

DRAFTING SYMBOLS **PROJECT TEAM** <u>ARCHITECT</u> FREDERICK J GOGLIA MEP ENGINEE 2" TO FACE OF FRAMING OR 1950 CRAIG ROAD #300 1950 CRAIG R DIMENSION LINE CENTERLINE OF STRUCTURE ST. LOUIS, MO ST. LOUIS, MO 63146 SECTION DESIGNATION CONTACT: MEGAN DOW CONTACT: A PHONE: 800- 489-2233 PHONE: 43 SECTION EMAIL: MDOW@ARCV.COM EMAIL: SHEET NUMBER ARICHARDSO DETAIL NUMBER SCOOTER'S PRE-DEVELOPMENT: SCOOTER'S COFFEE SCOOTER'S DETAIL 11808 MIRACLE HILLS DRIVE 11808 MIRACI SHEET NUMBER OMAHA, NE 6 OMAHA, NE 68154 ELEVATION DESIGNATION CONTACT: JULIANNE MCGEE CONTACT: M/ EXTERIOR ELEVATION - SHEET NUMBER PHONE: 410-2 PHONE: 531-710-5478 EMAIL: EMAII JULIANNE.MCGEE@SCOOTERSCOFFEE.COM MARC.BOWEI - ELEVATION DESIGNATION INTERIOR ELEVATION - SHEET NUMBER <u>CIVIL</u> GASKIN + LECRAW OF NC, PLLC 3475 CORPORATE WAY SUITE A PARTITION TYPE DULUTH, GA 30096 CONTACT: KYLIE SHARPE PHONE: 678-546-8100 DOOR IDENTIFICATION DOOR# EMAIL: KSHARPE@GASKINSLECRAW.COM # (E) _ ____ $\langle \cdot \rangle$ WINDOW IDENTIFICATION CITY CONTACTS _______ EQUIPMENT IDENTIFICATION BUILDING DEPARTMENT HARNETT COUNTY CENTRAL PLANNING / ZONING CITY OF CAMERON PLANNING - ROOM NAME AND ZONING PERMITTING DINING AREA 247 CARTER STREET 420 MCKINNEY PARKWAY ROOM NAME AND NUMBER CAMERON, NC 28326 LILLINGTON, NC, 27546 - ROOM NUMBER CONTACT: JAY SIKES CONTACT: DONNA JOHNSON-PHONE: 910-814-6418 PHONE: 910-893-7525 X 2 EMAIL: JSIKES@HARNETT.ORG EMAIL: DJOHNSON@HARNETT KEYNOTE REFERENCE (X) WATER PROVIDER HARNETT REGIONAL WATER PO BOX 119 ELEVATION MARKER 700 MCKINNEY PARKWAY LILLINGTON, NC 2754 CONTACT: KATIE MOORE REVISION PHONE: 910-893-7575 X 6482 EMAIL: KEMOORE@HARNETT.ORG FINISH TYPE MARKER *┥╫╫₋*╫┝ NATIONAL ACCOUNT VEN (D COLUMN OR GRID LINE **ON-DEMAND WATER HEATER: ROOFING MEM** RINNAI AMERICA CORPORATION DURO-LAST 103 INTERNATIONAL DRIVE PEACHTREE CITY, GA 30269 CONTACT: STACY PETERSON CONTACT: M PH: 708.633.9 PH: 909.631.8297 KEY FOR ENLARGED PLAN EMAIL: speterson@rinnai.us EMAIL: mark. GREASE INTERCEPTOR: LED LIGHTING: SHIER PRODUCTS MORGAN HO EXISTING ABBREVIATION CONTACT: G CELL: 904.66 CONTACT: ROB PARTEN OFFICE: 904. +8'-0" RCP HEIGHT MARKER PH: 913.951.3345 www.morgan EMAIL: Rob.parten@shierproducts.com

GENERAL NOTES

A. GENERAL CONTRACTOR SHALL VISIT THE SITE, REVIEW THE DRAWINGS AND BECOME THOROUGHLY FAMILIAR WITH THE SITE CONDITIONS PRIOR TO CONSTRUCTION.

B. GENERAL CONTRACTOR SHALL CONSULT WITH THE CLIENT AND ARCHITECT TO RESOLVE ANY CHANGES, OMISSIONS OR PLAN DISCREPANCIES PRIOR TO CONSTRUCTION.

C. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH LOCAL, COUNTY, STATE AND FEDERAL CODES AND ORDINANCES.

D. GENERAL CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES.

E. GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS, INCLUDING CLEARANCES REQUIRED BY OTHER TRADES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. ALL DIMENSIONS ARE TO THE FACE OF FRAMING UNLESS NOTED OTHERWISE.

F. GENERAL CONTRACTOR SHALL PATCH AND REPAIR ALL EXISTING WALLS, FLOORS, CEILINGS, OR OTHER SURFACES IDENTIFIED TO REMAIN THAT MAY BECOME DAMAGED DURING THE COURSE OF WORK.

G. GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMITS FOR FIRE PROTECTION, FIRE ALARM, OR SPECIALTY SYSTEMS PRIOR TO INSTALLATION OF SUCH SYSTEMS. H. GENERAL CONTRACTOR SHALL RETAIN ONE SET OF PERMIT PLANS ON-SITE TO DOCUMENT ALL CHANGES MADE DURING CONSTRUCTION. THE RECORD DRAWINGS SHALL BE ISSUED TO THE CLIENT AT PROJECT CLOSE-OUT AS DESCRIBED IN THE GENERAL REQUIREMENTS OF THE PROJECT MANUAL.

I. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING DELIVERY OF MATERIALS AND INSTALLING SUCH MATERIALS SUPPLIED BY CLIENT OR CLIENT'S VENDOR.

J. RESPONSIBILITY FOR SUPPLY AND DELIVERY OF MATERIALS AND EQUIPMENT IS IDENTIFIED IN THE DRAWING SCHEDULE SHEETS UNDER THE COLUMN LABELED "RESPONSIBILITY".

K. FOR THE PURPOSE OF THE DOCUMENTS, TO "INSTALL" SHALL MEAN TO PROVIDE ALL FASTENERS, MISCELLANEOUS HARDWARE, BLOCKING, ELECTRICAL CONNECTIONS, PLUMBING CONNECTIONS AND OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION UNLESS OTHERWISE NOTED.

L. ALL ITEM SUBSTITUTIONS MUST BE APPROVED BY CLIENT AND ARCHITECT.

M. ONCE ALL PERMITS ARE ISSUED, THE ISSUED FOR CONSTRUCTION (IFC) DRAWING SET SHALL BE PUBLISHED AND SAVED TO THE ONLINE PROJECT MANAGEMENT SITE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION IS SOLEY BASED OFF OF THIS SET. ALL DRAWINGS REFERENCED FOR CONSTRUCTION SHALL SHOW THE SITE SPECIFIC ADDRESS TO CLEARLY GOVERN THE SCOPE OF WORK.

N. SCOOTER'S SHALL PROVIDE A DESIGN MANUAL TO SUPPLEMENT THIS DRAWING SET AS PART OF THE CONTRACT DOCUMENTS. THE DESIGN MANUAL INCLUDES SPECIFICATIONS, INSTALLATION GUIDES, AND EQUIPMENT CUTSHEETS TO ASSIST WITH BIDDING AND CONSTRUCTION. THE CONTRACTOR SHALL REFERENCE THE INSTRUCTIONS TO BIDDERS INCLUDED IN THIS DESIGN MANUAL FOR CONSTRUCTION MANAGEMENT REQUIREMENTS AND PROCEDURES.

0. GC IS RESPONSIBLE FOR SUBMITTING DOCUMENTS TO FSEC IN COORDINATION WITH SCOOTERS CORPORATE FOR VERIFICATION OF ALL EQUIPMENT SPECS, REQUIREMENTS, CONNECTIONS, UTILITIES, ETC. ANY DISCREPANCIES WILL BE BROUGHT TO THE ATTENTION OF SCOOTERS CORP AND THE ARCHITECT FOR REVIEW AND RESPONSE DURING THE BID PROCESS.

P. ALL PLANS, SECTIONS, ELEVATIONS AND DETAILS SHOWN IN THE ARCHITECTURAL SET ARE BASED OFF OF A SLAB HEIGHT OG 0'-0". CONTRACTOR SHALL REFER TO THE CIVIL DRAWINGS TO DETERMINE ACTUAL BASELINE OF ELEVATION FOR THIS PROJECT.

COFFEE 130 BRANDYWOOD CT. CAMERON, NC 28326

			<u>4P</u>
N <u>EER</u> QUEATHEM	OWNER/FRANCHISE PROUD TO SERVE LLC	PROJECT	
GOEATHEM G RD. MO 63146	155 FOX HUNT LN, SOUTHERN PINES, NC 28387		
ANTHONY RICHARDSON	PHONE: 402-541-5857 CONTACT: KEVIN & JENNIFER LEAVITT		
4314-415-2400	EMAIL: PROUDTOSERVELLC@GMAIL.COM		
SON@ARCV.COM		· R	
<u>S CONSTRUCTION MGR:</u> S COFFEE		Tropical Smoothic Cafe	
ACLE HILLS DRIVE E 68154		New Accar Bowl With NUTELLA®	
MARC BOWERS		Biscuitville The Flavor Of Local®	
0-292-6040 VERS@SCOOTERSCOFFEE.CO	Λ.		
	IVI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Auto Service
		130.6	
			Zaxbys Chicken Frigers
			Zaxbys New Fried Shrimp
			USA Storage Center Stockade
			Stante Marine 24
HEALTH DEPARTMEN	T FIRE DEPARTMENT		Tes Carl
AL NC DEPT OF HEALTH AND HUMAN SERVICE	HARNETT COUNTY		Dinden Oaks Church
5605 SIX FORKS RD. RALEIGH, NC 27609	1005 EDWARDS BROTHERS DR. LILLINGTON, NC 27546		
N- CONTACT: MONIQUE	MORGAN CONTACT: LESLIE JACKSON		
2	864 PHONE: 910-893-0740 EMAIL: RSULLIVAN@HARNETT.OR	G	
ELECTRIC PROVIDER			MAP
CENTRAL ELECTRIC 128 WILSON RD		SCALE: N.T.S.	
SANFORD, NC 27332			
CONTACT: - PHONE:919-774-4900	/ 800-446-7752	PROJECT D	ATA
EMAIL: -			
		PROJECT INFORMATION PROJECT NAME:	SCOOTERS COFFEE KIOSK BUILDING
		PROJECT DESCRIPTION: PROJECT LOCATION:	NEW KIOSK BUILDING WITH DRIVE-THRU SERVICE 130 BRANDYWOOD CT. CAMERON, NC 28326
ENDORS		PARCEL NUMBER: LEGAL DESCRIPTION:	REFER TO CIVIL SHEETS
EMBRANE:	AWNINGS:	JURISDICTION:	HARNETT COUNTY – BUILDING
ST ROOFING	COOL PLANET AWNINGS	GOVERNING CODES	CITY OF CAMERON – PLANNING
: MARK SUMAN	INDIANAPOLIS, IN 46229 CONTACT: SHERRIE KIMSEY	ALL WORK SHALL BE IN COM OTHER STATE AND LOCAL CO	PLIANCE WITH, BUT NOT LIMITED TO THE REQUIREMENTS OF THE FOLLOWING AND ANY DDES HAVING JURISDICTION:
33.9928 Irk.suman@holcim.com	PH: 317.927.9000 WEB: coolplanetawnings.com	BUILDING:	2018 NC BUILDING CODE
IG:		PLUMBING: MECHANICAL:	2018 NC PLUMBING CODE 2018 NC MECHANICAL CODE
HOPE USA		FIRE:	2018 NG FIRE CODE
: GAVIN SNOEK 9.669.5466		FUEL / GAS: ELECTRICAL:	2018 NC FUEL GAS CODE 2020 NC ELECTRICAL CODE
04.687.0660 anhope.com		ENERGY: ACCESSIBILITY:	2018 NC ENERGY CONSERVATION CODE 2009 ANSI A117.1
		SITE AREA: ZONING:	REFER TO CIVIL SHEETS COMMERCIAL
		PARKING	
		PARKING PROVIDED:	(8) STANDARD SPACES & (1) ACCESSIBLE SPACE = 9 TOTAL
		BUILDING INFORMATION ZONING BUILDING SETBACKS	N.
		BUILDING HEIGHT:	19'-0"
		BUILDING AREA:	668 SQ.FT.

SPRINKLERED:

OCCUPANTS

RESTROOM:

TOTAL OCCUPANTS:

EXIT REQUIREMENTS

EXITS REQUIRED:

EXITS PROVIDED:

CONSTRUCTION TYPE:

BARISTA / BACK OF HOUSE:

OCCUPANCY CLASSIFICATION: B - BUSINESS

668 SQ.FT.

600 SQ.FT. / 1:200 = 3

PROPOSED INCREASED OCCUPANT LOAD 6 (SEE LIFE SAFTEY PLAN SHEET G0.3)

68 SQ.FT. / 0 = 0

V-B

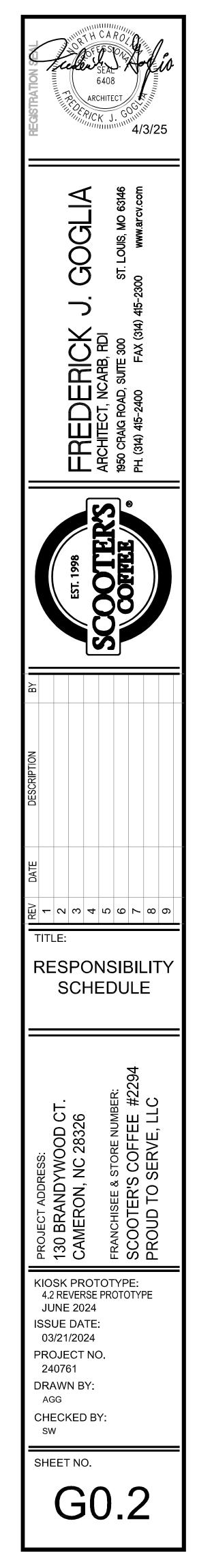
NO

1 EXIT

1 EXIT

			BEREIRA SEAL 6408 ARCHITECT 6408 ARCHITECT 6408 ARCHITECT 6408 ARCHITECT 6408 ARCHITECT 6408 ARCHITECT 6408 4/3/25
	<u>SHEET INDEX</u>	25 11 25	FREDERICK J. G ARCHITECT, NCARB, RDI 1950 CRAIG ROAD, SUITE 300 PH. (314) 415-2400 FAX (314) 415-2300
NORTH Image: Construction of the second of the se	SHEET TITLE SHEET TITLE GENERAL G01 COVER SHEET G02 RESPONSIBILITY SCHEDULE G03 LIFE SAFETY / OCCUPANCY PLAN G04 ACCESSIBILITY OF TALS G03 ARCHITECTURAL SPECIFICATIONS G03 ARCHITECTURAL SPECIFICATIONS G04 ENERGY COMPLIANCE G03 APPENDIXB G010 APPENDIXB ACCESSIBILITY OF TALS ACCESSIBILI		PROJECT ADDRESS: TITLE: COMERON, NC 28326 TITLE: COMERON, NC 28326 TITLE: COMERON, NC 28326 TITLE: COMERON NC 28326 TITLE: TITLE: COMERON NC 28326 TITLE: TITLE: COMERON NC 28326 TITLE: TITLE: TITLE: COMERON NC 28326 TITLE: TITLE: COMERON NC 28326 TITLE: T
	E1.1 ELECTRICAL SPECIFICATIONS & SYMBOLS E1.2 ONE LINE DIAGRAM & PANEL SCHEDULE E1.3 ELECTRICAL DETAILS E1.4 ELECTRICAL ENERGY FORMS E2.1 LIGHTING PLAN & DETAILS E2.2 POWER PLAN & EQUIPMENT SCHEDULE E3.1 EXTERIOR SITE PHOTOMETRIC PLAN E3.2 INTERIOR LIGHTING PHOTOMETRIC PLAN E3.2 INTERIOR SUBMITTAL AND PERMIT		AGG CHECKED BY: SW SHEET NO. GO.1

			RESPONS	IDIL		30	HED	ULE						
ER FURNISHED	RACTOR FURNISHED RACTOR INSTALLED RACTOR INSTALLED			R FURNISHED	R INSTALLED		RACTOR INSTALLED			ER FURNISHED	R INSTALLED	RACTOR FURNISHED	TRACTOR INSTALLED	ITTAL REQUIRED
GATEGORY / TASK	OWNER IN CONTRAC CONTRAC	REMARKS	GATEGORY / TASK	OWNE			CONTF SUBMI	REMARKS	GATEGORY / TASK	OWNE	OWNE	CONTE	Z	
1000 GENERAL			10900 SPECIALTIES		I		I		16000 ELECTRICAL	_I				
BUILDERS RISK - PROPERTY INSURANCE		C.G TO CONFIRM COVERAGE BY OWNER OR CONTRACTOR	EMPLOYEE LOCKERS				•		LIGHT FIXTURES, EXIT SIGNS AND EMERGENCY LIGHTS					ELECTRICIAN TO FURNISH, RECEIVE, INVENTORY, STORE ON SITE AND INSTA
PERFORMANCE & PAYMENT BONDS		NOT APPLICABLE	MOP HOLDER			•	•		LIGHT BULBS		+	+	+	ELECTRICIAN TO FURNISH, RECEIVE,
CONSTRUCTION FACILITIES / TEMP FACILITIES	• •		CHEMICAL WIRE RACK FLASHING 'OPEN' SIGN	•			•		LIGHTING					G.C. TO ORDER ALL LIGHTING FIXTURES
TEMPORARY POWER AND WATER	• •		SAFE	•			•	MUST BE BOLTED TO FLOOR						THROUGH OWNER REQUIRED VENDOR FSGI scooters@fsgi.com
CONSTRUCTION CLEAN UP	• •						•		POWER TO ROOF TOP AIR CONDITIONING UNITS			+		
FINAL CLEAN	•••		EXTERIOR AWNINGS	•	•			INCL. SIGNAGE PACKAGE	POWER TO EXHAUST FANS		+			
MATERIAL TESTING SURVEY, INITIAL		INITIAL GEOTECH PERFORMED BY OWNER INITIAL ALTA / TOPO SURVEY PERFORMED	POINT OF SALE; CONDUIT AND PULL STRINGS			• •	•	CONDUIT ALL HOME RUNS TO OFFICE AREA	FIRE ALARM SYSTEM					IF SHOWN / REQUIRED PER PLANS
•		BY OWNER	LOW VOLTAGE CABLINE	•				ALL CAT6 CABLES BY OWNER'S VENDOR	FIRE ALARM SYSTEM CONDUIT				<u> </u>	IF SHOWN / REQUIRED PER PLANS
AS-BUILT SURVEY	• •	AS REQUESTED BY SEPARATE PROTOCOL	LOW VOLTAGE TERMINATION AND TESTING	•				I.T. VENDOR	POWER AND PHONE JACK FOR FIRE ALARM SYSTEM					IF SHOWN / REQUIRED PER PLANS
CONSTRUCTION STAKING			SPEAKERS SIGNAGE: INTERIOR	•	•	• •	•			•	•			
2000 DEMO	• •	WHERE REQUIRED BY SITE PLAN	(ADA AND CODE REQ'D SIGNAGE) SIGNAGE: EXTERIOR	•				ELECTRICIAN TO PROVIDE POWER	SECURITY SYSTEM CONDUIT OUTLET FOR SECURITY SYSTEM			-	•	GC TO RUN CONDUIT ABOVE CEILING
3000 CONCRETE	• •	INCLUDES PIPE BOLLARDS, MATERIAL AND INSTALLATION	(CHANNEL LETTERS AND LOGO)					CONNECTION AND MAKE FINAL CONNECTIONS	POWER FOR ALL KITCHEN EQUIPMENT				•	
4000 MASONRY			SIGNAGE: EXTERIOR SNAP FRAME	•			•		POWER FOR WATER SOFTENER AND R/O		+	-	•	
STONE VENEER	• •	IF REQUIRED PER PLANS		•	-			FOUNDATION BY G.C.	SYSTEM					
BRICK VENEER TILE	• •	IF REQUIRED PER PLANS	FLAGPOLE (25' HEIGHT) FLAG (5' x 6' U.S. AMERICAN)	+		• •	•		POWER FOR ALL A/V EQUIPMENT J-BOXES AND CONDUIT FOR CABLE TV WIRING		-	-	•	
MONUMENT SIGN BASE	• •		FLAG (5° x 6° U.S. AMERICAN)		-		•		WIRING FOR SPEAKERS		•			
			FIRE EXTINGUISHERS						POWER FOR ICE MACHINE			•	•	
5000 METALS			11000 KITCHEN EQUIPMENT						POWER FOR WATER HEATERS			•	•	
STRUCTURAL ELEMENTS & MISC. METALS PATIO RAILING AND HANDRAILS	• •	IF SHOWN / REQUIRED PER PLANS	KITCHEN EQUIPMENT		•			PLUMBER & ELECTRICIAN TO PROVIDE UTILITY CONNECTIONS	DIMMER CONTROLS				•	
		IF SHOWN / REQUIRED FER FLANS	12000 FURNISHINGS					CONNECTIONS	POS WIRING / POS LOW VOLTAGE WIRING					GC TO INCLUDE CAT6 WIRES TO EACH LOCATION. OWNER TO TRIM OUT.
6000 WOODS AND PLASTICS			PATIO FURNITURE AND UMBRELLAS				•	IF SHOWN / REQUIRED PER PLANS	POS CONDUIT		+	•	•	CONDUIT TO ABOVE CEILING ONLY W/
STRUCTURAL ELEMENTS			POTS AND PLANTS		•									PULL STRINGS
ALL BLOCKING AND BACKING	• •		WIRE SHELVING	•	•								•	
									ISP / TELEPHONE CONDUIT HOMERUNS				•	GC TO RUN CONDUIT ABOVE CEILING
6201 FINISH CARPENTRY									DOOR BELL / TRANSFORMER				•	IF SHOWN / REQUIRED PER PLANS
	•		15000 MECHANICAL			_			PANEL, BREAKERS AND SWITCHES				•	G.C. TO ORDER ALL PANELS, BREAKERS
WALL HUNG R/R VANITY TOP & SUPPORTS			HVAC UNITS											SWITCHES THROUGH OWNER REQUIRE VENDOR; ECHO ELECTRIC
7000 THERMAL AND MOISTURE PROTECTION			HVAC CURBS T-STAT, REMOTE SENSORS, REMOTE TEST SWITCHES			• (• (alan.devereaux@echogroupinc.com
ROOFING			RESTROOM EXHAUST FANS					ELECTRICAL CONTRACTOR TO PROVIDE	FRANKEE ESPRESSO STEP-DOWN TRANSFORMERS					
INSULATION	•••		-					POWER AND FINAL CONNECTION	SECONDARIES FROM TRANSFORMERS TO		+	•	•	
EIFS	• • •	IF SHOWN / REQUIRED PER PLANS	AIR DISTRIBUTION DUCTWORK						BUILDING SERVICE			+		
SHEET METAL / METAL COPING	• •					• (• (•	IF SHOWN / REQUIRED PER PLANS
CAULKING AND SEALANTS	• •		CONTROL WIRING						PHOTO ELECTRIC CELLS POWER FOR IRRIGATION CONTROL				•	IF SHOWN / REQUIRED PER PLANS
			HVAC SYSTEM START-UP						TEMPORARY POWER FOR CONSTRUCTION				•	G.C. MUST PROVIDE TEMPORARY POWE
8400 DOORS			AIR BALANCE REPORT					AIR BALANCE REPORT MUST BE PERFORMED						DURING CONSTRUCTION
HOLLOW METAL DOORS AND FRAMES	•••							BY INDEPENDENT 3RD PARTY						
DOOR LOCKSET 8410 STOREFRONT SYSTEM			15000 PLUMBING						MISCELLANEOUS COFFEE AND ESPRESSO EQUIPMENT			<u> </u>	<u> </u>	PLUMBER & ELECTRICIAN TO PROVIDE
STOREFRONT WINDOW FRAMES & GLASS		INCLUDING WINDOW TINT	THREE COMPARTMENT SINK					IF SHOWN / REQUIRED PER PLANS						WATER & ELECTRICAL CONNECTIONS
			THREE COMPARTMENT SINK	•	-		•	IF SHOWN / REQUIRED PER PLANS	KNOX BOX				•	IF REQUIRED BY FIRE DEPARTMENT
8700 FINISH HARDWARE	• • •		THREE COMPARTMENT DRAIN LINES				•		CLEANING CHEMICALS / EQUIPMENT INSTALL					G.C. TO INSTALL WIRE RACKING FOR CHEMICAL SYSTEM ONLY
			PREP SINKS	•			•	IF SHOWN / REQUIRED PER PLANS	STAINLESS STEEL OUTSIDE CORNERS			•	•	IF SHOWN / REQUIRED PER PLANS
9000 FINISHES			PREP SINK FAUCETS	•			•		CODE REQUIRED SIGNAGE				•	
FLOOR TILE, FRONT OF HOUSE	• •	IF SHOWN / REQUIRED PER PLANS	PREP SINK DRAIN LINES			•			ADA IDENTIFYING DEVICES			_	•	
FLOOR TILE, BACK OF HOUSE	••	IF SHOWN / REQUIRED PER PLANS	GAS REGULATORS FOR ROOF TOP EQUIPMENT					IF REQUIRED PER PLANS	LANDSCAPING	<u> </u>			•	
RESTROOM WALL TILE	• •	IF SHOWN / REQUIRED PER PLANS	GAS REGULATORS FOR WATER HEATER	+				IF REQUIRED PER PLANS					•	
WATERPROOFING	• •	IF SHOWN / REQUIRED PER PLANS	MOP SINK COFFEE BREWER WATER SUPPLY & SHUT-OFF VALVES				••	PLUMBER & ELECTRICIAN TO CONNECT UTILITIES	GAS SERVICE & METER (IF SHOWN/ REQUIRED ON PLANS)				•	G.C. TO HAVE UTILITIES IN THEIR NAME UNTIL TURNOVER DATE
			ICE MACHINE				•	PLUMBER & ELECTRICIAN TO CONNECT UTILITIES	WATER SERVICE AND METER				•	G.C. TO HAVE UTILITIES IN THEIR NAME UNTIL TURNOVER DATE
SCHLUTER STRIPS		IF SHOWN / REQUIRED PER PLANS	ICE MACHINE WATER SUPPLY	+ -			•		SEWER		+	•	•	G.C. TO HAVE UTILITIES IN THEIR NAME
FRP	• • • •	IF SHOWIN / REQUIRED FER FLANS				•	•					-		UNTIL TURNOVER DATE
FRP WALL TILE, EXTERIOR AND RESTROOMS		ALL PAINT	BLENDER STATION DRAIN LINES		·		• •							G.C. TO HAVE UTILITIES IN THEIR NAME UNTIL TURNOVER DATE
FRP WALL TILE, EXTERIOR AND RESTROOMS	• •		BLENDER STATION DRAIN LINES WATER HEATER					4			+			
FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT LAY-IN CEILING SYSTEM	• • •		WATER HEATER WATER HEATER VENTS AND MONITORING ALARM			•			ELECTRICAL SERVICE AND METER			•		
FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT LAY-IN CEILING SYSTEM 10800 TOILET ACCESSORIES Integration of the second			WATER HEATER WATER HEATER VENTS AND MONITORING ALARM WATER HEATER MANIFOLD KIT W/ TEMP. GAUGES			• •	•		ELECTRICAL SERVICE AND METER		+	•	•	UNTIL TURNOVER DATE ELECTRICAL SUB-CONTRACTOR TO
SCHLUTER STRIPS FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT LAY-IN CEILING SYSTEM 10800 TOILET ACCESSORIES SOAP DISPENSERS			WATER HEATER WATER HEATER VENTS AND MONITORING ALARM WATER HEATER MANIFOLD KIT W/ TEMP. GAUGES FLOOR DRAINS AND FLOOR SINKS			• •	• •					•		UNTIL TURNOVER DATE ELECTRICAL SUB-CONTRACTOR TO
FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT LAY-IN CEILING SYSTEM 10800 TOILET ACCESSORIES Image: Comparison of the system o			WATER HEATER WATER HEATER VENTS AND MONITORING ALARM WATER HEATER MANIFOLD KIT W/ TEMP. GAUGES FLOOR DRAINS AND FLOOR SINKS GREASE TRAP			• •	•					•		UNTIL TURNOVER DATE ELECTRICAL SUB-CONTRACTOR TO
FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT Image: Comparison of the second			WATER HEATER WATER HEATER VENTS AND MONITORING ALARM WATER HEATER MANIFOLD KIT W/ TEMP. GAUGES FLOOR DRAINS AND FLOOR SINKS GREASE TRAP HANDSINKS			• •	• •					•		UNTIL TURNOVER DATE ELECTRICAL SUB-CONTRACTOR TO
FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT LAY-IN CEILING SYSTEM 10800 TOILET ACCESSORIES Image: Comparison of the system o			WATER HEATER WATER HEATER VENTS AND MONITORING ALARM WATER HEATER MANIFOLD KIT W/ TEMP. GAUGES FLOOR DRAINS AND FLOOR SINKS GREASE TRAP				• •		INTERNET SERVICE					UNTIL TURNOVER DATE ELECTRICAL SUB-CONTRACTOR TO PROVIDE SITE CONDUITS & PULL STRIN
FRP WALL TILE, EXTERIOR AND RESTROOMS PAINT LAY-IN CEILING SYSTEM 10800 TOILET ACCESSORIES SOAP DISPENSERS ● PAPER TOWEL DISPENSERS ● TISSUE HOLDERS GRAB BARS			WATER HEATER WATER HEATER VENTS AND MONITORING ALARM WATER HEATER MANIFOLD KIT W/ TEMP. GAUGES FLOOR DRAINS AND FLOOR SINKS GREASE TRAP HANDSINKS HANDSINK FAUCETS				• • • • • • • • • • • • • • • • • • •	ALSO; FIRE PROTECTION CONTRACTOR TO INSTALL ON F/P SYSTEM IF REQUIRED		CTOR	SARE	STALLE TO PF	ED AND / ROVIDE,	OR FINISHED BY PRIME CONTRACTOR, THE INSTALL AND FINISH ALL ITEMS IN THE



OCCUPANT LOAD AND EGRESS ANALYSIS

	USE	AREA	LOAD FACTOR	OCCUPAN
	FOOD PREP	600 SF	1:200	3
	RESTROOM	68 SF	0	0
TOTAL OCCUPANT	rs:			3

SECTION 1004.2 THE OCCUPANT LOAD PERMITTING IN ANY BUILDING OR PORTION THEROF IS PERMITTED TO BE INCREASED FROM THAT NUMBER ESTABLISHED IN TABLE 1004.1.2 PROVIDED THAT ALL OTHER REQUIREMENTS OF THE CODE ARE MET BASED ON SUCH MODIFIED NUMBER AND THE OCCUPANT LOAD DOES NOT EXCEED ONE OCCUPANT PER 7 SQ FT OF OCCUPIABLE FLOOR SPACE.

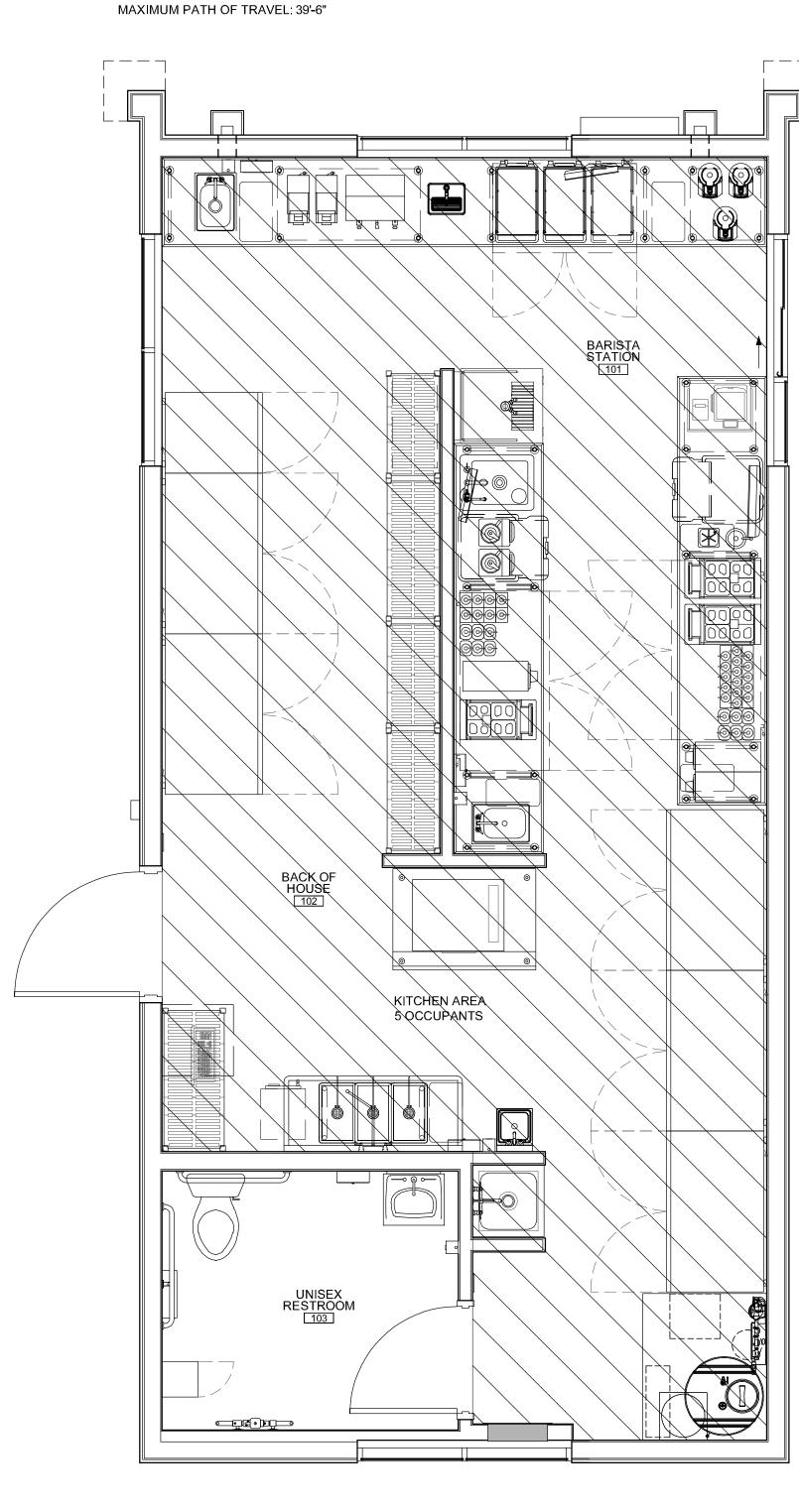
MAX OCCUPANT LOAD PER 1004.2: 600 ÷ 7= 85 PROPOSED INCREASED OCCUPANT LOAD: 6

EXIT WIDTH CALCULATIONS:

6 OCCUPANTS x.2 = 1.2" REQUIRED - 36" PROVIDED

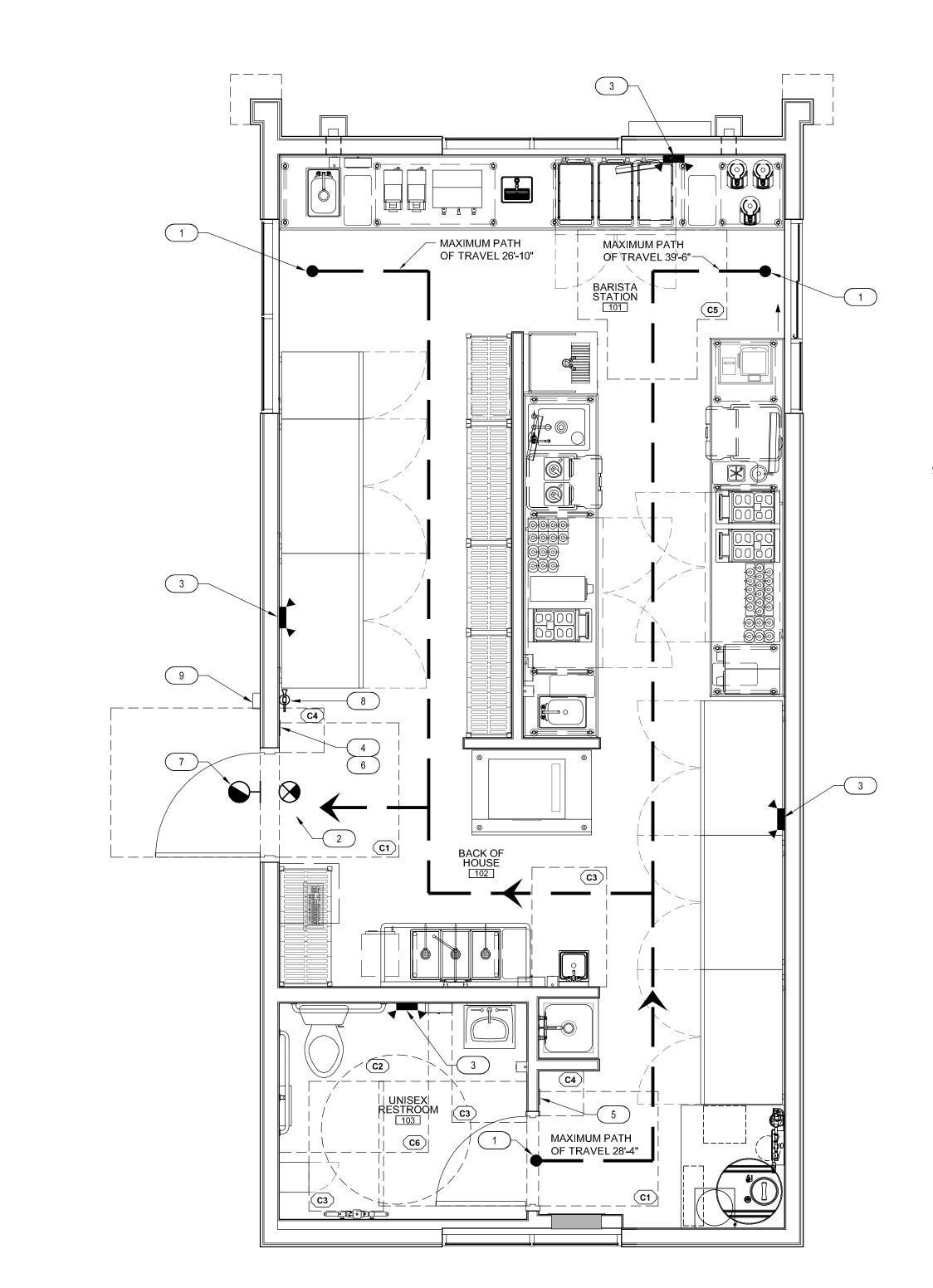
OCCUPANT LOAD IS 6 AND ONE EXIT IS REQUIRED, ONE IS PROVIDED.

ALLOWABLE PATH OF TRAVEL WITHOUT A SPRINKLER SYSTEM: 75'-0"





ANTS

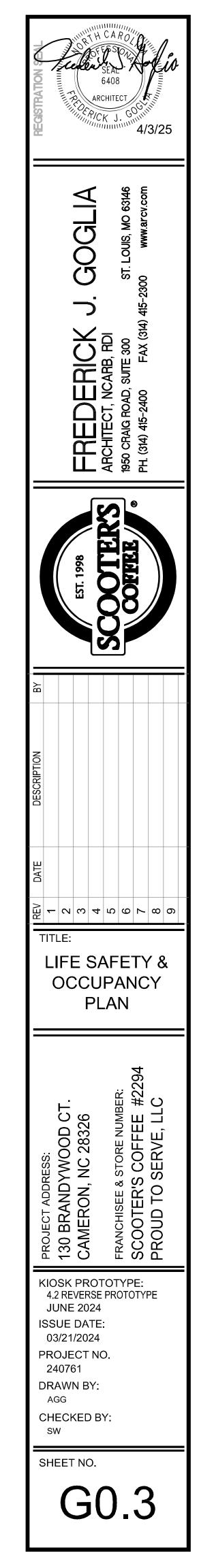


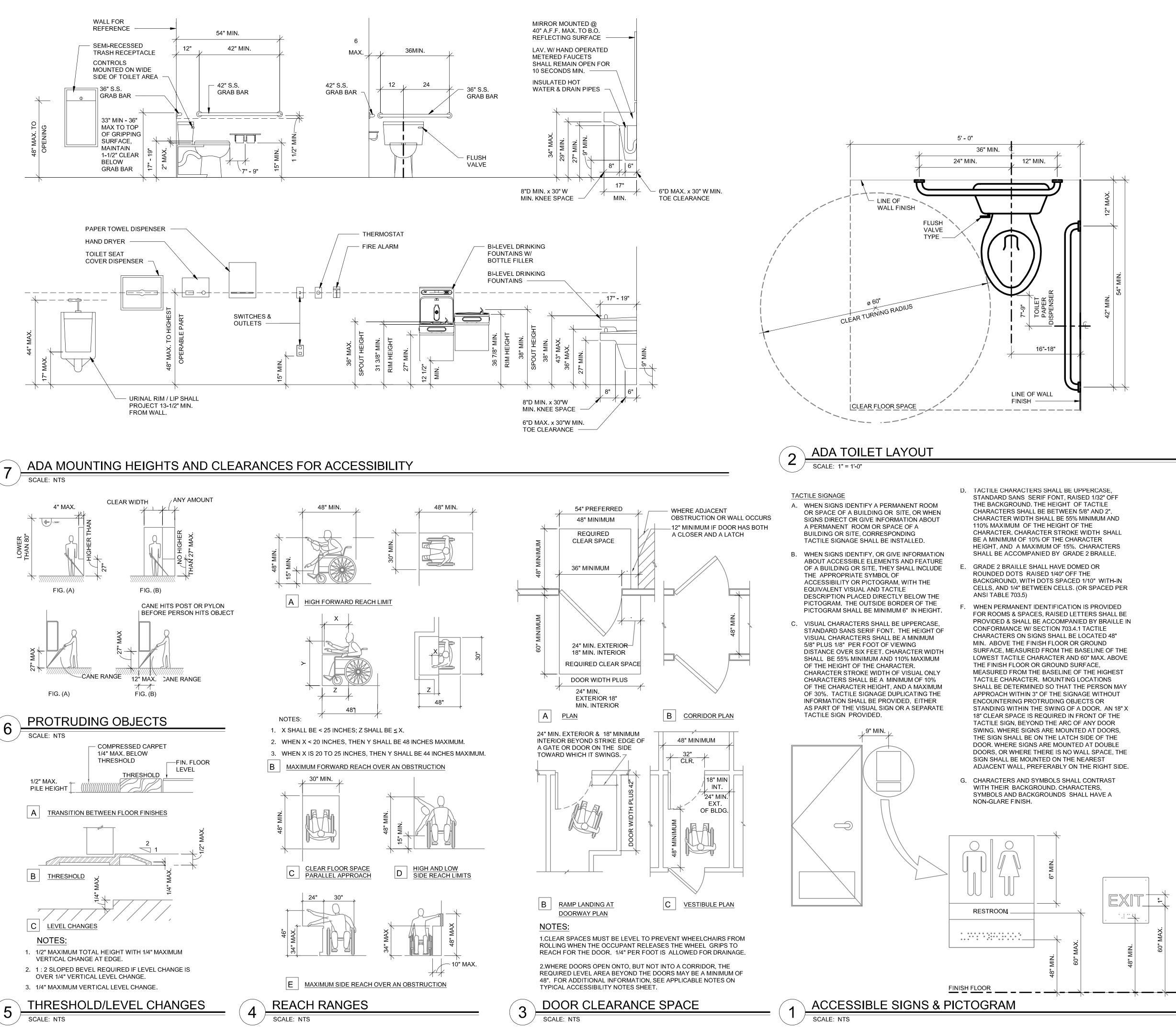






_GEI	NERAL NOTES	
D D	ONTRACTOR TO PROVIDE A SUFFICIENT NUMBER OF 2A10BC MIN. RATED FIRE EXTIN JRING CONSTRUCTION SO THAT ALL PORTIONS OF THE BUILDING ARE WITHIN 75 FT STANCE OF SAID EXTINGUISHER & SO THAT AT LEAST ONE 2A10BC RATED FIRE EXT ROVIDED FOR EACH 3,000 SQ. FT. OF FLOOR SPACE OR PORTION THEREOF.	TRAVEL
C	ROVIDE FIRE EXTINGUISHERS AS REQUIRED BY FIRE DEPARTMENT FIELD INSPECTO ONSTRUCTION & FOR COMPLETED PROJECT.	R DURING
3 E	ALL EXIT DOORS SHALL SWING IN THE DIRECTION OF TRAVEL.	
3.2.	ALL EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT SPECIAL KNOW	WLEDGE OR
3.3.	EFFORT (NO BOLTS, NO SLIDING BOLTS, ETC.). ALL EXIT DOORS & INTERVENING DOORS ON THE EXIT PATH, IF PROVIDED WITH A	
3.4.	LATCH, MUST BE MARKED " THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE PROVIDE ILLUMINATED EXIT SIGNS ABOVE EXITS WITH MIN. 3/4"x6" LETTERS LIGH CONTRASTING BACKGROUND.	E IS OCCUPIED".
4. E	KIT SIGNS	
4.1. 4.2.	EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY O THAN 5 FOOT CANDLES (54 LUX).	OF NOT LESS
4.3. 4.4.	INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SECTION 2702. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. (1011.3)	INSTALLED IN
4.5.	EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WI ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF PRIMARY POWER LOSS (10	
5. E 5.1.	GRESS EMERGENCY LIGHTING THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATI	ED AT ALL TIMES
5.2.	THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED. THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT-	CANDLE AT THE
5.3.	WALKING SURFACE. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY B THE PREMISES' ELECTRICAL SUPPLY IN THE EVENT OF SUPPLY; FAILURE OF AN E	
6. A	ELECTRICAL SUPPLY IN THE EVENT OF SUPPLY, FAILURE OF AN E ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE. N APPROVED SET OF NUMERALS, MINIMUM 4" HIGH WITH A STROKE WIDTH NOT LES	
SI TI B/ PI P	HALL BE PLACED ON THE BUILDING. THE NUMBERING SHALL BE PLAINLY VISIBLE & L HE STREET OR ROAD FRONTING THE PROPERTY. SAID NUMERALS SHALL CONTRAS ACKGROUND. IF THE ADDRESS THAT IS POSTED NEAR THE INTERSECTION OF THE D JBLIC STREET OR ROAD FRONTING THE PROPERTY IS NOT VISIBLE, ADDITIONAL AD DSTED NEAR THE INTERSECTION OF THE DRIVEWAY & THE PUBLIC STREET SHALL B (ERIFY REQUIREMENTS.)	EGIBLE FROM TW/THEIR PRIVEWAY & THE DRESSES
	ROVIDE A KNOX BOX FOR FIRE DEPT. ACCESS & KEY ACCESS, IF REQUIRED BY FIRE DCATION ON BUILDING TO BE DETERMINED BY FIRE MARSHAL.	MARSHAL.
	ENERAL CONTRACTOR SHALL SECURE PERMITS REQUIRED BY THE FIRE DEPARTME RE DEPARTMENT PRIOR TO OCCUPYING THIS BUILDING.	INT FROM THE
	ROVIDE ALL WEATHER ACCESS ROAD (MIN 20') TO ALL BUILDINGS & HYDRANTS FRO JRING CONSTRUCTION.	M PUBLIC WAY
KEY	NOTES	X
1. E	XIT PATH OF TRAVEL	
2. E	XIT SIGN, SEE ELECTRICAL DRAWINGS AND REFLECTED CEILING PLAN	
3. E	MERGENCY LIGHTING, SEE ELECTRICAL DRAWINGS AND REFLECTED CEILING PLAN	J
4. T	ACTILE EXIT SIGN - REFER TO ACCESSIBLE SIGNS DETAIL 1/G0.4	
5. T	ACTILE RESTROOM SIGN - REFER TO ACCESSIBLE SIGNS DETAIL 1/G0.4	
6. C	CCUPANT LOAD SIGN. FINAL LOCATION APPROVED BY FIRE MARSHALL	
	XTERIOR EXIT LIGHT, SEE ELECTRICAL DRAWING AND REFLECTED CEILING PLAN	
	A-10BC MINIMUM RATED FIRE EXTINGUISHER PER FIRE MARSHALL APPROVAL	
9. K	NOX BOX AT 60" A.F.F. AS REQUIRED BY FIRE DPARTMENT	
LEC	GEND	
√ ■	EMERGENCY LIGHT	
	EXTERIOR EMERGENCY LIGHT	
	EXIT SIGN, CONFIRM LOCATION REQUIREMENTS WITH FIRE MARSHAL	
<-	■ ■ ■ EGRESS PATH OF TRAVEL	
-	2A - 10BC MINIMUM RATED FIRE EXTINGUISHER - WALL HUNG	
CLE	ARANCE KEYNOTE	XX
48" 60"	$\begin{bmatrix} 18^{"} \\ \hline \\ \hline \\ \hline \\ \hline \\ 12^{"} \end{bmatrix}$ $\begin{bmatrix} 18^{"} \\ \hline \\ \hline \\ \hline \\ A LATCH \end{bmatrix}$ $\begin{bmatrix} 18^{"} \\ \hline \\ $	ACTILE SIGNS
	$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	TURN
48" 	30" 	ATER CLOSET





- 6408 ARCHITECT 4/3/25 63146 :v.com ₹ | Š GOGL ШЗ י 🗋 \mathbf{m} 11 TITLE: ACCESSIBILITY DETAILS ∠R. #22(C PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 FRANCHISEE & STORE NUMBI SCOOTER'S COFFEE KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 **ISSUE DATE:** 03/21/2024 PROJECT NO. 240761 DRAWN BY: AGG CHECKED BY: SW SHEET NO. G0.4

ARCHITECTURAL SPECIFICATIONS

0101 SUMMARY OF WORK

- A. DESCRIPTION 1.1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION INDICATED ON THESE CONSTRUCTION DOCUMENTS, WITH FINAL APPROVALS OF ALL WORK.
- 1.2. THE CONTRACTOR RESPONSIBLE FOR THE PORTION OF THE WORK REQUIRING INSPECTIONS BY GOVERNMENT AGENCIES, IS CHARGED WITH REQUESTING ALL SUCH INSPECTIONS.
- 1.3. CLOSE COORDINATION WILL BE REQUIRED BETWEEN GENERAL, MECHANICAL AND ELECTRICAL CONTRACTORS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE
- SCHEDULING AND PHASING OF CONSTRUCTION. 1.4. CLOSE COORDINATION OF FINAL EQUIPMENT CONNECTION REQUIREMENTS AND CONDITIONS WILL BE NECESSARY ON THIS PROJECT. ENGINEERING OF GAS, ELECTRIC, WATER AND SEWER AND VENTILATION SERVICES MAY VARY WITH FINAL SELECTIONS.

0108 APPLICABLE STANDARDS

- A. DESCRIPTION 1.1. WORK INCLUDED: THROUGHOUT THE CONTRACT DOCUMENTS, REFERENCE IS MADE TO CODES AND STANDARDS WHICH ESTABLISH QUALITIES AND TYPES OF WORKMANSHIP AND MATERIALS, AND WHICH ESTABLISH METHODS FOR TESTING AND REPORTING ON THE PERTINENT CHARACTERISTICS.
- 1.2. RELATED WORK DESCRIBED ELSEWHERE: SPECIFIC NAMING OF CODES OR STANDARDS OCCURS ON THE DRAWINGS AND IN OTHER SECTIONS OF THESE SPECIFICATIONS.
- B. QUALITY ASSURANCE.
- 1.1. FAMILIARITY WITH PERTINENT CODES AND STANDARDS: IN PROCURING ALL ITEMS USED IN THIS WORK IT IS CONTRACTOR'S **RESPONSIBILITY TO VERIFY THE** DETAILED REQUIREMENTS OF THE PREVAILING CODES AND STANDARDS AND TO VERIFY THAT THE ITEMS PROCURED FOR USE IN THE WORK MEET OR EXCEED THE SPECIFIED REQUIREMENTS.
- 1.2. REJECTION OF NON-COMPLYING ITEMS: THE TENANT RESERVES THE RIGHT TO REJECT ITEMS INCORPORATED INTO THE WORK, WHICH FAIL TO MEET THE SPECIFIED MINIMUM REQUIREMENTS. THE TENANT FURTHER RESERVES THE RIGHT, AND WITHOUT PREJUDICE TO OTHER RECOURSE THE TENANT MAY TAKE. TO ACCEPT NON-COMPLYING ITEMS SUBJECT TO AN ADJUSTMENT IN THE CONTRACT AMOUNT AS APPROVED BY THE OWNER.
- 1.3 APPLICABLE STANDARDS LISTED IN THESE SPECIFICATION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, STANDARDS PROMULGATED BY THE FOLLOWING AGENCIES AND ORGANIZATION: AMERICAN INSTITUTE OF STEEL
 - CONSTRUCTION (AISC) AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) AMERICAN PLYWOOD ASSOCIATION (APA)
 - AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM)
 - AMERICAN WELDING SOCIETY (AWS) ARCHITECTURAL ALUMINUM MANUFACTURERS ASSOCIATION (AAMA)
 - ARCHITECTURAL WOODWORK INSTITUTE (AWI) INTERNATIONAL BUILDING CODE (IBC)
 - INTERNATIONAL CODE COUNCIL (ICC)
 - ICC EVALUATION SERVICE, LLC INTERNATIONAL ASSOCIATION OF PLUMBING
 - & MECHANICAL OFFICIALS (IAPMO) COMMERCIAL SPECIFICATIONS (CS)
 - CONCRETE REINFORCING STANDARDS NATIONAL ACOUSTICAL CONTRACTORS
 - ASSOCIATION
 - NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMA) NATIONAL BUILDERS HARDWARE ASSOCIATION
 - (NBHA) NATIONAL CONCRETE MASONRY ASSOCIATION
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) NATIONAL ELECTRICAL MANUFACTURERS
 - ASSOCIATION (NEMA) NATIONAL SANITATION FOUNDATION (NSF)
 - NATIONAL WOODWORK MANUFACTURERS ASSOCIATION (NWMA)
 - TILE COUNCIL OF AMERICA (TCA) UNDERWRITER LABORATORIES (UL)

0171 CLEANING

- A. DESCRIPTION: 1.1. SCOPE OF WORK: THROUGHOUT THE CONSTRUCTION PERIOD, MAINTAIN THE BUILDING AND SITE IN A STANDARD OF CLEANLINESS AS
- DESCRIBED IN THIS SECTION. 1.2. RELATED WORK: IN ADDITION TO STANDARDS DESCRIBED IN THIS SECTION, COMPLY WITH ALL REQUIREMENTS FOR CLEANING UP AS DESCRIBED IN VARIOUS OTHER SECTIONS OF THESE SPECIFICATIONS.
- 1.3 FINAL CLEANING:
 - a. DEFINITION: EXCEPT AS OTHERWISE SPECIFICALLY PROVIDED, "CLEAN" (FOR THE PURPOSE OF THIS ARTICLE) SHALL BE INTERPRETED AS MEANING THE LEVEL OF CLEANLINESS GENERALLY PROVIDED BY SKILLED CLEANERS USING COMMERCIAL QUALITY BUILDING MAINTENANCE EQUIPMENT AND MATERIALS.
 - b. GENERAL: PRIOR TO COMPLETION OF THE WORK, REMOVE FROM THE JOB SITE ALL TOOLS, SURPLUS MATERIALS, EQUIPMENT, SCRAP, DEBRIS, AND WASTE.
 - c. INTERIOR: VISUALLY INSPECT ALL INTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL, SMUDGES, AND OTHER FOREIGN MATTER. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES. REMOVE ALL PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES. USE ONLY THE SPECIFIED CLEANING MATERIALS AND EQUIPMENT.

0550 - METAL FABRICATIONS

1. WORK INCLUDES MISCELLANEOUS SHOP FABRICATED FERROUS METAL ITEMS, INCLUDING BUT NOT LIMITED TO:

- A. LOOSE STEEL LINTELS
- MISCELLANEOUS FRAMING, SUPPORTS AND TRIM
- ROOF LADDERS D. STEEL DECK PANELS

2. MATERIALS

- A. STEEL SECTIONS: ASTM A36. STEEL TUBING: ASTM A500 OR ASTM A501.
- STAINLESS STEEL: TYPE 304 (18-8), ASTM A269; SATIN POLISHED FINISH.
- STEEL PIPE: ASTM A53, GRADE B, STANDARD
- WEIGHT (SCHEDULE 40). MALLEABLE IRON CASTINGS, ASTM A47
- BOLTS, NUTS, AND WASHERS. ASTM A307.
- WELDING MATERIALS: ASW D1.1. TYPE REQUIRED FOR MATERIALS BEING WELDED.
- PRIMER SSPC-PAINT 2, FOR SHOP APPLICATION
- AND FIELD TOUCH-UP STEEL DECK PANELS: ASTM A446 WITH G90 GALVANIZED COATING, STEEL ASTM A611, GRADE C, SHOP PRIMED.

3. FABRICATION:

- A. VERIFY DIMENSIONS IN FIELD PRIOR TO SHOP FABRICATION.
- B. FABRICATE ITEMS WITH JOINTS TIGHTLY FITTED
- AND SECURED. FIT AND SHOP ASSEMBLE IN LARGEST
- C. PRACTICAL SECTIONS, FOR DELIVERY TO SITE. PRIME PAINT ITEMS SCHEDULE TO PROVIDE A
- UNIFORM DRY FILM THICKNESS OF 2.0 MILS.

0720 - THERMAL INSULATION

- A. GENERAL: PROVIDE THERMAL INSULATION WITH ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. 1. INSULATION INTEGRAL WITH ROOFING AND
- INSULATION IN EXTERIOR WALLS. B. ACCESSORIES: PROVIDE TAPE OR PENETRATION ANCHORS WHERE REQUIRED TO ENSURE PERMANENT INSTALLATION.
- A. MATERIALS:
- 1.1 ROOF INSULATION POLYISOCYANURATE INSULATION BOARD FIRESTONE STANDARD ISO 95+GL (OR EQUAL) COVER BOARD FIRESTONE ASTM C1289 TYPE II, CLASS 4 ISOGARD HD COMPOSITE COVER BOARD (OR EQUAL)
- 1.2 THERMAL BATT INSULATION: PREFORMED GLASS FIBER BATT WITH FSK-25 REFLECTIVE MEMBRANE ON ONE SIDE ASTM C665 TYPE III, CLASS A KNAUF INSULATION ECOBATT INSULATION (OR EQUAL).
- 1.3 TAPE: TO MATCH FOIL SCRIM KRAFT FACE; 2 INCH WIDTH. 1.4 EXTRUDED POLYSTYRENE (XPS) RIGID FOAM
- INSULATION UNDER GRADE. ASTM C578 TYPE IV OWENS CORNING FOAMULAR 250 (OR EQUAL). 1.5 ACOUSTICAL BATT INSULATION PERFORMED
- FIBER BATT UNFACED ASTM C665 TYPE I. CLASS A KNAUF INSULATION ECOBATT INSULATION (OR EQUAL).
- B. INSTALLATION:
- 1. INSTALL INSULATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS
- INDICATED 2. TRIM INSULATION NEATLY TO FIT SPACES.
- INSTALL WITHOUT GAPS OR VOIDS.
- 3. INSTALLATION OF THERMAL BATT INSULATION:
- 3.1. INSTALL INSULATION WITH VAPOR BARRIER TOWARD WARM SIDE OF BUILDING SPACES. VAPOR BARRIER SHALL BE CONTINUOUS. TAPE SEAL TEARS OR CUTS IN VAPOR BARRIFR
- 3.2. PACK BATT INSULATION IN SHIM SPACES AT PERIMETER OF WINDOW ASSEMBLY TO MAINTAIN CONTINUITY OF THERMAL BARRIER.
- 3.3. MECHANICAL FASTENING:
- 3.3.1. AT LOCATIONS WHERE NO FRAMING IS PRESENT TO SUPPORT THE INSULATION, PROVIDE METAL IMPALING PINS AND RETAINERS TO HOLD THE INSULATION FIRMLY IN PLACE.
- 3.3.2. MECHANICALLY OR ADHESIVELY BOND THE RETAINING PINS TO THE SUBSTRATE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 3.3.3. SPACE PINS AT MAXIMUM 24 INCHES ON CENTER ALONG THE EDGES AND WITHIN THE FIELD OF THE BLANKET. PLACE EDGE PINS WITHIN 6 INCHES FROM THE EDGE OF THE BATT.
- 4. INSTALLATION OF RIGID PERIMETER INSULATION: INSTALL INSULATION TO 24" BELOW GRADE WITH PROTECTION BOARD.
- C. R VALUE SCHEDULE:
- 1.1 PROVIDE INSULATION IN SUFFICIENT THICKNESS SEE INSULATION REQUIREMENTS ON SHEET A3.1 (BUILDING SECTIONS) AND COMCHECK REPORT.

07462 SIDING

- PART 1 GENERAL 1.1. SECTION INCLUDES WARRANTY
 - PRODUCT WARRANTY.

PRIMER - SMOOTH FINISH. MATERIALS: 1186 TYPE A GRADE II. DEVELOPED INDEX=5. 2.3 WEATHER BARRIER EQUAL) B. CODE COMPLIANCE REQUIREMENT FOR WEATHER BARRIER: 1. THICKNESS, 11 MIL SHEET. 2. BREATHABILITY IN ACCORDANCE WITH ASTM E96. D1117 AATCC127. 5. AIR PENETRATION IN ACCORDANCE WITH TAPPI-T460. 6. HARDIEWRAP WEATHER BARRIER ICC-ES ACCESSORIES 5. SURROUND INSIDE CORNER TRIM. 8. RECESS HORIZONTAL TRIM. 10. RECESS VERTICAL F-TRIM. 12. RECESS DRAINAGE FLASHING. B. TRIMS: TRIM BY FRY REGLET

PART 3 EXECUTION 3.1 EXAMINATION

2.5 FASTENERS

- HAVE BEEN PROPERLY PREPARED UNSATISFACTORY PREPARATION BEFORE PROCEEDING. 3.2 PREPARATION INSTALLATION. UNDER THE PROJECT CONDITIONS. PENETRATIONS ARE SEALED. 3.3 INSTALLATION
- ALIGNED.

7457 CEMENTITIOUS PANELS

1.1. SECTION INCLUDES A. CEMENTITIOUS EXPRESS/REVEAL JOINTED PANELS WITH ACCESSORIES. (JAMES HARDIE HZ5 HARDIE REVEAL PANELS).

2.1 MANUFACTURERS

PART 1 GENERAL

PART 2 PRODUCTS

2.2 CLADDING

A. ACCEPTABLE MANUFACTURER: JAMES HARDIE BUILDING PRODUCTS, INC., WHICH IS LOCATED AT: 231 SOUTH LASALLE STREET UNIT 2000. CHICAGO, IL 60606. ASD. TOLL FREE TEL 866-274-3464, TEL: 312-705-6000, EMAIL:

INFO@JAMESHARDIE.COM; WEB: HTTP://WWW.JAMESHARDIEPROS.COM/PRODUCTS /HARDIE-REVEAL-PANEL-SYSTEM

A. CEMENT CLADDING PANELS: HARDIE REVEAL PANEL AS MANUFACTURED BT JAMES HARDIE BUILDING PRODUCTS, INC. 5/16 INCHES THICK, 3 FEET 11.5

INCHES (1206 MM) WIDE BY 7 FEET 11.5

- INCHES (2426) MM LONG. PRODUCT SHALL BE ENGINEERED FOR CLIMATE CONDITIONS.
- 1. MANUFACTURER'S CLIMATE ZONE PRODUCT: HZ5 FOR COLD CLIMATES WITH A YELLOW TINT

B. CODE COMPLIANCE REQUIREMENT FOR SIDING 1. FIBER-CEMENT SIDING, COMPLIES WITH ASTM C

2. FIBER-CEMENT SIDING, COMPLIES WITH ASTM E 136 AS A NONCOMBUSTIBLE MATERIAL. 3. FIBER-CEMENT SIDING, COMPLIES WITH ASTM E 84

FLAME SPREAD INDEX = 0, SMOKE 4. FIBER-CEMENT SIDING, COMPLIES WITH ASTM E

119 1 HOUR AND 2 HOUR FIRE RESISTIVE ASSEMBLIES LISTED WITH WARNOCK HERSEY 5. FIBER-CEMENT SIDING, TESTED TO ASTM E330 FOR TRANSVERSE LOADS.

6. INTERTEK WARNOCK HERSEY PRODUCT LISTING. 7. MANUFACTURER'S TECHNICAL DATA SHEET.

A. WEATHER BARRIER: JAMES HARDIE HARDIEWRAP AND HARDIEWRAP FLASHING AND SEAM TAPES (OR

3. TEAR STRENGTH IN ACCORDANCE WITH ASTM

4. WATER RESISTANCE IN ACCORDANCE WITH

EVALUATION REPORT ESR-2258.

A. TRIMS: REVEAL TRIMS MANUFACTURED BY CUSTOM ALUMINUM OF ELGIN, IL IN THE FOLLOWING PROFILES SUPPLIED BY JAMES HARDIE. ALUMINUM ALLOY 6063-T5 WITH A MINIMUM THICKNESS OF 0.050 INCH. ALL REVEAL TRIMS ARE 8 FEET IN LENGTH.

1. SURROUND HORIZONTAL TRIM. 2. SURROUND VERTICAL TRIM. 3. SURROUND HORIZONTAL END CUT TRANSITION TRIM.

4. SURROUND OUTSIDE CORNER TRIM.

6. SURROUND J CHANNEL TRIM.

7. SURROUND DRAINAGE FLASHING

9. RECESS HORIZONTAL EDGE TRIM.

11. RECESS OUTSIDE CORNER TRIM.

1. V2 VERTICAL MOLDING A. FASTENERS: FOR ATTACHING HARDIE REVEAL PANEL

DIRECT TO SHEATHING TO A RAIN SCREEN PROVIDE THE FOLLOWING:

1. WOOD FRAMING, FLATHEAD SCREWS: NO. 8 BY 1-1/2

INCH LONG, PAINT TO MATCH PANELS. 2. FASTENERS SHALL BE OF HIGH QUALITY STAINLESS STEEL TO ENSURE RESISTANCE TO

CORROSION. FOR FIELD PAINTING, FASTENERS SHALL BE TREATED TO ACCEPT PAINT ADHESION.

A. DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES

B. IF FRAMING PREPARATION IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF

A. CLEAN SURFACES THOROUGHLY PRIOR TO

B. PREPARE SURFACES USING THE METHODS

RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE

C. ENSURE THAT DRAINAGE PLANE IN INTACT AND ALL

A. WOOD FRAMING: NOMINAL 2 INCH BY 4 INCH (51 MM BY 102 MM) WOOD FRAMING SELECTED FOR MINIMAL SHRINKAGE AND COMPLYING WITH LOCAL BUILDING CODES, INCLUDING THE USE OF WATER-RESISTIVE BARRIERS OR VAPOR BARRIERS WHERE REQUIRED. MINIMUM 1-1/2 INCHES (38 MM) FACE AND STRAIGHT TRUE, OF UNIFORM DIMENSIONS AND PROPERLY

1. INSTALL WATER-RESISTIVE BARRIERS AND CLADDINGS TO DRY SURFACES. 2. REPAIR AND PUNCTURES OR TEARS IN THE

WATER-RESISTIVE BARRIER PRIOR TO THE INSTALLATION OF THE SIDING.

3. PROTECT SIDING FROM OTHER TRADES.

A. FIBER CEMENT LAP SIDING, PANELS, SHINGLE, TRIM, FASCIA, MOULDING AND ACCESSORIES; JAMES HARDIE HZ5 ENGINEERED FOR CLIMATE SIDING.

A. PRODUCT WARRANTY: LIMITED, NON-PRO-RATED

1. HARDIEPLANK HZ5 LAP SIDING FOR 30 YEARS. B. WORKMANSHIP WARRANTY: APPLICATION LIMITED WARRANTY FOR 2 YEARS.

07462 SIDING

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. ACCEPTABLE MANUFACTURER: JAMES HARDIE BUILDING PRODUCTS, INC., WHICH IS LOCATED AT: 26300 LA ALAMEDA SUITE 400 ; MISSION VIEJO, CA 92691; TOLL FREE TEL: 866-274-3464; TEL: 949-367-4980; FAX: 949-367-4981; EMAIL: REQUEST INFO (INFO@JAMESHARDIE.COM), WEB. WWW.JAMESHARDIECOMMERCIAL.COM 2.2 SIDING
- A. HARDIEPLANK HZ5 LAP SIDING:
- 1. FIBER-CEMENT SIDING COMPLIES WITH ASTM C 1186 TYPE A GRADE II. 2. FIBER-CEMENT SIDING - COMPLIES WITH ASTM E
- 136 AS A NONCOMBUSTIBLE MATERIAL. 3. FIBER-CEMENT SIDING - COMPLIES WITH ASTM E
- 84 FLAME SPREAD INDEX = 0, SMOKE DEVELOPED INDEX = 5.
- 4. CAL-FIRE, FIRE ENGINEERING DIVISION BUILDING MATERIALS LISTING - WILDLAND URBAN INTERFACE (WUI) LISTED PRODUCT.
- 5. NATIONAL EVALUATION REPORT NO. NER 405 (BOCA, ICBO, SBCCI, IBC, IRC).
- 6. CITY OF LOS ANGELES, RESEARCH REPORT NO.
- 7. MIAMI DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE 02-0729.02.
- 8. US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT MATERIALS RELEASE 1263D.
- 9. CALIFORNIA DSA PA-019. 10. CITY OF NEW YORK M EA 223-93-M.
- 11. FLORIDA STATE PRODUCT APPROVAL FL889. 12. TEXAS DEPARTMENT OF INSURANCE PRODUCT EVALUATION EC-23.
- 13. ICC ESR REPORTS #2290, #1844
- A. LAP SIDING: HARDIEPLANK HZ5 LAP AS MANUFACTURED BY JAMES HARDIE BUILDING
- PRODUCTS, INC. 1. TYPE: SELECT CEDARMILL 6-1/4 INCHES (159 MM) WITH 5 INCHES (127 MM) EXPOSURE.
- C. TRIM: 1. HARDIETRIM HZ5 BOARDS AS MANUFACTURED BY JAMES HARDIE BUILDING PRODUCTS, INC. 2. HARDIETRIM HZ5 FASCIA BOARDS AS
- MANUFACTURED BY JAMES HARDIE BUILDING PRODUCTS, INC.
- 2.3 FASTENERS A. WOOD FRAMING FASTENERS:
 - 1. WOOD FRAMING: 4D COMMON CORROSION RESISTANT NAILS.
 - 2. WOOD FRAMING: 6D COMMON CORROSION RESISTANT NAILS.
 - 3. WOOD FRAMING: 8D BOX RING COMMON
 - CORROSION RESISTANT NAILS. 4. WOOD FRAMING: 0.089 INCH (2.2 MM) SHANK BY 0.221 INCH (5.6 MM) HEAD BY 2 INCHES
 - (51 MM) CORROSION RESISTANT SIDING NAILS. 5. WOOD FRAMING: 0.093 INCH (2.4 MM) SHANK BY 0.222 INCH (5.6 MM) HEAD BY 2 INCHES
 - (51 MM) CORROSION RESISTANT SIDING NAILS. 6. WOOD FRAMING: 0.093 INCH (2.4 MM) SHANK BY
 - 0.222 INCH (5.6 MM) HEAD BY 2-1/2 INCHES (64 MM) CORROSION RESISTANT NAILS. 7. WOOD FRAMING: 0.091 INCH (2.3 MM) SHANK BY
 - 0.221 INCH (5.6 MM) HEAD BY 1-1/2 INCHES (38 MM) CORROSION RESISTANT SIDING NAILS. 8. WOOD FRAMING: 0.091 INCH (2.3 MM) SHANK BY 1.3 SYSTEM DESCRIPTION
 - 0.225 INCH (5.7 MM) HEAD BY 1-1/2 INCHES (38 MM) CORROSION RESISTANT SIDING NAILS. 9. WOOD FRAMING: 0.121 INCH (3 MM) SHANK BY 0.371 NCH (9.44 MM) HEAD BY 1-1/4 NCHES
 - (32 MM) CORROSION RESISTANT ROOFING NAILS 10. WOOD FRAMING: NO. 11 GAUGE 1-1/4 INCHES (38 MM) CORROSION RESISTANT ROOFING
 - NAILS 11. WOOD FRAMING: NO. 11 GAUGE 1-1/2 INCHES (38 MM) CORROSION RESISTANT ROOFING
 - NAILS 12. WOOD FRAMING: NO. 11 GAUGE 1-3/4 INCHES (44 MM) CORROSION RESISTANT ROOFING
- NAILS. 2.4 FINISHES A. FACTORY PRIMER: PROVIDE FACTORY APPLIED
- UNIVERSAL PRIMER. 1. PRIMER: FACTORY PRIMED BY JAMES HARDIE. PART 3 EXECUTION
- PREPARATION
- A. CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION. PREPARE SURFACES USING THE METHODS
- RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
- C. INSTALL A WATER-RESISTIVE BARRIER IS REQUIRED IN ACCORDANCE WITH LOCAL BUILDING CODE REQUIREMENTS.
- THE WATER-RESISTIVE BARRIER MUST BE APPROPRIATELY INSTALLED WITH PENETRATION AND JUNCTION FLASHING IN ACCORDANCE WITH
- LOCAL BUILDING CODE REQUIREMENTS. INSTALLATION- HARDIEPLANK HZ10 LAP SIDING 3.2 INSTALL MATERIALS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION
- INSTRUCTIONS. B. STARTING: INSTALL A MINIMUM ¹/₄ INCH (6 MM) THICK LATH STARTER STRIP AT THE BOTTOM COURSE OF THE WALL. APPLY PLANKS HORIZONTALLY WITH MINIMUM 1-1/4 INCHES (32 MM) WIDE LAPS AT THE
- TOP THE BOTTOM EDGE OF THE FIRST PLANK OVERLAPS THE STARTER STRIP. C. ALLOW MINIMUM VERTICAL CLEARANCE BETWEEN THE EDGE OF SIDING AND ANY OTHER MATERIAL IN
- STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. D. ALIGN VERTICAL JOINTS OF THE PLANKS OVER
- FRAMING MEMBERS. MAINTAIN CLEARANCE BETWEEN SIDING AND
- ADJACENT FINISHED GRADE F. LOCATE SPLICES AT LEAST ONE STUD CAVITY
- AWAY FROM WINDOW AND DOOR OPENINGS. G. USE OFF-STUD METAL JOINER IN STRICT ACCORDANCE WITH THE MANUFACTURER'S
- INSTALLATION INSTRUCTIONS. H. WIND RESISTANCE: WHERE A SPECIFIED LEVEL OF WIND RESISTANCE IS REQUIRED HARDIEPLANK LAP SIDING IS INSTALLED TO FRAMING MEMBERS AND SECURED WITH FASTENERS DESCRIBED IN TABLE NO. 2 IN
- NATIONAL EVALUATION SERVICE REPORT NO. NER-405. FACE NAIL TO SHEATHING.
- LOCATE SPLICES AT LEAST 12 INCHES (305 MM) AWAY FROM WINDOW AND DOOR OPENINGS.

0753 - ROOFING SYSTEM

PART 1 GENERAL

1.1 SUMMARY

A. MEMBRANE TYPE: DURO-LAST 50-MIL MEMBRANE (ROLL GOODS) 1. ROLL WIDTH: 60" (INSTALLED WIDTHS MAY VARY) 2. MEMBRANE COLOR: WHITE

4. FASTENERS: DURO-LAST® HD SCREW (#14)

B. INSULATION LAYER 1 TYPE: DURO-GUARD® ISO HD

5. PLATES: DURO-LAST® CLEAT PLATE™

COMPOSITE (COATED GLASS FACER)

3. BOARD SIZE: 4' X 8'

4. THICKNESS 2.5"

REINFORCED FACER)

3. BOARD SIZE: 4' X 8'

4. THICKNESS/R-VALUE: R-25

C. DECK TYPE: PLYWOOD (1/2 IN.)

A. ASTM INTERNATIONAL (ASTM)

FABRICS (D751)

(D4434/D4434M)

BOARD (C1289)

MATERIALS (E119)

B. UL SOLUTIONS (UL)

7-10)

D4434

GRAB METHOD.

GRAB METHOD.

PROCEDURE B.

ASTM 1204.

91%

E. INSULATION:

ASTM D751.

WITH ASTM D7635.

F. TRAFFIC PROTECTION.

1.2 REFERENCES

1. BOARD APPLICATION: FLAT STOCK

2. BOARD STYLE: LAYER THICKNESS

1. BOARD APPLICATION: FLAT STOCK

STACKS. VENTS. AND RELATED DETAILS.

CHLORIDE) SHEET ROOFING

ROOF COVERINGS (E108)

BUILDING CONSTRUCTION AND

1. (2021) UL ROOFING SYSTEMS (TGFU.R10128)

C. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

(ASCE STANDARD - ASCE/SEI 7-16)

3. ATTACHMENT TYPE: MECHANICALLY FASTENED

5. ATTACHMENT TYPE: MECHANICALLY FASTENED

C. INSULATION LAYER 2 TYPE: DURO-GUARD® ISO II (GLASS

5. ATTACHMENT TYPE: MECHANICALLY FASTENED

6. FASTENERS: DURO-LAST® HD SCREW (#14)

7. PLATES: DURO-LAST® 3-INCH METAL PLATE

D. PREFABRICATED FLASHINGS, CORNERS, PARAPETS,

E. FASTENERS, ADHESIVES, AND OTHER ACCESSORIES

REQUIRED FOR A COMPLETE ROOFING INSTALLATION.

1. (2019) STANDARD TEST METHODS FOR COATED

2. (2021) STANDARD SPECIFICATION FOR POLY(VINYL

3. (2022) STANDARD SPECIFICATION FOR FACED RIGID

CELLULAR POLYISOCYANURATE THERMAL INSULATION

4. (2020) STANDARD TEST METHODS FOR FIRE TESTS OF

5. (2020) STANDARD TEST METHODS FOR FIRE TESTS OF

1. (2007) MINIMUM DESIGN LOADS FOR BUILDINGS AND

2. (2014) MINIMUM DESIGN LOADS FOR BUILDINGS AND

3. (2017) MINIMUM DESIGN LOADS AND ASSOCIATED

A. GENERAL: PROVIDE INSTALLED ROOFING MEMBRANE AND

AND EXPOSURE TO WEATHER WITHOUT FAILURE.

BASED ON TESTING AND FIELD EXPERIENCE.

C. PHYSICAL PROPERTIES (MUST MEET OR EXCEED):

AND ≥ 390 LBF. (CROSS MACHINE

AND ≥ 31% (CROSS MACHINE

ASTM D751 GRAB METHOD.

≥ 163 LBF. (CROSS MACHINE

WITH ASTM D3045.

ACCORDANCE WITH ASTM D2136.

DIRECTION) AND -0.45% (CROSS

IN ACCORDANCE WITH ASTM D570.

ACCORDANCE WITH ASTM D5602

ACCORDANCE WITH ASTM D5635.

1. SOLAR REFLECTANCE (INITIAL): ≥ 86%

3. THERMAL EMITTANCE (INITIAL): ≥ 89%

a. MIN. ASSEMBLY R-VALUE: R-25

2. SOLAR REFLECTANCE (3-YEAR AGED): ≥ 74%

4. THERMAL EMITTANCE (3-YEAR AGED): ≥ 89%

LISTED ON THE CRRC WEBSITE):

1. GENERAL REQUIREMENTS

BASE FLASHINGS THAT REMAIN WATERTIGHT, DO NOT

B. MATERIAL COMPATIBILITY: PROVIDE ROOFING MATERIALS

THAT ARE COMPATIBLE WITH ONE ANOTHER UNDER

PERMIT THE PASSAGE OF WATER AND RESIST SPECIFIED

CONDITIONS OF SERVICE AND APPLICATION REQUIRED, AS

DEMONSTRATED BY ROOFING MEMBRANE MANUFACTURER

1. ROOF PRODUCT MUST MEET THE REQUIREMENTS OF

2. THICKNESS: 50 MIL, NOMINAL, IN ACCORDANCE WITH

3. THICKNESS OVER SCRIM: ≥ 28 MIL IN ACCORDANCE

DIRECTION) IN ACCORDANCE WITH ASTM D751

DIRECTION) IN ACCORDANCE WITH ASTM D751

DIRECTION) IN ACCORDANCE WITH ASTM D751

8. LOW TEMPERATURE BEND: PASS AT -40 °F IN

6. SEAM STRENGTH: ≥ 417 LBF. IN ACCORDANCE WITH

7. TEAR STRENGTH: ≥ 132 LBF. (MACHINE DIRECTION) AND

9. HEAT AGING: PASS AFTER BEING CONDITIONED FOR 56

10. ACCELERATED AGING: PASS AFTER 10,000 HOURS OF

TOTAL TEST TIME IN ACCORDANCE WITH ASTM G155.

11. DIMENSIONAL STABILITY: CHANGE OF -0.30% (MACHINE

12. WATER ABSORPTION: < 1.7% AT 158 °F FOR 168 HOURS

14. DYNAMIC PUNCTURE RESISTANCE: ≥ 14.7 FT-LBF. IN

D. COOL ROOF RATING COUNCIL (CRRC) (MEMBRANE MUST BE

5. SOLAR REFLECTANCE INDEX (SRI) (INITIAL): ≥ 108%

a. INSTALL USING A MINIMUM OF TWO LAYERS.

2. DURO-GUARD® ISO II (GLASS REINFORCED FACER)

b. CONFIGURATION AS INDICATED ON THE DRAWINGS.

6. SOLAR REFLECTANCE INDEX (SRI) (3-YEAR AGED). ≥

MACHINE DIRECTION) IN ACCORDANCE WITH

13. STATIC PUNCTURE RESISTANCE: ≥ 56 LBF. IN

DAYS IN OVEN MAINTAINED AT 176°F IN ACCORDANCE

5. ELONGATION AT BREAK: ≥ 31% (MACHINE DIRECTION)

TYPE III PVC SHEET ROOFING AS DEFINED BY ASTM

4. BREAKING STRENGTH: ≥ 438 LBF. (MACHINE DIRECTION)

OTHER STRUCTURES (ASCE STANDARD - ASCE/SEI

CRITERIA FOR BUILDINGS AND OTHER STRUCTURES

1. (2019) NRCA ROOFING MANUAL - MEMBRANE SYSTEMS

NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)

OTHER STRUCTURES (ASCE STANDARD - ASCE/SEI

6. FASTENERS: DURO-LAST® HD SCREW (#14)

7. PLATES: DURO-LAST® INSULATION PLATE

2. BOARD STYLE: MIN. ASSEMBLY R-VALUE

0753 - ROOFING SYSTEM

1.4 SUBMITTALS

FINISH)

1.5 QUALITY ASSURANCE

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. PRODUCT DATA SHEETS TO BE USED, WITH THE FOLLOWING INFORMATION INCLUDED: 1. PREPARATION INSTRUCTIONS AND
- RECOMMENDATIONS 2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS 3. INSTALLATION METHODS
- 4. MAINTENANCE REQUIREMENTS
- B. SUSTAINABILITY DOCUMENTATION: 1. NSF/ANSI STANDARD 347 CERTIFICATE
- 2. TYPE III PRODUCT-SPECIFIC ENVIRONMENTAL PRODUCT DECLARATION C. SHOP DRAWINGS: INDICATE INSULATION PATTERN,
- OVERALL MEMBRANE LAYOUT, FIELD SEAM LOCATIONS, JOINT OR TERMINATION DETAIL CONDITIONS, AND LOCATION OF FASTENERS D. PROVIDE VERIFICATION SAMPLES FOR EACH
- PRODUCT SPECIFIED (TWO SAMPLES REPRESENTING EACH PRODUCT, COLOR AND
- 1. 4-INCH BY 6-INCH SAMPLE OF ROOFING MEMBRANE, OF COLOR SPECIFIED. 2. 4-INCH BY 6-INCH SAMPLE OF WALKWAY PAD. 3. TERMINATION BAR, FASCIA BAR WITH COVER, DRIP EDGE, AND GRAVEL STOP IF TO BE USED. 4. EACH FASTENER TYPE TO BE USED FOR INSTALLING MEMBRANE. INSULATION/RECOVER BOARD, TERMINATION BAR AND EDGE DETAILS. E. INSTALLER CERTIFICATION: CERTIFICATION FROM THE ROOFING SYSTEM MANUFACTURER THAT INSTALLER IS APPROVED, AUTHORIZED, OR LICENSED BY MANUFACTURER TO INSTALL
- ROOFING SYSTEM. F. MANUFACTURER'S WARRANTIES.
- A. PERFORM WORK IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. B. MANUFACTURER QUALIFICATIONS: A
- MANUFACTURER SPECIALIZING IN THE PRODUCTION OF PVC MEMBRANES SYSTEMS AND UTILIZING A QUALITY CONTROL MANUAL DURING THE PRODUCTION OF THE MEMBRANE ROOFING SYSTEM THAT HAS BEEN APPROVED BY AND IS INSPECTED BY UNDERWRITERS LABORATORIES.
- INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN INSTALLATION OF ROOFING SYSTEMS SIMILAR TO THOSE SPECIFIED IN THIS PROJECT AND APPROVED BY THE ROOFING
- SYSTEM MANUFACTURER. D. SOURCE LIMITATIONS: OBTAIN COMPONENTS FOR MEMBRANE ROOFING SYSTEM FROM ROOFING MEMBRANE MANUFACTURER
- E. THERE SHALL BE NO DEVIATIONS FROM THE ROOF MEMBRANE MANUFACTURER'S SPECIFICATIONS OR THE APPROVED SHOP DRAWINGS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE MANUFACTURER.
- A. MANUFACTURER: DURO-LAST ROOFING, WHICH IS LOCATED AT: 525 MORLEY DRIVE, SAGINAW, MI TELEPHONE: 800-248-0280.
- B. ALL ROOFING SYSTEM COMPONENTS TO BE PROVIDED OR APPROVED BY DURO-LAST ROOFING, INC. C. SUBSTITUTIONS: NOT PERMITTED.
- UPLIFT PRESSURES, THERMALLY INDUCED MOVEMENT, 2.2 ROOFING SYSTEM COMPONENTS
 - A. ROOFING MEMBRANE:

GOODS)

VARY)

2. FEATURES:

B. INSULATION:

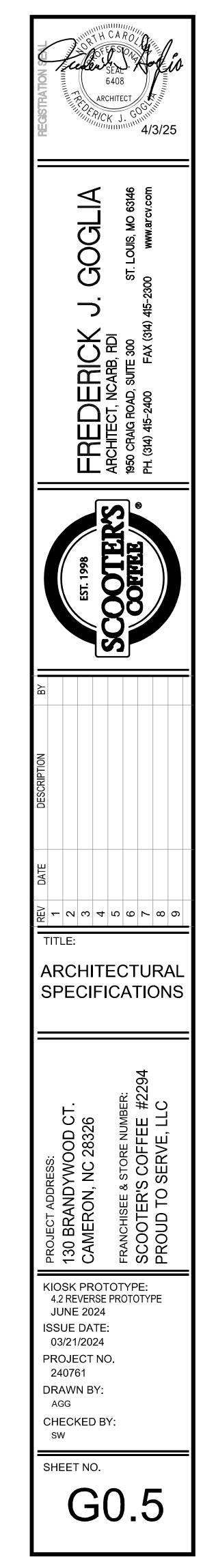
FACER)

3. SIZE: 4' x 8'

SURFACES.

- 1. PROPERTIES: a. TYPE: DURO-LAST 50-MIL MEMBRANE (ROLL
- b. ROLL WIDTH: 60" (INSTALLED WIDTHS MAY
- c. MEMBRANE COLOR: WHITE d. ATTACHMENT TYPE: MECHANICALLY FASTENED e. FASTENERS: DURO-LAST® HD SCREW (#14) f. PLATES: DURO-LAST® CLEAT PLATE™
- a. ASTM D4434, TYPE III
- b. FABRIC-REINFORCED, PVC, NSF/ANSI 347 GOLD OR PLATINUM CERTIFICATION, AND A PRODUCT-SPECIFIC THIRD-PARTY VERIFIED ENVIRONMENTAL PRODUCT DECLARATION. c. MINIMUM RECYCLE CONTENT 7% POST-INDUSTRIAL AND 0% POST-CONSUMER.
- d. RECYCLED AT END OF LIFE INTO RESILIENT FLOORING OR CONCRETE EXPANSION JOINTS.
- 1. GENERAL REQUIREMENTS
- a. PROVIDE PREFORMED ROOF INSULATION BOARDS THAT COMPLY WITH REQUIREMENTS AND REFERENCED STANDARDS, AS SELECTED FROM MANUFACTURER'S STANDARD SIZES. b. PROVIDE PREFORMED SADDLES, CRICKETS, AND OTHER INSULATION SHAPES WHERE INDICATED FOR SLOPING TO DRAIN. FABRICATE TO SLOPES INDICATED.
- c. PROVIDE ROOF INSULATION ACCESSORIES APPROVED BY THE ROOF MEMBRANE MANUFACTURER AND AS RECOMMENDED BY INSULATION MANUFACTURER FOR THE
- INTENDED USE. 2 COMPONENT a. PROPERTIES:
- 1. TYPE: DURO-GUARD® ISO II (GLASS REINFORCED 2. BOARD APPLICATION: FLAT STOCK
- 4. METHOD: MIN. ASSEMBLY R-VALUE: PER BUILDING SECTIONS SHEET A3.1.
- 5. ATTACHMENT TYPE: MECHANICALLY FASTENED 6. FASTENERS: DURO-LAST® HD SCREW (#14) 7. PLATES: DURO-LAST® 3-INCH METAL PLATE b FEATURES
- 1. CLOSED-CELL POLYISOCYANURATE FOAM CORE INSULATION BOARD. 2. COMPLYING WITH ASTM C1289, TYPE II, FELT OR
- GLASS-FIBER MAT FACER ON BOTH MAJOR 3. PROVIDE DURO-LAST FACTORY-COATED STEEL FASTENERS AND METAL OR PLASTIC PLATES
- MEETING CORROSION-RESISTANCE PROVISIONS IN FMG 4470, DESIGNED FOR FASTENING INSULATION AND/OR INSULATION COVER BOARDS IN CONFORMANCE TO SPECIFIED DESIGN REQUIREMENTS.

- C. DECK TYPE:
- 1. PROPERTIES: a. TYPE: OSB DECK (1/2 IN.)
- D. ACCESSORY MATERIALS: PROVIDE ACCESSORY MATERIALS SUPPLIED BY OR APPROVED FOR USE BY DURO-LAST ROOFING, INC .:
- 1. SHEET FLASHING: MANUFACTURER'S STANDARD REINFORCED PVC SHEET FLASHING. 2. PREFAB FLASHINGS: MANUFACTURED USING
- STANDARD REINFORCED PVC MEMBRANE. a. DURO-LAST® TWO-WAY AIR VENT b. DURO-LAST® INSIDE AND OUTSIDE CORNERS
- c. DURO-LAST® STACK FLASHING d. DURO-LAST® CURB FLASHING
- e. DURO-LAST® MATERIAL SCUPPERS 3. FASTENERS: FACTORY-COATED STEEL FASTENERS MEETING CORROSION-RESISTANCE PROVISIONS IN FMG 4470, DESIGNED FOR FASTENING MEMBRANE AND INSULATION TO SUBSTRATE. SUPPLIED BY
- DURO-LAST ROOFING, INC. a. DURO-LAST® HD SCREW (#14) 4. PLATES: METAL OR PLASTIC PLATES MEETING CORROSION-RESISTANCE PROVISIONS IN FMG 4470, DESIGNED FOR FASTENING MEMBRANE AND INSULATION TO SUBSTRATE. SUPPLIED BY DURO-LAST ROOFING, INC. a. DURO-LAST® CLEAT PLATE™
- b. DURO-LAST® 3-INCH METAL PLATE 5. CAULK: COMPATIBLE WITH ROOFING SYSTEM AND SUPPLIED BY DURO-LAST ROOFING, INC.
- a. DURO-CAULK® PLUS 6. METAL TERMINATION: SUPPLIED BY DURO-LAST ROOFING, INC.
- a. UNIVERSAL 2-PIECE COMPRESSION SYSTEM i. ANSI/SPRI ES-1 COMPLIANT WITH 3" TO 8" BASE AND COVER.
- 7. GUTTER AND DOWNSPOUT, SUPPLIED BY DURO-LAST ROOFING, INC.
- a. DOWNSPOUT b. CONDUCTOR HEAD
- PART 3 EXECUTION
- 3.1 EXAMINATION
 - B. VERIFY THAT THE SURFACES AND SITE CONDITIONS ARE READY TO RECEIVE WORK.
 - C. VERIFY THAT THE DECK IS SUPPORTED AND SECURED. D. VERIFY THAT THE DECK IS CLEAN AND SMOOTH, FREE OF DEPRESSIONS, WAVES, OR PROJECTIONS, AND PROPERLY SLOPED TO DRAINS, VALLEYS, EAVES,
 - SCUPPERS OR GUTTERS. E. VERIFY THAT THE DECK SURFACES ARE DRY AND FREE
 - OF STANDING WATER, ICE OR SNOW.
 - F. VERIFY THAT ALL ROOF OPENINGS OR PENETRATIONS THROUGH THE ROOF ARE SOLIDLY SET. G. IF SUBSTRATE PREPARATION IS THE RESPONSIBILITY OF
 - ANOTHER CONTRACTOR, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.
- 3.2 PREPARATION
- A. CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION.
- **B. PREPARE SURFACES USING THE METHODS** RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
- C. SURFACES SHALL BE CLEAN, SMOOTH, FREE OF FINS, SHARP EDGES, LOOSE AND FOREIGN MATERIAL, OIL. GREASE, AND BITUMEN.
- 3.3 INSTALLATION
 - A. INSULATION: 1. GENERAL REQUIREMENTS
 - a. INSTALL INSULATION IN ACCORDANCE WITH THE ROOF MANUFACTURER'S REQUIREMENTS. b. INSULATION SHALL BE ADEQUATELY SUPPORTED
 - TO SUSTAIN NORMAL FOOT TRAFFIC WITHOUT DAMAGE. c. WHERE FIELD TRIMMED, INSULATION SHALL BE
 - FITTED TIGHTLY AROUND ROOF PROTRUSIONS WITH NO GAPS GREATER THAN 1/4 INCH
 - d. TAPERED INSULATION BOARDS SHALL BE INSTALLED IN ACCORDANCE WITH THE
 - INSULATION MANUFACTURER'S SHOP DRAWINGS. e. NO MORE INSULATION SHALL BE APPLIED THAN CAN BE COVERED WITH THE ROOF MEMBRANE BY THE END OF THE DAY OR THE ONSET OF
 - INCLEMENT WEATHER. f. IF MORE THAN ONE LAYER OF INSULATION IS USED, ALL JOINTS BETWEEN SUBSEQUENT LAYERS SHALL BE OFFSET BY AT LEAST 6
 - INCHES. 2. DURO-GUARD® ISO II (GLASS REINFORCED FACER) a. USE ONLY FASTENERS, STRESS PLATES AND FASTENING PATTERNS ACCEPTED FOR USE BY THE ROOF MANUFACTURER. FASTENING PATTERNS MUST MEET APPLICABLE DESIGN
 - REQUIREMENTS. b. INSTALL FASTENERS IN ACCORDANCE WITH THE ROOF MANUFACTURER'S REQUIREMENTS. FASTENERS THAT ARE IMPROPERLY INSTALLED
 - MUST BE REPLACED OR CORRECTED. c. INSTALL ALL LAYERS IN PARALLEL COURSES WITH END JOINTS STAGGERED 50% AND ADJACENT BOARDS BUTTED TOGETHER WITH NO GAPS GREATER THAN 1/4 INCH.
 - B. ROOFING MEMBRANE:
 - 1. GENERAL REQUIREMENTS a. INSTALL MEMBRANE IN ACCORDANCE WITH THE ROOF MANUFACTURER'S REQUIREMENTS. b. CUT MEMBRANE TO FIT NEATLY AROUND ALL
 - PENETRATIONS AND ROOF PROJECTIONS. 2. DURO-LAST 50-MIL MEMBRANE (ROLL GOODS)
 - a. USE ONLY FASTENERS, STRESS PLATES AND FASTENING PATTERNS ACCEPTED FOR USE BY THE ROOF MANUFACTURER, FASTENING PATTERNS MUST MEET APPLICABLE DESIGN REQUIREMENTS.
 - b. INSTALL FASTENERS IN ACCORDANCE WITH THE ROOF MANUFACTURER'S REQUIREMENTS. FASTENERS THAT ARE IMPROPERLY INSTALLED MUST BE REPLACED OR CORRECTED.
 - c. MECHANICALLY FASTEN MEMBRANE TO THE STRUCTURAL DECK UTILIZING FASTENERS AND FASTENING PATTERNS IN ACCORDANCE WITH THE ROOF MANUFACTURER'S REQUIREMENTS.
 - C. WELD OVERLAPPING SHEETS TOGETHER USING HOT AIR. MINIMUM WELD WIDTH IS 1-1/2 INCHES. D. CHECK FIELD WELDED SEAMS FOR CONTINUITY AND
 - INTEGRITY AND REPAIR ALL IMPERFECTIONS BY THE END OF EACH WORK DAY.



ARCHITECTURAL SPECIFICATIONS - CONTINUED

0753 - ROOFING SYSTEM cont.

- E: FLASHINGS: COMPLETE ALL FLASHINGS AND TERMINATIONS AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH THE MEMBRANE MANUFACTURER'S REQUIREMENTS.
- 1. PROVIDE SECUREMENT AT ALL MEMBRANE TERMINATIONS AT THE PERIMETER OF EACH ROOF LEVEL, ROOF SECTION, CURB FLASHING SKYLIGHT, EXPANSION JOINT, INTERIOR WALL PENTHOUSE, AND OTHER SIMILAR CONDITION.
- a. DO NOT APPLY FLASHING OVER EXISTING THRU-WALL FLASHINGS OR WEEP HOLES. b. SECURE FLASHING ON A VERTICAL SURFACE
- BEFORE THE SEAM BETWEEN THE FLASHING AND THE MAIN ROOF SHEET IS COMPLETED.
- c. EXTEND FLASHING MEMBRANE A MINIMUM OF 6 INCHES (152 MM) ONTO THE MAIN ROOF SHEET BEYOND THE MECHANICAL SECUREMENT.
- d. USE CARE TO ENSURE THAT THE FLASHING DOES NOT BRIDGE LOCATIONS WHERE THERE IS A CHANGE IN DIRECTION (E.G. WHERE THE PARAPET MEETS THE ROOF DECK).
- 2 PENETRATIONS:
- a. FLASH ALL PIPES, SUPPORTS, SOIL STACKS. COLD VENTS, AND OTHER PENETRATIONS PASSING THROUGH THE ROOFING MEMBRANE AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH THE MEMBRANE
- MANUFACTURER'S REQUIREMENTS. b. UTILIZE CUSTOM PREFABRICATED FLASHINGS SUPPLIED BY THE MEMBRANE MANUFACTURER.
- c. EXISTING FLASHINGS: REMOVE WHEN NECESSARY TO ALLOW NEW FLASHING TO TERMINATE DIRECTLY TO THE PENETRATION.
- 3. PIPE CLUSTERS AND UNUSUAL SHAPES:
- a. CLUSTERS OF PIPES OR OTHER PENETRATIONS WHICH CANNOT BE SEALED WITH PREFABRICATED MEMBRANE FLASHINGS SHALL BE SEALED BY SURROUNDING THEM WITH A PREFABRICATED VINYL-COATED METAL PITCH PAN AND SEALANT SUPPLIED BY THE
- MEMBRANE MANUFACTURER. b. VINYL-COATED METAL PITCH PANS SHALL BE INSTALLED, FLASHED AND FILLED WITH
- SEALANT IN ACCORDANCE WITH THE MEMBRANE MANUFACTURER'S REQUIREMENTS.
- c. PITCH PANS SHALL NOT BE USED WHERE PREFABRICATED OR FIELD FABRICATED FLASHINGS ARE POSSIBLE.
- F. ROOF DRAINS: COORDINATE INSTALLATION OF ROOF DRAINS AND VENTS.
- 1. DRAIN ASSEMBLIES WITH CLAMPING RINGS: a. REMOVE EXISTING ROOFING SYSTEM MATERIALS FROM DRAIN BOWL AND
- CLAMPING RING. b. THE MEMBRANE MUST EXTEND BEYOND THE INSIDE OF THE CLAMPING RING.
- c. USE A MANUFACTURER SUPPLIED OR APPROVED SEALANT (1/2 TUBE MINIMUM)
- BETWEEN THE MEMBRANE AND DRAIN BOWL ASSEMBLY d. AFTER THE MEMBRANE IS PROPERLY
- INSTALLED ONTO THE BOWL AND THE CLAMPING RING SET IN PLACE, ALL BOLTS SECURING THE RING MUST BE INSTALLED TO PROVIDE CONSTANT, EVEN COMPRESSION ON THE SEALANT. IF BOLTS ARE BROKEN OR MISSING, REPLACEMENTS MUST BE INSTALLED.
- 2. DRAIN BOOTS:
- a. REMOVE EXISTING FLASHING AND ASPHALT AT EXISTING DRAINS IN PREPARATION FOR SEALANT AND MEMBRANE.
- b. USE A MANUFACTURER SUPPLIED OR APPROVED SEALANT (1/2 TUBE MINIMUM) TO THE OUTSIDE OF THE DRAIN BOOT AND INSERT IT INTO THE DRAIN.
- c. FASTEN MEMBRANE AROUND THE PERIMETER OF THE DRAIN WITH THE SAME FASTENING PATTERN AS THE FIELD MEMBRANE. NO LESS
- THAN 1 FASTENER PER DRAIN. d. INSTALL A PAIR OF COMPOSITE DRAIN RINGS (CDRS) TO COMPRESS THE BOOT TO THE PIPE. ENSURE THE CDR OPENINGS FACE IN
- OPPOSITE DIRECTIONS. e. SECURE THE MANUFACTURER'S DRAIN GUARD OVER THE OPENING BY HEAT
- WELDING THE ATTACHMENT TABS TO THE ROOF MEMBRANE.
- G. EDGE DETAILS:
- 1. PROVIDE EDGE DETAILS AS INDICATED ON THE DRAWINGS, INSTALL IN ACCORDANCE WITH THE
- MEMBRANE MANUFACTURER'S REQUIREMENTS.
- 2. JOIN INDIVIDUAL SECTIONS IN ACCORDANCE WITH THE MEMBRANE MANUFACTURER'S
- REQUIREMENTS. 3. COORDINATE INSTALLATION OF METAL FLASHING
- AND COUNTER FLASHING. 4. MANUFACTURED ROOF SPECIALTIES: COORDINATE INSTALLATION OF COPINGS, COUNTER FLASHING SYSTEMS, GUTTERS, DOWNSPOUTS, AND ROOF EXPANSION ASSEMBLIES.
- H. WALKWAYS:
- 1. INSTALL WALKWAYS IN ACCORDANCE WITH THE
- MEMBRANE MANUFACTURER'S REQUIREMENTS. 2. PROVIDE WALKWAYS WHERE INDICATED ON THE
- DRAWINGS. 3. INSTALL WALKWAY PADS AT ROOF HATCHES, ACCESS DOORS, ROOFTOP LADDERS AND ALL OTHER TRAFFIC CONCENTRATION POINTS REGARDLESS OF TRAFFIC FREQUENCY. PROVIDED IN AREAS RECEIVING REGULAR TRAFFIC TO SERVICE ROOFTOP UNITS OR WHERE A PASSAGEWAY OVER THE SURFACE IS
- REQUIRED. 4. DO NOT INSTALL WALKWAYS OVER FLASHINGS OR FIELD SEAMS UNTIL MANUFACTURER'S WARRANTY INSPECTION HAS BEEN COMPLETED.

0753 - ROOFING SYSTEM cont.

- I. WATER CUT-OFFS:
- 1. PROVIDE WATER CUT-OFFS ON A DAILY BASIS AT THE COMPLETION OF WORK AND AT THE ONSET OF INCLEMENT WEATHER.
- 2. PROVIDE WATER CUT-OFFS TO ENSURE THAT WATER DOES NOT FLOW BENEATH THE COMPLETED SECTIONS OF THE NEW ROOFING SYSTEM.
- 3. REMOVE WATER CUT-OFFS PRIOR TO THE RESUMPTION OF WORK.
- 4. THE INTEGRITY OF THE WATER CUT-OFF IS THE SOLE RESPONSIBILITY OF THE ROOFING CONTRACTOR
- 5. ANY MEMBRANE CONTAMINATED BY THE CUT-OFF C. INSTALLATION MATERIAL SHALL BE CLEANED OR REMOVED.

3.4 FIELD QUALITY CONTROL A. THE MEMBRANE MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE A COMPREHENSIVE FINAL INSPECTION AFTER COMPLETION OF THE ROOF SYSTEM. ALL APPLICATION ERRORS SHALL BE ADDRESSED AND FINAL PUNCH LIST COMPLETED.

3.5 PROTECTION A. PROTECT INSTALLED ROOFING PRODUCTS FROM CONSTRUCTION OPERATIONS UNTIL COMPLETION OF

- PROJECT B. WHERE TRAFFIC IS ANTICIPATED OVER COMPLETED ROOFING MEMBRANE, PROTECT FROM DAMAGE USING DURABLE MATERIALS THAT ARE COMPATIBLE
- WITH MEMBRANE C. REPAIR OR REPLACE DAMAGED PRODUCTS AFTER WORK IS COMPLETED.

0760 - FLASHING & SHEET METAL

- A. GENERAL: PROVIDE FLASHING AND SHEET METAL, REGLETS, AND ACCESSORIES AS REQUIRED FOR ROOF REPAIRS AS REQUIRED FOR COMPLETE, WEATHERTIGHT INSTALLATION
- B. STANDARDS: CONFORM TO SMACNA "ARCHITECTURAL SHEET METAL MANUAL" REQUIREMENTS FOR FLASING AND SHEET METAL
- C. DESIGN REQUIREMENTS: ALLOW FOR MOVEMENT OF COMPONENTS WITHOUT CAUSING BUCKLING, FAILURE OF JOINT SEALS, UNDUE STRESS OF FASTENERS OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO 100 YEAR SEASONAL TEMPERATURE RANGES.
- D. SUBMITTALS: FURNISH PRODUCT DATA FOR MANUFACTURED PRODUCTS.
- E. WARRANTY: CORRECT FAILURE OF METAL FLASHING SYSTEM TO RESIST PENETRATION OF WATER AND DAMAGE FROM WIND; WARRANTY PERIOD TWO YEARS.
- F. FLASHING AND SHEET METAL: MATCH EXISTING, BUT NOT LESS THAN FLOLLOWING: 1. GALVANIZED METAL FLASHING: ASTM A526 GALVANIZED STEEL WITH MINIMUM 0.02 COOPER
- AND WITH MINIMUM G90 GALVANIZED COATING; MINIMUM 20 GAGE. 2. PREFINISHED METAL FLASHING: 20 GAGE GALVANIZED STEEL WITH FACTORY FINISHED KYNAR 500 TYPE FLUOROPOLYMER COATING AND STIPPABLE PROTECTIVE FILM; COLOR AS SELECTED FROM MANUFACTURER'S FULL RANGE
- OF COLORS. 3. ALUMINUM FLASHING: ASTM B209, ALLOY AS REQUIRED TO MATCH FINISH SPECIFIED FOR OTHER ALUMINUM COMPONENTS; THICKNESS MINIMUM 0.050" SOFT TEMPER.
- STAINLESS STEEL SHEET METAL: ASTM A666, 2D ANNEALED FINISH, SOFT TEMPER EXCEPT WHERE HARDER TEMPER IS REQUIRED FOR FORMING OR PERFORMANCE; 0,050" (28 GAGE) TYPICAL. 5. COPPER SHEET METAL: ASTM B370, COLD ROLLED
- 16OZ. (0.0216") THICK; SOFT TEMPER WHERE REQUIRED FOR FORMING
- G. REGLETS: FRY/SPRINGLOK OR MM SYSTEM/SNAP-TITE REGLETS; FABRICATE OF SAME METAL AS ADJACENT FLASHING AND SHEET METAL.
- H. METAL TO METAL SEALANT: BUTYL TYPE NOT-STAINING, NON-CORROSIVE, NON-SHRINKING, NON-SAGGING, UNTRA-VIOLET AND OZONE RESISTANT
- INSTALLATION: COMPLY WITH SMACNA MANUAL. 1 INSTALL METAL FLASHING AND SHEET METAL IN ACCORDANCE WITH SMACNA ARCHITECTURAL SHEET METAL MANUAL; TIGHT IN PLACE, WITH CORNERS SQUARE, SURFACES TRUE AND STRAIGHT IN PLANES, AND LINES ACCURATE TO PROFILES AS INDICATED ON DRAWINGS.
- 2. INSTALL SEALANTS WHERE REQUIRED TO PREVENT DIRECT WEATHER PENETRATION.
- 3. COMPLETE INSTALLATION SHALL BE FREE OF RATTLES, NOISE DUE TO THERMAL AND AIR MOVEMENT AND WIND WHISTLES.

0790 -CAULKING & SEALANTS

A. DESCRIPTION:

- 1.1. WORK INCLUDED: SUPPLY AND INSTALL ALL CAULKING AND SEALANTS WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. THIS SHALL INCLUDE, BUT NOT IS LIMITED TO, THE FOLLOWING:
- a. ALUMINUM ENTRANCE SYSTEM & WINDOWS-SPECIFIED UNDER SECTION 0815 ALUMINUM
- ENTRANCE SYSTEM b. TOILET FIXTURES: CAULK BY PLUMBING
- CONTRACTOR, COLOR- WHITE. c. WATER OR WASTE PENETRATIONS: CAULK
- BY PLUMBING CONTRACTOR, COLOR- WHITE d. COMPRESSION CUP MAY BE PROVIDED IN
- LIEU OF CAULK. e. TILE CORNERS CAULK BY GENERAL
- CONTRACTOR, COLOR TBD
- f. TILE AT COOLER WALLS: CAULK BY GENERAL CONTRACTOR, COLOR -TBD
- g. TILE AT CEILING GRID: CAULK BY GENERAL CONTRACTOR, COLOR- TBD
- h. VANITY TOPS & WAITRESS STATION: CAULK BY GENERAL CONTRACTOR, COLOR- CLEAR.
- i. PAPER TOWEL DISPENSER: CAULK BY
- GENERAL CONTRACTOR, COLOR- CLEAR. J. HOLLOW METAL DOORS: CAULK BY
- GENERAL CONTRACTOR, COLOR- CLEAR

GENERAL CONTRACTOR, COLOR - TBD

- k. HOOD WALLS: CAULK BY GENERAL CONTRACTOR, COLOR- TBD
- I. PASS THRU: CAULK BY GENERAL
- CONTRACTOR, COLOR- TBD m. EXTERIOR SEALANTS: SEALANT BY

- B. MATERIALS 1.1. GENERAL INTERIOR CAULK: ONE PART ACRYLIC LATEX CAULK. 90% SOLIDS MINIMUM. USE AS **RECOMMENDED BY MANUFACTURER (AS** GENERAL PURPOSE INTERIOR SEALANT). ACCEPTABLE MANUFACTURER: DOW CORNING. 1.2. JOINT BACKING: COMPRESSIBLE ROD OF MATERIAL AS RECOMMENDED BY SEALANT MANUFACTURER FOR JOINT TYPES AND WIDTHS INDICATED ON CONSTRUCTION DRAWINGS.

0790 -CAULKING & SEALANTS cont.

- 1.3. JOINT CLEANER, SEALERS, AND PRIMER SHALL BE USED AS RECOMMENDED BY MANUFACTURER.
- 1.1. JOINT BACKING MATERIAL SHALL BE A WIDTH GREATER THAN THE JOINT, AS RECOMMENDED BY THE MANUFACTURER, TO GUARANTEE A
- TIGHT FIT WHEN FORCED INTO PLACE. **1.2 APPLY MATERIALS IN STRICT ACCORDANCE** WITH MANUFACTURER'S PRINTED INSTRUCTIONS: OBSERVE MANUFACTURER'S REQUIREMENTS REGARDING TEMPERATURE CONTROL, USABILITY OF MATERIALS, AND PROTECTION OF ADJACENT SURFACES.
- 1.1. MAKING SEALING SURFACE SLIGHTLY CONCAVE FREE OF WRINKLES AND SKIPS: UNIFORMLY SMOOTH AND WITH PERFECT ADHESION ALONG BOTH SIDES OF JOINT. PROTECT ADJACENT SURFACES FROM EXCESS MATERIALS LEAVE JOINTS IN A CLEAN NEAT CONDITION. DEFECTIVE JOINTS SHALL BE REMOVED. CLEANED AND REPLACED AT NO ADDITIONAL
- COST TO THE OWNER.SET THRESHOLDS IN FULL BED OF CAULKING AND ANCHOR WITH EXPANSION ANCHORS.

0810 HOLLOW METAL DOORS & FRAMES

A. DESCRIPTION 1.1. REFER TO DOOR SCHEDULE FOR LOCATIONS AND TYPES OF DOORS REQUIRED.

B. PRODUCTS

1.3

- 1.1. HOLLOW METAL FRAMES- GENERAL a. COLD ROLLED 18 GAUGE LABELED
- FRAMES WHERE REQUIRED. b. FRAMES SHALL RECEIVE TWO COATS OF RUST INHIBITIVE PRIMER. PROVIDE
- THREE (3) RUBBER BUMPERS AT EACH DOOR c. ALL FRAMES TO BE WELDED HOLLOW
- METAL d. APPROVED MANUFACTURERS:
- STEELCRAFT, CECO, TRUSSBILT, AMWELD, AND FENESTRA
- 1.2 HOLLOW METAL FRAMES WELDED
- (INTERIOR & EXTERIOR) a. SAW MITER AND CONTINUOUSLY WELD CORNER JOINTS FOR FULL JAMB DEPTH AND WIDTH OF FRAME AND TRIM. CONTACT EDGES SHALL BE CLOSED TIGHT WELDS ON EXPOSED SURFACES DRESSED SMOOTH AND FLUSH. PRIME COAT PAINT b. PROVIDE CHAMBER AT HINGE CUTOUTS
- TO ALLOW ATTACHMENT OF HINGES AFTER FRAME IS FILLED WITH GROUT. HOLLOW METAL DOORS
- a. DOORS SHALL BE FLUSH DESIGN, OF SIZE INDICATED ON DOOR SCHEDULE b. CORE SHALL CONSIST OF STRUCTURAL HONEYCOMB OR SOLID POLYSTYRENE
- CORE BANDED TO BOTH FACES. c. APPROVED MANUFACTURERS:
- STEELCRAFT, CECO, TRUSSBILT, AMWELD, AND FENESTRA C. INSTALLATION
- 1.1. FRAMES, WHICH ARE SCHEDULED FOR LABEL CONSTRUCTION. SHALL BE INSTALLED USING UL-APPROVED ANCHORING. FRAMES SHALL BE PROPERLY PREPARED TO RECEIVE UL-APPROVED HARDWARE AND SHALL HAVE
- PROPER LABEL ATTACHED AT THE FACTORY. 1.2. ALL FRAMES SHALL BE COMPLETED WITH JAMB ANCHORS FOR ATTACHING TO MASONRY WALLS, OR OTHER ANCHORS, AS REQUIRED BY THE PARTICULAR INSTALLATION.
- 1.3. AT THE TIME OF INSTALLATION, THE DOOR JAMBS SHOULD BE HELD ½ " OFF THE EXISTING CONCRETE FLOOR, BEFORE FLOOR TILE IS INSTALLED.
- 1.4. INSTALL ALL HOLLOW METAL DOORS AND FRAMES ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- 1.5. FILL ALL WELDED FRAMES WITH MORTAR.

0815 ALUMINUM WINDOW SYSTEMS

- A. DESCRIPTION 1.1. FURNISH AND INSTALL ALL GLAZING, GLASS AND DOOR FRAMES, BARRIER BARS, AND EXTERIOR WINDOW WALL SYSTEM, INCLUDING ALL HARDWARE, ACCESSORIES, AND CAULKING. REQUIRED FOR A COMPLETE WATERTIGHT INSTALLATION AS DETAILED ON THE DRAWINGS AND HEREINAFTER SPECIFIED.
- B. PRODUCTS 1.1. ALUMINUM COMPONENTS: 22,000 PSI PER ULTIMATE TENSILE STRENGTH ALLOY, NOT LESS THAN 0.125 " WALL THICKNESS. 1-3/4 " X 4.5" FRAME SIZE.
- 1.2. FASTENING: ALUMINUM, STAINLESS STEEL OR CADMIUM PLATED CARBON STEEL. **1.3. WEATHERSTOP DOOR OPENINGS WITH**
- BLACK PLOY-PILE WEATHER-STRIPPING. 1.4. GLASS STOPS: WITHOUT VISIBLE FASTENINGS SNAP-IN TYPE BLACK, FOR
- PUTTY LESS GLAZING. 1.5. HARDWARE: REFER TO DOCUMENTS 1.6. FINISH: REFER TO DOCUMENTS 1.7. DOORS TO BE MEDIUM STILE TO MEET
- APPLICABLE AAMA REQUIREMENTS CONCERNING SILLS AND STRENGTHS. 1.8. CAULKING COLOR TO MATCH FRAME.
- 1.9 MANUFACTURERS a. DOORS AND FRAMES: KAWNEER OR VISTAWALL C INSTALLATION
- 1.1. FABRICATE AND INSTALL EXTERIOR UNITS TO WITHSTAND WIND PRESSURE LOAD OF 26 POUNDS PER SQUARE FOOT OVER ENTIRE FRAME, AND PANEL AREA, ACTING INWARD AND OUTWARD.

- 0850 PASS-THRU WINDOW
- MANUAL OPERATED, SELF-CLOSING, BI-PARTING PASS-THRU WINDOW IN ANODIZED ALUMINUM FRAME. PRE-GLAZED WINDOW, SEE EXTERIOR ELEVATION AND DOOR AND WINDOW SCHEDULE FOR ADDITION INFORMATION. UNIT AS MANUFACTURED BY:
- QUICKSERV CORP P.O. BOX 40466 HOUSTON, TX 77240
- CONTACT: WADE ARNOLD

0870 FINISH HARDWARE

- A. DESCRIPTION 1.1. INSTALL ALL FINISH HARDWARE ON DOORS INDICATED ON DOOR SCHEDULE **1.2. COORDINATION: HARDWARE TEMPLATES**
- AND SCHEDULES SHALL BE SENT TO HOLLOW METAL MILLWORK WOOD DOOR SUPPLIER TO COORDINATE THE NECESSARY PREPARATION. B. PRODUCTS 1.1. ALL HARDWARE TO MEET REQUIREMENTS
- LISTED IN THE DOOR SCHEDULE UNLESS OTHERWISE NOTED. 1.2. ALL ALUMINUM ENTRANCE SYSTEM
- HARDWARE ROLLING GRILLES & OVERHEAD FIRE DOORS & SHUTTER HARDWARE IS BY MANUFACTURER C. INSTALLATION
- 1.1. MOUNT ALL HARDWARE UNITS AT HEIGHTS RECOMMENDED IN "RECOMMEND LOCATIONS FOR BUILDERS HARDWARE" BY NBHA, EXCEPT AS OTHERWISE SPECIFICALLY INDICATED OR REQUIRED TO COMPLY WITH GOVERNING HANDICAPPED REGULATIONS. THESE SHALL BE AS
- FOLLOWS: a. LOCK SETS AND LATCH SETS- 40"
- b. EXIT DEVICE CROSSBAR- 37" c. CENTER OF DOOR PULL- 42"
- d. CENTER OF PUSH PLATE- 48" e. DEADLOCK- 60"
- INSTALL HARDWARE ITEMS COMPLYING WITH 1.2 MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. REMOVE HARDWARE FROM SURFACES TO BE FINISHED AFTER INSTALLATION AND STORE UNTIL SURFACE
- FINISH IS APPLIED: THEN REINSTALL 1.3 ADJUST EACH OPERATING ITEM OF HARDWARE TO INSURE PROPER OPERATION OF FUNCTION
- OF UNIT. 1.4 LUBRICATE MOVING PARTS AS RECOMMENDED BY MANUFACTURER
- 1.5 INSTALL ALL WEATHER-STRIPPING IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. FIT WEATHER-STRIPPING TIGHTLY AT CORNERS TO MAINTAIN CONTINUITY AROUND PERIPHERY OF DOOR. 1.6 CLEAN HARDWARE AS RECOMMENDED BY
- MANUFACTURER.

0880 GLASS & GLAZING

- A. DESCRIPTION 1.1. FURNISH AND INSTALL ALL GLASS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. B. MATERIALS
- 1.1. GLAZING COMPOUND: a. (TT-P-781), TYPE 1 OR TYPE 2 MINIMUM AND ACCESSORIES SUCH AS POINTS.
- SETTING BLOCKS, SHIMS, STOP BEADS ANGLES, WIRING SPRING CLIPS SHALL BE THE TYPE RECOMMENDED BY THE GLASS MANUFACTURER. C TYPES 1.1. 5/8 " TEMPERED INSULATING GLASS IN
- EXTERIOR ALUMINUM DOORS. 1.2.1" TEMPERED INSULATING GLASS @
- EXTERIOR LOCATIONS 1.3. 1/4" TEMPERED GLASS @ INTERIOR
- LOCATIONS 1.4. PROVIDE 35% DUAL REFLECTIVE WINDOW FILM ON 2ND SURFACE (INSIDE).
- D. INSTALLATION 1.1. PERFORM ALL GLAZING WORK IN ACCORDANCE WITH THE MINIMUM
- STANDARDS OF THE FLAT GLASS JOBBERS ASSOCIATION (FGJA) GLAZING MANUAL. 1.2. ALL GLASS FACTORY LABELED ON EACH PANE. DIMENSIONS SHOWN ON DRAWINGS ARE GIVEN ONLY AS A GUIDE FOR ESTIMATING PURPOSES. AND ACTUAL SIZE SHALL BE DETERMINED BY MEASUREMENT OF THE ACTUAL OPENINGS. GLASS SHALL

BE ACCURATELY CUT TO FIT THESE

OPENINGS. **1.3. INSPECT WINDOWS AND OTHER FRAMES TO** DETERMINE THAT THE FRAMES, SASH AND STOPS ARE SET TRUE AND STRAIGHT. SASH RABBETS AND STOPS SHALL BE CLEAN AND DRY AT THE TIME OF GLAZING. BEFORE GLAZING METAL SASH REMOVE ANY OIL, LACQUER, OR OTHER MATERIAL TO WHICH THE COMPOUND WILL NOT READILY ADHERE OR WHICH WILL TEND TO DELAMINATE FROM THE METAL AND CAUSE A LEAK THROUGH THE GLAZING SEAL

0925 GYPSUM DRYWALL

- A. DESCRIPTION **1.1. PROVIDE ALL LABOR AND MATERIALS** NECESSARY TO COMPLETE THE INSTALLATION OF THE GYPSUM WALLBOARD AND METAL STUD FRAMING SYSTEM INDICATED.
- 1.2. COMPLY WITH ALL APPLICABLE **REQUIREMENTS OF "AMERICAN STANDARDS** SPECIFICATION FOR THE APPLICATION AND FINISHING OF GYPSUM WALLBOARD" BY THE AMERICAN STANDARDS ASSOCIATION, EXCEPT WHERE MORE STRINGENT
- REQUIREMENTS ARE CALLED FOR HEREIN. IN LOCAL CODES, OR BY MANUFACTURER OF WALLBOARD. **1.3. MAINTAIN TEMPERATURE OF DRYWALL**
- SPACE IN RANGE OF 55 DEGREES TO 90 DEGREES F. UNTIL BUILDING IS ENTIRELY CLOSED AND VENTILATED, AS REQUIRED TO ELIMINATE EXCESSIVE MOISTURE BUILD UP IN THE BUILDING.
- B. PRODUCTS 1.1 METAL FRAMING SYSTEM
 - a. RUNNER: MINIMUM 20 GAUGE EXTERIOR WALL GALVANIZED STEEL WITH LEGS NOT LESS THAN ONE INCH HIGH, SLIGHTLY BENT IN TO HOLD THE STUDS BY FRICTION.
 - b. STUDS: 20 GAUGE 6", 3-5/8", 2-1/2", AND 1-1/2" PUNCHED, SCREW-TYPE, MINIMUM ASTM C645. HOT DIPPED STEEL OR ELECTRO-GALVANIZED STEEL, WITH FLANGES NOT LESS THAN 1-1/4" SIDE. STUD DEPTH SHALL BE AS REQUIRED FOR WALL-FINISHED THICKNESS ON DRAWINGS.
 - c. FURRING CHANNELS: ASTM C 645, 22
 - GAUGE, HAT SHAPED. d. MANUFACTURERS: CELOTEX, FLINTKOTE, JOHNS-MANVILLE, KAISER, NATIONAL GYPSUM, US GYPSUM, WHELLING CORRUGATING CO.
- 2.1. GYPSUM WALLBOARD a. GYPSUM WALLBOARD: USE 5/8" TYPE X THROUGHOUT, UNLESS OTHERWISE INDICATED.
- b. MOISTURE RESISTANT WALLBOARD: USE 5/8" ON ALL WET WALLS IN RESTROOMS, UTILITY, AND KITCHEN.
- c. HARDWARE AND ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION TO BE PROVIDED BY THE CONTRACTOR INCLUDING THE FOLLOWING:
- d. CORNER BEAD, "L" TYPE METAL TRIM AT EXPOSED DRYWALL EDGES AND WHERE DRYWALL ABUTS DISSIMILAR CONSTRUCTION.
- e. RESILIENT CHANNELS AND FURRING
- CHANNELS AS REQUIRED. f. JOINT FINISHING MATERIALS TO BE MANUFACTURER'S BEST-RECOMMENDED MATERIALS FOR A THREE COMPOUND TREATMENT
- g. APPROVED DRYWALL MANUFACTURERS: CELOTEX, FLINTKOTE, GEORGIA-PACIFIC, JOHNS-MANVILLE, KAISER GYPSUM. NATIONAL GYPSUM, US GYPSUM. C. INSTALLATION
- 1.1. FRAMING: ANCHORAGE RUNNER SHALL BE ALIGNED ACCURATELY AT FLOOR AND CEILING AND SECURELY ANCHORED APPROXIMATELY TWO (2) INCHES FROM THE RUNNER ENDS. FLOOR RUNNER AND CEILING RUNNER SHALL BE SECURED MAXIMUM 24" O.C
- 1.2 TAPING & FINISHING
- a. MIX JOINT AND FINISHING COMPOUND PER MANUFACTURER'S DIRECTIONS. b. CENTER TAPE OVER JOINT AND EMBED IN UNIFORM LAYER OF JOINT COMPOUND OF SUFFICIENT WIDTH AND DEPTH TO
- PROVIDE FIRM AND COMPLETE BOND. APPLY SKIN COAT OVER EMBEDDED TAPE. c. TREAT ANGLES WITH REINFORCING TAPE FOLDED TO CONFORM TO ADJACENT
- SURFACES AND STRAIGHT TRUE ANGLES. d. ALLOW COMPOUND TO THOROUGHLY DRY FOR AT LEAST 24 HOURS.
- e. OVER JOINT COMPOUND AND TAPE, APPLY COAT OF FINISHING COMPOUND. SPREAD EVENLY AND FEATHER OUT BEYOND EDGE OF BOARD. AFTER FIRST FINISHING COAT IS THOROUGHLY DRY (AT LEAST 24 HOURS), COVER WITH SECOND COAT. WITH EDGES FEATHERED OUT SLIGHTLY
- BEYOND PRECEDING COAT. f. GIVE ALL DIMPLES AT FASTENER HEADS, AND ALL MARRED SPOTS ON SURFACE OF BOARD, ONE COAT JOINT COMPOUND AND TWO COATS FINISHING COMPOUND APPLIED, AS EACH COAT IS APPLIED TO JOINTS
- g. INSTALL METAL CORNER REINFORCEMENT AT ALL EXTERNAL CORNERS, EXCEPT ENDS OF HOOD WALL. CONCEAL FLANGES OR METAL REINFORCEMENT WITH AT LEAST TWO COATS OF COMPOUND. WHEN COMPLETED COMPOUND SHALL EXTEND APPROXIMATELY 8 INCHES TO 10 INCHES ON EACH SIDE OF METAL NOSING.
- h. AFTER EACH APPLICATION OF JOINT OR FINISHING COMPOUND HAS DRIED, LIGHTLY SAND ALL JOINTS. LEAVE ALL BOARD AND TREATED AREAS UNIFORMLY SMOOTH AND READY FOR TEXTURING. DO NOT ROUGH PAPER.

0950 ACOUSTICAL TREATMENT

- GENERAL: PROVIDE ACOUSTICAL CEILINGS INCLUDING SUSPENSION SYSTEM, TRIM AND ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. STANDARDS: CONFORM TO ASTM C635 FOR METAL SUSPENSION SYSTEM AND ASTM C636 FOR INSTALLATION OF ACOUSTICAL CEILINGS. PERFORMANCE REQUIREMENTS: PROVIDE
- PRODUCTS LISTED BY UNDERWRITERS LABORATORIES (UL) 1. FLAME SPREAD/ MODE DENSITY: PROVIDE PRODUCTS MEETING CODE REQUIREMENTS FOR MAXIMUM 25 FLAME SPREAD AND SMOKE
- DEVELOPED INDEX 50 OR LESS. D. SEISMIC REQUIREMENTS: COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS FOR SEISMIC BRACING OF CEILING SUSPENSION SYSTEM, AND WITH ASTM E580.
- SUBMITTALS: SUBMIT PRODUCT DATA, SHOP DRAWINGS INDICATION LAYOUT, AND SAMPLES OF GRID, TRIM AND CEILING UNITS.
- F. INSTALLER: FIRM WITH MINIMUM THREE YEARS SUCCESSFUL EXPERIENCE IN PROJECTS OF SIMILAR TYPE AND SCOPE: ACCEPTANCE TO MANUFACTURER OF ACOUSTICAL UNITS.

- 0950 ACOUSTICAL TREATMENT cont.
- G. PROJECT CONDITION: DO NOT INSTALL CEILING UNTIL BUILDING IS ENCLOSED, SUFFICIENT HEAT IS PROVIDED, DUST GENERATING ACTIVITIES HAVE TERMINATED AND OVERHEAD MECHANICAL WORK IS COMPLETED, TESTED AND APPROVED: ALLOW WET WORK TO DRY
- PRIOR TO INSTALLATION. H. ACOUSTICAL UNITS: TYPES AND
- MANUFACTURERS AS INDICTED ON DRAWINGS. I. SUSPENSION SYSTEM: AS INDICTED ON DRAWINGS.
- J. PREPARATION: MEASURE CEILING AREA AND ESTABLISH LAYOUT OF ACOUSTICAL UNITS TO BALANCE PROPER WIDTHS AT OPPOSITE EDGES OF EACH CEILING: DO NOT USE LESS THAN HALF WIDTH UNITS AT BORDERS.
- 1. COORDINATE WITH OTHER WORK SUPPORTED BY OR PENETRATING THROUGH CEILINGS, INCLUDING LIGHT FIXTURES, HVAC EQUIPMENT AND PARTITIONS SYSTEMS.
- K. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS, ASTM C636, AND APPLICABLE REQUIREMENTS FOR FIRE RATINGS.
- 1. FINISHED CEILINGS: TRUE TO LINES AND LEVELS AND FREE FROM WARPED, SOILED OR DAMAGED GRID OR ACOUSTICAL UNITS. 2. INSTALL CEILING SYSTEMS IN A MANNER CAPABLE OF SUPPORTING SUPERIMPOSED
- LOADS, WITH MAXIMIM PERMISSIBLE DEFLECTION OF 1/8" IN 10'-0".
- 3. ENSURE SUSPENSION SYSTEM IS LOCATED TO ACCOMMODATE FITTINGS AND UNITS OF EQUIPMENT WHICH IS TO BE PLACED AFTER INSTALLATION OF CEILING GRID. 4. WHERE DUCTS OR OTHER EQUIPMENT
- PREVENT REGULAR SPACING OF HANGERS, REINFORCE NEAREST ADJACENT HANGERS AND RELATED CARRYING CHANNELS AS REQUIRED TO SPAN REQUIRED DISTANCE. 5. INSTALL EDGE MOLDINGS AT INTERSECTION
- OF CELING AND VERTICAL SURFACES, USING MAXIMUM LENGTHS, STRAIGHT, TRUE TO LINE AND LEVEL: MITER CORNERS. 6. FIT ACOUSTICAL UNITS IN PLACE, FREE FROM
- DAMAGED EDGES OR DEFLCTS DETRIMENTAL TO APPEARANCE AND FUNCTION. LAY DIRECTIONALLY PATTERNED UNITS ONE WAY WITH PATTERN AS DIRECTED. FIT BORDER
- UNITS NEATLY AGAINST ABUTTING SURFACES. 7. INSTALL UNITS LEVEL, IN UNIFORM PLANE AND FREE FROM TWIST, WARP AND DENTS. 8. INSTALL HOLD-DOWN CLIPS WHERE REQUIRED BY APPLICABLE CODES AND WHERE
- CEILING IS WITHIN 20'-0" OF AND EXTERIOR DOOR L. ADJUSTMENT: ADJUST SAGS OR TWISTS WHICH
- DEVELOP IN CEILING SYSTEM AND CEILING IS WITHIN 20'-0" OR AN EXTERIOR DOOR.

0990 PAINTING

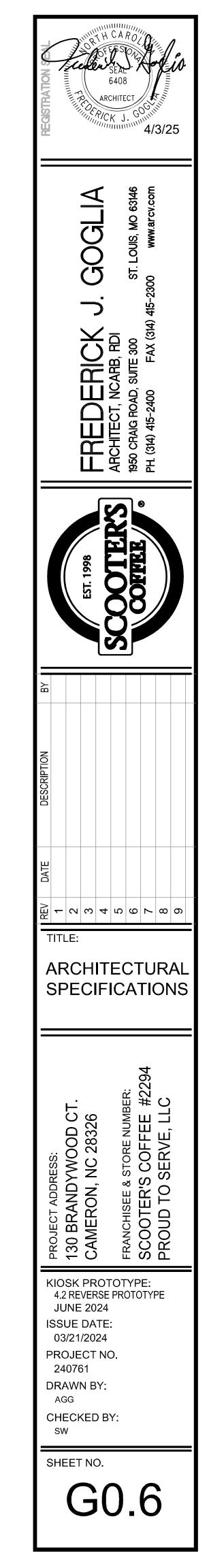
A. DESCRIPTION

- 1.1. THE CONTRACTOR SHALL DO ALL INTERIOR AND EXTERIOR PAINTING INDICATED ON THE DRAWINGS, INCLUDING WOOD, MASONRY, GYPSUM BOARD FERROUS METALS, PRIME COATED METAL SURFACES, REGISTERS, AND GRILLES
- **1.2. EXAMINE ALL SUBSURFACES TO RECEIVE** WORK AND REPORT TO THE GENERAL CONTRACTOR WITH A COPY TO THE TENANT. ALL CONDITIONS DETRIMENTAL TO WORK. COMMENCEMENT OF WORK WILL BE CONSTRUED AS ACCEPTANCE OF ALL
- SUBSURFACES. 1.3. DELIVER MATERIALS AND EQUIPMENT IN ONE PLACE WHERE DIRECTED BY THE GENERAL CONTRACTOR'S FOREMAN. PROTECT FLOORS AND WALLS OF STORAGE ROOM. REMOVE OILY RAGS WASTE FTC FROM BUILDING EVERY NIGHT AND UNDER NO CIRCUMSTANCES ALLOW THEM TO ACCUMULATE.
- PRODUCTS 1.1. ALL MATERIALS SHALL BE OF THE BEST GRADE, REFER TO FINISHES.
- C. INSTALLATION 1.1. THE CONTRACTOR SHALL EXAMINE ALL SURFACES TO BE FINISHED AND MAKE CERTAIN THAT THINGS CAN BE PUT IN PROPER CONDITION FOR FINISHING BY CUSTOMARY CLEANING, SANDING OR PUTTYING. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR PRODUCING A SATISFACTORY JOB WITH THE MATERIALS
- SPECIFIED. 1.2. WORKMANSHIP SHALL BE OF THE VERY BEST; ALL MATERIALS EVENLY SPREAD AND SMOOTHLY FLOWED ON, GIVING A UNIFORM SHEEN AND COLOR WITHOUT RUNS AND SAGS. TRANSPARENT FINISHES SHALL HAVE ALL COATS BRUSHED OUT SMOOTH. SPRAYING IS ACCEPTABLE FOR PRIME COATS ONLY. ONLY SKILLED PAINTERS SHALL BE
- EMPLOYED AND ALL MATERIALS SHALL BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. EXCEPT AS OTHERWISE SPECIFIED, ONLY ONE MANUFACTURER'S MATERIALS SHALL BE
- USED IN EACH OF THE FINISHES SPECIFIED 1.3. ALL SURFACES TO BE PAINTED OR ENAMELED SHALL BE CLEANED FREE OF LOOSE DIRT AND DUST BEFORE PAINTING IS STARTED. ALL KNOTS, PITCH STREAKS, AND SAPPY SPOTS SHALL FIRST BE TOUCHED UP WITH SHELLAC WHERE FINISH CALLS FOR PAINT OR
- ENAMEL. 1.4. ALL NECESSARY PUTTYING OF NAIL HOLES, CRACKS ETC SHALL BE DONE AFTER THE FIRST COAT, WITH PUTTY OF A COLOR TO MATCH THAT OF THE FINISH. 1.5. ALL UNDERCOATS OF PAINT AND ENAMEL
- SHALL BE TINTED TO THE APPROXIMATE SHADE OF THE FINAL COAT. ALL SUCTION SPOTS OR HOT SPOTS IN CEMENT, AFTER THE APPLICATION OF THE FIRST COAT, SHALL BE TOUCHED UP BEFORE APPLYING THE SECOND COAT. CONTRACTOR SHALL SECURE COLOR SCHEDULE FOR ROOMS
- BEFORE PRIMING WALLS. 1.6. TOPS AND BOTTOMS OF ALL DOORS SHALL BE FINISHED SAME AS BALANCE OF DOOR. 1.7. ALL PAINTING SHALL BE DONE TO CONFORM TO LOCAL HEALTH DEPARTMENT REGULATIONS.

- 0998 FIBERGLASS REINFORCED PLASTIC PANELS (FRP)
- A. DESCRIPTION 1.1. SUBMITTALS
- a. SAMPLES: TWO 8" X 10" SAMPLES OF EACH
- PANEL, ONE 10" PIECE OF EACH TYPE OF TRIM AND MOLDING. SAMPLE FASTENERS. b. DETAILED INSTALLATION GUIDE FORM #855.
- B. PRODUCTS
- 1.1. FRP PANELS: GLASBORD- P AS MANUFACTURED BY KEMLITE INDUSTRIES,
- INC. OR EQUAL. COLOR- WHITE 1.2. CLEAN WALL SURFACE OF ALL FOREIGN MATERIAL AND PREPARE SURFACE AS REQUIRED BY FRP MANUFACTURER.
- C. INSTALLATION
- 1.1. INSTALL PANELS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION GUIDE. 1.2. APPLY ADHESIVE IN ACCORDANCE WITH
- MANUFACTURER'S RECOMMENDATIONS. INSTALL SEAMS PLUMB AND NOT LESS THAN
- 6" FROM CORNERS. HORIZONTAL SEAMS NOT PERMITTED 1.3. REMOVE EXCESS ADHESIVE PROMPTLY; REPLACE PANELS, WHICH CANNOT BE
- COMPLETELY CLEANED. 10280 WASHROOM ACCESSORIES
- PART 1 GENERAL
- 1.1. SECTION INCLUDES A. WASHROOM ACCESSORIES AS SCHEDULED IN THIS SECTION AND AS INDICATED ON THE
- DRAWINGS.
- 1.2 QUALITY ASSURANCE A. SINGLE SOURCE REQUIREMENTS: TO THE GREATEST EXTENT POSSIBLE PROVIDE PRODUCTS FROM A SINGLE MANUFACTURER. B. ACCESSIBILITY REQUIREMENTS: COMPLY WITH REQUIREMENTS APPLICABLE IN THE JURISDICTION OF THE PROJECT INCLUDING BUT NOT LIMITED TO ADA AND ICC/ANSI A117.1 REQUIREMENTS AS APPLICABLE.
- 1.3 WARRANTY A. MANUFACTURER'S WARRANTY FOR WASHROOM ACCESSORIES: MANUFACTURER'S STANDARD 1 YEAR WARRANTY FOR MATERIAL AND WORKMANSHIP
- PART 2 PRODUCTS
- 2.1 MANUFACTURER
- A. BASIS OF DESIGN PRODUCTS: BASED ON THE QUALITY AND PERFORMANCE REQUIREMENTS OF THE PROJECT, SPECIFICATIONS ARE BASED SOLELY ON THE PRODUCTS OF BOBRICK WASHROOM EQUIPMENT, INC.. WWW.BOBRICK.COM. LOCATION OF MANUFACTURING SHALL BE THE UNITED STATES.
- 2.2 TOILET ACCESSORY SCHEDULE
- A. SINGLE-USER WASHROOM, STANDARD DUTY: 1. TA-1: B-5806 SERIES CONCEALED MOUNTING GRAB BAR - 1-1/4 INCH DIAMETER.
- 2. TA-5: B-2111 CLASSIC SERIES WALL-MOUNTED SOAP DISPENSER.

PART 3 EXECUTION

- **3.1 INSTALLATION** A. INSTALL PRODUCTS IN STRICT COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND **RECOMMENDATIONS, INCLUDING THE FOLLOWING:**
 - 1. VERIFY BLOCKING HAS BEEN INSTALLED PROPERLY. 2. VERIFY LOCATION DOES NOT INTERFERE WITH
 - DOOR SWINGS OR USE OF FIXTURES. 3. COMPLY WITH MANUFACTURER'S
 - RECOMMENDATIONS FOR BACKING AND PROPER SUPPORT. 4. USE FASTENERS AND ANCHORS SUITABLE FOR
 - SUBSTRATE AND PROJECT CONDITIONS. 5. INSTALL UNITS RIGID, STRAIGHT, PLUMB, AND
 - LEVEL, IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND APPROVED SHOP DRAWINGS. 6. CONCEAL EVIDENCE OF DRILLING, CUTTING,
 - AND FITTING TO ROOM FINISH.
- 7. TEST FOR PROPER OPERATION.
- 3.2 CLEANING AND PROTECTION A. CLEAN EXPOSED SURFACES OF COMPARTMENTS, HARDWARE, AND FITTINGS
- USING METHODS ACCEPTABLE TO THE MANUFACTURER. B. TOUCH-UP, REPAIR OR REPLACE DAMAGED
- PRODUCTS UNTIL SUBSTANTIAL COMPLETION.



Project Information

•						
Energy Code:	2018 IECC					
Project Title:	240761-2294 Camero	on NC				
Location:	Cameron, North Caro	lina				
Climate Zone:	3a					
Project Type:	New Construction					
Vertical Glazing / Wall Area:	8%					
Construction Site: 130 BRANDYWOOD CT CAMERON, North Carolina 28326	Owner/Agent: KEVIN & JENNIFER I PROUD TO SERVE, 115 FOX HUNT LN SOUTHERN PINES, 28387 (402) 541-5857 proudtoservellc@g	LLC North Carolina	Fre 195 St I 314	gner/Contra derick J. Go 50 Craig Rd. Louis, Misso I.415.2400 oterscoffee	glia . Suite 300	
Additional Efficiency Packag Credits: 1.0 Required 1.0 Proposed Reduced Lighting Power, 1.0 credit	e(s)					
Building Area		Floor /	Area			
1-Dining: Cafeteria/Fast Food : Nonresi	dential		668			
		or Perimeter	R-Value	R-Value	U-Factor	Factor _(a)
Roof: Insulation Entirely Above Deck, 3- Reflectance Index = 55.00, Thermal Em [Bldg. Use 1 - Dining: Cafeteria/Fast Foc	ittance = 0.75 (d),	608		25.0	0.039	0.039
Floor: Unheated Slab-On-Grade, [Bldg. I Cafeteria/Fast Food] (c)		111			0.730	0.730
<u>NORTH</u> Ext. Wall: Wood-Framed, 16in. o.c., [Bld Cafeteria/Fast Food]	g. Use 1 - Dining:	217	13.0	3.8	0.064	0.064
<u>EAST</u> Ext. Wall: Wood-Framed, 16in. o.c., [Bld Cafeteria/Fast Food]	g. Use 1 - Dining:	475	13.0	3.8	0.064	0.064
Door: Insulated Metal, Swinging, [Bldg. Cafeteria/Fast Food]	_	24			0.770	0.610
Window: Metal Frame: Fixed, Perf. Spec Label, SHGC 0.30, PF 0.48, VT 0.36, [Blo Cafeteria/Fast Food] (b)		39			0.450	0.460
<u>SOUTH</u> Ext. Wall: Wood-Framed, 16in. o.c., [Bld Cafeteria/Fast Food]	lg. Use 1 - Dining:	230	13.0	3.8	0.064	0.064
Window: Metal Frame: Fixed, Perf. Spec Label, SHGC 0.30, PF 0.48, VT 0.36, [Blo Cafeteria/Fast Food] (b)		36			0.450	0.460
WEST						
WLST						

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Pro Dat

COMcheck Software Version COMcheckWeb Inspection Checklic+ Inspection Checklist Energy Code: 2018 IECC

Data filename:

Data filename:

Requirements: 0.0% were addressed directly in the COMcheck software Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

<pre>[PR1]¹ inform can be envelo except claime C402.4.1 The ve [PR10]¹ percer area.</pre>	ertical fenestration area <= 30	Complies Does Not Not Observable Not Applicable Complies Does Not	
[PR10] ¹ percer area. C402.4.1 The sk		Does Not	
		 Not Applicable	
[[[[]]]] 91033	ylight area <= 3 percent of the roof area.	□Complies □Does Not □Not Observable □Not Applicable	
[PR14] ¹ directl height lobby, storag conver service refrige distrib transp followi daylig half th area tr with a minim	losed spaces > 2,500 ft2 y under a roof with ceiling is >15 ft. and used as an office, atrium, concourse, corridor, e, gymnasium/exercise center, ntion center, automotive e, manufacturing, non- erated warehouse, retail store, ution/sorting area, ortation, or workshop, the ing requirements apply: (a) the ht zone under skylights is >= ie floor area; (b) the skylight o daylight zone is >= 3 percent skylight VT >= 0.40; or a um skylight effective aperture percent.	□Complies □Does Not □Not Observable □Not Applicable	
C406 Plans, [PR9] ¹ calcula with w detern	specifications, and/or ations provide all information which compliance can be nined for the additional energy ncy package options.	□Complies □Does Not □Not Observable □Not Applicable	

Ad

Page 3 of 9

						CAROLONIA CAROLONIA
Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)	ARCHITECT
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Dining: Cafeteria/Fast Food] Window: Metal Frame: Operable, Perf. Specs.: Product ID	475	13.0	3.8	0.064	0.064	E 4/3/23
Product Label, SHGC 0.40, PF 0.56, VT 0.44, [Bldg. Use 1 - Dining: Cafeteria/Fast Food] (b) Window: Metal Frame: Fixed, Perf. Specs.: Product ID Product	22			0.450	0.460	
Label, SHGC 0.30, PF 0.48, VT 0.36, [Bldg. Use 1 - Dining: Cafeteria/Fast Food] (b) (a) Budget U-factors are used for software baseline calculatio		not code	requiremen			e3146
 (a) Dauget o hatter out a base for orthan o base and base of the certified in accord (c) Slab-On-Grade proposed and budget U-factors shown in taget (d) High albedo roof requirement options: 1) 3-year aged solar year aged solar reflectance index >= 64.0, 3) Initial year aged solar reflectance index >= 82.0. 	ordance with NF ble are F-factors r reflectance inde	RC and re ex >= 55.	quires suppo 0 thermal e	orting docume mittance >=	0.75, 2) 3-	GOGLIA st. Louis, Mo 63146 www.arcv.com
Envelope PASSES: Design 0.0% better than code						30 st D
Envelope Compliance Statement Compliance Statement: The proposed envelope design represer specifications, and other calculations submitted with this permit	application. The	pr o posed	envelope sy	stems have k	een	A RDI C C C C C C C C C C C C C C C C C C C
designed to meet the 2018 IECC requirements in COM <i>cherk</i> Ver- mandatory requirements listed in the Inspection Checklist.	ion COMcheckw	elband to		03/21		
Name - Title Signature			<u> </u>	Date		
		•				
						AIG ROAD 1415-2400
						B
Project Title: 240761-2294 Cameron NC Data filename:				Report d Pag	ate: 03/21/25 ge 2 of 9	
						NOL
						DESCRIPTION
Section						
# Footing / Foundation Inspection Complies & Req.ID Complies Complies	5?	Co	omments/A	ssumptions		
[FO4] ² manufacturer's instructions. Does Not						DATE
C303.2.1Exterior insulation protected against damage, sunlight, moisture, wind,Complies						
landscaping and equipment Not Observ maintenance activities.	able					
C105 Installed slab-on-grade insulation type Complies [FO3] ² and R-value consistent with insulation specifications reported in plans and Not Observ		elope Asser	nblies table fo	or values.		TITLE:
C402.2.4 Slab edge insulation depth/length.	able	elope Asser	nblies table fo	or values.		
[FO7] ² Slab insulation extending away from building is covered by pavement or >= 10 inches of soil. □Not Obser □Not Applica						COMPLIANCE
Additional Comments/Assumptions:	1					
						IC 28326 COFFEE ERVE, LL
						RESS: YWOOD CT. NC 28326 STORE NUMBER: SCOFFEE #2 SERVE, LLC
						ADDRE ANDY' ON, N SEE & S ER'S (TO S
						PROJECT ADDRESS: 130 BRANDYWOOD CAMERON, NC 283 FRANCHISEE & STORE N FRANCHISEE & STORE N FRANCHISEE & STORE N
						KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024
						KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE:
						KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO.
						KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024
						KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO. 240761

Data filename:

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SHEET NO.

G0.7

Section # & Req.ID	Rough-In Electrical Inspection	Complies?
C405.6 [EL26] ²	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	□Complies □Does Not □Not Observable □Not Applicable
C405.7 [EL27] ²	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	□Complies □Does Not □Not Observable □Not Applicable
C405.8.2, C405.8.2. 1 [EL28] ²	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	□Complies □Does Not □Not Observable □Not Applicable
C405.9 [EL29] ²	Total voltage drop across the combination of feeders and branch circuits <= 5%.	Complies Does Not Not Observable Not Applicable

Project Title: 240761-2294 Cameron NC

Data filename:

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12] ²	Fenestration products rated in accordance with NFRC.	Complies Does Not	
		□Not Observable □Not Applicable	
C303.1.3 [FR13] ¹	Fenestration products are certified as to performance labels or certificates	□Complies □Does Not	
	provided.	□Not Observable □Not Applicable	
C402.4.3 [FR10] ¹	Vertical fenestration SHGC value.	□Complies □Does Not	See the Envelope Assemblies table for values.
		□Not Observable □Not Applicable	
C402.4.3.	Installed vertical fenestration U-factor and SHGC consistent with label	□Complies □Does Not	See the Envelope Assemblies table for values.
4 [FR8] ¹	specifications and as reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.5.1 [FR16] ¹	The building envelope contains a continuous air barrier that is sealed in	□Complies □Does Not	
	an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	□Not Observable □Not Applicable	
C402.5.2, C402.5.4	Factory-built fenestration and doors are labeled as meeting air leakage	□Complies □Does Not	
[FR18] ³	requirements.	□Not Observable □Not Applicable	
C402.5.7 [FR17] ³	Vestibules are installed on all building entrances. Doors have self-closing	□Complies □Does Not	
	devices.	□Not Observable □Not Applicable	

Additional Comments/Assumptions:

 1
 High Impact (Tier 1)
 2
 Medium Impact (Tier 2)
 3
 Low Impact (Tier 3)
 _____ Project Title: Data filename:

240761-2294 Cameron NC	

40761-2294 Cameron NC	

Section			
# & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3] ¹	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	□Complies □Does Not □Not Observable □Not Applicable	
C402.2.1 [IN20] ¹	Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roor/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers.	□Complies □Does Not □Not Observable □Not Applicable	
C303.1 [IN10] ²	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	□Complies □Does Not □Not Observable □Not Applicable	
C303.2 [IN7] ¹	Above-grade wall insulation installed per manufacturer's instructions.	□Complies □Does Not □Not Observable □Not Applicable	
C105 [IN6] ¹	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
C402.2.3 [IN8] ²	Installed floor insulation type and R- value consistent with insulation specifications reported in plans and COMcheck reports.	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
C402.2.6 [IN18] ³	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are	Complies Does Not Not Observable	

		□Not Applicable	
C303.2 [IN7] ¹	Above-grade wall insulation installed per manufacturer's instructions.	□Complies □Does Not	
		□Not Observable □Not Applicable	
C105 [IN6] ¹	Installed above-grade wall insulation type and R-value consistent with	□Complies □Does Not	See the Envelope Assemblies table for values.
	insulation specifications reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.2.3 Installed floor insulation type and R- [IN8] ² value consistent with insulation		□Complies □Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.2.6 [IN18] ³	Radiant panels and associated components, designed for heat	□Complies □Does Not	
occupa	transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	□Not Observable □Not Applicable	
C402.3 [IN5] ³	High-albedo roofs satisfy one of the following: 3-year-aged solar	□Complies □Does Not	
	reflectance $>= 0.55$ and thermal emittance $>= 0.75$ or 3-year-aged solar reflectance index $>= 64.0$.	□Not Observable □Not Applicable	
C105 [IN2] ¹	Installed roof insulation type and R- value consistent with insulation	□Complies □Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	□Not Observable □Not Applicable	
C402.5.1. 1	All sources of air leakage in the building thermal envelope are sealed,	□Complies □Does Not	
[IN1] ¹	caulked, gasketed, weather stripped or wrapped with moisture vapor- permeable wrapping material to minimize air leakage.	□Not Observable □Not Applicable	

Additional Comments/Assumptions:

 1
 High Impact (Tier 1)
 2
 Medium Impact (Tier 2)
 3
 Low Impact (Tier 3)
 Report date: 03/21/25 Page 7 of 9

Comments/Assumptions

 1
 High Impact (Tier 1)
 2
 Medium Impact (Tier 2)
 3
 Low Impact (Tier 3)

Project Title: 240761-2294 Cameron NC Data filename:

Report date: 03/21/25 Page 8 of 9

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C403.2.4. motorized dampers that automatically close. Refernece section C403.7.7 for [ME3] ³ operational details	□Not Observable	Comments/Assumptions	ARCHITECT A/3/25
Additional Comments/Assumptions:	□Not Applicable		FREDERIC J. GOGLIA ARCHITECT, NCARB, RDI J. GOGLIA 1950 CRAIG ROAD, SUITE 300 ST. LOUIS, MO 63146 PH. (314) 415-2400 FAX (314) 415-2300 ww.arcv.com
			EST. 1998 SOOODERS OUTERS
 [FI37]¹ dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway. C402.5.8 Recessed luminaires in thermal 	2 Medium Impact (Tier 2) Complies? Impact (Tier 2) Complies? Impact (Tier 2) Does Not Impact (Tier 2) Not Observable Impact (Tier 2) Not Observable Impact (Tier 2) Not Applicable Impact (Tier 2) Does Not Impact (Tier 2) Does Not Impact (Tier 2)	3 Low Impact (Tier 3) Report date: 03/21/25 Page 6 of 9 Comments/Assumptions	DATE BY DATE DESCRIPTION BY BY BY BY </th
C408.1.1Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information	 Not Observable Not Applicable Complies Does Not Not Observable Not Applicable 		
			PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 FRANCHISEE & STORE NUMBER: FRANCHISEE & STORE NUMBER: SCOOTER'S COFFEE #2294 PROUD TO SERVE, LLC
1 High Impact (Tier 1) Project Title: 240761-2294 Cameron NC Data filename:	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3) Report date: 03/21/25 Page 9 of 9	KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO. 240761 DRAWN BY: AGG CHECKED BY: sw SHEET NO.

G0.8

2018 APPENDIX B **BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS** (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project. Geoder's conce etore #22	294 - Cameron, NC
Address: 130 Brandywood Ct. Cameron, Nc	
Owner/Authorized Agent: Kevin Leavitt	Phone # (402) 541
Owned By:	ity/County 🔽 Pri
Code Enforcement Jurisdiction:	ity 🔽 Co
CONTACT:	
DESIGNER FIRM Architectural Arcvision	NAME LICENS Frederick J. Goglia 6408
Civil GASKIN + LECRAW OF N	<u> </u>
Electrical Arcvision	Robert L. Queathem 35265
Fire Alarm N/A	N/A N/A
Plumbing Arcvision	Robert L. Queathem 35265
Mechanical Arcvision	Robert L. Queathem 35265
Sprinkler-Standpipe <u>N/A</u>	N/A N/A
Structural Caruso Turley Scott Inc Retaining Walls >5' High	Richard Dahlmann 49268
Other	· · · · · · · · · · · · · · · · · · ·
("Other" should include firms and individ	uals such as truss, precast, pr
1 st T	Building Addition ime Interior Completion
proce	I/Core - Contact the local ins edures and requirements ed Construction - Shell/Core ible additional procedures an
proce	l/Core - Contact the local ins edures and requirements ed Construction - Shell/Corc ible additional procedures an
proce	I/Core - Contact the local ins edures and requirements ed Construction - Shell/Core ible additional procedures an E: EXISTING:
proce	I/Core - Contact the local inselection edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING:
2018 NC EXISTING BUILDING COD	I/Core - Contact the local inselection - Control of the local inselection - Shell/Core of the local procedures and procedures and procedures and procedures and the local procedures and the local procedures and the local procedure of the local inselection of the loc
2018 NC EXISTING BUILDING COD CONSTRUCTED: (date) <u>N/A</u>	I/Core - Contact the local ins edures and requirements ed Construction - Shell/Corc ible additional procedures an E: EXISTING: Prescr Alteration: Level
2018 NC EXISTING BUILDING COD CONSTRUCTED: (date) N/A RENOVATED: (date) N/A	I/Core - Contact the local inselections edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor CURRENT OCC PROPOSED OCO
2018 NC EXISTING BUILDING COD CONSTRUCTED: (date) <u>N/A</u>	I/Core - Contact the local insert edures and requirements edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor CURRENT OCC PROPOSED OCO Current: I
2018 NC EXISTING BUILDING COD CONSTRUCTED: (date) N/A RENOVATED: (date) N/A	I/Core - Contact the local inselections edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor CURRENT OCC PROPOSED OCC
2018 NC EXISTING BUILDING COD CONSTRUCTED: (date) N/A RENOVATED: (date) N/A RISK CATEGORY (Table 1604.5): BASIC BUILDING DATA	I/Core - Contact the local inselections edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor CURRENT OCC PROPOSED OCC Current: I Proposed: I
	I/Core - Contact the local insert edures and requirements edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor Histor CURRENT OCC PROPOSED OCC Current: I Proposed: I II-A III-A
proc. Phas poss: 2018 NC EXISTING BUILDING CODI CONSTRUCTED: (date) N/A RENOVATED: (date) N/A RISK CATEGORY (Table 1604.5): BASIC BUILDING DATA Construction Type: I-A (check all that apply) I-B	I/Core - Contact the local insert edures and requirements edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor CURRENT OCC PROPOSED OCC Current: I Proposed: I II-A III- II-B III-
proc. Phas poss: 2018 NC EXISTING BUILDING CODI CONSTRUCTED: (date) N/A RENOVATED: (date) N/A RISK CATEGORY (Table 1604.5): BASIC BUILDING DATA Construction Type: I-A (check all that apply) I-B Sprinklers: No Partial	I/Core - Contact the local insert edures and requirements edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescond Alteration: Level Histor Histor CURRENT OCC PROPOSED OCO Current: I Proposed: I II-A III-A II-B III-A Yes NFPA 13
proc. Phas possi 2018 NC EXISTING BUILDING CODI CONSTRUCTED: (date) N/A RENOVATED: (date) N/A RISK CATEGORY (Table 1604.5): BASIC BUILDING DATA Construction Type: I-A (check all that apply) I-B Sprinklers: No Partial N Standpipes: No Yes	I/Core - Contact the local insert edures and requirements edures and requirements ed Construction - Shell/Core ible additional procedures and ible additional procedures and E: EXISTING: Prescr Alteration: Level Histor CURRENT OCC PROPOSED OCC Current: I Proposed: I II-A III-2 Yes NFPA 13 ss I II
proc. Phas poss: 2018 NC EXISTING BUILDING CODI CONSTRUCTED: (date) N/A RENOVATED: (date) N/A RISK CATEGORY (Table 1604.5): BASIC BUILDING DATA Construction Type: I-A (check all that apply) I-B Sprinklers: No Partial	I/Core - Contact the local insert edures and requirements edures and requirements ed Construction - Shell/Core ible additional procedures and E: EXISTING: Prescond Alteration: Level Histor Histor CURRENT OCC PROPOSED OCO Current: I Proposed: I II-A III-A II-B III-A Yes NFPA 13

2018 NC Administrative Code and Policies

BUILDING ELEMENT	FIRE	RATING		
	SEPARATION	REQ'D	PROVIDED	
	DISTANCE		(W/*	SI
a 1a	(FEET)		REDUCTION)	-
Structural Frame,				
including columns, girders, trusses				
Bearing Walls				
Exterior				
North				
East				
West				
South				
Interior				
Nonbearing Walls and				
Partitions				
Exterior walls				
North				_
East				
West				_
South				
Interior walls and partitions				
Floor Construction				
Including supporting beams				
and joists				
Floor Ceiling Assembly				
Columns Supporting Floors				
Roof Construction, including supporting beams and joists				
Roof Ceiling Assembly				
Columns Supporting Roof				
Shaft Enclosures - Exit				
Shaft Enclosures - Other				
Corridor Separation				
Occupancy/Fire Barrier Separat	ion			
Party/Fire Wall Separation				
Smoke Barrier Separation				
Smoke Partition				
Tenant/Dwelling Unit/ Sleeping Unit Separation				
Incidental Use Separation				
Indicate section number perm	itting reduction			

2018 NC Administrative Code and Policies

5 <u>857</u> ate inty	Zip Code 2 E-Mail prof State State	18326 udtoservellc@gmail.com
e-engineer	800)489-2233 fgr 678<546-8100	eathem@arcv.com ueathem@arcv.com A ahlmann@ctsaz.com s, etc.) e additional urisdiction for apter 14 /el III ange of Use PLE
☐ NFPA ☐ Wet ☑ No [spection ju	I3R NFPA 1 Dry Yes urisdiction for additi	

Revised 6/15/2020

FIRE PROTECTION REQUIREMENTS DETAIL # DESIGN # SHEET # FOR SHEET # FOR RATED FOR RATED PENETRATION RATED AND SHEET # JOINTS ASSEMBLY _____ _____ _____ _____

		oss Building Area Table	
Floor	Existing (sqft)	NEW (SQ FT)	SUB-TOTAL
3 rd Floor	N/A	N/A	N/A
2 nd Floor	N/A	N/A	N/A
Mezzanine	N/A	N/A	N/A
1 st Floor	N/A	668 SQ FT	668 SQ FT
Basement	N/A	N/A	N/A
TOTAL	N/A	668 SQ FT	668 SQ FT
Business	$\square A-1 \square A-2 \square A-3$		
Dusiness	<u>Y</u>		
Educational			
Educational	El Moderate E 2 Lo	N17	
Factory	\square F-1 Moderate \square F-2 Lc		
Factory Hazardous	H-1 Detonate H-2 D	eflagrate 🗌 H-3 Combust 🔲 H	I-4 Health 🗌 H-5 HPM
Factory			H-4 Health 🗌 H-5 HPM
Factory Hazardous	H-1 Detonate H-2 D	eflagrate 🗌 H-3 Combust 🔲 H	I-4 Health 🗌 H-5 HPM
Factory Hazardous	☐ H-1 Detonate ☐ H-2 D ☐ I-1 Condition ☐ 1 ☐	eflagrate 🗌 H-3 Combust 🔲 H	I-4 Health 🗌 H-5 HPM
Factory Hazardous	□ H-1 Detonate □ H-2 D □ I-1 Condition □ 1 □ □ I-2 Condition □ 1 □	eflagrate H-3 Combust H 2 2	H-4 Health 🗌 H-5 HPM

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Residential \square R-1 \square R-2 \square R-3 \square R-4

Special Uses (Chapter 4 – List Code Sections): <u>N/A</u>

Special Provisions: (Chapter 5 – List Code Sections): <u>N/A</u>

Utility and Miscellaneous Accessory Occupancy Classification(s): <u>N/A</u>

Incidental Uses (Table 509): N/A

Storage S-1 Moderate S-2 Low High-piled

Parking Garage Open Enclosed Repair Garage

<u>Actual Area of Occupancy A</u> + <u>Actual Area of Occupancy B</u> ≤ 1

Allowable Area of Occupancy A Allowable Area of Occupancy B

Non-Separated Use (508.3) - The required type of construction for the building shall be determined by

Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Mixed Occupancy: 🛛 No 🗌 Yes Separation: _____ Hr. Exception: _____

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_____ + = <u>_</u>____ ≤1.00

PERCENTAGE OF WALL OPENING CALCULATIONS					
Fire Separation Distance (Feet) from Property lines	Degree of openings Protection (Table 705.8)	Allowable area (%)	ACTUAL SHOWN ON PLANS (%)		
30 or greater	Unprotected, Nonsprinklered	No Limit	No Limit		

	LIFE SAFETY SYSTEM REQUIREMENTS
Emergency Lighting:	🗌 No 🔽 Yes
Exit Signs:	🗌 No 🔽 Yes
Fire Alarm:	🗹 No 🗌 Yes
Smoke Detection Systems:	🗹 No 🗌 Yes 🗌 Partial
Carbon Monoxide Detection:	🗹 No 🗌 Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _

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

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STORY	DESCRIPTION AND	(A)	(B)	(C)	(D)
NO.	USE	BLDG AREA PER	TABLE 506.2 ⁴	AREA FOR FRONTAGE	ALLOWABLE AREA PER
		STORY (ACTUAL)	AREA	INCREASE ^{1,5}	STORY OR UNLIMITED ^{2,3}
1	Ground Level	668 SQ FT	9,000 sq ft	i f = 245	9,000 sq ft

¹ Frontage area increases from Section 506.3 are computed thus:

- a. Perimeter which fronts a public way or open space having 20 feet minimum width = (F)b. Total Building Perimeter = (P) c. Ratio (F/P) = (F/P) d. W = Minimum width of public way = (W) e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30 =$ (%)

- ² Unlimited area applicable under conditions of Section 507. ³ Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).
- ⁴ The maximum area of open parking garages must comply with Table 406.5.4.
- ⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT					
	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE ¹		
Building Height in Feet (Table 504.3) ²	40	19			
Building Height in Stories (Table 504.4) ³	2.5	1			
 ¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4. ² The maximum height of air traffic control towers must comply with Table 412.3.1. ³ The maximum height of open parking garages must comply with Table 406.5.4. 					

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ACCESSIBLE DWELLING UNITS (SECTION 1107)

			(520)					
UNIT CLASSIFICATION	Total Units	Accessible Units Required	Accessible Units Provided	Type A Units Required	Type A Units Provided	Type B Units Required	Type B Units Provided	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PA	RKING SPACES	# OF ACCESSIBLE S	SPACES PROVIDED	TOTAL # ACCESSIBLE
	REQUIRED	PROVIDED	96" SPACES	132" SPACES	PROVIDED
	1 per 100sf of GFA	8	1		1
TOTAL		8	1		1

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

τ	JSE	W	ATER CLOS	ETS	URINALS		LAVATORIE	S	SHOWERS	DRINKING	FOUNTAINS
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE
SPACE	EXIST'G										
	NEW			1							
	REQ'D			1							

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below) Not applicable

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=				REV D	DESCRIPTION	BY			RECISTRATION SPAL
	4. JI ISS 0: PR 24 DR AG	PROJECT ADDRESS:	ΑΙ						
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	EVEF E 20 DA /20 ECT 61 N B	CAMERON, NC 28326	PE	S			EST. 1998		Contraction of the second seco
	RSE 24 7E 24 7 NC		N	4				•	ARC
	PR() D	5			SCOOLEKS	ARCHITECT, NCARB, RDI	C A SEAt 6408 CHITE
		<u>)</u>	X	9				1950 CRAIG ROAD, SUITE 300 ST. LOUIS, MO 63146	
Ç		SCOOTER'S COFFEE #2294	В	7				PH. (314) 415-2400 FAX (314) 415-2300 www.arcv.com	CUL
)	PE	PROUD TO SERVE. LLC		ω				•	3/2
				6					25

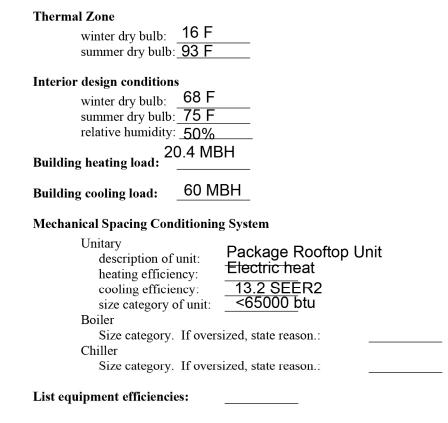
ENERGY SUMMARY ENERGY REQUIREMENTS: The following data shall be considered minimum and any special attribute required to also be provided. Each Designer shall furnish the required portions of the project info If performance method, state the annual energy cost for the standard reference design proposed design.
Existing building envelope complies with code: No Yes (The remainde
Exempt Building: 🛛 No 🗌 Yes (Provide code or statutory reference):
Climate Zone: 🛛 3A 🗌 4A 🗌 5A
Method of Compliance: Energy Code Performance Prescrit ASHRAE 90.1 Performance Prescrit (If "Other" specify source here) Prescrit
THERMAL ENVELOPE (Prescriptive method only)
Roof/ceiling Assembly (each assembly) Description of assembly: U-Value of total assembly: Insulation Entirely Above Deck 0.039 0.039 R-Value of insulation: 25 Skylights in each assembly: N/A U-Value of skylight: N/A Volue of skylights in each assembly: N/A
Exterior Walls (each assembly) Description of assembly: Wood-Framed, 16in. o.c. U-Value of total assembly: 0.064 13 Openings (windows or doors with glazing) U-Value of assembly: 0.064 U-Value of assembly: 0.064 13 Openings (windows or doors with glazing) U-Value of assembly: 0.064 Solar heat gain coefficient: N/A 0.48 Door R-Values: N/A 0.48
Door R-Values: N/A Walls below grade (each assembly) N/A Description of assembly: N/A
U-Value of total assembly: N/A R-Value of insulation: N/A
Floors over unconditioned space (each assembly)
Description of assembly:Unheated Slab-On-GradeU-Value of total assembly:0.730R-Value of insulation:N/A
Floors slab on grade
Description of assembly: U-Value of total assembly: R-Value of insulation: Horizontal/vertical requirement: slab heated: N/A N/A N/A N/A

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2018 APPENDIX B **BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS** MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT



tribute required to meet the energy code shall of the project information for the plan data sheet. d reference design vs annual energy cost for the

Yes (The remainder of this section is not applicable)

Prescriptive

Prescriptive

N/A

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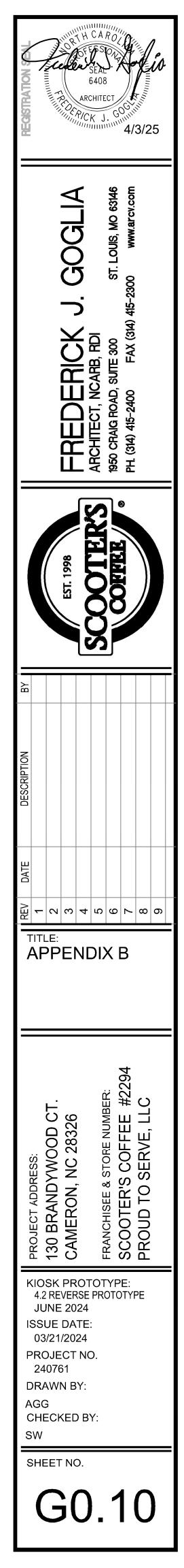
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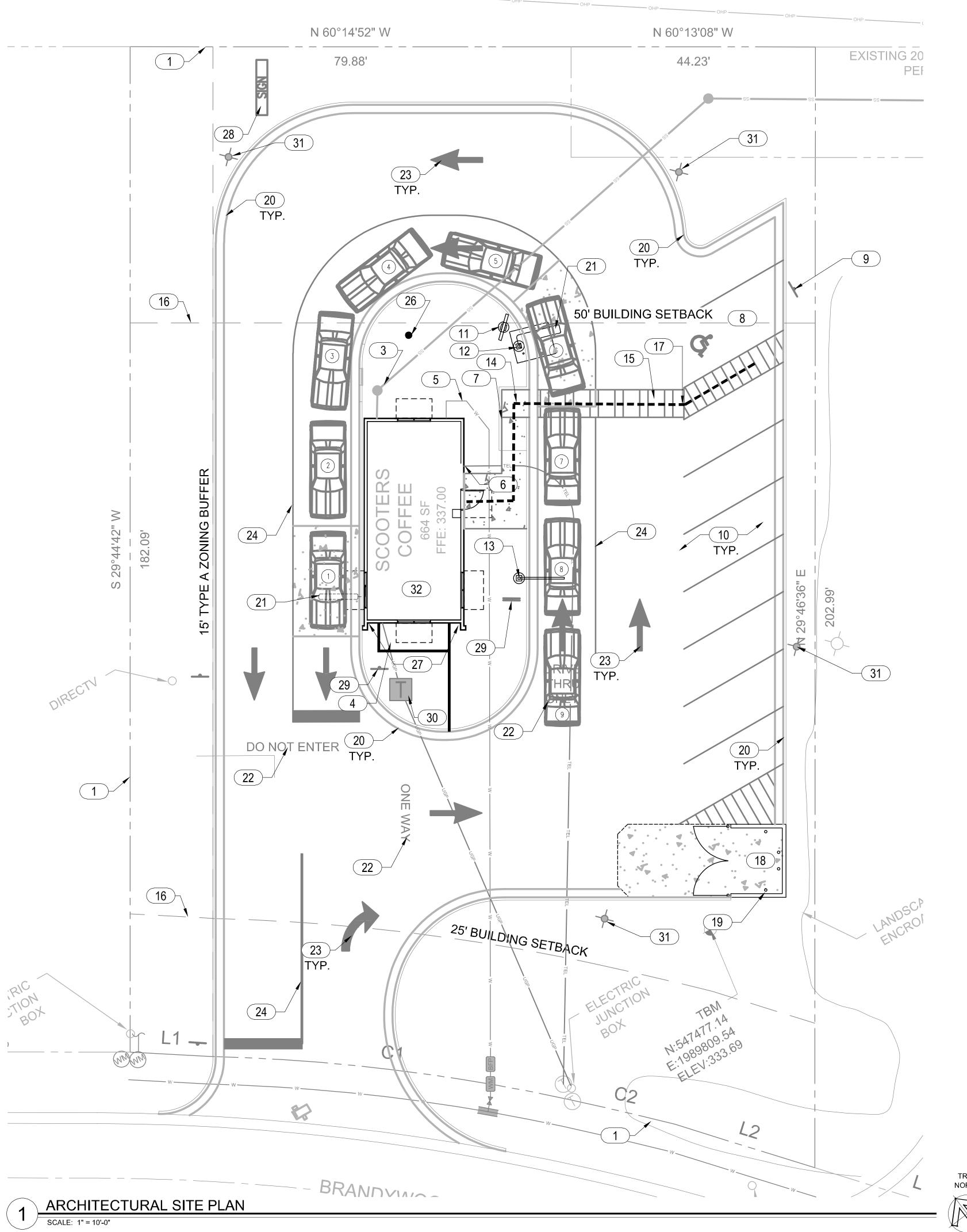
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2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE) DESIGN LOADS:						
DESIGN LOADS:						
Importance Factors: Snow (Seismic	$ \begin{array}{c} (I_{S}) & \underline{1.0} \\ \hline 1.0 \\ \hline \end{array} $					
Live Loads: Roof Mezzanir Floor	$ \frac{20}{N/A} psf \\ \frac{N/A}{N/A} psf $					
Ground Snow Load: 10	psf					
Wind Load: Ultimate Wind Speed 118 mph (ASCE-7) Exposure Category C						
SEISMIC DESIGN CATEGORY: A X B C D						
Provide the following Seismic Design Parameters: Risk Category (Table 1604.5) I X II II Spectral Response Acceleration Ss%g S1%g						
Site Classification (ASCE 7)	$ \square B \square C \blacksquare D \square E \square F $					
	Field Test Presumptive Historical Data Bearing Wall Dual w/Special Moment Frame Building Frame Dual w/Intermediate R/C or Special Steel Aoment Frame Inverted Pendulum Simplified X Equivalent Lateral Force Dynamic					
Architectural, Mechanical, Compo	onents anchored? X Yes No					
LATERAL DESIGN CONTROL: Eartho	quake 🗌 Wind 🔀					
SOIL BEARING CAPACITIES: Field Test (provide copy of test report) psf Presumptive Bearing capacity psf Pile size, type, and capacity						

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TRUE NORTH PLAN



GENERAL NOTES

- A. CONTRACTOR SHALL FIELD VERIFY TYPE OF SOILS. IF CORROSIVE SOILS ARE ENCOUNTERED, TAKE NECESSARY PRECAUTIONS FOR ALL UNDERGROUND WORK
- B. NO STRUCTURE OF ANY KIND TO BE CONSTRUCTED ON, OVER OR PLACED WITHIN THE PUBLIC UTILITY EASEMENTS EXCEPT WOOD, WIRE OR REMOVABLE SECTION TYPE FENCING AND/OR PAVING C. CONTRACTOR TO COORDINATE STAGING AREAS AS REQUIRED
- D. ANY DAMAGE BY CONTRACTOR OR SUBCONTRACTOR TO EXISTING ASPHALT PAVEMENT AND/OR EXISTING LANDSCAPING OUTSIDE OF CONSTRUCTION LIMIT LINE SHALL BE REPAIRED BY CONTRACTOR
- E. CONTRACTOR SHALL FIELD VERIFY ANY EXISTING SITE CONDITIONS THAT MAY IMPEDE
- F. NO MATERIALS SHALL BE STORED ON PUBLIC PROPERTY UNLESS AN ENCROACHMENT PERMIT IS FIRST OBTAINED FROM THE PUBLIC WORKS DEPARTMENT
- G. CONTRACTOR SHALL PROVIDE CONSTRUCTION FENCE FOR PEDESTRIAN PROTECTION ACCORDING TO LOCAL REGULATIONS & BUILDING CODE
- H. TEMPORARY TOILET FACILITIES SHALL BE PROVIDED I. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE
- J. ALL DEBRIS SHALL BE REMOVED FROM THE PREMISES DAILY & WORK AREAS SHALL BE LEFT IN A CLEAN (BROOM) CONDITION AT ALL TIMES
- K. CIVIL DRAWINGS SHALL GOVERN ON CONFLICTS WITH OTHER DISCIPLINE'S DRAWINGS
- L. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLETE SECURITY & SAFETY OF THE SITE WHILE THE JOB IS IN PROGRESS & UNTIL THE JOB IS COMPLETE
- M. CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON DRAWINGS FOR CONFLICTS PRIOR TO CONSTRUCTION; THE CONTRACTOR WILL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES
- N. IF SEASONAL CONDITIONS DO NOT ALLOW FOR SOD, USE HYDRO SEED WITH STRAW MATS OR IMPREGNATED STRAW MATS WITH SEEDS ARE REQUIRED.

Х

KEYNOTES

- 1. PROPERTY LINE.
- 2. NOT USED.
- 3. PROPOSED 4" SANITARY SEWER LATERAL; REFER TO CIVIL DRAWINGS.
- 4. PROPOSED ELECTRICAL SERVICE ENTRANCE (3) 3-1/2" CONDUIT; REFER TO ELECTRICAL DRAWINGS.
- 5. PROPOSED 1" SERVICE WATER LINE (1" METER THEN 1-1/4" FROM THE METER TO THE BUILDING; REFER TO PLUMBING DRAWINGS..
- 6. PROPOSED LOCATION OF TELEPHONE / CABLE DEMARCATION (4" CONDUIT).
- 7. CONCRETE SIDEWALK, MINIMUM 5' WIDE.

OCCUPANTS & WORKERS AT ALL TIMES

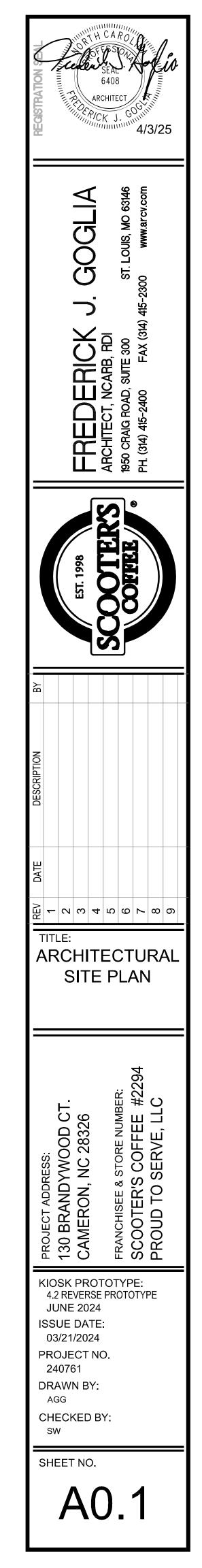
- 8. ACCESSIBLE PARKING SPACE WITH 2% MAX RUNNING AND CROSS SLOPE; REFER TO CIVIL DRAWINGS.
- 9. ACCESSIBLE PARKING SIGN; REFER TO DETAIL 4/A0.3.
- 10. EMPLOYEE PARKING.
- 11. MENU BOARD, BY OTHERS.
- 12. SPEAKER POST, BY OTHERS.
- 13. HEIGHT CLEARANCE BAR; REFER TO DETAIL 3/A0.3.
- 14. ACCESSIBLE CURB RAMP WITH 8.3% MAX. RUNNING SLOPE AND 2% MAX. CROSS SLOPE.
- 15. ACCESSIBLE CROSSWALK WITH 5% MAX. RUNNING SLOPE AND 2% CROSS SLOPE, 2" STRIPES @ 36" MAX. O.C. PAINTED WHITE.
- 16. BUILDING SETBACK LINE.
- 17. ACCESSIBLE PATH OF TRAVEL; REFER TO NOTES BELOW.
- 18. TRASH ENCLOSURE; LOCATE PER CIVIL DRAWINGS, SEE 1/A0.2.
- 19. BOLLARD, SEE CIVIL DRAWINGS PAINT POSITIVE RED SHERMAN WILLIAMS SW6871.
- 20. NEW CONCRETE CURB; REFER TO CIVIL DRAWINGS.
- 21. LOOP SENSOR FOR MENU BOARD SPEAKER AND DRIVE THRU WINDOW; REFER TO DETAIL 1/A0.3.
- 22. PAINTED SIGNAGE; REFER TO DETAIL 2/A0.3.
- 23. PAINTED DIRECTION ARROW; REFER TO DETAIL 6/A0.3.
- 24. 4" WIDE WHITE REFLECTIVE LANE STRIPING
- 25. NOT USED.
- 26. FLAGPOLE W/ SOLAR POWERED LIGHTING; REFER TO DETAIL 5/A0.3 AND STRUCTURAL DRAWINGS.
- 27. DOWNSPOUTS CONNECT TO STORM DRAIN WHEN AVALABLE, RUN UNDERNEATH TO DAYLIGHT ON ON PAVEMENT (WARM CLIMATES MAY UTILIZE SPLASH BLOCKS TO DIVERT WATER AWAY FROM BUILDING).
- 28. MONUMENT SIGN, SEE ELECTRICAL DRAWINGS. *COORDINATE FINAL LOCATION WITH OWNER AND SIGN VENDOR. REFER TO SCHEMATIC DETAIL 1/A0.4.
- 29. DIRECTIONAL SIGN, SEE ELECTRICAL DRAWINGS. *COORDINATE FINAL LOCATION WITH OWNER AND SIGN VENDOR. REFER TO SCHEMATIC DETAIL 2/A0.4.
- 30. PROPOSED TRANSFORMER; REFER TO ELECTRICAL DRAWINGS.
- 31. NEW LIGHTPOLE; REFER TO ELECTRICAL DRAWINGS.
- 32. DRIVE-THRU COFFEE KIOSK; REFER TO SHEET A1.1.

ACCESSIBLE PATH OF TRAVEL

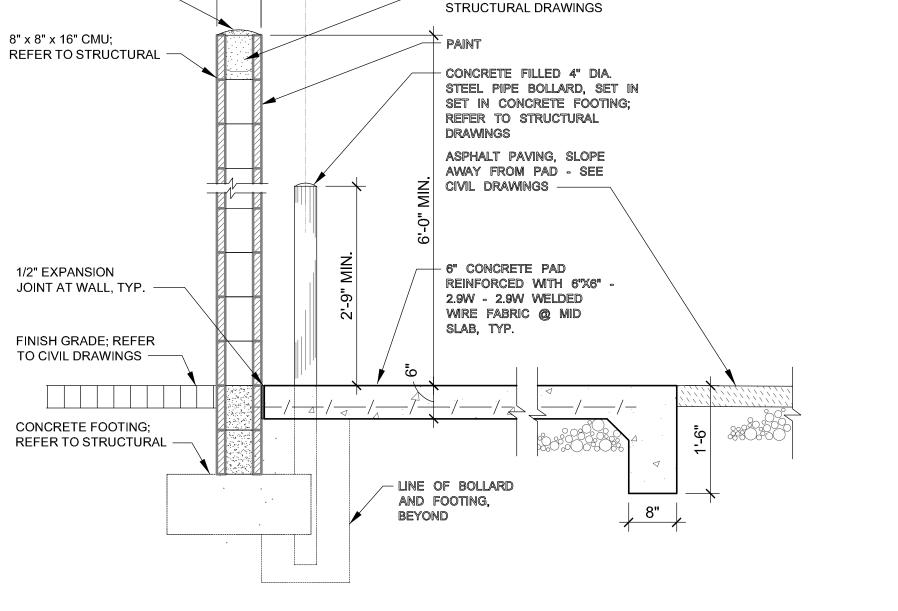
ACCESSIBLE PATH OF TRAVEL; SHALL BE MINIMUM 48" WIDE FROM ARRIVAL POINT TO THE MAIN ENTRANCE

- WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2"
- CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%

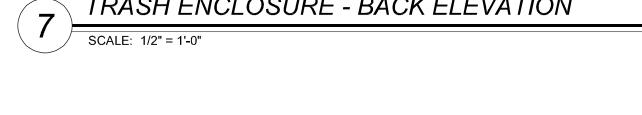
- SURFACE IS STABLE, FIRM AND SLIP RESISTANT
- FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, PROTRUDING OBJECTS SHALL NOT PROJECT 4" FROM WALL WHEN ABOVE 27" AND LESS THAN 80" FROM FINISH GRADE, OR FINISH SURFACE.







BOND BEAM, SEE



8"

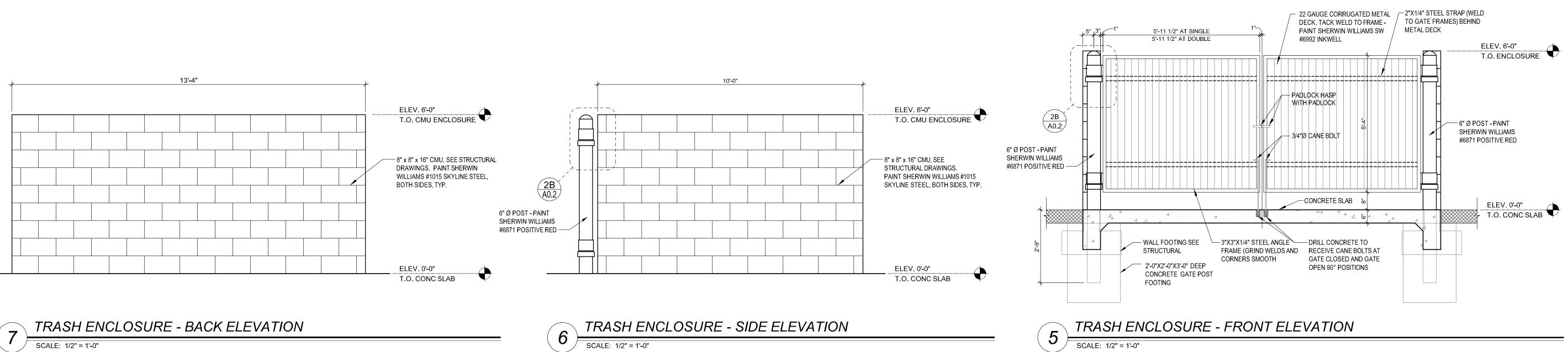
 $\frac{\circ}{MAX}$



CONCRETE DOME

MATCH WALL-

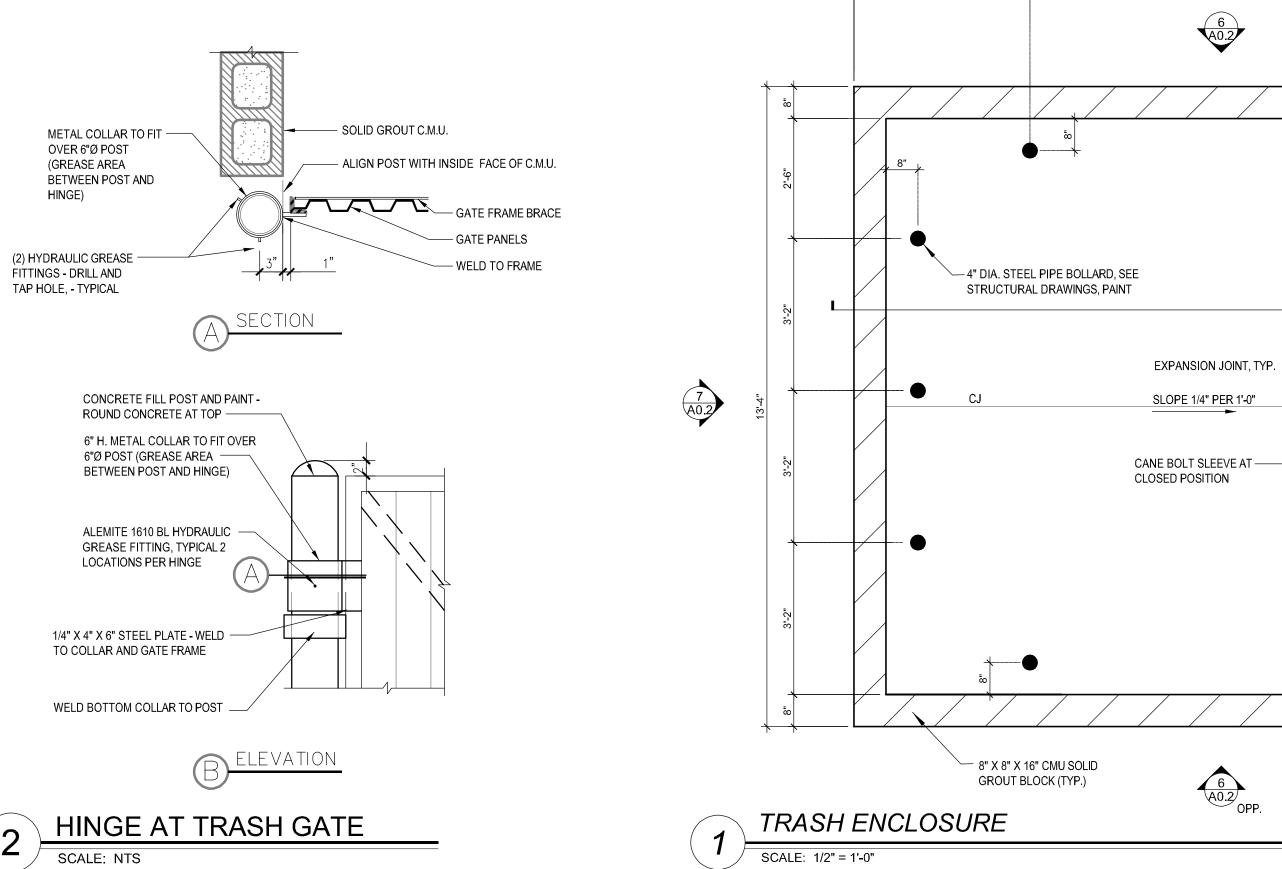
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2

HINGE)

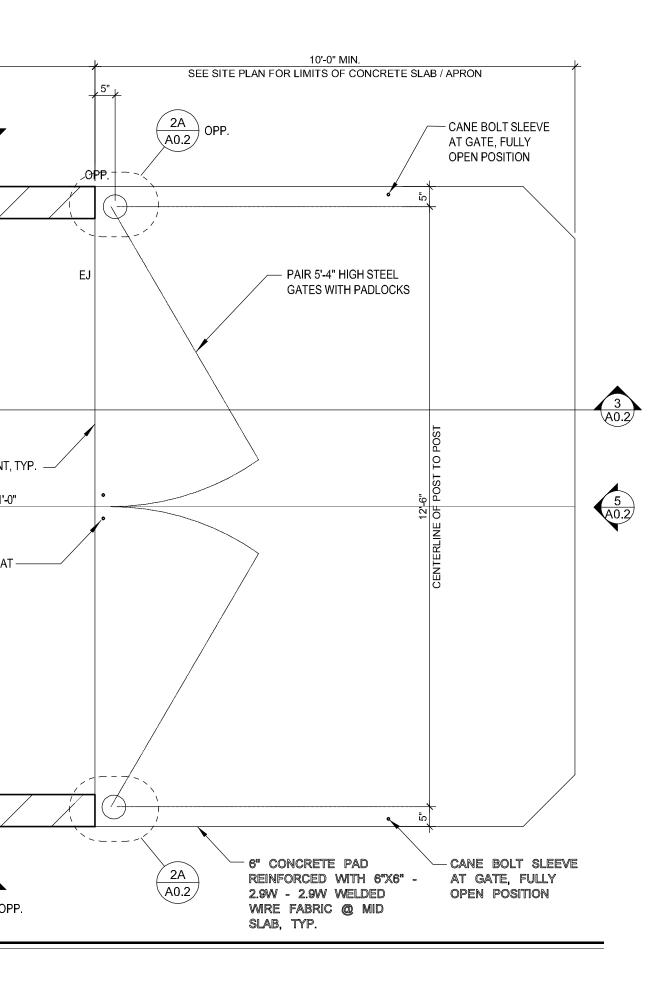
SCALE: 1/2" = 1'-0"

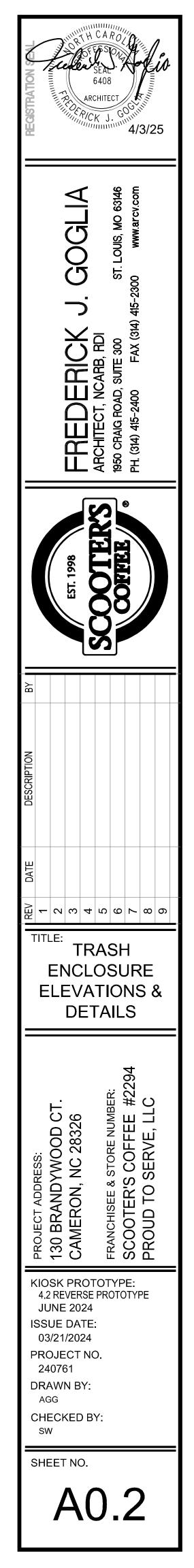


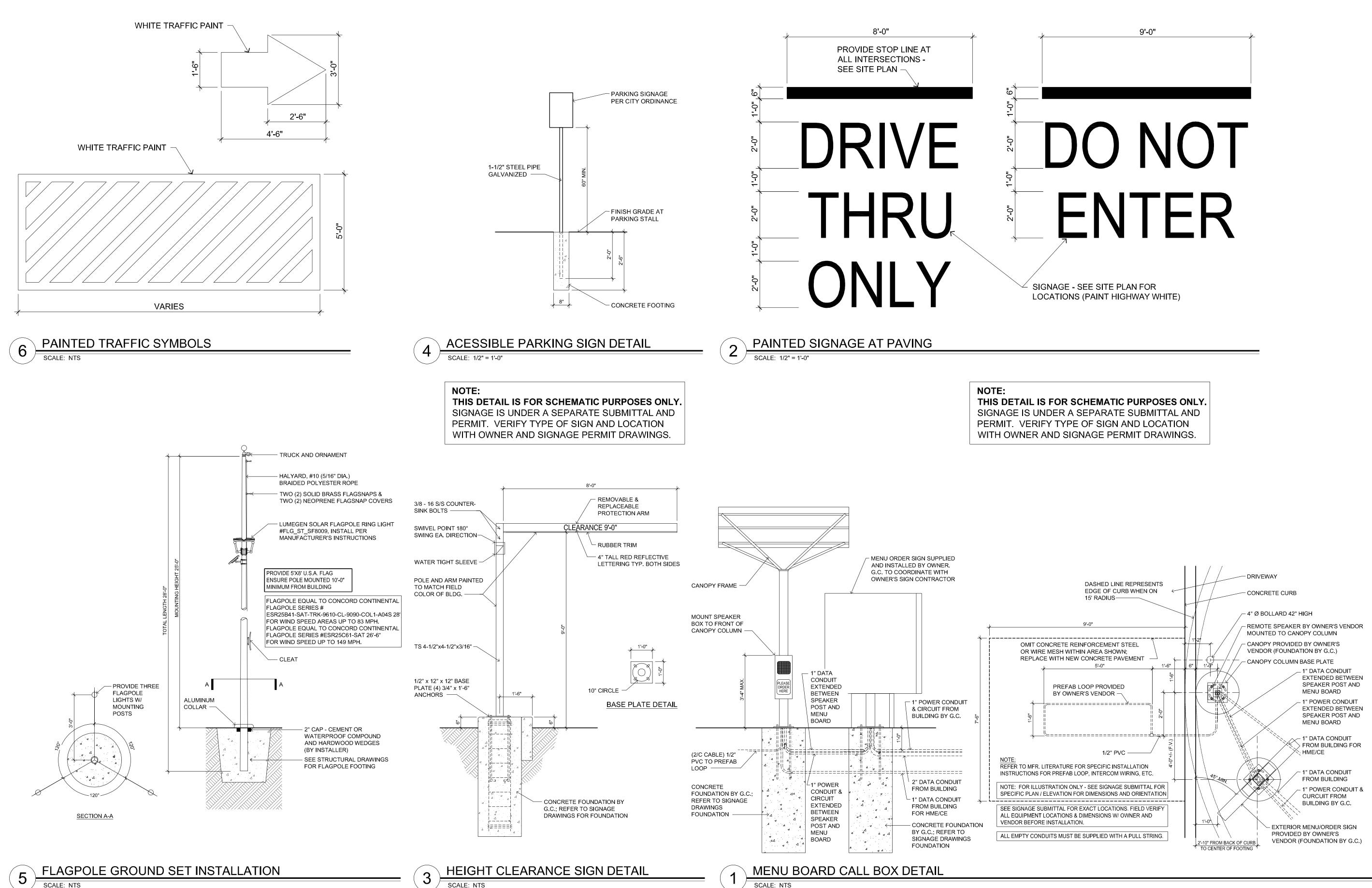
SCALE: 1/2" = 1'-0"

10'-0"

3'-8″





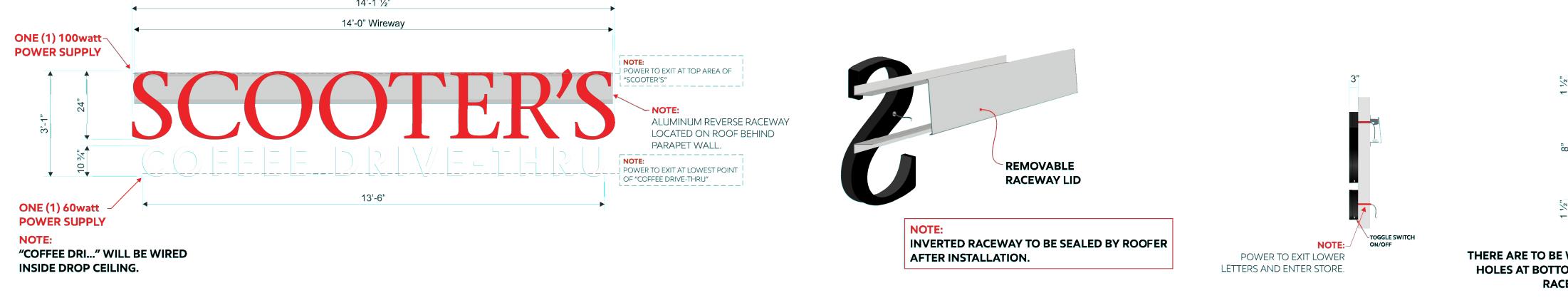


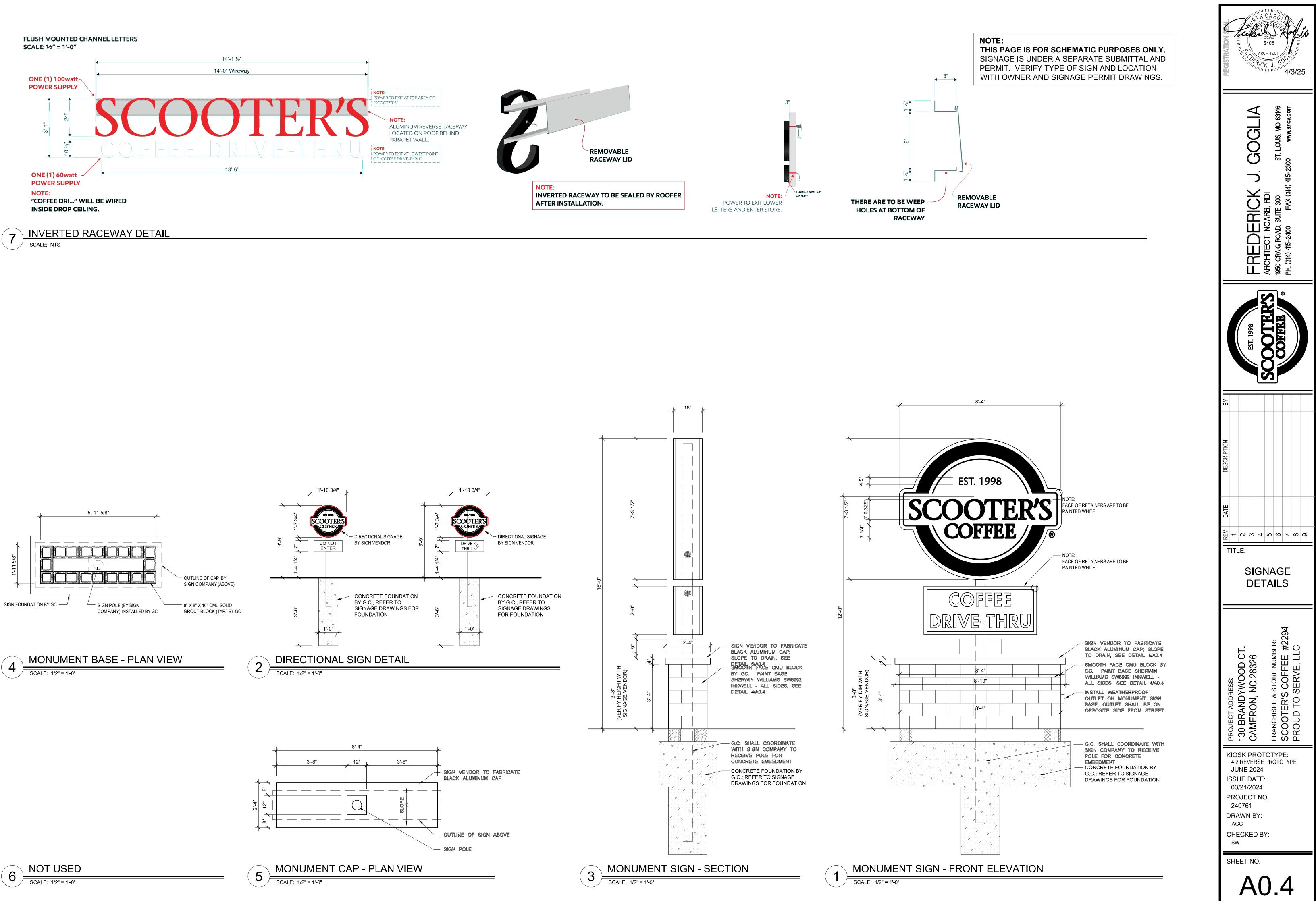
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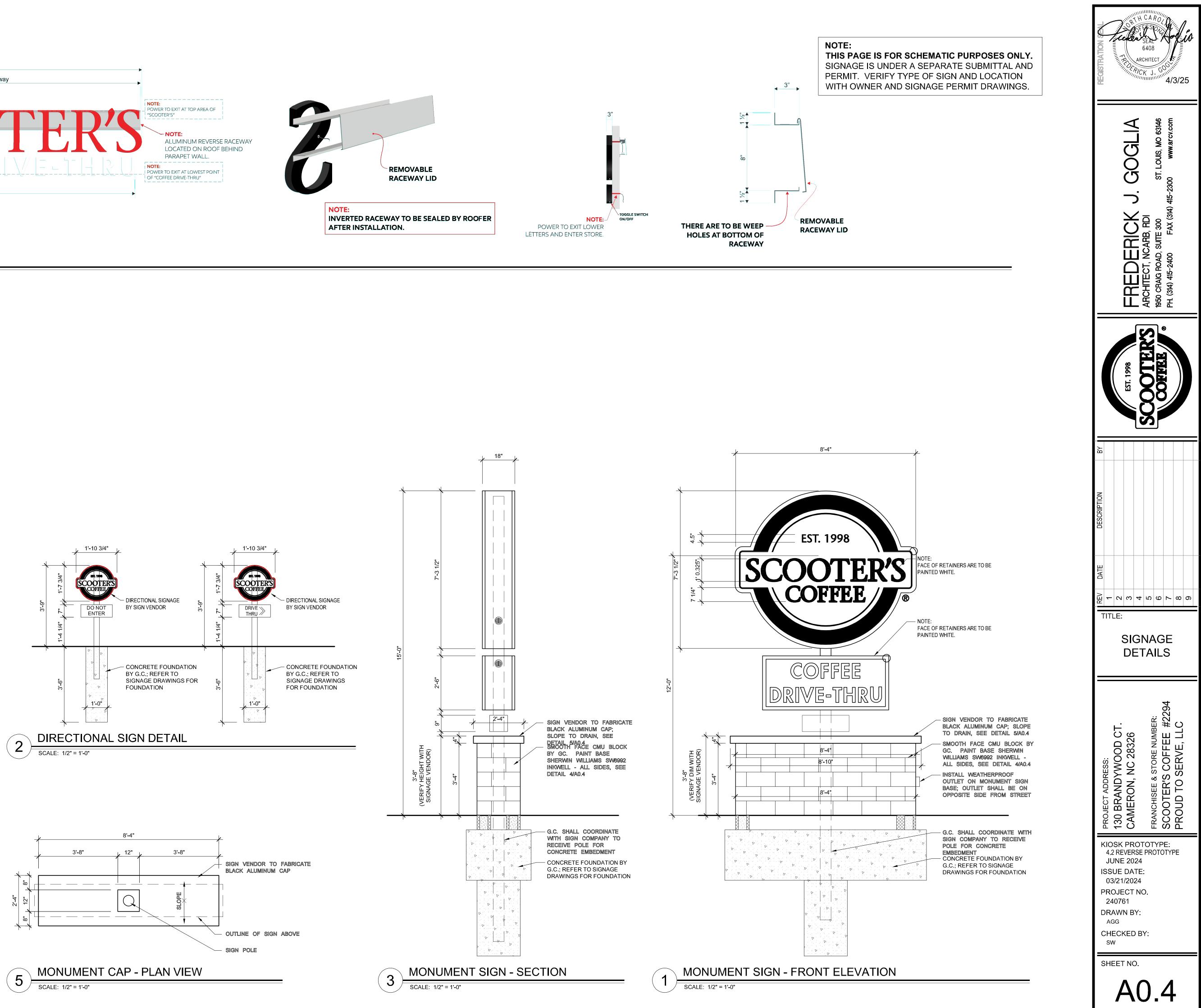
SCALE: NTS

ARCHITECT CONTINUES OF FORSON ARCHITECT OF THE ARCHITECT						
FREDERICK J. GOGLIA ARCHITECT, NCARB, RDI J. GOGLIA 1950 CRAIG ROAD, SUITE 300 ST. LOUIS, MO 63146 PH. (314) 415-2400 FAX (314) 415-2300 www.arcv.com						
EST. 1998 SOOOTERSS COOTERS						
DESCRIPTION BY						
TITTE:						
SITE DETAILS						
PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 FRANCHISEE & STORE NUMBER: SCOOTER'S COFFEE #2294 PROUD TO SERVE, LLC						
KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO. 240761 DRAWN BY: AGG CHECKED BY: SW						
SHEET NO. A0.3						

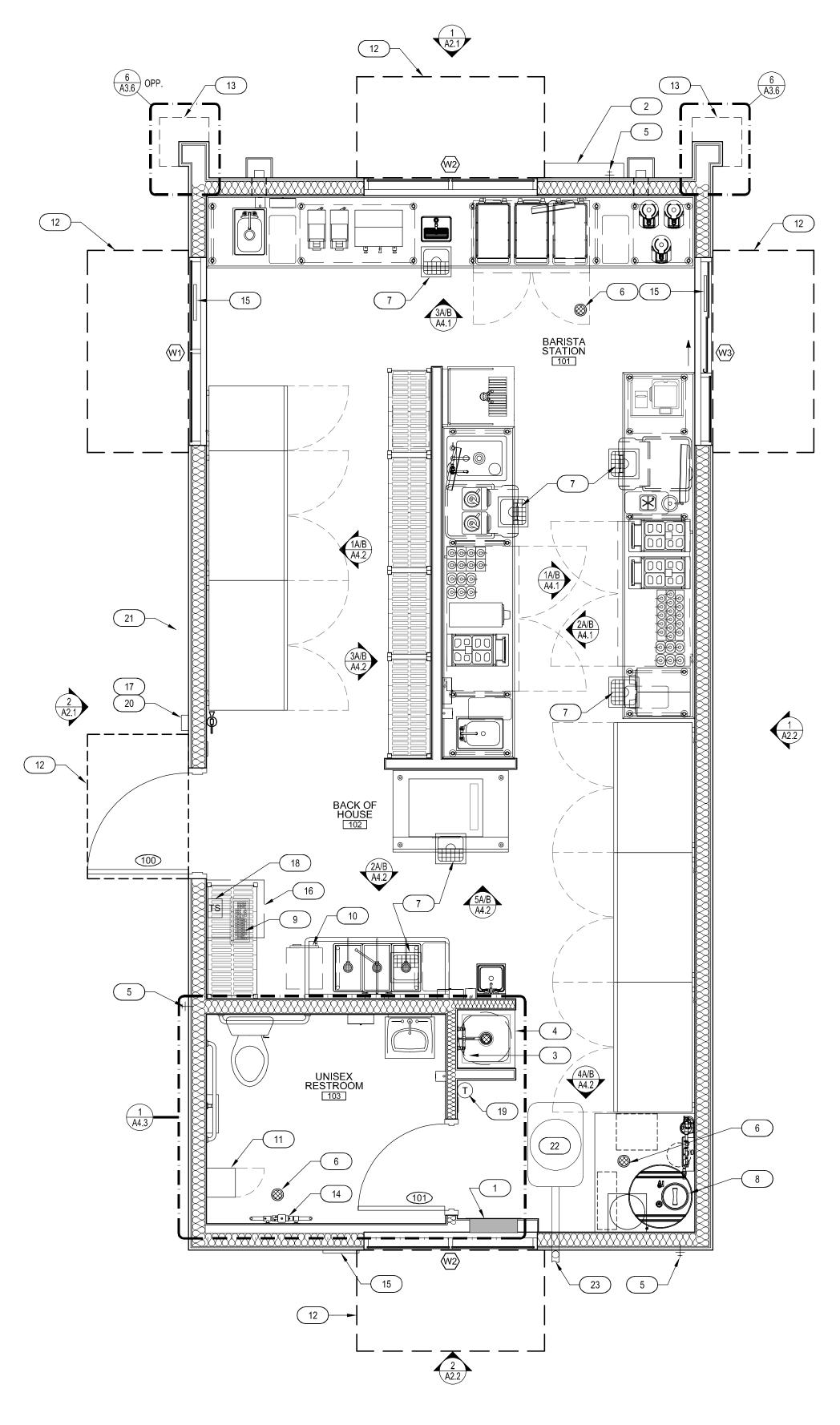






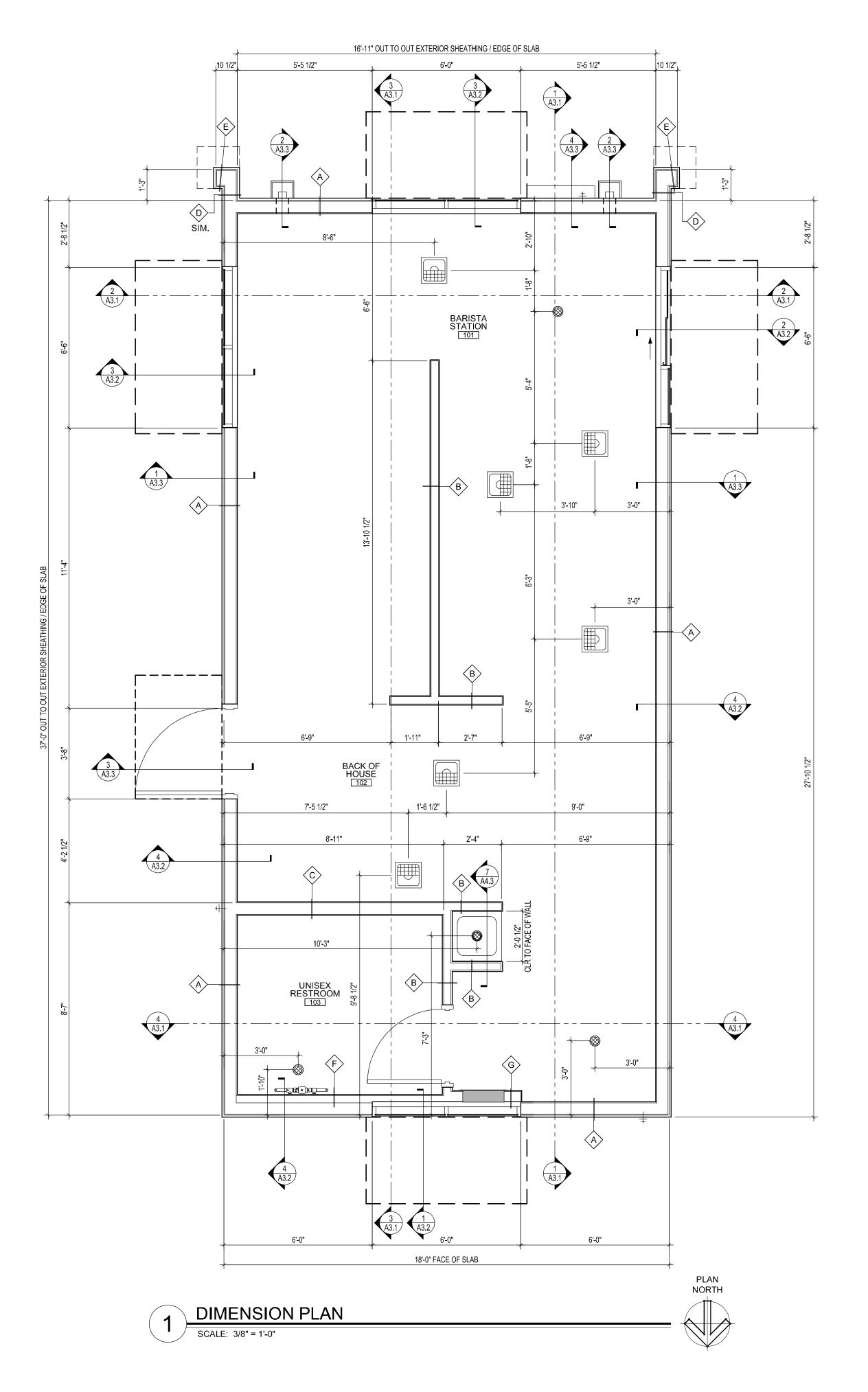












GENERAL NOTES

- A. PROVIDE PAINTED METAL ACCESS PANELS IN WALLS AND CEILINGS AT CONCEALED ITEMS SUCH AS VALVES, SHOCK ABSORBERS, CONTROLS, SWITCHES, ETC. AND ANY ITEMS WHICH MAY REQUIRE ACCESS NOT OTHERWISE PROVIDED.
- B. GENERAL CONTRACTOR WILL FURNISH AND INSTALL 5LB MULTIPURPOSE DRY CHEMICAL (2A/10BC) RATED FIRE EXTINGUISHERS WITH MOUNTING BRACKETS AND ACCESSORIES AT 4'-0" A.F.F. AS REQUIRED BY GOVERNMENTAL AUTHORITIES. MAXIMUM TRAVEL DISTANCE OF 125'-0" FOR PLACEMENT.
- C. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE, LOCATE, AND CONFIRM ALL FLOOR SINK, UNDERGROUND / OVERHEAD PLUMBING AND ELECTRICAL STUB-UPS.
 D. SEE ROOM FINISH SCHEDULE FOR ALL ROOM FINISHES, SHEET A1.2.
- E. SEE EQUIPMENT PLAN FOR EQUIPMENT INFORMATION, SHEET A1.3
 F. GENERAL CONTRACTOR TO CAULK AND SEAL ALL EXPANSION AND SAW CUT JOINTS AT ALL EXTERIOR/INTERIOR CONCRETE SEE JOINT SEALER SPECIFICATIONS.
- G. ALL ITEMS SUCH AS LIGHT SWITCHES, FIRE EXTINGUISHERS, FIRE ALARM PULLS AND OTHER ITEMS TO BE LOCATED AS CLOSE AS POSSIBLE TO THE ADJACENT DOOR FRAME.
 H. AT MOP SINK AND SINKS, PROVIDE 120 CLEANING SOLUTION DISPENSER ON HOSE BIBB SIDE.
 I. THERE SHALL BE A MAXIMUM 1/2" OFFSET AT ALL THRESHOLDS AND AT ANY CHANGE OF
- FLOORING MATERIALS. OFFSETS GREATER THAN 1/4" REQUIRE A MAXIMUM BEVELED SLOPE OF 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL.
 J. ALL DOORS ARE 4" OFF ADJACENT WALLS UNO.
- K. ALL EXTERIOR DOOR LANDING GRADES SHALL HAVE A SMOOTH TRANSITION TO THE ADJACENT PAVED SURFACE, AND THE MAX. RUNNING AND CROSS SLOPE OF ALL LANDINGS WILL BE 2%.
- L. PROVIDE THERMOMETER ACCURATE TO 2 DEGREES FAHRENHEIT IN REFRIGERATORS IF ONE IS NOT INCLUDED WITH FIXTURE.
- M. ALL HAND SINKS MUST BE PROVIDED WITH A HAND WASHING SIGN, PAPER TOWEL DISPENSER AND HAND SOAP DISPENSER.

WALL LEGEND

FRAMING / DIMENSIONING NOTE:

ALL DIMENSIONS ARE TO FACE OF SLAB AND FACE OF STUD. SEE INTERIOR ELEVATIONS FOR BLOCKING LOCATIONS.

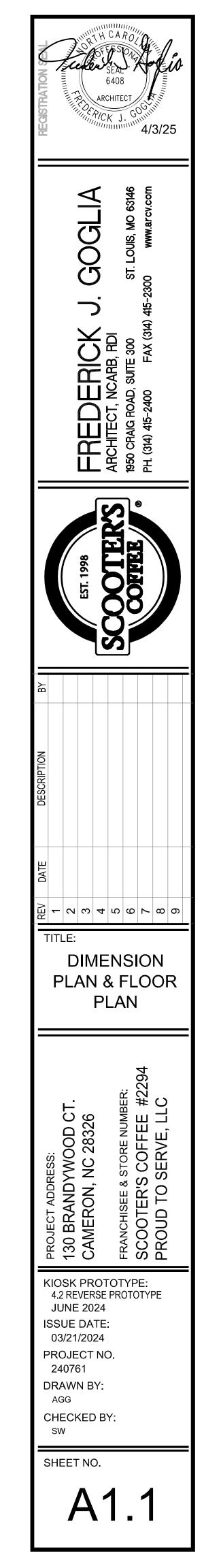
- EXTERIOR WALL: EXTERIOR: EXTERIOR FINISH (PER BUILDING SECTIONS) OVER TYVEK® COMMERCIAL WRAP OVER EXTERIOR SHEATHING OVER 2x6 WOOD STUDS @ 16" O.C., INTERIOR: 5/8" FIBEROCK BRAND BACKERBOARD AT BASE TO 12" A.F.F. WITH 5/8" M.R. GYP. BOARD & FRP PANEL TO 10'-6" A.F.F., PROVIDE BATT INSULATION IN WALLS, PER BUILDING SECTIONS.
 INTERIOR PARTITION WALL: FULL HEIGHT 2x4" WOOD STUDS @ 16" O.C., 5/8" FIBEROCK BRAND BACKERBOARD AT BASE TO 12" A.F.F. W/ 5/8" M.R. GYP. BOARD & FRP PANEL TO 10'-6" A.F.F., BOTH SIDES. PROVIDE R-13 ACOUSTICAL BATT INSULATION AT RESTROOM.
- C PLUMBING PARTITION: FULL HEIGHT 2x6 WOOD STUDS @ 16" O.C. 5/8" FIBEROCK BRAND BACKERBOARD AT BASE TO 12" A.F.F. W/ 5/8" M.R. GYP. BOARD & FRP PANEL TO 10'-6" A.F.F. BOTH SIDES. PROVIDE R-13 ACOUSTICAL BATT INSULATION AT RESTROOM.
- D EXTERIOR WING WALL: EXTERIOR FINISH OVER RAIN SCREEN OVER TYVEK® COMMERCIAL WRAP OVER EXTERIOR SHEATHING (BOTH SIDES) OVER 2x6 WOOD STUDS @ 16" O.C.
- EXTERIOR WING WALL: EXTERIOR FINISH OVER RAIN SCREEN OVER TYVEK® COMMERCIAL WRAP OVER EXTERIOR SHEATHING (BOTH SIDES) OVER 2x8 WOOD STUDS @ 16" O.C.
- FWALL FURRING: PARTIAL HEIGHT TO 10'-6" A.F.F.2x4" WOOD STUDS @ 16" O.C., 5/8" FIBEROCK BRAND BACKERBOARD AT BASETO 12" A.F.F. W/ 5/8" M.R. GYP. BOARD & FRP PANEL TO 10'-6" A.F.F.
- G --- WALL FURRING: PARTIAL HEIGHT TO 10'-6" A.F.F. 2x6" WOOD STUDS @ 16" O.C., 5/8" FIBEROCK BRAND BACKERBOARD AT BASE TO 12" A.F.F. W/ 5/8" M.R. GYP. BOARD & FRP PANEL TO 10'-6" A.F.F.

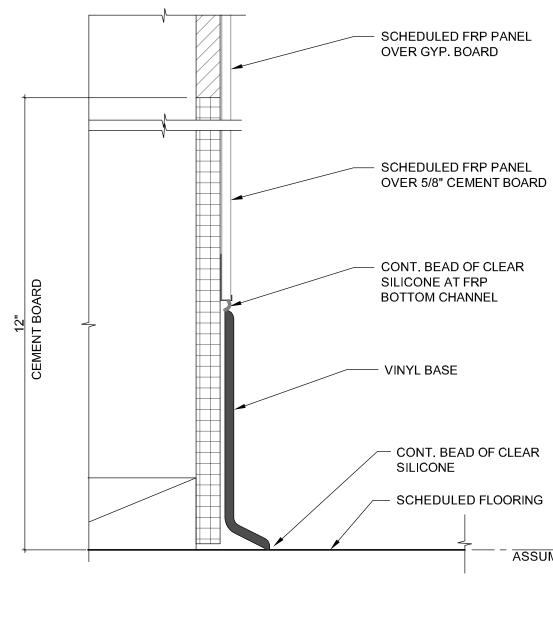
KEYNOTES - FLOOR PLAN

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- 1. ELECTRICAL PANEL; REFER TO ELECTRICAL DRAWINGS.
- 2. ELECTRICAL SEVICE ENTRANCE; REFER TO ELECTRICAL DRAWINGS. COORDINATE FINAL LOCATION TO ENSURE LOCATION DOES NOT INTERFERE WITH OTHER ITEMS.
- 3. WATER HEATER ABOVE; REFER TO PLUMBING DRAWINGS.
- MOP SINK; REFER TO PLUMBING DRAWINGS.
 HOSE BIBB; REFER TO PLUMBING DRAWINGS.
- FLOOR DRAIN; REFER TO PLUMBING DRAWINGS.
 FLOOR DRAIN; REFER TO PLUMBING DRAWINGS.
- FLOOR SINK; REFER TO PLUMBING DRAWINGS.
 R.O. SYSTEM; REFER TO PLUMBING DRAWINGS
- 8. R.O. SYSTEM; REFER T9. MANAGER'S STATION.
- 10. FLOOR SAFE BY OWNER, BOLTED TO FLOOR BY G.C.
- 11. 6-DOOR EMPLOYEE LOCKERS ANCHORED TO WALL BY G.C.
- LINE OF AWNING ABOVE; BY OTHERS.
 DASHED LINE REPRESENTS ANGLED WING WALL ABOVE.
- 14. DOMESTIC WATER SERVICE; REFER TO PLUMBING DRAWINGS.
- OPEN SIGN, BY OWNER.
 DATA RACK ABOVE; REFER TO ELECTRICAL DRAWINGS.
- 17. KNOX BOX; REFER TO EXTERIOR ELEVATIONS.
- 18. THERMOSTAT SENSOR; REFER TO MECHANICAL DRAWINGS.
- THERMOSTAT; REFER TO MECHANICAL DRAWINGS.
 MAILBOX (BY OWNER) LOCATED UNDER KNOX BOX; REFER TO EXTERIOR ELEVATIONS.
 NOT LISED
- 21. NOT USED22. UNDERSLAB GREASE TRAP; REFER TO PLUMBING DRAWINGS.
- 23. SHEIR PUMP-OUT PORT (PP3). ROUTE PLUMBING UNDER SLAB TO OUTSIDE OF EXTERIOR WALL AT 24" A.F.F. ABOVE GRADE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

	WINDOW LEGEND						
#	WINDOW TAG. REFER TO SCHEDULE ON SHEET A5.1						
DOOR LEGEND							
#	DOOR TAG. REFER TO SCHEDULE ON SHEET A5.2						

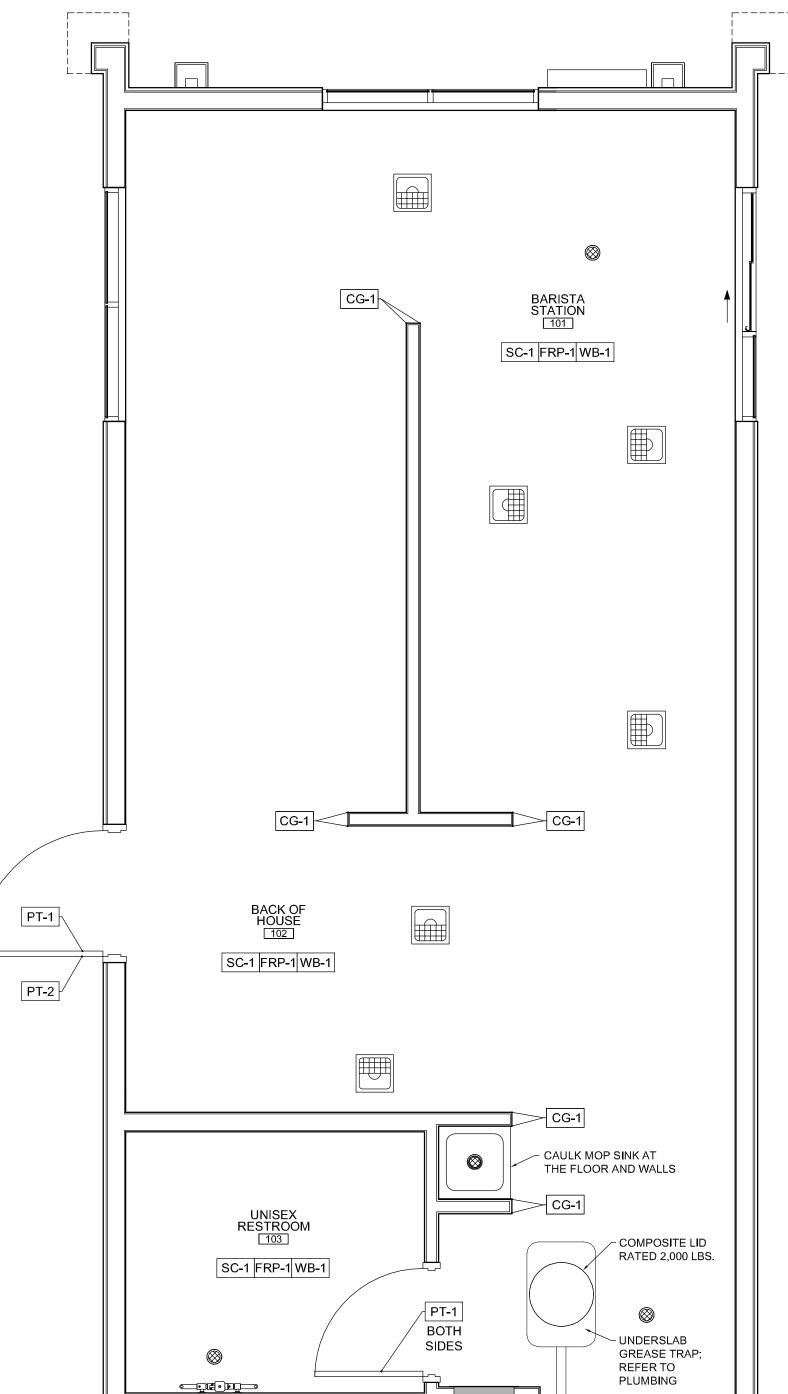






FINISH SCHEDULE

CODE	DESCRIPTION	MANUFACTURER	STYLE / PATTERN / COLOR	NOTES
FRP-1	FIBER REINFORCED PLASTIC	CRANE COMPOSITES	COLOR: WHITE FINISH: PEBBLE EMBOSSED	4' x 10' SHEETS INSTALL VERTICAL
WB-1	VINYL WALL BASE	JOHNSONITE	40 BLACK B (4" HIGH x .80" THICK)	PROVIDE SILICONE SEALANT AT FLOOR
SC-1	SEALED CONCRETE	CURECRETE	LEVEL 2 FINISH; RETROGUARD CLEAR SEALER	SEALER SHALL BE HEALTH DEPARTMENT APPROVED
PT-1	PAINT	SHERMAN-WILLIAMS	COLOR: SW7035 AESTHETIC WHITE FINISH: SEMI-GLOSS	INTERIOR DOOR AND INSIDE OF EXTERIOR DOOR
PT-2	PAINT	SHERMAN-WILLIAMS	COLOR: SW6992 INKWELL FINISH: SEMI-GLOSS	OUTSIDE OF EXTERIOR DOOR
CG-1	FIBER REINFORCED PLASTIC CORNER GUARD	CRANE COMPOSITES	OUTSIDE CORNER	
CG-2	STAINLESS STEEL CORNER GUARD	CRANE COMPOSITES	OUTSIDE CORNER	OPTIONAL







ASSUMED F.F.

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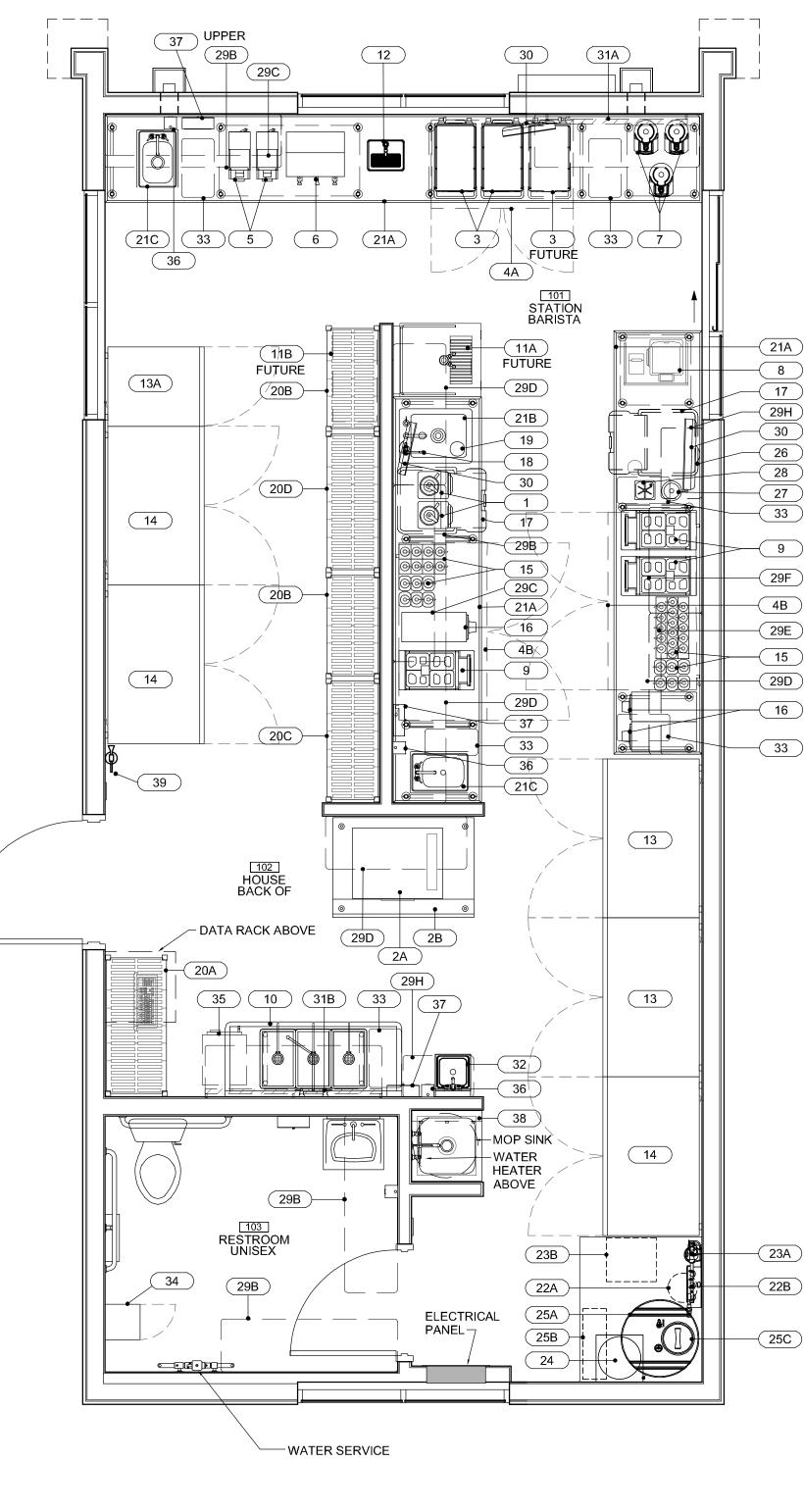
GENERAL NOTES

- A. REFER TO WALL SECTIONS AND ELEVATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. B. INTERIOR WALL AND CEILING FINISH MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.
- C. ALL FINISHES SHALL MEET FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS FOR THEIR USE, AS REQUIRED BY LOCAL CODES.
- D. G.C. SHALL CAULK JOINT BETWEEN CEILING GRID & FRP WALL PANELS IN ALL AREAS.
- E. ALL HOLLOW METAL DOORS AND FRAMES SHALL BE PRIMED & PAINTED UNO.
- F. INSTALL MATERIAL OF THE LONGEST PRACTICAL LENGTHS & SIZES TO MINIMIZE THE NUMBER OF JOINTS. G. PROVIDE PVC JOINT TRANSITIONS AT FRP AT ALL JOINTS EXCEPT AT OUTSIDE CORNERS. PROVIDE CORNER GUARDS AT OUTSIDE CORNERS.
- H. ANY DECORATIONS USED SHALL BE NON-COMBUSTIBLE OR FLAME PROOFED IN AN APPROVED MANOR.
- I. THE CONTRACTOR SHALL PROTECT ALL ADJACENT MATERIALS AND EQUIPMENT AGAINST DAMAGE FROM SPILLAGE, DRIPPING AND SPATTER OF COATING MATERIALS. REPLACE DAMAGED TILE AS REQUIRED. ALL BUILDING MATERIALS AND EQUIPMENT SHALL BE LEFT CLEAN, WITH ALL DAMAGED SURFACES CORRECTED. PROVIDE "WET PAINT" SIGNS TO INDICATE NEWLY PAINTED SURFACES.
- J. ALL FINISHES SHALL BE CLASS C WITH FLAME SPREAD INDEX OF 76-200 AND SMOKE DEVELOPMENT INDEX OF 0-450.

6408 ARCHITECT 4/3/25 63146 :v.com GOGLIA MO V.arc SI M S ST. 0 \frown RICK Suck ШS \Box t m TITLE: FINISH PLAN AND SCHEDULE PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 FRANCHISEE & STORE NUMBE SCOOTER'S COFFEE # PROUD TO SERVE, LLC KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO. 240761 DRAWN BY: AGG CHECKED BY: SW SHEET NO. A1.2

EQUIPMENT SCHEDULE

					CONTR	ACTOR	CLIENT /	VENDOR	PROTO 4.2
EM / TAG	DESCRIPTION	MANUFACTURER	SUPPLIER	MODEL #	PROVIDE	INSTALL	PROVIDE	INSTALL	REMARKS UPDATED 1/15/2025
1	BEVERAGE BLENDER	VITAMIX	KEQ/HARVEST	SCH068515-BBAB			X	Х	
2A	R/C ICE MAKER, CUBE-STYLE	SCOTSMAN	KEQ	MC0830SR-32		x	x		GC SHALL PROVIDE WATER & DRAIN CONNECTIONS, WATER MUST BE FROM FILTERED LINE, GC TO PROVIDE POWER CORD
2B	ICE STORAGE BIN	SCOTSMAN	KEQ	B842S		x	X		B842S = 778 LBS.
3	RAPID COOK OVEN	MERRY CHEF	KEQ	CONNEX 12			X	Х	1 DATA LINE REQUIRED PER OVEN; 208-240V, 30 AMPS -
4A	U/C REFRIGERATOR (48")	ATOSA	KEQ	MGF8402GR			X	X	NEMA 6-30P 115V; 5-15 NEMA PLUG; 2.3 AMPS
4A 4B	U/C REFRIGERATOR (60")	ATOSA	KEQ	MGF8403GR			X	×	
				G2 HD BLK					115V; 5-15 NEMA PLUG; 2.8 AMPS
5		BUNN	KEQ				X	X	120V; 5-15 NEMA PLUG; 11 AMPS 208/240V / 60 / 1-PH; 11 AMPS; NEMA 5-15P; ELECTRICIAN TO
6	COFFEE BREWER	FETCO	KEQ/HARVEST	HARVEST E213252			X	X	PROVIDE PLUG
7	COFFEE DISPENSER	FETCO	KEQ/HARVEST	HARVEST D45100000			X	Х	
8	POS TERMINAL W/ PRINTER	PAR/BRINK	PAR/BRINK	PAR/BRINK M3901			X	Х	
9	ESPRESSO MACHINE	FRANKE	FRANKE	S700TS			X	Х	220V CIRCUITS WITH TWIST LOCK NEMA L6-30 RECEPTACLES
10	3-COMP SINK	BK RESOURCES	KEQ	BKS-3-1220-12-12TS			X	Х	VENDOR INSTALL; PLUMBER TO MAKE FINAL CONNECTIONS
1A	BEVERAGE DISPENSER	MICRO-MATIC	KEQ	MICRO-MATIC 44309			X	Х	OPTIONAL
12	WATER STATION	T&S BRASS	KEQ	5GF-16P-WS		x	x		PLUMBER INSTALL
13	REACH-IN REFRIGERATOR (2 DOOR)	ATOSA	KEQ	MBF8507GR			Х	х	115V / 60 / 1-PH; 5-15 NEMA CORD WITH PLUG; 3.2 AMPS
13A	REACH-IN REFRIGERATOR (1 DOOR)	ATOSA	KEQ	MBF8505GR			х	Х	115V / 60 / 1-PH; 5-15 NEMA CORD WITH PLUG; 2.1 AMPS
14	REACH-IN FREEZER (2 DOOR)	ATOSA	KEQ	MBF8503GR			x	х	115V / 60 / 1-PH; 5-15 NEMA CORD WITH PLUG; 8.6 AMPS
15	SYRUP STAND, 4 BOTTLE	SMALLWARES ORDER	KEQ	-			X	х	SMALLWARES ORDER
16	DISPOSABLE CUP DISPENSER	SMALLWARES ORDER	KEQ/HARVEST	SANC8504WF			x	x	SMALLWARES ORDER
17	MOBILE ICE STORAGE BIN	CAMBRO	KEQ	ICS100L110			X	Х	
18	DECK MOUNT SINGLE FAUCET	T&S BRASS	KEQ	B-0207 SCH		x	x		PLUMBER HOOK UP
19	BLENDER CONTAINER RINSER	VITAMIX	KEQ	RINSE-O-MATIC 1442			X	Х	PLUMBER HOOK UP
20A	WIRE SHELVING	METRO	KEQ	CHROME FINISH			X	X	MANAGER STATION; BOTTOM SHELF TO BE SOLID
20B	WIRE SHELVING	METRO	KEQ	21"x60" CHROME FINISH			X	x	
20D	WIRE SHELVING	METRO	KEQ	18"x36" CHROME FINISH			X	× ×	
		METRO		18"x42" CHROME FINISH			x		
20D			KEQ	18"x48" CHROME FINISH				X	
20E	WIRE SHELVING	METRO	KEQ	21"x48"			X	Х	
21A	S/S COUNTER	CUSTOM	KEQ	CUSTOM FAB			X	Х	PER SCOOTER'S COFFEE APPROVED CUSTOM SHOP DRAWI
21B	PITCHER RINSER SINK	CUSTOM	KEQ	CUSTOM FAB			X	Х	PER SCOOTER'S COFFEE APPROVED CUSTOM SHOP DRAWI
21C	HAND SINK W/ SPLASH GUARD	CUSTOM	GC	CUSTOM FAB			X	Х	PER SCOOTER'S COFFEE APPROVED CUSTOM SHOP DRAWIN
22A	WATER TREATMENT SYSTEM (4)	CLEAN WATER GUYS / KINETICO	WATER FILTRATION SUPPLIER	DP290			Х	Х	FILTERS ONLY - PLUMBER TO INSTALL
22B	WATER TREATMENT SYSTEM (1)	CLEAN WATER GUYS / KINETICO	WATER FILTRATION SUPPLIER	-			Х	Х	FILTERS ONLY - PLUMBER TO INSTALL
23A	WATER SOFTENER	CLEAN WATER GUYS / KINETICO	WATER FILTRATION SUPPLIER	-			х	Х	
23B	BRINE TANK	CLEAN WATER GUYS / KINETICO	WATER FILTRATION SUPPLIER	-			x	Х	
24	BUFFER TANK W/ S/S SHELF	CLEAN WATER GUYS / KINETICO	WATER FILTRATION SUPPLIER	-			x	х	
25A	WATER STORAGE TANK	CLEAN WATER GUYS / KINETICO	KEQ	50 GALLON			Х	Х	
25B	WATER PUMP	CLEAN WATER GUYS / KINETICO	KEQ	-			x	х	
25C	DAB BOOSTER PUMP	CLEAN WATER GUYS / KINETICO	KEQ	-			X	Х	MOUNTED ON WALL IF REQUIRED
26	ZOOM TIMER	HME	COMMERCIAL ELECTRONICS	NITRO			x	х	PROVIDE (1) ONE CAT5 DATA LINE AT TIMER
27	BUILT-IN DIPPER WELL W/ FAUCET	T&S BRASS	KEQ	B-2282-01		x	X		PLUMBER TO INSTALL
28	BUILT-IN PITCHER RINSER	SMALLWARES ORDER	KEQ	<u>-</u>		X	X		6" x 6" x 2" CUT OUT
 29A	WALL MOUNT WIRE SHELVING	METRO	KEQ	18"x72"			X	X	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
		METRO		18"x60"					PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
29B			KEQ				X	X	
29C		METRO	KEQ	14"x60"			X	X	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
29D		METRO	KEQ	18"x48"			X	X	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
29E	WALL MOUNT WIRE SHELVING	METRO	KEQ	14"x48"			X	Х	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
29F	WALL MOUNT WIRE SHELVING	METRO	KEQ	18"x36"			X	Х	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
29G	WALL MOUNT SHELVING	METRO	KEQ	14"x24"			X	Х	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
29H	ORDER STAGING CART	METRO	KEQ	SC30			X	Х	OPTIONAL - ONLY REQUIRED FOR SBS LOCATIONS
30	DRIVE-THRU ORDER MONITOR	VIEWSONIC 32" FLAT TV	PARTECK / BRINK	PARTECH M3710		x	x		PROVIDE (1) ONE CAT5 DATA LINE AT EACH MONITOR
31A	SMART WALL	METRO 48"	KEQ	SC48-SWCS-K4			X	х	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
31B	SMART WALL	METRO 60"	KEQ	SC60-3COMP-K4			х	Х	PROVIDE EACH UNIT W/ WALL BRACKET HARDWARE
32	WALL MOUNT HAND SINK	BK RESOURCES	KEQ	BKHS-W-SS-SS-P-G		х	Х		PLUMBER INSTALL 12"W x 14.5"D x 12.25"H; 9x9 5" DEEP BOW
33	TRASH RECEPTACLE	SMALLWARES ORDER	KEQ	23 GALLON BLACK TRIMLINE		x	x		UNDER COUNTER
34	EMPLOYEE LOCKERS	-	KEQ	-		x	Х		12 x 12 x 12 6 TIER G.C. TO ANCHOR TO WALL
35	SAFE	-	KEQ	-		x	X		BOLTED TO FLOOR BY G.C.
36	SOAP DISPENSER	DIVERSEY ORDER /	KEQ	-		x	X		SURFACE MOUNTED BY G.C.
37	PAPER TOWEL DISPENSER	HARVERST SMALLWARES ORDER	GC	BOBRICK 2621		×	X		SURFACE MOUNTED BY G.C.
51	MOP & BROOM RACK	SMALLWARES ORDER	KEQ				x		SURFACE MOUNTED BY G.C.
38	1 BAC 11 / W 1/2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2			T&S BRASS B-0653	1	X	•		



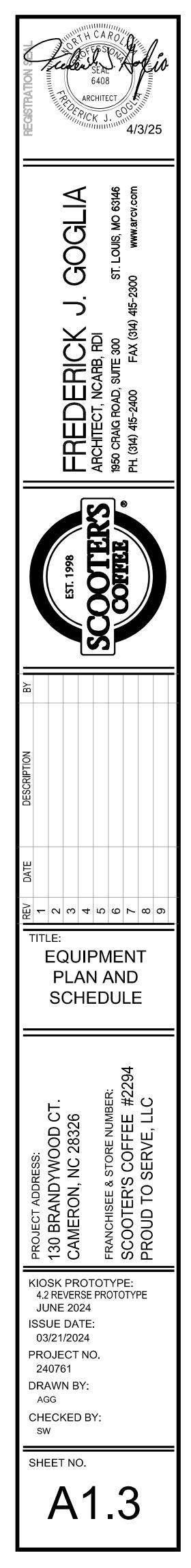


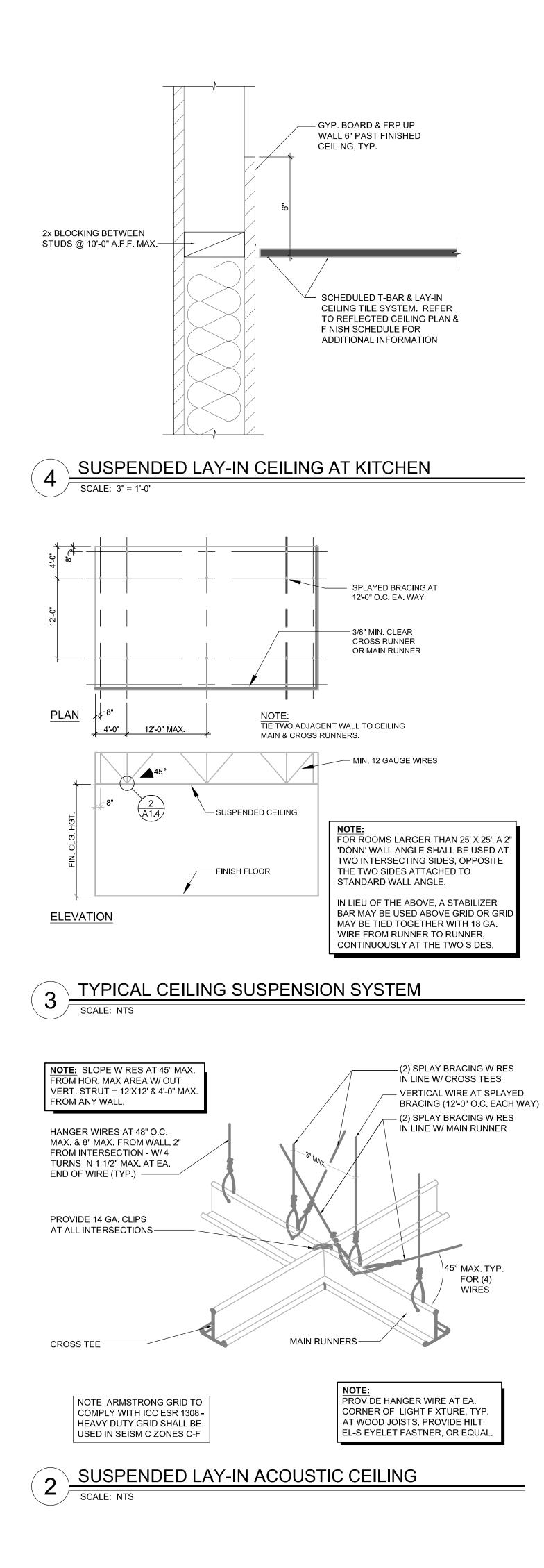
GENERAL NOTES:

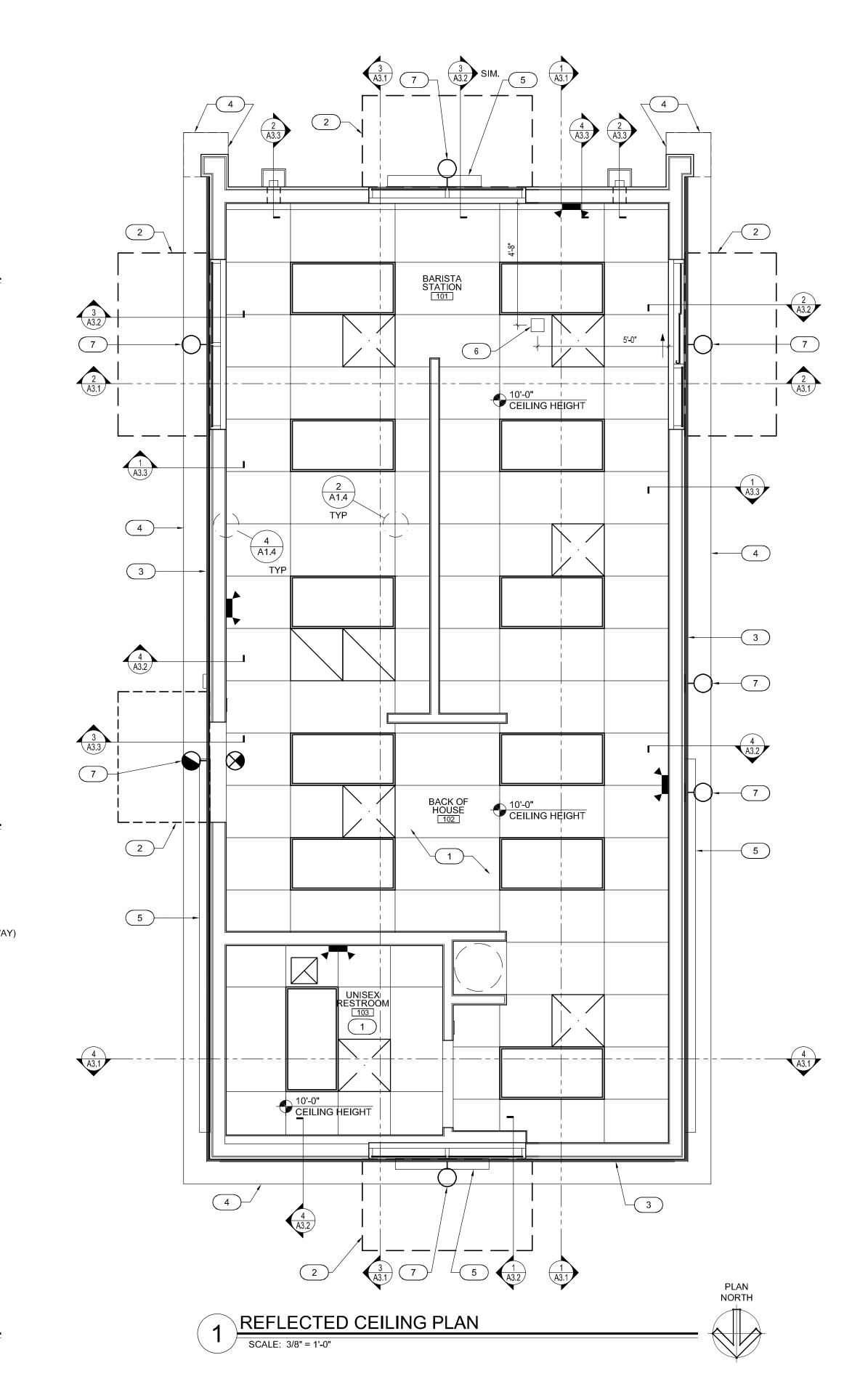
1. ALL MILLWORK / STAINLESS STEEL COUNTERS/ WIRE SHELVES TO BE PROVIDED AND

- INSTALLED BY CONCEPT SERVICES, UNLESS OTHERWISE NOTED 2. THE WATER FILTRATION SYSTEM IS TO BE INSTALLED IN BACK-OF-HOUSE AREA
- 3. THE REVERSE OSMOSIS SYSTEM IS TO BE INSTALLED NEXT TO THE WATER FILTRATION SYSTEM
- 4. G.C. TO INSTALL 12"W X 12"L X 12"D CONC. SLAB TO ACCEPT COMMUNICATION POST (PROVIDED BY OTHERS) CONC. SLAB TO BE PLACED FROM FACE OF CURB IN LOCATION NOTED ON SCHEMATIC DRIVE-THRU MENU-BOARD & SPEAKER/INTERCOM PLAN - CONC. SLAB TO INCLUDE 2 BLANK CONDUITS LOCATED IN THE CENTER OF THE SLAB - ONE OF THESE CONDUITS TO BE RAN FROM THE CENTER OF SLAB TO INSIDE THE BUILDING TO THE LOCATION NEAR THE ELECTRICAL PANEL - THE OTHER CONDUIT WILL BE RAN FROM THE CENTER OF SLAB & CONNECTED TO THE UNDERGROUND LOOP SENSOR (PROVIDED BY OTHERS) IN DRIVE THRU LANE - <u>NOTE:</u> MENU BOARD LOCATION; PROVIDE A CONDUIT WITH POWER RAN TO THE OUTSIDE MENU BOARD LOCATION NOTED ON PLAN.
- G.C. WILL NEED TO COORDINATE WITH COUNTERTOP FAB FOR PROPER LOCATION OF COUNTERTOP LEGS WITH FLOOR SINK LOCATION.









CEILING	CEILING LEGEND							
SYMBOL	FIXTURE	NOTES						
	2'x4' LIGHT FIXTURE WITH PRISMATIC LENS	RECESSED IN CEILING GRID AT +10'-0" A.F.F.						
	SUPPLY AIR GRILLE TITUS TMS 3 BLADE DIFFUSER OR SIMILAR	RECESSED IN CEILING GRID AT +10'-0" A.F.F.						
	RETURN AIR RH45T COMMERCIAL T-BAR ALUMINUM GRILLE	RECESSED IN CEILING GRID AT +10'-0" A.F.F.						
	TOILET ROOM EXHAUST FAN	RECESSED IN CEILING GRID AT +10'-0" A.F.F.						
ਠ	EXTERIOR WALL SCONCE	SURFACE MOUNTED						
T	EXTERIOR EMERGENCY WALL SCONCE	SURFACE MOUNTED						
\bigotimes	LED EXIT SIGN	CEILING MOUNTED AT +10'-0" A.F.F.						
<->	EMERGENCY LIGHT W/ BUG EYES	WALL MOUNTED AT +9'-0" A.F.F.						
	PERIMETER LED STRIP LIGHT	SURFACE MOUNTED						

NOTE: ALL LIGHTS TO BE PURCHASED BY FRANCHISEE OR GENERAL CONTRACTOR AND INSTALLED BY GENERAL CONTRACTOR.

CEILING MATERIAL LEGEND

ITEM	MFR (OR EQUAL)	MODEL NUMBER
TYPE "A"	ARMSTRONG	24" x 48" ARMSTRONG KITCHEN ZONE OR EQUAL TILES TO BE SMOOTH AND WASHABLE

GENERAL NOTES

- A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES AT OPPOSITE CORNERS, SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.
- B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NECESSARY CODE REQUIREMENTS.
- C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS. ALL FLUORESCENT FIXTURE BALLASTS SHALL BE HIGH FREQUENCY ELECTRONIC BALLASTS WITH A TOTAL HARMONIC DISTORTION: OF LESS THAN 20%, REGARDLESS OF THE NUMBER OF LAMPS CONNECTED TO EACH BALLAST AND SHALL HAVE CBM LABEL. ALL FLUORESCENT FIXTURES INSTALLED SHALL INCORPORATE BALLAST PROTECTION. ALL FLUORESCENT BALLASTS SHALL HAVE AN AUDIBLE NOISE RATING OF "CLASS A" OR BETTER. ALL FLUORESCENT BALLASTS SHALL HAVE A POWER FACTOR GREATER THAN 98% WHEN USED WITH PRIMARY LAMP.

CEILING SPECIFICATION ACOUSTICAL CEILING SYSTEM

EXPOSED TEE GRID ARMSTRONG PRELUDE XL 15/16 EXPOSED TEE GRID SYSTEMS OR EQUIVALENT AND INSTALL PER ICC 1308 (ARMSTRONG)

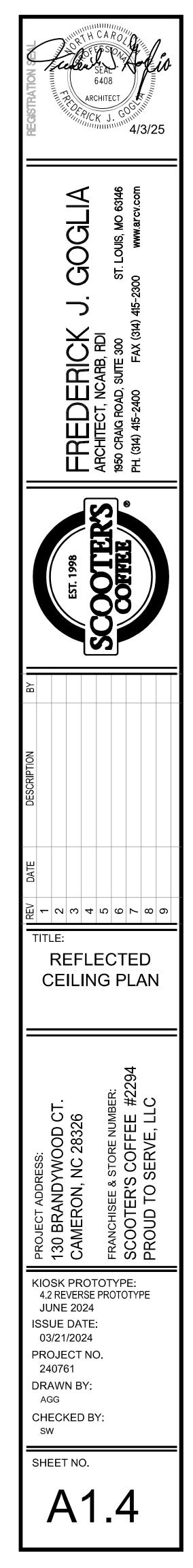
HANGER WIRE, MINIMUM 12 GA. AWG GALVANIZED SOFT ANNEALED, MILD STEEL WIRE.

HANGER CLIPS, PREFABRICATED METAL CLAMPS, EYELET SCREWS FOR FASTENING TO STRUCTURAL WOOD MEMBERS.

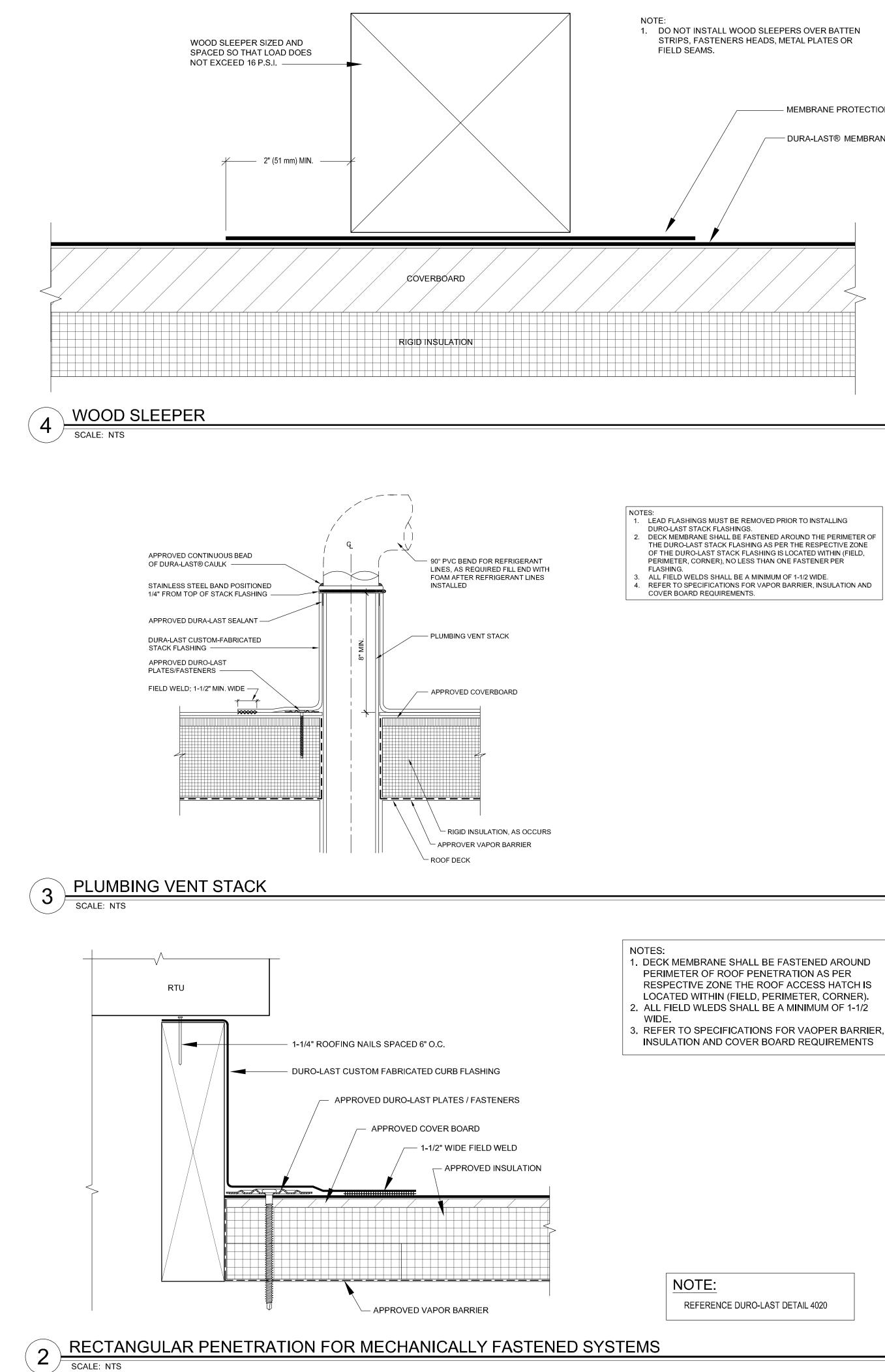
ACOUSTICAL CEILING TILE: 24 x 48 CEILING TO BE SMOOTH AND WASHABLE KITCHEN ZONE #672, BY ARMSTRONG WORLD INDUSTRIES (OR EQUAL)

KEYNOTES - REFLECTED CEILING

- 1. NEW 2' x 4' WASHABLE LAY-IN CEILING TILES. (FIRE RATING CLASS A)
- 2. RED CANVAS AWNING FURNISHED AND INSTALLED BY OTHERS.
- 3. PERIMETER LED AT EXTERIOR SOFFIT, REFER TO ELECTRICAL DRAWINGS.
- 4. HARDIE-PANEL AT SOFFIT & CORNICE.
- 5. SIGNAGE FURNISHED AND INSTALLED BY OTHERS, UNDER A SEPARATE PERMIT. G.C. TO PROVIDE BLOCKING FOR SIGNAGE.
- 6. ACCESS POINT LOCATION, CEILING MOUNTED.
- 7. EXTERIOR LIGHTING, REFER TO ELEVATIONS FOR LOCATIONS; REFER TO ELECTRICAL DRAWINGS.



(#)



- MEMBRANE PROTECTION

- DURA-LAST® MEMBRANE

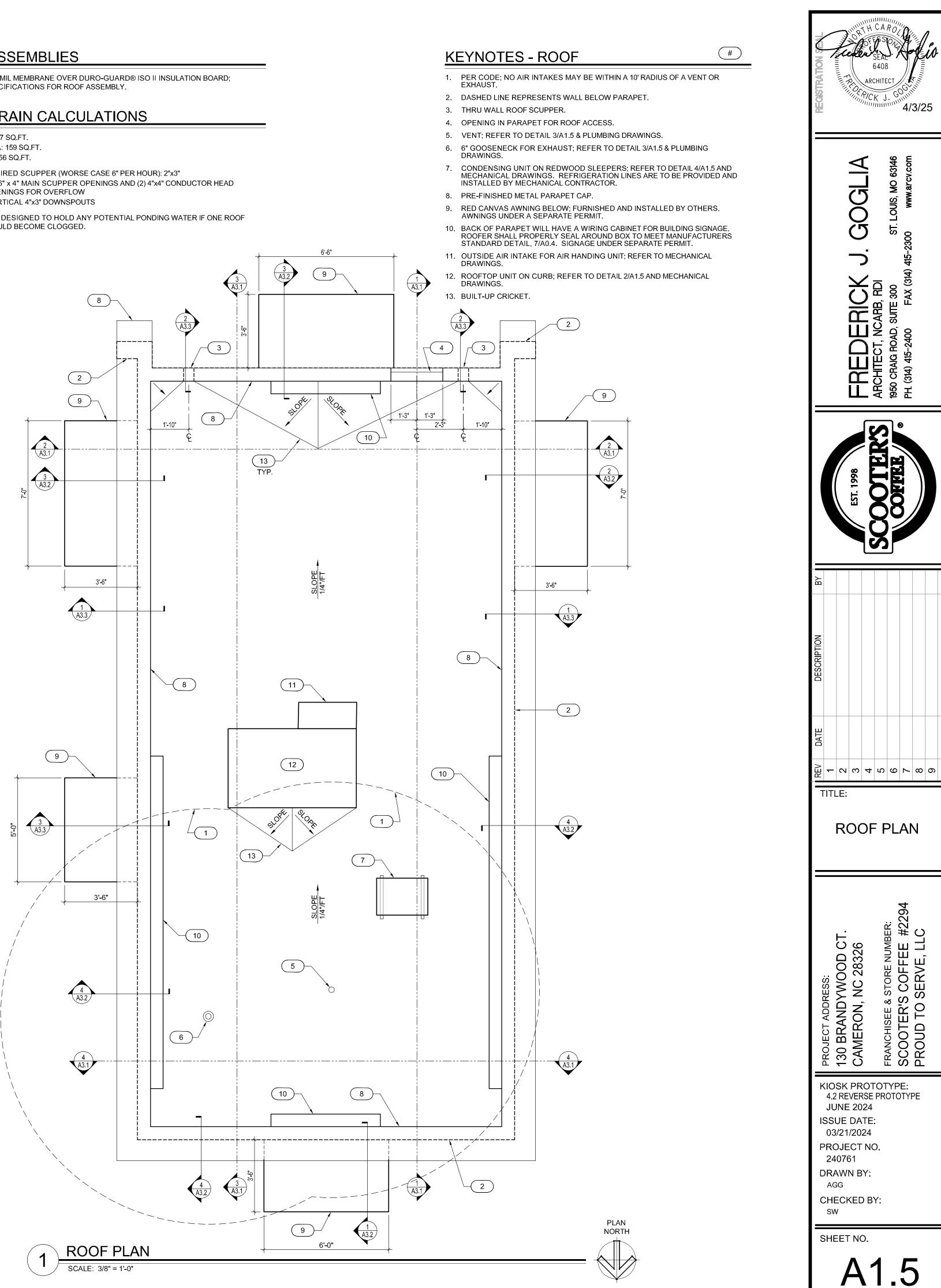
ROOF ASSEMBLIES

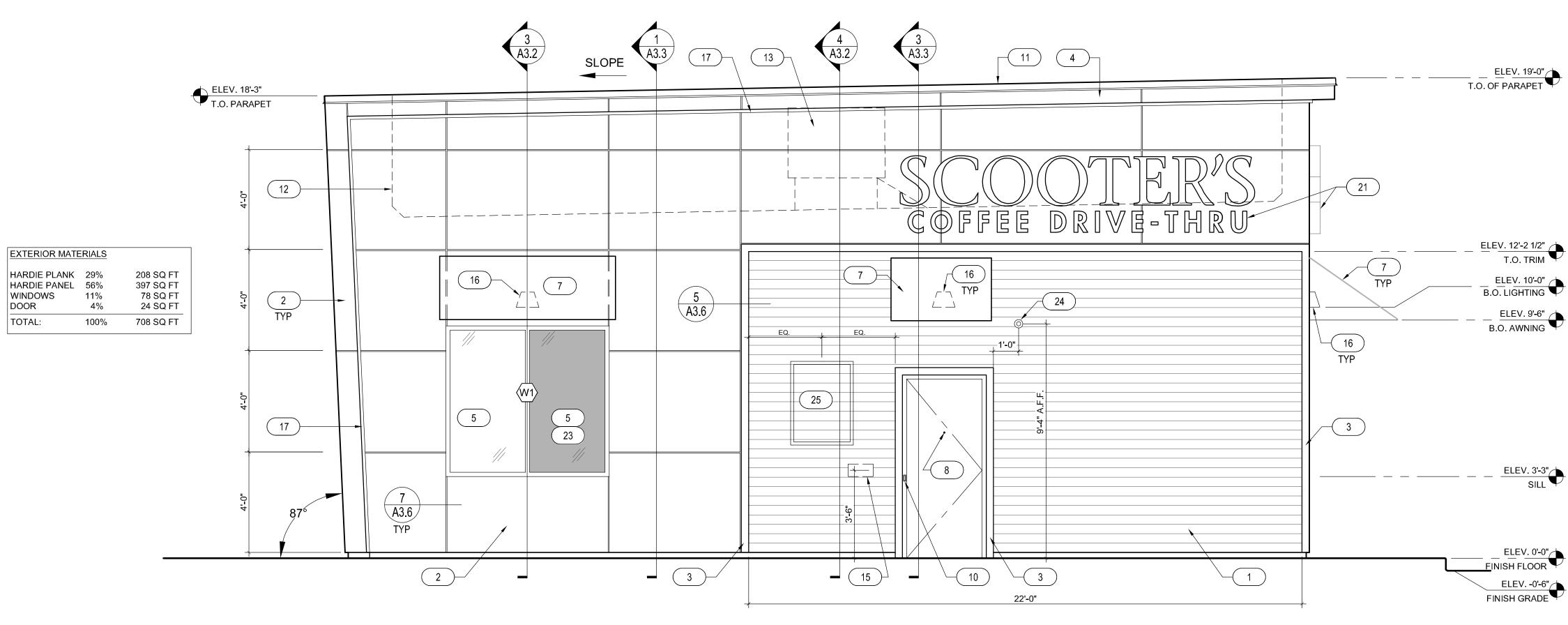
DURO-LAST 50-MIL MEMBRANE OVER DURO-GUARD® ISO II INSULATION BOARD; REFER TO SPECIFICATIONS FOR ROOF ASSEMBLY.

ROOF DRAIN CALCULATIONS

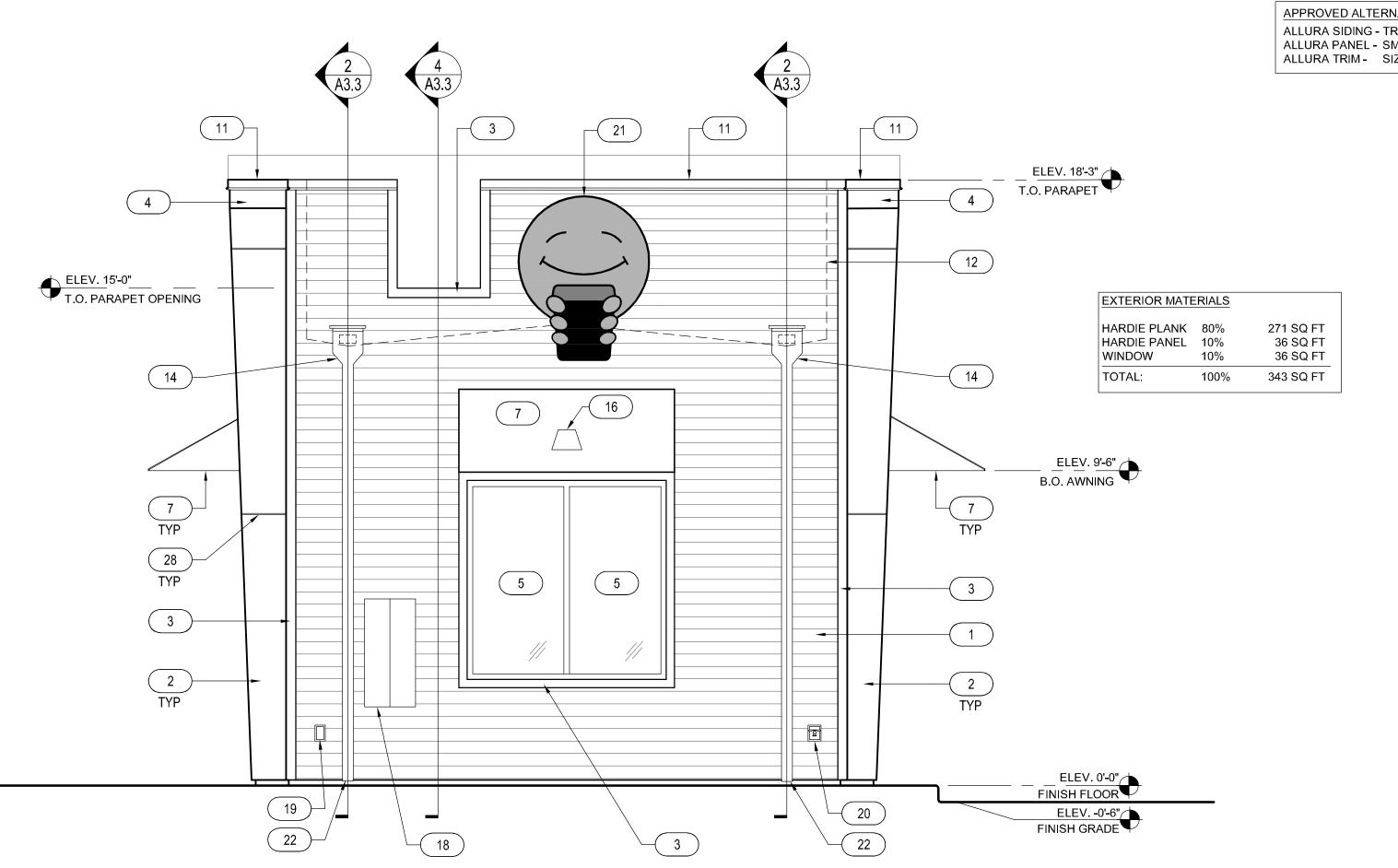
ROOF AREA: 597 SQ.FT. PARAPET AREA: 159 SQ.FT TOTAL AREA: 756 SQ.FT. MINIMUM REQUIRED SCUPPER (WORSE CASE 6" PER HOUR): 2"x3" PROVIDED: (2) 6" x 4" MAIN SCUPPER OPENINGS AND (2) 4"x4" CONDUCTOR HEAD OPENINGS FOR OVERFLOW PROVIDED: VERTICAL 4"x3" DOWNSPOUTS

NOTE: ROOF IS DESIGNED TO HOLD ANY POTENTIAL PONDING WATER IF ONE ROOF SCUPPER SHOULD BECOME CLOGGED.





2 EAST EXTERIOR ELEVATION SCALE: 3/8" = 1'-0"



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

KE	EYNOTES	X X X X X X X X X X X X X X X X X X X	
	HARDIE PLANK LAP SIDING CEDARMILL 6-1/4", REFER TO EXTEF DETAILS ON SHEET A3.6 - COLOR: SHERWIN WILLIAMS SW6992 EGGSHELL FINISH	INKWELL	
2.	4' x 8' HARDIE ARCHITECTURAL PANEL. FINISH: FINE SAND, CO SKYLINE STEEL. REFER TO SHEET A3.6 FOR HARDIE PANEL DE	LOR: SW 1015	3/25
3.	3 1/2" HARDIE TRIM, SEE HARDIE DETAIL SHEET A3.6 - COLOR: SHERWIN WILLIAMS SW6992 INKWELL EGGSHELL FINIS		
	HARDIE ARCHITECTURAL PANEL AT FASCIA AND SOFFIT. FINIS COLOR: SW 1015 SKYLINE STEEL. REFER TO SHEET A3.6 FOR H DETAILS.		
5.	INSULATED DARK BRONZE ALUMINUM WINDOWS WITH DUAL PAGLASS		
6.	QUICKSERVE WINDOW - COLOR: DARK BRONZE		
	AWNING BY OTHERS - COLOR: RED FABRIC	5300 * •	
3.	INSULATED HOLLOW METAL DOOR AND FRAME - COLOR: SHEF SW6992 INKWELL EGGSHELL FINISH	RMIN MILLIAMS	
9.	PEEP HOLE, BY DOOR MANUFACTURER		
10.	DOOR BELL	SUITE 300 FAX	
1.	20 GAUGE METAL PARAPET CAP - COLOR: MATTE BLACK	Service All and a service and	
2.	LINE OF ROOF BEYOND		
3.	ROOF TOP UNIT BEYOND, REFER TO MECHANICAL DRAWINGS	HITECT, 1 CRAIG ROA 314) 415-240	
	ROOF SCUPPER AND DOWNSPOUT, REFER TO DETAIL 8/A3.4		
	CONTRACTOR SHALL PROVIDE A BLACK MAILBOX APPROXIMA WIDE BY 6 INCHES TALL. MAILBOX SHALL BE EQUAL TO GIBRAI MOUNTED METAL BOX		
16.	WALL MOUNTED LIGHT FIXTURE, REFER TO ELECTRICAL DRAW	/INGS	
7.	LED LIGHT BAND, REFER TO ELECTRICAL DRAWINGS		
8.	ELECTRICAL SERVICE, REFER TO ELECTRICAL DRAWINGS		
9.	ELECTRICAL OUTLETS, SEE ELECTRICAL DRAWINGS		
20.	HOSE BIBB, SEE PLUMBING DRAWINGS		
21.	SIGNAGE BY OTHERS, UNDER A SEPARATE PERMIT		
22.	SEE DETAIL 7/A3.4 FOR DOWNSPOUT TERMINATION		
23.	SPANDREL GLASS; REFER TO WINDOW SCHEDULE		
24.	NEW SECURITY CAMERA BY OTHERS		
25.	OWNER PROVIDED SIGN PANELS.	B B B B B B B B B B B B B B B B B B B	
26.	NOT USED.		
	APPROVED SET OF NUMBERALS, MINIMUM 4" HIGH WITH A STR LESS THAN 1/2 INCH, SHALL BE PLACED ON THE BUILDING. VEI REQUIREMENTS WITH FIRE MARSHAL.		
	APPROVED ALTERNATE FINISHES ALLURA SIDING - TRADITIONAL CEDAR 6-1/4" WIDTH ALLURA PANEL - SMOOTH 4' x 8' PANELS ALLURA TRIM - SIZE 5/4, 3" WIDTH 1" THICK	REV DATE DE 1 1 3 3 4 4 5 5 6 7 7	∞ c
			5

FRANCHISEE & STORE NUMBER: SCOOTER'S COFFEE #2294 PROUD TO SERVE, LLC PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024

ISSUE DATE: 03/21/2024

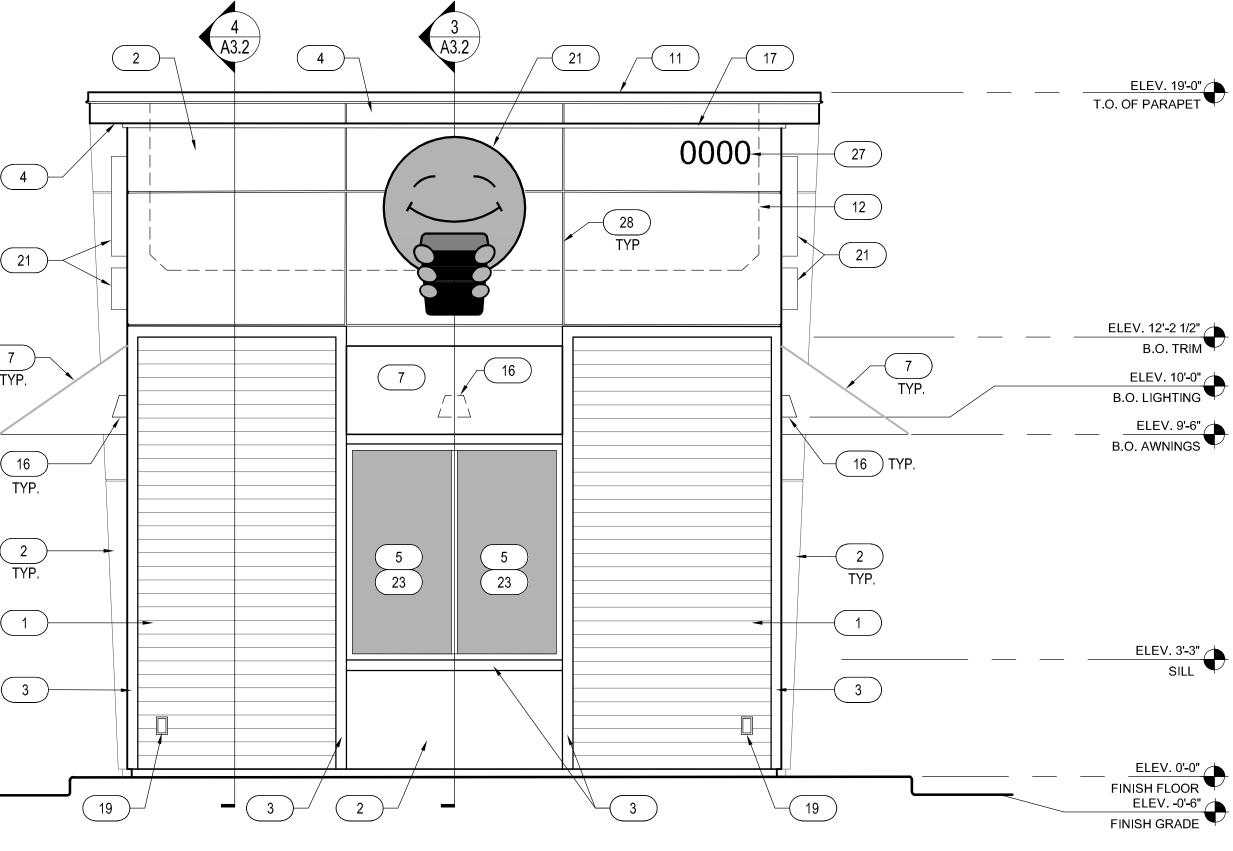
PROJECT NO. 240761

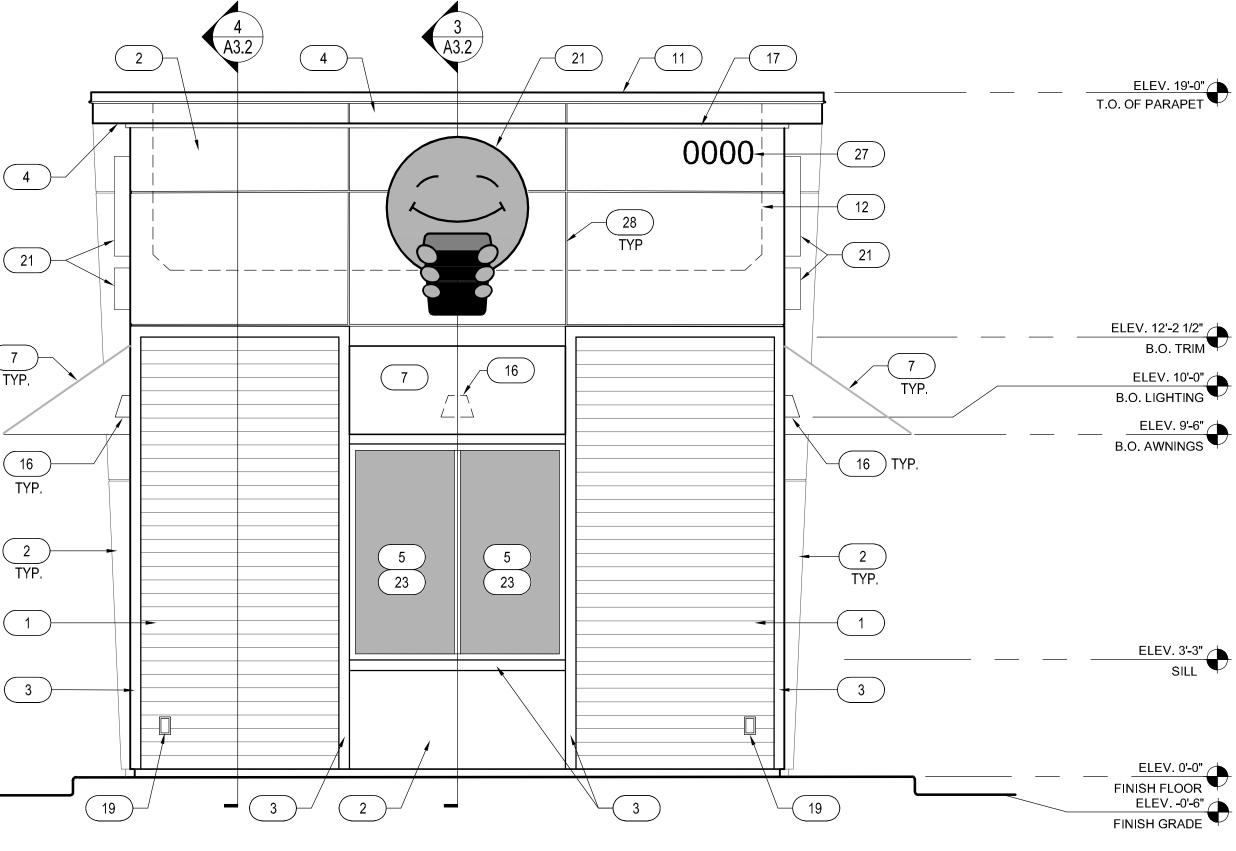
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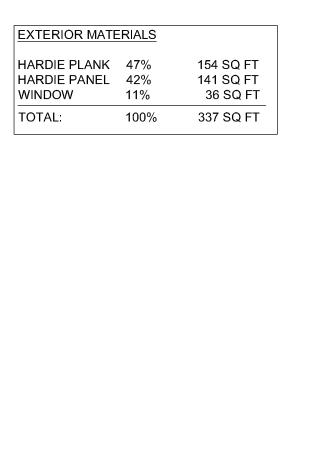
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SHEET NO.

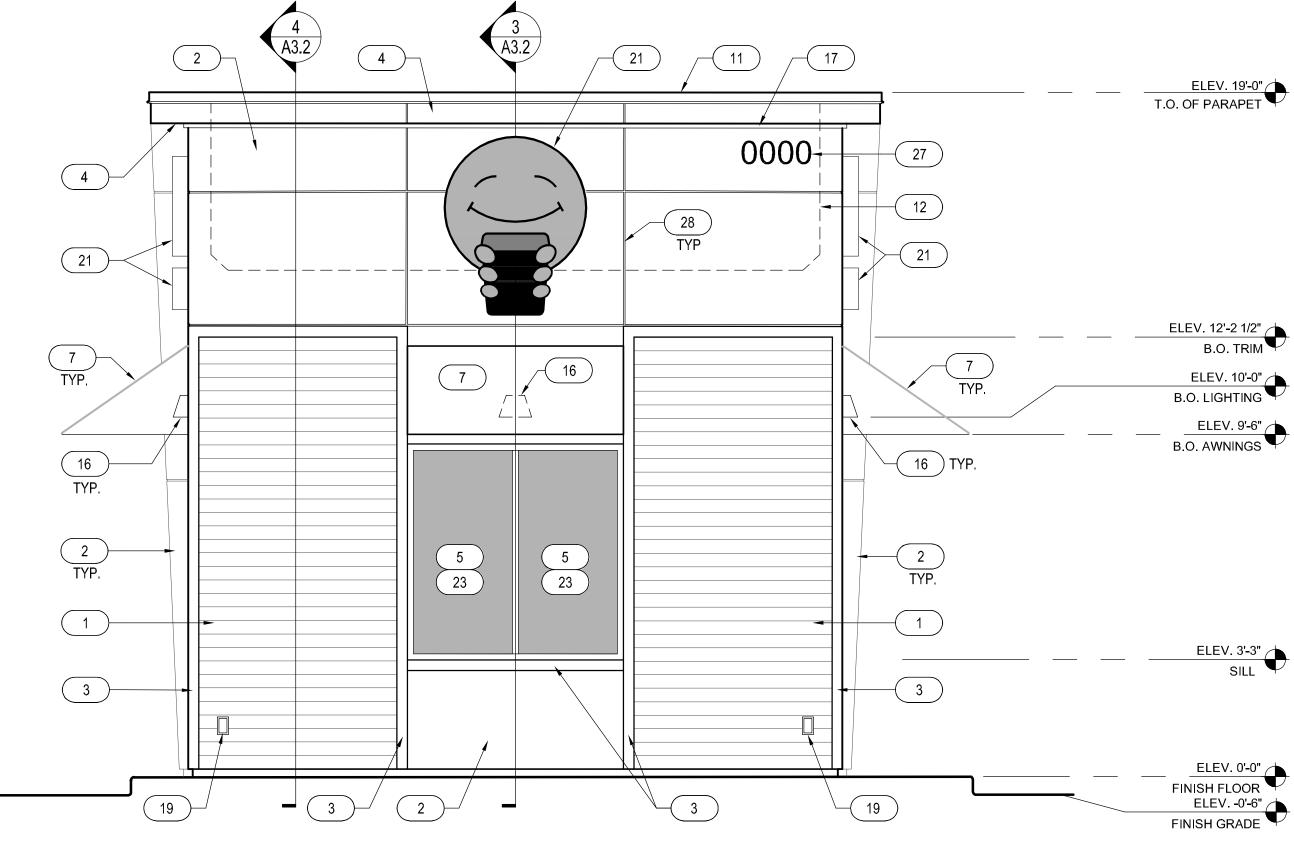


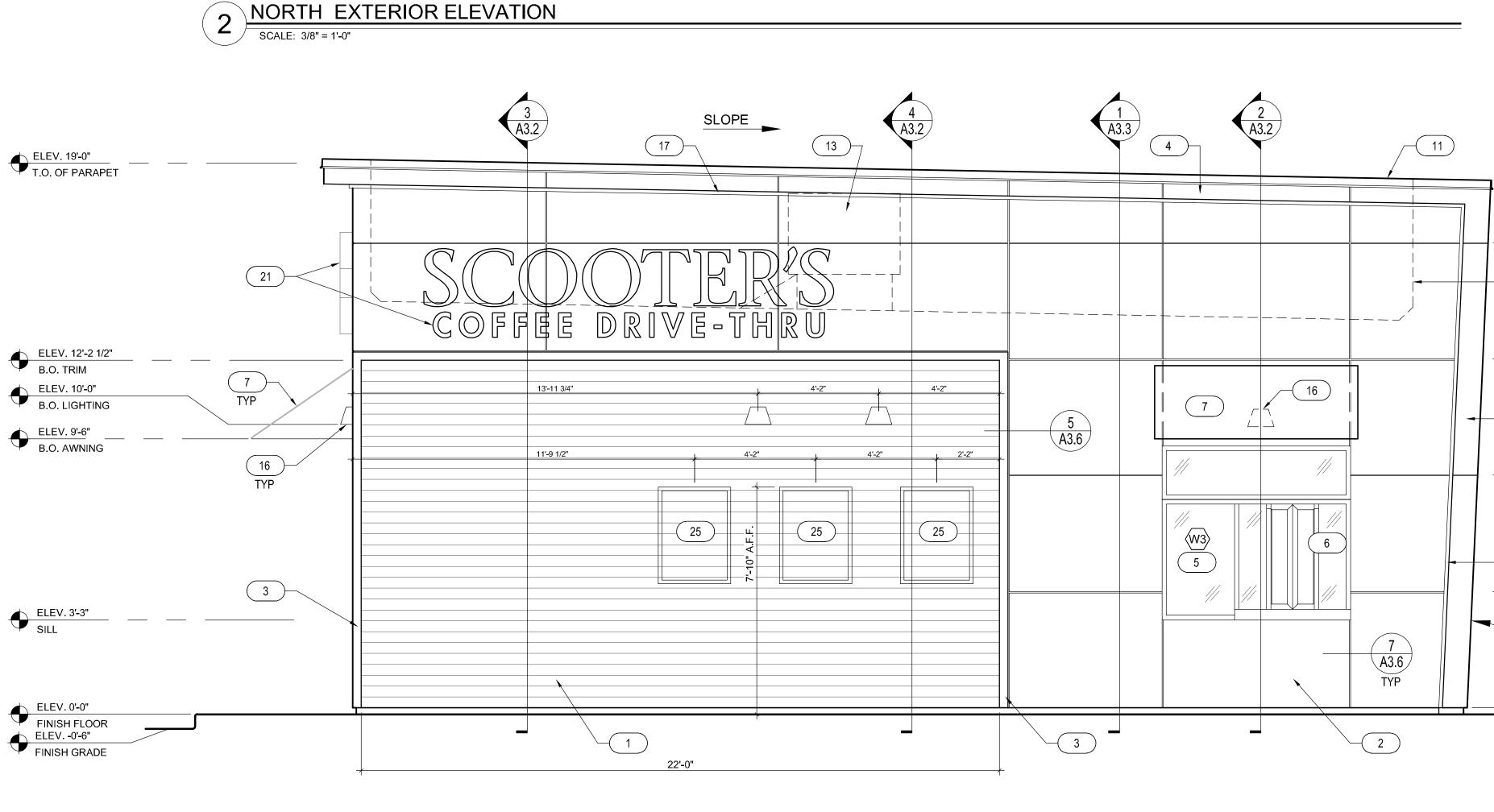






SCALE: 3/8" = 1'-0"



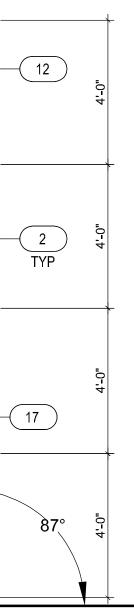


KEYNOTES

1. HARDIE PLANK LAP SIDING CEDARMILL 6-1/4", REFER TO EXTERIOR FINISH DETAILS ON SHEET A3.6 - COLOR: SHERWIN WILLIAMS SW6992 INKWELL EGGSHELL FINISH

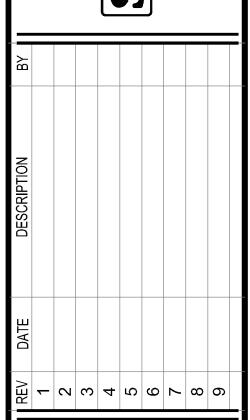
Х

- 2. 4' x 8' HARDIE ARCHITECTURAL PANEL. FINISH: FINE SAND, COLOR: SW 1015 SKYLINE STEEL. REFER TO SHEET A3.6 FOR HARDIE PANEL DETAILS
- 3. 3 1/2" HARDIE TRIM, SEE HARDIE DETAIL SHEET A3.6 -COLOR: SHERWIN WILLIAMS SW6992 INKWELL EGGSHELL FINISH
- 4. HARDIE ARCHITECTURAL PANEL AT FASCIA AND SOFFIT. FINISH: FINE SAND, COLOR: SW 1015 SKYLINE STEEL. REFER TO SHEET A3.6 FOR HARDIE PANEL DETAILS.
- 5. INSULATED DARK BRONZE ALUMINUM WINDOWS WITH DUAL PANE TEMPERED GLASS
- 6. QUICKSERVE WINDOW COLOR: DARK BRONZE
- 7. AWNING BY OTHERS COLOR: RED FABRIC
- 8. INSULATED HOLLOW METAL DOOR AND FRAME COLOR: SHERWIN WILLIAMS SW6992 INKWELL EGGSHELL FINISH
- 9. PEEP HOLE, BY DOOR MANUFACTURER
- 10. DOOR BELL
- 11. 20 GAUGE METAL PARAPET CAP COLOR: MATTE BLACK
- 12. LINE OF ROOF BEYOND
- 13. ROOF TOP UNIT BEYOND, REFER TO MECHANICAL DRAWINGS
- 14. ROOF SCUPPER AND DOWNSPOUT, REFER TO DETAIL 8/A3.4
- 15. CONTRACTOR SHALL PROVIDE A BLACK MAILBOX APPROXIMATELY 15 INCHES WIDE BY 6 INCHES TALL. MAILBOX SHALL BE EQUAL TO GIBRALTAR WALL MOUNTED METAL BOX
- 16. WALL MOUNTED LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- 17. LED LIGHT BAND, REFER TO ELECTRICAL DRAWINGS
- 18. ELECTRICAL SERVICE, REFER TO ELECTRICAL DRAWINGS
- 19. ELECTRICAL OUTLETS, SEE ELECTRICAL DRAWINGS
- 20. HOSE BIBB, SEE PLUMBING DRAWINGS
- 21. SIGNAGE BY OTHERS, UNDER A SEPARATE PERMIT
- 22. SEE DETAIL 7/A3.4 FOR DOWNSPOUT TERMINATION
- 23. SPANDREL GLASS; REFER TO WINDOW SCHEDULE
- 24. NEW SECURITY CAMERA BY OTHERS
- 25. OWNER PROVIDED SIGN PANELS.
- 26. NOT USED.
- 27. APPROVED SET OF NUMBERALS, MINIMUM 4" HIGH WITH A STROKE WIDTH NOT LESS THAN 1/2 INCH, SHALL BE PLACED ON THE BUILDING. VERIFY SIZE AND REQUIREMENTS WITH FIRE MARSHAL.
 - APPROVED ALTERNATE FINISHES
 - ALLURA SIDING TRADITIONAL CEDAR 6-1/4" WIDTH ALLURA PANEL - SMOOTH 4' x 8' PANELS
 - ALLURA TRIM SIZE 5/4, 3" WIDTH 1" THICK

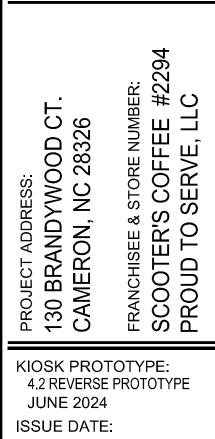


EXTERIOR MATERIALS				
HARDIE PLANK	33%	232 SQ FT		
HARDIE PANEL	56%	397 SQ FT		
WINDOWS	11%	78 SQ FT		
TOTAL:	100%	708 SQ FT		

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FREDERICK J. GOGLIA ARCHITECT. NCARB. RDI	4 P
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03/21/2024

PROJECT NO. 240761

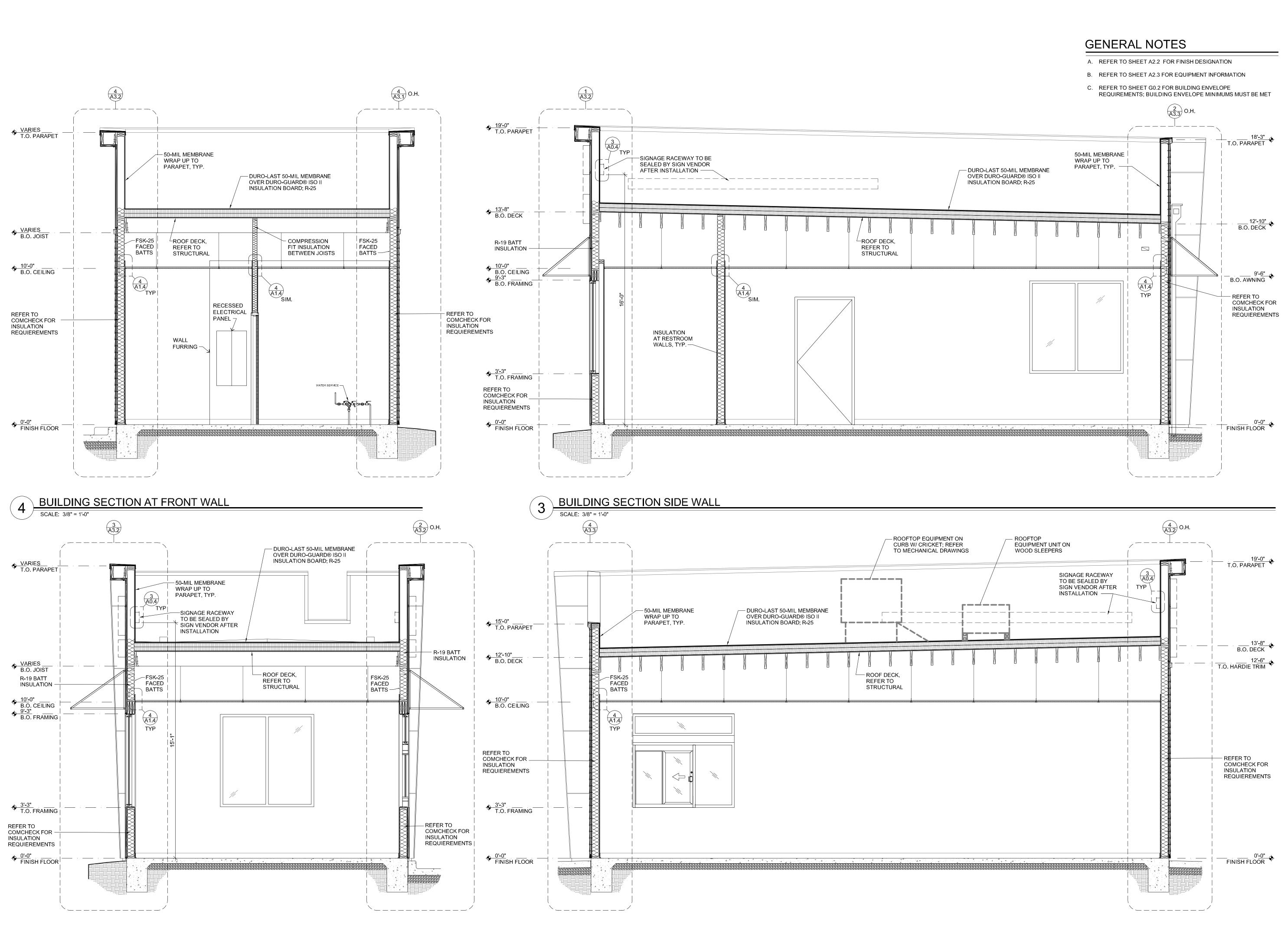
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AGG

CHECKED BY: SW

SHEET NO.

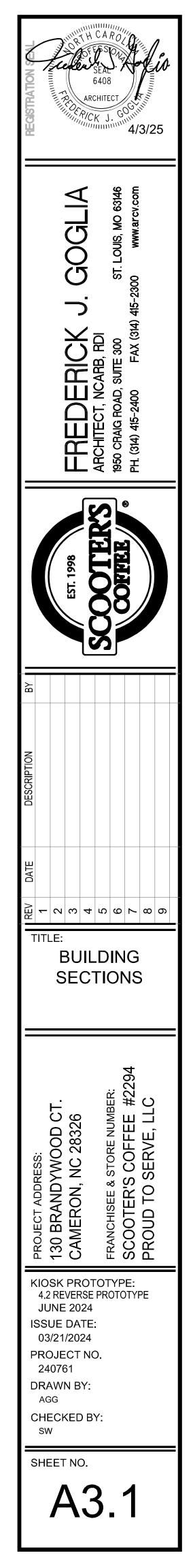
A2.2

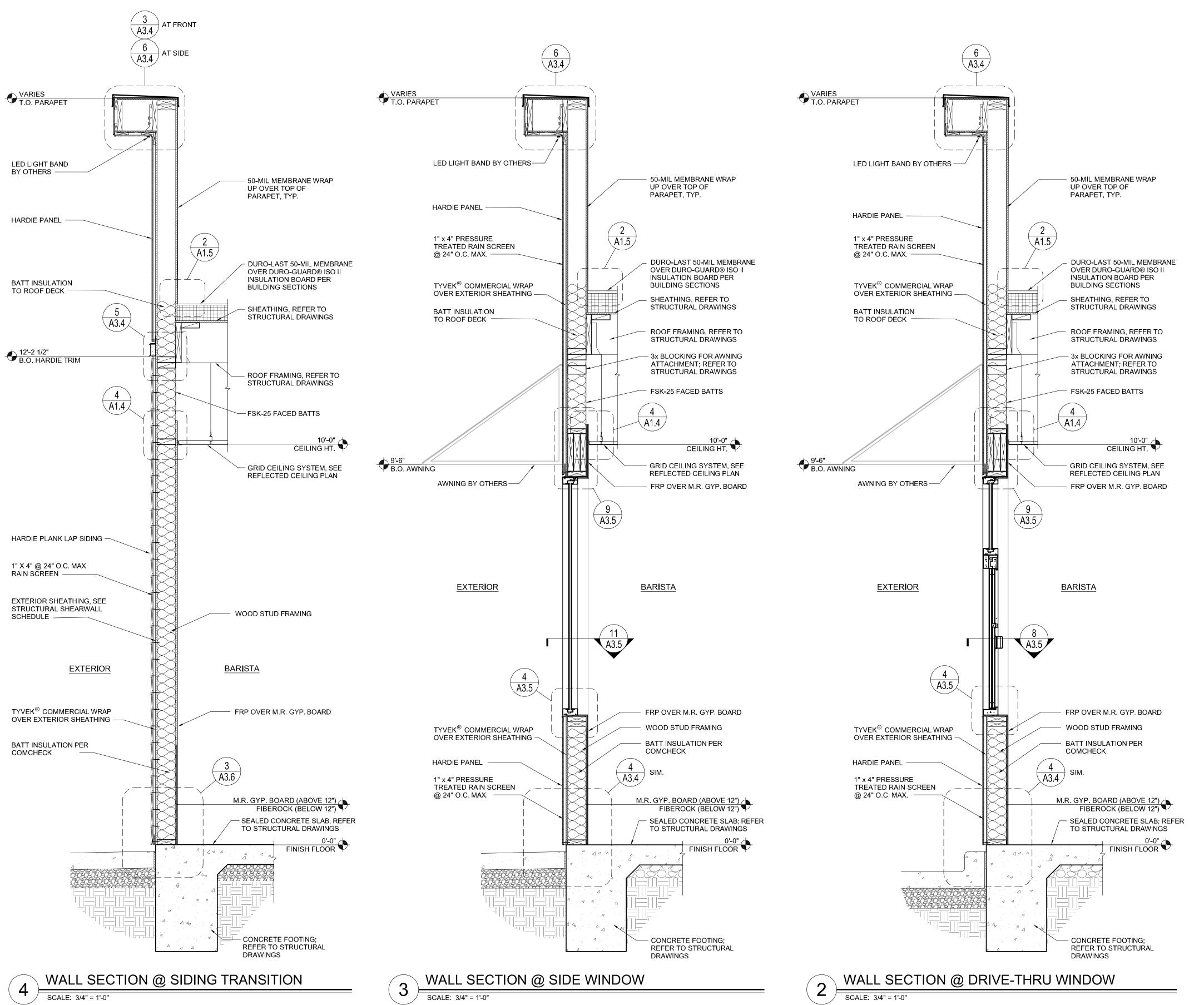


BUILDING SECTION AT REAR WALL

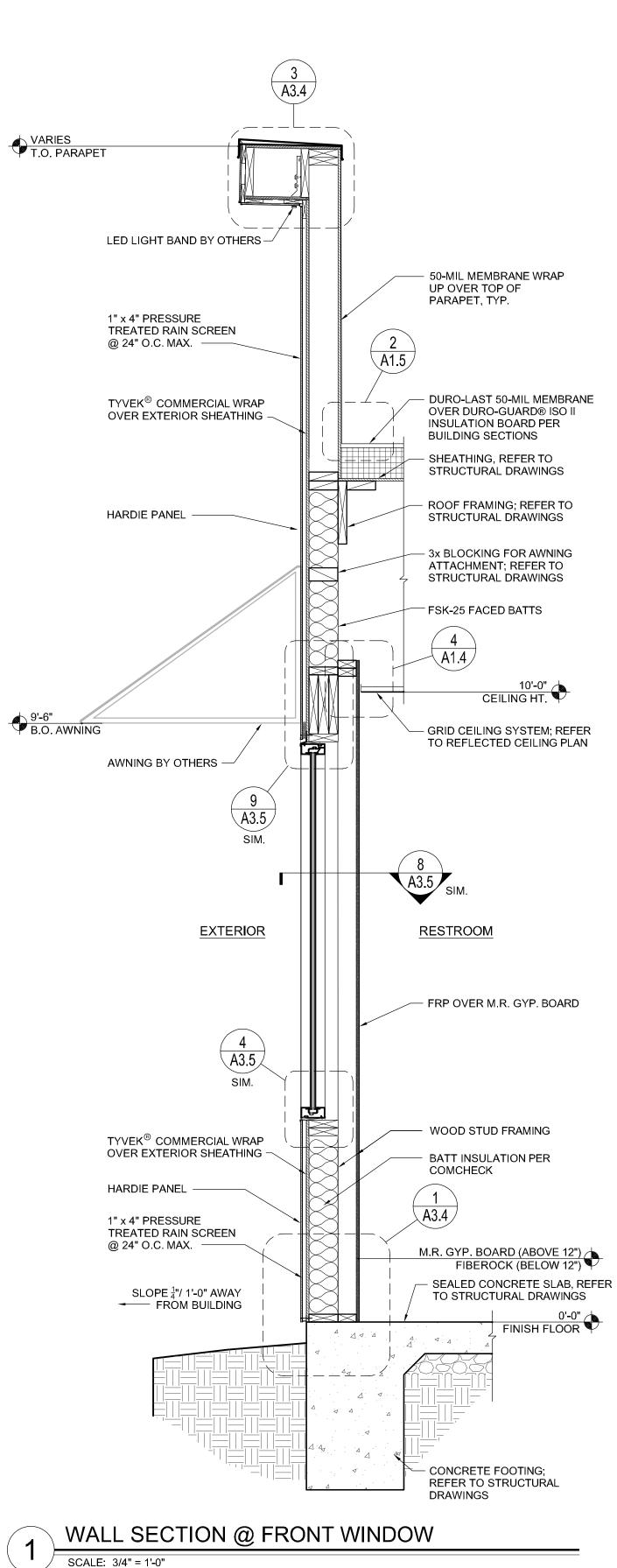
2 BUILDING SCALE: 3/8" = 1'-0" BUILDING SECTION AT DRIVE-THRU

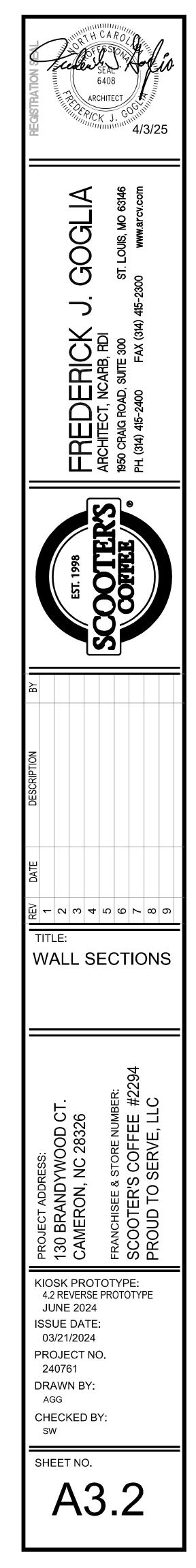
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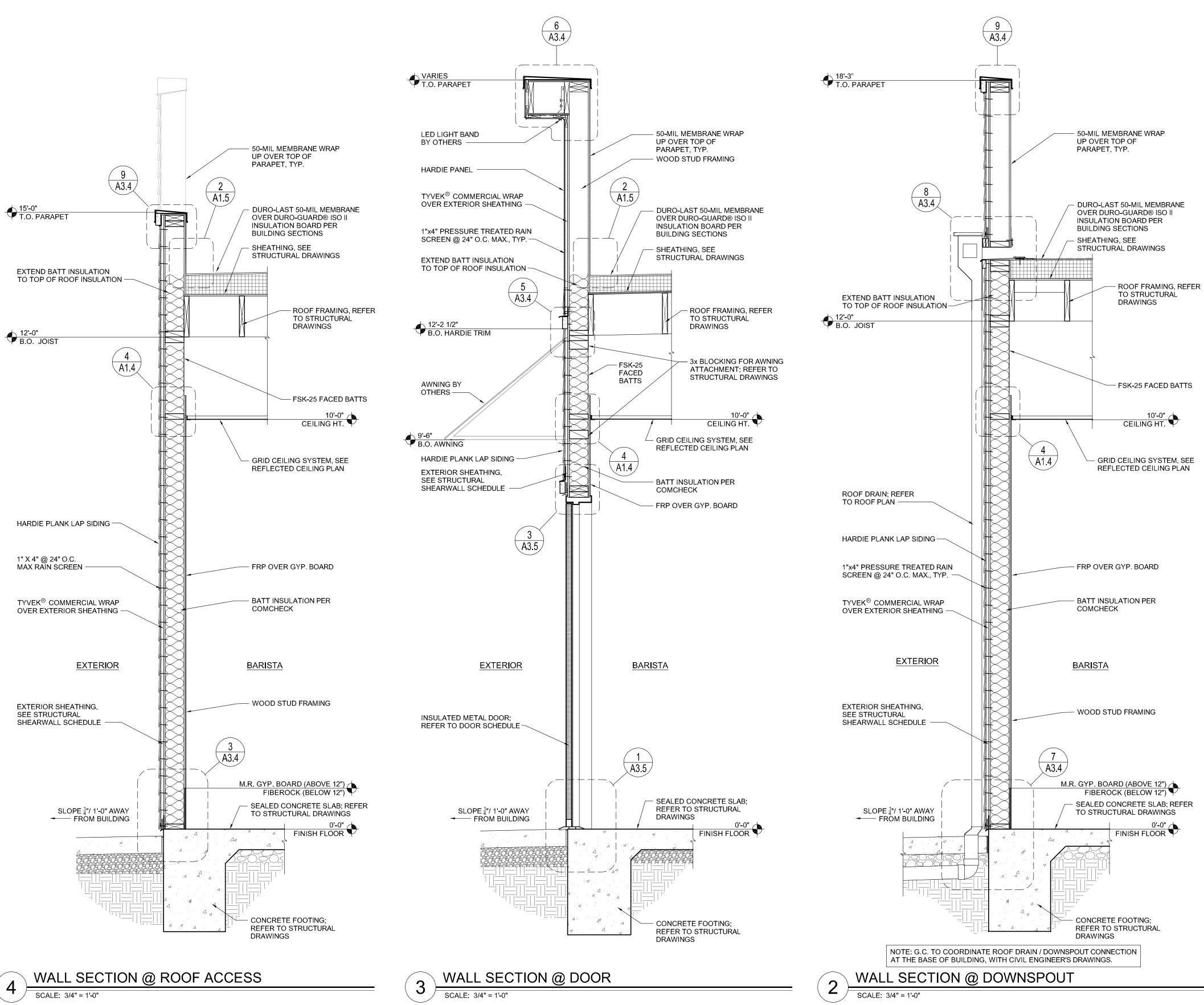




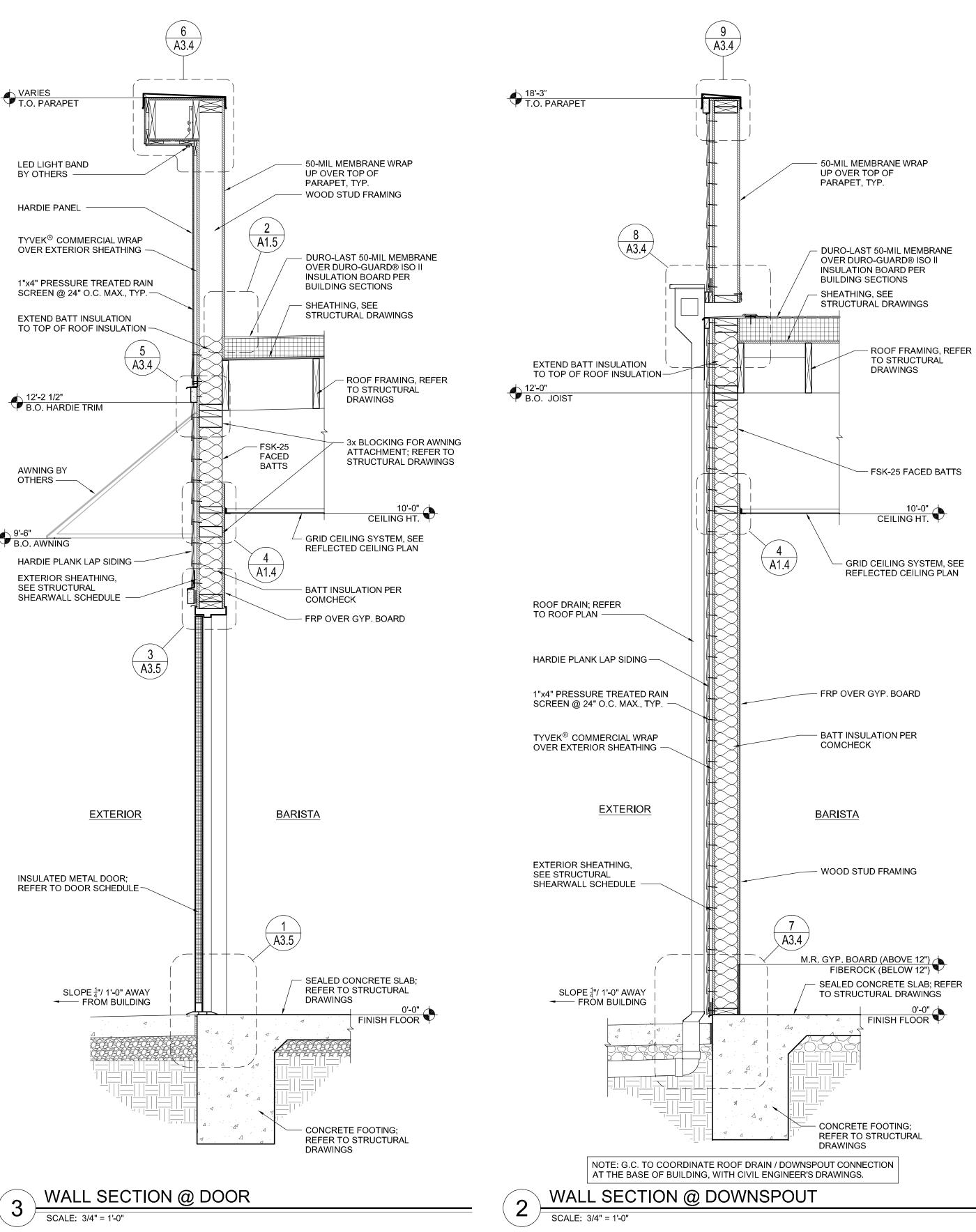
SCALE: 3/4" = 1'-0'



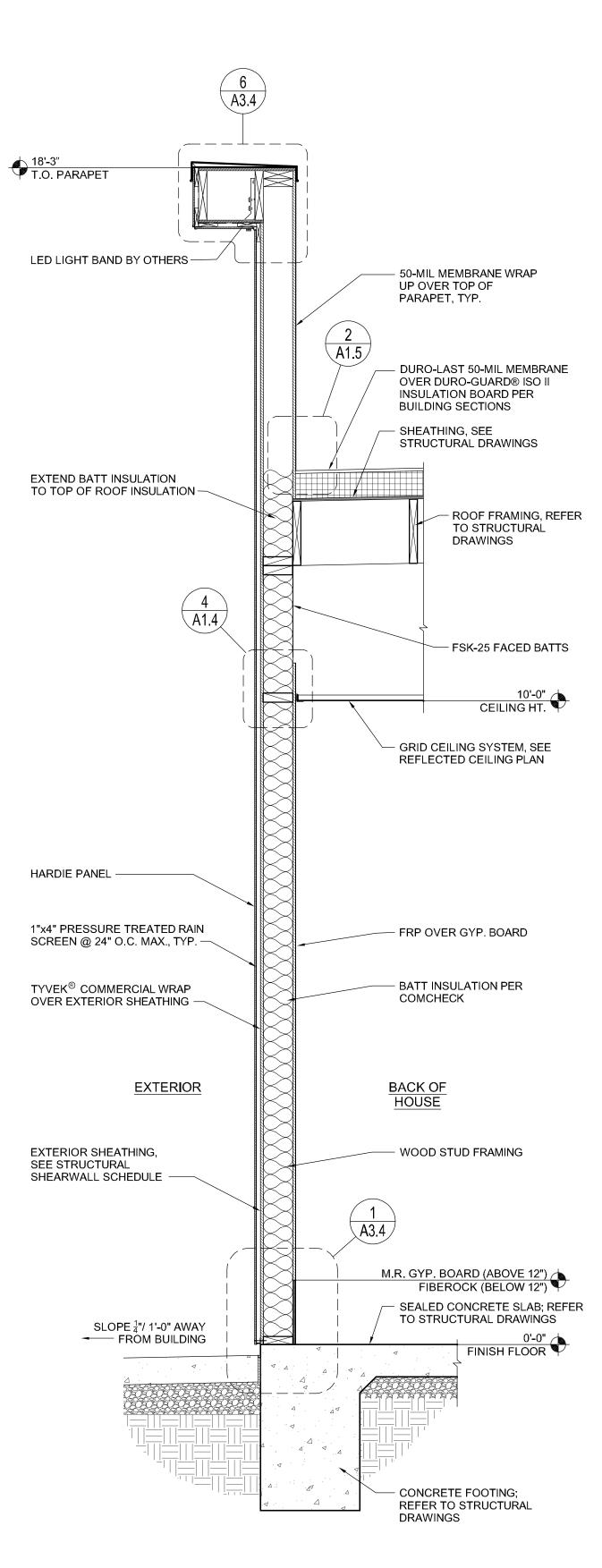






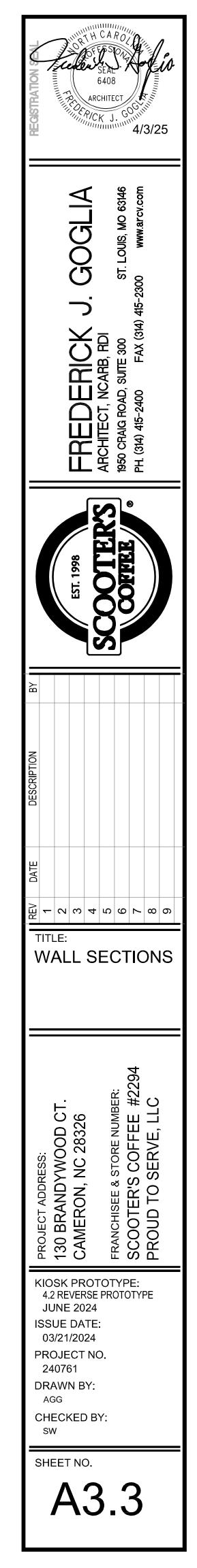


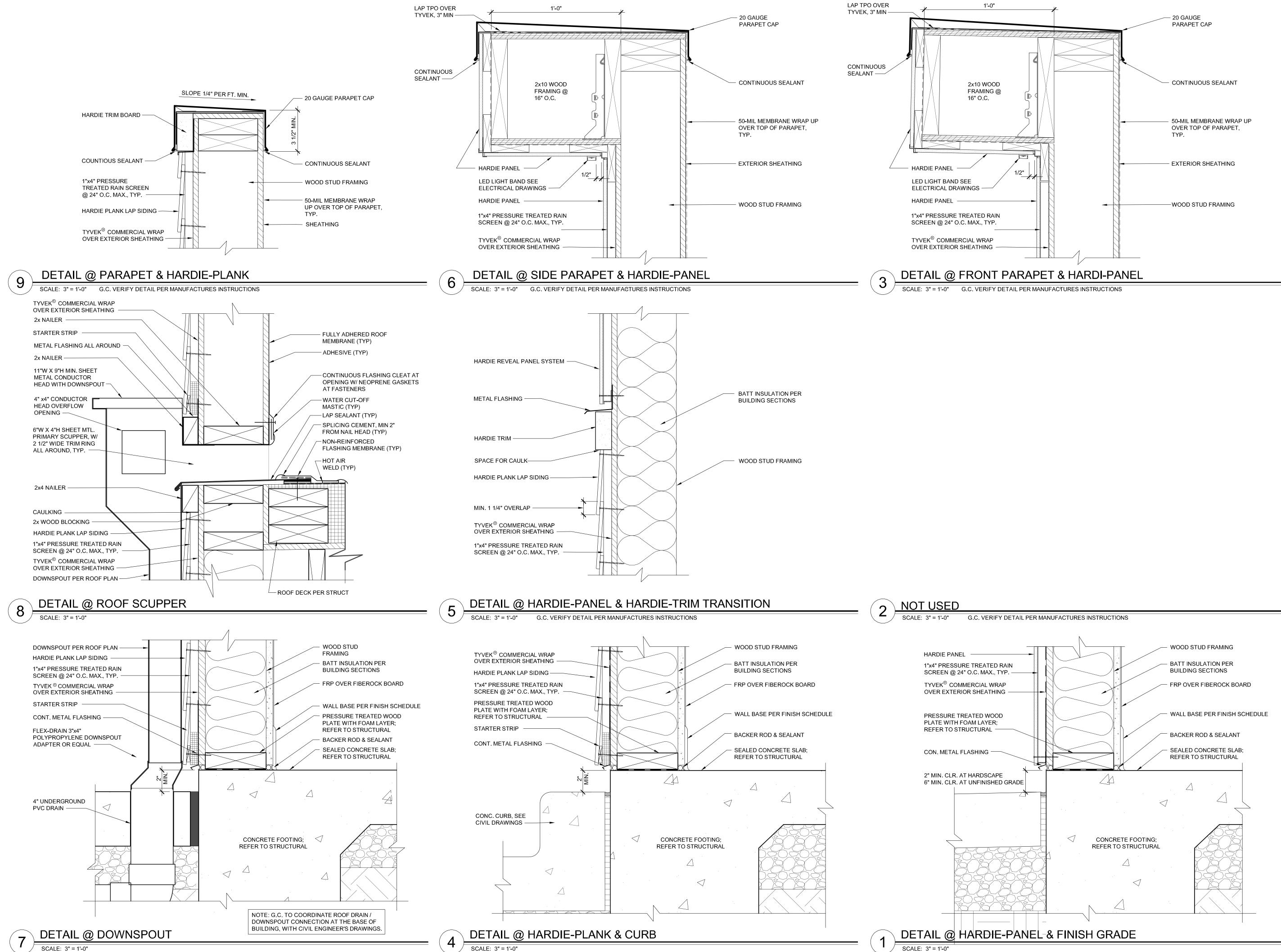
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WALL SECTION @ HARDIE-PANELS

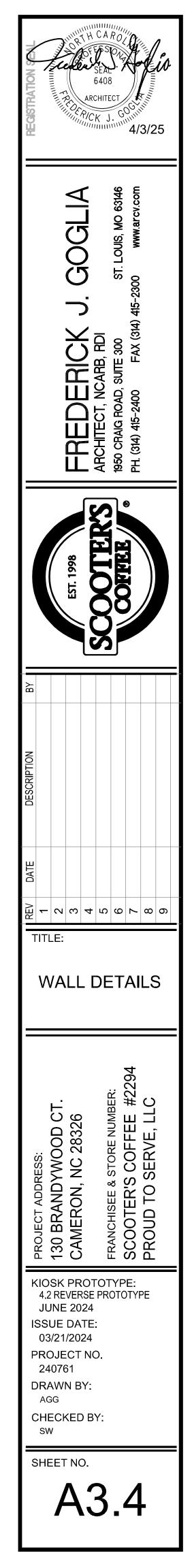
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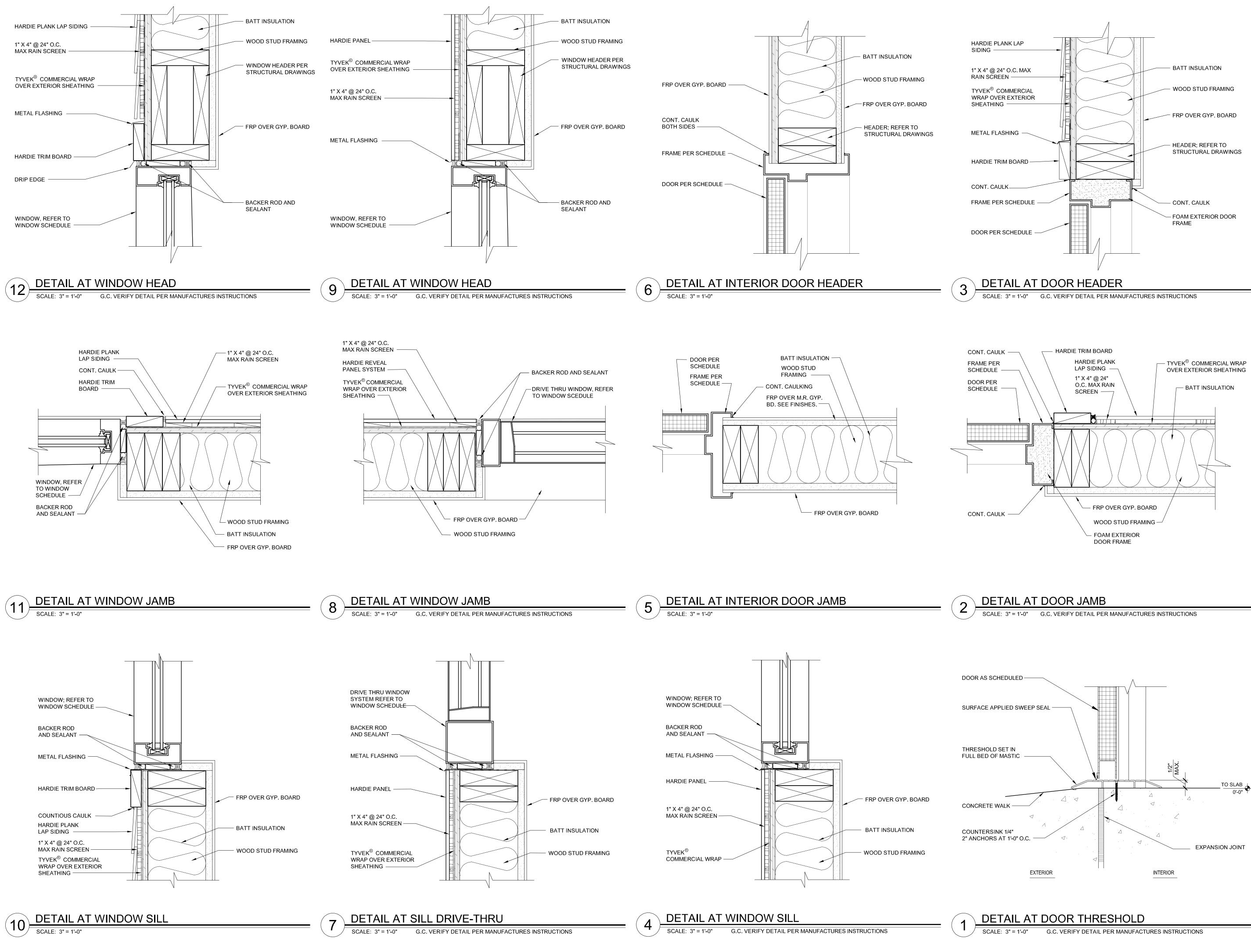




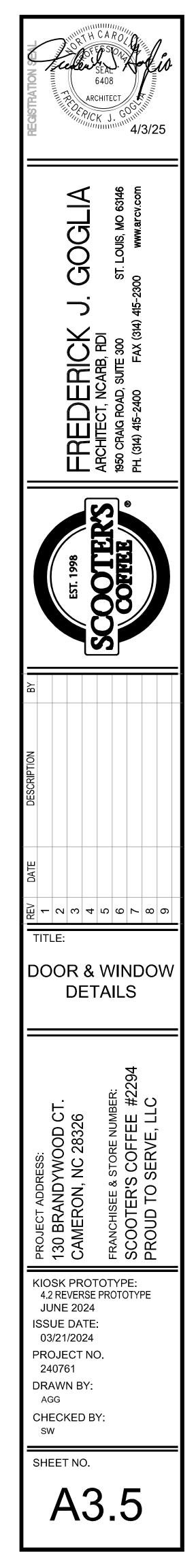
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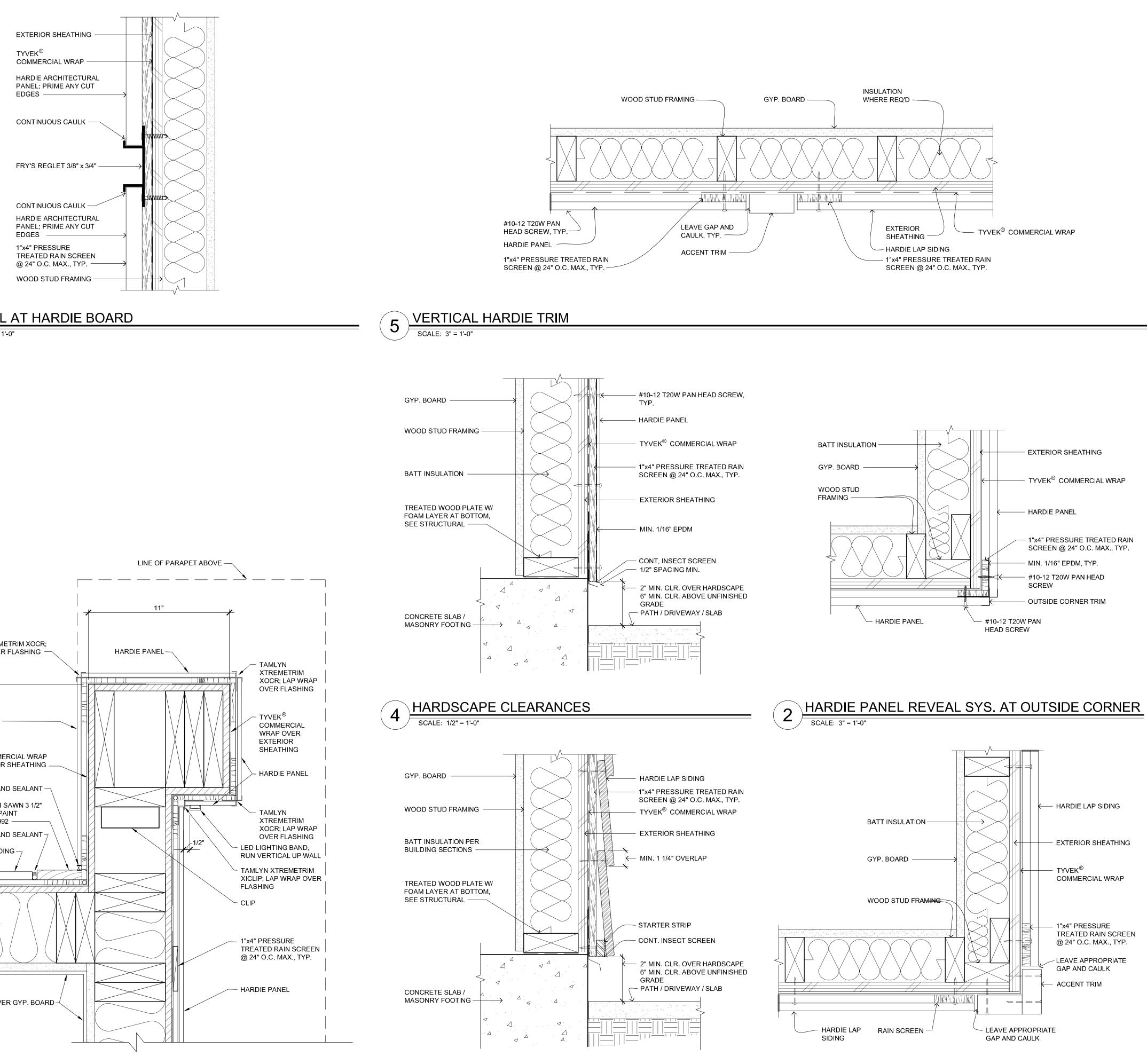
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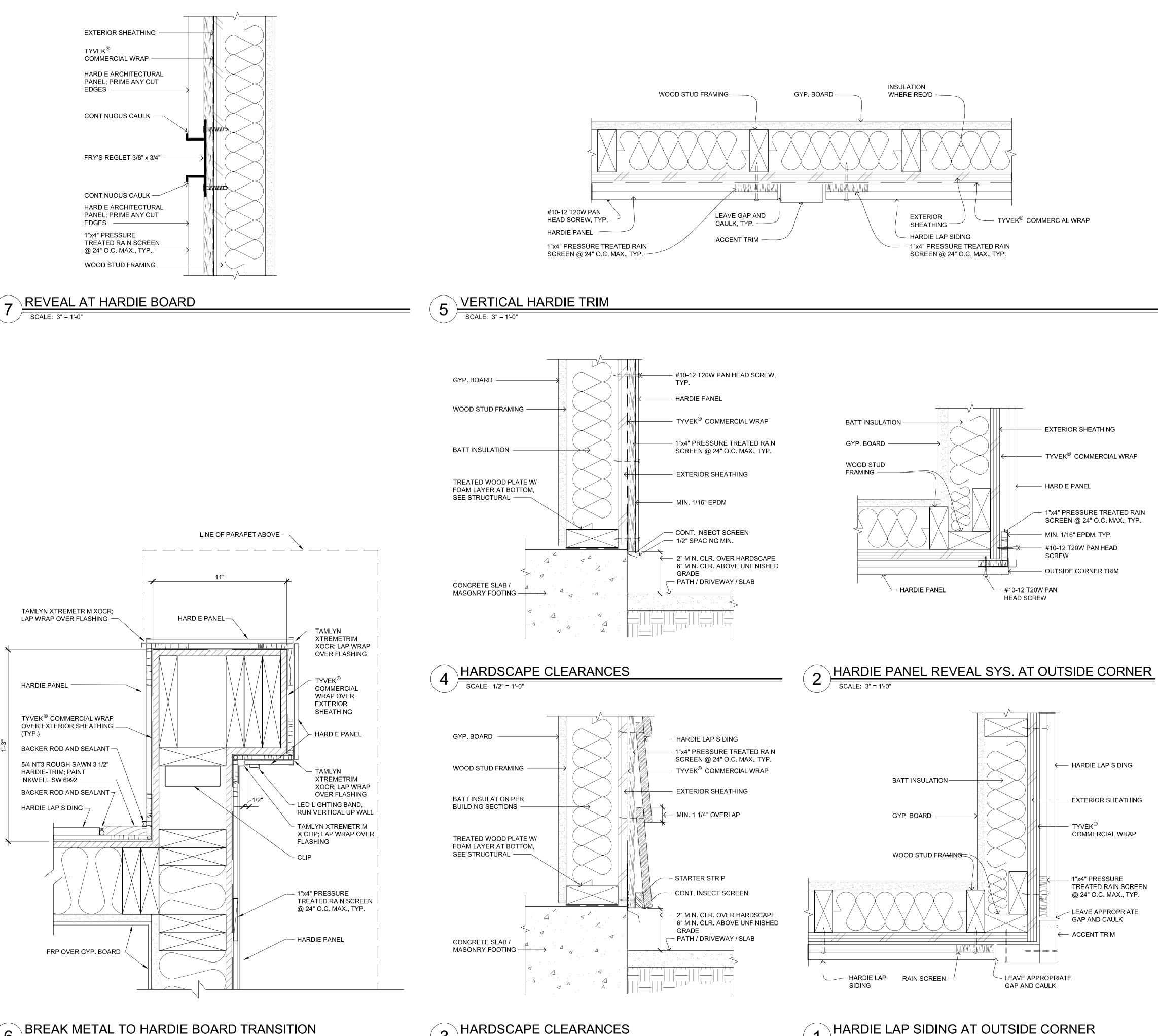






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SCALE: 3" = 1'-0'



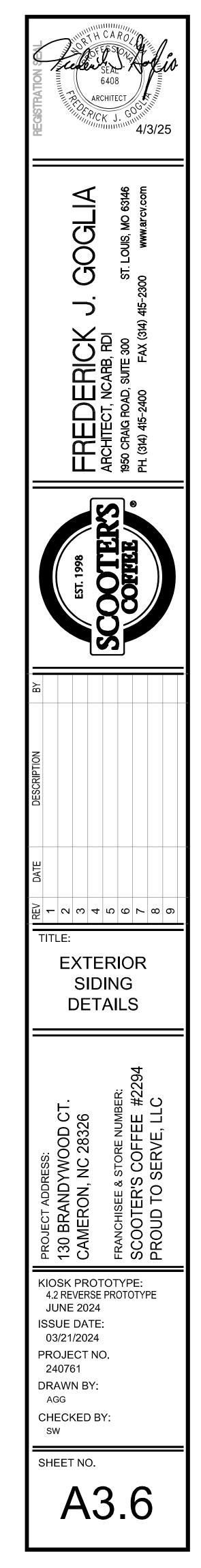
BREAK METAL TO HARDIE BOARD TRANSITION

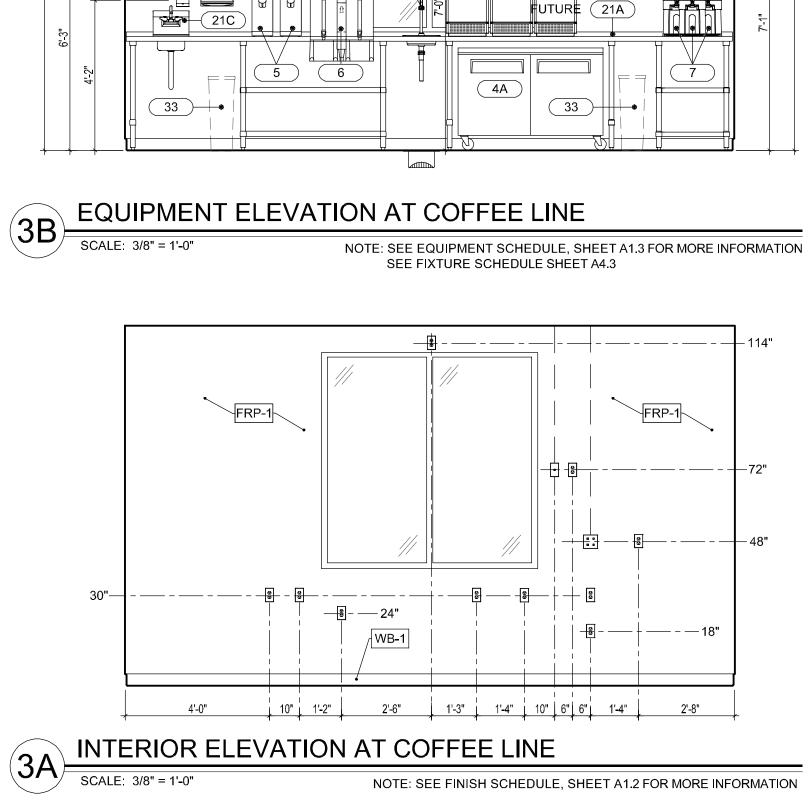
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SCALE: 1/2" = 1'-0"

HARDIE LAP SIDING AT OUTSIDE CORNER

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





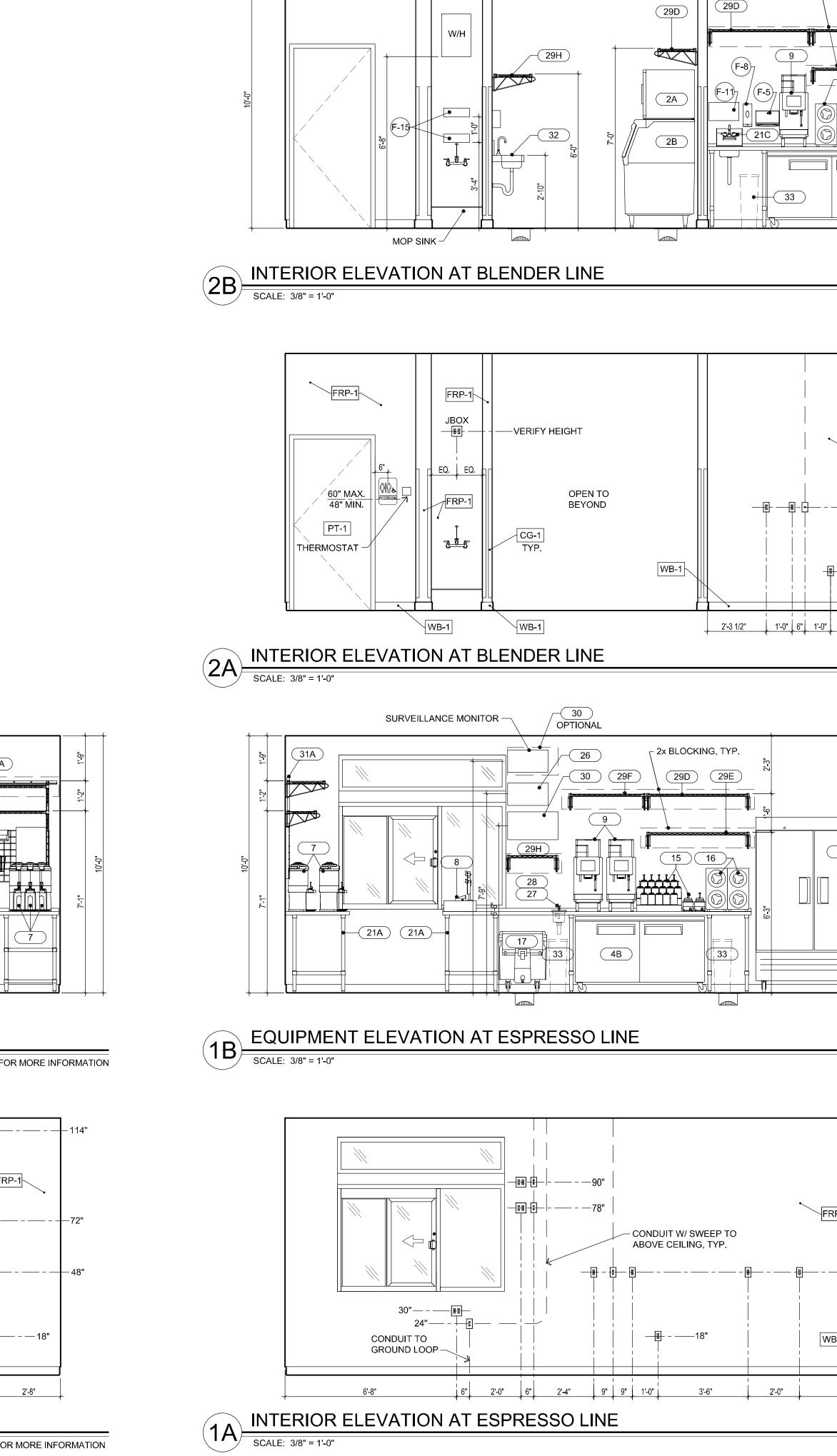
<sup>
¬</sup> 2x BLOCKING, TYP.

(29B)

29C

(F-8) (F-5)

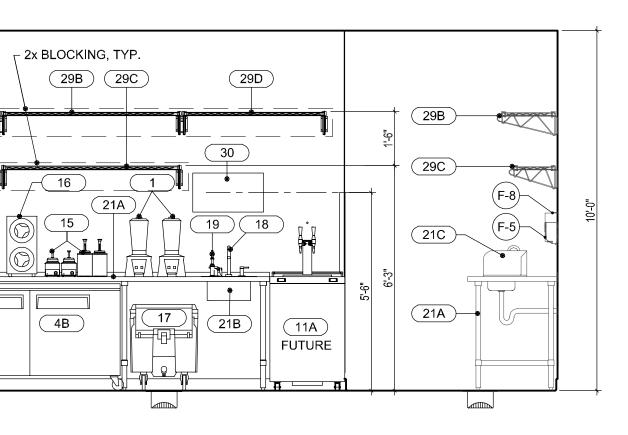
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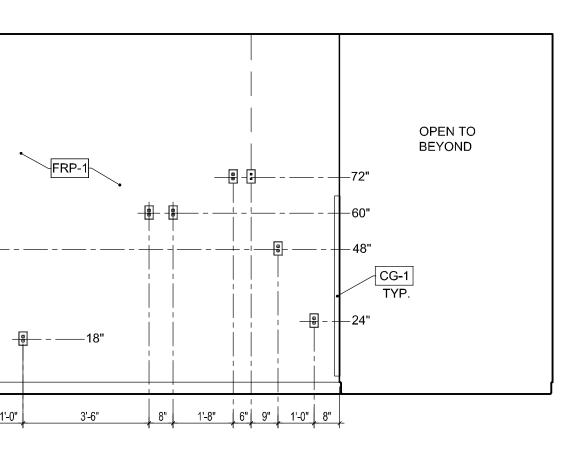
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FRP-1

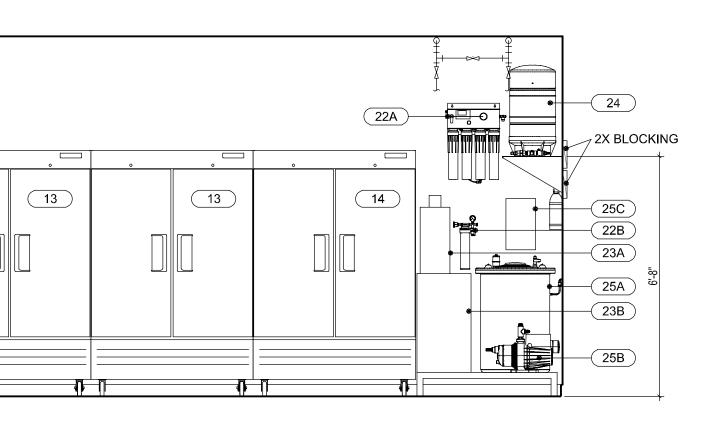
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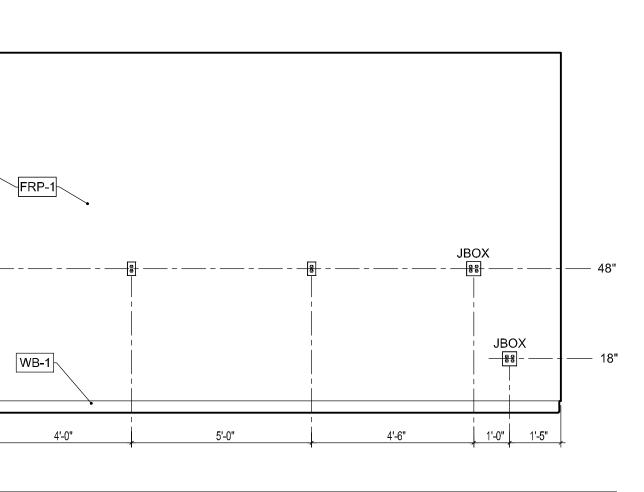
NOTE: SEE EQUIPMENT SCHEDULE, SHEET A1.3 FOR MORE INFORMATION SEE FIXTURE SCHEDULE SHEET A4.3



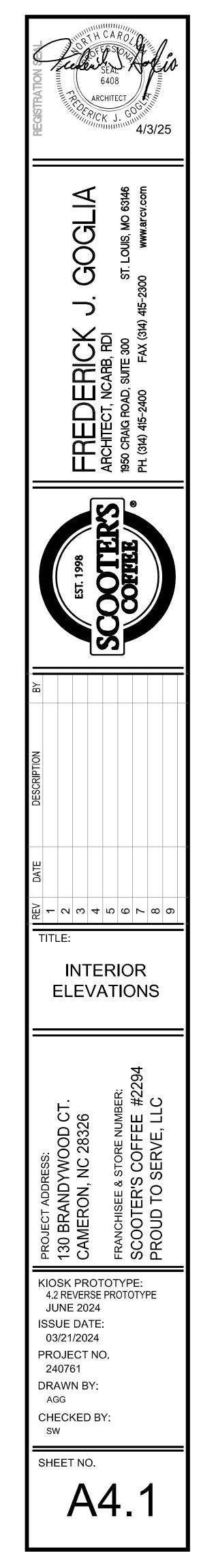
NOTE: SEE FINISH SCHEDULE, SHEET A1.2 FOR MORE INFORMATION



NOTE: SEE EQUIPMENT SCHEDULE, SHEET A1.3 FOR MORE INFORMATION



NOTE: SEE FINISH SCHEDULE, SHEET A1.2 FOR MORE INFORMATION



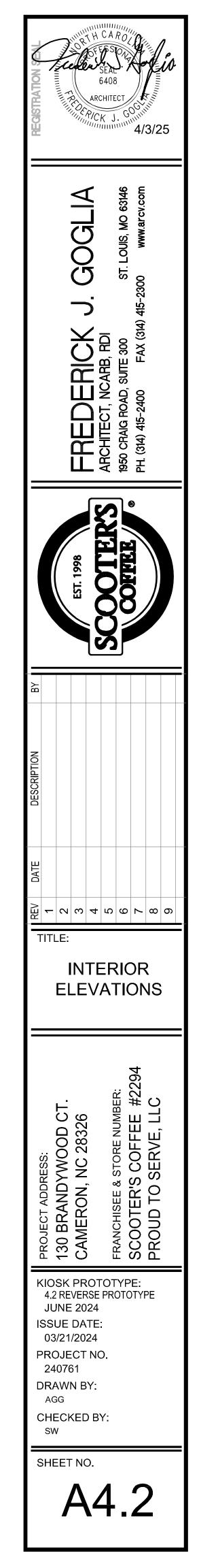


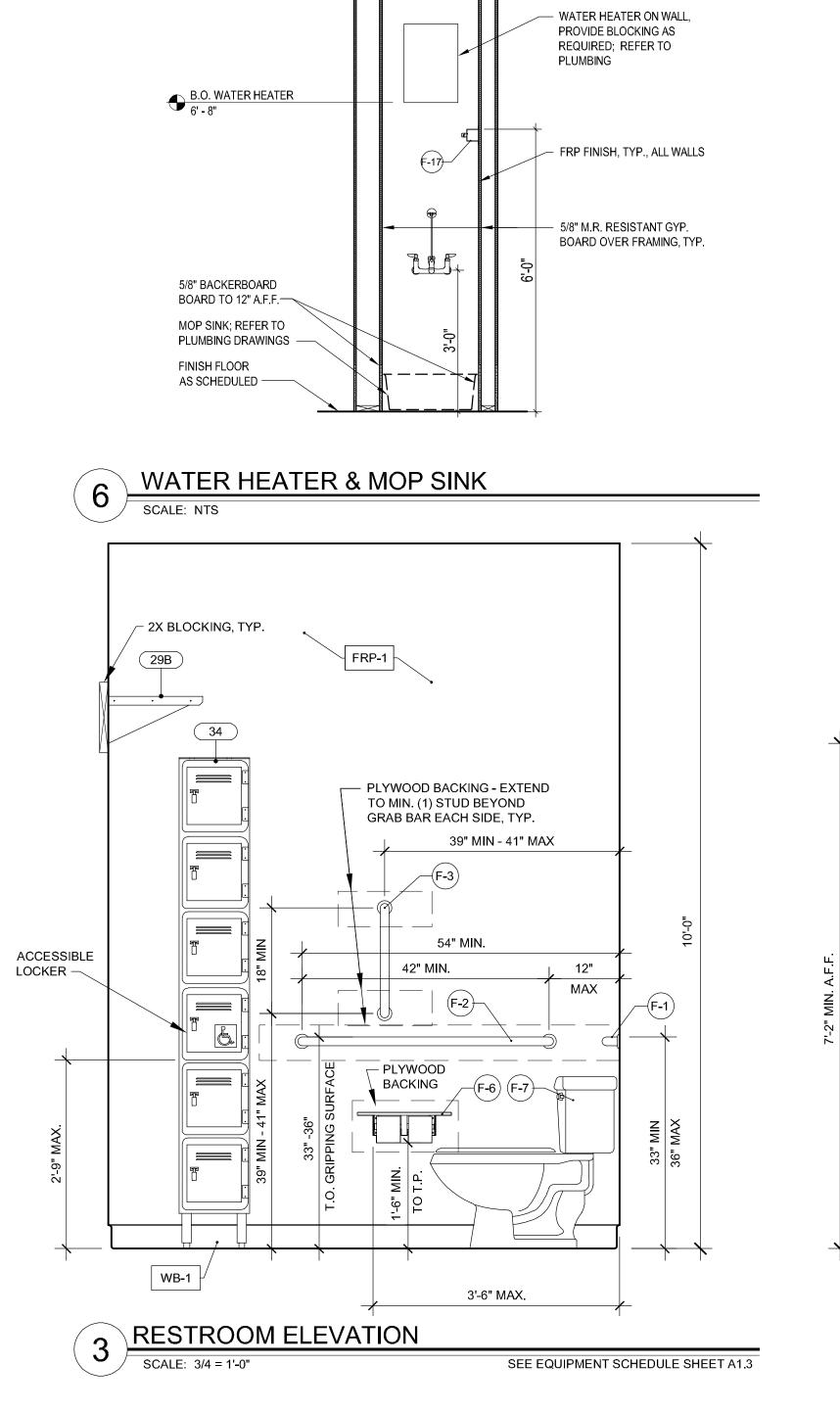
NOTE: SEE EQUIPMENT SCHEDULE, SHEET A1.3 FOR MORE INFORMATION

NOTE: SEE FINISH SCHEDULE, SHEET A1.2 FOR MORE INFORMATION

NOTE: SEE EQUIPMENT SCHEDULE, SHEET A1.3 FOR MORE INFORMATION

NOTE: SEE FINISH SCHEDULE, SHEET A1.2 FOR MORE INFORMATION

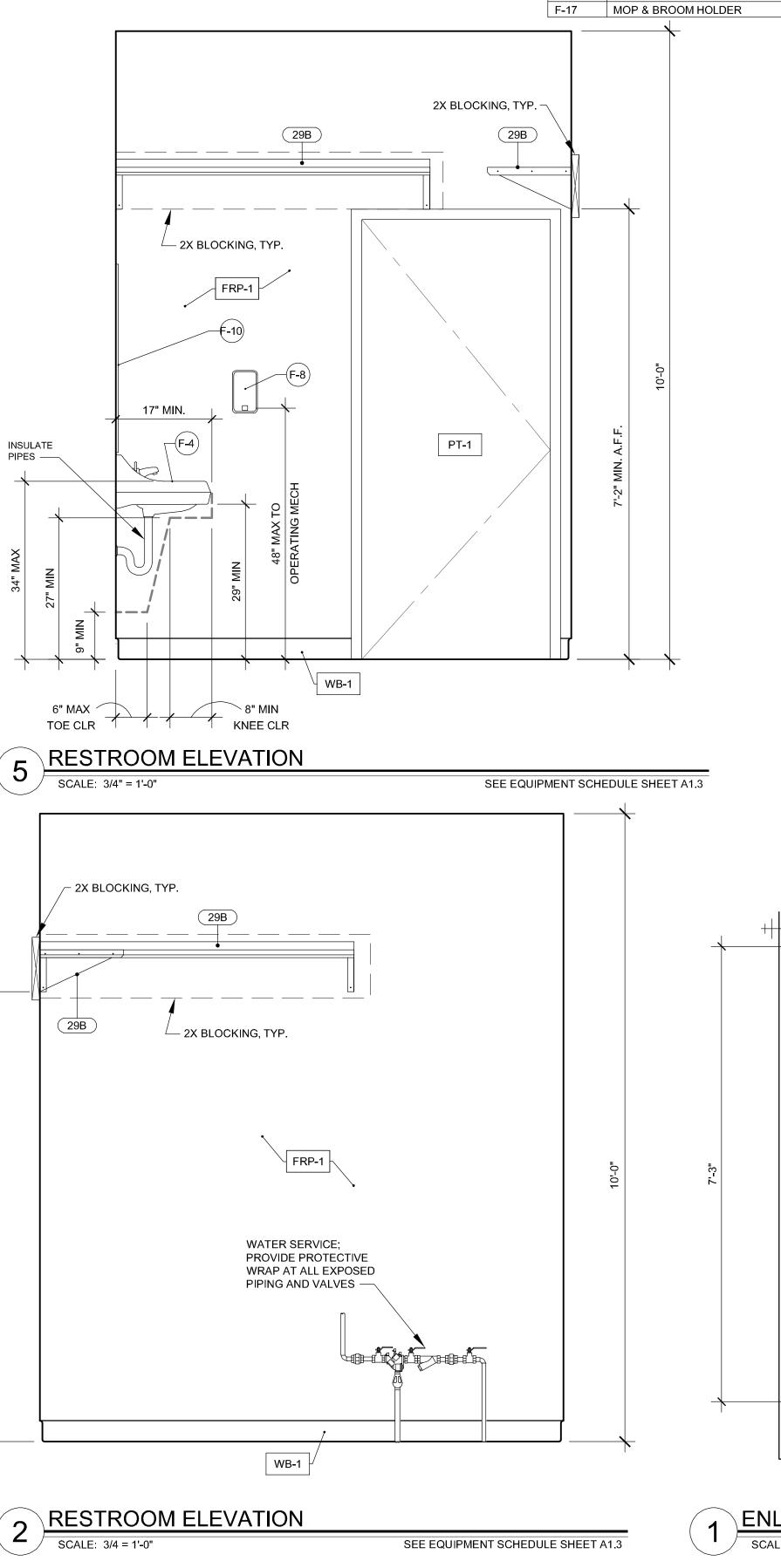


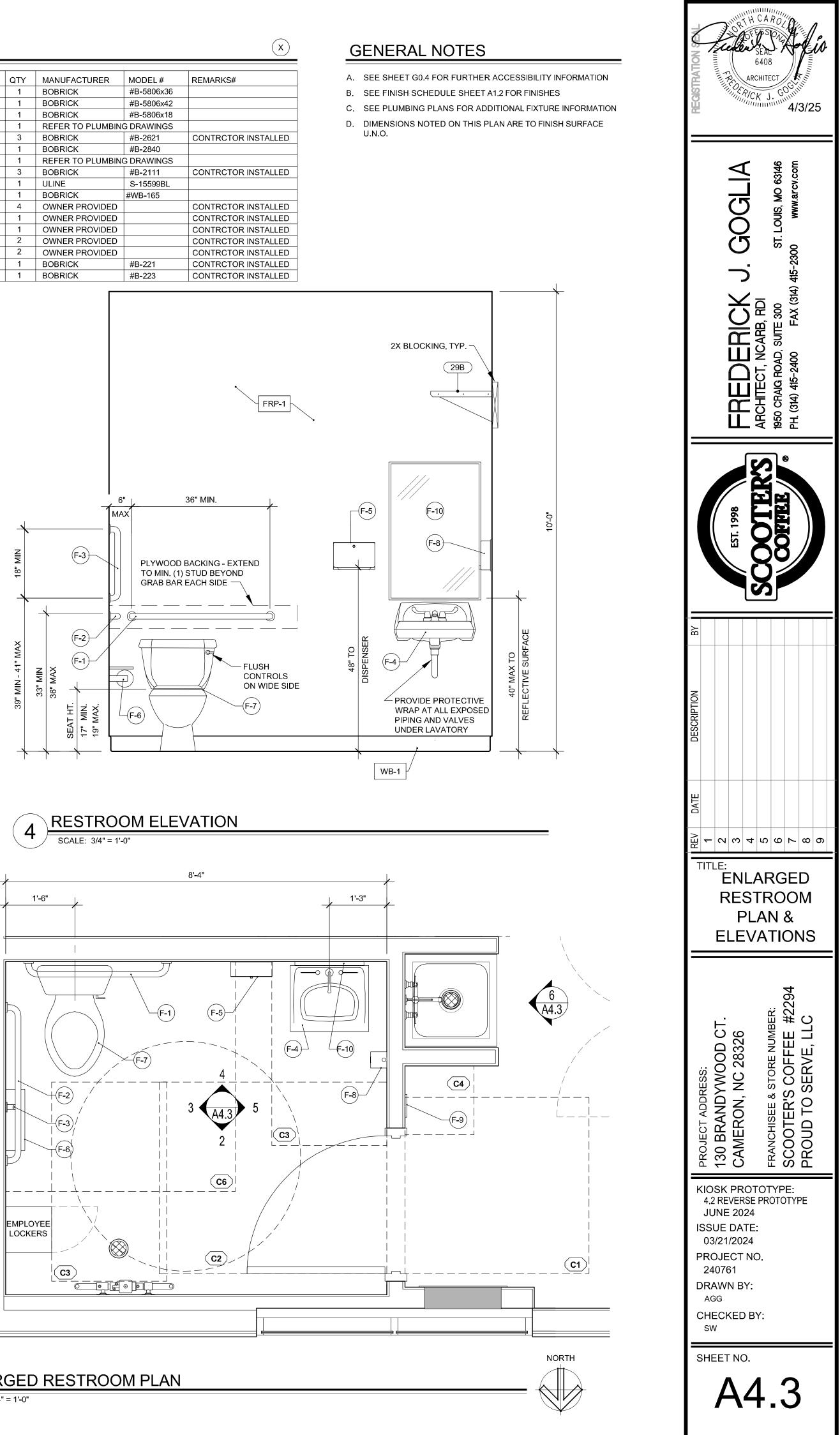


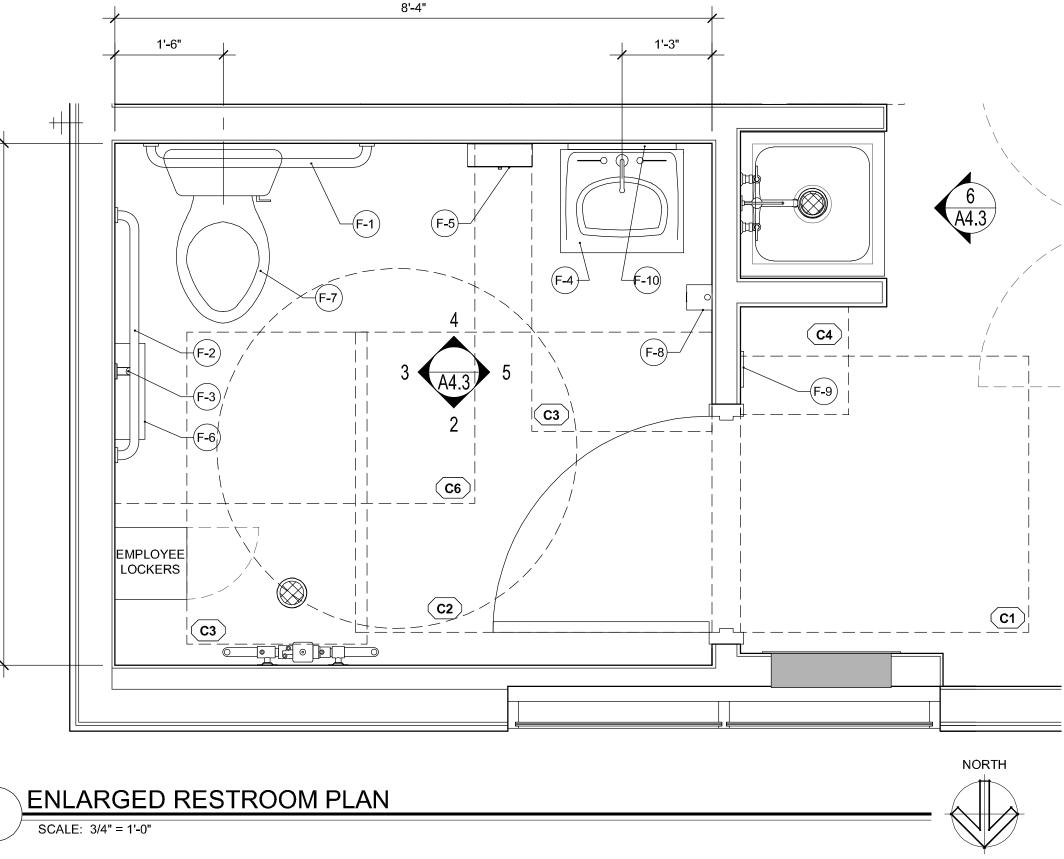
5

ACCESSORY FIXTURES

			1		_
EQ. NO.	ITEM NAME	QTY	MANUFACTURER	MODEL#	F
F-1	36" STAINLESS STEEL GRAB BAR	1	BOBRICK	#B-5806x36	
F-2	42" STAINLESS STEEL GRAB BAR	1	BOBRICK	#B-5806x42	
F-3	18" STAINLESS STEEL GRAB BAR	1	BOBRICK	#B-5806x18	
F - 4	WALL HUNG LAVATORY	1	REFER TO PLUMBING	G DRAWINGS	
F-5	PAPER TOWEL DISPENSER	3	BOBRICK	#B-2621	(
F-6	TOILET TISSUE DISPENSER	1	BOBRICK	#B-2840	
F-7	WATER CLOSET	1	REFER TO PLUMBING	G DRAWINGS	
F-8	SOAP DISPENSER	3	BOBRICK	#B-2111	(
F - 9	WALL MOUNTED ACCESSIBLE SIGN	1	ULINE	S-15599BL	
F-10	WALL MOUNTED MIRROR	1	BOBRICK	#WB-165	
F-11	DIVERSEY HANDWASH CHART	4	OWNER PROVIDED		(
F-12	DIVERSEY OPTIFILL CHART	1	OWNER PROVIDED		(
F-13	DIVERSEY RTD CHART	1	OWNER PROVIDED		(
F-14	DIVERSEY OPTIFILL RACK	2	OWNER PROVIDED		(
F-15	DIVERSEY RTD RACK	2	OWNER PROVIDED		(
F-16	SEAT COVER DISPENSER	1	BOBRICK	#B-221	0
F-17	MOP & BROOM HOLDER	1	BOBRICK	#B-223	(



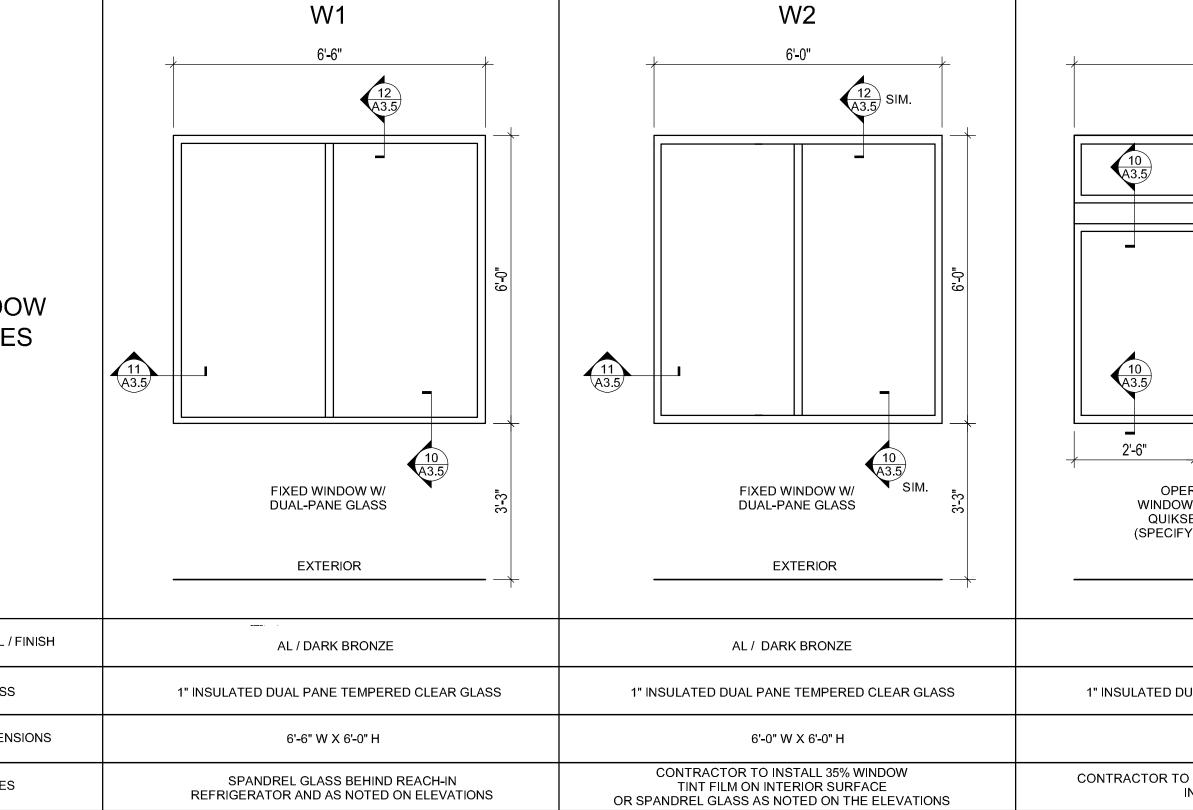




WINDOW TYPES

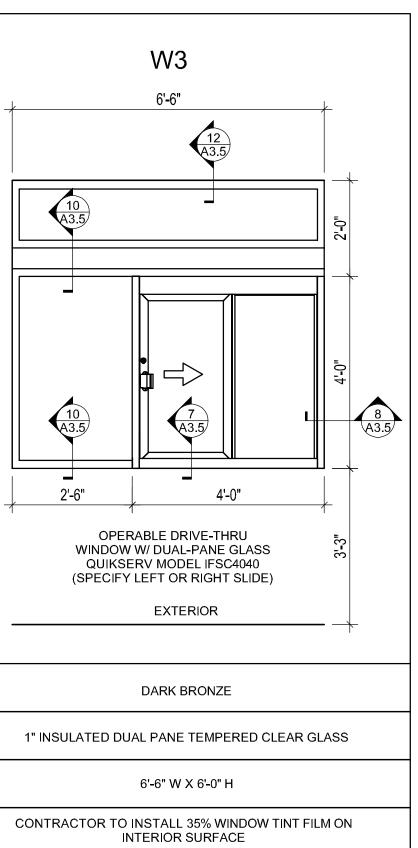
MATERIAL / FINISH GLASS R.O. DIMENSIONS NOTES





GENERAL WINDOW NOTES

1. CONTRACTOR TO REFER TO COMCHECK ENVELOPE FOR SPECIFIC WINDOW REQUIREMENTS.



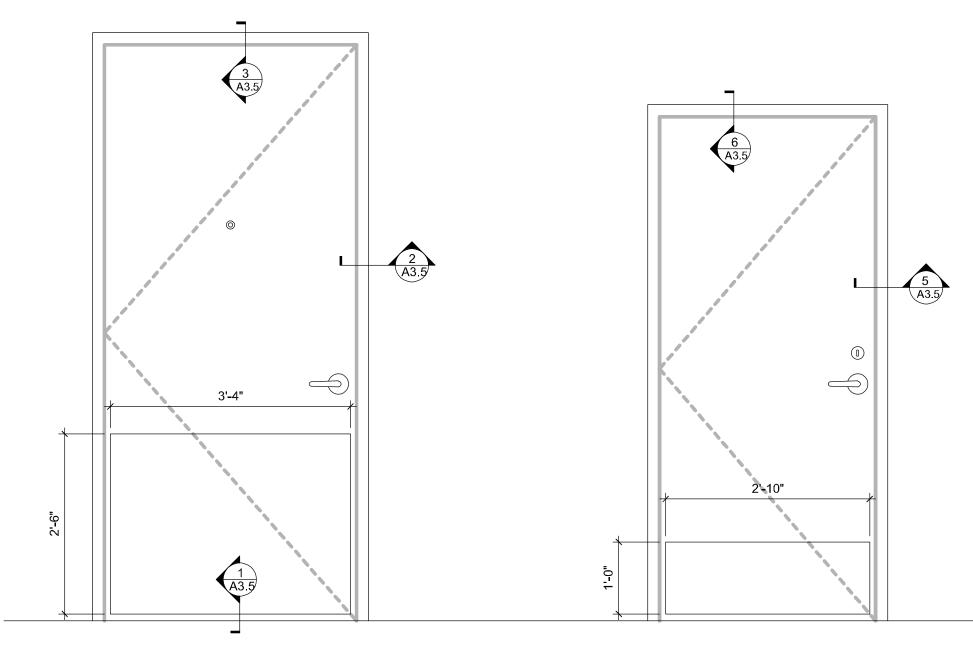
SCOOTER'S COFFEE QUIKSERV NATIONAL ACCOUNT

<u>SALES</u> OFFICE: 713.849.5882 EMAIL: SALES@QUIKSERV.COM 11441 BRITTMOORE PARK DR HOUSTON, TX 77041

<u>SERVICE & WARRANTY</u> WADE ARNOLD - ACCOUNT MANAGER OFFICE: 832.305.3300 EMAIL: WARNOLD@QUIKSERV.COM

BRIAN COBLE - WARRANTY MIKE KEMP - PARTS PAULO RODRIGUEZ - PARTS EMAIL: SERVICE@QUIKSERV.COM PHONE: 713.849.5882

ARCHITECT ARCHITECT 4/3/25				
FREDERICK J. GOGLIA ARCHITECT, NCARB, RDI J. GOGLIA 1550 CRAIG ROAD, SUITE 300 ST. LOUIS, MO 63146 PH. (314) 415-2400 FAX (314) 415-2300 www.arcv.com				
EST. 1998 SOOOFFERS				
B				
DESCRIPTION				
DATE				
TITLE:				
WINDOW SCHEDULE				
PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 FRANCHISEE & STORE NUMBER: SCOOTER'S COFFEE #2294 PROUD TO SERVE, LLC				
KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO. 240761 DRAWN BY: AGG				
CHECKED BY: sw				
A5.1				



A ENTRY DOOR

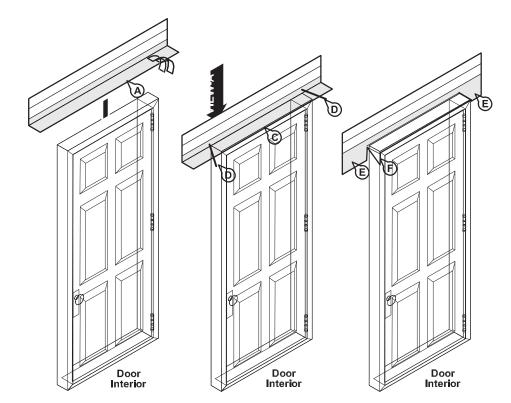
B RESTROOM DOOR

2 TYPICAL DOOR ELEVATIONS SCALE: 3/4"=1'-0"

a. FOR NON-FlaNgeD DOORS ONly

SteP 6a

- A. Prepare head flashing by cutting a piece of DuPont™StraightFlash™VF at least twelve (12) inches longer than the head length.
- B. Remove the release paper from one side of DuPont™ StraightFlash™VF.
- C. Center the flashing along the length of the door and position so that it contacts the door frame. D. At the corner of the door frame, cut the DuPont™ StraightFlash™VF along the corner at a 45°
- angle.
- E. Fold it down flat in the vertical direction parallel to the door frame.
- F. Fold remaining head flashing ears to the jamb.

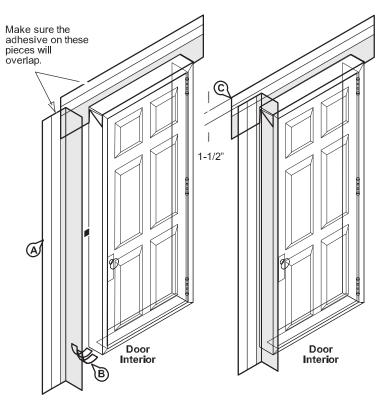




SteP 7a

- than the jamb length.

- D. Repeat step for the other jamb.



DOOR SCHEDULE											
MARK	DOOR				FRAME				HARDWARE	REMARKS & DOOR NOTES	
	TYPE	WIDTH	HEIGHT	THK	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	SET	REMARKS & DOOR NOTES
100	A	3'-6"	8'-0"	1-3/4"	INSULATED METAL U=0.77	PAINT	-	НМ	PAINT	1	KEY PLATE INSIDE FACE
101	В	3'-0"	7'-0"	1-3/4"	НМ	PAINT	-	НМ	PAINT	2	

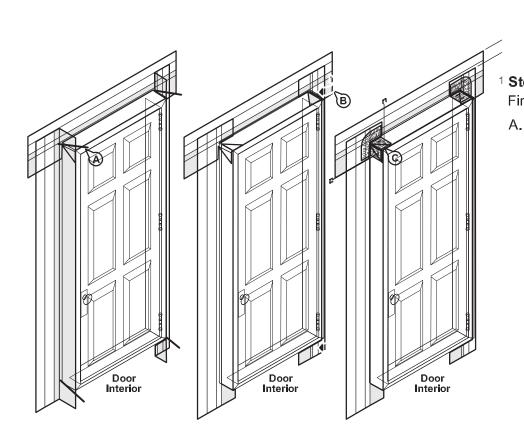
	HARDWARE SCHEDULE					
	SET NUMBER	1 - (ENTRY)				
QTY.	PART	DESCRIPTION	MFGR.			
1 1/2 PR.	BUTT HINGES	FULL MORTISE BB1279-450 4.5" x4.5", US26D/652, 5 KNUCKLE NON-REMOVABLE PIN	HAGER OR EQ.			
1	CLOSER	LCN 1450 SURFACE MOUNTED, PUSH SIDE (INTERIOR), ALUM. FINISH (689)	LCN - EQ.			
1	THRESHOLD	LOW PROFILE 2008_PK	PEMKO - EQ.			
1	DOOR SWEEP	36" 225_V DOOR BOTTOM SWEEP	PEMKO - EQ.			
1	WEATHER STRIP	AT PERIMETER OF DOOR OPENINGS	PEMKO - EQ.			
1	VIEWER	698PB619 WIDE-ANGLE (190-200 DEGREES) AT 60" A.F.F. MAX	SCHLAGE OR EQ.			
1	KICKPLATE	34" x 30" STAINLESS STEEL, PUSH SIDE ONLY				
1	DOOR HOLD OPEN	DOOR MOUNTED				
1	LOCK SET	SCHLAGE ALX53 LEVER TYPE, MECHANICAL PUSHBUTTON LOCK, SATIN CHROME FINISH	SCHLAGE ALX53			
	SET NUMBER	2 - (RESTROOM)				
QTY.	PART	DESCRIPTION	MFGR.			
I 1/2 PR	BUTT HINGES	FULL MORTISE 4"x4" BB1191-ANSI-A2112, BRASS WITH S/S PIN, US26D	HAGER OR EQ.			
1	LOCK SET	SCHLAGE ALX40 PRIVACY LEVER TYPE (626)	SCHLAGE ALX40			
1	CLOSER	LCN 1450 SURFACE MOUNTED, PULL SIDE, ALUM. FINISH (689)	LCN - EQ.			
1	KICKPLATE	34"X12" STAINLESS STEEL, PUSH SIDE ONLY	-			
1 SILENCER AT PERIMETER OF DOOR PEMKO - EQ.			PEMKO - EQ.			
1	DOOR HOLD OPEN	DOOR MOUNTED				

A. Prepare jamb flashing by cutting a piece of DuPont™StraightFlash™VF at least six (6) inches longer

B. Remove the release paper from one side of DuPont™ StraightFlash™VF.

C. Position so that it contacts the door frame up to the exterior face of the door. Ensure that the jamb flashing is positioned 1-1/2 inches below top of head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive and overlap by one inch.

- SteP 8a
- A. At the corner of the door frame cut the DuPont™StraightFlash™VF along the corner at a 45° angle and fold it over flat to adhere it against the head flashing.
- B. Repeat on opposite jamb.
- C. Cut two 3" x 3" DuPont™ FlexWrap™squares and add patches to corners of the door. Staple to wooden frame.



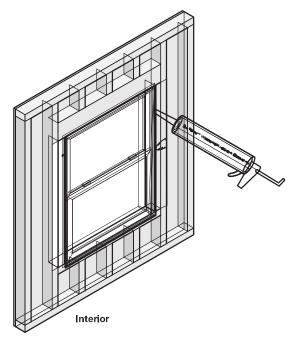
GENERAL DOOR NOTES

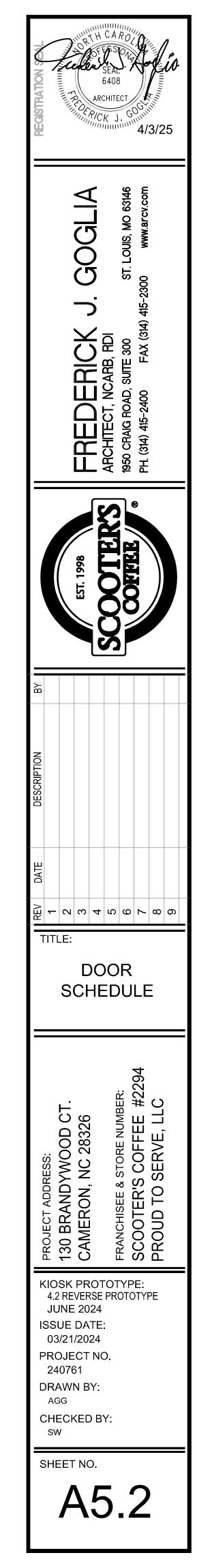
- 1. GC TO VERIFY THAT EGRESS DOOR & HARDWARE COMPLIES WITH ACCESSIBILITY REQUIREMENTS.
- 2. ENTRY DOOR TO BE MARKED "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED" - TO BE MOUNTED ABOVE THE DOOR WITH 1" HIGH LETTERS, COLOR IN CONTRAST TO THE BACKGROUND.
- 3. ALL DOORS SHALL OPERATE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, OR PUSH PULL ACTIVATION BARS. SEE SPECIFICATIONS.
- 4. DOOR CLOSER, IF PRESENT MUST BE SET SO THAT IT TAKES DOOR AT LEAST 5 SECONDS TO CLOSE FROM AN OPEN POSITION OF 90 DEGREES TO WITHIN 12 DEGREES OF LATCH.
- 5. EFFORTS TO OPERATE DOORS WITHIN PRESSURES ALLOWED: INTERIOR DOORS 5LBS. MAXIMUM PRESSURE TO OPERATE, FIRE DOORS 15 LBS. MAXIMUM PRESSURE TO OPERATE
- 6. THE WIDTH OF THE OF THE LEVEL AREA ON THE SIDE OF WHICH THE DOOR SWINGS SHALL EXTEND 24" PAST THE STRIKE EDGE OF THE DOOR FOR EXTERIOR DOORS AND 18" PAST THE STRIKE EDGE FOR INTERIOR WALLS.
- 7. PROVIDE DOOR BOTTOMS AND EXIT SADDLES ON ALL EXTERIOR DOORS.
- 8. ALL EXITS ARE TO BE OPENABLE FROM INSIDE WITHOUT THE USE OF KEY OR SPECIAL KNOWLEDGE.
- 9. ALL EGRESS/EXIT DOORS SHALL BE OF THE PIVOTED OR SIDE-HINGED SWINGING TYPE PER SECTION 1008.12.
- 10. G.C. TO VERIFY QUANTITY OF MASTER KEYS TO PROVIDE.
- 11. ALL DOOR HARDWARE (LOCKSETS, PUSH / PULLS, DEADLOCKS, ETC.) SHALL BE MOUNTED NOT LESS THAN 34" A.F.F., NOR MORE THAN 48" A.F.F.
- 12. CONTRACTOR TO REFER TO COMCHECK ENVELOPE FOR SPECIFIC DOOR REQUIREMENTS.

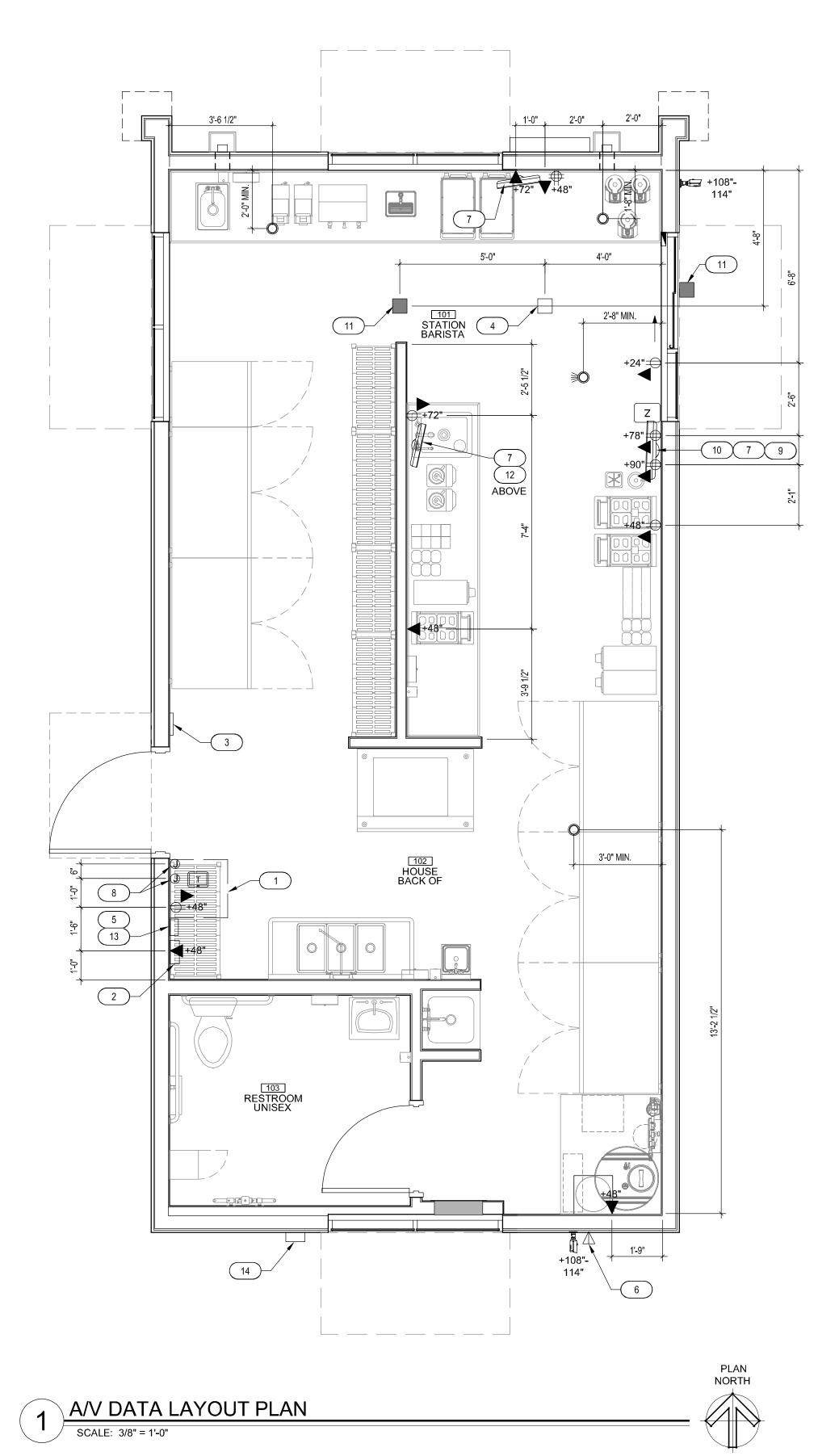
ABBREVATIONS

- AL ALUMINUM
- SC SOLID CORE WOOD DOOR
- HM HOLLOW METAL
- GL GLASS

Final Step A. Tool sealant around the window opening at the interior, using DuPont™Weatherization Sealant or DuPont Recommended Low Expansion Foam (and backer rod as necessary). Sealant and backer rod will also serve as a back dam.







IT INSTALL NOTES

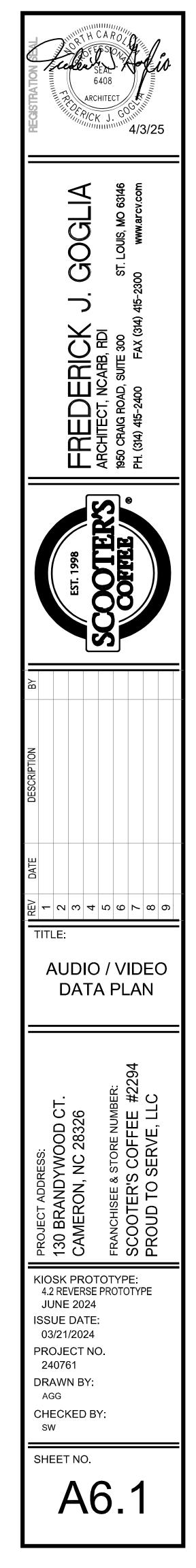
- A. ANY MISSING J-BOXES, DESCREPENCIES, OR VARIATIONS FROM PLAN MUST BE APPROVED BY THE SCOOTER'S COFFEE CONSTRUCTION MANAGER ASSIGNED TO THE PROJECT. IF ISSUES ARE DISCOVERED, THE I.T. INSTALLER MUST NOTIFY THE CONSTRUCTION MANAGER VIA DIRECT PHONE CALL. CONSTRUCTION MANAGER CONTACT INFORMATION CAN BE FOUND VIA SMARTSHEET ONLINE.
- B. MOST PROBLEMS CAN BE RESOLVED QUICKLY WITH COMMUNICATION VIA PHONE CALL. EMAILS MAY BE USED FOR FOLLOW-UP PURPOSES ONLY, BUT IT SHALL NOT BE THE PRIMARY METHOD OF COMMUNICATION. THE I.T. INSTALLER WILL BE RESPONSIBLE TO COVER THE COST OF A RETURN TRIP IF A PHONE CALL DOES NOT OCCUR.
- C. THE GENERAL CONTRACTOR IS NOT ALLOWED TO DIRECT ANY CHANGES TO THE I.T. INSTALL. ANY CHANGES MUST COME FROM THE DIRECTION OF SCOOTER'S COFFEE CONSTRUCTION MANAGER.
- D. IF THERE IS A SHELF OR APPLIANCE BELOW THE CAMERA OR ALARM EQUIPMENT, PLEASE BRING IT OUT ENOUGH TO CLEAR THE SHELF SO THINGS STACKED ON TOP WON'T BLOCK THE CAMERA'S VIEW.

SYMBOLS LEGEND - AUDIO / VIDEO / DATA

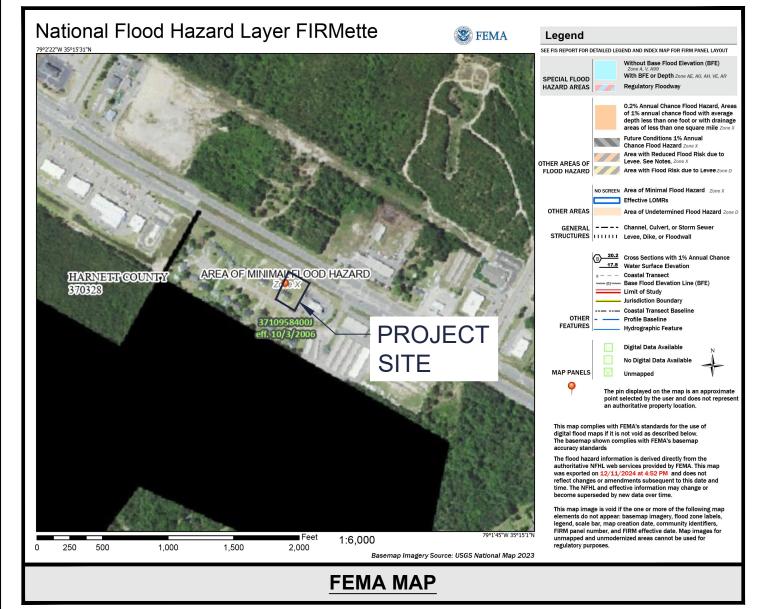
\bigtriangledown	PHONE PORT			
▼	DATA PORT - SINGLE			
$\oplus_{\blacktriangledown}$	DATA PORT - DUAL			
₩	DATA PORT - QUAD			
∇	DATA WAP EXTERIOR PORT			
T	TABLET STATION			
Þ	SECURITY CAMERA - OUTDOOR			
0	DOME CAMERA			
	AUDIO CAMERA			
Ζ	ZOOM TIMER			
-	DOOR CONTACT			
	MOTION SENSOR			
KEYNOTES				

KEYNOIES

- 16CH NVR ABOVE MANAGERS STATION. 1.
- HME CONTROL PANEL. 2 GC2 PANEL.
- ACCESS POINT LOCATION, CEILING MOUNTED. 4.
- ISP LOCATION BESIDE DATA RACK. 5. 6. TYPICAL LOCATION IS NEAR REAR CORNER OF BUILDING, I.T. TECH INSTALLER MUST
- VERIFY LOCATION IS IN LINE-OF-SIGHT FROM MENU BOARD TO LAST CAR IN LINE OF LINE BUSTING CONE. 7. KDS MONITOR
- 8. (2) J-BOX FOR VOLUME CONTROL
- 9. ZOOM TIMER
- 10. SURVEILLANCE MONITOR
- 11. SPEAKER 12. SECONDARY LOCATION FOR SURVEILLANCE MONITOR IF 2ND KDS OPTION IS USED
- CELLULAR MODEM MOUNTED ON WALL.
 C.E. COMMUNICATION DEVICE VISIBLE TO DRIVE-THRU MENU BOARD.



X



FLOOD PLAIN IS NOT PRESENT ON THIS SITE AS SHOWN ON THE FEMA FIRM MAP NUMBER 3710958400J, DATED 10/03/2006

PROJEC	TTEAM
OWNER/DEVELOPER PROUD TO SERVE, LLC 155 FOX HUNT LANE SOUTHERN PINES, NC 28387 KEVIN & JENNIFER LEAVITT 402.541.5857	CIVIL ENGINEERING GASKINS + LECRAW OF NC, PLLC 3475 CORPORATE WAY SUITE A DULUTH, GA 30096 KYLE SHARPE, P.E. 678.546.8100
ARCHITECT ARCVISION, INC. 1950 CRAIG ROAD STE 300 ST. LOUIS, MO 63146 816.248.3559 SERENA WICKETT	SURVEYOR DZT LAND SURVEYING, PLLC 7500 NC HIGHWAY 15/501, STE 5 WEST END, NC 27376 910.420.1325 DAVID R. ESSICK
PROJECT (CONTACTS
ELECTRIC CENTRAL ELECTRIC 128 WILSON RD, SANFORD, NC (919) 774-4900	NATURAL GAS PIEDMONT NATURAL GAS COMPANY 1-(800) 752-8071
TELEPHONE CENTURYLINK 1-(833) 467-1687	WATER & SEWER HARNETT REGIONAL WATER 700 MCKINNEY PARKWAY LILLINGTON, NC 27546 (910) 893-7575
PLANNING & ZONING HANRETT COUNTY 420 MCKINNEY PARKWAY LILLINGTON, NC 27546 (910) 893-7525 MATT LOCKLEAR	

DISTURBED AREA TOTAL SITE AREA = 0.54 ACRES TOTAL DISTURBED AREA = 0.6 ACRES

24 HOUR CONTACT

KEVIN & JENNIFER LEAVITT

402.541.5857 PROUD TO SERVE, LLC

AS-BUILT NOTE

CONTRACTOR SHALL PROVIDE THE NECESSARY SIGNED/SEALED AS-BUILT SURVEY(S) TO ENGINEER AS REQUIRED FOR FINAL APPROVAL BY THE LOCAL JURISDICTION AT LEAST 30 DAYS PRIOR TO PROJECT COMPLETION. AS-BUILT SURVEY(S) SHALL INCLUDE ALL RIM ELEVATIONS, INVERTS, PIPE SIZES & MATERIALS, AND PIPE SLOPES FOR ALL STORM AND SANITARY SEWERS IN JURISDICTIONS WHERE AN AS-BUILT HYDROLOGY ANALYSIS OR STORMWATER CERTIFICATION" IS REQUIRED BY THE ENGINEER OF RECORD, THE CONTRACTOR SHALL ALSO SUPPLY ALL NECESSARY DOCUMENTATION REQUIRED FOR THE ENGINEER TO DETERMINE UNDERGROUND POND(S), IF APPLICABLE, PROVIDE THE ADEQUATE STORAGE VOLUMES. SUCH DOCUMENTATION MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, PHOTOGRAPHS OF SYSTEM INSTALLATION, COMPACTION REPORTS UNDER AND ABOVE THE SYSTEM, DELIVERY TICKETS, SHOP DRAWINGS, ELEVATIONS OF STONE BEDDING (TOP AND BOTTOM), AS WELL AS THE HORIZONTAL LIMITS OF STONE.

GENERAL NOTES

THE APPROVAL OF THESE PLANS AND THE ISSUANCE OF THIS LAND DISTURBANCE PERMIT DOES NOT IN ANY WAY SUGGEST THAT ALL OTHER REQUIREMENTS FOR THE LEGAL OR APPROPRIATE OPERATIONS FOR THIS ACTIVITY, WHICH MAY REQUIRE ADDITIONAL PERMITTING HAVE BEEN MET. THE ONUS IS ON THE OWNER/DEVELOPER/BUILDER O DISCOVER WHAT ADDITIONAL PERMITTING OR APPROVALS MAY BE NECESSARY TO OPERATI FROM THIS POINT IN AN APPROPRIATE AND LEGAL MANNER. PLAN APPROVAL OR PERMIT SSUANCE DOES NOT ABSOLVE THE APPLICANT FROM COMPLYING WITH ALL APPLICABLE LAWS STANDARDS, OR OTHER PERMITS WHICH MAY BE REQUIRED FOR THIS PROJECT.

ATTENTION IS DRAWN TO THE FACT THAT THE SCALE OF THESE DRAWINGS MAY HAVE BEEN DISTORTED DURING THE REPRODUCTION PROCESS.

IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE NTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.



HAR	NETT REGIONAL W
1.	WATERLINE CON CONSTRUCTION
2.	APPROVAL OF TH MAY NOT BE AVA EXISTING WATER PLAN AND/OR FIN
	FLAN AND/OR FI

SCOOTER'S - #2294

130 BRANDYWOOD CT. PARCEL PIN: 9584-97-8509.000 CAMERON, HARNETT COUNTY, NORTH CAROLINA

JURISDICTIONAL NOTES

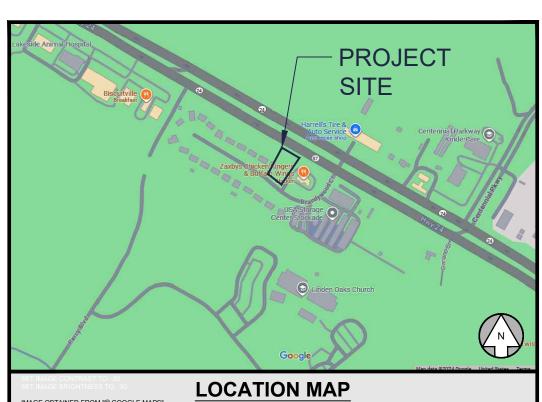
WATER:

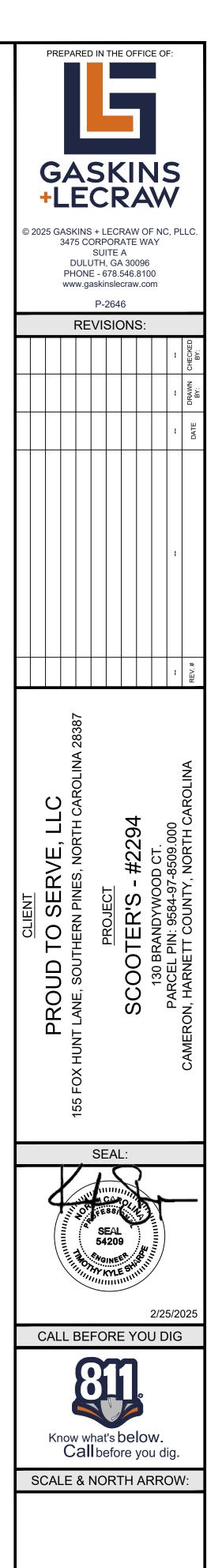
NSTRUCTION AND TIE-IN WILL NEED TO BE COORDINATED AND INSPECTED BY HRW INSPECTOR CHAD EVERETT

HIS PLAT/PLAN DOES NOT GUARANTEE WATER CAPACITY. CURRENT/FUTURE CAPACITY AILABLE. THIS DEVELOPMENT MAY REQUIRE ADDITIONAL IMPROVEMENTS TO THE R SYSTEM TO MEET FUTURE DEMANDS PRIOR TO PRELIMINARY PLAT, CONSTRUCTION NAL PLAT APPROVAL.

JURISDICTIONAL APPROVAL STAMPS

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization by Gaskins + LeCraw, Inc., 2025





DESIC	GN INFO:
DRAWN BY:	S00
DESIGNED BY:	TKS
REVIEWED BY:	TKS
JOB #:	03630032
DATE:	FEBRUARY 25, 2025
CC	DVER
C-	0.0

SHEET LIST TABLE							
Sheet Number	Sheet Title			Revisions			
C-0.0	COVER						
	SURVEY						
C-0.1	GENERAL NOTES						
C-1.0	DEMOLITION PLAN						
C-2.0	ESPC - PHASE 1						
C-2.1	ESPC - PHASE 2						
C-2.2	ESPC - PHASE 3						
C-2.5	EROSION CONTROL DETAILS - 1						
C-2.6	EROSION CONTROL DETAILS - 2						
C-3.0	SITE PLAN						
C-4.0	GRADING PLAN						
C-5.0	UTILITY PLAN						
C-6.0	SANITARY PROFILES						
C-7.0	CONSTRUCTION DETAILS - 1						
C-7.1	CONSTRUCTION DETAILS - 2						
C-7.2	CONSTRUCTION DETAILS - 3						
C-7.3	CONSTRUCTION DETAILS - 4						
L-1.0	LANDSCAPE PLAN						
L-1.1	LANDSCAPE DETAILS	x					

SITE SUMMARY				
SITE	AREA			
	SITE AREA:	0.54 ACRES (23,469 S.F.)		
	IMPERVIOUS AREA:	14,356 S.F. (61%)		
	PERVIOUS AREA:	9,113 S.F. (39%)		
ZONING CLASSIFICATION				
	JURISDICTION:	HARNETT COUNTY		
	ZONING:	СОММ		
	ADJACENT ZONING:	RA-30 & COMM		
BUILD	NING SETBACKS			
	FRONT:	50'		
	SIDE:	20' (ZONING BUFFER)		
	REAR:	25'		
BUILD	BUILDING SUMMARY			
	BUILDING AREA:	664 S.F.		
	BUILDING COVERAGE:	2.8%		
PARK	ING SUMMARY			
	PARKING REQ.: 1	PER 4 SEATS + 1 PER 2 EMPLOYEES		
		2 SPACES (ASSUMES 4 EMPLOYEES)		
	PARKING PROV .:	6 SPACES		
	STANDARD STALL DIME	ENSIONS: 9' x 18'		
	MIN. 2-WAY DRIVE WID	TH: 24'		

HOURS OF OPERATION

MONDAY-SUNDAY: 5:30 AM TO 8 PM

NC SURFACE WATER SUPPLY WATERSHED

THIS PROPERTY IS NOT LOCATED IN A SURFACE WATER SUPPLY WATERSHED

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NORTH ARROW	

I. DAVID R. ESSICK. CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS/GNSS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY: (1) CLASS OF SURVEY: CLASS A (2) POSITIONAL ACCURACY: <0.10'

(3) TYPE OF GPS FIELD PROCEDURE: RTK NETWORKS (4) DATES OF SURVEY: JANUARY 15, 2025

(5) DATUM/EPOCH: NAD83(2011) (6) PUBLISHED/FIXED-CONTROL USE: NC CORS

(7) GEOID MODEL: ContinentalUS NGS2012B (8) COMBINED GRID FACTOR(S): 0.99986689

(9) GPS / GNSS SCALE POINT: N: 547,477.14 E: 1,989,809.54 Z: 333.69 (10) UNITS: US SURVEY FEET

I, DAVID R. ESSICK, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN (SEE REFERENCE TABLE); THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED AS DRAWN FROM INFORMATION IN (SEE REFERENCE TABLE); AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600).

"PREL'IMINARY PLAT - NOT FOR RECORDATION, CONVEYANCES, OR SALES"

PROFESSIONAL LAND SURVEYOR, L-5423

TITLE COMMITMENT NUMBER: 2024113769

EFFECTIVE DATE: NOVEMBER 19, 2024 at 12:00 AM

EXISTING PROPERTY USE: RESIDENTIAL

CURRENT RECORD DESCRIPTION OF PROPERTY:

TITLE COMMITMENT SCHEDULE C

"BEING ALL OF THAT 0.54-ACRE PARCEL AS SHOWN ON THE PLAT PREPARED BY ENOCH ENGINEERS, P.A., TITLED, "RECOMBINATION SURVEY AND MAP FOR: JACKSON FAMILY ENTERPRISES, LLC," DATED NOVEMBER 22, 2022 AND RECORDED IN MAP BOOK 2024, PAGE 395 OF THE HARNETT COUNTY REGISTRY, TO WHICH REFERENCE IS HEREBY MADE FOR A MORE COMPLETE AND ACCURATE DESCRIPTION BY MEETS AND BOUNDS."

NEW LEGAL DESCRIPTION

BEGINNING AT AN IRON PIPE IN THE NORTHERN RIGHT OF WAY OF BRANDYWOOD COURT; THENCE S 57°11'13" E 14 19' TO AN IRON PIPE ; THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 65.79', WITH A RADIUS OF 347.87', WITH A CHORD BEARING OF S 53°27'03" E, WITH A CHORD LENGTH OF 65.69' THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 19.84', WITH A RADIUS OF 639.87', WITH A CHORD BEARING OF S 47°03'43" E, WITH A CHORD LENGTH OF 19.84' THENCE S 42°58'47" E 26.49' TO AN IRON PIPE; THENCE N 29°46'36" E 202.99' TO AN IRON PIPE; THENCE N 60°13'08" W 44 23' TO AN IRON ROD, THENCE N 60°14'52" W 79 88' TO AN IRON PIPE THENCE S 29°44'42" W 182.09' TO AN IRON PIPE;

WHICH IS THE POINT OF BEGINNING, HAVING AN AREA OF 0.539 ACRES.

THE FIELDWORK WAS COMPLETED ON: JANUARY 15TH, 2025

TO: GASKINS + LECRAW OF NC, PLLC; PROUD TO SERVE, LLC; JACKSON FAMILY ENTERPRISES, LLC, A NORTH CAROLINA LIMITED LIABILITY COMPANY; WFG NATIONAL TITLE INSURANCE COMPANY, LEAVITT PROPERTIES, LLC; THOMAS B. CAHILL, ATTORNEY AT LAW, P.C.; TRYON TITLE AGENCY, MIDTOWN PROPERTY LAW

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(A), 7(B)(1), 8, 9, 11(A), 13, 16, 17, 19 (\$2,000,000.00) OF TABLE A THEREOF.

"PRELTMINARY PLAT - NOT FOR RECORDATION, CONVEYANCES, OR SALES"

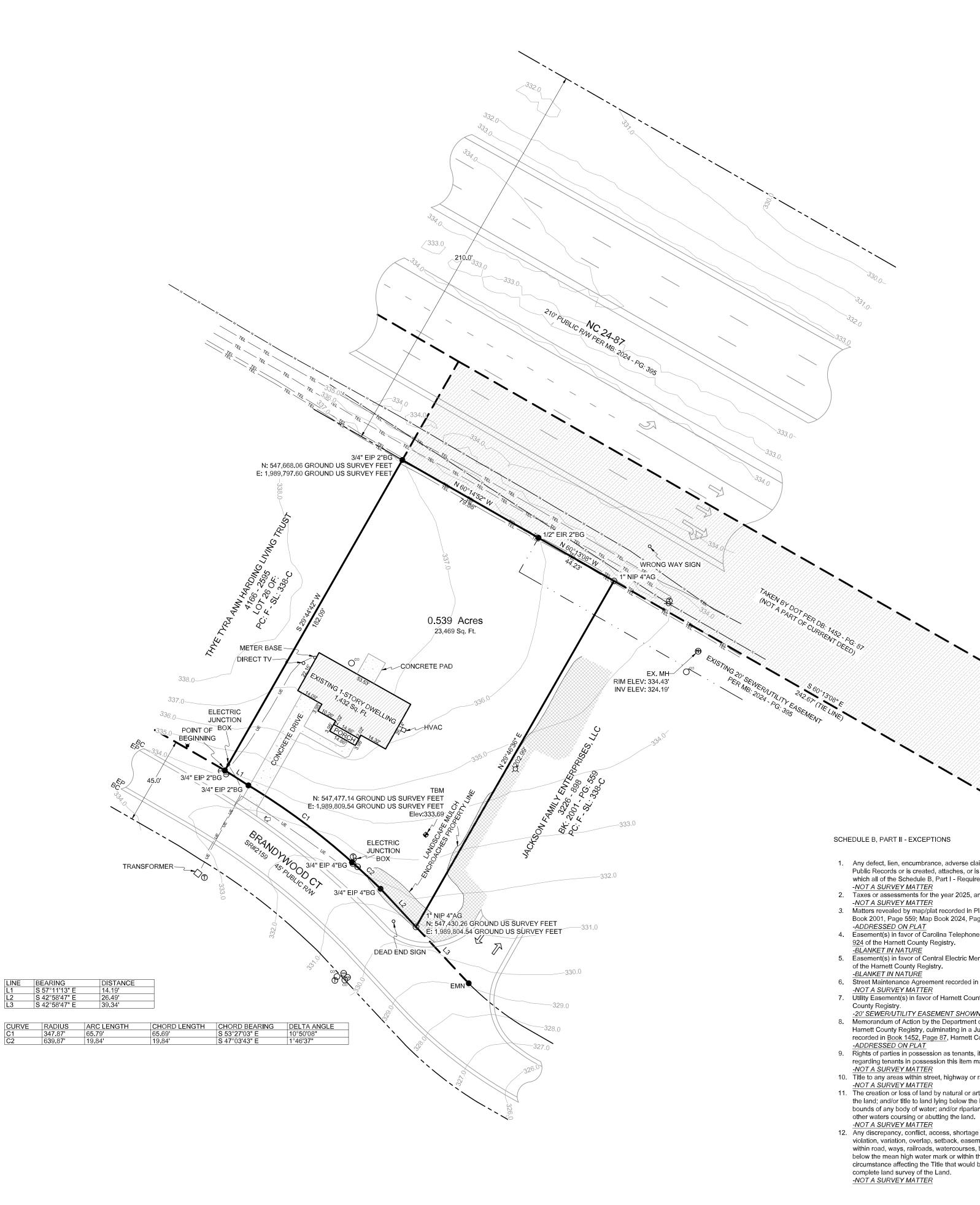
PROFESSIONAL LAND SURVEYOR, L-5423

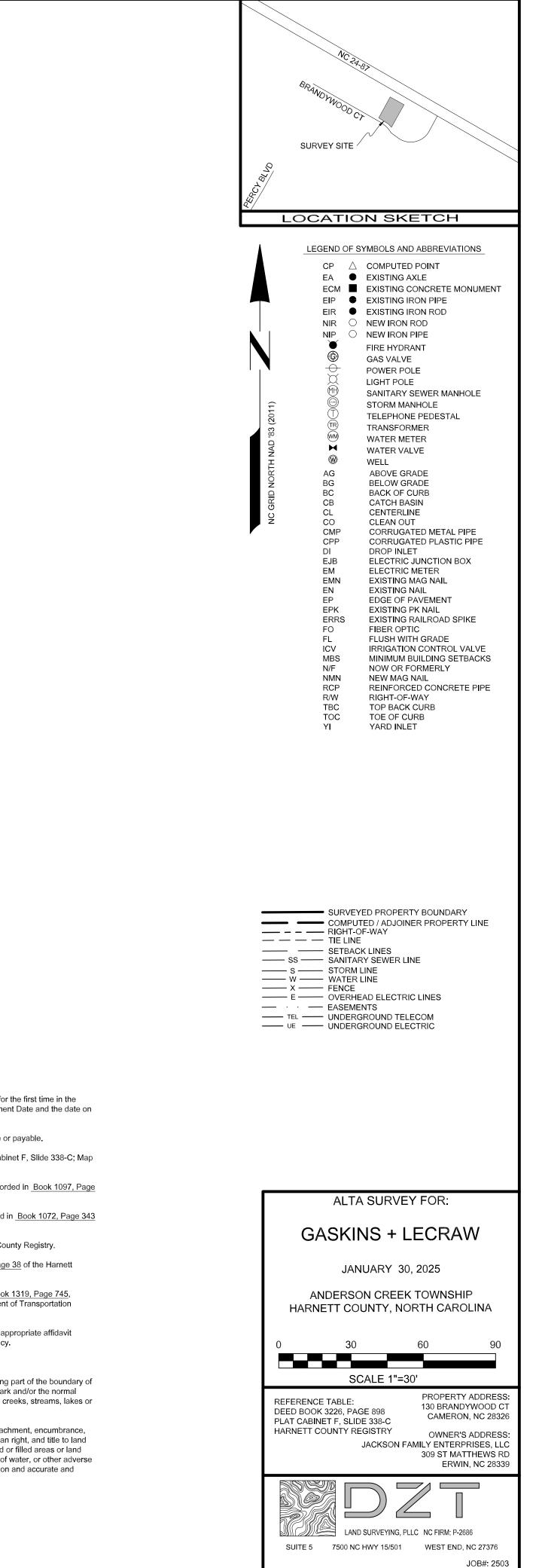
45.0

NOTES: 1. THIS PROJECT IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA PER NCFRIS. MAP #: 3710958400J EFFECTIVE DATE: 10/3/2006 2. ACREAGE DETERMINED BY COORDINATE METHOD

- 3. ALL LINES SURVEYED BY DZT LAND SURVEYING, PLLC ARE SHOWN BY BOLD LINES. ALL LINES NOT SURVEYED ARE INDICATED BY DASHED LINES.
- 4. TAX PARCEL ID: 9584-97-8509 5. ZONING: COMM
- PUBLIC WATER SUPPLY WATERSHED: NONE
- NO ATTEMPT WAS MADE BY THIS SURVEY TO LOCATE ALL UNDERGROUND UTILITIES NOR ANY OTHER EASEMENTS OR CONVEYANCES THAT WOULD BE REVEALED BY A TITLE SEARCH

8. VERIFY MINIMUM BUILDING SETBACKS BEFORE CONSTRUCTION. LOCATION OF UNDERGROUND UTILITIES , IF SHOWN, ARE BASED ON VISIBLE EVIDENCE AND DRAWINGS PROVIDED TO THE SURVEYOR. LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM SHOWN LOCATIONS. ADDITIONAL UTILITIES MAY EXIST. LOCAL UTILITY COMPANIES SHOULD BE CONSULTED FOR FURTHER INFORMATION ON UTILITIES AFFECTING THE PROPERTY.





R/W MONUMENT 18"BG

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I - Requirements are met.

2. Taxes or assessments for the year 2025, and subsequent years, not yet due or payable.

Matters revealed by map/plat recorded in Plat Cabinet F, Slide 32-C; Plat Cabinet F, Slide 338-C; Map Book 2001, Page 559, Map Book 2024, Page 395, Harnett County Registry.

4. Easement(s) in favor of Carolina Telephone and Telegraph Company as recorded in Book 1097, Page

5. Easement(s) in favor of Central Electric Membership Corporation as recorded in Book 1072, Page 343

Street Maintenance Agreement recorded in Book 1104, Page 868, Harnett County Registry. 7. Utility Easement(s) in favor of Harnett County as recorded in Book 3349, Page 38 of the Harnett

-20' SEWER/UTILITY EASEMENT SHOWN ON PLAT Memorandum of Action by the Department of Transportation recorded in <u>Book 1319, Page 745</u>,

Harnett County Registry, culminating in a Judgment in favor of the Department of Transportation recorded in Book 1452, Page 87, Harnett County Registry. 9. Rights of parties in possession as tenants, if any. NOTE: Upon receipt of an appropriate affidavit

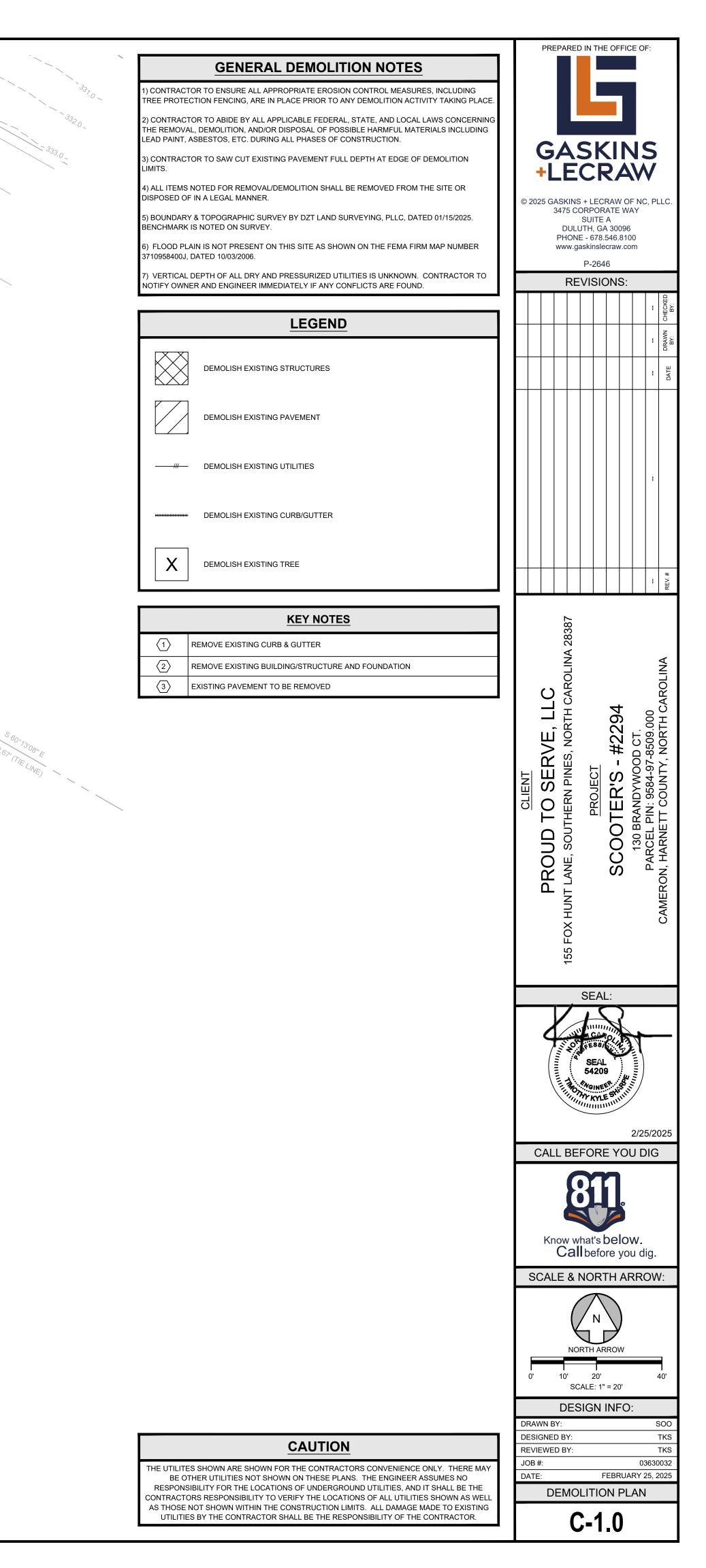
regarding tenants in possession this item may be removed from the final policy. 10. Title to any areas within street, highway or railroad rights of way, if any.

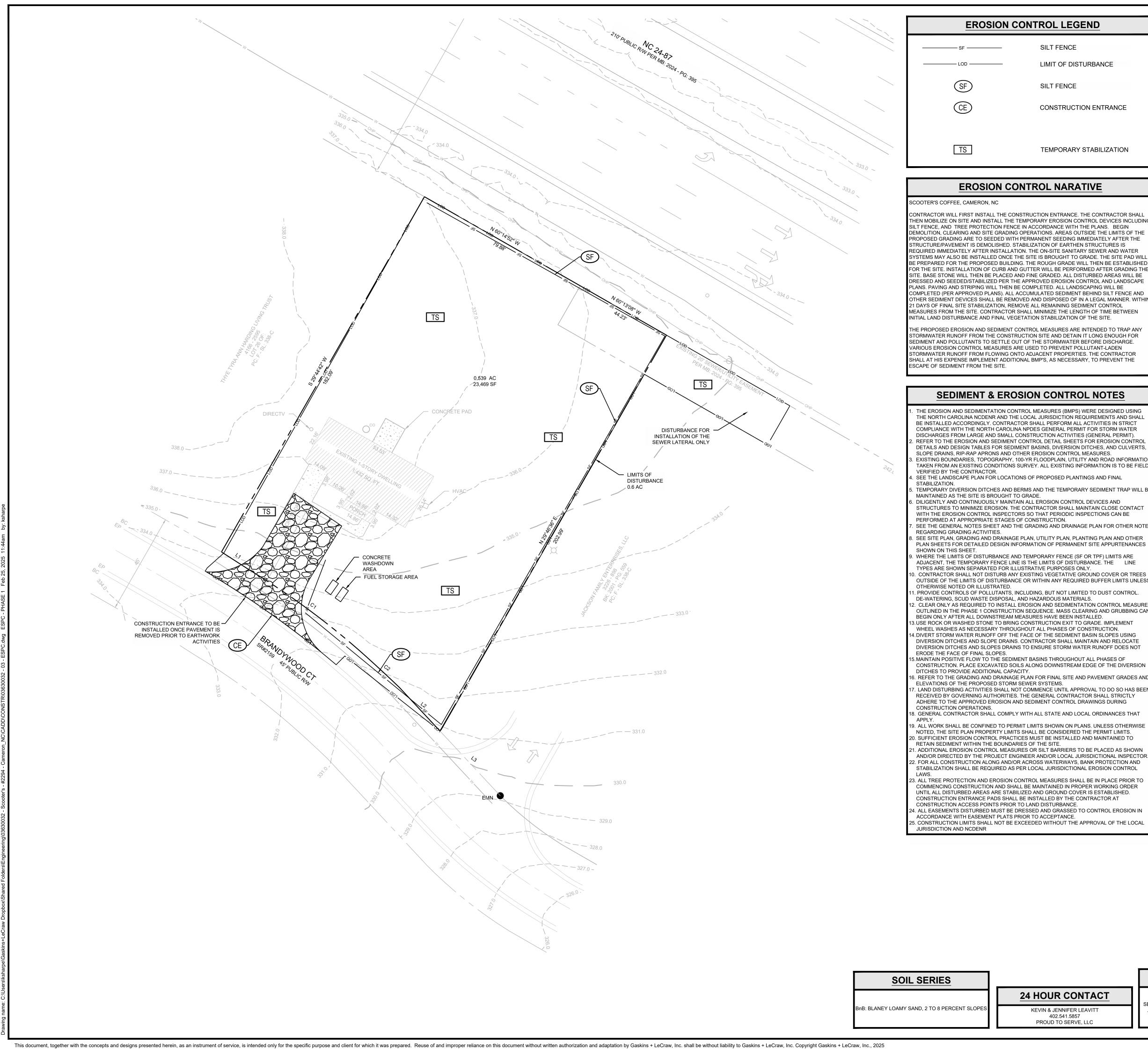
11. The creation or loss of land by natural or artificial changes along water forming part of the boundary of the land; and/or title to land lying below the higher of the mean high water mark and/or the normal bounds of any body of water; and/or riparian rights incident to any branches, creeks, streams, lakes or

12. Any discrepancy, conflict, access, shortage in area or boundary lines, encroachment, encumbrance, violation, variation, overlap, setback, easement or claims of easement, riparian right, and title to land within road, ways, railroads, watercourses, burial grounds, marshes, dredged or filled areas or land below the mean high water mark or within the bounds of any adjoining body of water, or other adverse circumstance affecting the Title that would be disclosed by a current inspection and accurate and

GENERAL NOTES	EROSION CONTROL NOTES	GRADING NOTES	DRAINAGE NOTES	UTILITY NOTES	PREPARED IN THE OFFICE OF	
ALL WORK AND MATERIALS SHALL COMPLY WITH ALL STATE, CITY AND COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.	CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THESE DRAWINGS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.	THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS	CONTRACTOR TO CONFIRM STRUCTURE ELEVATIONS SHOWN AND PROVIDE SHOP DRAWINGS TO OWNER & ENGINEER FOR REVIEW PRIOR TO ORDERING OF OR INSTALLATION OF STRUCTURES.	ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72-HOURS BEFORE CONNECTING TO		
CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS, BUILDING UTILITY ENTRANCE LOCATIONS, EXACT LOCATIONS AND DIMENSIONS OF ENTRIES, SIDEWALKS, DOWNSPOUTS, AND BOLLARDS IN BUILDING SIDEWALKS.	BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED	BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH	PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:	ANY EXISTING LINE. SANITARY SEWER PIPE, AS SHOWN ON PLANS, SHALL BE AS FOLLOWS:		
UNLESS SHOWN OTHERWISE ON THE PLANS, CONTRACTOR SHALL APPLY 4" OF TOP SOIL TO ALL DISTURBED AREAS OF THE SITE, PLANT GRASS SEED OR SOD, APPLY STRAW, AND WATER. IT IS THE RESPONSIBILITY OF	BY PERMITTING AGENCY OR OWNER. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL.	THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. ALL CUT OR FILL SLOPES SHALL BE 2:1 OR FLATTER UNLESS OTHERWISE NOTED.	TYPE 1: RCP, CLASS III PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS. TYPE 2: SPIRAL RIB METAL PIPE TYPE 1R: ALUMINIZED COATED AS SPECIFIED ON CONSTRUCTION DRAWINGS. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON CONSTRUCTION DRAWINGS. PIPE	PVC PER ASTM D 3034 DUCTILE IRON PIPE PER AWWA C150 PIPE RUNS BETWEEN MANHOLES TO BE THE SAME CLASS.		~
THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED OR SODDED AREAS. IF A HEALTHY STAND OF GRASS CAN NOT BE ESTABLISHED BY THE TIME THE BUILDING BECOMES OCCUPIED, THEN SOD SHALL BE INSTALLED AND WATERED UNTIL GRASS IS ESTABLISHED.	ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED.	EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT	ENDS SHALL BE RE-CORRUGATED AND INSTALLED WITH SEMI-CORRUGATED HUGGER-TYPE BANDS AND "O" RING GASKETS IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTALLATION REQUIREMENTS. SPIRAL RIB METAL PIPE MUST COMPLY WITH ASTM A 760 TYPE 1R. ACCEPTABLE	WATER LINES, AS SHOWN ON PLANS, SHALL BE AS FOLLOWS: PVC C-900 PER ASTM D 2241, CLASS 200 UNDER PUBLIC ROADS, OTHERWISE CLASS 150	GASKINS	
ALL ISLANDS WITH CURB & GUTTER SHALL BE LANDSCAPED. THOSE ISLANDS ARE TO HAVE CURB & GUTTER AS SHOWN ON THE CONSTRUCTION DRAWINGS.	SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.	CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.	MANUFACTURER: CONTECH, INC." ULTRA FLO OR ULTRA FLO II", CALDWELL CULVERT CO. "SMOOTH RIB", OR APPROVED EQUAL. TYPE 3: HIGH DENSITY POLYETHYLENE, ADS N-12 ST IB PIPE (PER AASHTO M294), OR APPROVED EQUAL,	DUCTILE IRON PIPE PER AWWA C150 EITHER COPPER TUBE TYPE "L" (SOFT) PER ANSI 816.22 PVC, 200 P.S.I. PER ASTM D1784 AND D2241.		
ALL DIMENSIONS AND RADII ARE REFERENCED TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE UNLESS OTHERWISE	DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.	CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.	SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4- THROUGH 60-INCH SHALL MEET AASHTO M294. PIPE SHALL BE JOINED USING A BELL & SPIGOT JOINT MEETING AASHTO M294. THE JOINT SHALL BE SOIL-TIGHT AND GASKETS, WHEN APPLICABLE, SHALL MEET THE	MINIMUM TRENCH WIDTH SHALL BE 2 FEET.	© 2025 GASKINS + LECRAW OF NC, 3475 CORPORATE WAY SUITE A	PLLC.
NOTED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL	RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF	TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY DZT LAND SURVEYING, PLLC. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL.	REQUIREMENTS OF ASTM F477. FITTINGS SHALL CONFORM TO ASTM F 2306. MATERIAL FOR PIPE PRODUCTION SHALL BE AN ENGINEERED COMPOUND OF VIRGIN AND RECYCLED HIGH DENSITY POLYETHYLENE CONFORMING WITH THE MINIMUM REQUIREMENTS OF CELL CLASSIFICATION	ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS CALLED OUT IN THE SPECIFICATIONS.	DULUTH, GA 30096 PHONE - 678.546.8100 www.gaskinslecraw.com	
UTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BID. AREAS TO BE DISTURBED SHALL BE IMPROVED PER THESE PLANS OR RESTORED TO	WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR JURISDICTIONAL WATERS. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE EROSION AND SEDIMENT	CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS AND MAINTAIN DISTURBED AREAS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.	424420C (ESCR TEST CONDITION B) FOR 4- THROUGH 10-INCH (100 TO 250 MM) DIAMETERS, AND 435420C (ESCR TEST CONDITION B) FOR 12- THROUGH 60-INCH DIAMETERS, AS DEFINED AND DESCRIBED IN THE LATEST VERSION OF ASTM D3350, EXCEPT THAT CARBON BLACK CONTENT	ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).	P-2646	
THEIR ORIGINAL OR BETTER CONDITION. ACCESSIBLE SIGNS WITH A "VAN" MARKING SHALL HAVE ADDITIONAL SIGN MOUNTED BELOW THE SYMBOL	CONTROL PLANS SHALL BE INITIATED AS SOON AS PRACTICABLE. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL	CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.	SHOULD NOT EXCEED 4%. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 OR PER MANUFACTURER'S RECOMMENDATION.	CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-0" COVER ON ALL WATERLINES UNLESS OTHERWISE SPECIFIED BY UTILITY PROVIDER.	REVISIONS:	Q
OF ACCESSIBILITY SIGN DENOTING VAN ACCESSIBILITY. ALL ACCESSIBLE SIGNS SHALL MEET THE CURRENT MINIMUM ADA AND LOCAL STANDARDS.	BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE EROSION CONTROL PLANS AND/OR LANDSCAPE PLAN.	ALL WORK AND MATERIALS SHALL COMPLY WITH ALL STATE AND LOCAL REGULATIONS AND CODES AND O.S.H.A. STANDARDS.	EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.	IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING, THE WATERLINE SHALL HAVE MECHANICAL JOINTS		- CHECI
REFER TO THE DETAIL SHEETS FOR DETAILS OF ON-SITE SIGNAGE, STRIPING, AND PAVEMENT MARKING. REFER TO SITE PLAN FOR ADDITIONAL DIMENSIONAL INFORMATION.	IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A	ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES. ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL	IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY	WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).		- DRAWN BY:
ALL HEIGHTS AND SETBACKS SHALL MEET THE MINIMUM STANDARDS SET FORTH IN THE LOCAL CODE. THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS,	PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.	CONTRACTOR PRIOR TO GROUND BREAKING. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL	TO RETURN IT TO EXISTING CONDITIONS OR BETTER. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS	LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT		 DATE
TRAFFIC MEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED. THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING	ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET	FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.	ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT. AND SHALL HAVE	ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS IN UNPAVED AREAS WITH WATER TIGHT LIDS.		
CONSTRUCTION.	WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.	TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".	ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3,000 P.S.I.		
STANDARDS OF THE GOVERNING DOT. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN	EROSION CONTROL BASINS AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.	CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE. ALL SITE PREPARATION AND UNSUITABLE SOIL REMOVAL, AS WELL AS THE PLACEMENT OF FILL MATERIALS	ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.	DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.		
THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.	SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.	SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT (BY OTHERS).	ALL STORM DRAINAGE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE SHOWN.	REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.		:
TRAFFIC CONTROL NOTES	ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.	LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.	A MINIMUM GRADE OF 0.50% SHALL BE MAINTAINED ON ALL PIPES. ALL PIPE LENGTHS AND SLOPES ARE APPROXIMATE.	CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL JURISDICTION WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.		
REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION) FOR DETAILS OF STANDARD TRAFFIC CONTROL SIGNS AND STANDARDS.	ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STATE EROSION AND SEDIMENT CONTROL REGULATIONS, U.S. DEPARTMENT OF AGRICULTURE, AND U.S. SOIL	THE PROPOSED CONTOURS SHOWN IN DRIVES AND PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING PAVEMENT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS.	ALL PIPE LENGTHS AND SLOPES ARE APPROXIMATE. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.	THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS WAS PROVIDED BY THE LAND SURVEYOR AND IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE		
	CONSERVATION SERVICE REGULATIONS, 0.3. DEPARTMENT OF AGRICOLTORE, AND 0.3. SOLE THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND	CONTRACTOR SHALL INSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET OVERLAND.	SUBSURFACE DRAINAGE FACILITIES MAY RE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.	FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO		
DEMOLITION NOTES	STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.	ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING PLAN IS PROHIBITED.	UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:	RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.		REV.#
THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO ANY DEMOLITION.	STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN	THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE	 A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME. B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED 	CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.	N 1	
THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR	ACCORDANCE WITH THE STATE REGULATIONS. TOPSOILING, PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.	DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS. THE CONTRACTOR SHALL INCLUDE IN THE BID ANY DEWATERING AND MOISTURE CONDITIONING	SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY. D. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO	IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.	2838	
DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES ARE TO BE INCLUDED WITH THE BID.	ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO	NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS. ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNIAL REPRESENTATIVE TO	MINIMIZE EROSION AND PROMOTE STABILIZATION. E. DESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT	ALL EXISTING AND PROPOSED UTILITY MAIN LENGTHS SHOWN ARE APPROXIMATE. ALL EXISTING UTILITIES PROPOSED TO BE RELOCATED ON THESE PLANS SHALL BE PLACED UNDERGROUND,	LINA	NA
THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.	PREVENT FURTHER EROSION AND SEDIMENTATION. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN	DETERMINE WHETHER UNSUITABLE MATERIAL MUST BE REMOVED. ALL UNDESIRABLE MATTER SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.	CONTROL REGULATIONS. F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.	UNLESS OTHERWISE NOTED.	C SARO	ROLI
THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.	PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED, AT NO ADDITIONAL COST TO THE OWNER, WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.	GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE LIP	THIS PLAN DETAILS PIPES UP TO 5FT FROM THE BUILDING FACE. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING CONNECTIONS. CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY.	WELLS, AND VENT PIPING. GREASE TRAPS SHOWN ON CIVIL DRAWINGS ARE FOR REFERENCE ONLY.	LL ХТН С 194	H CA
IN ACCORDANCE WITH THE DEMOLITION PLAN, CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING BUILDINGS, INCLUDING FOUNDATIONS AND ALL APPURTEDANCES	ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.	FOR CATCH BASINS. CONTRACTOR TO ENSURE THAT ALL ADA ROUTES, SIDEWALKS, PATHS, ETC. HAVE A LONGITUDINAL SLOPE	STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.		VE, VOF, NOF, NOF, NOF, NOF, NOF, NOF, NOF, N	NOR
LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO BOLLARDS, GAS METERS, AIR CONDITIONING UNITS, SIGNS, CURBS, SIDEWALKS, ELECTRIC METERS, FENCING, ETC.	SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND	OF LESS THAN 5% AND A CROSS SLOPE OF LESS THAN 2%. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY, AND PRIOR TO POURING OF CONCRETE, IF ANY ADA ROUTES EXCEED THE CRITERIA LISTED ABOVE.				ν-4- ν-1- ν-1-γ-
REMOVE AND/OR PLUG EXISTING UTILITIES SUCH AS SANITARY SEWER, WATER, GAS, ELECTRIC, AND TELEPHONE AS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY TO COORDINATE REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.	SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. STABILIZATION MEASURES SHALL BE APPLIED TO STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS					COUN
THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND PLUG, ALL SERVICE PIPING AT THE STREET LINE OR MAIN. AS REQUIRED, OR AS OTHERWISE NOTED.	IMMEDIATELY AFTER INSTALLATION. LIMITS OF GRADING SHOWN ON THE PLAN ARE MAXIMUM LIMITS FOR EROSION CONTROL PURPOSES ONLY.					
ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED.	SURVEYOR TO DETERMINE ACTUAL LIMIT. ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLANS, SHALL BE MAINTAINED IN FULLY					HARN
THE CONTRACTOR SHALL ARRANGE FOR RESETTING OF CURB BOXES, VALVE BOXES AND REMOVAL AND/OR RELOCATION OF OVERHEAD UTILITIES AND POLES WITH THE APPROPRIATE UTILITY COMPANY.	FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE				SC SC	KON, L
INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.	END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING: CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE					AMEF
THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.	CONSTRUCTION DRAWINGS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.				1 XO	Û
SURFACE. SAWCUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN. SAWCUT EXISTING PAVEMENT AT THE R/W.	INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.				155 P	
ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.	ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.					
THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO THE ADJOINING PROPERTIES DURING THE DEMOLITION PROCESS.	SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.				SEAL:	-
SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTION BEFORE PROCEEDING	THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.				CA OF TESS	—
FURTHER WITH WORK IN THIS AREA. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS	OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS				SEAL 54209	
MATERIAL CONTRACTOR AND DISPOSED OF PROPERLY .	WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.				WGINEER WIT	
					· · · · · · · · · · · · · · · · · · ·	
					2/25, CALL BEFORE YOU DI	
					Know what's below. Call before you dig	<u>э</u> .
					SCALE & NORTH ARRO	W:
AS-BUILT NOTE					DESIGN INFO:	
CONTRACTOR SHALL PROVIDE THE NECESSARY SIGNED/SEALED AS-BUILT SURVEY(S) TO ENGINEER AS REQUIRED FOR FINAL APPROVAL BY THE LOCAL JURISDICTION AT LEAST 30 DAYS PRIOR TO PROJECT COMPLETION. AS-BUILT SURVEY(S) SHALL INCLUDE ALL RIM ELEVATIONS, INVERTS, PIDE SIZES & MATERIALS, AND PIDE SLOPES FOR ALL STORM AND SANITARY SEWERS					DRAWN BY: DESIGNED BY:	SOO TKS
INVERTS, PIPE SIZES & MATERIALS, AND PIPE SLOPES FOR ALL STORM AND SANITARY SEWERS. IN JURISDICTIONS WHERE AN AS-BUILT HYDROLOGY ANALYSIS OR STORMWATER "CERTIFICATION" IS REQUIRED BY THE ENGINEER OF RECORD, THE CONTRACTOR SHALL ALSO SUPPLY ALL NECESSARY DOCUMENTATION REQUIRED FOR THE ENGINEER TO DETERMINE						TKS 630032
SUPPLY ALL NECESSARY DOCUMENTATION REQUIRED FOR THE ENGINEER TO DETERMINE UNDERGROUND POND(S), IF APPLICABLE, PROVIDE THE ADEQUATE STORAGE VOLUMES. SUCH DOCUMENTATION MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, PHOTOGRAPHS OF SYSTEM INSTALLATION. COMPACTION REPORTS LINDER AND ABOVE THE SYSTEM. DELIVERY TICKETS					DATE: FEBRUARY 25 GENERAL NOTES	, 2025
INSTALLATION, COMPACTION REPORTS UNDER AND ABOVE THE SYSTEM, DELIVERY TICKETS, SHOP DRAWINGS, ELEVATIONS OF STONE BEDDING (TOP AND BOTTOM), AS WELL AS THE HORIZONTAL LIMITS OF STONE.					C-0.1	







EROSION CONTROL NARATIVE

- LIMIT OF DISTURBANCE
- CONSTRUCTION ENTRANCE

TEMPORARY STABILIZATION

GENERAL EROSION CONTROL NOTES

) ALL BEST MANAGEMENT PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION EROSION AND SEDIMENT CONTROL STANDARDS. .) BOUNDARY & TOPOGRAPHIC SURVEY BY DZT LAND SURVEYING, PLLC, DATED 01/15/2025. BENCHMARK IS NOTED ON SURVEY.

-) SOIL TYPES FOR ENTIRE DISTURBED AREA IS BNB PER NRCS WEB SOIL SURVEY 4.) THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES.
-) EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
- SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, AS REQUIRED, INDICATING THE 1/3 FULL VOLUME. .) MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND
- PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE PROPERTY OWNER.
- WASHOUT OF CONCRETE DRUM AT CONSTRUCTION SITE IS PROHIBITED AND NOT ALLOWED IN WASH AREAS

TOTAL SITE AREA = 0.54 ACRES TOTAL DISTURBED AREA = 0.6 ACRES PHASE 1 DISTURBED AREA = 0.5 ACRES

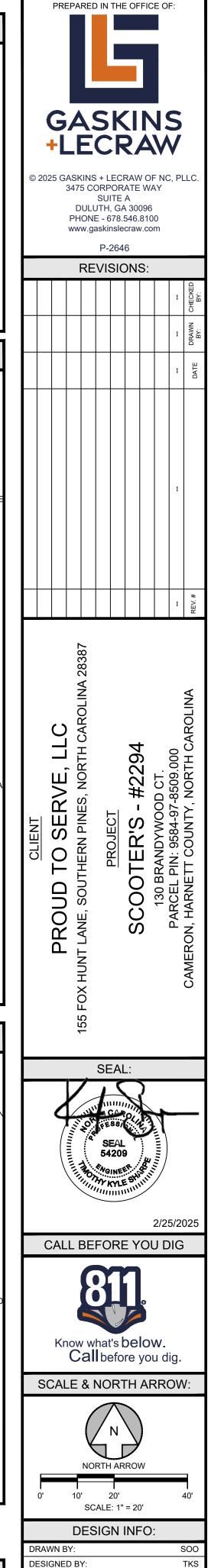
NORTH CAROLINA CONTROL NOTES

UNLESS OTHERWISE INDICATED. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANC WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NCDENR EROSION AND SEDIMENT CONTROL HANDBOOK. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT

- CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS
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24 HOUR CONTACT

PROUD TO SERVE, LLC

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PRIMARY PERMITTEE

SOUTHERN PINES, NC 28387 402.541.5857 CONTACT:

EVIEWED BY:

JOB #:

TKS

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FEBRUARY 25, 2025

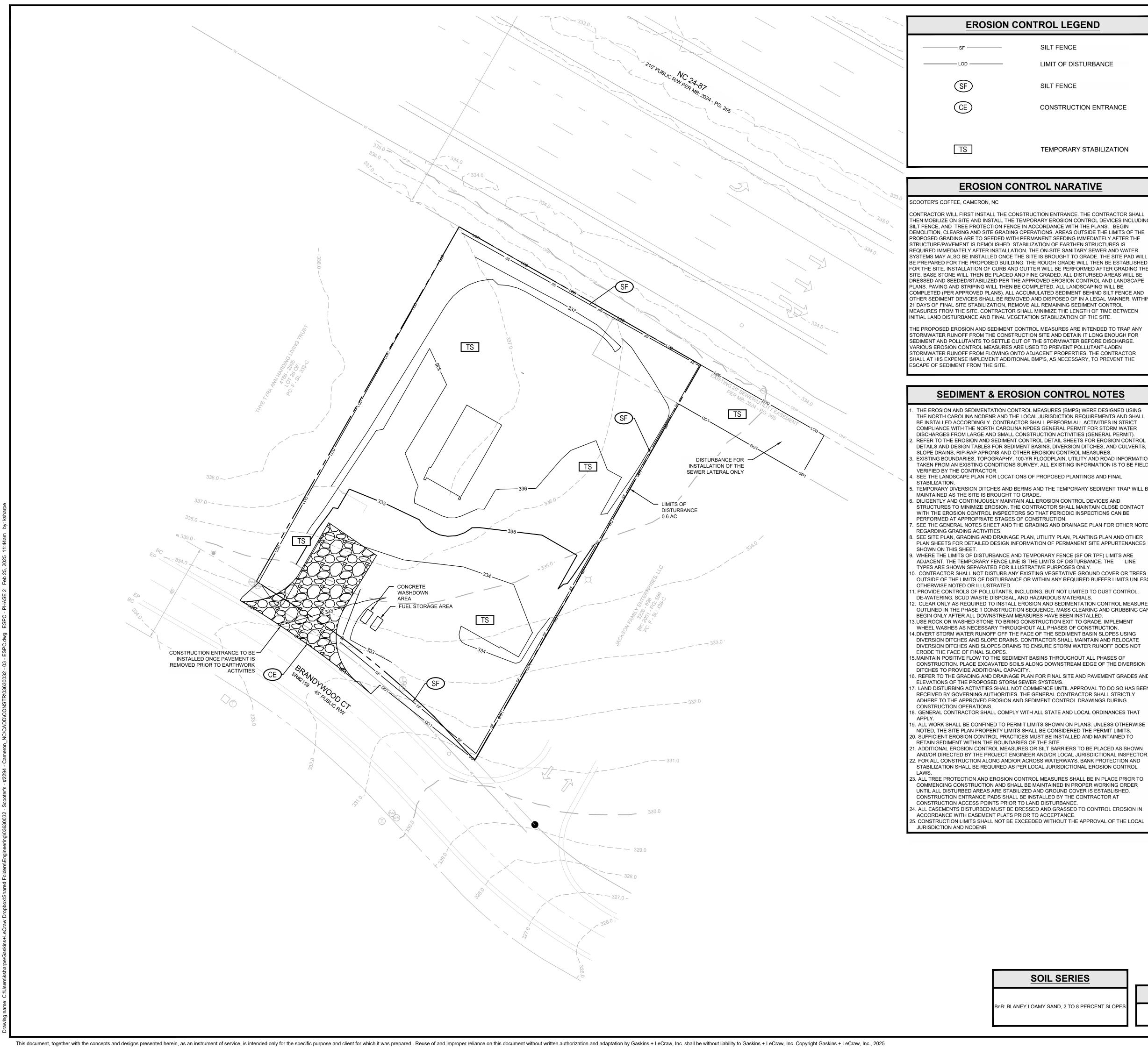
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KEVIN & JENNIFER I FAVITT PROUDTOSERVELLC@GMAIL.COM

PROUD TO SERVE. LL



SILT FENCE

- LIMIT OF DISTURBANCE
- SILT FENCE
- CONSTRUCTION ENTRANCE

TEMPORARY STABILIZATION

GENERAL EROSION CONTROL NOTES

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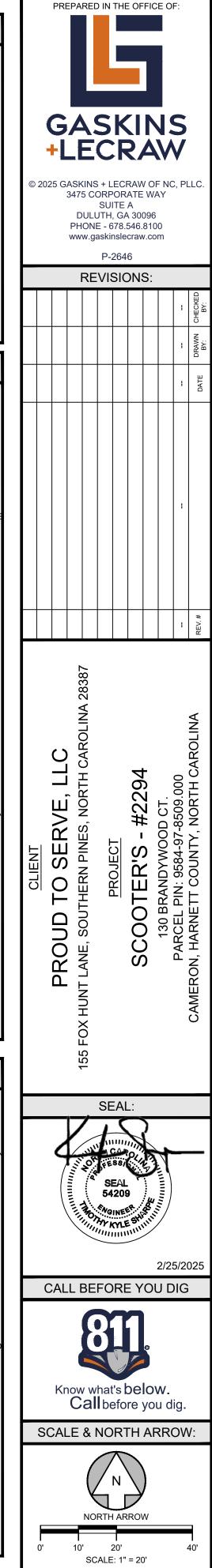
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DESIGN INFO:

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TKS

03630032

FEBRUARY 25, 2025

RAWN BY ESIGNED BY REVIEWED BY:

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SOIL SERIES

24 HOUR CONTACT	
KEVIN & JENNIFER LEAVITT	

402.541.5857 PROUD TO SERVE, LLC NOTE

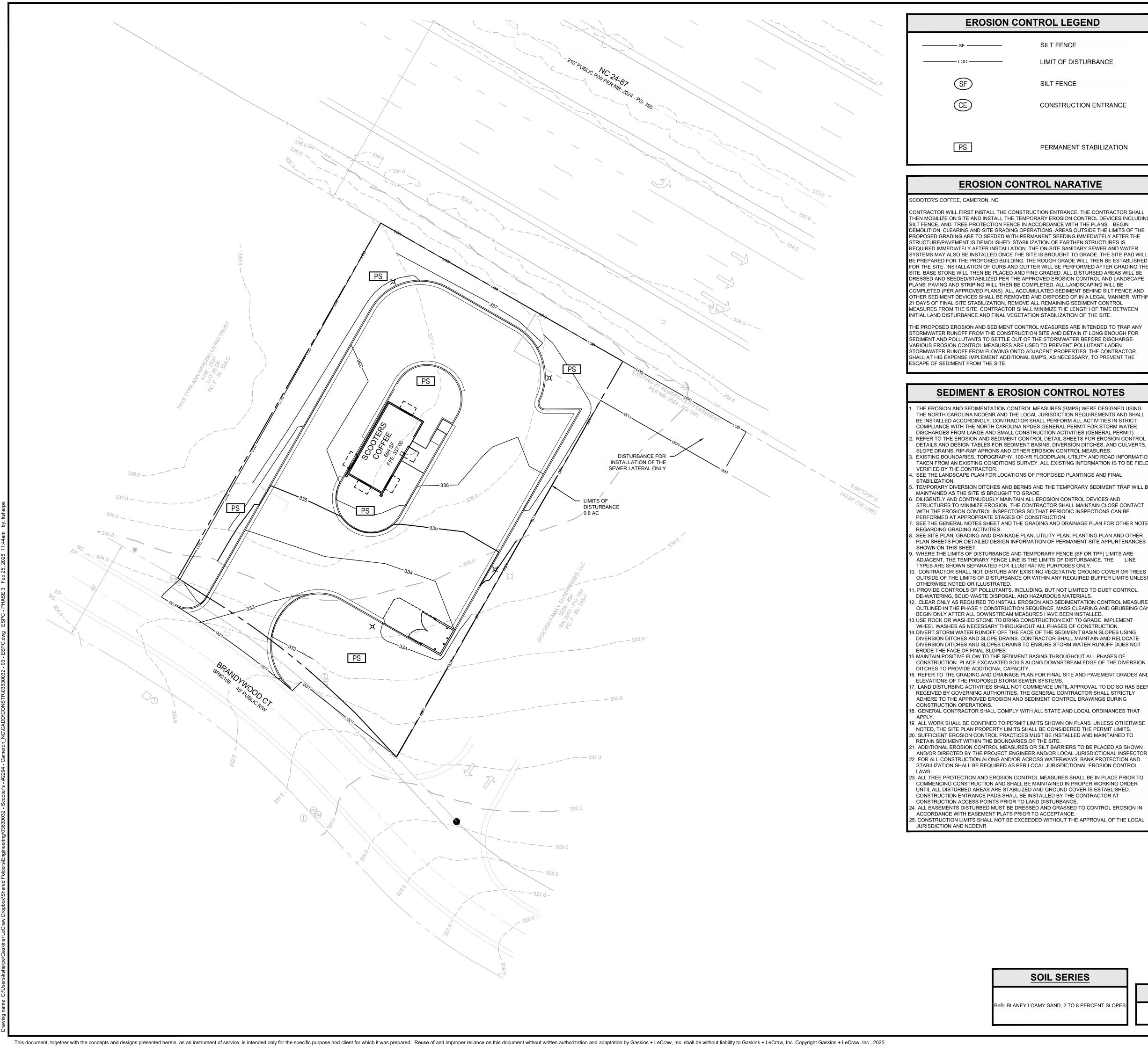
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nB: BLANEY LOAMY SAND, 2 TO 8 PERCENT SLOPES



EROSION CONTROL NARATIVE

- LIMIT OF DISTURBANCE
- CONSTRUCTION ENTRANCE

PERMANENT STABILIZATION

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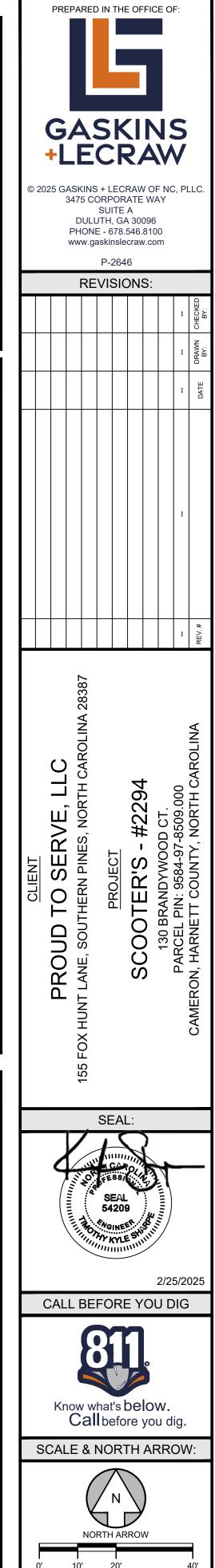
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CONSTRUCTION SEQUENCE

- . CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED AND THAT THOSE REQUIRED TO BE DISPLAYED ON-SITE ARE AVAILABLE. 2. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS BEFORE TH ACTUAL START OF CONSTRUCTION. CONTACT NCDENR INSPECTOR.
- 3. CONTRACTOR SHALL CONTACT CAROLINA ONE CALL AND ALL ENTITIES HAVING BURIED UTILITIES AT LEAST 72 HOURS PRIOR TO DIGGING OR AS DIRECTED AT THE PRE-CONSTRUCTION MEETING.
- 4. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES AT EACH POINT OF ACCESS TO STORAGE AND CONSTRUCTION AREAS. 5. INITIAL PHASE SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN
- ACCORDANCE WITH PLANS BEFORE STARTING WORK INCLUDING SILT FENCE, TEMPORARY SEDIMENT BASIN, TREE PROTECTION, ETC., CLEARING ONLY AS NECESSARY FOR THE INSTALLATION OF THESE MEASURES. 6. CONTRACTOR SHALL INCLUDE A RAIN GAUGE AND LOG BOOK CONTAINING THE INSPECTION
- RECORDS FOR THE SITE. 7. CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL MEASURES. ALL APPLICABLE E&S CONTROL MEASURES MUST BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- 8. STOCKPILE RIP-RAP ON SITE AND INSTALL ALL OTHER EROSION CONTROL MEASURES WHERE THE WORK IS OCCURRING. THE CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES IN AREAS WHERE THE WORK WILL NOT OCCUR FOR SOME TIME. ADDITIONAL
- EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER OR UPON RECOMMENDATION OF NCDENR INSPECTION PERSONNEL AS CONDITIONS WARRANT. 9. IN AREAS WHERE IT IS NOT FEASIBLE TO INSTALL EROSION CONTROL DEVICES, ALL DISTURBE AREAS MUST BE SEEDED AND MULCHED BY THE CONTRACTOR WITHIN THREE DAYS OF INITIAL DISTURBANCE, TEMPORARY SEEDING SHALL BE REQUIRED ON ALL OTHER AREAS TO BE
- DISTURBED FOR A PERIOD OF 10 DAYS OR LONGER. 10. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE.
- 1. UPON COMPLETION OF THE INSTALLATION AND WITH APPROVAL OF NCDENR, ALL EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. EACH SECTION SHALL BE SEEDED AT THE EARLIEST POSSIBLE DATE. COORDINATE WITH THE EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES. 2. CONTRACTOR SHALL NOT CONVERT TO PERMANENT BMP FACILITY UNTIL UPSTREAM AREAS ARE STABILIZED. AS PART OF THE CONVERSION FROM THE TO THE PERMANENT STORMWATE BMP ALL ACCUMULATED SEDIMENT WITHIN THE BASIN SHALL BE REMOVED AND DISPOSED OF
- IN A SUITABLE MANNER. INSTALL FINAL EROSION CONTROL MEASURES AND PERMANENTLY SEED/SOD EXPOSED AREAS. 13. ONCE GROUND COVER IS FIRMLY ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITH THE APPROVAL OF NCDENR INSPECTOR.
- 14. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C EROSION & SEDIMENT CONTROL PLANNING AND DESIGN MANUAL NCDOT. U.S. DEPT. OF AGRICULTURE. AND COUNTY STANDARDS.



SCALE: 1" = 20'

DESIGN INFO:

ESPC - PHASE 3

C-2.2

TKS

03630032

FEBRUARY 25, 2025

RAWN BY ESIGNED BY: REVIEWED BY:

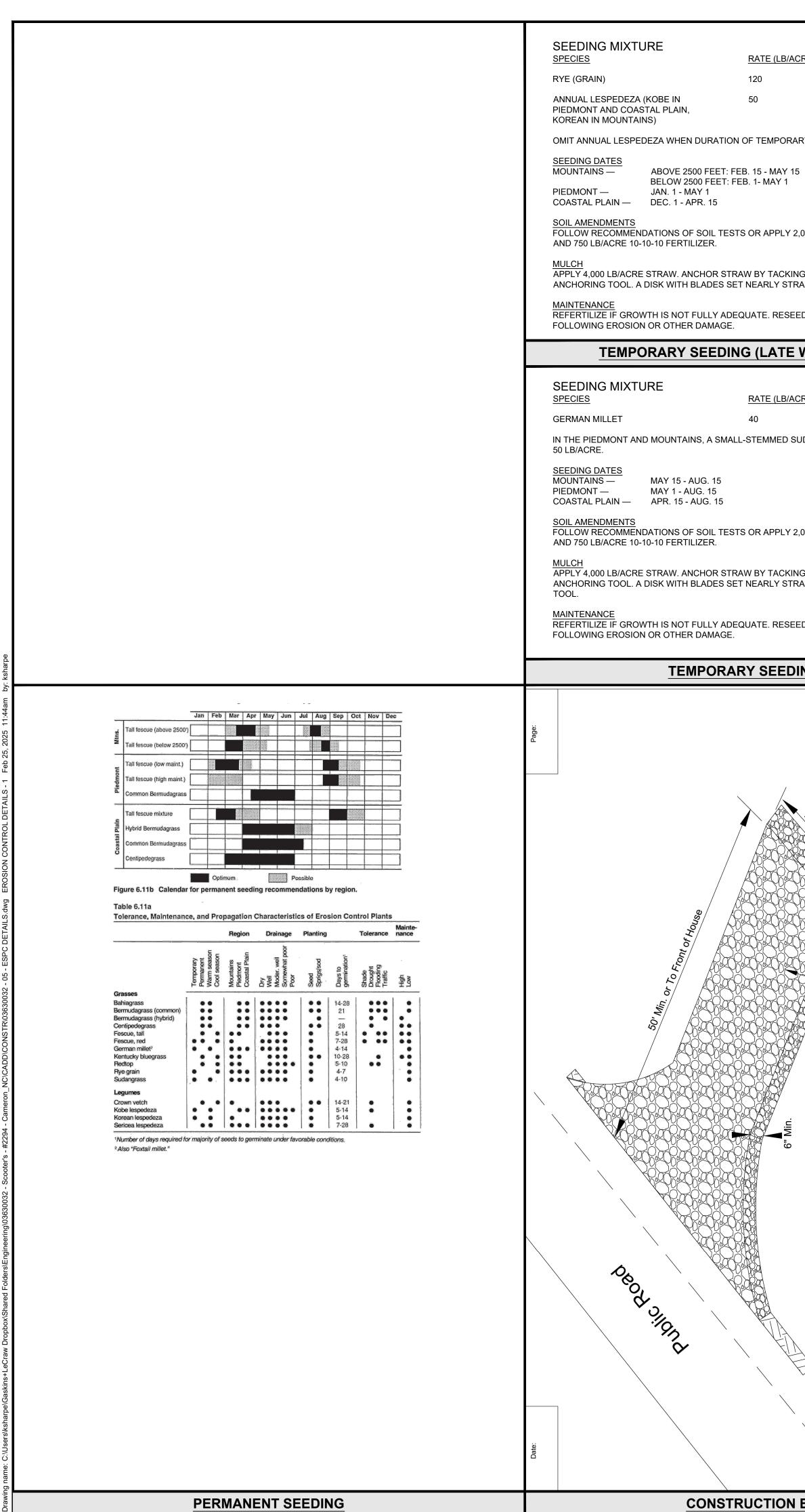
IOR #

24 HOUR CONTACT **KEVIN & JENNIFER LEAVIT**

402.541.5857 PROUD TO SERVE, LLC NOTE

EDIMENT CONTROL MEASURES. PHASING PLANS ARE ONLY A GENERAL GUIDE TO EROSION AND SEDIMENT CONTROL REQUIREMENTS AS DEVELOPMENT OCCURS

CONTRACTOR IS RESPONSIBLE FOR THE SEQUENCE AND TIMING OF ALL EROSION AND



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L TESTS OR APPLY 2,000 LB/ACRE GROU	ND AGRICULTURAL LIMESTO	NE	
R STRAW BY TACKING WITH ASPHALT, N ES SET NEARLY STRAIGHT CAN BE USEE		OOL.	
Y ADEQUATE. RESEED, REFERTILIZE ANI IAGE.	D MULCH IMMEDIATELY		
EDING (LATE WINTER/EAR	RLY SPRING)		
RATE (LB/ACRE) 40 SMALL-STEMMED SUDANGRASS MAY BE 15 TESTS OR APPLY 2,000 LB/ACRE GROUP TESTS OR APPLY 2,000 LB/ACRE GROUP R STRAW BY TACKING WITH ASPHALT, N ES SET NEARLY STRAIGHT CAN BE USED Y ADEQUATE. RESEED, REFERTILIZE AND AGE.	ND AGRICULTURAL LIMESTO ETTING, OR A MULCH D AS A MULCH ANCHORING D MULCH IMMEDIATELY		
L			
in the second se	 Maintenance: 1. Per NCG-01 inspect at least once a week and after each 1 inch or greater rainfall; make any required repairs immediately. 2. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2 inch stone. 3. Immediately remove all objectionable materials spilled, washed or tracked onto public roadways. 	TION ENTRANCE/EXIT	
Course	 Construction: 1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it. 2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it. 3. Provide drainage to carry water to a sediment trap or other suitable outlet. 4. Use geotextile fabrics in order to improve stability of the foundation in locations subject to seepage or high water table. 	Environmental Quality EFECTIVE DATE: 11/12/2020	SECTION VIEW SECTION
ISTRUCTION ENTRANCE			SILT FENCE WITH WIRE BACKING
this document without written authorization and adap	tation by Gaskins + LeCraw, Inc. shal	l be withou	ut liability to Gaskins + LeCraw, Inc. Copyright Gaskins + LeCraw, Inc., 2025

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

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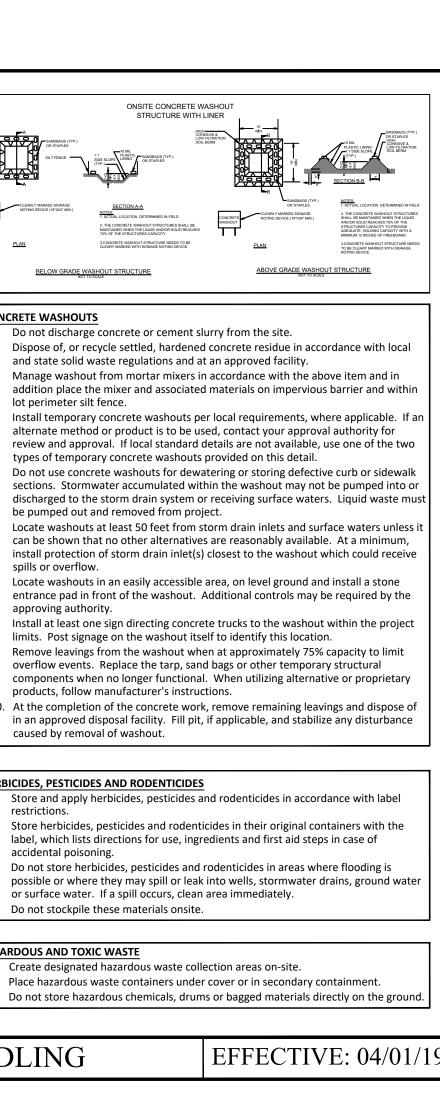
RATE (LB/ACRE) 120

10-10-10 FERTILIZER. <u>MULCH</u> APPLY 4,000 LB/ACRE STRAW. A ANCHORING TOOL. A DISK WITH TOOL. <u>MAINTENANCE</u> REPAIR AND REFERTILIZE DAMA MARCH. IF IT IS NECESSARY TO LB/ACRE KOBE (PIEDMONT AND OR EARLY MARCH.	RATE (LB/ACRE) 120 AUG. 15 - DEC. 15 AUG. 15 - DEC. 30 2,000 LB/ACRE GROUND AGRICULTU NCHOR STRAW BY TACKING WITH A BLADES SET NEARLY STRAIGHT C/ AGED AREAS IMMEDIATELY. TOPDRE EXTENT TEMPORARY COVER BEYC COASTAL PLAIN) OR KOREAN (MOU	ASPHALT, NETTING, OR / AN BE USED AS A MULCI ESS WITH 50 LB/ACRE O OND JUNE 15, OVERSEEI INTAINS) LESPEDEZA IN	A MULCH H ANCHORING F NITROGEN IN D WITH 50	G +L © 2025 GA	ASKINS + SKINS + SA75 COR BULUTH PHONE - WWW.gask	LECRAW O PORATE W UITE A H, GA 30096 678.546.810 (inslecraw.co 2-2646 ISIONS:	DF NC, PLLC.
BEGIN CONSTRUCTION DESCRIPTION INSTALL & MAINTAIN SEDIMENT CONTROL STRUCTURES CLEARING, AND GRUBBING GRADING TEMPORARY MULCHING/SEEDING AS NECESSARY TO STABLIIZE UTILITIES	1 2 ////////////////////////////////////	R BEGINNING CONSTRUCTIO 3	4		37		REV.#
BUILDING RENOVATION				CLIENT PROUD TO SERVE, LLC	155 FOX HUNT LANE, SOUTH	PROJECT SCOOTER'S - #2294	130 BRANDYWOOD CT. PARCEL PIN: 9584-97-8509.000 CAMERON, HARNETT COUNTY, NORTH CAROLINA
				CAL Kn SCAL DRAWN B DESIGNEL REVIEWEL JOB #: DATE:	L BEFC		2/25/2025 U DIG W. bu dig. RROW:

activity being considered sections of the NCG01 Co permittee shall comply w delegated authority havin	ON GENERAL PERMIT and specifications on compliant with the G nstruction General Pe ith the Erosion and Se ng jurisdiction. All det	ANDLING PRACTICES FOR COMPLIANCE WITH <u>T</u> a this plan sheet will result in the construction around Stabilization and Materials Handling ermit (Sections E and F, respectively). The ediment Control plan approved by the vails and specifications shown on this sheet and the delegated authority having jurisdiction.	 EQUIPMENT AND VEHICLE MAINTENANCE Maintain vehicles and equipment to prevent discharge of fluids. Provide drip pans under any stored equipment. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible). Remove leaking vehicles and construction equipment from service until the problem
SECTION E: GROUND ST	BILIZATION		has been corrected.
-	1	bilization Timeframes	 Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.
Site Area Description	Stabilize within thi many calendar days after ceasing land disturbance	Timeframe variations	LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE 1. Never bury or burn waste. Place litter and debris in approved waste containers.
 Perimeter dikes, swales, ditches, an perimeter slopes 	d 7	None	 Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes. Locate waste containers at least 50 feet away from storm drain inlets and surface
(b) High Quality Water (HQW) Zones	7	None	waters unless no other alternatives are reasonably available.Locate waste containers on areas that do not receive substantial amounts of runoff
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed	 from upland areas and does not drain directly to a storm drain, stream or wetland. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
(d) Slopes 3:1 to 4:1	14	 -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed 	 Anchor all lightweight items in waste containers during times of high winds. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow. Dispose waste off-site at an approved disposal facility. On business days, clean up and dispose of waste in designated waste containers.
		-7 days for perimeter dikes, swales,	PAINT AND OTHER LIQUID WASTE
(e) Areas with slopes flatter than 4:1	14	ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope	 Do not dump paint and other liquid waste into storm drains, streams or wetlands. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available. Contain liquid wastes in a controlled area.
ground stabilization shall practicable but in no case activity. Temporary grou	be converted to perm longer than 90 calen nd stabilization shall l	ruction activities, any areas with temporary nanent ground stabilization as soon as udar days after the last land disturbing be maintained in a manner to render the il permanent ground stabilization is achieved.	 Containment must be labeled, sized and placed appropriately for the needs of site. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.
GROUND STABILIZATION Stabilize the ground suffi techniques in the table b Temporary Sta • Temporary grass seed co other mulches and tackif • Hydroseeding • Rolled erosion control pr without temporary grass • Appropriately applied str	ciently so that rain wi elow: bilization vered with straw or iers oducts with or seed	Il not dislodge the soil. Use one of the Permanent Stabilization Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered	 PORTABLE TOILETS Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.
GROUND STABILIZATION Stabilize the ground suffi techniques in the table b Temporary Sta • Temporary grass seed co other mulches and tackif • Hydroseeding • Rolled erosion control pr without temporary grass	ciently so that rain wi elow: bilization vered with straw or iers oducts with or seed aw or other mulch •	Il not dislodge the soil. Use one of the Permanent Stabilization Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding	 Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit. EARTHEN STOCKPILE MANAGEMENT Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
GROUND STABILIZATION Stabilize the ground suffitechniques in the table b Temporary State • Temporary grass seed conter mulches and tackif • Hydroseeding • Rolled erosion control privithout temporary grass • Appropriately applied str • Plastic sheeting	ciently so that rain wi elow: bilization vered with straw or iers oducts with or seed aw or other mulch • VS) AND FLOCCULAN hat are appropriate for ting from the NC DW/ t or before the inlets t the concentrations s and in accordance with	Il not dislodge the soil. Use one of the Permanent Stabilization Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed	 Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit. EARTHEN STOCKPILE MANAGEMENT Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably

C:\Users\ksharpe\Gaskins+LeCraw Dropbox\Shared Folders\Engineering\03630032 - Scooter's - #2294 - Cameron_NC\CADD\CONSTR\03630032 - 05 - ESPC DETAILS.dwg EROSION CONTROL DETAILS - 2 Feb 25, 2025 11:44am

GROUND STABILIZATION

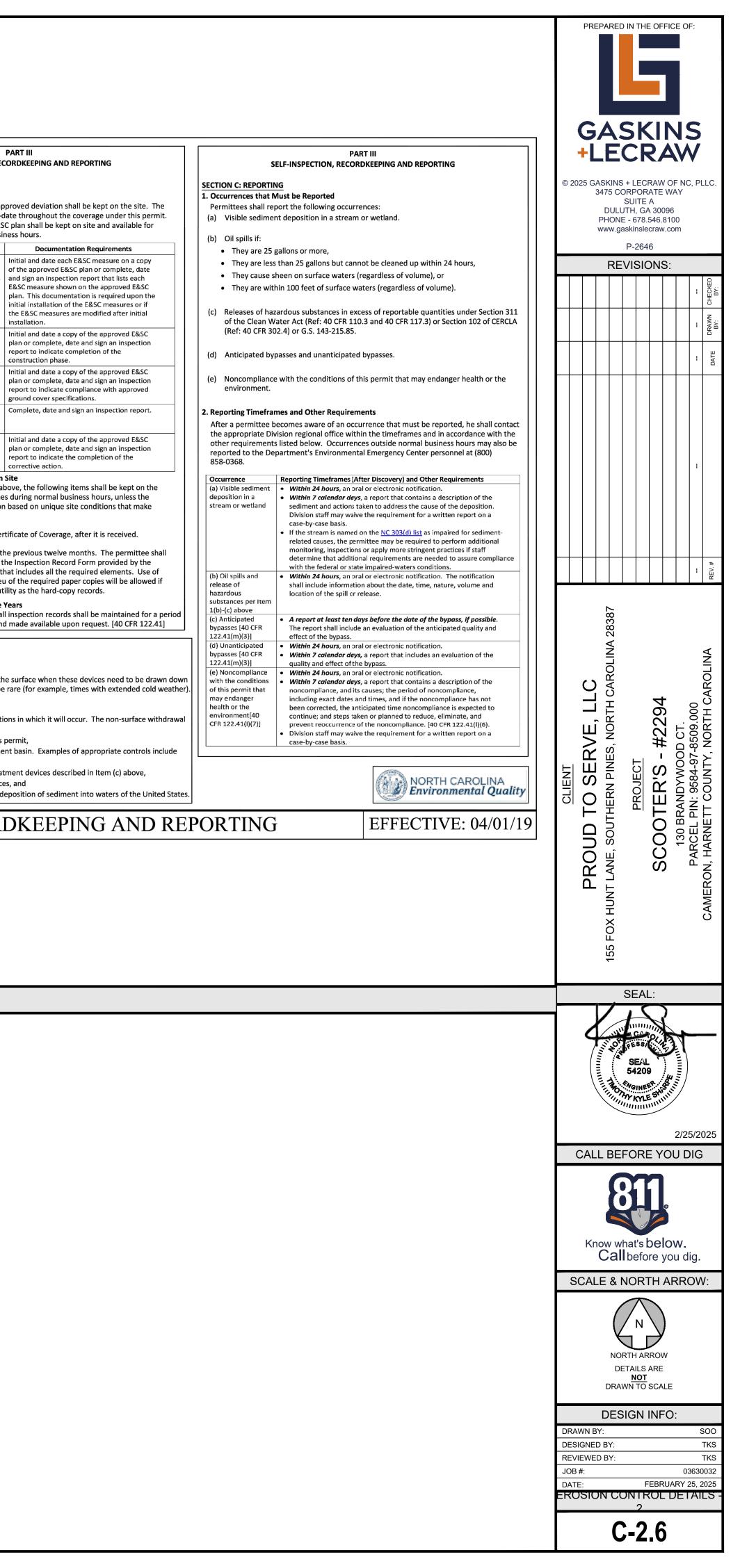


	SELF-INSPECTIO	PART III DN, RECORDKEEPING AND REPORTING	SELF-INSPECTION, RE
CTION A: SELF			SECTION B: RECORDKEEPING
		ng normal business hours in accordance with the table	1. E&SC Plan Documentation
		site conditions would cause the safety of the inspection nspection may be delayed until the next business day on	The approved E&SC plan as well as any a
	• • • • •	pection. In addition, when a storm event of equal to or	approved E&SC plan must be kept up-to
		de of normal business hours, the self-inspection shall be	The following items pertaining to the E8
		ent of the next business day. Any time when inspections	inspection at all times during normal bu
		e Inspection Record.	Item to Document
,	Frequency	, 	(a) Each E&SC measure has been installed
Inspect	(during normal business hours)	Inspection records must include:	and does not significantly deviate from the locations, dimensions and relative elevations
(1) Rain gauge	Daily	Daily rainfall amounts.	shown on the approved E&SC plan.
maintained in good working		If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is	
order		available, record the cumulative rain measurement for those un-	
		attended days (and this will determine if a site inspection is	
		needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device	
		approved by the Division.	(b) A phase of grading has been completed.
(2) E&SC	At least once per	1. Identification of the measures inspected,	
Measures	7 calendar days	2. Date and time of the inspection,	
	and within 24 hours of a rain	 Name of the person performing the inspection, Indication of whether the measures were operating 	
	event \geq 1.0 inch in	properly,	(c) Ground cover is located and installed
	24 hours	5. Description of maintenance needs for the measure,	in accordance with the approved E&SC
2) Starmauratar	At least once nor	6. Description, evidence, and date of corrective actions taken.	plan.
3) Stormwater lischarge	At least once per 7 calendar days	 Identification of the discharge outfalls inspected, Date and time of the inspection, 	
outfalls (SDCs)	and within 24	3. Name of the person performing the inspection,	(d) The maintenance and repair
	hours of a rain	4. Evidence of indicators of stormwater pollution such as oil	requirements for all E&SC measures
	event ≥ 1.0 inch in 24 hours	sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site,	have been performed.
	24110013	 Description, evidence, and date of corrective actions taken. 	(e) Corrective actions have been taken
4) Perimeter of	At least once per	If visible sedimentation is found outside site limits, then a record	to E&SC measures.
site	7 calendar days and within 24	of the following shall be made:	
	hours of a rain	 Actions taken to clean up or stabilize the sediment that has left the site limits, 	
	event \geq 1.0 inch in	2. Description, evidence, and date of corrective actions taken, and	2. Additional Documentation to be Kept o
	24 hours	3. An explanation as to the actions taken to control future	In addition to the E&SC plan documents
(5) Streams or	At least once per	releases. If the stream or wetland has increased visible sedimentation or a	site and available for inspectors at all tim
wetlands onsite	7 calendar days	stream has visible increased turbidity from the construction	Division provides a site-specific exemption
or offsite	and within 24	activity, then a record of the following shall be made:	this requirement not practical:
(where	hours of a rain	1. Description, evidence and date of corrective actions taken, and	
accessible)	event ≥ 1.0 inch in 24 hours	 Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit. 	(a) This General Permit as well as the Co
(6) Ground	After each phase	1. The phase of grading (installation of perimeter E&SC	
stabilization	of grading	measures, clearing and grubbing, installation of storm	(b) Records of inspections made during
measures		drainage facilities, completion of all land-disturbing	record the required observations on
		activity, construction or redevelopment, permanent ground cover).	Division or a similar inspection form
		2. Documentation that the required ground stabilization	electronically-available records in lie
		measures have been provided within the required	shown to provide equal access and u
		timeframe or an assurance that they will be provided as soon as possible.	3. Documentation to be Retained for Three
	1		All data used to complete the e-NOI and
	inspection reset	s the required 7 calendar day inspection requirement.	of three years after project completion a
NUTE: The rain			

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
 (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
 (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
 (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING





GENERAL SITE NOTES

 ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS SPECIFIED OTHERWISE.
 ALL TREES SHALL HAVE PROPER PROTECTION DURING CONSTRUCTION UNLESS APPROVED PLANS INDICATE OTHERWISE.

3) BOUNDARY & TOPOGRAPHIC SURVEY BY DZT LAND SURVEYING, PLLC, DATED 01/15/2025. BENCHMARK IS NOTED ON SURVEY.

4) FLOOD PLAIN IS NOT PRESENT ON THIS SITE AS SHOWN ON THE FEMA FIRM MAP NUMBER 3710958400J, DATED 10/03/2006.

5) 1 HANDICAP SPACE IS REQUIRED TO BE VAN ACCESSIBLE WITH A MINIMUM 96" WIDE ACCESS AREA.

6) ACCESSIBLE PARKING AREAS, INCLUDING AISLES, SHALL SLOPE NO MORE THAN 2% IN ANY DIRECTION.

7) THE OWNER IS RESPONSIBLE FOR OBTAINING ANY NECESSARY AGREEMENTS FROM ADJACENT PROPERTY OWNERS IN ORDER TO PERFORM THE REQUIRED OFFSITE WORK, INCLUDING, STORM DRAINAGE, CURB AND GUTTER AND PAVEMENT TIE-INS AND GRADING.

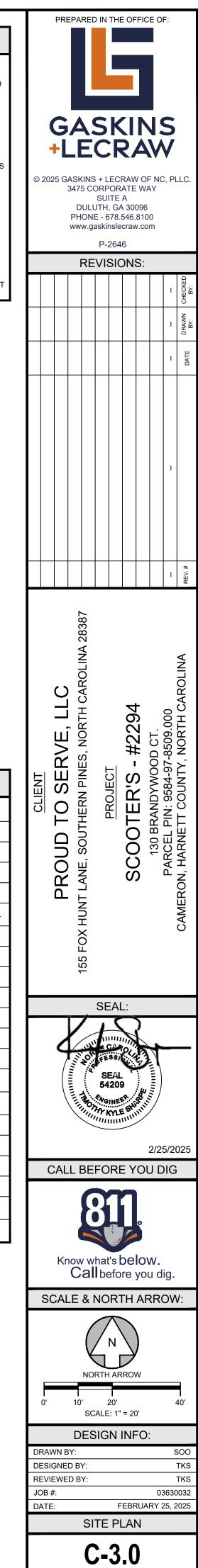
8) REFERENCE ARCH PLANS FOR DIRECTIONAL SIGNAGE, SITE SIGNAGE, BUILDING DIMENSIONS, ETC.

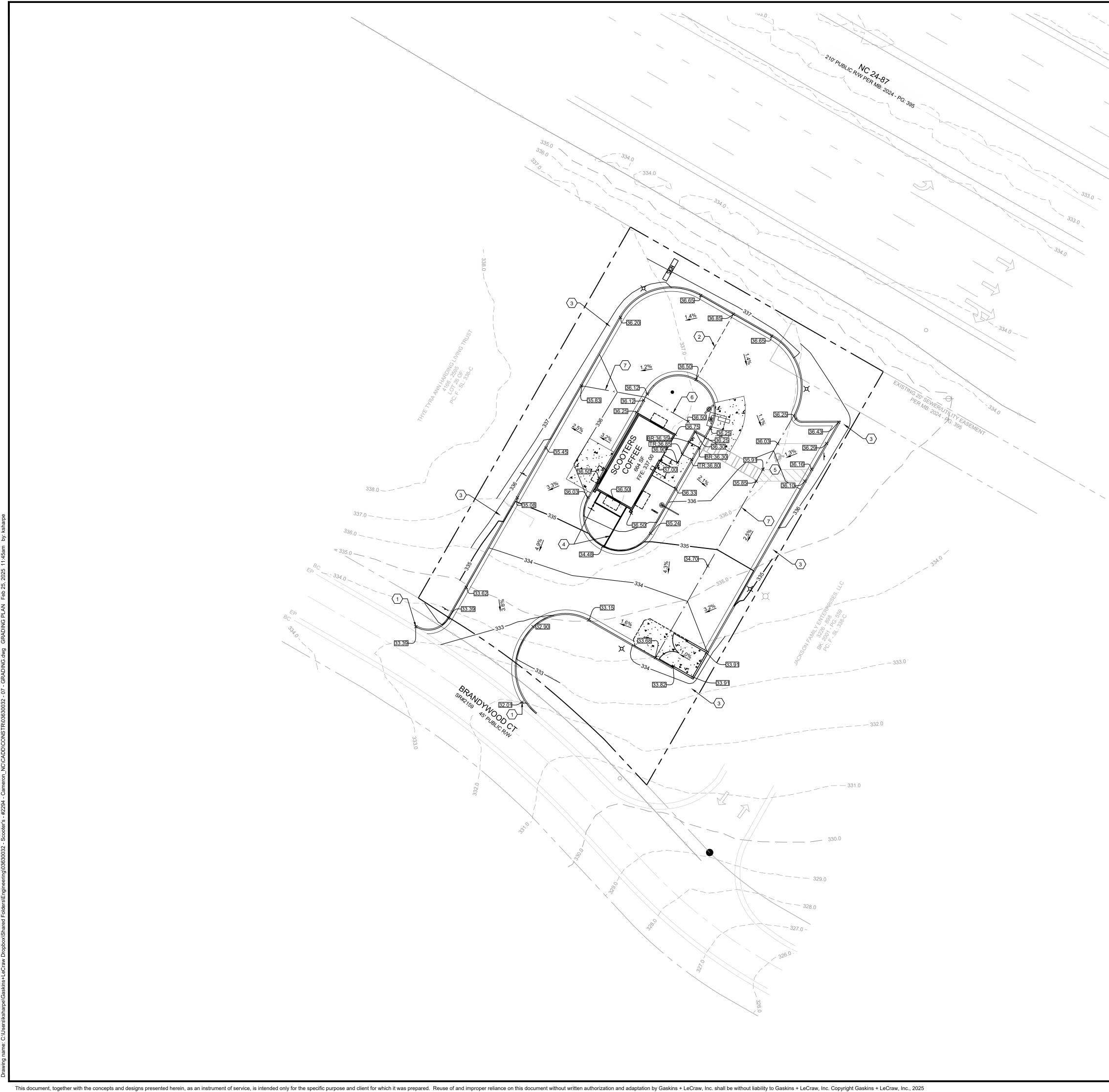
9) ALL NEW PAVEMENT SHALL MEET OR EXCEED GEOTECHNICAL SPECIFICATION. SEE REPORT PREPARED BY SOLID GROUND ENGINEERING NC, PLLC, DATED 12/24/2024.

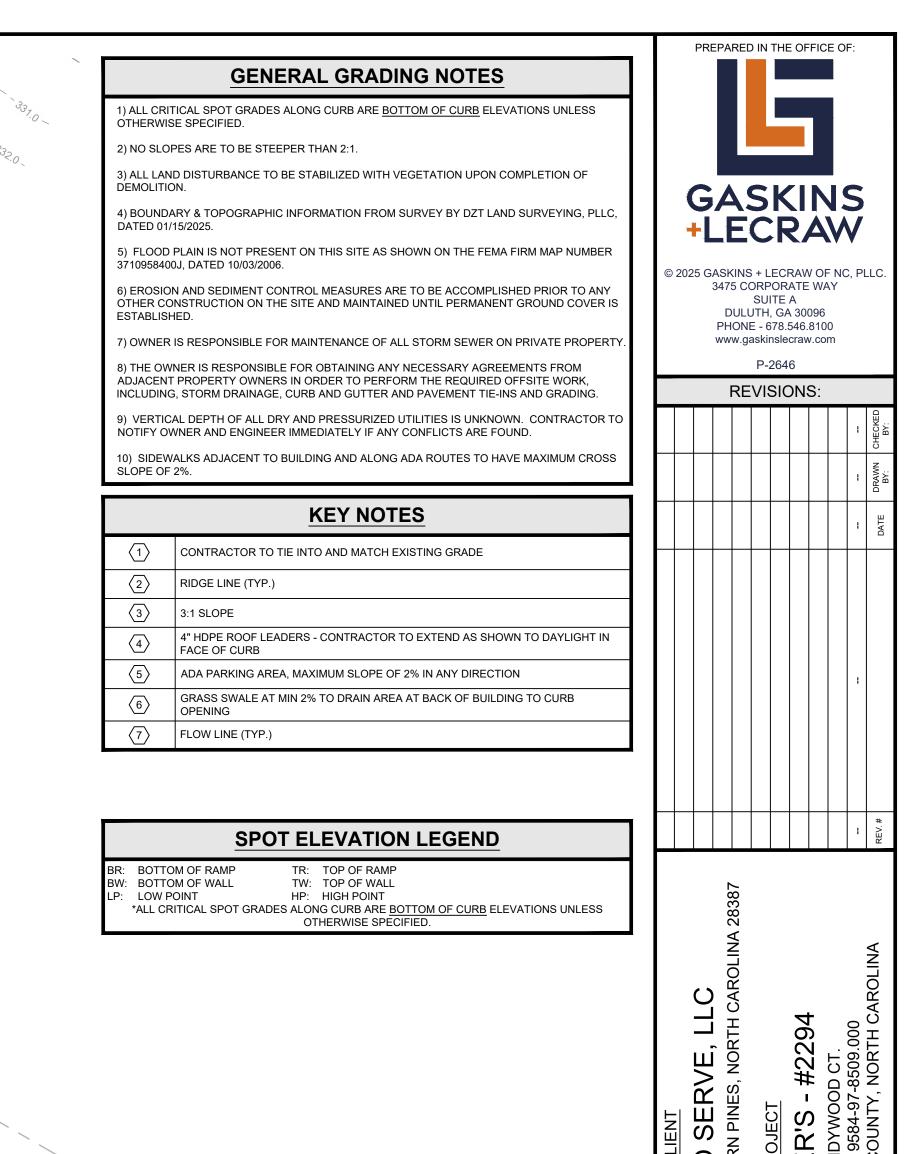
	SITE SUMMARY							
SITE A	REA							
	SITE AREA:	0.54 ACRES (23,469 S.F.)						
	IMPERVIOUS AREA:	14,356 S.F. (61%)						
	PERVIOUS AREA:	9,113 S.F. (39%)						
ZONIN	IG CLASSIFICATIO	N						
	JURISDICTION:	HARNETT COUNTY						
	ZONING:	СОММ						
	ADJACENT ZONING:	RA-30 & COMM						
BUILD	ING SETBACKS							
	FRONT:	50'						
	SIDE:	20' (ZONING BUFFER)						
	REAR:	25'						
BUILD	ING SUMMARY							
	BUILDING AREA:	664 S.F.						
	BUILDING COVERAG	E: 2.8%						
PARKI	NG SUMMARY							
	PARKING REQ.:	1 PER 4 SEATS + 1 PER 2 EMPLOYEES						
		2 SPACES (ASSUMES 4 EMPLOYEES)						
	PARKING PROV.:	6 SPACES						
	STANDARD STALL DI	MENSIONS: 9' x 18'						
	MIN. 2-WAY DRIVE W	IDTH: 24'						

	KEY NOTES
$\langle 1 \rangle$	24" CURB & GUTTER, SEE SHEET C-7.0 FOR DETAIL
2	24" WHITE STOP BAR, SEE SHEET C-7.0 FOR DETAIL
3	HEAVY DUTY PAVEMENT, SEE SHEET C-7.1 FOR PAVEMENT SPECIFICATIONS
4	STANDARD DUTY PAVEMENT, SEE SHEET C-7.1 FOR PAVEMENT SPECIFICATIONS
5	CONCRETE SIDEWALK, SEE SHEET C-7.0 FOR DETAIL
6	STANDARD ADA RAMP WITH DETECTABLE WARNING, SEE SHEET C-7.0 FOR DETAIL
(7)	CONTRACTOR TO TIE INTO AND MATCH EXISTING CURB & GUTTER
8	LANDSCAPE AREA, SEE SHEET L-1.0 FOR LANDSCAPE PLANTING DESIGN
(9)	ADA PARKING AREA, SEE SHEET C-7.0 FOR DETAIL(S)
(10)	ADA PARKING SIGN, SEE SHEET C-7.0 FOR DETAIL
(11)	DUMPSTER ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS
(12)	STOP SIGN (R1-1), SEE SHEET C-7.0 FOR MOUNTING DETAIL
(13)	DO NOT ENTER SIGN (R5-1), SEE SHEET C-7.0 FOR MOUNTING DETAIL
(14)	TAPER CURB FROM 6" TO 0" OVER 5', SEE SHEET C-7.0 FOR DETAIL
(15)	PROPOSED DIRECTIONAL SIGNEAGE
(16)	TYPICAL PAVEMENT MARKINGS, SEE SHEET C-7.0 FOR DETAILS
(17)	4" WIDE SINGLE SOLID WHITE LINE (SSWL)
(18)	4" WIDE DOUBLE SOLID YELLOW LINE (DSYL)
(19)	PROPOSED MONUMENT/SIGN
20>	PROPOSED FLAG POLE, SEE ARCH PLANS FOR DETAILS, FLAG POLE SHALL NOT EXCEED 35' IN HEIGHT
(21)	PROPOSED LIGHT POLE LOCATIONS, SEE PHOTOMETRIC PLAN FOR EXACT LIGHT POLE LOCATIONS

IMPERVIOUS CALCULATIONS								
EXISTING CONDITION: PROPOSED CONDITION:	PERVIOUS (SF) IMPERVIOUS (SF) 21,187 (90%) 2,282 (10%) 9,113 (39%) 14,356 (61%)							
PAVEMENT LEGEND								
	SUBMIT JOINT PLAN TO GEOTECH FOR APPROVAL PRIOR TO PAVING							
	CONCRETE PAVEMENT (SEE GEOTECH REPORT BY SOLID GROUND ENGINEERING NC, PLLC, DATED 12/24/2024)							
	HEAVY DUTY PAVEMENT (SEE GEOTECH REPORT BY SOLID GROUND ENGINEERING NC, PLLC, DATED 12/24/2024)							







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SEAL:

CALL BEFORE YOU DIG

Know what's below.

SCALE & NORTH ARROW:

NORTH ARRO

SCALE: 1" = 20'

DESIGN INFO:

GRADING PLAN

C-4.0

10' 20'

DRAWN BY: DESIGNED BY:

REVIEWED BY:

JOB #:

DATE:

<u>,</u> 0

2/25/2025

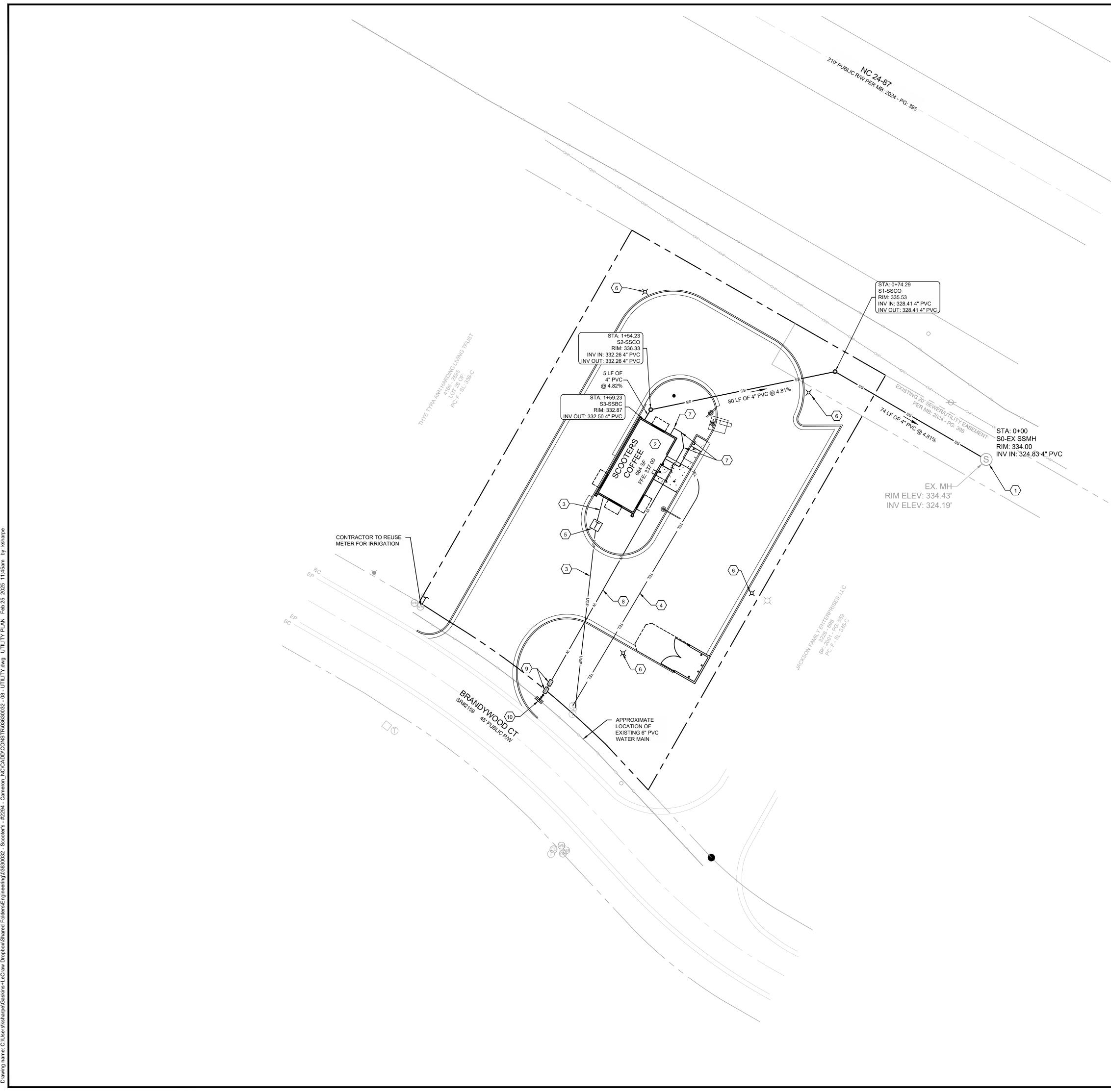
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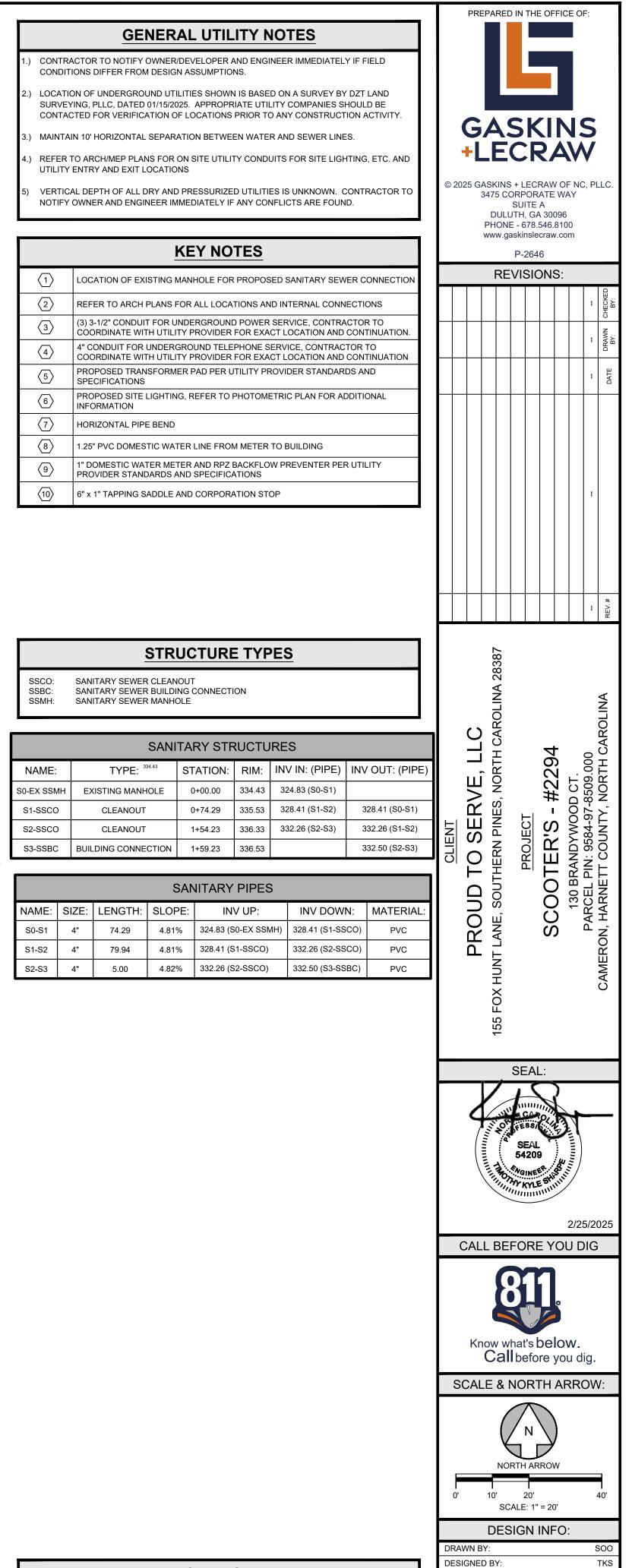
TKS 03630032

FEBRUARY 25, 2025

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CAUTION

REVIEWED BY:

JOB #:

DATE:

TKS 03630032

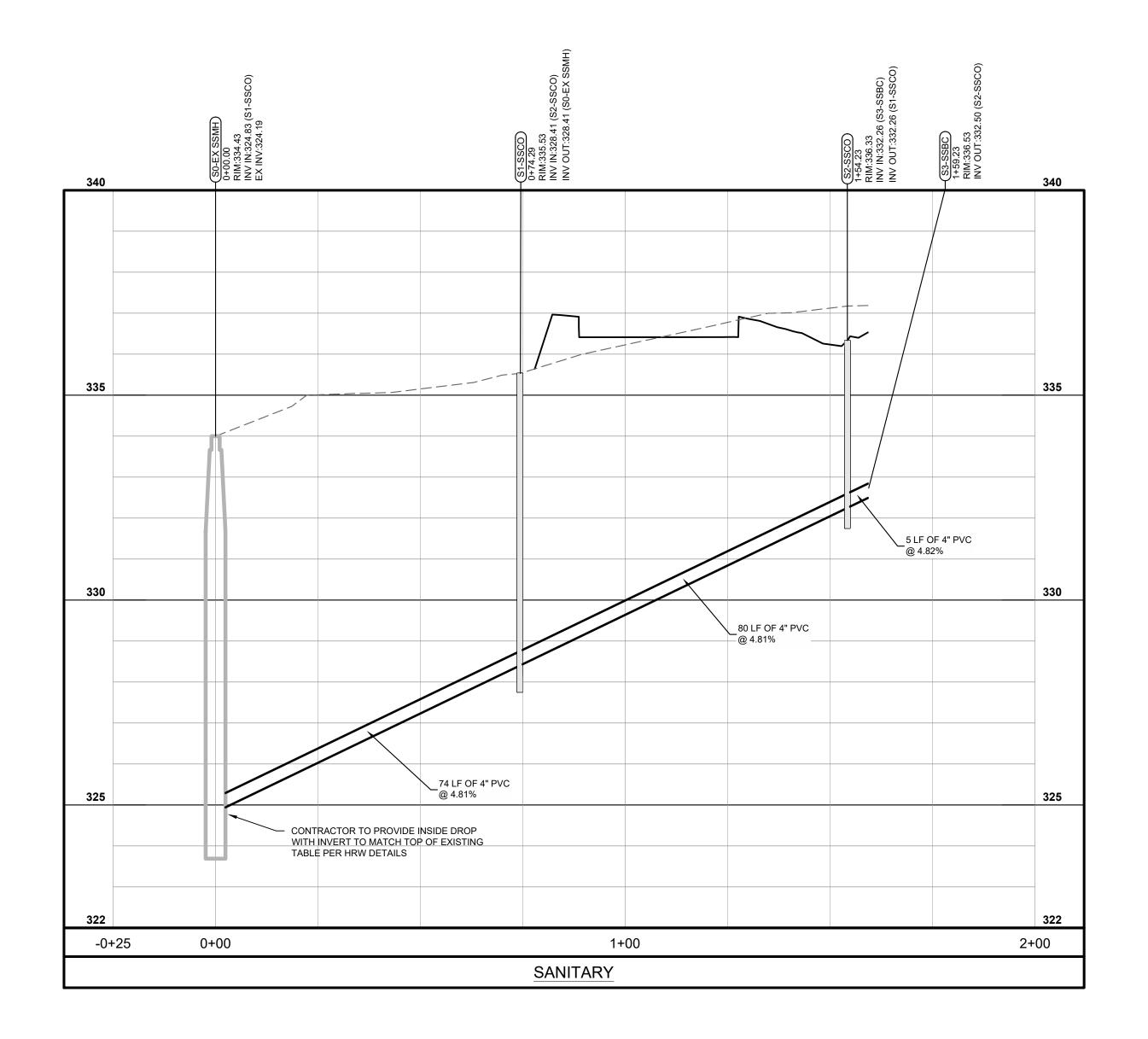
FEBRUARY 25, 2025

UTILITY PLAN

C-5.0

THE UTILITES SHOWN ARE SHOWN FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UNDERGROUND UTILITIES, AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES SHOWN AS WELL AS THOSE NOT SHOWN WITHIN THE CONSTRUCTION LIMITS. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.





STRUCTURE TYPES

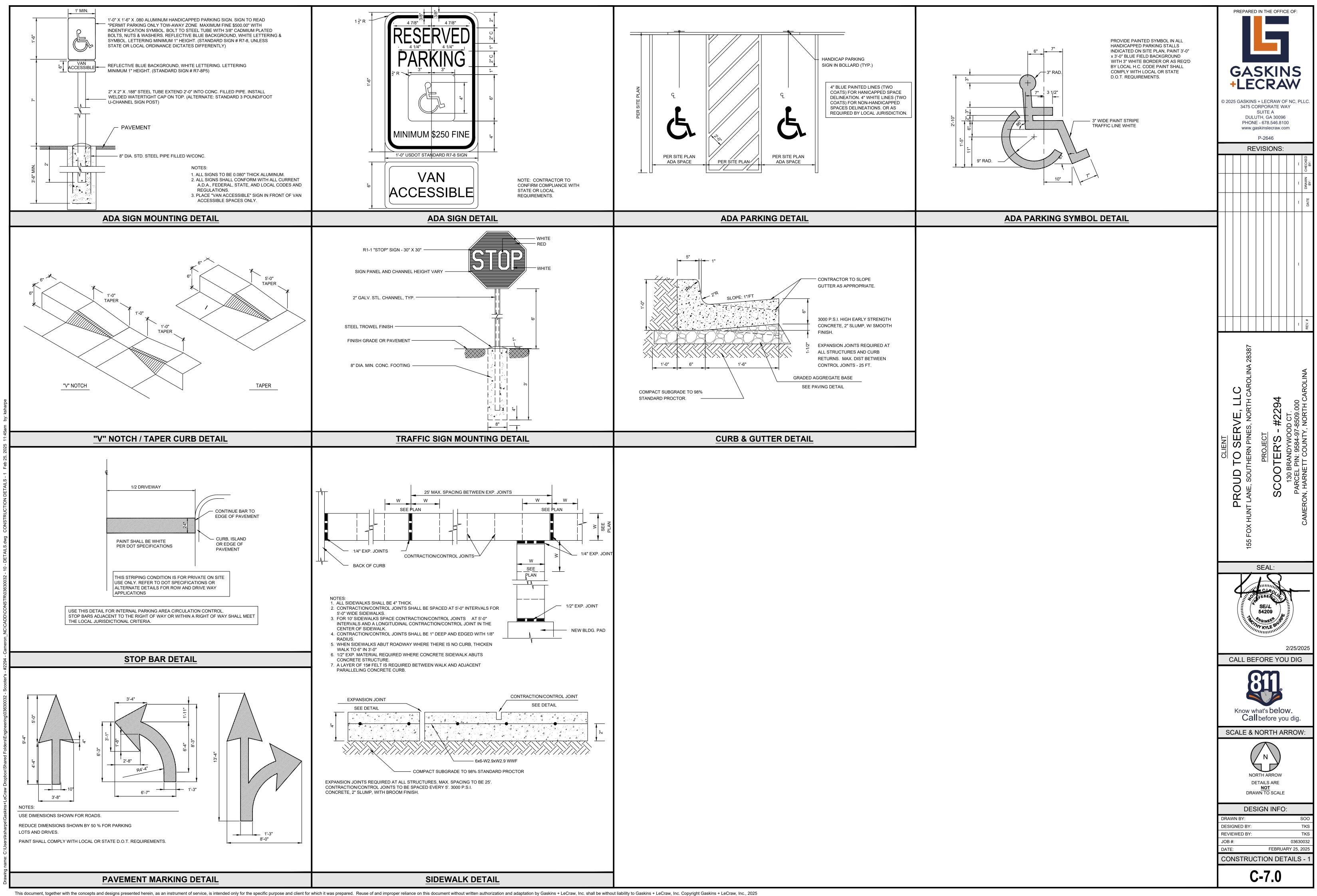
SSBC: BUILDING CONNECTION SSMH: SANITARY SEWER MANHOLE SSCO: CLEANOUT

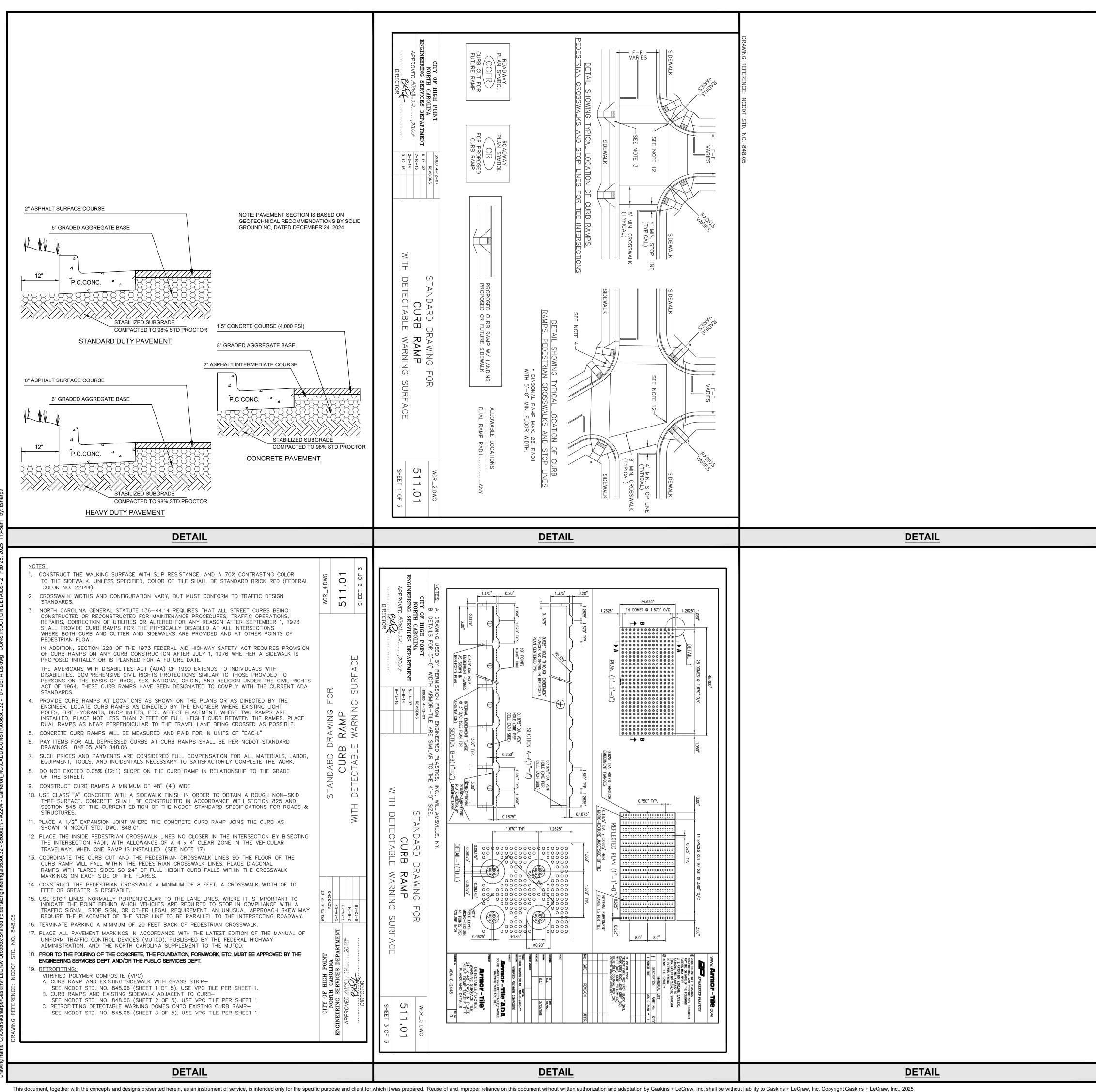
PROFILE LEGEND

EXISTING GRADE: PROPOSED GRADE:

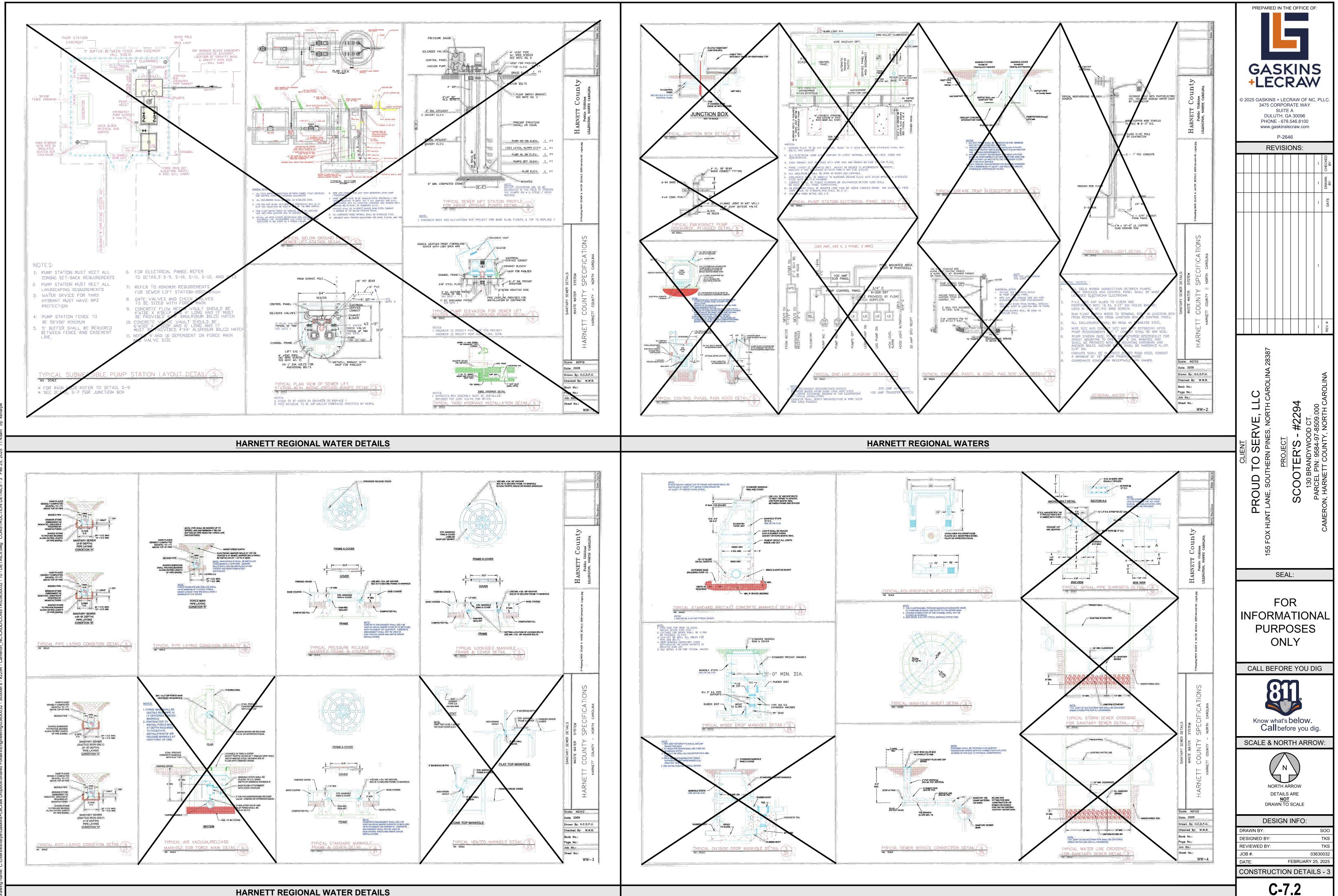
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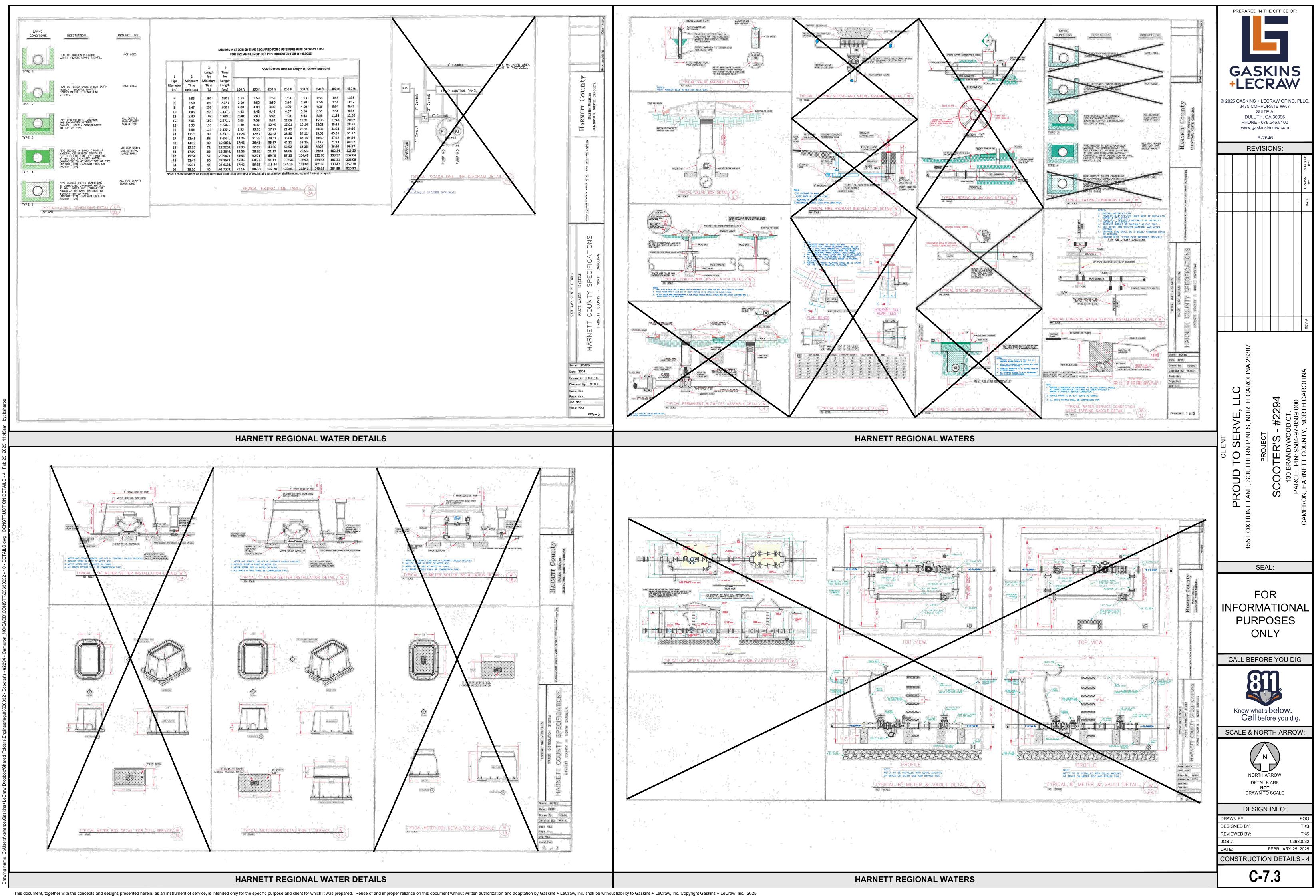


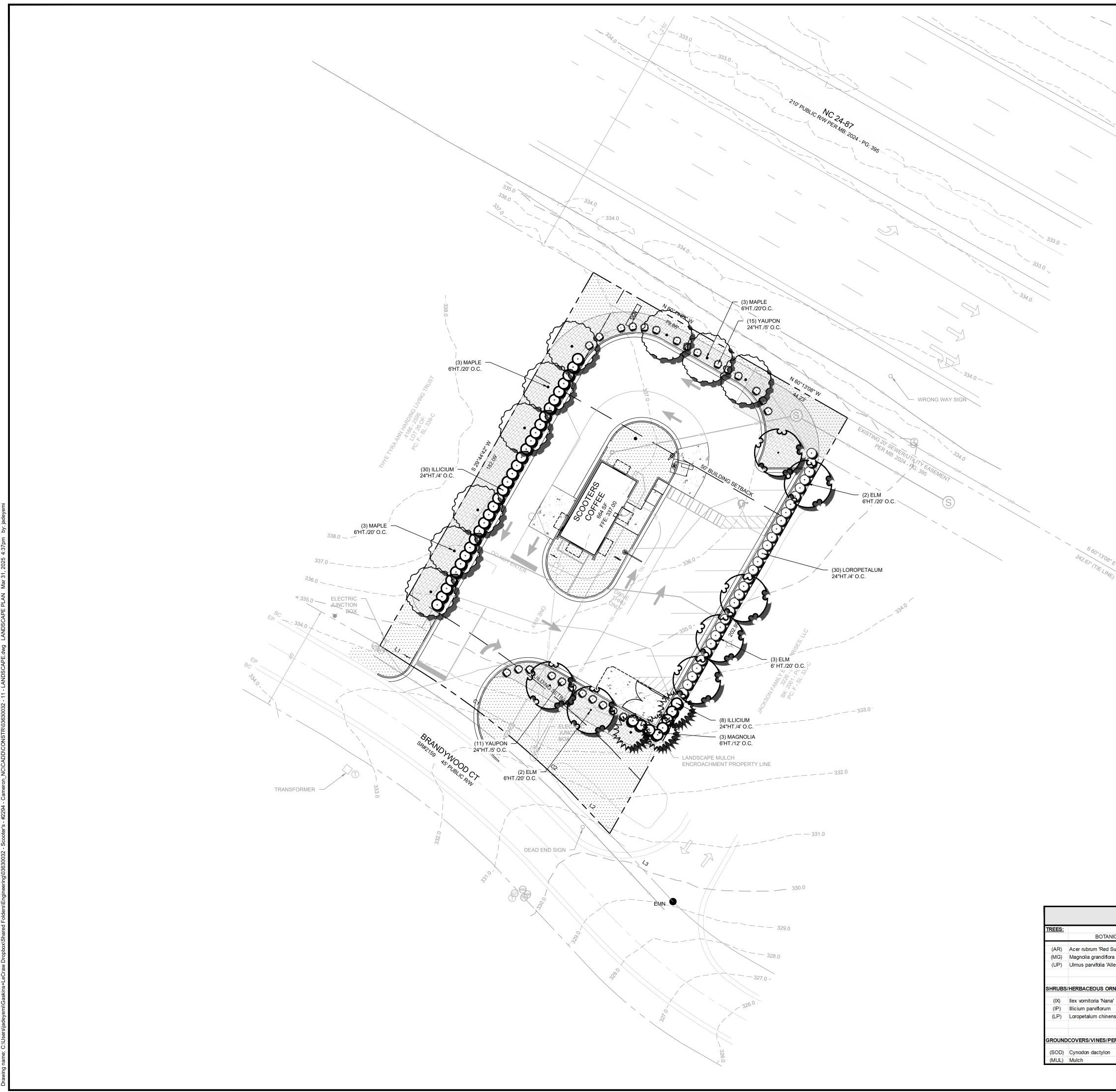
	DETAIL	C-7.1
		DATE: FEBRUARY 25, 2025 CONSTRUCTION DETAILS - 2
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		DATE DRAWN
		DULUTH, GA 30096 PHONE - 678.546.8100 www.gaskinslecraw.com P-2646
		*LECRAW © 2025 GASKINS + LECRAW OF NC, PLLC. 3475 CORPORATE WAY SUITE A
		GASKINS
٦		PREPARED IN THE OFFICE OF:



HARNETT REGIONAL WATER DETAILS

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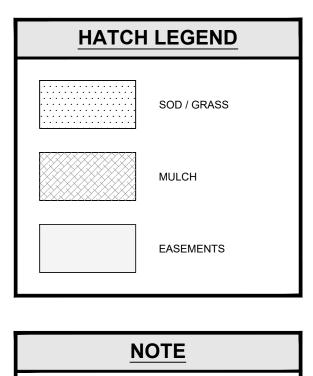


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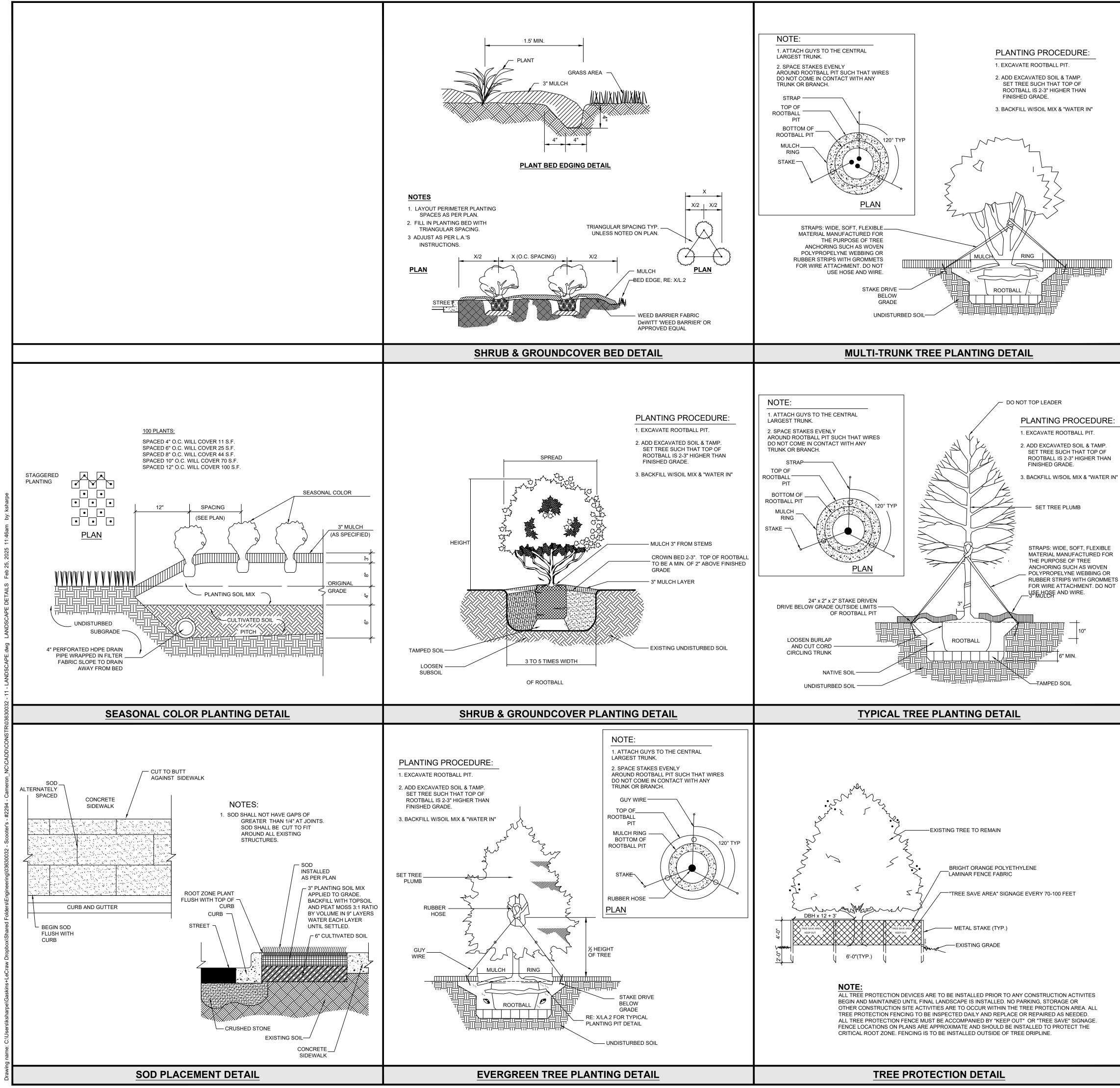
ORDINANCE REQUIREMENTS										
BUFFER YARD	BUFFER YARD LANDSCAPE REQUIREMENTS:									
	BRANDYWOOD CT (100' LINEAR)	TYPE 'C' BUFFER								
	1 LARGE TREE / 30' LINEAR =	3 TREES								
	5 SHRUBS / TREE =	15 SHRUBS								
	EAST PROPERTY LINE (200' LINEAR)	TYPE 'C' BUFFER								
	1 LARGE TREE / 30' LINEAR =	7 TREES								
	5 SHRUBS / TREE =	35 SHRUBS								
	WEST PROPERTY LINE (180' LINEAR)	TYPE 'A' BUFFER								
	1 LARGE TREE / 30' LINEAR =	6 TREES								
	5 SHRUBS / TREE =	30 SHRUBS								
A	ROW OF EVERGREEN SHRUBS PLACED TO FORM A CONTINUOUS HEDGE									
	NORTH PROPERTY LINE (80' LINEAR)	TYPE 'C' BUFFER								
	1 LARGE TREE / 30' LINEAR =	3 TREES								
	5 SHRUBS / TREE =	15 SHRUBS								
	2 UNDERSTORY TREES CAN BE SUBSTITUTED FOR 1 LARGE TREE									
	TOTAL TREES REQUIRED =	19 TREES								
	TOTAL SHRUBS REQUIRED =	95 SHRUBS								
	TREES PROVIDED =	19 TREES								
	SHRUBS PROVIDED =	95 SHRUBS								

SITE	SUMMARY
SITE AREA	
SITE AREA:	0.54 ACRES (23,469 S.F.)
IMPERVIOUS AREA:	14,356 S.F. (61%)
PERVIOUS AREA:	9,113 S.F. (39%)
ZONING CLASSIFICATIO	N
JURISDICTION:	HARNETT COUNTY
ZONING:	COMM
ADJACENT ZONING:	RA-30 & COMM
BUILDING SETBACKS	
FRONT:	50'
SIDE:	20' (ZONING BUFFER)
REAR:	25'
BUILDING SUMMARY	
BUILDING AREA:	664 S.F.
BUILDING COVERAG	E: 2.8%
PARKING SUMMARY	
PARKING REQ.:	1 PER 4 SEATS + 1 PER 2 EMPLOYEES
	2 SPACES (ASSUMES 4 EMPLOYEES)
PARKING PROV.:	6 SPACES
STANDARD STALL D	IMENSIONS: 9' x 18'
MIN. 2-WAY DRIVE W	'IDTH: 24'



ALL QUANTITIES ARE FOR A GENERAL GUIDE ONLY. CONTRACTOR SHALL CONFIRM ALL QUANTITIES PRIOR TO BIDDING AND INSTALLATION. GASKINS + LECRAW, INC. SHALL TAKE NO RESPONSIBILITY FOR THE ACCURACY OF THE QUANTITIES PROVIDED.

PLANT LIST												
NICAL NAME	COMMON NAME	QUANTITY	MIN. SIZE	MIN.SPACING	TREE TYPE							
Sunset'	Ded Supert Ded Marle	9	2" CAL./6' HT.	20' O.C.	DECIDUOUS CANOPY							
	Red Sunset Red Maple	-										
ora	Southern Magnolia	3	2" CAL./6' HT.	12' O.C.	EVERGREEN CANOPY							
Allee'	Allee Elm	7	2" CAL./6' HT.	20' O.C.	DECIDUOUS CANOPY							
	TOTAL NUMBER OF TREES:	19										
RNAMENTALS:												
na'	Dwarf Yaupon Holly	26	24" HT	5' O.C.								
ı	Anise	39	24" HT	4' O.C.								
ensis rubrum 'Ruby'	Ruby Loropetalum	30	24" HT	4' O.C.								
	TOTAL NUMBER OF SHRUBS:	95										
PERENNIALS:												
1	Bermuda Grass	5,000 S.F.										
	Pinestraw	5,100 S.F.										



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GENERAL IRRIGATION NOTES	PREPARED IN THE OFFICE OF:
1. CONTRACTOR SHALL LOCATE UTILITIES AND SERVICES IN AND AROUND THE SITE PRIOR TO START OF WORK.	
 THE CONTRACTOR SHALL MAKE ALL EFFORTS TO AVOID DAMAGE TO EXISTING STRUCTURES, PAVING, AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIR OF DAMAGE TO ON-SITE UTILITIES, STRUCTURES, OR PAVING RESULTING 	
FROM IRRIGATION CONSTRUCTION. REPAIRS SHALL BE COMPLETED AT NO ADDOTIONAL COST TO THE OWNER. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING TO ALL CODES AND ORDINANCES RELEVANT TO THE WORK UNDER THIS	
CONTRACT. 5. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER.	GASKINS
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND LABOR TO FULLY EXECUTE AND GUARANTEE, AS REQUIRED, ALL WORK IN ACCORDANCE WITH SPECIFICATIONS, AND ALSO AS PER INSTRUCTIONS OF THE LANDSCAPE ARCHITECT AND THE OWNER. 	+LECRAW
7. CONTRACTOR SHALL USE ONLY NEW, COMMERCIAL GRADE MATERIAL.	© 2025 GASKINS + LECRAW OF NC, PLLC. 3475 CORPORATE WAY
8. AUTOMATIC CONTROL CLOCK WILL BE LOCATED ON-SITE BY THE LANDSCAPE ARCHITECT OR OWNER.	SUITE A DULUTH, GA 30096
9. IRRIGATION DESIGNER SHALL LAYOUT SYSTEM TO MINIMIZE CONFLICTS WITH THE LOCATION OF PROPOSED PLANT MATERIALS (AS SHOWN ON THE PLANTING PLAN) AND OTHER SITE AMENITIES.	PHONE - 678.546.8100 www.gaskinslecraw.com
10. ALL MAIN LINES SHALL BE INSTALLED A MAXIMUM OF 2' FROM THE BACK OF CURBS WHERE POSSIBLE. LATERALS LINES SHALL BE INSTALLED LIKEWISE WHERE POSSIBLE.	P-2646 REVISIONS:
11. THE CONTRACTOR SHALL ADJUST THE RADIUS AND ARC OF EACH HEAD TO MINIMIZE "OVERTHROW" AND TO ELIMINATE "DRY SPOTS." OVERTHROW ONTO PAVED AREAS SHALL NOT BE ALLOWED.	BY: CHECKED
12. ELECTRIC SUPPLY WILL BE STUBBED-OUT AT CONTROL CLOCK LOCATION BY OTHERS. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS FROM CONTROL VALVES TO THE CONTROL CLOCK.	
13. THE ENTIRE SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED BY THE IRRIGATION CONTRACTOR AGAINST ALL DEFECTIVE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF TOTAL ACCEPTANCE.	DRAWN BY:
14. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE AT TIME OF COMPLETION FOR PROVIDING "AS-BUILT" DRAWINGS, TO INCLUDE LOCATIONS OF ALL VALVES (MANUAL AND AUTOMATIC) WITH TRIANGULATED MEASUREMENTS TO EACH LOCATION AS WELL AS ANY DEVIATIONS IN LOCATION OF PIPING AND HEADS AS REPRESENTED BY THE CONTRACT DOCUMENTS.	PATE
15. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO HAVE ALL PLANTING AREAS MARKED BY THE LANDSCAPE ARCHITECT OR CONTRACTOR PRIOR TO INSTALLATION.	
16. ALL MAINLINES AND LATERAL LINES SHALL BE CLASS 200 PVC. 17. ALL SLEEVES SHALL BE SCHEDULE 40 PVC.	
18. CONTRACTOR SHALL SUPPLY: TWO QVC KEYS AND MATCHING HOSE SWIVELS; TWO OF EACH TYPE OF IRRIGATION HEAD; AS-BUILT IRRIGATION PLAN; AND LAMINATED DIAGRAM OF IRRIGATION ZONES.	
19. LAWN, SHRUBS/TREES, AND FLOWERS SHALL EACH BE ZONED SEPARATELY.	
20. CONTRACTOR SHALL VERIFY WATER SUPPLY G.P.M. AND P.S.I. PRIOR TO SYSTEM DESIGN AND CONSTRUCTION.	
GENERAL LANDSCAPE NOTES	
1. ALL PLANT MATERIAL MUST BE HEALTHY, VIGOROUS, & FREE OF PESTS AND DISEASE.	# # #
2. ALL PLANTS MUST BE CONTAINER GROWN OR BALLED & BURLAPPED. 3. ALL TREES MUST HAVE A FULL HEAD, STRAIGHT TRUNK, SINGLE DOMINANT LEADER, & MEET ALL REQUIREMENTS SPECIFIED IN PLANT	
4. ALL PLANTS ARE SUBJECT TO REJECTION BY THE OWNER BEFORE, DURING, & AFTER INSTALLATION.	28387
4. ALL PLANTS ARE SUBJECT TO REJECTION BY THE OWNER BEFORE, DURING, & AFTER INSTALLATION. 5. STAKE TREES, IF ENVIRONMENTAL CONDITIONS WARRANT. (I.E. WIND OR STEEP SLOPES)	
6. ALL PLANTS & PLANT BEDS MUST BE COMPLETELY MULCHED WITH 3" OF CLEAN, ORGANIC MULCH (PINESTRAW, WOOD CHIPS).	-C CAROLINA AROLINA
7. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES & SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY & ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION, AT NO ADDITIONAL COST TO OWNER.	
8. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON PLANS, BEFORE PRICING WORK. CONTRACTOR SHALL IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.	
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING (INCLUDING, BUT NOT LIMITED TO, WATERING, SPRAYING, MULCHING, MOWING, FERTILIZING, ETC.) ALL PLANTED AREAS AND LAWNS UNTIL THE JOB IS ACCEPTED IN FULL, BY THE OWNER.	IT ERVE INES, NOI INES, NOI CT CT CT VOOD CT. VTY, NOR.
10. THE OWNER WILL CONTRACT FOR A PROGRAM OF LANDSCAPE MAINTENANCE SERVICES THROUGHOUT THE ONE (1) YEAR GUARANTEE PERIOD UNLESS OTHERWISE DETERMINED.	CLIENT TO SEF Hern Pine Project TER'S - Randywoc Pin: 9584-97 TT County
11. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING AT THE DATE OF TOTAL ACCEPTANCE AND SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD (AS PER DIRECTION OF THE LANDSCAPE ARCHITECT).	D T O DTHEF DTHEF DTE BRAN L PIN: L PIN:
12. THE LANDSCAPE ARCHITECT WILL APPROVE THE STAKED LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION.	ARCI 13 SC
13. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. 14. WATER TREES AFTER PLANTING.	
15. MAINTAIN ORIGINAL GRADE OR SLIGHTLY ABOVE GRADE AT THE TREE BASE.	PRO HUNT LANE SC SC SC SC SC SC SC SC SC SC SC SC SC
16. DO NOT BREAK ROOT BALL.	FOX HI CA
17. SET TRUNKS PLUMB 18. ALL DUG TREES IN LEAF SHALL BE ACCLIMATED FOR TWO WEEKS UNDER A MIST SYSTEM, AT THE NURSERY SOURCE, PRIOR TO	55 FC
INSTALLATION. 19. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, DEFOLIATES OR FAILS TO GERMINATE PRIOR TO TOTAL ACCEPTANCE OF THE WORK	47
SHALL BE PROMPTLY REMOVED FROM THE SITE & REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS AT NO COST TO THE OWNER. 20. STANDARDS SET FORTH IN THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK" REPRESENT GUIDELINE	SEAL:
SPECIFICATIONS ONLY AND CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS. 21. IF SUFFICIENT ADDITIONAL TOPSOIL IS AVAILABLE, THE CONTRACTOR SHALL BACKFILL THE PARKING LOT ISLANDS WITH 100% TOPSOIL.	AR STORE STORE
PLANTERS SHALL BE FREE OF DELETERIOUS MATERIAL AND SOIL SHALL BE SUITABLE FOR PLANTING. ALL ROCKS AND DEBRIS SHALL BE REMOVED FROM PLANTING BEDS, INCLUDING SODDED AREAS, PRIOR TO INSTALLATION. 22. THE CONTRACTOR HAS THE COMPLETE RESPONSIBILITY FOR THE HANDLING OF ALL SURPLUS EXCAVATED MATERIALS INCLUDING THE	SEAL 54209
REMOVAL OF ANY EXCESS MATERIALS FROM THE PROJECT SITE. THE CONTRACTOR SPECIFICALLY UNDERSTANDS AND AGREES THAT DUE TO THE SEQUENCE OF THE WORK, HE MAY NEED TO RETAIN SELECT EXACERBATED MATERIALS ON SITE TO MEET LATER NEEDS OF THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AS TO ANY DECISIONS MADE TO HAUL OFF EXCESS	TIT BONNER WINNIN
MATERIAL OR TO RETAIN MATERIAL ON SITE FOR LATER USE. THE CONTRACTOR SHALL HAVE THE COMPLETE RESPONSIBILITY FOR HAVING ADEQUATE, SUITABLE MATERIAL ON-SITE TO REPLACE UNSUITABLE MATERIAL OR TO OTHERWISE CONFORM TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.	2/25/2025
23. CONTRACTOR SHALL REMOVE & DISPOSE OF ALL PLANT MATERIAL EXISTING ON SITE THAT DOES NOT CONFORM WITH THE LANDSCAPE PLAN. ALL LANDSCAPED AREAS SHALL BE TREATED AS SPECIFIED ON THE LANDSCAPE PLAN OR AS DIRECTED BY THE LANDSCAPE	CALL BEFORE YOU DIG
ARCHITECT. THIS SHALL INCLUDE ALL GRASS AREAS USED FOR EROSION CONTROL PURPOSES. 24. GRASS ALL DISTURBED AREAS (INCLUDING RIGHT-OF-WAY), UNLESS OTHERWISE INDICATED. AREAS TO BE SODDED SHALL BE CLEANED OF ALL STONES AND DEBRIS, RAKED SMOOTH AND CONFORM TO PROPOSED GRADES. IF SODDED, SOD SHALL BE ROLLED TO PROVIDE	211
A CONSISTENTLY EVEN SURFACE. 25. CONTRACTOR SHALL DESIGN AND INSTALL AUTOMATIC IRRIGATION SYSTEM TO PROVIDE 100% COVERAGE IN ACCORDANCE WITH	
SPRINKLER HEAD MANUFACTURER'S SPECIFICATIONS.	Know what's below.
	Call before you dig.
	NORTH ARROW
	DETAILS ARE <u>NOT</u> DRAWN TO SCALE
	DESIGN INFO: DRAWN BY: SOO
	DESIGNED BY: TKS REVIEWED BY: TKS
	JOB #: 03630032 DATE: FEBRUARY 25, 2025
	LANDSCAPE DETAILS
	L-1.1

GENERAL STRUCTURAL NOTES

BUILDING CODE:

2018 INTERNATIONAL BUILDING CODE

LOADS:

ROOF:

ROOF LIVE LOAD = 20 PSF (REDUCIBLE PER IBC SECTION 1607.9) ROOF DEAD LOAD = 20 PSF

ROOF NET UPLIFT = 10 PSF

WIND:

WIND SPEED = 118 MPH 3-SECOND GUST EXPOSURE = C **RISK CATEGORY II** IW = 1.0

SEISMIC:

RISK CATEGORY I IE = 1.0 SS = 0.148 S1 = 0.07 SITE CLASS = D SDS = 0.157 SD1 = 0.112

DESIGN CATEGORY = B

BASIC SEISMIC-FORCE-RESISTING SYSTEM: LIGHT FRAMED WOOD SHEARWALLS R = 6.5

ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

SNOW:

Pg = 10 PSFCE = 1.0 IS = 1.0 CT = 10

PF = 7 PSF + 5 PSF RAIN ON SNOW

FOUNDATIONS:

SOILS REPORT BY: SOLID GROUND

DESIGN SOIL BEARING PRESSURE : CONTINUOUS FOOTINGS = 2000 PSF

BOTTOM OF FOOTINGS SHALL BEAR ON ON SITE MATERIAL OR STRUCTURAL FILL PROVIDED THE FILL MATERIALS MEET THE REQUIREMENTS IN THE SOILS REPORT AT A DEPTH OF 1'-6"

MINIMUM BELOW FINISHED GRADE. FINISHED GRADE IS DEFINED AS THE TOP OF CONCRETE SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE WITHIN FIVE (5) FEET OF STRUCTURE FOR PERIMETER FOOTINGS. BOTTOM OF FOOTING DEPTHS GIVEN HEREIN ARE MINIMUMS ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND COORDINATING ACTUAL DEPTHS REQUIRED FOR FOOTINGS WITH ARCHITECTURAL PLANS, CIVIL PLANS, AND SITE CONDITIONS. RESOLVE ANY DISCREPANCIES PRIOR TO START OF CONSTRUCTION.

CONCRETE:

ALL CONCRETE CONSTRUCTION AND DETAILING SHALL CONFORM TO THE LATEST EDITION OF ACI 318 MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'C) SHALL BE AS FOLLOWS:

SLABS ON GRADE	3 000 PSI
FOUNDATIONS	-,

ALL CONCRETE IS TO BE MECHANICALLY VIBRATED WHEN PLACED, EXCEPT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, PENETRATIONS, ETC. CONCRETE SHALL BE DEPOSITED AS NEAR AS POSSIBLE TO ITS FINAL POSITION AND SHAL BE PLACED SO AS TO AVOID SEGREGATION. VIBRATING EQUIPMENT SHALL NOT BE USED TO MOVE CONCRETE INTO POSITION. ALL REINFORCING, EMBED PLATES, ANCHORS, ETC, SHALL BE IN PLACE AND PROPERLY SECURED PRIOR TO PLACING CONCRETE. "WET STABBING" IS NOT ALLOWED.

ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY KEYED OR SAW CUT CONTROL JOINTS AS SHOWN ON THE FOUNDATION PLAN, SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 150 SQUARE FEET, UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITECT. KEYED CONTROL JOINTS NEED TO OCCUR ONLY AT SLAB EDGES LEFT EXPOSED DURING PLACEMENT. ALL OTHER JOINTS MAY BE SAW CUT.

REVIBRATE TOPS OF CAISSONS 15 MINUTES AFTER PLACING CONCRETE.

FLY ASH - IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS OR REQUESTED BY CONTRACTOR, SHALL BE LIMITED TO 18% OF CEMENTITIOUS MATERIALS AND SHALL HAVE A REPLACEMENT FACTOR OF 1.2 RELATIVE TO CEMENT REPLACED.

NO FLY ASH ADDITIVES SHALL BE USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE.

REINFORCING:

ALL REINFORCING SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF ACI 318, CRSI SPECIFICATIONS AND HANDBOOK, AND THE STEEL REINFORCING DETAILING MANUAL. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS UNLESS NOTED OTHERWISE. ALL GRADE 60 REINFORCING TO BE WELDED SHALL BE ASTM A706. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WITH THE WIRE CONFORMING TO ASTM A82. REINFORCING BARS SHALL NOT BE TACK WELDED. REINFORCING BAR SPACING AS SHOWN ARE MAXIMUM ON CENTER SPACING. CLEAR CONCRETE COVERAGES SHALL BE AS FOLLOWS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH -------3" EXPOSED TO EARTH OR WEATHER:

#6 OR LARGER ------ 2"

#5 AND SMALLER ------ 1 1/2" ALL OTHER PER LATEST EDITION OF ACI 318.

LAP SPLICES IN CONCRETE:

LAP SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES AS DESCRIBED IN THE LATEST EDITION OF ACI 318 UNLESS OTHERWISE NOTED. LAP SPLICES IN CONCRETE COLUMNS SHALL BE STANDARD COMPRESSION LAP SPLICES. SPLICES SHALL BE STAGGERED A MINIMUM OF ONE LAP LENGTH.

ALL SPLICE LOCATIONS ARE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER. BENT CORNER BARS SHALL BE PLACED AT ALL CORNERS AND INTERSECTIONS AND SHALL MATCH AND LAP WITH HORIZONTAL BARS AS INDICATED IN THE TYPICAL DETAILS. ALL BENT BARS SHALL BE COLD BENT. ALL VERTICAL REINFORCING SHALL BE DOWELED INTO FOOTINGS WITH STANDARD 90-DEGREE HOOKS UNLESS NOTED OTHERWISE. CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL WITH EMBEDMENT LENGTH ACCORDING TO THE LATEST EDITION OF THE ACI 318.

ALL REINFORCING AND EMBEDDED ITEMS SUCH AS PLATES, BOLTS, ETC. SHALL BE IN PLACE AND PROPERLY SECURED PRIOR TO PLACING GROUT OR CONCRETE. IN NO CASE SHALL ITEMS BE "WET SET" OR STABBED INTO UNSET GROUT OR CONCRETE. REINFORCING SHALL BE SECURED IN PLACE SO AS TO AVOID MOVEMENT DURING PLACEMENT.

DEFERRED SUBMITTALS: (PER 2018 IBC CH. 17)

THE DESIGN OF THE FOLLOWING ITEMS SHALL BE PROVIDED AS "DEFERRED SUBMITTAL" ITEMS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE SECTION 106.3.4.2.

PREFABRICATED METAL AWNINGS

THE DESIGN OF THE ITEMS LISTED SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WHO WILL REVIEW THE DOCUMENTS. THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SHALL PROVIDE NOTATION ON THE DOCUMENTS AFTER THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. UPON ACCEPTANCE BY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, THE CONTRACTOR SHALL SUBMIT THE DOCUMENTS TO THE BUILDING OFFICIAL. DO NOT INSTALL ANY DEFERRED SUBMITTAL ITEMS UNTIL THE DESIGN HAS BEEN ACCEPTED BY THE BUILDING OFFICIAL

SHOP DRAWINGS:

THE CONTRACTOR SHALL REVIEW AND SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ITEMS IN ADDITION TO ALL ARCHITECTURAL REQUIREMENTS. THE MANUFACTURER, CONTRACTOR OR FABRICATOR SHALL CLOUD ALL ITEMS IN THE SHOP

DRAWINGS THAT DIFFER FROM THE DETAILS AND DESIGN INTENT ILLUSTRATED IN THE CONTRACT DOCUMENTS. THOSE ITEMS SHALL NOT BE ASSUMED TO BE ACCEPTED UNLESS SPECIFICALLY NOTED IN WRITING BY THE STRUCTURAL ENGINEER. THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE CONSTRUCTION IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE SHOP DRAWING REVIEW BY THE STRUCTURAL ENGINEER IS INTENDED AS AN AID TO THE CONTRACTOR ONLY AND CORRECTNESS OF THE SHOP DRAWINGS LIES SOLELY WITH THE CONTRACTOR. IN NO CASE SHALL THE SHOP DRAWINGS REPLACE THE CONTRACT DOCUMENTS. ITEMS THAT HAVE BEEN INCORRECTLY SHOWN ON THE SHOP DRAWINGS OR DIFFER FROM THE CONTRACT DOCUMENTS AND HAVE NOT BEEN NOTED BY THE STRUCTURAL ENGINEER OR ARCHITECT, SHALL NOT BE THE RESPONSIBILITY OF THE ENGINEER. THE ENGINEER SHALL BE ALLOWED TO, AT ANY TIME DURING OR AFTER THE SHOP DRAWING REVIEW, CHOOSE TO ALLOW OR NOT ALLOW CHANGES TO THE CONTRACT DOCUMENTS.

THE DRAWINGS IN THE CONSTRUCTION DOCUMENTS SHALL NOT BE USED FOR SHOP DRAWINGS IN ANY WAY, SHAPE, OR FORM.

THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DIMENSIONS. THE CORRECTNESS OF ALL DIMENSIONS RESTS WITH THE CONTRACTOR AND SHALL BE VERIFIED WITH THE ARCHITECT.

ALL LAYOUTS AND DESIGNS PERFORMED BY OTHERS SHALL BE SEALED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE WORK TAKES PLACE.

GENERAL:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE. THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO REPRESENT MEANS OR METHODS OF CONSTRUCTION. THE STRUCTURAL DRAWINGS ARE INTENDED TO REPRESENT THE FINISHED PRODUCT WITH RESPECT TO THE STRUCTURAL ELEMENTS. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. THE STRUCTURAL ENGINEER (INCLUDING SITE OBSERVATIONS AND VISITS) SHALL IN NO WAY BE RESPONSIBLE FOR CONSTRUCTION MEASURES INCLUDING BUT NOT LIMITED TO BRACING, SHORING, SUPPORT OF LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY CONSTRUCTION, ETC. THE STRUCTURAL ENGINEER (INCLUDING SITE OBSERVATIONS AND VISITS) SHALL IN NO WAY BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENTAL TO CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL. MECHANICAL. ELECTRICAL. PLUMBING AND CIVIL DRAWINGS. ALL DISCREPANCIES SHALL BE RESOLVED IN WRITING PRIOR TO THE START OF CONSTRUCTION.

ALL EXTERIOR CONCRETE SLABS ON GRADE SUCH AS SIDEWALKS, DRIVEWAYS, ETC. SHALL BE PER THE CIVIL AND ARCHITECTURAL DRAWINGS AND PER THE SOILS REPORT. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR EXTERIOR SLABS ON GRADE.

CONSTRUCTION MATERIALS SHALL BE PLACED ON ABOVE GRADE FRAMING IN SUCH A WAY THAT WILL SPREAD THE LOADS SO AS NOT TO EXCEED THE LIVE LOADS STATED IN THE "LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND COORDINATE LOCATIONS AND INSTALLATION REQUIREMENTS FOR ITEMS INCLUDING BUT NOT LIMITED TO OPENINGS. EMBEDDED ITEMS, INSERTS, UNDERGROUND WORK, ETC. WITH ALL ARCHITECTURAL, PLUMBING, MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS AND WITH THE APPROPRIATE TRADES FOR THOSE ITEMS. ALL DISCREPANCIES SHALL BE RESOLVED PRIOR TO CONSTRUCTION.

WHERE OPTIONS ARE NOTED IN THE CONTRACT DOCUMENTS, THEY ARE FOR THE CONTRACTOR'S CONVENIENCE. IF THE CONTRACTOR CHOOSES AN OPTION. THEY SHALL BE RESPONSIBLE FOR COORDINATING ALL DETAILS AND OTHER REQUIREMENTS NECESSARY TO THAT OPTION.

CONSTRUCTION SHALL CONFORM TO THE DETAILS SHOWN IN THE DRAWINGS. WHERE A DETAIL IS NOT SHOWN, THE WORK SHALL CONFORM TO SIMILAR CONSTRUCTION ON THE PROJECT. WHERE NOTES, DETAILS, GENERAL STRUCTURAL NOTES, ETC. CONFLICT, THE GREATEST REQUIREMENT SHALL GOVERN.

CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT.

DETAILS INDICATING MASONRY WALL CONSTRUCTION ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT MASONRY COURSES, DIMENSIONS, AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PER IBC SECTION 1704 AND SHALL BE PERFORMED FOR THE FOLLOWING ITEMS:

- 1. GRADING AND EXCAVATION: SHALL BE INSPECTED AS REQUIRED BY THE GEOTECHNICAL REPORT. STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY GRADING OR EXCAVATION INSPECTIONS.
- 2. CONCRETE: SHALL BE INSPECTED DURING THE TAKING OF TEST SPECIMENS AND DURING PLACEMENT
- 3. BOLTS IN CONCRETE: (CONTINUOUS) SHALL BE INSPECTED DURING THE PLACEMENT OF CONCRETE AROUND THE BOLTS
- 4. POST INSTALLED ANCHORS: (CONTINUOUS) SHALL BE INSPECTED DURING THE PLACEMENT OF MECHANICAL ANCHORS TO ENSURE PROPER TIGHTENING AND DURING THE INSTALLATION OF ADHESIVE ANCHORS IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.
- 5. REINFORCING STEEL: (PERIODIC) SHALL BE INSPECTED DURING PLACEMENT OF THE REINFORCING STEEL PLACED FOR CONCRETE REQUIRING SPECIAL INSPECTION AS NOTED ABOVE. THE REINFORCING STEEL SHALL BE INSPECTED PRIOR TO ORDERING AND PLACING CONCRETE.

WOOD:

SAWN LUMBER:

FACH PIECE OF FRAMING LUMBER SHALL BE GRADED BY AND BEAR THE STAMP OF A RULES WRITING AGENCY RECOGNIZED AND APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE. ALL TIMBER CONSTRUCTION SHALL COMPLY WITH THE LATEST STANDARDS OF THE AMERICAN INSTITUTE FOR TIMBER CONSTRUCTION. THE IN PLACE GRADE OF ALL LUMBER SHALL MEET OR EXCEED THE ORIGINAL GRADE SPECIFIED WHEN GRADED. DEFICIENCIES DUE TO WEATHERING, DRYING, CONSTRUCTION DEFECTS, MIS HANDLING, ETC. SHALL BE CAUSE FOR REJECTION AND SHALL BE REPLACED. ANY SHRINKAGE OR DEFORMATION OF FRAMING MEMBERS DUE TO SEASONING SHALL BE REMEDIED BY REPLACEMENT PRIOR TO PLACING SHEATHING AND OR SUBSEQUENT SUPPORTED MEMBERS. LUMBER SHALL BE VISUALLY GRADED OR MACHINE STRESS RATED TO MEET THE

FOLLOWING MINIMUM PROPERTIES (IN DRY SERVICE CONDITIONS) UNLESS NOTED OTHERWISE:

101070	NOMINAL SIZEGRADE
JOISTS	2 X 4 D.F. # 1
	2 X 6 AND LARGER D.F. # 2
BEAMS	ALL D.F. # 2
LEDGER	S AND PLATES
POSTS	ALL D.F. #2
	UP TO 4 X 4 D.F. # 2 GREATER THAN 4 X 4 D.F. # 1
STUDS	ALLD.F. #2

PLYWOOD:

ALL PLYWOOD SHALL BE APA RATED "CD" SHEATHING OR BETTER WITH EXTERIOR GLUE AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. PLACE PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. IN NO CASE SHALL THE FACE GRAIN BE PARALLEL TO THE SUPPORTS WHERE SUPPORTS ARE SPACED GREATER THAN 2'-0" O.C. STAGGER JOINTS. ALL NAILED ATTACHMENTS SHALL BE ACHIEVED USING COMMON NAILS. WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENTS, USE WOOD SCREWS. ALL PLYWOOD SHALL BE OF THE FOLLOWING MINIMUM NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED AS FOLLOWS UNLESS NOTED OTHERWISE:

		SPA	N/INDEX	PANEL EDGE	INTERMEDIATE
US	Ε	THICKNESS	RATIO	ATTACHMENT	ATTACHMENT
				SPACING	SPACING
RC	OF	1/2"	32/16	10d AT 6" O.C	10d AT 12" O.C.

WHERE PLYWOOD IS ATTACHED TO WOOD FRAMING MEMBERS, USE 8D COMMON NAILS AT THE SPACING SHOWN IN THE TABLE ABOVE.

WHERE PLYWOOD IS TO BE ATTACHED TO STRUCTURAL HOT ROLLED STEEL MEMBERS. USE HILTI X DNI POWDER DRIVEN FASTENERS INSTALLED THROUGH 2" DIA WASHERS PER I.C.C. REPORT NUMBER ER 1663. SPACING SHALL BE AS NOTED ABOVE

ALTERNATE:

AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFING CONTRACTOR. WHERE ROOF IS TO BE GUARANTEED, IT MAY NOT BE USED WITHOUT PRIOR APPROVAL FROM BUILT-UP ROOF SYSTEM MANUFACTURER. RATED SHEATHING SHALL COMPLY WITH I.C.C. REPORT NO. NER-108, EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

GENERAL:

DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THRU THE ARCHITECT. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER PARTITIONS. PROVIDE 2" SOLID BLOCKING AT SUPPORTS OF ALL JOISTS. DOUBLE UP STUDS AT JAMBS AND AS REQUIRED UNDER BEAMS IN BEARING WALLS. EVERY OTHER STUD OF WOOD FRAME BEARING WALL SHALL HAVE A SIMPSON H3 ANCHOR TOP AND BOTTOM, EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2 X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT I.C.C. APPROVAL.

POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

a. CONCRETE ANCHORS

- i. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION. PRE-APPROVED MECHANICAL ANCHORS INCLUDE: (1) SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713) OR EQUAL
- (2) SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-3037) OR EQUAL (3) SIMPSON STRONG-TIE "STRONG-BOLT" (ICC-ES ESR-1771) OR EQUAL ii. ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN
- ACCORDANCE WITH ICC-ES AC308 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION. PRE-APPROVED ADHESIVE ANCHORS INCLUDE: (1) SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508) OR EQUAL

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR COMPLIANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL. AND TO THE ENGINEER OR ARCHITECT OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. THE CONTRACTOR SHALL THEN CORRECT THE WORK AS REQUIRED. IF THE WORK PROCEEDS UNCORRECTED THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND THE BUILDING OFFICIAL.

THE RESPONSIBLE PARTY PERFORMING THE INSPECTIONS SHALL SUBMIT THE APPROPRIATE FINAL INSPECTION FORMS TO THE BUILDING OFFICIAL UPON COMPLETION OF THE WORK. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR INSPECTIONS PERFORMED BY OTHER PARTIES NOT DIRECTLY EMPLOYED BY THE STRUCTURAL ENGINEER OF RECORD.

ABBREVIATIONS

A.B.C	AGGREGATE BASE COURSE	С
	AIR CONDITIONER	C
A/C A.F.F		
A.F.F	ABOVE FINISHED FLOOR	С
ALT		D
A.B		D
@ AT	(MEASUREMENT)	ø
BM		Ď
B.F.F	BELOW FINISHED FLOOR	D
B.F.F	DOTTOM OF DEAM	
B.O.B	BOTTOM OF BEAM	E
B.O.D B.O.F	BOTTOM OF DECK	E
B.O.F	BOTTOM OF FOOTING	E
BRG	BEARING	E
C.I.P	CAST IN PLACE	E
C.L	CENTERLINE	Ē
C.L.B	CENTERLINE OF BEAM	E.
C.L.C		
U.L.U	CENTERLINE OF COLUMN	E.
C.L.F	CENTERLINE OF FOOTING	F
C.L.L	CENTERLINE OF LEDGER	F
C.L.W	CENTERLINE OF WALL	G
	CLEAR	G
CONC	CONCRETE	G
CONC CONC C.J	CONCRETE CONTROL JOINT	G
CONC S.J	CONCRETE SAWCUT JOINT	l.I
HORIZ		S
K(KIP)	1000 POUNDS	S
L.L. '	LIVE LOAD	S
LBS ———	(#) POUNDS	S
LLH	LONG LEG HORIZONTAL	S
LLV —	LONG LEG VERTICAL	Т
LSH	LONG SIDE HORIZONTAL	Т
1 SV/	LONG SIDE VERTICAL	Т
MFR('S)	MANUFACTURER('S)	Ť
MAS C.J.	MASONRY CONTROL JOINT	Ť
MECH'L		
MECHL	MECHANICAL	T
MLB	MICROLLAM BEAM	Т
N/A	NOT APPLICABLE	Т
N.T.S.	NOT TO SCALE	Т
0.C	ONCENTER	Т
		U
O.F.W	OPPOSITE	V
P.C	PRECAST CONCRETE	Ň
PLF		Ŵ
PREFAB	POUNDS PER LINEAR FOOT	-
		V
PSF	POUNDS PER SQUARE FOOT	
PSI		
REINF	REINFORCING	

C.M.U. ———	CONCRETE MASONRY UNIT
CONN ———	CONNECTION
CONT	
DEG ———	DEGREE
D.L	DEADLOAD
DN	DOWN
DWG(S)	DRAWING(S)
DN DWG(S) E.O.S EQ	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EXP. BOLT	EXPANSION BOLT
EXP. JT (E.J.)	EXPANSION JOINT
E.W	EACH WAY
F.F	FINISHED FLOOR
F.O.M	
F.O.S	FACE OF STEEL
F.O.W	
GA GALV	GAGE
GALV	GALVANIZED
G.S.N	GENERAL STRUCT'L NOTES
GLB (GLULAM)	GENERAL STRUCT'L NOTES GLUED-LAMINATED BEAM
I.F.W	INSIDE FACE OF WALL
	SHORT LEG HORIZONTAL
	SHORT LEG VERTICAL
SIM	SIMILAR
SQ	SQUARE
STD	STANDARD
T.L T.O.B	TOTAL LOAD
1.O.B.	TOP OF BEAM
T.O.D.	TOP OF DECK
T.O.F. T.O.L.	TOP OF FOOTING
T.O.M.	TOP OF LEDGER
T.O.M. T.O.P.	
T.O.P.	
T.O.S T.O.W 	TOP OF STEEL
T.O.W . TYP ———	
	UNLESS NOTED OTHERWISE
VERT	
	WELDED WIRE FABRIC
W.W.F	
W/O	
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FOR ADDITIONAL INFORMATION SHOWN BUT NOT NOTED, SEE GENERAL

CONSTRUCTION OR RECORDING UNLESS THE STRUCTURAL ENGINEER OF

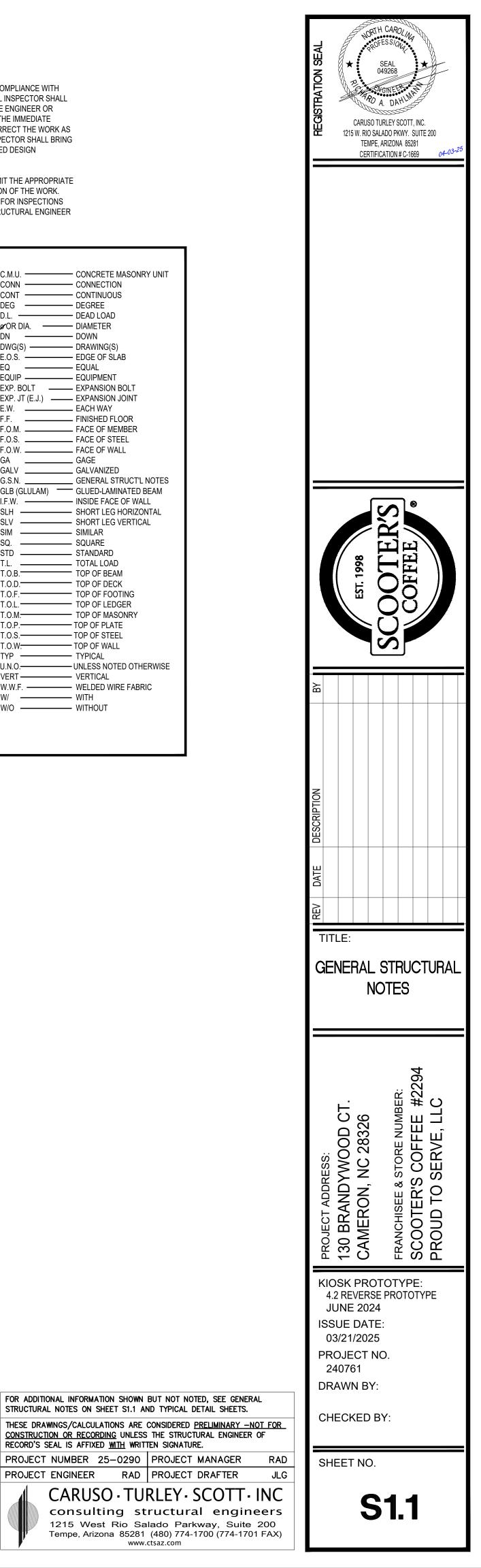
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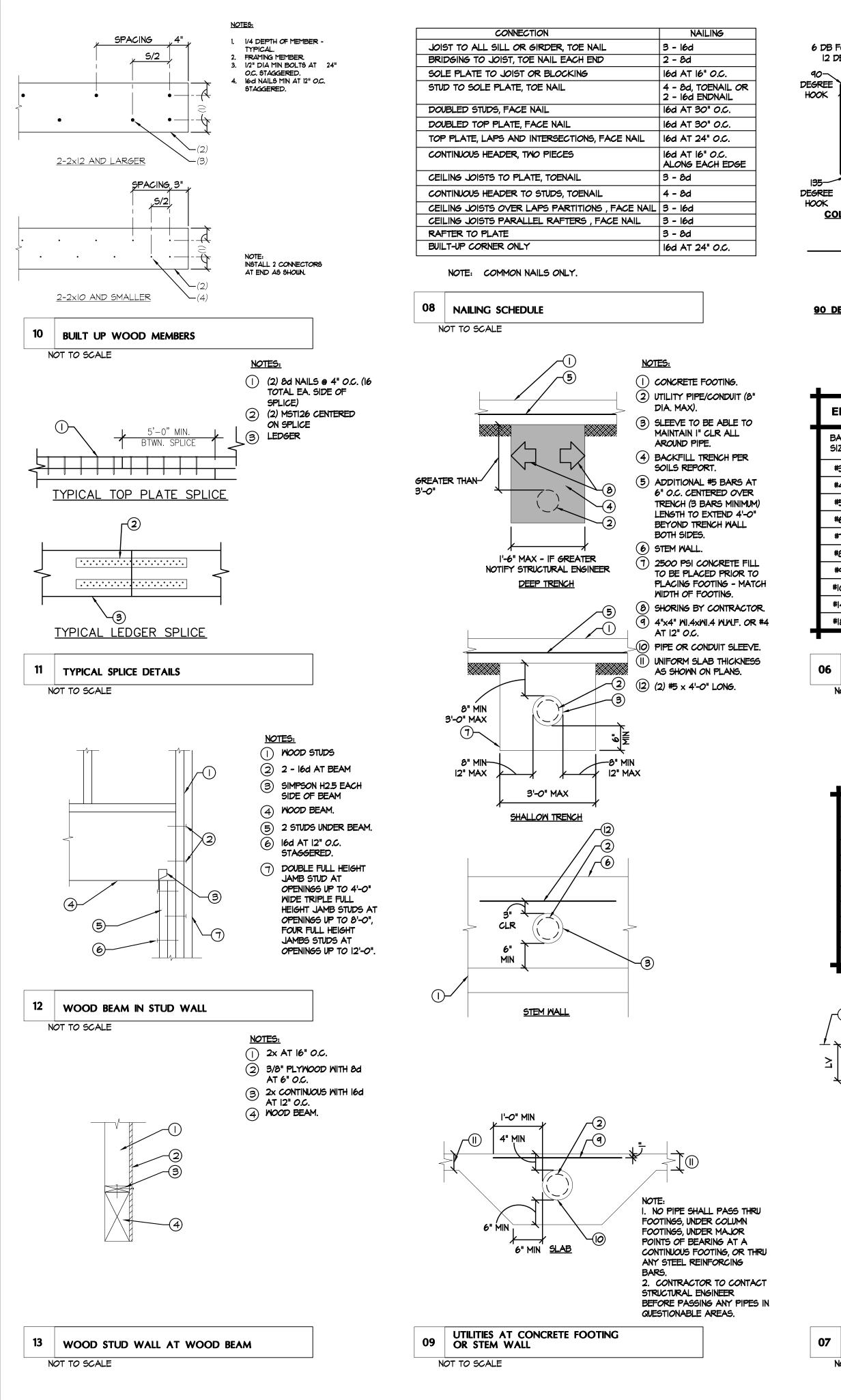
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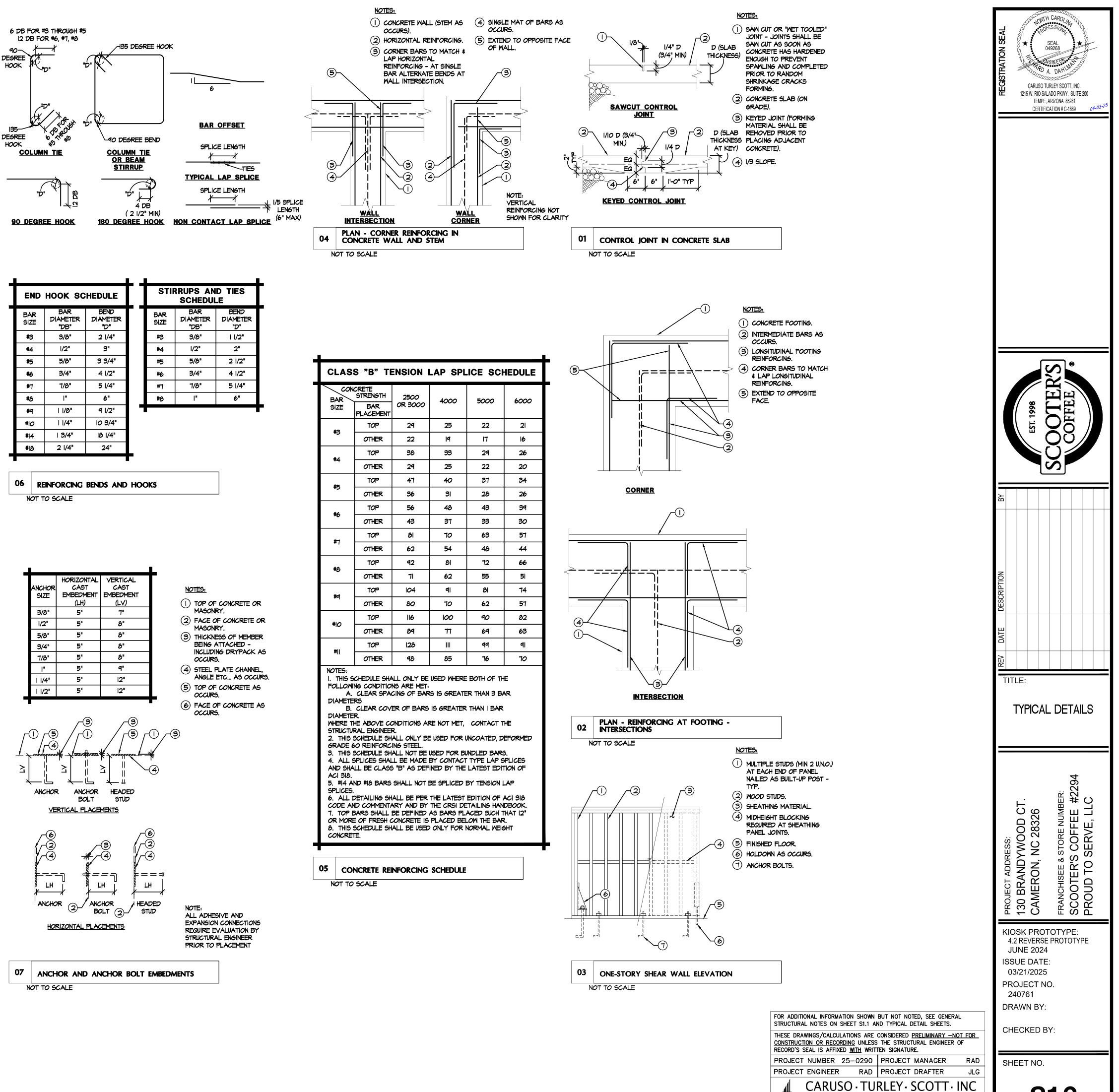
STRUCTURAL NOTES ON SHEET S1.1 AND TYPICAL DETAIL SHEETS.

PROJECT ENGINEER RAD PROJECT DRAFTER

RECORD'S SEAL IS AFFIXED WITH WRITTEN SIGNATURE.

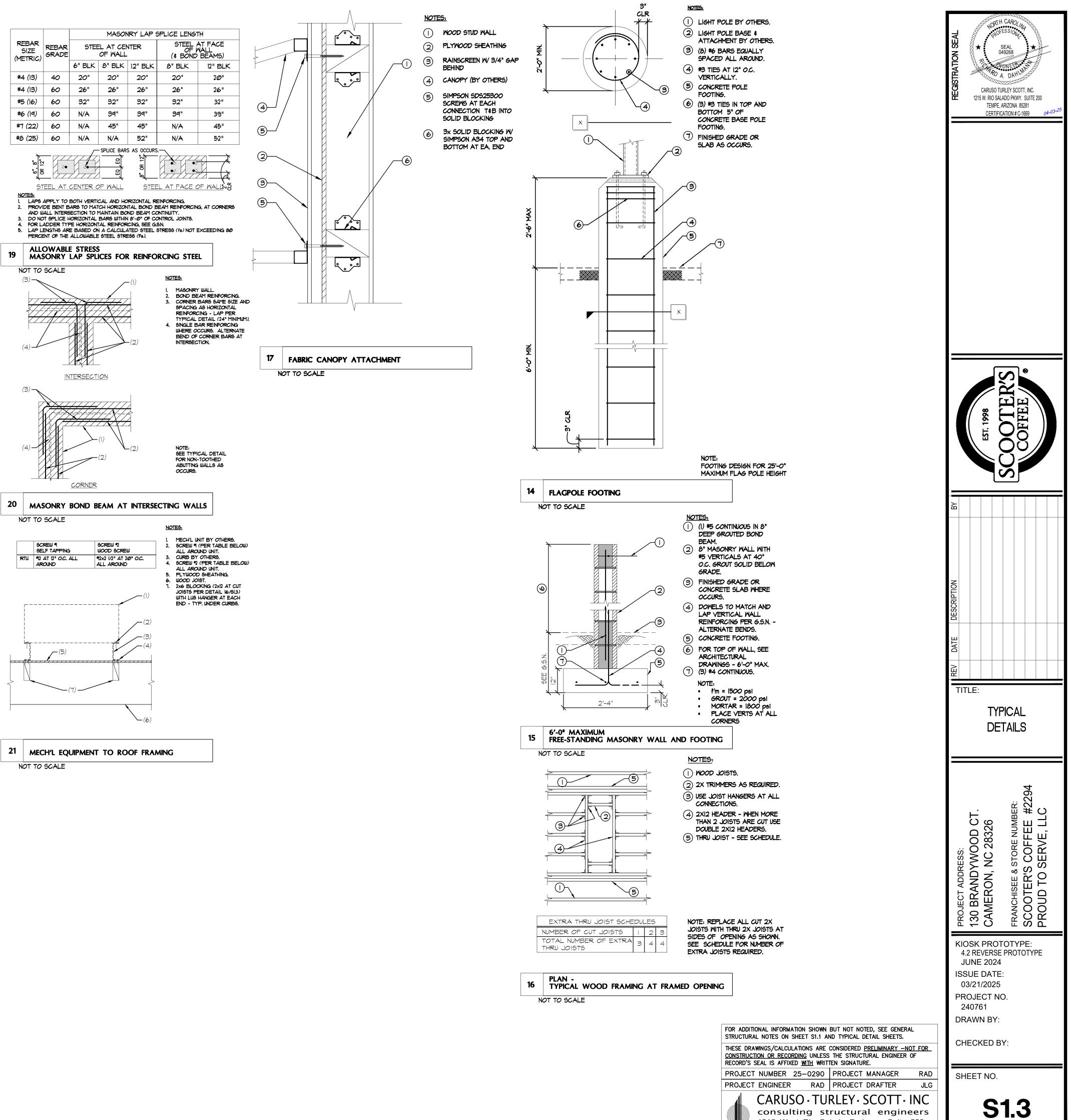




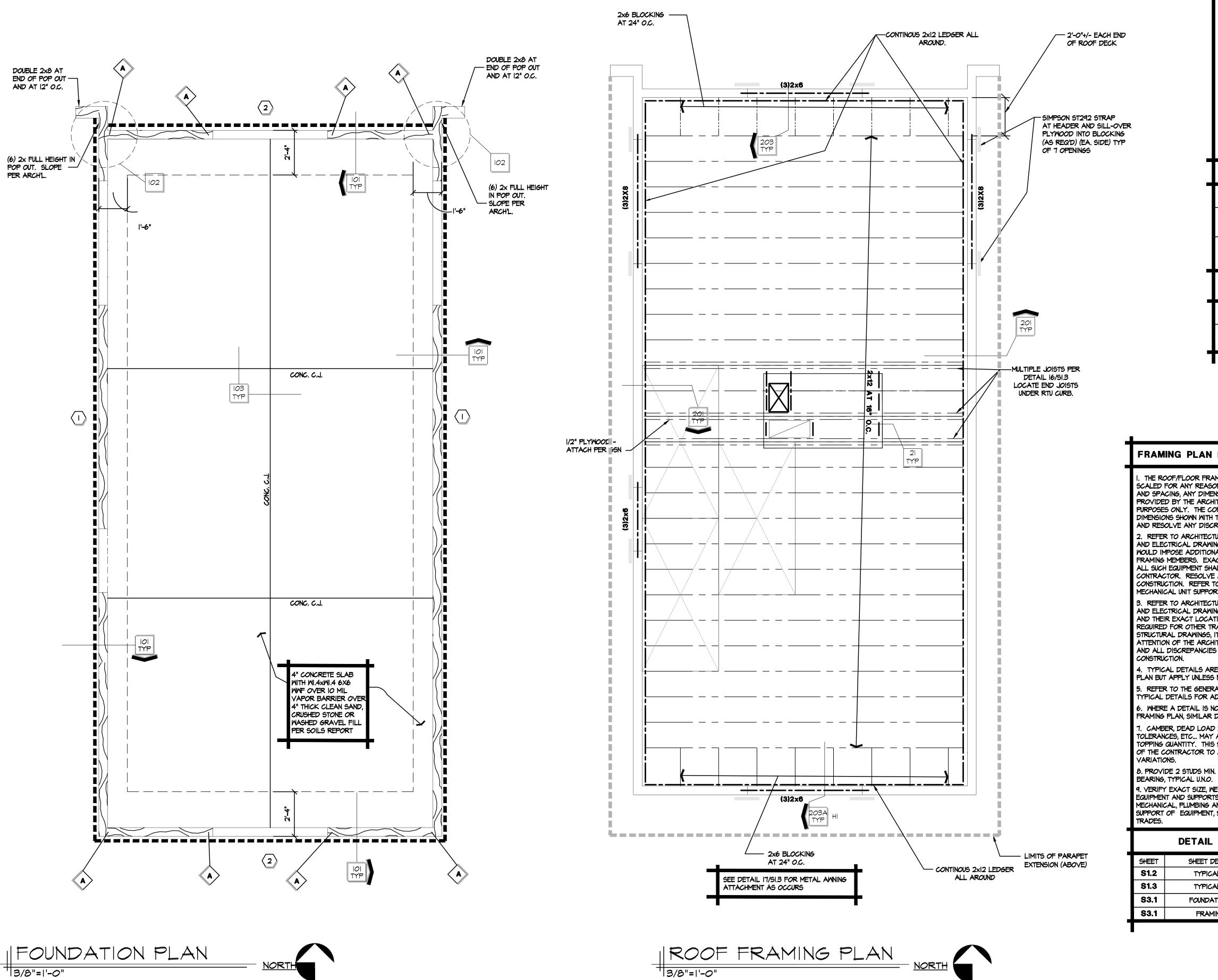


S1.2

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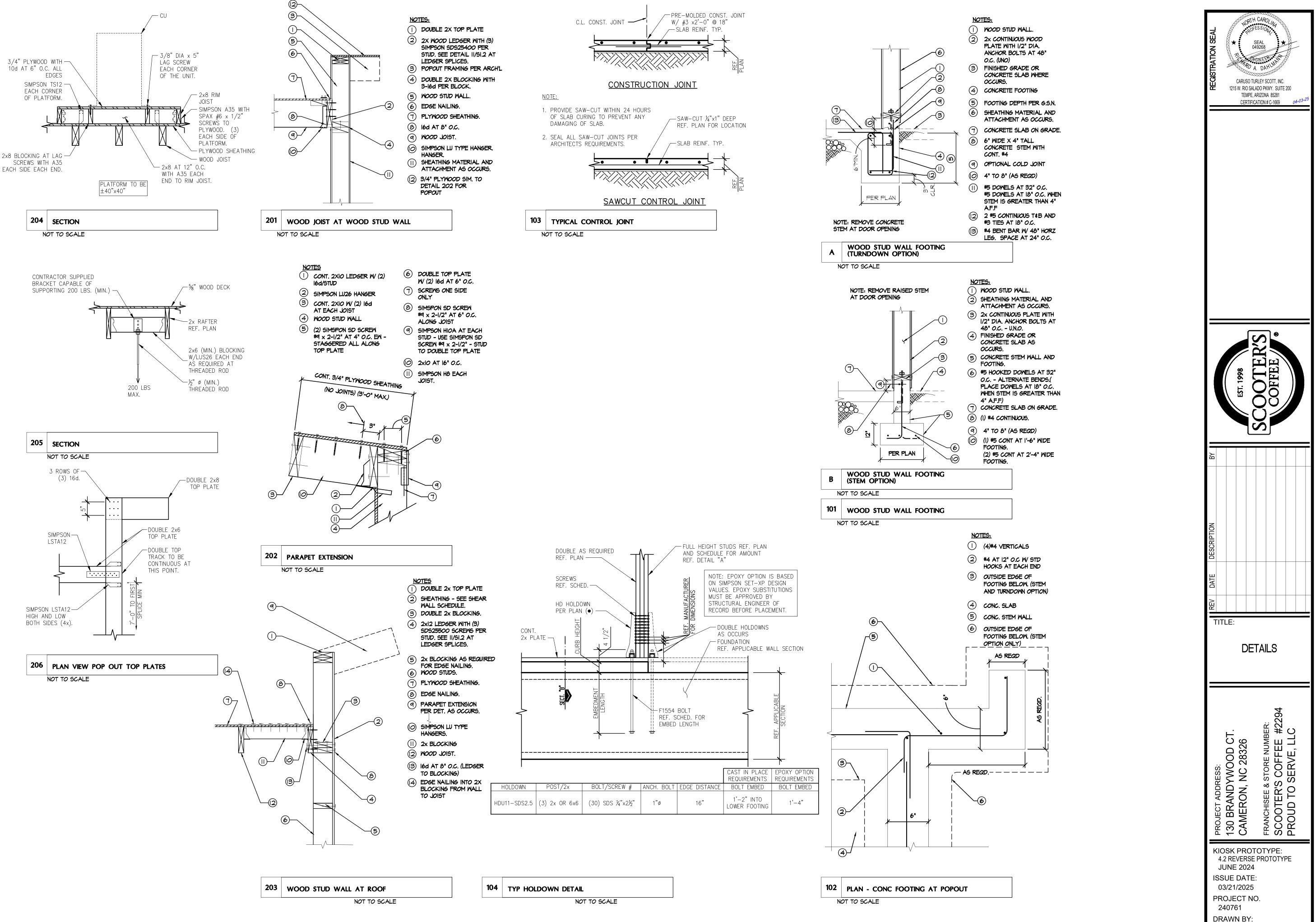


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CARUSO · TURLEY · SCOTT · INC

consulting structural engineers

1215 West Rio Salado Parkway, Suite 200 Tempe, Arizona 85281 (480) 774-1700 (774-1701 FAX) www.ctsaz.com **S2.1**



FOR ADDITIONAL INFORMATION SHOWN BUT NOT NOTED, SEE GENERAL STRUCTURAL NOTES ON SHEET S1.1 AND TYPICAL DETAIL SHEETS. THESE DRAWINGS/CALCULATIONS ARE CONSIDERED PRELIMINARY - NOT FOR CONSTRUCTION OR RECORDING UNLESS THE STRUCTURAL ENGINEER OF RECORD'S SEAL IS AFFIXED WITH WRITTEN SIGNATURE. PROJECT NUMBER 25-0290 PROJECT MANAGER RAD PROJECT ENGINEER RAD PROJECT DRAFTER JLG CARUSO · TURLEY · SCOTT · INC consulting structural engineers 1215 West Rio Salado Parkway, Suite 200 Tempe, Arizona 85281 (480) 774-1700 (774-1701 FAX) www.ctsaz.com

CHECKED BY:

SHEET NO.

S3.1

	CAL SYMBOLS
NOTE: THIS IS NECESS	S A MASTER LEGEND AND NOT ALL SYMBOLS, ETC. ARE SARILY USED ON THE DRAWINGS.
HVAC EQUIPME	ENT & DUCTWORK
	DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. EXISTING DUCTWORK OR EQUIPMENT TO REMAIN EXISTING DUCTWORK OR EQUIPMENT TO BE REMOVED
	BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER ELBOW WITH TURNING VANES
	LINEAR SLOT DIFFUSER
	INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG)
	EXHAUST AIR DUCT UP EXHAUST AIR DUCT DOWN
	RETURN AIR DUCT UP
	RETURN AIR DUCT DOWN SUPPLY OR OUTSIDE AIR DUCT UP
	SUPPLY OR OUTSIDE AIR DUCT DOWN
	EQUIPMENT WITH FLEXIBLE DUCT CONNECTION
	NECK SIZE, TYPE, CFM OF SUPPLY DIFFUSER OR REGISTER 24x24 EG-1 800 CFM
	SIZE, TYPE, CFM OF EXHAUST OR RETURN GRILLE
	MANUAL VOLUME DAMPER
	SQUARE TO ROUND TRANSITION
() RD	DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN)
\sim	VISUAL ALARM CO2 CARBON DIOXIDE SENSOR
(FD) FIRE DA	AMPER HS HUMIDITY SENSOR
$\overset{\circ}{\sim}$	MOKE DAMPER
	SP STATIC PRESSURE SENSOR
	DAMPER TS TEMPERATURE SENSOR
(MD) MOTORIZ	
BD BACKDRA	AFT DAMPER (T) THERMOSTAT
CO CARBON	MONOXIDE SENSOR X DESIGNATION
BBREVIATION	s
	SHED FLOOR MBH 1000 BTU PER HOUR
BFF BELOW FINI	ISHED FLOOR MIN MINIMUM
BFG BELOW FINI BD BACKDRAFT	ISHED GRADE NC NOISE CRITERIA DAMPER OA OUTSIDE AIR
	T PER MINUTE PPM PARTS PER MILLION
DDC DIRECT DIG DX DIRECT EXF	SITAL CONTROL RA RETURN AIR PANSION SA SUPPLY AIR
EA EXHAUST A	
ETR EXISTING T	
FFB FROM FLOO	
	PER MINUTE W/ WITH
IN WC INCHES OF MAX MAXIMUM	F WATER COLUMN W/O WITHOUT
TANDARD MO	ounting heights
MECHANICA	L (AFF, AFG, UNLESS NOTED OTHERWISE)
	= SER ADJUSTABLE)(TOP OF DEVICE) 48"
CONTROLS (TOP	OF DEVICE) 48"
NNOTATION	
	NICAL PLAN CALLOUT
	NICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED STALLED UNLESS NOTED OTHERWISE)
	CTION POINT OF NEW WORK TO EXISTING
	REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER NUMBER INDICATES SHEET NUMBER
	N CUT DESIGNATION

GENERAL MECHANICAL NOTES:

- A. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- B. COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- C. NEW MECHANICAL EQUIPMENT AND DUCTWORK ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
- . COORDINATE LOCATION OF ROOF MOUNTED HVAC EQUIPMENT AND ROOF PENETRATIONS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- F. INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS GOTTEN WET AT ANY TIME DURING CONSTRUCTION, DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST. AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS, MINIMUM MERV-13, ARE INSTALLED AND PRIOR TO TURNING SYSTEM OVER TO THE OWNER.
- G. INSTALL DUCTWORK PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- H. OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- . SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
- K. COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
- ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
- M. LOCATE AND SET THERMOSTATS SENSORS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL THERMOSTATS WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. TEMPERATURE SENSORS SHALL BE MOUNTED AT A MAXIMUM OF 72" AFF. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 16.
- N. PROVIDE A MANUAL BALANCING DAMPER IN EACH BRANCH DUCT TAKEOFF FROM MAIN SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.
- 0. PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING WITH MANUAL BALANCING DAMPER AND LOCKING QUADRANT FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES.
- P. BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
- Q. RIGID DUCTWORK INSULATION: PROVIDE 3/4 LB DENSITY, MINIMUM R-6.0 DUCT WRAP, 2" THICK, INSULATION WRAP ON RIGID ROUND, CONCEALED, SUPPLY AND RETURN AIR DUCTS. PROVIDE 1-1/2" (R-6.0) THICK, 1-1/2LB DENSITY INTERNAL DUCT LINER ON RECTANGULAR SUPPLY AND RETURN AIR DUCTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY.
- R. PROVIDE THERMAFLEX TYPE M-KE, FLEXMASTER TYPE 8, OR APPROVED EQUAL FLEXIBLE DUCTWORK. FLEXIBLE DUCTWORK SHALL BE LISTED UNDER UL 181 AS CLASS 1 AIR DUCT AND BE PROVIDED WITH INTEGRAL R-6.0, 3/4 LB DENSITY FIBERGLASS INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING.
- S. PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING. AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.
- . PROVIDE A COPY OF THE AIR BALANCE REPORT TO THE CITY INSPECTOR AT THE TIME OF INSPECTION.

MARK	NOMINAL	MANUFACTURER	MODEL		SUPPLY F	AN				COOLING	i COIL		HEAT	EXCHANGEF	२	MIN.	EFFICIENCY	EL EL	ECTRIC	AL	WEIGHT
	CAPACITY			FAN	AIRFLOW	MIN	ESP	REFR.	TOTAL	SENSIBLE	EAT	LAT	TOTAL CAPACITY	NOM.	MIN. LAT	0/A	RATING	V/PH	MCA	MOCP	LBS
	(TONS)			TYPE	(CFM)	BHP	(IN)	TYPE	(MBH)	(MBH)	DB/WB (°F)) DB/WB (°F)	(MBH)	KW	DB (°F)	CFM					
RTU-1	5	CARRIER	50FE-B06A3	DIRECT	1,950	0.7	0.5	R-454B	60.4	38.0	77.9/68.1	59.6/58.6	33.5	9.8	81.6	150	13.4 SEER2	230/1	71.0	80	832

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- PROVIDE DRY-BULB ECONOMIZER WITH 100% BAROMETRIC RELIEF DAMPER.
- PROVIDE LOW AMBIENT COOLING CONTROL TO 40°F.
- EQUIPMENT SIZED FOR 115°F AMBIENT TEMPERATURE. PROVIDE 2" PLEATED MERV-13 THROWAWAY AIR FILTERS.
- SPECIFIED FAN ESP ACCOUNTS FOR DUCT LOSSES EXTERNAL TO UNIT.
- PROVIDE MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH MINIMUM HEIGHT OF 14".
- PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT WITH STAGED HEATING AND COOLING CAPABILITY AS REQUIRED FOR OPERATION OF HEATING, COOLING AND ECONOMIZER CONTROLS.

│ ⊢∕	FAN SCHEDULE													
MARK	SERVICE	MANUFACTURER	MOUNTING	MODEL	AIRFLOW	ESP	DRIVE	FAN	ELEC	IRICAL	WEIGHT	NOTES		
	(EA, RA, SA)				(CFM)	(IN)	(BELT/DIRECT)	POWER	V/PH	FLA	(LBS)			
EF-1	EXHAUST	СООК	CEILING	GC-128	75	0.125	DIRECT	4 W	120/1		13	A,B,C,E		

NOTES

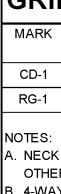
- PROVIDE RUBBER IN SHEAR ISOLATION AND ALL-THREAD HANGING RODS.
- MANUFACTURER TO PROVIDE WITH DECORATIVE GRILLE.
- INTERLOCK FAN OPERATION WITH RESTROOM LIGHT SWITCH.



AREA PURPOSE

KITCHEN





MANUFACTURER TO PROVIDE 12" HIGH ROOF CURB AND SPUN ALUMINUM ROOF CAP WITH INTEGRAL BIRD SCREEN AND BACKDRAFT DAMPER.

AIR REQUIREMENTS (FMC TABLE 403.3.1.1)												
GROSS				UTSIDE AIR			SYSTE					
FLOOR			REQU	IREMENTS			NUMBE					
AREA								(CFM PER UNIT)				
(SQ. FT)	CFM PER	CFM	CFM PER	OCCUPANCY	NO. OF	CFM	RTU-1	150				
	SQ. FT	REQD.	PERSON	DENSITY	PEOPLE	REQD.						
536	0.12	64	7.5	5	4	30						
536	TOTAL =	64				30	TOTAL	= 150				

AIR BA	LANCE SCH	IEDULE				
EXHAUST	AREA/EQUIPMENT				EXHAUST	TOTALS
EQUIPMENT	SERVED				(CFM)	(CFM)
EF-1	RESTROOM				75	
						75
OUTDOOR AIR	AREA/EQUIPMENT	SUPPLY AIR	DESIGN	PERCENT		
EQUIPMENT	SERVED	(CFM)	OA (CFM)	OA/SA		
RTU-1	KITCHEN	1,950	150	7.7%		
TOTAL AIRFLO	N	1,950	150	7.7%	-	150
			TOTAL POSITIV	E AIR FLOW		75
			PERCENT POS		I I	50.0%

EXHAUST AIR REQUIREMENTS								
AREA	FIXTURE	GROSS	COD	E EXHAUST	AIR	SYSTEM	ACTUAL	
PURPOSE	QUANTITY	FLOOR	RE	QUIREMEN	TS	NUMBER	EXHAUST AIF	
		AREA	IM	C TABLE 403	3.3			
		(SQ. FT)	CFM PER	CFM PER	CFM	EF-1	75	
			SQ. FT	FIXTURE	REQD.			
PUBLIC RESTROOM	1			70	70			
	1	0		TOTAL =	70	TOTAL =	75	

GRILLE, REGISTER AND DIFFUSER SCHEDULE

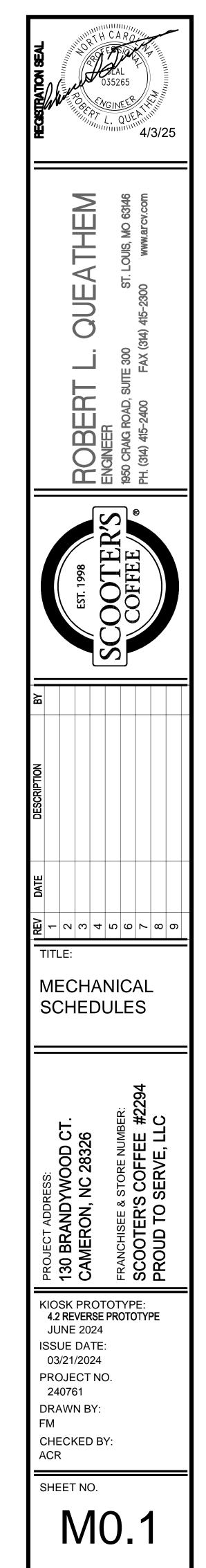
K	MANUFACTURER	MODEL	FACE	MOUNTING	FACE SIZE	MAX.	MAX. PRESS.	NOTES
			TYPE	LOCATION	(IN)	NC	DROP (IN. W.C.)	
1	TITUS	TMS	CONE	LAY IN	24x24	25	0.05	A-D
1	TITUS	PAR	PERFORATED	LAY IN	22x22	25	0.05	A,C,D

. NECK SIZE SHOWN ON DRAWINGS. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS

OTHERWISE SHOWN ON DRAWINGS. 3. 4-WAY THROW PATTERN UNLESS OTHERWISE SHOWN ON DRAWINGS.

. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.

. FRAME TYPE TO MATCH MOUNTING LOCATION CONSTRUCTION MATERIAL. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.





COMcheck Software Version COMcheckWeb Mechanical Compliance Certificate

Project Information

Energy Code: Project Title: Location: Climate Zone: Project Type:

90.1 (2016) Standard 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE)) Cameron, North Carolina

New Construction

Owner/Agent:

Scooter's Coffee

Construction Site: 130 Brandywood Ct. Cameron, North Carolina 28326 Designer/Contractor: Robert L. Queathem

1950 Craig Road, Suite #300 Saint Louis, Missouri 63146 arcv@arcv.com

Mechanical Systems List Quantity System Type & Description

- 1 RTU-1 (Single Zone):
- Heating: 1 each Central Furnace, Electric, Capacity = 33 kBtu/h
- No minimum efficiency requirement applies Cooling: 1 each Single Package DX Unit, Capacity = 60 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency = 14.00 SEER Proposed Part Load Efficiency = 0.00, Required Part Load Efficiency = 0.00
- Fan System: FAN SYSTEM 1 -- Compliance (Brake HP and fan efficiency method) : Passes
- Fans: RTU-1 Supply, Constant Volume, 1950 CFM, 1.0 motor nameplate hp, 0.7 design brake hp (0.7 max. BHP), 67.0 fan efficiency grade, 1.0 total fan efficiency, 1.0 design fan efficiency , fan exception: Single fan <= 5HP
- 1 Water Heater: Electric Storage Water Heater, Capacity: 50 gallons w/ Circulation Pump No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2016) Standard requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist Mun Jun ROBERT L. QUEATHEM 03/21/25 Name - Title Signature Date

rioject fille.	
Data filename:	

Report date: 03/18/25 Page 1 of 11

1 High Impact (Tier 1) 2 M Project Title: 240761 - SCOOTER'S COFFEE - CAMERON,

Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE))

Section # Plumbing Rough-In Inspection Complies? **Comments/Assumptions** & Req.ID 7.4.4.1 Temperature controls installed on └─Complies service water heating systems [PL2]³ 🗆 Does Not (<=120ºF to maximum temperature □Not Observable for intended use). □Not Applicable 7.4.4.2 Automatic time switches installed to Complies automatically switch off the [PL3]¹ \Box Does Not recirculating hot-water system or heat trace. □Not Applicable

Additional Comments/Assumptions:

 1
 High Impact (Tier 1)
 2
 Medium Impact (Tier 2)
 3
 Low Impact (Tier 3)

Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE))

Data filename:

Л **Inspection Checklist** Energy Code: 90.1 (2016) Standard

Requirements: 21.0% were addressed directly in the COM*check* software Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
4.2.2, 6.4.4.2.1, 6.7.2 [PR2] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	□Complies □Does Not □Not Observable □Not Applicable	
4.2.2, 7.7.1, 10.4.2 [PR3] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	□Complies □Does Not □Not Observable □Not Applicable	
4.2.2, 8.4.1.1, 8.4.1.2, 8.7 [PR6] ²	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
6.7.2.4 [PR5] ¹	Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft2.	□Complies □Does Not □Not Observable □Not Applicable	

Additional Comments/Assumptions:

Section					
# & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.1.4, 6.4.1.5 [ME1] ²	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.	Efficiency:	Efficiency:	□Complies □Does Not □Not Observable □Not Applicable	See the Mechanical Systems list for values.
6.4.3.4.1 [ME3] ³	Stair and elevator shaft vents have motorized dampers that automatically close.			Complies Does Not Not Observable Not Applicable	
6.4.3.4.5 [ME39] ³	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.			Complies Does Not Not Observable Not Applicable	
6.4.3.4.4 [ME5] ³	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.			Complies Does Not Not Observable Not Applicable	
6.4.3.8 [ME6] ¹	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.			Complies Does Not Not Observable	
6.5.3.2.1 [ME40] ²	DX cooling systems $>= 75$ kBtu/h ($>= 65$ kBtu/h effective 1/2016) and chilled-water and evaporative cooling fan motor hp $>= \frac{1}{4}$ designed to vary supply fan airflow as a function of load and comply with operational requirements.			□Complies □Does Not □Not Observable □Not Applicable	See the Mechanical Systems lis for values.
6.4.4.1.1 [ME7] ³	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.			□Complies □Does Not □Not Observable □Not Applicable	
6.4.4.1.2 [ME8] ²	HVAC ducts and plenums insulated per Table 6.8.2. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	R	R	□Complies □Does Not □Not Observable □Not Applicable	
6.4.4.1.3 [ME9] ²	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	in.	in.	Complies Does Not Not Observable Not Applicable	
6.4.4.1.4 [ME41] ³	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.			Complies Does Not Not Observable Not Applicable	
6.4.4.2.1 [ME10] ²	Ducts and plenums having pressure class ratings are Seal Class A construction.			Complies Does Not Not Observable Not Applicable	
	1 High Impact (Tier	1) 2 Madium	Impact (Tier 2)	3 Low Impact (T	ior 2)

COMcheck Software Version COMcheckWeb

		-		
Medium Impact (Tier 2)	3	Low Impact (Tier 3)		
I, NC (2016 ASHRAE))		Report	date:	03/18/25
		P	age	2 of 11

Section # Footing / Foundation Inspection Complies? **Comments/Assumptions** & Req.ID 6.4.3.7 Freeze protection and snow/ice └─Complies melting system sensors for future [FO9]³ \Box Does Not connection to controls. □Not Observable □Not Applicable

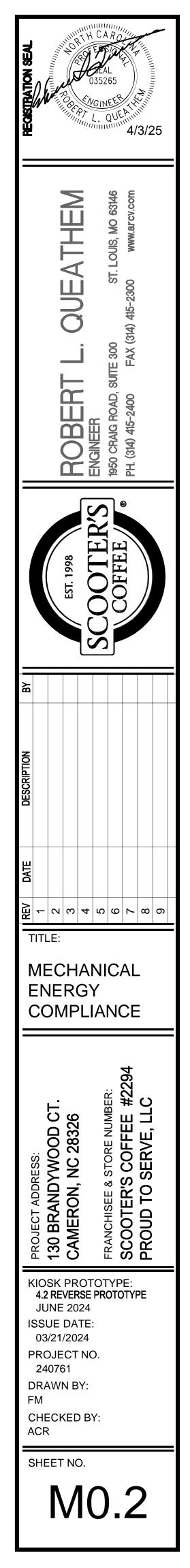
Additional Comments/Assumptions:

 1
 High Impact (Tier 1)
 2
 Medium Impact (Tier 2)
 3
 Low Impact (Tier 3)
 Report date: 03/18/25 Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE)) Data filename: Page 3 of 11

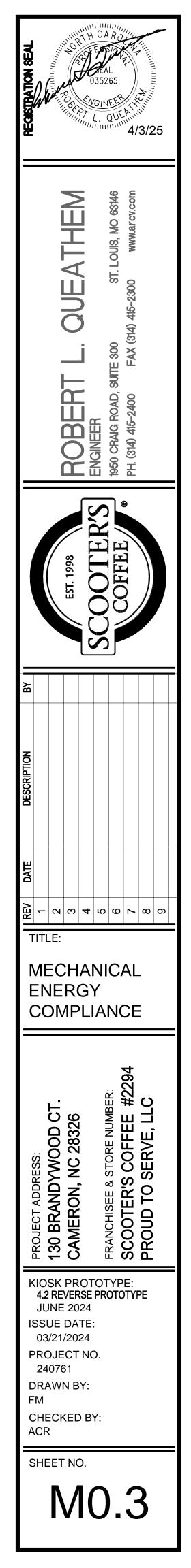
Section					
# & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.8.1-15, 6.8.1-16 [ME110] ²	Electrically operated DX-DOAS units meet requirements per Tables 6.8.1-15 or 6.8.1-16.			Complies Does Not Not Observable Not Applicable	
6.4.4.2.2 [ME11] ³	Ductwork operating >3 in. water column requires air leakage testing.			Complies Does Not Not Observable Not Applicable	
6.5.1.5 [ME16] ¹	Economizer operation will not increase heating energy use during normal operation.			Complies Does Not Not Observable	
6.5.2.3 [ME19] ³	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.2.4.1 [ME68] ³	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to activate when humidification is not required.			Complies Does Not Not Observable Not Applicable	
6.5.2.4.2 [ME69] ³	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air- handling units insulated >= R- 0.5.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.2.5 [ME70] ³	Preheat coils controlled to stop heat output whenever mechanical cooling, including economizer operation, is active.			Complies Does Not Not Observable Not Applicable	
6.5.2.6 [ME106] ³	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.3.6 [ME72] ²	Motors for fans >= 1/12 hp and < 1 hp are electronically- commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.			□Complies □Does Not □Not Observable □Not Applicable	

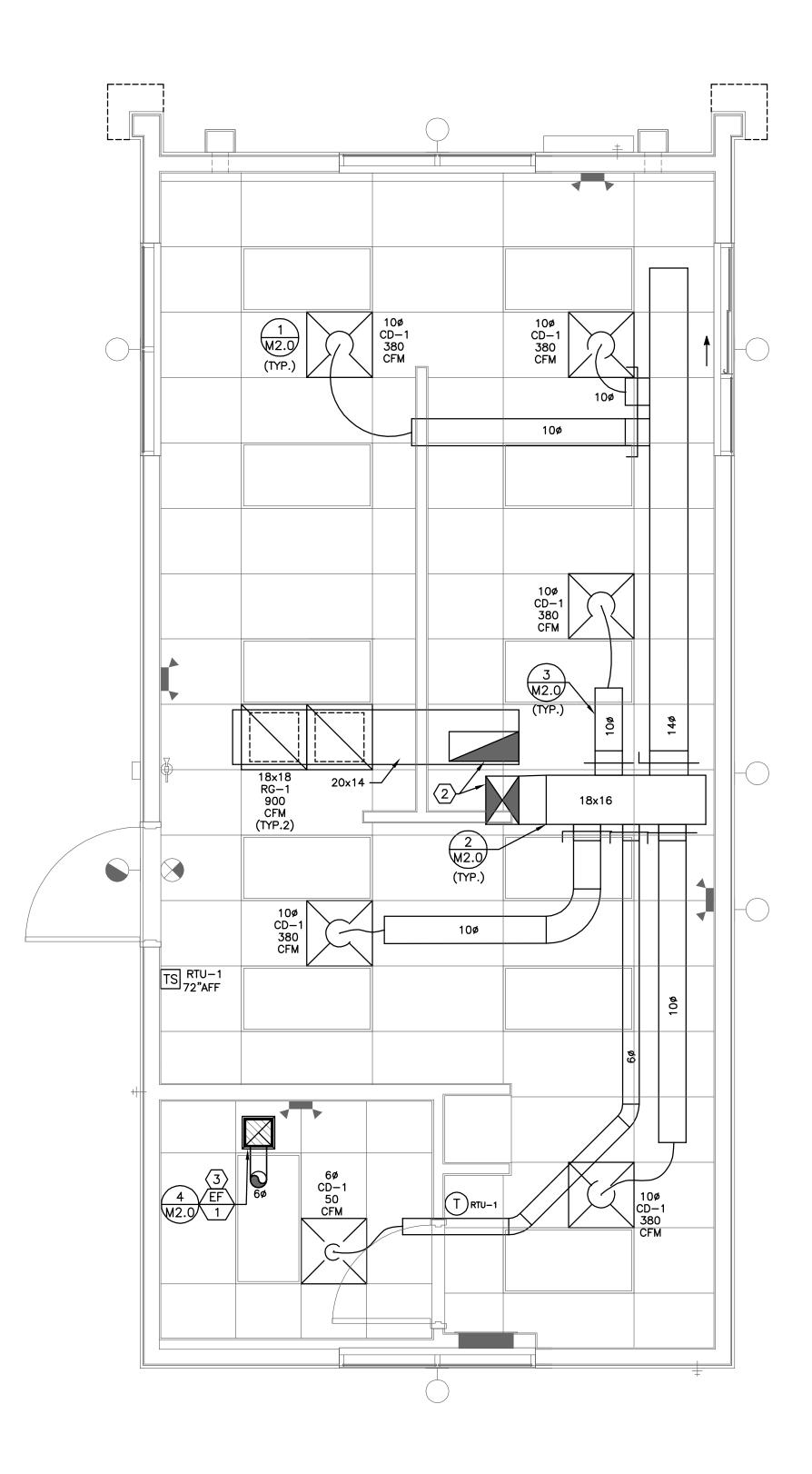
1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE))

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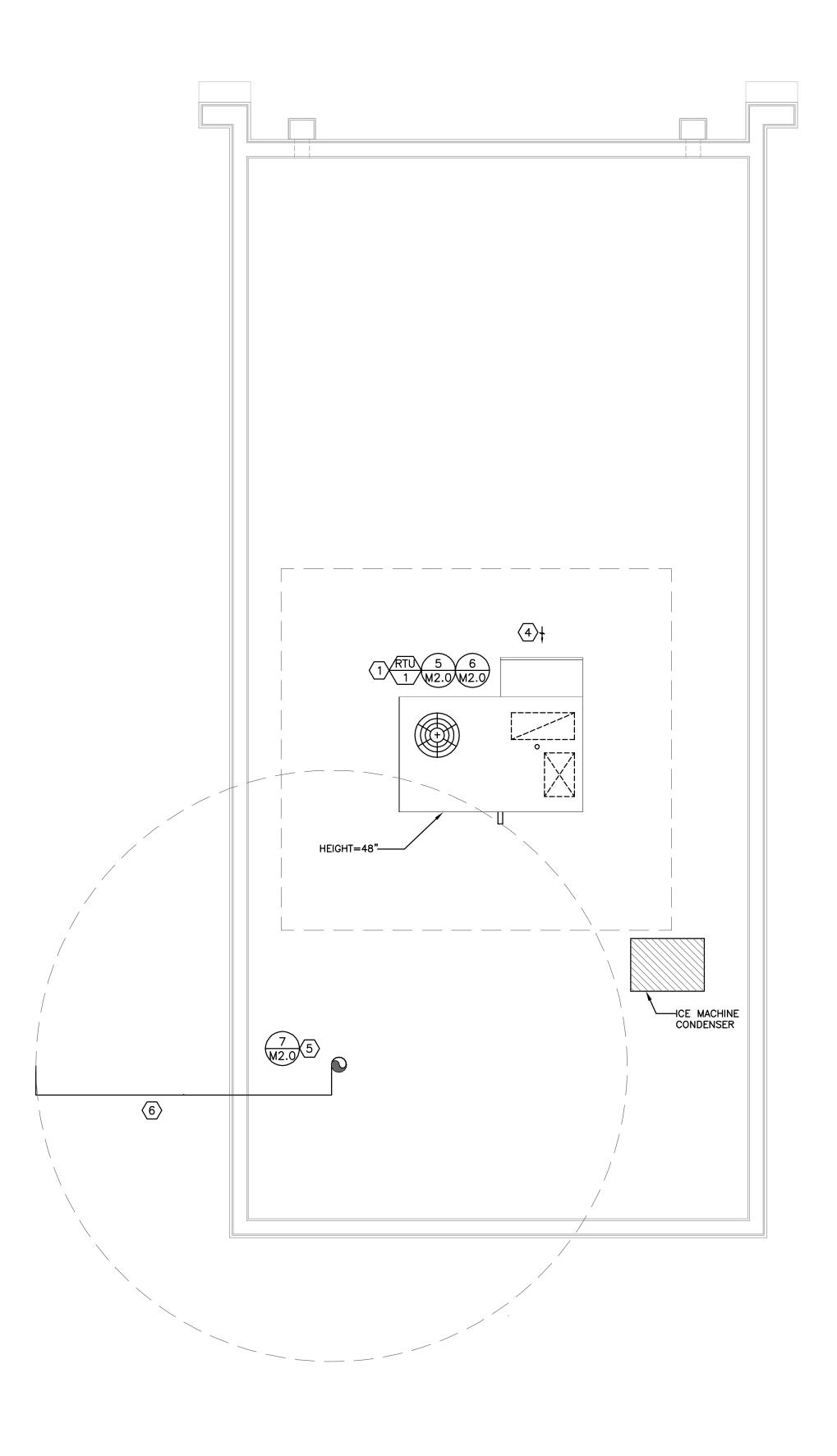


tion # Mechanical Rough-In Plans Verified Field V Inspection Value Val		Section #Mechanical Rough-In InspectionPlans Verified Value& Req.IDInspectionValue	Field Verified Complies? Com	ments/Assumptions Section & & Req.II	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
Parallel-flow fan-powered VAV air 08] ² terminals have automatic	Complies Does Not	6.5.7.2.4 Approved field test used to [ME49] ³ evaluate design air flow rates	Complies Does Not	8.4.2 [EL10] ²	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by	□Complies Requirement w □Does Not	ll be met.
controls to a) turn off the terminal fan except when space heating is required or if required	□Not Observable □Not Applicable	and demonstrate proper capture and containment of kitchen exhaust systems.	□Not Observable □Not Applicable		an automatic control device.	□Not Observable □Not Applicable	
for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is		6.5.8.1 [ME34]2Unenclosed spaces that are heated use only radiant heat.	Complies Does Not	8.4.3 [EL11] ²	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each	□Complies Requirement w □Does Not □	ll be met.
activated; and c) during heating for warmup or setback temperature control, either			□Not Observable □Not Applicable		tenant is monitored separately. In	□Not Observable □Not Applicable	
operate the terminal fan and heating coil without primary air or reverse the terminal damper		6.5.9 Hot gas bypass limited to: <=240 [ME35] ¹ kBtu/h - 15% >240 kBtu/h - 10%	□Complies □Does Not □Not Observable		control system and displayed graphically.	-	
logic and provide heating from the central air handler through		7.4.2 Service water heating equipment		10.4.1 [EL9] ²	Electric motors meet requirements where applicable.	□Complies □Does Not	
imary air. equired minimum outdoor air te is the larger of minimum	Complies Does Not	[ME36] ² meets efficiency requirements.	Does Not			□Not Observable □Not Applicable	
tdoor air rate or minimum naust air rate required by	□Not Observable □Not Applicable	6.4.3.9 Heating for vestibules and air	Not Applicable	Addition	nal Comments/Assumptions:		
ndard 62.1, Standard 170, or licable codes or accreditation ndards. Outdoor air ventilation		[ME63] ² curtains with integral heating include automatic controls that shut off the heating system when	Does Not Not Observable				
tems shall comply with one of following: a) design minimum tem outdoor air provided <		outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a	□Not Applicable				
35% of the required minimum Itdoor air rate, b) dampers, Ictwork, and controls allow the		thermostat in the vestibule with heating setpoint <= 60F and					
stem to supply <= the quired minimum outdoor air te with a single set-point		cooling setpoint >= 80F. 6.5.10 Doors separating conditioned [ME73] ³ space from the outdoors have	Complies Does Not				
istment., or c) system udes exhaust air energy		controls that disable/reset heating and cooling system when	Not Observable				
y complying with Section	Complies See the Mechanical Systems list	open. Additional Comments/Assumptions:					
ndividual zone boxes tic pressure setpoint	Does Not for values.						
ontrols. pumping systems with >=	Not Applicable Complies						
rol values designed for le fluid flow (see section s).	Does Not Not Observable						
aust air energy recovery on	Not Applicable Complies Dess Nat						
ns meeting Tables 6.5.6.1- 6.5.6.1-2.	Does Not Not Observable Not Applicable						
nditioned supply air to space h mechanical exhaust <= the	Complies						
ater of criteria of supply flow, uired ventilation rate, exhaust v minu the available transffer	Not Observable						
see section details). hen hoods >5,000 cfm have	Complies						
ke up air >=50% of exhaust volume.	Does Not Not Observable Not Applicable						
							3 Low Impact (Tier 3)
1 High Impact (Tier 1) 2 Medium Impact (Tie	er 2) 3 Low Impact (Tier 3)	1 High Impact (Tier 1) 2 Medium I	mpact (Tier 2) 3 Low Impact (Tier 3)		1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	
1 High Impact (Tier 1) 2 Medium Impact (Tier 1) le: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRA ame:		1 High Impact (Tier 1) 2 Medium I Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (20) Data filename:		port date: 03/18/25 Page 8 of 11 Data filen	le: 240761 - SCOOTER'S COFFEE - CA		Report date: 03/18/2 Page 9 of 1
240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRA e: Final Inspection Complies? hermostatic controls have a 5 °F Complies eadband. Does Not Not Observable	E)) Report date: 03/18/25	Section # Final Inspection Complies? 10.4.3 [F124] ² Elevators are designed with the proper lighting, ventilation power, and standby mode. Complies	L6 ASHRAE)) Rep	Page 8 of 11 Data filen	le: 240761 - SCOOTER'S COFFEE - CA		
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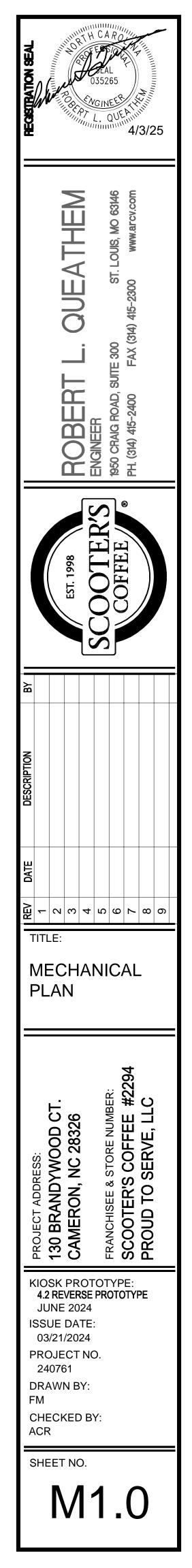


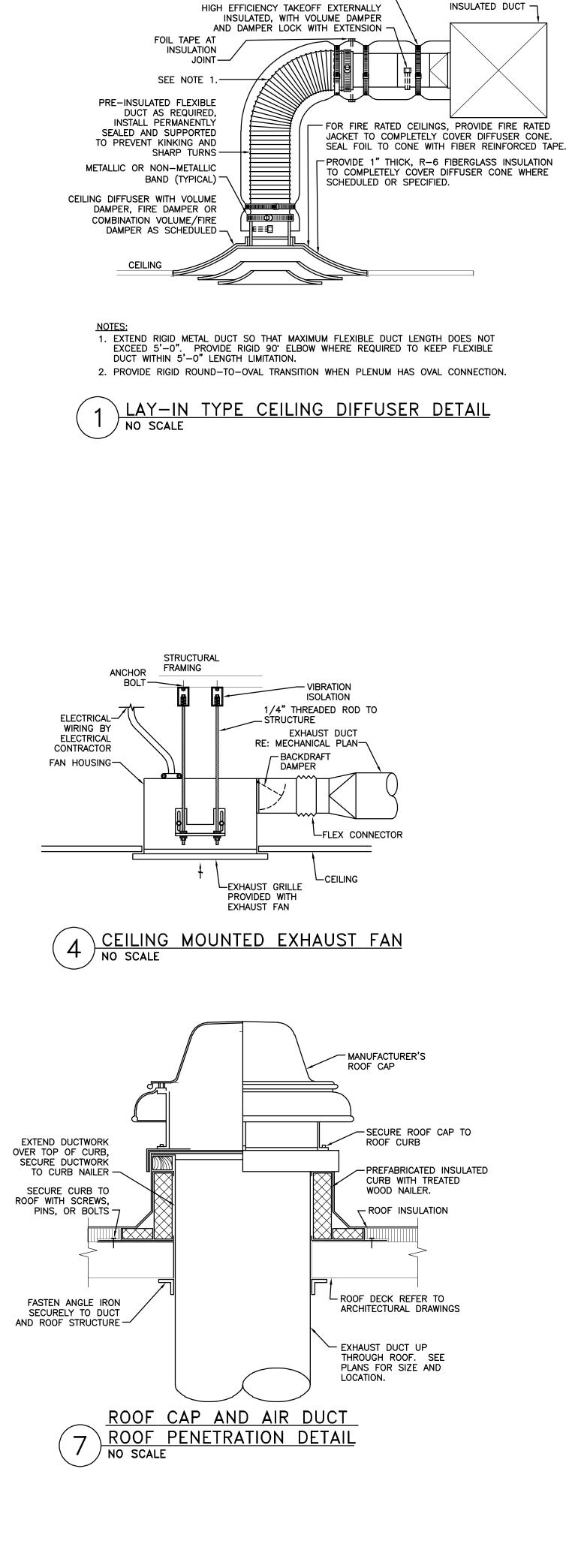
1 MECHANICAL FLOOR PLAN



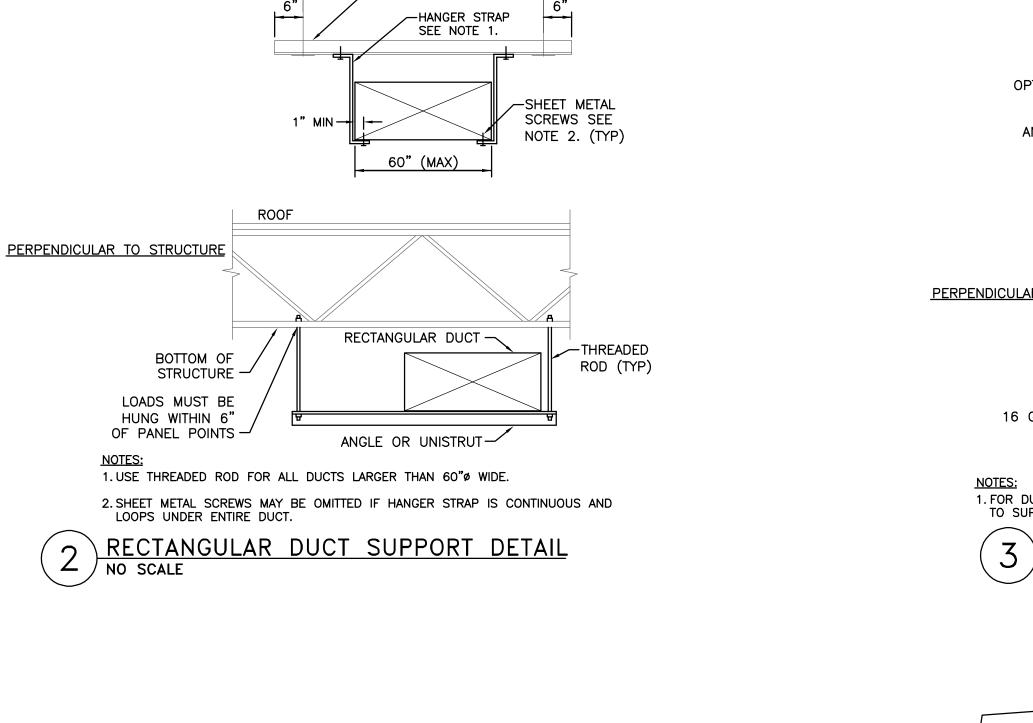


\ #	MECHANICAL PLAN NOTES:
1.	NEW PACKAGED ROOF TOP UNIT ON NEW ROOF CURB. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. ROUTE SUPPLY AND RETURN DUCTWORK DOWN THROUGH ROOF. COORDINATE SIZE OF DUCTWORK TO CLEAR ROOF STRUCTURE AT THE UNDERSIDE OF THE ROOF DECK. ADJUST DUCT SIZE AS NECESSARY WHILE MAINTAINING EQUIVALENT CROSS-SECTIONAL AREA OF DUCTWORK. SEE FLOOR PLAN FOR CONTINUATION OF DUCTWORK ROUTING.
2.	ROUTE FULL SIZE SUPPLY AND RETURN AIR DUCTWORK THROUGH ROOF AND TRANSITION TO DUCTWORK INDICATED ON FLOOR PLAN. BALANCE OUTSIDE AIR DUCTWORK CFM TO AIRFLOW INDICATED ON PLAN.
3.	CEILING MOUNTED RESTROOM EXHAUST FAN, INTERLOCKED WITH RESTROOM LIGHT SWITCH. ROUTE 6"Ø EXHAUST DUCT UP AND PENETRATE ROOF. TERMINATE ON ROOF WITH ROOF CAP. COORDINATE LOCATION OF DISCHARGE TO MAINTAIN MINIMUM 10'-0" DISTANCE AWAY FROM ANY BUILDING INTAKES OR OPENINGS.
4.	OUTSIDE AIR INTAKE OF ROOF TOP UNIT. AIR INTAKE SHALL BE MINIMUM $10'-0$ " AWAY FROM ANY EXHAUST FANS AND PLUMBING VENTS.
5.	RESTROOM EXHAUST TERMINATION ROOF CAP ON ROOF CURB. COORDINATE LOCATION OF ROOF CAP TO MAINTAIN 10'-0" MINIMUM CLEARANCE FROM FRESH AIR INTAKES, 3'-0" FROM OPENINGS INTO BUILDING AND 3'-0" FROM PROPERTY LINE.
6.	10'–0" HORIZONTAL EXHAUST CLEARANCE RADIUS FROM EQUIPMENT AND BUILDING INTAKES.



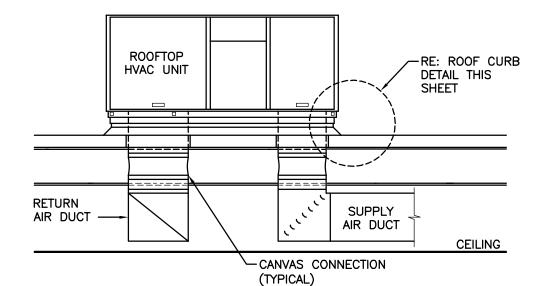


METALLIC OR NON-METALLIC BAND OVER INSULATION (TYPICAL) -



- JOIST

-ANGLE OR UNISTRUT



ROOF

PARALLEL TO STRUCTURE

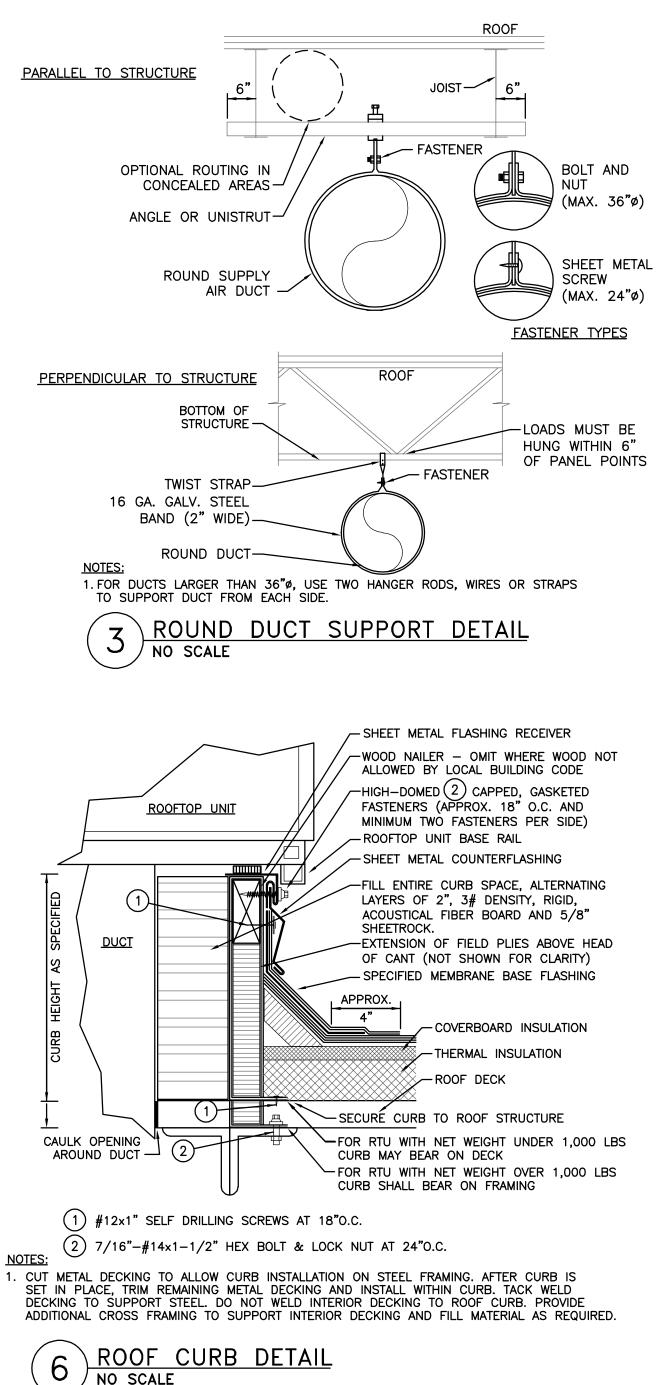
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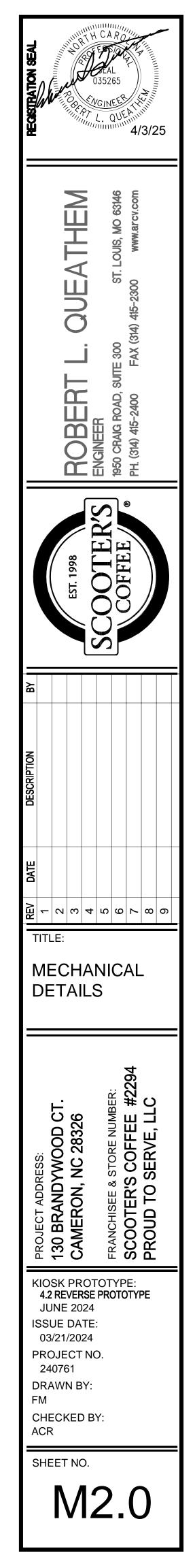
- 1. PROVIDE OPENING THROUGH ROOF AND ROOF DECK INSULATION NO LARGER THAN REQUIRED TO ALLOW DUCTS TO PASS THROUGH. REFER TO PLANS FOR DUCT SIZES. TRANSITION AS REQUIRED IN ROOF CURB TO RTU SUPPLY AND RETURN OPENINGS.
- 2. PROVIDE SLOPED ROOF CURB TO INSTALL ROOFTOP UNIT LEVEL TO ENSURE PROPER DRAINAGE. COORDINATE ROOF SLOPE WITH ARCHITECTURAL. FLASH AND COUNTER FLASH ROOF PENETRATIONS, ETC. TO ENSURE WEATHER TIGHT INSTALLATION.





ROOF CURB DETAIL

NO SCALE



MECHANICAL SPECIFICATIONS:

GENERAL REQUIREMENTS

REQUIREMENTS UNDER DIVISION ONE AND THE GENERAL AND SUPPLEMENTARY CONDITIONS OF THESE SPECIFICATIONS SHALL BE A PART OF THIS SECTION. CONTRACTOR SHALL BECOME THOROUGHLY ACQUAINTED WITH ITS CONTENTS AS TO REQUIREMENTS THAT AFFECT THIS DIVISION OR SECTION. THE WORK REQUIRED UNDER THIS SECTION INCLUDES MATERIAL, EQUIPMENT, APPLIANCES, TRANSPORTATION, SERVICES, AND LABOR REQUIRED TO COMPLETE THE ENTIRE SYSTEM AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.

THE SPECIFICATIONS AND DRAWINGS FOR THE PROJECT ARE COMPLEMENTARY, AND PORTIONS OF THE WORK DESCRIBED IN ONE SHALL BE PROVIDED AS IF DESCRIBED IN BOTH. IN THE EVENT OF DISCREPANCIES, NOTIFY THE ENGINEER AND REQUEST CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK INVOLVED.

<u>DEFINITIONS</u>

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR OPERATIONS.

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

FURNISHED BY OWNER OR FURNISHED BY OTHERS: THE ITEM WILL BE FURNISHED BY THE OWNER OR OTHERS. IT IS TO BE INSTALLED AND CONNECTED UNDER THE REQUIREMENTS OF THIS DIVISION, COMPLETE AND READY FOR OPERATION, INCLUDING ITEMS INCIDENTAL TO THE WORK. INCLUDING SERVICES NECESSARY FOR PROPER INSTALLATION AND OPERATION. THE INSTALLATION SHALL BE INCLUDED UNDER THE GUARANTEE REQUIRED BY THIS DIVISION.

AHJ: THE LOCAL CODE AND/OR INSPECTION AGENCY (AUTHORITY) HAVING JURISDICTION OVER THE WORK.

THE TERMS "APPROVED EQUAL", "EQUIVALENT", OR "EQUAL" ARE USED SYNONYMOUSLY AND SHALL MEAN "ACCEPTED BY OR ACCEPTABLE TO THE ENGINEER AS EQUIVALENT TO THE ITEM OR MANUFACTURER SPECIFIED". THE TERM "APPROVED" SHALL MEAN LABELED, LISTED, OR BOTH, BY A NATIONALLY RECOGNIZED TESTING LABORATORY (E.G. UL, ETL, CSA), AND ACCEPTABLE TO THE AHJ OVER THIS PROJECT.

<u>COORDINATION</u>

COORDINATE WORK WITH THAT OF OTHER TRADES SO THAT THE VARIOUS COMPONENTS OF THE SYSTEMS WILL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE, AND WILL ALLOW PROPER SERVICE ACCESS TO THOSE ITEMS REQUIRING MAINTENANCE. COMPONENTS WHICH ARE INSTALLED WITHOUT REGARD TO THE ABOVE SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.

UNLESS OTHERWISE INDICATED, THE GENERAL CONTRACTOR WILL PROVIDE CHASES AND OPENINGS IN BUILDING CONSTRUCTION REQUIRED FOR INSTALLATION OF THE SYSTEMS SPECIFIED HEREIN. CONTRACTOR SHALL FURNISH THE GENERAL CONTRACTOR WITH INFORMATION WHERE CHASES AND OPENINGS ARE REQUIRED KEEP INFORMED AS TO THE WORK OF OTHER TRADES ENGAGED IN THE CONSTRUCTION OF THE PROJECT AND EXECUTE WORK IN A MANNER AS TO NOT INTERFERE WITH OR DELAY THE WORK OF OTHER TRADES.

FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALE DIMENSIONS. CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE BUILDING, AS VARIATIONS MAY OCCUR. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS THAT COULD HAVE BEEN AVOIDED BY PROPER CHECKING AND INSPECTION.

PROVIDE MATERIALS WITH TRIM THAT WILL PROPERLY FIT THE TYPES OF CEILING, WALL, OR FLOOR FINISHES ACTUALLY INSTALLED. MODEL NUMBERS LISTED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS ARE NOT INTENDED TO DESIGNATE THE REQUIRED TRIM.

WARRANTIES

WARRANT EACH SYSTEM AND EACH ELEMENT THEREOF AGAINST ALL DEFECTS DUE TO FAULTY WORKMANSHIP, DESIGN OR MATERIAL FOR A PERIOD OF 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION, UNLESS SPECIFIC ITEMS ARE NOTED TO CARRY A LONGER WARRANTY IN THE CONSTRUCTION DOCUMENTS OR MANUFACTURER'S STANDARD WARRANTY EXCEEDS 12 MONTHS. REMEDY ALL DEFECTS, OCCURRING WITHIN THE WARRANTY PERIOD(S), AS STATED IN THE GENERAL CONDITIONS AND DIVISION 1.

WARRANTIES SHALL INCLUDE LABOR AND MATERIAL. MAKE REPAIRS OR REPLACEMENTS WITHOUT ANY ADDITIONAL COSTS TO THE OWNER.

PERFORM THE REMEDIAL WORK PROMPTLY, UPON WRITTEN NOTICE FROM THE ENGINEER OR OWNER.

AT THE TIME OF SUBSTANTIAL COMPLETION, DELIVER TO THE OWNER ALL WARRANTIES, IN WRITING AND PROPERLY EXECUTED, INCLUDING TERM LIMITS FOR WARRANTIES EXTENDING BEYOND THE ONE YEAR PERIOD, EACH WARRANTY INSTRUMENT BEING ADDRESSED TO THE OWNER AND STATING THE COMMENCEMENT DATE AND TERM.

CUTTING AND PATCHING

PERFORM CUTTING OF WALLS, FLOORS, CEILINGS, ETC. AS REQUIRED TO INSTALL WORK UNDER THIS SECTION. OBTAIN PERMISSION FROM THE ARCHITECT PRIOR TO CUTTING. DO NOT CUT OR DISTURB STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL FROM THE ARCHITECT. CUT HOLES AS SMALL AS POSSIBLE. GENERAL CONTRACTOR SHALL PATCH WALLS. FLOORS. ETC. AS REQUIRED BY WORK UNDER THIS SECTION. PATCHING SHALL MATCH THE ORIGINAL MATERIAL AND CONSTRUCTION. REPAIR AND REFINISH AREAS DISTURBED BY WORK TO THE CONDITION OF ADJOINING SURFACES IN A MANNER SATISFACTORY TO THE ARCHITECT

CONCRETE BASES

PROVIDE CONCRETE BASES FOR EQUIPMENT WHERE INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN. CONCRETE BASES SHALL HAVE CHAMFERED EDGES. SIZE OF PAD SHALL BE A MINIMUM OF 4" GREATER THAN THE FOOTPRINT OF THE EQUIPMENT THAT IT IS SUPPORTING AND SHALL HAVE A MINIMUM HEIGHT OF 3-1/2".

CONSTRUCT EQUIPMENT BASES AND HOUSEKEEPING PADS OF A MINIMUM 28 DAY, 4000 PSI CONCRETE CONFORMING TO AMERICAN CONCRETE INSTITUTE STANDARD BUILDING CODE FOR REINFORCED CONCRETE (ACI 318-19) AND THE LATEST APPLICABLE RECOMMENDATIONS OF THE ACI STANDARD PRACTICE MANUAL. CONCRETE SHALL BE COMPOSED OF CEMENT CONFORMING TO ASTM C 150 TYPE I. AGGREGATE CONFORMING TO ASTM C33, AND POTABLE WATER. EXPOSED EXTERIOR CONCRETE SHALL CONTAIN 5 TO 7 PERCENT AIR ENTRAINMENT.

PROVIDE GALVANIZED ANCHOR BOLTS FOR EQUIPMENT PLACED ON CONCRETE EQUIPMENT BASES AND HOUSEKEEPING PADS OR ON CONCRETE SLABS. ANCHOR BOLTS SIZE, NUMBER AND PLACEMENT SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT.

ACCESS DOORS

PROVIDE ACCESS DOORS IN CEILINGS, WALLS, ETC. WHERE INDICATED OR REQUIRED FOR ACCESS OR MAINTENANCE TO CONCEALED VALVES AND EQUIPMENT INSTALLED UNDER THIS SECTION. PROVIDE CONCEALED HINGES, SCREWDRIVER-TYPE LOCK, ANCHOR STRAPS; MANUFACTURED BY MILCOR, ZURN, TITUS, OR EQUAL. OBTAIN ARCHITECT'S APPROVAL OF TYPE, SIZE, LOCATION AND COLOR BEFORE ORDERING.

PENETRATIONS

PROVIDE SLEEVES FOR PIPES PASSING THROUGH ABOVE GRADE CONCRETE OR COVER CONCEALED, RIGID DUCTWORK WITH 2" THICK, 3/4 POUND DENSITY, MINIMUM MASONRY WALLS, CONCRETE FLOOR OR ROOF SLABS. SLEEVES ARE NOT REQUIRED R-6.0 DUCT WRAP, CERTAINTEED OR EQUIVALENT OWENS-CORNING OR KNAUF WITH FOR CORE DRILLED HOLES IN EXISTING MASONRY WALLS, CONCRETE FLOORS OR HEAVY-DUTY FOIL-SCRIM-KRAFT FACING, AND WITH JOINTS TAPED WITH 3" WIDE ROOFS. PROVIDE 10 GAUGE GALVANIZED STEEL SLEEVES FOR SLEEVES 6" AND FOIL TAPE AS FOLLOWS: SMALLER. PROVIDE GALVANIZED SHEET METAL SLEEVES FOR LARGER THAN 6". SCHEDULE 40 PVC SLEEVES ARE ACCEPTABLE FOR INSTALLATION IN AREAS WITHOUT A. ROUND AND/OR RECTANGULAR SUPPLY AND RETURN AIR DUCTWORK. RETURN AIR PLENUMS.

<u>DUCTWORK</u>

SEAL ELEVATED FLOOR, EXTERIOR WALL AND ROOF PENETRATIONS WATERTIGHT AND WEATHERTIGHT WITH NON-SHRINK, NON-HARDENING COMMERCIAL SEALANT. PACK WITH MINERAL WOOL AND SEAL BOTH ENDS WITH MINIMUM OF 1/2" OF SEALANT. SEAL AROUND PENETRATIONS OF FIRE RATED ASSEMBLIES. COORDINATE FIRE RATINGS AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR FIRE STOPPINGS. PROVIDE A PRODUCT SCHEDULE FOR UL LISTING, LOCATION, WALL OR FLOOR RATING AND INSTALLATION DRAWING FOR EACH PENETRATION FIRE STOP SYSTEM.

EXTEND PIPE INSULATION FOR INSULATED PIPE THROUGH FLOOR, WALL AND ROOF PENETRATIONS, INCLUDING FIRE RATED WALLS AND FLOORS. THE VAPOR BARRIER SHALL BE MAINTAINED. SIZE SLEEVE FOR A MINIMUM OF 1" ANNULAR CLEAR SPACE BETWEEN INSIDE OF SLEEVE AND OUTSIDE OF INSULATION.

PROVIDE PREFABRICATED ROOF CURBS MANUFACTURED BY CUSTOM CURB, INC. PATE COMPANY, THYCURB OR APPROVED EQUAL. PROVIDE ROOF CURB WITH FACTORY INSTALLED WOOD NAILER; WELDED, 18 GAUGE GALVANIZED STEEL SHELI BASE PLATE AND FLASHING; 1-1/2" THICK, 3 POUND RIGID INSULATION; FULLY MITERED 3-INCH RAISED CANT; COVER OF WEATHER-RESISTANT, WEATHER-PROOF MATERIAL AND PIPE COLLAR OF WEATHER-RESISTANT MATERIAL WITH STAINLESS STEEL PIPE CLAMPS.

PROVIDE BOX FRAMES FOR RECTANGULAR OPENINGS WELDED 12 GAUGE GALVANIZED STEEL ATTACHED TO FORMS AND OF A MAXIMUM DIMENSION ESTABLISHED BY THE ARCHITECT. NOTIFY THE GENERAL CONTRACTOR OR ARCHITECT BEFORE INSTALLING ANY BOX OPENINGS NOT SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.

SEAL CONCRETE OR MASONRY EXTERIOR WALL PENETRATIONS BELOW GRADE WITH "WALL PIPES" AND MECHANICAL SLEEVE SEALS. PROVIDE CAST IRON "WALL PIPES" WITH INTEGRAL WATERSTOP RING MANUFACTURED BY JOSAM, JAY R. SMITH, WADE, WATTS OR ZURN. PROVIDE MODULAR MECHANICAL SLEEVE SEALS, MANUFACTURED BY THUNDERLINE / LINK SEAL, CALPICO, INC. AND METRAFLEX.

SEAL ELEVATED CONCRETE SLAB WITH WATERPROOF MEMBRANE PENETRATIONS WITH "WALL PIPES" AND WATER PROOF SEALANT. SECURE WATERPROOF MEMBRANE FLASHING BETWEEN "WALL PIPE" CLAMPING FLANGE AND CLAMPING RING. PROVIDE CAST IRON "WALL PIPES" WITH INTEGRAL WATERSTOP RING MANUFACTURED BY JOSAM, JAY R. SMITH, WADE, WATTS OR ZURN.

PROVIDE SLEEVES FOR HORIZONTAL PIPE PASSING THROUGH OR UNDER FOUNDATION. SLEEVES SHALL BE CAST IRON SOIL PIPE TWO NOMINAL PIPE SIZES LARGER THAN THE PIPE SERVED.

PROVIDE SCHEDULE 40 PVC PIPE SLEEVES FOR VERTICAL PRESSURE PIPE PASSING THROUGH CONCRETE SLAB ON GRADE. SLEEVES SHALL BE ONE NOMINAL PIPE SIZE LARGER THAN THE PIPE SERVED AND TWO PIPE SIZES LARGER THAN PIPE SERVED FOR DUCTILE IRON PIPES WITH RESTRAINING RODS. SEAL WATER-TIGHT WITH SILICONE CAULK.

PROVIDE 1/2" THICK CELLULAR FOAM INSULATION AROUND PERIMETER OF NON-PRESSURE PIPE PASSING THRU CONCRETE SLAB ON GRADE. INSULATION SHALL EXTEND TO 2" ABOVE AND BELOW THE CONCRETE SLAB.

ELECTRICAL WIRING

LINE VOLTAGE WIRING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. LINE VOLTAGE CONTROL AND INTERLOCK WIRING FOR MECHANICAL SYSTEMS SHALL ALSO BE PROVIDED BY ELECTRICAL CONTRACTOR. LOW VOLTAGE CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. FURNISH WIRING DIAGRAMS TO THE ELECTRICAL CONTRACTOR AS REQUIRED FOR PROPER EQUIPMENT HOOKUP. COORDINATE WITH THE ELECTRICAL CONTRACTOR THE ACTUAL WIRE SIZING AMPS FOR MECHANICAL EQUIPMENT (FROM THE EQUIPMENT NAMEPLATE) TO ENSURE PROPER INSTALLATION.

FINAL TESTING AND ADJUSTMENTS

FINAL SYSTEM TESTING, BALANCING AND ADJUSTMENTS SHALL BE PERFORMED BY A (NEBB), ASSOCIATED AIR BALANCE COUNCIL (AABC) OR OTHER APPROVED AGENCY. PERFORM TEST READINGS ON FANS, UNITS, COILS, ETC. AND ADJUST EQUIPMENT TO DELIVER SPECIFIED AMOUNTS OF AIR. PREPARE TESTING AND BALANCING REPORT LOG SHOWING AIR SUPPLY QUANTITIES, AIR ENTERING AND LEAVING TEMPERATURES AND PRESSURES, FAN AND UNIT TEST READINGS, MOTOR VOLTAGE AND AMP DRAWS, ETC., AND SUBMIT SIX COPIES OF THE FINAL COMPILATION OF DATA TO THE ARCHITECT FOR EVALUATION AND APPROVAL BEFORE FINAL INSPECTION OF THE PROJECT. BALANCE AIR SYSTEMS TO WITHIN PLUS OR MINUS 10 PERCENT FOR TERMINAL DEVICES AND BRANCH LINES AND PLUS OR MINUS 5 PERCENT FOR MAIN DUCTS AND AIR HANDLING EQUIPMENT OF THE AMOUNT OF AIR SHOWN ON THE DRAWINGS. FURTHER ADJUSTMENTS SHALL BE MADE TO OBTAIN UNIFORM TEMPERATURE IN SPACES. ADJUST EQUIPMENT TO OPERATE AS INTENDED BY THE SPECIFICATION. ALIGN BEARINGS AND REPLACE BEARINGS THAT HAVE DIRT OR FOREIGN MATERIAL IN THEM WITH NEW BEARINGS WITHOUT ADDITIONAL COST TO THE OWNER. BALANCE CONTRACTOR SHALL INCLUDE IN THE REPORT ANY IMPROPERLY INSTALLED OR MISSING BALANCING DEVICES THAT WOULD NEGATIVELY IMPACT THE SYSTEM OPERATION.

ADJUST THERMOSTATS AND CONTROL DEVICES TO OPERATE AS INTENDED. ADJUST BURNERS, PUMPS, FANS, ETC. FOR PROPER AND EFFICIENT OPERATION. CERTIFY TO ARCHITECT THAT ADJUSTMENTS HAVE BEEN MADE AND THAT SYSTEM IS OPERATING SATISFACTORILY. FURTHER ADJUSTMENTS SHALL BE MADE TO OBTAIN UNIFORM TEMPERATURE IN SPACES. CALIBRATE, SET, AND ADJUST AUTOMATIC TEMPERATURE CONTROLS. CHECK PROPER SEQUENCING OF INTERLOCK SYSTEMS, AND OPERATION OF SAFETY CONTROLS.

EQUIPMENT FURNISHED BY OTHERS

PROVIDE NECESSARY EQUIPMENT AND ACCESSORIES THAT ARE NOT PROVIDED BY THE EQUIPMENT SUPPLIER OR OWNER TO COMPLETE INSTALLATION OF COOKING EQUIPMENT, WASHING EQUIPMENT, ETC., FURNISHED BY OTHERS, IN LOCATIONS AS INDICATED ON THE DRAWINGS AND/OR DESCRIBED IN THE GENERAL NOTES TO THIS CONTRACTOR. EQUIPMENT AND ACCESSORIES NOT PROVIDED BY THE EQUIPMENT SUPPLIER MAY INCLUDE FLUES, VENTS, INTAKES, ASSOCIATED ROOF JACKS AND CAPS TO OUTDOORS, DAMPERS, IN-LINE FANS, ROOF FANS, CONTROL INTERLOCKS, ETC. AS REQUIRED FOR PROPER OPERATION OF THE COMPLETE SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECT ROUGH-IN DIMENSIONS AND SHALL VERIFY SAME WITH ARCHITECT AND/OR EQUIPMENT SUPPLIER PRIOR TO SERVICE INSTALLATIONS.

DUCT INSULATION

PROVIDE DUCT LINER IN CONCEALED RECTANGULAR SUPPLY AND RETURN AIR DUCTWORK. LINER SHALL BE 1-1/2" THICK, 1-1/2" POUND DENSITY FIBERGLASS, MINIMUM R-6.0 CERTAINTEED CORP. "TOUGHGARD" OR EQUIVALENT OWENS-CORNING OR KNAUF LONG TEXTILE FIBER DUCT LINER. LINER SURFACE SHALL SERVE AS A BARRIER AGAINST INFILTRATION OF DUST AND DIRT, SHALL MEET ASTM C 1338 FOR FUNGI RESISTANCE AND SHALL BE CLEANABLE USING DUCT CLEANING METHODS AND EQUIPMENT OUTLINED BY NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION (NAIMA) DUCT CLEANING GUIDE. INSTALL WITH LINER ADHESIVE AND MECHANICAL FASTENERS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. DUCTWORK SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. INCREASE SHEET METAL BY LINER THICKNESS IN BOTH DIRECTIONS WHERE LINER IS INSTALLED.

B. ROUND AND RECTANGULAR OUTSIDE AIR DUCTWORK.

C. ROUND AND RECTANGULAR EXHAUST AND RELIEF AIR DUCTWORK WITHIN 10 FEET OF EXTERIOR DISCHARGE.

INSULATING MATERIALS, ADHESIVES, COATINGS, ETC., SHALL NOT EXCEED FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 PER ASTM E 84. CONTAINERS FOR MASTICS AND ADHESIVES SHALL HAVE U.L. LABEL.

FOR DUCTWORK THAT IS LOCATED EXTERIOR TO THE BUILDING AND INSTALLED WITH SEAMS SEALED WITH SEALANT, PROVIDE 2" (MINIMUM R-8.0) THICK, 3 POUND DENSITY LINER. FOR WELDED DUCTWORK THAT IS EXTERIOR TO THE BUILDING, INSULATE WITH 2" (MINIMUM R-8.0) THICK FIBROUS BOARD INSULATION AND PROVIDE MINIMUM 20 GAUGE ALUMINUM JACKET OR 2" (MINIMUM R-8.0) THICK FLEXIBLE ELASTOMERIC CLOSED CELL INSULATION SIMILAR TO ARMACELL ARMATUFF PLUS WITH A WEATHER AND UV RESISTANT LAMINATED METAL FOIL AND POLYESTER MEMBRANE AROUND A SCRIM REINFORCED CORE. SEAL ALL EXPOSED EDGES.

PROVIDE GALVANIZED STEEL DUCTWORK AND HOUSINGS AS SHOWN ON DRAWINGS. CONSTRUCT DUCTWORK INCLUDING FITTINGS AND TRANSITIONS IN CONFORMANCE WITH CURRENT SMACNA STANDARDS RELATIVE TO GAUGE, BRACING, JOINTS, ETC MINIMUM THICKNESS OF DUCT SHALL BE 26-GAUGE SHEET METAL. REINFORCE HOUSINGS AND DUCTWORK OVER 30" WITH 1-1/4" ANGLES NOT LESS THAN 5'-6" ON CENTERS, AND CLOSER IF REQUIRED FOR SUFFICIENT RIGIDITY TO PREVENT VIBRATION. SUPPORT HORIZONTAL RUNS OF DUCT FROM STRAP IRON HANGERS ON CENTERS NOT TO EXCEED 8'-O". DO NOT SUPPORT CEILING GRID, CONDUITS, PIPES, EQUIPMENT, ETC. FROM DUCTWORK. COORDINATE ROUTING OF DUCTWORK WITH OTHER CONTRACTORS SUCH THAT PIPING, ELECTRICAL CONDUIT, AND ASSOCIATED SUPPORTS ARE NOT ROUTED THROUGH THE DUCTWORK.

CONSTRUCT SUPPLY DUCTS TO MEET SMACNA POSITIVE PRESSURE OF 2" W.G. CONSTRUCT RETURN. OUTDOOR AND EXHAUST DUCTWORK UPSTREAM OF FANS TO MEET SMACNA NEGATIVE PRESSURE OF 2" W.G. CONSTRUCT EXHAUST DUCTWORK DOWNSTREAM OF FANS TO MEET SMACNA POSITIVE PRESSURE OF 2" W.G.

PROVIDE MILL PHOSPHATIZED OR GALVANEALED FINISH FOR EXPOSED DUCTWORK TO BE FIELD PAINTED. SHOP TREATED SHEET METAL SHALL HAVE GALVANIZED METAL PRIMER APPLIED IN THE SHOP AFTER FABRICATION AND PRIOR TO SHIPPING.

DUCTWORK ABOVE ROOF OR OTHERWISE EXTERIOR TO BUILDING SHALL BE MINIMUM #18 GAUGE WITH LONGITUDINAL AND TRANSVERSE JOINTS WELDED OR SEALED ÄIRTIGHT WITH WEATHERPROOF HEAVY LIQUID SEALANT APPLIED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

SEAL DUCTWORK WITH HEAVY LIQUID SEALANT, HARDCAST IRONGRIP 601, DESIGN POLYMER DP 1010, UNITED MCGILL DUCT SEALER OR APPROVED EQUAL, APPLIED ACCORDING TO SEALANT MANUFACTURER'S INSTRUCTIONS. FOR DUCTS WITH PRESSURE CLASSIFICATION OF 2" W.G. AND GREATER SEAL LONGITUDINAL AND TRANSVERSE DUCTWORK JOINTS AIRTIGHT TO MEET SMACNA CLASS B. FOR DUCTS WITH PRESSURE CLASSIFICATION LESS THAN 2" W.G. SEAL TRANSVERSE JOINTS AIRTIGHT TO MEET SMACNA CLASS C. TAPES AND MASTICS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A.

PROVIDE RADIUS ELBOWS, TURNS, AND OFFSETS WITH A MINIMUM CENTERLINE RADIUS OF 1-1/2 TIMES THE DUCT WIDTH. WHERE SPACE DOES NOT PERMIT FULL RADIUS ELBOWS, PROVIDE SHORT RADIUS ELBOWS WITH A MINIMUM OF TWO CONTINUOUS SPLITTER VANES. VANES SHALL BE THE ENTIRE LENGTH OF THE BEND. PROVIDE MITERED ELBOWS WHERE SPACE DOES NOT PERMIT RADIUS ELBOWS, WHERE SHOWN ON THE DRAWINGS, OR AT THE OPTION OF THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. MITERED ELBOWS LESS THAN 45 DEGREES SHALL NOT REQUIRE TURNING VANES. MITERED ELBOWS 45-DEGREES AND GREATER SHALL HAVE SINGLE THICKNESS TURNING VANES OF SAME GAUGE AS DUCTWORK, RIGIDLY FASTENED WITH GUIDE STRIPS IN DUCTWORK. VANES FOR MITERED ELBOWS SHALL BE PROVIDED IN ALL SUPPLY AND EXHAUST DUCTWORK AND IN RETURN AND OUTSIDE AIR DUCTWORK THAT HAS AN AIR VELOCITY EXCEEDING 1000 FPM. DO NOT INSTALL VANES IN GREASE DUCTWORK.

DUCTS SHALL BE CONNECTED TO FANS, FAN CASINGS AND FAN PLENUMS BY MEANS OF FLEXIBLE CONNECTORS. FLEXIBLE CONNECTORS SHALL BE NEOPRENE COATED GLASS CLOTH CANVAS CONNECTIONS, DURO-DYNE, ELGEN, VENTFABRIC OR EQUAL. FLEXIBLE CONNECTORS SHALL HAVE A FLAME SPREAD OF 25 OR LESS AND SMOKE DEVELOPED RATING NOT HIGHER THAN 50. MAKE AIRTIGHT JOINTS AND INSTALL WITH MINIMUM 1-1/2" SLACK.

PROVIDE BALANCING DAMPERS, MANUFACTURED BY RUSKIN, GREENHECK, NAILOR INDUSTRIES, CESCO, LOUVERS & DAMPERS, POTTORFF OR APPROVED EQUAL, WHERE SHOWN ON DRAWINGS AND WHEREVER NECESSARY FOR COMPLETE CONTROL OF AIR FLOW. SPLITTER DAMPERS SHALL BE CONTROLLED BY LOCKING QUADRANTS: PROVIDE YOUNG REGULATOR OR VENTLOK END BEARINGS FOR THE DAMPER ROD. RECTANGULAR VOLUME DAMPERS SHALL BE OPPOSED BLADE INTERLOCKING TYPE. ROUND VOLUME DAMPERS SHALL BE BUTTERFLY TYPE CONSISTING OF CIRCULAR BLADE MOUNTED TO A SHAFT. DAMPER LEAKAGE FOR OUTSIDE AIR DAMPERS SHALL NOT EXCEED 4.0 CFM/SQUARE FOOT IN FULL CLOSED POSITION AT 1" WG PRESSURE DIFFERENTIAL ACROSS DAMPER. REFERENCE MANUFACTURER AND MODEL NUMBER FOR OUTSIDE AIR DAMPERS IS RUSKIN MODEL CD-50. PROVIDE FLEXMASTER MODEL STO OR EQUAL 45 DEGREE RECTANGULAR/ROUND SIDE TAKEOFF FITTING WITH MODEL SLBO DOUBLE BEARING DAMPER WITH INSULATION BUILD OUT FOR ROUND DUCTWORK BRANCH TAKEOFFS TO INDIVIDUAL AIR DEVICES. OMIT DAMPER AT TAKEOFF FITTING WHEN DAMPER IS LOCATED DOWNSTREAM OF TAKEOFF.

WHERE ACCESS TO DAMPERS THROUGH A HARD CEILING IS REQUIRED, PROVIDE A METROPOLITAN AIR TECHNOLOGY MODEL RT-250 OR EQUAL BY YOUNG'S REGULATOR CONCEALED, CABLE OPERATED VOLUME DAMPER WITH REMOTE OPERATOR. DAMPER SHALL BE ADJUSTABLE THROUGH THE DIFFUSER FACE OR FRAME WITH STANDARD 1/4" NUTDRIVER OR FLAT SCREWDRIVER. CABLE ASSEMBLY SHALL ATTACH TO DAMPER AS ONE PIECE WITH NO LINKAGE ADJUSTMENT. POSITIVE, DIRECT, TWO-WAY DAMPER CONTROL SHALL BE PROVIDED WITH NO SLEEVES, SPRINGS OR SCREW ADJUSTMENTS TO COME LOOSE AFTER INSTALLATION. SUPPORT CABLE ASSEMBLY TO AVOID BENDS AND KINKS IN CABLE. WHERE APPROVED BY ARCHITECT, A CEILING CUP WITH COVER PLATE CAN BE USED FOR ACCESS TO CABLE OPERATOR.

ROUND OR OVAL DUCTWORK SHALL BE SEMCO, UNITED, WESCO OR EQUAL, SHEETMETAL, WITH SMOOTH INTERIOR SURFACE, WITH LOW PRESSURE (DUCT PRESSURE CLASS UP TO AND INCLUDING 2" W.G.) ROUND DUCTWORK GAUGES PER THE FOLLOWING TABLE (REFERENCE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FOR GAUGES WHEN PRESSURES EXCEED 2" W.G.):

<u>SIZE</u>	DUCT GAUGE	FITTING GAUGE
14" & UNDER	26	24
15" THRU 26"	24	22
28" THRU 36"	22	20
38" THRU 50"	20	20

LINDAB SPIROSAFE, LEWIS & LAMBERT OR APPROVED EQUAL FACTORY-MANUFACTURED ROUND DUCTWORK AND FITTINGS MAY BE SUBSTITUTED FOR SPECIFIED ROUND BRANCH DUCTWORK, AT CONTRACTORS OPTION. HEAVY LIQUID JOINT SEALANT MAY BE OMITTED ON FACTORY-MANUFACTURED ROUND DUCTWORK.

LOW PRESSURE (DUCT PRESSURE CLASS UP TO AND INCLUDING 2" W.G.) FITTINGS 24" IN DIAMETER AND LESS SHALL BE PREFABRICATED, SPOTWELDED AND INTERNALLY SEALED. CONTINUOUSLY WELD FITTINGS LARGER THAN 24" IN DIAMETER. FITTING GAUGE SHALL BE 22 GAUGE FOR 36" FITTINGS AND UNDER, 20 GAUGE FOR LARGER SIZES. 90 DEGREE TEE'S SHALL BE CONICAL TYPE. SEAL LONGITUDINAL AND TRANSVERSE DUCTWORK JOINTS AIRTIGHT WITH HEAVY LIQUID SEALANT APPLIED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

FLEXIBLE DUCT

LOW PRESSURE (DUCT PRESSURE CLASS UP TO AND INCLUDING 2" W.G.) AND MEDIUM PRESSURE (DUCT PRESSURE CLASS 2.1" TO 6" W.G.) FLEXIBLE DUCT SHALL BE FLEXMASTER TYPE 8B, THERMAFLEX TYPE G-KM, M-KE, OR EQUAL (FIRE RETARDANT POLYETHYLENE) PROTECTIVE VAPOR BARRIER, U.L.181 CLASS 1, ACOUSTICAL INSULATED DUCT, R-6.0 FIBERGLASS INSULATION. PROVIDE CPE LINER WITH STEEL WIRE HELIX MECHANICALLY LOCKED OR PERMANENTLY BONDED TO THE LINER.

FLEXIBLE DUCT RUNS SHALL NOT EXCEED 5 FEET IN LENGTH AND SHALL BE INSTALLED FULLY EXTENDED AND STRAIGHT AS POSSIBLE AVOIDING TIGHT TURNS. INSTALL FLEXIBLE DUCT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SUPPORT FLEXIBLE DUCT AT MAXIMUM 5 FEET ON CENTER AND WITHIN 6 INCHES OF BENDS. BENDS SHALL NOT EXCEED A CENTERLINE RADIUS OF ONE DUCT DIAMETER. DUCT SAG SHALL NOT EXCEED 1/2 INCH. SUPPORTING MATERIAL IN DIRECT CONTACT WITH THE DUCT SHALL NOT BE LESS THAN 1-1/2 INCHES IN WIDTH.

CONNECT FLEXIBLE DUCT TO RIGID METAL DUCT OR AIR DEVICES AS RECOMMENDED BY THE MANUFACTURER. AT A MINIMUM, INSTALL TWO WRAPS OF DUCT TAPE AROUND THE INNER CORE CONNECTION AND A METALLIC OR NON-METALLIC CLAMP OVER THE TAPE AND TWO WRAPS OF DUCT TAPE OR A CLAMP OVER THE OUTER JACKET. DUCT CLAMPS SHALL BE LABELED IN ACCORDANCE WITH UL-181B AND MARKED 181B-C. DUCT TAPE SHALL BE LABELED IN ACCORDANCE WITH UL 181B AND MARKED 181B-FX.

<u>FIRE DAMPERS</u>

PROVIDE FIRE DAMPERS WHERE SHOWN ON DRAWINGS, AND AS REQUIRED BY CODE ENFORCING AUTHORITY. DAMPER RATINGS SHALL BE AS REQUIRED TO MAINTAIN THE FIRE AND/OR SMOKE RATINGS NOTED ON THE ARCHITECTURAL DRAWINGS. PROVIDE FIRE DAMPERS CONFORMING TO NFPA-90A AND UBC STANDARD 43-7 WITH RECOMMENDED STEEL SLEEVES OF LENGTH AS REQUIRED TO MEET THE INSTALLED LOCATION, 165'F FUSIBLE LINK, SPRING CATCHES AND NON-CORROSIVE BEARINGS. DAMPERS SHALL BE U.L. LISTED, MANUFACTURED BY RUSKIN, GREENHECK, AIR BALANCE, CESCO, UNITED AIR OR NAILOR INDUSTRIES. PROVIDE ACCESS DOOR, SIZED PER SMACNA WITH MINIMUM SIZE OF 10" BY 10", IN DUCT FOR INSPECTION AND SERVICE TO FIRE DAMPER AND FUSIBLE LINK.

PROVIDE DUCT ACCESS DOOR(S) WITHIN 12 INCHES OF THE DEVICE TO ALLOW FOR TESTING AND MAINTENANCE. LABEL EACH DOOR (WITH MINIMUM 1" LETTERING) INDICATING WHICH DAMPER TYPE IS SERVED. DOOR SHOULD BE CAPABLE OF BEING FULLY OPENED OR PROVIDE REMOVABLE DOOR. PROVIDE REMOVABLE SECTION OF DUCT WHERE DUCT SIZE IS TOO SMALL FOR 10" BY 10" ACCESS DOOR. PROVIDE ACCESS DOOR IN CEILING OR WALL AS REQUIRED TO ACCESS DAMPER.

COMBINATION FIRE/SMOKE DAMPERS

PROVIDE COMBINATION FIRE/SMOKE DAMPERS WHERE SHOWN ON DRAWINGS AND AS REQUIRED BY CODE ENFORCING AUTHORITY WITH FIRE/SMOKE RATINGS AS REQUIRED TO MAINTAIN THE FIRE RATING NOTED ON THE ARCHITECTURAL DRAWINGS. DAMPERS SHALL MEET UL 555 CLASSIFICATION FOR FIRE RATING AND UL 555S CLASSIFICATION OF LEAKAGE CLASS II SMOKE DAMPER; DAMPER SHALL BEAR A UL LABEL ATTESTING TO THESE CLASSIFICATIONS. PROVIDE FIRE DAMPER WITH A 165' F RESETTABLE TEMPERATURE DEVICE. RATE FIRE/SMOKE DAMPERS FOR A MINIMUM VELOCITY OF 2,000 FPM AND PRESSURE OF 4" W.G. PROVIDE MANUFACTURER RECOMMENDED STEEL SLEEVE OF LENGTH AS REQUIRED TO MEET THE INSTALLED LOCATION. PROVIDE A QUALIFIED 120 VOLT ELECTRIC ACTUATOR INSTALLED BY THE MANUFACTURER AT TIME OF DAMPER FABRICATION. ACTUATORS SHALL BE RATED FOR A MINIMUM OF 20,000 CYCLES OF OPERATION, SHALL COMPLY WITH THE LOCALLY ADOPTED BUILDING CODE AND SHALL OPEN IN 15 SECONDS OR LESS AND CLOSE IN 15 SECONDS OR LESS AFTER ALARM OR SMOKE DETECTION HAS OCCURRED. PROVIDE STAINLESS-STEEL SPRING-LOADED LEAKAGE SEALS IN SIDES OF CASING, AND TERMINAL BLOCK FOR CONNECTION TO THE BUILDING FIRE ALARM SYSTEM. DAMPER SHALL BE MANUFACTURED BY RUSKIN, AIR BALANCE, GREENHECK, CESCO, UNITED AIR OR NAILOR INDUSTRIES.

PROVIDE ACCESS DOOR, SIZED PER SMACNA WITH MINIMUM SIZE OF 10" BY 10", IN DUCT FOR INSPECTION AND SERVICE TO FIRE DAMPER AND FUSIBLE LINK. PROVIDE DUCT ACCESS DOOR(S) WITHIN 12 INCHES OF THE DEVICE TO ALLOW FOR TESTING AND MAINTENANCE. LABEL EACH DOOR (WITH MINIMUM 1" LETTERING) INDICATING WHICH DAMPER TYPE IS SERVED. DOOR SHOULD BE CAPABLE OF BEING FULLY OPENED OR PROVIDE REMOVABLE DOOR. PROVIDE REMOVABLE SECTION OF DUCT WHERE DUCT SIZE IS TOO SMALL FOR 10" BY 10" ACCESS DOOR. PROVIDE ACCESS DOOR IN CEILING OR WALL AS REQUIRED TO ACCESS DAMPER. REFRIGERANT PIPING AND INSULATION

PROVIDE ASTM B 88. TYPE L OR ASTM B 280. TYPE ACR HARD DRAWN COPPER REFRIGERANT PIPING, CLEANED AND SEALED AT THE FACTORY, AND SPECIFICALLY DESIGNED FOR REFRIGERANT. FITTINGS SHALL BE HARD DRAWN AND HAVE LONG RADIUS TURNS. SOLDER JOINTS WITH "SILFOS" (15 PERCENT SILVER, 5 PERCENT PHOSPHORUS, 80 PERCENT COPPER, 1300 DEGREES FAHRENHEIT FLOW TEMPERATURE). SOLDER JOINTS WITH A SLOW STREAM OF DRY NITROGEN PASSING THROUGH THE PIPING.

INSULATE SUCTION LINES WITH 1" AND LIQUID LINES WITH 1/2" FOAMED PLASTIC INSULATION, ARMAFLEX OR EQUAL. PIPING INSULATION SHALL HAVE A FLAME SPREAD OF 25 OR LESS. AND A SMOKE DEVELOPED RATING OF 50 OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM E84. COAT INSULATION THAT IS EXPOSED TO THE ELEMENTS WITH A PROTECTIVE SEALER. INSTALL AND SUPPORT PIPING TO KEEP NOISE AND VIBRATION TO A MINIMUM. SUPPORT AND SECURE PIPING TO UNISTRUT TYPE SUPPORTS SO THAT NO VIBRATION PASSES TO THE BUILDING STRUCTURE. PIPE ATTACHMENTS SHALL BE COPPER-PLATED OR HAVE NONMETALLIC COATING FOR ELECTROLYTIC PROTECTION WHERE ATTACHMENTS ARE IN DIRECT CONTACT WITH COPPER TUBING. INSTALL A SUPPORT WITHIN ONE FOOT OF EACH CHANGE OF DIRECTION. MOUNT PIPE HANGERS AROUND THE OUTSIDE OF THE INSULATION WITH SADDLES TO PREVENT HANGERS FROM RUPTURING THE INSULATION. REPLACE INSULATION THAT IS CUT OR BROKEN BY THE HANGERS.

RUN REFRIGERANT LINES PARALLEL AND PERPENDICULAR TO WALL AND FLOOR LINES AND TO APPEAR STRAIGHT AND IN GOOD ORDER. PITCH SUCTION LINES DOWN SLIGHTLY (1" IN 20') TOWARDS THE COMPRESSOR. PROVIDE OIL TRAPS AT THE BASE OF VERTICAL SUCTION RISERS OVER 6 FEET HIGH.

INSTALL LIQUID LINE SIGHT GLASSES IN LIQUID LINES NEAREST THE EXPANSION VALVE. FACTORY MOUNT EXPANSION VALVES WITH THE SENSING BULBS SHIPPED LOOSE. FIELD MOUNT EXPANSION VALVE BULB AFTER REFRIGERANT PIPING IS COMPLETE (DAMAGE MAY OCCUR IF BULBS COME IN CONTACT WITH HEAT).

FOR SYSTEMS OF 5 TON CAPACITY AND SMALLER, THE CONTRACTOR SHALL HAVE OPTION TO PROVIDE COPPER REFRIGERANT TUBING LINE SET SIZED AS RECOMMENDED BY EQUIPMENT MANUFACTURER AND OF LENGTH AS REQUIRED FOR THE INSTALLATION. PROVIDE 1" THICK FOAMED PLASTIC INSULATION, ARMAFLEX OR EQUAL, ON THE SUCTION LINE. PROVIDE QUICK-CONNECT FLARE TUBING COMPRESSION FITTINGS OR SOLDER CONNECTIONS AS REQUIRED TO MATCH THE CONNECTIONS OF THE

TEMPERATURE CONTROLS

CONDENSING UNIT AND EVAPORATOR COIL.

GENERAL REQUIREMENTS

PROVIDE A SYSTEM OF TEMPERATURE CONTROLS INCLUDING THERMOSTATS, CONTROL PANELS, TIME SWITCHES, OVERRIDE TIMERS, DAMPER MOTORS, AND RELAYS REQUIRED TO PROVIDE THE DESIRED SEQUENCE OF OPERATION. PROVIDE INTEGRATED WIRING DIAGRAMS SHOWING INTERCONNECTIONS BETWEEN FIELD INSTALLED EQUIPMENT AND PACKAGE WIRING FURNISHED WITH THE HVAC EQUIPMENT. CONTROL WIRING SHALL BE SIZED TO ACCOMMODATE THE VOLTAGE DROP ASSOCIATED WITH THE DISTANCE BETWEEN THE CONTROL DEVICE AND THE CONTROLLER.

PROVIDE SUPERVISION AND ON-JOB CHECKOUT SERVICE AS REQUIRED TO ENSURE THAT INSTALLATION MEETS REQUIREMENTS OF THE SPECIFICATION. THE SYSTEM SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING THE ACCEPTANCE OF THE SYSTEM BY THE ARCHITECT/ENGINEER. CORRECT DEFECTS OCCURRING DURING THIS PERIOD AT NO ADDITIONAL COST TO THE OWNER.

<u>EQUIPMENT</u>

AND FEATURES AS INDICATED.

MANUFACTURERS AND MODEL NUMBERS ARE LISTED FOR REFERENCE AS TO QUALITY AND

FEATURES REQUIRED FOR THE CONTROL DEVICES. PROVIDE CONTROL DEVICES BY

CARRIER, HONEYWELL, JOHNSON CONTROLS, TRANE OR WHITE RODGERS WITH QUALITY

SEVEN DAY PROGRAMMABLE, OCCUPIED/UNOCCUPIED THERMOSTATS FOR CONTROL OF

CONTROL OF ECONOMIZER SYSTEM SHALL BE HONEYWELL SERIES TH7000 OR EQUAL.

ADJUSTMENT AT REMOTE SENSOR. INSTALL THERMOSTATS AT 48" AFF TO MEET ADA

PROVIDE DAMPER OPERATOR FOR EACH AUTOMATIC DAMPER WITH SUFFICIENT CAPACITY TO

OPERATE THE DAMPER UNDER ALL CONDITIONS AND TO GUARANTEE TIGHT CLOSE-OFF OF

PROVIDED WITH SPRING-RETURN FOR NORMALLY CLOSED OR NORMALLY OPEN POSITION

MULTIPLE STAGES OR MODULATION OF HEATING AND COOLING SYSTEMS AND FOR

PROVIDE REMOTE SENSOR WITH OVERRIDE BUTTON AND +/-3 degree setpoint

DAMPERS AGAINST SYSTEM PRESSURE ENCOUNTERED. EACH OPERATOR SHALL BE

FOR FAIL SAFE OPERATION TO ACCOUNT FOR FIRE, LOW TEMPERATURES, OR POWER

SHALL BE MANUFACTURED BY BELIMO, JOHNSON CONTROLS OR APPROVED EQUAL.

INTERRUPTION AS REQUIRED BY THE SEQUENCE OF OPERATION. DAMPER OPERATORS

DURING OCCUPIED HOURS, OPERATE ROOFTOP UNIT SUPPLY FAN CONTINUOUSLY AND

OPEN OUTDOOR AIR DAMPER TO MINIMUM POSITION TO MAINTAIN MINIMUM

THERMOSTAT SET POINT (75 DEGREES FAHRENHEIT COOLING, 72 DEGREES

VENTILATION. CYCLE STAGE(S) OF COOLING AND HEATING TO MAINTAIN ROOM

FAHRENHEIT HEATING). ENABLE DRY BULB TYPE OUTDOOR AIR ECONOMIZER FOR

FIRST STAGE COOLING TO MAINTAIN DISCHARGE AIR TEMPERATURE SET POINT (55

DEGREES FAHRENHEIT OR BELOW. RETURN THE ECONOMIZER TO MINIMUM POSITION

DURING UNOCCUPIED HOURS, CYCLE THE ROOFTOP UNIT SUPPLY FAN AND COOLING

OR HEATING SYSTEM TO MAINTAIN UNOCCUPIED SETBACK TEMPERATURE SET POINTS.

DEGREES F. ADJUSTABLE) WHEN OUTDOOR AMBIENT TEMPERATURE REACHES 70

WHEN AMBIENT TEMPERATURE IS ABOVE 70° DEGREES FAHRENHEIT OR WHEN

DISCHARGE AIR TEMPERATURE DROPS BELOW 50 DEGREES FAHRENHEIT. SMOKE

OUTDOOR AIR DAMPER SHALL BE CLOSED DURING UNOCCUPIED HOURS.

REQUIREMENTS UNLESS OTHERWISE NOTED ON THE PLANS.

ROOFTOP UNIT CONTROL (FIXED DRY BULB ECONOMIZER)

DETECTORS SHALL SHUTDOWN UNIT UPON ALARM.

4/3/25 Ш d Ш \mathbf{m} 4 \bigcirc СĨ TITLE: MECHANICAL SPECIFICATIONS ťυ Ú Ó 00D (2832) ב ד ה COFI × S S S S S BRAND' 0 v ШĻ μD \mathbf{O} SCC PR C 13, PR KIOSK PROTOTYPE: **4.2 REVERSE PROTOTYPE** JUNE 2024 ISSUE DATE: 03/21/2024 PROJECT NO. 240761 DRAWN BY: FM CHECKED BY: ACR

SHEET NO.

PLUMBING SYMBOLS	GENERAL PLUMBING NOTES:	<u>PLUMBING FIXTURE SCHEDULE:</u> FIXTURES IN THIS SCHEDULE OR THEIR APPROVED EQUIVALI
NOTE: THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ETC. ARE	A. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT TH GENERAL SCOPE OF THE WORK. PRIOR TO SUBMITTING	E ARE PROVIDED BY THE PLUMBING CONTRACTOR. SUBMIT S
ANNOTATION	VISIT THE JOB SITE TO OBSERVE THE EXISTING CONDITION OF THE PROJECT. REVIEW THE GENERAL NOTES,	ONS INSTALLATION REQUIREMENTS. VERIFY ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S INSTALLATION
1 PLUMBING PLAN NOTE CALLOUT	SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREME THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS POPTION OF THE CONSTRUCTION DOCUMENTS NOTIFY	NTS INSTRUCTIONS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE PLUMBING FIXTURE MOUNTING HEIGHTS.
PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED	PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY OWNER'S CONSTRUCTION MANAGER OF ANY CONFLICTS (DISCREPANCIES PRIOR TO SUBMISSION OF BID.	
EQUIPMENT DESIGNATION (OWNER FURNISHED,	B. PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT"	STAINLESS STEEL BODY, 3/8" INLET AND OUTLET, ATI AND WYE PATTERN STRAINER. MEETS ASSE 1022 STAI
CU MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED	DOCUMENTS TO THE OWNER'S CONSTRUCTION MANAGER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCA	TIONS
1 AND INSTALLED UNLESS NOTED OTHERWISE)	OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS, REFER TO SPECIFICATIONS.	IRON COVER WITH LIFTING DEVICE AND CLEANOUT BO PLUG WITH GASKET SEAL AND PUSH-ON JOINT. REF
CONNECTION POINT OF NEW WORK TO EXISTING Image: Detail reference upper number indicates detail number	C. PROVIDE TO THE OWNER'S CONSTRUCTION MANAGER A CONSTRUCTION MANAGER A CONSTRUCTION REPORTS AND APPROVAL CERTIFICATES	
P1 LOWER NUMBER INDICATES SHEET NUMBER	LOCAL AND STATE INSPECTIONS, REFER TO SPECIFICATION	NS. STEEL PRESSURE TANK, POLYPROPYLENE LINING, FLE DIAPHRAGM, AIR CHARGING VALVE, 150 PSI MAXIMUM
AFF ABOVE FINISHED FLOOR MAX MAXIMUM	D. INSTALLATION SHALL COMPLY WITH LEGALLY CONSTITUTED CODES AND THE REQUIREMENTS OF AUTHORITIES HAVING	FACTOR, 3/4" PIPE CONNECTION. SET THE AIR CHA
AFG ABOVE FINISHED GRADE MBH 1000 BTU PER HOUR BFF BELOW FINISHED FLOOR MIN MINIMUM BFG BELOW FINISHED GRADE ORD OVERFLOW ROOF DRAIN	JURISDICTION AND ALSO MEET ALL REQUIREMENTS OF T LANDLORD. OBTAIN A COPY OF THE LANDLORD'S	HE (FCO) <u>FLOOR CLEANOUT:</u> ZURN CO2450-AB3 ADJUSTABLE F
BOP BOTTOM OF PIPE PDI PLUMBING DRAINAGE INSTITUTE BOS BOTTOM OF STRUCTURE PVC POLYVINYL CHLORIDE	REQUIREMENTS AND REVIEW PRIOR TO SUBMITTING BID. E. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCE	CLEANOUT, 3 INCH ABS HUB CONNECTION, 4" SIZE A PER MANUFACTURER'S RECOMMENDATIONS.
BTUBRITISH THERMAL UNITPRVPRESSURE REDUCING VALVECPVCCHLORINATED POLYVINYL CHLORIDERDROOF DRAIN	CODE REQUIREMENTS.	(FD) <u>FLOOR DRAIN:</u> ZURN # FD2210, PVC OR ABS BODY ADJUSTABLE NICKEL BRONZE HEAD AND SECURED GR
DN DOWN RPM REVOLUTIONS PER MINUTE DS DOWNSPOUT SF SQUARE FEET, SUPPLY FAN	F. VERIFY LOCATION AND DEPTH OF UTILITIES AT POINTS C CONNECTION BEFORE START OF PIPING INSTALLATION.	F FS <u>FLOOR SINK:</u> SIOUX CHIEF 861, PVC BODY WITH SC CONNECTION, PVC STRAINER.
ETREXISTING TO REMAINSPSUMP PUMPFFAFROM FLOOR ABOVETDHTOTAL DYNAMIC HEADFFBFROM FLOOR BELOWTFATO FLOOR ABOVE	G. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION MOUNTING HEIGHTS OF PLUMBING FIXTURES.	(GI) <u>GREASE TRAP:</u> SCHIER PRODUCTS GB2, HDPE SEAM
FF FINISHED FLOOR TFB TO FLOOR BELOW FLA FULL LOAD AMPS TYP TYPICAL	H. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL	DENSITY POLYETHYLENE BODY, 20 GALLON CAPACITY OF 50 GPM AND 127.6 POUNDS OF GREASE STORED AND OUTLET DIFFUSERS WITH ANIT-SIPHON AIR RELIE
FLRFLOORULUNDERWRITERS LABORATORIES,INC.GPMGALLONS PER MINUTEVSVENT STACK	LOCATION OF PIPE ROUTING.	RATED COVERS WITH EXTENSIONS AS REQUIRED.
HDHEAD, HUB DRAINVTRVENT THROUGH ROOFIEINVERT ELEVATIONW/WITH	I. INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE A AS HIGH AS POSSIBLE. INSTALL EXPOSED PIPING TIGHT THE STRUCTURE WALL OR CEILING AND AS HIGH AS	T TO SIPHON VACUUM BREAKER, POWDER COATED CAST AL HANDLE, INTEGRAL BACKFLOW CHECK VALVE, VANDAL
IN WC INCHES OF WATER COLUMN W/O WITHOUT KW KILOWATT WC WATER COLUMN MAKE-UB AIR LINIT	THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.	EXTENDED LOCKSHIELD AND OPERATING KEY, SOLID B AVAILABLE VARIOUS 1/2" & 3/4" INLET STYLES.
MAU MAKE-UP AIR UNIT WS WASTE STACK PIPING	J. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED	
DOMESTIC COLD WATER (CW)	K. PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEAL	CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVER ED; HOLE.
SCWSOFTENED COLD WATER (SCW) FW	EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED HIGH AS POSSIBLE AND TIGHT TO WALLS.	VANDAL RESISTANT, FAUCET WITH #390 LEVER HANDL QUARTER TURN CARTRIDGES AND #E2805 0.5 GPM A
DOMESTIC HOT WATER (HW)	L. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.	TRIM: McGUIRE #155A GRID DRAIN WITH TAILPIECE, M #2165CCLK LOOSE KEY COMPRESSION ANGLE STOP \ RISERS AND ESCUTCHEONS, McGUIRE #B8872CF 1-1
DOMESTIC HOT WATER RECIRC. (HWR) 140'	M. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRA	ADE CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WA
- $ -$	BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIR AND AS NOTED ON PLANS. COORDINATE SLEEVE	
	INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGIN STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR	IERRAZZO BASIN WITH INTEGRAL STAINLESS STEEL DE
	BEFORE CONCRETE IS INSTALLED.	FAUCET: CHICAGO FAUCET # 897-CP FAUCET WITH W INTEGRAL VACUUM BREAKER, PAIL HOOK, AND 3/4" N OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD.
	N. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR T TURNING BUILDING OVER TO THE OWNER.	O <u>TRIM:</u> # BP TYPE 304, 20 GAUGE, STAINLESS STEEL SURROUNDS, # T-35 THREE FOOT LONG REINFORCED
	0. PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.	COUPLING AND WALL HOOK, $\#$ V-70 EXTRUDED VINY 40 24" STAINLESS STEEL MOP HANGER.
	P. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PAN	IELS. (RPZ) <u>REDUCED PRESSURE ZONE BACKFLOW PREVENTER:</u> W LF009QT-S, LEAD FREE CAST BRONZE BODY, QUARTE
$$ VBG $$ VENT BELOW GRADE (VBG) VBF $$ VENT BELOW FLOOR (VBF)	DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.	COCKS, QUARTER TURN BALL VALVES, BRONZE STRAIN AIR GAP FITTING.
	Q. PAINT ALL EXPOSED GAS AND WATER PIPING USING RUS INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER.	BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSI
	R. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRAD	INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL / FLOW RATE OF 0.5 GPM. SET TEMPERATURE TO 110
— — — —G— — — — NATURAL GAS ON ROOF (G) ————MPG———— MEDIUM PRESSURE NATURAL GAS (MPG)	MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAK MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.	ES. TEMPERATURE LAVATORIES AND HAND SINKS, 100F FC TEMPERATURE LAVATORIES AND HAND SINKS AND 120
MPG MEDIUM PRESSURE NATURAL GAS ON ROOF (MPG)	S. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS	
	MINIMUM 2" BATT INSULATION TO PREVENT FREEZING.	ACTUAL FLOOR DRAIN MODEL AND SIZE PROVIDED, FL ELASTOMERIC PVC MATERIAL MOLDED INTO SHAPE OF OPEN ON TOP WITH CURL CLOSURE AT BOTTOM. AL
ETR	T. SEAL ALL PENETRATIONS THROUGH RATED WALLS AND CEILINGS.	WASTEWATER TO OPEN AND ADEQUATELY DISCHARGE THROUGH ITS INTERIOR. CLOSES AND RETURNS TO
BALL VALVE	U. EXAMINE THE CONTRACT DRAWINGS AND ALL AVAILABLE INFORMATION CONCERNING EXISTING INSTALLATION,	SHAPE AFTER WASTEWATER DISCHARGE IS COMPLETE.
CONTROL VALVE SHUTOFF VALVE	STRUCTURE, AND LOCAL CONDITIONS. VISIT THE SITE T UNDERSTAND THE NATURE AND SCOPE OF ALL WORK TO	0 MODEL # LEFT HANDLE COMBO SKU: C44.302.01 RIG D BE C44.303.01 "BARRON" TANK TYPE WHITE VITREOUS
CHECK VALVE	PERFORMED AND VERIFY EXISTING CONDITIONS. THE SUBMISSION OF A BID WILL BE TAKEN AS EVIDENCE TH. SUCH AN EXAMINATION HAS BEEN MADE AND THAT ALL	AT ELONGATED BOWL, 1.28 GALLON PER FLUSH, CLOSE PRESSURE ASSISTED SIPHON JET ACTION SYSTEM. II CHROME TRIP LEVER ON THE WIDE SIDE OF THE STA
—————————————————————————————————————	EXISTING CONDITIONS HAVE BEEN CONSIDERED. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS E	MODEL 44.0322.01LCH RIGHT HANDLE TANK MODEL 4 DRAWINGS FOR EXACT NUMBER OF RIGHT AND LEFT
	AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS CONTRACTOR SHALL NOTIFY ENGINEER OF ANY	
RELIEF/SAFETY VALVE	DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THAT OF THESE DRAWINGS PRIOR TO BEGINNING	CHECK HINGES AND STAINLESS STEEL BOLTS, MCGUIF VALVE WITH RISER AND CHROME-PLATED ESCUTCHEO
	CONSTRUCTION.	WCO) <u>WALL CLEANOUT:</u> SIOUX CHIEF #873 SERIES, BRASS COUNTERSUNK PLUG, 20 GAUGE STAINLESS STEEL CO
GAS PRESSURE REGULATOR		SCREW. CLEANOUT TEE TO BE PROVIDED SEPARATEL SPECIFICATIONS FOR INSTALLATION.
BACKFLOW PREVENTER	GREASE INTERCEPTOR CALCU	JLATIONS Quote: 396E4E3X
PRESSURE GAUGE	Reference No. 76430	Project Name: Scooter's - Cameron, NC (2294)
	Step 1: Flow rate to grease intercep <i>Fixture flow rate: (cu in / 231) = gal x 0.</i>	
	NAME TYF #10 - 3 Comp 3 C	PEDIMENSIONSQTYCU INFLOW RATEompartment Sink20" x 12" x 12" (3)18,64014.03 GPM
	#24 - Mop Sink Mo	p Basin 20" x 12" x 12" (3) 1 6,640 14.03 GPM p Basin 20" x 16" x 6" 1 1,920 3.12 GPM per Well N/A 1 N/A 2 GPM
个 MANUAL/AUTOMATIC AIR VENT OR RELIEF VALVE	#32A - Hand Sink Har	Image: Nr A Image: Nr A
CAP	Floor Drain Floo	or Drain N/A 3 N/A 0 GPM
	Total	22.55 GPM
EXTERIOR CLEANOUT (ECO)	Step 2: Grease Production Servings per day x Grease production va	alue x Days between pump-outs = Grease output
ELBOW DOWN	Servings per day: 250	
	Grease production value: 0.005 lbs per Days between pump-outs: 90 days	serving (Coffee Shop: Low / No flatware)
WATER HAMMER ARRESTER (WHA)	250 x 0.005 x 90 = 112.5 lbs of FO	3
	SCHIER MODEL Des	cription: GREASE INTERCEPTOR 35 GPM / 50 GPM, 4" FPT
GAS COCK		CONNECTIONS W/ 3" AND 4" PLAIN END ADAPTERS, PEDESTRIAN RATED POLYPROPYLENE
→ · · · · · · · · · · TRAP PRIMER · · · · · · · · · · · · · · · · · · ·		COVER ensions: Length: 35", Width: 23", Height: 13.75"
		v Rate/Grease Capacity: 35 GPM / 130 lbs

ALENT SHOP

WILKINS 740, 300 ATMOSPHERIC PORT, TANDARDS.

JCO CAST IRON JRED SCORIATED CAST BODY WITH ABS PLASTIC REFER TO SPECIFICATIONS

-5, WELDED JM WORKING ACCEPTANCE HARGE PRESSURE TO

E FLOOR E AVAILABLE. INSTALL

GRATE.

SCH 40 HUB

MLESS HIGH AND RATED FLOW RATE ED, WITH INTEGRAL INLET LIEF, GASKETED PEDESTRIAN

EEZING, ANTI-ALUMINUM PROOF BRASS BODY,

MODEL NTED WHITE VITREOUS /ERFLOW. SINGLE

ENTERSET NDLES, CERAMIC A AERATOR. McGUIRE -1/4" 17 GAUGE CAST WASTE ARM WITH RM CARRIER WITH XTREME" #X-4222

24" X 10" HIGH DRAIN BODY. MALE HOSE THREADED EL WALL CED HOSE WITH 3/4" CHROME INYL BUMPER GUARD, AND # T-

WATTS # RTER TURN TEST AINER, AND # 909AG

SOLID OSION RESISTANT 070 COMPLIANT, AL AND A MINIMUM 110F FOR DUEL FOR SINGLE 20F FOR SINKS. ICATED ON PLAN(S).

SERT FOR), FLEXIBLE OF DUCK'S BILL, ALLOWS E FLOOR DRAIN) ORIGINAL MOLDED F

<u>E):</u> NIAGARA RIGHT HANDLE COMBO SKU: JS CHINA FIXTURE WITH OSE COUPLED TANK WITH INSTALL SIDE MOUNTED STALL. LEFT HANDLE TANK 44.0322.01RCH REFERENCE HAND TRIP LEVER TANKS

IT CONTOURED, ITH SELF-SUSTAINING JIRE # 2166CC ANGLE STOP

COVER AND TELY. REFER TO

LOW PRESSURE GAS PLUMBING PIPE MATERIAL SCHEDULE ΡΙ

PIPE SIZING CI	HARI	PIPING SYSTEM	ABBREVIATION	PIPING MATERIAL
PIPE SIZE	LOAD (CFH)	SANITARY DRAINAGE & VENT (ABOVE GRADE)	S, W, GW OR V	HUBLESS CAST IRON (PVC DWV OPTIONAL)
3/4"	105	SANITARY DRAINAGE & VENT (BELOW GRADE)	S, W, GW OR V	SERVICE WEIGHT CAST IRON (PVC DWV OPTIONAL)
1"	197	POTABLE WATER (ABOVE GRADE)	CW, HW OR HWR	TYPE L HARD DRAWN COPPER (PEX TUBING UP TO 2" OPTIONAL)
1-1/4"	404	POTABLE WATER - 2" & SMALLER (BELOW GRADE)	CW, HW OR HWR	TYPE K SOFT ANNEALED COPPER (CPVC SCHEDULE 80 OPTIONAL)
OPERATING PRESSURE ("WC) =	7	NATURAL GAS (ABOVE GRADE & ON ROOF)	G	SCHEDULE 40 BLACK STEEL
PRESSURE DROP ("WC) =	0.5	NATURAL GAS (BELOW GRADE)	G	APPROVED 'PE' PIPE FOR GAS
DEVELOPED LENGTH (FEET) =	100	CONDENSATE DRAIN - 1" & SMALLER	CD	TYPE M HARD DRAWN COPPER (PVC DWV OPTIONAL)
TOTAL LOAD (CFH) = BASED ON NFPA 54 EQUATION 4-1	289.0	INDIRECT DRAIN - 1-1/4" & LARGER	ID	TYPE DWV HARD DRAWN COPPER
BASED ON NEFA 34 EQUATION 4-1		REVERSE OSMOSIS	RO	CPVC PLASTIC SCHED 40 OR PEX TUBING
		REFER TO SPECIFICATIONS FOR FITTINGS, INSTALLATION RE	EQUIREMENTS AND FUF	THER INFORMATION. PIPING MATERIALS WITHIN AIR PLENUMS SHALL BE

NONCOMBUSTIBLE OR SHALL BE LISTED AND LABELED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. A PLENUM IS AN ENCLOSED PORTION OF THE BUILDING STRUCTURE, OTHER THAN AN OCCUPIABLE SPACE BEING CONDITIONED, THAT IS DESIGNED TO ALLOW AIR MOVEMENT.

WATER CALCULATIONS		
TOTAL WATER SUPPLY FIXTURE UNITS	34.0	TAG #
WATER GPM	22.0	
PREDOMINANT WATER CLOSET FIXTURE TYPE	FLUSH TANK	2A
PIPE SIZE (IN.)	1-1/4"	2B
PIPING DEVELOPED LENGTH W/ 25% FOR FITTINGS (FT)	170	6
PRESSURE AT WATER METER (PSI)	65	9
1.00" METER LOSS INCLUDING TAP (PSI)	-2.8	10
1.00" BACKFLOW PREVENTER LOSS (PSI)	-14.0	12
HIGHEST FIXTURE ELEVATION (FT)	10	17
STATIC PRESSURE LOSS TO HIGHEST FIXTURE (H x 0.434)	-4.3	18
PRESSURE REQUIRED AT MOST REMOTE FIXTURE (PSI)	-20.0	21B
TOTAL PRESSURE AVAILABLE FOR FRICTION LOSS	23.9	21C
ALLOWABLE FRICTION FACTOR		22A
(23.86 PSI / 170 FT) x 100	14.0	23A
USE 14 PSI PER 100 FEET PRESSURE DROP CHART		23A 27
		28

32

	MANUFACTURER/	AREA		TANK SIZE		TRICAL I	DATA	RECOVERY	
MARK	MODEL#	SERVED	ENERGY SOURCE	(GALLONS)	VOLTS	PHASE	KW	RATE (GPH)	NOTES
WH-1	STATE CSB 52 6 IFE	KITCHEN/ LAVS	ELECTRIC	50	240	1	8	31	A,D

NOTES:

A. 80°F TEMPERATURE RISE WITH 140°F OPERATING TEMPERATURE. D. TRIPLE ELEMENT WIRED FOR SIMULTANEOUS OPERATION

RECIRCULATION PUMP SCHEDULE (IF REQUIRED)

MARK				HEAD	SUCTION &	IMPELLER	ELEC	TRICAL [DATA		
	MANUFACTURER / MODEL#	SERVICE	GPM	(FT.)	DISCHARGE SIZE	DISCHARGE SIZE	SIZE (IN.)	VOLTS	PHASE	FLA	NOTES
RP-1	BELL & GOSSETT # NBF-9U/LW	WH-1	2	7.0	SEE PLAN	N/A	120	1	0.40	A-D	

NOTES: A. ALL BRONZE BOOSTER.

B. PROVIDE WITH STRAINER UPSTREAM OF PUMP.

D. SET AQUASTAT TO SHUT OFF RECIRCULATION PUMP AT WATER HEATER SET POINT AND ON AT 10F BELOW SET POINT.

IPC WAT

FIXTURE TYPE

EACH A PUBLIC WA

SPECIALTY KITCHE

FIXTURE BRANCH CONNECTION SCHEDULE										
FIXTURE TYPE	COLD WATER	HOT WATER	WASTE	VENT						
WATER CLOSET (TANK)	3/4"	_	4"	2"						
LAVATORY	1/2"	1/2"	2"	2"						
MOP SINK	1/2"	1/2"	3"	2"						
FLOOR SINK	-	-	3"	2"						
FLOOR DRAIN	-	-	2"	2"						
HOSE BIB/ ROOF HYDRANT	3/4"	_	_	_						
NOTE:			*	*						
PIPE SIZES SHOWN ARE MININ	IUM.									

KITCHEN FIXTURE CONNECTION SCHEDULE													
FIXTURE/EQUIPMENT	HOT WATER	COLD WATER	WAS		GAS	NOTES							
	(IN.)	(IN.)	INDIRECT	DIRECT									
ICE MAKER		1/2"	3/4"			FILTERED WATER SYSTEM, BFP, DRAIN TO FS							
ICE STORAGE BIN			3/4"			DRAIN TO FS							
COFFEE MAKER		1/2"				FILTERED WATER SYSTEM, BFP							
ESPRESSO MACHINE		1/2"	3/4"			FILTERED WATER SYSTEM, BFP, DRAIN TO FS							
3-COMPARTMENT SINK	3/4"	3/4"	3"			DRAIN TO FS							
WATER STATION		1/2"	1-1/4"			FILTERED WATER SYSTEM, BFP, DRAIN TO FS							
MOBILE ICE STORAGE BIN			3/4"			DRAIN TO FS							
DECK MOUNT SINGLE FAUCET	1/2"												
PITCHER RINSER SINK	1/2"	1/2"	2"			DRAIN TO FS							
HAND SINK	1/2"	1/2"		2"		TMV							
WATER TREATMENT SYSTEM		1/2"	1/4"			FILTERED WATER SYSTEM, RPZ, DRAIN TO FD							
WATER SOFTENER		1"											
DIPPER WELL		1/2"	1-1/2"			DRAIN TO FS							
CUP RINSER		1/2"	3/4"			DRAIN TO FS							
HAND SINK	1/2"	1/2"		2"		TMV							

HEATER SCHEDULE

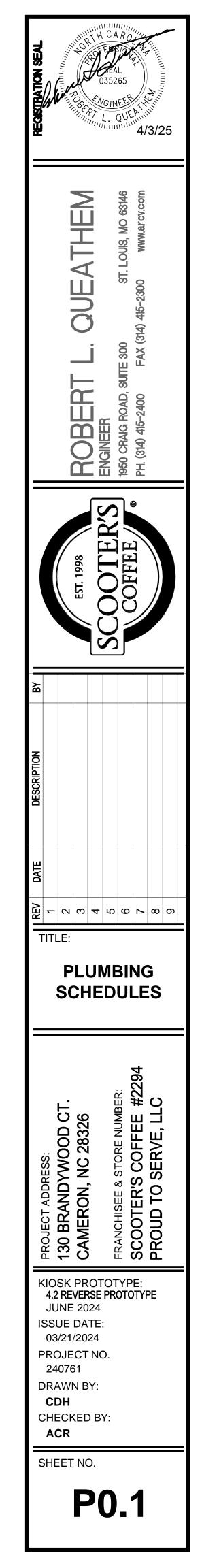
C. PROVIDE ADJUSTABLE, SURFACE MOUNTED AQUASTAT - HONEYWELL L6006C OR EQUIVALENT.

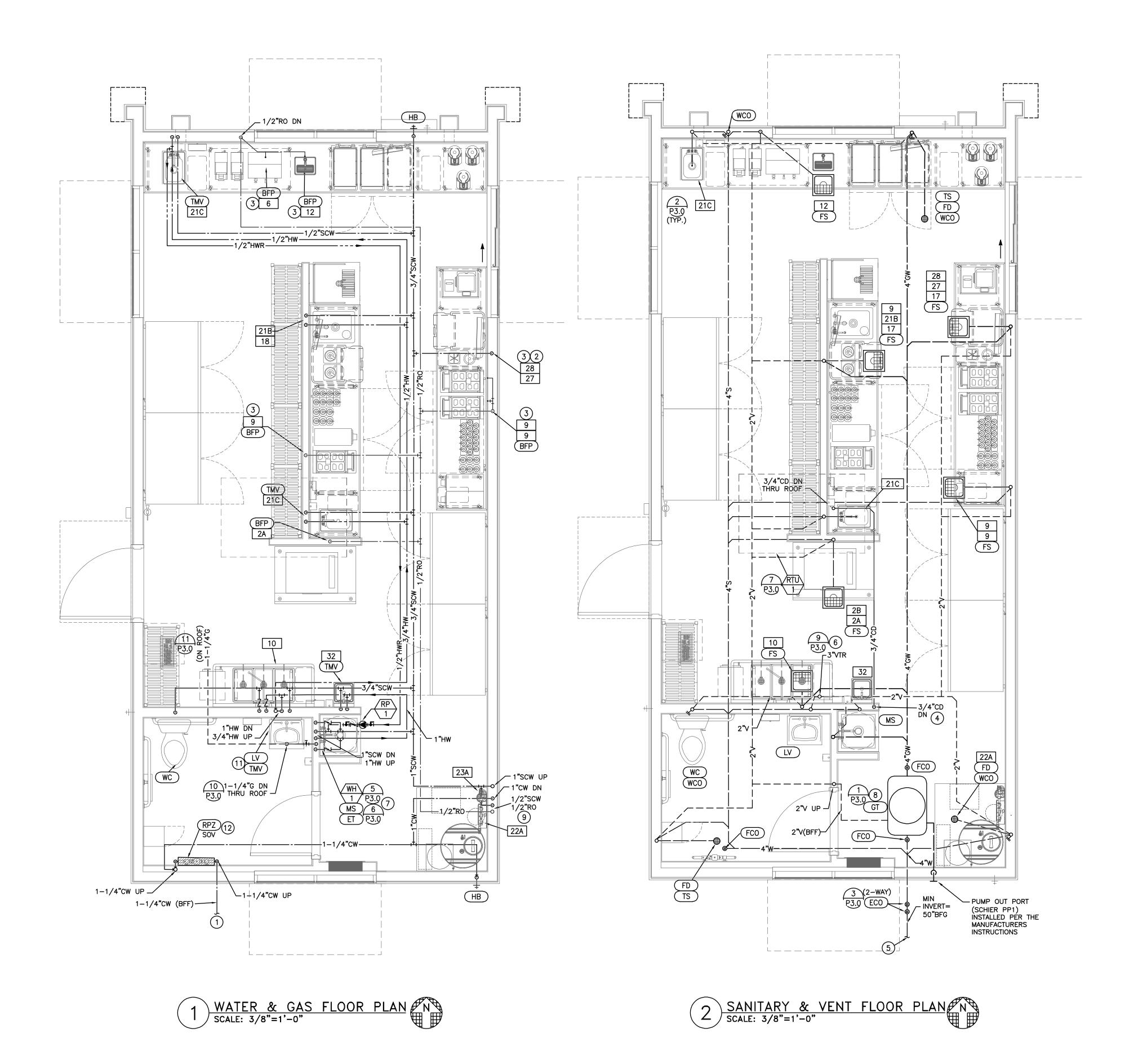
TER & WASTE FI		_	_		_	
		D.F.U.	TOTAL	HOT S.F.U. (EA)	COLD	COME
	QTY	(EA)	D.F.U.	S.F.U.	S.F.U.	S.F
				(EA)	(EA)	(E

		D.F.U.	TOTAL	НОТ	COLD	COMBINED	TOTAL	TOTAL	TOTAL
	QTY	(EA)	D.F.U.	S.F.U.	S.F.U.	S.F.U.	S.F.U.	S.F.U.	SERVICE
				(EA)	(EA)	(EA)	(HOT)	(COLD)	S.F.U.
PUBLIC LAVATORY	1	2.0	2.0	1.50	1.50	2.00	1.5	1.5	2.0
SERVICE SINK (MOP BASIN)	1	3.0	3.0	2.25	2.25	3.00	2.25	2.25	3.0
FLOOR DRAIN (2"DW)	3	2.0	6.0	0.00	0.00	0.00	0	0	0.0
FIRST WALL OR ROOF HYDRANT	1	0.0	0.0	0.00	5.00	5.00	0	5	5.0
ADDITIONAL WALL OR ROOF HYDRANT	1	0.0	0.0	0.00	1.00	1.00	0	1	1.0
/ATER CLOSET (1.28 GPF FLUSH TANK)	1	4.0	4.0	0.00	5.00	5.00	0	5	5.0
EN EQUIP.									
WATER STATION	1	2.0	2.0	0.00	1.50	1.50	0	1.5	1.5
SINK (DUMP)	1	2.0	2.0	1.50	1.50	2.00	1.5	1.5	2.0
SINK (HAND)	3	2.0	6.0	1.50	1.50	2.00	4.5	4.5	6.0
SINK (3 COMPARTMENT)	1	3.0	3.0	3.00	3.00	4.00	3	3	4.0
ICE MACHINE (3/4" IW)	1	0.5	0.5	0.00	1.00	1.00	0	1	1.0
ESPRESSO MACHINE (3/4" IW)	3	0.5	1.5	0.00	0.50	0.50	0	1.5	1.5
COFFEE MAKER	1	0.0	0.0	0.00	0.50	0.50	0	0.5	0.5
DIPPER WELL (3/4" IW)	2	0.5	1.0	0.00	0.75	0.75	0	1.5	1.5
TOTAL UNITS:	21		31.0				12.8	29.8	34.0

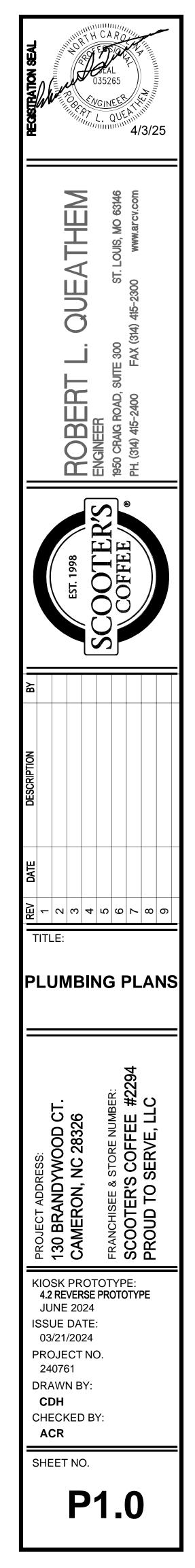
WATER PIPE SIZING CHART

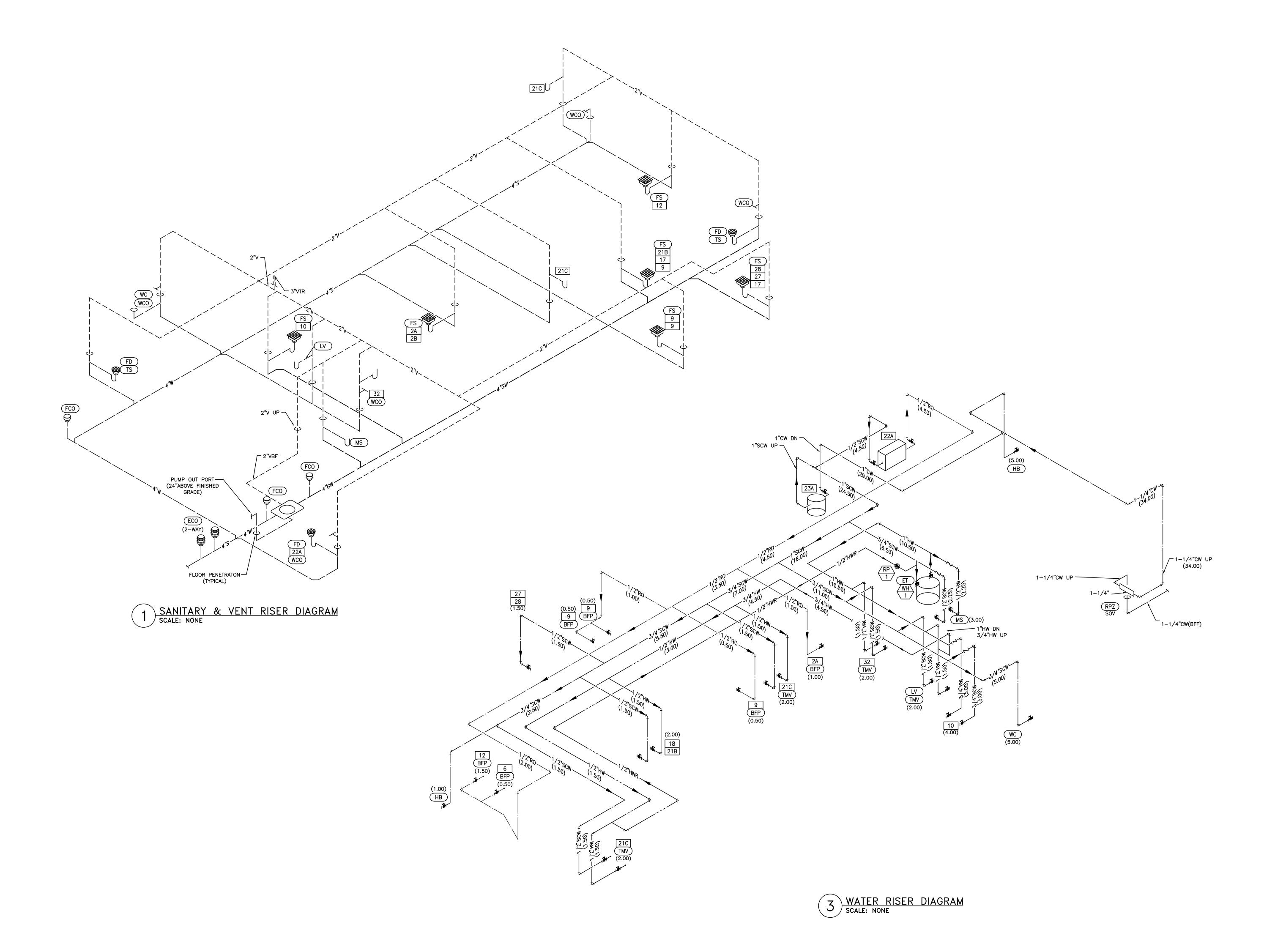
FIXTURE UNITS VS. PRESSURE LOSS												
IN PSI / 100 FEET WITH Copper Type L PIPING MATERIAL												
COLD WATER @ 14 PSI / 100' HOT WATER @ 14 PSI / 100												
PIPE	FLUSH TANK	FLUSH VALVE	VELOCITY	FLOW	FLUSH TANK	VELOCITY	FLOW					
SIZE	SFU (CW)	SFU (CW)	FEET / SEC	GPM	SFU (HW)	FEET / SEC	GPM					
1/2"	5.5	N/A	6.6	4.8	3.6	5.0	3.6					
3/4"	16.1	N/A	8.0	12.1	9.1	5.0	7.5					
1"	31.2	31.2 N/A 8.0 20.6 17.7 5.0 12.9										
1-1/4"	56.7	14.3	8.0	31.3	29.2	5.0	19.6					

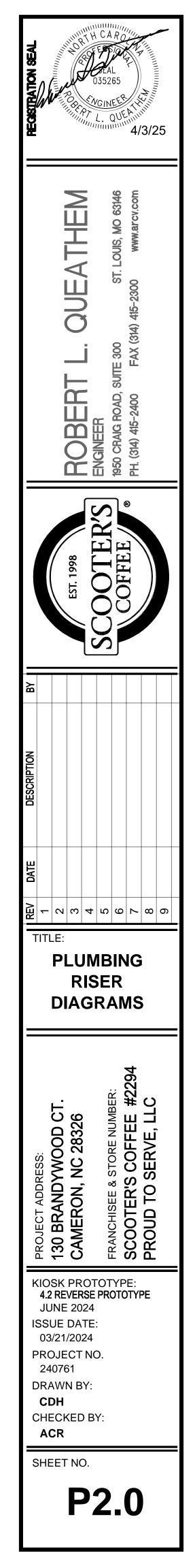


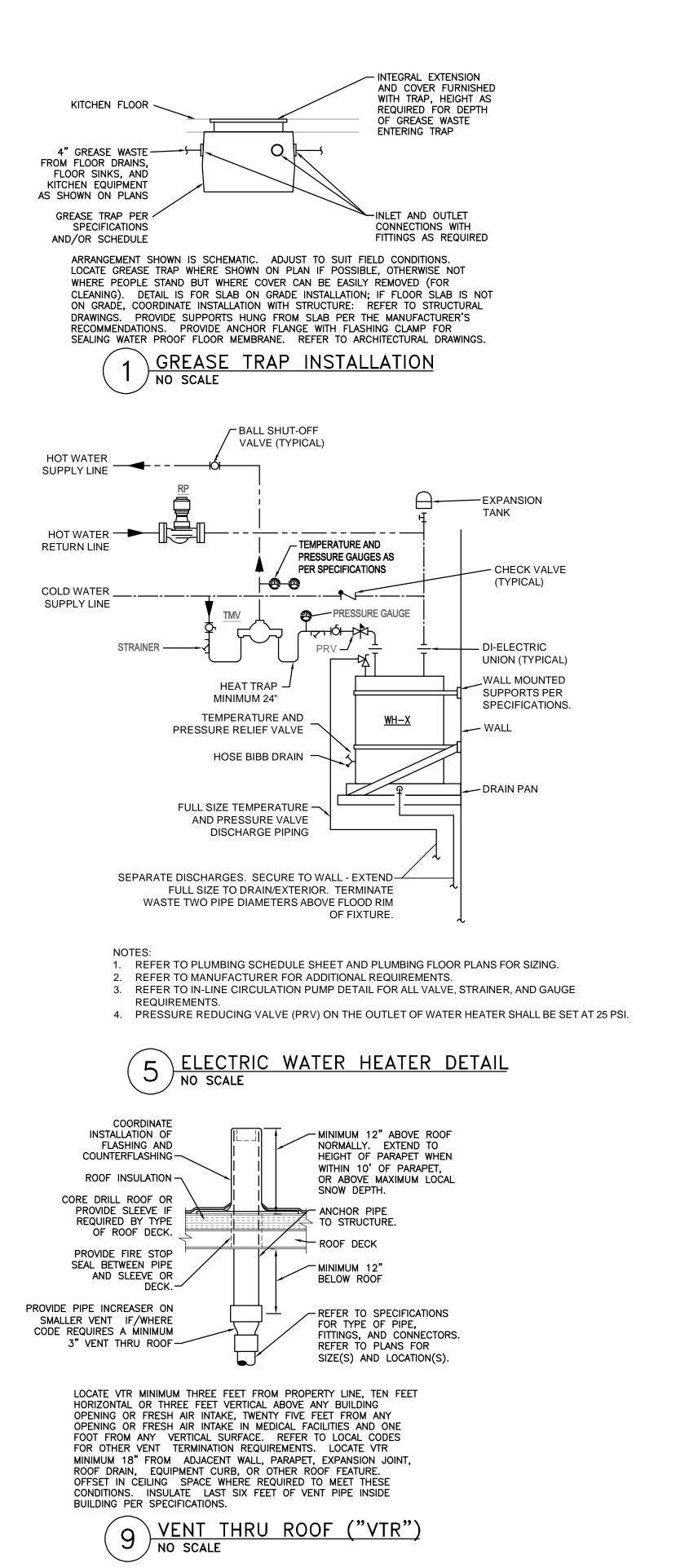


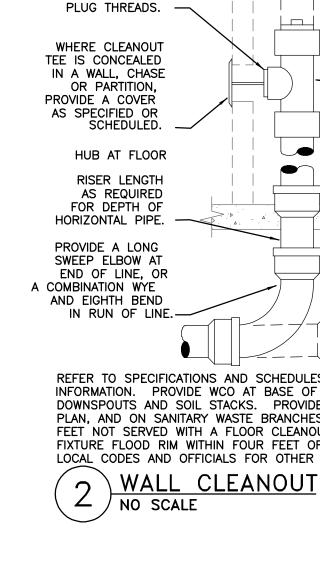
	PLUMBING PLAN NOTES:
1.	SEE CIVIL DRAWINGS FOR CONTINUATION OF WATER SUPPLY. CONTRACTOR TO VERIFY LOCATION PRIOR TO INSTALLATION.
2.	1/2" SOFTENED COLD WATER DOWN IN WALL FOR 1/2" COLD WATER CONNECTION TO DIPPER WELL (27) AND RINSE SINK (28).
3.	PROVIDE 1/2" SHUT-OFF VALVE, FINAL CONNECTION TO MACHINE MADE BY OTHERS.
4.	ROUTE NEW 3/4" CONDENSATE LINE DOWN IN WALL TO DISCHARGE OVER MOP SINK WITH APPROVED AIR GAP.
5.	SEE CIVIL DRAWINGS FOR CONTINUATION OF SANITARY SEWER LINE. VERIFY EXACT SIZE AND LOCATION PRIOR TO INSTALLATION.
6.	ROUTE 3" VENT FROM TOP OF WASTE LINE UP THROUGH WALL.
7.	TANK TYPE WATER HEATER ABOVE MOP SINK. ROUTE COLD WATER LINE AND GAS LINE TO WATER HEATER, AND HOT WATER LINE TO PLUMBING FIXTURES. CONNECT HOT WATER RETURN LINE TO WATER HEATER COLD LINE FROM RECIRCULATION PUMP.
8.	NEW 50 GPM GREASE TRAP BELOW FINISHED FLOOR. COORDINATE EXACT LOCATION WITH OWNER AND WITH LOCATION OF EXISTING SANITARY PIPING.
9.	REFER TO MANUFACTURER SPECIFICATION AND INSTALLATION MANUAL FOR ROUTING OF RO WATER SYSTEM.
10.	NOT USED.
11.	HOT WATER SERVING PUBLIC LAVS MAY NOT EXCEED 2'-O" IN LENGTH BETWEEN HOT WATER MAIN LINE AND PLUMBING FIXTURE. TO COMPLY W/IECC C404.5.1., ROUTE MAIN LINE DOWN IN WALL, AND TAP 1/2" HOT WATER LINE TO LAVATORY FAUCET. LOOP HOT WATER LINE BACK UP AND CONTINUE ROUTING TO OTHER PLUMBING FIXTURES SHOWN ON PLAN.
12.	ROUTE AND DISCHARGE RPZ RELIEF PIPE TO EXTERIOR GRADE.









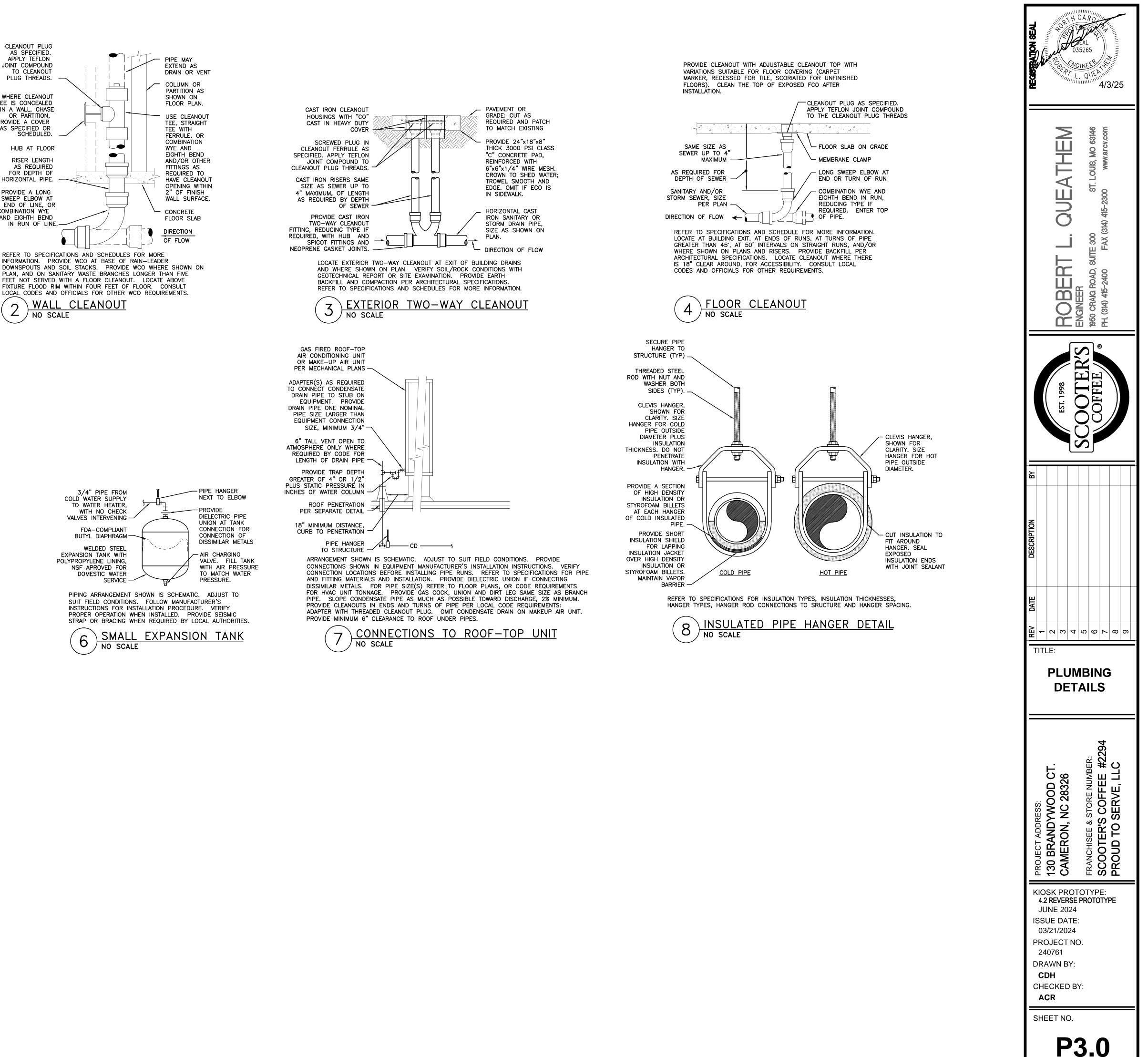


CLEANOUT PLUG AS SPECIFIED. APPLY TEFLON

JOINT COMPOUND

TO CLEANOUT

6



PLUMBING SPECIFICATIONS

GENERAL REQUIREMENTS

REQUIREMENTS UNDER DIVISION ONE AND THE GENERAL AND SUPPLEMENTARY CONDITIONS OF THESE SPECIFICATIONS SHALL BE A PART OF THIS SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME THOROUGHLY ACQUAINTED WITH ITS CONTENTS AS TO REQUIREMENTS THAT AFFECT THIS DIVISION OR SECTION. WORK REQUIRED UNDER THIS SECTION INCLUDES MATERIAL, EQUIPMENT, APPLIANCES, TRANSPORTATION, SERVICES AND LABOR REQUIRED TO COMPLETE THE ENTIRE PLUMBING SYSTEM AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS

THE SPECIFICATIONS AND THE DRAWINGS ARE COMPLEMENTARY. AND ANY PORTION OF WORK DESCRIBED IN ONE SHALL BE PROVIDED AS IF DESCRIBED IN BOTH. IN THE EVENT OF DISCREPANCIES ON THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SAME PRIOR TO PROCEEDING WITH THE WORK INVOLVED, IN ORDER THAT CORRECT PROGRESS OF THE WORK MAY BE PERFORMED.

<u>DEFINITIONS</u>

FURNISH: "TO SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR **OPERATIONS.**"

INSTALL: "TO PERFORM ALL OPERATIONS AT THE PROJECT SITE INCLUDING, BUT NOT LIMITED TO. THE ACTUAL UNLOADING. UNPACKING. ASSEMBLING. ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, TESTING, COMMISSIONING STARTING UP AND SIMILAR OPERATIONS, COMPLETE, AND READY FOR THE INTENDED USE."

PROVIDE: "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

FURNISHED BY OWNER OR FURNISHED BY OTHERS: "AN ITEM FURNISHED BY THE OWNER OR UNDER OTHER DIVISIONS OR CONTRACTS, AND INSTALLED UNDER THE REQUIREMENTS OF THIS DIVISION, COMPLETE, AND READY FOR THE INTENDED USE. INCLUDING ALL ITEMS AND SERVICES INCIDENTAL TO THE WORK NECESSARY FOR PROPER INSTALLATION AND OPERATION. INCLUDE THE INSTALLATION UNDER THE WARRANTY REQUIRED BY THIS DIVISION."

AHJ: THE LOCAL CODE AND/OR INSPECTION AGENCY (AUTHORITY) HAVING JURISDICTION OVER THE WORK.

THE TERMS "APPROVED EQUAL", "EQUIVALENT", OR "EQUAL" ARE USED SYNONYMOUSLY AND SHALL MEAN "ACCEPTED BY OR ACCEPTABLE TO THE ENGINEER AS EQUIVALENT TO THE ITEM OR MANUFACTURER SPECIFIED". THE TERM "APPROVED" SHALL MEAN LABELED, LISTED, OR BOTH, BY AN NRTL, AND ACCEPTABLE TO THE AHJ OVER THIS PROJECT. <u>COORDINATION</u>

COORDINATE WORK WITH THAT OF OTHER TRADES SO THAT THE VARIOUS COMPONENTS OF THE SYSTEMS WILL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE. AND WILL ALLOW PROPER SERVICE ACCESS TO THOSE ITEMS REQUIRING MAINTENANCE. COMPONENTS WHICH ARE INSTALLED WITHOUT REGARD TO THE ABOVE SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.

UNLESS NOTED ELSEWHERE, GENERAL CONTRACTOR WILL PROVIDE CHASES AND OPENINGS IN BUILDING CONSTRUCTION REQUIRED FOR INSTALLATION OF THE SYSTEMS SPECIFIED HEREIN. CONTRACTOR SHALL FURNISH THE GENERAL CONTRACTOR WITH INFORMATION REGARDING CHASES AND OPENINGS WHEN REQUIRED. CONTRACTOR SHALL KEEP INFORMED AS TO THE WORK OF OTHER TRADES ENGAGED IN THE CONSTRUCTION OF THE PROJECT AND SHALL EXECUTE HIS WORK IN SUCH A MANNER AS NOT TO INTERFERE WITH OR DELAY THE WORK OF OTHER TRADES.

FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS. CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE BUILDING, AS VARIATIONS MAY OCCUR. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS WHICH COULD HAVE BEEN AVOIDED BY PROPER CHECKING AND VERIFICATION.

PROVIDE MATERIALS WITH TRIM THAT WILL PROPERLY FIT THE TYPES OF CEILING, WALL, OR FLOOR FINISHES ACTUALLY INSTALLED. MODEL NUMBERS LISTED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS ARE NOT INTENDED TO DESIGNATE THE REQUIRED TRIM.

<u>GUARANTEE</u>

THE WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLATION, AND CONNECTION OF PLUMBING SYSTEMS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. BY SIGNING THE CONTRACT, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS ACQUAINTED HIMSELF WITH THE SITE AND THE EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, AND THE DRAWINGS AND SPECIFICATIONS PERTAINING THERETO, AND HE INDICATES THAT HE WILL COMPLY WITH THE REQUIREMENTS AND INTENT OF PERTINENT DOCUMENTS IN THE PERFORMANCE OF THE WORK.

GUARANTEE THAT THE PLUMBING INSTALLED UNDER THIS CONTRACT IS FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF JOB ACCEPTANCE BY THE OWNER. THIS SHALL INCLUDE A GUARANTEE OF FREE CIRCULATION OF LIQUIDS THROUGHOUT THE SYSTEM AS INTENDED WITHOUT LEAKS, EXCESSIVE NOISE, OR WATER HAMMER.

IF DEFECTS OCCUR DURING THE ONE YEAR GUARANTEE PERIOD. REPAIR OR REPLACE SUCH DEFECTS AT NO EXPENSE TO THE OWNER, AND TO THE SATISFACTION OF THE OWNER, ARCHITECT AND ENGINEER. <u>WARRANTIES</u>

WARRANT EACH SYSTEM AND EACH ELEMENT THEREOF AGAINST ALL DEFECTS DUE TO FAULTY WORKMANSHIP. DESIGN OR MATERIAL FOR A PERIOD OF 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION. UNLESS SPECIFIC ITEMS ARE NOTED TO CARRY A LONGER WARRANTY IN THE CONSTRUCTION DOCUMENTS OR MANUFACTURER'S STANDARD WARRANTY EXCEEDS 12 MONTHS. REMEDY ALL DEFECTS, OCCURRING WITHIN THE WARRANTY PERIOD(S). WARRANTIES SHALL INCLUDE LABOR AND MATERIAL. MAKE REPAIRS OR REPLACEMENTS WITHOUT ANY ADDITIONAL COSTS TO THE OWNER. PERFORM THE REMEDIAL WORK PROMPTLY, UPON WRITTEN NOTICE FROM THE ENGINEER OR OWNER.

AT THE TIME OF SUBSTANTIAL COMPLETION, DELIVER TO THE OWNER ALL WARRANTIES, IN WRITING AND PROPERLY EXECUTED, INCLUDING TERM LIMITS FOR WARRANTIES EXTENDING BEYOND THE ONE YEAR PERIOD, EACH WARRANTY INSTRUMENT BEING ADDRESSED TO THE OWNER AND STATING THE COMMENCEMENT DATE AND TERM.

EXCAVATION AND BACKFILLING

PERFORM EXCAVATION AND BACKFILL REQUIRED FOR INSTALLATION OF UNDERGROUND WORK UNDER THIS CONTRACT. TRENCHES SHALL BE OF SUFFICIENT WIDTH. CRIB OR BRACE TRENCHES TO PREVENT CAVE-IN OR SETTLEMENT. DO NOT EXCAVATE TRENCHES CLOSE TO COLUMNS AND WALLS OF NEW BUILDING WITHOUT PRIOR CONSULTATION WITH THE ARCHITECT. USE PUMPING EQUIPMENT IF REQUIRED TO KEEP TRENCHES FREE OF WATER. BACKFILL TRENCHES IN MAXIMUM 6" LAYERS OF WELL-TAMPED DRY EARTH IN A MANNER TO PREVENT FUTURE SETTLEMENT.

COMMON EXCAVATION SHALL COMPRISE THE SATISFACTORY REMOVAL AND DISPOSITION OF MATERIAL OF WHATEVER SUBSTANCES AND OF EVERY DESCRIPTION ENCOUNTERED, INCLUDING ROCK, IF ANY, WITHIN THE LIMITS OF THE WORK AS SPECIFIED AND SHOWN ON THE DRAWINGS. EXCAVATION SHALL BE PERFORMED TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. EXCAVATED MATERIALS WHICH ARE CONSIDERED UNSUITABLE FOR BACKFILL, AND SURPLUS OF EXCAVATED MATERIAL, WHICH IS NOT REQUIRED FOR BACKFILL, SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE AND RESPONSIBILITY, AND TO THE SATISFACTION OF THE ARCHITECT.

CUTTING AND PATCHING

OBTAIN PERMISSION FROM THE ARCHITECT BEFORE CUTTING WALLS, FLOORS, CEILINGS, ETC. AS REQUIRED BY THE PROJECT. DO NOT DISTURB STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL FROM THE ARCHITECT CUT HOLES AS SMALL AS POSSIBLE. GENERAL CONTRACTOR SHALL PATCH WALLS, FLOORS, ETC. AS REQUIRED BY WORK UNDER THIS SECTION. PATCHING SHALL MATCH ORIGINAL MATERIAL AND CONSTRUCTION. REPAIR AND REFINISH AREAS DISTURBED BY WORK TO THE CONDITION OF ADJOINING SURFACES IN A MANNER SATISFACTORY TO THE ARCHITECT.

CONCRETE BASES

PROVIDE CONCRETE BASES FOR HIS EQUIPMENT WHERE INDICATED ON THE DRAWINGS. CONCRETE BASES SHALL HAVE CHAMFERED EDGES. SIZE OF PAD SHALL BE A MINIMUM OF 4" GREATER THAN THE FOOTPRINT OF THE EQUIPMENT THAT IT IS SUPPORTING.

CONSTRUCT EQUIPMENT BASES AND HOUSEKEEPING PADS OF A MINIMUM 28 DAY, 4000 PSI CONCRETE CONFORMING TO AMERICAN CONCRETE INSTITUTE STANDARD BUILDING CODE FOR REINFORCED CONCRETE (ACI 318-19) AND THE LATEST APPLICABLE RECOMMENDATIONS OF THE ACI STANDARD PRACTICE MANUAL. CONCRETE SHALL BE COMPOSED OF CEMENT CONFORMING TO ASTM C 150 TYPE I, AGGREGATE CONFORMING TO ASTM C33, AND POTABLE WATER. EXPOSED EXTERIOR CONCRETE SHALL CONTAIN 5 TO 7 PERCENT AIR ENTRAINMENT.

PROVIDE GALVANIZED ANCHOR BOLTS FOR EQUIPMENT PLACED ON CONCRETE EQUIPMENT BASES AND HOUSEKEEPING PADS OR ON CONCRETE SLABS. ANCHOR BOLTS SIZE, NUMBER AND PLACEMENT SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT.

ACCESS DOORS

PROVIDE ACCESS DOORS IN CEILINGS AND WALLS WHERE INDICATED OR REQUIRED FOR ACCESS TO CONCEALED VALVES AND EQUIPMENT INSTALLED UNDER THIS SECTION. PROVIDE CONCEALED HINGES, SCREWDRIVER-TYPE LOCK, ANCHOR STRAPS; MANUFACTURED BY MILCOR, ZURN, TITUS, OR EQUAL. OBTAIN ARCHITECT'S APPROVAL OF TYPE, SIZE, LOCATION, AND COLOR BEFORE ORDERING.

PENETRATIONS

PROVIDE SLEEVES FOR PIPES PASSING THROUGH ABOVE GRADE CONCRETE OR MASONRY WALLS, CONCRETE FLOOR OR ROOF SLABS. SLEEVES ARE NOT REQUIRED FOR CORE DRILLED HOLES IN EXISTING MASONRY WALLS, CONCRETE FLOORS OR ROOFS. PROVIDE 10 GAUGE GALVANIZED STEEL SLEEVES FOR SLEEVES 6" AND SMALLER. PROVIDE GALVANIZED SHEET METAL SLEEVES FOR LARGER THAN 6". SCHEDULE 40 PVC SLEEVES ARE ACCEPTABLE FOR INSTALLATION IN AREAS WITHOUT RETURN AIR PLENUMS.

SEAL ELEVATED FLOOR, EXTERIOR WALL AND ROOF PENETRATIONS WATERTIGHT AND WEATHERTIGHT WITH NON-SHRINK, NON-HARDENING COMMERCIAL SEALANT. PACK WITH MINERAL WOOL AND SEAL BOTH ENDS WITH MINIMUM OF 1/2" OF SEALANT.

SEAL AROUND PENETRATIONS OF FIRE RATED ASSEMBLIES. COORDINATE FIRE RATINGS AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR FIRE STOPPINGS. PROVIDE A PRODUCT SCHEDULE FOR UL LISTING, LOCATION, WALL OR FLOOR RATING AND INSTALLATION DRAWING FOR EACH PENETRATION FIRE STOP SYSTEM.

EXTEND PIPE INSULATION FOR INSULATED PIPE THROUGH FLOOR, WALL AND ROOF PENETRATIONS, INCLUDING FIRE RATED WALLS AND FLOORS. THE VAPOR BARRIER SHALL BE MAINTAINED. SIZE SLEEVE FOR A MINIMUM OF 1"ANNULAR CLEAR SPACE BETWEEN INSIDE OF SLEEVE AND OUTSIDE OF INSULATION.

SEAL CONCRETE OR MASONRY EXTERIOR WALL PENETRATIONS BELOW GRADE WITH "WALL PIPES" AND MECHANICAL SLEEVE SEALS. PROVIDE CAST IRON "WALL PIPES" WITH INTEGRAL WATERSTOP RING MANUFACTURED BY JOSAM, JAY R. SMITH, WADE, WATTS OR ZURN. PROVIDE MODULAR MECHANICAL SLEEVE SEALS, MANUFACTURED BY THUNDERLINE / LINK SEAL, CALPICO, INC. AND METRAFLEX.

SEAL ELEVATED CONCRETE SLAB WITH WATERPROOF MEMBRANE PENETRATIONS WITH "WALL PIPES" AND WATER PROOF SEALANT. SECURE WATERPROOF MEMBRANE FLASHING BETWEEN "WALL PIPE" CLAMPING FLANGE AND CLAMPING RING. PROVIDE CAST IRON "WALL PIPES" WITH INTEGRAL WATERSTOP RING MANUFACTURED BY JOSAM, JAY R. SMITH, WADE. WATTS OR ZURN.

PROVIDE SLEEVES FOR HORIZONTAL PIPE PASSING THROUGH OR UNDER FOUNDATION. SLEEVES SHALL BE CAST IRON SOIL PIPE TWO NOMINAL PIPE SIZES LARGER THAN THE PIPE SERVED.

PROVIDE SCHEDULE 40 PVC PIPE SLEEVES FOR VERTICAL PRESSURE PIPE PASSING THROUGH CONCRETE SLAB ON GRADE. SLEEVES SHALL BE ONE NOMINAL PIPE SIZE LARGER THAN THE PIPE SERVED AND TWO PIPE SIZES LARGER THAN PIPE SERVED FOR DUCTILE IRON PIPES WITH RESTRAINING RODS. SEAL WATER-TIGHT WITH SILICONE CAULK.

PROVIDE 1/2" THICK CELLULAR FOAM INSULATION AROUND PERIMETER OF NON-PRESSURE PIPE PASSING THRU CONCRETE SLAB ON GRADE. INSULATION SHALL EXTEND TO 2"ABOVE AND BELOW THE CONCRETE SLAR.

ELECTRICAL WIRING

LINE VOLTAGE WIRING SHALL BE PROVIDED BY ELECTRICAL. LINE VOLTAGE CONTROL AND INTERLOCK WIRING FOR PLUMBING SYSTEMS SHALL ALSO BE PROVIDED BY ELECTRICAL CONTRACTOR. LOW VOLTAGE CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. FURNISH WIRING DIAGRAMS TO THE ELECTRICAL CONTRACTOR AS REQUIRED FOR PROPER EQUIPMENT HOOKUP. COORDINATE WITH THE ELECTRICAL CONTRACTOR THE ACTUAL WIRE SIZING AMPS FOR PLUMBING EQUIPMENT (FROM THE EQUIPMENT NAMEPLATE) TO ENSURE PROPER INSTALLATION.

SYSTEM TESTING AND ADJUSTING

UPON COMPLETION OF EACH PHASE OF THE INSTALLATION, TEST EACH SYSTEM IN CONFORMANCE WITH LOCAL CODE REQUIREMENTS AND AS NOTED BELOW. FURNISH LABOR AND EQUIPMENT REQUIRED TO TEST PLUMBING WORK INSTALLED UNDER THIS CONTRACT, AND ASSUME COSTS INVOLVED IN MAKING THE TESTS, AND REPAIRING AND/OR REPLACING DAMAGE RESULTING THEREFROM.

NOTIFY THE ARCHITECT AND THE AUTHORITY HAVING JURISDICTION. THREE (3) WORKING DAYS PRIOR TO MAKING PLUMBING SYSTEM TESTS. LEAVE CONCEALED WORK UNCOVERED UNTIL THE REQUIRED TESTS HAVE BEEN COMPLETED. BUT IF NECESSARY DUE TO CONSTRUCTION PROCEDURE, TESTS ON PORTIONS OF THE WORK MAY BE MADE, AND WHEN SATISFACTORY, THE WORK MAY BE CONCEALED. TEST PIPING BEFORE INSULATION IS INSTALLED, AND BEFORE BACKFILL. PIPES, JOINTS, FLANGES, VALVE STEMS, ETC., SHALL BE LEAK TIGHT. REPAIR OR REPLACE SYSTEM DEFECTS WITH NEW MATERIALS. CAULKING OF DEFECTIVE JOINTS, CRACKS OR HOLES WILL NOT BE PERMITTED, REPEAT TESTS AFTER DEFECTS HAVE BEEN ELIMINATED. MAKE TESTS IN THE PRESENCE OF THE ADMINISTRATIVE AUTHORITY AND/OR THE OWNER'S AUTHORIZED REPRESENTATIVE.

UPON COMPLETION OF THE SYSTEMS INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE ARCHITECT AND ENGINEER, MAKE GENERAL OPERATING TESTS TO DEMONSTRATE THAT EQUIPMENT AND SYSTEMS ARE IN PROPER WORKING ORDER, AND ARE FUNCTIONING IN CONFORMANCE WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. AS A PART OF THESE TESTS, OPEN EVERY WATER OUTLET TO ENSURE COMPLETE SYSTEM FLUSHING, REMOVE AND CLEAN FAUCET AERATORS, CLEAN STRAINERS, LIGHT PILOT LIGHTS, AND OPERATE EVERY PIECE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT TO DEMONSTRATE PROPER FUNCTIONING.

TEST THE DRAINAGE AND VENT SYSTEM BY PLUGGING OPENINGS WITH TEST PLUGS. EXCEPT THOSE AT THE TOP OF THE STACKS. FILL THE SYSTEM WITH WATER; TEST RESULTS WILL BE SATISFACTORY IF THE WATER LEVEL REMAINS STATIONARY FOR NOT LESS THAN ONE (1) HOUR. SUBJECT THE DRAINAGE AND VENT SYSTEM TO A PRESSURE OF AT LEAST TEN (10) FEET OF WATER. IF LEAKS DEVELOP, REPAIR THEM AND REPEAT THE TEST

TEST THE DOMESTIC WATER SYSTEM BY FILLING IT WITH WATER AND THEN ISOLATING THE SYSTEM FROM ITS SOURCE, KEEP THE SYSTEM CLOSED FOR A PERIOD OF TWENTY-FOUR HOURS, WITH NO FIXTURE BEING USED. THE PRESSURE DIFFERENTIAL FOR THIS TEST PERIOD SHALL NOT EXCEED 10 PSIG. TEST WATER PIPING TO A 125 PSI HYDROSTATIC PRESSURE.

FOR LOW PRESSURE NATURAL GAS SYSTEMS, SUBJECT THE PIPE TO 10 PSIG AIR PRESSURE FOR A PERIOD OF ONE HOUR. THE RESULTANT PRESSURE DIFFERENTIAL FOR THIS PERIOD SHALL BE 0 PSIG. TEST PER GAS COMPANY REQUIREMENTS WHERE REQUIRED. FOR WELDED NATURAL GAS SYSTEMS AND SYSTEMS WITH AN OPERATING PRESSURE IN EXCESS OF 14" WATER COLUMN, SUBJECT THE PIPE TO 60 PSIG AIR PRESSURE FOR A PERIOD OF ONE HOUR. THE RESULTANT PRESSURE DIFFERENTIAL FOR THIS PERIOD SHALL BE 0 PSIG. TEST PER GAS COMPANY REQUIREMENTS WHERE REQUIRED.

NATURAL GAS: GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON SCREWED FITTINGS, OR STANDARD WELDED FITTINGS. UNDERGROUND GAS PIPING SHALL BE HIGH DENSITY OR ULTRAHIGH DENSITY POLYETHYLENE PIPE AS REQUIRED BY THE GAS UTILITY COMPANY. POLYETHYLENE PIPE SHALL CONFORM TO ASTM D1248, D3350 AND D2513, AS APPROPRIATE. POLYETHYLENE PIPE SHALL BE PHILLIPS DRISCOPIPE SERIES 6500, OMEGA ENGINEERING, PEPCO, OR APPROVED EQUAL. INSTALLATION SHALL BE IN CONFORMANCE WITH UTILITY COMPANY RULES. PROVIDE POLYETHYLENE TO STEEL PIPE TRANSITION FITTINGS BY PERFECTION CORPORATION, R W LYALL OR CENTRAL PLASTICS AT TRANSITIONS FROM BELOW GRADE TO ABOVE GRADE. FACTORY ASSEMBLED AND PRESSURE TESTED ONE PIECE DESIGN, WITH STEEL HALF OF SCHEDULE 40 STEEL PIPE WITH BEVELED EDGE FOR WELDING AND POLYETHYLENE HALF SHALL BE OF AMPLE LENGTH FOR MAKING WELDS. STEEL PIPE SHALL HAVE EPOXY PROTECTIVE COATING.

INDIRECT AND CONDENSATE DRAIN INSIDE BUILDING: INDIRECT AND CONDENSATE DRAIN PIPE INSTALLED INSIDE THE BUILDING SHALL BE TYPE "M" HARD COPPER WITH WROUGHT COPPER FITTINGS FOR 1" AND SMALLER AND "DWV" COPPER WITH WROUGHT COPPER DRAINAGE PATTERN FITTINGS FOR 1-1/4" AND LARGER HARD TEMPER COPPER TUBE AND SOLDERED CONNECTIONS MADE WITH 95/5 SOLDER OR SCHEDULE 40 PVC PIPE AND FITTINGS WITH SOLVENT WELD JOINTS WHERE ALLOWED BY CODE. (NOTE: PVC PIPING IS NOT ALLOWED IN CEILING RETURN AIR PLENUMS). INSTALL CLEANOUTS AT ELBOWS GREATER THAN 45 DEGREES.

INDIRECT AND CONDENSATE DRAIN OUTSIDE BUILDING: INDIRECT AND CONDENSATE DRAIN PIPE INSTALLED OUTSIDE THE BUILDING ABOVE GROUND SHALL BE TYPE "M" FOR 1" AND SMALLER AND "DWV" FOR 1-1/4" AND LARGER HARD TEMPER COPPER TUBE WITH WROUGHT COPPER DRAINAGE PATTERN FITTINGS AND SOLDERED CONNECTIONS MADE WITH 95/5 SOLDER. TERMINATE AT NEAREST ROOF DRAIN, GUTTER OR OTHER LOCATION AS SHOWN DRAWINGS. INSTALL CLEANOUTS AT ELBOWS GREATER THAN 45 DEGREES.

SUMP PUMP DISCHARGE: SUMP PUMP DISCHARGE PIPING ABOVE GRADE SHALL BE ASTM A53 SCHEDULE 40 GALVANIZED STEEL PIPE WITH GALVANIZED MALLEABLE IRON FITTINGS. SUMP PUMP DISCHARGE PIPING BELOW GRADE SHALL BE ASTM D-1785 SCHEDULE 40 PVC PIPE WITH SOCKET WELD PRESSURE FITTINGS.

PIPING AND EQUIPMENT INSULATION INSULATE DOMESTIC COLD WATER, HOT WATER, HOT WATER

RECIRCULATION, WITH ONE-PIECE FIBERGLASS COVERING FOR WITH FIRE-RESISTANT JACKET WITH SELF-SEALING LAP TO PROVIDE A CONTINUOUS VAPOR BARRIER BY CERTAINTEED, OWENS-CORNING OR ARMSTRONG. INSULATE INTERIOR CONDENSATE DRAINPIPE (WITHIN BUILDING) AND INTERIOR HORIZONTAL STORM DRAIN PIPING, THAT IS CONCEALED ABOVE THE CEILING WITH. 1" THICK ONE-PIECE FIBERGLASS COVERING. FOR HOT PIPING, PROVIDE PIPE HANGERS AND RISER CLAMPS SIZED FOR THE OUTSIDE DIAMETER OF PIPING. BUTT INSULATION TO HANGER OR RISER CLAMP FOR VERTICAL PIPE. SEAL EXPOSED INSULATION WITH INSULATION SEALER. EXCEPTION FOR VERTICAL PIPING: PROVIDE CLAMPS SIZED FOR THE OUTSIDE DIAMETER OF THE VERTICAL PIPE AND EXTEND CLAMP THROUGH INSULATION. SEAL PENETRATIONS OF INSULATION AND VAPOR BARRIER WITH WET COAT OF VAPOR BARRIER LAP CEMENT. FOR COLD PIPING AT HANGERS PROVIDE 8" LONG SECTIONS OF HIGH DENSITY, HIGH TEMPERATURE CALCIUM SILICATE BY JOHNS-MANVILLE, FIBERGLASS BY KNAUF, OR 8"LONG STYROFOAM BILLETS BY DOW OR FLEXIBLE UNICELLULAR PIPING INSULATION MEETING ASTM C 534-01A, TYPE I WITH INTEGRAL HIGH DENSITY PIPE SUPPORTS AND ENCASED IN STEEL INSULATION SHIELD BY COOPER B-LINE / ARMACELL OR APPROVED EQUAL. INSULATION SHALL BE CONTINUOUS ALONG THE PIPE SURFACE. EXCEPT AT VALVES. UNIONS. AND WHERE PIPING IS EXPOSED

AT FIXTURES. PROVIDE INSULATION PROTECTION SHIELD AT EACH HANGER FOR INSULATED PIPING.

COVER FITTINGS WITH ZESTON, KNAUF, OR EQUAL ONE-PIECE PVC PREMOLDED INSULATING COVERS. FITTING COVERS, JACKETS AND ADHESIVES SHALL NOT EXCEED FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPMENT RATING OF 50 PER ASTM E84. AT ALL ELBOWS AND TEES, FILL VOIDS BETWEEN COVERS AND PIPING WITH FIBERGLASS INSULATION AND TAPE JOINTS. INSTALL PIPE INSULATION IN COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS. WHERE PREMOLDED INSULATING FITTINGS ARE NOT APPROVED BY LOCAL AUTHORITIES, MITER INSULATION AT FITTINGS.

<u>PIPING JOINTS</u>

PLUMBING PIPING MATERIALS

MATERIALS SPECIFIED OR NOTED ON THE DRAWINGS ARE SUBJECT TO THE APPROVAL OF LOCAL CODE AUTHORITIES. VERIFY APPROVAL BEFORE INSTALLING ANY MATERIAL OR JOINING METHOD.

DOMESTIC WATER (COLD, HOT AND HOT WATER RECIRCULATION): DOMESTIC WATER PIPING INSTALLED ABOVE THE FLOOR SLAB INSIDE THE BUILDING SHALL BE TYPE "L" HARD TEMPER COPPER TUBE WITH WROUGHT COPPER FITTINGS AND SOLDERED CONNECTIONS MADE UP WITH 95/5 SOLDER. BRAZED MECHANICALLY FORMED TEE CONNECTIONS (T-DRILL) MAY BE USED IN COPPER LINES WHERE APPROVED BY CODE; CONNECTION SHALL BE MADE WITH BRAZED SILVER SOLDER (SILFOS) JOINTS IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS.

FOR 2" AND SMALLER APPROVED LINKED POLYETHYLENE (PEX) TUBING MEETING ASTM F876, ASTM F877, NSF 14, AND NSF 61, WITH A PRESSURE RATING OF 160PSI AT 73'F AND BLUE OR RED COLOR CODED. DO NOT INSTALL PEX TUBING IN THE RETURN AIR PLENUM CEILING. PEX TUBING MAY BE INSTALLED IN THE RETURN AIR PLENUM CEILING IF INSULATED WITH PLENUM WRAP WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION.

UNDERGROUND DOMESTIC WATER PIPING 2"AND SMALLER SHALL BE TYPE "K" SOFT TEMPER COPPER TUBING WITH FLARED COPPER ALLOY FITTINGS AND CONNECTIONS, OR TYPE "K" HARD TEMPER COPPER TUBING WITH CONVENTIONAL WROUGHT COPPER FITTINGS AND SILVER SOLDER (SILFOS) JOINTS. INSTALL AS FEW UNDERGROUND COPPER PIPING JOINTS AS POSSIBLE. AT BUILDING SERVICE ENTRANCE, NO JOINTS SHALL BE INSTALLED UNDER OR WITHIN 5 FEET OF THE BUILDING. INSTALL DOMESTIC WATER PIPING BELOW GRADE OUTSIDE BUILDING AT ADEQUATE DEPTH TO PREVENT FREEZING.

INTERIOR WASTE AND VENT BELOW SLAB: WASTE AND VENT PIPE BELOW SLAB INSIDE BUILDING SHALL BE SERVICE WEIGHT CAST IRON SOIL PIPE WITH HUB AND SPIGOT FITTINGS WITH NEOPRENE GASKET JOINTS, MEETING ASTM A74, MANUFACTURED BY AB & I FOUNDRY, CHARLOTTE OR TYLER PIPE AND BEARING THE TRADEMARK OF THE CISPI AND NSF. HUBLESS WASTE AND VENT PIPE IS NOT PERMITTED BELOW BASE SLAB. PVC SCHEDULE 40 DWV ASTM D2665 PIPE WITH PVC MEETING ASTM B1784 "SOLID WALL" CELL CLASS 12454-B WITH ASTM 2665 SOCKET FITTINGS WITH SOLVENT WELD JOINTS IS ALSO PERMITTED WHERE APPROVED BY

INTERIOR WASTE AND VENT ABOVE SLAB: WASTE AND VENT PIPE ABOVE SLAB INSIDE BUILDING SHALL BE HUBLESS CAST IRON SOIL PIPE AND FITTINGS, MEETING ASTM A888 AND CISPI 301, MANUFACTURED BY AB & I FOUNDRY. CHARLOTTE OR TYLER PIPE AND BEARING THE TRADEMARK OF THE CISPI AND NSF. PVC SCHEDULE 40 DWV ASTM D2665 PIPE WITH PVC MEETING ASTM B1784, "SOLID WALL" CELL CLASS 12454-B WITH ASTM 2665 SOCKET FITTINGS WITH SOLVENT WELD JOINTS IS ALSO PERMITTED WHERE APPROVED BY CODE. (NOTE: PVC PIPING IS NOT ALLOWED IN CEILING RETURN AIR PLENUMS)

INTERIOR STORM: INSIDE BUILDING SHALL BE SAME AS SPECIFIED FOR INTERIOR WASTE AND VENT PIPE.

CONNECTIONS TO PLUMBING FIXTURES AND EQUIPMENT: 1-1/4 AND LARGER WASTE CONNECTIONS FROM FIXTURE TRAPS TO CAST IRON PIPE SHALL BE "DWV" COPPER WITH WROUGHT COPPER DRAINAGE PATTERN FITTINGS WITH COPPER SWEAT OR COMPRESSION JOINTS AT FIXTURE TRAP CONNECTIONS AND THREADED JOINTS AT CONNECTIONS TO CAST IRON

FOR HOT AND COLD WATER PIPING INSTALLED INSIDE MASONRY UNITS OF WALLS, PROVIDE FLEXIBLE UNICELLULAR INSULATION BY ARMACELL.

PROVIDE 1" THICK FIBERGLASS INSULATION ON VENT PIPING WITHIN SIX FEET OF VENT THROUGH THE OF ROOF.

COPPER TUBING: JOINTS IN HARD TEMPER TUBING SHALL BE SOLDERED JOINTS USING LEAD-FREE 95/5 SOLDER EXCEPT WHERE TUBING IS

INSTALLED BELOW GRADE OR BELOW THE BASE SLAB, IN WHICH CASE JOINTS SHALL BE SOLDERED WITH SILVER SOLDER (SILFOS). JOINTS IN SOFT TEMPER COPPER TUBING SHALL BE OF THE FLARED TYPE INSTALLED IN COMPLIANCE WITH THE FITTING MANUFACTURER'S RECOMMENDATIONS.

THREADED STEEL PIPE: THREADED JOINTS SHALL BE FULL AND CLEAN CUT WITH NOT MORE THAN THREE (3) THREADS EXPOSED BEYOND THE FITTINGS. MAKE JOINTS TIGHT WITH GRAPHITE BASE PIPE JOINT COMPOUND AND PAINT EXPOSED THREADS OF FERROUS PIPE WITH ACID-RESISTING PAINT AFTER PIPING HAS BEEN TESTED AND PROVEN TIGHT. NO CAULKING, LAMP-WICK OR OTHER MATERIAL WILL BE PERMITTED FOR CORRECTION OF DEFECTIVE JOINTS.

WELDED STEEL PIPE: WELDED JOINTS SHALL BE OF THE BUTT WELDED SINGLE "VEE" TYPE, BEVEL PIPE AT A 45 DEGREE ANGLE TO WITHIN 1/16" OF THE INSIDE WALL AND BUILD UP THE WELD TO ONE FOURTH GREATER DEPTH THAN THE PIPE WALL THICKNESS. WELDING SHALL BE EITHER ELECTRIC OR OXY-ACETYLENE, PERFORMED IN CONFORMANCE WITH THE ASME CODE FOR PRESSURE PIPE WELDING, AND ONLY BY EXPERIENCED CERTIFIED WELDERS.

CAST IRON PIPE BELOW GRADE: JOINTS IN BELL AND SPIGOT CAST IRON WASTE AND VENT PIPE SHALL BE NEOPRENE COMPRESSION GASKETS, TYSEAL OR EQUAL

CAST IRON PIPE ABOVE GRADE: JOINTS IN HUBLESS PIPE SHALL BE STANDARD CISPI 310 NSF CERTIFIED BY ANACO, IDEAL, MISSON OR TYLER. JOINTS IN STORM PIPING, INCLUDING CONNECTIONS TO ROOF DRAINS, SHALL BE HEAVY DUTY COUPLINGS MEETING ASTM C1540 AND FM 1680, ANACO HUSKY #SD-4000 OR CLAMP-ALL "HI TORQUE" 125-IN.LB

PVC PIPE: CLEAN JOINTS FREE FROM DEBRIS AND MOISTURE. APPLY PVC PRIMER MEETING ASTM F656 TO EACH JOINT. APPLY SOLVENT CEMENT MEETING ASTM D2564 AND MAKE JOINT WHILE WET AND IN ACCORDANCE WITH ASTM D2855.

PEX TUBE: THE FITTINGS ARE ENGINEERED POLYMER AND LEAD-FREE BRASS COLD EXPANSION TYPE WITH PEX REINFORCING RINGS IN COMPLIANCE WITH ASTM F1960. PEX HOSE BARB FITTINGS MEETING ASTM 1807 OF BRASS FOR USE WITH PEX TUBING WITH COPPER CRIMP RING. CUT ENDS OF TUBING STRAIGHT AND TRUE. MANUFACTURED BY IPEX PLUMBETTER PEX TUBING, VIEGA, WIRSBO OR ZURN INDUSTRIES.

PIPE ADAPTERS: MAKE CONNECTION OF NEW WASTE PIPE TO NEW OR EXISTING DISSIMILAR WASTE PIPE USING ADAPTER COUPLINGS. PROVIDE FERNCO, PROFLEX 3000 SERIES OR MISSION FLEXSEAL MR56 SERIES WITH NEOPRENE ADAPTER GASKET WITH STAINLESS STEEL SHIELD AND HOSE CLAMPS FOR CONNECTING DISSIMILAR PIPES ABOVE GRADE. PROVIDE FERNCO, 1056 SERIES OR MISSION SEWER COUPLINGS WITH NEOPRENE ADAPTER GASKET AND HOSE CLAMPS FOR CONNECTING DISSIMILAR PIPES BELOW GRADE AND COAT STAINLESS STEEL BANDS WITH MASTIC

CPVC PIPE: CLEAN JOINTS FREE FROM DEBRIS AND MOISTURE. APPLY CPVC PRIMER MEETING ASTM F656 TO EACH JOINT. APPLY SOLVENT CEMENT MEETING ASTM F493 AND MAKE JOINT WHILE WET AND IN ACCORDANCE WITH ASTM D2855.

PIPING INSTALLATION

GENERAL: CLEAN PIPE THOROUGHLY PRIOR TO INSTALLATION. REAM ENDS OF PIPE TO REMOVE BURRS. CUT PIPE ACCURATELY TO MEASUREMENTS TAKEN ON THE JOB. INSTALL WITH ADEQUATE CLEARANCE FOR INSTALLATION OF COVERINGS WHERE REQUIRED. PIPE SHALL NOT BE SPRUNG OR BENT. NEATLY ALIGN PIPE, CONNECT IT SECURELY, AND SUPPORT IT FROM THE BUILDING STRUCTURE WITH HANGERS AS SPECIFIED BELOW. PROVIDE CHROME-PLATED ESCUTCHEONS ON PIPES PASSING THROUGH CEILINGS, FLOORS OR WALLS OF FINISHED SPACES. RUN PIPES FREELY THROUGH FLOOR AND WALL PENETRATIONS USING PIPE SLEEVES. DO NOT GROUT IN PLACE UNLESS REQUIRED FOR STRUCTURAL FIRE INTEGRITY. INSTALL PIPE CONCEALED IN FINISHED SPACES WHEREVER POSSIBLE. USE A DIELECTRIC UNION WHERE FERROUS AND COPPER PIPE CONNECT. DIELECTRIC UNION SHALL HAVE A ZINC-PLATED STEEL BODY, A THREADED NYLON INSERT, AND INSULATING PRESSURE GASKET. NO FERROUS METAL-TO-COPPER CONNECTION MADE WITHOUT INSULATING UNIONS WILL BE ALLOWED.

HANGER & SUPPORTS: PIPE HANGERS SHALL BE AS DESCRIBED IN THE SPECIFICATIONS BY B-LINE OR EQUAL BY ANVIL, MICHIGAN, TRUSCON, OR UNISTRUT CONNECT HANGERS TO THE STRUCTURE WITH SIDE BEAM CONNECTORS AND ALL THREAD HANGER RODS. PROVIDE ENGINEERED SUPPORT STRUTS BETWEEN JOISTS AND OTHER STRUCTURAL MEMBERS AS REQUIRED TO PROVIDE A RIGID HANGING INSTALLATION. DO NOT HANG PIPES FROM OTHER PIPES. CONDUIT OR DUCTWORK. PROVIDE HANGER RODS AND SPACE HANGERS AT INTERVALS AS SPECIFIED IN "HANGER SPACING". PROVIDE SUPPORT WITHIN 1'OF EACH ELBOW AND TEE. PROVIDE SUPPORTS WITHIN 1'OF EACH EQUIPMENT CONNECTION. PROVIDE TWO NUTS ON THREADED SUPPORTS TO SECURELY FASTEN THE SUPPORT. INSTALL HANGER TYPES OR SUPPORTS FOR VARIOUS PIPING AS FOLLOWS:

PEX TUBE: PEX TUBING SHALL NOT BE INSTALLED WITHIN THE FIRST 18 INCHES OF PIPING CONNECTED TO THE HOT WATER HEATER. PEX TUBING SHALL NOT BE INSTALLED WITHIN 6 INCHES HORIZONTALLY OR WITHIN 12 INCHES VERTICALLY FROM ANY SOURCE OF HEAT. SUCH AS GAS APPLIANCE VENTS, LIGHT FIXTURES, HEATING APPLIANCES, ETC. PEX TUBING SHALL NOT BE INSTALLED IN LOCATIONS WHERE EXPOSED TO DIRECT SUNLIGHT. THESE TUBES SHALL NOT BE DEFORMED OR KINKED. TUBING PASSING THROUGH DRILLED OR NOTCHED METAL STUDS OR JOIST OR HOLLOW SHELL MASONRY WALLS SHALL BE PROTECTED FROM ABRASION DUE TO THERMAL EXPANSION AND CONTRACTION BY ELASTOMERIC OR PLASTIC SLEEVES. TUBING PENETRATING FRAMING MEMBERS WITHIN ONE INCH OF THE EXPOSED FRAMING SHALL BE PROTECTED BY STEEL NAIL PLATES NOT LESS THAN 18 GAUGE IN THICKNESS. THE STEEL PLATE SHALL EXTEND ALONG THE FRAMING A MINIMUM OF 1-1/2 INCHES BEYOND THE OUTSIDE DIAMETER OF THE PIPE OR TUBING. PEX TUBING GREATER THAN 3/4 INCH INSTALLED WITHIN AIR PLENUM SHALL BE INSULATED WITH 1/2" INCH THICK MASON ALLEY-K, ARMAFLEX COMPOSITE, JOHNS MANVILLE MICRO-LOK, JOHN MANVILLE MICRO-LOK HP, OWENS COMING VAPOR WICK OR OWENS COMING FIBERGLASS INSULATION. TUBING WITH A MAXIMUM NOMINAL DIAMETER OF 3/4 INCH MAY BE INSTALLED WITHOUT INSULATION SO LONG AS A MINIMUM SPACING OF 18 INCHES IS KEPT BETWEEN ADJACENT RUNS OF TUBING.

COPPER TUBE: ADJUSTABLE BAND HANGERS FOR BARE COPPER TUBE 3" AND SMALLER SHALL BE B-LINE #B3170 CT COPPER PLATED ADJUSTABLE BAND SWIVEL RING TYPE. ADJUSTABLE BAND HANGERS FOR INSULATED COPPER TUBE AND 3" SMALLER SHALL BE B-LINE #B3170 NF ADJUSTABLE BAND SWIVEL RING TYPE. CLEVIS HANGERS FOR INSULATED COPPER TUBE 4" AND LARGER SHALL BE B-LINE #B3100 GALVANIZED STEEL CLEVIS TYPE. SUPPORT EXPOSED COPPER TUBE 2" AND SMALLER TO WALLS OR IN CHASES WITH B-LINE #B3198RCT COPPER COATED EXTENSION SPLIT RING PIPE CLAMPS, 3/8" THREADED ROD AND B-LINE #B3199CT CEILING FLANGES. SUPPORT COPPER TUBE IN CHASES AND WALLS AT PLUMBING FIXTURES WITH PLASTIC OR COPPER BRACKETS SECURED TO STRUCTURE AND U-BOLTS SIZED TO BARE ON THE PIPE. RISER CLAMPS TO SUPPORT VERTICAL COPPER TUBE SHALL BE B-LINE #B3373CT COPPER COATED STEEL, CUT INSULATION, SEAL VAPOR BARRIER, AND ATTACH TO BARE TUBE.

STEEL PIPE: ADJUSTABLE BAND HANGERS FOR 2" AND SMALLER SHALL BE B-LINE #B3170 NF ADJUSTABLE BAND SWIVEL RING TYPE. CLEVIS HANGERS FOR 2-1/2" AND LARGER SHALL BE B-LINE #B3100 GALVANIZED STEEL CLEVIS TYPE. RISER CLAMPS TO SUPPORT VERTICAL PIPE SHALL BE B-LINE #B3373 GALVANIZED STEEL.

CAST IRON PIPE: ADJUSTABLE BAND HANGERS FOR 2" AND SMALLER. CLEVIS HANGERS FOR 3" AND LARGER SHALL BE B-LINE #B3100 GALVANIZED STEEL CLEVIS TYPE. RISER CLAMPS TO SUPPORT VERTICAL PIPE SHALL BE B-LINE #B3373 GALVANIZED STEEL.

PVC PIPE: ADJUSTABLE BAND HANGERS FOR 3" AND SMALLER. CLEVIS HANGERS FOR 4" AND LARGER SHALL BE B-LINE #B3100 GALVANIZED STEEL CLEVIS TYPE. RISER CLAMPS TO SUPPORT VERTICAL PIPE SHALL BE B-LINE #B3373 GALVANIZED STEEL.

INSULATION PROTECTION SHIELDS: B-LINE #B3151 OF 18 GAUGE GALVANIZED SHEET METAL. SHIELD SHALL COVER HALF OF THE CIRCUMFERENCE OF THE PIPE AND SHALL BE OF LENGTH INDICATED BY MANUFACTURER FOR PIPE SIZE AND THICKNESS OF INSULATION.

HANGER SPACING, ROD SIZES & CONNECTORS: CONNECT RODS TO STEEL BEAMS OR JOISTS WITH B-LINE #B3031 OR #B3033BEAM CLAMPS AS REQUIRED. CONNECT RODS TO CONCRETE WITH B-LINE #3014 MALLEABLE IRON SINGLE TYPE INSERTS WITH MALLEABLE IRON NUT. CONNECT RODS IN WOOD CONSTRUCTION WITH B-LINE #B3058 SIDE BEAM CONNECTORS. HANG AND SUPPORT PIPING WITH SPACING AND ROD SIZES AS FOLLOWS:

PEX TUBE: PEX TUBING 1" AND SMALLER SHALL BE SUPPORTED AT 32" INTERVALS FOR HORIZONTAL RUNS. PEX TUBING 1-1/4" AND LARGER SHALL BE SUPPORTED AT 4 FEET INTERVALS FOR HORIZONTAL RUNS. ALL SIZE TUBING SHALL BE SUPPORTED AT THE BASE AND AT EACH FLOOR FOR VERTICAL RUNS. FURTHERMORE, VERTICAL RUNS SHALL BE PROVIDED WITH MID-STORY GUIDES.

COPPER TUBE: 1-1/2" AND SMALLER – EVERY 6' WITH 3/8"HANGER RODS; 2" EVERY 10' WITH 3/8"HANGER RODS; 2-1/2" EVERY 10' WITH 3/8" HANGER RODS; 3" EVERY 10' WITH 1/2" RODS, 4" EVERY 10' WITH 5/8" HANGER RODS. SUPPORT VERTICAL COPPER TUBE EVERY 10'.

STEEL PIPE: 1" AND SMALLER - EVERY 8' WITH 3/8" HANGER RODS: 1-1/4" TO 2" EVERY 10' WITH 3/8" HANGER RODS; 2-1/2" AND 3" EVERY 10' WITH 1/2" HANGER RODS, 4" EVERY 10' WITH 5/8" HANGER RODS. SUPPORT VERTICAL STEEL PIPE EVERY 10'.

CAST IRON PIPE: EVERY 10'AND WITHIN 1'OF EACH JOINT. 2"AND SMALLER WITH 3/8" HANGER RODS; 3" WITH 1/2" HANGER RODS; 4" WITH 5/8" HANGER RODS; 6" WITH 3/4" HANGER RODS; 8" AND LARGER WITH 7/8" HANGER RODS. SUPPORT VERTICAL CAST IRON PIPE EVERY 15'.

PVC PIPE: SUPPORT ALL PIPES SIZES EVERY 4'. 1-1/2" AND SMALLER WITH 3/8" HANGER RODS; 2" WITH 1/2" HANGER RODS; 2-1/2" AND 3" WITH 1/2" HANGER RODS, 4" AND LARGER WITH 5/8" HANGER RODS. SUPPORT VERTICAL PVC PIPE EVERY 4'.

SUPPORTS ON ROOF: SUPPORT PIPING ON ROOF WITH PRE-ENGINEERED ROOF PIPE SUPPORTS MANUFACTURED BY B-LINE, ERICO, MIRO OR PORTABLE PIPE HANGERS: 4"X 4"X 12"LONG CLOSED CELL POLYETHYLENE BLOCKS WITH EMBEDDED PRE-ENGINEERED SUPPORT STRUT OR PRE-ENGINEERED SUPPORT STRUTS WITH FACTORY PLASTIC BASES. TWO PIECE STRAPS SHALL BE CAPTIVATED AT THE SHOULDER WHEN ATTACHMENT NUT IS TIGHTENED AND DESIGNED FOR USE WITH STRUT SYSTEM. ALL NUTS, BRACKETS AND CLAMPS SHALL HAVE THE SAME FINISH AS THE CHANNELS. SUPPORT PIPE WITH SPACING AS DESCRIBED ABOVE AT A MINIMUM 7"ABOVE THE ROOF. SET SUPPORTS ON 18"X 18"X 3/16"THICK ROOF WALKWAY MATERIAL COMPATIBLE WITH ACTUAL ROOF MATERIAL.

SUPPORTS ON FLOOR: SUPPORT PIPING FROM THE FLOOR WHERE REQUIRED FOR FERROUS PIPE OR INSULATED COPPER TUBE, SHALL BE B-LINE B3093 GALVANIZED STEEL WITH PIPE SADDLE, THREADED SHANK FOR HEIGHT ADJUSTMENT AND FLOOR STAND SECURED TO THE FLOOR.

UNDERGROUND WARNING TAPE: UNDERGROUND WARNING TAPE SHALL BE MARKING SERVICES INCORPORATED # 52205 FOR FERROUS SEWER PIPE AND # 52206 FOR DOMESTIC WATER PIPE OR EQUAL BY BRADY IDENTOLINE AND SETON. PROVIDE 4MIL THICK NON-ADHESIVE POLYETHYLENE TYPE TAPE. DETECTABLE UNDERGROUND WARNING TAPE SHALL BE MARKING SERVICES INCORPORATED # 52216 FOR PLASTIC GAS PIPE AND # 52218 FOR PLASTIC SEWER PIPE. PROVIDE NON-ADHESIVE 4MIL THICK TYPE TAPE WITH 18 AWG COPPER OR ALUMINUM TRACER WIRE SUITABLE FOR DETECTION UP TO 3'-0" OF BURIAL.

BELOW GROUND INSTALLATION FOR SOIL, WASTE AND STORM: INSTALL SOIL AND WASTE PIPING TO A UNIFORM SLOPE OF NOT LESS THAN 1/8" PER FOOT FOR PIPING 4" OR LARGER, AND NOT LESS THAN 1/4" PER FOOT FOR GREASE WASTE PIPING OR PIPING 3" OR SMALLER. SLOPE STORM PIPING AT A SLOPE INDICATED ON FLOOR PLANS. LAY PIPE AT UNIFORM SLOPE, FREE FROM SAGS, WITH HUB END UPSTREAM. MAKE CHANGES IN DIRECTION FROM HORIZONTAL TO VERTICAL, AT FIXTURE BRANCHES AND OTHER BRANCH CONNECTIONS WITH SANITARY "TEES" OR SHORT SWEEP "ELLS". MAKE CHANGES IN DIRECTION FROM VERTICAL TO HORIZONTAL OR HORIZONTAL TO HORIZONTAL WITH LONG RADIUS FITTINGS, LONG SWEEPING "ELLS", COMBINATION "Y AND 1/8 BEND" FITTINGS, OR 45 DEGREE "ELLS" (1/8 BEND FITTINGS), 1/6 BEND OR 1/16 BEND AND "Y" FITTINGS. INSTALL PIPE WITH THE BARREL OF THE PIPE ON FIRM, SOLID EARTH FOR ITS ENTIRE LENGTH, AND EXCAVATE HOLES FOR THE PIPE BELLS. LAY PIPE IN A STRAIGHT LINE AND INSTALL WITH UNIFORM GRADE TO LINE WITH BATTEN BOARDS SET NOT MORE THAN 24'-0" APART. CLOSE OPEN ENDS OF PIPE WITH A STOPPER WHEN PIPE LAYING IS NOT IN PROGRESS. CENTER SPIGOTS ACCURATELY IN BELLS FOR UNIFORM CAULKING. PROVIDE A SMOOTH AND UNIFORM INVERT IN THE SYSTEM. DRILLING OR TAPPING OF SOIL AND WASTE LINES, AND SADDLE HUBS AND BANDS ARE NOT PERMITTED. LOCATE AND INSTALL SOIL AND WASTE LINES AS INDICATED ON THE DRAWINGS. DETERMINE EXACT LOCATIONS IN SUCH A MANNER AS TO MAINTAIN PROPER CLEARANCE, PRIOR TO INSTALLATION OF ANY BUILDING DRAINPIPE, VERIFY ELEVATION OF CONNECTION POINT OF EXISTING SEWER, SERVICE LINE OR EXISTING TENANT CONNECTIONS INDICATED ON THE DRAWINGS.

ABOVE GROUND INSTALLATION FOR SOIL, WASTE AND STORM: INSTALL SOIL AND WASTE PIPING TO A UNIFORM SLOPE OF NOT LESS THAN 1/8" PER FOOT FOR PIPING 4" OR LARGER, AND NOT LESS THAN 1/4" PER FOOT FOR GREASE WASTE PIPING OR PIPING 3" OR SMALLER. SLOPE STORM PIPING AT SLOPE INDICATED ON FLOOR PLANS. LAY PIPE AT UNIFORM SLOPE FREE FROM SAGS. SUPPORT PIPE WITHIN 12" OF EACH JOINT. MAKE CHANGES IN DIRECTION FROM HORIZONTAL TO VERTICAL, AT FIXTURE BRANCHES AND OTHER BRANCH CONNECTIONS WITH SANITARY "TEES" OR SHORT SWEEP "ELLS". MAKE CHANGES IN DIRECTION FROM VERTICAL TO HORIZONTAL OR HORIZONTAL TO HORIZONTAL WITH LONG RADIUS FITTINGS, LONG SWEEPING "ELLS", COMBINATION "Y AND 1/8 BEND" FITTINGS. OR 45 DEGREE "ELLS" (1/8 BEND FITTINGS). 1/6 BEND OR 1/16 BEND AND "Y" FITTINGS. PROVIDE A SMOOTH AND UNIFORM INVERT IN THE SYSTEM, DRILLING OR TAPPING OF SOIL AND WASTE LINES. AND SADDLE HUBS AND BANDS ARE NOT PERMITTED. LOCATE AND INSTALL SOIL AND WASTE LINES AS INDICATED ON THE DRAWINGS. DETERMINE EXACT LOCATIONS IN SUCH A MANNER AS TO MAINTAIN PROPER CLEARANCE.

PLUMBING VENT: CONNECT PLUMBING VENT PIPES TO FIXTURE DRAINPIPES AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE INSTALLATION PRACTICES ADOPTED AND ENFORCED BY LOCAL CODES OFFICIAL AND EXTEND VENT PIPES FULL SIZE THROUGH THE ROOF LINE. GRADE PIPE TO A UNIFORM SLOPE SO AS TO DRAIN BACK BY GRAVITY TO THE DRAINAGE PIPING SYSTEM. VENTS PASSING THROUGH THE ROOF SHALL BE MINIMUM 3" SIZE EXCEPT IN TROPICAL CLIMATES, PER LOCAL CODES. TURN FLASHING DOWN INTO STACKS AT LEAST 2"AND EXTEND FLASHING 24" IN ALL DIRECTIONS FROM THE PIPE AT THE ROOF LINE. APPLY WHITE LEAD PIPE DOPE ON MALE STEEL PIPE THREADS. VENT LINES SHALL BE AIR AND WATERTIGHT. VENT FLOOR DRAINS INDIVIDUALLY OR CONNECT THEM TO A HORIZONTALLY VENTED LINE AS SHOWN ON THE DRAWINGS.

DOMESTIC WATER: ARRANGE COLD, HOT, AND HOT WATER RECIRCULATION PIPING TO DRAIN AT THE LOWEST POINT IN EACH SYSTEM. INSTALL AT LEAST ONE PIPE UNION ADJACENT TO ALL SHUTOFF VALVES, AT CONNECTION POINTS OF EACH PIECE OF EQUIPMENT. AND ELSEWHERE IN THE SYSTEM WHERE REQUIRED TO ALLOW PROPER MAINTENANCE. PROVIDE UNIONS OF THE GROUND JOINT TYPE. MAKE ALLOWANCE FOR EXPANSION AND CONTRACTION WHERE REQUIRED BY THE INSTALLATION. WHERE WATER PIPING OCCURS IN EXTERIOR WALLS, HOLD PIPE AS CLOSE AS POSSIBLE TO THE INTERIOR FACE OF WALL AND INSTALL INSULATION BATT OR OTHER INSULATION (MINIMUM R8) BETWEEN PIPING AND THE EXTERIOR WALL FACE. INSTALL PLASTIC UNDERGROUND WARNING TAPE WITH NAME OF SERVICE INDICATED CONTINUOUSLY ALONG ITS LENGTH FOR DOMESTIC WATER PIPE FIVE FEET OUTSIDE THE BUILDING.

NATURAL GAS: PITCH NATURAL GAS PIPING AND PROVIDE ACCESSIBLE DIRT LEGS AT THE LOW POINTS. TAKE BRANCH PIPES OFF THE TOP OR SIDES OF MAIN PIPES, TO PREVENT ACCUMULATION OF WATER IN THE BRANCHES. INSTALL GAS PIPING VALVES AND UNIONS ONLY IN ACCESSIBLE LOCATIONS. DO NOT INSTALL GAS PIPE BELOW THE BASE SLAB.

PIPING SANITIZATION

SANITIZE THE ENTIRE DOMESTIC WATER PIPING SYSTEM (COLD, HOT, AND HOT WATER RETURN) WITH A SOLUTION CONTAINING NOT LESS THAN 50 PPM AVAILABLE CHLORINE. KEEP SOLUTION IN THE SYSTEM FOR A MINIMUM OF 24 HOURS, WITH EACH VALVE BEING OPERATED SEVERAL

TIMES DURING THE PERIOD. AFTER COMPLETION, FLUSH SYSTEM WITH CITY WATER UNTIL CHLORINE RESIDUAL IS LOWERED TO INCOMING CITY WATER LEVEL.

PIPE AND VALVE MARKERS

PROVIDE MANUFACTURER'S STANDARD PRE-PRINTED, SEMI-RIGID SNAP-ON OR PERMANENT ADHESIVE, PRESSURE-SENSITIVE VINYL PIPE MARKERS. PIPE MARKERS SHALL BE COLOR-CODED COMPLYING WITH ANSI A13.1. INSTALL PIPE MARKERS ON EACH PLUMBING PIPING SYSTEM AND INCLUDE ARROWS TO SHOW NORMAL DIRECTION OF FLOW.

LOCATE PIPE MARKERS AND COLOR BANDS WHEREVER PIPING IS EXPOSED TO VIEW IN OCCUPIED SPACES, MACHINE ROOMS, ACCESSIBLE MAINTENANCE SPACES (SHAFTS, TUNNELS, PLENUMS) AND EXTERIOR NON-CONCEALED LOCATIONS.

PROVIDE PLASTIC LAMINATE OR BRASS VALVE TAG ON EVERY VALVE, COCK AND CONTROL DEVICE IN EACH PLUMBING PIPING SYSTEM; EXCLUDE CHECK VALVES, VALVES WITHIN FACTORY-FABRICATED EQUIPMENT UNITS. PLUMBING FIXTURE FAUCETS, CONVENIENCE AND LAWN-WATERING HOSE BIBBS, AND SHUT-OFF VALVES AT PLUMBING FIXTURES AND SIMILAR ROUGH-IN CONNECTIONS OF END-USE FIXTURES AND UNITS.

PLUMBING SPECIALTIES

CLEANOUTS, FLOOR DRAINS AND ROOF DRAINS SHALL BE BY ONE MANUFACTURER IF POSSIBLE. PROVIDE LONG SWEEP FITTINGS FOR CLEANOUT EXTENSIONS: SHORT SWEEPS AT START OF RUNS OR CHANGE IN DIRECTION AND COMBINATION WYE AND EIGHT BEND FITTINGS IN HORIZONTAL RUNS. INSTALL CLEANOUTS WITH A MINIMUM OF 18" CLEAR ALL AROUND, CONSULT LOCAL CODES FOR OTHER REQUIREMENTS, FOR EASY SYSTEM MAINTENANCE. INSTALL PLUG WITH TEFLON JOINT COMPOUND.

FLOOR CLEANOUTS: INSTALL CLEANOUTS AT POINTS AS NOTED ON THE DRAWINGS, AT THE BUILDING EXIT; AT A MINIMUM OF EVERY 50 FEET IN HORIZONTAL SOIL AND WASTE LINES; AND AT TURNS OF PIPE GREATER THAN 45 DEGREES CLEANOUTS SHALL BE FULL SIZE OF THE PIPE UP TO 4", AND 4" SIZE FOR PIPES LARGER THAN 4". DETERMINE THE TYPE OF FLOOR COVERING TO BE USED AT EACH FLOOR CLEANOUT LOCATION AND PROVIDE TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKERS, RECESSED FOR TILE AND SCORIATED FOR UNFINISHED FLOOR). ROUGH-IN AND INSTALL EACH FLOOR CLEANOUT FLUSH WITH THE FINISHED FLOOR CONSTRUCTION.

EXTERIOR CLEANOUTS: INSTALL CLEANOUTS AT POINTS AS NOTED ON THE DRAWINGS, AT THE BUILDING EXIT; AT A MINIMUM OF EVERY 100 FEET IN HORIZONTAL SOIL, WASTE AND STORM SERVICE LINES. EMBED EACH EXTERIOR CLEANOUT IN AN 18" X 18" X 8" BLOCK OF CONCRETE, FLUSH WITH FINISHED GRADE.

WALL CLEANOUTS: INSTALL WALL CLEANOUTS AT POINTS AS NOTED ON THE DRAWINGS; AT THE FOOT OF EACH SOIL, WASTE OR INTERIOR DOWNSPOUT STACK; AT HORIZONTAL SOIL AND WASTE BRANCHES LONGER THAN FIVE FEET NOT SERVED BY A FLOOR CLEANOUT; CONSULT LOCAL CODES FOR INSTALLATION AT SPECIFIC FIXTURE TYPES. INSTALL WALL CLEANOUTS ABOVE THE FLOOD RIM OF THE FIXTURE SERVED WITHIN FOUR FEET OF THE FLOOR AND INSTALL EXTENSIONS FROM THE CLEANOUT TEE TO THE WALL TO LOCATE THE PLUG WITHIN 2"OF THE WALL WHERE REQUIRED. INSTALL CLEANOUTS ON URINALS AND SINKS WHERE REQUIRED BY CODE.

ROOF DRAINS: PROVIDE WITH ROOF SUMP RECEIVER, EXTENSION, SECONDARY FLASHING CLAMPS AND UNDERDECK CLAMP AS REQUIRED; PROVIDE EXPANSION JOINTS WHERE REQUIRED. PROVIDE OVERFLOW ROOF DRAINS WHERE INDICATED ON THE DRAWINGS WITH INLET FLOW LINE 2" ABOVE THE PRIMARY ROOF DRAIN INLET.

VALVES, STRAINERS, AND UNIONS

PLUMBING SYSTEM VALVES SHALL BE CRANE COMPANY OR NIBCO OF MODELS HEREIN SPECIFIED, OR APPROVED EQUAL BY HAMMOND, MILWAUKEE STOCKHAM OR MUFLIER VALVES VALVES SHALL BE OF THE BEST QUALITY, DESIGNED FOR 125 PSI STEAM WORKING PRESSURE. INSTALL VALVES ON THE HOT AND COLD-WATER LINES AT THE WATER HEATER CONNECTIONS AND OTHER ITEMS OF EQUIPMENT, AT BRANCHES FROM MAINS SERVING GROUPS OF FIXTURES, AND AT OTHER PLACES INDICATED OR REQUIRED BY THE INSTALLATION TO ALLOW EASE OF FUTURE MAINTENANCE.

GATE VALVES: CLASS 125, SIZE 2" AND SMALLER SHALL BE NIBCO #S-113-LF NON-RISING STEM, SOLDERED LEAD FREE BRONZE BODY AND PARTS, WITH WEDGE DISC. GATE VALVES 2-1/2" AND LARGER SHALL BE NIBCO #617-0, O.S. & Y., IRON BODY FLANGED WEDGE GATE WITH BRASS SEATS AND STEM.

BALL VALVES (MAY BE USED IN LIEU OF GATE VALVES UP TO 2"): 2" AND SMALLER, NIBCO #S-685-80-LF; TWO PIECE LEAD FREE BRONZE BODY, WITH SOLDERED ENDS, CHROME PLATED BRONZE BALL WITH CONVENTIONAL PORT, 600 PSI, BLOW-OUT PROOF STEM.

GLOBE VALVES: GLOBE VALVES SHALL BE CLASS 125. GLOBE VALVES 2" AND SMALLER SHALL BE NIBCO #T-211 OR MILWAUKEE #UP1502, SCREWED LEAD FREE BRONZE BÖDY AND BRASS DISC. GLOBE VALVES 2-1/2" AND LARGER SHALL BE CRANE #351 IRON BODY FLANGED VALVE WITH BRASS TRIM.

CHECK VALVES: CHECK VALVES SHALL BE CLASS 125. CHECK VALVES FOR INSTALLATION IN HORIZONTAL PIPE RUNS SHALL BE OF THE "SWING DISC" DESIGN. HORIZONTAL CHECK VALVES 2" AND SMALLER SHALL BE MILWAUKEE #UP1509 OR NIBCO #S-413-Y-LF WITH SOLDERED LEAD FREE BRONZE BODY AND BRONZE DISC. HORIZONTAL CHECK VALVES 2-1/2" AND LARGER SHALL BE CRANE #373 OR NIBCO F-918 IRON BODY FLANGED VALVE WITH BRASS TRIM. CHECK VALVES FOR INSTALLATION IN VERTICAL PIPE RUNS SHALL BE OF THE "VERTICAL LIFT" SPRING LOADED DESIGN. VERTICAL CHECK VALVES 2" AND SMALLER SHALL BE MILWAUKEE #UP1548T OR NIBCO #S-480-Y-LF WITH SOLDERED LEAD FREE BRONZE BODY AND BRONZE DISC. VERTICAL CHECK VALVES 3" AND LARGER SHALL BE CENTER GUIDED.

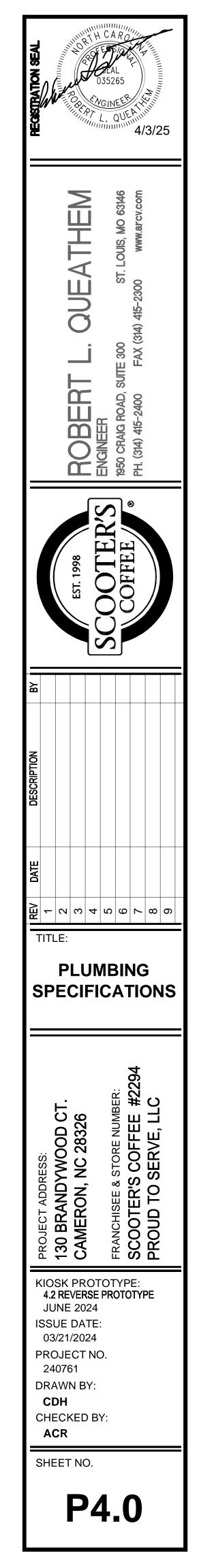
GAS COCKS: GAS COCKS 2" AND SMALLER SHALL BE HOMESTEAD #611, SCREWED IRON BODY WITH BRASS TRIM AND FLAT HEAD. GAS COCKS 2-1/2" AND LARGER SHALL BE HOMESTEAD #612 FLANGED SEMI-STEEL BODY WITH IRON TRIM AND SQUARE HEAD. APPROVED EQUAL ARE FLOWSERVE-NORDSTROM OR RM ENERGY SYSTEMS "HERCULES".

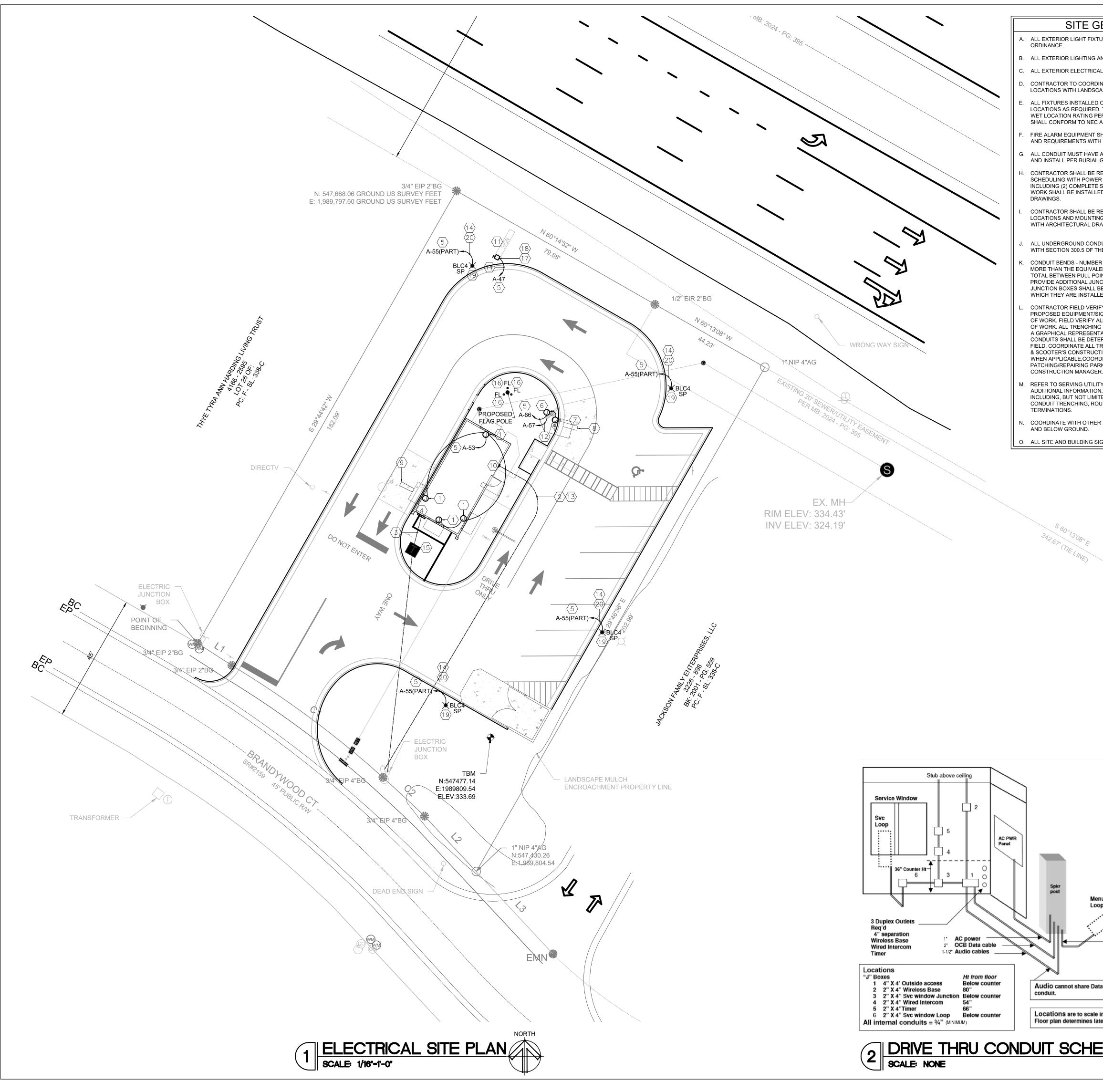
GAS LINE PRESSURE REGULATORS: GAS LINE PRESSURE REGULATORS SHALL BE BY AMERICAN METER COMPANY, FISHER, ITRON, MAXITROL OR SENSUS WITH CAPACITIES AS SCHEDULED ON THE DRAWINGS. REGULATORS SHALL BE SINGLE STAGE, STEEL JACKETED, CORROSION-RESISTANT TYPE WITH INTERSTITIAL RELIEF VALVE WITH ATMOSPHERIC VENT. ELEVATION COMPENSATOR; WITH THREADED ENDS, FOR INLET AND OUTLET.

STRAINERS: STRAINERS 2" AND SMALLER SHALL BE WATTS #LFS777SI WITH SOLDERED LEAD FREE BRONZE, BRASS CAP AND MONEL 40 MESH SCREEN. STRAINERS 2-1/2" AND LARGER SHALL BE WATTS #77F-DI-FDA-125 WITH FLANGED IRON BODY WITH FUSED FDA EPOXY COATING, BOLTED IRON CAP AND STAINLESS STEEL SCREEN WITH 1/16" PERFORATIONS. STRAINERS SIZE 2-1/2" AND LARGER SHALL HAVE A 1" BLOW-OFF LINE WITH A 1" GATE VALVE CONNECTED TO THE BLOW-OFF CONNECTION AND SHALL BE EXTENDED TO THE NEAREST FLOOR DRAIN.

UNIONS: FERROUS UNIONS SHALL BE CRANE OR EQUAL, COMBINATION IRON AND BRASS, GROUND JOINT WITH SCREWED ENDS. COPPER UNIONS SHALL BE STREAMLINE OR EQUAL, CAST BRONZE SWEAT TYPE WITH GROUND JOINT. FERROUS TO COPPER UNIONS SHALL BE UNIVERSAL CONTROLS OR EQUAL, DIELECTRIC TYPE WITH THREADED NYLON INSERT.

FLOW CONTROL VALVES: FOR INSTALLATION IN HOT WATER RECIRCULATION LINES. SHALL BE BELL & GOSSETT #CB "CIRCUIT SETTER" LEAD FREE OR EQUAL BY ARMSTRONG OR NIBCO WITH BRONZE BODY. BRASS BALL, TFE SEAT RINGS, CALIBRATED ORIFICE, MEMORY STOP, READOUT VALVES WITH INTERNAL CHECK VALVES, DRAIN PORT AND SWEAT CONNECTIONS. PROVIDE BALL VALVE, STRAINER AND CHECK VALVE UPSTREAM AND UNION AND BALL VALVE DOWNSTREAM OF EACH FLOW CONTROL VALVE. SET THE FLOW CONTROL VALVES TO THE FLOWS AS INDICATED ON THE DRAWINGS.





GENERAL NOTES	SITE KEYED NOTES X 1. PROVIDE WP J-BOX FOR EXTERIOR SIGNAGE PER NEC. COORDINATE	TEAL CARO
G AND SIGNAGE TO BE FED WITH #10 CU. U.N.O.	EXACT PRIOR TO INSTALLATION. EXTEND CIRCUIT THROUGH WALL TO SWITCH. REFER TO SHEET E2.1 FOR MORE INFORMATION. VERIFY EXACT REQUIREMENTS W/ OWNER.	035265
ICAL EQUIPMENT TO BE NEMA-3R RATED. RDINATE EXACT SITE LIGHTING FIXTURE ISCAPE DRAWINGS.	2. UNDERGROUND CONDUIT WITH PULL WIRE PER TELEPHONE COMPANY REQUIREMENTS. TRENCH AND BACKFILL AS REQUIRED. REFER TO TABLE 300.5 FOR ADDITIONAL REQUIREMENTS. PROVIDE SINGLE 2-1/2" CONDUIT (RATED FOR THE ENVIRONMENT USED) IF THE TELEPHONE COMPANY DOESN'T PROVIDE INSTALLATION REQUIREMENTS.	4/3/25
ED OUTDOORS SHALL BE RATED FOR DAMP/WET ED. THE CONTRACTOR SHALL COORDINATE DAMP/ G PER NEC ARTICLE 410-0. ALL INSTALLATIONS EC ARTICLE 410, ALL SUB ARTICLES.	 NEW SECONDARY FEEDERS FROM UTILITY TRANSFORMER (SINGLE-LINE ROUTING SHOWN FOR CLARITY) TO UTILITY SERVICE-POINT. PROVIDE FEEDERS IN THE QUANTITY, SIZE(S), AND ARRANGEMENT PER THE 	
IT SHALL BE COORDINATED FOR EXACT LOCATION	ONE-LINE DIAGRAM. CONTINUE FEEDER RUN FROM SERVICE-POINT TO CUSTOMER'S SERVICE EQUIPMENT. REFER TO ONE-LINE AND CIVIL PLANS.	63146
VE A MINIMUM OF #12 CU. GROUND CONDUCTOR AL GUIDELINES IN THE NEC.	4. PROPOSED LOCATION OF NEW SERVICE ENTRANCE SECTION IN NEMA-3R ENCLOSURE. REFER TO ONE-LINE DIAGRAM ON SHEET E1.2.	EATHEM ST. LOUIS, MO 63146 WWW.arcv.com
E RESPONSIBLE FOR COORDINATING AND WER AND TELEPHONE UTILITY COMPANIES TE SETS OF DRAWINGS TO EACH COMPANY. ALL LLED PER EACH UTILITY COMPANY'S FINAL DESIGN	 ROUTE CIRCUIT THRU TIMECLOCK (CONTACTOR). COORDINATE TIMECLOCK CONTROL SETTINGS WITH DETAIL #2 ON SHEET E2.1. PROVIDE STUB-UP FOR DRIVE-THRU DIGITAL MENU BOARD. 	
E RESPONSIBLE FOR COORDINATING EXACT TING HEIGHTS OF ALL EXTERIOR LIGHT FIXTURES	COORDINATE EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION. SEE DIGITAL MENU BOARD SCHEMATIC ON THIS SHEET FOR MORE INFORMATION.	JUI 145-23
DRAWINGS.	7. PROVIDE WP J-BOX FOR DRIVE-THRU SPEAKER. COORDINATE EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION. SEE DRIVE-THRU CONDUIT SCHEMATIC ON THIS SHEET FOR MORE INFORMATION.	L. QUE 300 s =AX (314) 415-2300
THE N.E.C BER OF BENDS IN ONE RUN. THERE SHALL NOT BE (ALENT OF FOUR QUARTER BENDS (360 DEGREES	8. CONNECT SPEAKER PEDESTAL TO DETECTION LOOP, COORDINATE EXACT REQUIREMENT WITH MANUFACTURER PRIOR TO ROUGH-IN. SEE DRIVE-THRU CONDUIT SCHEMATIC ON THIS SHEET FOR MORE	
POINTS (I.E. JUNCTION BOX) CONTRACTOR TO IUNCTION BOXES AS NEEDED. (NOTE: ALL LL BE RATED (PER CODE) FOR THE LOCATION FOR ALLED I.E. W.P. AND/OR TRAFFIC-RATED).	INFORMATION 9. PROVIDE STUB-UP FOR DETECTION LOOP. COORDINATE EXACT REQUIREMENT WITH MANUFACTURER PRIOR TO ROUGH-IN. SEE	POBER ENGINEER 1950 CRAIG ROAD, PH. (314) 415-2400
ERIFY EXACT MOUNTING LOCATION OF ALL T/SIGNAGE/SITE LIGHTING/ETC., PRIOR TO START Y ALL UNDERGROUND UTILITIES PRIOR TO START	DRIVE-THRU CONDUIT SCHEMATIC ON THIS SHEET FOR MORE INFORMATION. 10. PROPOSED LOCATION OF MAIN-POINT OF PRESENCE FOR TELEPHONE	H. (314)
ING SHOWN ON THIS PLAN SHALL BE CONSIDERED ENTATION. ALL TRENCHING & ROUTING OF ETERMINED/VERIFIED BY THE CONTRACTOR IN L TRENCHING WITH LANDLORD, UTILITY COMPANY	 EXACT LOCATION OF SITE PYLON/MONUMENT SIGN TO BE DETERMINED BY SIGN VENDOR. SIGN LOCATION SHOWN POWER REFERENCE ONLY. 	<u>пт п 5 с</u>
UCTION MANAGER TO AVOID CONFLICTS/DAMAGE. ORDINATE RESPONSIBILITIES OF PARKING LOT WITH LANDLORD & SCOOTER'S GER.	CONTRACTOR TO FIELD-VERIFY LOCATION OF PYLON/MONUMENT SIGN PRIOR TO OUTING/INSTALLING POWER TO SITE SIGNAGE. SIGNAGE UNDER SEPARATE PERMIT.	IRS I
ILITY COMPANY'S SPECIFICATION GUIDE FOR TION, REQUIREMENTS & RESPONSIBILITIES. IMITED TO, TRANSFORMER PAD REQUIREMENTS,	12. PROVIDE (4) #10 & (1) #10G IN 1-1/2" NON-METALLIC CONDUITS AT 24" (MINIMUM) BELOW FINISHED GRADE PER NEC 300.5. FOR DRIVE THRU DIGITAL MENU BOARD. REFER TO DRIVE THRU SCHEMATIC ON THIS SHEET FOR MORE INFORMATION.	TEEEEEEE
ROUTING SPECIFICATIONS, METERING &	13. TERMINATE AND STUB CONDUIT TO PROPERTY LINE OR EXISTING CABINET PER TELEPHONE COMPANY REQUIREMENT.	
S SIGNAGE ARE UNDER A SEPARATE PERMIT.	14. PROVIDE (2) #10 & (1) #10G IN 1" NON-METALLIC CONDUIT AT 24" (MINIMUM) BELOW FINISHED GRADE PER NEC 300.5. VERIFY EXACT ROUTING PRIOR TO INSTALLATION. TRENCH, BACKFILL, AND REPAIR LANDSCAPE/HARDSCAPE.	S
	15. VERIFY POWER COMPANY TRANSFORMER LOCATION. COORDINATE WITH UTILITY OWNER FOR EXACT LOCATION.	
	16. PROVIDE AND INSTALL SOLAR FLAG POLE LIGHT. COORDINATE SPECIFICATION, SUPPLIER, AND REQUIREMENTS WITH OWNER AND ARCHITECT PRIOR TO BID.	
	 VERIFY DISCONNECT SWITCH MOUNTING LOCATION WITH SIGN VENDOR AND MAKE FINAL CONNECTIONS TO SIGN. STUB-UP UNDERGROUND CONDUIT AND INSTALL A WEATHERPROOF 	2
	 J-BOX WITH GASKETED BLANK COVERPLATE. EXTEND CIRCUIT IN "SEALTITE" CONDUIT FROM J-BOX TO SIGN DISCONNECT SWITCH. NEW POLE MOUNTED SITE LIGHTING FIXTURE. SEE LIGHTING SCHEDULE 	DESCRIPTION
	ON SHEET E2.1 FOR ADDITIONAL INFORMATION. MAKE ALL FINAL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS. REFER TO STRUCTURAL DRAWINGS FOR POLE BASE DETAIL. PROVIDE ALL NECESSARY MOUNTING ACCESSORIES. FIXTURE SHALL BE MOUNTED	
	AT 15'-0" AFG. 20. CONTRACTOR TO DETERMINE CONDUIT ROUTING IN FIELD (INCLUDING ALL STUB-UP LOCATIONS). VERIFY ALL UNDERGROUND UTILITIES PRIOR	ш
	TO START OF WORK. COORDINATE INSTALLATION WITH SCOOTER'S CONSTRUCTION MANAGER.	DATE
		ELECTRICAL
		SITE PLAN
DIAGRAM CC Mounting Tem	Template & Foundation DRIVE THRU Inplate 1.5" CONDUIT COMM.	
	1" CONDUIT LOOP 2" CONDUIT FOR DIGITAL CABLE 4XØ.88 THRU FOR 3/4" ANCHOR	294
HOLE SIZES: A: 0.813" DIA. HOLE B: SEE TEMPLATE DRAW		CT. 66 10 10 10 10 10 10 10 10 10 10 10 10 10
D. SEE IEMIFLAIE DRAW	4.38	COD 2832 2832 2832 2832 2832 SVE,
	t be installed in place by a qualified contractor. It runs from the power source to the menu board d protrude 4" above the concrete slab (see Diagram T) Use the template supplied for	
the correct relation between th conduit approximately 12" bey lines run up the inside back	d protrude 4" above the concrete stab (see Diagram 1) Use the template supplied for he mounting bolts and the conduit location. Power and ground leads should be pulled through the yond the conduit stub, and be accessible at the time of final wiring. Note: The 120VAC power of the pedestal base (see Diagram CC, Mounting Template) ed, pour the concrete footing per local codes. While the concrete is still soft, insert the four (4)	ROJECT ADE 30 BRANE AMERON AMERON RANCHISEE COOTER' ROUD TC
anchor bolts. Use the supplied Foundation. Note: Prior to p	template as a bolt and conduit locator. Anchor bolts should be 2-3/4" above grade (see Diagram F lacing the template down, one (1) nut must be threaded onto cach anchor bolt and sunk into op of the nut. Place the template over the eight (4) anchor bolts and secure in place with four (4)	PROJECT 130 BRA CAMER CAMER FRANCHIS SCOOTI PROUD
Menu	CONDUIT 2" with pull string to inside building FOR DIGITAL CABLE FOR DIGITAL CABLE FOR DIGITAL CABLE	KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE
	Mounting Template CONDUIT 1" (1) 120V STATIC (LIGHTING) w/ pull string to electrical panel (1) 120V DIGITAL w/ pull string to electrical panel CONDUIT 1" (1) Loop wire with pull string to drive thru lane	JUNE 2024 ISSUE DATE: 03/21/2024
1" Loop	Install electrical conduit (per template) 3/4" dia. X 30" M314-90	PROJECT NO. 240761
Data at Dawar	Grade 55 anchor bolts and leveling nuts	DRAWN BY: BPA
		CHECKED BY: SAH
ale in height only.	*SECOND LINE OF 120V NOT REQUIRED IF ALL DIGITAL	SHEET NO.
	L MENUBOARD SCHEMATIC	E0.1
SCALE: NO		

26000 COMMON WORKS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.0 DESCRIPTION

- A. THE GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS, APPLY TO THE WORK SPECIFIED IN THIS DIVISION.
- B. CONTRACTOR SHALL VISIT THE SITE TO CONFIRM ITEMS LISTED AS EXISTING BY LANDLORD. ITEMIZED BIDS SHALL BE PROVIDED TO COMPLETE ANY SCOPE GAP ITEMS TO ENSURE ALL WORK REQUIRED BY THE CONTRACTOR IS INCLUDED IN THE SCOPE.
- 2. PRIOR TO FINAL BID, REFER DISCREPANCIES, ERRORS, OMISSIONS AND AMBIGUITIES IN THE CONTRACT DOCUMENTS TO THE OWNER'S REPRESENTATIVE IN WRITING. PROVIDE RESOLVED MATERIALS AND LABOR APPROVED BY THE OWNER'S REPRESENTATIVE AS PART OF THE FINAL BID.
- D. THE INTENT OF THE CONTRACT DOCUMENTS IS TO PROVIDE COMPLETE C. ANY OBSERVED ITEMS IN THE BUILDING AND SITE THAT MIGHT POSE A SYSTEMS. PROVIDE MISCELLANEOUS ITEMS AND ACCESSORIES FOR COMPLETE SYSTEMS.
- 1.1 WORK INCLUDED
- A. FURNISH LABOR. SUPPLIES. MATERIALS, EQUIPMENT AND INCIDENTALS 3.1 INSTALLATION NECESSARY FOR INSTALLATION OF A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM, AS SPECIFIED HEREIN. THIS SECTION, AS WELL AS THE REST OF THE CONTRACT DOCUMENTS APPLY TO THE PROJECT.
- B. COORDINATE WITH ALL OTHER TRADES FOR ELECTRICAL EQUIPMENT CONNECTIONS AND INSTALLATIONS.
- C. THE CONTRACT DOCUMENTS ARE A COMPLETE SCOPE OF WORK INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPECIFICATIONS. CONTRACTOR TO REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS. C. INSTALL ALL MATERIALS PER THE GOVERNING CODES.
- 1.2 QUALITY ASSURANCE
- A. ELECTRICAL WORK SHALL BE EXECUTED IN ACCORDANCE WITH LOCAL STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS OF LOCAL AUTHORITIES HAVING JURISDICTION OVER THE WORK. IF THE STANDARDS AND CODES CONFLICT WITH EACH OTHER, THE MOST STRINGENT SHALL APPLY.
- B. PRODUCTS SPECIFIED IN DIVISION 16 FOR WHICH MANUFACTURERS ARE NOTED MUST STILL COMPLY WITH ALL CONTRACT DOCUMENTS. MENTION OF MANUFACTURER BY NAME, OR A SPECIFIC PRODUCT IS NOT INTENDED TO LIMIT OTHER MANUFACTURERS FROM THE PROJECT.
- C. PERFORM ALL WORK IN ACCORDANCE WITH THE REGULATIONS AND ORDINANCES OF LOCAL MUNICIPAL AND STATE AGENCIES WHO HAVE LAWFUL JURISDICTION OVER THE PROJECT.
- D. PROTECT ALL PRODUCTS DURING DELIVERY AND HANDLING AT THE SITE

1.3 GOVERNING CODES

- A. LOCAL MUNICIPALITY ELECTRICAL CODES AND ORDINANCES.
- B. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), 70-NATIONAL ELECTRICAL CODE.
- C. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), 29 CFR 1.0 INSPECTION
- D. AMERICANS WITH DISABILITIES ACT OF 1990 (ADA).
- E. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI).
- . NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA) STANDARDS.
- G. UNDERWRITER LABORATORIES INCORPORATED STANDARDS (UL).
- H. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
- . NATIONAL ELECTRICAL SAFETY CODE (NESC).
- J. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
- K. MANUFACTURER'S RECOMMENDATIONS.
- 1.5 JOB REQUIREMENTS AND CONDITIONS:
- A. PERMITS, LICENSES AND INSPECTIONS SHALL BE SECURED AND PAID FOR AS REQUIRED BY LAW FOR THE COMPLETION OF THE WORK. CERTIFICATES OF APPROVAL SHALL BE SECURED, PAID FOR, AND DELIVERED TO THE OWNER BEFORE THE FINAL ACCEPTANCE OF THE WORK
- B. COORDINATE WITH ALL TRADES TO AVOID CONFLICTS IN THE INSTALLATION OF WORK. COORDINATE EQUIPMENT, PIPING, CONDUITS AND RACEWAYS TO ALLOW FOR SPACE FOR OTHER TRADES.
- C. NOTIFY PROPER AUTHORITIES HAVING JURISDICTION FOR INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.

1.6 SUBMITTALS

- A. PRODUCT DATA: PROVIDE MANUFACTURERS' PUBLISHED ENGINEERING DATA AND MATERIALS. ANY SUBMITTED PRODUCTS DIFFERENT THAN THE SPECIFIED PRODUCTS SHALL BE CLEARLY IDENTIFIED IN THE SUBMITTAL.
- B. PROVIDE TEST REPORTS, MATERIAL LISTINGS AND ANY REQUIRED CERTIFICATES.
- C. OPERATION AND MAINTENANCE DATA TO BE PROVIDED TO THE OWNER AT THE COMPLETION OF THE PROJECT WITH OWNER TRAINING.
- 1.7 WARRANTY
- A. FURNISH THE MANUFACTURER'S PRINTED WARRANTY FOR EACH SEPARATE ITEM, ALONG WITH CONTRACTOR'S WRITTEN ONE (1) YEAR GUARANTEE. WARRANTY SHALL INCLUDE LABOR NECESSARY TO REPLACE DEFECTIVE PARTS DURING THE WARRANTY PERIOD.
- PART 2 PRODUCTS

2.0 MATERIALS

- A. NEW, FREE FROM DEFECTS AND OF COMMERCIAL GRADE STANDARD MANUFACTURING BY REPUTABLE MANUFACTURERS.
- B. ALL ELECTRICAL EQUIPMENT SHALL HAVE IDENTIFICATION TAGS. INSTALL NAMEPLATES ON ELECTRICAL DEVICES. TEXT SHALL INDICATE THE COMPONENT AS IDENTIFIED IN THE CONSTRUCTION DOCUMENTS.
- C. PROVIDE TYPE WRITTEN PANEL SCHEDULES FOR ALL PANELBOARDS AFTER FINAL INSTALLATION IS COMPLETE. IDENTIFYING THE BRANCH CIRCUITS AND AREAS SERVED.
- D. ALL SIMILAR MATERIALS SHALL BE BY THE SAME MANUFACTURER.

2.1 SUBSTITUTIONS

A. PROJECT TO BE BID PER CONTACT DOCUMENTS EXCLUDING ANY SUBSTITUTIONS AND SUBSTITUTION REQUESTS TO BE PROVIDED PER DIVISION 1 REQUIREMENTS.

- B. REQUESTS IMPLY NO OBLIGATION ON THE OWNER.
- C. APPROVED SUBSTITUTIONS THAT REQUIRE CHANGES, INCLUDING WORK IN OTHER DIVISIONS, SHALL HAVE NO ADDITIONAL COSTS TO THE OWNER.
- D. SUBSTITUTIONS DURING ANY VALUE ENGINEERING WILL PROVIDE CREDIT TO THE OWNER FROM THE ORIGINAL CONSTRUCTION BID.

PART 3 - EXECUTION

- 3.0 INSPECTION
- A. ANY MATERIALS DAMAGED UPON RECEIPT SHALL BE REPLACED. ANY MATERIALS DAMAGED WHILE ON SITE SHALL BE REPLACED AT NO COST TO OWNER.
- B. BEFORE STARTING WORK, REPORT ANY STRUCTURAL DEFECTS THAT WILL ADVERSELY AFFECT THE QUALITY AND EXECUTION OF WORK TO A. CONDUIT OWNER'S REPRESENTATIVE.
- SAFETY HAZARD TO THE OWNER, CONTRACTOR, BUILDING USERS OR MAINTENANCE PERSONNEL THAT WILL BE INVOLVED WITH THE UPKEEP OF THE BUILDING'S ELECTRICAL AND MECHANICAL SYSTEMS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.

- A. CLEAN AND MODIFY ALL SURFACES AND STRUCTURES FOR WHICH MATERIALS ARE TO BE INSTALLED FOR A PROPER AND SECURE INSTALLATION.
- B. CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC AND CONTRACTOR IS TO FIELD VERIFY ALL ROUTING, LOCATIONS AND CONFLICTS WITH OTHER TRADES AT NO COST TO OWNER. ENGINEER DOES NOT VERIFY QUANTITY OF MATERIALS NEEDED FOR A COMPLETE INSTALLATION.

- D. EXTERIOR TRENCHING TO FOLLOW DIVISION 2 SITE WORK FOR EXCAVATION AND BACKFILL.
- E. WHERE CUTTING AND PATCHING IS REQUIRED, RESTORE DISTURBED WORK TO MATCH ADJACENT FINISHES. WHERE WORK INVOLVES STRUCTURAL MEMBERS OR WALLS, CONSULT OWNER'S REPRESENTATIVE IN WRITING FOR STRUCTURAL ENGINEER TO VERIFY ACCEPTANCE.
- F. PAINTING TO BE PROVIDED PER MANUFACTURER'S RECOMMENDATIONS. MARRED EQUIPMENT SHALL BE FINISHED WITH TOUGH-UP PAINT FOR EQUIPMENT TO LOOK NEW AND FREE OF DAMAGE.
- G. PROVIDE FIRE RATED SLEEVES WHERE PENETRATING FIRE RATED WALLS WITH RATED ASSEMBLIES OR RACEWAY WITH FIRE SEALING.
- H. EXTERIOR WALL PENETRATIONS TO BE WATER TIGHT. PROVIDE FLASHINGS, SEALANTS AND CAULKS TO PREVENT WATER INTRUSION.
- I. MAINTAIN RECORD 'AS-BUILT' DRAWINGS THROUGHOUT THE CONSTRUCTION PROCESS.

26100 ELECTRICA

PART 1 - GENERAL

A. FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEMS. MINIMUM MATERIAL AND EQUIPMENT SPECIFICATIONS PROVIDED IN THIS SECTION

PART 2 - PRODUCTS

2.0 MATERIALS

- A. PRODUCTS FROM MANUFACTURERS SHALL BE UL LABELED AND LISTED 2.4 WIRING DEVICES AND OUTLETS FOR THE APPLICATION USED.
- 2.1 CONDUCTORS AND CABLES
- A. COPPER BUILDING WIRE: FLEXIBLE, INSULATED AND UN-INSULATED. DRAWN COPPER CURRENT-CARRYING CONDUCTOR WITH AN OVERALL C. RECEPTACLES: 20A, 125V, 3-WIRE, DUPLEX GROUNDING. PROVIDE GFCI, 4. SCCR: NOT LESS THAN 200 kA. INSULATION LAYER OR JACKET, OR BOTH, RATED 600V OR LESS. COMPLY WITH UL 83.
- 1. FEEDERS: TYPE XHHW, THHN/THWN, 600V, COPPER, 75°C RATING. 2. BRANCH CIRCUITS: TYPE THHN/THWN, 600V, COPPER, 75°C RATING. ALL BRANCH CIRCUITS TO HAVE A DEDICATED NEUTRAL. NO COMMON NEUTRAL WITH TANDEM BREAKERS ALLOWED.
- 3. MINIMUM WIRE SIZE SHALL BE #12 AWG. 4. CONDUCTORS TO BE SOFT DRAWN, ANNEALED COPPER WITH A CONDUCTIVITY OF NOT LESS THAN 98% PURE COPPER AND UL LISTED
- 5. CONDUCTORS #10 AWG AND SMALLER TO BE SOLID.
- 6. CONDUCTORS #8 AWG AND LARGER TO BE STRANDED.
- 480Y/277V, 3-PHASE SYSTEMS: a. PHASE A - BROWN
- b. PHASE B ORANGE
- c. PHASE C YELLOW
- d. NEUTRAL GRAY e. GROUND - GREEN WITH YELLOW STRIPE
- 8. 208Y/120V, 3-PHASE SYSTEMS:
- a. PHASE A BLACK
- b. PHASE B RED c. PHASE C - BLUE
- d. NEUTRAL WHITE
- e. GROUND GREEN
- 9. 240/120V . 1-PHASE SYSTEMS: a. PHASE A - BLACK
- b. PHASE B RED
- c. NEUTRAL WHITE d. GROUND - GREEN
- **B. WIRING CONNECTORS:** TWIST-ON CONNECTORS TO BE SPRING INSULATED TYPE.
- 2. COMPRESSION CONNECTORS TO BE LONG BARREL TYPE FOR DOUBLE FOR 600V WIRING FOR 250 KCMIL AND LARGER. 3. INSULATED SPLIT BOLTS FOR FOR 600V WIRING SMALLER THAN 250
- KCMI

2.2 GROUNDING AND BONDING

- A. SYSTEM 1. GROUND-UP BUILDINGS - COMPLETE GROUNDING ELECTRODE SYSTEM CONFORMING WITH ALL REQUIREMENTS OF NEC 250.52(A)(1) THROUGH (A)(7) THAT ARE PRESENT AT THE BUILDING SHALL BE BONDED TOGETHER. PROVIDE ISOLATED BUS BAR IN MAIN ELECTRICAL ROOM AND TELECOM ROOMS. RESISTANCE TO EARTH TO BE 5 OHMS OR LESS. ADD GROUNDING ELECTRODE SYSTEMS AS NECESSARY TO REACH RESISTANCE LEVELS
- a. METAL UNDERGROUND WATER PIPE. b. METAL FRAME OF BUILDING OR STRUCTURE
- c. CONCRETE-ENCASED ELECTRODE (UFER).
- d. GROUND RING (WHERE APPLICABLE). e. GROUND RODS.
- f. PLATE ELECTRODE. a. OTHER LISTED SYSTEMS
- 2. FOR EXISTING BUILDING TEST EXISTING RESISTANCE TO EARTH OF THE EXISTING GROUNDING ELECTRODE SYSTEM. PROVIDE ADDITIONAL GROUNDING ELECTRODES AS NECESSARY TO REACH A MINIMUM RESISTANCE TO EARTH OF 5 OHMS. PROVIDE GROUNDING BUS BARS IN ELECTRICAL ROOMS AND TELECOM ROOMS

CONNECTED TO THE EXISTING GROUNDING ELECTRODE SYSTEM.

ELECTRICAL SPECIFICATIONS

1. SEE SINGLE LINE POWER DIAGRAM FOR GROUNDING CONDUCTOR SIZE. MINIMUM TO BE #2/0 AWG BARE COPPER 30" BELOW GRADE. ABOVE GROUND TO BE GREEN-COLORED INSULATION WITH

- CONTINUOUS YELLOW STRIP. 2. GROUND BUS - HORIZONTALLY ON INSULATED SPACERS 2" FROM WALL AND 6" AFF. PREDRILLED RECTANGULAR BARS ON ANNEALED COPPER, 1/4" X 4" IN CROSS SECTION AND LENGTH AS NEEDED. CONNECTORS TO BE MECHANICAL, CAST SILICON BRONZE,
- SOLDERLESS COMPRESSION-TYPE, LONG-BARREL WITH TWO-BOLT CONNECTION TO BUS BAR. 3. TERMINATIONS:
- a. PIPE AND EQUIPMENT BOLTED CONNECTORS. b. UNDERGROUND CONNECTIONS - EXOTHERMIC WELD. c. STRUCTURAL STEEL - WELDED CONNECTORS.
- 2.3 RACEWAYS AND BOXES

B. MATERIALS

C. WIREWAYS

COVERS.

- 1. ELECTRICAL METALLIC TUBING (EMT): ZINC COATED GALVANIZED THIN-WALL STEEL TUBING. ANSI C80.3 AND UL 797.
- 2. RIGID METAL CONDUIT (RMC): HEAVY WALL, ZINC COATED GALVANIZED STEEL. ANSI C80.1 AND UL 65 3. INTERMEDIATE METAL CONDUIT (IMC): HOT-DIPPED GALVANIZED STEEL WITH A COUPLING AND END-THREAD PROTECTOR FOR EACH SECTION. ANSI C80.6 AND UL 1242 WITH AN INTERIOR COATING OF
- SILICON EPOXY ESTER LUBRICANT. 4. FLEXIBLE METAL CONDUIT (FMC): HOT-DIPPED GALVANIZED STEEL STRIP CORE WITH INTEGRAL COPPER GROUND WIRE AND UL 1. 5. LIQUID-TIGHT FLEXIBLE METAL CONDUIT (LFMC): HOT-DIPPED GALVANIZED STEEL STRIP CORE WITH EXTRUDED POLYVINYL JACKET, SUN-LIGHT-RESISTANT AND NON-WRINKLING WITH INTEGRAL COPPER GROUND WIRE AND UL 360 AND SUITABLE FOR 90°C
- CONDUCTORS. 6. RIGID NONMETALLIC CONDUIT (RNC): SCHEDULE 40 POLYVINYLCHLORIDE (PVC), NEMA TC 2 AND UL 651, PROVIDE SCHEDULE 80 WHERE NOTED. SWITCH TO IMC OR RMC WHERE
- CONDUIT TURNS UP INTO BUILDING.
- 7. MINIMUM RACEWAY SIZE TO BE 3/4"C.
- B. CONDUIT FITTINGS 1. RIGID CONDUIT TO HAVE THREADED FITTINGS
- 2. EMT TO HAVE COMPRESSION TYPE FITTINGS. 3. METAL FITTINGS TO COMPLY WITH NEMA FB 1 AND UL 514B. 4. NONMETALLIC FITTINGS TO COMPLY WITH NEMA TC 3. MATCH TO CONDUIT OR TUBING TYPE AND MATERIAL.
- 1. SHEET METAL COMPLYING WITH UL 870 AND NEMA 250. PROVIDE NEMA 1, 3R, OR 4 AS NOTED. SIZED AS NOTED, BUT MUST MEET MINIMUM FILL AND BENDING RADIUSES PER NEC WITH HINGED-TYPE
- D. BOXES, ENCLOSURES AND CABINETS
- 1. RATED FOR ENVIRONMENT.
- 2. SHEET METAL OUTLET AND DEVICE BOXES: COMPLY WITH NEMA 0S 1 AND UL 514A.
- 3. CAST-METAL OUTLET AND DEVICE BOXES: COMPLY WITH NEMA FB1, ALUMINUM, TYPE FD, WITH GASKETED COVER. 4. FLOOR BOXES EQUAL TO WIREMOLD EVOLUTION SERIES FOR
- POKE-THRU AND IN-GRADE TYPES. MINIMUM OF TWO DUPLEX OUTLETS AND DATA OUTLETS WHERE SHOWN. 5. ALL CEILING LUMINAIRE AND FAN OUTLET BOXES TO BE
- NONADJUSTABLE. LUMINAIRE BOXES RATED TO 50 LB AND
- LUMINAIRES WEIGHTING MORE THAN 50 LB SHALL BE LISTED AND MARKED FOR THE MAXIMUM ALLOWABLE WEIGHT. PADDLE FAN OUTLET BOXES MINIMUM 70 LB RATING.
- 6. CABINETS TO BE NEMA 250. PROVIDE NEMA 1, 3R, OR 4 AS NOTED. GALVANIZED-STEEL BOX WITH REMOVABLE INTERIOR PANEL AND REMOVABLE FRONT. HINGED DOOR IN FRONT COVER WITH FLUSH LATCH AND CONCEALED HINGE. KEYED TO MATCH PANELBOARDS. 7. JUNCTION AND PULL BOXES: CODE-GAUGE GALVANIZED STEEL WITH GALVANIZED STEEL COVERS. PULL-BOXES INSTALLED ON THE EXTERIOR OR IN WET LOCATIONS SHALL BE WEATHERPROOF IN ACCORDANCE WITH NEMA 250
- 8. LOCKNUTS TO BE ZINC-PLATED OR CADMIUM-PLATED MALLEABLE
- A. SPECIFICATION GRADE.
- B. SWITCHES: 20A, 120-277V RATING.
- AFCI, AND TAMPER-PROOF RECEPTACLES WHERE REQUIRED BY NEC. GFCI-RATED RECEPTACLES REQUIRED IN KITCHENS, BARS. RESTROOMS, EXTERIOR, AS WELL AS OTHER AREAS. TAMPER-PROOF B. TYPE 2 SURGE PROTECTIVE DEVICES (SPDs) RECEPTACLES ARE NOW REQUIRED IN COMMON AREAS.
- D. COVER PLATES: STAINLESS STEEL IN KITCHENS, CAST-ALUMINUM IN EXTERIOR LOCATIONS AND SMOOTH, HIGH-IMPACT THERMOPLASTIC IN INTERIOR SPACES UNLESS OTHERWISE NOTED. 1. ALL STAINLESS STEEL COVERPLATES TO BE ETCHED WITH CIRCUIT
- IDENTIFICATIONS. THERMOPLASTIC PLATES TO BE PROVIDED WITH IDENTIFICATION STICKERS. E. OUTLET BOX CONNECTIONS:
- 1. BUSHINGS: HIGH IMPACT, THERMOSETTING PHENOLIC-INSULATED. RATED AT 150°C.
- 2. THREADED NIPPLES: CONDUIT NIPPLES WITH TWO SETS OF
- 3. PLASTIC ELECTRICAL TAPE RATED AT 600V; 3M #35+ OR EQUAL
- A. DISTRIBUTION PANELBOARDS:

THREADS

SCHEDULES.

2.5 PANELBOARDS

- 1. BASIS OF DESIGN TO BE SQUARE D'I-LINE' SERIES. ALL
- PANELBOARDS TO BE OF THE SAME MANUFACTURER. 2. NEMA-RATING AS SHOWN ON PANEL SCHEDULES.
- 3. SINGLE-PHASE, 3-WIRE, SOLID NEUTRAL DESIGN WITH SEQUENCE BUSSING, FULL CAPACITY NEUTRAL AND SEPARATE GROUND BUS. 4. MAIN CIRCUIT BREAKER (MCB) OR MAIN LUGS ONLY (MLO) AS NOTED
- ON PANEL SCHEDULES. 5. PROVIDE TYPEWRITTEN PANEL SCHEDULE IN INSIDE OF DOOR. 6. CABINET TO HAVE DOOR-IN-DOOR STYLE FRONT COVER.
- 7. COPPER BUSSING, FULLY RATED TO A.I.C. RATING SHOWN ON PANEL 5. NOMINAL RATING: 20 KA. SCHEDULE. MINIMUM OF 22 KAIC 8. CIRCUIT BREAKER TO BE BOLT-ON TYPE. QUICK-MAKE, QUICK-BREAK PART 3 - EXECUTION
- WITH SEPARATE TRIP POSITION. 9. NO 20A/1P TANDEM CIRCUIT BREAKERS ALLOWED. EACH CIRCUIT TO 3.1 WIRING
- HAVE A DEDICATED NEUTRAL 10. PROVIDE PREPARED SPACES AND SPARES AS SHOWN ON PANEL
- 11.PROVIDE 60A/2P CIRCUIT BREAKER FOR EXTERNAL SURGE
- PROTECTIVE DEVICE (SPD).
- B. BRANCH PANELBOARDS: 1. BASIS OF DESIGN TO BE SQUARE D 'NQ' AND 'NF' SERIES DEPENDING ON VOLTAGE. ALL PANELBOARDS TO BE OF THE SAME
- MANUFACTURER. 2. NEMA-RATING AS SHOWN ON PANEL SCHEDULES.
- 3. SINGLE-PHASE, 3-WIRE, SOLID NEUTRAL DESIGN WITH SEQUENCE BUSSING, FULL CAPACITY NEUTRAL AND SEPARATE GROUND BUS. 4. MAIN CIRCUIT BREAKER (MCB) OR MAIN LUGS ONLY (MLO) AS NOTED ON PANEL SCHEDULES.
- 5. PROVIDE TYPEWRITTEN PANEL SCHEDULE IN INSIDE OF DOOR. 6. CABINET TO HAVE DOOR-IN-DOOR STYLE FRONT COVER.
- SCHEDULE. MINIMUM OF 22 KAIC. 8. CIRCUIT BREAKER TO BE BOLT-ON TYPE. QUICK-MAKE, QUICK-BREAK WITH SEPARATE TRIP POSITION
- 9. NO 20A/1P TANDEM CIRCUIT BREAKERS ALLOWED. EACH CIRCUIT TO HAVE A DEDICATED NEUTRAL

- 2.6 SAFETY SWITCH / DISCONNECTS
- A. DISCONNECTS TO BE OF THE SAME MANUFACTURER AS THE PANELBOARDS.

PROVIDED WITH SPARE 20A/1P CIRCUIT BREAKERS.

- B. HEAVY-DUTY RATED WITH QUICK-MAKE, QUICK-BREAK AND HORSEPOWER RATED.
- C. FUSED AND NON-FUSED DISCONNECTS AS SHOWN ON DRAWINGS. FUSES TO BE RK-5.

10. ALL SPACES NOT DESIGNATED WITH A CIRCUIT AND LOAD TO BE

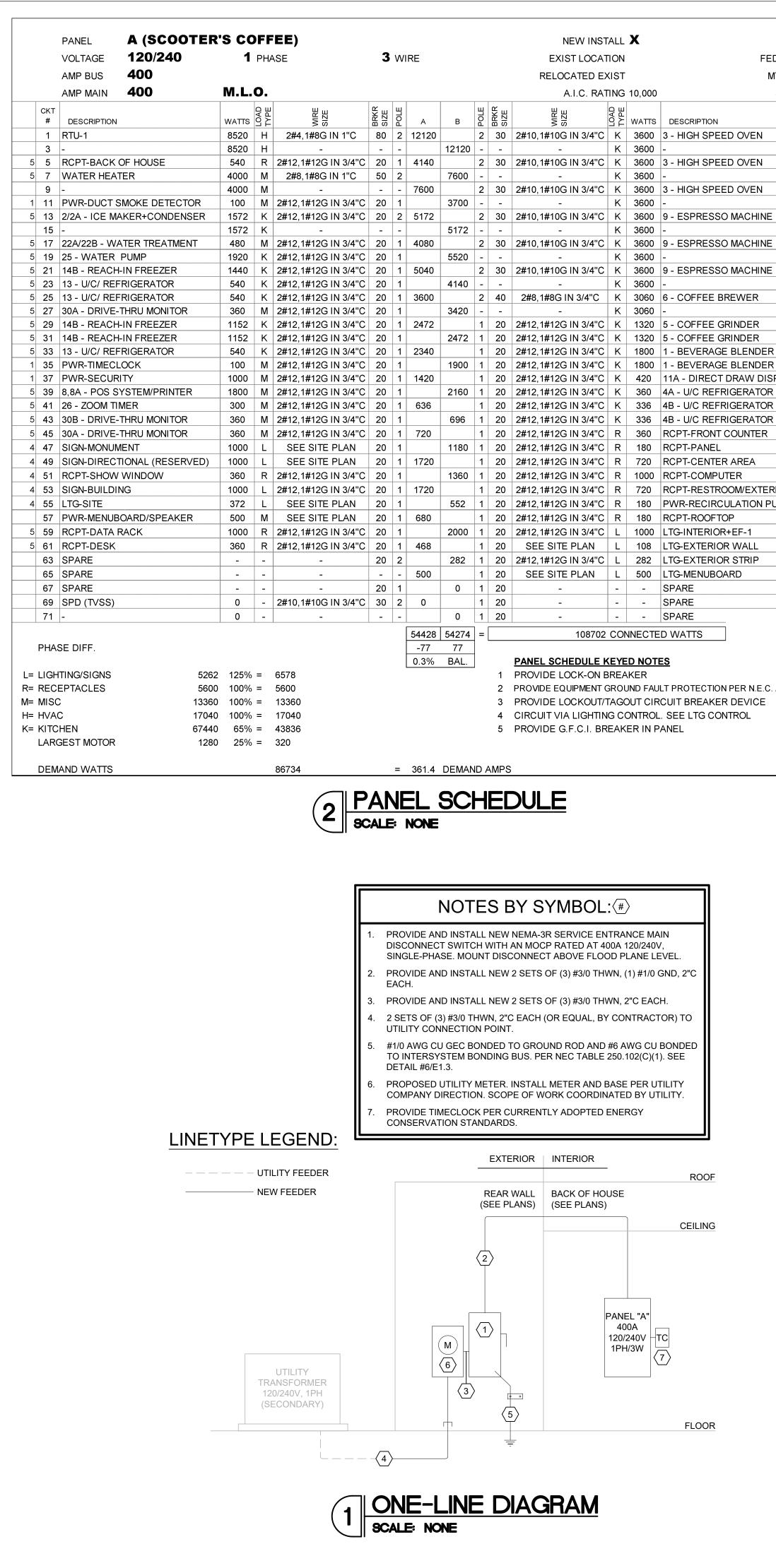
- 2.7 LOW-VOLTAGE DRY-TYPE TRANSFORMERS
- A. PRIMARY AND SECONDARY RATING OF 600V AND LESS, WITH CAPACITIES UP TO 300 kVA.
- B. MANUFACTURER TO BE THE SAME AS THE PANELBOARDS.
- C. QUALIFICATIONS:
- 1. LISTED AND LABELED AS DEFINED IN NFPA 70 BY QUALIFIED TESTING A. SWITCHES SHALL BE QUIET-TYPE, RATED 20 AMPEF AGENCY AND MARKED FOR INTENDED LOCATION AND USE. 2. COMPLY WITH 10 CFR 431 (DOE 2016) EFFICIENCY LEVELS AND MARKED AS COMPLIANT BY AN NRTL
- D. MATERIALS
- 1. CORES: ELECTRICAL GRADE, NON-AGING SILICON STEEL WITH HIGH PERMEABILITY AND LOW HYSTERESIS LOSSES.
- a. ONE LEG PER PHASE, b. CORE VOLUME SHALL ALLOW EFFICIENT TRANSFORMER OPERATION AT 10 PERCENT ABOVE THE NOMINAL TAP VOLTAGE.
- c. GROUNDED TO ENCLOSURE. SEE GROUNDING DETAIL FOR SEPARATELY DERIVED GROUNDING SYSTEM. 2. COILS: CONTINUOUS WINDINGS WITHOUT SPLICES EXCEPT FOR
- TAPS. a. COIL MATERIAL: COPPER.
- b. INTERNAL COIL CONNECTIONS: BRAZED OR PRESSURE-TYPE. 3. ENCLOSURE: VENTILATED. COMPLY WITH NEMA 250. 4. TAPS: TWO 2.5% TAPS ABOVE AND TWO 2.5% TAPS BELOW NORMAL
- FULL CAPACITY. 5. INSULATION CLASS: 220°C. UL-COMPONENT-RECOGNIZED
- INSULATION SYSTEM WITH A MAXIMUM OF 150°C RISE ABOVE 40°C AMBIENT TEMPERATURE. 6. PROVIDE GROUND-BAR KIT OR A GROUND-BAR INSTALLED ON THE
- INSIDE OF THE TRANSFORMER ENCLOSURE 7. ELECTROSTATIC SHIELDING: EACH WINDING SHALL HAVE AN
- INDEPENDENT, SINGLE, FULL-WIDTH COPPER ELECTROSTATIC SHIELD ARRANGED TO MINIMIZE INTERWINDING CAPACITY.
- 8. LOW-SOUND-LEVEL REQUIREMENTS: MAXIMUM SOUND LEVELS WHEN FACTORY-TESTED ACCORDING TO IEEE C57.12.91. 9. PROVIDE ENGRAVED, LAMINATED-ACRYLIC OR MELAMINE PLASTIC
- SIGNS FOR EACH PIECE OF EQUIPMENT, MOUNTED WITH CORROSION-RESISTANT SCREWS.

2.8 LOW-VOLTAGE EXTERNAL SURGE PROTECTIVE DEVICES

- A. TYPE 1 SURGE PROTECTIVE DEVICES (SPD): 1. LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES
- HAVING JURISDICTION AS COMPLYING WITH UL 1449, TYPE 1. 2. OPTIONS TO INCLUDE
- a. INTEGRAL DISCONNECT SWITCH. b. INTERNAL THERMAL PROTECTION THAT DISCONNECTS THE SPD BEFORE DAMAGING INTERNAL SUPPRESSOR COMPONENTS. c. LED INDICATOR LIGHTING DISPLAY FOR PROTECTION STATUS.
- d. AUDIBLE ALARM. e. NEMA ICS 5, DRY FORM C CONTACTS RATED AT 2A AND 24V AC
- FOR REMOTE MONITORING OF PROTECTION STATUS. f. SURGE COUNTER.
- 3. PERFORMANCE CRITERIA: a. MCOV: NOT LESS THAN 125% OF NOMINAL SYSTEM VOLTAGE FOR 208Y-240/120V, AND NOT LESS THAN 115% OF NOMINAL SYSTEM VOLTAGE FOR 480Y/277V.
- b. PEAK SURGE CURRENT RATING: MINIMUM SINGLE-PULSE SURGE CURRENT WITHSTAND RATING PER PHASE MUST NOT BE LESS THAN 200 kA. PEAK SURGE CURRENT RATING MUST BE ARITHMETIC SUM OF THE RATINGS OF INDIVIDUAL MOVs IN A GIVEN MODE.
- c. PROTECTION MODES AND UL 1449 VPR FOR GROUNDED WYE 3.8 LIGHT FIXTURES CIRCUITS WITH 480Y/277V OR 208Y/120V, THREE-PHASE. FOUR-WIRE CIRCUITS MUST NOT EXCEED THE FOLLOWING: LINE TO NEUTRAL: 1200V FOR 480Y/277V AND 700V FOR 208Y/120V.
- LINE TO LINE: 2000V FOR 480Y/277V AND 1200V FOR 208Y/120V. 3.9 CLEAN AND ADJUST 5. NOMINAL RATING: 20 kA.
- 1. LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AS COMPLYING WITH UL 1449, TYPE 2. COMPLY WITH UL 1283.
- 2. OPTIONS TO INCLUDE: a. LED INDICATOR LIGHTING DISPLAY FOR PROTECTION STATUS.
- b. INTERNAL THERMAL PROTECTION THAT DISCONNECTS THE SPD 1.0 GENERAL BEFORE DAMAGING INTERNAL SUPPRESSOR COMPONENTS c. NEMA ICS 5, DRY FORM C CONTACTS RATED AT 2A AND 24V AC
- FOR REMOTE MONITORING OF PROTECTION STATUS. d. SURGE COUNTER.
- 3. PERFORMANCE CRITERIA
- a. MCOV: NOT LESS THAN 125% OF NOMINAL SYSTEM VOLTAGE FOR B. REFER TO THE LIGHTING FIXTURE SCHEDULE ON THE 208Y/120V, AND NOT LESS THAN 115% OF NOMINAL SYSTEM VOLTAGE FOR 480Y/277V
- b. PEAK SURGE CURRENT RATING: MINIMUM SINGLE-PULSE SURGE CURRENT WITHSTAND RATING PER PHASE MUST NOT BE LESS THAN 100 KA. PEAK SURGE CURRENT RATING MUST BE ARITHMETIC SUM OF THE RATINGS OF INDIVIDUAL MOVS IN A GIVEN MODE
- c. PROTECTION MODES AND UL 1449 VPR FOR GROUNDED WYE CIRCUITS WITH 480Y/277V OR 208Y/120V, THREE-PHASE, FOUR-WIRE CIRCUITS MUST NOT EXCEED THE FOLLOWING:
- LINE TO NEUTRAL: 1200V FOR 480Y/277V AND 700V FOR 208Y/120V. LINE TO GROUND: 1200V FOR 480Y/277V AND 700V FOR 208Y/120V. 1.1 QUALITY ASSURANCE NEUTRAL TO GROUND: 1200V FOR 480Y/277V AND 700V FOR 208Y/120V
- LINE TO LINE: 2000V FOR 480Y/277V AND 1200V FOR 208Y/120V. 4. SCCR: EQUAL OR EXCEED 100 kA.

- - A. DO NOT PULL CONDUCTORS UNTIL THE RACEWAY SYSTEM HAS BEEN COMPLETELY INSTALLED. INSTALL CONDUCTORS AT ONE TIME, USING ONLY LUBRICANTS APPROVED FOR THIS PURPOSE. FOR WIRE SIZES #12 THROUGH #10. PRE-INSULATED, TWIST-ON CONNECTORS MAY BE USED TO SPLICE WIRE. USE COMPRESSION CONNECTORS FOR SPLICES OF 3.0 EXECUTION STRANDED CONDUCTORS. USE RING-TONGUE TYPE CONNECTORS FOR CONTROL WIRING.
 - B. ALL WIRING SHALL BE COLOR-CODED IN ACCORDANCE WITH THE NEC. SPLICES SHALL OCCUR ONLY WITHIN OUTLET BOXES. ENDS OF POWER WIRING SHALL BE MARKED WITH A 1 INCH BAND OF COLOR CODED TAPE. INSTALL A GREEN GROUNDING CONDUCTOR FOR ALL SYSTEMS.
 - C. PHASING SHALL BE MAINTAINED CONSISTENT THROUGHOUT THE DISTRIBUTION SYSTEM.
- 7. COPPER BUSSING, FULLY RATED TO A.I.C. RATING SHOWN ON PANEL D. WIRING CONNECTIONS MADE WITHOUT TWIST-ON CONNECTORS SHALL BE WRAPPED WITH THREE LAYERS OF PLASTIC TAPE. EACH LAP SHALL EXTEND OVER THE PREVIOUS LAYER BY 1/2 THE TAPE DIMENSION.

 Intermediation of the stand in using the decident intermediation of the stand intermediat				
	3	 SYSTEM. PHASING OF THE SYSTEM THROUGHOUT THE DISTRIBUTION SYSTEM SHALL BE A/B/C IN A CLOCKWISE ROTATION. SAFETY SWITCHES AND POWER RECEPTACLES SHALL HAVE THE SAME PHASE ARRANGEMENT THROUGHOUT THE SYSTEM. WIRING DEVICE BOXES PROVIDE AN OUTLET BOX FOR EACH WIRING DEVICE AND LIGHT FIXTURE AND AS REQUIRED BY THE NEC. DEVICE BOXES SHALL BE 	PER THE REQUIREMENTS OF THE IECC SECTION C408, THE CONTRACTOR SHALL HAVE A COMMISSIONING PLAN DEV REGISTERED DESIGN PROFESSIONAL OR APPROVED AG RESPONSIBLE FOR THE TESTING AND/OR CALIBRATION O BUILDING SYSTEMS DEFINED IN THIS SECTION. PRIOR TO FINAL INSPECTION, THE REGISTERED DESIGN SHALL PROVIDE EVIDENCE THAT THE LIGHTING CONTRO	PROFESSIONAL L SYSTEMS
	3	 CONFORM TO FIELD CONDITIONS. IN CASE OF CONFLICTS OR UNUSUAL CONDITIONS, NOTIFY OWNER FOR INSTRUCTIONS. BOXES SHALL BE SECURED FIRMLY IN POSITION USING PROPER ANCHORING DEVICES. B. WHERE MULTIPLE SWITCHES OR RECEPTACLES ARE NOTED IN A COMMON LOCATION, PROVIDE MULTIPLE GANG BOXES. BOXES SHALL BE MOUNTED TRUE AND LEVEL. 3.3 WIRING DEVICES A. SWITCHES SHALL BE QUIET-TYPE, RATED 20 AMPERES, 120 VOLTS AC 	PROPER WORKING CONDITION IN ACCORDANCE WITH TH CONSTRUCTION DOCUMENTS AND THE MANUFACTURER NSTRUCTIONS. FUNCTIONAL TESTING SHALL BE IN ACCO SECTIONS C408.3.1.1 THROUGH C408.3.1.3 FOR THE APPL CONTROL TYPE. A FULL REPORT OF TEST RESULTS SHALL BE PROVIDED ALONG WITH MANUALS AND AS-BUILT CONSTRUCTION D	HE 'S DRDANCE WITH LICABLE TO THE OWNER DCUMENTS OF HE S DRDANCE WITH LICABLE TO THE OWNER DCUMENTS OF HE S S S S S S S S S S S S S
Juncher Verbauer Annuel Ander Strate St	ł	 CONSTRUCTION WITH ASSURED GROUNDING MEANS IN ACCORDANCE WITH NEC ARTICLE 250-74, EXCEPTION NO. 2 LIGHT SWITCHES SHALL BE MANUFACTURED BY HUBBELL, ARROW HART, IDEAL, OR PASS & SEYMOUR. B. DUPLEX RECEPTACLES SHALL BE SPECIFICATIONS GRADE, GROUNDING TYPE, 20 AMP, 125 VOLT WITH BRASS TERMINAL SCREWS, COLOR 	ELECTRICAL LEG	AX (314) 415
 MONTRALING MONTRALING	_	 4 JUNCTION AND PULL BOXES A. UNLESS NOTED, PROVIDE JUNCTION AND PULL BOXES IN ACCORDANCE WITH THE NEC REQUIREMENTS, OR WHERE NEEDED BY JOB CONDITIONS. PROVIDE SEPARATE BOXES FOR ELECTRICAL POWER AND CONTROL OR COMMUNICATIONS CIRCUITS. 		R DEVICES JUNCTION BOX REFER TO SPECIFICATION 260533 DISCONNECT SAFETY SWITCH REFER TO SPECIFICATION 262816
 Instance of the control bank is according to work the instance of the control bank is according to work the control bank is according to		 A. CONDUITS SHALL BE SIZED IN ACCORDANCE WITH THE NEC FOR NUMBER AND SIZE OF WIRES INSTALLED. MINIMUM CONDUIT SIZE SHALL BE 3/4". B. CONDUITS SHALL BE RUN PARALLEL TO THE LINES OF THE BUILDING AT ELEVATIONS IN TRUSS. CONDUIT LOCATIONS SHALL BE COORDINATED 	REQUIREMENTS Image: Comparison of the	REFER TO SPECIFICATION 262913 WOTOR STARTER REFER TO SPECIFICATION 262913 VARIABLE FREQUENCY DRIVE REFER TO SPECIFICATION 262923
Control basis and some production and a control basis and control basis and a control basis and a control basis and a co	EN	 TRADES. CONDUIT SHALL BE SECURELY ANCHORED OR SUPPORTED FROM THE STRUCTURE IN A MANNER TO PREVENT DISPLACEMENT. WHERE POSSIBLE, INSTALL RUNS OF CONDUIT IN PARALLEL LINES, SUPPORTED FROM COMMON TRAPEZE HANGERS. C. INSTALLATION OF CONDUIT SHALL BE IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS AND ACCEPTED PRACTICE. CONDUITS SHALL BE MECHANICALLY-TIGHT AND ELECTRICALLY-CONTINUOUS. CUT ENDS OF 	 HALF-SWITCHED DUPLEX RECEPTACLE FLOOR-MOUNTED DUPLEX FLOOR-MOUNTED QUADPLEX FLOOR-MOUNTED QUADPLEX CEILING OR WALL-MOUNTED PANELI 	REFER TO SPECIFICATION 262923 MOTOR REFER TO PLANS FOR RATING SURGE PROTECTIVE DEVICE REFER TO SPECIFICATION 264313
if a bioconnects		TO REMOVE BURRS AND SWAB INSIDE OF TUBING BEFORE PULLING CONDUCTORS. BENDS SHALL BE MADE WITH PROPER BENDING TOOLS TO THE RADIUS REQUIRED BY THE NEC. PROVIDE GROUNDING FOR CONDUIT AND FITTINGS. D. CONDUITS SHALL BE CONNECTED TO ELECTRICAL BOXES USING DOUBLE LOCKNUT CONSTRUCTION AND APPROVED BUSHINGS, EXCEPT	LIGHTING CONTROL DEVICES \$ SINGLE-WAY SWITCH \$ ³ THREE-WAY SWITCH \$ ⁰⁵ OCCUPANCY-SENSING SWITCH	REFER TO SPECIFICATION 262416 SWITCHBOARD REFER TO SPECIFICATION 262413 TRANSFORMER
A LOGARMENT FINAL DE GROUNDED NEUDONE MOTORS MULTICARDA CAME DE ALLECTINOL DUINENT. JA LIGHT TOTURES A READE CHINES CAME STAND ALLECTINOL DUINENT. A READE CHINES CAME STAND ALLECTINOL DUINENT. A READE CHINES CAME STAND ALLECTINOL DUINE STAND A	R 3	 A. INSTALL DISCONNECTS AS REQUIRED BY NEC, UNLESS OTHERWISE NOTED. 7 GROUNDING 	\$ ^M MOTOR-RATED SWITCH TECHN \$ ^D DIMMER ON/OFF SWITCH JB T \$ ^T THERMAL-OVERLOAD SWITCH 3 \$ ^V VACANCY-SENSING SWITCH D	ELEPHONE DATA SYSTEM OUTLET "SQUARE BOX AND COVERPLATE, /4"C TO CEILING SPACE UNLESS IRECTED OTHERWISE. ELEVISION OUTLET PLASTER RING
A BRANCE SUBJECT PANEL BASE AND LOW TO TAKE AND AND STANS STANS TRANS T	3 V.	ALL EQUIPMENT SHALL BE GROUNDED, INCLUDING MOTORS, RACEWAYS, PANELS, CABINETS AND ELECTRICAL EQUIPMENT. .8 LIGHT FIXTURES A. INSTALL LIGHT FIXTURES COMPLETE WITH BALLASTS AND LAMPS.	CEILING-OCCUPANCY SENSOR DUAL-TECHNOLOGY PC PHOTOCELL T/C TIMECLOCK	/4"C. TO CEILING SPACE UNLESS HOWN WITH HOMERUNS. LOOR DATA OUTLET LOOR COMBINATION OUTLET
1.0 General. NUMBER A. Provide Aubris ALL A COMPLETE LIGHTING SYSTEM INCLUDING ALL LIGHTING FORTURES, LAMPS, BALLASTS, DRIVERS AND ACCESSORIAL AD LIGHTING CONTROL SWITCHES MAD SYSTEM. CIRCUIT HOME RUN CIRCUIT HOME RUN CIRCUIT HOME RUN CIRCUIT HOME RUN B. BEREST TO THE LIGHTING SYSTEM INCLUDING ALL UNETWORK ALL OWNERS AND SYSTEM. CIRCUIT HOME RUN CIRCUIT HOME RUN CIRCUIT HOME RUN CIRCUIT HOME RUN B. BEREST TO THE LIGHTING SYSTEM INCLUDING ALL UNETWORK ALL OWNERS AND TYPE IN THE LIGHTING SYSTEM. CIRCUIT HOME RUN CIRCUIT HOME RUN CIRCUIT HOME RUN C. ALL LIGHTING FIXTURES ARE THE RESPONSIBILITY OF THE CONTROL RUNCERS AND TYPE RUNCES AND VIEWY COUNTS IN SUBMITTAL REVIEW. AMPERE MANUAL PLL ISTATION CIRCUIT HOME RUN D. PROVIDE SUBMITTAL REVIEW. D. REVERT TO RESPONSE TOR THE TYPE AND USE OF THE FIXTURES AMPERE MANUAL PLL ISTATION CIRCUIT HOME RUN MANUAL PLL ISTATION CIRCUIT HOME RUN MANUAL PLL ISTATION 2.0 PRODUCTS A AS SPECIFIED IN UNITING FIXTURES SPECIFIED TO HAVE A TO YEAR BATTERY WINNERS AMPERE MANUAL STATIONAL ELECTRICAL CODE NEMA NEMALINERS MANUAL STATIONAL PLECTIFICAL MASSOCIATION REPORTURES CIRCUIT REASOCIATION REPORTURES 2.0 PROVIDE INFINITION FIXTURES ARE THE REVERSION REPORTURE CIRCUIT AND REVIEWER WITH PLUX WING MANUEL CONTROL RUNCERS NEMALINE RUN RUNCERS CIRCUIT AND REVENTING FIXTURES AND USE OF THE FIXTURE IS AND		EQUIPMENT. REMOVE DEBRIS AS IT ACCUMULATES. UPON COMPLETION OF WORK, CLEAN ELECTRICAL EQUIPMENT AND THE ENTIRE ELECTRICAL INSTALLATION SO THAT IT IS SUITABLE FOR THE OWNER'S USE.	ELECTRICAL WIRING LOW VOLTAGE WIRING REFER TO PLANS FOR ROUTING XX-## "XX" = PANEL DESIGNATION	OWER/PHONE/DATA FLUSH LOOR OUTLET VALL COAXIAL CABLE OUTLET LARM LARM LARM LARM LARM LARM LARM
SUBSTITUTIONS ALLOWED UNDERSTITUTIONS AND THE REVENTIONS OF VERIFY COUNTS IN SUBMITTAL REVIEW. D D PORVICE SUBMITTALE REVIEW. D D PORVICE SUBMITTALES SPECIFIED. E A LULISTED LIGHTING FIXTURES SPECIFIED. E A LULISTED LIGHTING FIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARKANIY. C EMPERENCY BATTERIES TO BE NICAD TYPE WITH UL TRANSFER UPON L D SOCIED TO A A ROVE FINISHED FLOOR ALE MANUAL PULL STATIONAL ELECTRICAL ANSI ANTIONAL STANDARD NEPA ANTIONAL FREP PORTECTION ANSI AND ADJUST ANTIONAL FREP PORTECTION AND AND ADJUST ANTIONAL FREP PORTECTION A		 A. PROVIDE AND INSTALL A COMPLETE LIGHTING SYSTEM INCLUDING ALL LIGHTING FIXTURES, LAMPS, BALLASTS, DRIVERS AND ACCESSORIES AND LIGHTING CONTROL SWITCHES AND SYSTEMS. B. REFER TO THE LIGHTING FIXTURE SCHEDULE ON THE CONSTRUCTION 	NUMBER FAAP CIRCUIT HOME RUN S CIRCUIT CONTINUATION H CONDUIT BELOW-FLOOR/ H	FIRE ALARM ANNUNCIATOR SMOKE DETECTOR HEAT DETECTOR
1.1 QUALITY ASSURANCE A. ULLISTED LIGHTING FIXTURES FOR THE TYPE AND USE OF THE FIXTURE. 2.0 PRODUCTS A. AS SPECIFIED IN LIGHTING FIXTURES SCHEDULE. B. ALL EMERGENCY FIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARRANTY. C. EMERGENCY PIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARRANTY. C. EMERGENCY PIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARRANTY. C. EMERGENCY PIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARRANTY. C. EMERGENCY BATTERIES TO BE NIGAD TYPE WITH UL TRANSFER UPON 12 D. OSS OF POWER. D. OSS NO ADJUST MANDELLATION. B. ALL EMERGENCY PATTERIES TO BE NIGAD TYPE WITH UL TRANSFER UPON 12 D. OSS OF POWER. D. OSS NO ADJUST MANDELLATION. B. OLEAN NO ADJUST MANDELATED ON THE DRAWINGS, FEA MECHANICAL OPERATION. B. OLEAN NO ADJUST MANDELATED ON THE DRAWINGS, VERFY THE FIXTURE SELECTION WITH THE REGISTER BEFORE FINAL INSPECTION. CLEAN ALL FIXTURES, AS INDICATED ON THE DRAWINGS, VERFY THE FIXTURE SELECTION WITH THE ENGINEER BEFORE FINAL INSPECTION. CLEAN ALL FIXTURES, INDIDE AND OUT TREPLACE BROKEN OR DAMAGED PARTICURES INDID ADJUST MANDEDIATELT MINOR FOUNTAIN GND GROUND GFL GROUND ADJUST MANDEDIATIL TINTERRUPTER KVA LL MICHANICAL OPERATION. LL MAIN CIRCUIT BREAKER WV LL MAIN CIRCUIT BREAKER WV MECHANICAL OPERATION. MAIN CIRCUIT BREAKER WV MECHANICAL		SUBSTITUTIONS ALLOWED. C. ALL QUANTITIES OF LIGHTING FIXTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE ENGINEER DOES NOT VERIFY COUNTS IN SUBMITTAL REVIEW.		WALL/CEILING SPEAKER/STROBE WALL/CEILING VISUAL STROBE MANUAL PULL STATION
1 1 QUALITY ASSURANCE A AMPERE NEC NATIONAL ELECTRICAL CODE A UL LISTED LIGHTING FIXTURES FOR THE TYPE AND USE OF THE FIXTURE. A APPORE NEC NATIONAL ELECTRICAL MANUFACTURERS ABOVE FUNSHED FLOOR NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NEMA NEMA	V	E. BASIS OF DESIGN WILL BE ALL 'LED' TYPE LIGHTING FIXTURES.	ABBREVIATIO	
A AS SPECIFIED IN LIGHTING FIXTURE SCHEDULE. B. ALL EMERGENCY FIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARRANTY. C. EMERGENCY BATTERIES TO BE NICAD TYPE WITH UL TRANSFER UPON LOSS OF POWER. 3.0 EXECUTION A. PROVIDE LIGHTING FIXTURES, AS INDICATED ON THE DRAWINGS, IF A FIXTURE IS NOT DESIGNATED ON THE DRAWINGS, VERIFY THE FIXTURE SELECTION WITH THE ENGINEER BEFORE INSTALLATION. B. CLEAN AND ADJUST IMMEDIATELY BEFORE FINAL INSPECTION, CLEAN ALL FIXTURES, FOR ELECTRICAL, AS WELL AS MECHANICAL OPERATION. L L L L L L L L L L L L L	-	A. UL LISTED LIGHTING FIXTURES FOR THE TYPE AND USE OF THE FIXTURE.	ACT ABOVE COUNTER TOP NEMA AFF ABOVE FINISHED FLOOR	NATIONAL ELECTRICAL CODE
12 LOSS OF POWER. PH PHASE ISSUE DATE: 3.0 EXECUTION A. PROVIDE LIGHTING FIXTURES, AS INDICATED ON THE DRAWINGS. IF A FIXTURE IS NOT DESIGNATED ON THE DRAWINGS, VERIFY THE FIXTURE SELECTION WITH THE ENGINEER BEFORE INSTALLATION. E.C. EMPTY CONDUIT WITH PULL-WIRE REMOVED OR RELOCATED R RELOCATED LIGHT OR DEVICE R PROJECT NO. 8. CLEAN AND ADJUST IMMEDIATELY BEFORE FINAL INSPECTION, CLEAN ALL FIXTURES, INSIDE AND OUT. REPLACE BROKEN OR DAMAGED PARTS. LAMP AND TEST ALL FIXTURES FOR ELECTRICAL, AS WELL AS MECHANICAL OPERATION. GFI GROUND GROUND FAULT INTERRUPTER TYP TYPICAL UL UNDERWRITERS LABORATORIES, INC. BPA CHECKED BY: SAH L L MECHANICAL OPERATION. GFI GROUND FAULT INTERRUPTER U.N.O. UNLESS NOTED OTHERWISE CHECKED BY: SAH L L MECHANICAL OPERATION. KVA KILOVOLT-AMPERE N V VOLT OLT SHEET NO. L MCD MAIN CIRCUIT BREAKER VA VOLT WATTE SHEET NO. E11.1		B. ALL EMERGENCY FIXTURES SPECIFIED TO HAVE A 10 YEAR BATTERY WARRANTY.	INSTITUTE CONDUIT NL EXISTING LIGHT OR DEVICE TO NTS	ASSOCIATION NIGHT LIGHT NOT TO SCALE POLE KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024
B. CLEAN AND ADJUST IMMEDIATELY BEFORE FINAL INSPECTION, CLEAN ALL FIXTURES, INSIDE AND OUT. REPLACE BROKEN OR DAMAGED PARTS. LAMP AND TEST ALL FIXTURES FOR ELECTRICAL, AS WELL AS MECHANICAL OPERATION. L MCB MAIN CIRCUIT BREAKER MLO MAIN LUGS ONLY N NEUTRAL MCB WAITCHARDER MCB WAITCHARDER MCB WAITCHARDER MCB WAITCHARDER MCB WAITCHARDER MCB WAITCHARDER MCB WAITCHARDER MCB MAIN CIRCUIT BREAKER MCB MAIN CIRCUIT BREAKER MCB MAIN LUGS ONLY N NEUTRAL MCB WAITCHARDER MCB WAITCHARDER	12 D 3 R	LOSS OF POWER. .0 EXECUTION A. PROVIDE LIGHTING FIXTURES, AS INDICATED ON THE DRAWINGS. IF A FIXTURE IS NOT DESIGNATED ON THE DRAWINGS, VERIFY THE FIXTURE	REMOVED OR RELOCATED R E.C. EMPTY CONDUIT WITH PULL-WIRE S.E.S E.D.F ELECTRICAL DRINKING FOUNTAIN TYP	PHASEISSUE DATE: 03/21/2024RELOCATED LIGHT OR DEVICEPROJECT NO. 240761SERVICE ENTRANCE SECTION240761TYPICALDRAWN BY:
N NEUTRAL WP WEATHER-PROOF E11	к .L	ALL FIXTURES, INSIDE AND OUT. REPLACE BROKEN OR DAMAGED PARTS. LAMP AND TEST ALL FIXTURES FOR ELECTRICAL, AS WELL AS	GROUND FAULT INTERRUPTERULVAKILOVOLT-AMPEREU.N.O.KWKILOWATTV	UNDERWRITERS LABORATORIES, INC. UNLESS NOTED OTHERWISE VOLT CHECKED BY: SAH
	_ L		ALO MAIN LUGS ONLY W N NEUTRAL WP	WEATHER-PROOF



FED TOP	х		
FED BOTTOM			ELECTRICAL
MTD FLUSH			
SURFACE	скт		I. THESE PLANS ARE SCHEMATIC. DRAWINGS HAVE BEEN CREATED FROM AS-BUILT DOCUMENTS BELONGING TO THE OWNER. THE CONTRACT DOCUMENTS CREATED BY THIS OFFICE ARE DIAGRAMMATIC AND SHOW THE INTENT OF THIS FACILITY TO
	#		RENOVATE AND INSTALL NEW EQUIPMENT AND ASSOCIATED
DVEN	2 4	5	MATERIALS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID
DVEN	6	5	2. ALL ELECTRICAL WORK IS REQUIRED TO BE PERFORMED BY A
	8		CERTIFIED ELECTRICAL CONTRACTOR. ALL WIRING, EQUIPMENT,
DVEN	10	5	DEVICES AND INSTALLATIONS SHALL CONFORM TO ALL APPLICABI LOCAL, STATE, AND FEDERAL CODES.
	12	5	
ACHINE	14 16	5	 PROVIDE ALL WIRING, CONDUIT, LABOR, AND MATERIALS NOT SHO ON PLAN, BUT NECESSARY FOR COMPLETE AND PROPER OPERAT
		5	OF THE ELECTRICAL SYSTEM.
	20		
ACHINE	22	5	 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND PERMI AS NECESSARY TO COMPLETE THIS JOB. CONTRACTOR SHALL
	24		PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY T
VER	26	5	ENSURE A COMPLETE WORKING SYSTEM.
	28		5. ALL ELECTRICAL WORK MUST COMPLY WITH THE REQUIREMENTS
DER	30		NFPA 70 (NATIONAL ELECTRICAL CODE), NFPA 70B, NFPA 70E, IEC
DER		5	OSHA IN ADDITION TO OTHER REFERENCES REQUIRED BY CONTRACT.
		5 5	
ENDER		5 5	5. INSTALLATION OF SWITCHES, OUTLETS, AND CONTROL DEVICES
RATOR		5	SHALL COMPLY WITH LOCAL CODES AND STATE ADA REQUIREME
RATOR		5	7. REFER TO MECHANICAL AND PLUMBING SHEETS FOR EXACT
RATOR	44		LOCATION OF ALL MECHANICAL AND PLUMBING EQUIPMENT. PROVIDE ALL LABOR AND MATERIALS REQUIRED TO CONNECT
INTER	-	5	ELECTRICAL POWER TO ALL MECHANICAL AND PLUMBING
	48	5	EQUIPMENT.
REA	50	5	3. ALL ELECTRICAL EQUIPMENT, DEVICES, AND CIRCUITS SHALL
	52	5	CONTAIN A GROUNDING CONDUCTOR. CONDUIT SYSTEM SHALL N
I/EXTERIOR	54	5	BE USED AS GROUNDING NETWORK. ALL GROUNDING SHALL BE I
TION PUMP		4	STRICT COMPLIANCE WITH ARTICLE 250 OF THE NEC.
	58	5	2. COORDINATE LOCATION AND VERIFY REQUIREMENTS OF ALL
-1	60	1,4	EXTERIOR UTILITY EQUIPMENT AND METER BASE WITH OWNER AN UTILITY COMPANY.
ALL		4	
TRIP		4	10. TRANSFORMER PAD, TRENCH REQUIREMENTS, AND INTERMEDIAT
1		4	BOX SHALL BE IN ACCORDANCE WITH THE UTILITY COMPANY SPECIFICATIONS. COORDINATE WITH THE UTILITY COMPANY.
	68		PROVIDE AND INSTALL ALL MATERIAL AND EQUIPMENT AS REQUI
	70		FOR A COMPLETE JOB INSTALLATION.
R N.E.C. ARTICLE 42	72	<u> </u>	11. ALL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, DISCONN SWITCHES, AND OTHER ELECTRICAL DEVICES AND EQUIPMENT SHALL HAVE ENGRAVED NAMEPLATES INDICATING EQUIPMENT IDENTIFICATION TAG AND VOLTAGE, AS WELL AS WHERE DEVICE FED FROM. ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE TYPED DIRECTORIES INDICATING DISTRIBUTION AND BRANCH CIRCUIT FEEDERS.
EVICE OL			12. CONTRACTOR IS RESPONSIBLE FOR NEC REQUIRED CLEARANCES AROUND AND ABOVE ALL ELECTRICAL EQUIPMENT AND DEVICES.
			13. SHORT CIRCUIT AMPERE INTERRUPTING CAPACITY (AIC) RATING (ALL ELECTRICAL PRODUCTS SHALL BE GREATER THAN THE MAXII AVAILABLE SHORT CIRCUIT CURRENT.
			14. PROVIDE AT LEAST ONE SPARE CONDUIT (MINIMUM 2") FOR ALL RECESSED PANELS INTO THE SPACE ABOVE AND BELOW THE CEILING AND FLOOR FOR THE REMAINING CIRCUITS AVAILABLE IN THE PANEL.

SHALL CONFORM TO ALL APPLICABLE CODES. IT, LABOR, AND MATERIALS NOT SHOWN R COMPLETE AND PROPER OPERATION ONSIBLE FOR ALL FEES AND PERMITS E THIS JOB. CONTRACTOR SHALL ALS. AND EQUIPMENT NECESSARY TO NG SYSTEM. 21. COMPLY WITH THE REQUIREMENTS OF AL CODE), NFPA 70B, NFPA 70E, IECC, REFERENCES REQUIRED BY OUTLETS, AND CONTROL DEVICES ODES AND STATE ADA REQUIREMENTS. 23. CONTRACTOR SHALL PROVIDE FIR PLUMBING SHEETS FOR EXACT AL AND PLUMBING EQUIPMENT. ERIALS REQUIRED TO CONNECT ECHANICAL AND PLUMBING DEVICES, AND CIRCUITS SHALL OUCTOR. CONDUIT SYSTEM SHALL NOT WORK. ALL GROUNDING SHALL BE IN RTICLE 250 OF THE NEC. VERIFY REQUIREMENTS OF ALL T AND METER BASE WITH OWNER AND 26. ALL SWITCHES SHALL BE 3" AWAY REQUIREMENTS, AND INTERMEDIATE CE WITH THE UTILITY COMPANY E WITH THE UTILITY COMPANY. ATERIAL AND EQUIPMENT AS REQUIRED LATION. OARDS, TRANSFORMERS, DISCONNECT FRICAL DEVICES AND EQUIPMENT EPLATES INDICATING EQUIPMENT TAGE, AS WELL AS WHERE DEVICE IS DS AND PANELBOARDS SHALL HAVE ING DISTRIBUTION AND BRANCH UNIT. E FOR NEC REQUIRED CLEARANCES CTRICAL EQUIPMENT AND DEVICES. RRUPTING CAPACITY (AIC) RATING OF SHALL BE GREATER THAN THE MAXIMUM JRRENT. E CONDUIT (MINIMUM 2") FOR ALL SPACE ABOVE AND BELOW THE REMAINING CIRCUITS AVAILABLE IN HOMERUNS AND BRANCH WIRING FOR 20 AMPS CIRCUITS SHALL BE AS FOLLOWS: CIRCUIT WIRE SIZE HOMERUN WIRE SIZE <u>LENGTH</u> 1' TO 50' #12 AWG #12 AWG 51' TO 75' #12 AWG #10 AWG 76' TO 120' #10 AWG #8 AWG 121' TO 190' #10 AWG #6 AWG

#10 AWG

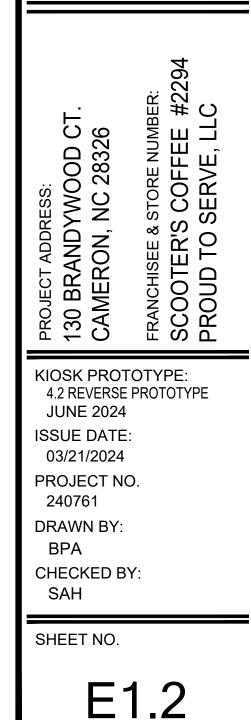
191' TO 300'

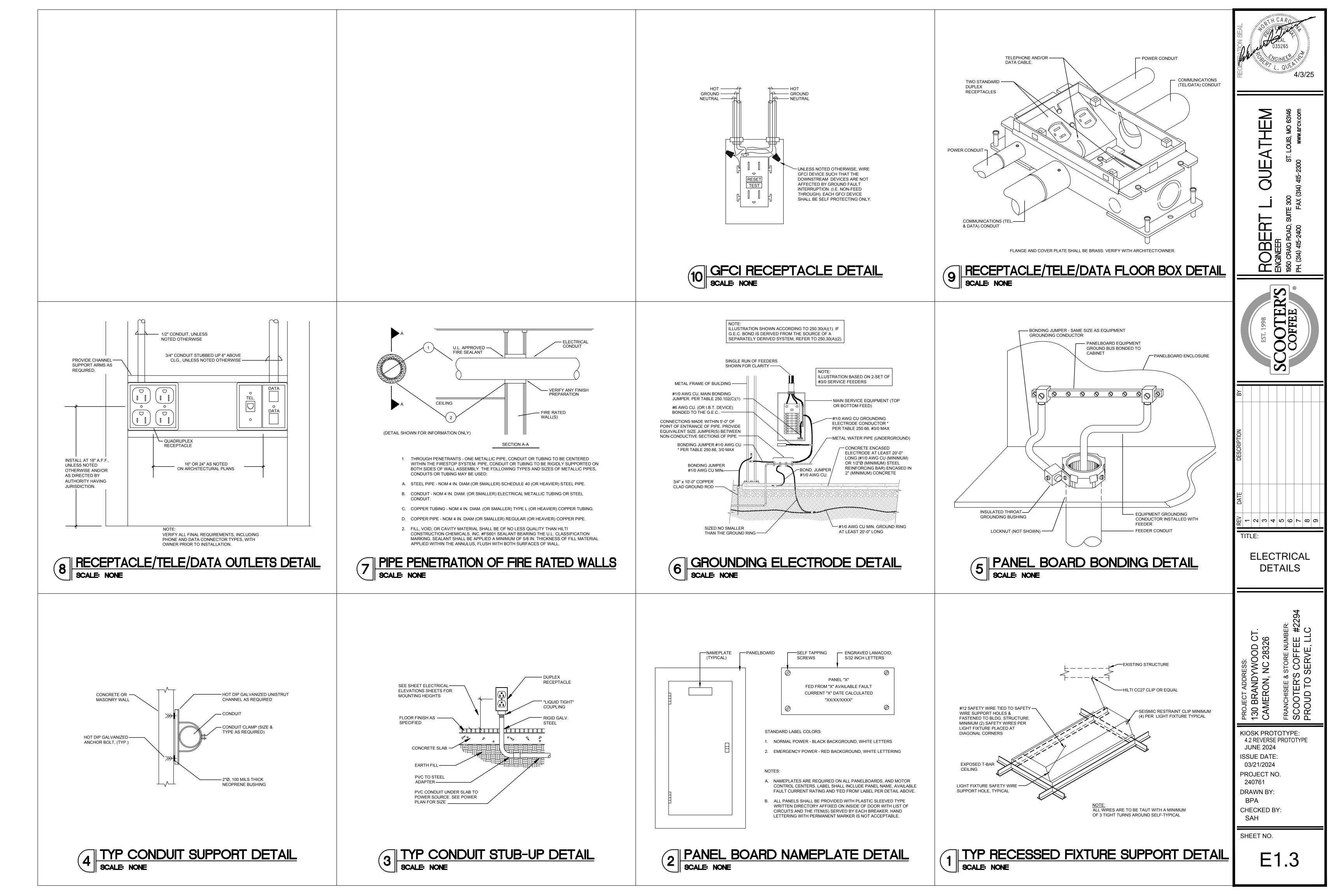
ELECTRICAL GENERAL NOTES

- 15. DO NOT RUN RACEWAYS ON BUILI 16. WIRE AND CONDUIT SIZES SHALL COMPENSATE FOR VOLTAGE DRO
- 17. FLEXIBLE CONDUIT MAY BE USED EQUIPMENT (MAXIMUM LENGTH 6'-
- 18. ANY LOOSE FLEXIBLE CONDUIT TO PROFESSIONAL MANNER.
- 19. ALL ELECTRICAL WIRING, VOICE/C COAXIAL CABLES SHALL BE INSTAI OTHER PROTECTIVE COVER AS RE GOVERNING CODE.
- 20. WALL RECEPTACLE CONDUIT SHAL BOX ABOVE CEILING AND NOT HOP WALLS, IN ORDER TO FACILITATE
- CONDUCTORS IN UN-INSULATED SHALL BE DE-RATED USING A 122 I TEMPERATURE. CONTRACTOR IS F CONDUCTOR SIZES BASED ON CO
- 22. ALL OUTDOOR EQUIPMENT SHALL UNLESS OTHERWISE NOTED.
- CONDUITS THAT PENETRATE THR FLOORS, WALLS, CEILINGS, ROOFS FIRE-PROOFING METHODS AND M TO MAINTAIN FIRE/SMOKE RATING
- 24. IF A PROTECTIVE DEVICE RATING I EQUIPMENT, THE BRANCH-CIRCUI SHALL NOT EXCEED THE PROTEC THE APPLIANCE OR EQUIPMENT.
- 25. ALL EMERGENCY LIGHTS, NIGHT I UNSWITCHED UNLESS NOTED OTH
- OCCUPANCY SENSORS SHALL BE ULTRASONIC TECHNOLOGY TO SE
- 27. PROVIDE 3/4" CONDUIT WITH 200LE DATA/TELEPHONE OUTLET BOXES
- 28. ANY FIRE ALARM COMPONENTS SH REFERENCE ONLY AND MAY BE MI DEVICES AND MATERIALS NECESS SYSTEM AS REQUIRED BY THE LOO REGULATIONS.
- 29. ALL MECHANICAL EQUIPMENT CON
- 30. GC IS RESPONSIBLE FOR SUBMIT COORDINATION WITH SCOOTERS ALL EQUIPMENT SPECS, REQUIRE ETC. ANY DISCREPANCIES WILL BE SCOOTERS CORP AND THE ARCHI DURING THE BID PROCESS.

ELECTRICAL GEI	NERAL NOTES	ONE LINE GENERAL NOTES	THCARO
ELONGING TO THE OWNER. THE TED BY THIS OFFICE ARE E INTENT OF THIS FACILITY TO EQUIPMENT AND ASSOCIATED	 DO NOT RUN RACEWAYS ON BUILDING EXTERIOR WALLS. WIRE AND CONDUIT SIZES SHALL BE INSTALLED AND SIZED TO COMPENSATE FOR VOLTAGE DROP PER THE NEC. FLEXIBLE CONDUIT MAY BE USED ONLY FOR FINAL CONNECTION TO EQUIPMENT (MAXIMUM LENGTH 6'-0"). 	 A. SES COMPONENTS, INCLUDING OVERCURRENT PROTECTIVE DEVICES SHALL BE FULLY-RATED FOR THE AVAILABLE FAULT CURRENT PROVIDED BY THE UTILITY COMPANY. B. A 42K/10K SERIES RATED SYSTEM IS INTENDED, BASED ON WORST CASE AVAILABLE FAULT FROM THE SES SIZE. 	035265 TO DE CHOINEER THE FOR L. QUE ANNUMERATION 4/3/25
ACTOR. ALL WIRING, EQUIPMENT, SHALL CONFORM TO ALL APPLICABLE	 ANY LOOSE FLEXIBLE CONDUIT TO BE STRAPPED DOWN IN A PROFESSIONAL MANNER. ALL ELECTRICAL WIRING, VOICE/COMMUNICATION WIRING, AND COAXIAL CABLES SHALL BE INSTALLED IN CONDUIT, WIREWAY, OR OTHER PROTECTIVE COVER AS REQUIRED TO COMPLY WITH THE GOVERNING CODE. 	C. PER NEC ARTICLE 240.86(A), PROVIDE IDENTIFICATION AT EACH DISCONNECT MEANS FEEDING DOWNSTREAM DEVICES APPLIED IN SERIES COMBINATION. PROVIDE NOTE INDICATING: 'CAUTION - SERIES RATED DEVICES ARE FED FROM THE REMOTE MAINAMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENT REQUIRED." CONTRACTOR TO FILL IN BLANK WITH AVAILABLE FAULT CURRENT OBTAINED FROM UTILITY COMPANY, OR AS SHOWN ON THE FAULT-CURRENT SCHEDULE.	HEM 3, MO 63146 w.arcv.com
ONSIBLE FOR ALL FEES AND PERMITS THIS JOB. CONTRACTOR SHALL LS, AND EQUIPMENT NECESSARY TO G SYSTEM. COMPLY WITH THE REQUIREMENTS OF AL CODE), NFPA 70B, NFPA 70E, IECC, REFERENCES REQUIRED BY CUTLETS, AND CONTROL DEVICES DOES AND STATE ADA REQUIREMENTS. LUMBING SHEETS FOR EXACT AND PLUMBING EQUIPMENT. ERIALS REQUIRED TO CONNECT ECHANICAL AND PLUMBING	 WALL RECEPTACLE CONDUIT SHALL RUN VERTICALLY TO JUNCTION BOX ABOVE CEILING AND NOT HORIZONTALLY THROUGH STUD WALLS, IN ORDER TO FACILITATE FUTURE ACCESS. CONDUCTORS IN UN-INSULATED CEILING SPACE AND OUTDOORS SHALL BE DE-RATED USING A 122 DEGREE (FAHRENHEIT) TEMPERATURE. CONTRACTOR IS RESPONSIBLE FOR REVISING CONDUCTOR SIZES BASED ON CONDUIT RATING. ALL OUTDOOR EQUIPMENT SHALL BE WEATHER-PROOF, NEMA 3R UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PROVIDE FIRE-PROOFING FOR ANY PIPES OR CONDUITS THAT PENETRATE THROUGH ANY FIRE/SMOKE RATED FLOORS, WALLS, CEILINGS, ROOFS, OR RUNS INSIDE OF CHASES. FIRE-PROOFING METHODS AND MATERIALS SHALL BE AS REQUIRED TO MAINTAIN FIRE/SMOKE RATING OF PARTITION. IF A PROTECTIVE DEVICE RATING IS MARKED ON AN APPLIANCE OR EQUIPMENT, THE BRANCH-CIRCUIT OVERCURRENT DEVICE RATING SHALL NOT EXCEED THE PROTECTIVE DEVICE RATING MARKED ON THE APPLIANCE OR EQUIPMENT. 	 D. PER NEC ARTICLE 110.22, PROVIDE IDENTIFICATION AT ENCLOSURE OF PANELBOARD WHERE BREAKERS ARE APPLIED IN SERIES COMBINATION, STATING: "CAUTION - SERIES COMBINATION SYSTEM RATEDAMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED." CONTRACTOR TO FILL IN BLANK WITH AVAILABLE FAULT-CURRENT FROM FAULT-CURRENT SCHEDULE OR AS CALCULATED BY A QUALIFIED PERSON APPROVED BY THE AUTHORITY HAVING JURISDICTION USING ACTUAL AVAILABLE FAULT FROM UTILITY COMPANY. E. PROVIDE ARC-FLASH AND SHOCK-HAZARD WARMING IDENTIFICATION PER NEC ARTICLE 110.16 F. NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ENGINEER AND THE ELECTRICAL INSPECTOR. G. THE FEEDER LENGTHS SHOWN IN THE INPUT DATA IS FOR CALCULATIONS ONLY. IT IS NOT THE INTENT TO USE THESE ENTERED LENGTHS FOR USAGE OF ACTUAL FIELD FEEDER LENGTH MEASUREMENTS. 	ROBERT L. QUEATHENGINER ENGINEER 1950 CRAIG ROAD, SUITE 300 ST. LOUIS, PH. (314) 415-2400 FAX (314) 415-2300 www
VORK. ALL GROUNDING SHALL BE IN FICLE 250 OF THE NEC.	 25. ALL EMERGENCY LIGHTS, NIGHT LIGHTS, AND EXIT LIGHTS ARE UNSWITCHED UNLESS NOTED OTHERWISE OR SHOWN. 26. ALL SWITCHES SHALL BE 3" AWAY FROM DOOR TRIM. ALL 	PANEL SCHEDULE GENERAL NOTES	
WITH THE UTILITY COMPANY. FERIAL AND EQUIPMENT AS REQUIRED ATION. 2 DARDS, TRANSFORMERS, DISCONNECT RICAL DEVICES AND EQUIPMENT PLATES INDICATING EQUIPMENT FAGE, AS WELL AS WHERE DEVICE IS	 OCCUPANCY SENSORS SHALL BE PASSIVE INFRARED AND ULTRASONIC TECHNOLOGY TO SENSE OCCUPANCY. 27. PROVIDE 3/4" CONDUIT WITH 200LB TEST NYLON PULL-WIRE FROM DATA/TELEPHONE OUTLET BOXES TO 6" ABOVE ACCESSIBLE CEILING. 28. ANY FIRE ALARM COMPONENTS SHOWN ON PLANS ARE FOR REFERENCE ONLY AND MAY BE MINIMAL. PROVIDE AND INSTALL ALL DEVICES AND MATERIALS NECESSARY FOR A COMPLETE FIRE ALARM SYSTEM AS REQUIRED BY THE LOCAL CODES, NFPA AND REGULATIONS. 29. ALL MECHANICAL EQUIPMENT CONTROLS SHALL BE POWERED FROM 	 A. AIC RATING SHOWN ON PANEL SCHEDULES ARE THE MINIMUM RATING FOR NEW AND REPLACEMENT OVERCURRENT PROTECTIVE DEVICES. B. ALL PANELBOARDS SHALL HAVE A TYPE WRITTEN DIRECTORY IDENTIFYING EACH NUMBERED CIRCUIT PLACED IN A DIRECTORY HOLDER INSIDE THE DOOR. C. THE CONTRACTOR SHALL PERMANENTLY MARK WITH PERMANENT MARKER THE CIRCUIT IDENTIFICATIONS ON THE COVERPLATES OF RECEPTACLES, EQUIPMENT, AND LIGHTING JUNCTION BOXES. (STICK-ON LABELS NOT ACCEPTABLE) D. PER NEC 210.4(B) ALL MULTI-WIRE BRANCH CIRCUITS ARE TO BE 	EST. 1996 SCOOTEH COFFEE
NG DISTRIBUTION AND BRANCH	 UNIT. 30. GC IS RESPONSIBLE FOR SUBMITTING DOCUMENTS TO FSEC IN COORDINATION WITH SCOOTERS CORPORATE FOR VERIFICATION OF ALL EQUIPMENT SPECS, REQUIREMENTS, CONNECTIONS, UTILITIES, ETC. ANY DISCREPANCIES WILL BE BROUGHT TO THE ATTENTION OF SCOOTERS CORP AND THE ARCHITECT FOR REVIEW AND RESPONSE 	PROVIDED WITH A DEVICE THAT WILL DISCONNECT POWER TO ALL UNGROUNDED CONDUCTORS SIMULTANEOUSLY AT THE POINT OF ORIGIN. SERIES RATING NOTES	B
HALL BE GREATER THAN THE MAXIMUM RRENT. E CONDUIT (MINIMUM 2") FOR ALL SPACE ABOVE AND BELOW THE REMAINING CIRCUITS AVAILABLE IN	DURING THE BID PROCESS.	A. THE SWITCHGEAR MANUFACTURER SHALL PROVIDE A UL-LISTED SERIES-RATED DISTRIBUTION SYSTEM BASED ON THE SHORT-CIRCUIT INFORMATION CONTAINED WITHIN THIS SINGLE-LINE DIAGRAM. IN LIEU OF A LISTED SERIES-RATED DISTRIBUTION SYSTEM THE SWITCHGEAR MANUFACTURER MAY PROVIDE A FULLY RATED SYSTEM BASED ON THE AVAILABLE UTILITY FAULT-CURRENT PROVIDED BY THE UTILITY COMPANY.	DESCRIPTION
FOR 20 AMPS CIRCUITS SHALL BE AS OWS: WIRE SIZE AWG #12 AWG AWG #10 AWG AWG #8 AWG AWG #46 AWG AWG #4 AWG		 B. THE SERIES-RATED SYSTEM SHALL BE AS NOTED ON THE SINGLE-LINE DIAGRAM. MOTOR CONTRIBUTION IS LESS THAN 1% ON ALL SERIES-RATED PANELS (U.N.O). NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE ELECTRICAL DESIGN CHANGES ENGINEER AND THE ELECTRICAL INSPECTOR. THE MANUFACTURER SHALL PROVIDE THE APPROPRIATE TAGS AND LABELS ON ALL SWITCHBOARDS AND PANELBOARDS AS REQUIRED PER NEC ARTICLES 110 AND 240, TO IDENTIFY THIS AS A SERIES-RATED SYSTEM. 	ITITE:

ELECTRICAL ONE-LINE **DIAGRAM & PANEL** SCHEDULE





Project Information Energy Code:				
Project Title: Project Type:	90.1 (2016) Standard 240761 - SCOOTER'S COFF New Construction	EE - CAMERON, NC (2016 ASHRAE))	
Construction Site: 130 Brandywood Ct. Cameron, North Carolina 2832	Owner/Agent: Scooter's Coffee 26	Robert 1950 (Saint I	er/Contractor: t L. Queathem Craig Road, Suite Louis, Missouri 63 Parcv.com	
Nowed Interior Lighti	ing Power			
Ai	A rea Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
		56 608	0.85 1.06	48 644
-Kitchen Area (Common Space	e Types:Food Preparation)	608		644
-Kitchen Area (Common Space	e Types:Food Preparation)	608 Toi / Ballast Lamp	1.06 tal Allowed Watts C	644 = 692 D E (C X D)
-Kitchen Area (Common Space Proposed Interior Ligh Fixture ID : Descript	e Types:Food Preparation) ating Power A ion / Lamp / Wattage Per Lamp e Types:Restrooms)	608 Toi / Ballast Lamp	1.06 tal Allowed Watts C s/ # of Fix	644 = 692 D E (C X D)
-Kitchen Area (Common Space Proposed Interior Ligh Fixture ID : Descript -Restroom (Common Space LED: T1: 2X4 LED LAY-IN: LED	e Types:Food Preparation) ating Power A ion / Lamp / Wattage Per Lamp e Types:Restrooms) D Other Fixture Unit 40W: bace Types:Food Preparation)	608 To B Ballast Lamp Fixtur	1.06 tal Allowed Watts C s/ # of Fix re Fixture W	644 = 692 D E (C X D) Vatt.
-Kitchen Area (Common Space Proposed Interior Ligh Fixture ID : Descript -Restroom (Common Space LED: T1: 2X4 LED LAY-IN: LED -Kitchen Area (Common Sp	e Types:Food Preparation) ating Power A ion / Lamp / Wattage Per Lamp e Types:Restrooms) D Other Fixture Unit 40W: bace Types:Food Preparation)	608 Toi / Ballast B Lamp Fixtur 1 1	1.06 tal Allowed Watts C s/ # of Fix re Fixture W	644 = 692 D (C X D) /att. 40 40 40 40 440
-Kitchen Area (Common Space Proposed Interior Ligh Fixture ID : Descripti -Restroom (Common Space LED: T1: 2X4 LED LAY-IN: LEE -Kitchen Area (Common Sp LED: T1: 2X4 LED LAY-IN: LEE	e Types:Food Preparation) Ating Power A ion / Lamp / Wattage Per Lamp e Types:Restrooms) D Other Fixture Unit 40W: bace Types:Food Preparation) D Other Fixture Unit 40W: besign 31% better than code	608 Toi / Ballast B Lamp Fixtur 1 1	1.06 tal Allowed Watts C s/ # of Fix re Fixture W 1 1	644 = 692 D (C X D) /att. 40 40 40 40 440
-Restroom (Common Space LED: T1: 2X4 LED LAY-IN: LED 2-Kitchen Area (Common Sp LED: T1: 2X4 LED LAY-IN: LED nterior Lighting PASSES: D Interior Lighting Comp Statement Compliance Statement: The pr specifications, and other calcul	e Types:Food Preparation) ating Power A ion / Lamp / Wattage Per Lamp e Types:Restrooms) D Other Fixture Unit 40W: D Oth	608 To Ballast B Lamp Fixtur 1 1 1	1.06 tal Allowed Watts C s/ # of Fix re Fixture W 1 1 Total Proposed W	644 = 692 D E (C X D) Att. 40 40 40 440 Atts = 480 he building plans ems have been

_^	COMcheck Soft
	Exterior Lig

Project Information Energy Code:

Project Title: Project Type: Exterior Lighting Zone

Construction Site:

130 Brandywood Ct.

Cameron, North Carolina 28326

Allowed Exterior Lighting Power

Illuminated Facade (Illuminated area of facade w

Area/Surface Category

Driveway (Driveway) Drive-up Window (Drive-up windows/doors)

(a) Wattage tradeoffs are only allowed betwee (b) A supplemental allowance equal to 400 wa areas/surfaces.

Proposed Exterior Lighting Power Fixture ID : Description / Lamp / W

Illuminated Facade (Illuminated area of faca LED: A: Wall Sconce: Other: LED: B: Decorative Strip-Tape: Other:

Driveway (Driveway, 14929 ft2): Tradable V LED: BLC4: Site Light: Other: Drive-up Window (Drive-up windows/doors, LED: A: Wall Sconce: Other:

Exterior Lighting PASSES: Design 49% be Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior I specifications, and other calculations submitted designed to meet the 90.1 (2016) Standard requ mandatory requirements listed in the Inspection

Project Title: 240761 - SCOOTER'S COFFEE - 0 Data filename:

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions	Section # & Req.ID	Final Inspection
8.4.2 [EL10] ²	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.	8.7.1 [FI16] ³	Furnished as-built drawings for electric power systems within 30 days of system acceptance.
8.4.3 [EL11] ²	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each tenant is monitored separately. In buildings with a digital control system the energy use is transmitted to to	Complies Does Not Not Observable Not Applicable	Requirement will be met.	8.7.2 [FI17] ³ 9.2.2.3	Furnished O&M instructions for systems and equipment to the building owner or designated representative.
9.4.1.1 [EL1] ²	control system and displayed graphically. Automatic control requirements prescribed in Table 9.6.1, for the	□Complies □Does Not	Requirement will be met.	[FI18] ¹	lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed
	appropriate space type, are installed. Mandatory lighting controls (labeled as 'REQ') and optional choice controls (labeled as 'ADD1' and 'ADD2') are implemented.	□Not Observable □Not Applicable		9.4.2 [FI19] ¹	watts. Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal
9.4.1.1 [EL2] ²	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	Does Not	Requirement will be met.	9.4.4 [FI20] ¹	to allowed watts. At least 75% of all permanently installed lighting fixtures in dwelling units have >= 55 Im/W efficacy or a >= 45 Im/W total luminaire efficacy.
9.4.1.1f [EL13] ¹	Daylight areas under skylights and roof monitors that have more than 150 W combined input power for general lighting are controlled by photocontrols.	□Complies □Does Not □Not Observable □Not Applicable	Exception: Requirement does not apply.	Additiona	al Comments/Assumptions:
9.4.1.4 [EL3] ²	Automatic lighting controls for exterior lighting installed.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.	_	
9.4.1.3 [EL4] ¹	Separate lighting control devices for specific uses installed per approved lighting plans.	Complies Does Not Not Observable Not Applicable	Requirement will be met.	-	
9.6.2 [EL8] ¹	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.	_	
Additiona	I Comments/Assumptions:	i			
	1 High Impact (Tier 1)	2 Medium Imp	act (Tier 2) 3 Low Impact (Tier 3)		1 High Impact (Tier 1)
Project Title	: 240761 - SCOOTER'S COFFEE - CAN	MERON, NC (2016 A	SHRAE)) Report date: 03/31/25	Project Title	e: 240761 - SCOOTER'S COFFEE - CAI

Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE))

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Report date: 03/31/25 Page 5 of 6

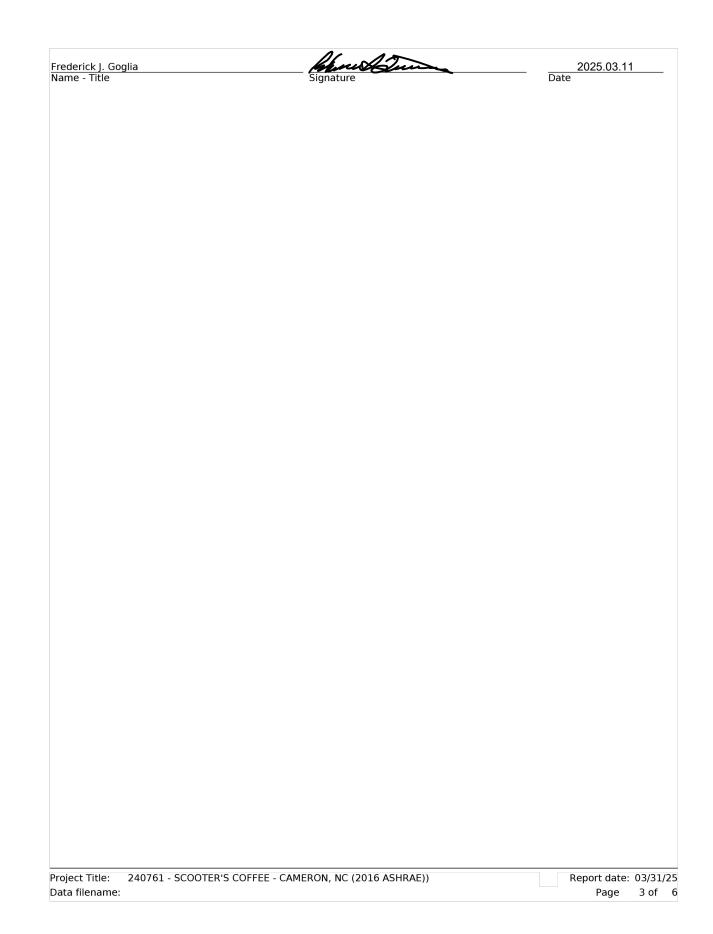
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Page 1 of 6

Software Versi	on COM	checkW	/eb		
Lighting Co	omplia	ance (Certi	ficat	te
90.1 (2016) Standard 240761 - SCOOTER'S CC New Construction 2 (Neighborhood busine			16 ASHRAI	Ξ))	
Owner/Agent: Scooter's Coffee		Robert L 1950 Cra	Contractor: . Queathem nig Road, Su uis, Missouri cv.com		
ower					
ry	B Quantity	C Allowed Watts /	D Tradable Wattage		E ed Watts X C)
of facade wall or surface)	1674 ft2 14929 ft2 1 windows	0.1 0.04 200	No Yes No	1	167 597 200
red between tradable areas/si to 400 watts may be applied	Total Allowed urfaces.	Total Tradable Total Allov Supplemental	e Watts (a) = wed Watts = Watts (b) =	=	597 965 400
Power A .amp / Wattage Per Lan	np / Ballast	B Lamps/ Fixture	C # of Fixture		E (C X D)
ea of facade wall or surfac	ce, 1674 ft2):	Non-tradable	e Wattage		
r:		1 1	5 130	12 3	60 377
<u>radable Wattage</u>		1	4	93	372
ws/doors, 1 windows or do	<u>ors): Non-trac</u>	-		12	10
		1 Total Trada	1 ble Proposed		12 372
49% better than code					
ce exterior lighting design represent submitted with this permit ap adard requirements in COM <i>ch</i> Inspection Checklist.	plication. The p	roposed exter	ior lighting s	systems h	ave been
COFFEE - CAMERON, NC (2016	6 ASHRAE))		F	Report dat	te: 03/31/2

	Complies?	Comments/Assumptions
ays	□Complies □Does Not	Requirement will be met.
	□Not Observable □Not Applicable	
	□Complies □Does Not	Requirement will be met.
	□Not Observable □Not Applicable	
at	□Complies □Does Not	See the Interior Lighting fixture schedule for values.
ts	□Not Observable □Not Applicable	
: d	□Complies □Does Not	See the Exterior Lighting fixture schedule for values.
ıal	□Not Observable □Not Applicable	
j	□Complies □Does Not	Exception: Requirement does not apply.
a 7.	□Not Observable □Not Applicable	

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 1 High Impact (Tier 1)
 2 Medium Impact (Tier 2)
 3 Low Impact (Tier 3)
 Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE)) Report date: 03/31/25 Page 6 of 6

COMcheck Software Version COMcheckWeb **Inspection Checklist** Energy Code: 90.1 (2016) Standard Requirements: 21.0% were addressed directly in the COM*check* software Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided. Section Plan Review Complies? **Comments/Assumptions** # & Req.ID 4.2.2, Plans, specifications, and/or Requirement will be met. Complies 4.2.2, 8.4.1.1, 8.4.1.2, 8.7 8.7 calculations provide an information set of a provide an information set Does Not □Not Observable $[PR6]^2$ and equipment and document where \Box Not Applicable exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%. Plans, specifications, and/or Requirement will be met. 4.2.2, Complies 9.4.3, 9.7 calculations provide all information [[PR4]1 with which compliance can be □Not Observable determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices. Plans, specifications, and/or Requirement will be met. 9.7 Complies [PR8]¹ calculations provide all information Does Not with which compliance can be □Not Observable determined for the exterior lighting and electrical systems and equipment Not Applicable and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices. Additional Comments/Assumptions:

 1 High Impact (Tier 1)
 2 Medium Impact (Tier 2)
 3 Low Impact (Tier 3)

Data filename:

Project Title: 240761 - SCOOTER'S COFFEE - CAMERON, NC (2016 ASHRAE))

Report date: 03/31/25

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4/3/25 THEM 63146 Ş ō \triangleleft ST. Ш DO ğ LL _ C Q Q Ш Ξ σž **A** Ο ШŢ \mathbf{S} \frown Шщ TITLE: ELECTRICAL ENERGY FORMS ыек: #2294 .С PROJECT ADDRESS: 130 BRANDYWOOD CT. CAMERON, NC 28326 E NUME FEE /E, LL FRANCHISEE & STORE N SCOOTER'S COFF PROUD TO SERVE

KIOSK PROTOTYPE: 4.2 REVERSE PROTOTYPE JUNE 2024 **ISSUE DATE:** 03/21/2024 PROJECT NO. 240761 DRAWN BY:

E1.4

BPA CHECKED BY: SAH

SHEET NO.

			FIXTURE INFORMATION				LAMP(S) ELECTRIC	AL CHARA	CTERISTICS		
TAG	QTY.	MANUFACTURER	DESCRIPTION	MODEL NUMBER	MOUNTING	QTY.	VOLTS	WATTS	LAMP TYPE	DIMMER / TYPE	LUMENS PER FIXTURE	NOTES
Α	6	LITHONIA LIGHTING	EXTERIOR WALL SCONCE	WPX1 LED P1 30K MVOLT	WALL	1	120	12	LED	N/A	1537	1,4,8
AEM	1	I LITHONIA LIGHTING	EXTERIOR WALL SCONCE WITH EMERGENCY CAPABILITY	WPX1 LED P1 30K MVOLT E4WC	WALL	1	120	12	LED	N/A	1537	2,4,8
в	130'	NOVA FLEX	EXTERIOR LED STRIP LIGHT	NF PRO W 120 24V 3K	SURFACE	1	120	2.9W/FT	LED	N/A	210	1,4,8
EM1	4	BEST LIGHTING	EMERGENCY UNIT	RMR-16-LED	SEMI- RECESSED	1	120	(2) 3.3W	MR-16	N/A	UNKNOWN	2,4
T1	12	ADVANTAGE ENVIRONMENTAL LIGHTING	2'X4' LAY-IN	CB24-S-S-M	RECESSED	1	120	40	LED	N/A	5000	1,3,4
EX1	1	ADVANTAGE ENVIRONMENTAL LIGHTING	EXIT SIGN	XEM9U2RW	CEILING	1	120	1	LED	N/A	UNKNOWN	2,4
BLC4	4	LITHONIA LIGHTING	SITE LIGHT	DSX0 LED P4 30K 80CRI BLC4 MVOLT SPA	POLE	1	120	93	LED	N/A	8,023	5,6,8
SP	4	LITHONIA LIGHTING	SITE LIGHT POLE	SSS	CONCRETE POLE BASE	N/A	N/A	N/A	N/A	N/A	N/A	7,8

3 RECESSED FIXTURES INSTALLED IN AN INSULATED CEILING SHALL BE I.C. RATED

4 VERIFY MOUNTING ACCESSORIES. RIGIDLY CONNECT FIXTURE AT LOCATION INDICATED ON PLANS.

8 COORDINATE COLOR WITH ARCHITECT PRIOR TO BID.

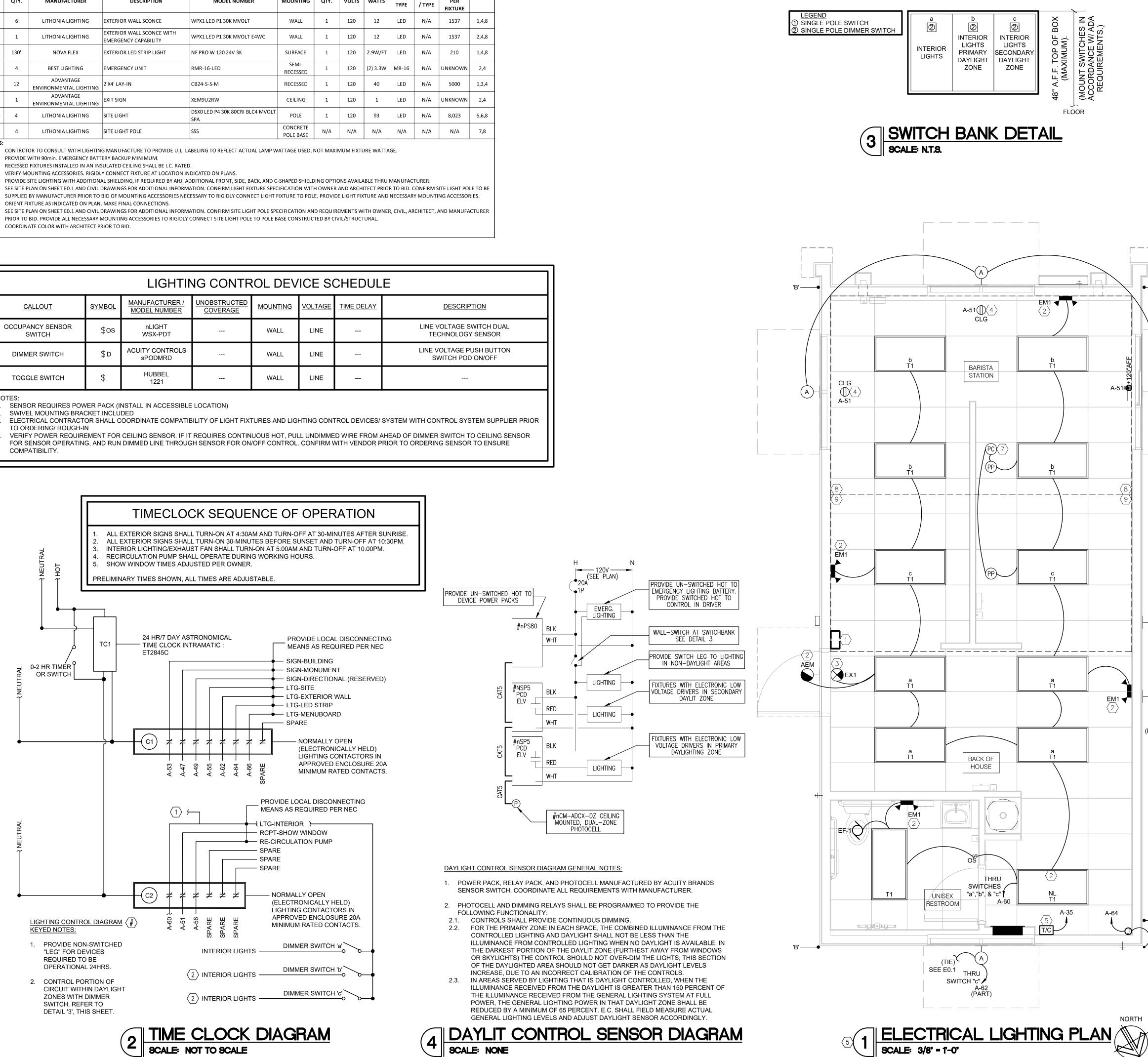
LIGHTING CONTROL DEVICE SCHEDULE								
CALLOUT	<u>SYMBOL</u>	MANUFACTURER / MODEL NUMBER	UNOBSTRUCTED	MOUNTING	VOLTAGE	TIME DELAY	DESCRIPTION	
OCCUPANCY SENSOR SWITCH	\$os	nLIGHT WSX-PDT		WALL	LINE		LINE VOLTAGE SWITCH DUAL TECHNOLOGY SENSOR	
DIMMER SWITCH	\$ D	ACUITY CONTROLS sPODMRD		WALL	LINE		LINE VOLTAGE PUSH BUTTON SWITCH POD ON/OFF	
TOGGLE SWITCH	\$	HUBBEL 1221		WALL	LINE			

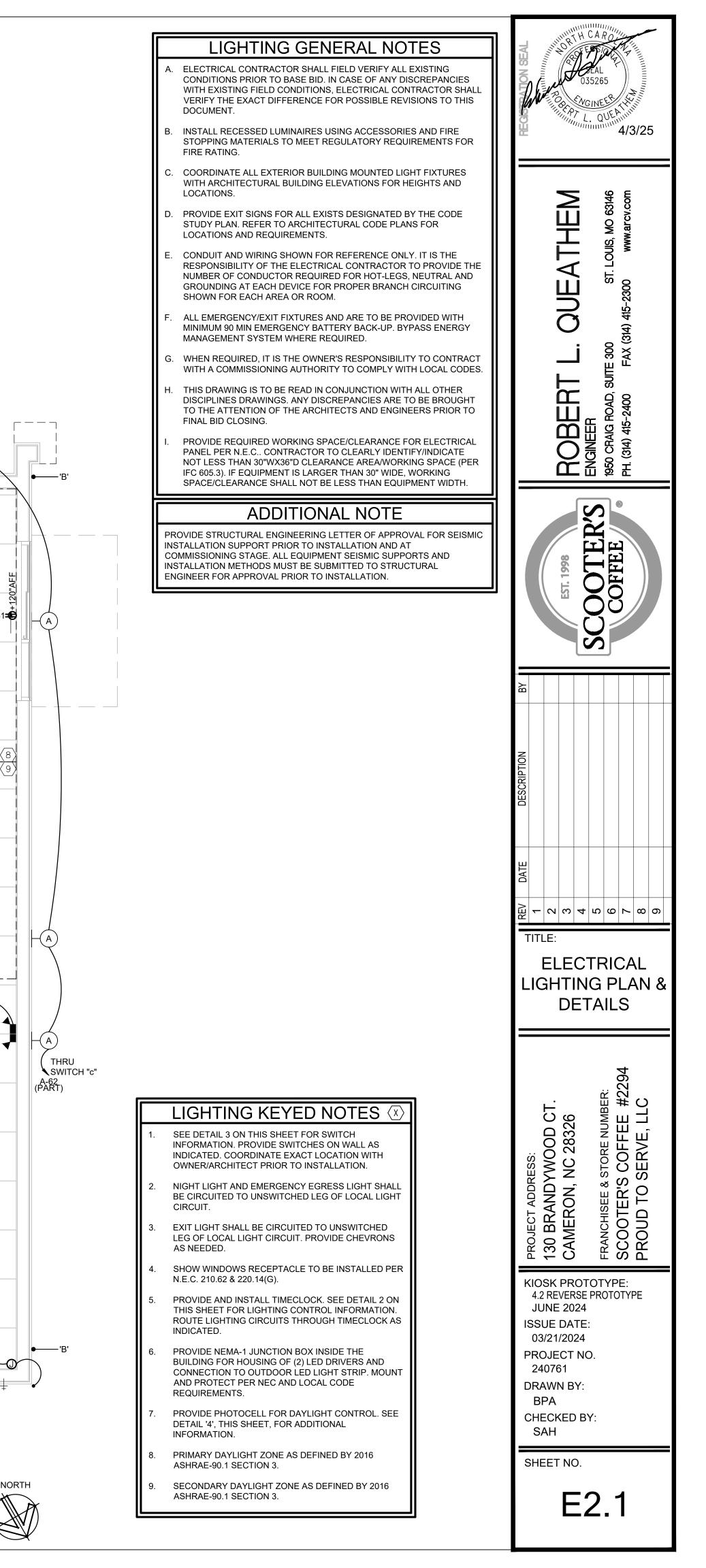
NOTES:

SENSOR REQUIRES POWER PACK (INSTALL IN ACCESSIBLE LOCATION)

TO ORDERING/ ROUGH-IN

FOR SENSOR OPERATING, AND RUN DIMMED LINE THROUGH SENSOR FOR ON/OFF CONTROL. CONFIRM WITH VENDOR PRIOR TO ORDERING SENSOR TO ENSURE COMPATIBILITY.





A-51

EQUIPMENT IDENTIFICATION				ELECTRICAL CHARACTERISTICS					EQUIPMENT CIRCUIT			EQUIPMENT TERMINATION			
TAG	ТҮРЕ	EQUIPMENT NAME	PHASE	POLES	VOLTS	AMPS	WATTS	MOCP SIZE	WIRE CALLOUT	WIRE TYPE	CONDUIT TYPE	ТҮРЕ	NEMA	MOUNTING HEIGHT (AFF)	NOTE
1	KR	BEVERAGE BLENDER	1	1	120	15	1800	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	60"	1
2	KR	ICE MAKER	1	2	208/240	5.1	1224	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	6-20P	60"	1
2A	0	ICE MAKER CONDENSER	1	2	208/240	8	1920	15	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	MCCB	-	VERIFY	1
3	KR	HIGH SPEED OVEN	1	2	208/240	30	7200	30	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	6-30P	30"	1
4A	KR	U/C REFRIGERATOR	1	1	120	3	360	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	18"	1
4B	KR	U/C REFRIGERATOR	1	1	120	2.8	336	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	18"	1
5	KR	COFFEE GRINDER	1	1	120	11	1320	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	30"	1
6	KR	COFFEE BREWER	1	2	208/240	25.5	6120	40	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	6-50P	24"	1
8	0	POS TERMINAL W/ PRINTER	1	1	120	15	1800	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	30"	1,2
9	KR	ESPRESSO MACHINE	1	2	208/240	30	7200	30	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	6-30P	48"	1,3
11A	KR	DIRECT DRAW DISPENSER	1	1	120	3.5	420	15	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-15P	24"	1
13	KR	REACH-IN REFRIGERATOR	1	1	120	4.5	540	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	48"	1
14A	KR	REACH-IN FREEZER	1	1	120	12	1440	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	48"	1
14B	KR	REACH-IN FREEZER	1	1	120	9.6	1152	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	48"	1
22A	0	WATER TREATMENT SYSTEM	1	1	120	2	240	15	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	MCCB	-	48"	1
22B	0	WATER TREATMENT SYSTEM	1	1	120	2	240	15	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	MCCB	-	48"	1
25	0	WATER PUMP	1	1	120	16	1920	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	MCCB	-	18"	1
26	0	ZOOM TIMER	1	1	120	2.5	300	15	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-15P	90"	1
30A	0	DRIVE-THRU ORDER MONITOR	1	1	120	3	360	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	78"	1
30B	0	DRIVE-THRU ORDER MONITOR	1	1	120	3	360	20	SEE PANEL SCHEDULES, SHEET E1.2	CU	EMT	C&P	5-20P	72"	1

SUPPLIED/INSTALLED BY: GC-GENERAL CONTRACTOR, EC-ELECTRICAL CONTRACTOR, HC-HVAC CONTRACTOR, PC-PLUMBING CONTRACTOR, ES-EQUIPMENT SUPPLIER.

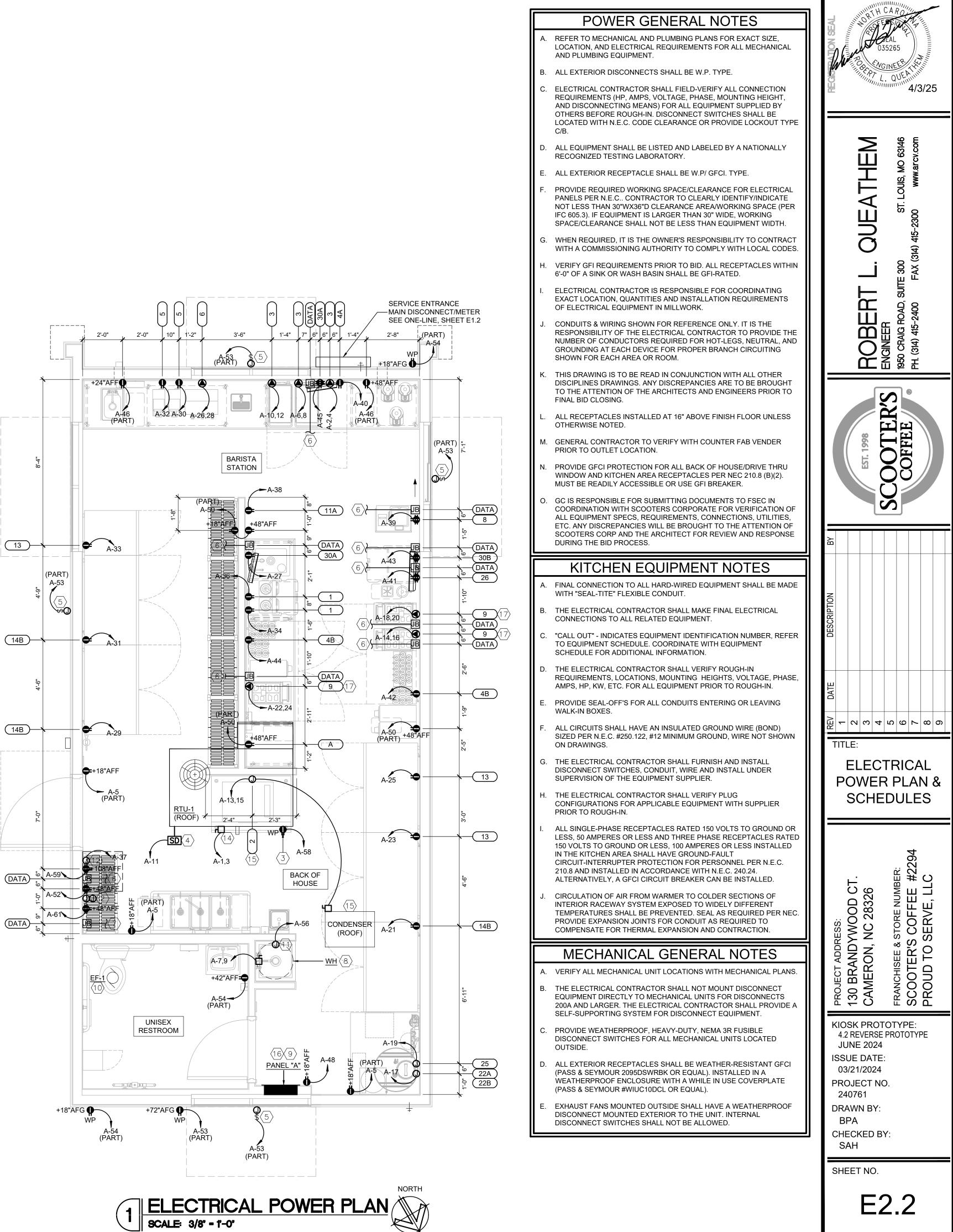
NOTES:

1. VERIFY EQUIPMENT SUPPLIER AND ELECTRICAL CHARACTERISTICS PRIOR TO BID. VERIFY LOCATION AND INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. EC SHALL PROVIDE NECESSARY SUPPORTING ELECTRICAL DEVICES AND INSTALL WITH EQUIPMENT SUPPLIED, MAKE FINAL CONNECTIONS, AND VERIFY PROPERTY OPERATION.

2. EC SHALL PROVIDE (2) CAT5 DATA LINES PER POS AND (1) CAT5 DATA LINE AT ORDER SCREEN.

3. GC SHALL PROVIDE BUCK BOOST TRANSFORMER, WHERE ACCEPTACLE PER CODE, TO ACHIEVE 208V AT EQUIPMENT.

- PROVIDE (2) EMPTY JUNCTION BOXES FOR VOLUME CONTROL W/ CONDUIT ABOVE CEILING. COORDINATE EXACT
- LOCATION PRIOR TO INSTALLATION.
- CONTRACTOR, SIZE TO MATCH BREAKERS ON PANEL AND/OR NAMEPLATE PROVIDED.
- ADDITIONAL INFORMATION.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE TO VERIFY LOCATION OF BUILDING CONNECTION POINT. VERIFY LOCATION IN FIELD.
- PROVIDE AND INSTALL NEW 60A/2PH DISCONNECT FOR WATER HEATER.
- 10. CIRCUIT EXHAUST FAN THRU TIMECLOCK CONTROL FOR OPERATION DURING OCCUPIED HOURS.
- 11. PLACE RECIRCULATION PUMP OUTLET/J-BOX ABOVE WATER HEATER IN UTILITY ROOM WHERE SPACE ALLOWS.
- 12. PROVIDE AND INSTALL (1) EMPTY JUNCTION BOX FOR SECURITY PANEL AT +48 A.F.F.
- 13. NOT USED.
- 14. PROVIDE AND INSTALL NEW 60A/2P DISCONNECT FOR RTU-1.
- CONTRACTOR PRIOR TO BID. MAKE ALL FINAL CONNECTIONS.
- ENCOUNTERED.
- INSTALL PER NEC.



POWER KEYED NOTES

PROVIDE DATA RACK RECEPTACLE MOUNTED ABOVE PANEL AT 108" A.F.F. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO INSTALLATION. PANEL MAINTAIN 3'-0" FRONT WORKING CLEARANCE.

HVAC CONVENIENCE OUTLET(S) AND DISCONNECT(S) SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL

PROVIDE 120V CONNECTION TO DUCT SMOKE DETECTORS. INTERLOCK FOR SIMULTANEOUS UNIT SHUT-DOWN WITHIN 30 SECONDS OR LESS. VERIFY FINAL CONNECTION LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR.

CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS AND QUANTITY FOR ELECTRICAL AND BLOCKING/MOUNTING WITH SIGN PROVIDER AND PROVIDE AS NECESSARY PRIOR TO ROUGH-IN. CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT COMPLIES WITH ALL LOCAL AND NATIONAL CODES AND IS PROVIDED WITH ALL REQUIRED DISCONNECTING MEANS PER N.E.C. PROVIDE INTERIOR ACCESS PANELS FOR SIGN CIRCUIT AS NECESSARY. SEE SITE PLAN FOR

DATA WIRING BY OWNER. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE-GANG JUNCTION BOX W/ PULL STRING AT EACH DATA LOCATION WITH 3/4" CONDUIT CONCEALED IN WALL TO ABOVE ACCESSIBLE CEILING.

TELEPHONE CONNECTION POINT AND RUN CONDUIT AND PHONE/DATA LINES FROM TENANT SPACE TO BASE

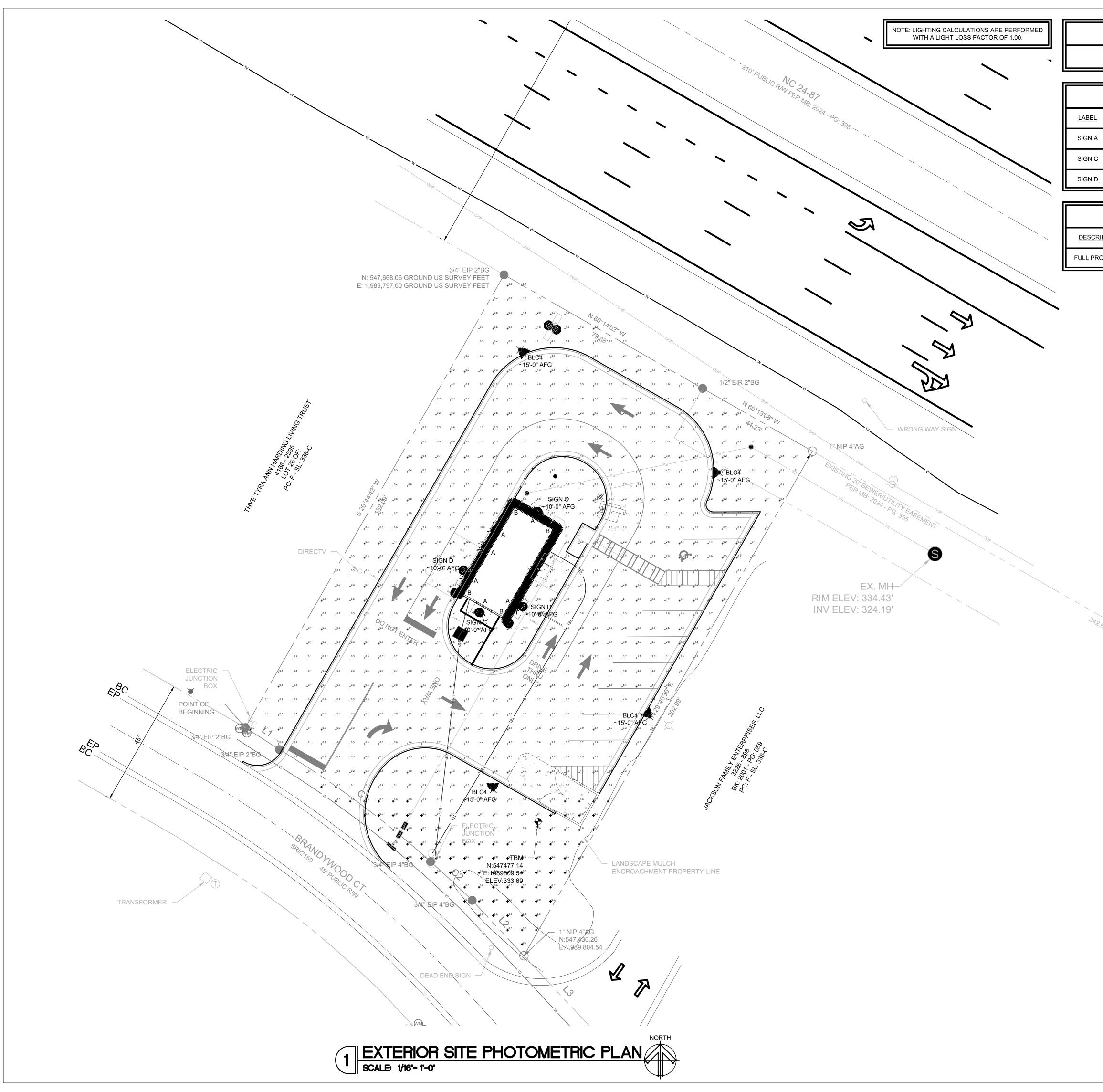
PANEL "A" SHALL BE RECESSED-MOUNT, AND FACE OPEN INTO ROOM. FURR OUT WALLS AS NECESSARY.

ICE MAKER AND ROOF-MOUNTED CONDENSER. VERIFY EXACT LOCATION OF CONDENSER. REFER TO EQUIPMENT SCHEDULE, THIS SHEET, FOR CONNECTION INFORMATION. COORDINATE REQUIREMENTS WITH MECHANICAL

BRANCH FEEDER CONDUIT(S) TO BE ROUTED ABOVE FROM DISCONNECT TO PANEL SERVED. COORDINATE ALL ROUTING AND PENETRATIONS THROUGH WALLS. ALL CIRCUITS SHALL BE RAN IN EMT (OR OTHER APPROVED METHODS AND FOR CONDITIONS IN WHICH WIREWAY IS INSTALLED) AND SECURELY BRACED PER NEC FOR TYPE OF WIREWAY USED. ALL PENETRATIONS ARE TO BE SEALED PER THE U.L. DIRECTION FOR THE ENVIRONMENT

ELECTRICAL TRANSFORMER BOX TO BE MOUNTED ABOVE CEILING TILE(S). PROVIDE ADEQUATE CLEARANCE AND

E2.2

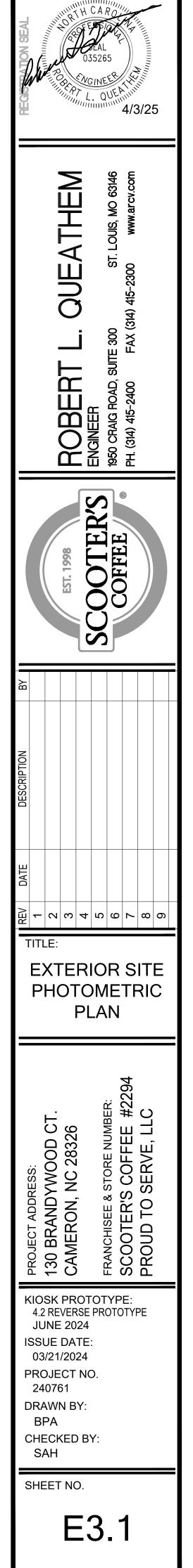


LIGHTING FIXTURE SCHEDULE

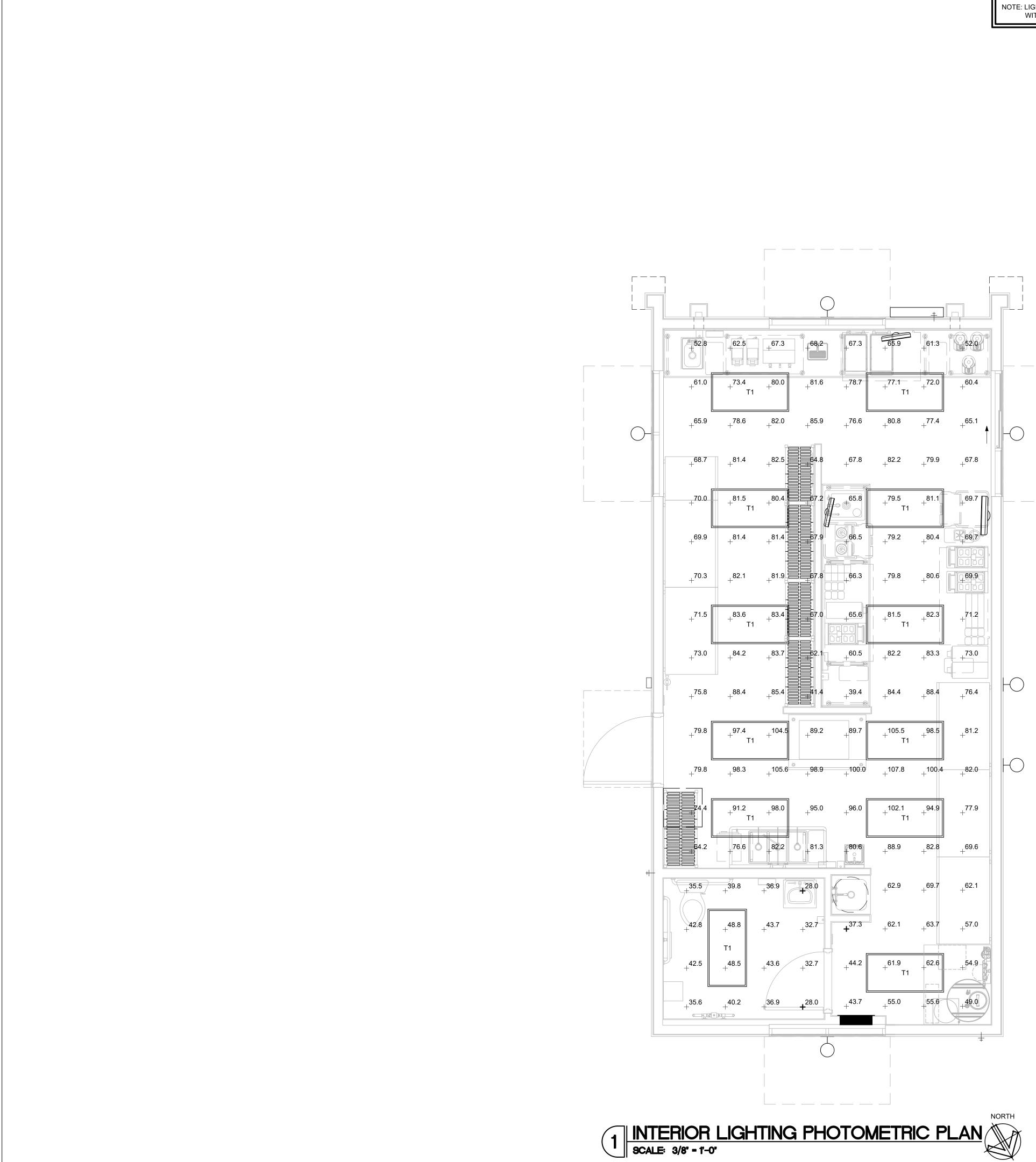
SEE LIGHTING FIXTURE SCHEDULE ON SHEET E2.1 FOR ADDITIONAL INFORMATION.

SIGN SCHEDULE										
<u>-</u>	<u>QTY.</u>	MANUFACTURER	CATALOG NO.	LUMENS	NOTES					
A	2	VENDOR	SEE SIGN DRAWINGS	2025						
2	2	VENDOR	SEE SIGN DRAWINGS	915						
)	2	VENDOR	SEE SIGN DRAWINGS	1873						

STATISTICS (AT GROUND LEVEL)									
RIPTION	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	<u>MAXIMUM:</u> <u>MINIMUM</u>	AVERAGE: MINIMUM				
ROPERTY	2.0	14.1	0.0	N/A	N/A				



R/W MONUMENT 18"BG



NOTE: LIGHTING CALCULATIONS ARE PERFORMED WITH A LIGHT LOSS FACTOR OF 1.00.



LIGHTING FIXTURE SCHEDULE

SEE LIGHTING FIXTURE SCHEDULE ON SHEET E2.1 FOR ADDITIONAL INFORMATION.

STATISTICS (@ 36" A.F.F.)										
	AVERAGE (FC)	MAXIMUM (FC)	MAXIMUM (FC) MINIMUM (FC)		<u>AVERAGE:</u> <u>MINIMUM</u>					
		10.0								
ROOM	38.5	48.8	28.0	1.7:1.0	1.4:1.0					
RIOR	75.5	107.8	37.3	2.9:1.0	2.0:1.0					

