremcosealants.com,
a. "Dymonic FC" One component, fast skinning, Low Modulus Polyurethane.
b. "Dymeric 240 FC" Multi Component, gun grade, chemically curing, tintable fast setting polyurethane sealant.
2. Sonneborn, (724) 756-9582, internet www.sonneborn.com
a. Color pack for polyurethane multi component, gun grade chemically curing sealant.

B. Silicone Sealants:
1. General Electric Silicones, (800) 295-2392, internet www.gesilicones.com
a. "SCS1700 Sanitary – Mold/Mildew Resistant Silicone", one component 100% silicone, fungicidal based sealant.
b. "SCS2700 Silprul Silicone" one component medium modulus, natural cure silicone all purpose sealant.
c. "Silglaze II SCS2800- Glazing Sealant" one component, 100% silicone based sealer.
d. "GE Paintable Silicone" one component paintable silicone.
e. "SCS1009 Silicone Sealant" one-component acetoxy silicone for general purpose sealing and bonding
2. Dow Corning Silicones, (989)496-4000, www.dowcorning.com
a. "Dow 795" – one component, medium modulus, natural cure silicone.

C. Firestopping Sealants: 3M Fire Protection Products, (800) 328-1687, internet www.3M.com/firstop
1. "3M Fire Barrier CP 25WB+ Caulk" or approved equal

D. Joint backing: Non-absorptive, non-staining compressible, non-gassing, polyethylene foam backer rod compatible with joint sealants.

3.1 Installation:

A. Preparation: Clean and prepare joints prior to installing sealers:
1. Wipe shipping oils from surfaces to be sealed. Remove protective films and/or install joint backer rod if joint is larger than ¼" in width.

B. Installation: Install joint sealant materials in strict accordance with manufacturer's installation instructions.
1. Apply sealants in a uniform, continuous bead without gaps or air pockets. Hand tool and finish all joints so that a smooth, small, lip free uniform line is created along the substrate being shot. Remove any excess materials from tooled edges and ends of joint.
2. Install joint sealants to a depth no more than ½ the width of the joint.
3. Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths which allow optimum sealant movement capability.
4. Immediately, after sealant application, and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.
5. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealers and of products in which joints occur.

4.1 Sealant Schedule

H. Exterior Joints:
- Provide a continuous bead of Tremco Dymeric limestone urethane sealant at the following locations:
1. Sidewalk/concrete expansion joints.

- Provide a continuous bead of Dow 795 silicone or Tremco Dymeric 240 FC at the following locations:
1. Hollow metal door frames.
2. EIFS to abutting services.
3. Penetrations in EIFS.
4. Face brick or block control joints.
5. Perimeter of Aluminum Storefronts.
*Colors to be determined per store to match adjacent material colors. Verify with Architect.
- For "Fog" EIFS use Tremco - "Natural White"
- For "Knight's Armor" EIFS use Sonneborn - "Charcoal Gray" #276-U
- For white brick use Tremco - "China White"
- Provide a continuous bead of aluminum GE SCS1009 silicone at the following location:
1. CO2 fill port stainless box.
2. Faucet for hose. (Please note: color to be determined per store. Verify Architect.

DIVISION 8 - DOORS AND WINDOWS

SECTION 08110 - STEEL DOORS AND FRAMES

1.1 General: Tenant to provide steel doors and frames as shown and specified.

A. Standards: Materials and construction shall conform to the following:
1. ANSI A250.8-2009 "Specifications for Standard Steel Doors and Frames."
2. ANSI A250.11-01 "Erection Instructions for Steel Frames."
3. SDI 122-99 " Installation for Standard Steel doors and Frames.

B. Manufacturer: A member of the Steel Door Institute (SDI).

2.1 Materials:

A. Steel Doors:
1. Interior: Heavy-duty Level 2, physical performance B, Model 2 seamless construction, ASTM A1008, 18 gage cold-rolled steel face sheets, manufacturer's standard core.

2. Exterior: Extra heavy-duty Level 3, physical performance A, Model 2 seamless construction, ASTM A1008, 16 gage cold-rolled steel face sheets; tops and bottoms closed with flush galvanized steel caps, manufacturer's standard plastic foam insulating core.

B. Steel Frames: ASTM A1008, 16 gage cold-rolled steel.
1. Provide combination buck, jamb and trim type frames for 1-3/4" thick doors, unless otherwise indicated.
2. Interior and exterior frames: Set-up welded type with mitered corners, reinforced, fully seam welded with exposed welds ground smooth.

3.1 Installation:

A. Install frames plumb, level, rigid, and in true alignment as recommended in ANSI A250.11.

B. Install doors plumb and in true alignment and fastened to achieve the maximum operational effectiveness and appearance as recommended in SDI 122.

SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

1.1 General: Provide aluminum entrances and storefronts as shown and specified.

1.2 Related Documents:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.

B. Standards: Materials and construction shall conform to the following:
1. AAMA SFM-1-87 "Aluminum Storefront and Entrance Manual."

1.3 Summary:

A. Section Includes:
1. Kawneer Architectural Aluminum Storefront Systems, including perimeter trims, stools, accessories, shims and anchors, and perimeter sealing of storefront units.
a. Types of Kawneer Aluminum Storefront include:
(1.) Trifab 601T Storefront System - 2" x 6" nominal dimension; Thermal; Center-Set
(2.) Trifab VG 451T Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set

2. Kawneer Aluminum Entrances, glass and glazing, and components
a. Types of Kawneer Aluminum Entrances include:
(1.) 500 Swing Door; Wide stile, 5" vertical face dimension, 1-3/4" depth, high traffic applications or as indicated on Drawings.

3. Alternate Storefront Systems only when approved by Arch PM.
a. YKK
(1.) YES 60 TU Storefront System - 2" x 6" nominal dimension; Thermal
(2.) YES 45 TU Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
b. Oldcastle
(1.) Series 6000XT Storefront System - 2" x 6" nominal dimension; Thermal
(2.) Series 3000 Thermal MultiPlane Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
c. US Aluminum
(1.) Series FT601 - 2" x 6" nominal dimension; Thermal
(2.) Series FT451 - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
d. EFCO
(1.) Series 406 (T) Storefront System - 2" x 6-1/2" nominal dimension; Thermal
(2.) Series 403 (T) Storefront System - 2" x 4-1/2" nominal dimension; Thermal
e. Wausau
(1.) TU24650 Storefront System - 2" x 6-1/2" nominal dimension; Thermal
(2.) TU24000 Storefront System - 2" x 4-1/2" nominal dimension; Thermal

1.4 Performance Requirements:

A. General Performance: Aluminum-framed storefront system shall withstand the effects of the following performance requirements without exceeding performance criteria or failure due to defective manufacture, fabrication, installation, or other defects in construction;
1. Design Wind Loads: Determine design wind loads applicable to the Project from basic wind speed indicated in miles per hour, according to ASCE 7, Section 6.5, "Method 2-Analytical Procedure," based on mean roof heights above grade indicated on Drawings.
a. Basic Wind Speed (MPH): See Structural for design critera.
b. Importance Factor: (1.00)
c. Exposure Category (A, B, C, D): See Structural for design critera.

B. Storefront System Performance Requirements:
1. Wind loads: Provide storefront system; include anchorage, capable of withstanding inward and outward wind load design pressures - see Structural for design critera..
2. Air Infiltration:
a. Air Infiltration for storefront frame system: The test specimen shall be tested in accordance with ASTM E 283. Air infiltration rate shall not exceed 0.06 cfm/ft. sq. at a static air pressure differential of 6.24 psf.
b. Air Infiltration for storefront entrances: For single acting offset pivot or butt hung entrances in the closed and locked position, the test specimen shall be tested in accordance with ASTM E 283 at a pressure differential of 6.24 psf (300 Pa) for single doors and 1.567 psf (75 PA) for pairs of doors. A single 3'0" x 7'0" entrance door and frame shall not exceed 0.50 cfm per square foot. A pair of 6'0" x 7'0" entrance doors and frame shall not exceed 1.0 cfm per square foot.
3. Water Resistance: The test specimen shall be tested in accordance with ASTM E 331. There shall be no leakage at a minimum static air pressure differential of 8 psf as defined in AAMA 501.
4. Uniform Load: A static air design load of 20 psf shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no defection in excess of L/175 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
5. Thermal Transmittance (U-factor): When tested to AAMA Specification 1503, the thermal transmittance (U-factor) shall be not more than:
a. Glass to Exterior - 0.47 (low-e)
6. Condensation Resistance (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than:
a. Glass to Exterior - 70 frame and 69 glass (low-e)
7. Sound Transmission Class (STC) and Outdoor-Indoor Transmission Class (OITC): When tested to AAMA Specification 1801 and in accordance with ASTM E1425 and ASTM E90, the STC and OITC Rating shall not be less than:
a. Glass to Exterior - 38 (STC) and 31 (OITC)

1.5 Submittals:

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, hardware, finishes, and installation instructions for each type of aluminum frame storefront system and storefront entrance doors indicated.

B. Shop Drawings: Include plans, elevations, sections, details, hardware, and attachments to work, operational clearances and installation details.

C. Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color section.

1.6 Quality Assurance

A. Installer Qualifications: An installer which has had successful experience with installation of the same or similar units required for the project and other projects of similar size and scope

B. Manufacturer Qualifications: A manufacturer capable of providing aluminum framed storefront system that meet or exceed performance requirements indicated and of documenting this performance by inclusion of rest reports, and calculations.

C. Source Limitations: Obtain aluminum framed storefront system and storefront entrance doors through one source from a single manufacturer.

CONSULTANT

WILKUS ARCHITECTS

CLIENT

PRIMAX PROPERTIES, LLC

CHRIS NEIL
PRIMAX PROPERTIES, LLC
1100 E. MOREHEAD STREET
CHARLOTTE, NC 28204
CNEIL@PRIMAXPROPERTIES.COM
(704) 954-7216

PROJECT INFORMATION

CAMERON, NC
SHELL BUILDING
NC 24-87
CAMERON, NC 28326

WILKUS ARCHITECTS, PA
NORTH CAROLINA
53811
HOPKINS, MN

SEAL

MATTHEW M. WILKUS
REGISTERED ARCHITECT
14006
NORTH CAROLINA
HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

REVISION	DATE

TITLE:
ARCHITECTURAL SPECIFICATIONS

SHEET NUMBER:
A-002

D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum framed storefront system and are based on the specific system indicated. Do not modify size and dimensional requirements.
   1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

1.7 Project Conditions:

A. Field Measurements: Verify actual dimensions of a aluminum framed storefront openings by field measurements before fabrication and indicate field measurements on Shop Drawings.

1.8 Warranty

A. Manufactures Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.
   1. Warranty Period: Two (2) years from Date of Substantial Completion of the project provided however that the Limited Warranty shall begin in no event later than six months from date of shipment by manufacturer.

2.1 Manufacturers:

A. Manufacturer: Kawneer Company Inc., Contact: Cheryl Wilkerson, Phone: 317-771-9263; email:cheryl.wilkerson@arconic.com

   1. Basis-of-Design Product Storefront Framing:
      a. Trifab 601T (thermal) Storefront System
      b. Trifab 451T (thermal) Storefront System

   2. Basis-of-Design Product Storefront Entrances:
      a. The door stile and rail face dimensions of the 500-Wide Stile entrance door will be as follows or as indicated on Summary 1.3, Section A-2.

B. Alternate Storefront Systems only when approved by Architetcural Project Manager.
   1. YKK
   2.. Oldcastle
   3.. US Aluminum
   4. EFCO
   5. Wausau

2.2 Materials:

A. Provide aluminum entrances and storefront matching the existing building aluminum entrances and storefronts, unless otherwise indicated.

B. Aluminum Frame Extrusions: Alloy and temper recommended by aluminum storefront manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.070" wall thickness at any location for the main frame and complying with ASTM B 221: 6063-T6 alloy and temper.

C. Aluminum Storefront Entrance Extrusions:Alloy and temper recommended by aluminum-framed glass door manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.090" wall thickness at any location for the main frame and sash members.

D. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window and door members, trim hardware, anchors, and other components.

E. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions, or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated.

F. Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated.

G. Sealant: For sealants required within fabricated storefront system, provide permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

H. Tolerances: Reference to tolerances for wall thickness and other cross-section dimensions of storefront members are nominal and in compliance with AA Aluminum Standard Data.

2.3 Storefront Framing System:

A. Thermal Barrier: Thermal Break shall be designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA 505.
   1. Kawneer IsoLock Thermal Break with a 1/4" separation consisting of a two-part chemically curing, high-density polyurethane, which is mechanically and adhesively joined to aluminum storefront sections.

B. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with non-staining, nonferrous shims for aligning system components.

C. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bearing fasteners and accessories compatible with adjacent materials. Where exposed shall be stainless steel.

D. Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

E. Packing, Shipping, Handling and Unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

F. Storage and Protection: Store materials protected from exposure to harmful weather conditions. Handle storefront material and components to avoid damage. Protect storefront material against damage from elements, construction activities, and other hazards before, during and after storefront installation.

2.4 Glazing Systems:

A. Glazing: As specified in Section 08800 - Glazing.

B. Glazing Gaskets: Manufacturer's standard compression types; replaceable, extruded EPDM rubber.

C. Spacers and Setting Blocks: Manufacturer's standard elastomeric type.

D. Bond-Breaker Tape: Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.

E. Glazing Sealants: For structural-sealant-glazed systems, as recommended by manufacturer for joint type, and as follows:
   1. Structural Sealant: ASTM C 1184, single-component neutral-curing silicone formulation that is compatible with system components with which it comes in contact, specifically formulated and tested for use as structural sealant and approved by a structural-sealant manufacturer for use in aluminum-framed systems indicated.
      a. Color: Black
   2. Weatherseal Sealant: ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and O; single-component neutral-curing formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weatherseal-sealant, and aluminum-framed-system manufacturers for this use.
      a. Color: Matching structural sealant.

2.5 Entrance Door Systems:

A. Entrance Door Hardware: As specified in Section 08710 Door Hardware.

2.6 Accessory Materials:

A. Joint Sealants: For installation at perimeter of aluminum-framed systems, as specified in section 07900 - Joint Sealers

2.7 Storefront Framing Fabrication:

A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
   1. Profiles that are sharp, straight, and free of defects or deformations.
   2. Accurately fit joints; make joints flush, hairline and weatherproof.
   3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
   4. Physical and thermal isolation of glazing from framing members.
   5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
   6. Provisions for field replacement of glazing.
   7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

B. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.

C. Structural-Sealant-Glazed Framing Members: Include accommodations for using temporary support device to retain glazing in place while structural sealant cures.

D. Storefront Framing: Fabricate components for assembly using manufacturers standard installation instructions.

E. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.8 Storefront Entrance Door Fabrication:

A. Fabricate aluminum-framed glass entrance doors in sizes indicated. Include a complete system for assembling components and anchoring doors.

B. Fabricate aluminum-framed glass doors that are reglazable without dismantling perimeter framing.
   1. Door corner construction shall consist of mechanical clip fastening, SIGMA deep penetration plug welds and 1-1/8" long fillet welds inside and outside of all four corners. Glazing stops shall be hook-in type with EPDM glazing gaskets reinforced with non-stretchable cord.
   2. Accurately fit and secure joints and corners. Make joints hairline in appearance.
   3. Prepare components with internal reinforcement for door hardware.
   4. Arrange fasteners and attachments to conceal from view.

C. Weather Stripping: Provide weather stripping locked into extruded grooves in door panels or frames as indicated on manufactures drawings and details.

2.9 Aluminum Finishes:

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. Factory Finishing:
   1. Kawneer Permafluor (70% PVDF), AAMA 2605, Fluoropolymer Coating (Color: Charcoal or as noted on Drawings)
   2. Finishing for alternate storefront specifications to be verified by Arch PM.
      a. YKK "Charcoal" UC09477, Superior Painted Finishes
      b. All others to be verified with samples and submittals to Arch PM

2.10 Brake Metal Trim:

A. Shop Drawings: Show layout and elevations, dimensions and thickness of panels, connections, details and location of joints, sealants and gaskets, method of anchorage, number of anchors, supports, reinforcement, trim, flashings, and accessories.
   1. Show actual field measurements on shop drawings.
   2. Differentiate between shop and field fabrication.
   3. Indicate substrates and adjacent work with which the fabrications must be coordinated.
   4. Include large-scale details of anchorages and connecting elements.
   5. Include large-scale or schematic exploded or isometric diagrams to fully explain flashing at a scale of not less than 1-1/2 inches per 12 inches (1:10)

2.11 Formed Metal Fabrications - General:

A. Shop assembly: Preassemble items to greatest extent possible. Minimize field splices and field assembly. Disassemble only as necessary for transportation and handling. Mark items clearly for assembly and installation.

B. Coordinaton: Match dimensions and attachement of formed metal items to adjacent construction. Produce integrated assembles. Closely fit joints; align edges and flat surfaces unless indicated otherwise.

C. Forming: Profiles indicated. Maximize lenghts. Fold exposed edges to form hem indicated or ease edges to radius indicated with cocealed stiffener. Provide flat, flush surfaces without cracking or grain seperation at bends.

D. Reinforcement: Increase metal thickness; use concealed stiffeners, backing materials or both. Provide stretcher leveled standard of flatness and stiffness required to maintain flatness and hold adjacent items in flush alignment.

E. Anchors: Straps, plates and anchors as required to support and anchor items to adjacent construction.

F. Supports: Miscellaneous framing, mounting, clips, sleeves, fasteners and accessories required for installation.

G. Welding and brazing: Weld or braze joints continuously. Grind smooth, fill or dress to produce smooth, flush, exposed surfaces. Do not discolor metal. Grind Smooth, polish, and restore damaged finishes to required condition.
   1. Ease exposed edges to small uniform radius.
   2. Welded joints.
      a. Carbon Steel: Perform welding in accordance with AWS D1.1/D1.1M.
      b. Stainless Steel: Perform welding in accordance with AWS D1.6/D1.6M
   3. Brass/Bronze Brazed Joints:
      a. Perform torch brazing in accordance with AWS C3.4M/C3.4
      b. Perform induction brazing in accordance with AWS C3.5M/C3.5
      c. Perform resistance brazing in accordance with AWS C3.9M/C3.9

H. Performance requirements;
   1. Thermal Movements:
      a. Allow for thermal movements in exterior metal fabrications due to temperature changes. Prevent buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.
      b. Temperature Change Range: 120 degrees F (67 degrees C), ambient; 180 degrees F (100 degrees C), on material surfaces.
   2. Corrosion: Prevent galvanic action and other forms of corrosion by isolating metals and other materials from direct contact with incompatible materials.

2.12 Formed Metal Fabrications - Sheet Metal

A. Closures, Trim, and Fill Panels:
   1. Form Closures from type and thickness of metal indicated.
   2. Conceal fasteners when possible.
   3. Drill and tap holes for securing to other surfaces.
   4. Provide gaskets where indicated or needed for continuous seal at adjacent surfaces.
   5. Miter or cope at corners and reinforce with bent metal plate. Form tigh joints.

2.13 Materials

A. Genaral: Provide sheet metal without pitting, seam marks, roller marks, stains, discolorations, or other imperfections exposed to view on finished units.
B. Galvanized Steel Sheet: ASTM A653/A653M, G90 (Z275) coating. 14 gauge min. thick base material.
C. Anchors, Clips, and Accessories: Use one of the following:
   1. Stainless steel complying with ASTM A276/A276M, ASTM A480/A480M, or ASTM A666.
   2. Steel complying with ASTM A36/A36M and hot-dipped galvanized to ASTM A153/A153M.
   3. Steel complying with ASTM A36/A36M and hot-dipped galvenized to ASTM A123/A123M Coating Grade 35
   4. Interior locations: Carbon steel; zinc coated in accordance with ASTM B633 or ASTM F1941/F1941M, Class Fe/Zn 5.
   5. Exterior Locations or in contact with Stainless Steel:
      a. Bolts: Stainless steel; ASTM F593, Group 1 (A1)
      b. Nuts: Stainless steel; ASTM F594.
   6. Structural Anchors: Provide anchors where work is indicated to comply with design loads.
      a. Type: Provide chemical or torque controled expansion anchors.
      b. Capacity: When tested according to ASTM E488/E488M; four times the load imposed when installed in concrete.
   7. Nonstructural Anchors: Provide powder-actuated fasteners where work is not indicated to comply wit design loads. Provide size and number required for load, installation, and as recommended by manufacturer, unless indicated otherwise.
D. Fasteners, General: Same basic metal and alloy as formed metal sheet unless indicated otherwise. Do not use metals incompatible with the materials joined.
E. Gaskets: As required to seal joints in decorative formed metal and remain airtight; as recommended in writing by decorative formed metal manufacturer.

2.14 Finishes

A. Finishes, General: Comply with NAAMM AMP 500-06
   1. Complete mechanical finishes befor fabrication. After fabrication, finish joints, bends, abrasions and surface blemishes to match sheet.
   2. Protect mechanical finishes on exposed surfaces from damage.
   3. Apply organic and anodic finishes to formed metal after fabrication unless indicated otherwise.
   4. Appearance: Limit variations in appearance of adjacent to one-half the range represented in approved samples. noticeable variations in the same piece are not acceptable. Install components in the range of approved samples to minimize contrast.

B. Galvanized Steel Finishes:
   1. Repair Galvanized Surfaces: Clean welds and abraded areas and repair galvanizing to comply with ASTM A780/A780M
   2. Color: As shown on the drawings.
   3. Factory Prime: Apply shop primer to pepared surfaces of items where field painting after installation indicated, unless indicated otherwise. Comply with requirements in SSPC-PA1
   4. High Performance Organic Coatings: AAMA 2604; multiple coats, thermally cured fluoropolymer system.

3.1 Examination:

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight framed aluminum storefront system installation.
   1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
   2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches of opening.
   3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
   4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Installation:

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing aluminum framed storefront system, aluminum swing storefront entrance doors, accessories, and other components.

B. Install aluminum framed storefront system and storefront doors level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.

C. Set sill members and door threshold in bed of sealant or with gaskets, as indicated, for weather tight construction.

D. Install aluminum framed storefront system and components to drain condensation, water penetrating joints, and moisture migrating within sliding door to the exterior. Refer to section 07900 - Joint Sealers.

E. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

F. Install aluminum storefront framing system glass and glazing, in accordance with section 08800 and the manufacturer's requirements.

3.3 Adjusting, Cleaning, and Protection:

A. Clean aluminum surfaces immediately after installing aluminum framed storefronts. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Clean glass immediately after installation. Comply with glass manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

SECTION 085619 - PASS-THRU WINDOW

1.1 General: Provide door hardware as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. ASTM A240 - Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels.
   2. ASTM A653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   3. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
   4. ASTM B221 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
   5. ASTM B580 - Standard Specification for Anodic Oxide Coatings on Aluminum.
   6. ASTM B680 - Standard Test Method for Seal Quality of Anodic Coatings on Aluminum by Acid Dissolution.
   7. ASTM C1048 - Heat-Treated Flat Glass--Kind HS, Kind FT Coated and Uncoated Glass.
   8. ASTM C1172 - Standard Specification for Laminated Architectural Flat Glass.
   9. ASTM E774 - Standard Specification for Sealed Insulating Glass Units.
   10. Aluminum Association AA DAF-45 - Designation System for Aluminum Finishes.

B. Quality Assurance:
   1. Manufacturer Qualifications: Minimum of 25 years successful experience continuously manufacturing pass-thru windows.
   2. Installer Qualifications: Installer shall have five years experience manufacturing and fabricating windows of similar type and scope as those specified in this section.

2.1 Materials:

A. Acceptable Manufacturers. Arch PM to verify required manufacturer per Tenant's assignment.
   1. Quikserv; Toll Free: 1.800.388.8307; Email: sales@quikserv.com; Web: https://www.quikserv.com/

B. No substitutions allowed. Requirements for manufacturer, design, grade, function, finish, size and other distinctive qualities of each type of door hardware are indicated on the drawings.

2.2 In-Line Side Sliding Automatic Window and Air Curtain

A. Standard Custom Side Sliding Windows –Arch PM to verify manufacturer with Tenant.
   a. GC to use specification called out on storefront details sheet and/or as directed by Tenant Arch PM.

- Quikserv Custom Automatic Side Sliding Window (Model: SST-4035E-CHIPOTLE): 45 -1/2"W x 41-3/4"H window with 17-3/4" tall transom and (2) sidelights at 29 1/4"W x 41-3/4"H; Complete Unit Size 104"W x 59-1/2"H
   1. Service Opening: 19"W x 29-3/4"H
   2. Finish: Dark Bronze Anodized
   3. Glass: 1" Clear Tempered unit + Low E (Solarban 60e) for fixed and moving panel, sidelights and transom
   4. 'CHIPOTLE'package includes pre-wired air curtain with relay to sync operation with window.
      a. Arch PM to verify if heated or ambient air curtain is required per Tenant assignment. Air Curtain mounts to transom.
         i. Heated Air Curtain: Model: QSV1025EJ-040-BK
         ii. Ambient Air Curtain: Model: QSK1025AA-BK
   5. Refer to interior elevations (A700s) for direction of opening for ordering.

B. Alternate California Code Option

   1. Quikserv Model: SS-4035-E-CHIPOTLE-CALI, same as above except as noted.
      a. Service Opening: 28"W x 15-3/8"H, limited to meet CA code.
      b. 'CHIPOTLE'package includes pre-wired ambient air curtain with relay to sync operation with window Model: QSK1025AA-BK. Air curtain mounts to transom.

C. Alternate Impact-Resistant and Florida Product Approved Option, Miami Dade Horizontal Bi-Parting Impact Slider

   1. Quikserv Model: BP-7241E-IP-CHIPOTLE, Complete Unit Size: 72"W x 41"H.
      a. Service Opening: 29-1/2"W x 27"H
      b. Rough Opening: 72-1/2"W x 41-1/2"H
      c. Glass: Impact Resistant Glass
      d. ' CHIPOTLE'package includes ambient air curtain
         i. Ambient Air Curtain: Model: QSK1025AA-BK, Part Number: 9345.
         ii. Do not mount directly to window, mount on wall above.
      e. Miami-Dade NOA #18-0814.02

2.3 Electrical Requirements

A. Quikserv Electrical Windows: 120V / 60 Hz, 20-amp branch circuit, single phase. Power supplied through base of window. Conforms to UL Standard 325 –Certified to CAN/CSA C22.2 NO. 247. Confirm with Electrical Drawings.

   1. Heated Air Curtain for Custom Side Sliding Window (Model: SS-4035-E-CHIPOTLE)
      a. Separate 208V circuit and Power Supply required for heated air curtain. Air curtain pre-wired through window frame with power supply routed to base of window. Confirm with Electrical Drawings.
   2. Ambient Air Curtain for Custom Side Sliding Window (Model: SS-4035-E-CHIPOTLE) and Alternate California Code Option: Model: SS-4035-E-CHIPOTLE-CALI
      a. Separate circuit not required. Window pre-wired to power and sync operation with air curtain.
   3. Ambient Air Curtain for Alternate Impact-Resistant and Florida Product Approved Option (Model: BP-7241E-IP-CHIPOTLE):
      a. Connect to main control board on window to power and synchronize operation with opening and closing of window.

3.1 Installation

A. Install in accordance with manufacturer's instructions.
B. Install pass-thru windows plumb, level, square, true to line, and without warp or rack. Maintain dimensional tolerances and alignment with adjacent Work.
C. Install thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
D. Install pass-thru window components weathertight.
E. Anchor pass-thru windows securely in place to supports. Use attachment methods permitting adjustment for construction tolerances, irregularities, alignment, and expansion and contraction.
F. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.
G. Coordinate installation of related sheet metal flashing as specified in Section 07 62 00 -Sheet Metal Flashing and Trim.
H. Install perimeter joint sealants as specified in Section 07 91 23 -Backer Rods.

SECTION 08710 - DOOR HARDWARE

1.1 General: Provide door hardware as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. ANSI A117.1-2009 Accessible and Usable Buildings and Facilities.
   2. ANSI/BHMA A156 Series Builders Hardware

B. Quality Assurance:
   1. Codes and standards: Provide hardware complying with local Building Code requirements and the Tenant's standards for keying and security systems.
   2. Project scheduling: Performed by an Architectural Hardware Consultant (AHC).
   3. Package each item of hardware and each lockset, complete with all screws, anchors, installation instructions and templates. Identify package indexing with corresponding item number of the hardware schedule.
   4. After hardware schedule acceptance, provide necessary templates or physical hardware to required trades for cutting, reinforcing, or preparing their products to receive hardware. Furnish templates to metal door manufacturer's.

2.1 Materials:

A. No substitutions allowed. Requirements for manufacturer, design, grade, function, finish, size and other distinctive qualities of each type of door hardware are indicated on the drawings.

B. Review the keying system with the Tenant and provide the type required prior to building turnover.

3.1 Installation

A. Install each hardware item in strict accordance with manufacturer's installation instructions and recommendations. Securely fasten all attached parts. Fit faces of mortised parts snug and flush. Verify operating parts move freely and smoothly without binding or sticking, without excessive clearance.

B. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as required for proper installation and operation. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

C. Mount hardware units at heights indicated in DHI "Recommended Locations for Builders Hardware", unless otherwise required to comply with requirements of governing codes and regulations. Conform to ANSI A117.1 and ADAGG guidelines for accessibility.
   1. Top Butts: 5 inches; top of butt from head of frame.
   2. Middle Butts: 3'-2", centerline from finish floor.
   3. Bottom Butts: 5 inches; finish floor to bottom of butt.
   4. Locks: centerline from finish floor per hardware schedule.
   5. Knobs: 3'-2", centerline from finish floor.
   6. Pulls: centerline from finish floor per hardware schedule.
   7. Pushes: centerline from finish floor per hardware schedule.

SECTION 08800 - GLAZING

1.1 General: Provide glass and glazing as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. CPSC 16 CFR Part 1201 (1-91)"Safety Standard for Architectural Glazing Materials."
   2. GANA "Glazing Manual - 1990."

B. Quality Assurance:
   1. Codes and standards: Provide type of glass and glazing products that comply with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for category II materials. Comply with all applicable codes, standards and regulations that control safety glazing materials and installation.
   2. System Performance: Provide glass and glazing that has been produced, fabricated and installed to withstand normal thermal movement, wind loading and, where applicable, impact loading, without failure including loss or breakage of glass, failure of glazing sealants or gaskets to remain watertight and airtight, deterioration of glass and glazing materials and other defects in the work.
   3. Installation: Performed only by experienced glaziers.

C. Warranty:
   1. Insulating glass: Five years from date of installation against defects that materially obstruct vision through the glass or affect thermal and physical integrity.

2.1 Materials:

A. Glass:
   1. Float Glass (FG): 1/4" thick clear float glass.
   2. Tempered Glass (TG): 1/4" and 1/2" thick clear, tempered safety glass, free-of-tong marks.
   3. Insulating Glass (IGL): 1" thick clear, low-e tempered sealed glass; 1/4" thick interior and exterior glass lites with 1/2" aluminum desiccated dual sealed air space; with the following characteristics:
      a. Low-emissivity coating on #2 surface.
      b. Visible Light Transmittance: 64% - 70%
      c. Visible Light Reflectance - Outdoors: 9%-11%
      d. Solar Energy Transmittance: 32%-34%
      e. Solar Energy Reflactance-Outdoors: 30%-34%
      f. U-Value - Winter Night: 0.29
      g. U-value - Summer days: 0.28
      h. Solar Heat gain Coefficient: 0.25-0.39
      i. Shading Coefficient: 0.43-0.45
      j. Manufacturers/Products:
         i. AGC/Comfort Ti-AC40, or similar to meet code
         ii. Sun Guard/SN-68, or similar to meet code
         iii. PPG/Solarban 60, or similar to meet code
         iv. Viracon/VE1-2M, or similar to meet code
   4. Spandrel Glass (SG) 1/4" thick, Spandrel Ceramic Glass, (Color: GrayBlack or as noted on drawings) by Old Castle Building Envelope (419) 666-2000, Contact: Doug Dewar
   5. Frosted Window Film, 3M Dusted Crystal Translucent Window Film. Apply on the interior side of glazing.

B. Glazing Materials:
   1. Glazing Sealants: Provide elastomeric glazing sealants suitable for applications indicated; compatible with one another and with other materials they will contact, complying with ASTM C920.
   2. Glazing Tape: Provide preformed, non-staining and non-migrating elastomeric tape, as recommended by tape and glass manufacturers for application indicated, complying with ASTM C 1281.
   3. Glazing gaskets: Provide manufacturer's standard snap-on aluminum stops and neoprene, vinyl or EPDM glazing gaskets.
   4. Provide setting blocks, spacers and edge blocks of material, size, and shape complying with referenced glazing standard, and compatible with surfaces contacted in installation.

C. Fabrication: Factory fabricate and size all glass.

3.1 Installation

A. Preparation:
   1. Field verify measurements and conditions of installation.
   2. Examine all details. Provide proper fitting to details indicated.
   3. Glazing channel dimensions shown are intended to provide for necessary bite on glass, minimum edge clearance and adequate glazing materials thickness, with reasonable tolerances. Adjust as required by job conditions at time of installation.

B. Install glass and glazing in accordance with the GANA "Glazing Manual" and glass manufacturer's recommendations.
   1. Install insulating glass units to comply with recommendations by Sealed Insulating Glass Manufacturers Association (SIGMA).

CONSULTANT

WILKUS ARCHITECTS

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PROJECT INFORMATION

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NC 24-87
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SEAL

WILKUS ARCHITECTS P.A. REGISTERED ARCHITECTURAL CORPORATION 53611 NORTH CAROLINA HOPKINS, MN

MATTHEW M. WILKUS REGISTERED ARCHITECT 14006 NORTH CAROLINA HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

REVISION	DATE

TITLE:

ARCHITECTURAL SPECIFICATIONS

SHEET NUMBER:

A-003

C. Install setting blocks of proper size at quarter points of sill rabbet. Provide spacers as required.

D. Install glazing sealants, tapes and gaskets in accordance with manufacturer's recommendations. Set glass without springing and install securely to prevent rattling or breakage.

E. Protect glass from breakage during remaining construction. Do not remove non-permanent labels until final acceptance.

DIVISION 9 -- FINISHES

SECTION 09260 - GYPSUM BOARD SYSTEMS

1.1 General: Provide gypsum board systems as shown and specified.

A. Standards: Materials and installation shall conform to the following:
1. GA 214-90 "Levels of Gypsum Board Finish."
2. GA-216 "Specifications for Application and Finishing of Gypsum Board."
3. USG "SA923 Drywall/Steel Framed Systems."

2.1 Materials:

A. Manufacturer: United States Gypsum Co. (USG), (800) 874-4968, internet www.usg.com.

B. Metal framing: Comply with ASTM C 754 and ASTM C 645 for materials and sizes.
1. Partition metal framing:
a. Studs: Galvanized steel, C-shaped, sizes indicated, 20 gage "ST20"
b. Runners: Match studs, type recommended by stud manufacturer for floor and ceiling support of studs. Provide flexible ceiling runners for full height metal stud framed partitions continuous from floor to underside of structural members or deck above.

D. Gypsum board panels: USG "Sheetrock" complying with ASTM C1396, tapered edge face panels, 48" wide, in maximum lengths available to minimize end joint conditions, 5/8" thick.
1. General use panels: Sheetrock Regular panels.
2. Fire rated panels: Sheetrock Firecode Core panels.
3. Water-resistant: panels: Sheetrock HUMITEK panels.

E. Cement board: USG DUROCK Cement Board, 5/8" thick x manufacturer's standard width, complying with ANSI A118.9, and in maximum lengths available to minimize end-to-end butt joints.

F. Fasteners: USG Type "S" bugle head screws for metal framing, USG Type "W" bugle head screws for wood framing, manufacturer's recommended length for panel thickness indicated.

G. Trim: Galvanized steel with knurled and perforated flanges. USG Dur-A-Bead corner bead, No. 200B casing bead metal trim, No. 093 Control Joint.

H. Joint treatment: USG Joint Treatment System, utilizing "Sheetrock Brand Joint Tape", and "Sheetrock Brand Setting-Type (DURABOND)" compound for tape bedding and topping.

I. Adhesives: USG "Sheetrock Brand Setting-Type (DURABOND) 210 or 90" compound for tape bedding and topping.

J. Acoustical sealant: USG Sheetrock Acoustical Sealant, water-base type, gunnable sealant for sealing sound-rated gypsum board systems.

K. Sound attenuation insulation: USG Thermafiber unfaced 3-1/2" thick, mineral fiber insulating batts/blankets; standard lengths and widths required to coordinate with spaces insulated.

3.1 Installation

A. Install metal wall and partition framing and ceiling suspension/ support systems in accordance with USG Bulletin SA 923 and complying with ASTM C754.
1. Ceiling suspension/ support systems: Metal furring system/direct suspension or steel stud framing system.
2. Wall and partition framing:
a. Install steel studs per schedule or at spacing indicated with bottom and top runner tracks anchored to substrates. Provide flexible ceiling runner tracks at full height partitions.
b. Terminate partition stud system 4" above ceilings, except where indicated to be extended to structural support or roof deck above. Brace tops of partition framing to structure or roof deck at maximum 4'-0" on center spacing.
c. Frame openings more than 2'-0" wide with two 20 gage studs at each jamb.
d. Coordinate the installation of supplementary blocking and nailers, provided under Section 06100 work, to support shelving, millwork, toilet accessories, and similar work that cannot be adequately supported by gypsum board alone.

B. Application and Finishing: Install and finish gypsum board to comply with ASTM C 840 and Gypsum Association GA 216 "Recommended Specifications for the Application and Finishing of Gypsum Board."
1. Screw fasten all gypsum board panels.
2. Metal Trim: Install metal corner beads at external corners of gypsum board work and metal trim wherever edge of gypsum board would be exposed. Use longest practical lengths.
3. Control Joints: Locate and install control joints in accordance with USG Bulletin SA923 "Good Design Practice" recommendations.

C. Acoustical Treatment:
1. Where sound-attenuation insulation is indicated, seal gypsum board construction at perimeters, control joints, junction boxes, openings and penetrations with a continuous bead of acoustical sealant including a bead at both faces of partitions.
2. Install sound attenuation insulation at scheduled partitions and ceilings. Install insulation in single layer of required thickness. Extend full thickness over entire area to be insulated. Cut and fit tight around obstructions. Fill all voids.
3. At openings and cutouts, fill open spaces between edges of gypsum board and fixtures, cabinets, ducts, and other flush or penetrating items, with continuous bead of acoustical sealant.
4. Seal sides and backs of electrical boxes to completely close up openings and joints with a bead of acoustical treatment.

D. Finishing:
1. Comply with manufacturer's instructions for mixing, handling, and application of materials. Apply treatment at joints both directions, at flanges of trim accessories, penetrations of gypsum board (electrical boxes, piping, and similar work), fastener heads, surface defects, and elsewhere as indicated. Apply in manner that will result in each of these items being concealed when applied decoration has been completed.
2. Apply joint tape at joints between gypsum boards, except where trim accessories are indicated.
3. Interior Exposed Gypsum Board Finish: Level 5 Finish.
a. Locations: Typical for all walls and ceilings, unless otherwise indicated
b. Finish interior gypsum board by applying the following joint compounds in four coats (not including prefill of openings in base), and sand between coats and after last coat:
c. Embedding and First Coat: Setting-type joint or taping compound.
d. Fill (Second) Coat: Setting-type topping compound.
e. Fill (Third) Coat: Setting-type topping compound.
f. Finish (Fourth) Coat: Skim coat entire surface.

4. Interior Concealed Gypsum Board: Level 3 Partial Finishing.
a. Finish concealed gypsum board construction that requires finishing same as exposed gypsum board construction, except the third coat and sanding can be omitted.

E. Cement Board: Install cement board as a 16" high base at all kitchen and kitchen cook line wall types as indicated on drawings.

SECTION 09900 - PAINTS AND COATINGS

1.1 General: Provide paints and coatings as shown and specified.

A. Provide surface preparation, prime, intermediate and finish coatings for interior and exterior and existing scheduled surfaces and items.

B. Provide Tenant-selected finishes and colors for all exposed surfaces, unless otherwise indicated.

1.2 Related Documents:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.3 Summary:

A. This section includes surface preparation and field painting of the following:
1. Exposed exterior items and surfaces.
2. Exposed interior items and surfaces.
3. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.

1.4 Quality Assurance:

A. Applicator Qualifications: Engage an experienced applicator that has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.

B. Source Limitations: Obtain block fillers, primers and undercoat materials for each coating system from the same manufacturer as the finish coats.

C. Provide lead free prime and finish coatings. All top coatings shall be mold and mildew resistant.

1.5 Delivery, Storage and Handling:

A. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
1. Product name or tile of material.
2. Product description (generic classification or binder type).
3. Manufacturer's stock number and date of manufacture.
4. Contents by volume, for pigment and vehicle constituents.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.
8. VOC content

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F (7 degrees C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.
1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing and application.

1.6 Project Conditions

A. Apply water-based paints only when the temperatures of surfaces to be painted and surrounding air temperatures are between 50 and 90 degrees F (10 and 32 degrees C) unless otherwise stated on the technical data bulletin.

B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 degrees F (7.2 and 35 degrees C).

C. Do not apply paint in snow, rain, fog, or mist, or when the relative humidity exceeds 85 percent, or at temperatures less than 5 degrees F (3 degrees C) above the dew point, or to damp or wet surfaces.
1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

2.1 Manufacturers:

A. Products: Subject to compliance with requirements, provide one of the products in the paint schedules.

B. Manufacturers Names: The following manufacturer is referred to in the paint schedule by use of shortened versions of the name, which is shown below:
1. PPG Industries, Inc.
2. Materials - No substitutions allowed.

2.2 Paint Materials, General

A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Material Quality: Provide manufacturer's best-quality "professional" paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

Colors: Color guided selected by owner and will be strictly adhered too, unless otherwise noted.

C. Exterior Coatings:

Exterior Ferrous Metals:

Preparation: Remove all visible oil, grease, soil, rust and all other soluble contaminates from steel surface. Uniformly roughen surface with 150-grit paper. Remove all dust before solvent cleaning by the use of stiff bristle brush.
Prime: (1) coat PPG; 4020PF Series Pitt-Tech Plus Int/Ext DTM Acrylic Industrial Primer (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Finish: (2) coats PPG; 4216 Plus HP Series Pitt-Tech Plus Semi-Gloss DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Application: Conventional or HVLP (high volume low pressure)

Exterior and Interior Gas Piping:

Preparation: Remove all visible oil, grease, soil, rust and all other soluble contaminates from pipe surface. Remove all dust before solvent cleaning by the use of stiff bristle brush.
Prime: (1) Coat PPG; 4020PF Series Pitt-Tech Plus Int/Ext DTM Acrylic Industrial Primer (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Finish: (2) Coats PPG; 4216 Plus HP Series Pitt-Tech Plus Semi-Gloss DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils
Application: Conventional or HVLP (high volume low pressure)

Exterior Prefinished Metal Wall Panels:

Preparation: Before applying primer or other surface treatments, clean galvanized metal surface to SSPC-SP1 that could impair bond of the various coatings. Remove oil, grease and soap film before priming use of Krud Kutter Metal Clean & Etch may be required on bare or new galvanized. Surface must be clean, dry and free of contaminants, including salt deposits. Additional prep may be needed to SSPC-SP2. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

Note: Some selected areas of bare concrete surfaces will require (1) coat of Perma Crete 4-603XI Alkali Resistant Concrete Primer before steel installation over all concrete surfaces.

Owner Option 1:
Prime: (1) coat XIM Primer Bond - Applied at a dry film thickness of not less than 1.5 to 2.0 mils.
Finish: (2) coats PPG; 90-1110 Series Pitt-Tech Satin DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 2:
Prime: (1) coat PPG; 97-245 Pitt-Guard DTR Epoxy Mastic Primer (263 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 7.0 mils.
Finish: (2) coats PPG; 95-3300 Durathane Urethane Mastic (240 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 3 (Low VOC):
Prime: (1) coat PPG; Amerlock 2 Fast Dry VOC Compliant Epoxy (84 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 6.0 mils.
Finish: (2) coats PPG; Amershield VOC Aliphatic Urethane (84 g/L VOC): Applied at a dry film thickness of not less than 5.0 to 8.0 mils.

Application: Conventional or HVLP (high volume low pressure) be done with conventional spray or airless equipment or brush or roller.

Exterior Galvanized Metal:

Preparation: Before applying primer or other surface treatments, clean galvanized metal surface to SSPC-SP1 that could impair bond of the various coatings. Remove oil, grease and soap film before priming use of Krud Kutter Metal Clean & Etch may be required on bare or new galvanized. Surface must be clean, dry and free of contaminants, including salt deposits. Additional prep may be needed to SSPC-SP2. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

Note: Some selected areas of bare concrete surfaces will require (1) coat of Perma Crete 4-503 Concrete Primer before steel installation over all concrete surfaces.

Owner Option 1:
Prime: (1) coat PPG; 6-209 SpeedHide Galvanized Metal Primer (400 g/L VOC): Applied at a dry film thickness of not less than 3.0 to 5.0 mils.
Finish: (2) coats PPG; 4216 Plus HP Series Pitt-Tech Plus Semi-Gloss DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 2:
Prime: (1) coat PPG; 97-245 Pitt-Guard DTR Epoxy Mastic Primer (263 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 7.0 mils.
Finish: (2) coats PPG; 95-3300 Durathane Urethane Mastic (240 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 3 (Low VOC):
Prime: (1) coat PPG; Amerlock 2 Fast Dry VOC Compliant Epoxy (84 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 6.0 mils.
Finish: (2) coats PPG; Amershield VOC Aliphatic Urethane (84 g/L VOC): Applied at a dry film thickness of not less than 5.0 to 8.0 mils.

Application: Conventional or HVLP (high volume low pressure) be done with conventional spray or airless equipment or brush or roller.

Exterior CMU Primer:

CMU Preparation: Mortar should cure for at least 30 days and preferably 90 days prior to priming. Fill block with an appropriate block filler. Surfaces previously coated with water thinned cement-based paint must be prepared with extra care. If the material appears to be adhering tightly, a masonry sealer may be applied to seal the surface. Check adhesion by applying a piece of masking tape. If the sealer peels off and has loose particles, remove all chalking or crumbling material, re-seal and re-check adhesion.

Field Preparation: Surfaces to be coated must be dry, clean, sound, and free from all contamination including loose and peeling paint, dirt, grease, oil, wax, concrete curing agents and bond breakers, chalk, efflorescence, mildew, rust, product fines, and dust. Remove loose paint, chalk, and efflorescence by wire brushing, scraping, sanding, and/or pressure washing. Putty all nail holes and caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Feather back all rough edges to sound surface by sanding.

Prime: (2) Coats PPG; Speedhide Interior/Exterior Masonry Hi Fill Latex Block Filler

Application: Brush, Roll or Spray

Exterior Stucco/EIFS Surfaces (including wet areas):

Preparation: Remove all visible oil, grease, soil and all other foreign substances with cleaning solutions and/or scrapers. Allow to dry and sand all areas that need smoothing and dust off.
Prime: (1) coat PPG; 4-603 Perma-Crete Alkali Resistant Primer (100 g/L VOC): Applied at a dry film thickness of not less than 1.2 to 1.9 mils.
Finish: (2) coats PPG; 4-22 Perma-Crete Hi-Build Acrylic (100 g/L VOC): Applied at a dry film thickness of not less than 3.2 to 5.8 mils.
Application: Airless spray with back roll using 3/4" nap roller.

Exterior Wood:

Preparation: Remove all visible oil, grease, soil and all other foreign substances with cleaning solutions and or scrapers. Allow to dry and sand all areas that need smoothing and dust off.
Prime: (1) coat PPG; 17-921 Seal Grip Primer Sealer (100 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Finish: (2) coats PPG; 70-501 Manor Hall Exterior Semi-Gloss or PPG Acri-Shield Semi-Gloss PP649 (50 g/L VOC): Applied at a dry film thickness of not less than 1.5 to 3.0 mils.
Application: Brush, Roll or Spray

Exterior Traffic Safety Marking.:
Preparation: All surfaces must be clean, dry and free from oil, grease, antifreeze, loose sand, aggregate and chipping/peeling existing striping. Any curing compounds used on new concrete must be mechanically abraded off prior to striping. When striping on freshly sealed surfaces use caution as some sealers can affect the curing and adhesion of traffic paint. When in doubt, always test adhesion.

For complete drying and minimum dirt retention when striping parking lots, the lots should be closed to traffic for two hours minimum after painting. New asphalt and concrete should be allowed to cure for a minimum of 14 days to maximize adhesion and durability.

Owner Option 1:
Finish: (1) coat PPG; A-2886B Type II, White Zone Marking - Applied at a dry film thickness of not less than 8.6 mils.

Owner Option 2:
Finish: (1) coat PPG; A-2886B Type II, Yellow Zone Marking - Applied at a dry film thickness of not less than 8.6 mils

Application: Applying a test strip to determine dry to no- pickup time when the humidity is higher than 65%. Cone whenever necessary.
• Do not heat paint in striping system above 60 C.
• Do not apply when temperatures are below 3 C.
• Do not apply when rain is forecast.
• Do not apply when temperatures are near or below the dew point or rain is forecast within 1 hour.
• Do not thin more than 5% with acetone and then use immediately.
• Do not apply if temperature is expected to fall below freezing for 6 hours after application of paint.
Application Equipment: Apply with a high quality brush, roller, or by airless spray equipment.

Airless Spray: Pressure 2000 psi, tip 0.015" - 0.021"Spray equipment must be handled with due care and in accordance with manufacturer's recommendation. High-pressure injection of coating s into the skin by airless equipment may cause serious injury.
Brush: Polyester/Nylon Brush
Roller: All-purpose nap roller cover.

E. Color Guide: Refer to Finish Plan and drawings for exact location of all colors.

WHERE	WHAT	COLOR	SHEEN	FINISH TAG
Exterior Traffic Safety Marking	PPG A-2886B Type II, Low VOC Acrylic Fast Dry Solvent	PPG White Zone Marking	Satin	N/A
Exterior Traffic Safety Marking	PPG A-2886B Type II, Low VOC Acrylic Fast Dry Solvent	PPG Yellow Zone Marking	Satin	N/A
Exterior and Interior Gas Piping, Where Exposed	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	Match surrounding finishes/verify with architect	Semi-Gloss	N/A
Exterior CMU Primer	PPG Speedhide Interior/Exterior Masonry Hi Fill Latex Block Filler	White	Flat	N/A
Exterior CMU	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	PPG 1001-6 "Knight's Armor"	Semi-Gloss	N/A
Exterior Ferrous Metals	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	PPG 1001-6 "Knight's Armor"	Semi-Gloss	N/A
Exterior Wood	PPG Manor Hall Acrylic Semi-Gloss 70-501 Series or PPG Acri-Shield Acrylic Semi-Gloss PP649 Series	PPG 1001-6 "Knight's Armor"	Semi-Gloss	N/A
Exterior Stucco and EIFS Patio and Wet Areas	PPG Perma-Crete High Build Acrylic Topcoat 4-22 Series	PPG 1001-6 "Knight's Armor"	Flat	N/A
Exterior Stucco and EIFS Patio and Wet Areas	PPG Perma-Crete High Build Acrylic Topcoat 4-22 Series	PPG 1010-2 "Fog"	Flat	N/A

3.1 Installation:

A. Examination:
1. Verify that site environmental conditions are appropriate for application of coatings specified.
2. Immediately prior to coating application, ensure that surfaces to receive coatings are dry.
3. Ensure that moisture-retaining substrates to receive coatings have moisture content within tolerances allowed by coating manufacturer, using moisture measurement techniques recommended by coating manufacturer.
4. Immediately prior to coating application, examine surfaces to receive coatings for surface imperfections and for contaminants which could impair performance or appearance of coatings, including but not limited to, loose primer, rust, scale, oil, grease, mildew, algae, or fungus, stains or marks, cracks, indentations, or abrasions.
5. Correct the above conditions and any other conditions which could impair performance or appearance of coatings in accordance with specified surface preparation procedures before proceeding with coating application.

B. Preparation:
1. Do not start work until surfaces to be finished are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
2. Stains and Marks: Remove completely, if possible, using materials and methods recommended by coating manufacturer; seal with shellac or other coating acceptable to paint manufacturer stains and marks that might bleed through paint finishes which cannot be completely removed.
3. Remove or protect hardware, electrical plates, mechanical grilles and louvers, lighting fixture trim, and other items not indicated to receive coatings which are adjacent to surfaces to receive coatings.
4. Remove mildew from impervious surfaces by scrubbing with solution of disodium phosphate and bleach. Rinse with clean water and allow substrate to thoroughly dry.
5. For specific substrate preparation, see individual specifications.
6. Provide necessary staging, ladders, shield, protective coverings and drop cloths. Protect floors, walls and adjacent work and materials. Remove and properly replace temporary protection and coverings removed from any part of the work or finish. Repair damage at Contractor's expense.

C. Application:
1. General: Mix, prepare and apply paint according to manufacturer's written instructions.
a. Use applicators and techniques best suited for substrate and type of material being applied.
b. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
c. Coating surface treatments, and finishes are indicated in the coating system descriptions.
d. Provide finish coats compatible with primers used.
e. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, grilles, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
2. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
a. The number of coats and film thickness required is the same regardless of application method.
b. Completed Work: Match approved Samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements as directed by Tenant. Paints and coatings work is subject to acceptance by the Tenant.
c. Keep brushes and rollers clean, free from contamination and suitable for the finish required.
d. Unless otherwise indicated, allow exterior paints to dry for 48 hours and interior paints to dry for 24 hours between coats.
e. Sand lightly and remove dust between coats to achieve required finish.
f. Finished surfaces shall be uniform in finish and color and free of brush marks, sagging, holidays, corduroy and other imperfections. Coverage and hide shall be complete.
g. Edges of paint or finish adjoining other materials or colors shall be sharp and clean without overlapping. Cut paint in neatly around glass or other edges.
h. Paints and coatings work is subject to acceptance by the Tenant. Correct unsatisfactory work not complying with these specifications as directed by the Tenant.

D. Cleaning:
1. After completing painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

E. Protection:
1. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect / Tenant.

2. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.

3. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

F. Maintenance: Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Tenant.
1. Provide one gallon of paint and wood stain of each type and color required for maintenance purposes. Provide original, unopened, labeled containers with color samples and a list of project use.

DIVISION 10 - SPECIALTIES

SECTION 10522 - PORTABLE FIRE EXTINGUISHES

1.1 General: Provide portable fire extinguishers as shown and specified.

A. Standards: Materials and installation shall conform to the following:
1. NFPA 10 "Standard for Portable Fire Extinguishers.

2.1 Materials:

A. Provide minimum 10 lb. capacity fire extinguishers in quantity and type complying with local code and fire regulations requirements.
1. Provide new fire extinguishers fully loaded, tested, UL and FM labeled and listed and ready for use.
2. Provide manufacturer's recommended mounting brackets and hardware.

3.1 Installation:

A. Install fire extinguishers in accordance with manufacturer's installation instructions, at heights and locations acceptable to the local fire regulations enforcement authority

SECTION 10700 - EXTRUDED ALUMINUM CANOPY

1.1 General: Provide canopies as shown and specified.

A. Standards: Materials and installation shall conform to the following:
1. AWS, D1.1 - Structural Welding Code - Steel
2. AMMA, Aluminum Finishes AAMA 2604 (FGIA 2604) - Powder Coat
B. Quality Assurance
1. Shop Drawings: To be created under the guidance of a professional engineer. Site Specific stamped drawing may be required by the manufacturer based on location. Drawings must indicate size, material and finish. Include plan, elevations and sections to clearly outline the canopy locations. Include installation procedures, details of joints, attachments and clearances.
a. Submit within 15 days after contract award.
2. Color charts showing manufacturer's full range of colors from standard line including Chipotle's custom "charcoal" color match to prototypical window mullion system.

2.1 Manufacturers:

A. Architectural Fabrication, Inc. – Manufacturer is located at 2100 E. Richmond Avenue, Fort Worth, TX 76104. P: (800) 962-8027. E: chipotle@arch-fab.com, W: www.arch-fab.com
B. Substitutions are acceptable assuming they comply with this specification, are submitted based on Quality Assurance and Division1 - Section 01100 requirements and have minimum 10 years experience, and only when approved by Arch PM.
1. Awnex, Contact: Katie Dicks, P: 770-704-7140 x151, E: katie@awnexinc.com
2. Uni-Structures, Contact: Dana Fredericks, P: 678-974-1773
3. API, Contact: Jade Moore-Esposito, P: 813-925-0144, E: jesposito@americanproducts.com

2.2 Materials:

A. Specifications are based on Architectural Fabrication, Inc. - Helios Canopy Patent #9,976,310
1. Framing: Gutter fascia, tube, angles: 6063-T6 alloy extruded aluminum. Gutter to be notched in the back to allow steel support arms to pass through.
2. Decking: Extruded aluminum 8" wide deck pan in 6063-T6 or 6063-T5 alloy (Roll form is not acceptable)
3. Steel Support Arms: 3" x 3" x .250" Steel tube support arms w/ 8" w x 5"h x 1/2" thick steel plate welded to the back. Must manufacture steel arm in manner to leave room for LED enclosure at back of canopy.
4. Hardware and Fasteners: Nuts, bolts, washers, clevis pins, screws, anchors and pipe spacers to be zinc plated or galvanized steel required to suit application and per pre-engineered canopy load requirements. Typical wall anchors are minimum ½" diameter. Touch up paint must be provided for each canopy to allow for potential repairs in the field.
5. Flashing: Shall be minimum 0.040-inch aluminum, fabricated to prevent leakage and sealed with Novaflex metal roof sealant in custom color match. Another equivalent sealant is acceptable.
6. LED Enclosure: Each canopy is to have a preformed aluminum LED enclosure along the back edge of the canopy finished in the same powder coat as the canopy. 1" nominal inside width, and a minimum aluminum sheet thickness of .063".
7. Scuppers: Drainage for canopy is (2) aluminum scuppers located at the front of the canopy per drawings. See finish below for details.
8. Finish: All aluminum shall be powder coat finish per FGIA 2604 (aka AAMA 2604). Steel shall be commercially blasted, then coated with a zinc rich primer, and finally the top coat of super polyester powder (2604 compliant) applied.

3.1 Installation:
1. Install canopies per manufacturer's written instructions and videos, and as indicated on architectural drawings
2. Locate and place canopies level, plumb and at indicated alignment with adjacent work.
3. Use concealed anchors where possible.
4. Repair damaged finishes so no evidence remains of corrective work. Return items to the factory that cannot be refinished in the field. Make required alterations and refinish entire unit or provide new units.
5. Protect galvanized and nonferrous-metal surfaces from corrosion or galvanic action by applying a coating of bituminous paint or elastomeric coating on surfaces that will be in contact with concrete, masonry or dissimilar metals.

CONSULTANT
WILKUS ARCHITECTS

CLIENT
PRIMAX PROPERTIES, LLC

CHRIS NEIL
PRIMAX PROPERTIES, LLC
1100 E. MOREHEAD STREET
CHARLOTTE, NC 28204
CNEIL@PRIMAXPROPERTIES.COM
(704) 954-7216

PROJECT INFORMATION

CAMERON, NC
SHELL BUILDING
NC 24-87
CAMERON, NC 28326

SEAL
WILKUS ARCHITECTS, P.A. REGISTERED ARCHITECTURAL CORPORATION 53611 NORTH CAROLINA HOPKINS, MN
MATTHEW M. WILKUS REGISTERED ARCHITECT 14006 NORTH CAROLINA HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

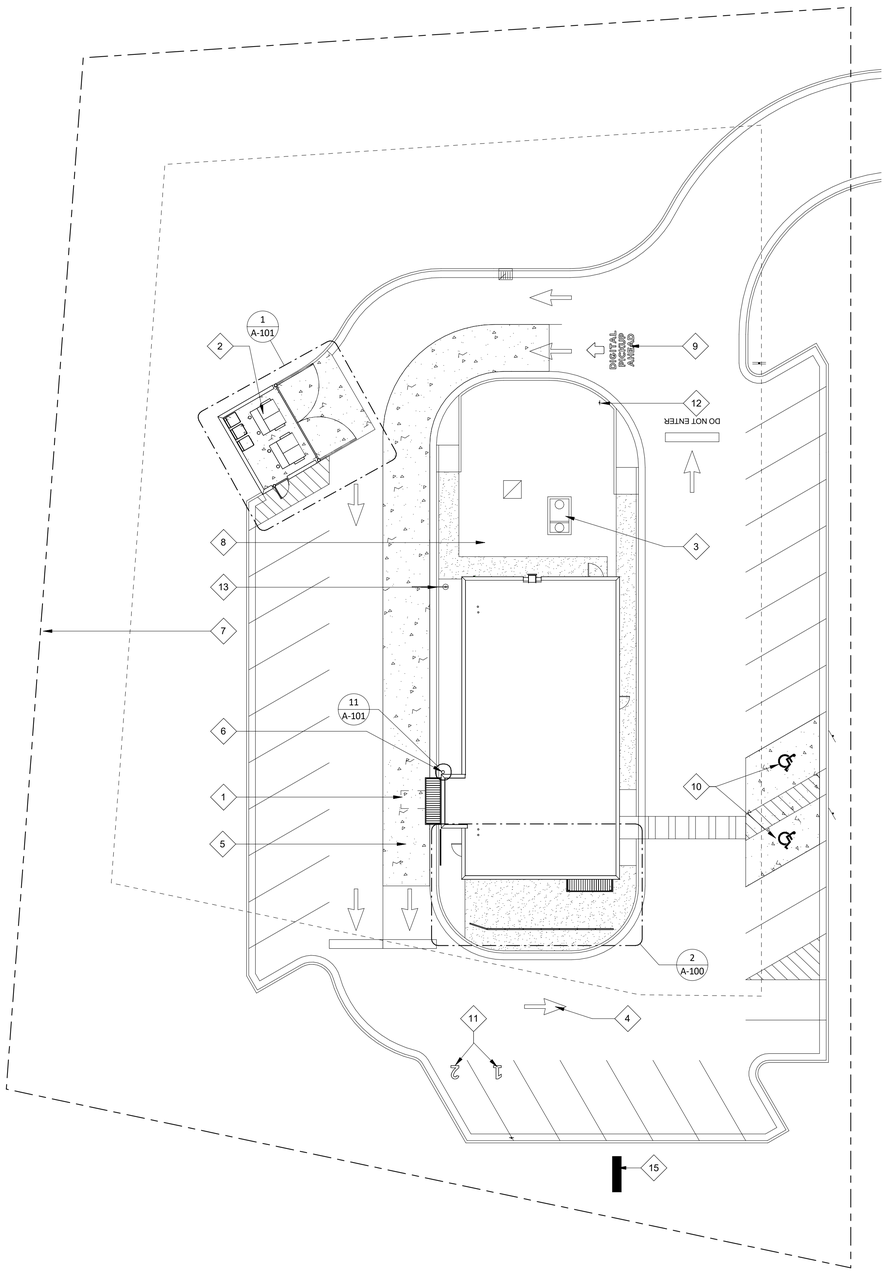
PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

REVISION	DATE

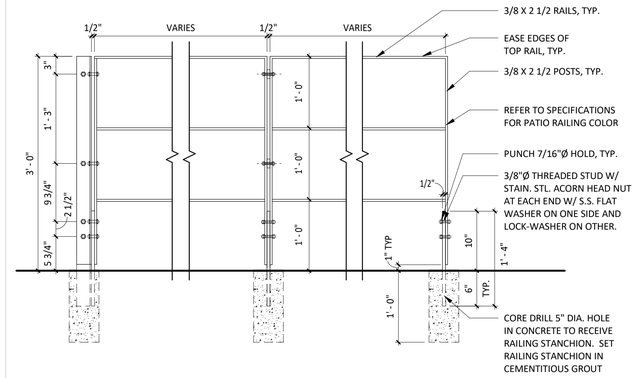
TITLE:
ARCHITECTURAL SPECIFICATIONS

SHEET NUMBER:
A-004



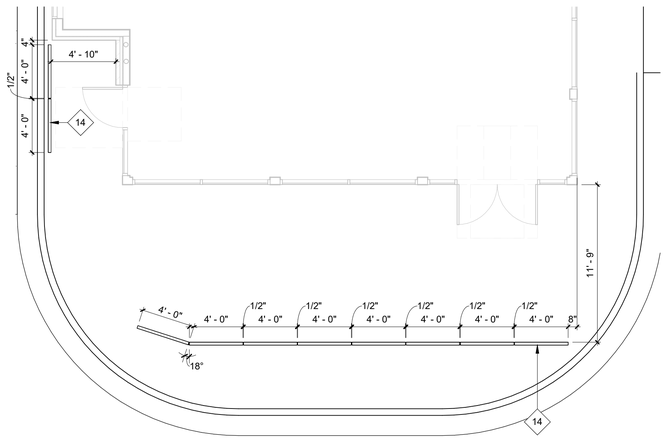
1 ARCHITECTURAL SITE PLAN

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



3 RAILING MOUNTING DETAIL

SCALE: 1" = 1'-0"



2 DIMENSIONED PATIO PLAN

SCALE: 3/16" = 1'-0"

SITE PLAN GENERAL NOTES

1. CONTRACTOR SHALL PROTECT ADJACENT LANDS AND STRUCTURES FROM DAMAGE DURING CONSTRUCTION. ANY OFF-SITE AREAS DISTURBED SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION.
2. NECESSARY PERMITS FOR SITE WORK AND CONSTRUCTION SHALL BE OBTAINED BY THE GENERAL CONTRACTOR PRIOR TO BEGINNING OF WORK.
3. NECESSARY BARRICADES, SUFFICIENT LIGHTING, SIGNS AND OTHER TRAFFIC CONTROL METHODS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED AND MAINTAINED THROUGHOUT THE LIFE OF THE CONSTRUCTION.
4. COORDINATE WITH THE LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO ANY CONSTRUCTION IN THE PUBLIC RIGHT OF WAY.
5. NO DEMOLITION MATERIALS SHALL BE DISPOSED ON ON-SITE. ALL DEBRIS SHALL BE HAULED OFF-SITE TO A RECYCLING AREA APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE HANDLING OF DEMOLITION DEBRIS.
6. GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE EXTERIOR GREASE INTERCEPTOR AND FIELD VERIFY EXISTING SITE CONDITIONS THAT COULD IMPACT THE LOCATION DURING THE BIDDING PHASE OF THE PROJECT AND ASSIGN THE APPLICABLE COSTS. THE LOCATION SHALL NOT INTERFERE WITH ANY EXISTING SETBACKS, EASEMENTS, UNDERGROUND UTILITIES OR OTHER SIDE FEATURE.
7. STENCILS FOR PARKING MARKINGS AVAILABLE FROM PAVEMENT STENCIL COMPANY, PHONE: (800) 250-5547, EMAIL: STENCILS@PAVEMENTSTENCIL.COM.

KEYNOTE LEGEND

1	PROVIDE ONE (1) 1" CONDUIT FOR FUTURE LOOP DETECTOR - CENTER ON PICK-UP WINDOW.
2	DUMPSTER ENCLOSURE, PAD, APRON AND BOLLARD
3	1,500 GALLON GREASE INTERCEPTOR.
4	GENERAL DIRECTIONAL PAVEMENT MARKINGS.
5	HIGH DENSITY CONCRETE LOCATION - REFER TO CIVIL ADDITIONAL REQUIREMENTS AND EXTENTS.
6	BOLLARD - PAINT PPG 'KNIGHT'S ARMOR'.
7	DASHED LINE INDICATES EXTENTS OF PROPERTY LINE.
8	SEE CIVIL DRAWINGS FOR ANY IRRIGATION AND LANDSCAPING REQUIREMENTS.
9	'DIGITAL PICKUP AHEAD' STRIPING.
10	ACCESSIBLE PARKING LOT STRIPING, CROSSWALK, SIGN POSTS AND SIGNS - REFER TO CIVIL FOR ADDITIONAL INFORMATION.
11	TWO (2) PULL-AHEAD PARKING SPACES MARKED WITH SHARED POLE MOUNTED SIGN AND WHITE NUMBERS CENTERED IN SPACE.
12	PROVIDE ONE (1) 1" CONDUIT TO FUTURE DIRECTIONAL SIGNAGE.
13	CLEARANCE BAR - FOUNDATION AND SIGNAGE ASSEMBLY PROVIDED AND INSTALLED BY TENANTS SIGNAGE VENDOR.
14	PATIO RAILING BY LANDLORD.
15	PROVIDE ONE (1) 1" CONDUIT TO GENERAL LOCATION FOR SIGNAGE - GENERAL CONTRACTOR TO PROVIDE CONCRETE BASE/PAD AS REQUIRED FOR FUTURE SIGNAGE.

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PROJECT INFORMATION

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WILKUS ARCHITECTS, PA
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NORTH CAROLINA
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MATTHEW M. WILKUS
REGISTERED ARCHITECT
14006
NORTH CAROLINA
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February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

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TITLE:

ARCHITECTURAL SITE PLAN

SHEET NUMBER:

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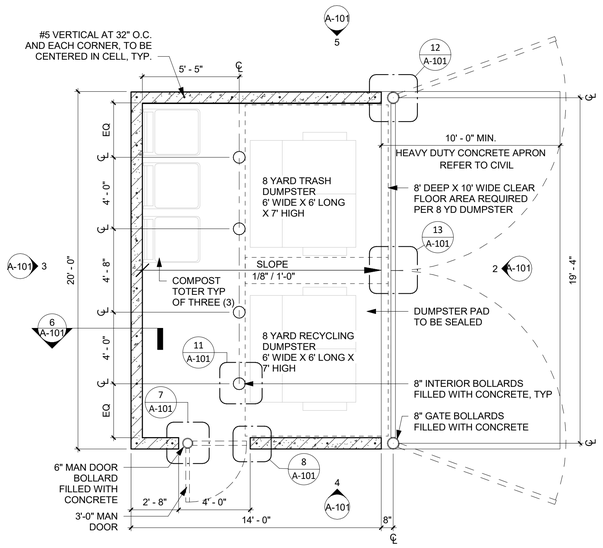
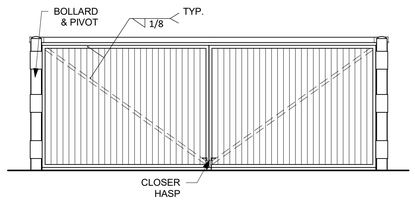


1 TRASH ENCLOSURE PLAN

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

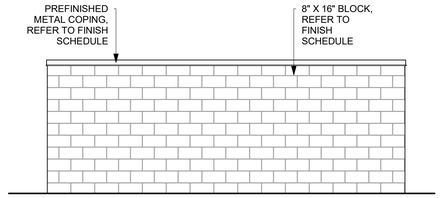
ENCLOSURE FINISH SCHEDULE

MATERIAL	COLOR/FINISH
CMU - PRIMER	REFER TO PAINT SPECIFICATIONS, COLOR "WHITE"
CMU	REFER TO PAINT SPECIFICATIONS
METAL COPING	PREFINISHED TO MATCH PAINTED CMU
CORRUGATED METAL & DOOR FRAMES	PAINTED "KNIGHTS ARMOR" PPG 1001-6



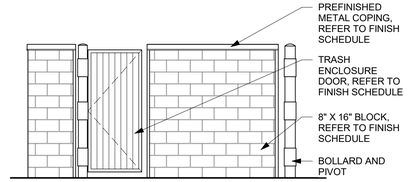
2 TRASH ENCLOSURE ELEVATION

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



3 TRASH ENCLOSURE ELEVATION

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



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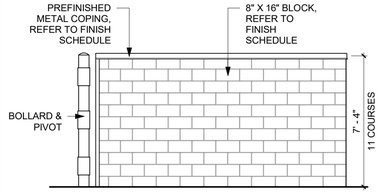
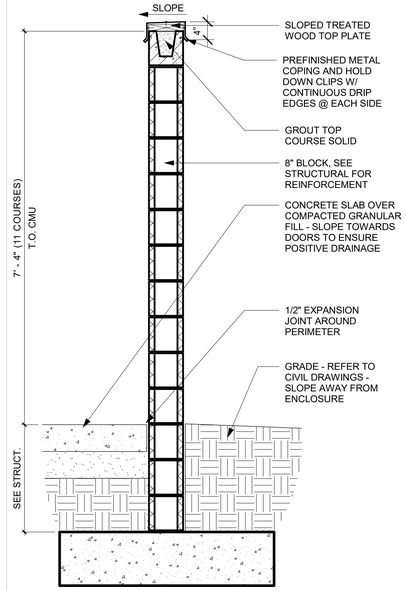
SCALE: 1/4" = 1'-0"



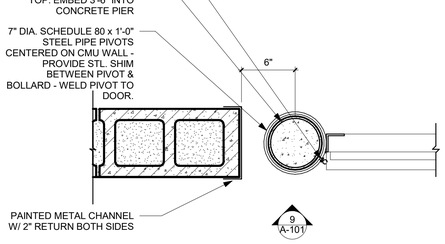
5 TRASH ENCLOSURE ELEVATION

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



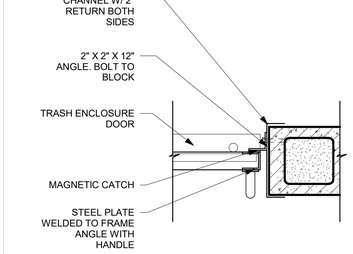
6 TYP. ENCLOSURE SECTION

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



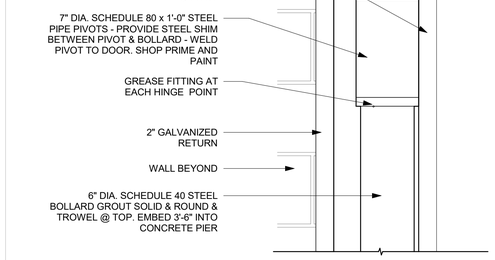
7 ENLARGED MAN DOOR PIVOT DETAIL

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



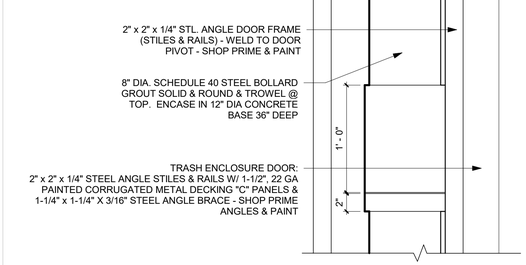
8 MAN DOOR LATCH DETAIL

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



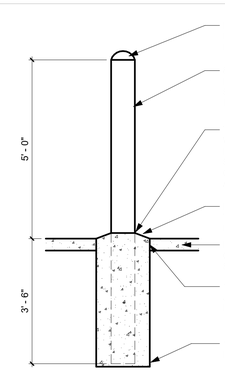
9 TRASH ENCLOSURE MAN DOOR PIVOT

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



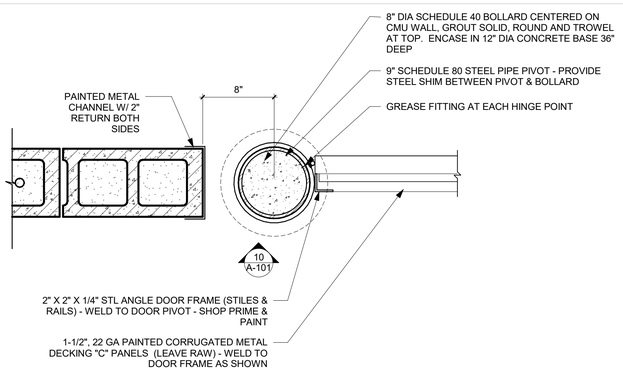
10 TRASH ENCLOSURE GATE PIVOT

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



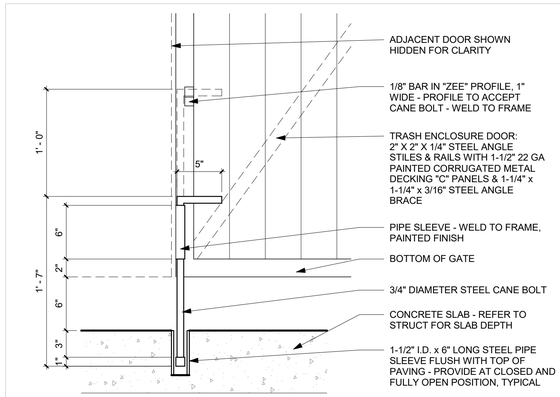
11 TYP. BOLLARD DETAIL

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



12 ENLARGED GATE PIVOT DETAIL

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



13 TYPICAL CANE BOLT DETAIL

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

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PROJECT INFORMATION

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MATTHEW M. WILKUS REGISTERED ARCHITECT 14006 NORTH CAROLINA HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

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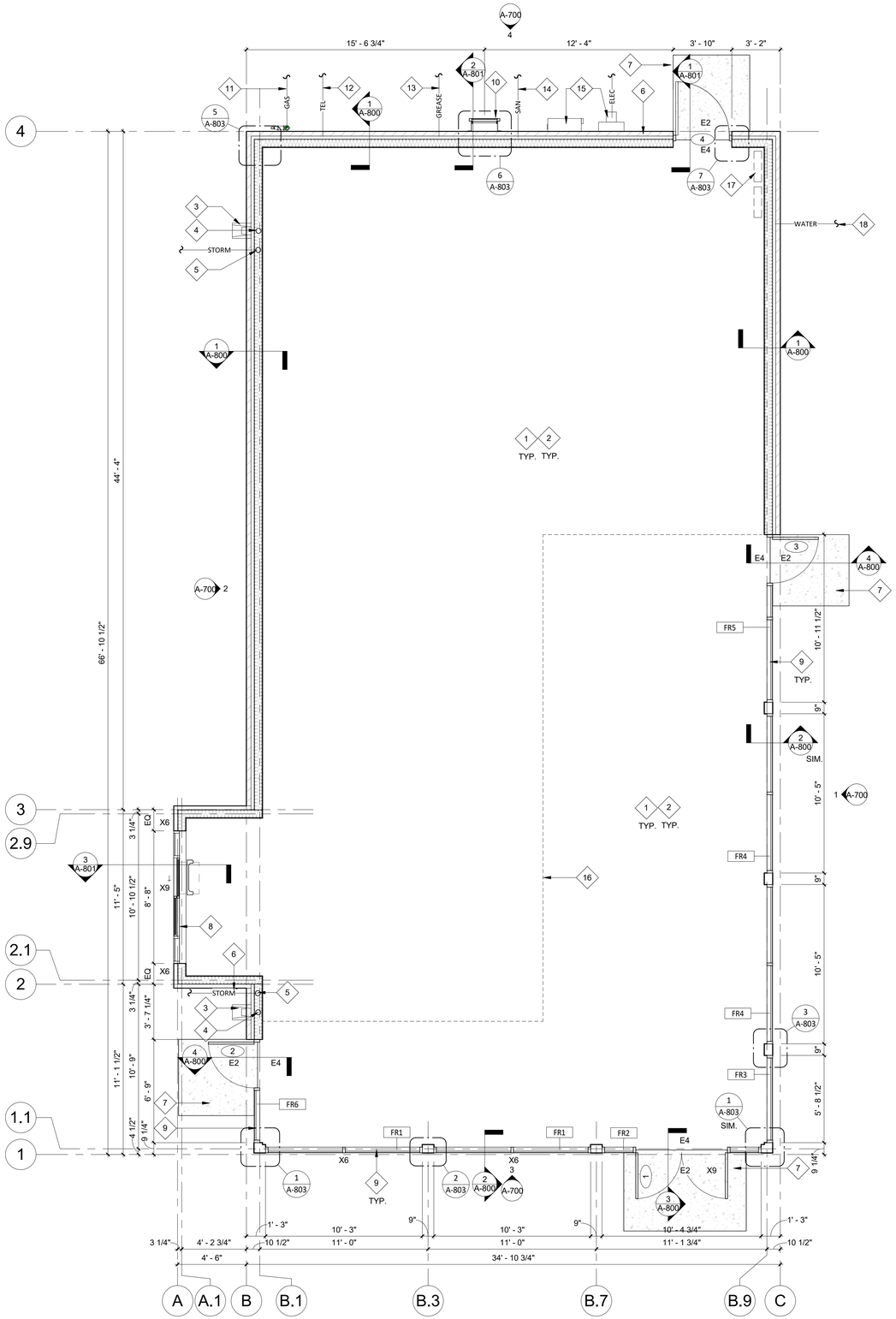
TITLE:

DUMPSTER PLAN & DETAILS

SHEET NUMBER:

A-101



1 ARCHITECTURAL FLOOR PLAN

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

GENERAL NOTES - FLOOR PLAN

A. SAFETY GLAZING SHALL BE PROVIDED AT HAZARDOUS LOCATIONS, INCLUDING, BUT NOT LIMITED TO, GLAZING WITHIN 18" OF WALKING SURFACE, GLAZING IN DOORS AND AT WINDOWS ADJACENT TO DOORS.

B. DIMENSION NOTES:

A). ALL STRUCTURAL GRID DIMENSIONS ARE FROM CENTERLINE OF EXISTING STRUCTURAL ELEMENTS UNLESS NOTED OTHERWISE.

B). ALL DIMENSIONS ARE TAKEN TO OUTSIDE FACE OF SHEATHING OF WALL ASSEMBLY UNLESS NOTED OTHERWISE.

C. NEW EXTERIOR LANDINGS SHALL BE FLUSH WITH THE INTERIOR FINISHED FLOOR SLAB AND SLOPE AWAY FROM THE FACE OF THE BUILDING TO PROVIDE POSITIVE DRAINAGE.

D. OPEN EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALL ASSEMBLIES AND FOUNDATIONS, BETWEEN WALL AND ROOF ASSEMBLIES, BETWEEN WALLS PANELS, AT PENETRATIONS FOR UTILITY SERVICES, FLOOR ASSEMBLIES AND ROOF ASSEMBLIES OR ANY OTHER OPENING IN THE EXTERIOR ENVELOPE SHALL BE SEALED, CAULKED, GASKETED AND/OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE.

E. PROVIDE VERTICAL AND HORIZONTAL CONTROL JOINTS IN GYPSUM BOARD SURFACES AT 30'-0" ON CENTER MAXIMUM.

F. GENERAL CONTRACTOR TO INSTALL METAL CORNER BEADS AT OUTSIDE CORNERS OF GYPSUM BOARD SURFACES, UNLESS NOTED OTHERWISE.

G. USE ONLY NON-CORROSIVE FASTENERS ON PRESSURE TREATED LUMBER.

H. LAP WEATHER RESISTANT BARRIERS AND THRU-WALL FLASHING IN A WATER SHEDDING FASHION. TAPE ALL EXPOSED EDGES.

I. REFER TO STRUCTURAL SHEETS FOR STUD FRAMING CONFIGURATIONS, SIZES AND SPACING.

J. FLASHING AND SEAMS BETWEEN SHEATHING IN COMPOSITE WOOD STUD WALL CONSTRUCTION CONDITIONS TO BE TAPED AND SEALED WITH TAPE SEALANT

K. ALL EXTERIOR WOOD BLOCKING TO BE MOISTURE RESISTANT PRESERVATIVE TREATED (P.T.).

LIGHTING FIXTURE SCHEDULE

ITEM	QTY.	MOUNT	DESCRIPTION	MANUFACTURER	MODEL
E2	4	SURFACE	EMERGENCY LIGHT - SINGLE HEAD	EXITRONIX	CLED-BL-WP with PMC-B-1 Mounting Plate
E4	4	VARIOUS	WHITE EXIT LIGHT - STANDARD RED LETTERS	EXITRONIX	CLED-U-WH
X6	<varies>	SURFACE	WALL PACK	RAB LIGHTING	WPLED10Y
X9	2	SURFACE	LED CHANNEL LIGHT	PARADIGM LED	PL-FLEXSR590

KEYNOTE LEGEND

1	EXTENTS OF SLAB LEAVE-OUT - REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
2	1/2" EXPANSION JOINT TO BE INSTALLED AROUND ENTIRE PERIMETER AT TIME OF SLAB POUR - CUT EXPANSION JOINT DOWN 1/2" MINIMUM AND PROVIDE ROD AND CAULK TO SEAL.
3	CONCRETE SPLASH BLOCK.
4	INTERIOR OVERFLOW ROOF DRAIN LEADER WITH STAINLESS STEEL COWS TOUNGE.
5	INTERIOR ROOF DRAIN LEADER - CONNECT TO STORM SEWER BELOW GRADE.
6	FROST PROOF WALL HYDRANT.
7	CAST-IN-PLACE CONCRETE ENTRY STOOP - LIGHT BROOM FINISH - SLOPE STOOP AWAY AT 1/4" PER 12" AWAY FROM FACE OF THE PROPOSED BUILDING TO ENSURE POSITIVE DRAINAGE.
8	PREFINISHED DARK BRONZE ALUMINUM PASS-THRU WINDOW WITH INTEGRATED INTERIOR AIR CURTAIN, TRANSOM AND SIDELITES - CAULK AROUND ENTIRE PERIMETER OF OPENING.
9	THERMALLY BROKEN ALUMINUM STOREFRONT SYSTEM WITH 1" INSULATED GLAZING - CAULK AROUND ENTIRE PERIMETER OF OPENINGS.
10	EXTERIOR ROOF LADDER WITH LOCKING GATE
11	GAS METER - COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
12	TELECOMMUNICATION ENTRY POINT - COORDNIATE WITH CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
13	GREASE WASTE ENTRY POINT - COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
14	SANITARY SEWER ENTRY POINT - COORDNIATE WITH CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
15	ELECTRICAL METER AND DISCONNECT.
16	DASHED LINE INDICATES OPEN CEILING ABOVE TO BE FREE AND CLEAR OF MARKINGS - COORDINATE WITH TENANT'S DRAWING PACKAGE.
17	FUTURE TENANT ELECTRICAL PANELBOARDS - GENERAL CONTRACTOR TO PROVIDE CONDUCTORS TO LOCATION.
18	DOMESTIC WATER SERVICE ENTRY POINT - COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.

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PROJECT INFORMATION

CAMERON, NC SHELL BUILDING

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CAMERON, NC 28326

SEAL

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MATTHEW M. WILKUS REGISTERED ARCHITECT 14006 NORTH CAROLINA HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

ISSUE	DATE
PERMIT SET	02/20/2025

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TITLE:

FLOOR PLAN

SHEET NUMBER:

A-210

DOOR SCHEDULE

TAG	DOOR DESCRIPTION	DOOR WIDTH	HEIGHT	DOOR TYPE	DOOR FINISH	FRAME TYPE	MATERIAL	STILE	HARDWARE SET	REMARKS
1	DOUBLE STOREFRONT (WIDE STILE, WOOD PULL/PUSH)	6' - 0"	7' - 0"	A	CHARCOAL	STOREFRONT	ALUM	WIDE (5")	1	1,2,4,5
2	SINGLE STOREFRONT (WIDE STILE, NON-OFFSET, PANIC)	3' - 0"	7' - 0"	A	CHARCOAL	STOREFRONT	ALUM	WIDE (5")	2A	1,3,4,5
3	SINGLE STOREFRONT (WIDE STILE, NON-OFFSET, PANIC)	3' - 0"	7' - 0"	A	CHARCOAL	STOREFRONT	ALUM	WIDE (5")	2	1,3,4,5
4	HM REAR KITCHEN (MASONRY)	3' - 6"	7' - 0"	B	PAINT	2	INSUL. H.M.	-	3	1,4,6

DOOR REMARKS

1. DOORS WITH REMARK #1 ARE TO BE KEYED THE SAME.
2. EXIT INDICATOR ARRIVES WITH SIGNS STATING "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS" AND " THIS DOOR TO REMAIN UNLOCKED WHEN THE BUILDING IS OCCUPIED". VERIFY REQUIRED SIGN WORDING WITH LOCAL JURISDICTION PRIOR TO INSTALLATION. ONE SIGN IS TO BE PLACED IN A VISIBLE LOCATION ABOVE THE DOORS.
3. THERE IS TO BE NO EXTERIOR HOLE OR CYLINDER
4. USE NON-SHRINK STRUCTURAL GROUT BED UNDER THRESHOLD
5. BLACK DOOR SWEEP TO BE USED WITH CHARCOAL STOREFRONT
6. REAR KITCHEN DOOR TO BE PAINTED 'BLACK' ON INTERIOR AND 'KNIGHTS ARMOR' ON EXTERIOR U.N.O.

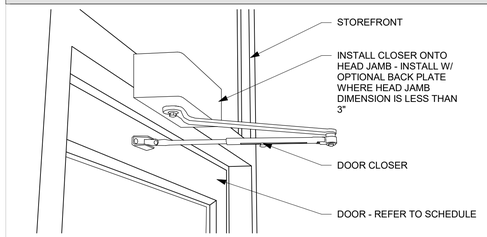
HARDWARE SETS

SET 1 - MAIN ENTRY - PAIR - WOOD PULL/PUSH (PULL/PUSH HARDWARE SUPPLIED BY TENANT)		
(2)	HINGE	HAGER, MODEL 780-224HD-83"-CLR
(2)	MORTISE CYLINDER	SCHLAGE, MODEL 80-103, BRUSHED CHROME; C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOOR
(2)	TEMP CORE	SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME)
(1)	DEADBOLT	ADAMS RITE, MODEL MS1850S-310-313
(1)	EXIT INDICATOR	ADAMS RITE, MODEL 4089-00-121
(1)	HEADER BOLT	ADAMS RITE, MODEL 4016-30-01
(1)	THRESHOLD BOLT	ADAMS RITE, MODEL 4015-18-1B
(2)	CLOSER	DORMA, MODEL 8916-AF89P (TOP JAMB), (ALUMINUM)
(2)	DOOR STOP	IVES, MODEL FS18S (ALUMINUM)
(2)	OVERHEAD STOP	GLYNN-JOHNSON, MODEL 454S-SP28 (ALUMINUM)
(2)	CLOSER BACK PLATE	DORMA, MODEL BP89, ALUMINUM
(1)	THRESHOLD	REESE, MODEL S424A-72 (SIZE 72")
(2)	SMOKE SEAL	REESE, MODEL 797B-21
(2)	DOOR SWEEP	PEMKO, MODEL 4SSC-200-36 (36" DOOR)
SET 2 - ENTRY - SINGLE - NON-OFFSET - PANIC HARDWARE		
(1)	HINGE	HAGER, MODEL 780-224HD-83"-CLR
(1)	PUSH HARDWARE	ADAMS RITE, MODEL 8801-36-628 (ALUMINUM FINISH, 36" DOOR); C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOR
(1)	PULL HARDWARE*	HAGER, MODEL 4G US32D (8" CTC), CENTER ON DOOR STILE (*HARDWARE GROUP 2A ONLY)
(1)	CLOSER	DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM)
(1)	CLOSER BACK PLATE	DORMA, MODEL BP89, ALUMINUM
(1)	OVERHEAD STOP	GLYNN-JOHNSON, MODEL 454S-US32D (ALUMINUM)
(1)	THRESHOLD	REESE, MODEL S424A-36 (SIZE 36")
(1)	SMOKE SEAL	REESE, MODEL 797B-21
(1)	DOOR SWEEP	PEMKO, MODEL SFSC-200-36 (36" DOOR)
(1)	DOOR STOP	IVES, MODEL FS18S (ALUMINUM)
SET 3 - REAR EXIT - SINGLE		
(1)	HINGE	HAGER, MODEL 780-224HD-83"-CLR
(1)	PUSH HARDWARE	FALCON, MODEL 25-R-EO-4'-US28 (SIZE 42")
(1)	PULL HARDWARE	FALCON, MODEL 510L-DANE-LHR-US26D, ALUMINUM (EXTERIOR SIDE)
(1)	RIM CYLINDER	GLS, MODEL RCIC-7-LZ-626
(1)	TEMP CORE	SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE (FINISH: BRUSHED CHROME)
(1)	CLOSER	DORMA, MODEL 8916-AF89P-689 (TOP JAMB), ALUMINUM
(1)	CLOSER BACK PLATE	DORMA, MODEL BP89, ALUMINUM
(1)	THRESHOLD	REESE, MODEL S239A-42, (SIZE 42")
(1)	WEATHERSTRIP	REESE, MODEL DS75C-4070
(1)	DOOR SWEEP	PEMKO, MODEL SFSC-200-42 (42" DOOR) (BLACK) OWNER FURNISHED
(1)	DOOR VIEWER	IVES, MODEL U698B26D, C.O. VIEWER AT 60" FROM BOTTOM OF DOOR
(1)	EXIT ALARM	TRINE, MODEL 206-3
(1)	DOOR SILENCERS	IVES, MODEL SR64
(1)	DOOR BUZZER	TRINE, MODEL 66B
(1)	KICKPLATE	HIAWATHA, MODEL KP834-US32D - INSTALL ON INTERIOR SIDE OF REAR SERVICE DOOR.

DOOR NOTES

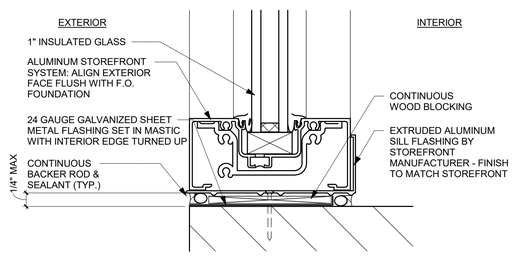
1.	EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
2.	LATCHES, HANDLES, PANIC BARS AND DOOR HARDWARE WILL COMPLY WITH SECTION 7.2 OF NFPA 101 PER THE SPECIFICATIONS.
3.	MAXIMUM EFFORT TO OPERATE EXTERIOR DOOR WITH CLOSERS SHALL NOT EXCEED 5 POUND.
4.	THE BOTTOM 10 INCHES OF ALL DOORS SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
5.	SUPPORT SIGNAGE INSTALLED BY G.C.
6.	SUPPORT SIGNAGE PROVIDED BY TENANT'S SUPPORT SIGNAGE SUPPLIER.
7.	HARDWARE SHALL MATCH STOREFRONT, VERIFY WITH ARCHITECT PRIOR TO ORDERING.

DOOR CLOSER

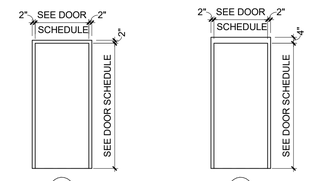


TOP JAMB MOUNT INSTALLATION. (NOTE THAT BACKPLATE IS MISSING IN THIS INSTALLATION BECAUSE HEAD JAMB IS OF ADEQUATE HEIGHT TO RECEIVE ALL MOUNTING SCREWS WITHOUT IT.) WHEN IN DOUBT ABOUT THE HEAD JAMB DIMENSION OR STABILITY, ORDER THE BACKPLATE.

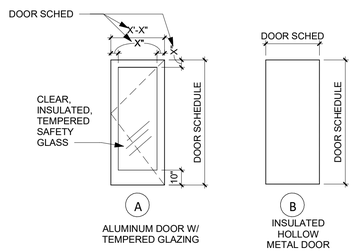
SILL FLASHING DETAIL



HOLLOW METAL FRAME TYPES



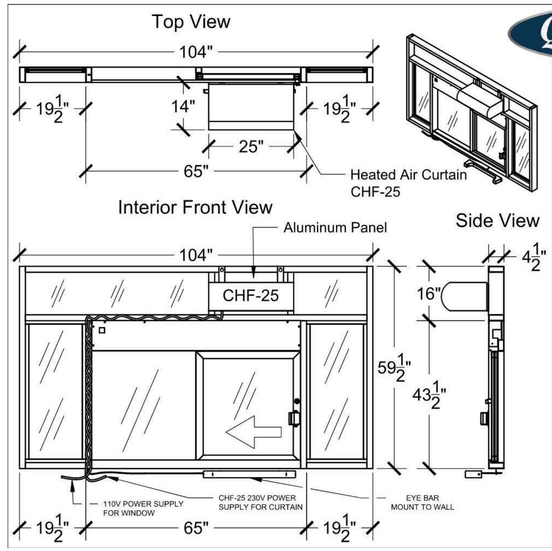
DOOR TYPES



GENERAL NOTES

A.	WINDOW AND DOOR GLAZING TO BE TEMPERED AT LOCATIONS INDICATED WITH "T".
B.	NEW STOREFRONT FRAMING SYSTEM TO BE SUPPLIED BY GENERAL CONTRACTOR - GENERAL CONTRACTOR TO VERIFY FRAMING OPENING SIZES AND MATERIALS WITH ARCHITECT AND/OR CONSTRUCTION MANAGER PRIOR TO FABRICATION.
C.	STOREFRONT GLAZING DESIGN IS BASED ON KAWNEER 2" WIDE, FRONT SET ALUMINUM THERMAL BREAK STOREFRONT WITH 1" INSULATED GLAZING AND CHARCOAL FINISH, REFER TO SPECS.
D	FULLY AUTOMATIC ELECTRIC PASS-THRU WINDOW BASED UPON QUIKSERV WINDOW DESIGN, NOTIFY ARCHITECT IF NOT USING A QUIKSERV WINDOW.

PICK UP WINDOW



QUIKSERV
we put more in - you get more out

PLEASE SELECT:

1. FRAMING:
☒ Aluminum ☐ UL Rated Alum
2. FRAME COLOR:
☒ Bronze Anodized
Other:_____
3. GLAZING:
☐ 1/4" Tempered ☒ 1" Insulated with Low-E
☐ 3/4" Poly - L1 ☐ 1-1/4" Acrylic - L1
☐ 1-1/4" Poly - L3 ☐ 1-1/4" Acrylic - L3
Other:_____

Key Notes

Unit:
Custom SST-4035E (RIGHT)
CHIPOTLE
WITH HEATED AIR CURTAIN CHF-25
Actual Dimension:
104"(W) X 59 1/2"(H)
Rough Opening:
104 1/2"(W) X 59 1/2"(H)

Service Opening:
28"(W) X 31 1/2"(H)

a.) Air curtains are pre-wired to the unit to allow the air curtain to turn on and off when the window is opened/closed.

Engineer Notes

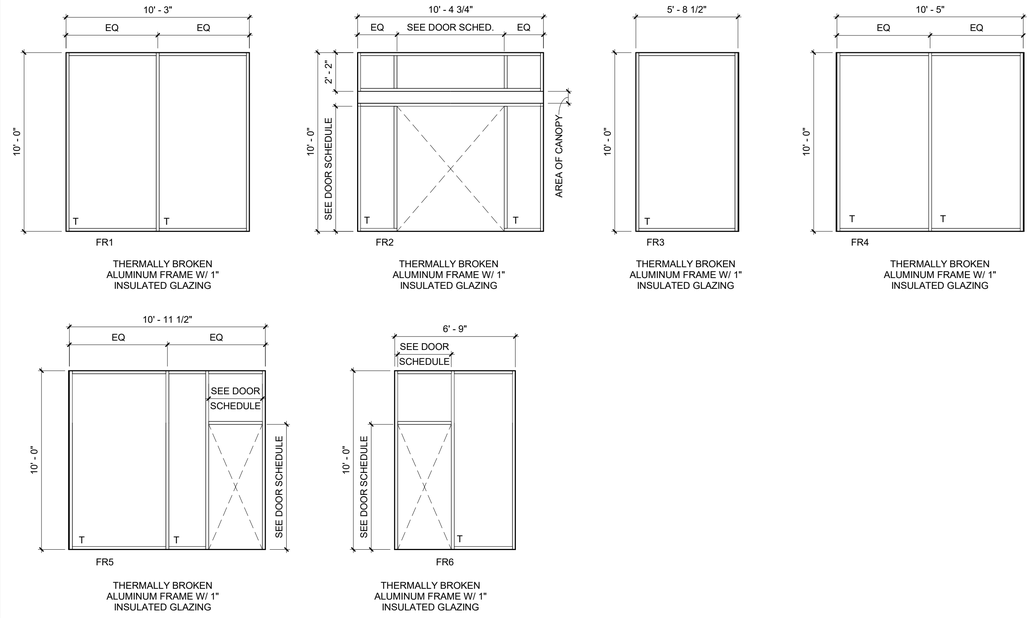
Date drawn: 4/6/2020
Drawn by: Avistopad
File name: SST-4035E CHIPOTLE HEAT AC.dwg

Page: 1 OF 1 **Scale:** 1:20

SIGNATURE:_____

DATE:_____

STOREFRONT FRAME TYPES



CONSULTANT

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PROJECT INFORMATION

CAMERON, NC
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CAMERON, NC 28326

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WILKUS ARCHITECTS, PA — REGISTERED ARCHITECTURAL CORPORATION — 53611 — NORTH CAROLINA — HOPKINS, MN

MATTHEW M. WILKUS — REGISTERED ARCHITECT — 14006 — NORTH CAROLINA — HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
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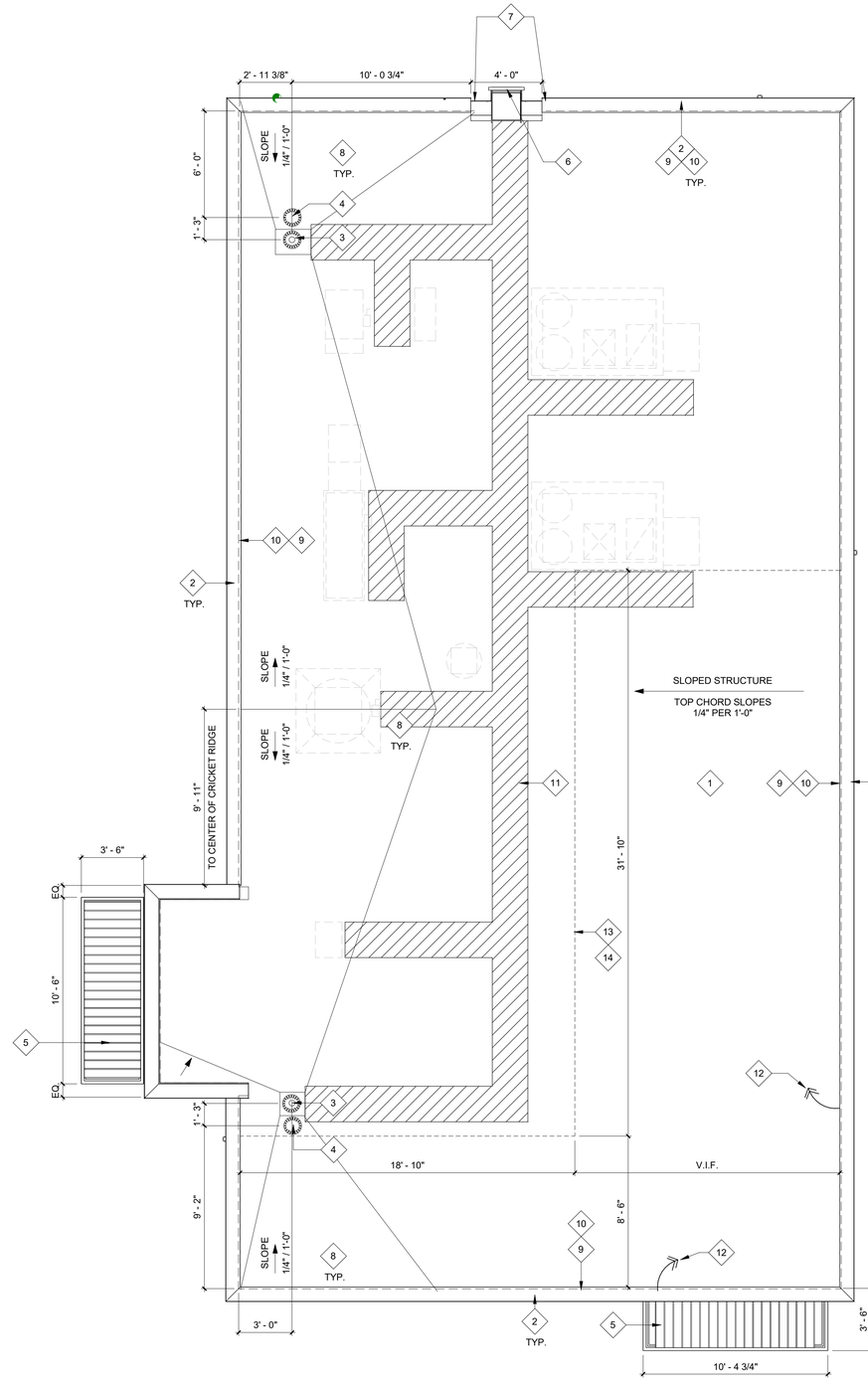
TITLE:
DOOR & WINDOW SCHEDULE

SHEET NUMBER:
A-220



1 ARCHITECTRUAL ROOF PLAN

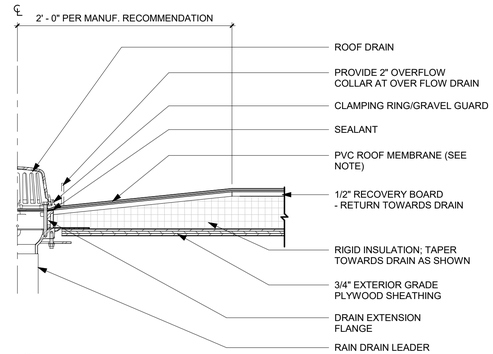
SCALE: 1/4" = 1'-0"

ROOF PLAN GENERAL NOTES

A.	REFER TO STRUCTURAL DRAWINGS FOR ROOF FRAMING INFORMATION.
B.	DIMENSIONS ARE FROM THE INSIDE FACE OF PARAPET UNLESS NOTED OTHERWISE.
C.	DASHED LINES INDICATE APPROXIMATE LOCATIONS OF FUTURE EQUIPMENT SUPPLIED AND INSTALLED BY FUTURE TENANT - FINAL LOCATIONS MAY VARY.
D.	ROOFING DETAILS INCLUDING CANTS, FLASHING, BLOCKING AND EXPANSION JOINTS ARE TO BE INSTALLED PER MANUFACTURER'S DETAILS, STANDARDS AND RECOMMENDATIONS.
E.	GENERAL CONTRACTOR IS RESPONSIBLE FOR KEEPING ROOF CLEAN OF DEBRIS OVER DURATION OF PROJECT.

KEYNOTE LEGEND

1	FULLY ADHERED THERMOPLASTIC MEMBRANE (PVC) ROOFING SYSTEM OVER BASE RIGID INSULATION - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2	PREFINISHED METAL CAP FLASHING - SLOPE AWAY FROM BUILDING FACE.
3	PRIMARY ROOF DRAIN LEADER ROUTED BELOW AND THROUGH TRUSS SPACE INTO ADJACENT STUD WALL AND DOWN - GENERAL CONTRACTOR TO INSULATE ANY HORIZONTAL RUNS THAT MAY OCCUR - REFER TO CIVIL DRAWINGS FOR ANY STORM WATER CONNECTION INFORMATION.
4	OVERFLOW ROOF DRAIN LEADER ROUTED BELOW AND THROUGH TRUSS SPACE INTO ADJACENT STUD WALL AND DOWN - GENERAL CONTRACTOR TO INSULATE ANY HORIZONTAL RUNS THAT MAY OCCUR - REFER TO CIVIL DRAWINGS FOR ANY STORM WATER CONNECTION INFORMATION.
5	PREFINISHED METAL CANOPY - DIMENSIONS PROVIDED ARE FROM FACE OF LOWER FACADE.
6	EXTERIOR ROOF LADDER WITH LOCKING GATE.
7	WRAP CORNER OF INDICATED EXTERIOR MATERIAL AT ROOF LADDER OPENING
8	PROVIDE TAPERED INSULATION CRICKETS TO ROOF DRAINS AS REQUIRED.
9	WRAP ROOFING MEMBRANE UP AND OVER INTERIOR FACE OF PARAPET.
10	PROVIDE 3/4" EXTERIOR GRADE PLYWOOD SHEATHING AT INSIDE FACE OF PARAPET.
11	HATCH INDICATES EXTENTS OF FUTURE ROOF TOP MOUNTED SERVICE WALKWAY PADS - GENERAL CONTRACTOR TO INSTALL AFTER FUTURE EQUIPMENT HAS BEEN PLACED.
12	J-BOX AND WHIP LOCATIONS FOR FUTURE SIGNAGE LOCATIONS - COORDINATE ALL SPECIFIC POWER REQUIREMENTS WITH SIGNAGE VENDOR PRIOR TO INSTALLATION.
13	DASHED LINE INDICATES LOCATION OF OPEN CEILING BELOW.
14	ALL PLYWOOD DECKING AND WOOD TRUSSES ARE TO BE EXPOSED IN TENANT'S DINING AREA AND ARE TO BE FREE AND CLEAR OF MARKINGS.



NOTE:
ROOF MEMBRANE MUST EXTEND BEYOND THE INSIDE OF THE CLAMPING RING. BE SURE THE OPENING WHERE WATER PASSES THROUGH THE MEMBRANE IS NOT SMALLER THAN THE OPENING OF THE DRAIN.

2 ROOF DRAIN DETAIL

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

CONSULTANT

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SEAL

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53611
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MATTHEW M. WILKUS
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HOPKINS, MN

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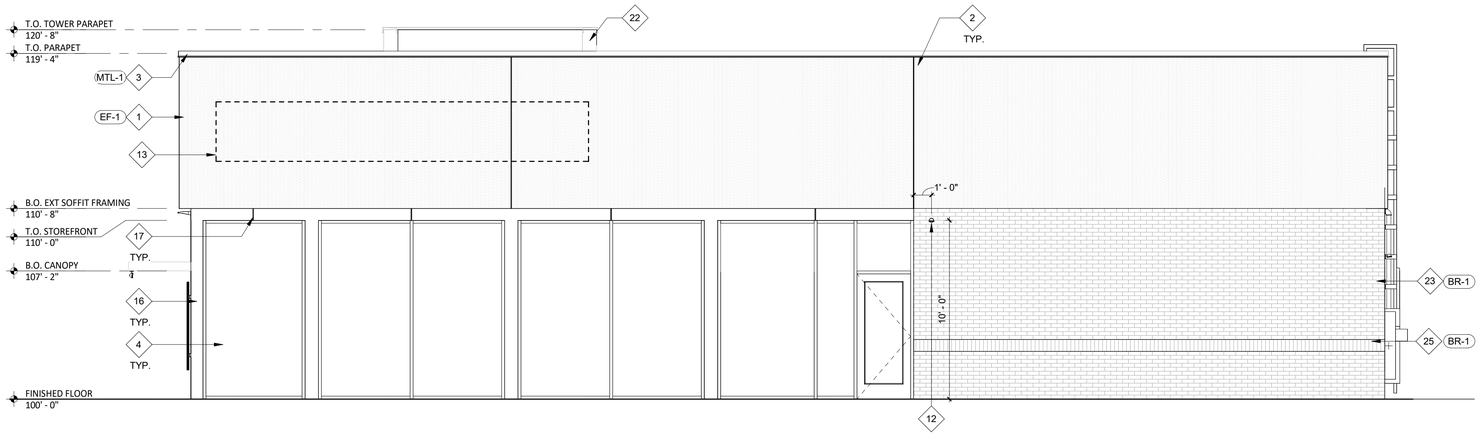
TITLE:

ROOF PLAN

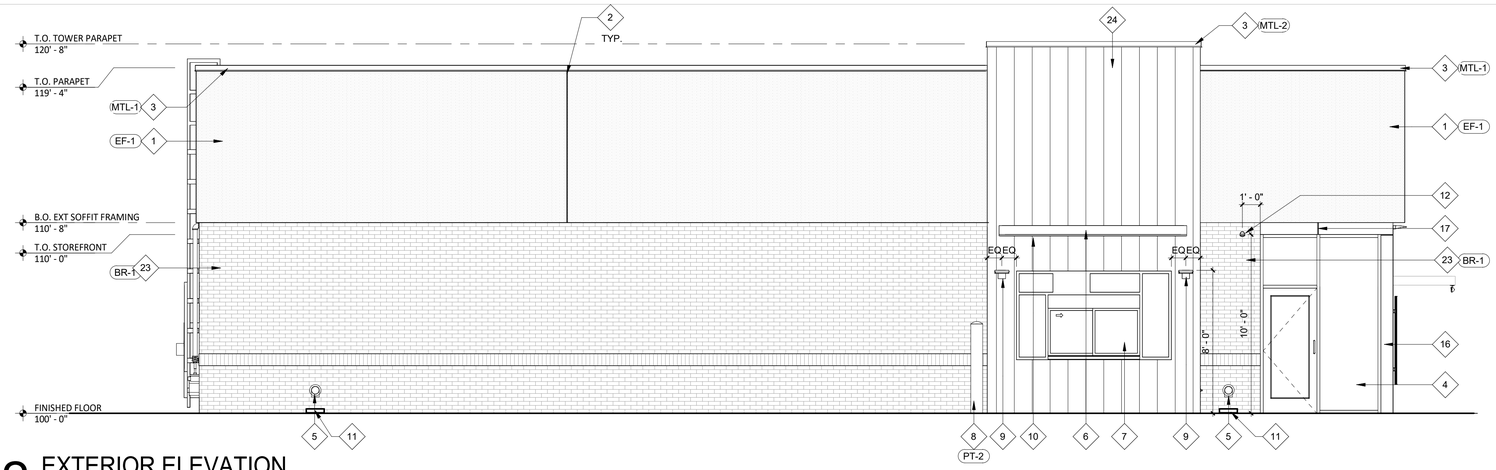
SHEET NUMBER:

A-600



1 EXTERIOR ELEVATION

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



2 EXTERIOR ELEVATION

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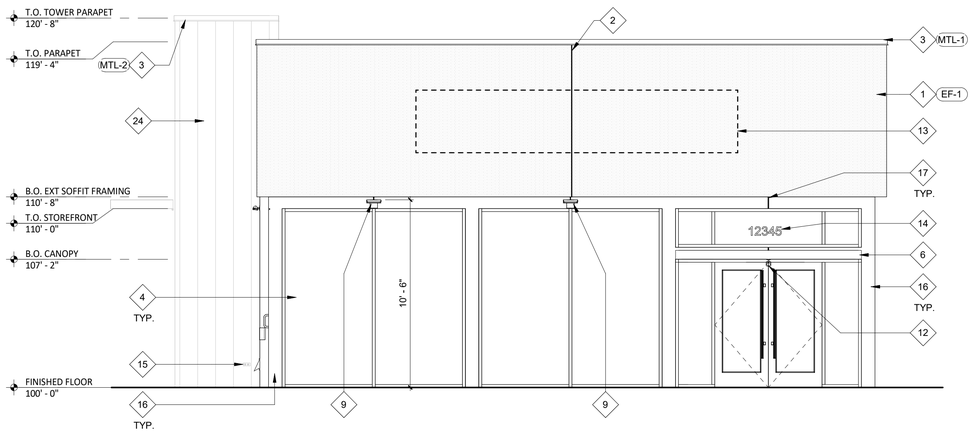
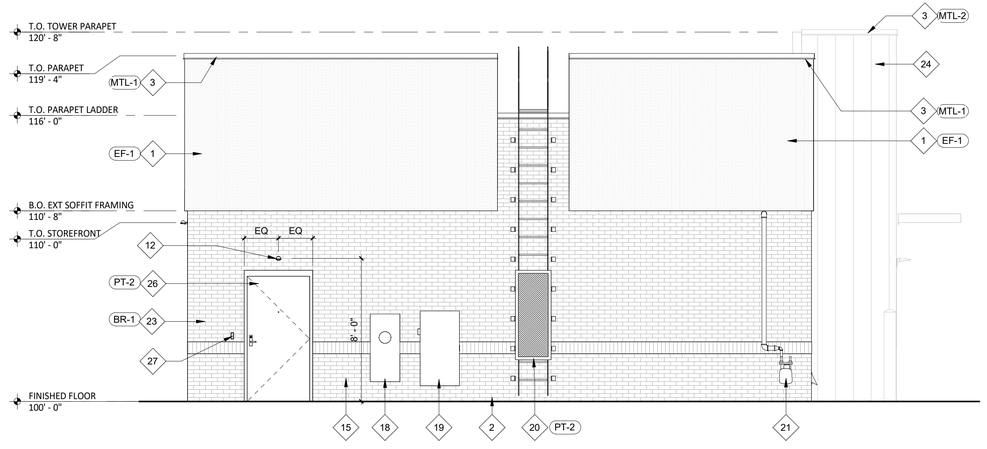


3 EXTERIOR ELEVATION

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



4 EXTERIOR ELEVATION

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

EXT. ELEV GENERAL NOTES

A. METAL CANOPY IS AVAILABLE FROM AMERICAN PRODUCTS, INC. (API), PHONE: (813)-925-0144, E-MAIL: BIDS@AMERICANPROD.COM

KEYNOTE LEGEND

1	EIFS - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2	EIFS JOINT ALIGNED WITH BUILDING ELEMENTS AS SHOWN - REFER TO MANUFACTURER'S RECOMMENDATION FOR SPACING REQUIREMENTS.
3	PREFINISHED METAL COPING.
4	THERMALLY BROKEN ALUMINUM STOREFRONT SYSTEM WITH 1" INSULATED GLAZING - CAULK AROUND ENTIRE PERIMETER OF OPENINGS.
5	STAINLESS STEEL COW TOUNGE OVERFLOW ROOF DRAIN DISCHARGE.
6	PREFINISHED METAL CANOPY W/ INTEGRAL LIGHTING.
7	PREFINISHED DARK BRONZE ALUMINUM PASS-THRU WINDOW WITH INTEGRATED INTERIOR AIR CURTAIN, TRANSOM AND SIDELITES - CAULK AROUND ENTIRE PERIMETER OF OPENING.
8	8" CONCRETE SAFETY BOLLARD.
9	WALL PACK LIGHT (X6).
10	LED CHANNEL LIGHT (X9) - LENGTH TO MATCH CANOPY
11	CONCRETE SPLASH BLOCK.
12	EXTERIOR EMERGENCY LIGHT (E2).
13	DASHED LINE INDICATES EXTENTS OF BLOCKING TO BE PROVIDED BY GENERAL CONTRACTOR - PROVIDE ELECTRICAL ACCESS AS REQUIRED - COORDINATE ADDITIONAL REQUIREMENTS WITH TENANT SIGNAGE VENDOR.
14	6" HIGH VINYL BUILDING ADDRESS NUMBERS - COORDINATE REQUIREMENTS WITH AUTHORITIES HAVING JURISDICTION.
15	FROST PROOF WALL HYDRANT.
16	PREFINISHED BRAKE METAL - MATCH STOREFRONT FINISH.
17	BRAKE METAL SEAM LOCATION, MAINTAIN ALIGNMENT WITH ADJACENT FINISHES.
18	ELECTRICAL METER.
19	ELECTRICAL FUSED DISCONNECT SWITCH.
20	EXTERIOR ROOF LADDER WITH LOCKING GATE.
21	GAS METER
22	RAISED PARAPET BEYOND - EXTERIOR FINISHES TO WRAP AROUND ON EXPOSED SIDES.
23	FACE BRICK VENEER-RUNNING BOND-REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
24	MBCI METAL PANELS.
25	FACE BRICK VENEER - SOLDIER COURSE - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
26	INSULATED HOLLOW METAL DOOR AND FRAME - CAULK AROUND ENTIRE PERIMETER OF OPENING.
27	DOOR BELL - MOUNT BETWEEN 36" AND 48" ABOVE GRADE.

EXTERIOR FINISH SCHEDULE

FINISH	MATERIAL	COLOR	REMARKS
BR-1	4" FACE BRICK	VELOUR IRONSPOT MAGANESE	REFER TO SPEC FOR GROUT COLOR
EF-1	EIFS	MATCH PT-1	
EF-2	EIFS	MATCH PT-2	
MTL-1	PREFINISHED METAL COPING	PPG #1010-2 "FOG"	TO MATCH ADJACENT FINISH
MTL-2	PREFINISHED METAL COPING	PPG #1001-6 "KNIGHT'S ARMOR"	TO MATCH ADJACENT FINISH
MTL-3	PREFINISHED MBCI PANELS	MATCH PT-2	SIGNATURE 200 SERIES
PT-1	PAINT	PPG #1010-2 "FOG"	FLAT FINISH
PT-2	PAINT	PPG #1001-6 "KNIGHT'S ARMOR"	FLAT FINISH

CONSULTANT

WILKUS ARCHITECTS

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PROJECT INFORMATION

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SHELL BUILDING
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53611
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HOPKINS, MN

MATTHEW M. WILKUS
REGISTERED ARCHITECT
14006
NORTH CAROLINA
HOPKINS, MN

February 21, 2025

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(EXPIRES 06/30/2025)

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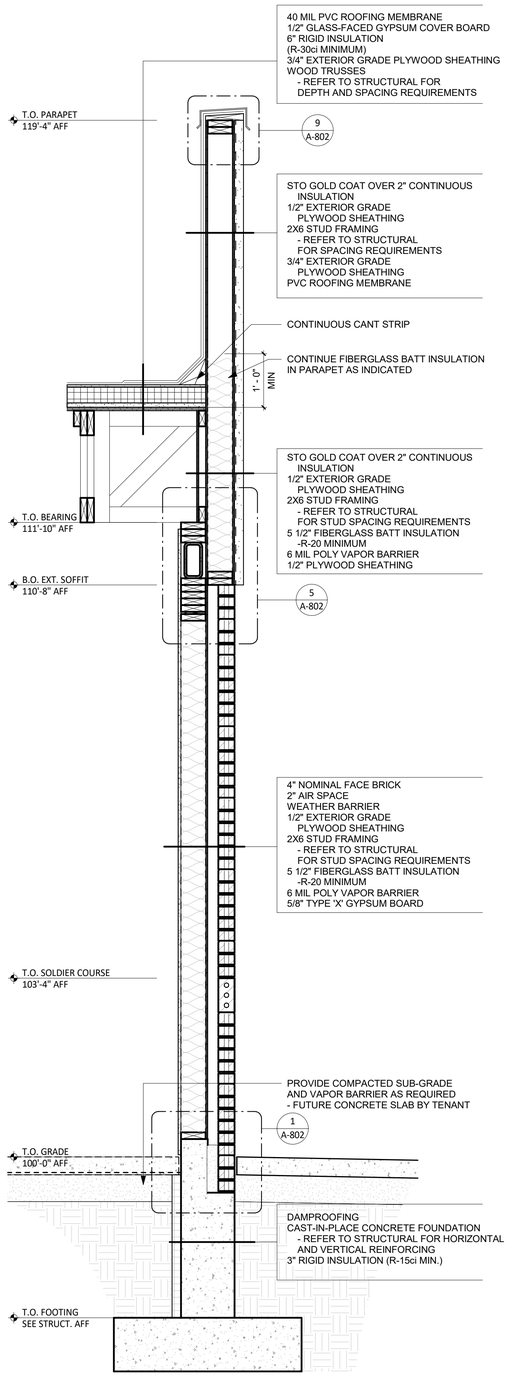
EXTERIOR ELEVATIONS

SHEET NUMBER:

A-700



1 SECTION @ WALL - TYPICAL

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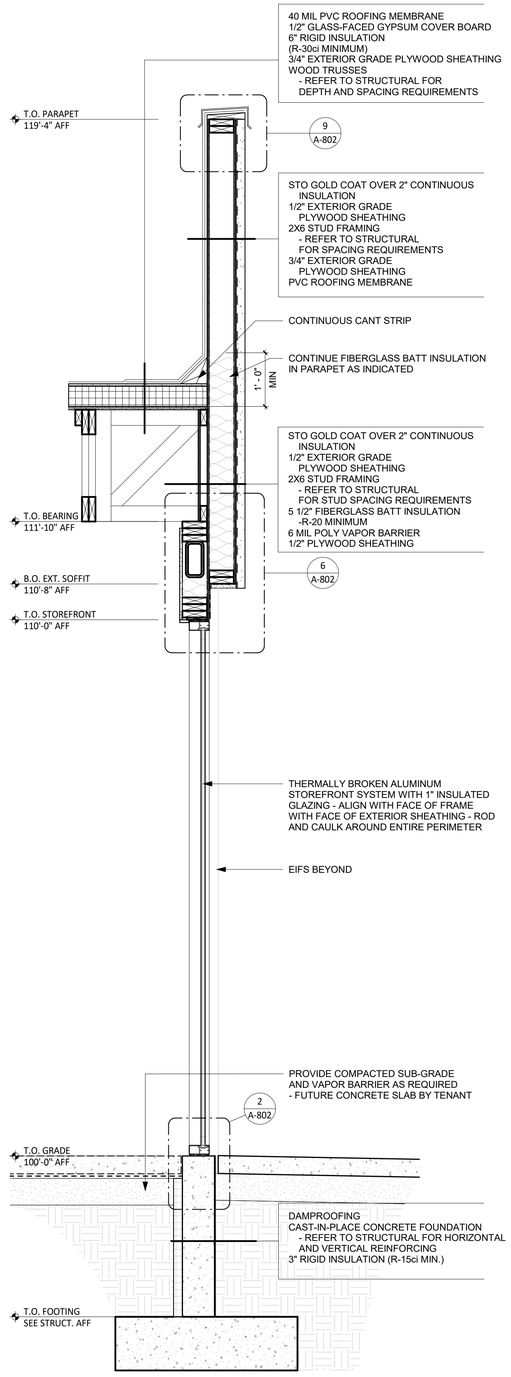

2 SECTION @ STOREFRONT GLAZING - HSS

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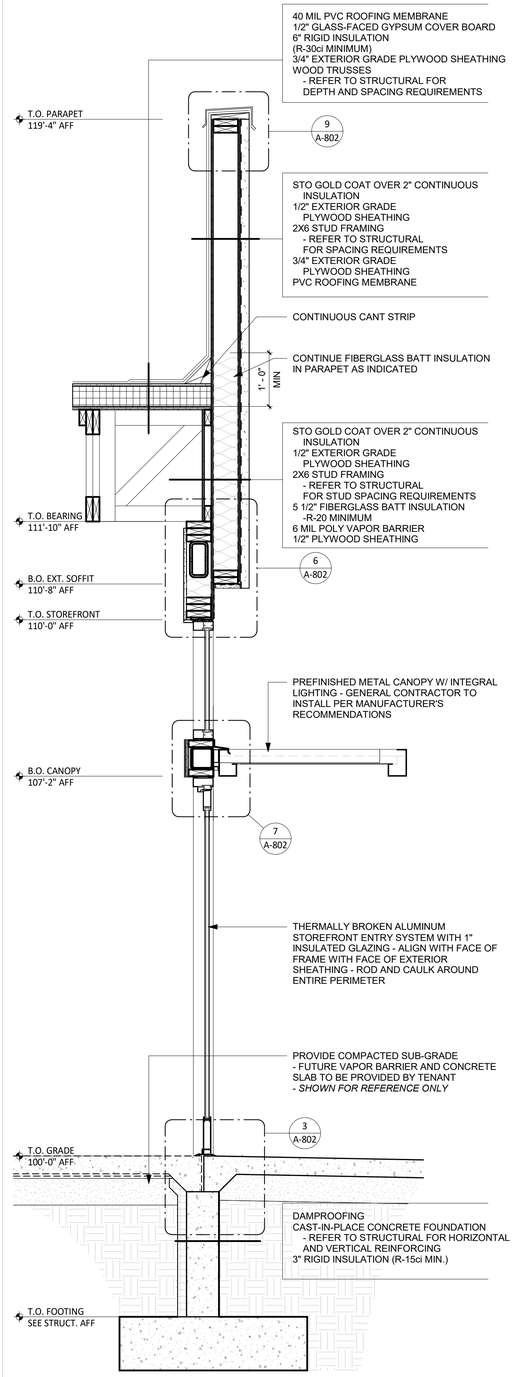

3 SECTION @ STOREFRONT - MAIN ENTRY

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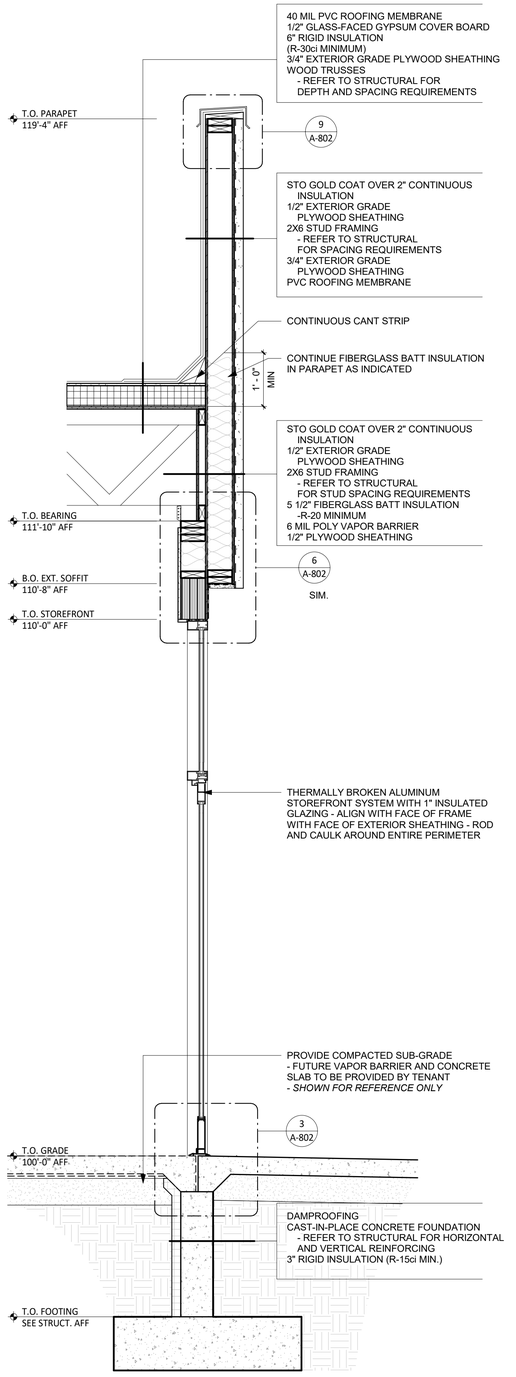

4 SECTION @ SIDE EGRESS

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

CONSULTANT

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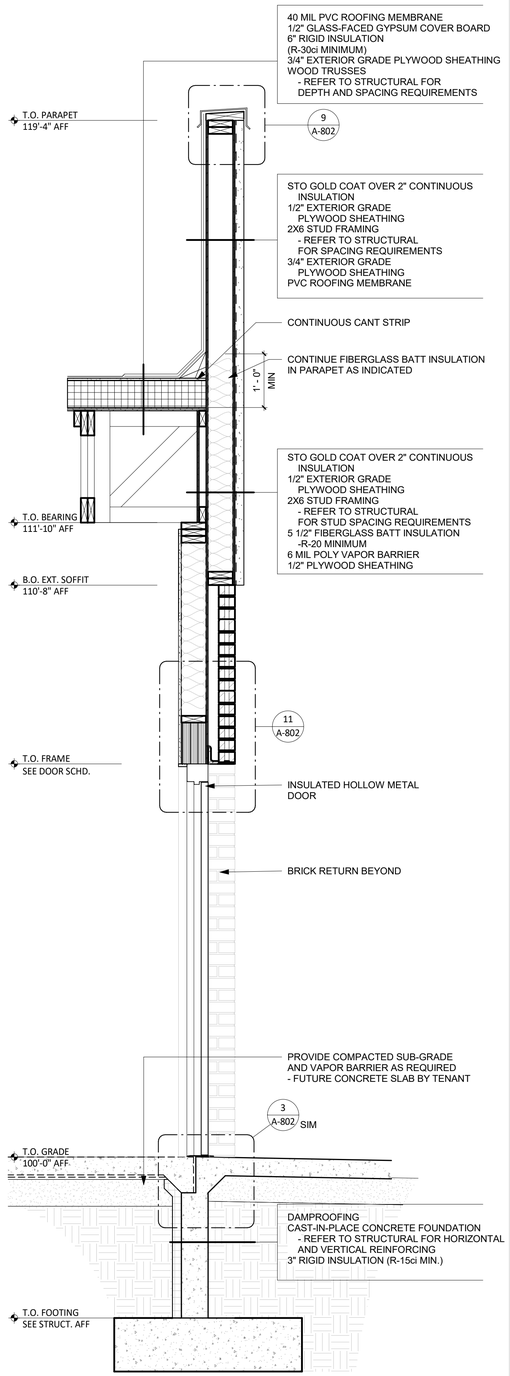
WALL SECTIONS

SHEET NUMBER:

A-800



1 SECTION @ REAR SERVICE EGRESS

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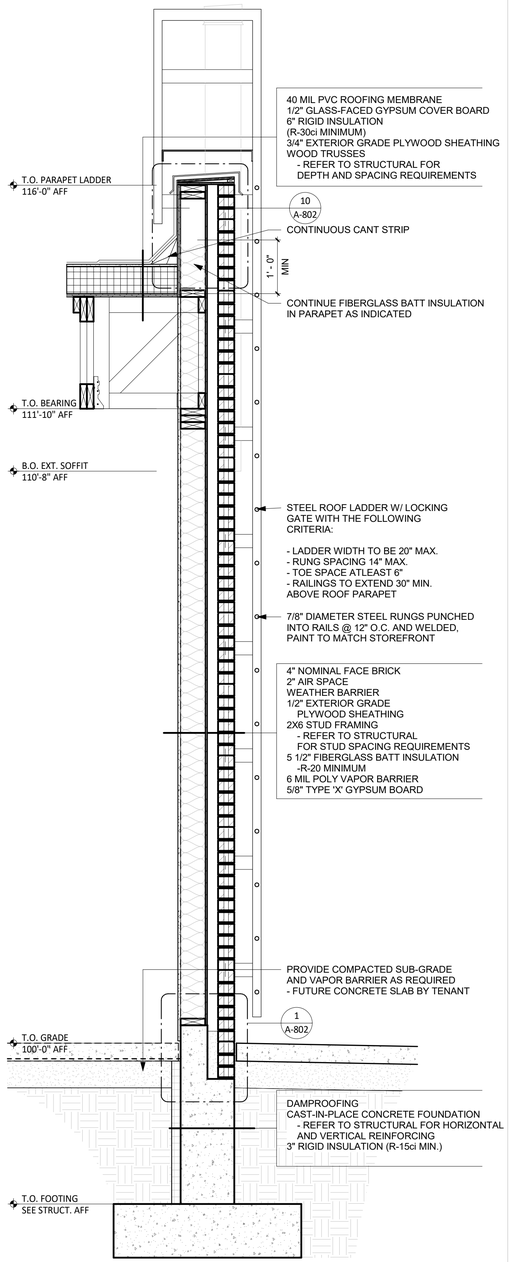
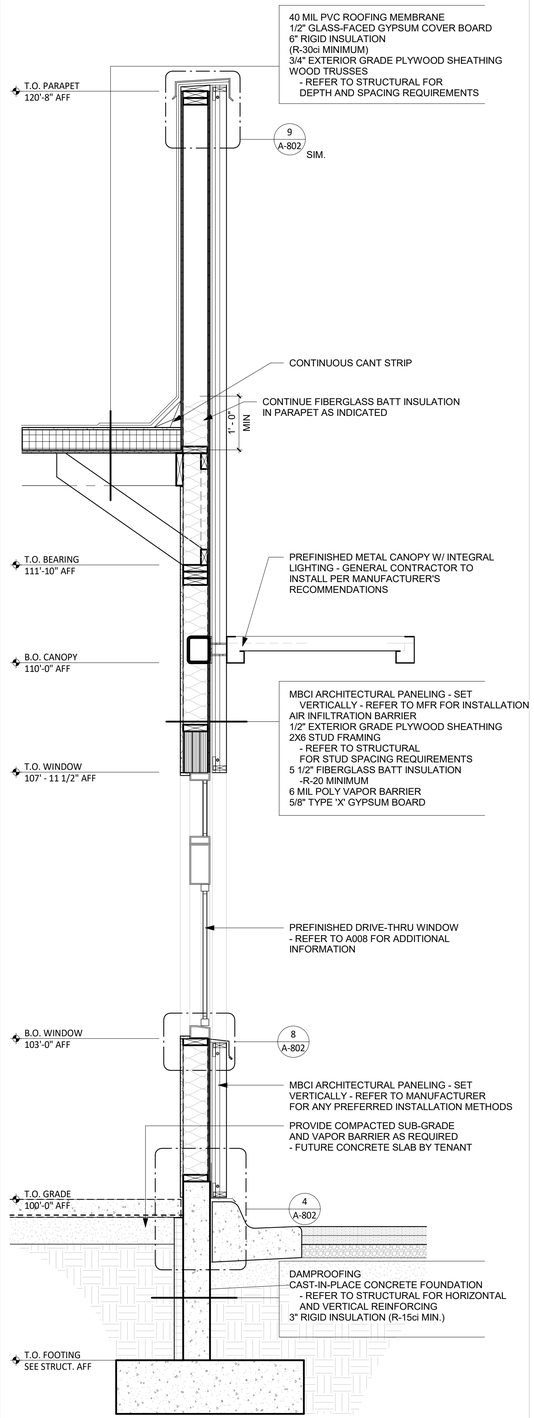


2 SECTION @ WALL - ROOF LADDER

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



3 SECTION @ DRIVE THRU TOWER

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

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TITLE:

WALL SECTIONS

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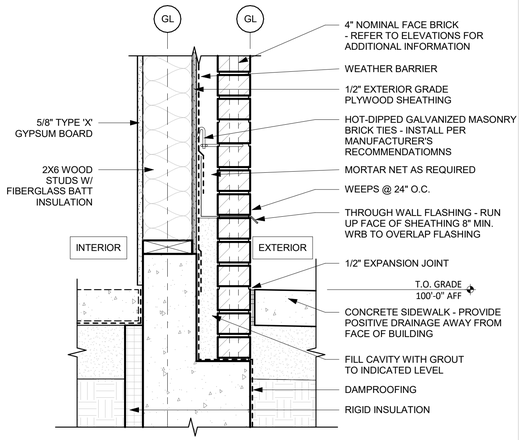
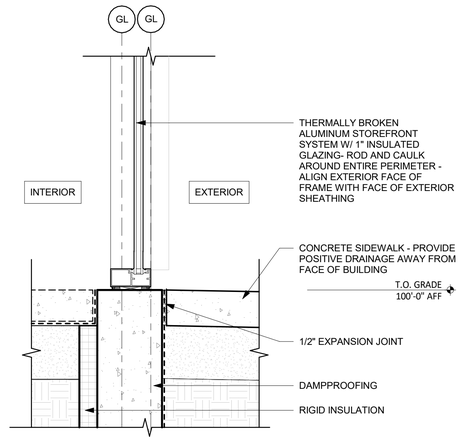
A-801



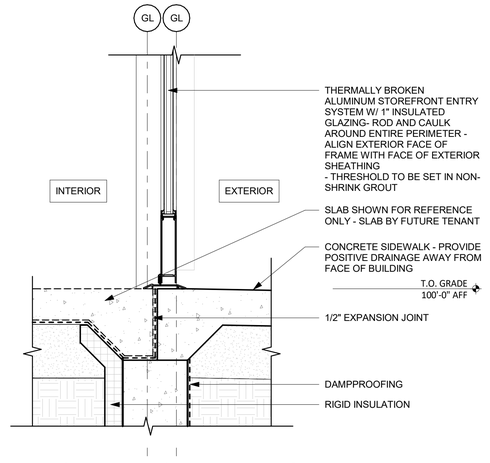
1 FOUNDATION DETAIL - TYPICAL

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



2 FOUNDATION DETAIL @ GLAZING

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



3 FOUNDATION DETAIL @ ENTRY

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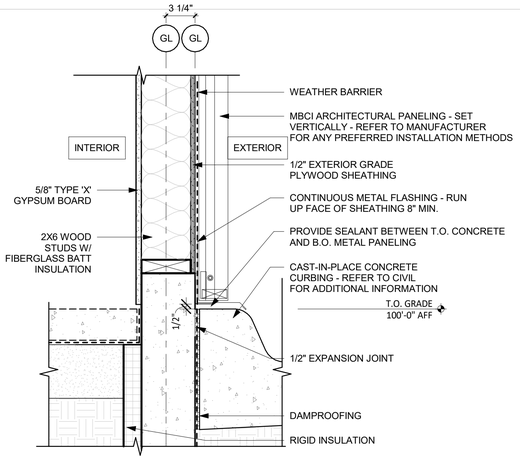

4 FOUNDATION DETAIL @ D/T TOWER

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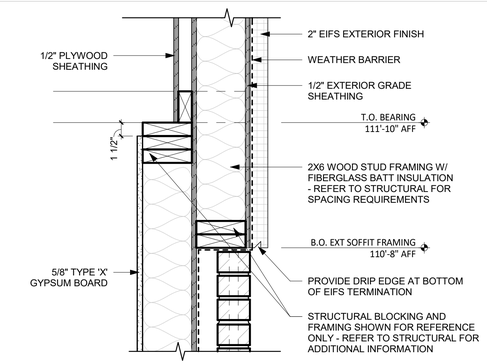

5 DETAIL @ SOFFIT - TYPICAL

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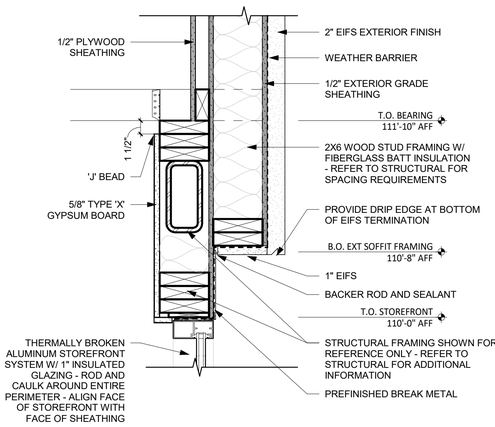
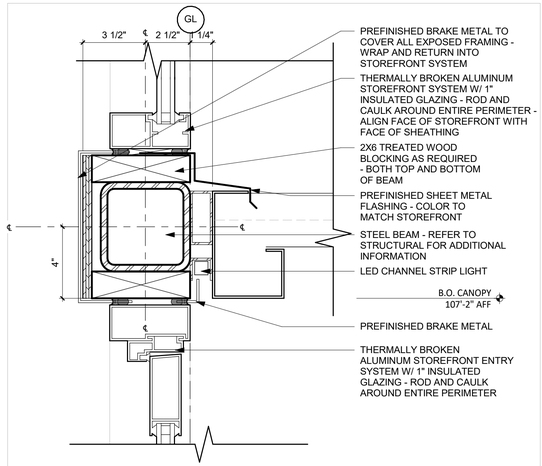


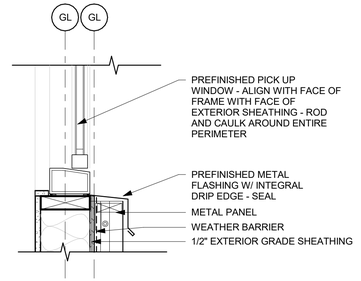
6 DETAIL @ STOREFRONT HEAD

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



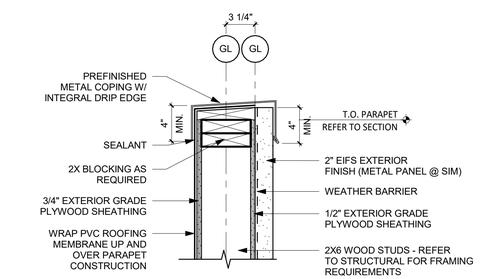
7 DETAIL @ ENTRY CANOPY

SCALE: 3" = 1'-0"



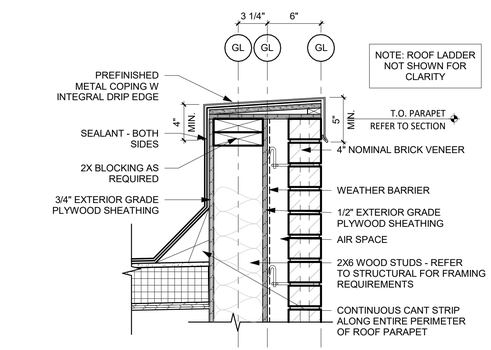
8 DETAIL @ WINDOW SILL

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



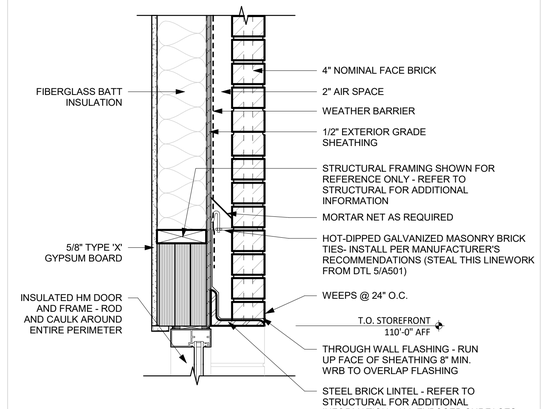
9 DETAIL @ PARAPET CAP

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



10 DETAIL @ PARAPET CAP - ROOF LADDER

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



11 DETAIL @ HM FRAME HEAD

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

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WILKUS ARCHITECTS, P.A. REGISTERED ARCHITECTURAL CORPORATION 53611 NORTH CAROLINA HOPKINS, MN

MATTHEW M. WILKUS REGISTERED ARCHITECT 14006 NORTH CAROLINA HOPKINS, MN

February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

PROJECT NO.	0000-0000
DRAWN BY	SAS
CHECKED BY	BMT

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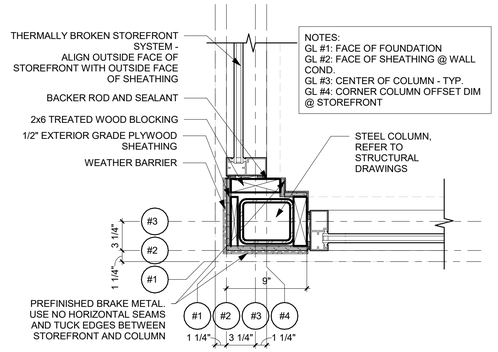
TITLE:

ENLARGED DETAILS

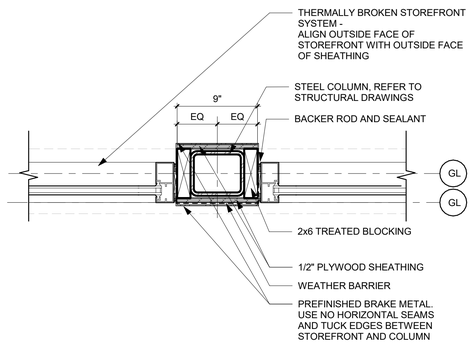
SHEET NUMBER:

A-802



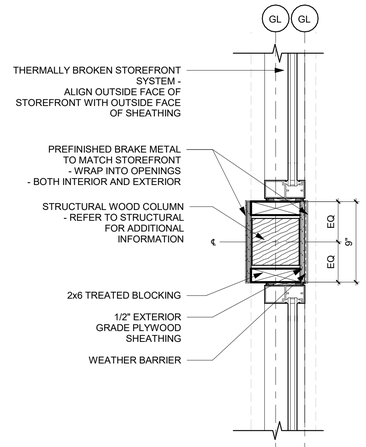
1 PLAN DETAIL @ STOREFRONT CORNER

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



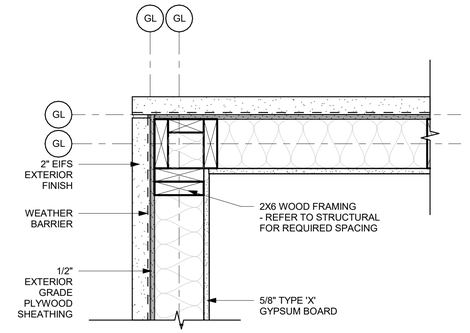
2 PLAN DETAIL @ STEEL COLUMN

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



3 PLAN DETAIL @ WOOD COLUMN

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



4 PLAN DETAIL @ OUTSIDE CORNER

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

5 PLAN DETAIL @ OUTSIDE CORNER

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

6 PLAN DETAIL @ ROOF ACCESS LADDER

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

7 PLAN DETAIL @ HM DOOR

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

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February 21, 2025

MATTHEW M. WILKUS
LICENSE #14006
(EXPIRES 06/30/2025)

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PLAN DETAILS

SHEET NUMBER:

A-803

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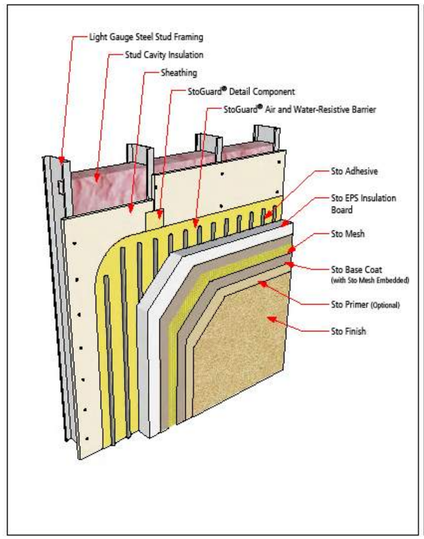
StoTherm® ci
System Components with Sto Textured Finish

Detail No.: 52s.00
Date: June 2022



Notes:

1. Refer to StoGuard Product Use Chart (Table 1.1) for StoGuard detail components; joint treatment, rough opening protection, backing for masonry anchors, or transitions to dissimilar materials, joints and seams in construction.

2. Refer to General Notes for specific information and design guidance on wall assembly components.

3. Components not identified as Sto are furnished by other manufacturers and are not necessarily installed by trades who install the Sto products. Refer to project specific contract documents.

1 StoTherm - SYSTEM COMPONENTS
SCALE: 1/4" = 1'-0"

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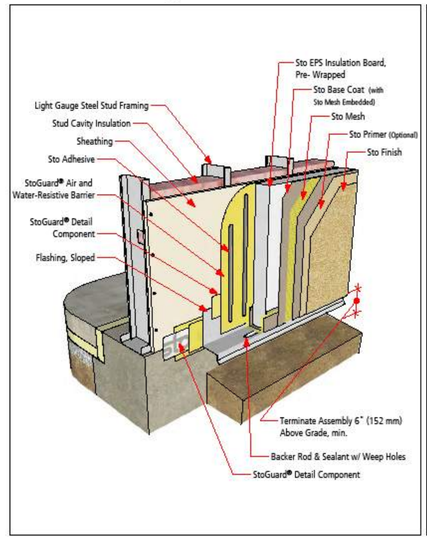
StoTherm® ci
Termination at Grade - Sheathing Flush with Foundation or Slab Edge

Detail No.: 52s.03A
Date: June 2022



Notes:

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2 StoTherm - TERMINATION @ GRADE
SCALE: 1/4" = 1'-0"

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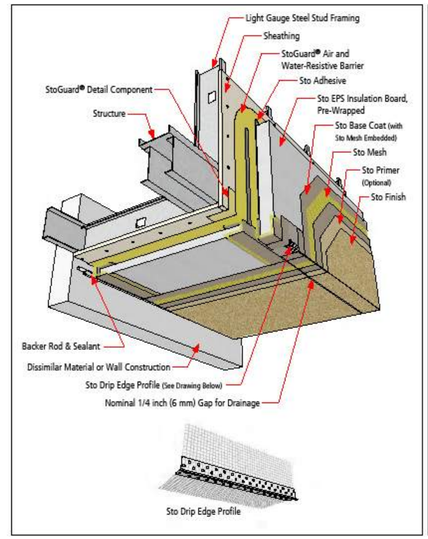
StoTherm® ci
Soffit: Insulated and Unvented

Detail No.: 52s.30
Date: June 2022



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

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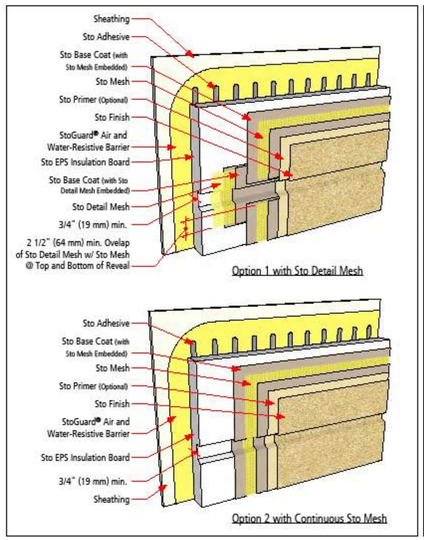
StoTherm® ci
Aesthetic Reveal

Detail No.: 52s.05
Date: June 2022



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4 StoTherm - AESTHETIC REVEAL
SCALE: 1/4" = 1'-0"

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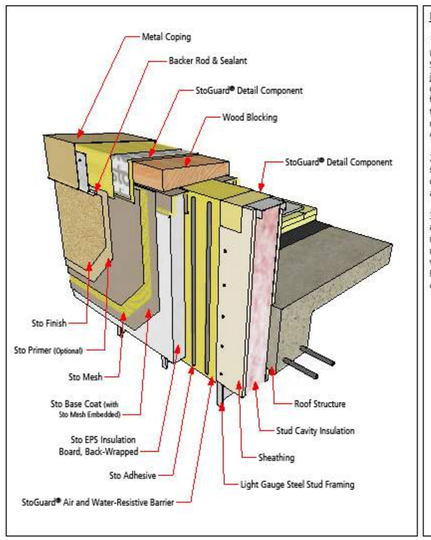
StoTherm® ci
Termination at Parapet - Front

Detail No.: 52s.60A
Date: June 2022



Notes:

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5 StoTherm - TERMINATION @ PARAPET
SCALE: 1/4" = 1'-0"

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EIFS DETAILS

SHEET NUMBER:
A-804

GENERAL STRUCTURAL NOTES

1 BUILDING CODE:

1.1 THE 2018 NORTH CAROLINA BUILDING CODE BASED ON THE 2015 INTERNATIONAL BUILDING CODE.

2 DESIGN LOADS:

2.1 ROOFS:
DEAD LOAD ....15 PSF
LIVE ....20 PSF (REDUCIBLE)
SNOW: GROUND SNOW LOAD, P_g ....15 PSF
ROOF SNOW LOAD + RAIN ON SNOW ....20* PSF

2.2 WIND:
BASIC WIND SPEED, V ....116 MPH ULTIMATE
RISK CATEGORY..II
EXPOSURE C
INTERNAL PRESSURE COEFFICIENT, GC_{pi}..±0.18
MWFRS ....17.2 PSF TYPICAL
....25.9 PSF CORNERS
COMPONENT DESIGN PRESSURE..SEE TABLE

2.3 SEISMIC DATA:
SITE CLASS ....D
RISK CATEGORY..II
IMPORTANCE FACTOR, I_e 1.0
MAPPED SPECTRAL RESPONSE COEFFICIENT, S_S..0.206
MAPPED SPECTRAL RESPONSE COEFFICIENT, S_1..0.094
SEISMIC DESIGN CATEGORY..C

2.4 ENGINEERED WOOD TRUSSES:..REFER TO DETAIL 2/S201

* PLUS SNOW ACCUMULATION IN ACCORDANCE WITH SECTION 1608 OF THE IBC.

COMPONENT AND CLADDING ULTIMATE WIND PRESSURE TABLE IN PSF[1,2]

LOCATION	EXTERIOR WALLS		GROSS ROOF UPLIFT	
	TRIBUTARY AREA		TRIBUTARY AREA	
	10 SQ. FT.	500 SQ. FT.	10 SQ. FT.	500 SQ. FT.
TYPICAL	±29.1	±22.4	-29.3	-26.8
WITHIN 8 FEET OF BUILDING CORNER	±35.8	±22.4		
FROM EDGE OF ROOF TO 12 FEET FROM EDGE			-49.2	-31.8
FROM 12 FEET FROM BUILDING CORNER (4 FEET WIDE)			-74.1	-31.8

[1] LINEAR INTERPOLATION MAY BE USED FOR TRIBUTARY AREAS BETWEEN THOSE SHOWN

[2] PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE PROJECTED SURFACES, RESPECTIVELY

3 GENERAL NOTES:

3.1 CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE SAFETY OF PERSONS AND PROPERTY. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.

3.2 THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. DURING ERECTION OF THE STRUCTURE, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR TEMPORARY GUYING, SHORING, BRACING, FORMING, ETC. TO HOLD THE STRUCTURE IN PROPER ALIGNMENT AND TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING LATERAL LOADS, TEMPERATURE DIFFERENTIALS, STOCKPILES OF MATERIAL AND EQUIPMENT. SUCH MEASURES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY AND UNTIL ALL FRAMING AND CONNECTIONS INCLUDING ROOF DECK ARE IN PLACE. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF SUCH TEMPORARY MEASURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

3.3 DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW BY THE ENGINEER.

3.4 ARCHITECTURAL DRAWINGS, MECHANICAL DRAWINGS, ELECTRICAL DRAWINGS, TELECOMMUNICATION DRAWINGS, FIRE PROTECTION DRAWINGS, EQUIPMENT DRAWINGS AND RELATED ITEMS ARE BY OTHERS.

3.5 CONTRACTOR AND SUBCONTRACTORS SHALL THOROUGHLY REVIEW ALL DRAWINGS AND SPECIFICATIONS PRIOR TO SUBMITTING BIDS. MISCELLANEOUS FASTENERS, CLIPS, ETC. THAT ARE NOT DETAILED ON THE DRAWINGS BUT ARE PART OF THE REQUIREMENTS FOR FULL INSTALLATION OF ALL STRUCTURAL SYSTEMS ARE TO BE PART OF THE BID. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO THE BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE BID.

3.6 DURING THE BIDDING STAGE, CONTRACTOR SHALL REQUEST AN INTERPRETATION OF CONFLICTS PRIOR TO BIDDING. IF NO REQUEST IS MADE, BOTH PROVISIONS SHALL BE PRESUMED TO BE INCLUDED IN THE BID AND THE ARCHITECT/ENGINEER SHALL DETERMINE WHICH PROVISION GOVERNS, AND THE CONTRACTOR SHALL PERFORM THE WORK AT NO ADDITIONAL COST TO THE OWNER.

3.7 ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DRAWINGS AND/OR SPECIFICATIONS AND/OR EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

3.8 THE CONTRACTOR SHALL COORDINATE ALL DEPRESSIONS, DIMENSIONS, ELEVATIONS, SLEEVES, CHASES, HANGERS, OPENINGS, BLOCK OUTS, INSERTS, ANCHORS, EQUIPMENT SUPPORTS, AND DETAILS WITH THE ENTIRE CONSTRUCTION PACKAGE INCLUDING ARCHITECTURAL DRAWINGS, MECHANICAL DRAWINGS, ELECTRICAL DRAWINGS, TELECOMMUNICATION DRAWINGS, FIRE PROTECTION DRAWINGS AND EQUIPMENT DRAWINGS. FOR CONCRETE AND MASONRY CONSTRUCTION THE INSERTS, EMBEDDED PLATES, ETC. SHALL NOT INTERFERE WITH REINFORCEMENT LOCATIONS.

3.9 MECHANICAL UNITS SUPPORTED BY ROOF OR FLOOR STRUCTURE ARE SUBJECT TO THE ACCEPTANCE OF THE STRUCTURAL ENGINEER.

4 PROVISIONS FOR FUTURE EXPANSION:

4.1 NO PROVISIONS FOR FUTURE EXPANSION HAVE BEEN INCLUDED IN DESIGN.

5 FOOTINGS AND SOIL DATA:

5.1 THE STRUCTURE IS DESIGNED FOR THE PRESUMPTIVE BEARING PRESSURES BASED ON THE IBC:
MAXIMUM ALLOWABLE SOIL BEARING CAPACITY ....1500 PSF
MAXIMUM ALLOWABLE LATERAL BEARING PRESSURE..100 PSF/FT

5.2 A QUALIFIED GEOTECHNICAL ENGINEER SHALL OBSERVE THE IN-SITU SOIL AFTER EXCAVATION AND PRIOR TO FOUNDATION CONSTRUCTION TO CONFIRM THIS MINUMUM VALUE. THE GEOTECHNICAL ENGINEER SHALL ADVISE THE CONTRACTOR OF ANY CORRECTION REQUIRED TO ACHIEVE THIS MINUMUM VALUE. NOTIFY OWNER AND ENGINEER IF SPECIFIED ALLOWABLE BEARING PRESSURE IS NOT FEASIBLE.

5.3 INSPECT THE EXCAVATED AREA TO ENSURE ALL MATERIALS REQUIRING REMOVAL HAVE BEEN REMOVED AND TO VERIFY THE SOIL BEARING CAPACITY USED FOR DESIGN PRIOR TO CONCRETE PLACEMENT.

5.4 EMBEDMENT DEPTH FROM EXTERIOR GRADE TO BOTTOM OF FOOTING SHALL NOT BE LESS THAN 1'-0". DURING WINTER CONSTRUCTION ALL FOOTINGS SHALL BE CONSIDERED UNHEATED STRUCTURES UNLESS INDICATED OTHERWISE IN THE GEOTECHNICAL REPORT. BOTTOM OF FOOTING ELEVATION SHALL BE LOWERED AS REQUIRED TO MEET THIS MINIMUM.

5.5 BACKFILL SHALL BE PLACED AND COMPACTED AGAINST BOTH SIDES OF FOUNDATION WALLS SIMULTANEOUSLY.

5.6 MUD SLABS, FOOTINGS OR SLABS SHALL NOT BE PLACED ONTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST OR ICE. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADE BEFORE AND AFTER PLACING CONCRETE UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE OR PROPER DEPTH OF BURY.

6 REINFORCED CONCRETE:

6.1 DESIGN CODE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318), LATEST ADOPTION.

6.2 CONCRETE MIXES SHALL BE DESIGNED PER ACI 301 USING THE FOLLOWING:
PORTLAND CEMENT CONFORMING TO ASTM C150 OR C595
AGGREGATE CONFORMING TO ASTM C33.
ADMIXTURES CONFORMING TO ASTM C494, C1017, AND C260. DO NOT USE CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.
CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.

6.3 MATERIAL STRENGTHS:

6.3.1 PROVIDE THE FOLLOWING CONCRETE PROPERTIES:

DESCRIPTION	COMPRESSIVE STRENGTH (f'c) AT 28 DAYS	MAX AGGREGATE SIZE	SLUMP[2]	MAX WATER TO CEMENT RATIOS (W/C)[3]
FOOTINGS	3000 PSI	1 ½"	4" ± 1"	0.57
FOUNDATION WALLS	4000 PSI	¾"	4" ± 1"	0.45
INTERIOR SLABS ON GRADE	4000 PSI	¾"	3" ± 1"	0.43
ANY CONCRETE SUBJECT TO FREEZE-THAW CYCLES (5% ENTRAINED AIR[1])	4500 PSI	¾"	4" ± 1"	0.45
ALL OTHER CONCRETE	4000 PSI	¾"	4" ± 1"	0.43

[1] TOLERANCE ON AIR CONTENT AS DELIVERED SHALL BE ± 1.5%.

[2] PRIOR TO ADDITION OF PLASTICIZER OR HIGH-RANGE WATER-REDUCER

[3] THESE W/C RATIOS MAY BE LOWER THAN NECESSARY TO PROVIDE THE SPECIFIED STRENGTHS.

6.3.2 REINFORCING STEEL:
BARS, STIRRUPS AND TIES..ASTM A615, GR. 60
WELDED WIRE FABRIC ....ASTM A1064

6.4 PLACEMENT OF CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI AND CRSI STANDARDS.

6.5 PROVIDE 3/4" CHAMFER AT ALL EXPOSED CORNERS.

6.6 FURNISH THE FOLLOWING CONCRETE COVER ON REINFORCING BARS UNLESS SHOWN OTHERWISE ON DRAWINGS:
SLABS ON GRADE..CENTER MESH OR BARS IN SLAB
PIERS ....1 1/2" COVER ON TIES
FOOTINGS ....3" COVER ON BOTTOM AND SIDES
WALLS..CENTER REINFORCING IN ALL

6.7 ALL WELDED WIRE FABRIC SHALL BE TRANSPORTED AND DELIVERED IN FLAT SHEETS.

6.8 WELDING (INCLUDING TACKING) OF BARS OTHER THAN ASTM A706 SHALL NOT BE ALLOWED. WELDING OF ASTM A706 BARS SHALL CONFORM TO AWS D1.4.

6.9 MAINTAIN CONCRETE IN A CONTINUOUSLY DAMP AND WET CONDITION FOR NOT LESS THAN 7 DAYS AFTER PLACING. PROTECT FROM MOISTURE LOSS WITH SHEETING OR SPRAY-ON MEMBRANE MEETING ASTM C309 AND COMPATIBLE WITH FLOOR COVERINGS.

6.10 FINISHING REQUIREMENTS ARE AS FOLLOWS (REFER TO ACI 301):
SMOOTH RUBBED FINISH ON EXPOSED FORM SURFACES.
WOOD FLOAT FINISH ON SLABS TO RECEIVE TOPPING.
STEEL TROWEL FINISH ON INTERIOR SLABS AND SLABS TO RECEIVE FINISH FLOORING.
BROOM FINISH ON WALKS, STAIRS AND EXTERIOR CONCRETE PEDESTRIAN PAVING.
NONSLIP FINISH SHALL BE APPLIED WITH ALUMINUM OXIDE TYPE SURFACE TREATMENT.

6.11 DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR ACCEPTED BY THE ENGINEER.

6.12 PROVIDE CORNER BARS EQUAL IN SIZE AND SPACING TO WALL HORIZONTAL REINFORCEMENT UNLESS OTHERWISE DETAILED.

6.13 IN SLABS PROVIDE (2) #4x4'-0" DIAGONAL BARS AT 45 DEGREES AT ALL CORNERS OF OPENINGS AND RE-ENTRANT CORNERS.

6.14 AT WALL OPENINGS, PROVIDE (2) #4 BARS ON ALL SIDES EXTENDING 2'-0" BEYOND THE OPENING AND (2) #4x4'-0" DIAGONAL BARS AT 45 DEGREES AT ALL CORNERS.

6.15 COLD WEATHER CONCRETING SHALL FOLLOW PROCEDURES IN ACI 306.

6.16 HOT WEATHER CONCRETING SHALL FOLLOW PROCEDURES IN ACI 305.

6.17 PROVIDE 32 BAR DIAMETER LAP LENGTHS FOR WALL FOOTINGS UNLESS NOTED OTHERWISE. FOR OTHER LAP LENGTHS PROVIDE CLASS B LAP SPLICES IN ACCORDANCE WITH ACI 318.

6.18 BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO ENSURE COMPLIANCE WITH MINIMUM CONCRETE COVER. BAR SUPPORTS SHALL BE PLASTIC, PLASTIC TIPPED, EPOXY COATED OR STAINLESS STEEL FOR UNCOATED STEEL. BAR SUPPORTS FOR COATED STEEL SHALL BE PLASTIC, PLASTIC COATED OR EPOXY COATED.

6.19 PLACE CONCRETE SLABS IN ALTERNATING STRIPS PER ACI 302.1. REFER TO CONSTRUCTION JOINT DETAILS IN DRAWINGS.

6.20 FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE ALL SHORING.

6.21 VERTICAL WALL CONSTRUCTION JOINTS SHALL BE FORMED WITH VERTICAL BULKHEADS AND KEYWAYS. WALL REINFORCING SHALL BE CONTINUOUS THROUGH THE JOINT OR SHALL BE DOWELED WITH AN EQUIVALENT AREA OF REINFORCEMENT UNLESS NOTED OTHERWISE.

6.22 SPECIAL ADDITIONAL REQUIREMENTS FOR SLABS ON GRADE:

6.22.1 DESIGN STANDARD: GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION (ACI 302.1)

6.22.2 REFER TO GEOTECHNICAL REPORT FOR VAPOR BARRIER, ENGINEERED FILL AND SUBGRADE COMPACTION REQUIREMENTS.

6.22.3 LAP ADJOINING WELDED WIRE FABRIC AT LEAST TWO FULL MESHES.

6.22.4 WALKWAYS AND OTHER EXTERIOR SLABS, IF SHOWN ON THE STRUCTURAL DRAWINGS, ARE FOR INFORMATION ONLY. WALKS SHALL BE REINFORCED WITH A MINIMUM OF 6x6 – W1.4xW1.4 WELDED WIRE FABRIC UNLESS OTHERWISE NOTED. SEE THE SITE PLAN, CIVIL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS, JOINTING DETAILS AND FINISH DETAILS.

6.22.5 SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED SLAB AREAS AND DRAINS. SLOPE SLAB TO DRAINS WHERE SHOWN.

6.22.6 FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 302.1 R.

7 MASONRY:

7.1 DESIGN CODE: BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (TMS 402/602) AND SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 402/602), LATEST ADOPTION.

7.2 MATERIAL STRENGTHS:
CONCRETE UNIT MASONRY..ASTM C90, f'm=1500 PSI
NORMAL WEIGHT DENSITY CLASSIFICATION
MORTAR..ASTM C270
LOAD BEARING AND/OR BELOW GRADE ....TYPE M OR S
ALL OTHER..TYPE N
COREFILL CONCRETE GROUT..ASTM C476, f'c=2000 PSI
8-10" SLUMP
3/8" MAX. AGGREGATE
REINFORCING STEEL..ASTM A615, GRADE 60

7.3 GROUT SOLID ALL BELOW GRADE MASONRY, CORES WITH VERTICAL REINFORCING, BOND BEAMS AND LINTELS.

7.4 VERTICAL CELLS TO BE FILLED WITH GROUT SHALL BE ALIGNED TO PROVIDE A CONTINUOUS, UNOBSTRUCTED OPENING. CELLS WHICH CONTAIN VERTICAL REINFORCEMENT SHALL HAVE A MINIMUM 2" CLEAR OPENING. ALL REINFORCING BARS SHALL BE PLACED TO PROVIDE MASONRY COVERAGE OF NOT LESS THAN 2 1/2". THE MINIMUM DISTANCE BETWEEN PARALLEL REINFORCING BARS, EXCEPT IN COLUMNS, SHALL BE EQUAL TO THE NOMINAL DIAMETER OF THE BAR OR 1", WHICHEVER IS GREATER.

7.5 USE WIRE POSITIONERS FOR SECURING REINFORCEMENT IN POSITION.

7.6 THE USE OF MASONRY CEMENT IS STRICTLY PROHIBITED. ALL MORTAR SHALL MEET THE "PROPORTION SPECIFICATION" OF ASTM C270 AND SHALL BE MADE WITH PORTLAND CEMENT/LIME (NON AIR-ENTRAINED).

7.7 UNLESS OTHERWISE INDICATED, ALL WALLS SHALL BE LAID UP IN RUNNING BOND. "TOOTH" BOND CORNERS AND INTERSECTIONS OF LOAD-BEARING WALLS.

7.8 PROVIDE VERTICAL REINFORCING BARS OF THE GIVEN SIZE AND SPACING AS INDICATED. PROVIDE BARS AT ALL WALL CORNERS, INTERSECTIONS, OPENING EDGES AND EACH SIDE OF CONTROL JOINTS.

7.9 HOLLOW UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS SHALL ALSO BE BEDDED, WHERE THEY ARE ADJACENT TO CELLS TO BE REINFORCED OR FILLED WITH GROUT, IN THE STARTING COURSE ON FOOTINGS AND SOLID FOUNDATION WALLS AND IN NON-REINFORCED OR GROUTED PIERS, PILASTERS OR COLUMNS.

7.10 PROVIDE 9 GA. GALV. "DUR-O-WALL" LADDER-TYPE HORIZONTAL JOINT REINFORCEMENT (OR ACCEPTED ALTERNATE) EVERY SECOND COURSE (16" OC) MAXIMUM.

8 POST-INSTALLED FASTENING:

8.1 POST-INSTALLED SYSTEMS ARE BASED ON THE FOLLOWING (UNLESS NOTED OTHERWISE):

DESCRIPTION	ANCHOR/ADHESIVE[1]	APPLICATIONS
ADHESIVES	HILTI HIT-HY 200	CONCRETE
EXPANSION ANCHOR	HILTI KWIK BOLT 3 (TZ)	---
SCREW ANCHOR	HILTI HUS-EZ	---

[1] SUBSTITUTIONS WILL BE CONSIDERED PROVIDED THE CONTRACTOR SUPPLIES DOCUMENTATION OF EQUAL OR GREATER CAPACITY BASED ON ANCHOR SIZE, EMBEDMENT DEPTH, SPACING AND EDGE DISTANCE.

8.1.1 POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

9 STRUCTURAL STEEL:

9.1 DESIGN CODE: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360), LATEST ADOPTION.

9.2 MATERIAL SPECIFICATIONS (UNLESS NOTED OTHERWISE):
STRUCTURAL STEEL ROLLED SHAPES, PLATES & BARS ....ASTM A36
HOLLOW STRUCTURAL SECTIONS ....ASTM A500, GR B
CONNECTION BOLTS ....ASTM A325
THREADED RODS ....ASTM A36
ANCHOR RODS ....ASTM F1554, GR 36
WELDS (E70XX ELECTRODES)..AWS D1.1
NON-SHRINK GROUT (7,000 PSI)..ASTM C1107, GR. A

9.3 ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED ACCORDING TO THE SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), LATEST ADOPTION. PROVISION 4.4 AND APPENDIX A OF THE AISC CODE OF STANDARD PRACTICE ARE SPECIFICALLY DELETED FROM THE PROJECT CONTRACT DOCUMENTS. THE FABRICATOR SHALL PROVIDE ITS SCHEDULE FOR THE SUBMITTAL OF SHOP AND ERECTION DRAWINGS A MINIMUM OF 14 DAYS PRIOR TO FIRST SUBMITTAL.

9.4 ALL COLUMNS, ANCHOR BOLTS, BASE PLATES, ETC. HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND CONSTRUCTION. CONFORMANCE TO OR DEVIATION FROM ALLOWABLE CAPACITIES DURING ERECTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR (SEE GENERAL NOTES).

9.5 BEAMS SHALL BE FABRICATED AND ERECTED FOR PLACEMENT WITH THE NATURAL CAMBER UP.

9.6 ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.1. UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS FILLET WELDS PER AISC REQUIREMENTS MEETING MINIMUM THICKNESSES ALLOWED PER THICKNESS OF MATERIAL WELDED. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 58 KSI.

9.7 STRUCTURAL STEEL PERMANENTLY EXPOSED TO VIEW SHALL BE SHOP-PRIMED WITH ONE COAT OF SSPC 15-68, TYPE 1 (RED OXIDE) PAINT. DAMAGE DURING TRANSPORTING, ERECTING AND FIELD WELDING PROCESSES SHALL BE REPAIRED TO MATCH THE SHOP APPLIED COATING. STRUCTURAL STEEL PERMANENTLY EXPOSED TO WEATHER INCLUDING BRICK SHELF ANGLES AND ALL OTHER EXTERIOR WALL LINTELS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123. PROVIDE VENT HOLES FOR GALVANIZING AS REQUIRED. SEAL ALL VENT HOLES AFTER GALVANIZING.REPAIR OF GALVANIZED SURFACES SHALL BE PERFORMED WITH A MINIMUM OF 2 COATS OF COLD-GALVANIZING PRODUCT.

10 WOOD:

10.1 DESIGN CODE: NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION (AF&PA), LATEST ADOPTION.

10.2 MATERIALS (FOLLOWING INDICATE MINIMUM GRADES UNO ON DRAWINGS):

DESCRIPTION		SPECIES & GRADE		DESIGN VALUES (PSI)				COMMENTS
				Fb	Fc⊥	Fc∥	E (x10^6)	
FRAMING LUMBER	Dimensional Lumber (2"-4")	SPRUCE-PINE-FIR	NO. 2	875	425	1150	1.4	
	Timbers (5"x5" and larger)	SPRUCE-PINE-FIR	NO. 2	500	425	500	1.0	
STUD BEARING WALLS (STUDS)		SPRUCE-PINE-FIR	NO. 2	875	425	1150	1.4	
LAMINATED VENEER LUMBER (LVL)		1.9E		2600	750	2510	1.9	
LUMBER (PSL)		2.0E		2900	750	2900	2	
BOTTOM PLATES AT FOUNDATION WALLS (IN CONTACT WITH CONCRETE)		SOUTHERN-PINE	NO. 2	1000	565	1400	1.4	PRESSURE PRESERVATIVE TREATED

10.2.1 ROOF DECK: 3/4" (NOMINAL) EXTERIOR GRADE APA RATED PLYWOOD, FACE GRAIN ACROSS SUPPORTS, JOINTS TO BE STAGGERED WITH PLYWOOD ROOF SHEATHING CLIPS AT 24" OC. GLUE AND NAIL WITH 8d NAILS AT 6" OC AT ALL EDGES, INTERMEDIATE FRAMING TO BE NAILED WITH 8d NAILS AT 12" OC.

10.2.2 WALL SHEATHING: 1/2" (NOMINAL) EXTERIOR GRADE APA RATED PLYWOOD (OSB) UNO, HORIZONTAL JOINTS TO BE STAGGERED OR BLOCKED. NAIL WITH 8d NAILS AT 6" OC AT ALL EDGES, INTERMEDIATE FRAMING TO BE NAILED WITH 8d NAILS AT 12" OC, UNO AT SHEAR WALL LOCATIONS. SEE SHEAR WALL SCHEDULE FOR ADDITIONAL INFORMATION.

10.2.3 BUILT UP STUDS, HEADERS, BEAMS, COLUMNS, AND OTHER MEMBERS TO BE CONNECTED PER IBC FASTENING SCHEDULE (UNO ON DRAWINGS)

10.3 WALL STUDS SHALL BE CONSTRUCTED IN TIGHT CONTACT WITH TOP PLATES, HEADERS, AND BOTTOM PLATES.

10.4 SPLICES IN AXIALLY LOADED STUDS ARE NOT PERMITTED. ALL NAILS TO BE FULLY DRIVEN WITH HEAD FLUSH TO SURFACE. NEITHER UNDER-DRIVE NOR OVER-DRIVE NAILS UNO.

10.5 PROVIDE POSTS AT EACH LEVEL BELOW POSTS ABOVE, MATCH POST SIZE ABOVE, UNLESS NOTED OTHERWISE.

10.6 WHERE LINTELS (HEADERS) FRAME INTO STUD WALLS, PROVIDE DOUBLE STUDS BELOW BEARING FOR 1 AND 2-MEMBER LINTELS UNO. PROVIDE A MINIMUM OF 2 FULL HEIGHT STUDS ADJACENT TO BEARING STUDS, UNLESS NOTED ON DRAWINGS.

10.7 DO NOT CUT CHORD OR WEB MEMBERS OF TRUSSES OR PRE-FABRICATED JOISTS. IF THERE IS INTERFERENCE, NOTIFY THE ENGINEER FOR DIRECTION. CUTTING OF PRE-FABRICATED JOISTS MUST COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.

10.8 SILL PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE PRESERVATIVE TREATED.

10.9 ALL LUMBER CONNECTORS TO BE SUPPLIED BY USP OR SIMPSON STRONG-TIE. WHERE LUMBER CONNECTORS ARE TO BE USED BUT ARE NOT CALLED OUT IN THESE DRAWINGS THEY ARE TO BE DESIGNED AND SUPPLIED BY USP OR SIMPSON STRONG-TIE FOR THE REACTION SHOWN ON THESE DRAWINGS. WHEN USING STEEL LUMBER CONNECTORS FILL ALL NAIL HOLES TO ACHIEVE PUBLISHED VALUE. WHERE MORE STRINGENT, THESE DRAWINGS SUPERSEDE DIRECTIONS IN PRODUCT CATALOG BUT REFER TO PRODUCT CATALOG FOR TYPICAL INSTALLATION INSTRUCTIONS.

11 WOOD TRUSSES:

11.1 DESIGN, FABRICATION AND CONSTRUCTION OF PRE-ENGINEERED WOOD TRUSSES SHALL CONFORM TO THE LATEST ADOPTION NDS OF AF&PA AND THE NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (ANSI/TPI 1, LATEST EDITION) OF THE TPI.

11.2 TRUSS DEPTHS AND PROFILES ARE SHOWN IN THE PLANS. MATERIALS AND DESIGN ARE PER MANUFACTURER FOR LOADS INDICATED. LIVE LOAD DEFLECTION OF OVERALL MEMBER SHALL BE LIMITED TO A MAXIMUM OF L/480. LIVE LOAD DEFLECTION OF TOP CHORD SHALL BE LIMITED TO A MAXIMUM OF L/480 BETWEEN PANEL POINTS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S STANDARD SPECIFICATIONS, COMPLETE WITH BRACING CONNECTIONS INCLUDING TRUSS HANGERS AND UPLIFT ANCHORS, AND ALL OTHER NECESSARY ACCESSORIES FOR COMPLETE INSTALLATION.

11.3 CONNECTOR PLATES SHALL BE NOT LESS THAN 0.036 INCHES (20 GAUGE) IN UNCOATED THICKNESS, SHALL MEET OR EXCEED ASTM GRADE A OR HIGHER AND SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A653 (COATING G60). MINIMUM STEEL YIELD STRESS SHALL BE 33,000 PSI.

11.4 TRUSSES SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY. TRUSSES SHALL BE MANUFACTURED BY EXPERIENCED WORKERS, USING PRECISION CUTTING, JIGGING AND PRESSING EQUIPMENT UNDER THE REQUIREMENTS IN THE ANSI/TPI 1.

11.5 WOOD TRUSSES SHALL BE ERECTED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S REQUIREMENTS. THIS WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED CONTRACTOR.

11.6 THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE TRUSSES. THE GUIDELINES SET FORTH BY THE TPI PUBLICATION "BUILDING COMPONENT SAFETY INFORMATION, BCSI 2006: GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" SHALL BE A MINIMUM REQUIREMENT.

11.7 TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED NOR OTHERWISE ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE TRUSS SUPPLIER'S STRUCTURAL ENGINEER.

11.8 TRUSSES SHALL BE PERMANENTLY BRACED PER WTCA COMMENTARY FOR PERMANENT BRACING OF METAL PLATE CONNECTED WOOD TRUSSES. TEMPORARY BRACING (IF REQUIRED) IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PER DSB-89 AND HIB-91 AS A MINIMUM.

11.9 COORDINATE MECHANICAL EQUIPMENT LOADS AND LOCATIONS WITH MECHANICAL/ARCHITECTURAL DRAWINGS AND MECHANICAL CONTRACTOR.

12 SUBMITTALS:

12.1 GENERAL SUBMITTAL REQUIREMENTS

12.1.1 CONTRACTOR SHALL REVIEW, STAMP, SIGN AND DATE ALL SUBMITTALS PRIOR TO FORWARDING TO ARCHITECT/ENGINEER. THE ENGINEER'S REVIEW IS FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SUBMITTALS THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS IN THE SUBMITTALS.

12.1.2 SHOP DRAWINGS SHALL BE IN THE FORM OF BLACK-LINE PRINTS OR PORTABLE DOCUMENT FORMAT (PDF) FOR REVIEW. DRAWINGS LISTED BELOW AS "CERTIFIED" SHALL BEAR THE SIGNED AND DATED SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. IN NO CASE SHALL REPRODUCTIONS OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS. DRAWINGS SHALL SHOW ERECTION PLANS, DIMENSIONS, BRACING AND BRIDGING REQUIREMENTS, DETAILS, SUPPORTED MECHANICAL EQUIPMENT AND PIPING. SUBMITTALS ARE REQUIRED.

12.1.3 SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED PRIOR TO FABRICATION

12.2 STRUCTURAL STEEL:

12.2.1 SHOP DRAWINGS

12.3 CONCRETE:

12.3.1 CONCRETE MIX DESIGN(S) SHALL BE SUBMITTED TO ENGINEER FOR REVIEW.

12.3.2 REINFORCING STEEL SHOP DRAWINGS.

12.4 STRUCTURAL STEEL:

12.4.1 SHOP DRAWINGS

12.5 WOOD:.

12.5.1 CERTIFIED PRE-MANUFACTURED WOOD TRUSS SHOP DRAWINGS AND CALCULATIONS. SHOP DRAWINGS SHOULD BE SEALED BY ENGINEER IN CHARGE OF DESIGN.

12.5.1.1 CALCULATIONS SHALL INCLUDE MEMBER SIZES, SPECIES, GRADE AND MOISTURE CONTENT.

13 SPECIAL INSPECTION:

13.1 SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH IBC SECTION 1701 THE FOLLOWING PORTIONS OF CONSTRUCTION:

13.1.1 SOILS:

13.1.1.1 BACKFILL AND COMPACTION

13.1.2 CONCRETE:

13.1.2.1 DURING TAKING OF TEST SPECIMENS.

13.1.2.2 REINFORCEMENT – PRIOR TO PLACING CONCRETE.

13.1.2.3 BOLTS INSTALLED IN CONCRETE.

13.1.3 STRUCTURAL STEEL:

13.1.3.1 ONLY APPROVED FABRICATORS IN ACCORDANCE WITH IBC 1704.2.2 SHALL BE USED.

13.1.3.2 FULL TIME INSPECTION IN ACCORDANCE WITH AISC 341 SHALL BE REQUIRED EXCEPT FOR THE FOLLOWING ITEMS WHICH REQUIRE PERIODIC INSPECTION, INCLUDING 100% VISUAL INSPECTION:

13.1.3.3 SINGLE-PASS FIELD-PERFORMED FILLET WELDS NOT EXCEEDING 5/16".

13.1.3.4 WELDING OF REINFORCING STEEL.

13.1.3.5 VERIFICATION OF WELDER QUALIFICATIONS, WELDING PROCEDURES AND MATERIALS.

13.1.3.6 HIGH STRENGTH BOLTING (A325 AND A490)

13.1.3.7 VERIFICATION OF MATERIALS.

13.1.3.8 VERIFICATION OF TIGHTENING METHOD.

13.1.3.9 PERIODIC INSPECTION, INCLUDING RANDOM VERIFICATION OF PROPER TIGHTENING.

13.1.4 EXPANSION AND ADHESIVE ANCHORS.

13.1.4.1 PERIODIC INSPECTION DURING ANCHORAGE.

13.1.5 WOOD FRAMING:

13.1.5.1 WIND RESISTANCE SYSTEM (SHEAR WALL SHEATHING ATTACHMENT)

13.2 REPORTS FOR THE ABOVE SHALL BE SUBMITTED TO THE ENGINEER. ALL REPORTS SHALL CLEARLY INDICATE COMPLIANCE OR NON-COMPLIANCE.

13.3 THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR AT LEAST 48 HOURS IN ADVANCE FOR WORK THAT WILL REQUIRE INSPECTION OR TESTING.

13.4 UPON COMPLETION OF EACH PHASE OF THE WORK, THE SPECIAL INSPECTOR SHALL SUBMIT A LETTER STATING COMPLIANCE WITH AND VARIANCES FROM THE PROJECT REQUIREMENTS (IF ANY).

13.5 UPON COMPLETION OF THE PROJECT, THE SPECIAL INSPECTOR SHALL SUBMIT A LETTER STATING COMPLIANCE WITH THE PROJECT REQUIREMENTS INCLUDING MEASURES TAKEN TO CORRECT PREVIOUSLY IDENTIFIED NON-COMPLYING ITEMS.

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	AWPA	AMERICAN WOOD PROTECTION ASSOCIATION
AF&PA	AMERICAN FOREST & PAPER ASSOCIATION	AWS	AMERICAN WELDING SOCIETY
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	CRSI	CONCRETE REINFORCING STEEL INSTITUTE
AISI	AMERICAN IRON AND STEEL INSTITUTE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
APA	ENGINEERED WOOD ASSOCIATION	TPI	TRUSS PLATE INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	WTCA	WOOD TRUSS COUNCIL OF AMERICA

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PROJECT INFORMATION

CAMERON, NC
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CAMERON, NC 28326

SEAL

SEAL 055000
KEVIN R. FULL
02/21/25

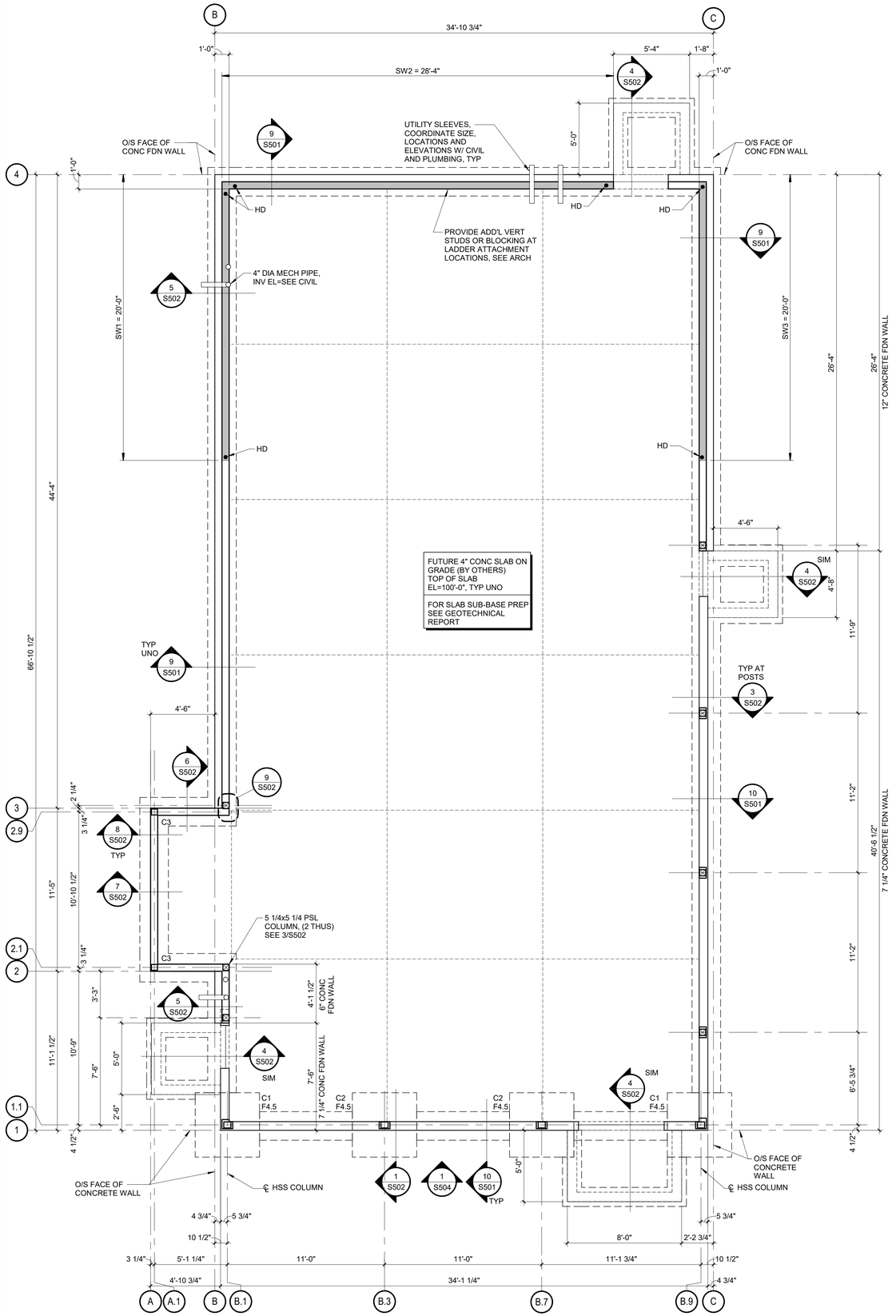
PROJECT NO. 251050
DRAWN BY JWO
CHECKED BY TJM/EISH

ISSUE	DATE
PERMIT SET	02.20.2025

△	REVISION	DATE

TITLE: GENERAL STRUCTURAL NOTES

SHEET NUMBER: **S001**



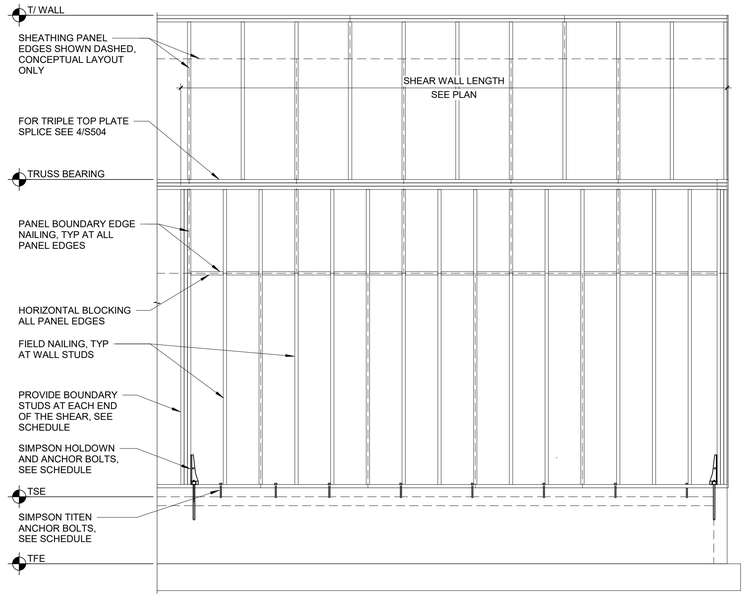
FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	COMMENTS
F4.5	4'-6"x4'-6"x1'-6"	(6) #4 EACH WAY TOP & BOT	

COLUMN SCHEDULE				
		BASE PLATE		
MARK	SIZE	SIZE	TYPE	COMMENTS
C1	HSS6x5x3/8	1"x12x1'-0"	C	1'-3" ANCHOR BOLT EMBED
C2	HSS6x5x3/8	1"x12x1'-0"	B	1'-3" ANCHOR BOLT EMBED
C3	HSS5X5X1/4	1/2" "L" SHAPED	D	1/2" DIA x6 1/2" TITEN HD ANCHORS

NOTES:
1. FOR BASE PLATE SIZE AND ANCHOR BOLT LAYOUT SEE 8/S501.

SHEAR WALL SCHEDULE				
MARK	HOLDOWN (HD)	ANCHOR BOLTS	EDGE NAILS	FIELD NAILS
SW1	HDU4-SDS2.5	1/2" DIA x 8" @ 32" OC	8d @ 6" OC	8d @ 12" OC
SW2	HDU4-SDS2.5	1/2" DIA x 8" @ 24" OC	8d @ 6" OC	8d @ 12" OC
SW3	HDU4-SDS2.5	1/2" DIA x 8" @ 32" OC	8d @ 6" OC	8d @ 12" OC

NOTES:
1. FOR TYPICAL SHEAR WALL LAYOUT INFORMATION, SEE 2/S101.
2. ALL HOLDOWNS INDICATED ARE MANUFACTURED BY SIMPSON. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. FOR TYPICAL HOLDOWN DETAIL SEE 2/S502.
4. PROVIDE BOUNDARY STUDS AT EACH END OF THE SHEAR WALL AT HOLDOWN LOCATIONS OF THE SAME SIZE AND MATERIAL OF THE TYPICAL WALL FRAMING. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE NUMBER OF STUDS REQUIRED.
5. ALL SHEAR WALL SILL PLATE ANCHOR BOLTS TO BE SIMPSON 1/2" DIAx10" TITEN HD ANCHORS.
6. PROVIDE 1/2" NOMINAL APA EXTERIOR OSB WALL SHEATHING ON THE OUTSIDE FACE AT ALL SHEAR WALL LOCATIONS.
7. ALL PANEL EDGES SHALL BE LOCATED ON STUDS, HORIZONTAL BLOCKING, OR TOP/BOTTOM PLATES.
8. FASTENER SUBSTITUTIONS ARE NOT PERMITTED, UNLESS APPROVED ENGINEER REVIEW IS COMPLETED AT CONTRACTOR'S EXPENSE.
9. FOR TRIPLE TOP PLATE SPLICE SEE 4/S504.



2 S101 SHEAR WALL ELEVATION
3/8" = 1'-0"

NORTH

1 S101 FOUNDATION PLAN
1/4" = 1'-0"

PLAN NOTES:

1. FOR GENERAL STRUCTURAL NOTES SEE SHEET S001.
2. TOP OF FOOTING ELEVATION (TFE) = 98'-8" TYP AT EXTERIOR UNO.
3. 'Cx' ON PLAN DENOTES COLUMN TYPE, SEE SCHEDULE ON THIS SHEET.
4. 'Fx' ON PLAN DENOTES COLUMN FOOTING, SEE SCHEDULE ON THIS SHEET.
5. S-- -S DENOTES STEPPED FOOTING, SEE TYPICAL STEPPED FOOTING DETAIL 3/S501, VERIFY FOOTING LOCATIONS W/ FINAL CIVIL TO ENSURE PROPER FROST PROTECTION.
6. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLAB SLOPES, DRAINS, CURBS, HOUSEKEEPING PADS, ETC.
7. FOR TYPICAL BAR BENDING IN REINFORCED CONCRETE SEE 1/S501.
8. FOR TYPICAL CORNER REINFORCING IN FOOTINGS SEE 2/S501.
9. FOR UTILITIES RUNNING PARALLEL TO FOUNDATIONS SEE 4/S501.
10. FOR UTILITIES RUNNING PERPENDICULAR TO FOUNDATIONS SEE 5/S501
11. 'SWx' ON PLAN DENOTES SHEAR WALL TYPE, SEE SCHEDULE ON THIS SHEET.
12. INDICATES EXTENTS OF PLYWOOD SHEAR WALL.
13. 'HD' ON PLAN DENOTES SHEAR WALL HOLDOWN ANCHOR, SEE SCHEDULE ON THIS SHEET.
14. FOR ELECTRICAL GROUNDING, SEE 12/S501. VERIFY LOCATION WITH ELECTRICAL CONTRACTOR.
15. FOR TRASH ENCLOSURE STRUCTURAL PLAN AND DETAILS, SEE SHEET S102. FOR PLAN LOCATION AND ORIENTATION, SEE ARCH AND CIVIL.
16. FOR SITE LIGHT POLE BASE DETAIL, SEE 4/S102.

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CHECKED BY	TJM/EISH

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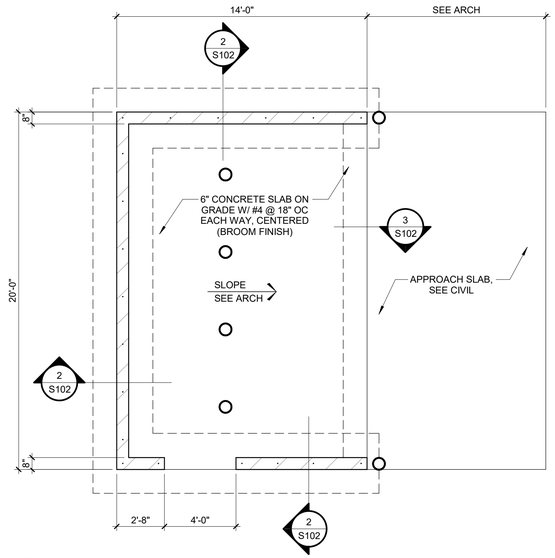
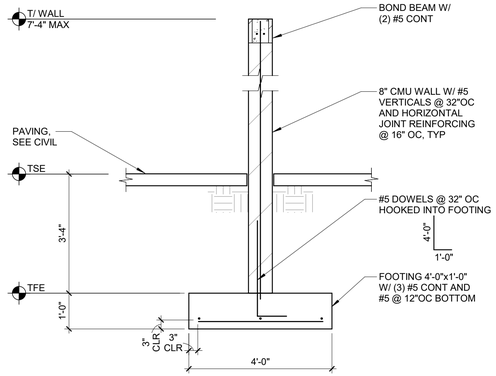
REVISION	DATE

TITLE:
FOUNDATION PLAN

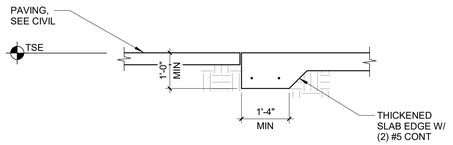
SHEET NUMBER:
S101



1 S102 TRASH ENCLOSURE FOUNDATION PLAN
1/4" = 1'-0"

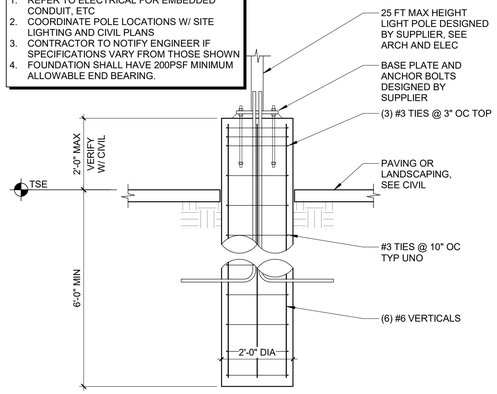


2 S102 TRASH ENCLOSURE WALL DETAIL
1/2" = 1'-0"



3 S102 TRASH ENCLOSURE SLAB DETAIL
1/2" = 1'-0"

NOTES:
1. REFER TO ELECTRICAL FOR EMBEDDED CONDUIT, ETC
2. COORDINATE POLE LOCATIONS W/ SITE LIGHTING AND CIVIL PLANS
3. CONTRACTOR TO NOTIFY ENGINEER IF SPECIFICATIONS VARY FROM THOSE SHOWN
4. FOUNDATION SHALL HAVE 200PSF MINIMUM ALLOWABLE END BEARING.



4 S102 SITE LIGHT POLE BASE
1/2" = 1'-0"

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02/21/25

PROJECT NO.	251050
DRAWN BY	JWO
CHECKED BY	TJM/EISH

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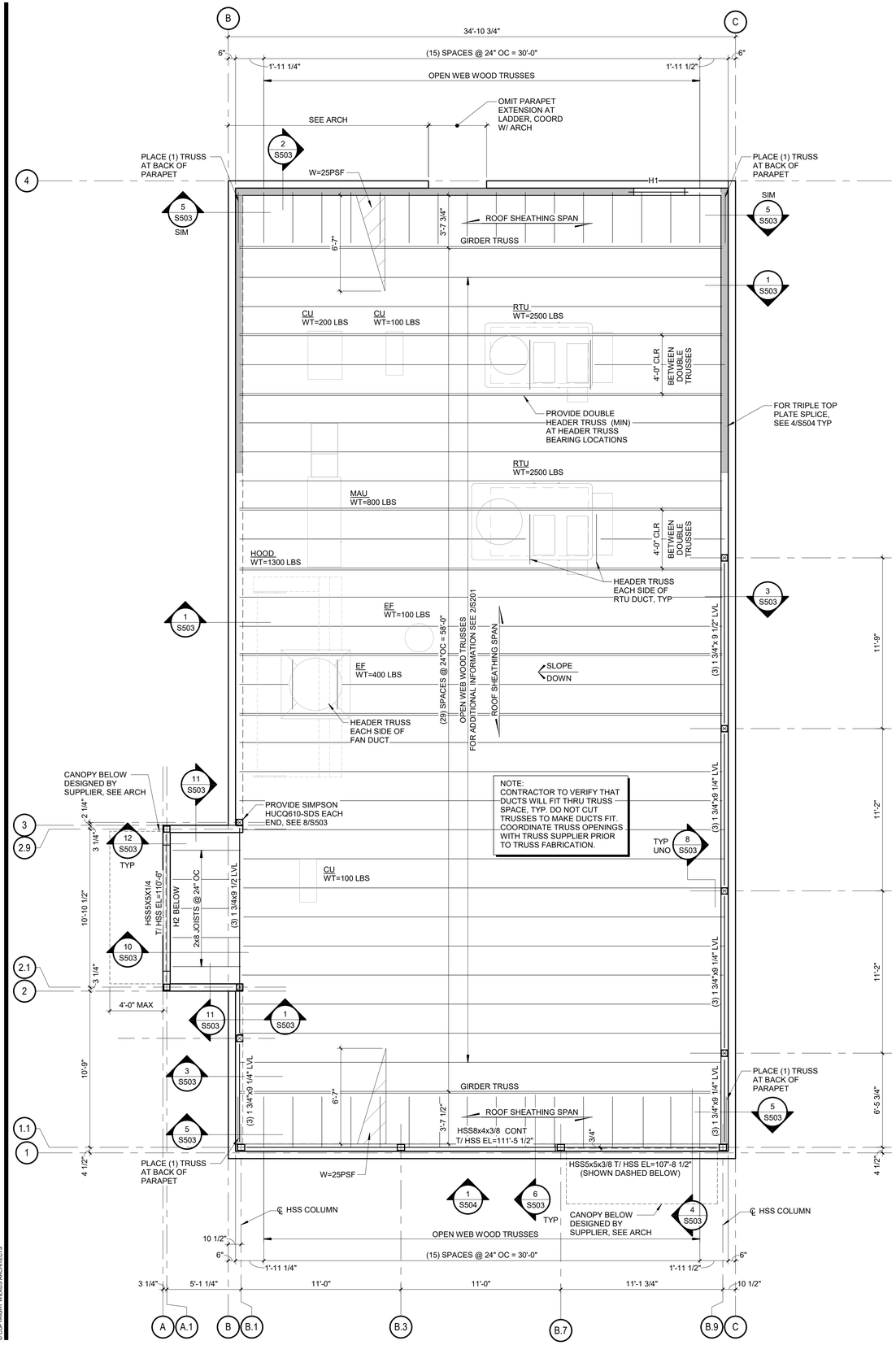
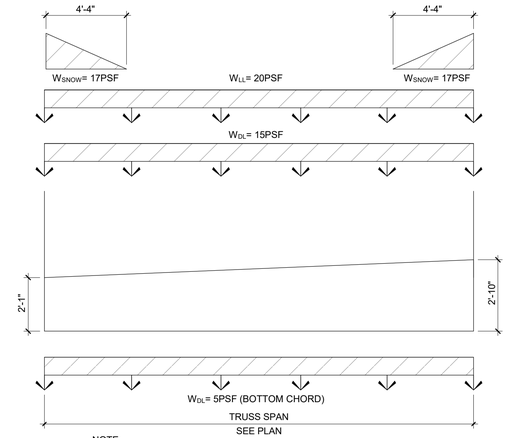
TITLE:
STRUCTURAL SITE DETAILS

SHEET NUMBER:
S102





NOTE:
1. FOR ROOF TOP MECHANICAL UNITS (RTU) LOADS, SEE PLAN.
2. TRUSS DESIGN TO INCLUDE PIPING LARGER THAN 4" DIAMETER AND EQUIPMENT HEAVIER THAN 200 LBS. COORDINATE WITH ALL DISCIPLINES.
3. BOTTOM CHORD TO BE DESIGNED FOR A 250 LB LL AT ANY POINT ON THE TRUSS.

2/S201 ROOF TRUSS LOAD DIAGRAM

HEADER SCHEDULE				
MARK	HEADER SIZE	BEARING STUDS	FULL HEIGHT STUDS	COMMENTS
H1	(3) 2x8	(2) 2x6	(3) 2x6	
H2	(3) 1 3/4x 9 1/4 LVL	(2) 2x6	(2) 2x6	SEE NOTE #2

NOTES:
1. FOR ADDITIONAL INFORMATION SEE 2/S504.
2. ATTACH FULL HEIGHT STUDS TO HSS ABOVE.

LOOSE ANGLE LINTEL SCHEDULE	
OPENING WIDTH	ANGLE SIZE
UP TO 3'-0"	L6x4x5/16 (LLH)
OVER 3'-0" TO 5'-4"	L6x6x5/16
OVER 5'-4" TO 10'-0"	L8x6x7/16 (LLV) OR BENT PL L7x6x3/8 (LLV)

NOTES:
1. ALL LOOSE LINTEL ANGLES TO BE GALVANIZED.
2. PROVIDE 4" MIN BEARING EACH END OF LINTEL.

NORTH

1/S201 ROOF FRAMING PLAN

1/4" = 1'-0"

PLAN NOTES:
1. FOR GENERAL STRUCTURAL NOTES SEE SHEET S001.
2. TRUSS BEARING ELEVATION AND TOP OF WALL EL=111'-10", TYP.
3. [ ] INDICATES PLYWOOD SHEAR WALL EXTENTS.
4. FOR TYPICAL DROP HEADER DETAIL SEE 2/S504.
5. FOR OPENINGS IN THE ROOF DECK LARGER THAN 8" SQUARE SEE 5/S504.
6. WHERE PIPE PENETRATES TOP OR BOTTOM WALL PLATES, SEE 3/S504.
7. FOR MECHANICAL EQUIPMENT CURB SUPPORT AND ROOF OPENINGS LARGER THAN 8" SQUARE, SEE 5/S504.

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PROJECT INFORMATION

CAMERON, NC SHELL BUILDING

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CAMERON, NC 28326

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 055000 ENGINEER KEVIN R. FULL

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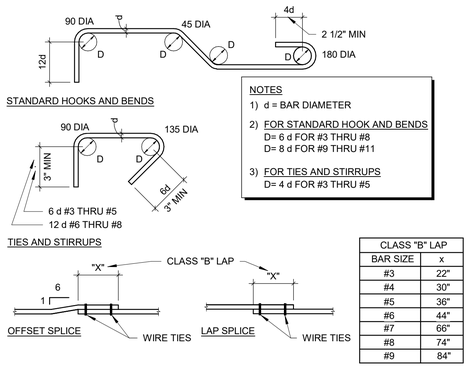


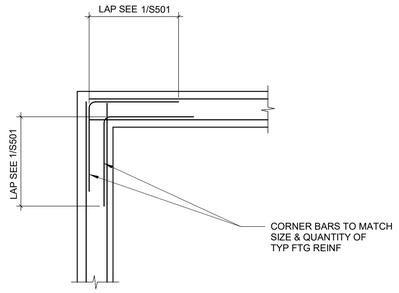
NOTES

1) d = BAR DIAMETER
2) FOR STANDARD HOOK AND BENDS
   D= 6 d FOR #3 THRU #8
   D= 8 d FOR #9 THRU #11
3) FOR TIES AND STIRRUPS
   D= 4 d FOR #3 THRU #5

CLASS "B" LAP	
BAR SIZE	x
#3	22"
#4	30"
#5	36"
#6	44"
#7	66"
#8	74"
#9	84"

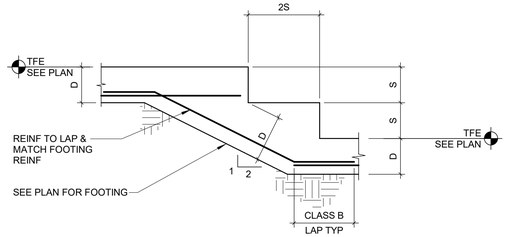
1 S501 TYPICAL BAR BENDING DETAIL

1/2" = 1'-0"



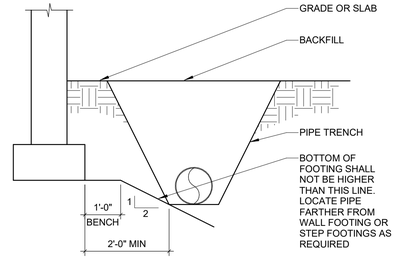
2 S501 TYP CORNER REINF DETAIL

1/2" = 1'-0"



3 S501 TYP STEPPED FOOTING DETAIL

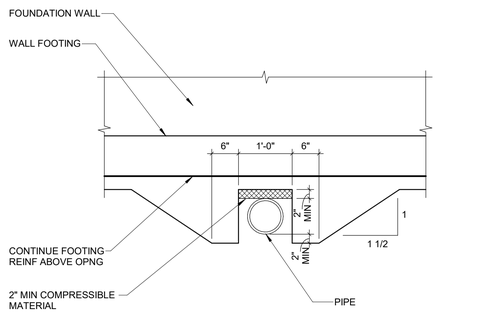
1/2" = 1'-0"



NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING, SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-IN UNTIL ALL BACKFILL IS COMPLETED

4 S501 TYP FTG PARALLEL TO PIPE

1/2" = 1'-0"



NOTES:

1. DETAIL APPLIES TO PIPES LESS THAN 3'-0" BELOW FOOTING. FOR PIPES MORE THAN 3'-0" BELOW FOOTING BUT LESS THAN 8'-0" PROVIDE LEAN CONCRETE FILL BELOW FOOTING DOWN TO PIPE INVERT ELEVATION.
2. PIPES DEEPER THAN 8'-0" BELOW FOOTING DO NOT REQUIRE LEAN CONCRETE FILL, PROVIDE TRENCH COMPACTED PER SPEC REQUIREMENTS.

5 S501 TYP FTG PERPENDICULAR TO PIPE

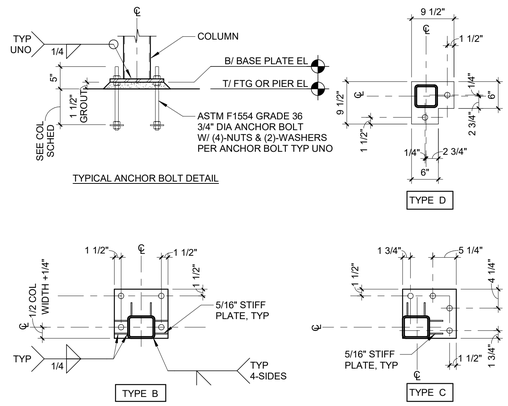
3/4" = 1'-0"

6 S501 NOT USED

1/2" = 1'-0"

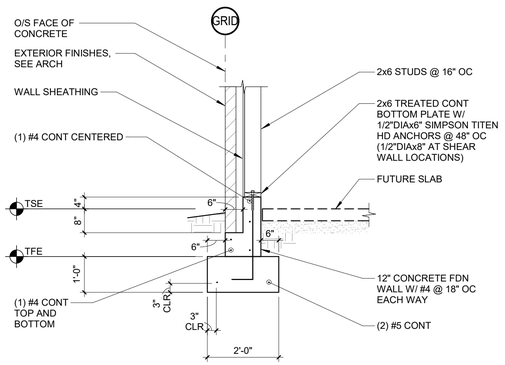
7 S501 NOT USED

3/4" = 1'-0"



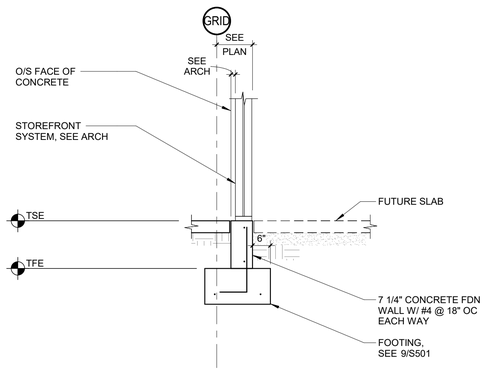
8 S501 BASE PLATE LAYOUT DETAIL

3/4" = 1'-0"



9 S501 FOUNDATION WALL DETAIL

1/2" = 1'-0"

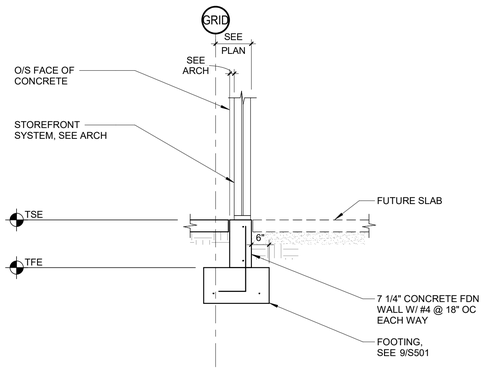


10 S501 FOUNDATION WALL DETAIL

1/2" = 1'-0"

11 S501 NOT USED

1/2" = 1'-0"



12 S501 ELECTRICAL GROUND DETAIL

1/2" = 1'-0"

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6/2/25

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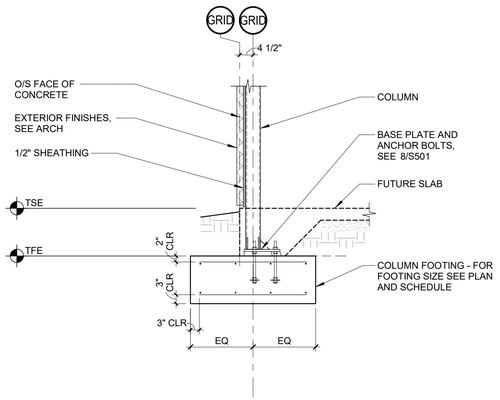
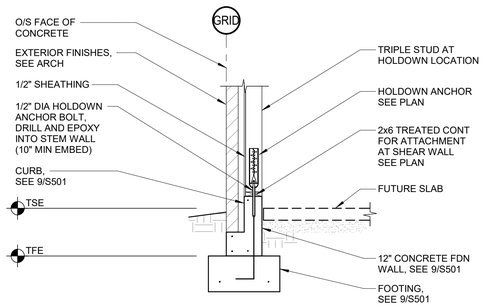


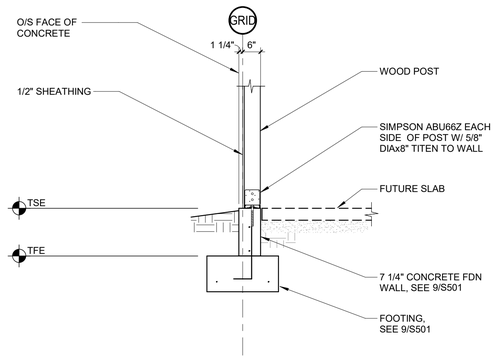
1 S502 EXTERIOR COLUMN DETAIL

1/2" = 1'-0"



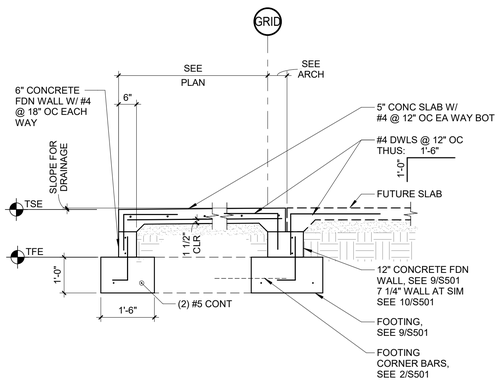
2 S502 HOLDOWN ANCHOR DETAIL

1/2" = 1'-0"



3 S502 FOUNDATION WALL DETAIL

1/2" = 1'-0"



4 S502 STOOP FOUNDATION DETAIL

1/2" = 1'-0"

5 S502 FOUNDATION WALL DETAIL

1/2" = 1'-0"

6 S502 FOUNDATION WALL DETAIL

1/2" = 1'-0"

7 S502 FOUNDATION WALL DETAIL

1/2" = 1'-0"

8 S502 EXTERIOR POST DETAIL

1/2" = 1'-0"

9 S502 WOOD POST PLAN DETAIL

1" = 1'-0"

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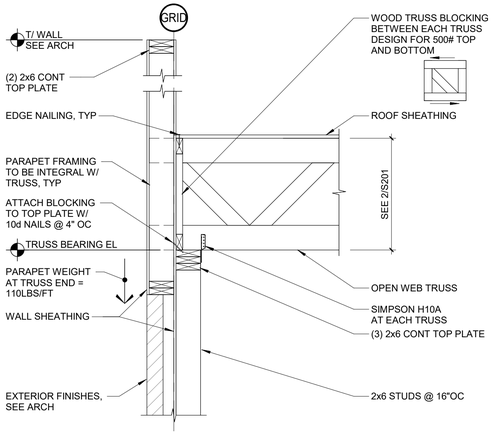
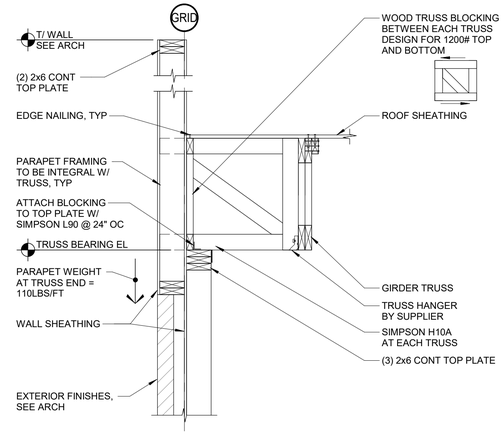
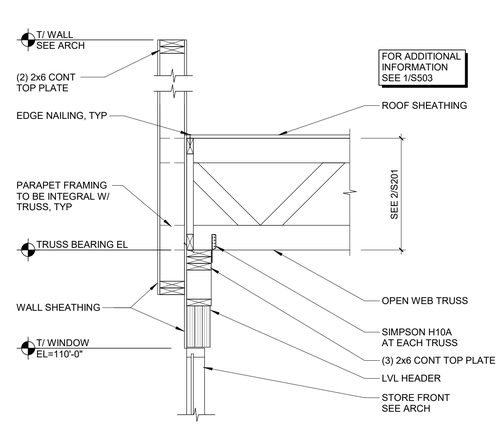


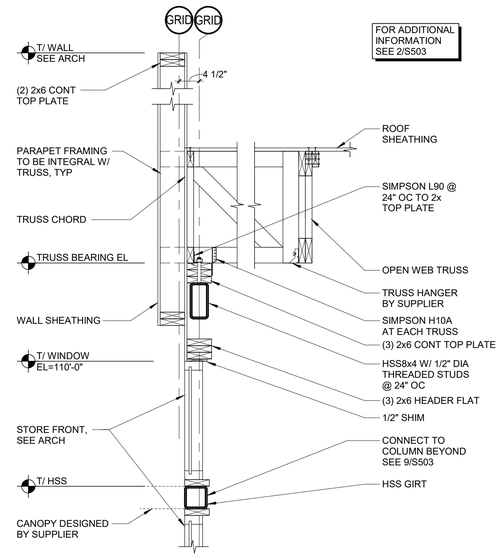
1 S503 TRUSS BEARING DETAIL
3/4" = 1'-0"



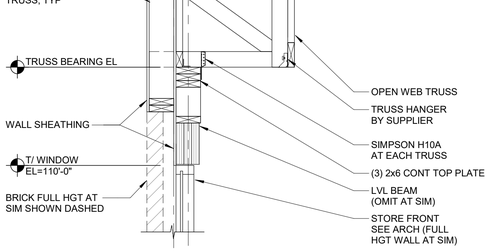
2 S503 TRUSS BEARING DETAIL
3/4" = 1'-0"



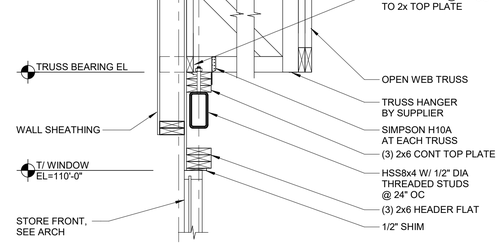
3 S503 TRUSS BEARING DETAIL
3/4" = 1'-0"



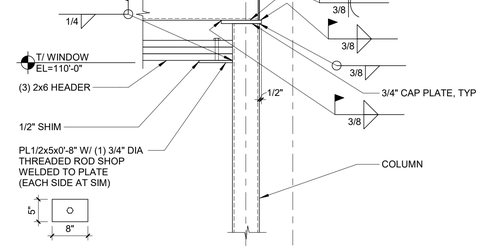
4 S503 STEEL FRAME DETAIL
3/4" = 1'-0"



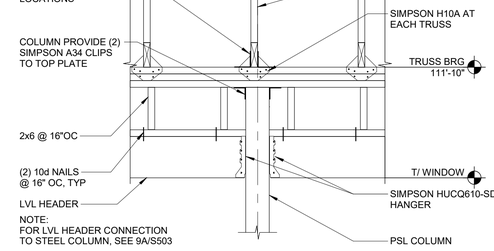
5 S503 TRUSS BEARING DETAIL
3/4" = 1'-0"



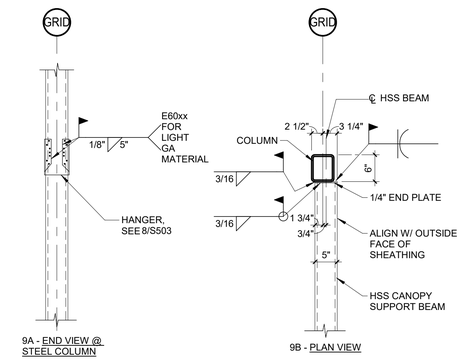
6 S503 STEEL FRAME DETAIL
3/4" = 1'-0"



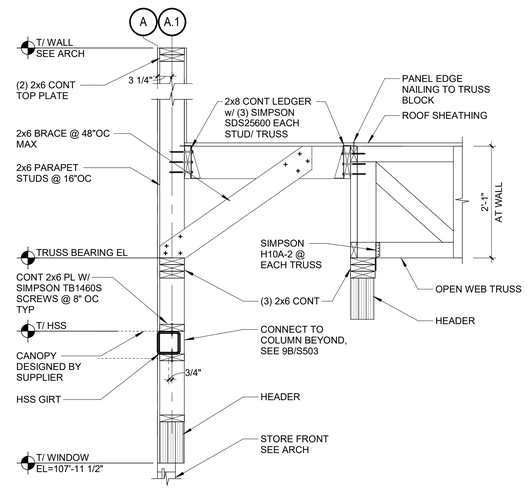
7 S503 STEEL FRAME DETAIL
3/4" = 1'-0"



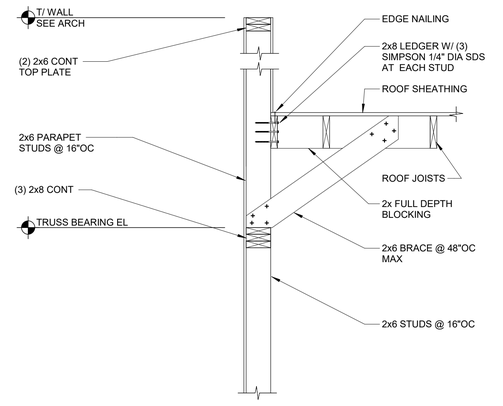
8 S503 TRUSS BEARING DETAIL
3/4" = 1'-0"



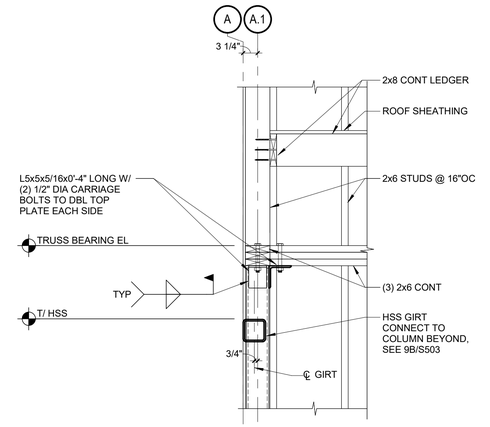
9 S503 COLUMN CONNECTION DETAIL
3/4" = 1'-0"



10 S503 JOIST BEARING DETAIL
3/4" = 1'-0"



11 S503 ROOF FRAMING DETAIL
3/4" = 1'-0"



12 S503 GIRT CONNECTION DETAIL
3/4" = 1'-0"

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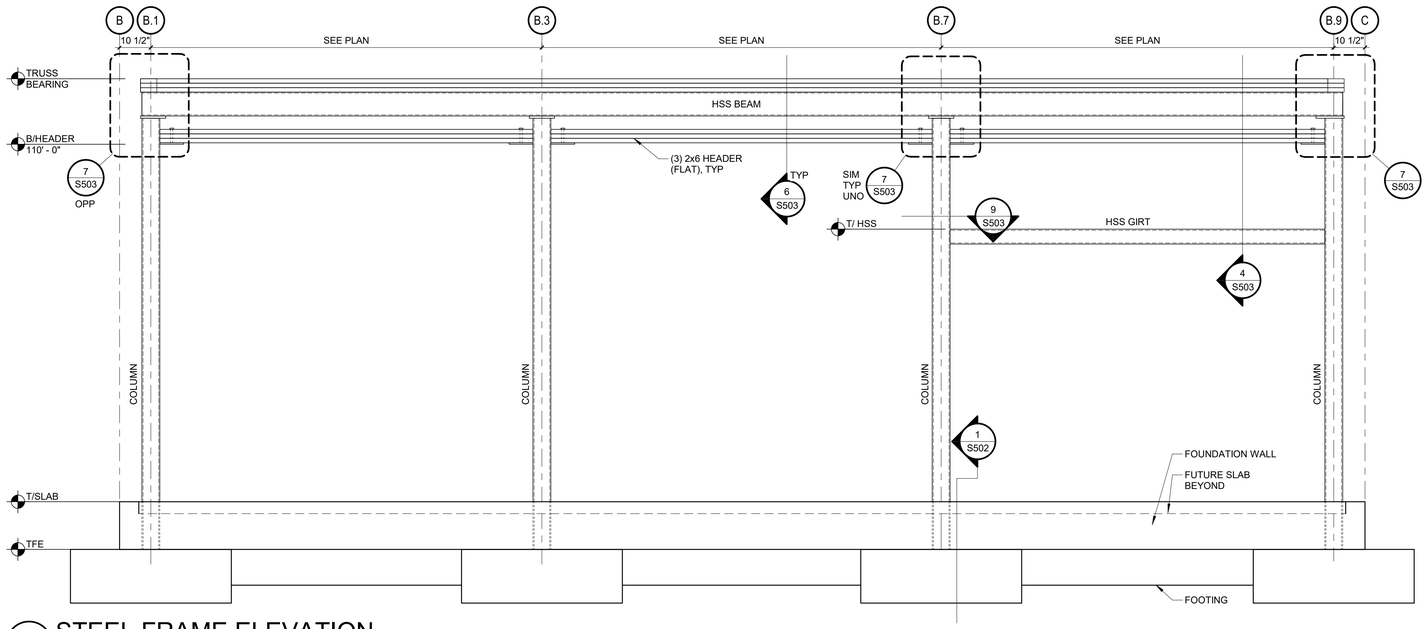
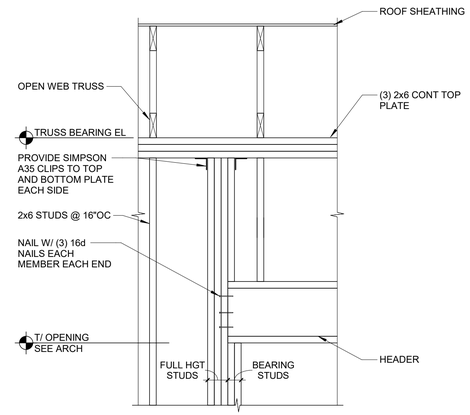


1 S504 STEEL FRAME ELEVATION

1/2" = 1'-0"



2 S504 TYPICAL DROPPED HEADER

3/4" = 1'-0"

STRAP TIE SCHEDULE		
"W"	STRAP TIE	FASTENERS
≤ 5 1/2"	SIMPSON RPS22	(16) 16d
≤ 12"	SIMPSON RPS28	(16) 16d

3 S504 STRAP TIE DETAIL AT NOTCHED PLATES

NO SCALE

4 S504 SHEAR WALL TOP PLATE SPLICE

NO SCALE

5 S504 ROOF FRAME DETAIL

3/4" = 1'-0"

6 S504 ROOF FRAME DETAIL

1" = 1'-0"

7 S504 TRUSS CHORD REINFORCING DETAIL

1" = 1'-0"

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SECTION 15055 - COMMON PIPING REQUIREMENTS
PART 1 - GENERAL
A. SECTION REQUIREMENTS
1. Comply with the requirements of the Building Code and the local authority having jurisdiction.
PART 2 - PRODUCTS
2.1 SUPPORTING DEVICES
A. Hanger and Pipe Attachments: Factory fabricated with galvanized coatings; nonmetallic coated for hangers in direct contact with copper tubing.
B. Building Attachments: Powder actuated type, drive pin attachments with pullout and shear capacities appropriate for supported loads and building materials; UL listing and FM approval for fire protection systems.
C. Mechanical Anchor Fasteners: Insert-type attachments with pullout and shear capacities appropriate for supported loads and building materials; UL listing and FM approval for fire protection systems.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install piping free of sags and bends.
B. Install fittings for changes in direction and branch connections.
C. Install sleeves for pipes passing through concrete and masonry walls, gypsum board partitions, and concrete floor and roof slabs.
D. Exterior Wall, Pipe Penetrations: Mechanical sleeve seals installed in steel or cast iron pipes for wall sleeves.
E. Fire Barrier Penetrations: Seal pipe penetrations with through-penetration firestop systems.
F. Install unions adjacent to each valve and at final connection to each piece of equipment.
G. Install dielectric unions and flanges to connect piping materials of dissimilar metals in gas piping.
H. Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals in water piping.
I. Provide full ring escutcheons at plumbing penetrations through walls or ceilings. Tightly seal escutcheons to the adjacent surface.
3.2 HANGERS AND SUPPORTS
A. Install building attachments within concrete or to structural steel. Install additional attachments at concentrated loads, including valves, flanges, guides, strainers, expansion joints, and at changes in direction of piping.
B. Install powder actuated drive pin fasteners in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.
C. Install mechanical anchor fasteners in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.
D. Support fire protection system piping independent of other piping.
E. Load Distribution: Install hangers and supports so piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
END OF SECTION 15055

SECTION 15080 - MECHANICAL INSULATION
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Quality Assurance: Labeled with maximum flame-spread rating of 25 and maximum smoke developed rating of 50 according to ASTM E 84.
PART 2 - PRODUCTS
2.1 PIPE INSULATION
A. Preformed Glass Fiber Pipe Insulation: ASTM C 547, Class 1, with factory applied, all purpose, vapor retarder jacket.
B. Polyolefin Pipe Insulation: Unicellular polyethylene, preformed pipe insulation. Comply with ASTM C 534, Type I, except for density.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install vapor barriers on insulated pipes with surface operating temperatures below 60 deg F.
B. Insulate fittings, valves, and specialties.
C. Seal vapor barrier penetrations for hangers, supports, anchors, and other projections.
D. Coat glass fiber pipe insulation ends with vapor barrier coating.
E. Roof Penetrations: Apply insulation for interior applications to a point even with the top of the roof flashing.
F. Exterior Wall Penetrations: For penetrations of below grade exterior walls, terminate insulation flush with mechanical sleeve seal.
G. Interior Walls and Partitions Penetrations: Apply insulation continuously through walls and partitions, except fire rated walls and partitions.
H. Fire Rated Walls and Partitions Penetrations: Terminate insulation at penetrations through fire rated walls and partitions. Seal around penetration with through penetration firestop systems.
I. Floor Penetrations: Terminate insulation at the underside of the floor assembly and at the floor support at top of floor. Seal around penetration with through penetration firestop systems.
J. Glass Fiber Insulation Installation: Bond insulation to pipe with adhesive. Seal seams and joints with vapor barrier compound.
K. Interior Piping System Applications: Insulate the following piping systems:
1. Domestic cold, hot, and recirculation water pipes.
2. Exposed sanitary drains and water supply pipes for public hand sinks.
3. Refrigerant piping.
L. Do not apply insulation to the following systems, materials, and equipment:
1. Flexible connectors.
2. Fire protection piping systems.
3. Sanitary drainage and vent piping.
4. Chrome plated pipes and fittings, except for plumbing fixtures for the disabled.
5. Piping specialties, including air chambers, unions, strainers, check valves, plug valves, and flow regulators.
M. Pipe Insulation Thickness Application Schedule: Insulate piping with the following materials and thicknesses:
1. Domestic Hot and Recirculation water pipes: 1-inch preformed glass fiber pipe insulation.
2. Domestic Cold Water: 1/2-inch preformed glass fiber pipe insulation.
3. P-Trap and Fixture Supplies for public hand sinks: ADA-compliant pre-formed insulation.
END OF SECTION 15080

SECTION 15110 - VALVES
PART 1 - GENERAL (Not Applicable)
PART 2 - PRODUCTS
2.1 GENERAL DUTY VALVES
A. End Connections: Threads shall comply with ANSI B1.20.1. Flanges shall comply with ANSI B16.1 for cast iron valves and ANSI B16.24 for bronze valves. Solder-joint connections shall comply with ANSI B16.18.
B. Ball Valves: Rated for 150 psig saturated steam pressure, 400 psig WOG pressure; 2 piece construction; with bronze body, standard (or regular) port, chrome plated brass ball, replaceable "Teflon" or "TFE" seats and seals, blowout proof stem, and vinyl covered steel handle.
C. Plug Valves: Rated at 150 psig WOG; bronze body, with straightaway pattern, square head, and threaded ends.
D. Swing Check Valves: Class 125, cast bronze body and cap; with horizontal swing, Y-pattern, and bronze disc.
E. Valves for Copper Tube: Solder ends, except provide threaded ends for heating hot water and low pressure steam service.
F. Valves for Steel Pipe: Threaded ends.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Use gate and ball valves for shutoff duty and ball for throttling duty.
B. Locate valves for easy access and provide separate support where necessary.
C. Install accessible valves for each fixture and item of equipment.
D. Install valves in horizontal piping with stem at or above center of pipe.
E. Install valves in a position to allow full stem movement.
F. Install check valves for proper direction of flow in horizontal position with hinge pin level.
END OF SECTION 15110

SECTION 15140 - DOMESTIC WATER PIPING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Performance Requirements: Unless otherwise indicated minimum pressure requirements for water piping are as follows:
1. Service Entrance Piping: 100 psig.
2. Domestic Water Piping: 80 psig.
B. Comply with NSF 14 "Plastic Piping Components and Materials."
C. Comply with NSF 61 "Drinking Water System Components -- Health Effects."
PART 2 - PRODUCTS
2.1 PIPES AND TUBES (See Material Schedule on sheet P010 for where these materials are to be used)
A. Hard Copper Tube: ASTM B 88, Types L and M, water tube, drawn temper.
2.2 FITTINGS
A. Wrought Copper, Solder Joint Pressure Fittings: ASME B 16.22.
B. Cast Copper Alloy, Solder Joint Pressure Fittings: ASME B 16.18.
C. Bronze Flanges: ASME B 16.24, Classes 150 and 300.
D. Copper Unions: ASME B 16.18, cast copper alloy body, hexagonal stock, with ball and socket joint, metal to metal seating surfaces, and solder joint, threaded, or solder joint and threaded ends. Threads complying with ASME B 1.20.1.
E. Copper and Copper Alloy Press-Connect Pressure FittingsCopper Press Fittings: ASME B16.51
2.3 JOINING MATERIALS
A. Solder Filler Metal: ASTM B 32, lead free.
B. Brazing Filler Metals: AWS A5.8, alloys to suit system requirements.
C. Solvent Cements: As recommended by manufacturer.
D. Plastic Pipe Seals: ASTM F 477, elastomeric gasket.
PART 3 - EXECUTION
3.1 VALVE APPLICATIONS
A. Install gate valves close to main on each branch and riser serving two or more plumbing fixtures or equipment connections and where indicated.
B. Install gate or ball valves on inlet to each plumbing equipment item, on each supply to each plumbing fixture not having stops on supplies, and elsewhere as indicated.
C. Install drain valve at base of each riser, at low points of horizontal runs, and where required to drain water distribution piping system.
D. Install swing check valve on discharge side of each pump and elsewhere as indicated.
E. Install ball valves in each hot water circulating loop and discharge side of each pump.
3.2 PIPING INSTALLATIONS
A. Install hangers and supports at intervals indicated in the applicable plumbing code and as recommended by pipe manufacturer.
B. Support vertical piping at each floor.
3.3 INSPECTING AND CLEANING
A. Inspect and test piping systems following procedures of authorities having jurisdiction.
B. Clean and disinfect water distribution piping following procedures of authorities having jurisdiction.
END OF SECTION 15140

SECTION 15150 - SANITARY WASTE AND VENT PIPING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Minimum Pressure Requirement for Soil, Waste and Vent: 10 feet head.
B. Comply with NSF 14 "Plastic Piping Components and Related Materials".
PART 2 - PRODUCTS
2.1 PIPES AND TUBES
A. PVC Plastic, DWV Pipe: ASTM D 2665, Schedule 40, plain ends.
2.2 FITTINGS
A. PVC Plastic, DWV Pipe Fittings: ASTM D 2665, made to ASTM D 3311; socket type; drain, waste, and vent pipe patterns.
PART 3 - EXECUTION
3.1 PIPING INSTALLATION
A. Install cleanout and extension to grade at connection of building sanitary drain and building sanitary sewer.
B. Locate drainage piping runouts as close as possible to bottom of floor slab supporting fixtures or drains.
3.2 INSPECTION
A. Inspect and test piping systems following procedures of authorities having jurisdiction.
END OF SECTION 15150

SECTION 15198 - PROPANE GAS PIPING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Quality Assurance: Comply with NFPA 54 and the Plumbing Code.
PART 2 - PRODUCTS
2.1 PIPE, TUBE, AND SPECIALTIES
A. Steel Pipe: ASTM A 53, Type S (Seamless), Grade B, Schedule 40, plain ends.
B. Fittings:
a. Malleable Iron Threaded Fittings: ASME B16.3, Class 150.
b. Cold Press Mechanical Joint Fitting System: Viega MegaPress
C. Manual Valves: Comply with standards listed or, if appropriate, to ANSI Z21.15.
D. Gas Stops: AGA certified, bronze-body, plug type with bronze plug, for 2-psig or less natural gas. Include AGA stamp, flat or square head or lever handle, and threaded ends complying with ASME B1.20.1.
E. Gas Valves: 150-psig WOG, cast-iron or bronze body, bronze plug, straightaway pattern, square head, tapered-plug type.
F. Gas Pressure Regulators: ANSI Z21.18, single stage, steel jacketed, corrosion resistant pressure regulators. Include atmospheric vent, elevation compensator. Regulator pressure ratings, inlet and outlet pressures, and flow volume in cubic feet per hour of natural gas at specific gravity are as indicated.
G. Line Gas Pressure Regulators: Inlet pressure rating not less than system pressure.
H. Flexible Connectors: ANSI Z21.24, copper alloy.
I. Strainers: Bronze body, Y-pattern, full size of connecting piping. Include stainless-steel screens with 3/64 inch perforations and a pressure rating of 125-psig- minimum, WOG working pressure.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Close equipment shutoff valves before turning off gas to premises or section of piping. Perform leakage test as specified to determine that all equipment is turned off in affected piping section.
B. Install shutoff valve, downstream from gas meter, outside building at gas service entrance.
C. Install gas stops for shutoff to appliances with NPS 2" or smaller low pressure gas supply.
D. Drips and Sediment Traps: Install drips at points where condensate may collect. Include outlets of gas meters. Locate where readily accessible to permit cleaning and emptying. Do not install where condensate would be subject to freezing.
E. Install gas piping at uniform slope of 0.1 percent upward toward risers.
F. Connect branch piping from top or side of horizontal piping.
G. Install strainers on supply side of each control valve, gas pressure regulator, solenoid valve, and elsewhere as indicated.
H. Install valves in accessible locations, protected from damage.
I. Install gas valve upstream from each gas pressure regulator. Where two gas-pressure regulators are installed in series, valve is not required at second regulator.
J. Connect gas piping to equipment and appliances with shutoff valves and unions. Install gas valve upstream from and within 36 inches of each appliance using gas. Install union or flanged connection downstream from valve.
K. Inspect, test, and purge piping according to NFPA 54, Part 4, "Gas Piping Inspection, Testing, and Purging", and requirements of authorities having jurisdiction.
END OF SECTION 15198

PLUMBING SYMBOLS

- ELBOW UP
- ELBOW DOWN
- DOMESTIC COLD WATER
- G — GAS
- G — GAS (ON ROOF)
- SANITARY WASTE
- GW — GREASE WASTE
- SANITARY VENT
- (X) — PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
- CONNECT TO EXISTING
- RPZ — REDUCED PRESSURE ZONE BACKFLOW PREVENTER
- WM — WATER METER
- GM — GAS METER
- XX-# — EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET P600 FOR EQUIPMENT INFORMATION
- VALVE
- CLEANOUT

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
(E)	EXISTING
EXT'G	EXISTING
FCO	FLOOR CLEANOUT
GCO	GRADE CLEANOUT
GC	GENERAL CONTRACTOR

PLUMBING GENERAL NOTES

A GENERAL NOTES APPLY TO PLUMBING SHEETS.
B PLUMBING WORK SHALL BE DONE IN ACCORDANCE WITH THE PLUMBING CODE, LOCAL HEALTH DEPARTMENT STANDARDS, AND THE AUTHORITY HAVING JURISDICTION. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
C PIPING LAYOUTS ON DRAWINGS ARE SCHEMATIC. EXACT LOCATIONS ARE TO BE COORDINATED WITH THE EXISTING CONDITIONS AND THE WORK OF OTHER TRADES.
D CONCEAL PIPING UNLESS NOTED OTHERWISE. WATER SUPPLY PIPES SHALL BE INSTALLED LEVEL.
E PIPING IN EXTERIOR WALLS SHALL BE INSTALLED BETWEEN THE INSULATION AND THE INTERIOR WALL FINISHING MATERIAL.
F PLUMBING FIXTURES, ACCESSORIES, AND MATERIALS PROVIDED FOR DOMESTIC WATER SHALL BE LEAD FREE.
G THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
H PRIOR TO CONNECTION TO ANY EXISTING SEWER SYSTEM PERFORM A DIE TEST TO VERIFY THE TYPE OF SYSTEM AND THE DIRECTION OF FLOW. REPORT ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS TO THE TENANT'S CONSTRUCTION MANAGER.
I PROVIDE SANITARY AND GREASE WASTE PIPES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.

PLUMBING MATERIAL SCHEDULE

CATEGORY	APPLICATION	ALLOWABLE MATERIAL
WATER SUPPLY PIPE	ABOVE GRADE	TYPE L COPPER TUBE
PROPANE	CONCEALED	SCH. 40 STEEL PIPE, MALLEABLE IRON THREADED FITTINGS
	EXPOSED	SCH. 40 STEEL PIPE, MALLEABLE IRON THREADED FITTINGS, PAINTED
SANITARY WASTE & VENT PIPE	ABOVE GROUND, CONCEALED	PVC PLASTIC DWV PIPE AND FITTINGS
	BELOW GROUND	PVC PLASTIC DWV PIPE AND FITTINGS

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Contents:
PLUMBING SPECIFICATIONS

P010

PLUMBING SUPPLY PLAN NOTES

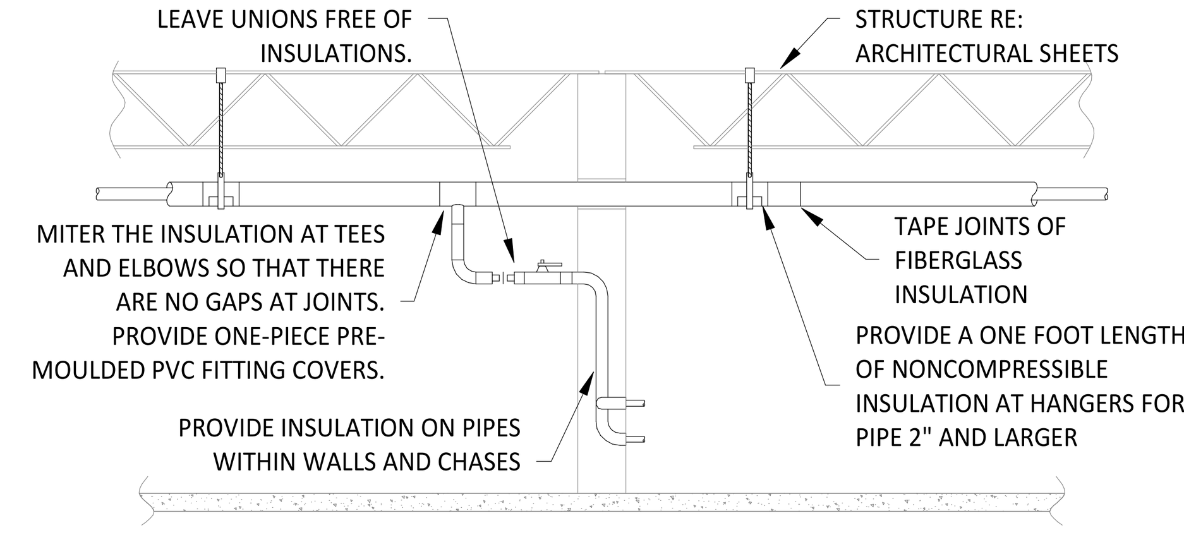
1 SEE CIVIL UTILITY PLANS FOR CONTINUATION OF WATER LINE AND METER/BFP LOCATIONS.
2 PROVIDE 1-1/2" WATER PIPE STUBBED INTO THE SPACE AT 11'-0" AFF. CAP LINE WITH A 1-1/2" VALVE FOR TENANT'S FUTURE CONNECTION.
3 PROVIDE A PROPANE LINE FROM THE GAS METER THROUGH THE EXTERIOR WALL PER DETAIL 2/THIS SHEET. SEE INTERIOR PLUMBING PLANS FOR CONTINUATION OF PROPANE LINE. SIZE PROPANE LINE PER TENANTS CONSTRUCTION PLANS.
4 PROVIDE A 4" GREASE WASTE LINE WITH A MINIMUM 48" INVERT ELEVATION STUBBED INTO THE BUILDING AS SHOWN. TERMINATE WITH A FLOOR CLEANOUT WITHIN SPACE AS SHOWN.
5 SEE CIVIL UTILITY PLANS FOR CONTINUATION OF SEWER LINE.
6 PROVIDE A 4" SANITARY SEWER LINE WITH A MINIMUM 48" INVERT ELEVATION STUBBED INTO THE BUILDING AS SHOWN. TERMINATE WITH A FLOOR CLEANOUT WITHIN SPACE AS SHOWN.
7 PROVIDE 3" STORM DRAIN CONDUCTOR FROM PRIMARY ROOF DRAIN RD-1 DOWN IN WALL TO 4" STORM DRAIN BELOW GRADE. INTERIOR HORIZONTAL STORM DRAIN CONDUCTORS SHALL BE SLOPED A MINIMUM OF 1/2" PER FOOT.
8 PROVIDE 3" STORM DRAIN CONDUCTOR FROM SECONDARY ROOF DRAIN RD-2 TO DOWNSPOUT NOZZLE DN-1 MOUNTED AT 24" AFG. INTERIOR HORIZONTAL STORM DRAIN CONDUCTORS SHALL BE SLOPED A MINIMUM OF 1/2" PER FOOT.
9 PROVIDE A 2" SEWER VENT TIGHT TO THE EXTERIOR WALL FROM THE GREASE INTERCEPTOR TO THE BUILDING AS SHOWN.
10 SEE CIVIL UTILITY PLAN FOR CONTINUATION OF 4" STORM SEWER.
11 PROVIDE WALL HYDRANT AS SHOWN. PROVIDE 1/2" DOMESTIC WATER FROM WALL HYDRANT UP ON INSIDE FACE OF EXTERIOR WALL TO 11'-0" AFF FOR FUTURE CONNECTION BY TENANT.
12 PROVIDE PROOF OF DELIVERY PRESSURE (GUAGE) 60 PSI MINIMUM AT 45 GPM. PROVIDE BOOSTER PUMP IF 60 PSI WATER SERVICE CAN NOT BE PROVIDED.
13 PROPANE DELIVERY PRESSURE AFTER THE METER SHALL BE 11" W.C. PER TENANT'S WORK LETTER. PROVIDE A PROPANE REGULATOR IF PROPANE COMPANY CANNOT SUPPLY A DELIVERY PRESSURE OF 7" W.C. TO THE BUILDING. COORDINATE A MUTUTALLY AGREEABLE LOCATION FOR THE PROPANE PRESSURE REGULATOR WITH CHIPOTLE'S CONSTRUCTION MANAGER.
14 PROVIDE A 1,600 MBH PROPANE SERVICE TO A NEW PROPANE METER ON THE EXTERIOR WALL OF THE BUILDING AT THE LOCATION SHOWN. REFER TO CIVIL DRAWINGS FOR CONTINUATION OF THE PROPANE LINE TO THEPROPANE TANK.

ROOF DRAIN CONDUCTOR SIZING CALCULATIONS - CODE REFERENCES NORTH CAROLINA PLUMBING CODE 2018 (IPC 2015 WITH AMENDMENTS)

DESCRIPTION	Total	Units
Roof Area Total	2188	ft^2
Parapet Area Total	956	ft^2
Per Section 1106.4 (Parapet Area / 2) =	478	ft^2
Project Roof Area = (Parapet Area / 2) + (Roof Area) =	2666	ft^2
Project Roof Area / 2 (for two roof drains) =	1333	ft^2
Per 1106.1(a) Primary 100 Year, 1-Hour Rainfall For NC	4	in/Hour
Per 1106.1(b) Secondary 100 Year, 1-Hour Rainfall For NC	7.2	in/Hour
Per Table 1106.2(1) Primary Vertical Conductors and Leaders Pipe Sizing	3	in
Per Table 1106.2(1) Secondary Vertical Conductors and Leaders Pipe Sizing	3	in
Per Table 1106.3 Primary Horizontal Conductors and Leaders Pipe Sizing (1/8" Per Foot)	4	in
Per Table 1106.3 Primary Horizontal Conductors and Leaders Pipe Sizing (1/2" Per Foot)	3	in

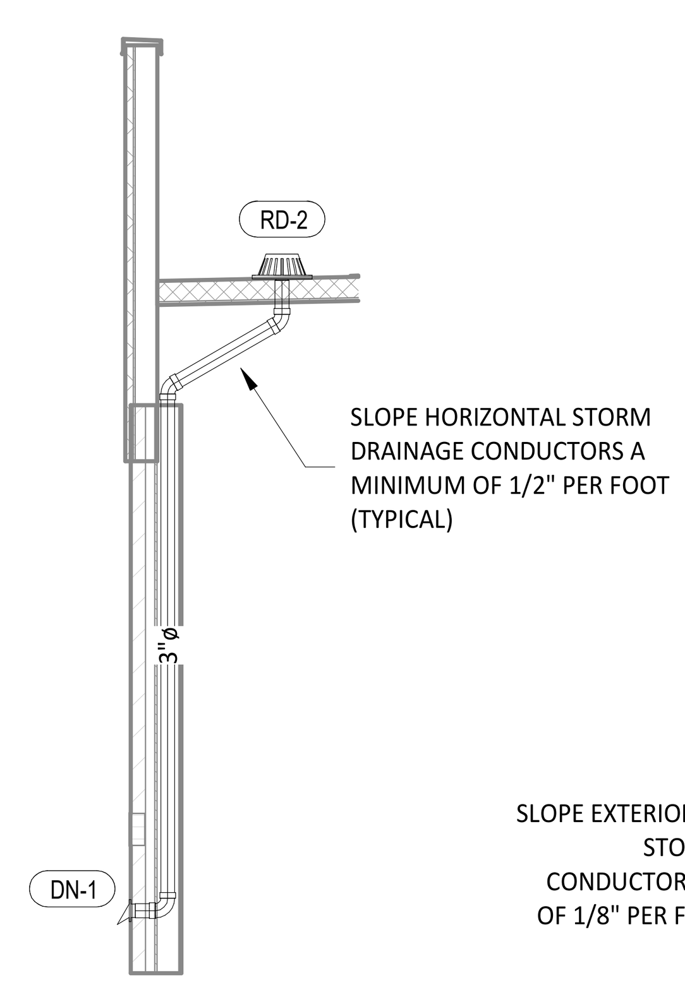
PLUMBING FIXTURE SCHEDULE (UPC)

TAG	FIXTURE	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL	DESCRIPTION	QUANTITY	CONNECTION SIZES CW	CONNECTION SIZES W
DN-1	DOWNSPOUT NOZZLE	GC	GC	WATTS	RD-950	STAINLESS STEEL DOWNSPOUT COVER WITH PERFORATED HINGED STRAINER	2		3"
RD-1	ROOF DRAIN	GC	GC	WATTS	RD-103	EPOXY COATED CAST IRON ROOF DRAIN WITH FLASHING CLAMP WITH INTEGRAL GRAVEL	2		3"
RD-2	ROOF DRAIN	GC	GC	WATTS	RD-103-W	EPOXY COATED CAST IRON OVERFLOW ROOF DRAIN WITH FLASHING CLAMP WITH INTEGRAL 4 IN. (102MM) HIGH INTERNAL STANDPIPE, SELF-LOCKING POLYTHYLENE DOME, AND NO HUB OUTLET	2		3"
WH-1	FROST PROOF WALL HYDRANT	GC	GC	WOODFORD	MODEL 65	AUTOMATIC DRAINING, FREEZELESS WALL HYDRANT WITH ANTI-SIPHON VACUUM BREAKER. PROVIDE WITH STEM LONG ENOUGH TO REACH INSIDE THE THERMAL ENVELOPE OF THE BUILDING.	2	3/4"	
							8		

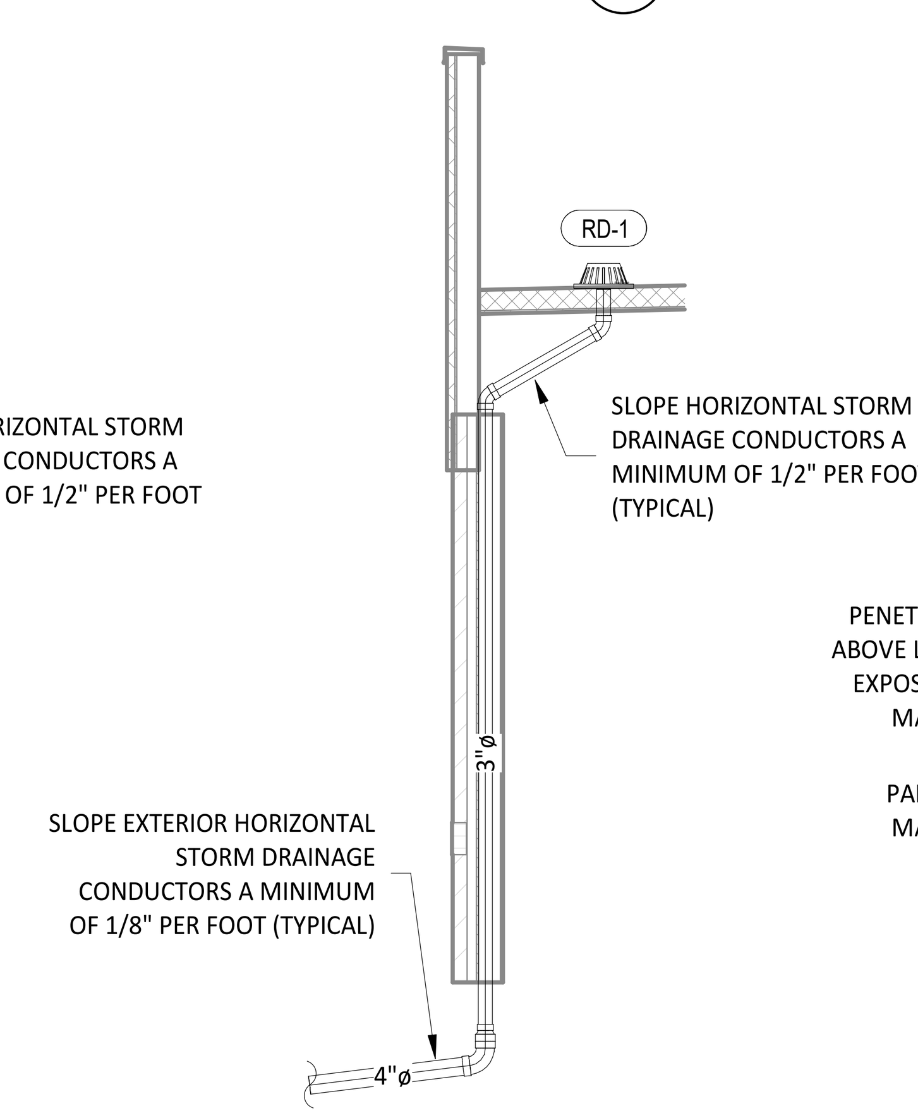


PROVIDE INSULATION ON INTERIOR COLD AND HOT WATER PIPING, CONDENSATE DRAIN PIPE, AND STORM PIPE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION REGARDING INSULATION. INSTALL ITEMS PER SPECIFICATIONS AND MANUFACTURER'S INSTRUCTIONS. MAINTAIN VAPOR BARRIER ON COLD WATER AND CONDENSATE PIPING BY MEANS OF SEALANT AND TAPE. FLAME SPREAD AND SMOKE-DEVELOPED INDEXES SHALL NOT EXCEED 25/50. SEAL EXPOSED ENDS OF FIBERGLASS INSULATION WITH ADHESIVE MASTIC. PROVIDE PREFORMED GLASS FIBER PIPE INSULATION WITH PRE-MOLDED PVC JACKETS, SLEEVES, AND FITTING COVERS ON EXPOSED WATER PIPE SO THAT EXPOSED WATER PIPE IS COVERED ENTIRELY WITH PVC INSULATION COVERS.

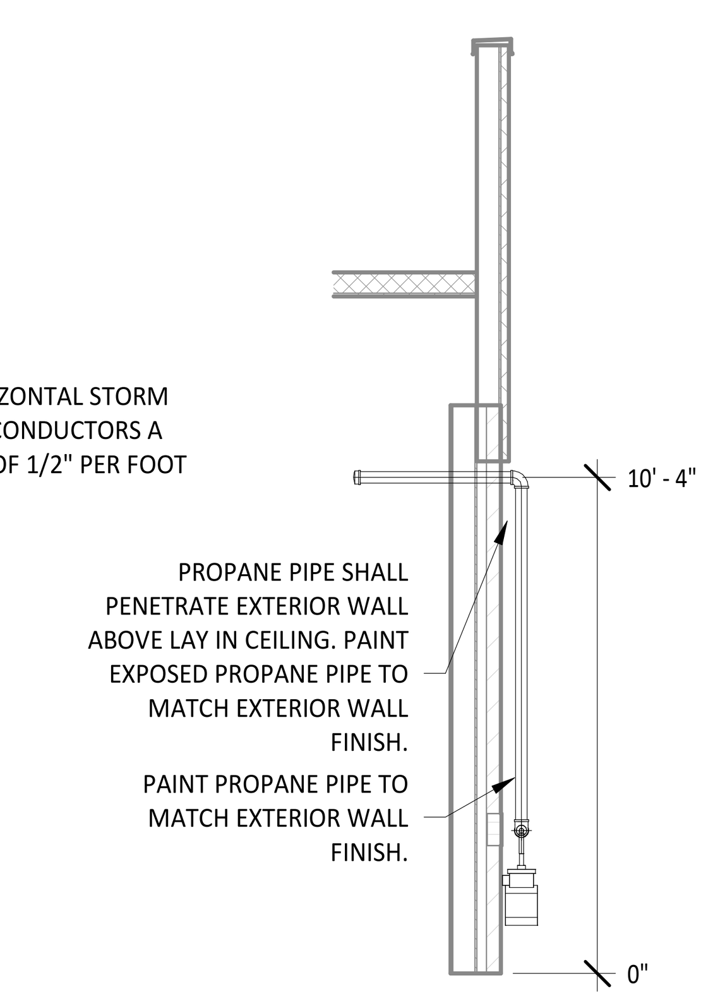
6 / P100 **PIPE INSULATION DETAIL**
N.T.S.



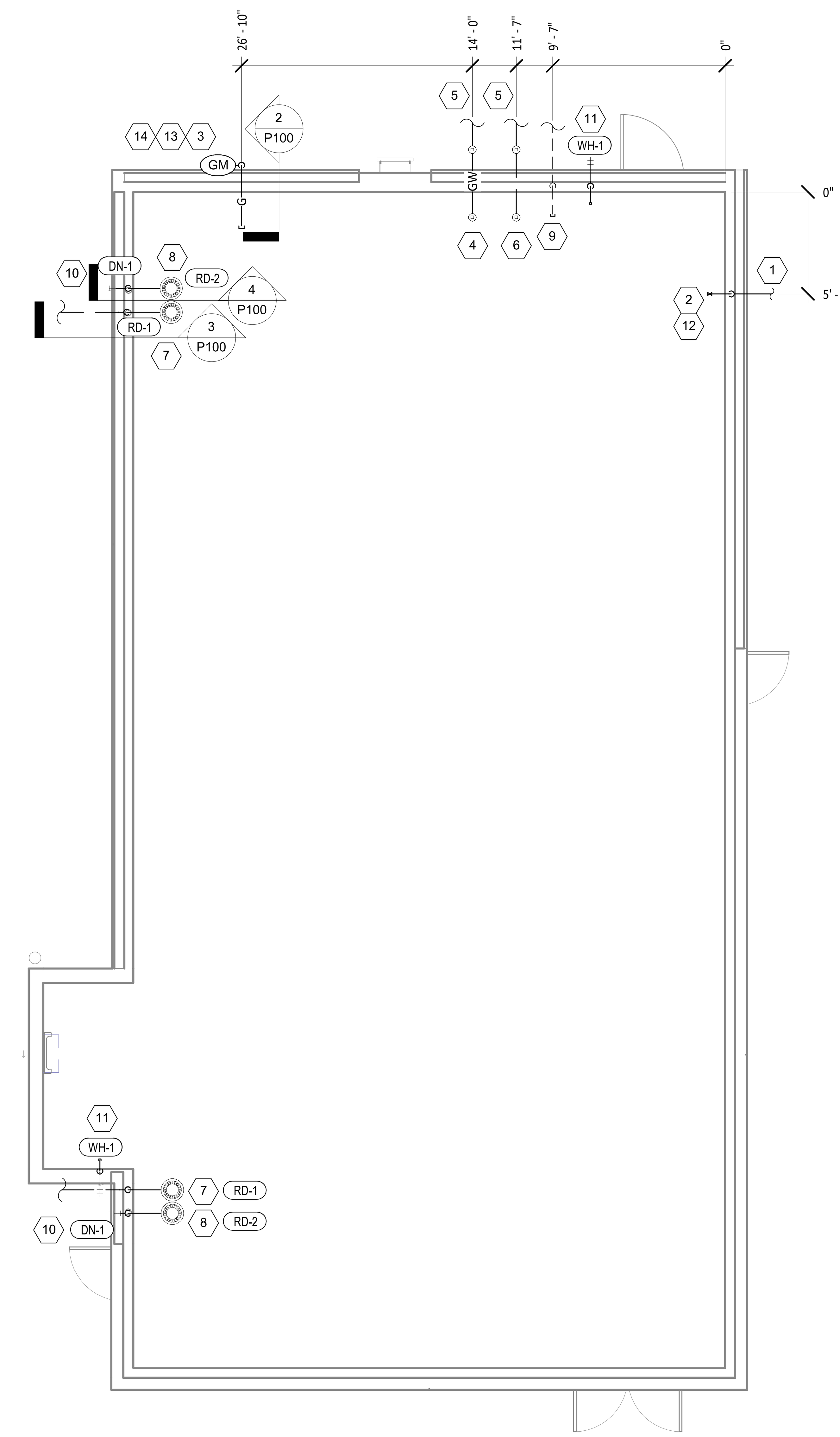
4 / P100 **OVERFLOW ROOF DRAIN SECTION**
1/4" = 1'-0"



3 / P100 **ROOF DRAIN SECTION**
1/4" = 1'-0"



2 / P100 **PROPANE METER SECTION**
1/4" = 1'-0"



1 / P100 **PLUMBING SUPPLY PLAN**
3/16" = 1'-0"

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Contents:
PLUMBING SITE PLAN

P100

SECTION 16011 TEMPORARY & PERMANENT ELECTRICAL SERVICE
PART 1 GENERAL
1.1 DEFINITIONS
A. GFCI: Ground fault current interrupter.
B. RMS: Root Mean Square
C. SPDT: Single Pole, Double Throw
1.2 USE CHARGES
A. General: Cost or use charges for temporary facilities are not chargeable to Tenant, Architect, or Engineer and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
1. Tenant's construction forces.
2. Occupants of Project.
3. Architect.
4. Engineer.
5. Testing agencies.
6. Personnel of authorities having jurisdiction.
B. Permanent Service: Coordinate with building Tenant and utility company to establish permanent service upon completion of the project. Contractor shall pay for all permits, aid-to-construction charges, and related fees associated with the new service.
1.3 NOTIFICATION
A. Coordinate with Tenant to provide 72 hour written notification to other tenants of any power interruptions. Notification shall state the estimated time and duration of the electrical outage.
1.4 QUALITY ASSURANCE
A. Standards: Comply with ANSI A10.6, NECA's 'Temporary Electrical Facilities," and NFPA 241.
1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
2. Electric Service: Comply with NECA, NEMA and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
3. Comply with OSHA standards and regulations.
PART 2 PRODUCTS
2.1 MATERIALS
A. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.
B. Power Distribution System Circuits: Where permitted and overhead and exposed for surveillance, wiring circuits, not exceeding 125-V ac, 20-A rating, and lighting circuits may be nonmetallic sheathed cable.
C. Main panelboard with disconnect.
D. Temporary lighting.
E. 120 volt receptacles with overcurrent protection.
F. Enclosures. NEMA AB 1 and NEMA KS 1 to meet environmental conditions of installed location.
1. Outdoor Locations: NEMA 250, Type 3R.
PART 3 EXECUTION
3.1 INSTALLATION
A. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, and overload-protected disconnecting means.
1. Install power distribution wiring overhead and rise vertically where least exposed to damage.
B. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.
1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
2. Provide metal conduit, tubing, or metallic cable for wiring exposed to possible damage. Provide rigid steel conduits for wiring exposed on grades, floors, decks, or other traffic areas.
3. Provide metal conduit enclosures or boxes for wiring devices.
4. Provide 4-gang outlets, spaced so 1 DO-foot (30-m) extension cord can reach each area for power hand tools and task lighting. Provide a separate 125-V ac, 20-A circuit for each outlet.
C. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations and traffic conditions.
1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
2. Provide one 100-W incandescent lamp (or equivalent) every 50 feet (15 m) in traffic areas.
3. Install exterior-yard site lighting that will provide adequate illumination for construction operations, parking and traffic conditions, and signage visibility when the Work is being performed.
END OF SECTION 16011

SECTION 16060 - GROUNDING AND BONDING
PART 1 - GENERAL
1.1 SUMMARY
A. This Section includes grounding of electrical systems and equipment. Grounding requirements specified in this Section may be supplemented by special requirements of systems described in other Sections.
1.2 QUALITY ASSURANCE
A. Testing Agency Qualifications: Testing agency as defined by OSHA in 29 CFR 1910.7 or a member company of the International Electrical Testing Association and that is acceptable to authorities having jurisdiction.
1. Testing Agency's Field Supervisor: Person currently certified by the International Electrical Testing Association to supervise on-site testing specified in Part 3.
B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
1. Comply with UL 467.
PART 2 - PRODUCTS
2.1 GROUNDING CONDUCTORS
A. For insulated conductors, comply with Division 16 Section "Wiring Methods."
B. Material: Copper.
C. Equipment Grounding Conductors: Insulated with green-colored insulation.
D. Grounding Electrode Conductors: Stranded cable.
E. Bare Copper Conductors: Comply with the following:
1. Solid Conductors: ASTM B 3.
2. Assembly of Stranded Conductors: ASTM B 8.
2.2 CONNECTOR PRODUCTS
A. Comply with IEEE 837 and UL 467; listed for use for specific types, sizes, and combinations of conductors and connected items.
PART 3 - EXECUTION
3.1 APPLICATION
A. Use only copper conductors.
B. In raceways, use insulated equipment grounding conductors.
C. Equipment Grounding Conductor Terminations: Use bolted pressure clamps.
D. Grounding Bus: Install in electrical and telephone equipment rooms, in rooms housing service equipment, and elsewhere as indicated.
1. Use insulated spacer; space 1 inch from wall and support from wall 6 inches above finished floor, unless otherwise indicated.
2. At doors, route the bus up to the top of the door frame, across the top of the doorway, and down to the specified height above the floor.
3.2 EQUIPMENT GROUNDING CONDUCTORS
A. Comply with NFPA 70, Article 250, for types, sizes, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by NFPA 70 are indicated.
3.3 INSTALLATION
A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
3.4 CONNECTIONS
A. General: Make connections so galvanic action or electrolysis possibility is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
B. Equipment Grounding Conductor Terminations: For No. 8 AWG and larger, use pressure-type grounding lugs. No. 10 AWG and smaller grounding conductors may be terminated with winged pressure-type connectors.
C. Tighten screws and bolts for grounding and bonding connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.
D. Compression-Type Connections: Use hydraulic compression tools to provide correct circumferential pressure for compression connectors. Use tools and dies recommended by connector manufacturer. Provide embossing die code or other standard method to make a visible indication that a connector has been adequately compressed on grounding conductor.
END OF SECTION 16060

SECTION 16100 - WIRING METHODS
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Summary: Building wire and cable and associated splices, connectors, and terminations for wiring systems rated 600 V and less, and twisted-pair cable; and raceways and boxes.
PART 2 - PRODUCTS
2.1 WIRES AND CABLES
A. Connectors and Splices: Wiring connectors of size, ampacity rating, material, and type and class for application and for service indicated.
2.2 RACEWAYS
A. Wireways: Screwed cover type, with manufacturers standard finish.
B. Outlet and Device Boxes: Sheet metal boxes, except use cast-metal boxes at exterior, interior exposed, and interior damp locations.
C. Pull and Junction Boxes: Sheet metal boxes, except use nonmetallic boxes with gasketed covers at exterior and interior damp locations.
2.3 ENCLOSURES
A. Hinged-Cover Enclosures: NEMA 250, steel enclosure with continuous hinge cover and flush latch. Finish inside and out with manufacturer's standard enamel.
B. Cabinets: NEMA 250, Type 1, unless otherwise indicated.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install wires and cables according to the NECA's "Standard of Installation.
B. Wiring at Outlets: Install with at least 12 inches of slack conductor at each outlet.
C. Conceal wiring, unless otherwise indicated, within finished walls, ceilings, and floors.
D. Boxes and Enclosures: In damp or wet locations use NEMA 250, Type 4, stainless steel.
E. Use raceway fittings compatible with raceway and suitable for use and location. For intermediate metal conduit, use threaded rigid steel conduit fittings, unless otherwise indicated.
F. Raceways Embedded in Slabs: Install in middle third of the slab thickness where practical, and leave at least 1 -inch concrete cover.
G. Install exposed raceways parallel to or at right angles to nearby surfaces or structural members, and follow the surface contours as much as practical.
H. Join raceways with fittings designed and approved for the purpose and make joints tight. Use bonding bushings or wedges at connections subject to vibration. Use bonding jumpers where joints cannot be made tight. Use insulating bushings to protect conductors.
I. Install pull wires in empty raceways. Use No. 14 AWG zinc-coated steel or monofilament plastic line having not less than 200-lb tensile strength. Leave not less than 18 inches of slack at each end of the pull wire.
J. Install raceway sealing fittings where required by the NEC and at wiring entrances to refrigerated spaces. Locate at suitable, approved, accessible locations and fill them with UL-listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces.
K. Stub-up Connections for Equipment: Extend conductors to equipment with rigid metal conduit; flexible metal conduit may be used 3 inches above the floor.
L. Install a separate green ground conductor in surface metal raceway from the junction box supplying the raceway to receptacle and fixture ground terminals.
3.2 IDENTIFICATION MATERIALS AND DEVICES
A. Install at locations for most convenient viewing without interference with operation and maintenance of equipment.
B. Coordinate names, abbreviations, colors, and other designations used for electrical identification with corresponding designations indicated in the Contract Documents or required by codes and standards. Use consistent designations throughout Project.
C. Identify raceways and cables with color banding as follows:
1. Bands: Pretensioned, snap-around, colored plastic sleeves or colored encircling conduit, and place adjacent bands of two-color markings in contact, side by side.
2. Band Locations: At changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
3. Colors: As follows:
a. Telecommunication System: Green and yellow.
D. Color-code System secondary service, feeder, and branch-circuit conductors throughout the secondary electrical system as follows:

		120/208V	277/480V
1.	Phase A:	Black	Brown
2.	Phase B:	Red	Orange
3.	Phase C:	Blue	Yellow
4.	Neutral:	White	Gray
5.	Ground:	Green	Green

END OF SECTION 16100

SECTION 16140 - WIRING DEVICES
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Comply with NEMA WD 1.
C. Comply with NFPA 70.
PART 2 - PRODUCTS
2.1 DEVICES
A. General: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
B. Color: Per Material Schedule on sheet E010.
C. Receptacles: Heavy- Duty grade, NEMA WD6, Configuration 5-20R unless otherwise indicated.
D. Ground-Fault Circuit Interrupter Receptacles: integral duplex receptacle; for installation in box without an adapter. Feed-through type, with a 2-3/4-inch- deep outlet
E. Isolated-Ground Receptacles: Equipment grounding contacts connected only to the green grounding screw terminal of the device with inherent electrical isolation from mounting strap.
F. Snap Switches: Heavy-duty, quiet type.
G. Wall Plate: Per Material Schedule on sheet E010.
H. Floor Service Fittings: Modular, above-floor, dual-service units suitable for wiring method used.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install devices and assemblies plumb and secure.
B. Mount devices flush with long dimension vertical unless otherwise indicated.
C. Protect devices and assemblies during painting.
D. Install wall plates when painting is complete and paint is cured.
END OF SECTION 16140

SECTION 16442 - PANELBOARDS
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Comply with NFPA 70.
C. Comply with NEMA PB 1.
PART 2 - PRODUCTS
2.1 PANELBOARDS AND LOAD CENTERS
A. Manufacturers: Subject to compliance with requirement, provide products by one of the following:
1. Panelboards, Overcurrent Protective Devices, Controllers, Contactors, and Accessories:
a. Square D Co.
b. Eaton Corp.; Cutler-Hammer Products.
c. General Electric Co.; Electrical Distribution & Control Div.
d. Siemens Energy & Automation.
B. Recessed, NEMA PB 1, Type 1.
1. Load Center Capacity: as shown on drawings.
2. Front: Secured to box with concealed trim clamps.
3. Doors: With concealed hinges, flush catches, and tumbler locks, all keyed alike.
4. Bus: Hard drawn copper of 98 percent conductivity.
C. Molded-Case Circuit Breakers: NEMA AB 1, plug-in type, Single-handle for multipole circuit breakers. Appropriate for application, including Type SWD for repetitive switching lighting loads and Type HACR for heating, air-conditioning, and refrigerating equipment.
D. Contactors: NEMA ICS 2, Class A combination contactors.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install panelboards and accessory items according to NEMA PB 1.1. Provide typed, permantently-mounted English and Spanish circuit directories showing the panel schedules as installed in each panelboard.
B. Mounting Heights: Top of trim 74 inches above finished floor, unless otherwise indicated.
C. Future Circuit Provisions at Flush Panel boards: Stub four empty 3/4-inch conduits from panelboard into accessible or designated ceiling space.
D. Wiring in Panelboard Gutters: Arrange conductors into groups, bundle and wrap with wire ties according to NEC guidelines.
E. Tighten electrical connectors and terminals, including grounding connections, according to manufacturer's published torque-tightening values. Where manufacturer's torque values are not indicated, use those specified in UL 486A.
F. Perform visual and mechanical inspections and electrical tests stated In NETA ATS.
END OF SECTION 16442

SECTION 16500 - LIGHTING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Fixtures, Emergency Lighting Units, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
C. Coordinate ceiling-mounted luminaires with ceiling construction, mechanical work, and security and fire-prevention features mounted In ceiling space and on ceiling.
PART 2 - PRODUCTS
2.1 FIXTURES AND FIXTURE COMPONENTS, GENERAL
A. Metal Parts: Free from burrs, sharp corners, and edges. Steel, unless otherwise indicated. Form and support to prevent warping and sagging.
B. Doors, Frames, and Other Internal Access: Smooth operating, free from light leakage under operating conditions, and arranged to permit re-lamping without use of tools. Arrange doors, frames, lenses, diffusers, and other pieces to prevent accidental falling during re-lamping and when secured in operating position.
C. Lenses, Diffusers, Covers, and Globes: 100 percent virgin acrylic plastic or annealed crystal glass, unless otherwise indicated.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Set units level, plumb, and square with ceiling and walls, and secure.
B. Support for Recessed and Semirecessed Grid-Type Fluorescent Fixtures: Install ceiling support system rods or wires at a minimum of 4 rods or wires for each fixture, located not more than 6 inches from fixture corners.
C. Support for Suspended Fixtures: Support according to manufacturers' recommendations.
D. Lamping: Where specific lamp designations are not indicated, lamp units according to manufacturer's written instructions.
END OF SECTION 16500

ELECTRICAL MATERIAL SCHEDULE

CATEGORY	APPLICATION	ALLOWABLE MATERIAL
CONDUCTORS	#10 AWG AND SMALLER	SOLID CU, TYPE THHN/THWN OR XHHW
	#8 AWG AND LARGER	STRANDED CU, TYPE THHN/THWN OR XHHW
CONDUITS	INDOOR, EXPOSED	ELECTRICAL METALLIC TUBING U.N.O.
	INDOOR, WITHIN 1-1/2" OF ROOF DECK	INTERMEDIATE METAL CONDUIT
	INDOOR, CONCEALED ABOVE GRADE	ELECTRICAL METALLIC TUBING, FLEXIBLE METAL CONDUIT, OR METAL CLAD CABLE
	CONNECTION TO VIBRATING EQUIPMENT (EXPOSED WET OR DAMP LOCATIONS)	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
	CONNECTION TO VIBRATING EQUIPMENT (EXPOSED INDOOR DRY LOCATIONS)	FLEXIBLE METAL CONDUIT
	OUTDOOR, ABOVE GRADE, EXPOSED OR CONCEALED	INTERMEDIATE METAL CONDUIT
	LOW VOLTAGE, INDOOR, ABOVE GRADE	ELECTRICAL METALLIC TUBING
	LOW OR LINE VOLTAGE, BELOW GRADE	RIGID NONMETALLIC CONDUIT (SCHEDULE 40 PVC)
WIRING DEVICES	IN KITCHEN, OFFICE, OR NON-PUBLIC SPACES	GRAY DEVICE WITH STAINLESS STEEL COVER PLATE
	IG OR IG/GFI RECEPTACLES	GRAY DEVICE WITH STAINLESS STEEL COVER PLATE
	ON DRYWALL IN DINING ROOM	WHITE DEVICE WITH WHITE COVER PLATE
	ON HOT ROLLED STEEL, RICHLITE, OR OTHER BLACK FINISHES	BLACK DEVICE WITH BLACK COVER PLATE
	IN RESTROOMS	WHITE DEVICE WITH WHITE COVER PLATE

ELECTRICAL SYMBOLS

- CONDUIT CONCEALED ABOVE THE CEILING, IN A WALL, OR IN A RACEWAY
- CONDUIT CONCEALED BELOW THE SLAB
- A-6 — HOME-RUN TO PANELBOARD AND CIRCUIT NUMBER SHOWN
- # — PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
- X/Y/Z — DISCONNECT SWITCH: X = SWITCH RATING; Y = FUSE SIZE (NF = NON-FUSED); Z = NUMBER OF POLES
- JUNCTION BOX
- ELECTRIC PANELBOARD
- NEMA 5-20R 1-PLEX RECEPTACLE
- NEMA 5-20R DUPLEX RECEPTACLE
- OTHER RECEPTACLE - SEE PLAN FOR RATING AND TYPE

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
(E)	EXISTING
EXT'G	EXISTING
G	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPT
IG	ISOLATED GROUND
JB	JUNCTION BOX
NL	NIGHT LIGHT
GC	GENERAL CONTRACTOR

ELECTRICAL GENERAL NOTES

A GENERAL NOTES APPLY TO ELECTRICAL SHEETS.
B ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE ELECTRICAL CODE AND IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
C WIRING SHALL BE (2)#12, #12 G IN 3/4" C UNLESS NOTED OTHERWISE.
D INDIVIDUAL CONDUIT HOME RUNS SHOWN SHALL NOT BE CONSOLIDATED.
E INSTALL CONDUIT CONCEALED ABOVE THE CEILING, IN WALLS, OR IN RACEWAYS.
F THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.

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ELECTRICAL SPECIFICATIONS

E010

SITE LIGHTING FIXTURE SCHEDULE

TAG	QUANTITY	NUM. OF FIXTURES PER POLE	LAMP WATTAGE & TYPE	VOLTAGE	DISTRIBUTION	COLOR	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL #	OPTIONS & ACCESSORIES	POLE TYPE	POLE SIZE	POLE HEIGHT	POLE COLOR	POLE MANUFACTURER	POLE MODEL #
PL1	2	1	(1) 168W LED	120 V	TYPE V	BLACK	GC	GC	HUBBELL	AIRO ASL2-320L-170-4K7-5QW-U	LAMP	SQUARE STRAIGHT STEEL	4"	20' - 0"	BLACK	HUBBELL	SSS-20-40-1
PL2	1	2	(1) 168W LED	120 V	TYPE V	BLACK	GC	GC	HUBBELL	AIRO ASL2-320L-170-4K7-5QW-U	LAMP	SQUARE STRAIGHT STEEL	4"	20' - 0"	BLACK	HUBBELL	SSS-20-40-1
PL3	2	1	(1) 168W LED	120 V	TYPE III	BLACK	GC	GC	HUBBELL	AIRO ASL2-320L-170-4K7-7-3-U	LAMP	SQUARE STRAIGHT STEEL	4"	20' - 0"	BLACK	HUBBELL	SSS-20-40-1

ELECTRICAL SITE LIGHTING PLAN NOTES

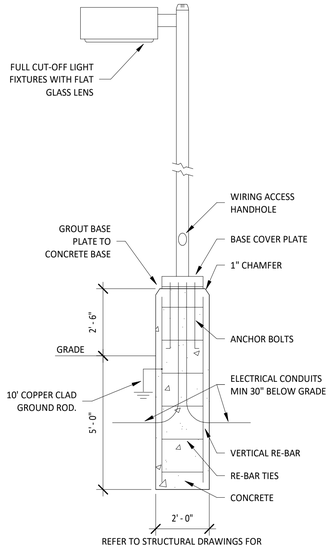
1. PROVIDE JUCTION BOX NEAR FUTURE ELECTRICAL PANEL FOR EXTERIOR BUILDING MOUNTED LIGHTING CONNECTION BY TENANT.
2. INSTALL LED DRIVERS FURNISHED WITH THE X9 LED STRIP LIGHTS ON WALL AT 12'-0" AFF IN AN ACCESSIBLE LOCATION. PROVIDE LOW VOLTAGE WIRING FROM LED DRIVER TO THE X9 LIGHT FIXTURES AS SHOWN.
3. PROVIDE LOW VOLTAGE WIRING FROM EXIT SIGN TO REMOTE EMERGENCY LIGHT CONSEALED FROM VIEW.
4. PROVIDE (2) #10, #10 G. IN 3/4" C FROM POLE LIGHT FIXTURES TO J-BOX WITHIN BUILDING.
5. PROVIDE SITE LIGHTING PER DETAIL 3/THIS SHEET. TYPICAL.

LIGHTING FIXTURE SCHEDULE

TAG	QUANTITY	TYPE	MOUNT	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL	LAMP(S)	VOLTS	WATTS	SPECIAL REQUIREMENTS
E2	4	EXTERIOR REMOTE EMERGENCY LIGHT	VARIOUS	GC	GC	EXITRONIX	MLED1-B-WP	(1) SPECIAL LED	4	1	LOW VOLTAGE REMOTE EMERGENCY LIGHT POWERED BY REMOTE-CAPABLE EXIT SIGN WITH MOUNTING PLATE
E4	4	WHITE EXIT SIGN WITH EMERGENCY LIGHT - STANDARD RED LETTERS	VARIOUS	GC	GC	EXITRONIX	CLED-U-WH	(1) SPECIAL LED	120	2	90 MINUTE BATTERY BACKUP WITH INTEGRAL EMERGENCY LIGHT, REMOTE HEAD CAPABLE
X6	4	EXTERIOR FLOOD LIGHT	SURFACE	GC	GC	RAB LIGHTING	WPLED10Y	INTEGRAL LED	120	10	PROVIDE WITH WALL-MOUNT KIT.
X9	2	LED CHANNEL LIGHT	SURFACE	GC	GC	PARADIGM LED	AMC-2410-S W/ OPAL LENS AND END CAPS	FLEXSR-45-30-67-24	120	47	FURNISHED W/ REMOTE-MOUNTED NEMA 3R LED DRIVER. SEE PLAN FOR LENGTHS.

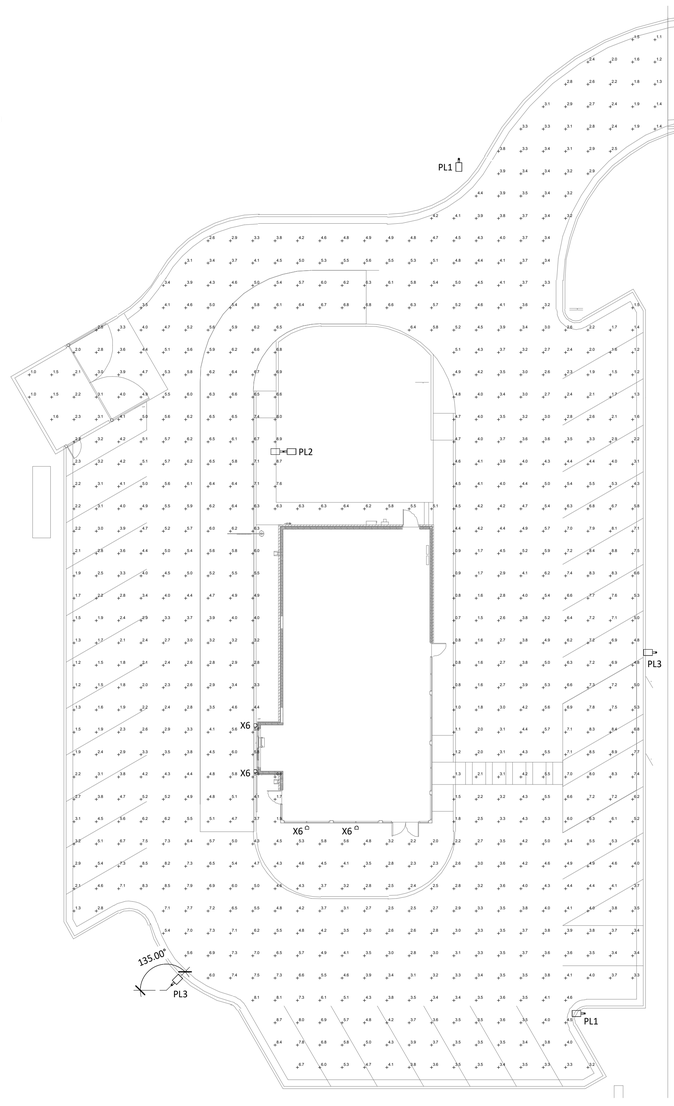
SITE LIGHTING INFORMATION:
AVERAGE: 4.3 FC
MAXIMUM: 8.9 FC
MINIMUM: 0.6 FC
MAX/MIN: 14.8:1
AVERAGE/MIN: 7.2:1

READINGS TAKEN AT FINISHED FLOOR.
VALUES CALCULATED USING VISUAL 2020

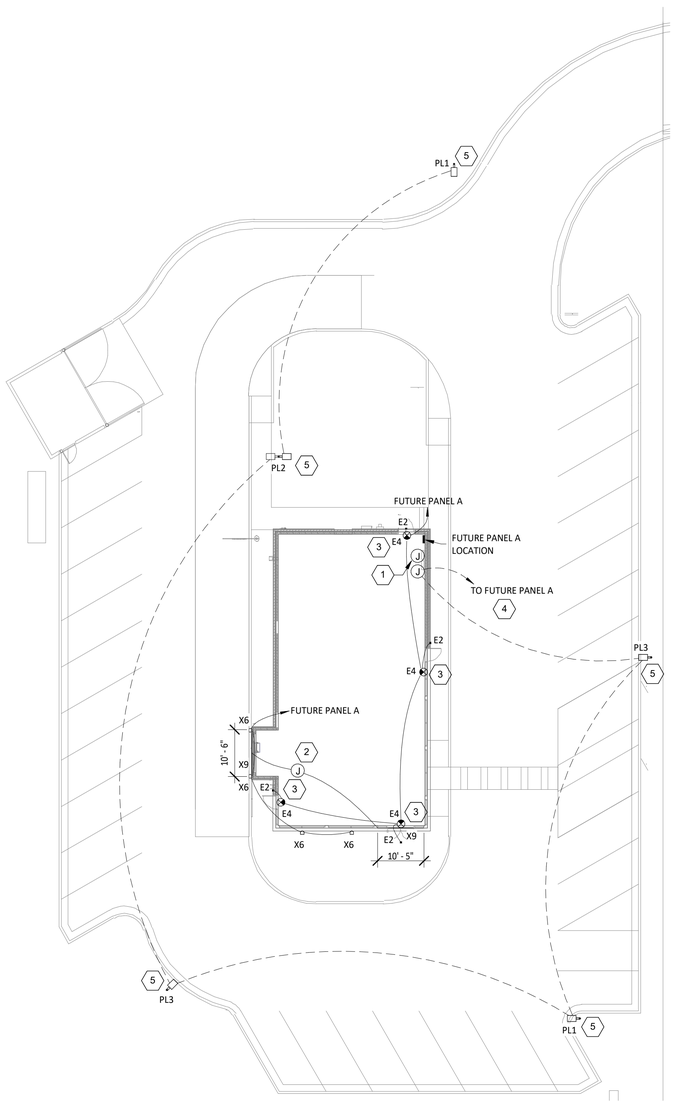


REFER TO STRUCTURAL DRAWINGS FOR EXACT LIGHT BASE DETAIL REQUIREMENTS.

3 / E105 **LIGHT BASE DETAIL**
3/8" = 1'-0"



2 / E105 **SITE PHOTOMETRIC PLAN**
1/16" = 1'-0"



1 / E105 **SITE LIGHTING PLAN**
1/16" = 1'-0"

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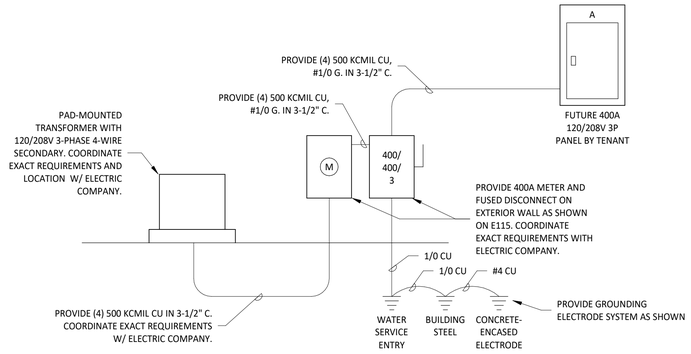
ELECTRICAL SITE LIGHTING PLAN

E105



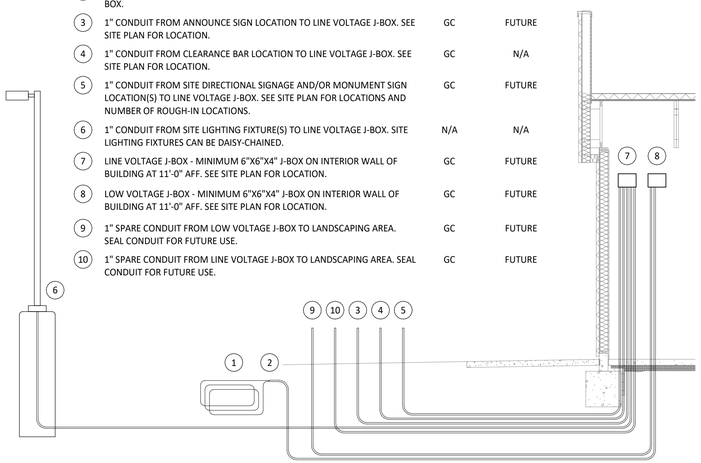
3 E115 **MAIN DISTRIBUTION DIAGRAM**

N.T.S.

TAG	DESCRIPTION	RESPONSIBILITY: DEVICE OR CONDUIT	RESPONSIBILITY: CONNECTION OR CONDUCTORS
1	VEHICLE DETECTOR LOOP - 6'x4' WITH 4 TURNS (EMX PR-46-XX). VERIFY LENGTH OF LEAD-IN WIRE PRIOR TO ORDERING TO ALLOW WIRE TO REACH VEHICLE DETECTOR WITHOUT SPLICING. SEE SITE PLAN FOR LOCATIONS.	FUTURE	FUTURE
2	1" CONDUIT FROM VEHICLE DETECTOR LOOP LOCATION TO LOW VOLTAGE J-BOX.	GC	FUTURE
3	1" CONDUIT FROM ANNOUNCE SIGN LOCATION TO LINE VOLTAGE J-BOX. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
4	1" CONDUIT FROM CLEARANCE BAR LOCATION TO LINE VOLTAGE J-BOX. SEE SITE PLAN FOR LOCATION.	GC	N/A
5	1" CONDUIT FROM SITE DIRECTIONAL SIGNAGE AND/OR MONUMENT SIGN LOCATION(S) TO LINE VOLTAGE J-BOX. SEE SITE PLAN FOR LOCATIONS AND NUMBER OF ROUGH-IN LOCATIONS.	GC	FUTURE
6	1" CONDUIT FROM SITE LIGHTING FIXTURE(S) TO LINE VOLTAGE J-BOX. SITE LIGHTING FIXTURES CAN BE DAISY-CHAINED.	N/A	N/A
7	LINE VOLTAGE J-BOX - MINIMUM 6"X6"X4" J-BOX ON INTERIOR WALL OF BUILDING AT 11'-0" AFF. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
8	LOW VOLTAGE J-BOX - MINIMUM 6"X6"X4" J-BOX ON INTERIOR WALL OF BUILDING AT 11'-0" AFF. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
9	1" SPARE CONDUIT FROM LOW VOLTAGE J-BOX TO LANDSCAPING AREA. SEAL CONDUIT FOR FUTURE USE.	GC	FUTURE
10	1" SPARE CONDUIT FROM LINE VOLTAGE J-BOX TO LANDSCAPING AREA. SEAL CONDUIT FOR FUTURE USE.	GC	FUTURE

GENERAL NOTES

A. WORK AND MATERIALS SHALL BE COMPLIANT WITH THE NEC AND REQUIREMENTS OF THE AHJ.
B. CONDUCTORS AND CONNECTIONS BELOW GRADE, EVEN WHERE WITHIN CONDUITS OR ENCLOSURES, SHALL BE SUITABLE FOR WET LOCATIONS.
C. PROVIDE PULL STRING IN EMPTY CONDUITS.
D. SEAL ENDS OF CONDUITS STUBBED UP ABOVE GRADE TO PROTECT FROM THE ELEMENTS.

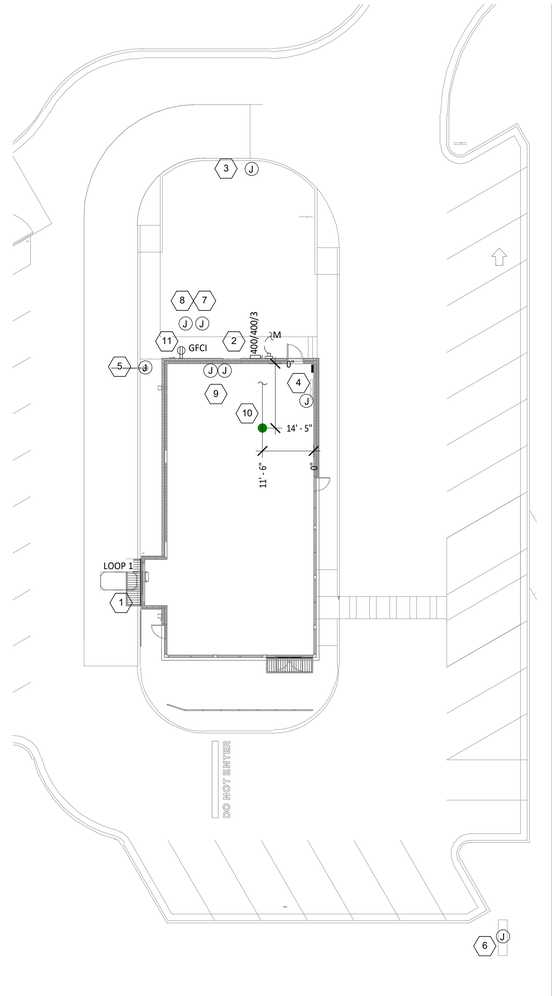


2 E115 **SITE CONDUIT DETAIL**

N.T.S.

ELECTRICAL POWER PLAN NOTES

1 PROVIDE A 1" CONDUIT FOR THE VEHICLE DETECTION LOOP AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE VEHICLE DETECTION LOOP.
2 PROVIDE A 400A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL SERVICE TO THE 400A CT METER CABINET AND THE 400A MAIN DISCONNECT SWITCH PER DETAIL 3/THIS SHEET. SEE CIVIL DRAWINGS FOR CONTINUATION OF WIRE.
3 PROVIDE A 1" CONDUIT FOR THE ANNOUNCE BOARD AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE ANNOUNCE SIGN.
4 PROVIDE SERVICE CONDUCTORS PER DETAIL 3/THIS SHEET FROM THE 400A MAIN DISCONNECT SWITCH TO TENANT'S FUTURE PANELBOARD LOCATION AS SHOWN. COORDINATE FINAL PANELBOARD LOCATION WITH TENANT'S CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.
5 PROVIDE A 1" CONDUIT WITH PULL STRING TO CLEARANCE BAR PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE CLEARANCE BAR.
6 PROVIDE A 1" CONDUIT FOR THE MONUMENT SIGN AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE MONUMENT SIGN.
7 PROVIDE A 1" SPARE LOW VOLTAGE CONDUIT AT THIS LOCATION. SEE DETAIL 2/THIS SHEET FOR MORE INFORMATION.
8 PROVIDE A 1" SPARE LINE VOLTAGE CONDUIT AT THIS LOCATION. SEE DETAIL 2/THIS SHEET FOR MORE INFORMATION.
9 PROVIDE INTERIOR J-BOXES AT 11'-0" AFF FOR LINE VOLTAGE AND LOW VOLTAGE SITE WIRING. SEE DETAIL 2/THIS SHEET FOR MORE INFORMATION.
10 PROVIDE TWO 2" CONDUITS FROM TELEPHONE DEMARCATION POINT TO OFFICE LOCATION. REFER TO THE CIVIL UTILITY PLANS FOR CONTINUATION OF CONDUIT AND EXACT LOCATION OF THE TELEPHONE DEMARCATION. COORDINATE TELEPHONE CONDUIT STUB-IN LOCATION WITH TENANT'S CONSTRUCTION MANAGER.
11 PROVIDE A DUPLEX GFCI RECEPTACLE WITH WEATHERPROOF WHILE IN USE OUTLET COVER FOR IRRIGATION CONTROLLER. PROVIDE CONDUCTORS TO A BOX NEAR FUTURE PANELBOARD LOCATION.



1 E115 **POWER SITE PLAN**

1/16" = 1'-0"

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