



FUQUAY-VARINA NORTH CAROLINA

VICINITY MAP



HINE AQUATIC ENGINEERING 405 Willow Crest Drive Winston-Salem, NC 27107 p: 336.769.4900



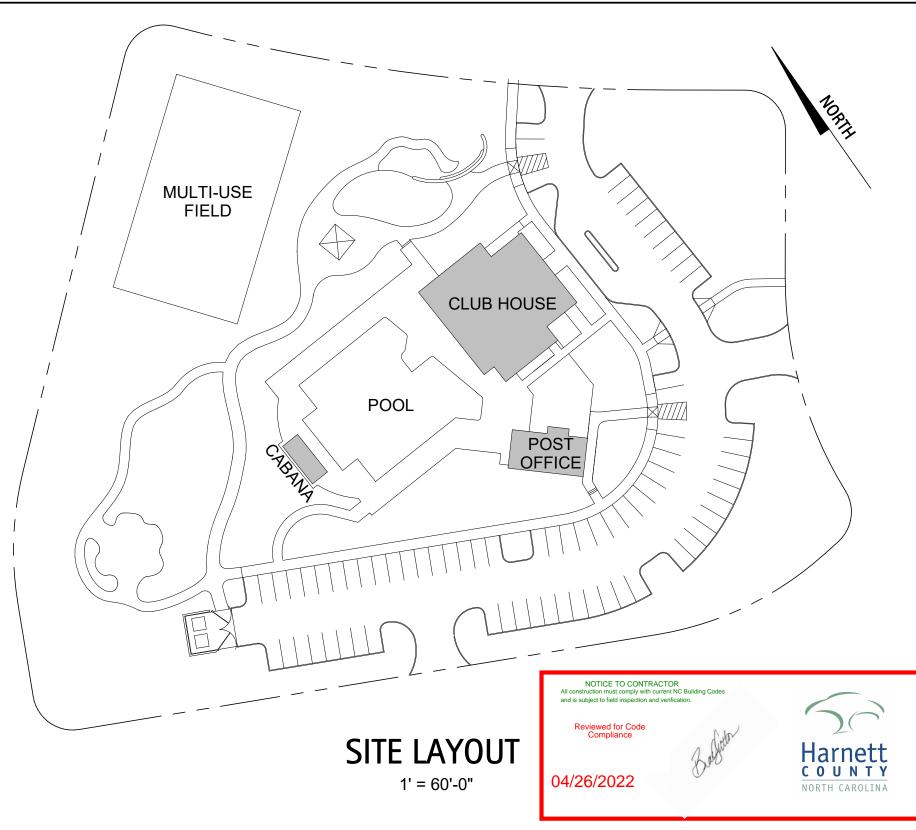
ROSS LINDEN

ENGINEERS PC

709 W. JONES STREET - RALEIGH, NC 27603
TEL 919.832.5680 FAX 919.832.5675
INFO@ROSSLINDEN.COM

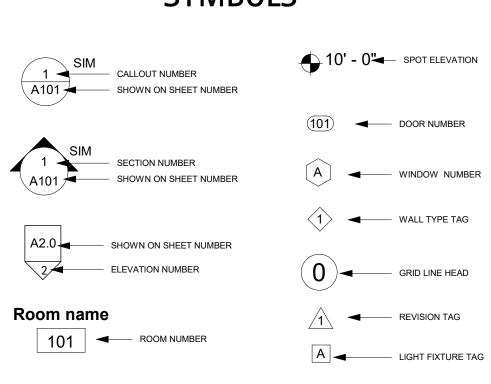


2506 RELIANCE AVE. APEX, NC 27539 (P) 919.629.7290 WWW.DCLUGSTON.COM



Pool Only

SYMBOLS



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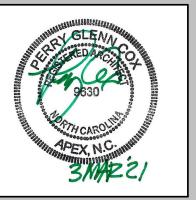
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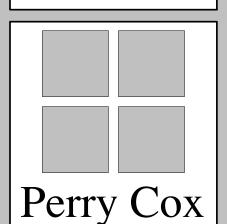
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architect, p.a.

124 Salem Towne Court, Apex, NC 27502
P: 919.363.5411
www.pcoxdesign.com

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COVER SHEET

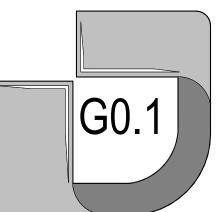
PROJECT #: 2018.037

DATE ISSUED: 12/14/2021

DRAWING BY: JGM/BSJ

CHECKED BY: PGC/DSC

SENFIELD COMMUNITIES
CLUBHOUSE & POOL



APPENDIX B BUILDING CODE SUMMARY

mail: <u>brian@</u>		ent: <u>Brian</u>	Jacobs		Zip Cod Phone Fax #:	#: _919.41				Con
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ALLOWABLE HEIGHT

SPRINKLERS

ALLOWABLE BUILDING

HEIGHT (TABLE 504.3)

Type VB

H = 40'-0'' FT

Type of Construction

Building Height in Feet

Building Height in Stories

ACTUAL BUILDING

HEIGHT AS SHOWN ON

Type___VB__

H= <u>30'-10</u>"

CODE REFERENCE

403.3.1

403.3.1

403.3.1

	ed construction	103 11		Types		 	
Sprinklers:	☐ Yes 🗶 N			•	•	pecial Suppression	n
Standpipes: Fire District: Building Hei		lo (Append et <u>1</u> Sto	Class: ☐ I ☐ lix D) ☐ Floor H	」II	Wet ☐ Dry		
Basement: Mezzanine: High Rise:	Yes N	lo	ety Plan Sheet#	(if provided):	G0 3		
Gross Buil	ding Area:						
FLOC FIRST FI		XISTING (SQFT)		(SQFT) 098	SUB-T 5,0	OTAL 098	
	. T						
Area of Proje Area of Cons	ect Tenant/Alte struction:	ration/Renovatior	1:				
THIS SECTI	ON REQUIRE	FIRE PI D FOR ALL PRO	ROTECTION JECTS	N REQUIR	<u>EMENTS</u>		
ife Safety F	Plan Sheet #, if					T	
BUILDING ELEMENT	FIRE SEPARAT DISTANCE (FE	TION ET) REQ'D*	ATING PROVIDED (W/* REDUCTION)	DETAIL # & SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATE JOINTS
North	Valls Exterior	0	0				
East West		0	0				
South Interior Be	ring walls	0	0				
	ng Walls Exte		0				
East		0	0				
West South		0	0				
Interior Be Structural	ring walls Frame, including girders, trusse:	ng 0	0				
Floor const supporting List constru	ruction, including beams and jois luction type.	ng 0 sts.	0				
Columns S	g Assembly upporting Floor		0				
Roof consti	ruction, includir beams and jois	ng 0	0				
Roof Ceilin	g Assembly	0	0				
	upporting Roof t Enclosures	0 N/A	0 N/A				
Shafts- Oth Corridor Se	er (describe)	N/A N/A	N/A				
Occupancy	Separation	N/A	N/A N/A				
Incidental U Dwelling/ sl Separation	Wall Separation Jse Separation Jse Separation	N/A N/A	N/A N/A N/A				
Smoke Bar Tenant Sep	rier Separation paration	N/A	N/A				
		permitting reduct 601 Note C exce					
	<u>P</u>	ERCENTAG	E OF WALI				
	FIRE SEPARATI (FEET) FROM P	ION DISTANCE D	EGREE OF OPENI		ABLE AREA ACTUA %)	AL SHOWN ON PLA (%)	NS
	>3		UP,NS	,	LIMIT	NO LIMIT	
CHECK IF		RED FOR ALL F VING ARE PRES ☐ Fire Walls 70	ENT AND IND'			ON ALL PLANS Partitions 710	
☐ Smoke	e Barriers 709	Shaft Enclos					
THIS SECT	ION IS REOU	LIFE SAFE IRED FOR ALL P	TY SYSTEN Projects	<u>IS REQUII</u>	<u>REMENTS</u>		
Emergency Exit Signs:	Lighting:	Yes N Yes N Yes N Yes N	o o				
Fire Alarm: Smoke Det Panic Hard	ection Systems		0				
		LIFE SAFE	TY PLAN R	EQUIREM	<u>ENTS</u>		
Life Safety	Plan Sheet #	<u>G0.3</u>		_			
As Ex	sumed and real terior wall oper	e rated wall locati I property line loca ning area with res or each area as it i	ations (if not on t pect to distance	to assumed pro			
= -	ccupant loads fo it access travel	or each area distance (1017) travel distances (1	·				
00	ear exit widths	for each exit door	d capacity each e			d on egress width	
Ex Co De Cl Mi	tual occupant l	load for each exit		ed floor/colling	and/or roof ctime-	tilre ic providad +-	r
Oct Ex Co De Min Ac A pu	etual occupant leseparate scheme separate scheme surposes of occup cation of doors cation of doors	load for each exit natic plan indication pancy separation with panic hardw with delayed ergo with electromagr	ng where fire rate rare (1010.1.10) ess locks and the	amount of dela		ture is provided fo	r

BUILDING DATA

EXIT REQUIREMENTS NUMBER AND ARRANGEMENT OF EXITS THIS SECTION IS REQUIRED FOR ALL PROJECTS ALLOWABLE ACTUAL TRAVEL REQUIRED AND/OR SPACE TRAVEL DISTANCE DISTANCE DESIGNATION DISTANCE SHOWN ON BETWEEN EXIT SHOWN ON (TABLE 1016.1) PLANS DOORS PLANS CLUBHOUSE 1. Corridor dead ends (Section 1017.3) 2. Single exits (Section 1015.1; Section 1019.2) 3. Common Path of Egress Travel (Section 1014.3) OCCUPANT LOAD AND EXIT WIDTH CLUBHOUSE Egress Width per Required Actual Width Occupancy Occupant(1005.3) Width Area Load Factor Load Count Level Stair 1107 SF Great Room 14.8 Sales / Conference 264 SF Fitness Room

Level Stair Level Stair 99 SF 0.2 62 SF 186 SF 100 SF 0.2 0.4 20 SF 0.2 287 SF Courtyard Vestibule | 129 SF 256 SF 0.2 0.2 4877 SF 37.6 204 1. See Table 1004.1.1 to determine whether net or gross area is applicable 2. Minimum stairway width (Section 1009.1); min. corridor width (Section 1017.2); min. door width (Section 1008.1.1)

3. Minimum width of exit passageway (Section 1021.2) 4. The loss of 1 means of egress shall not reduce the available capacity to less than 50% of the total required (Section 1005.1)

	ASSEMBLY OCCUPANO	CY INFO	RMATION			
			Occupancy		Exit Width	Exit
Name	Туре	Area	Load Factor	Load Count	(inches)	Quantity
Front Covered Porch	Assembly - Unconcentrated (tables and chairs)	668 SF	15 SF	45	9	
Great Room	Assembly - Unconcentrated (tables and chairs)	1107 SF	15 SF	74	14.8	
Poolside Covered Porch	Assembly - Unconcentrated (tables and chairs)	776 SF	15 SF	52	10.4	
Fitness Room	Exercise Rooms with Equipment	540 SF	50 SF	11	2.2	
Grand total		1	1	182	36.4	

PLUMBING FIXTURE REQUIREMENTS THIS SECTION IS REQUIRED FOR ALL PROJECTS

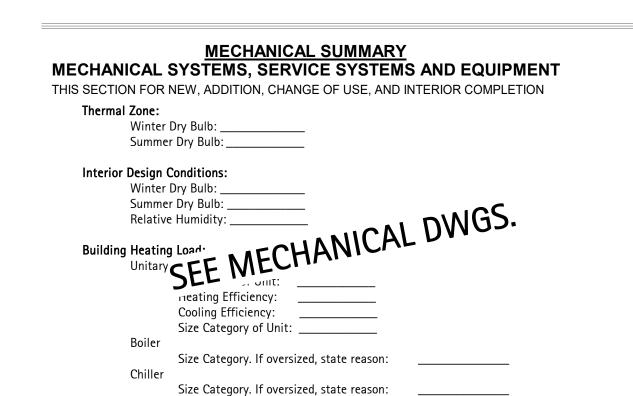
	WA	TERCLOS	ETS		LAVATORIES			SHOWERS/	DRINKING	FOUNTAINS
OCCUPANCY	Male	Female	Unisex	URINALS	Male	Female	Unisex	TUBS	Regular	Accessible
A-3 ¹	2	6	1	2	3	3	1	2	3	3
otal Required	2	7	1	2	3	3	1	2	1	1
otal Provided	2	6	1	2	3	3	1	2	3	3
Calculations ar	e total a	amentity s	ite pluml	oing require	ements					

859 PERSONS / 2 = 430 M / 430F WATERCLOSETS: <u>430 MALE / 125 = 4 WC = 2 WC & 2 URINAL</u> 430 FEMALE /65 = 7 WC = 6 WC + 1 FAMILY 430 MALE / 200 = 3 LAV. = 3 LAV <u>430</u> FEMALE / 200 = <u>3</u> LAV. = <u>3</u> LAV + <u>1</u> FAMILY

Pile size, type, and capacity

CTDIICTIIDAI I	DESIGN LOADS
SINUCIUNALI	DESIGN LUADS

DESIGN LOADS:	THIS SECT	ION IS REQUIRED	FUR ALL PRU	JECIS		
	otors: Snow	v (I _s)				
Importance Fac		v (Is) nic (Ie)				
Live Loads:	Roof	• • • • • • • • • • • • • • • • • • • •	 psf			
LIVE LUAUS.		zanine	psi psf			
	Floor		psf			
Ground Snow L			psf			
Wind Load:	Ultimate Wind	d Speed	mph (ASCE	-7)		
	Exposure Cate		' '	·		
Provide the following Sei Risk Category (ismic Design Para (Table1604.5)	B C imeters:	AL DW	GS.		
SEISMIC DESIGN CATEG Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura	ismic Design Para (Table1604.5) SEE STI	rimeters: RUCTUR Field Test Bearing Wall Building Frame	Dua Dua	w/ Special w/ Intermid	Moment date R/C	Frame or Special Ste
Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura	al System:	Bearing Wall Building Frame Moment Frame	Dua Dua Inve	w/ Special w/ Intermio rted Penduli	Moment date R/C um	or Special Ste
Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura Analysis Proce	al System: dure:	Bearing Wall Building Frame Moment Frame Simplified	Dua Dua Inve Equivalent La	w/ Special w/ Intermio rted Penduli	Moment date R/C um	
Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura Analysis Proced Architectural,	al System: dure: Mechanical, Con	Bearing Wall Building Frame Moment Frame Simplified nponents anchored?	Dua Dua Inve Equivalent La Yes	w/ Special w/ Intermic rted Pendulu teral Force	Moment date R/C um	or Special Ste
Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura Analysis Proce	al System: dure: Mechanical, Con	Bearing Wall Building Frame Moment Frame Simplified	Dua Dua Inve Equivalent La	w/ Special w/ Intermic rted Pendulu teral Force	Moment date R/C um	or Special Ste
Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura Analysis Proced Architectural, (al System: dure: Mechanical, Con ROL:	Bearing Wall Building Frame Moment Frame Simplified nponents anchored?	Dua Dua Inve Equivalent La Yes	w/ Special w/ Intermic rted Pendulu teral Force	Moment date R/C um	or Special Ste
Provide the following Sei Risk Category (Spectral Respo Site Classific Basic Structura Analysis Proced Architectural, (LATERAL DESIGN CONTR	al System: dure: Mechanical, Con ROL: IES:	Bearing Wall Building Frame Moment Frame Simplified nponents anchored?	Dua Dua Inve Equivalent La Yes Win	w/ Special w/ Intermic rted Pendulu teral Force	Moment date R/C um	or Special Ste



		CCESSIBLE PA				
LOT OR PARKING	TOTAL # OF	PARKING SPACES	# OF ACCESSIB	LE SPACES PROVI	IDED	TOTAL #
AREA	REQUIRED	PROVIDED	n/MGS	VAN SPACES 132" ACCESS 8'	WITH ACCESS	ACCESSIBLE PROVIDED
		PARKING SPACES PROVIDED SEE CIVIL	- DAIG			
TOTAL						

THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETION **ELECTRICAL SYSTEM AND EQUIPMENT**

Method of Compliance: Energy Code ASHRAE 90.1

Lamp type required in fixture

Number of lamps in fixture Ballast type used in the fixture

Lighting Schedule (each fixture type)

List equipment efficiencies:

Performance

Prescriptive

Prescriptive

Additional Efficiency Lackage Options (When using the 2018 NCECC; not required for ASHRAE 90.1) C406.2 More Efficient HVAC Equipment Performance C406.3 Reduced Lighting Power Density C406.4 Enhanced Digital Lighting Controls C406.5 On-site Renewable Energy C406.6 Dedicated Outdoor Air System

C406.7 Reduced Energy Use in Service Water Heating

ENERGY SUMMARY

THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETION The following data shall be considered minimum and sale also be provided. Each designer shall check SHEET GO.4 meet the energy code shall also be provided. Each designer shall check shall une standard reference design vs annual energy cost for the posterior of the posterior complies with code:

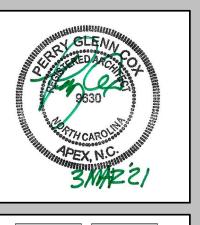
No Yes (The remainder of this section) **ENERGY REQUIREMENTS:**

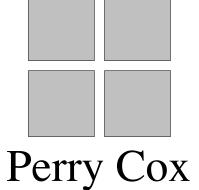
SPECIAL APPROVALS

(Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below) HARNETT COUNTY HEALTH DEPARTMENT TOWN OF FUQUAY-VARINA









architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

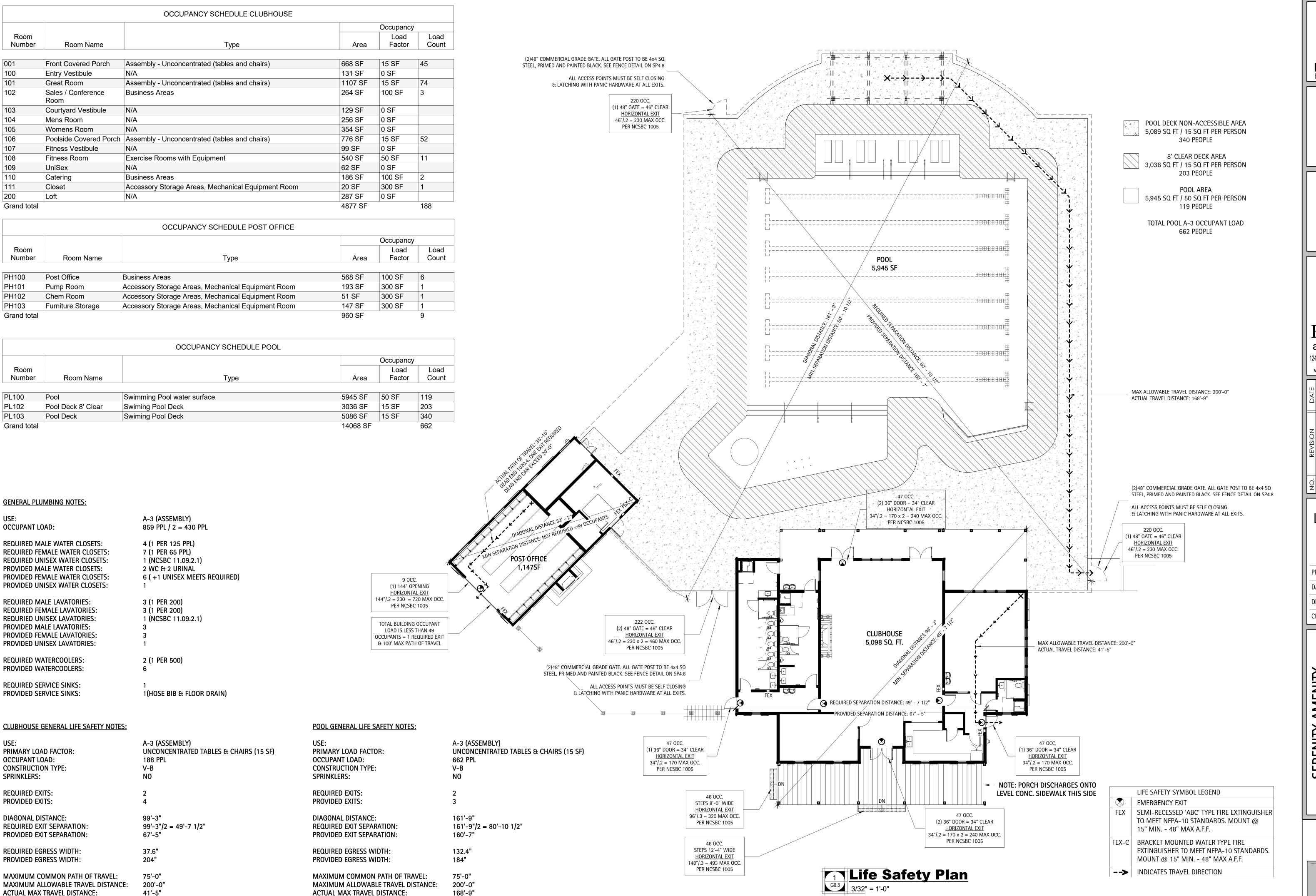
DAT			
REVISION			

SHEET DISCRIPTION BUILDING CODE

PROJECT #:	2018.03
DATE ISSUED:	12/14/202
DRAWING BY:	JGM/BS
CHECKED BY:	PGC/DS

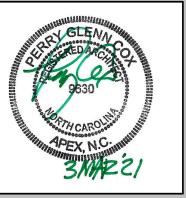
Y AMENITY COMMUNITIES POOL Fuquay-Varina, RE

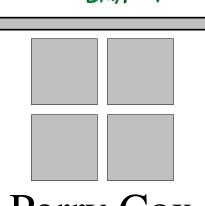












architect, p.a.

124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

SHEET DISCRIPTION LIFE SAFETY **PLANS**

PROJECT #: 2018.037 12/14/2021 DATE ISSUED: DRAWING BY: JGM/BSJ

CHECKED BY:

COMMUNITIE P00 Va **UBHOU** ENFIELD Fuquay.

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GENERAL NOTES

- The General Contractor shall be both licensed and bonded in North Carolina and shall provide documents upon the Architect's
- The Work shall be done in accordance with all rules and regulations of the North Carolina State Building Code 2018 along with city, county, and state regulations. The General Contractor is responsible for securing and paying for all permits required for the Work and for the scheduling of all required inspections during the course of the Work.
- General Contractor shall be responsible for the provisions for job safety. These drawoings do not contain provisions for job
- Dimensions are to to face of framing unless otherwise noted.
- Do not scale drawings. Stated & written dimensions govern. The General Contractor shall verify all dimensions in the field and shall be responsible for their accuracy. No extra charge or compensation shall be allowed because of difference between actual dimensions and those indicated on the drawings, unless they contribute to a change in the scope of the Work. Any difference which may be found shall be submitted to the Architect for decision prior to ordering, manufacturing, or proceeding with the Work. Horizontal dimensions indicated are to/from face of finish, unless noted otherwise. Vertical dimensions are from top of floor slab except where noted to be above finished floor (AFF). Dimensions are not adjustable without approval of Architect unless noted +/-.
- General Contractor shall be responsible for comparing all dimensions in the construction documents and existing conditions in
- Framing Subcontractor shall coordinated framing with locations of HVAC vents, plumbing and light fixtures so as to avoid
- The General Contractor shall provide protection and be responsible for any existing finishes to remain and shall repair or replace any damaged areas as a result of the work. All existing finishes to remain shall be cleaned at the completion of
- All materials and systems shall be installed as per manufacturer's specifications and all construction shall be of industry standard or better. The Architect shall be ultimate judge of quality.

used nor from any other obligation imposed on him by the Contract.

scaled dimensions. Scaling of dimensions, if done, is done at the Contractor's own risk.

- Only new items of recent manufacture, of standard quality, free from defects, will be permitted in the Work, unless otherwise noted. Rejected items shall be removed immediately form the Work and replaced with items of the quality specified. Failure to
- General Contractor shall be responsible for notifying the Architect immeditely of construction deviating from depicted or implied information here-in. In the event of conflict between data shown on drawings and data shown in the specification, the specification shall govern. Detail drawings take precedent over drawings of larger scope. Should the General Contractor at any time discover an error in a drawing or specification, or any discrepancy, or variation between dimensions on the drawings and measurements at site, or lack of dimensions or other information, the Contractor shall not proceed with the work affected until clarification has been made by the Architect. In case of an inconsistency between Drawings and Specifications or within either Document, not clarified by addendum, the more specific provision will take precedence over less specific; more specific will take precedence over less stringent; more expensive item will take precedence over less expensive. Better quality or greater quantity of Work shall be provided in accordance with Architect's interpretation. On Drawings, figures take precedence over

remove rejected materials and equipment shall not relieve the General Contractor from the responsibility for quality of items

- General Contractor shall verify that no conflicts exist in locations of any and all mechanical, telephone, electrical, plumbing and sprinkler equipment (to include all piping, duct work, sprinklers structural members and conduit) and that clearances for installation and maintenance of above equipment is provided. Elements in conflict shall be determined and reviewed with the Architect prior to work proceeding. Contractor to coordinate new work with existing conditions.
- The General Contractor shall provide shop drawings for the Architect's review and approval for the following: All shop fabricated millwork, carpet layout, flooring, light fixtures, doors, misc. steel, metal fabrication, glass/glazing, sprinkler layouts, hardware. Shop drawings shall be submitted in the form of 3 sets of prints. Shop drawings shall not be reproductions of Contract Documents. Material Submittals (3 samples) shall be provided for wood, fasteners, acrylic, carpet, tile, base, paint, laminate and any other materials indicated in the shop drawing.
- The General Contractor shall provide the Architect with manufacturer's cut sheets and specifications for all equipment including but not limited to: light fixtures, plumbing equipment, electrical equipment, fans, supplementary heating and cooling elements, all hardware and security equipment. General contractor shall be responsible for verifying all field dimensions prior to ordering equipment and/or casework.
- The General Contractor shall not proceed with work for which he expects additional compensation beyond the contract amount with out written authorization from the Architect and Owner. Failure to obtain such authorization shall invalidate a claim for extra compensation. The Contractor shall not proceed with work which, if completed in strict conformance with the Construction Documents, will result in additional work beyond the scope of the Contract without written authorization from the Architect and Owner. Any field conditions that significantly vary from the Contract Documents or will result in additional work, shall be brought to the attention of the Architect prior to proceeding with work.
- Contractor shall include all x-ray and core drill costs. All core drilling of the slab shall be approved by the Landlord's Structural Engineer prior to proceeding with the Work. Contractor shall submit proposed locations to Architect and Structural Engineer for review prior to proceeding with the work.
- Patch, repair and install all fireproofing as required by code. Fireproof any new penetrations required by the work.
- General Contractor to coordinate and review size and location of all slab penetrations. All required penetrations shall be made in accordance with the Owner's standard approval procedures and methods. All penetrations shall be properly sealed according to the Architect and the Owner's requirements and applicable codes.
- The General Contractor shall continuously check architectural and structural clearances for accessibility of equipment and mechanical and electrical systems. No allowances of any kind will be made for the General Contractor's negligence to foresee means of installing equipment into position.
- The finished work shall be firm, well-anchored, in true alignment, plumb, level, with smooth, clean, uniform, appearance without waves, distortions, holes, marks cracks, stains, or discoloration. Jointing shall be close fitting, neat and well scribed. The finished work shall have no exposed unsightly anchors or fasteners and shall not present hazardous, unsafe corners. All work shall have the provision for expansion, contraction and shrinkage as necessary to prevent cracks, buckling, and warping due to temperature and humidity conditions.
- Attachments, connections or fasteners of any nature are to properly and permanently be secured in conformance with best practice and the General Contractor is responsible for improving them accordingly. The drawings highlight special conditions only and by no means illustrate every connection. The Contractor is responsible for improving connection accordingly.
- General Contractor shall waive "Common Practice" and "Common Usage" as construction criteria wherever details and Contract Documents of governing codes, ordinances, etc. require quantity or better quality than common practice or common usage would require.

GENERAL NOTES

- The General Contractor shall submit shop drawings and submittals order and schedule delivery of materials in ample time to avoid delays in construction. If an item is found to be unavailable or to have a long lead time, the General Contractor shall notify Architect immediately with a proposed alternative.
- The General Contractor shall notify the Owner, the Landlord, and the Architect in writing of any deficiencies, errors, conflicts or omissions found in the construction documents and/or specifications prior to the commencement of the work in this area. Any unreported deficiencies will become the responsibility of the General Contractor to correct.
- The General Contractor shall exercise extreme care and precaution during the construction of the Work, and schedule work, to minimize disturbances to adjacent spaces and /or structures and their occupants, property, public thoroughfares, etc. The General Contractor shall take precautions and be responsible for the safety of all building occupants from construction procedures. The General Contractor shall be responsible for any overtime costs incurred thereby.
- All debris shall be removed from the site on a daily basis when possible. Upon completion of the work, remove all debris from the building created by the work provided under this Contract and leave all areas clean. Trash is not permitted to be burned on
- All abandoned miscellaneous nails, hangers, staples, wires, conduits and debris shall be removed from the walls and areas of exposed ceilings. Remove all abandoned pipe sleeves in floor slabs. Patch existing slab as req. to maintain UL fire rating of floor slab where pipes and conduits have been removed.
- Slab penetrations less than 2" around new and existing piping, conduit, ductwork, etc. shall be filled with acoustic foam and/or sealant to ensure acoustical separation between floor slabs. Slab penetrations greater than 2" around new and exiting piping, conduit, ductwork, etc. shall be filled with concrete. All piping, conduit, ductwork, etc. shall be wrapped with expansion material prior to filling with concrete. Expansion material shall be approved by the MEP Engineer.
- Contractor shall provide the Team with a construction schedule showing the proposed phasing. Any long lead items that will affect the Substantial Completion date shall be brought to the Architect's attention immediately
- Provide protection for existing finishes to remain, including restrooms, lobbies and corridors and repair damages as a result of construction. Document any existing conditions or damages prior to the start of construction
- General Contractor shall be responsible for providing exhaust for dryers, bathrooms, and ranges to exterior with proper terminus (not to be located on street side elevation). Verify terminus type and laction with owner prior to installation.
- The Architect shall not be responsible for constructed variations from the information contained here-in unless reviewed and
- Do not scale drawings, but rather inquire of Architect. Reproduction of these drawings is prohibited unless written permission is
- All Trades to caulk with Manicapality Approved "Fire Caulk" at all top plate penitrations.

MILLWORK NOTES

- Millwork shall be fabricated and installed by a qualified woodworker with experience in commercial applications of the scope of the job. The General Contractor shall submit shop drawings and hardware catalogue cuts of all millwork and hardware for review by Architect and in accordance with the Construction Documents. Shop drawings shall show the design and the dimensions and clearly indicate at a large scale to the Architect the method and means of construction. Fabrication of millwork shall not proceed until shop drawings have been reviewed by the Architect. Shop drawings shall be submitted with 3 sets of prints. Cabinet designer/ installer shall field measure area of work after installation of gypsum wallboard for proper fitting.
- The method of manufacturing, fabricating and installing millwork, equipment, and its structural components defined in the contract documents is representative and indicates design intent only. If the materials, details or dimensioned properties are at variance with the General Contractor's or manufacturer's recommendations, alternate details will be considered for review by the Architect. It is the responsibility of the General contractor to guarantee that the millwork and equipment will have proper support, stability and fault-free performance and provide all necessary blocking. All work shall conform to American Woodworking Institute (AWI) standards for premium grade construction.
- All cabinets shall be of flush overlay construction with 4" satin chrome wire pulls UON. Interior surfaces of cabinets not exposed to view shall be melamine with plastic laminate edgebanding to match melamine. All cabinet exterior surfaces exposed to view shall be plastic laminate. All open cabinet shelving shall be plastic laminate with plastic laminate edgebanding to match. All counter supports shall be plastic laminate. All counters used as work surfaces and all paneling shall be balanced and have phenolic backer laminated to entire underside or back face. Cabinet doors shall have plastic laminate on all faces and edges. All casework shall comply with AWI Section 400 for premium grade construction.
- Millwork covered with plastic laminate shall be fabricated and assembled by skilled workmen to the satisfaction of the Architect. Exposed surfaces shall be free from dents, tool marks, warpage, buckling, or open joints. All joints, corners and mitered connections shall be made tightly so the edges are entirely concealed. It is the responsibility of the General Contractor to obtain accurate field measurements and to verify dimensions and to provide shop drawings to ensure an accurate fit.
- Only exposed hardware is specified in this document. The Contractor is to supply all other necessary hardware to complete the Work. All unspecified hardware shall be of the highest quality commercial grade heavy duty. The Contractor is to provide catalog cuts of all hardware for review by Architect. Provide plastic grommets at cabinetry and counters for wire management as noted in the drawings. Submit catalog and samples to Architect for approval.
- Install millwork to be plumb, level, true and straight with no distortions. Shim as required using concealed shims. Provide all required blocking at new or existing construction for installation of millwork. Scribe and cut millwork to fit adjoining work. Provide sealant to match adjacent surfaces at all gaps. All exposed anchors, nail heads, screw heads, chips, indentations or imperfection in the wood surface to be painted shall be filled, sanded, sealed and prepared for painting. All lumber, particle board, finish wood, plywood, blocking, etc. shall be fire retardent treated (FRT) where required by local building codes, as interpreted by the local Code Official. No exposed fasteners.
- The General Contractor shall be responsible for making certain that the millwork items are not delivered until areas are sufficiently dry so that the millwork will not be damaged by excessive changes in moisture content. All delivered units shall match the final approved shop drawings and samples. Units which are marred, chipped or otherwise damaged shall be repaired or replaced as determined by the Architect. Units shall be protected during shipment and installation. After installation of units in their proper location and substantial completion of the Work, all protection shall be removed and all surfaces thoroughly cleaned to the complete satisfaction of the Architect. Surfaces shall then be covered and protected.
- Wood cabinets, countertops, trim and rails are to comply with AWI Section 400 and other applicable American Woodworking Institute Standards (AWI) for custom grade.

THE WALL OR PARTITION. GRAB BARS

SHALL SUPPORT A LOAD OF 250 LBS.

- Install millwork in compliance with AWI Section 1700, Premium Grade unless otherwise indicated. Flush wood paneling shall conform to AWI Section 500, Premium. Wood veneer to have "AA" face with 3/4" MDF core. See drawings for species and cut. Veneer shall be book matched, balance match panel faces and sequence between adjacent panels. Exposed edges to be veneered same species and finish as face. Provide sound back of similar species.
- To the greatest extent possible, furnish millwork with shop applied finishes. Defer only final touch-up, cleaning, and polishing until after installation. Shop applied finishes shall comply with AWI 1500, Premium Grade, TR-2 catalyzed lacquer, semi-filled.

TILE NOTES

- Tile shall be installed by a qualified installer with experience in commercial applications. The General Contractor shall submit dimensioned shop drawings showing layout and 3 samples of each type and color of tile and grout selected for review by Architect and in accordance with the Construction Documents. Mount tiles on plywood backing and grout to demonstrate tile
- It is the responsibility of the General Contractor to obtain accurate field measurements and to verify dimensions. Any dimensions or field conditions which vary from the design intent of the drawings shall be brought to the attention of the Architect by the General Contractor for review prior to proceeding with work. It is the responsibility of the General contractor to provide all necessary blocking.
- Tile shall be manufactured in compliance with Standard Grade Requirements of ANSI A137.1. Installation of tile shall be in compliance with requirements set forth in Handbook for Ceramic Tile Installation produced by the Tile Council of America. Provide all necessary caps, stops, returns, trimmers, and other shapes to complete installation (color and finish to match adjacent tile). Provide a quantity equal to 2% of each type and color of tile from same production run as installed material for
 - a. Floors: Thin set, TCA F122
 - b. Walls: Organic adhesive, TCA W242
 - c. Expansion Joints: TCA EJ171 d. Epoxy Adhesive: TCA F116
 - Ceramic Tile: ANSI A137.1

attic stock.

- Selections: Refer to Schedule of Finishes Floor Tile: Unglazed, Wall Tile: Glazed
- Trim Tiles: Furnish type, size, and color, to match field.
- Wainscot Cap: Bullnose Base: Cove bottom/Straight top with matching wall tile above
- Inside Corners: Square, Outside Corners: Bullnose Jambs: Bullnose where tiles project from jamb.
- For tile exhibiting color variations, blend tile in factory and package accordingly so that tile units taken from one package show
- the same range in colors as those taken from other packages and match approved samples. Where factory-mounted tile is required, provide back-face or edge-mounted tile assemblies as standard with manufacturer unless another mounting method is indicated.
- Ha minimum. Marble Threshold, ASTM C503 to be White Georgia, Imperial Black or Antique Silver and Honed. Refer to Schedule of Finishes for size, finish and thickness. Thin Set Mortar: ANSI A118.1, Commercially prepared dry mixture of Portland cement, inert fillers, and chemical additive. Do not use water-based adhesive setting methods with green-colored stone. General Contractor to obtain setting instructions from

Natural Stone Tile Marble to meet requirements of ASTM C503 Granite; ASTM C615. Abrasive Resistance: ASTM C241; 12

- supplier. Organic Adhesive: ANSI A136.1; Type 1, High performance, multi-purpose floor and wall adhesive. Epoxy Adhesive: factory prepared, 100% epoxy resin and hardener with sand or mineral filler material to complying with ANSI A118.3 for thin-set applications for chemical resistant, water cleanable quarry tile installations. Grout: Latex portland cement; ANSI A118.6. Commercially prepared dry mixture of portland cement, sand, mineral fillers, and chemical additives. Color: Refer to Schedule of Finishes
- Mix materials and prepare surface in accordance with manufacturer's recommendations. Grind or fill concrete substrates as needed to comply with TCA allowable variations. Areas scheduled to receive tile flooring shall receive membrane application. Crack Isolation Membrane to be one-part elastomeric seamless membrane, 30 mil (cured thickness), and no water permeability as manufactured by Custom or Mapei.
- Comply with manufacturer's instructions for installation of each material needed as well as ANSI and TCA requirements. Extend tile work into recesses and under or behind equipment and fixtures, to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at obstructions, edges and corners without disrupting pattern or joint alignments. Layout tile work and center tile fields in both directions in each space or on each wall area. Avoid tiles less than one half size. Align joints when adjoining tiles on floor, base, walls and trim that are the same size. Provide uniform joint widths at ceramic tile to be not less than 1/16" or greater than 1/8". Natural Stone Tile to be butt jointed. Where stone tile abuts disimilar flooring materials, provide terrazzo divider strips or other similar metal angle device to help prevent edge chipping caused by impact: Terrazzo Divider Strip or Schluter Trims #E100.
- Thin Set Application shall be per ANSI A108.5. Organic Adhesive Application shall be per ANSI A108.4. Use Latex portland cement grout conforming to ANSI A108.10. Tile shall be firmly set before grouting, allow a minimum of 48 hours. Remove mortar or adhesive from face and edges of tile.
- Provide expansion joints as follows: Natural Stone Tile same as grout joint; but not less than 1/4". Ceramic Tile not less than 1/8". Install expansion joints at 24' max, in each direction, where tile work abuts restraining surfaces such as perimeter walls, dissimilar floors, curbs, columns, and pipes, where changes occur in backing materials, at expansion, control, construction, cold and seismic joints in structure. Expansion joints shall be constructed during installation of tile. Do not cut joints after tile
- Use clean water in initial cleaning. Remove surface laitance with a dry polishing cloth. Do not use acid in final cleaning of tile Provide a non-yellowing, penetrating sealer on floor ceramic tile which does not leave a film or visible coating. Keep floor areas free from general traffic for at least 72 hours following installation. Protect walls from impact, vibrations and heavy hammering on adjacent and opposite walls.

INTERIOR FINISH NOTES

- Refer to Finish Schedule and Finish Plan for extent and type. All wall surfaces, metal frames, and trim shall be painted, UON. All surfaces to be painted shall be prepared for priming in accordance with the manufacturer's specifications.
- 2. All painted surfaces shall receive 1 prime and 2 finish coats as follows:
 - GWB surfaces Interior eggshell latex paint GWB ceiling surfaces - Interior flat latex paint
 - Hollow Metal/Wood Odorless interior semi-gloss alkyd latex
- Paint is to be applied by a roller or brush on all surfaces. Only the prime coat may be spray applied. Provide a 12"x12" GWB sample for each color for Owner's approval prior to the start of the Work.
- Toilet and bathing room floors shall have a smooth, hard, non-absorbant surface that extends upward onto the walls at least 6"
- Walls within 2' of urinals and waterclosets shall have a smooth, hard, non-absorbant surface to the
- hieght of 4' above the finish floor. Verify material with room schedule and/or Architect

- Refer to Finish Plan & Schedule for extent and type of all floor finishes.
- GC to flashpatch floor to provide a level surface that shall not exceed 1/4± over 10 feet cumulative. At floor finish transitions flash patch to smooth transition of finished material to maintain level finished floor surface.

FLOOR FINISH NOTES

- All floors to slope to floor drains 1/4" per 1'-0" U.N.O
- 4 All exterior floor slabs to recieve a light broom concrete finish. U.N.O.
- 5 SEE STRUCTURAL DRAWINGS FOR ALL FOUNDATION SPECIFICATIONS.



Energy Code

Project Title:

Climate Zone:

Project Type:

Vertical Glazing / Wall Area:

Performance Sim. Specs:

Location:

90.1 (2013) Standard
Serenity Clubhouse
Fuquay-Varina, North Carolina
4a
New Construction

EnergyPlus 8.1.0.009 (EPW: USA_NC_Raleigh-Durham.Intl.AP.723060_TMY3.epw)

Construction Site: Owner/Agent: Greenfield Communities LLC Harnett County Fuguay-Varina, NC 27526 8601 Six Forks Road Raleigh, NC 27615

Designer/Contractor: Perry Cox Perry Cox Architect, p.a. Apex, NC 27502 919-363-5411

124 Salem Town Court mbrubaker@greenfieldcommunities perry@pcoxdesign.com

Floor Area Building Area 1-Community Clubhouse (Exercise Center): Nonresidential

919-815-6469

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)
Floor 1: Slab-On-Grade:Unheated, [Bldg. Use 1 - Community Clubhouse] (c)	274			0.730	0.520
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Community Clubhouse]	3560	42.0	0.0	0.024	0.021
Skylight 1: Metal Frame:Glass, No Curb, Perf. Specs.: Product ID 4mm Clear Glass, SHGC 0.78, VT 0.82, [Bldg. Use 1 - Community Clubhouse] (b)	9			0.480	0.500
<u>NORTHEAST</u> Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Community Clubhouse]	1062	21.0	0.5	0.060	0.064
Window 1: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	107			0.250	0.350
Door 1: Glass (> 50% glazing):Nonmetal Frame, Entrance Door, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, PF 1.60, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	48			0.250	0.350
<u>SOUTHEAST</u>					
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Community Clubhouse]	556	21.0	0.5	0.060	0.064
Window 3: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	21			0.250	0.350
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Community Clubhouse]	21		-	0.600	0.500
<u>SOUTHWEST</u> Exterior Wall 4: Wood-Framed, 16" o.c., [Bldg. Use 1 - Community	1108	21.0	0.5	0.060	0.064

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget l Factor _{(a}
Clubhouse]					
Window 4: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, PF 1.10, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	180			0.250	0.350
Window 5: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	56	-		0.250	0.350
Door 1 copy 1: Glass (> 50% glazing):Nonmetal Frame, Entrance Door, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, PF 0.88, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	96			0.250	0.350
Door 3 copy 1: Insulated Metal, Swinging, [Bldg. Use 1 - Community Clubhouse]	42	Western Co.		0.600	0.500
NORTHWEST					
Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Community Clubhouse]	623	21.0	0.5	0.060	0.064
Window 2: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	101		, 	0.250	0.350
Door 2: Glass (> 50% glazing):Nonmetal Frame, Entrance Door, Perf. Specs.: Product ID Advanced Low-E, SHGC 0.37, VT 0.70, [Bldg. Use 1 - Community Clubhouse] (b)	24	2000		0.250	0.350

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements. (b) Fenestration product performance must be certified in accordance with NERC and requires supporting documentation (c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors

velope PASSES: Design 1% better than code

Envelope Compliance Statement Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans,

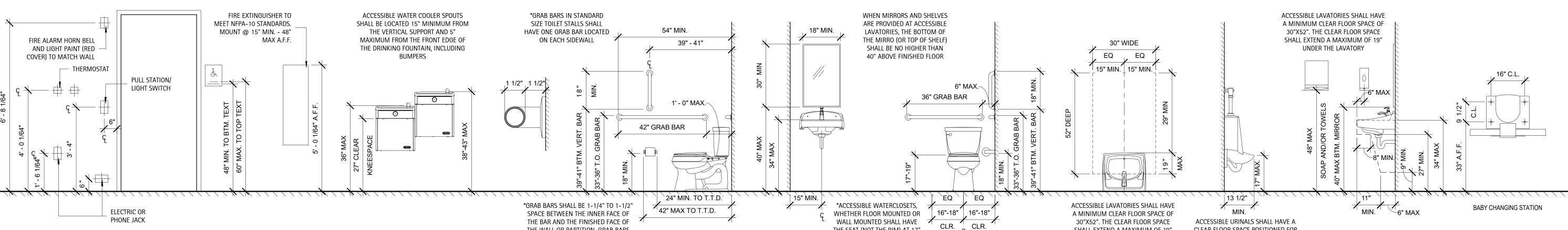
pecifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist. Perry Cox, Architect

CLEAR FLOOR SPACE POSITIONED FOR

FORWARD APPROACH

SHALL EXTEND A MAXIMUM OF 19"

UNDER THE LAVATORY

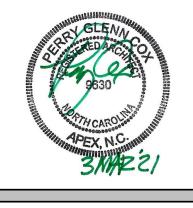


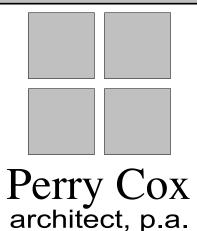
TYPICAL MOUNTING HEIGHTS

*PROVIDE REQD' BLOCKING FOR GRAB BARS, WALL HUNG TOILETS, AND ACCESORIES DURING FRAMING

D. CLUGSTON







124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

SHEET DISCRIPTION **GENERAL**

PROJECT #: 2018.037

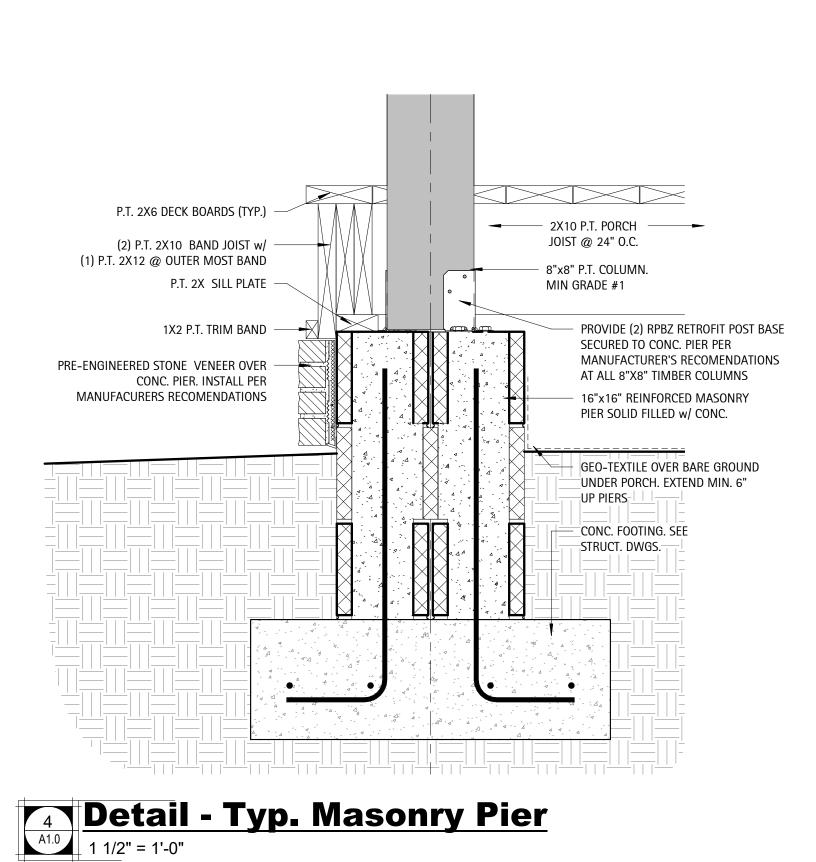
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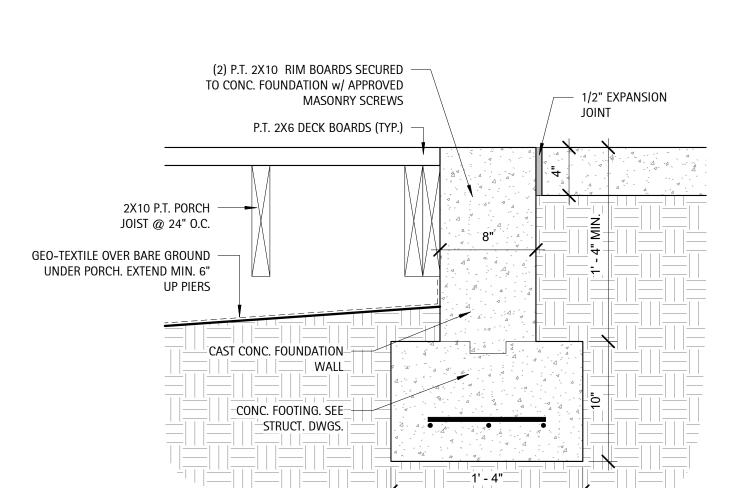
> COMMUNITIE PO _____ **UBHOU** ENFIELD Fuquay.

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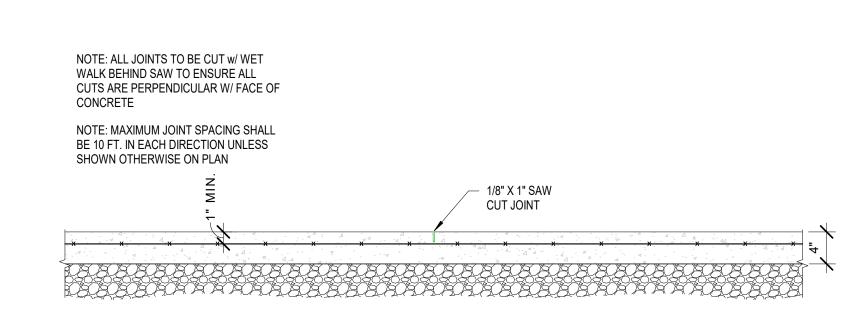
THE SEAT (NOT THE RIM) AT 17"

MIN. AND 19" MAX ABOVE THE

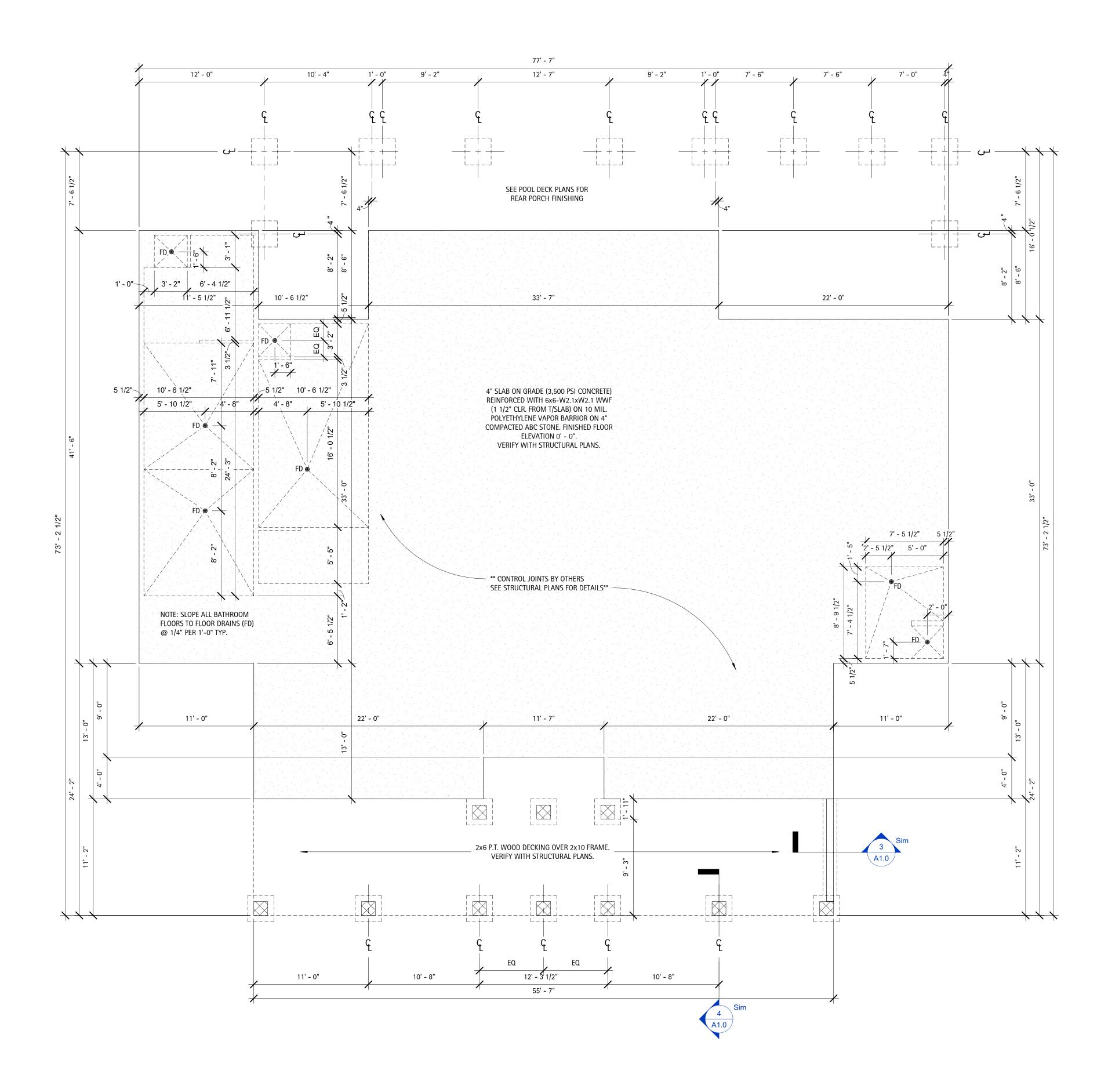




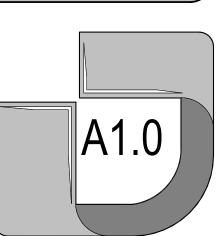








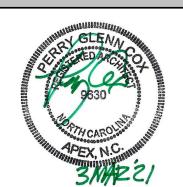
Club House - Foundation Plan 3/16" = 1'-0"

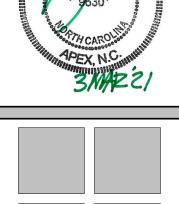


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D. CLUGSTON
BUILDING & DEVELOPMENT CO.







Perry Cox architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

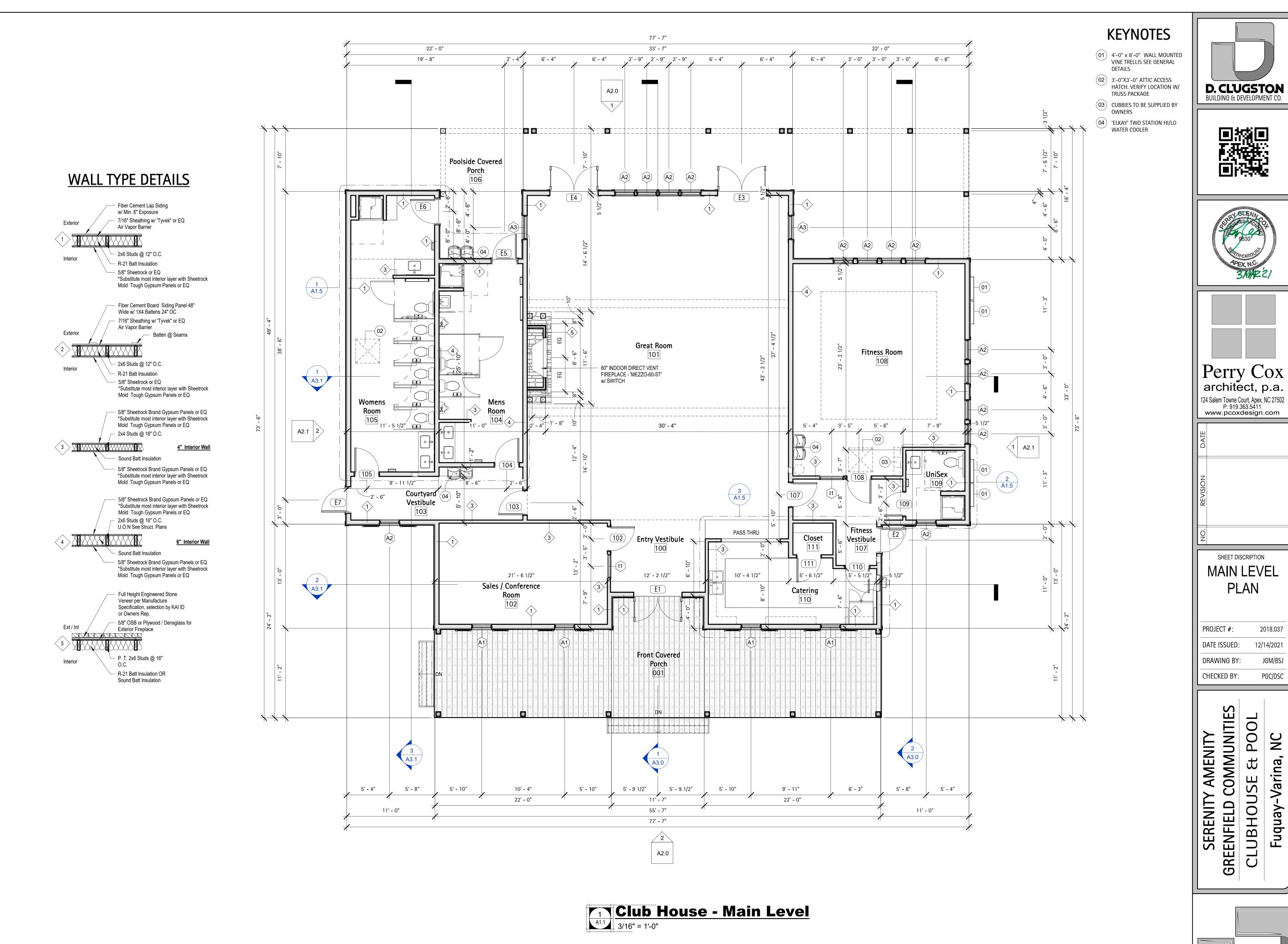
SHEET DISCRIPTION **FOUNDATION** PLAN

PROJECT #: 2018.037 DATE ISSUED: DRAWING BY:

CHECKED BY:

SERENITY AMENITY
ENFIELD COMMUNITIES POOL

CLUBHOUSE



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ry amenity Communities POOL CLUBHOUSE ENFIELD GRE

SHEET DISCRIPTION

MAIN LEVEL

PLAN

2018.037

Fuquay-Varina,

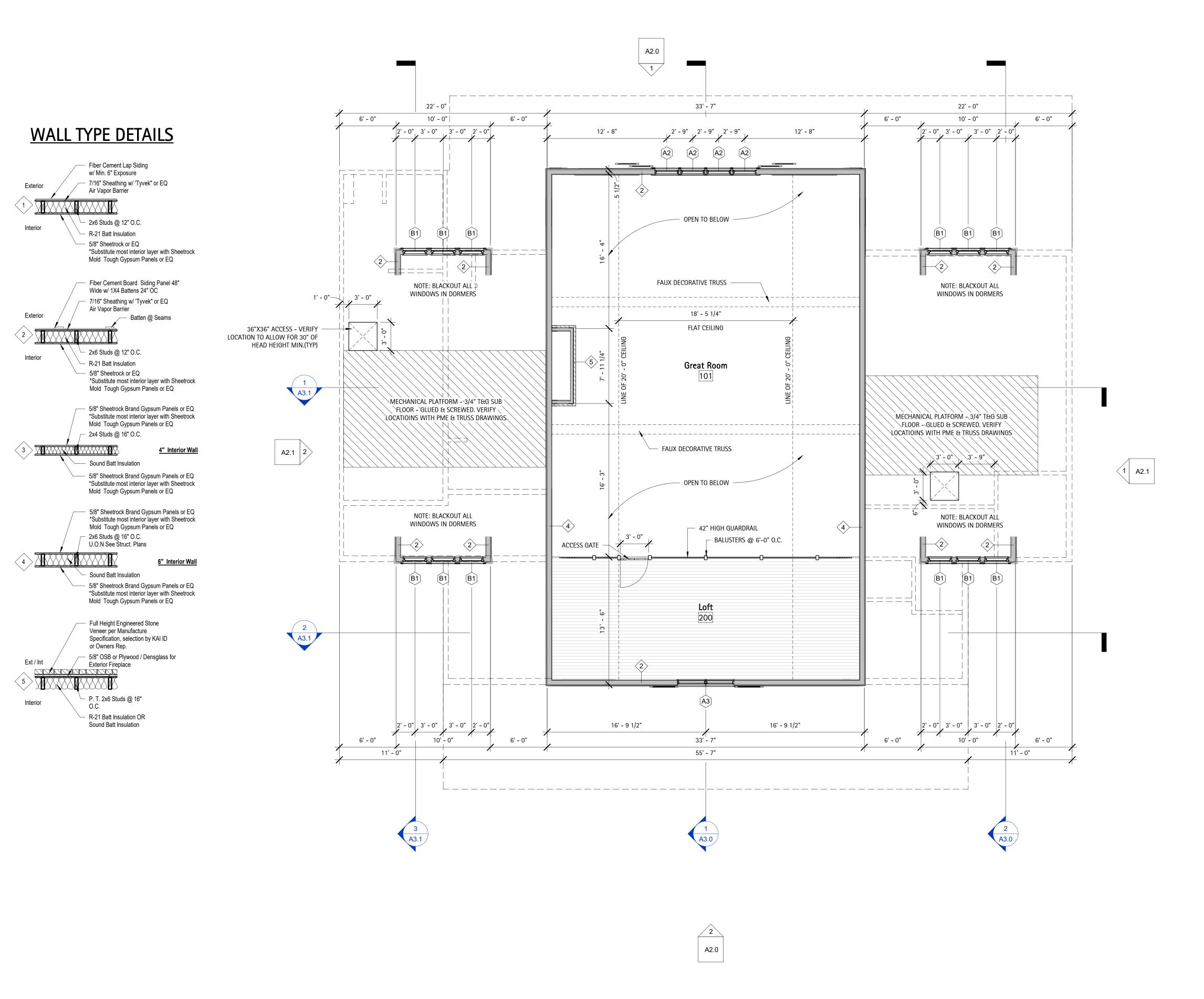
12/14/2021

PROJECT #:

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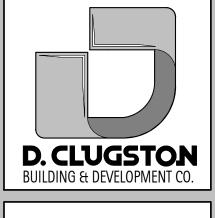
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A1.1

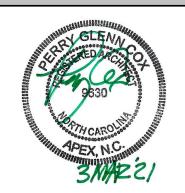


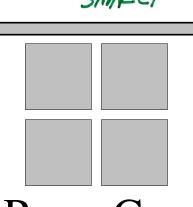
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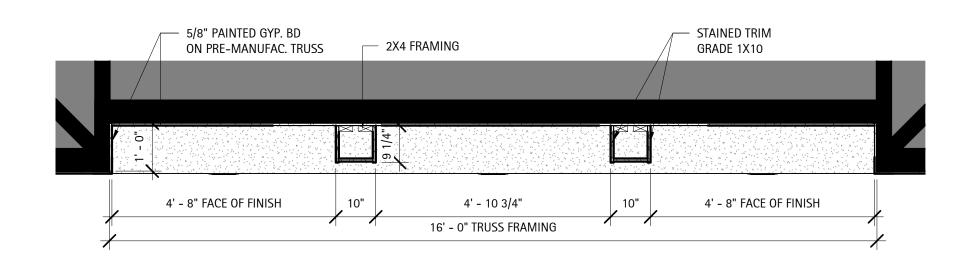
SHEET DISCRIPTION UPPER

PROJECT #: 2018.037 12/14/2021

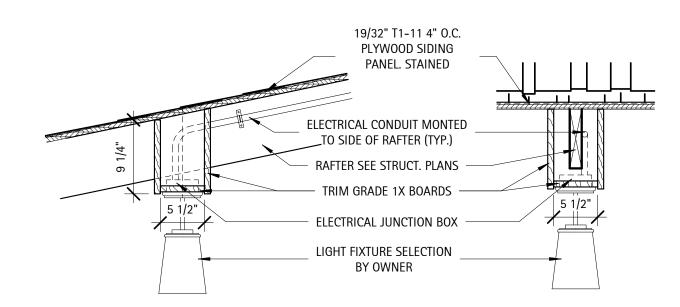
LEVEL PLAN

DATE ISSUED: DRAWING BY: CHECKED BY:

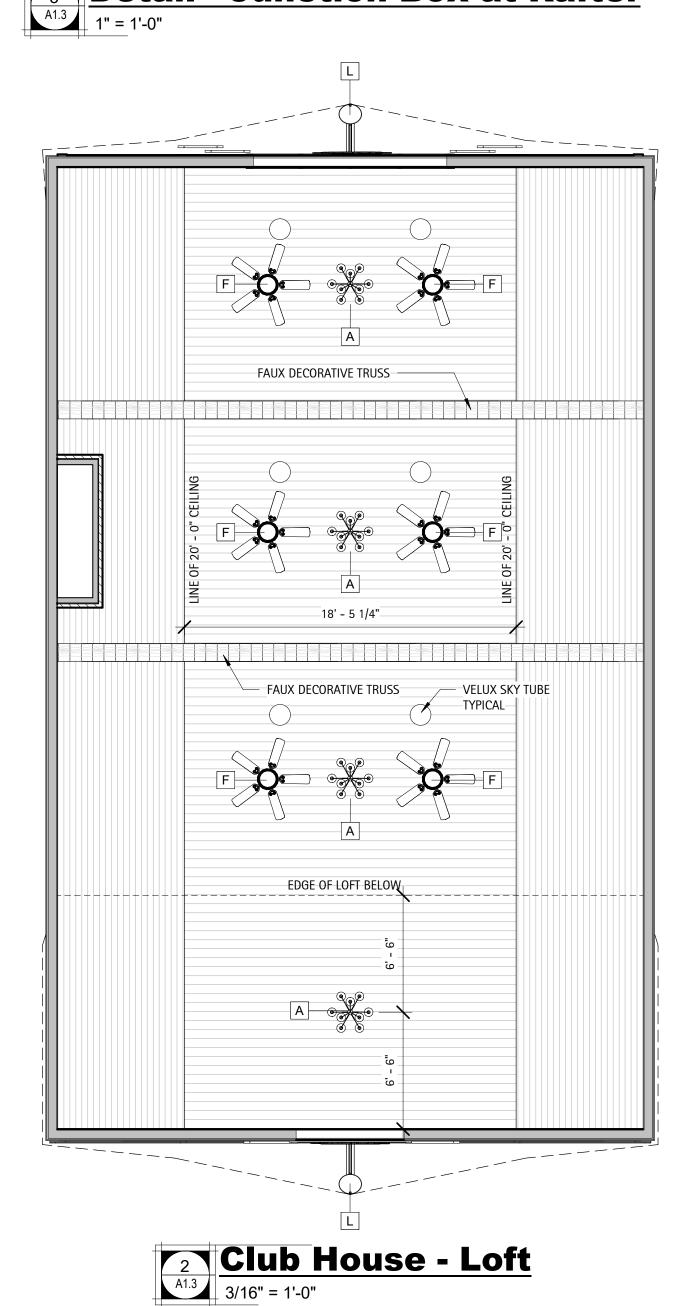
SERENITY AMENITY
GREENFIELD COMMUNITIES ER POOL Fuquay-Varina, CLUBHOUSE

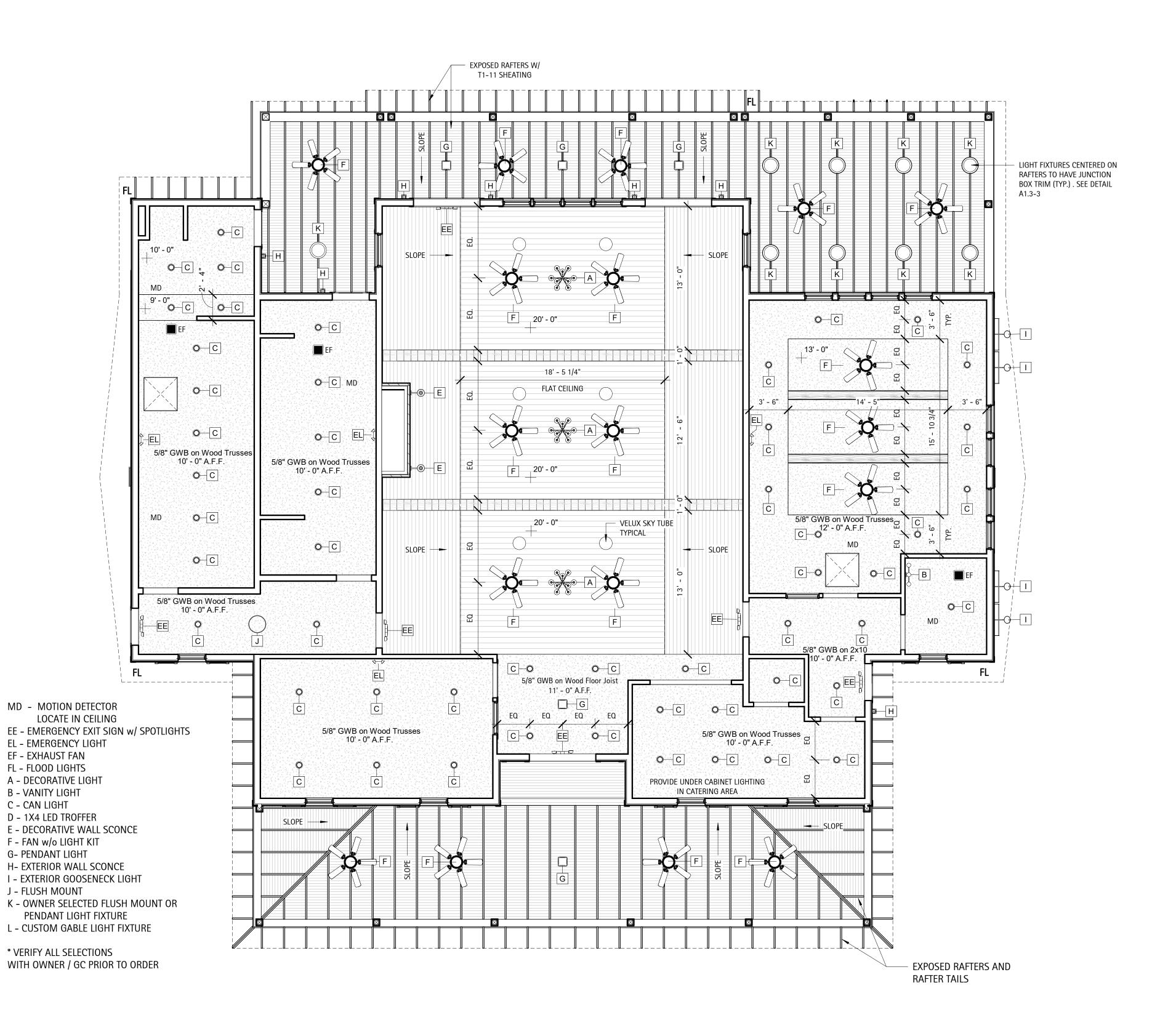


Detail - Fitness Roof Tray Ceiling 1/2" = 1'-0"



Detail - Junction Box at Rafter

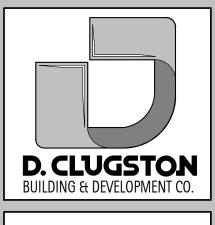




REFLECTIVE CEILING NOTES

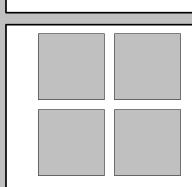
- 1. 5/8" GWB typical U.N.O Mold tough in Wet areas
- 2. Height of ceilings shall be measured from top of slab to finish face of GWB or face of ceiling grid as indicated on the Reflected Ceiling Plan, UON.
- 3. All light fixtures are to be installed according to the Electrical Plans.
- 4. Light fixture types, quantities and locations only are noted on Architectural Reflected Ceiling Plans. Specifications, switching, exit lights, emergency lighting, life safety equipment, and circuiting are noted on Engineering documents.
- 5. Dimensioned light fixtures are from finished face of partitions to centerline of fixture and from centerline of fixture to centerline of fixture. All fixtures shall be installed in center of ceiling tile unless noted otherwise. Any discrepancies with light fixtures, switches, thermostats, or diffusers as to location between architectural and engineering drawings or between the drawings and existing field conditions shall be clarified with the Architect before proceeding with installation.











Perry Cox architect, p.a. 124 Salem Towne Court, Apex, NC 27502

124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

DATE

NOISION

REFLECTED CEILING PLAN

PROJECT #: 2018.037

DATE ISSUED: 12/14/2021

DRAWING BY: JGM/BSJ

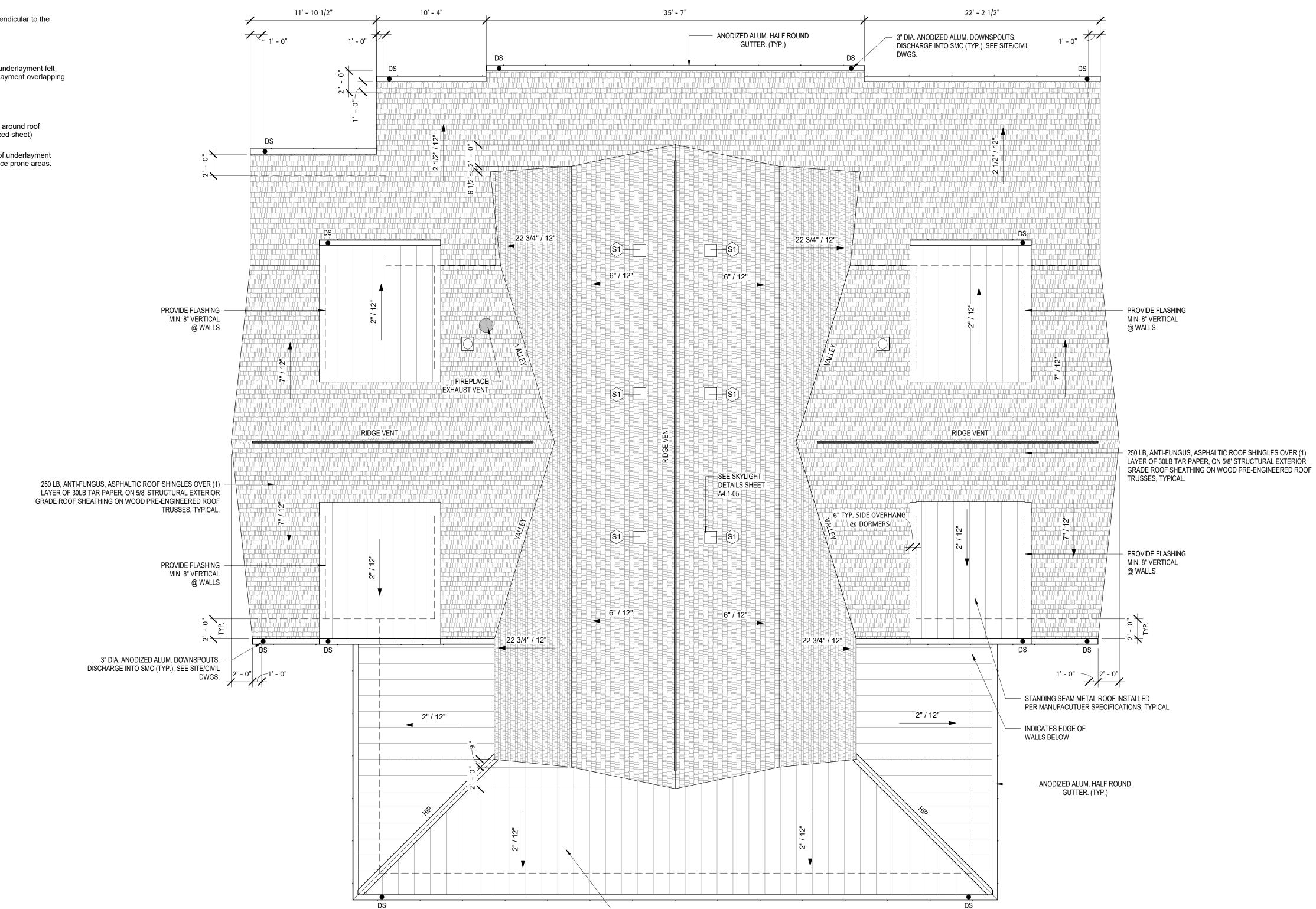
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SERENITY AMENITY
EENFIELD COMMUNITIE

A1.3

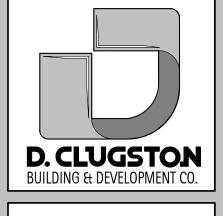
ROOF NOTES

- 1. Roof decks shall be covered with approved roof coverings secured to the building or structure in accordance with the NCSBC. Roof coverings shall be designed and installed in accordance with the building code and the approved manufacturer's instructions.
- 2. Crickets or saddles shall be installed on the ridge side of any chimney or penetration greater than 30 inches wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or of the same material as the roof covering.
- 3. Asphalt shingles shall only be used on roof slopes of 2:12 or greater.
- 4. Roof slopes from 2:12 to 4:12, underlayment shall be two layers applied in the following manner. Apply a minimum 19" wide strip of underlayment felt parallel with and starting at the eaves, fastened sufficiently to hold in place. Starting at the eave, apply 36-inch-wide sheets of underlayment overlapping successive sheets 19 inches minimum and fasten in place.
- 5. Roof slopes from 4:12 or greater, underlayment shall be a minimum of one layer.
- 6. Flashing shall be installed at the wall and roof intersections, at gutters, and wherever there is a change in roof slope or direction and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019in (No. 26 galvanized sheet)
- 7. Areas prone to ice formation along eaves causing a backup of water shall have an ice barrier that consists of at least (2) two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet. Extend ice barrier min. 18" each side of valleys and other ice prone areas.

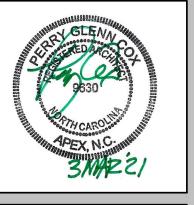


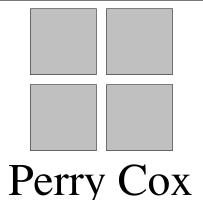


STANDING SEAM METAL ROOF INSTALLED PER MANUFACUTUER SPECIFICATIONS, TYPICAL









Perry Cox architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

UAIE

REVISION

SHEET DISCRIPTION

ROOF PLAN

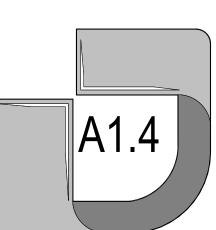
PROJECT #: 2018.037

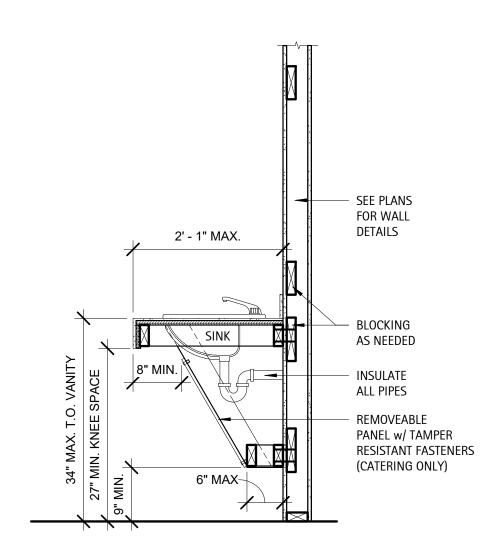
DATE ISSUED: 12/14/2021

DRAWING BY: JGM/BSJ

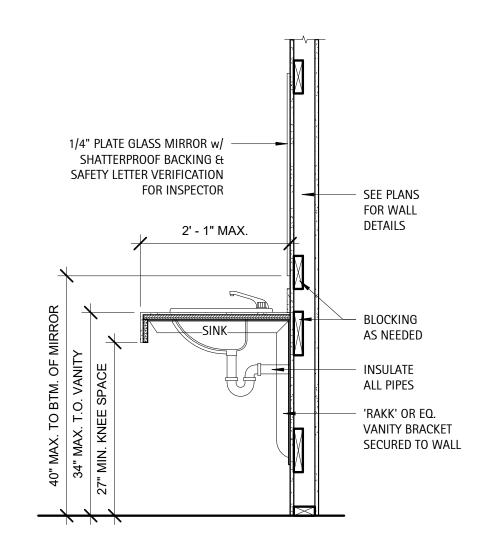
CHECKED BY: PGC/DSC

SERENITY AMENITY
GREENFIELD COMMUNITIES
CLUBHOUSE & POOL
Fuquay-Varina, NC

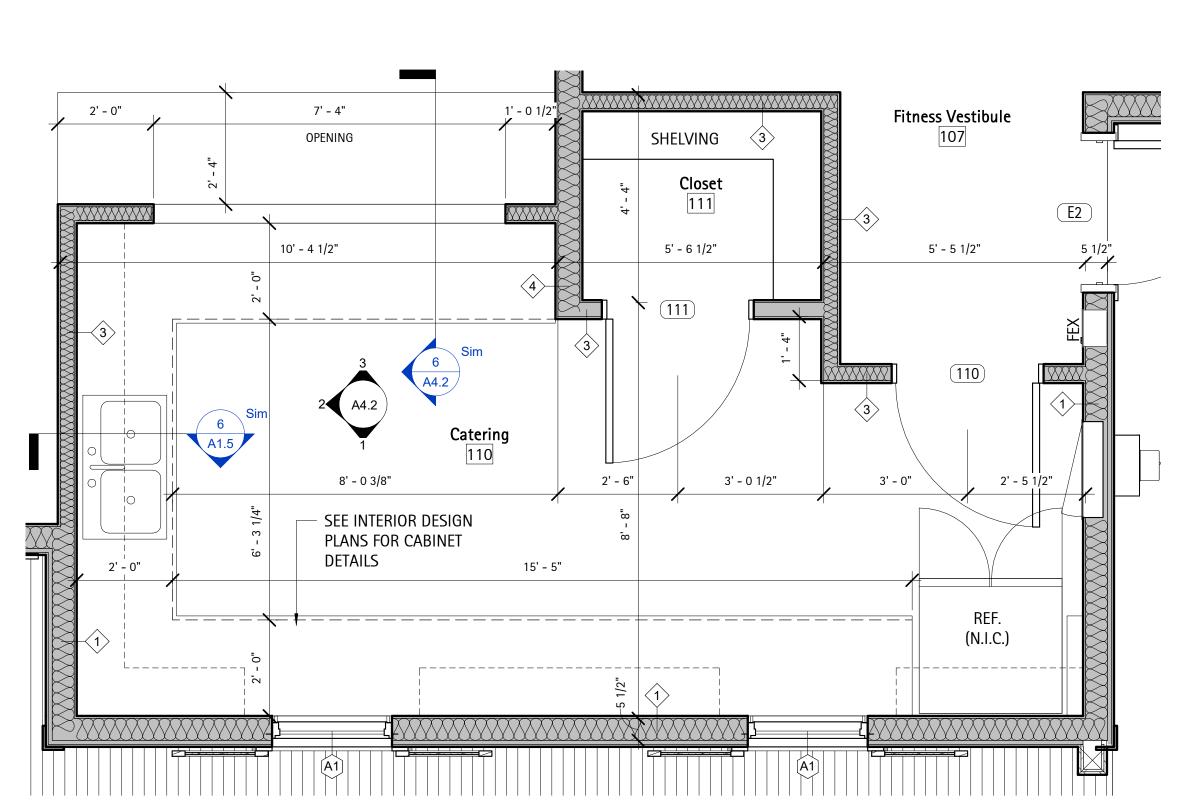




Detail - Typical ADA Sink Section 3/4" = 1'-0"

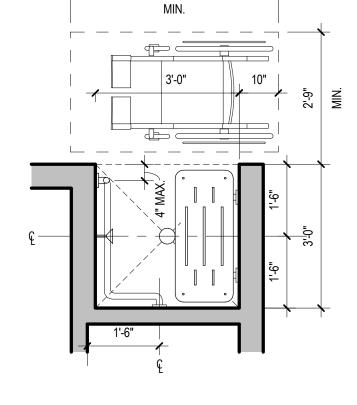


Detail - Typical Vanity Section 3/4" = 1'-0"

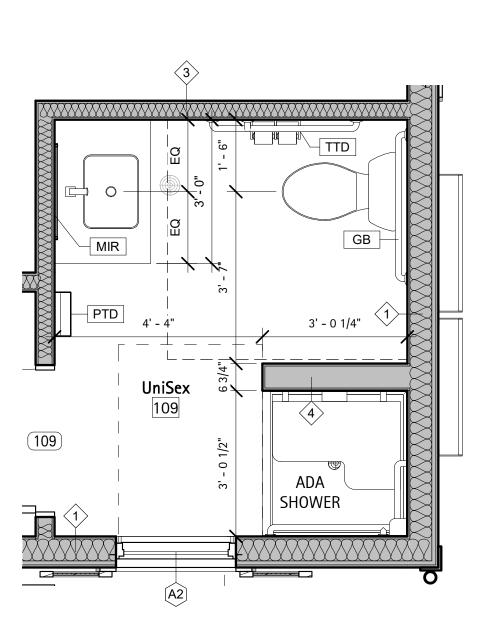


3	Enlarged	Catering	Room
A1.5	1/2" = 1'-0"		

	TOILET ACCESSORIES								
MARK	ITEM	MANUFACTURER	MODEL NUMBER						
TTD	SURFACE MOUNTED DUAL ROLL TOILET TISSUE HOLDER	AMERICAN SPECIALTIES, INC	0715						
GB	GRAB BAR - 1 1/2" DIA., S/S, PREENED GRIP, SNAP FLANGE 36", 42" & 18"	AMERICAN SPECIALTIES, INC	3800 TYPE-01						
MIR	INTERLOK S.S. FRAMED MIRROR W/ SHATTER RESISTANT GLASS	AMERICAN SPECIALTIES, INC	0600						
СН	SURFACE MOUNTED COAT HOOK	AMERICAN SPECIALTIES, INC	0714						
PTD	SURFACE MOUNTED PAPER TOWEL DISPENSER	AMERICAN SPECIALTIES, INC	0210						
SD	SURFACE MOUNTED S.S. AUTOMATIC LIQUID/GEL SOAP DESPENSER	AMERICAN SPECIALTIES, INC	0360						
SN	SURFACE MOUNTED SAINITARY NAPKIN DISPOSAL (WOMEN'S TOILET ONLY)	AMERICAN SPECIALTIES, INC	0852						
МН	MOP HOLDER	AMERICAN SPECIALTIES, INC	0796						
CS	SURFACE MOUNTED BABY CHANGING STATION	AMERICAN SPECIALTIES, INC	9012						
ТР	TOILET PARTITION - FLOOR SUPPORTED W/ HEADRAIL, POWDER COATED STEEL FINISH	GENERAL PARTITIONS	SERIES 40-5						



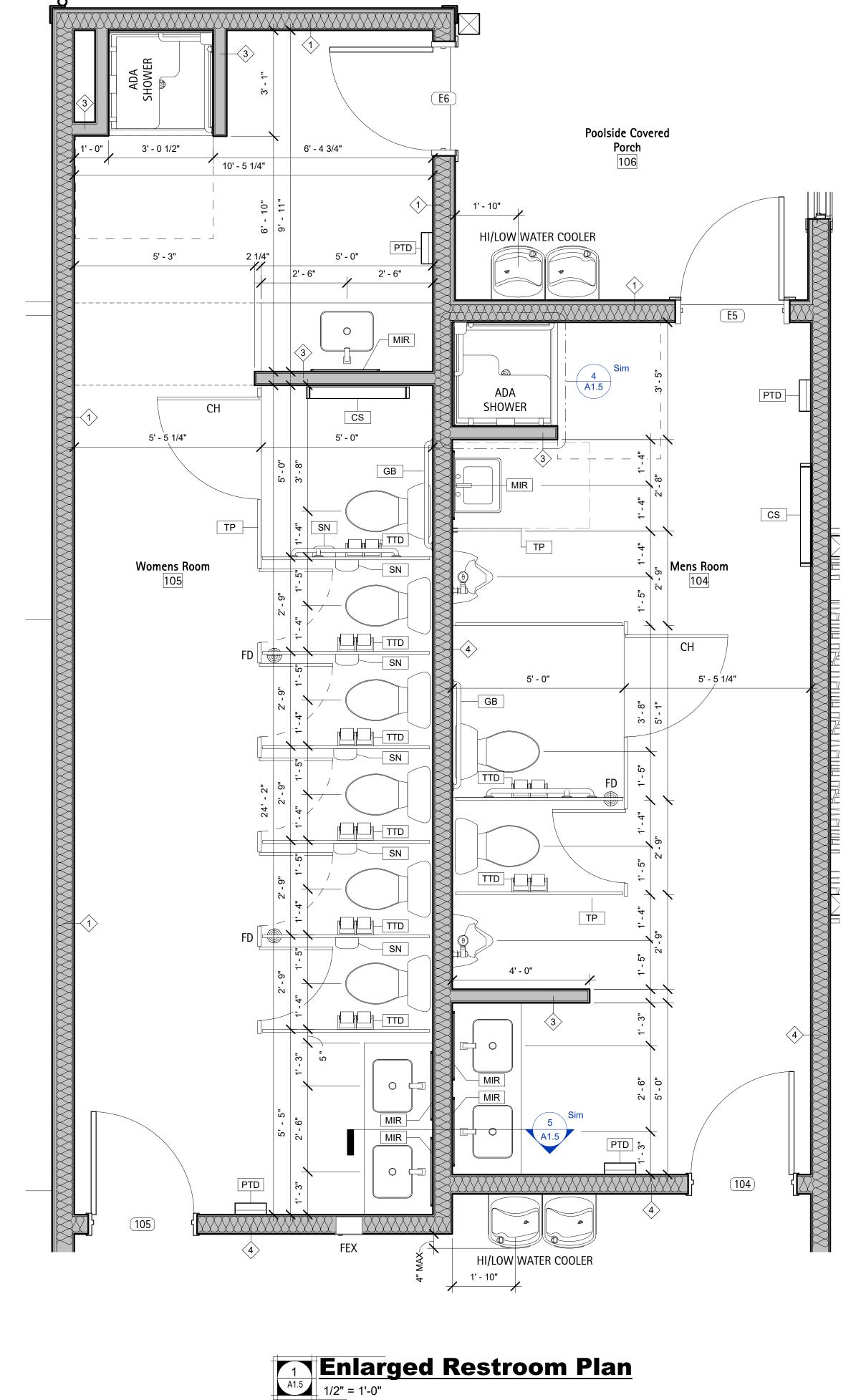
Detail - ADA Transfer Shower 1:1



Enalrged Family RR

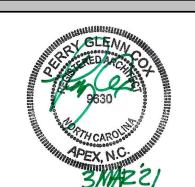
1/2" = 1'-0"

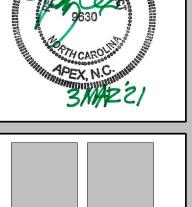
NOTE: SEE SHEET GO.4 FOR TYPICAL ADA MOUNTING HEIGHTS AND CLEARANCES

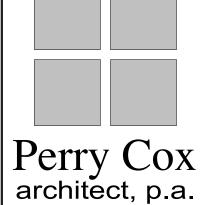








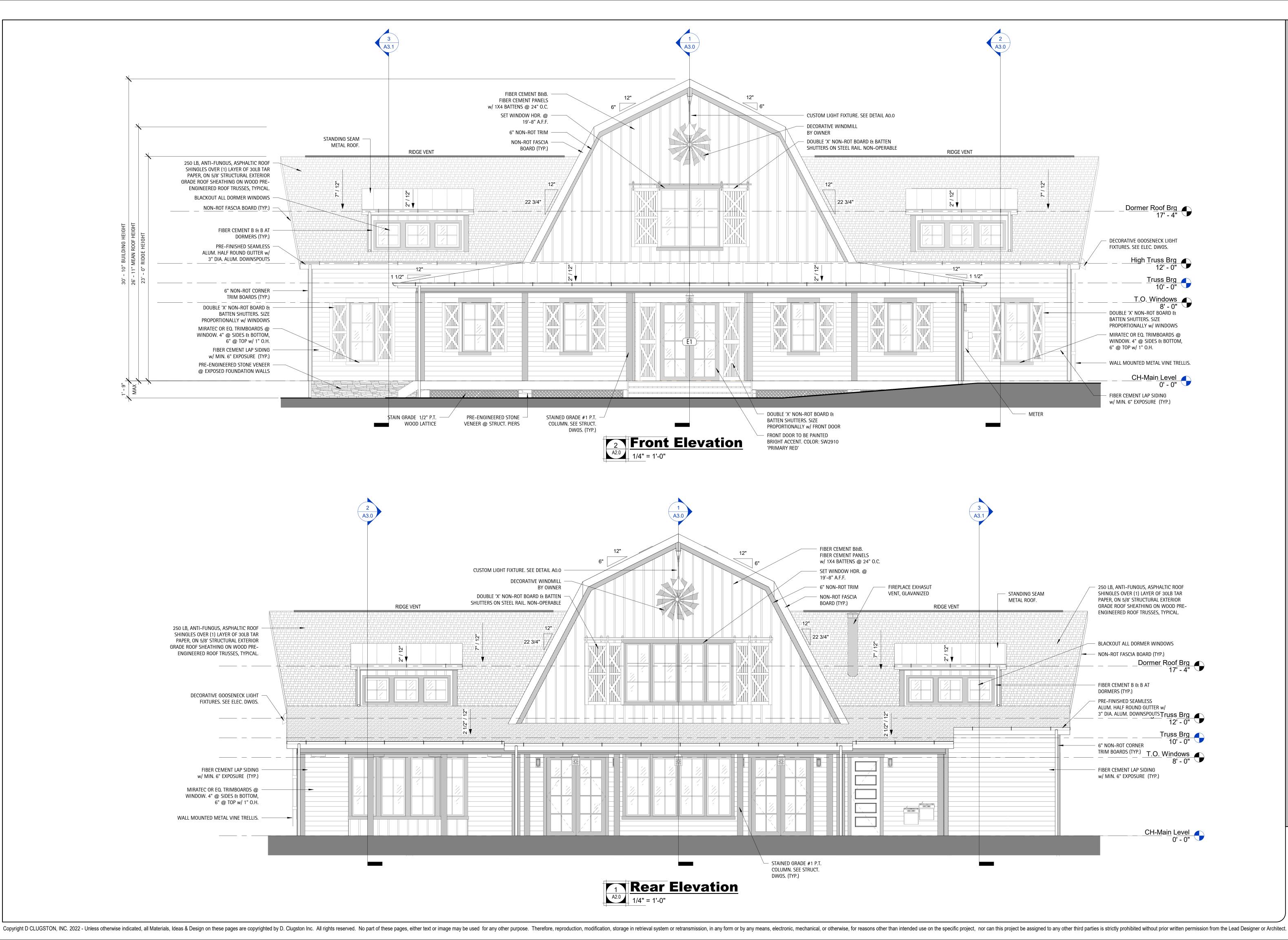




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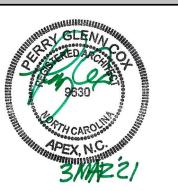
SHEET DISCRIPTION **ENLARGED PLANS**

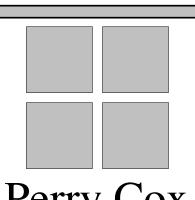
PROJECT #: DATE ISSUED: DRAWING BY: CHECKED BY:











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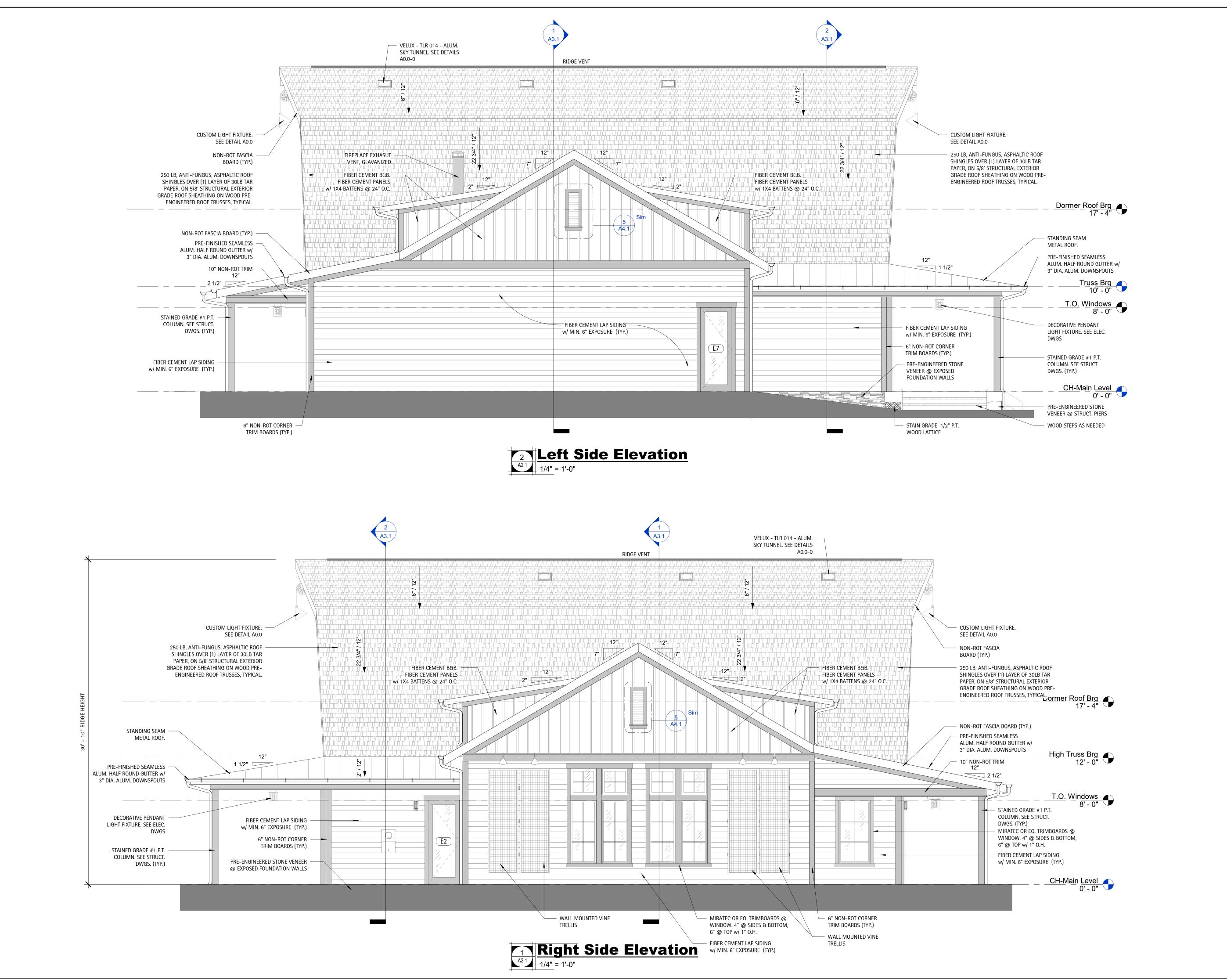
SHEET DISCRIPTION

CLUBHOUSE **ELEVATIONS**

PROJECT #: 2018.037 12/14/2021 DATE ISSUED: DRAWING BY: CHECKED BY:

COMMUNITIES POOL

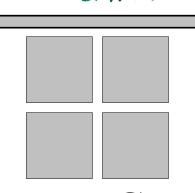
Fuquay-Varina, CLUBHOUSE ENFIELD RE











architect, p.a.

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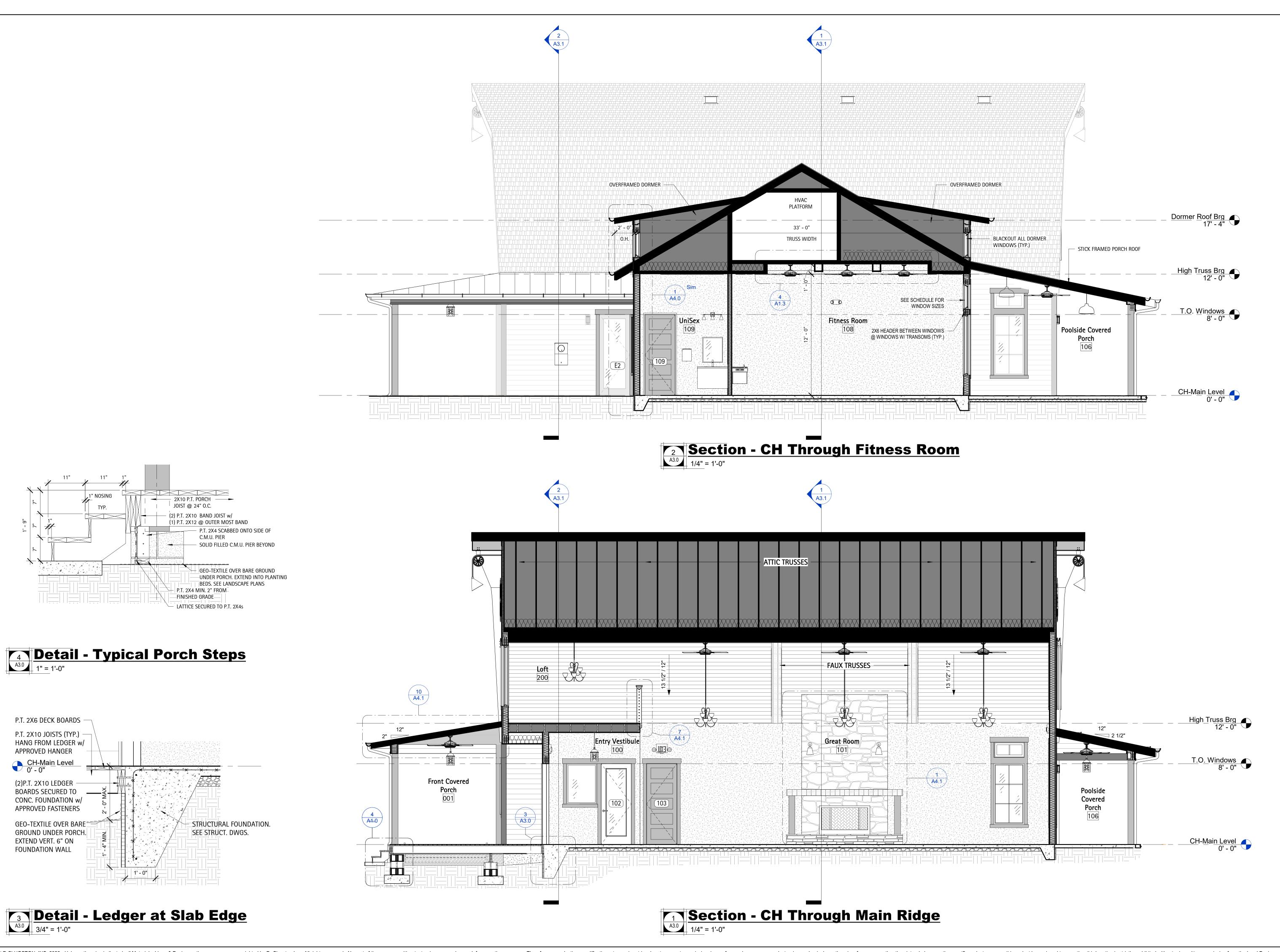
SHEET DISCRIPTION CLUBHOUSE **ELEVATIONS**

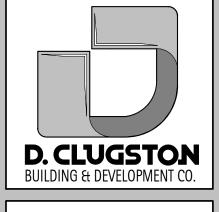
PROJECT #: 2018.037 12/14/2021 DATE ISSUED: DRAWING BY: CHECKED BY:

Y AMENITY COMMUNITIES P00 CLUBHOUSE SERENITY ENFIELD

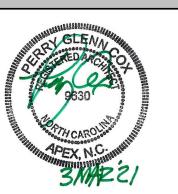
RE

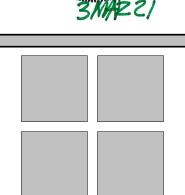
Fuquay-Varina,











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SHEET DISCRIPTION BUILDING SECTIONS

PROJECT #: 12/14/2021 DATE ISSUED: DRAWING BY: CHECKED BY:

& POOL CLUBHOUSE SERENITY A

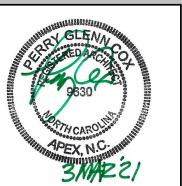
A3.0

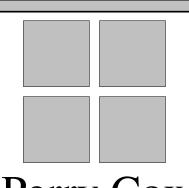
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BUILDING & DEVELOPMENT CO.







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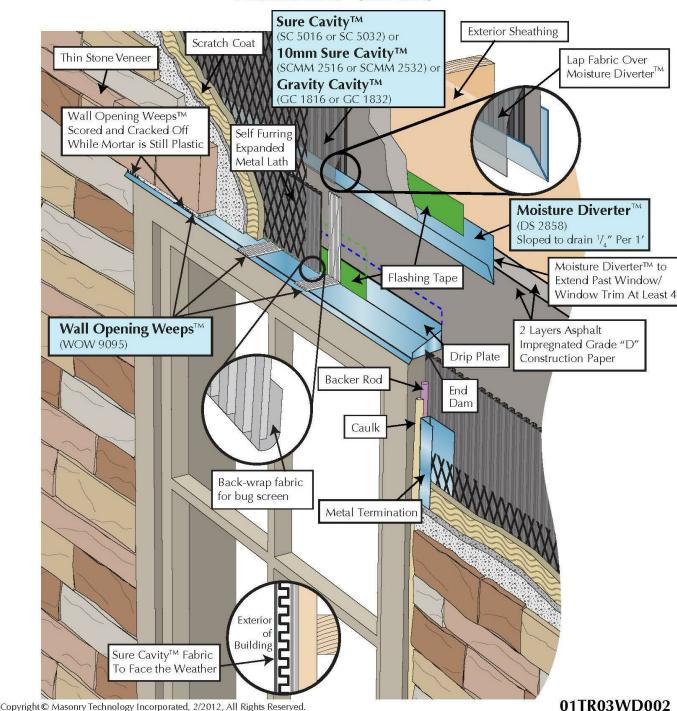
SHEET DISCRIPTION BUILDING SECTIONS

PROJECT #: DATE ISSUED: DRAWING BY: CHECKED BY:

SERENITY AMENITY
GREENFIELD COMMUNITIES R POOL CLUBHOUSE

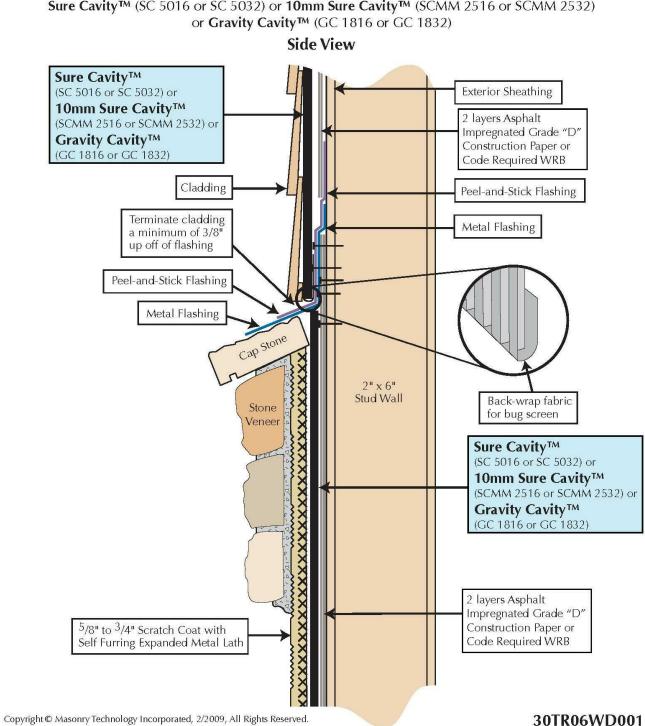
Thin Stone Veneer Weep Systems and Drainage Plane with Moisture Diverter[™] at Top of Window

Sure Cavity[™] (SC 5016 or SC 5032) or 10mm Sure Cavity[™] (SCMM 2516 or SCMM 2532) or Gravity Cavity[™] (GC 1816 or GC 1832) and Wall Opening Weeps[™] (WOW 9095) and Moisture Diverter[™] (WSD 2858)



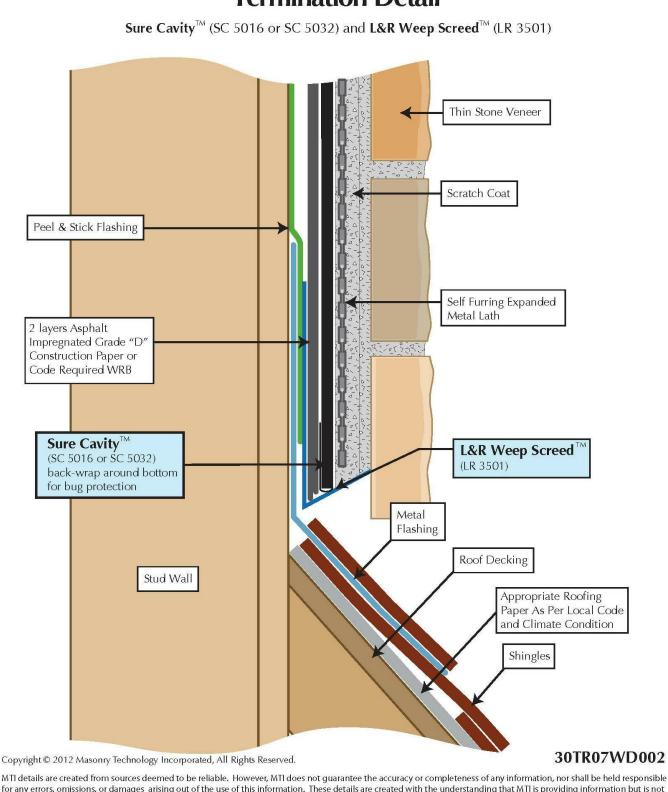
MTI details are created from sources deemed to be reliable. However, MTI does not guarantee the accuracy or completeness of any information, nor shall be held responsible for any errors, omissions, or damages arising out of the use of this information. These details are created with the understanding that MTI is providing information but is not attempting to render engineering or other professional service. If such services are required, the assistance of an appropriate profession should be sought. Use MTI materials in strict conformance with local building codes and regulations. Consult local code/code officials prior to installation. It is the buyer's responsibility to ensure that MTI

Cladding Systems to Thin Stone Veneer Installation



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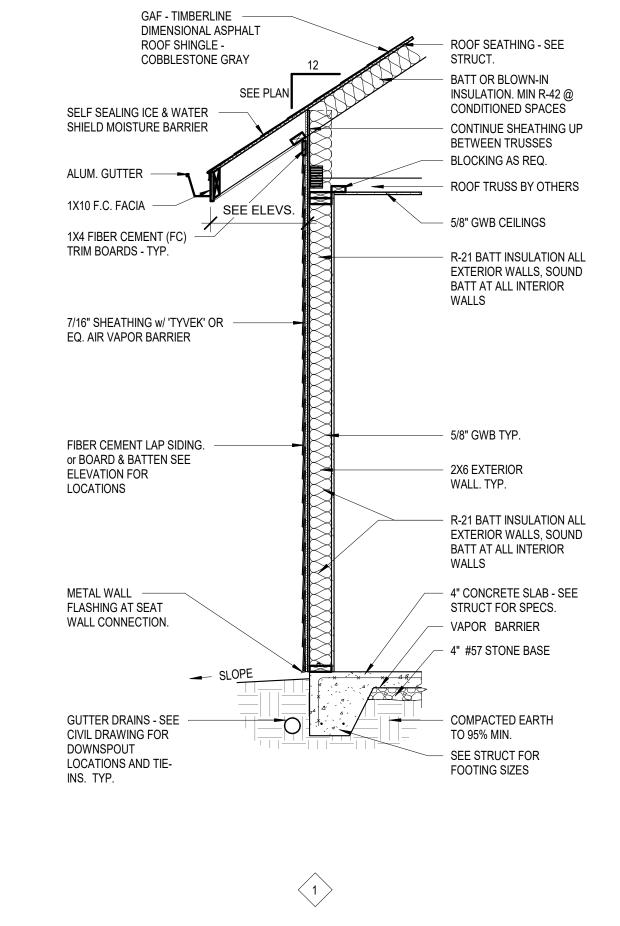
Thin Stone Veneer Side Wall to Roof **Termination Detail**

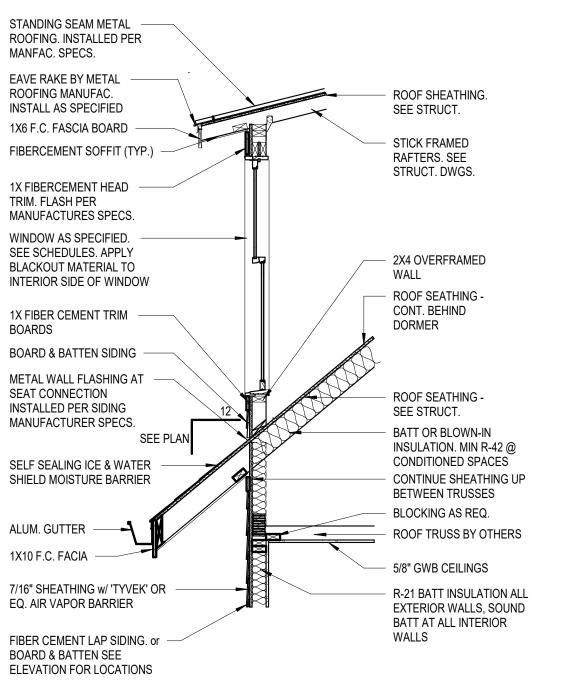


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GAF - TIMBERLINE DIMENSIONAL ASPHALT ROOF SHINGLE -**ROOF SEATHING -**COBBLESTONE GRAY BATT OR BLOWN-IN INSULATION. MIN R-42 @ CONDITIONED SPACES SELF SEALING ICE & WATER CONTINUE SHEATHING UP SHIELD MOISTURE BARRIER BETWEEN TRUSSES BLOCKING AS REQ. ROOF TRUSS BY OTHERS SEE ELEVS 1X10 F.C. FACIA -5/8" GWB CEILINGS 7/16" SHEATHING w/ 'TYVEK' OR EQ. AIR VAPOR BARRIER EXTERIOR WALLS, SOUND BATT AT ALL INTERIOR FIBER CEMENT LAP SIDING. or **BOARD & BATTEN SEE ELEVATION FOR LOCATIONS** 1" FIBER CEMENT TRIM BOARDS - TYP. SEE SIDING DETAILS WINDOW SEE SCHEDULE & WINDOW TREATMENT SEE WINDOW SILL DETAILS FOR SEAT FLASHING 1" FIBER CEMENT TRIM BOARDS - TYP. SEE SIDING DETAILS 2X6 EXTERIOR METAL WALL 4" CONCRETE SLAB - SEE FLASHING AT BASE STRUCT FOR SPECS. OF STONE VENEER VAPOR BARRIER 4" #57 STONE BASE COMPACTED EARTH TO 95% MIN. SEE STRUCT FOR **GUTTER DRAINS - SEE** CIVIL DRAWING FOR DOWNSPOUT LOCATIONS AND TIE-INS. TYP.

 $\langle 1 \rangle$



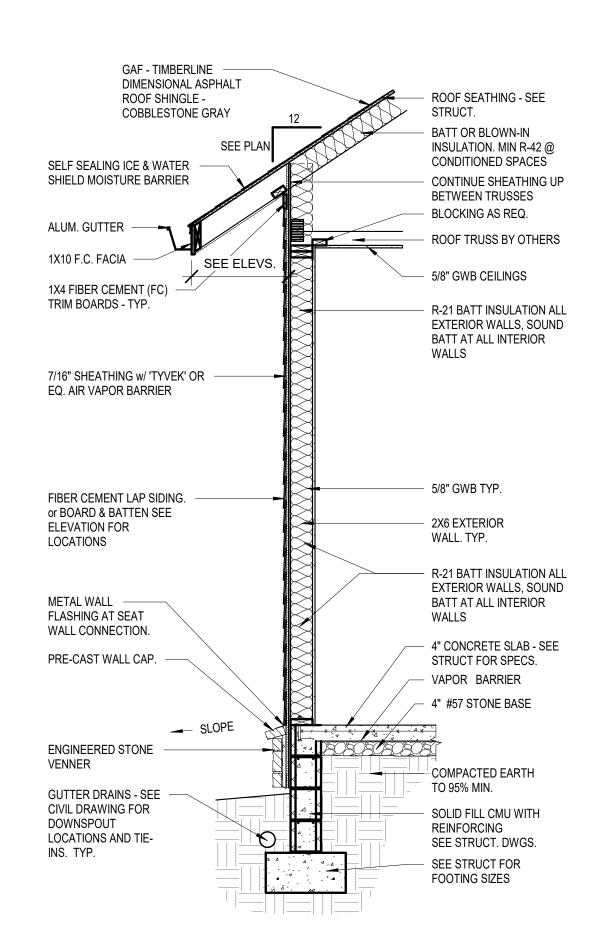


WALL SECTION NOTES

Bituminous Damp Proofing shall be applied to exterior foundations of all habitable spaces All treated lumber shall bear the designation AWPA C22. Pressure treated lumber shall be used in the following locations: a. Wood in contact with concrete or masonry;

b.Siding within 6" of the ground;

c. Wood exposed to weather. Install 5/8" Densglass sheathing behind all tub and shower walls, use water-resistant GWB for all bathroom ceilings UNO.

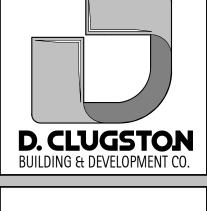


Detail - Stone Veneer on Sheathing

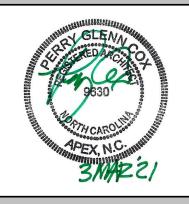
12" = 1'-0"

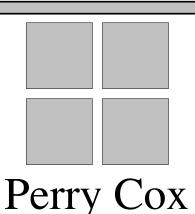
Section - Typ. Exterior Walls

1/2" = 1'-0"







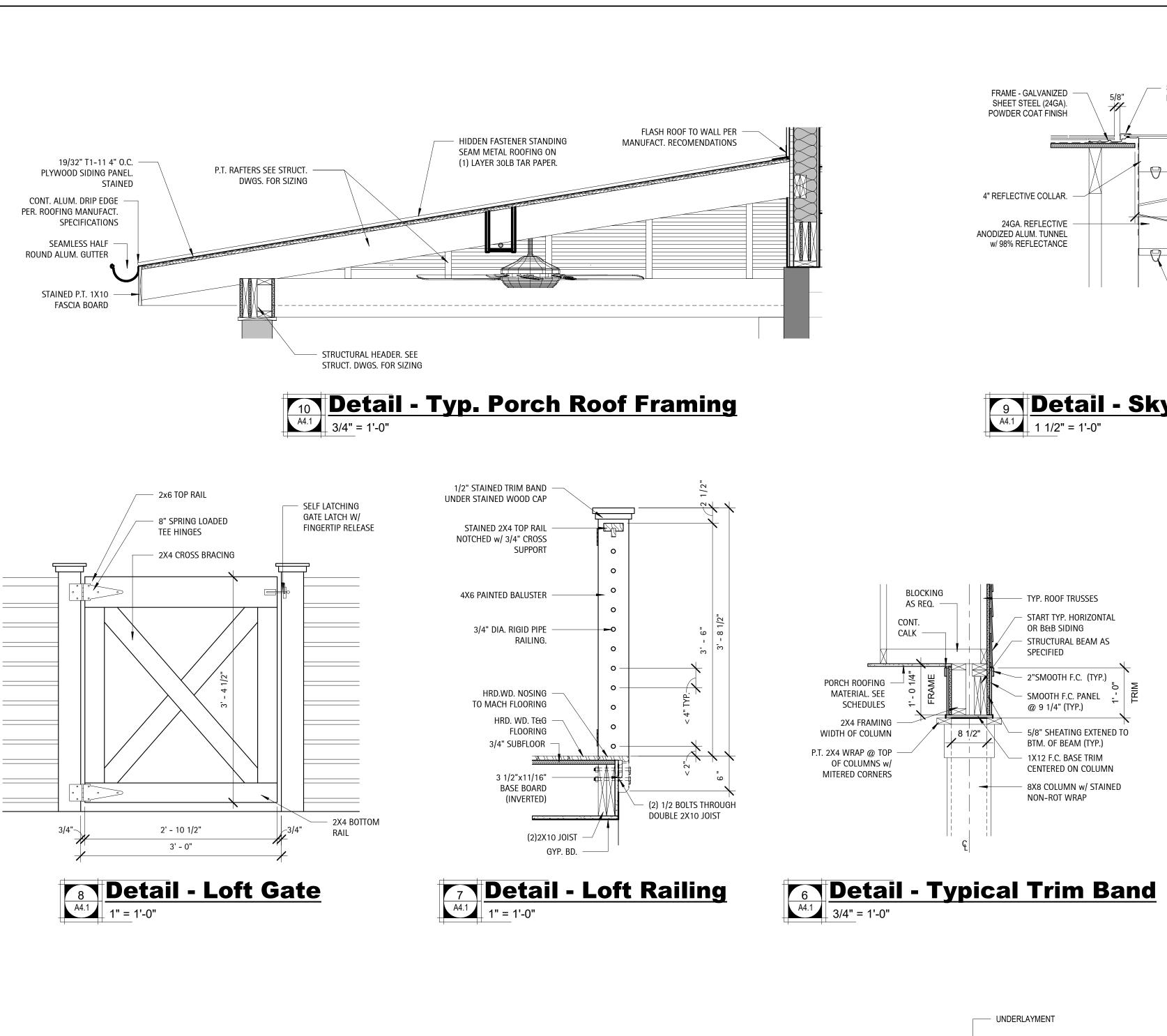


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SHEET DISCRIPTION WALL **SECTIONS & DETAILS**

PROJECT #: 2018.037 DATE ISSUED: 12/14/2021 DRAWING BY: CHECKED BY:

> P00 -Varina, ENFIELD Fuquay.



2' - 6"

CONDUIT EXTENDS

TO EXTERIOR WALL

FOR POWER CONNECTION

SIDE

(3) STAINED P.T. 6X12

STEEL BRACKET

BEND CONDUIT

AROUND PULLY

1' DIA. SPOKED METAL

PULLY w/ 1"GROOVE

1" CONDUIT

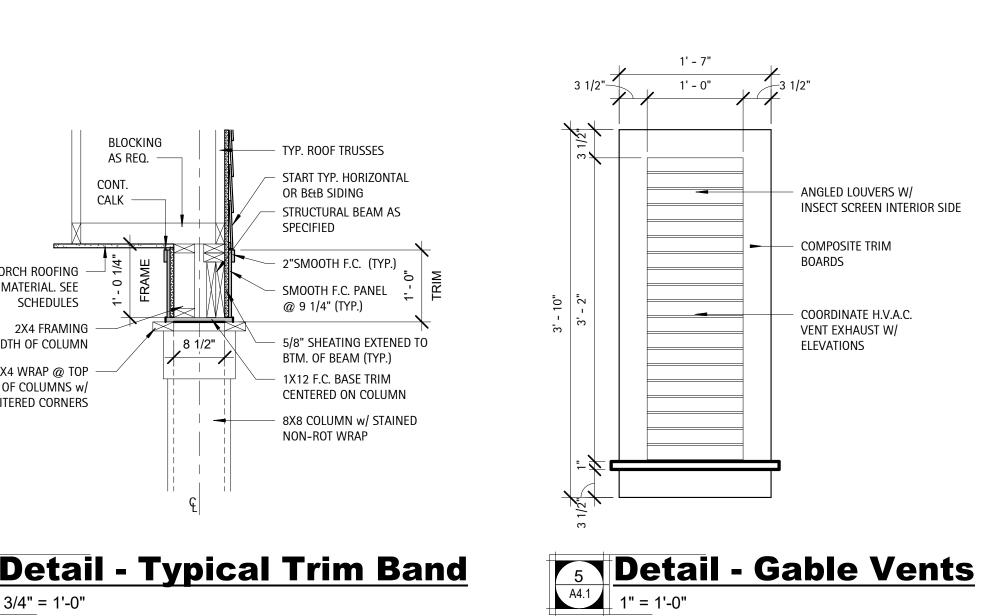
SHADE w/ LIGHTING

COMPONENTS

Detail - Decorative Gable Light

| 1" = 1'-0"

FRONT



14 1/2" R.O.

9 Detail - Skylight Roof Flashing
1 1/2" = 1'-0"

4MM TEMPERED CLEAR

GLASS LENS

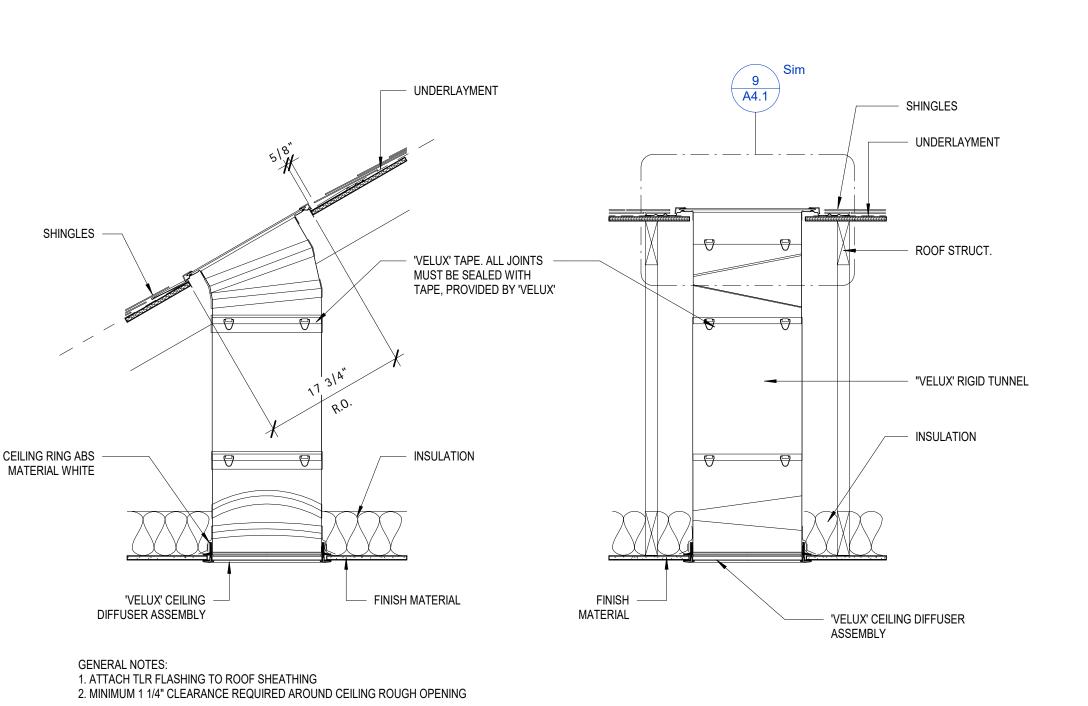
FRAME - GALVANIZED SHEET STEEL (24GA).

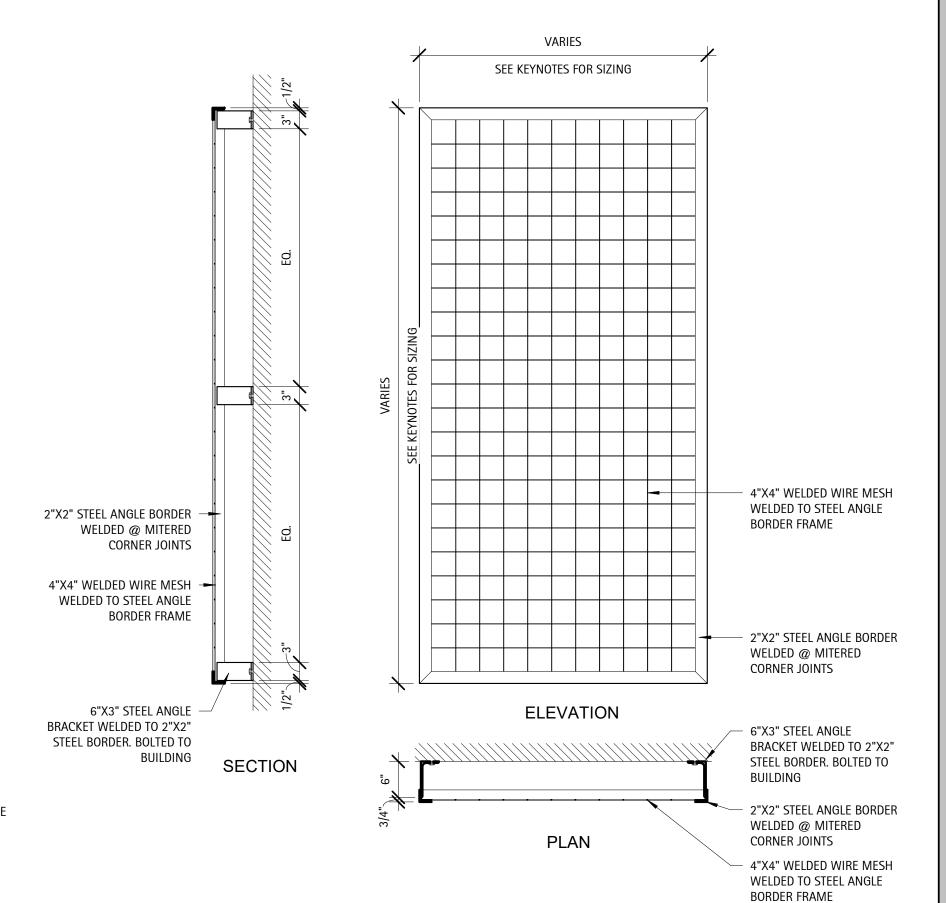
POWDER COAT FINISH

4" REFLECTIVE COLLAR.

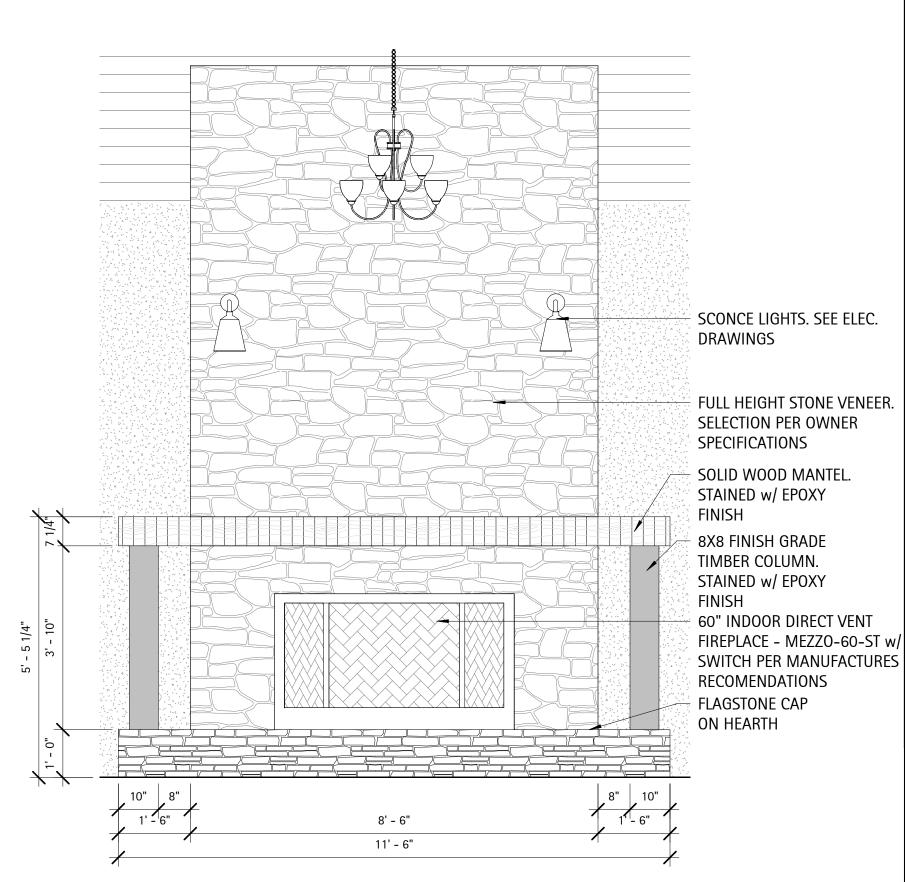
24GA. REFLECTIVE ANODIZED ALUM. TUNNEL

w/ 98% REFLECTANCE

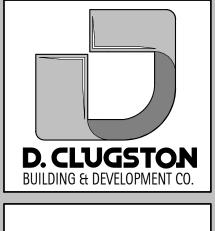




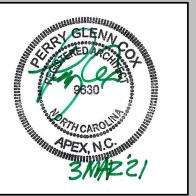


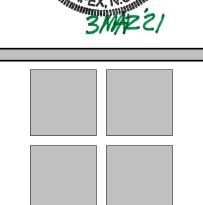


Elevation - Great Room Fireplace









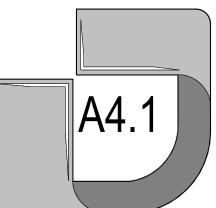
architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

SHEET DISCRIPTION BUILDING **DETAILS**

PROJECT #: 2018.037 DATE ISSUED: 12/14/2021 DRAWING BY: CHECKED BY:

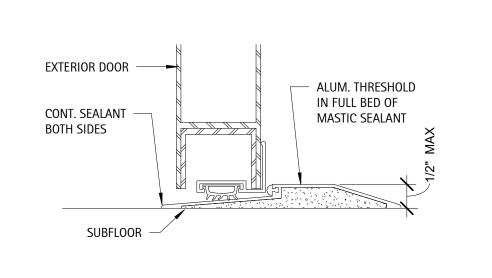
> COMMUNITIES POOL

Fuquay-Varina, CLUBHOUSE SERENITY EENFIELD (RE

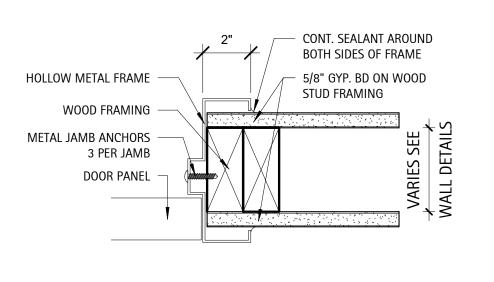


Detail - Skylight

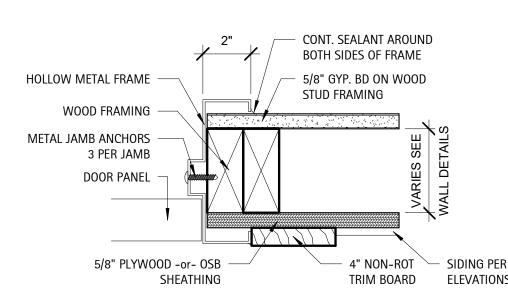
1" = 1'-0"



EXTERIOR DOORS THRESHOLD



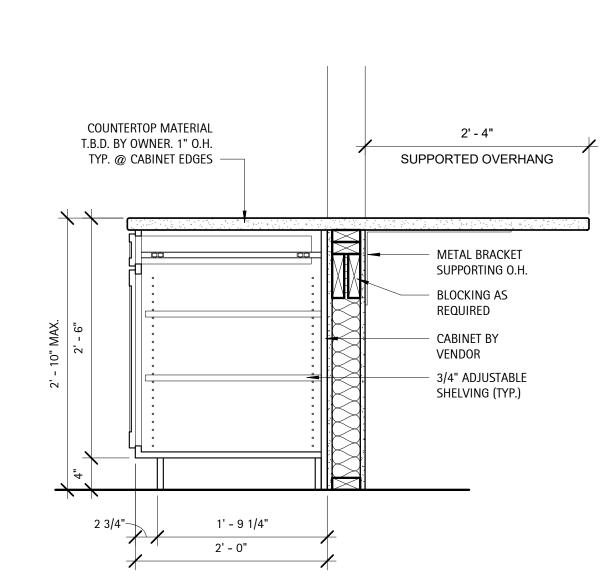
INTERIOR DOOR JAMB



EXTERIOR DOOR JAMB

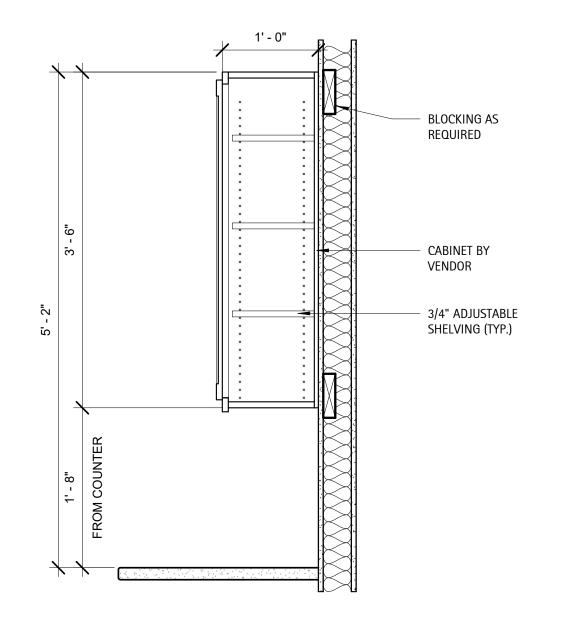


7 Detail - Typ. Door Jambs
3" = 1'-0"



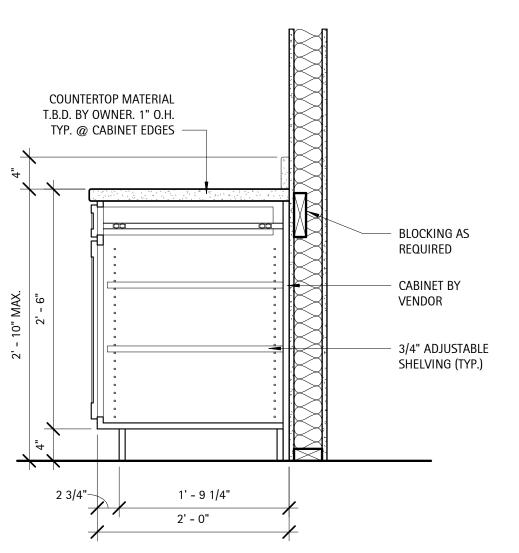
Detail - Cabinets @ Bar Overhang

| 1" = 1'-0"



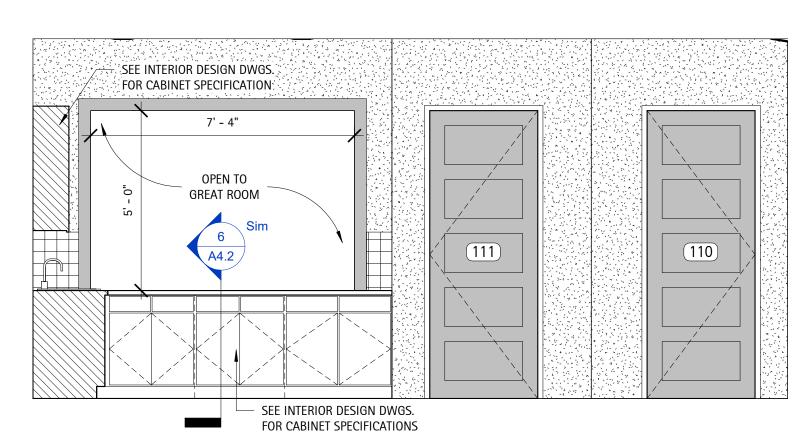
Detail - Typ. Upper Cabinets

| 1" = 1'-0" |



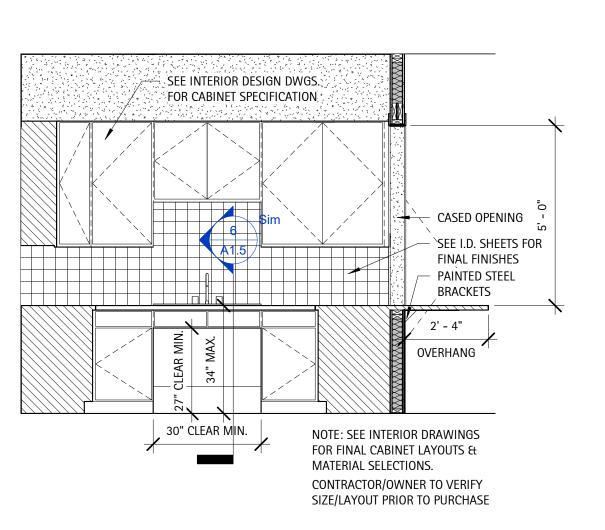
Detail - Typ. Base Cabinets

| 1" = 1'-0"



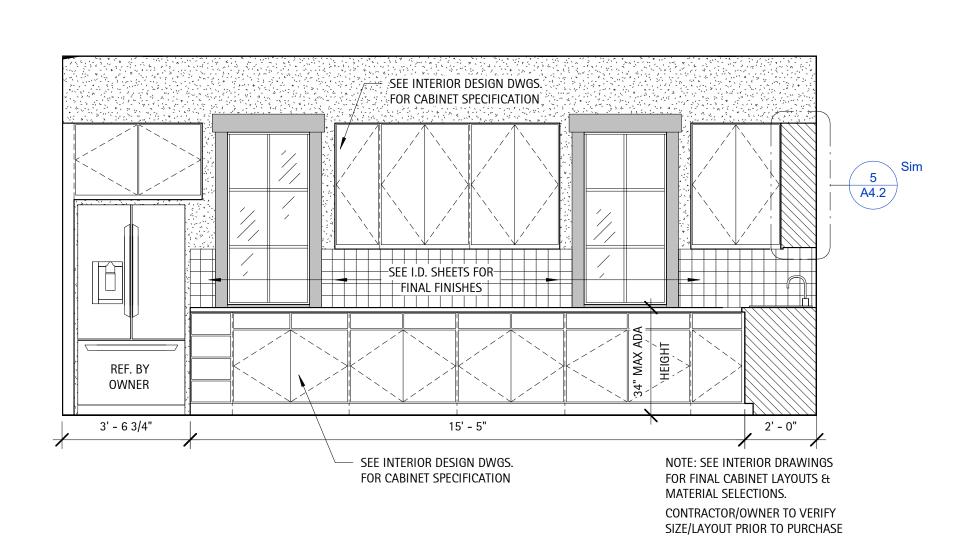
MATERIAL SELECTIONS. CONTRACTOR/OWNER TO VERIFY SIZE/LAYOUT PRIOR TO PURCHASE





Millwork - Catering Sink Side

3/8" = 1'-0"

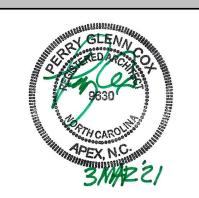


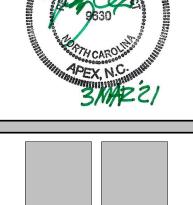
Millwork - Catering Ref. Side

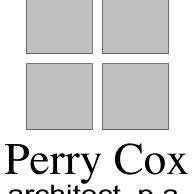
3/8" = 1'-0"









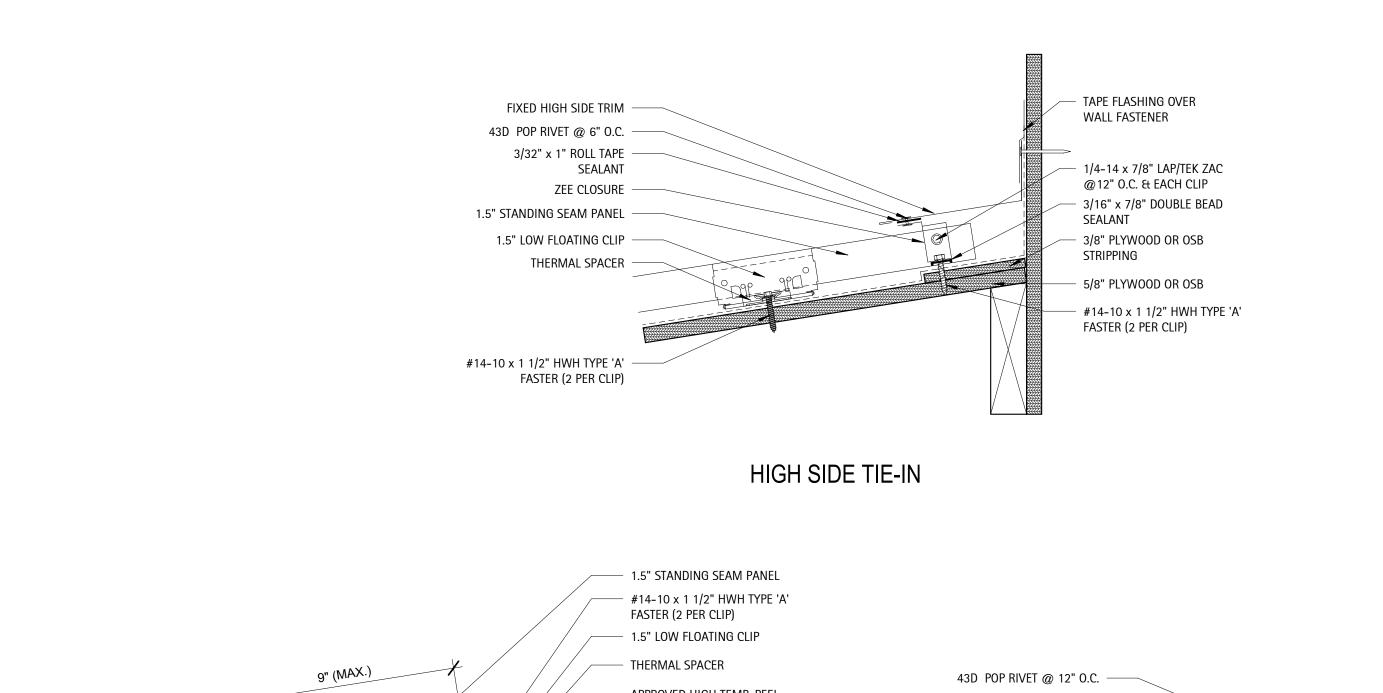


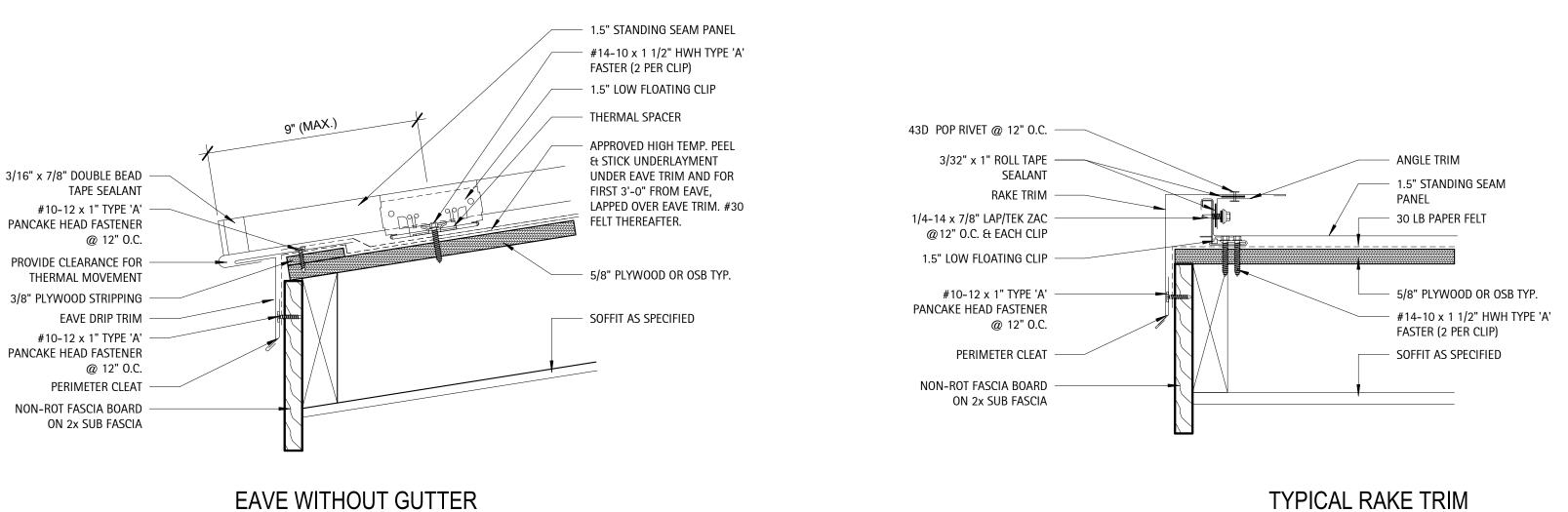
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SHEET DISCRIPTION BUILDING DETAILS & **MILLWORK**

PROJECT #: 2018.037 DATE ISSUED: 12/14/2021 DRAWING BY: CHECKED BY:

COMMUNITIES R POOL Fuquay-Varina, CLUBHOUSE SERENITY A





SHEATHING SHEATHING WOOD FRAMING WOOD FRAMING **EXTERIOR** SHEATHING SHEATHING FLASHING SEE FLASHING SEE INSTALATION MANUALS INSTALATION MANUALS METAL LATH & FIBER CEMENT PARGE LAYER TRIM BOARDS STONE VENEER BACKER ROD & WINDOW FRAME BACKER ROD & - WINDOW FRAME SEALANT SEE SCHEDULE SEALANT SEE SCHEDULE STONE VENEER STRUCTURAL HEADER STRUCTURAL HEADER FIBER CEMENT METAL LATH & SEE STRUCT. DWGS. SEE STRUCT. DWGS. TRIM BOARDS PARGE LAYER INTERIOR INTERIOR SHEATHING **EXTERIOR** SHEATHING SHEATHING SHEATHING FLASHING SEE FLASHING SEE TRIM PER TRIM PER INSTALATION MANUALS INSTALATION MANUALS FINISH SCHED. FINISH SCHED. BACKER ROD & BACKER ROD & SEALANT SEALANT WINDOW FRAME WINDOW FRAME SEE SCHEDULE SEE SCHEDULE WINDOW FRAME SEE SCHEDULE BACKER ROD & WINDOW FRAME SEALANT SEE SCHEDULE TRIM PER FLASHING SEE BACKER ROD & FINISH SCHED. INSTALATION MANUALS SEALANT TRIM PER WOOD FRAMING FLASHING SEE FINISH SCHED. METAL LATH INSTALATION MANUALS & PARGE LAYER INTERIOR STONE SILL W/ -SHEATHING FIBER CEMENT SLOPE AWAY FROM SHEATHING TRIM BOARDS BUILDING INSULATION WHERE INSULATION WHERE REQURIED STONE VENEER CONT. CAULK WINDOW TREATMENT WINDOW TREATMENT @ SIDING @ STONE

INTERIOR

TRIM PER

FINISH SCHED.

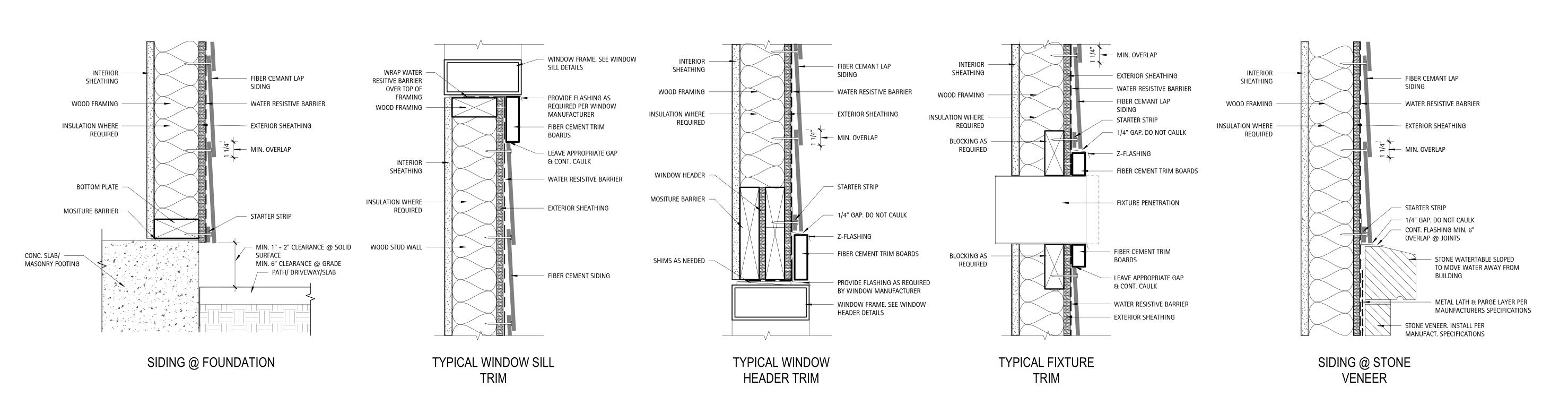
TRIM PER

INTERIOR

FINISH SCHED.





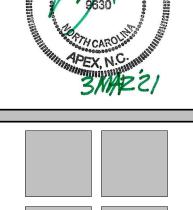


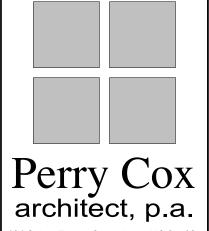












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SHEET DISCRIPTION **GENERAL BUILDING DETAILS**

PROJECT #: 2018.037 DATE ISSUED: 12/14/2021 DRAWING BY: CHECKED BY:

Y AMENITY COMMUNITIES POOL Fuquay-Varina, CLUBHOUSE REENFIELD

A5.0

DOORS, FRAMES, HARDWARE NOTES

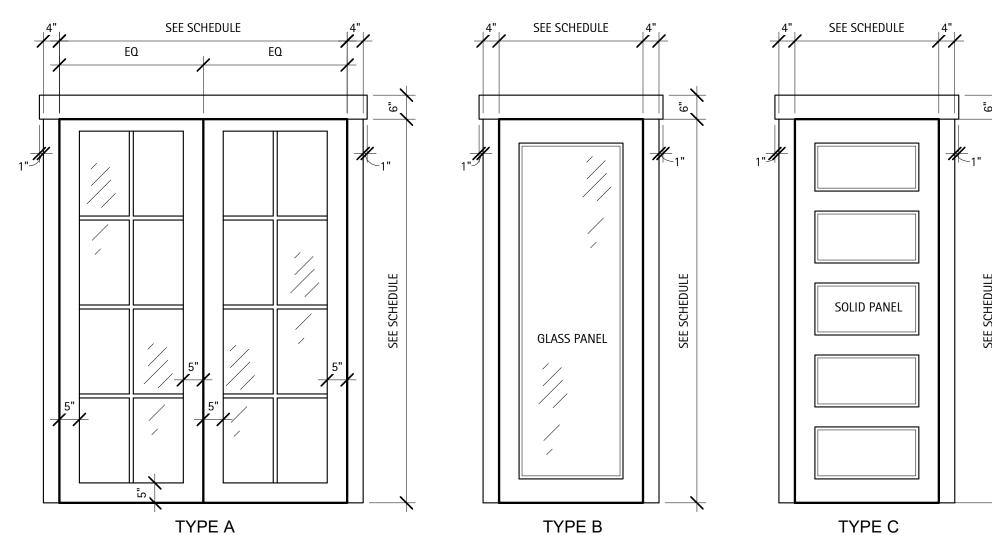
- Refer to Door and Hardware Schedule for extent, type and additional notes. Acceptable wood door manufacturers to be Weyerhaeuser, Eggers, Mohawk or Architect approved equal. General Contractor shall provide a hardware schedule and catalogue cuts for all finish hardware for approval by the Architect indicating location of hardware set, cross-referenced to indications on Drawings, manufacturer's name and product number, finish, and other similar information describing hardware to be provided. Items of hardware not definitely specified, but needed for satisfactory installation of hardware shall be provided. Such items shall be of type and quality suitable for service needed and comparable to adjacent hardware.
- All doors shall be set 6" off adjacent perpendicular wall, UON. Doors shall not be undercut, UON. All levers, pulls, and locks are to be provided per the schedule. All hinges and other miscellaneous exposed hardware shall be in similar and compatible finishes as indicated on Hardware Schedule.
- General Contractor shall coordinate keying system with Owner (Building Management), Landlord, and Architect. General Contractor shall coordinate security system with system vendor and scheduled hardware and the submittal of all security hardware specifications and cut sheets to the proper authorities for review and approval during building permit process
- 4 Provide hardware, door pulls, hinges, closers, electromagnetic devices, etc. needed to provide a full and complete installation. Provide silencers at metal frame doors. Provide floor mounted door stops unless existing conditions require wall mounted. Ensure adequate blocking for wall mounted stops. Submit to Architect for approval.
- Provide 4 1/2 x 4 1/2, full mortise, template, 5-knuckle, heavy duty, button tip hinges with non-rising loose pins and anti-friction, ball type bearing. Doors with locksets shall be furnished with non-removable pins hinges. Provide 1-1/2" pair hinges for doors up to 90" in height. Add 1 hinge for every additional 30" in height.
- Heavy duty cylindrical locksets and latchsets shall conform to ANSI A156.2, Series 4000, Grade 1. Functions as listed in schedule. Heavy duty mortise locksets and latchsets, levers shall conform to ANSI A156.13 Series, 1000, Grade 1. Overhead Closers shall be surface mounted or concealed overhead as noted in the hardware schedule and shall be heavy duty, fully hydraulic, rack and pinion action and sized to be in compliance with requirements for accessibility for handicapped and recommendations of manufacturer. Furnish complete with all necessary hardware. Furnish 2 keys per lock with a maximum of 8 keys per keyed alike set. Before final completion, adjust hardware so that doors operate in perfect order. Test and adjust hardware for quiet, smooth operation and adjust closers for proper operation. At final completion, properly tag and identify keys and deliver to Owner.

200

Loft

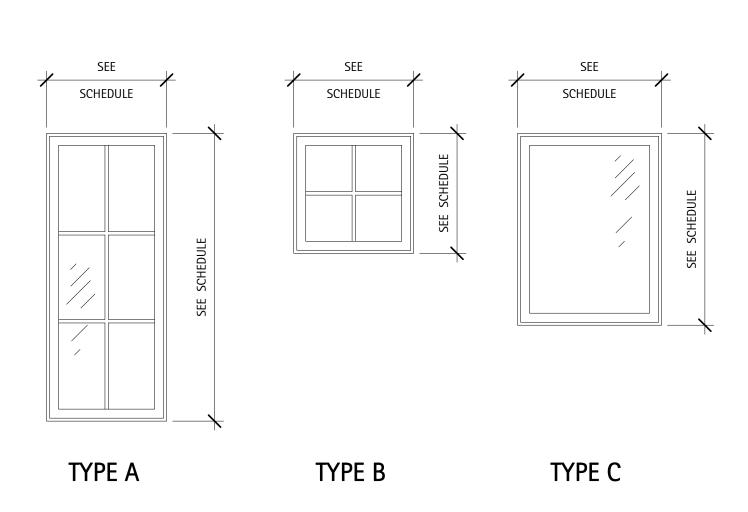
Grand total: 16

- All Hardware shall be medium grade commercial if not otherwise noted or specified. See allowance per door.
- All interior egress doors and a minimum of one exterior egress door shall be readible openalbe from the egress side without use of a key or special knowledge.
- 9 All Glazing within 24" of either side of a door in a closed position, and on the same wall plane shall be tempered. Tempered glass shall be installed by code in the following locations:
 - a. Door Glazing;b. Glazingfor bathroom fixture enclosures(showers, etc)
 - c. Glazing less than 60" above tub and shower drains;d. Glazing within24" of an adjacent door w/ sill less than 60 degrees;
 - e. Individual panels of Glazing greater than 9 sqft and sill less than 18" above floor and top edge greater than 36".
- 10 Provide an interior door signage allowance of \$25.00 per door.
- Fire Extinusisher cabinets shall be similar to JL Industries Mod. Clear VU 1525F26 with a clear bubble and A#10 S/S Finish. ADA approved and mounted. Place where shown on plans (FX)
- 12 Door closers shall be LCN series 4040 or equivalent



NOTE: EXTERIOR GLASS DOORS TO HAVE 'ADVANCED LOW-E" GLAZING

Detail - Door Frames 1/2" = 1'-0"



Detail - Window Types

| 1/2" = 1'-0"

CLUB HOUSE ROOM SCHEDULE Room Wall Finish Number Floor Finish Base Finish Ceiling Finish Ceiling Height Crown Comments Room Name Front Covered Porch STAINED T1-11 SLOPED PAINTED GWB PAINTED GWB 11'-0" Entry Vestibule Great Room PAINTED GWB TOUNGE & GROOVE 20'-0" 102 10'-0" Sales / Conference Room PAINTED GWB PAINTED GWB Courtyard Vestibule 10'-0" PAINTED GWB PAINTED GWB Mens Room M.R. PAINTED GWB M.R. PAINTED GWB 10'-0" M.R. PAINTED GWB M.R. PAINTED GWB 10'-0" Womens Room 106 Poolside Covered Porch SLOPED TOUNGE & GROOVE PAINTED GWB PAINTED GWB 10'-0" Fitness Vestibule 108 Fitness Room PAINTED GWB PAINTED GWB 12'-0" 109 UniSex M.R. PAINTED GWB M.R. PAINTED GWB 12'-0" 110 10'-0" Catering M.R. PAINTED GWB M.R. PAINTED GWB Closet PAINTED GWB PAINTED GWB 10'-0"

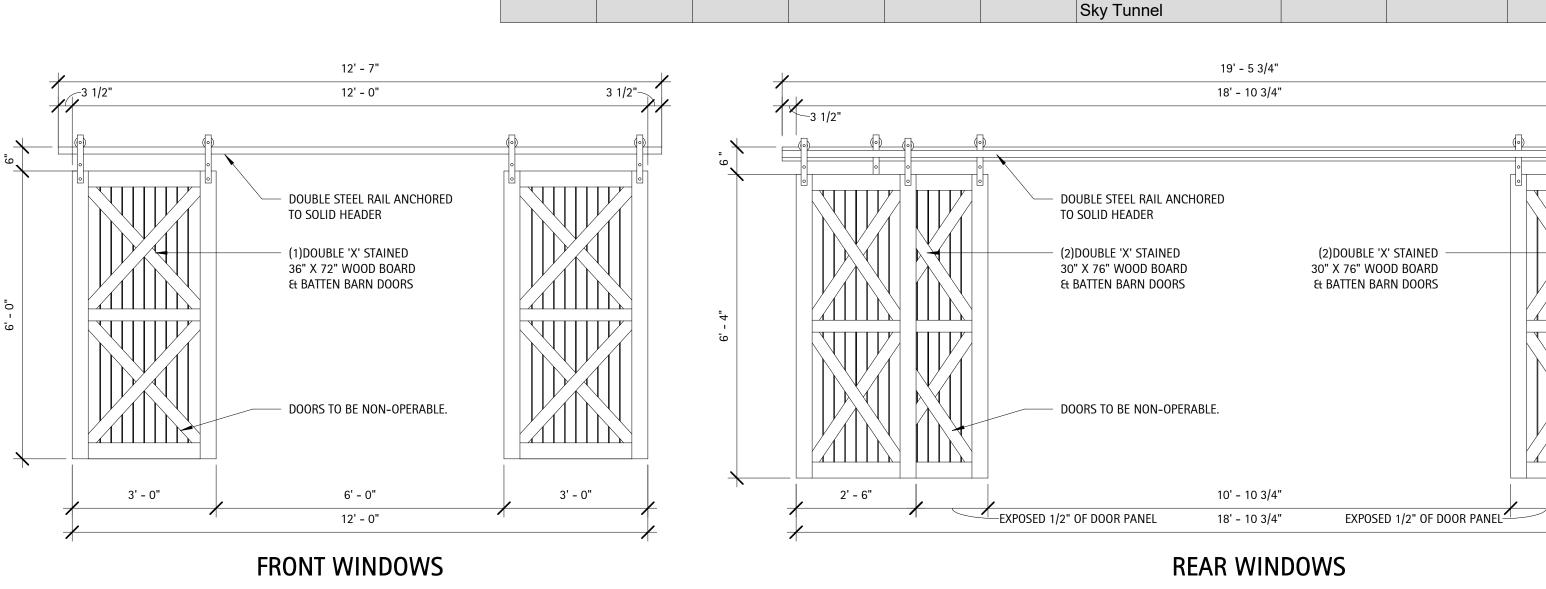
PAINTED GWB

										CLUE	BHOUSE	DOOR SC	HEDULE	<u> </u>									
			Doo	r			Do	or	Frame							На	ardware						
Door					Rough	Rough				Fire	Push /	Passage			Storage		Panic		Weather		FOB	Time	
Number	Style	Width	Height	Thickness	Width	Height	Material	Finish	Material	Rating	Pull	Set	Set	Set	Set	Deadbolt	Hardware	Closer	strip	Threshold	Access	Lock	Comments
400	T) (DE D	01 011	01 011	01 4 0 / 4 11	01 011	01 411	N4(0,0D,(0), A		.					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			N			
102	TYPE B	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	WOOD/GLA SS	PAINT	METAL	-	No	No	No	Yes	No	No	No	No	No	No	No	No	
103	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	-	Yes	No	No	No	No	No	No	No	No	No	No	Yes	
104	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	-	Yes	No	No	No	No	Yes	No	Yes	No	No	No	No	
105	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	-	Yes	No	No	No	No	Yes	No	Yes	No	No	No	No	
107	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	-	Yes	No	No	No	No	No	No	No	No	No	No	Yes	
108	TYPE B	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	_	No	Yes	No	No	No	No	No	No	No	No	Yes	Yes	
109	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	-	No	No	Yes	No	No	No	No	Yes	No	No	No	No	
110	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	_	No	No	No	Yes	No	No	No	No	No	No	No	No	
111	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	S.C. WOOD	PAINT	METAL	-	No	No	No	No	Yes	No	No	No	No	No	No	No	
E1	TYPE A	6' - 0"	8' - 0"	0' - 2"	6' - 2"	8' - 1"	MTL/GLASS	PAINT	METAL	_	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	
E2	TYPE B	3' - 0"	8' - 0"	0' - 2"	3' - 2"	8' - 1"	MTL/GLASS	PAINT	METAL	-	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
E3	TYPE A	6' - 0"	8' - 0"	0' - 2"	6' - 2"	8' - 1"	MTL/GLASS	PAINT	METAL	-	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	
E4	TYPE A	6' - 0"	8' - 0"	0' - 2"	6' - 2"	8' - 1"	MTL/GLASS	PAINT	METAL	-	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	
E5	TYPE C	3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	INSUL. MTL.	PAINT	METAL	-	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	
E6		3' - 0"	8' - 0"	0' - 1 3/4"	3' - 2"	8' - 1"	INSUL. MTL.	PAINT	METAL	-													
E7	TYPE B	3' - 0"	8' - 0"	0' - 2"	3' - 2"	8' - 1"	MTL/GLASS	PAINT	METAL	-	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	

STAINED T1-11

					CLUBHOU	SE WINDOW SCHEDULE			
Mark		;	Size	Rough	Rough				
IVIAIR	Count	Width	Height	Width	Height	Туре	Finish	Head Height	Comments
A1	4	2' - 6"	5' - 0"	2' - 6 1/2"	5' - 0 1/2"	TYPE A			
A2	18	2' - 6"	6' - 0"	2' - 6 1/2"	6' - 0 1/2"	TYPE A			
A3	4	3' - 0"	6' - 0"	3' - 0 1/2"	6' - 0 1/2"	TYPE A			
B1	20	2' - 6"	2' - 6"	2' - 6 1/2"	2' - 6 1/2"	TYPE B			
B2	4	2' - 6"	1' - 6"	2' - 6 1/2"	1' - 6 1/2"	TYPE B			
B3	2	3' - 0"	1' - 6"	3' - 0 1/2"	1' - 6 1/2"	TYPE B			
B4	2	6' - 0"	1' - 6"	6' - 0 1/2"	1' - 6 1/2"	TYPE B			
l1	2	3' - 0"	4' - 0"	3' - 0 1/2"	4' - 0 1/2"	TYPE C			INTERIOR WINDOW

8'-0"

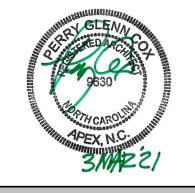


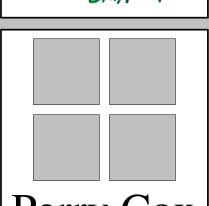
Detail - Track Shutters

1/2" = 1'-0"









Perry Cox architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

DATE

REVISION

SHEET DISCRIPTION
SCHEDULES
& DETAILS

PROJECT #: 2018.037

DATE ISSUED: 12/14/2021

DRAWING BY: JGM/BSJ

CHECKED BY: PGC/DSC

REENFIELD COMMUNITIES
CLUBHOUSE & POOL
Fuquay-Varina, NC

GREENFIE

A6.0

2' - 6"

APPENDIX B BUILDING CODE SUMMARY

												BUILDING D	ATA		
PROJECT SU	JMMARY		Community Post								THIS SECTI	ION REQUIRED F			
Building Des	cription:	A-3 UNHE	ated - Private R	ECREATIONAL FAC	ILITY WITH POC	L FOR RESIDEN	NCE ONLY		Construction T			□ II-B □ II		□ IV-HT □ V-	A XV-B
Scope of Wo	rk:	New Buildi pool plans	ing full scope of ar	chitectural, struct	ural, plumbing,	mechanical,ele	ectrical, and		Mixed Sprinklers:	l construction: ☐ ☐ Yes X No ☐	☐ Yes 🗶 No ☐ NFPA 13	NFPA 13R	Types	orinklered S	special Supr
Lead Des DESIGNER	sign Profe	ssional/Proje	ect Coordinator: _	Brian Jacobs	919-4 NAME	112-4711 LICENSE #	TELEPHONE	= #	Standpipes:	Yes X No		Class: 🔲 I			
Architectural: Civil:		Perry Cox A	Architect, PA	Perry	Cox, AIA	9630	919-393-54	<u>111</u>	Fire District: Building Height	t: 30.83 Feet	(Appendi _1_ Sto	x D)	azard		
Electrical:		Killian En	sssociates gineering		G. Baker b Hamilton	1994 048012	919-484-88 252-438-87		Basement: Mezzanine:	Yes No	Life Cefe	to Dian Chart	/if	C0.2	
Fire Alarm: Plumbing:		Killian En			b Hamilton	048012	<u>252-438-87</u>		High Rise: Gross Buildir	Yes X No ng Area:	Life Safe	ty Plan Sheet #	(if provided): _	<u>G0.3</u>	
Mechanical: Sprinkler-Star	ndpipe	Killian En	gineering	Jaco	b Hamilton	048012	252-438-87	<u>//8</u>	FLOOR	EXIST	ING (SQFT)	NEW	(SQFT)	SUB-T	OTAL
Structural: Precast:		Ross Linde	n Engineers	Briar	Ross, PE	25539	919-832-56	<u> </u>	FIRST FLO	OR			147	1,1	147
Trusses:		Truss E	Builders	Eric A	Gilbert, PE	036322	919-467-99	988							
Retaining Wal	Poo		. Hine	Alan F	R. Hine, PE		336-769-49	— 900							
Note: Spe	cial Inspec	ctions and In	spectors to be liste	ed at end of Apper	dix B					Tenant/Alteratio	n/Renovation:	:			
Building Code:	M 2242	N	01 1 5 11 11	2 ((NOODO)		0 1: 01.1	D 31 0 1		Area of Constr	uction:					
Dananig Code.	2009	NC Rehab	na State Building (Rehab 🔲 20	06 North Carol	ina Building Co	e Building Code ode	9	TUO OFOTION	U DEOLUDED FO		ROTECTION	N REQUIR	<u>EMENTS</u>	
New Building:	_	Chapter 34	☐ 2006 Cha		95 Existing Bui First Time Inter	•	,			N REQUIRED FO					
New Dulldling.	Additi		Alteration		riist Tiille iillei	ioi Completioi	ı		Life Safety Plai	n Sheet #, if Prov	vided G0.	<u>3</u>			
Existing Buildir	- =	novation		or Completion	Tenant Al				BUILDING F	IRE SEPARATION		TING PROVIDED	DETAIL # &	DESIGN # FOR RATED	SHEET # RATE
		construction ange of Use		air nge of Occupancy	Alteration	to Shell			ELEMENT C	DISTANCE (FEET)	REQ'D*	(W/* REDUCTION)	SHEET #	ASSEMBLY	PENETRA
Original Occup		oning Revie	w May Be Require	ed for Change of l	Jse or Occupa	псу			Bearing Wa North	lls Exterior	0	0			
Proposed Occi		A-3 Asse	embly						East		0	0			
		000	CUPANCY IN	FORMATIO	<u> </u>				South		0	0			
Primary Occu	upancies	:			_				Interior Berin Nonbearing	g walls Walls Exterior	. 0	0			
•			A-3 A-4						North East		0	0			
			H-3 ☐ H-4 ☐ H	H-5	Rusine	ess: 🗶			West		0	0			
Institutional:	_	ondition ondition			Educatio	•			South Interior Berin	*	0	0			
			1 🗌 2 🔲 3 🖺	4 🗌 5		ory:	☐ F-2			rame, including irders, trusses					
	I-4									ction, including ams and joists.	0	0			
Mercantile:									List constructi	ion type.	0	0			
Residential: Storage:	☐ R-1	_	☐ R-3 ☐ R-4 ☐ S-2 Low ☐	High-niled					Columns Sup	porting Floors	0	0			
Gtorago.			Open Enc	• .	Garage					ction, including ams and joists**	0	0			
Utility and M	liscellaned	ous 📗							Roof Ceiling A Columns Sup		0	0			
Special Occu			403 🗌 404 🔲 4						Shafts- Exit E Shafts- Other	nclosures	N/A N/A	N/A N/A			
			413 🗌 414 🔲 4	415 🗌 416 🗌	417 🗌 418 🗌	419 420	0		Corridor Sepa	aration	N/A	N/A			
Mixed Occup	-	X No □	•		xception:				Occupancy S Party/ Fire Wa	all Separation	N/A N/A	N/A N/A			
Non-	Separated	Mixed Occi	upancy (508.3)- Th de	ne required type of etermined by apply					Incidental Use Dwelling/ slee		N/A N/A	N/A N/A			
			ea	ich of the application in the second in the	le occupancies	to the entire b	ouilding.		Separation Smoke Barrie		N/A	N/A			
				all apply to the er		iction, 30 ucter	iiiiicu,		Tenant Separ		IN//A	IV/A			
Sepa	arated Mix	ed Occupan		e below for area c						ction number per fusing Table 601					
				e occupancy shall e actual floor area						DED	CENTACI		ODENIN		TIONS
			flo	or area for each u	se shall not exc	eed 1.			Г	RE SEPARATION				BLE AREA ACTUA	
		of Occupan		Actual Area of Allowable Area o						EET) FROM PROP		TECTION (TABLE	705.8 (%)	(%)
Allow	abie Alea	of Occupa	ncy A 7		, ,					>30'		UP,NS	NO LI	MIT	NO LIMIT
			+ _			+ =	_ <u><</u> 1					WALL LEG	<u>GENDS</u>		
	<u>A</u>	LLOWAE	BLE AREA A	ND HEIGHT	CALCULA	TIONS				ION REQUIRED					
	N FOR NE	W, ADDITIC	ON, CHANGE OF Open Le	USE, AND INTER	RIOR COMPLE	TIONS				HE FOLLOWING			ATE BY A V Barriers 706		
Exterior Wall North	Actua	al Length	Open Le	ength PEOU	IREU	Way or Open	Space 30'			itions 708 \Box	Fire Walls 70	,	Barriers 706		e Partitions
South East		111	CREAS	E KLUS						barriers 709 🗀	Shall Eliciosi	ile /0/			
West	/\	10 11		F				_		<u>LI</u>	FE SAFE	TY SYSTEM	IS REQUII	REMENTS	
Total INCREASE FROI		•	,	F			W	V	THIS SECTIO	N IS REQUIREI	D FOR ALL PF	ROJECTS			
SPRINKLERS		%	Wable area fori	MIII A					Emergency Li Exit Signs:	ighting:	Yes No Yes No Yes No Yes No Yes No				
$I_F = 100(\frac{F}{P} - 0.$		WIGENTEES	VV/IDEE / INE/ () ON	VIOLIT					Fire Alarm:	tion Systems:	Yes No)			
		ENANT MU	ST BE INDICATE	D ON CHART BE	LOW				Panic Hardwa	are:	Yes No)			
Story No.	DISCRIP.	BLDG AREA	TABLE 506.2 ARE ALLOWABLE INC				MAXIMUM SEPAF BUILDING RAT	RATION TING		1.1	EE QAEET	ΓΥ PLAN R	EOHIDEM	ENTQ	
Main Level	& USE B		AREA (SF) FRO			ALLOWABLE	AREA REQU	UIRED V/A		<u>L1</u>	FE SAFE	II FLAN N	EQUINEIVI	<u>LIVI 3</u>	
Maill Level	Б	1147	9000 1	I/A IN/A	IN/A	0.13	OUU SF IN	N/A	Life Safety Pla	n Sheet #	G0.3		_		
										and/or smoke rate med and real pro			he site nlan)		
									Exte	rior wall opening	area with resp	ect to distance	to assumed pro		
_			on 506.3 are comp onts a public way o		ng 20 feet mini	mum width	(F	=)	Occu	pancy Use for ea pant loads for ea	ich area	elates to occupa	nt ioad calcula	tion (Table 1004.)	1.2)
a. b.	Total B	Building Perin	neter =		ng zo icet illifil	um wiutii = _	(Г	,		access travel dist mon path of trav		ables 1006.2.1 &	1006.3.2(1))		
c. d.	W = M	linimum widt	th of public way =			()			S Dead	l end lenghts (102 r exit widths for e	20.4)		,		
	ea applica	ble under co	increase $I^{'} = 100$	507.					A Maxi	imum calculated al occupant load	occupant load	capacity each e	xit door can ac	commodate base	d on egress
3. Maximum Bu	uilding Are	a = total nui	mber of stories in t garages must con	the building x D (n		ies) (506.2)			A sep	oarate schematic	plan indicatin		ed floor/ceiling	and/or roof struc	ture is provi
			nsprinklered area						Loca	oses of occupanc tion of doors witl	h panic hardwa				
			ALLOV	VABLE HEI	HT.					tion of doors with	h delayed erge	ss locks and the	amount of dela	y (1010.1.9.7)	

ALLC	WABLE HEIGHT	• •
ARI E RIIII DING	INCREASE FOR	ACTUAL BUILDIN

	<u>/ 122 </u>		=	
MOST RESTRICTIVE (GROUP)	ALLOWABLE BUILDING HEIGHT (TABLE 504.3)	INCREASE FOR SPRINKLERS	ACTUAL BUILDING HEIGHT AS SHOWN ON PLANS	CODE REFERENCE
Type of Construction	TypeVB	TypeVB	TypeVB	403.3.1
Building Height in Feet	H = 40'-0" FT	N/A	H= 21'-8"	403.3.1
Building Height in Stories	S= <u>2</u>	N/A	S= <u>1</u>	403.3.1

	_	N REQUIRED FOR ALL PROJECT	-S
Construction Type:	☐ I-A ☐ I-B ☐ II-A	☐ II-B ☐ III-A ☐ III-B	□ IV-HT □ V-A 🗶 V-B
Mixed const Sprinklers: Yes	ruction: Yes No	Types ☑ NFPA 13R ☐ Partially Sp	orinklered Special Suppression
Fire District: Yes Building Height: 30.8 Basement: Yes Mezzanine: Yes	No (Appendix 1 Story No No Life Safety	D) 🗌 Floor Hazard	Wet □ Dry G0.3
FLOOR	EXISTING (SQFT)	NEW (SQFT)	SUB-TOTAL
FIRST FLOOR		1,147	1,147

		R	ATING	DETAIL #	DESIGN #	SHEET # FOR	SHEET #
BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D*	PROVIDED (W/* REDUCTION)	Et SHEET #	FOR RATED ASSEMBLY	RATED PENETRATION	FOR RATED
Bearing V	Valls Exterior						
North		0	0				
East		0	0				
West		0	0				
South		0	0				
Interior Be	ring walls	0	0				
Nonbearii	ng Walls Exterior						
North		0	0				
East		0	0				
West		0	0				
South		0	0				
Interior Be	ring walls	0	0				
	Frame, including , girders, trusses						
Floor const	ruction, including beams and joists.	0	0				
Floor Ceilin	g Assembly	0	0				
Columns S	upporting Floors	0	0				
Roof constr	ruction, including beams and joists**	0	0				
Roof Ceiling	g Assembly	0	0				
Columns S	upporting Roof	0	0				
Shafts- Exit	t Enclosures	N/A	N/A				
Shafts- Oth	er (describe)	N/A	N/A				
Corridor Se	paration	N/A	N/A				
Occupancy	Separation	N/A	N/A				
Party/ Fire \	Wall Separation	N/A	N/A				
Incidental L	Jse Separation	N/A	N/A				
Dwelling/ sl Separation	leeping unit	N/A	N/A				
Smoke Bar Tenant Sep	rier Separation paration	N/A	N/A				

<u> </u>			<u> </u>
FIRE SEPARATION DISTANCE	DEGREE OF OPENINGS	ALLOWABLE AREA	ACTUAL SHOWN ON PLANS
(FEET) FROM PROPERY LINES	PROTECTION (TABLE 705.8	(%)	(%)
>30'	UP,NS	NO LIMIT	NO LIMIT

THIS SECTION REQU	IRED FOR ALL PRO	JECTS	
CHECK IF THE FOLLO	WING ARE PRESENT	AND INDICATE BY A	WALL LEGEND ON ALL PLANS
☐ Fire Partitions 708	Fire Walls 705	NA Barriers 7	WALL LEGEND ON ALL PLANS 706 Smoke Partitions 710

CHECK IF THE FOLLON	VING ARE PRESENT AN	ATE BY A	WALL LEGEND ON ALL PLANS
☐ Fire Partitions 708	☐ Fire Walls 705	NA Barriers 70	WALL LEGEND ON ALL PLANS Smoke Partitions 710
☐ Smoke Barriers 709	☐ Shaft Enclosure 707	•	

Life Sa	fety Plan Sheet #
	Fire and/or smoke rated wall locations (Chapter 7)
	Assumed and real property line locations (if not on the site plan)
	Exterior wall opening area with respect to distance to assumed property lines (705.8)
	Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
	Occupant loads for each area
×	Exit access travel distance (1017)
X	Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
X	Dead end lenghts (1020.4)
×	Clear exit widths for each exit door
×	Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
	Actual occupant load for each exit door

Location of doors with electromagnetic egress locks (1010.1.9.9)

Location of doors equipped with hold-open devices Location of emergency escape windows (1030)

The square footage of each fire area (202) The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) Note any code exceptions or table notes that may have been utilized regarding the items above

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS

	THI	S SECTION IS REC	UIRED FOR ALL	PROJECTS		
FLOOR, ROOM	MINIMUM NUM	IBER OF EXITS	TRAVEL [DISTANCE	ARRANGEMEN ⁻	T MEANS OF EGRESS
AND/OR SPACE			ALLOWABLE	actual travel	REQUIRED	ACTUAL
	REQUIRED	SHOWN ON	TRAVEL	DISTANCE	DISTANCE	DISTANCE
DESIGNATION		PLANS	DISTANCE	SHOWN ON	BETWEEN EXIT	SHOWN ON
			(TABLE 1016.1)	PLANS	DOORS	PLANS
POST OFFICE	1	2	100'	45'-10"	N/A	N/A

	<u> </u>	Occu	Occupancy			Required Width		Actual Width Shown	
Room Name	Area	Load Factor	Load Count	Level	nt(1005.3) Stair	Level	Stair	Level	Stair
	•		•				•		
Post Office	568 SF	100 SF	6	0.2		1.2		144	
Chem Room	51 SF	300 SF	1	0.2		0.2			
Pump Room	193 SF	300 SF	1	0.2		0.2		36	
Furniture Storage	147 SF	300 SF	1	0.2		0.2		60	
Courtyard	1876 SF								
Grand total	2836 SF		9	0.8		1.8	•	240	0

1. See Table 1004.1.1 to determine whether net or gross area is applicable

1. Corridor dead ends (Section 1017.3)

2. Single exits (Section 1015.1; Section 1019.2)

3. Common Path of Egress Travel (Section 1014.3)

2. Minimum stairway width (Section 1009.1); min. corridor width (Section 1017.2); min. door width (Section 1008.1.1) 3. Minimum width of exit passageway (Section 1021.2)

4. The loss of 1 means of egress shall not reduce the available capacity to less than 50% of the total required (Section 1005.1) 5. Assembly occupancies (Section 1025)

PLUMBING FIXTURE REQUIREMENTS THIS SECTION IS REQUIRED FOR ALL PROJECTS

	WA	TERCLOS	SETS		L	AVATORII	ES	SHOWERS/	DRINKING FOUNTAINS			
OCCUPANCY	Male	Female	Unisex	URINALS	Male	Female	Unisex	TUBS	Regular	Accessible		
A-3 ¹	2	6	1	2	3	3	1	2	3	3		
Total Required	2	7	1	2	3	3	1	2	1	1		
Total Provided	2	6	1	2	3	3	1	2	3	3		
1 Calculations a 859 PERSONS / 2 = WATERCLOSETS:	430 M / 4	1 <u>30</u> F	·									
	430 FEMA		VC = <u>6</u> W	C + 1 FAMIL								

STRUCTURAL DESIGN LOADS

THIS SECTION IS REQUIRED FOR ALL PROJECTS

430 FEMALE / 200 = 3 LAV. = 3 LAV + 1 FAMILY

ESIGN LOADS: Importance Fac	ctors: S	now (I _s)	_				
	S	eismic (I _e)	_				
Live Loads:	R	oof	_		psf		
	N	1ezzanine	_		psf		
	F	loor	_		psf		
Ground Snow L	.oad:		_		psf		
Wind Load:	Ultimate V	Vind Speed	_		mph (A	SCE-7)	
	Exposure C	Category	_				
SEISMIC DESIGN CATEG	ORY: A	В	(2	D		
Provide the following Sei	smic Design F	arameters	:	_	, n	MGS.	1
Risk Category ((Table1604.5)		NTI	١Q ۵	(しし)	V 4 🔾 =	
Spectral Respo		rDII(- 1 L) (V		0/oa	

Basic Structural System: Dual w/ Special Moment Frame Inverted Pendulum Analysis Procedure: Simplified Equivalent Lateral Force Architectural, Mechanical, Components anchored?

LATERAL DESIGN CONTROL: Field Test (provide copy of test report) _ Presumptive Bearing Capacity ____

Pile size, type, and capacity ___

Interior Design Conditions:

List equipment efficiencies:

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT	
THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETION	
Thermal Zone:	
Winter Dry Bulb:	
Summer Dry Bulb:	

Summer Dry Bulb: _ neating Efficiency: Cooling Efficiency: Size Category of Unit: _____ Size Category. If oversized, state reason: Size Category. If oversized, state reason:

ACCESSIBLE PARKING

LOT OR PARKING	TOTAL # OF	PARKING SPACES	# OF ACCESSIE			TOTAL #
AREA	REQUIRED	PROVIDED	REGINA	VAN SPAC	ES WITH	ACCESSIBL PROVIDED
		CLE CIVI	DWGS		0 7.00222	TROVIDED
	· · · · · · · · · · · · · · · · · · ·	SEE CIT				
TOTAL						

ELECTRICAL SUMMARY THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETION **ELECTRICAL SYSTEM AND EQUIPMENT**

Method of Compliance: Energy Code Prescriptive Prescriptive

Lighting Schedule (each fixture type) Lamp type required in fixture Number of lamps in fixture Ballast type used in the fixture Number of ballasts in fixture

Additional Efficiency Lackage Options
(When using the 2018 NCECC; not required for ASHRAE 90.1) C406.2 More Efficient HVAC Equipment Performance C406.3 Reduced Lighting Power Density

C406.4 Enhanced Digital Lighting Controls C406.5 On-site Renewable Energy C406.6 Dedicated Outdoor Air System C406.7 Reduced Energy Use in Service Water Heating

ENERGY SUMMARY

THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETION

The following data shall be considered minimum and DOWN BLDG.

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is not applicable)

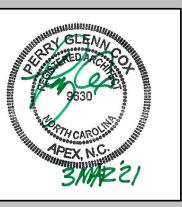
SPECIAL APPROVALS

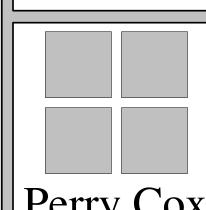
(Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below) HARNETT COUNTY HEALTH DEPARTMENT

TOWN OF FUQUAY-VARINA

D. CLUGSTON



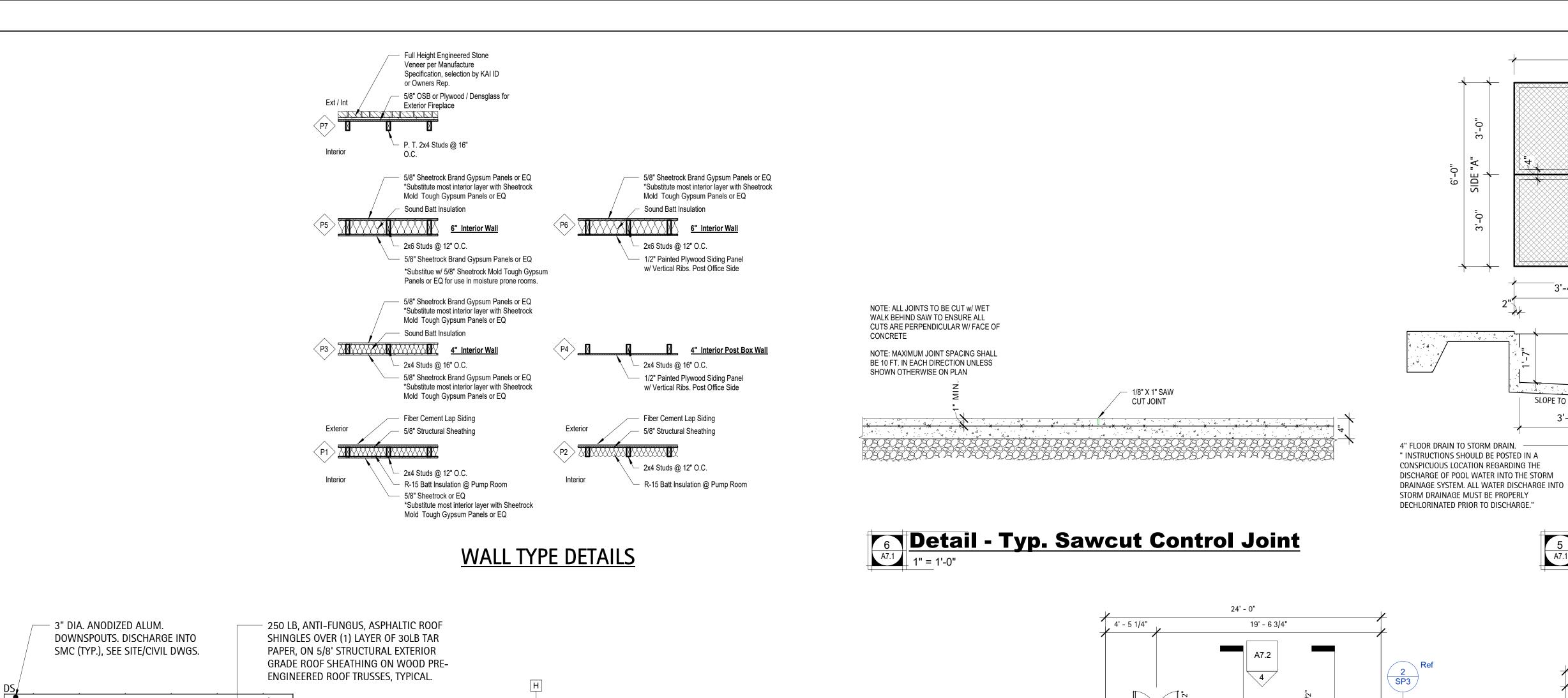


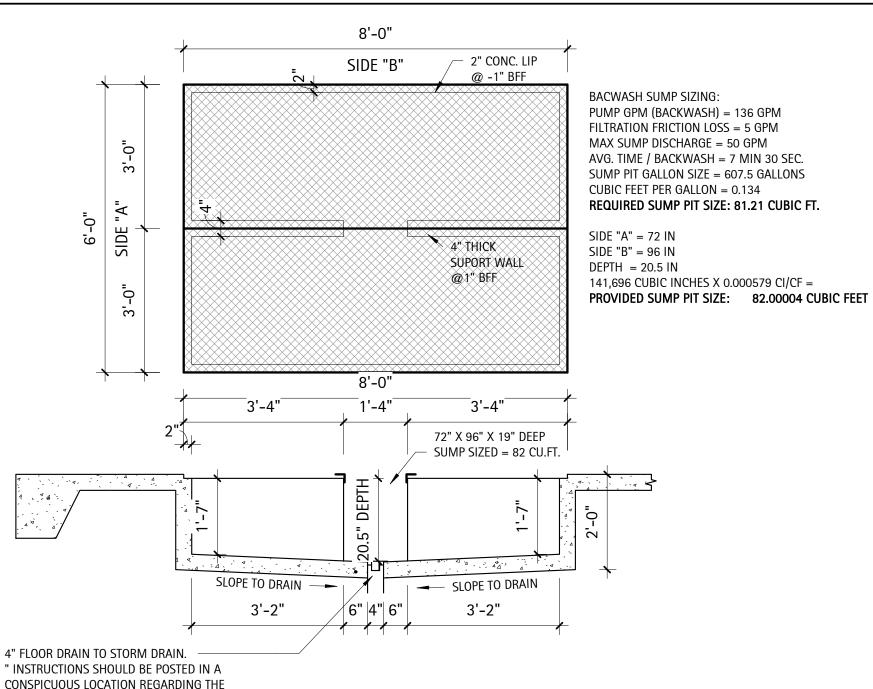


architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com

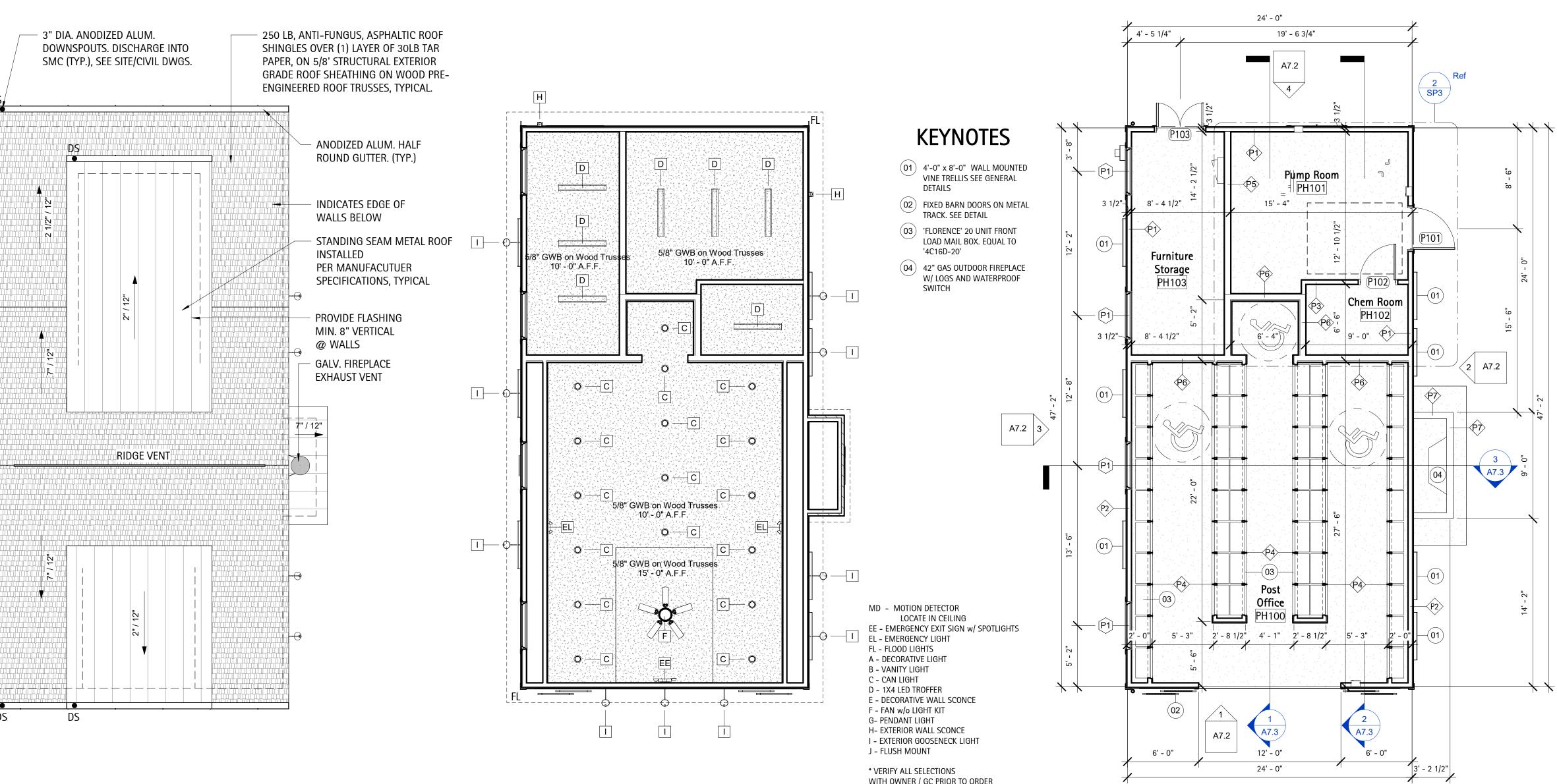
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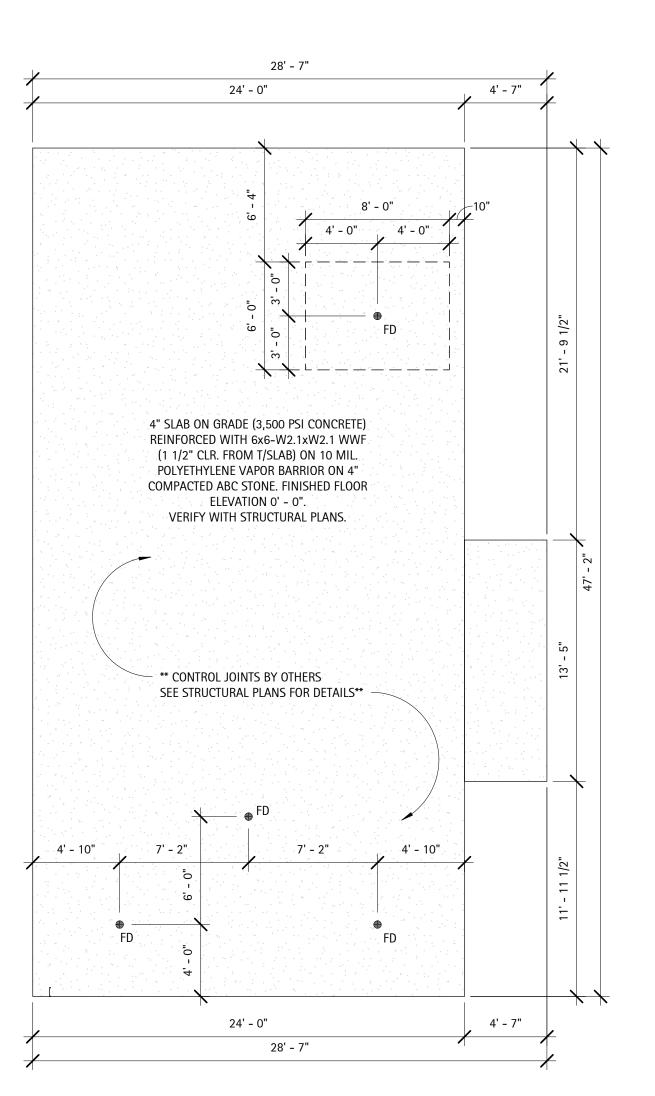
PROJECT #: 2018.037 12/14/2021 DATE ISSUED: DRAWING BY: CHECKED BY:





5 Detail - Sump Pit 1/2" = 1'-0"

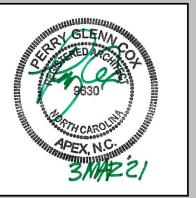


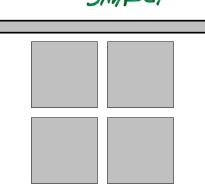


Post Office - Foundation Plan
3/16" = 1'-0"

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BUILDING & DEVELOPMENT CO.







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REVISION DATE

SHEET DISCRIPTION

POST OFFICE PLANS

PROJECT #: 2018.037

DATE ISSUED: 12/14/2021

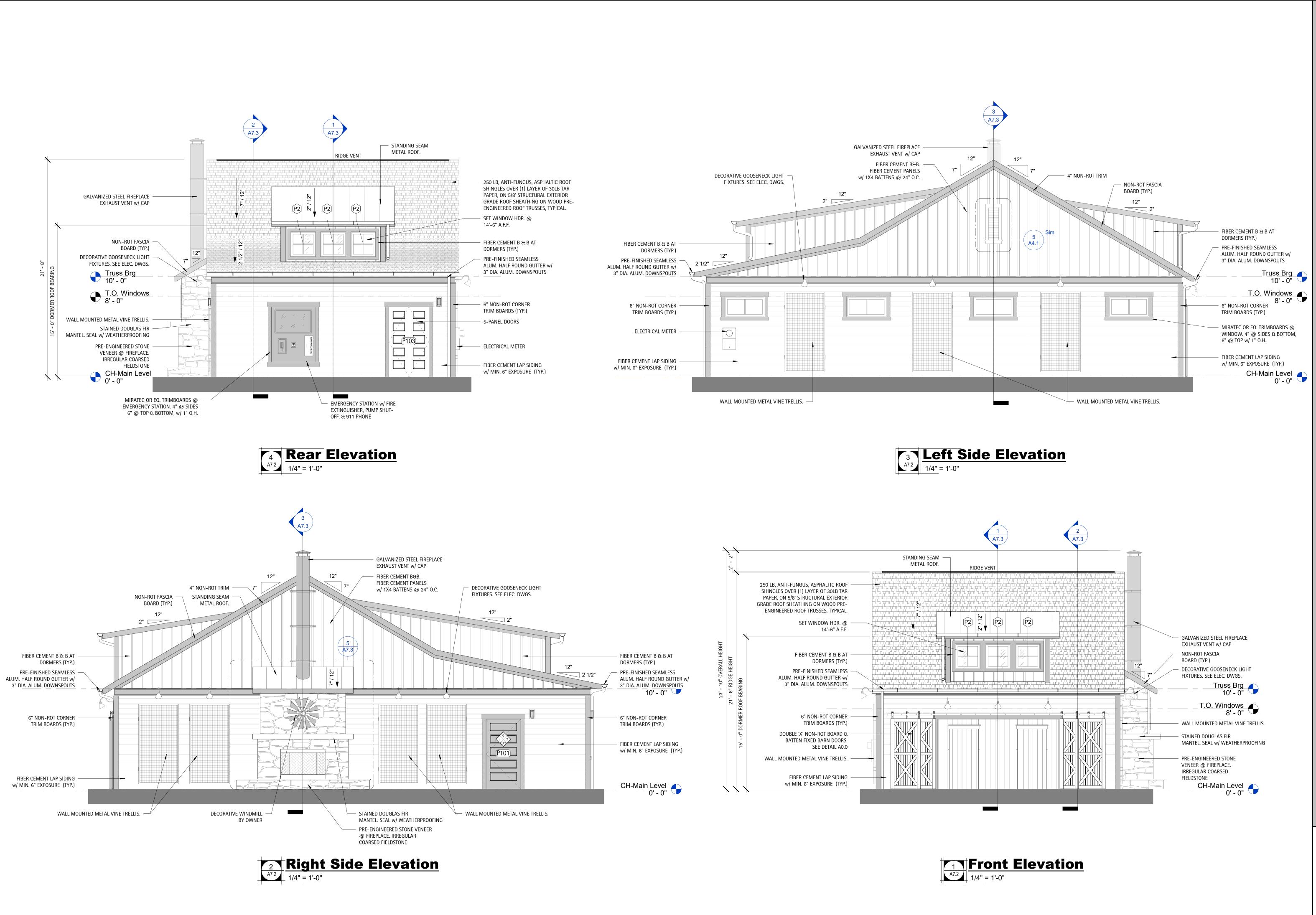
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CHECKED BY: PGC/DSC

MUNITIES F POOL

GREENFIELD COMMUNICLUBHOUSE & POC

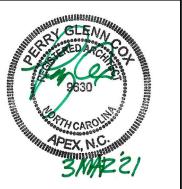
A7.1

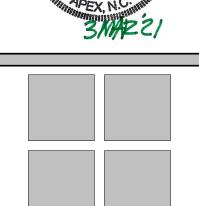


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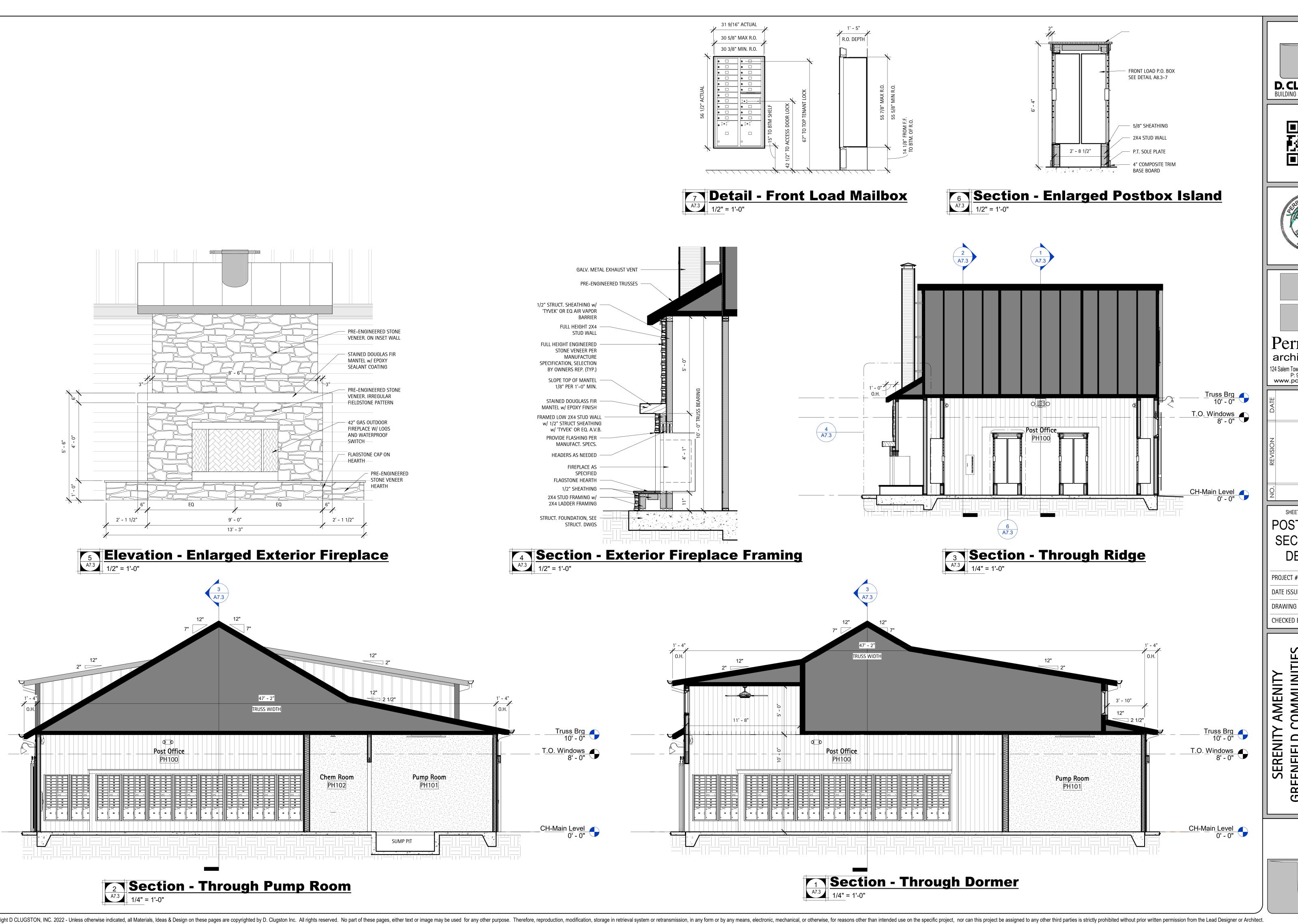
SHEET DISCRIPTION

POST OFFICE **ELEVATIONS**

PROJECT #: 2018.037 DATE ISSUED: 12/14/2021 DRAWING BY: CHECKED BY:

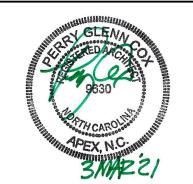
> COMMUNITIES POOL

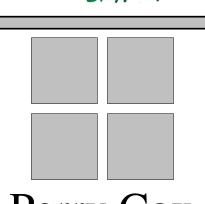
Fuquay-Varina, CLUBHOU ENFIELD RE



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SHEET DISCRIPTION POST OFFICE

SECTIONS & **DETAILS**

PROJECT #: DATE ISSUED: DRAWING BY: CHECKED BY:

ER POOL

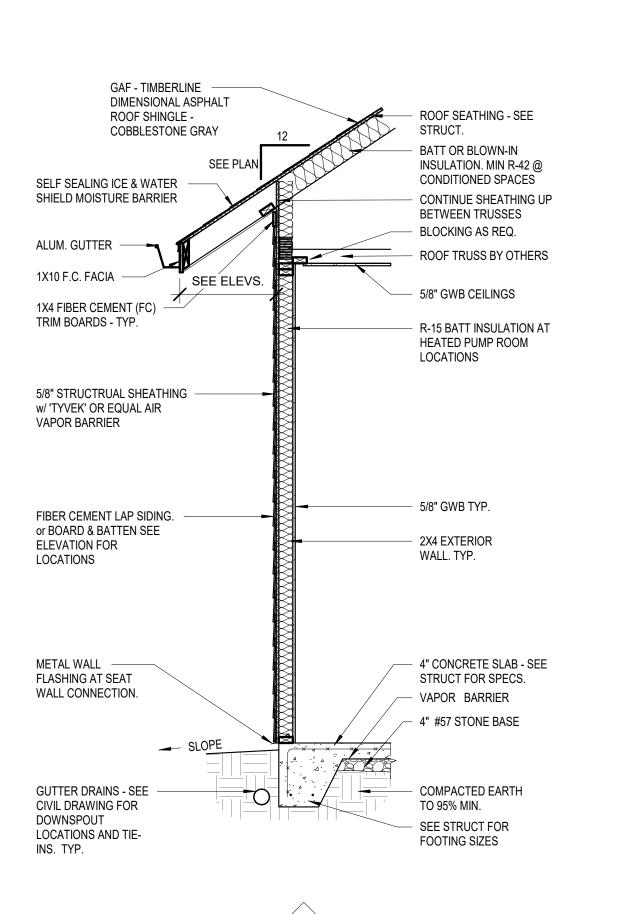
CLUBHOUSE

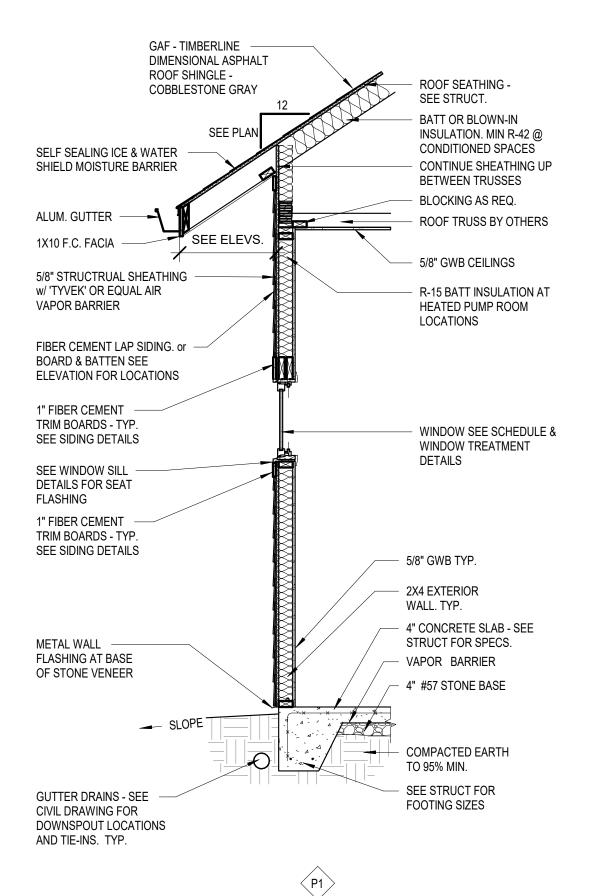
DOORS, FRAMES, HARDWARE NOTES

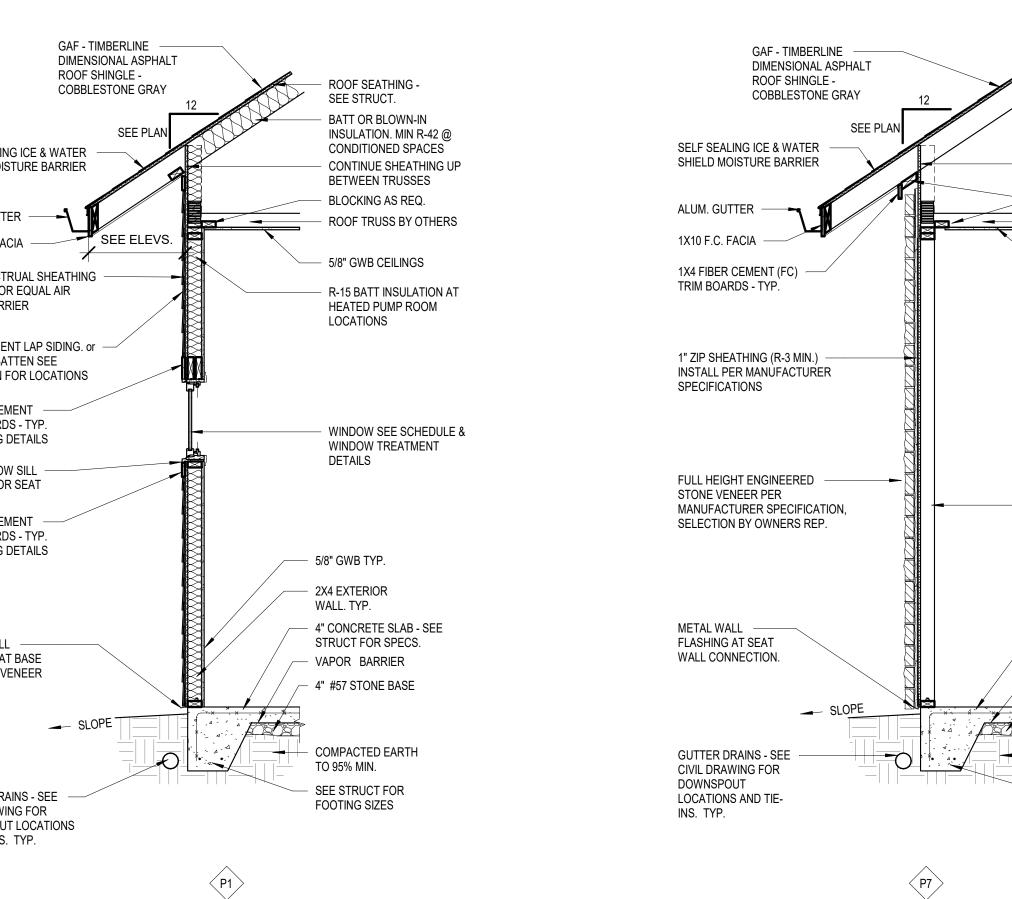
- Refer to Door and Hardware Schedule for extent, type and additional notes. Acceptable wood door manufacturers to be Weyerhaeuser, Eggers, Mohawk or Architect approved equal. General Contractor shall provide a hardware schedule and catalogue cuts for all finish hardware for approval by the Architect indicating location of hardware set, cross-referenced to indications on Drawings, manufacturer's name and product number, finish, and other similar information describing hardware to be provided. Items of hardware not definitely specified, but needed for satisfactory installation of hardware shall be provided. Such items shall be of type and quality suitable for service needed and comparable to adjacent hardware.
- All doors shall be set 6" off adjacent perpendicular wall, UON. Doors shall not be undercut, UON. All levers, pulls, and locks are to be provided per the schedule. All hinges and other miscellaneous exposed hardware shall be in similar and compatible finishes as indicated on Hardware Schedule.
- General Contractor shall coordinate keying system with Owner (Building Management), Landlord, and Architect. General Contractor shall coordinate security system with system vendor and scheduled hardware and the submittal of all security hardware specifications and cut sheets to the proper authorities for review and approval during building permit process
- Provide hardware, door pulls, hinges, closers, electromagnetic devices, etc. needed to provide a full and complete installation. Provide silencers at metal frame doors. Provide floor mounted door stops unless existing conditions require wall mounted. Ensure adequate blocking for wall mounted stops. Submit to Architect for approval.
- Provide 4 1/2 x 4 1/2, full mortise, template, 5-knuckle, heavy duty, button tip hinges with non-rising loose pins and anti-friction, ball type bearing. Doors with locksets shall be furnished with non-removable pins hinges. Provide 1-1/2" pair hinges for doors up to 90" in height. Add 1 hinge for every additional
- Heavy duty cylindrical locksets and latchsets shall conform to ANSI A156.2, Series 4000, Grade 1. Functions as listed in schedule. Heavy duty mortise locksets and latchsets, levers shall conform to ANSI A156.13 Series, 1000, Grade 1. Overhead Closers shall be surface mounted or concealed overhead as noted in the hardware schedule and shall be heavy duty, fully hydraulic, rack and pinion action and sized to be in compliance with requirements for accessibility for handicapped and recommendations of manufacturer. Furnish complete with all necessary hardware. Furnish 2 keys per lock with a maximum of 8 keys per keyed alike set. Before final completion, adjust hardware so that doors operate in perfect order. Test and adjust hardware for quiet, smooth operation and adjust closers for proper operation. At final completion, properly tag and identify keys and deliver to Owner.
- 7 All Hardware shall be medium grade commercial if not otherwise noted or specified. See allowance per door.
- 8 All interior egress doors and a minimum of one exterior egress door shall be readible openable from the egress side without use of a key or special
- 9 All Glazing within 24" of either side of a door in a closed position, and on the same wall plane shall be tempered. Tempered glass shall be installed by code in the following locations:
 - a. Door Glazing;
 - b. Glazingfor bathroom fixture enclosures(showers, etc) c. Glazing less than 60" above tub and shower drains;
 - d. Glazing within24" of an adjacent door w/ sill less than 60 degrees: e. Individual panels of Glazing greater than 9 sqft and sill less than 18" above floor and top edge greater than 36".
- 10 Provide an interior door signage allowance of \$25.00 per door.
- 11 Fire Extinusisher cabinets shall be similar to JL Industries Mod. Clear VU 1525F26 with a clear bubble and A#10 S/S Finish. ADA approved and mounted. Place where shown on plans (FX)
- 12 Door closers shall be LCN series 4040 or equivalent

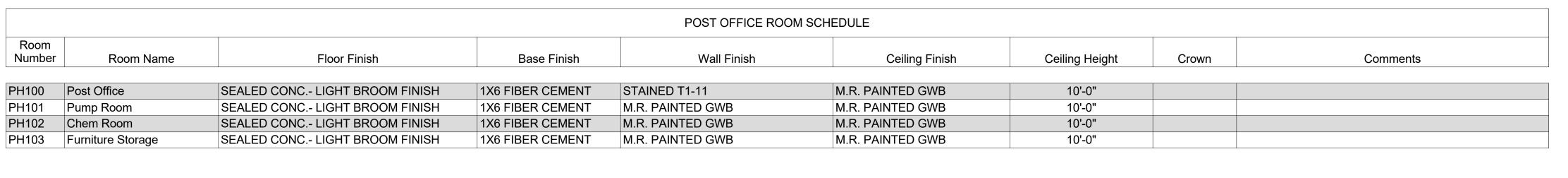
WALL SECTION NOTES

- Bituminous Damp Proofing shall be applied to exterior foundations of all habitable spaces.
- All treated lumber shall bear the designation AWPA C22. Pressure treated lumber shall be used in the following locations: a. Wood in contact with concrete or masonry; b.Siding within 6" of the ground;
 - c. Wood exposed to weather.
- Install 5/8" Densglass sheathing behind all tub and shower walls, use water-resistant GWB for all bathroom ceilings UNO.

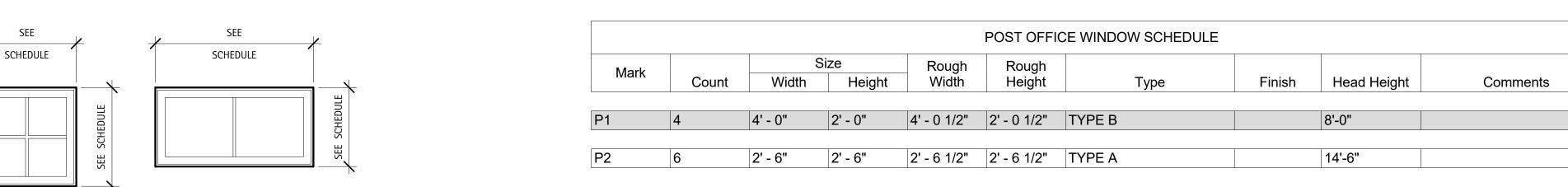








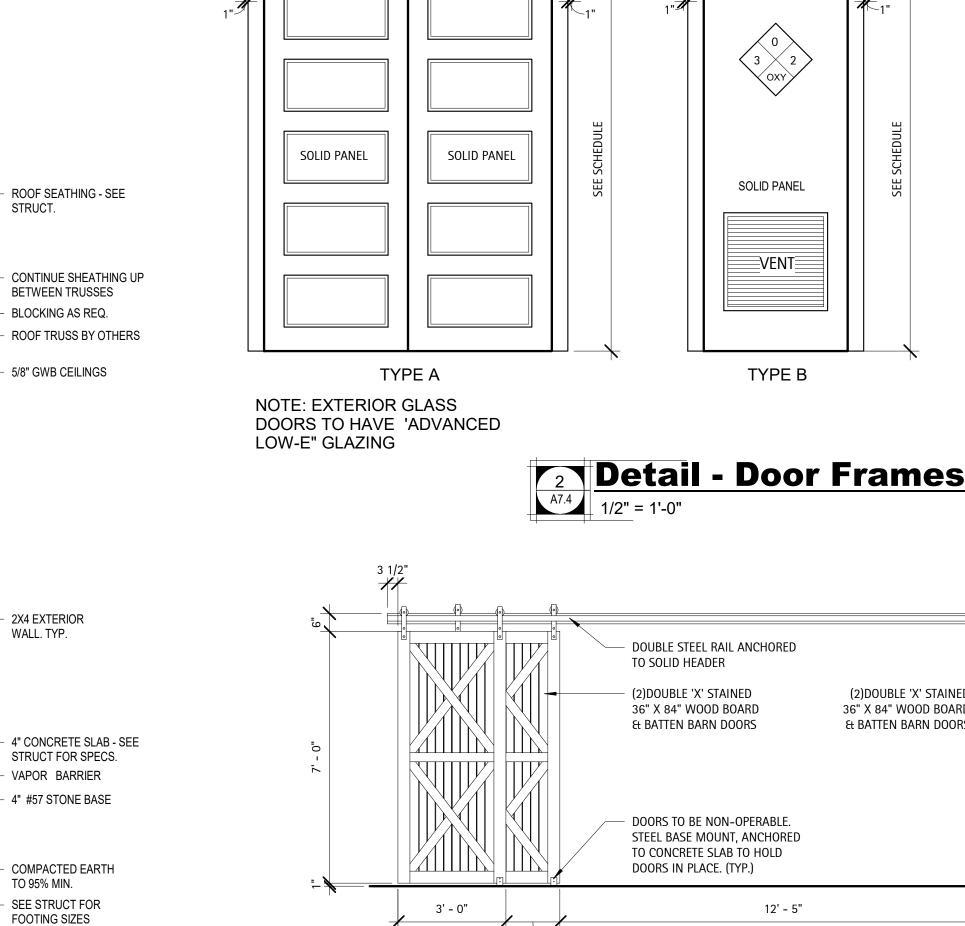
									I	POST OFFICE	DOOR	SCHEDUL	E										
			Door	-	Door Frame						Hardware												
Door Number	Style	Width	Height	Thicknes	s Rouah Width	Rough Height	Material	Finish	Material	Fire Rating	Push / Pull	Passage Set	Privacy Set	Office Set	Storage Set	Deadbo It	Panic Hardware	Close	Weather strip	Thresh	FOB Access	Time Lock	Comments
			1		-	1																	
2100	TYPE C	12' - 0"	7' - 0"	0' - 1 3/4"	12' - 2"	7' - 1"	WOOD	STAINED	METAL	-	No	No	No	No	No	No	No	No	No	No	No	No	FIXED IN OPEN POSITION
P101	TYPE B	3' - 6"	7' - 0"	0' - 1 3/4"	3' - 8"	7' - 1"	INSUL. MTL.	PAINT	METAL	-	No	No	No	No	Yes	No	No	Yes	Yes	Yes	No	No	
102	TYPE B-1	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2"	7' - 1"	INSUL. MTL.	PAINT	METAL	-	No	No	No	No	Yes	No	No	No	No	No	No	No	
2103	TYPE A	4' - 0"	7' - 0"	0' - 2"	4' - 2"	7' - 1"	INSUL. MTL.	PAINT	METAL	-	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No	
Grand tota	al: 4		I	1					ı		1			I		1	ı	1					





TYPE B

TYPE A





Detail - Post Office Barn Door

TYPE C

EXPOSED 1/2 OF DOOR PANEL

(2)DOUBLE 'X' STAINED

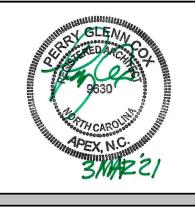
36" X 84" WOOD BOARD

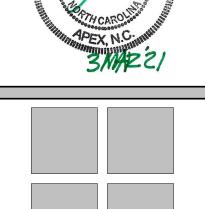
& BATTEN BARN DOORS

EXPOSED 1/2 OF DOOR PANEL

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SHEET DISCRIPTION **SCHEDULES**

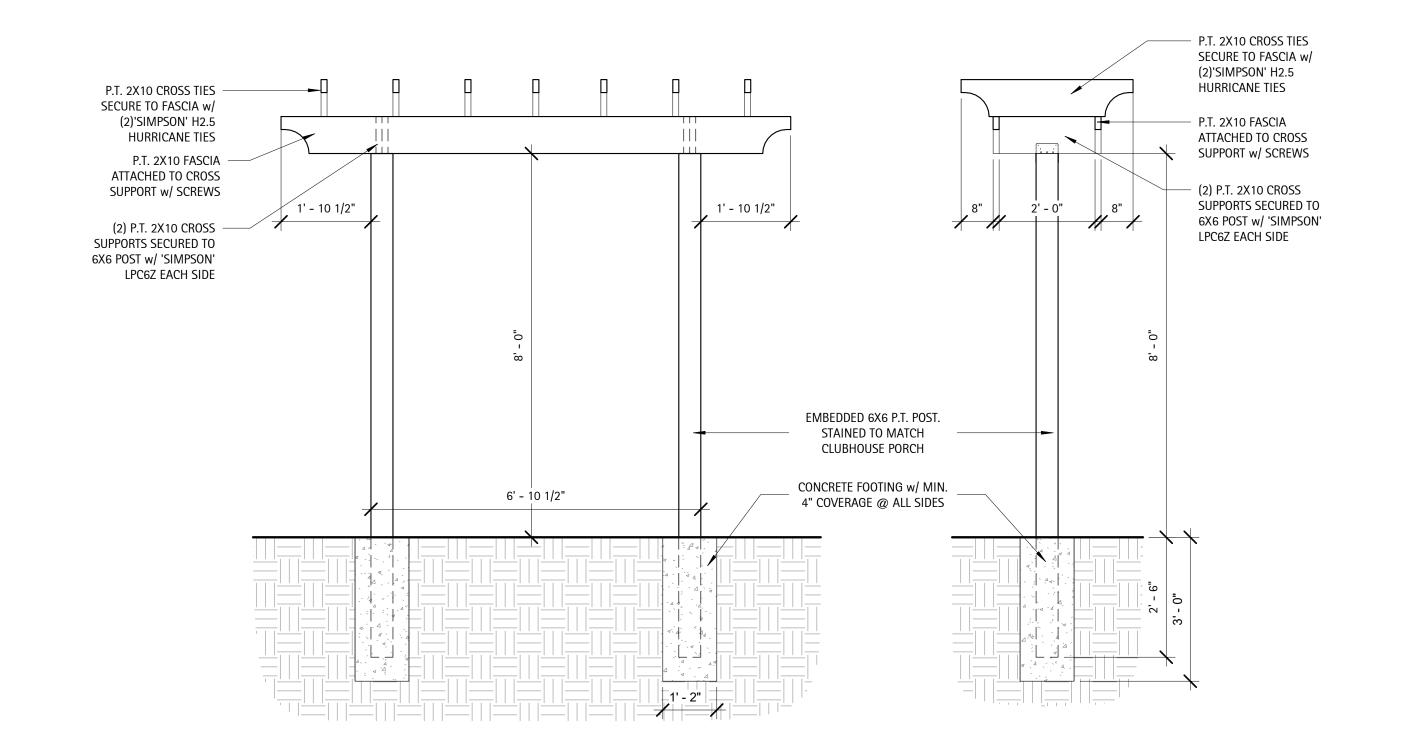
SOLID PANEL

TYPE B-1

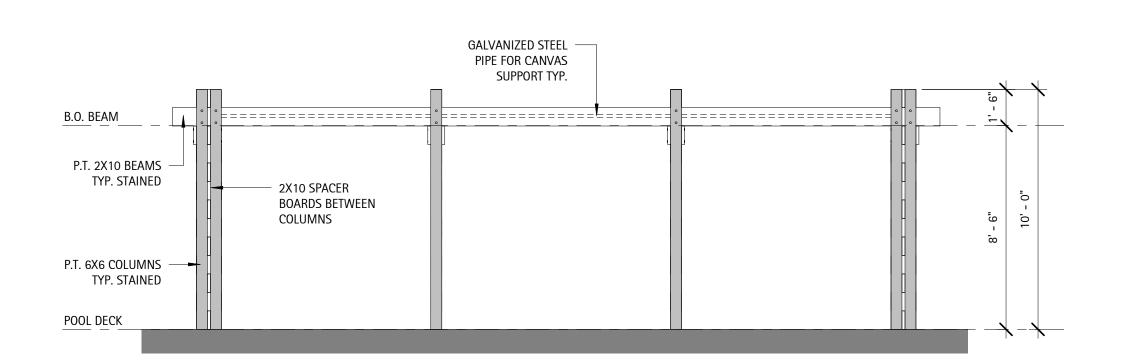
3' - 0"

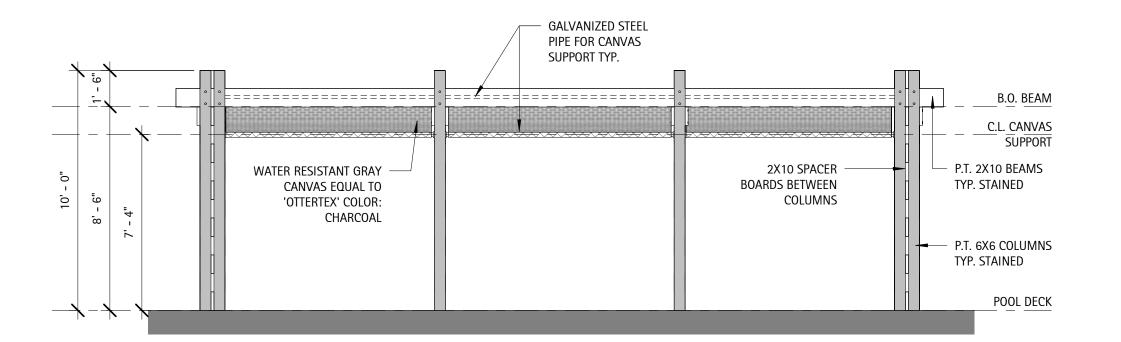
PROJECT #: 2018.037 DATE ISSUED: 12/14/2021 DRAWING BY: CHECKED BY:

PO Va **UBHOU** ENFIELD **Fuquay**. Δ



Detail - Courtyard Trellis 1/2" = 1'-0"





Cabana - Front Elevation 1/4" = 1'-0"

WATER RESISTANT GRAY

COLOR: CHARCOAL

CANVAS EQUAL TO 'OTTERTEX'

BOARDS BETWEEN

Cabana - Typ. Side Elevation

1/4" = 1'-0"

COLUMNS

T.O. SIDE BEAMS

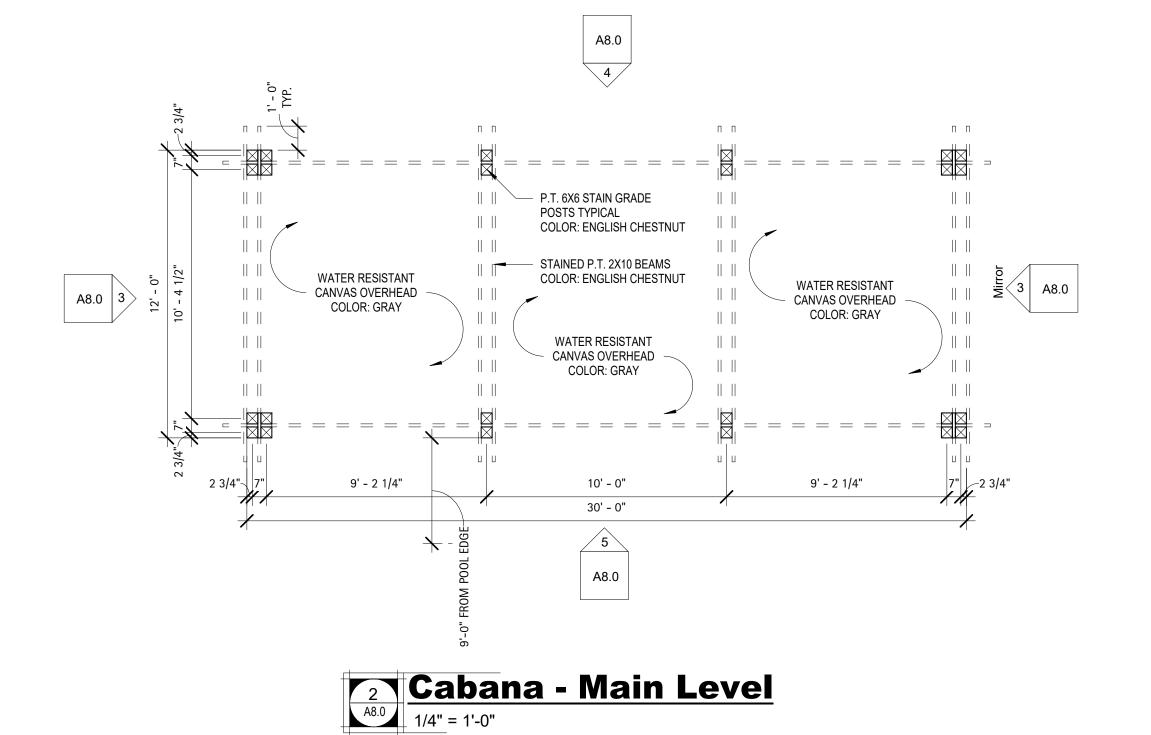
P.T. 2X10 BEAMS

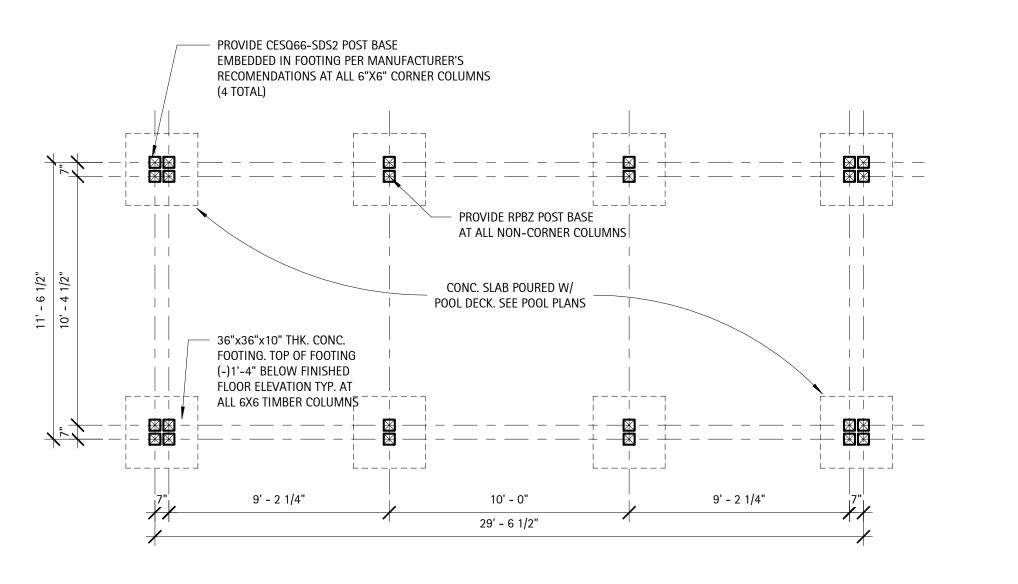
P.T. 6X6 COLUMNS TYP. STAINED

POOL DECK

TYP. STAINED

Cabana - Rear Elevation 1/4" = 1'-0"





Cabana - Foundation Plan

1/4" = 1'-0"

Building Code: 2018 North Carolina State Building Code (NCSBC) 2009 North Carolina State Building Code ☐ 2006 NC Rehab [2006 North Carolina Building Code 2009 NC Rehab 1995 Existing Building Code 2009 Chapter 34 2006 Chaper 34

New Building: New Building Shell Building ☐ First Time Interior Completion Alteration to Shell

Existing Building: Renovation Interior Completion Tenant Alteration Reconstruction Alteration to Shell ☐ Change of Use Tenant ☐ Change of Occupancy

Note: Zoning Review May Be Required for Change of Use or Occupancy

Original Occupancy: Proposed Occupancy: A-3 (ASSEMBLY)

OCCUPANCY INFORMATION

Primary Occupancies: Assembly: \square A-1 \square A-2 \square A-3 \square A-4 \square A-5 Hazardous: H-1 H-2 H-3 H-4 H-5 Business: Educational: ☐ I-2 Condition ☐ 1 ☐ 2 ☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Factory: F-1 F-2 ☐ I-4

Mercantile:

Residential: R-1 R-2 R-3 R-4 Storage: S-1 Moderate S-2 Low High-piled

☐ Parking Garage: ☐ Open ☐ Enclosed ☐ Repair Garage

Utility and Miscellaneous

Special Occupancies: 402 403 404 405 406 407 408 409 410 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421

BOTH BUILDING AND TENANT MUST BE INDICATED ON CHART BELOW DISCRIP. & USE | DISCRIP. & ALLOWABLE | TABLE 506.2 | AREA FOR | SPRINKLER | ALLOWABLE | RATE OF | MAXIMUM | SEPARATION | BUILDING | RATING | AREA | CACTUAL SF) | AREA (SF) | FRONTAGE | AREA | ALLOWABLE | AREA | ALLOWABLE | AREA | REQUIRED | AREA | ALLOWABLE |

- 1. Frontage area increases from Section 506.3 are computed thus:

a. W = Minimum

e. Percent of fro

2. Unlimited area applicable unde

3. Maximum Building Area = total num

4. The maximum area of open parking gas must comply with Table 406.5.4

5. Frontage increase is based on the unsprinklered area value in Table 506.2

	ALLO	WABLE HEIGH	<u>[</u>	
MOST RESTRICTIVE (GROUP)	ALLOWABLE BUILDING HEIGHT (TABLE 504.3)	INCREASE FOR SPRINKLERS	ACTUAL BUILDING HEIGHT AS SHOWN ON PLANS	CODE REFERENCE
Type of Construction	TypeVB	TypeVB	TypeVB	403.3.1
Building Height in Feet	H = <u>40'-0"</u> FT	N/A	H= <u>10'-0"</u>	403.3.1
Building Height in Stories	S= <u>1</u>	N/A	S= <u>1</u>	403.3.1

BUILDING DATA

Construction Type: | I-A | I-B | II-A | II-B | III-A | III-B | III-B | IV-HT | V-A | V-B

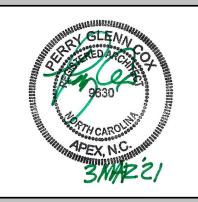
Sprinklers: Yes No NFPA 13 NFPA 13 Partially Sprinklered Special Suppression Class: \square I \square II \square III \square Wet \square Dry (Appendix D) \square Floor Hazard

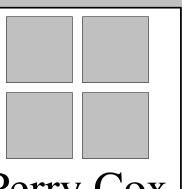
Standpipes: Yes No
Fire District: Yes No
Building Height: 10 Feet Basement: Yes No Mezzanine: Yes No

Life Safety Plan Sheet # (if provided): _

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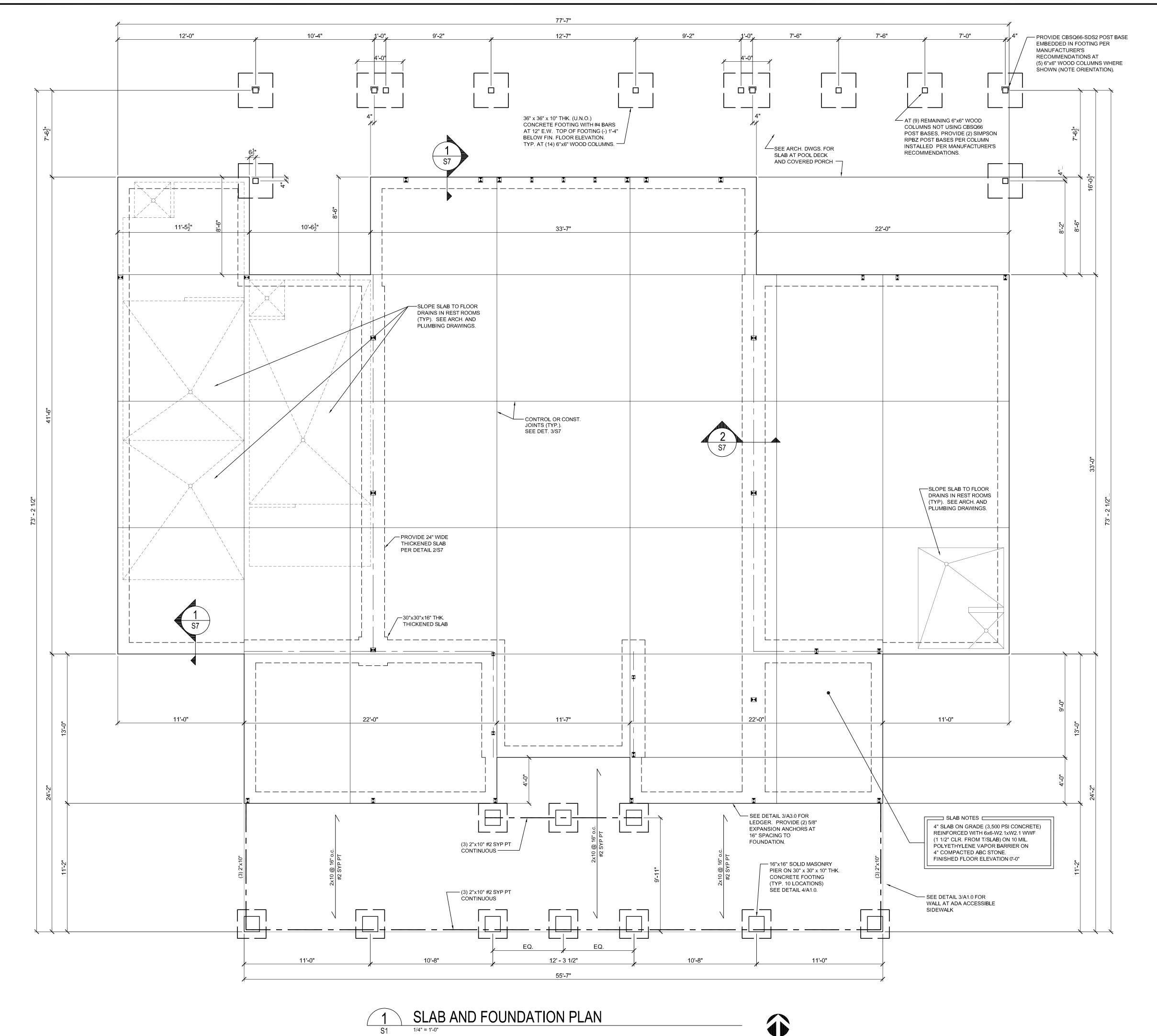
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SHEET DISCRIPTION CABANA PLANS & **ELEVATIONS**

PROJECT #: DATE ISSUED: DRAWING BY: CHECKED BY:

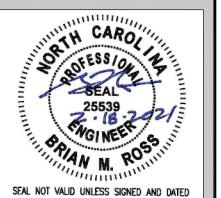
POOL

RE 0.8A





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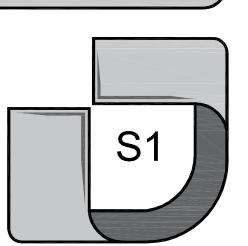
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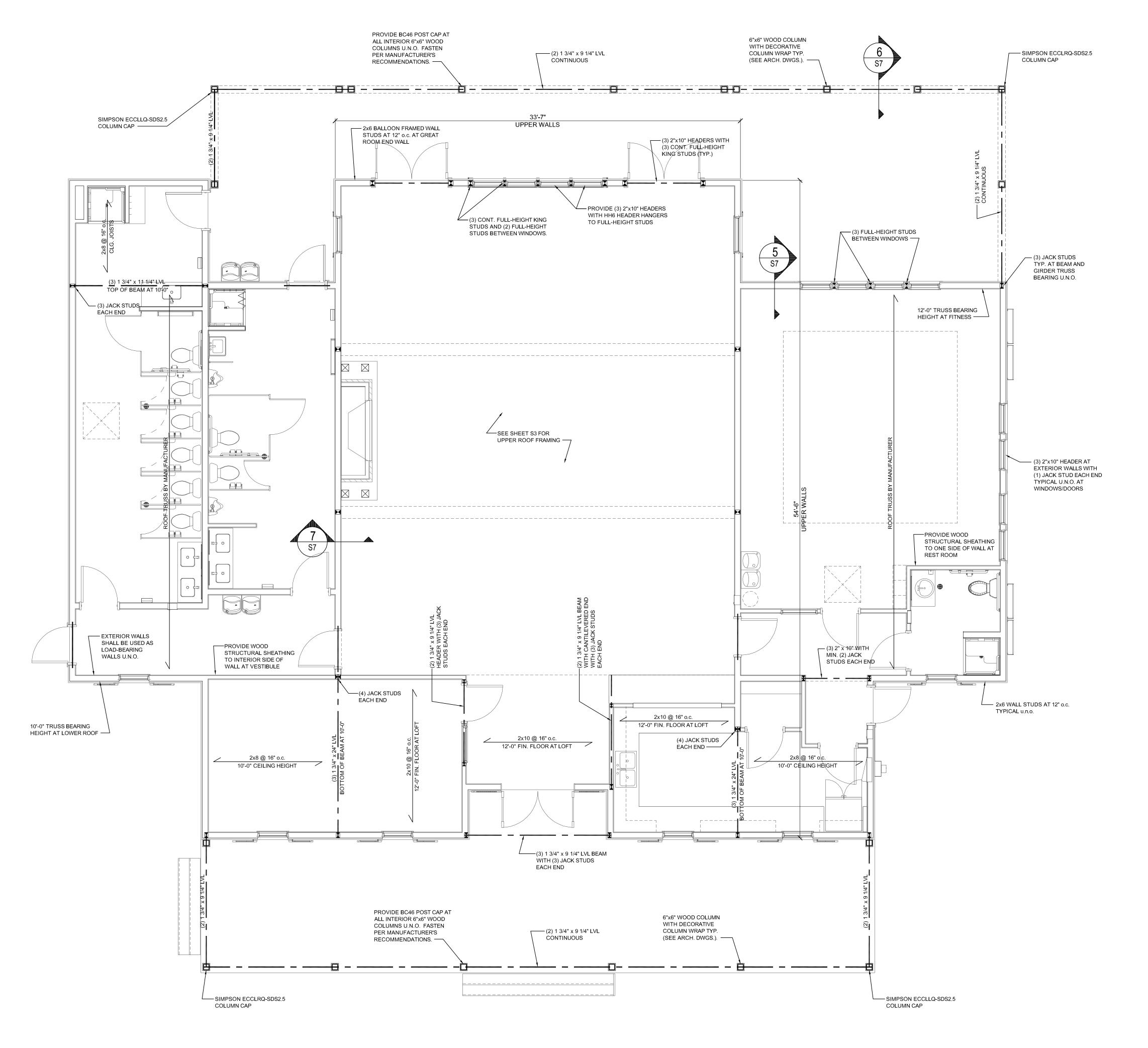
۷O.	REVISION	DATE	
1	VE REVISIONS	5/11/2021	V
2	REVISIONS	12/9/2021	١

SHEET DISCRIPTION SLAB AND FOUNDATION PLAN

PROJECT#:	C200803
DATE ISSUED:	2/17/2020
DRAWING BY:	BMR
CHECKED BY:	BMR/BS.I

ry amenity communities **PLANS** CLUBHOUSE PLANS Fuquay-Varina, NC SERENITY GREENFIELD C

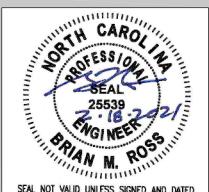






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2 REVISIONS 12/9/2021

NO. REVISION DATE
A REVISED WINDOWS 3/5/21
1 VE REVISIONS 5/11/2021

SHEET DISCRIPTION
LOWER CLG.
FRAMING
PLAN

PROJECT#: C200803

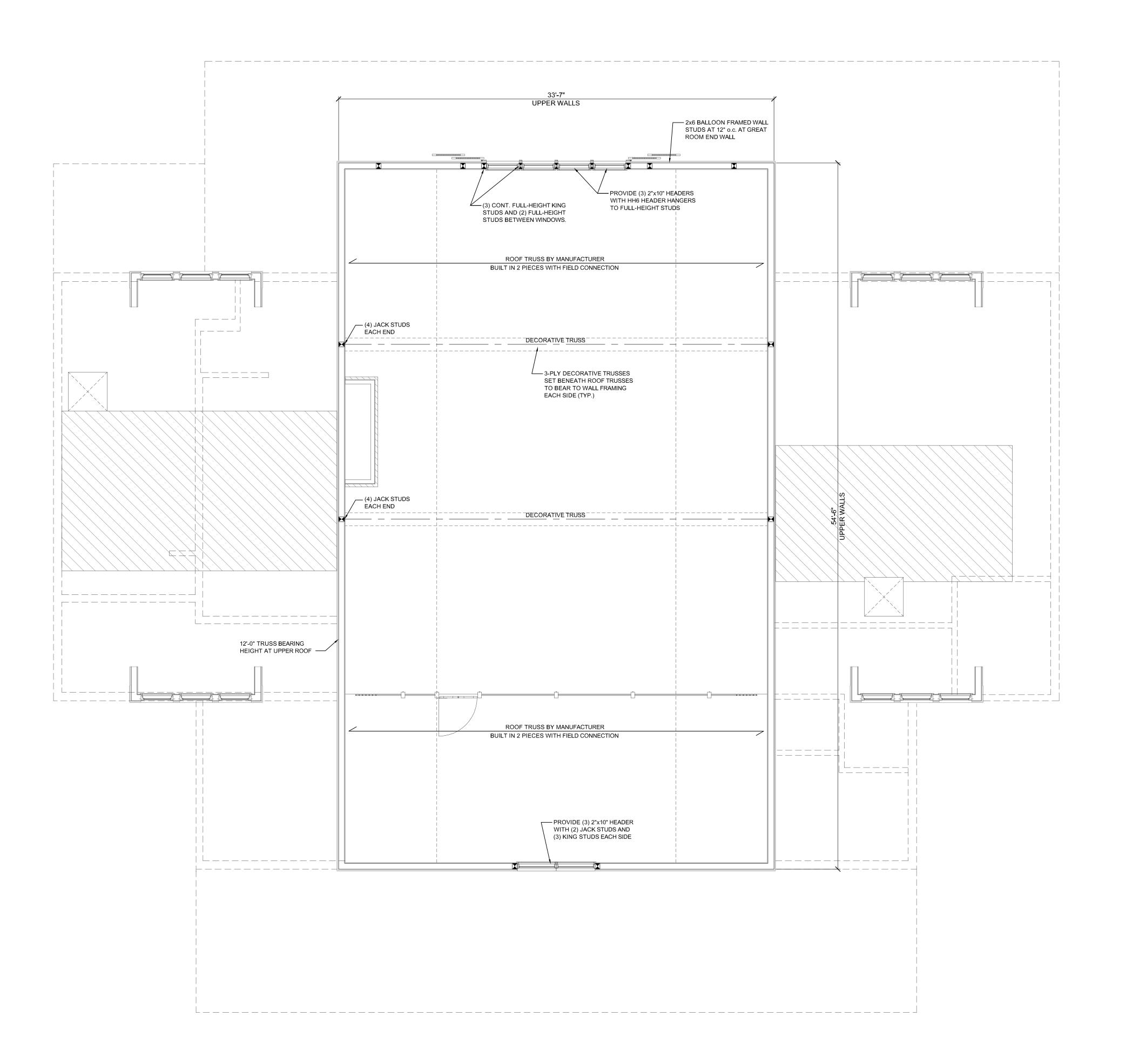
DATE ISSUED: 2/17/2020

DRAWING BY: BMR

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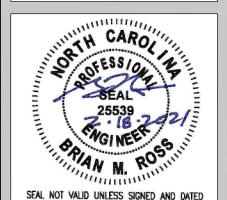
SERENITY AMENITY
GREENFIELD COMMUNITIES
CLUBHOUSE PLANS
Fuquay-Varina, NC

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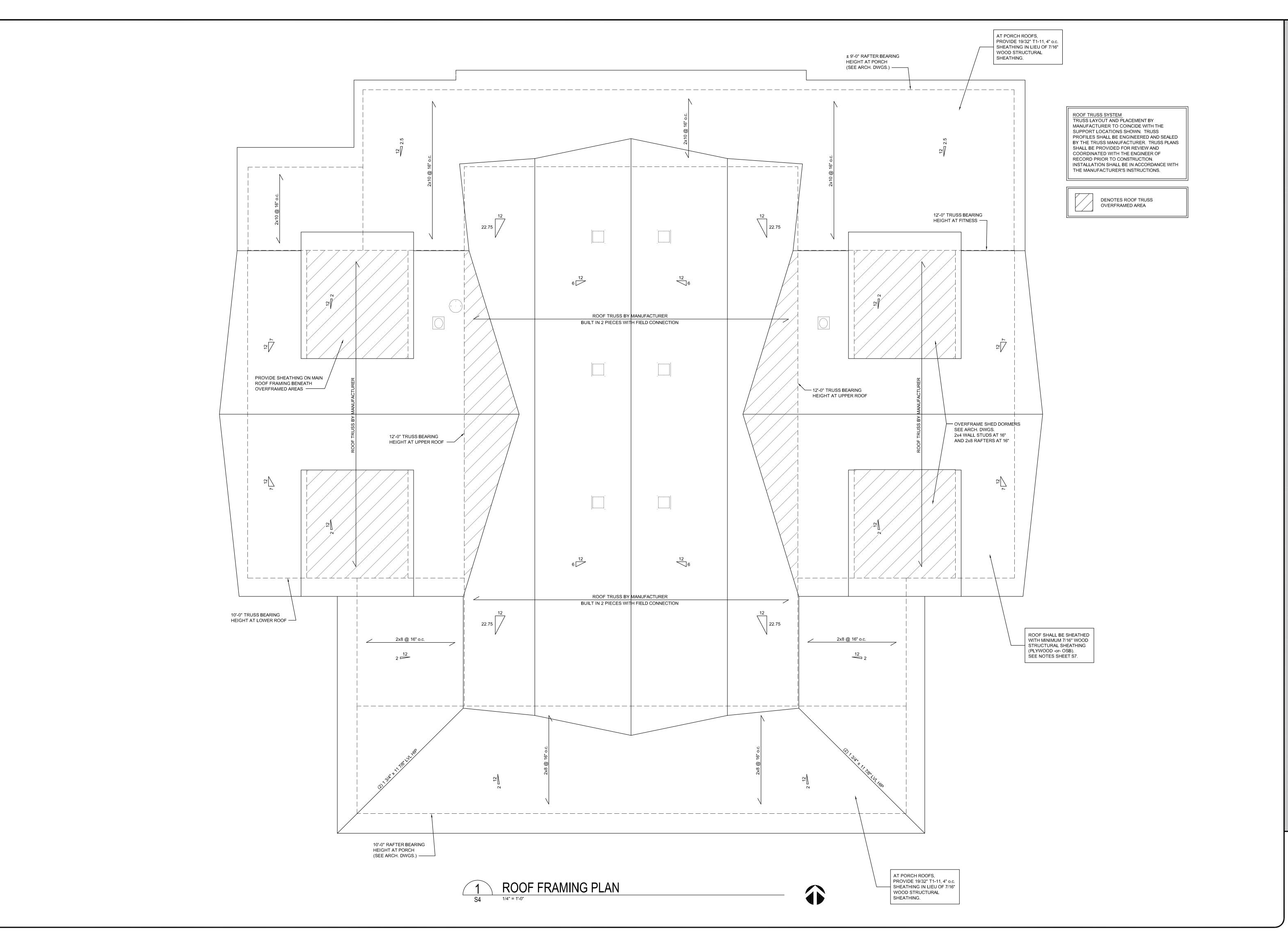
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| NO. | REVISION | DATE

SHEET DISCRIPTION UPPER CLG. FRAMING **PLAN**

PROJECT#: C200803 DATE ISSUED: BMR DRAWING BY: CHECKED BY:

FY AMENITY COMMUNITIES CLUBHOUSE PLANS Fuquay-Varina, NC SERENITY A





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NO. REVISION DATE

1 VE REVISIONS 5/11/2021

ROOF FRAMING PLAN

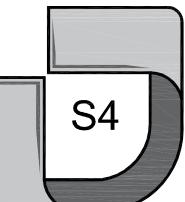
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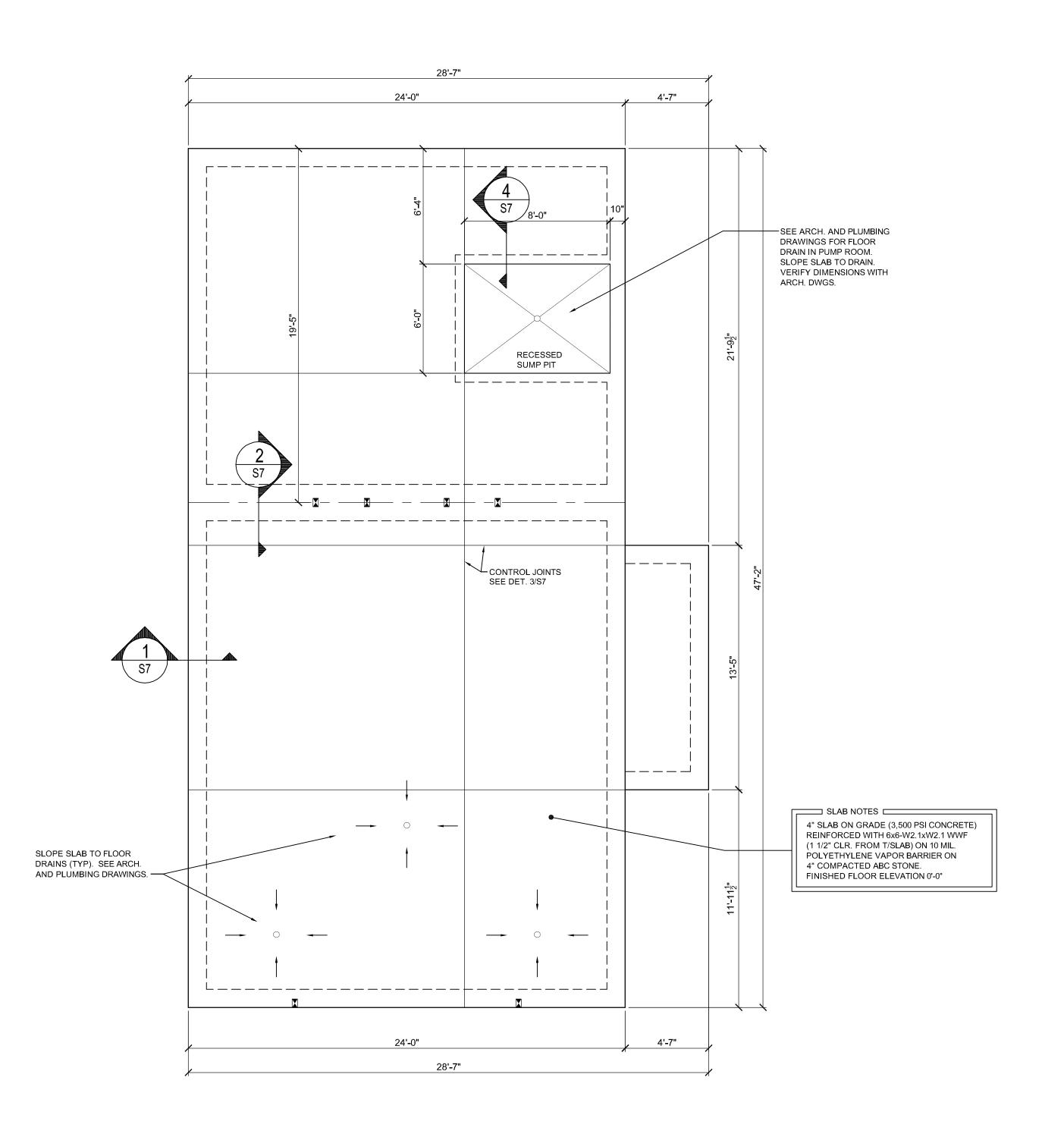
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Fuquay-Varina, NC







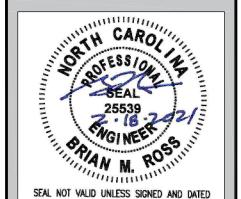




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SHEET DISCRIPTION
SLAB AND
FOUNDATION
PLAN

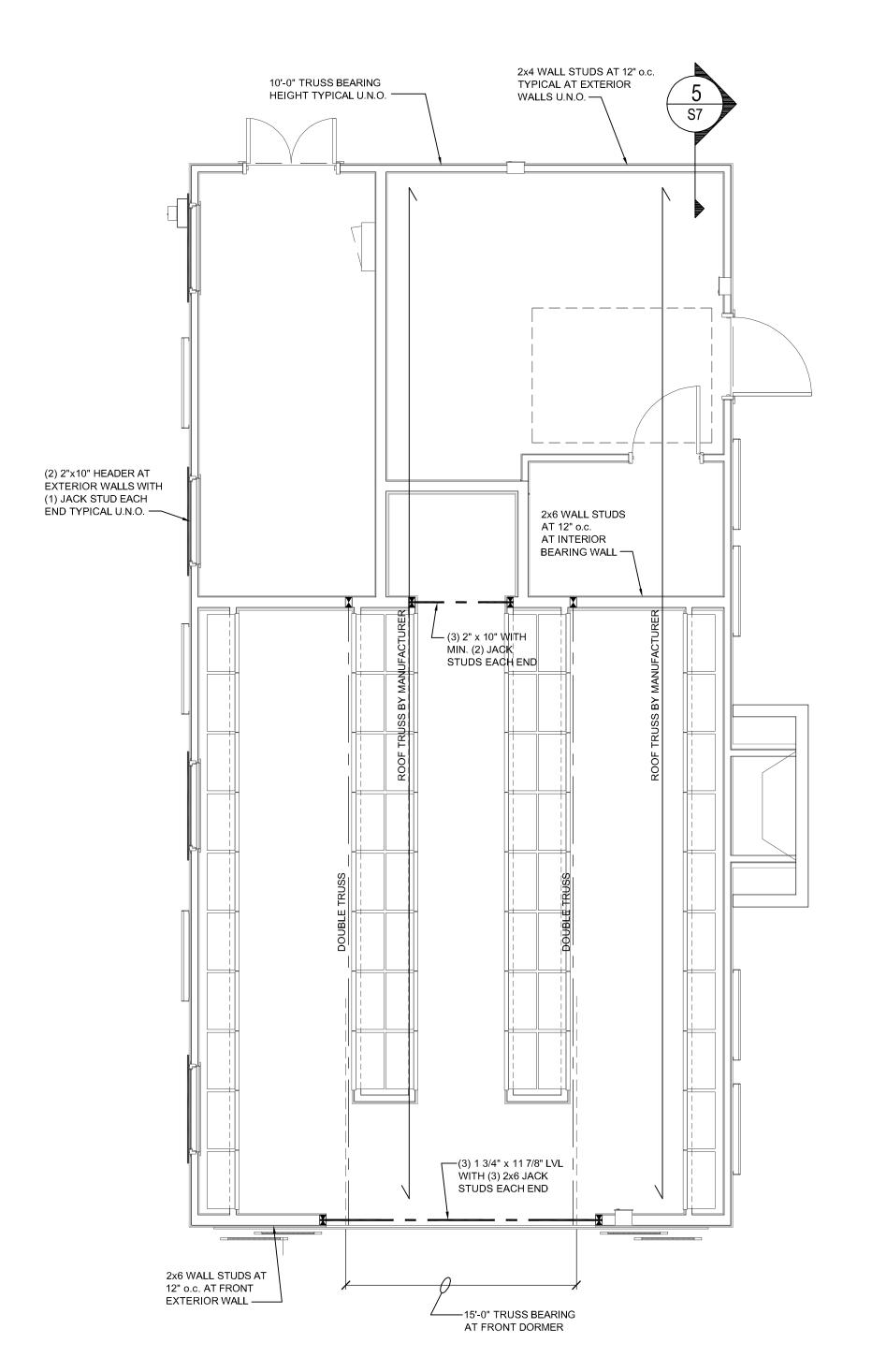
PROJECT#: C200803

DATE ISSUED: 2/17/2020

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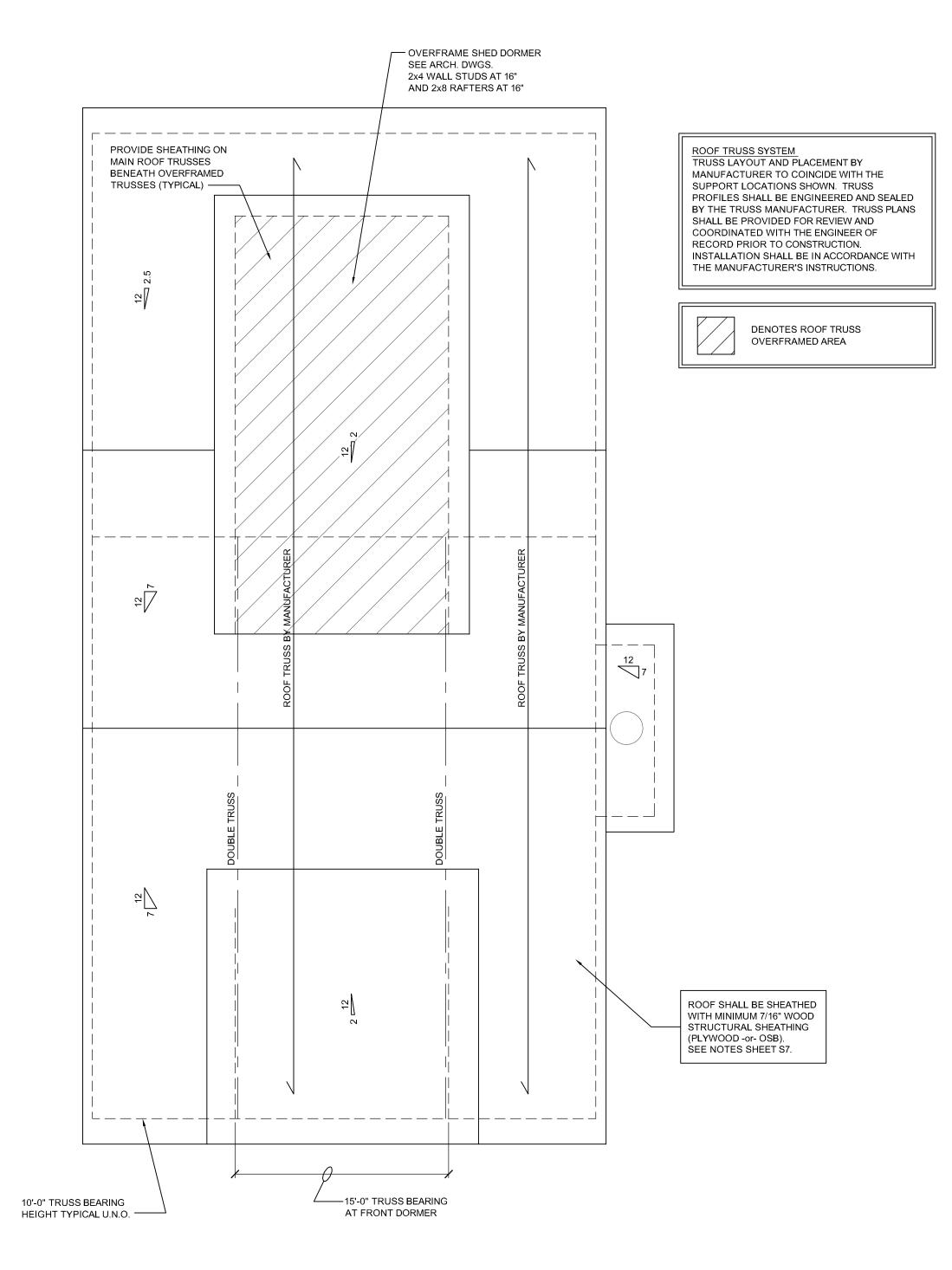
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Fuquay-Varina, NC











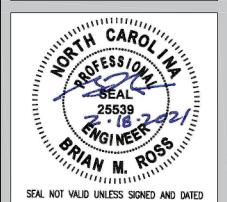




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SHEET DISCRIPTION
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SERENITY AMENITY
GREENFIELD COMMUNITIES
CLUBHOUSE PLANS
Fuquay-Varina, NC

DESIGN CODES

NORTH CAROLINA BUILDING CODE, 2018 EDITION (AMENDED 2015 INTERNATIONAL BUILDING CODE)

ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

(ACI 318-14)

AISC MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN NINTH EDITION

ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

DESIGN LOADS

LIVE LOADS: FLOOR: 100 PSF ROOF: 20 PSF

ULTIMATE DESIGN WIND SPEED: 115 MPH

GROUND SNOW LOAD 15 PSF

SEISMIC DESIGN CATEGORY B

SITE CLASS D Sds = 0.181

Sd1 = 0.131

3. ALL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR ELEVATION OF 0'-0". SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

4. DETAILED SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

5. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY.

6. ROSS LINDEN ENGINEERS PC ASSUMES NO LIABILITY FOR CHANGES OR MODIFICATIONS MADE TO THESE DRAWINGS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THESE DRAWINGS.

II. CONCRETE

DESIGN LOADS:

Occupancy Category

Importance Factors:

1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH AND SLUMP REQUIREMENTS: 3,500 PSI 28-DAY COMPRESSIVE STRENGTH, MAX. 5" SLUMP.

2. ALL CONCRETE SHALL BE MOIST CURED PER ACI 301 OR CURED WITH AN APPROVED CURING COMPOUND. CONTRACTOR SHALL VERIFY THAT THE CURING COMPOUND IS COMPATIBLE WITH FLOOR COVERING ADHESIVES, COATINGS, OR TOPPINGS TO BE USED. CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS.

3. UNLESS OTHERWISE NOTED, ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

4. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. (ACI 315)

5. ALL BAR SPLICES SHALL BE CLASS "B" TENSION SPLICES PER ACI 318-14, UNLESS OTHERWISE SHOWN.

6. ANCHOR BOLTS TO BE ASTM A36 OR A307.

7. CONTRACTOR SHALL REFER TO DRAWINGS OF OTHER TRADES AND VENDOR DRAWINGS FOR EMBEDDED ITEMS AND RECESSES NOT SHOWN ON THE STRUCTURAL DRAWINGS.

8. ALL SPREAD FOOTINGS BEARING ON NATIVE SOIL OR STRUCTURAL FILL ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2.500 PSF. A GEOTECHNICAL REPRESENTATIVE SHALL INSPECT ALL FOOTING EXCAVATIONS TO CONFIRM ALLOWABLE BEARING PRESSURES.

9. PROVIDE TWO (2) #5 x 4'-0" LONG DIAGONAL BARS IN TOP FACE OF ALL SLABS (1" CLEAR) AT ALL RE-ENTRANT CORNERS. SEE PLAN FOR LOCATIONS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RELOCATING AS REQUIRED ALL SERVICE AND UTILITY LINES IN VICINITY OF THE

11. CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL OPENINGS AND EQUIPMENT PADS WITH THE MECHANICAL AND ELECTRICAL DETAILS AND SHOP DRAWINGS BY OTHERS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL OPENINGS AND SLEEVES FOR PROPER DISTRIBUTION FOR ALL UTILITIES THROUGHOUT THE BUILDING.

12. ALL DOWELS WHICH ARE TO BE DRILLED AND GROUTED INTO EXISTING CONCRETE SHALL BE DONE WITH AN EPOXY GROUT. DRILL HOLE WITH DIAMETER 1/8" LARGER THAN DOWEL OR AS RECOMMENDED BY GROUT SUPPLIER. USE HIT-RE 500 V3 BY HILTI OR APPROVED EQUAL.

Wind (IW)

Snow (IS)

Seismic (IE)

1. FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES:

Fb = 875 PSI Fv = 70 PSI E = 1.4E6 PSI

2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPA C22 WITH THE FOLLOWING DESIGN PROPERTIES: Fb = 1050 PSI Fv = 95 PSI E = 1.6E6 PSI

3. ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES: Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSI

4. ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

5. SOLID BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. COLUMNS SHALL BE CONTINUOUS TO THE FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.

6. WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS SPACED A MAXIMUM OF 2'-8" o.c. AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. PROVIDE 1/2" DIAMETER HILTI HIT-RE 500 V3 INJECTION ADHESIVE ANCHORS WITH MINIMUM 4 1/2" EMBEDMENT INTO THE FOUNDATION AT ALL EXTERIOR, LOAD-BEARING, AND SHEAR WALLS AS SHOWN

7. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH MINIMUM 7/16" WOOD STRUCTURAL SHEATHING (PLYWOOD -or- OSB) WITH BLOCKING AT ALL JOINTS. FASTEN ALL PANELS WITH 8d NAILS AT 3" o.c. AT ALL EDGES AND AT 6" o.c. AT INTERMEDIATE FRAMING. AT DOUBLE TOP PLATE, FASTEN PANELS WITH A DOUBLE ROW OF 8d NAILS STAGGERED AT 3" o.c. ALL FASTENERS SHALL HAVE 1 3/8" PENETRATION INTO THE FRAMING MEMBERS.

8. PROVIDE MINIMUM 1/2" GYPSUM BOARD ON BOTH SIDES OF FULL-HEIGHT INTERIOR WALLS WITH INTERMEDIATE SUPPORT AT ALL JOINTS. FASTEN ALL PANELS WITH 1 1/4" SCREWS AT 7" o.c. AT TOP AND BOTTOM PLATES AND ALL STUDS. GYPSUM SHALL BE APPLIED PERPENDICULAR TO FRAMING.

9. SEE TYPICAL WALL SECTION FOR ADDITIONAL INFORMATION

IV. WOOD TRUSSES

1. ENGINEERED ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND COORDINATED WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS ROOF TRUSS DRAWINGS SHALL BE SIGNED AND SEALED BY THE MANUFACTURER AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

2. ALL TRUSSES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH BCSI 1-03 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."

3. THE TOP CHORD OF ALL ROOF TRUSSES SHALL BE SHEATHED WITH MINIMUM 7/16" WOOD STRUCTURAL SHEATHING (PLYWOOD -or- OSB). PROVIDE PLYWOOD EDGE CLIPS BETWEEN PANELS.

4. PROVIDE PERMANENT BOTTOM CHORD TRUSS BRACING AND WEB MEMBER PLANE BRACING IN ACCORDANCE WITH BCSI-B2 "TRUSS INSTALLATION AND TEMPORARY BRACING" AND BCSI-B3 "WEB MEMBER PERMANENT BRACING/WEB REINFORCEMENT."

<u>ABBREVIATIONS</u>

CONCRETE CONT CONTINUOUS DOUBLE DOUBLE JOIST DSP DOUBLE STUD POCKET EACH FLAT PLATE FOOTING HGR HANGER LAMINATED VENEER LUMBER NOT TO SCALE ON CENTER PRESSURE TREATED RAFTER SUPPORT STUD COLUMN STUD POCKET TRIPLE JOIST TYPICAL

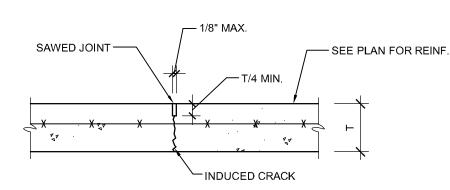
UNLESS NOTED OTHERWISE

EXTRA JOIST

DESIGN LOADS:

— 1/2" DIA. ANCHOR BOLTS AT 2'-8" O.C. AND 12" FROM ENDS OF SILL PLATE. SEE WOOD NOTE #6. — 6x6-W2.1xW2.1 WWF SEE ARCH, DWGS. AND SITE PLANS — TURN WWF INTO -(2) CONT. #5 AT EDGE 1'-0"



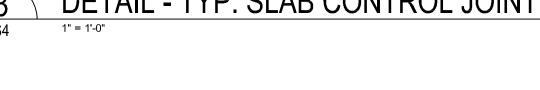


NOTES: 1. SAW JOINTS AS SOON AS CONCRETE WILL NOT RAVEL UNDER SAW BLADE.

> 2. ADD 20" LONG SMOOTH DOWELS WITH INSERTS AT ALL CONSTRUCTION JOINTS (IF USED).

3. CONTRACTOR'S OPTION TO CUT ALTERNATING WIRES AT JOINTS FOR ADDITIONAL CRACK

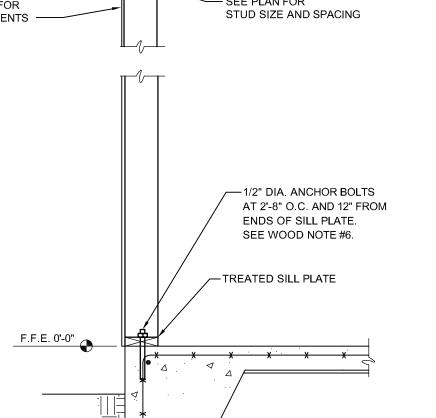






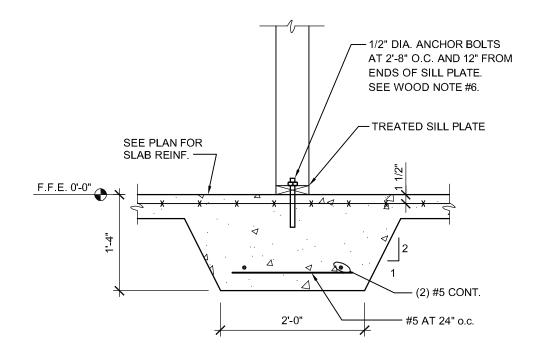
TRUSS BRG. E SEE PLAN - H2.5A HURRICANE TIE TRUSS TO DOUBLE TOP PLATE. PROVIDE (2) H2.5A HURRICANE TIES AT GIRDER TRUSS (MULTI-PLY) LOCATIONS U.N.O. ON PLAN. MIN. 7/16" WOOD STRUCTURAL SHEATHING (PLYWOOD -or- OSB) - SEE PLAN FOR SEE NOTES SHEET S7 FOR FASTENING REQUIREMENTS -

ROOF TRUSS

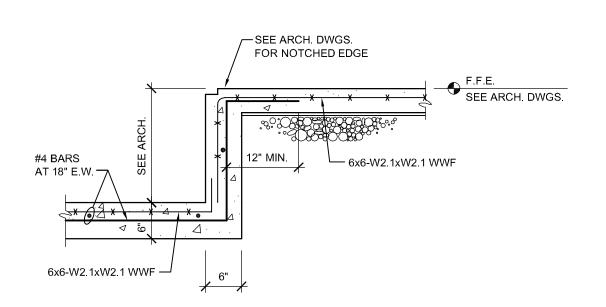


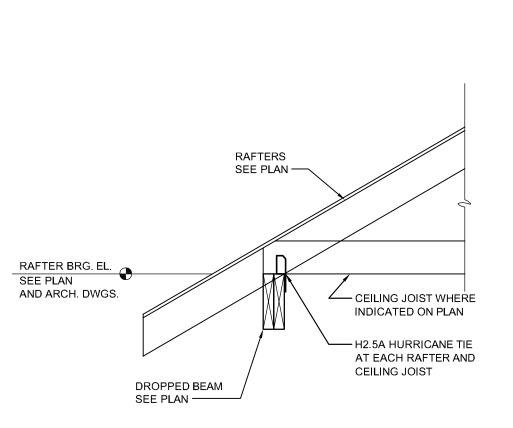
SEE DETAIL 1/S7 FOR

TYPICAL WALL SECTION

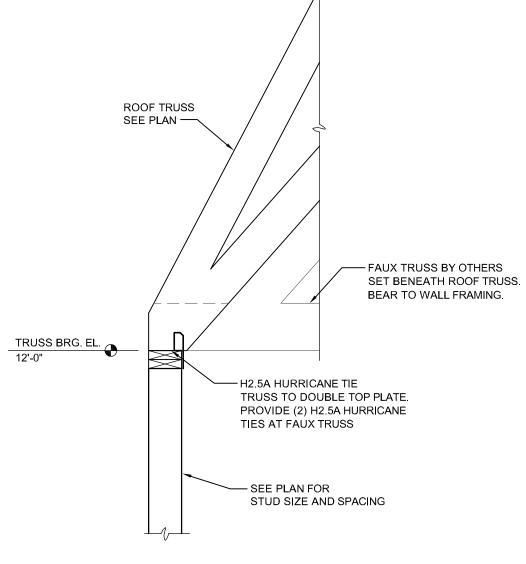








FRAMING SECTION

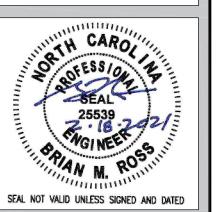






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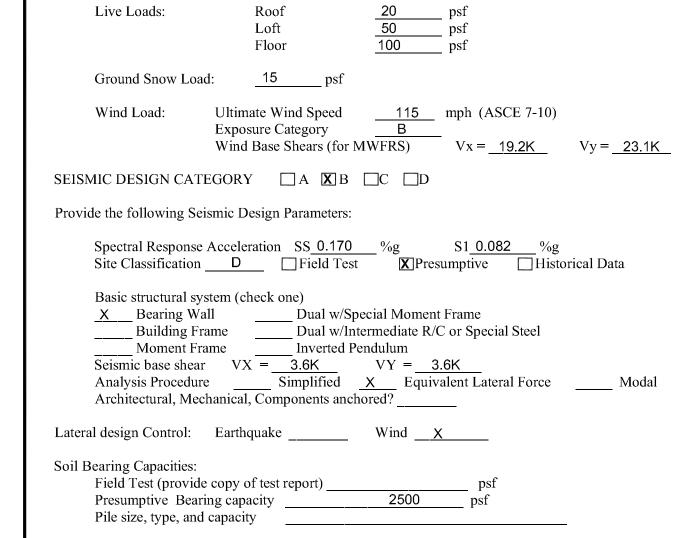


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NO. REVISION DATE SHEET DISCRIPTION STRUCTURAL **NOTES AND DETAILS**

PROJECT#: C200803 DATE ISSUED: 2/17/2020 DRAWING BY: BMR CHECKED BY:

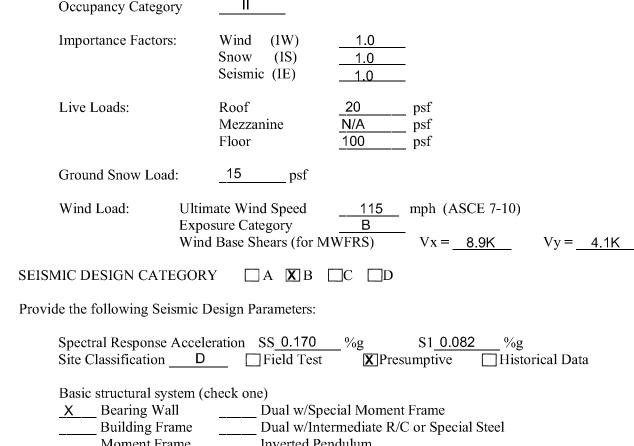
COMMUNITIE **PLANS** arina, NC SE Fuquay-Va SERENITY A CLUBHO



STRUCTURAL DESIGN - CLUBHOUSE

<u>1.0</u> 1.0

__1.0



STRUCTURAL DESIGN - POST OFFICE

Spectral Response Acceler Site Classification D	ration SS 0.170 %g S1 0.082 %g Field Test X Presumptive Historical Data
Basic structural system (ch	neck one)
X Bearing Wall	Dual w/Special Moment Frame
Building Frame	Dual w/Intermediate R/C or Special Steel
Moment Frame	Inverted Pendulum
Seismic base shear VX	V = 0.8K $VY = 0.8K$
Analysis Procedure	Simplified X Equivalent Lateral Force Modal
Architectural, Mechanical,	

Lateral design Control:	Earthquake	Wind X	
Soil Bearing Capacities:	C 44		
	e copy of test report)		psf
Presumptive Bear	ing capacity	2500	psf
Pile size, type, and	capacity		

GENERAL PLUMBING NOTES:

- 1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR,
- FASC FIRE ALARM SYSTEM CONTRACTOR. 2. "PROVIDE" MEANS TO FURNISH AND INSTALL. THE PLUMBING CONTRACTOR SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR.
- 3. THE PC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATIONAL SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS. 4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED AT AN APPROVED LOCATION, PC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE PC UNTIL THE PROJECT HAS BEEN COMPLETED
- AND TURNED OVER TO THE OWNER. 5. ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. ALL MATERIALS AND EQUIPMENT SHALL BEAR APPROVAL FROM UL OR AN APPROVED THIRD PARTY AGENCY. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, IT IS TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DETERMINED TO BE EQUAL BY
- THE ENGINEER WILL BE ACCEPTED. 6. THE PLUMBING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA PLUMBING CODE AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS
- CONFLICTS WITH THE ABOVE REQUIREMENTS. 7. THE PC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
- 8. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS
- FOR DIMENSIONS. 9. THESE PLANS ARE DIAGRAMMATIC. THE PC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, FIXTURES, PIPING, ETC, TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE PC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER. THE PO SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. TO AVOID POTENTIAL CONFLICTS, COORDINATE WITH
- OTHER TRADES PRIOR TO THE START OF CONSTRUCTION. ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO ANY DIGGING. 10. TRENCHING, COMPACTION, AND BACKFILL SHALL BE BY PC AND SHALL BE IN ACCORDANCE WITH SECTION 306 OF THE NC PLUMBING CODE. UNDERGROUND LINES SHALL BE LOCATED SUCH THAT THEY DO NOT
- ENDANGER FOOTINGS OR FOUNDATION WALLS. 11. THE PC SHALL PROVIDE FIRESTOPPING AT ALL PENETRATIONS OF RATED FLOOR/CEILING ASSEMBLIES AND RATED WALL ASSEMBLIES TO PRESERVE OR RESTORE THE FIRE RESISTANCE RATING. SEAL ALL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THE PROJECT.
- 12. SYSTEM TESTING SHALL BE PERFORMED BY PLUMBING CONTRACTOR IN ACCORDANCE WITH NORTH CAROLINA PLUMBING CODE, SECTIONS 312.2, 312.3, AND 312.5. 13. PC SHALL DISINFECT THE ENTIRE DOMESTIC WATER PIPING SYSTEM IN
- ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS. 14. AT THE COMPLETION OF WORK AND PRIOR TO ACCEPTANCE BY OWNER, THE PC SHALL CLEAN ALL EXPOSED FIXTURES, MATERIALS,
- AND EQUIPMENT UNDER THIS CONTRACT. 15. PC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

- 1. ALL OVERHEAD DOMESTIC WATER PIPING SHALL BE TYPE L COPPER WITH 95/5 LEAD FREE SOLDER, AND ALL BELOW GRADE WATER PIPING SHALL BE TYPE K COPPER WITH NO JOINTS. ALL PIPING SHALL HAVE MANUFACTURER'S NAME AND THE APPLICABLE STANDARD TO WHICH IT WAS MANUFACTURED CLEARLY MARKED ON EACH LENGTH. PIPING SHALL COMPLY WITH ASTM B-88. USE BRAZED JOINTS ON ALL COPPER PIPING 1-1/2 INCH AND LARGER. *** PC MAY USE PEX (ASTM F 877) WITH APPROVED FITTINGS (ASTM F 1807) WITH OWNER'S APPROVAL. *** CPVC PIPING (ASTM D 2846 OR ASTM F 441) WITH APPROVED FITTINGS (ASTM D 2846, ASTM F 438, OR ASTM F 439) MAY ALSO BE USED WHERE NOT LOCATED IN PLENUMS. ALL PLASTIC PIPE, FITTINGS, AND COMPONENTS SHALL BE THIRD PARTY CERTIFIED AS CONFORMING TO NSF 14. ALL PIPE AND PIPE FITTINGS. INCLUDING VALVES AND FAUCETS, USED IN THE WATER DISTRIBUTION SYSTEM SHALL HAVE A MAXIMUM LEAD CONTENT OF .25-PERCENT AND SHALL CONFORM TO NSF 61. HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI AT 180°F. COLD WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 160 PSI AT 73.4°F. DO NOT INSTALL
- PEX OR CPVC PIPING IN RETURN AIR PLENUMS. 2. BALL VALVES SHALL HAVE BRASS BODY, FULL PORT, CHROME PLATED BALL, WITH TEFLON SEATS, 150 PSI WSP, AND COMPLY WITH MSS SP-110. GATE VALVES SHALL HAVE BRONZE BODY, CLASS 150, AND COMPLY WITH MSS SP-80, TYPE 2 STANDARD. VALVE BODY SHALL BE ASTM B 62, BRONZE WITH INTEGRAL SEAT AND UNION RING BONNET. ENDS SHALL BE THREADED OR SOLDER WITH COPPER-SILICON BRONZE STEM AND SOLID-WEDGE BRONZE DISC. INSTALL VALVES IN LOCATIONS THAT PERMIT EASY ACCESS WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIALS; PROVIDE ACCESS DOORS IF REQUIRED. VALVES SHALL BE BY NIBCO, WATTS, OR STOCKHAM.
- 3. COLD WATER LINES SHALL BE INSULATED WITH 1/2 INCH THICK FIBROUS GLASS INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. HOT WATER LINES UP TO 2 INCHES DIAMETER SHALL HAVE 1 INCH THICK INSULATION CONFORMING TO THE SAME STANDARD. PIPING LARGER THAN 2 INCHES SHALL RECEIVE 1-1/2 INCH THICK INSULATION. CLOSED CELL RUBBER INSULATION MEETING THE SMOKE AND FLAME RATINGS ABOVE MAY BE SUBSTITUTED FOR FIBROUS GLASS TYPE IF SO DESIRED. INSULATION INSTALLED ON PIPING OPERATING BELOW AMBIENT TEMPERATURES MUST HAVE A CONTINUOUS VAPOR RETARDER. ALL JOINTS, SEAMS AND FITTINGS MUST BE SEALED. ON SYSTEMS OPERATING ABOVE AMBIENT, THE BUTT JOINTS SHOULD NOT BE SEALED. ON COLD SURFACES WHERE A VAPOR SEAL MUST BE MAINTAINED, INSULATION SHALL BE APPLIED WITH A CONTINUOUS, UNBROKEN MOISTURE AND VAPOR RETARDER. ALL HANGERS, SUPPORTS, ANCHORS, OR OTHER PROJECTIONS SECURED TO COLD SURFACES SHALL BE INSULATED AND VAPOR SEALED TO PREVENT CONDENSATION. ALL PIPE INSULATION SHALL BE CONTINUOUS THROUGH WALLS, CEILING OR FLOOR OPENINGS, OR SLEEVES EXCEPT WHERE FIRESTOP OR FIRESAFING MATERIALS ARE

- REQUIRED. INSULATION SHALL HAVE A FACTORY APPLIED ALL-SERVICE JACKET WITH SELF-SEALING LAP. WHITE-KRAFT PAPER BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBERS; CONFORMING TO ASTM C 1136 TYPE 1; VAPOR RETARDER; WITH A SELF-SEALING ADHESIVE. VERIFY THAT PIPING HAS BEEN TESTED, SURFACES ARE CLEAN AND DRY, AND ALL FOREIGN MATERIALS ARE REMOVED BEFORE APPLYING INSULATION MATERIALS. INSULATION SHALL BE BY KNAUF, ARMACELL, JOHNS-MANVILLE, OR OWENS-CORNING.
- 4. ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578 91. ALL INSULATION SHALL BE LOW-EMITTING WITH NOT GREATER THAN 0.05 PPM FORMALDEHYDE EMISSIONS. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED 5. FAUCETS AND FIXTURE FITTINGS SHALL CONFORM TO ASME A112.18.1. FAUCETS AND FIXTURE FITTINGS THAT SUPPLY DRINKING WATER FOR
- HUMAN CONSUMPTION SHALL CONFORM TO THE REQUIREMENTS OF NSF 61, SECTION 9. FIXTURE FITTINGS, FAUCETS, AND DIVERTERS SHALL BE INSTALLED AND ADJUSTED SO THAT THE FLOW OF HOT WATER FROM THE FITTINGS CORRESPONDS TO THE LEFT HAND SIDE OF THE FIXTURE FITTING.
- 6. BACKFLOW PREVENTION SHALL BE IN ACCORDANCE WITH SECTION 608.13 OF THE NC PLUMBING CODE AND THE LOCAL AUTHORITY HAVING JURISDICTION. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS SHALL CONFORM TO ASSE 1013 OR AWWA C511. THE RELIEF OPENING SHALL DISCHARGE BY AIR GAP. AIR GAPS SHALL COMPLY WITH ASME A112.1.1 AND AIR GAP FITTINGS WITH ASME A112.1.3. DOUBLE CHECK VALVE ASSEMBLIES SHALL CONFORM TO ASSE 1015 OR AWWA C510. ACCESS TO BACKFLOW PREVENTERS SHALL BE PROVIDED AS SPECIFIED BY THE INSTALLATION INSTRUCTIONS OF THE APPROVED MANUFACTURER.
- 7. FOR BELOW GRADE SANITARY WASTE PIPING, PC SHALL USE SERVICE WEIGHT CAST IRON PIPE WITH COMPRESSION JOINTS (ASTM A 74). USE MINIMUM 2 INCH SIZE UNDERGROUND. SOLID WALL SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET TYPE PIPE FITTINGS (ASTM D 3311) MAY ALSO BE USED. DO NOT USE PVC PIPE FOR APPLICATIONS WHERE THE WASTE WATER TEMPERATURE EQUALS OR EXCEEDS 140°F OR IF THE BUILDING HEIGHT EXCEEDS 75 FEET.
- 8. FOR ABOVE GRADE SANITARY WASTE AND VENT PIPING, USE SERVICE WEIGHT CAST IRON NO-HUB TYPE WITH COUPLINGS (CISPI 301). SOLID WALL SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET TYPE FITTINGS (ASTM D 3311) MAY BE USED IF PERMITTED BY LOCAL CODE, EXCEPT IN BUILDINGS EXCEEDING 75 FEET IN HEIGHT. DO NOT INSTALL PVC IN RETURN AIR PLENUMS. ALL VENT AND BRANCH VENT PIPES SHALL BE SO GRADED AND CONNECTED AS TO DRAIN BACK TO THE DRAINAGE PIPE BY GRAVITY. BRANCH VENTS EXCEEDING 40 FEET IN DEVELOPED LENGTH SHALL BE INCREASED BY ONE NOMINAL SIZE
- FOR THE ENTIRE DEVELOPED LENGTH OF THE PIPE. 9. PC SHALL PROVIDE ALL WATER HEATERS (WATTAGE/INPUT AND CAPACITY AS NOTED IN SCHEDULE). ALL WATER HEATERS SHALL BE THIRD PARTY CERTIFIED: PROVIDE PANS FOR WATER HEATERS IN ACCORDANCE WITH 504.7 OF THE NC PLUMBING CODE. ELECTRICAL CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR, PC SHALL COORDINATE WITH EC ON ELECTRICAL CHARACTERISTICS OF THE EQUIPMENT PROVIDED.
- 1. EXTEND DOMESTIC WATER PIPE FROM FIVE (5) FEET OUTSIDE THE BUILDING INTO THE BUILDING AS INDICATED ON THE PLANS AND INSTALL DOMESTIC WATER DISTRIBUTION PIPING TO ALL FIXTURES AND EQUIPMENT REQUIRING THE SAME. WATER SERVICE PIPE AND THE BUILDING SEWER SHALL BE SEPARATED BY 5 FEET OF UNDISTURBED OR COMPACTED EARTH IN ACCORDANCE WITH 603.2. PROVIDE ALL FITTINGS, VALVES, AND OTHER ACCESSORIES AS NECESSARY FOR A COMPLETE INSTALLATION. ALL DOMESTIC WATER PIPING SHALL BE CONCEALED IN FINISHED AREAS. ANY OPEN ENDS SHALL BE
- PROTECTED UNTIL FINAL CONNECTIONS ARE MADE. 2. ABOVE GRADE DOMESTIC WATER PIPING SHALL BE SLOPED AT A MINIMUM OF 1/32 INCH PER FOOT AND ARRANGED TO DRAIN AT LOW POINTS, INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT. ROUTE PIPING IN AN ORDERLY MANNER-PARALLEL OR PERPENDICULAR TO WALLS WHEN POSSIBLE-AND MAINTAIN GRADIENT. EACH SUPPLY BRANCH LINE SERVING MORE THAN ONE FIXTURE SHALL HAVE A SHUTOFF VALVE INSTALLED TO ISOLATE ALL FIXTURES AND PIECES OF EQUIPMENT SUPPLIED BY THE BRANCH LINE. THE SHUTOFF VALVE SHALL BE LABELED AND LOCATED AS CLOSE TO THE CONNECTION TO THE SUPPLY MAIN AND RISER AS POSSIBLE. PROVIDE A FULL-OPEN VALVE ON THE BASE OF EVERY WATER RISER PIPE AND ON THE TOP

OF EVERY WATER DOWN-FEED PIPE. PROVIDE VALVE HANDLE

- EXTENSIONS AS NECESSARY FOR INSULATION. 3. IT SHALL BE THE RESPONSIBILITY OF THE PC TO SUSPEND AND SUPPORT ALL PIPING SYSTEMS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALLY ACCEPTED PIPE HANGERS AND SUSPENSION EQUIPMENT. ALL FIXTURES, DEVICES, AND EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE FIXTURE OR EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT AND PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED STEEL DECKING. USE STEEL HANGERS FOR STEEL AND PLASTIC PIPE AND COPPER OR COPPER-PLATED HANGERS FOR COPPER PIPE. PROVIDE PROTECTION FOR COPPER PIPING IN CONTACT WITH DISSIMILAR METALS. WHERE COPPER PIPING IS SUPPORTED ON HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH OTHER METALS. IN GENERAL, HANGERS SHALL BE
- HANGERS AND ACCESSORIES SHALL BE GRINNEL, MASON, OR B-LINE. 4. SLEEVE ALL PIPES PASSING THROUGH PARTITIONS, WALLS, AND FLOORS. SLEEVES IN FLOORS AND INTERIOR WALLS OF POURED IN PLACE CONCRETE, BRICK, TILE, OR MASONRY SHALL BE SCHEDULE 40 STEEL PIPE, MACHINE CUT. SLEEVES IN GYPSUM BOARD WALLS SHALL BE 22 GAUGE, ROLLED GALVANIZED SHEET METAL. TACK WELD ON THE LONGITUDINAL SEAM. PROVIDE SLEEVES WHERE PIPES PASS THROUGH FLOORS AND WALLS ABOVE AND BELOW CEILINGS. PROVIDE SPLIT PIPE SLEEVES IN NEW WALLS BUILT UP AROUND EXISTING PIPES. TACK WELD SPLIT SLEEVES TOGETHER. SLEEVES IN WALLS SHALL BE INSTALLED FLUSH WITH THE WALL. SLEEVES IN FLOORS SHALL EXTEND 3/4 INCH ABOVE THE FLOOR-EXCEPT THEY SHALL BE FLUSH FOR 2 HOUR RATED FLOORS-AND SHALL BE FLUSH WITH THE STRUCTURE BELOW. EACH SLEEVE SHALL HAVE AN INSIDE DIAMETER 1 INCH LARGER THAN THE OUTSIDE DIAMETER OF THE COVERING OF EACH COVERED PIPE TO ALLOW CONTINUOUS INSULATION—BUT NOT LESS THAN TWO PIPE SIZES LARGER THAN EACH UNCOVERED. ANNULAR

CLEVIS TYPE, STANDARD WEIGHT. FOR PIPING, HANGER SPACING SHALL

BE IN ACCORDANCE WITH TABLE 308.5 OF THE NC PLUMBING CODE.

IN AN APPROVED MANNER. 5. THE TOP OF WATER PIPES INSTALLED BELOW GRADE OUTSIDE THE BUILDING SHALL BE BELOW THE FROST LINE OR A MINIMUM OF 12 INCHES BELOW FINISHED GRADE WHICHEVER IS GREATER. WATER

SPACES BETWEEN SLEEVES AND PIPES SHALL BE FILLED OR CAULKED

- PIPING INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED UTILITY ROOM OR UNCONDITIONED ATTIC SHALL BE INSULATED TO A MINIMUM OF R6.5 DETERMINED IN ACCORDANCE WITH ASTM C 177.
- 6. HOT WATER PROVIDED TO PUBLIC HAND-WASHING FACILITIES/LAVATORIES SHALL BE TEMPERED WATER DELIVERED THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3.
- 7. INSULATE ALL EXPOSED WASTE AND SUPPLY PIPING UNDER LAVATORIES. SINKS, AND ELECTRIC WATER COOLERS WITH THE HANDI-LAV GUARD INSULATION KIT BY TRUEBRO OR EQUAL. 8. POTABLE WATER OUTLETS SHALL BE PROTECTED FROM BACKFLOW IN ACCORDANCE WITH 608.15. PRESSURE TYPE VACUUM BREAKERS SHALL CONFORM TO ASSE 1020 AND SPILPROOF VACUUM BREAKERS SHALL
- COMPLY WITH ASSE 1056. HOSE-CONNECTION VACUUM BREAKERS SHALL CONFORM TO ASSE 1011, ASSE 1019, ASSE 1035, OR ASSE 1052. CONNECTIONS TO BEVERAGE DISPENSERS, COFFEE MACHINES, AND NON-CARBONATED BEVERAGE DISPENSERS SHALL BE PROTECTED BY A BACKFLOW PREVENTER IN ACCORDANCE WITH ASSE 1022. 9. THE PC SHALL INSTALL WATER HAMMER ARRESTORS ON BRANCH LINES
- WITH QUICK CLOSING VALVES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. WATER HAMMER ARRESTORS SHALL CONFORM TO ASSE 10. THE PC SHALL PROVIDE CHECK VALVES AT ALL FIXTURES WITH
- THREADED OUTLETS AS REQUIRED BY CODE. TRAP PRIMERS SHALL BE PROVIDED AS SHOWN ON THE PLANS OR AS REQUIRED. 11. ADJUST STOPS AND VALVES FOR INTENDED FLOW RATE TO FIXTURES

WITHOUT SPLASHING, NOISE, OR OVERFLOW.

- 12. BEFORE COMMENCING WORK, CHECK INVERT ELEVATIONS REQUIRED FOR SEWER CONNECTIONS, CONFIRM INVERTS, AND VERIFY THESE CAN BE PROPERLY CONNECTED TO WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING. ONCE INVERTS AND FALL HAVE BEEN ESTABLISHED, EXTEND SANITARY SEWER PIPING TO 5 FEET OUTSIDE THE BUILDING AND INSTALL ALL DRAINS, STACKS, VENTS, FLOOR DRAINS, AND CLEANOUTS NECESSARY FOR A COMPLETE INSTALLATION.
- 13. ALL SANITARY SEWER PIPING IS BELOW GRADE OR WITHIN WALLS UNLESS OTHERWISE NOTED. ALL SANITARY VENT PIPING IS ABOVE THE CEILING OR WITHIN WALLS UNLESS OTHERWISE NOTED. SOIL AND WASTE PIPING SHALL BE INSTALLED TO PROVIDE PROTECTION AGAINST Freezing per 305.6.1. Waste and soil lines leaving the building MUST HAVE A MINIMUM COVER OF 3 INCHES.
- 14. SOIL AND WASTE LINES 2-1/2 INCHES AND SMALLER SHALL BE SLOPED AT 1/4 INCH PER FOOT MINIMUM. SOIL AND WASTE LINES 3 INCHES TO 6 INCHES IN DIAMETER SHALL BE SLOPED AT 1/8 INCH PER FOOT MINIMUM.
- 15. FOR WATER CLOSET WASTE CONNECTIONS, A 4 INCH BY 3 INCH CLOSET BEND SHALL BE ACCEPTABLE. WHERE A 3 INCH BEND IS UTILIZED ON WATER CLOSETS, A 4 INCH BY 3 INCH FLANGE SHALL BE INSTALLED TO RECEIVE THE FIXTURE HORN.
- 16. FOR PLASTIC PIPE SIZES GREATER THAN 6 INCHES, AND OTHER PIPE SIZES GREATER THAN 4 INCHES, RESTRAINTS SHALL BE PROVIDED FOR DRAIN PIPES AT ALL CHANGES IN DIRECTION AND AT ALL CHANGES IN DIAMETER GREATER THAN TWO PIPE SIZES. BRACES, BLOCKS, RODDING, BACKFILL AND OTHER SUITABLE METHODS AS SPECIFIED BY THE COUPLING MANUFACTURER SHALL BE UTILIZED.
- 17. BASES OF STACKS SHALL BE SUPPORTED BY THE BUILDING STRUCTURE, VIRGIN OR COMPACTED EARTH, OR OTHER SUITABLE MATERIAL TO SUPPORT THE WEIGHT OF THE PIPING.
- 18. HORIZONTAL DRAIN PIPES SHALL HAVE CLEANOUTS IN ACCORDANCE WITH 708.10. EXTEND CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH A MIXTURE OF GRAPHITE AND LINSEED OIL. ENSURE CLEARANCE AT ALL CLEANOUTS FOR RODDING OF DRAINAGE SYSTEM. INSTALL FLOOR CLEANOUTS AT AN ELEVATION TO ACCOMMODATE FINISHED FLOOR, EVERY CLEANOUT SHALL BE INSTALLED TO ALLOW CLEANING IN THE DIRECTION OF FLOW OF THE DRAINAGE PIPE OR AT RIGHT ANGLES THERETO. CLEANOUTS ON 6 INCH AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 18 INCHES FOR RODDING.
- 19. DRAINAGE PIPING FOR FUTURE FIXTURES SHALL TERMINATE WITH AN APPROVED CAP OR PLUG. 20. AIR ADMITTANCE VALVES SHALL BE INSTALLED AFTER THE DWV TESTING REQUIRED BY SECTIONS 312.2 AND 312.3. PROVIDE ACCESS TO ALL AIR ADMITTANCE VALVES PER CODE. INSTALLATION OF ALL AIR ADMITTANCE VALVES SHALL CONFORM TO SECTION 917 OF THE NC PLUMBING CODE. AIR ADMITTANCE VALVES SHALL CONFORM TO ASSE
- 1050 OR 1051. 21. INDIRECT WASTE PIPING THAT EXCEEDS 2 FEET IN DEVELOPED LENGTH MEASURED HORIZONTALLY, OR 4 FEET IN TOTAL DEVELOPED LENGTH, SHALL BE TRAPPED. THE AIR GAP BETWEEN THE INDIRECT WASTE PIPE AND THE FLOOD LEVEL RIM OF THE WASTE RECEPTOR SHALL BE A MINIMUM OF TWICE THE EFFECTIVE OPENING OF THE INDIRECT WASTE
- 22. THE PC SHALL PROVIDE UNIONS FOR DISASSEMBLY AND SERVICE OF ALL FIXTURES AND OTHER RELEVANT PLUMBING EQUIPMENT. UNIONS SHALL BE GROUND-JOINT WITH BRASS SEAT. PROVIDE INSULATING UNIONS AT EACH JUNCTION OF DISSIMILAR MATERIALS.
- 23. THE PC SHALL ACCURATELY ROUGH—IN ALL FIXTURES ACCORDING TO MANUFACTURER'S INSTALLATION DIMENSIONS AND INSTRUCTIONS. OFFSET ADAPTERS AND FLEXIBLE CONNECTORS ARE NOT ACCEPTABLE. FLUSH HANDLES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS FOR ADA COMPLIANCE. INSTALL EACH FIXTURE WITH TRAP EASILY REMOVABLE FOR SERVICING AND CLEANING. SEAL FIXTURES TO WALL AND FLOOR SURFACES WITH SEALANT. SOLIDLY ATTACH WATER CLOSETS TO FLOOR WITH LAG SCREWS. SEAL ALL SELF-RIMMING LAVATORIES AND SINKS (VITREOUS CHINA AND STAINLESS STEEL) WITH A COMMERCIAL GRADE PLUMBER'S PUTTY OR ACRYLIC LATEX CAULK APPLIED TO THE UNDERSIDE OF THE FIXTURE RIM IN A GENEROUS AMOUNT SO THAT WHEN FIXTURE IS SET, SEALANT SHALL OOZE OUT.
- 24. ALL VENT THRU THE ROOF (VTR) PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. PC SHALL PROVIDE FLASHING MATERIAL REQUIRED FOR VTRS. JOINTS AT THE ROOF AND AROUND VENT PIPES, SHALL BE MADE WATER TIGHT BY THE USE OF LEAD, COPPER, GALVANIZED STEEL, ALUMINUM, OR OTHER APPROVED FLASHINGS OR FLASHING MATERIAL. MAINTAIN MINIMUM 10 FEET FROM all outside air intakes.

BETURE AND AFTER THE ASSEMBLY, SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 P11 EXPANSION TANK AMTROL ST-5 OR EQUAL BY WATTS OR BELL & GOSSETT P12 SINK DOUBLE BOWL ELKAY LRADGO319 OR EQUAL BY FRANKE OR MOEN ELKAY LRADGO319 OR EQUAL BY FRANKE OR MOEN DELTA FAUCET SET 140-DST (PC TO VERIFY WITH DWNER IF SPRAYER OPTION IS NEEDED) OR EQUAL BY MOEN OR KOHLER. P13 REFRIGERATOR VALVE DATEY OR APPROVED EQUAL BY KOHLER. P14 THERMOSTATIC AUXING VALVE WATTS MIXING VALVE WATTS LAWLER, LEDNARD VALVE, OR WATTS DOOR, AND INTEGRAL MOUNTING HOLES, TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE P15 FLOOR DRAIN ZURN FD1 OR EQUAL BY WATTS DN GRADE EPDLY COASTED CAST IRON FLOOR PREVENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN WID POSITIVE SEATING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN WID POSITIVE SEATING OFFICE WATCH. SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL AUTO DRAIN WATTS LF909 OF OR EQUAL BY POSITIVE SEATING OFFICE OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN WID POSITIVE SEATING OFFICE WALVES. THE ASSEMBLY SHALL INCLUDE IVO TIGHTLY CLOSING SHOTTEF VALVES BEFORE AND AFTER THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL AUTO DRAIN BETWEEN THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 AUTO DRAIN BETWEEN THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 AUTO DRAIN BETWEEN THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 AUTO DRAIN BETWEEN THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 AUTO DRAIN BETWEEN THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511 AUTO DRAIN BETWEEN THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWA C511			PLUMBING FIXTURE SCHEDULE		
THE WRITE CLIEST THE PIECE NAME OF THE CONTINUES OF THE LOSS IT. ADDITION TO CHARGE PROPERTY OF THE ANALYSIS OF THE PIECE AND ASSESSED TO CONTINUES. THE PIECE NAME AND THE CLIEST THE ANALYSIS OF THE PIECE AND T	CW	HW	RE MANUFACTURER FITTING	FIXTURE	SYMBOL
THE AM WATER CLOSET CLO	1/2*	-	CLOSET AMERICAN STANDARD OR TOTO CHROME TRIP LEVER, 1.28 GPF, PROVIDE KOHLER K-4731-C OPEN FRONT SEAT LESS COVER, ASME 112, 19, 2		P1
LAMATRY SCHOOL STAMMARD OR SCHOEF REPORT AND PRODUCE VITE AND ARROWS PROTECURES FOR SPICE AND DRAIN LIESE SPICE OF STAMMARD P3 INGER HOURT LAMATRY SCHOEF REPORT STAMMARD OR TITL LAMATRY SCHOEF REPORT STAMMARD OR TITL HERSTLOSECY REPORT STAMMARD OR TITL HERSTLOSECY REPORT STAMMARD OR TITL HERSTLOSECY REPORT STAMMARD HERSTLOSECY REPORT ST	1/2"	-	ATER AMERICAN STANDARD OR TOTO CHROME TRIP LEVER, 1.28 GPF, PROVIDE KOHLER K-4731-C OPEN FRONT SEAT LESS COVER, ASME 112.19.2	TYPE ADA WATER	P1H
LAWATERY AREACON STANDARD OR TOTO THE AREA 2 INDEES FORD FRONT EDGE FRANCE FAILET FAILED. THE AREA 2 INDEES FORD FRONT EDGE FAILET. THE OF RIN SHALL BE 15-1/4 INDEES AFF FOR PAIL AND COMPANIES THE PER SHAPE, LET'S EARL, LET'S EXPLA, LET'S EXPLA, LET'S FORD FRONT END FRONT E	' 1/2 '	1/2*	AMERICAN STANDARD OR INCHES AFF FOR ADA. PROVIDE WITH LAV-GUARD PROTECTORS FOR SUPPLY AND DRAIN LINES. PROVIDE JR KOHLER SMITH 0700 (CONCEALED ARMS) WITH 19" ARMS 0800 (WALL SUPPORT PLATE). USE DELTA 87T105 METERED		P2
URINAL MARKICAN STAMMEN TOTO DR MARKE TIZE 12.5 O. 125 GPF. LISK ROHER K-76319 PLUSHMETER OR EAUL BY TOTO, ZURN, OR SLAMM. PS SHORER SHERE FREE LSS4098A51B AND CORPARINT TRANSFER SUDGE, LETT SLAT, LETT RYALE, RIGHT RUNNING, PROVIDE VITH GRAB BAR, TO SHERE THE SLAT SLAT LETT RYALE. RETHER WAS REPORTED BY THE SLAT SLAT LETT RYALE. RETHER WAS REPORTED BY THE SLAT SLAT LETT RYALE. RETHER WAS REPORTED BY THE SLAT SLAT LETT RYALE. RETHER WAS REPORTED BY THE SLAT SLAT LETT RYALE. RETHER WAS REPORTED BY THE SLAT SLAT SLAT SLAT SLAT SLAT SLAT SLAT	1 /2 '	1/2"	AMERICAN STANDARD OR TOTO AFF AND 2 INCHES FROM FRONT EDGE FOR ADA. PROVIDE WITH LAV-GUARD PROTECTORS SUPPLY AND DRAIN		P3
FILDING SEAT, INTING VALVE, PRESSURE BACARCED, KHALER K-197821-04 WITH FOLD WITHOUT SURFEY SPRAY 1/2* TO SUPPLY ELBIN, SUPPL DIBLY, REVIEW EARLIER K-9928 SUPPLIER K-9928 AND WITH FOLD W	3/4*	-	APPROVED EQUAL BY TOTO OR WITH ASME 112. 19. 2. O. 125 GPF. USE KOHLER K-76319 FLUSHOMETER OR EQUAL BY TOTO, ZURN, OR SLOAN.		P4
FLOUR DRAIN FREEZERROUF HOSE FREEZERR	1 /2 '	1/2*	FOLDING SEAT, MIXING VALVE, PRESSURE BALANCED, KOHLER K-T97831-4 LEVER HANDLE, PREPLUMBED TREE TO SUPPLY ELBOW, SDAP DISH, PROVIDE KOHLER K-98362 SHOWER HEAD WITH FLOW SHUTDFF, SHOWER SPRAY HOSE, AND ALL OTHER ACCESSORIES FOR ADA COMPLIANCE. PROVIDE WITH SYMMONS 4-420 SHOWER VALVE	SHOWER	P5
ZURN, JR SMITH OR DWNER APPROVAL PROPROVAL PROBLEMS UDDIFFOR MODEL 68 OR EQUAL BY ZURN, MIFAB, OR DWNER APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT, WITH A ASSE 1052 DOUBLE CHECK BACKFLOW PREVENTER, APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT, WITH A ASSE 1052 DOUBLE CHECK BACKFLOW PREVENTER, APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT, WITH A ASSE 1052 DOUBLE CHECK BACKFLOW PREVENTER, APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT, WITH A ASSE 1052 DOUBLE CHECK BACKFLOW PREVENTER, APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT, WITH A ASSE 1052 DOUBLE CHECK BACKFLOW PREVENTER, APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT, WITH A ASSE 1052 DOUBLE CHECK BACKFLOW PREVENTER, APPROVAL THE MODEL 68 IS A ASSE 1053 LISTED HYDRANT IN THE MODEL 68 IS A ASSE 1053 AND THE MAY THE FAST THE MODEL 69 IS A ASSE 1053 AND THE MAY THE FAST THE MODEL 69 IS A ASSE 1053 AND THE MAY THE FAST THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY THE MODEL 69 IS A ASSE 1053 AND THE MAY ASSET THE ASSEMBLY THE REQUIREMENTS OF ASSET 1013 AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS A STAINLESS THE ASSEMBLY THE REQUIREMENTS OF ASSET 1013 AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS A STAINLESS THE ASSEMBLY FOR THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS ASSETTED THE MODEL 69 IS A STAINLESS THE ASSEMBLY FOR THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD FELL ASSESTED THE MODEL 69 IS AND THE FIRST SHOULD	3∕6"	-		DRINKING FOUNTAIN	P6
BIBB BY ZURN, MIFAB, DR DWNER APPROVAL BY ZURN, MIFAB, DR DWNER APPROVAL WITH A TATACHED HOSE, HAS A DNE PIECE PLUKER WHICH CINTRIES, SERIA HAD FLOW FUNCTION, WERKS WITH A FATACHED HOSE, HAS A DNE PIECE PLUKER WHICH CINTRIES, SERIA HAD FLOW FUNCTION, WERKS WITH A PROVIDE CHECK WALVE AND ANX TEMPERATURE OF 120 DEGREES, TEE KLY FOR HYDRANT DOOR AND DIOCK, EASTER TO INSTALL THAN STANDARD RECESSED BOTH HORMAT, WALL CLAMP IS INCLUDED, HEAD COVER FILES DOOR AND DID OF THE WAY FIRE UNDESTRUCTED HYDRANT USE. PO INTERIOR HOSE BIBB WOODFROM DIDEL 26 OR EQUAL PROVIDE CHECK VALVE AND ANTI-SIPHON PROTECTION IF NOT INTEGRAL TO UNIT BY COMBRACO OR VILKINS PREVENTER PREVENTER BY COMBRACO OR VILKINS POSTITUS ESATING CHECK VALVES. THE ASSEMBLY SHALL DUCLIDE TWO TIGHTLY CLOSING SHATDEY VALVES. BEFORE AND AFTER THE ASSEMBLY, SHALL DUCKS AND A PROTECTIVE STRAINER POSTREAM OF THE FIRST SHUTTOFF VALVE. THE ASSEMBLY SHALL DAY AND ANY CIST OF THE PROVIDE THAT AND ANY CIST. THE ASSEMBLY SHALL DAY ON THE FIRST SHUTTOFF VALVE. THE ASSEMBLY SHALL DAY ON THE FIRST SHUTTOFF VALVE. THE ASSEMBLY SHALL DAY ON THE PROVIDE BY ANY COMBINED WITH STALL ON COLD WATER LINE BETVEEN WATER HEATER AND RPZ PIS SINK DOUBLE BOWL ELKAY LRADO3319 OR EQUAL BY KATES OF THE PROVIDE THE PROVIDE THE PROVIDE THE PROVIDE THE PROVIDE STANDARD THE FIRST SHALL PROVIDE THE PROVIDE STANDARD THE FLOW OF THE FIRST STANDARD THE PROVIDE THAP PRIME CONNECTION DRIVE WAS BEFORE AND AFTER THE ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZUNG BETWEEN TWO PROVIDES WALLEY. THE ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZUNG BETWEEN TWO PROVIDES WALLES. THE ASSEMBLY SHALL INCLIDE THE FIRST SHALL PROVIDE THE FIRST SHOULD SHALL PROVIDE STRAINER UPSTREAM OF THE FI	-	-	ZURN, JR SMITH OR DWNER NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED.	FLOOR DRAIN	P7
P10 1 1/2*PZ BACKFLDN WATTS LF009MI QT OR EQUAL PY CONBRACD OR WILKINS PREVENTER BY CONBRACD OR WILKINS PREVENTER BY CONBRACD OR WILKINS PREVENTER BY CONBRACD OR WILKINS BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTGER WALVES. THE ASSEMBLY SHALL INCLIDE TWO TIGHTLY CLOSING SHUTGER WALVES BEFORE AND AFTER THE ASSEMBLY SHALL INCLIDE TWO TIGHTLY CLOSING SHUTGER WALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTGER WALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAA C511 P11 EXPANSION TANK AMTROL ST-5 OR EQUAL BY WATTS OR BELL & GUSSETT WALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAA C511 P12 SINK DOUBLE BOWL BY FRANKE OR MOEN BY FRANKE OR	3/4*	-	BY ZURN, MIFAB, DR DWNER APPROVAL COMES WITH A CHROME PLATED BRASS HEAD WITH STAINLESS STEEL COVER, IT DRAINS AUTOMATICALLY EVEN WITH A ATTACHED HOSE, HAS A DNE PIECE PLUNGER WHICH CONTROLS DRAIN AND FLOW FUNCTION, WORKS WITH PRESSURES UP TO 125 PSI, AND A MAX TEMPERATURE OF 120 DEGREES, TEE KEY FOR HYDRANT DOOR AND LOCK, EASIER TO INSTALL THAN STANDARD RECESSED BOX HYDRANT, WALL CLAMP IS INCLUDED, HEAD		P8
PREVENTER BY CONBRACO OR WILKINS POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDEF VALVES BETORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST P11 EXPANSION TANK AMTROL ST-5 OR EQUAL BY WATTS OR BELL & GOSSETT P12 SINK DOUBLE BOWL ELKAY LEANO3319 OR EQUAL BY FRANKE OR MOEN TOP MOUNTED 18 GA STAINLESS STEEL, MAX BOWL DEPTH 6 INCHES FOR WHEEL CHAIR ACCESSIBLITY-USE DELTA FAUCET SET 140-DST (PC TO VERIFY WITH OWNER IF SPRAYER OPTION IS NEEDED) OR EQUAL BY MOEN OR KOHLER. P13 REFRIGERATOR VALVE DATEY OR APPROVED EQUAL HIGH IMPACT POLYSTYRENE BOX WITH 1/2 INCH FEMALE NPT INLET AND OUTLET CONNECTIONS, BRASS BODY, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE P14 THERMOSTATIC AVAITS ASSE STANDARD 1069 OR 1070 APPROVED WITH 1/2 INCH FEMALE NPT INLET AND OUTLET CONNECTIONS, BRASS BODY, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE CARRINGO BEFORE AND OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION DIFTION IF NOTED. P15 FLOOR DRAIN ZURN FDI OR EQUAL BY WATTS ON GRADE EPDLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION DIFTION IF NOTED. P16 3/4" RPZ BACKFLOW PREVENTER CONBERACO OR WILKINS POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE IND TIGHTLY CLOSING SHUTDEF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTDEF VALVES. SHUTDEF VALVES. THE ASSEMBLY SHALL INCLUDE FIRD TIGHTLY CLOSING SHUTDEF VALVES BEFORE AND AFTER THE ASSEMBLY. THE ASSEMBLY SHALL INCLUDE FIRD TIGHTLY CLOSING SHUTDEF VALVES. SHUTDEF VALVES. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND ANVA C511 AUTO DRAIN W. BACKFLOW PREVENTION. BURY DEPTH TO BE BELOW FROST LINE. COORDINATE WITH SITE CONDITIONS.	1/2"			INTERIOR HOSE BIBB	P9
P12 SINK DOUBLE BOVL ELKAY LRADQ3319 OR EQUAL BY FRANKE OR MOEN ELLAY LRADQ3319 OR EQUAL BY FRANKE OR MOEN DELTA FAUCET SET 140-DST (PC TO VERIFY WITH DUNER IF SPRAYER OPTION IS NEEDED) OR EQUAL BY MOEN OR KOHLER. P13 REFRIGERATOR VALVE DATEY OR APPROVED EQUAL HIGH IMPACT POLYSTYRENE BOX WITH 1/4 TURN BRASS BALL VALVE. COMPLIANT WITH NSF 61, SECTION 9. P14 THERMOSTATIC MIXING VALVE LAWLER, LEDNARD VALVE, OR WAITS P15 FLOOR DRAIN ZURN FD1 OR EQUAL BY WAITS ZURN FD1 OR EQUAL BY WAITS DR JR SMITH DR JR SMITH DR JR SMITH DR JR SMITH P16 3/4' RPZ BACKFLOW PREVENTER CONBRACO OR VILKINS P20 AND AFTER THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDER VALVES BEFORE AND AFTER THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDER VALVES BEFORE AND AFTER THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAYA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL AUTO DRAIN W. BACKFLOW PREVENTION. BURY DEPTH TO BE BELOW FROST LINE. COORDINATE WITH SITE CONDITIONS.	1 1/2*	-	BY CONBRACO OR WILKINS POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST		P10
BY FRANKE OR MODEN DELTA FAUCET SET 140-DST (PC TO VERIFY WITH DWNER IF SPRAYER OPTION IS NEEDED) OR EQUAL BY MODEN OR KOHLER. P13 REFRIGERATOR VALVE BDX THERMOSTATIC MIXING VALVE LAWLER, LEDNARD VALVE, OR WATTS CARRIPGED EDSW, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE P14 FLOOR DRAIN ZURN FDI OR EQUAL BY WATTS OR JR SMITH DIN GRADE EPDXY COLATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEP HOLES, ADJUSTABLE ROUND NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED. P15 FLOOR DRAIN ZURN FDI OR EQUAL BY WATTS OR JR SMITH DIN GRADE EPDXY COLATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEP HOLES, ADJUSTABLE ROUND NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED. P16 3/4' RPZ BACKFLOW PREVENTER WATTS LF909 QT OR EQUAL BY CINBRACO OR WILKINS P172' RPZ ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDEF VALVES BEFORE AND AFTER THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND ANAWA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL AUTO DRAIN W. BACKFLOW PREVENTION. BURY DEPTH TO BE BELOW FROST LINE. COORDINATE WITH SITE CONDITIONS.	3/4"	-		EXPANSION TANK	P11
P14 THERMOSTATIC MIXING VALVE CARTRIDGE DESIGN. P15 FLOOR DRAIN ZURN FDI OR EQUAL BY WATTS DR. JR. SMITH P16 3/4' RPZ BACKFLOW PREVENTER P17 CONBRACO OR WILKINS P18 YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL P19 YARD HYDRANT P19 YARD HYDRANT P10 THERMOSTATIC MIXING VALVE CARRINGE CONNECTION BURY DEPTH TO BE BELOW FROST LINE. COORDINATE WITH SITE CONNECTION. P19 ASSE STANDARD 1069 OR 1070 APPROVED WITH 1/2 INCH FEMALE NPT INLET AND OUTLET CONNECTIONS, BRASS BODY, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE 1/2' P17 CARTRIDGE DESIGN. P18 FLOOR DRAIN ZURN FDI OR EQUAL BY WATTS ON GRADE EPOXY COLATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEP HOLES, ADJUSTABLE ROUND NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED. P19 ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDEF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTDEF VALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAR C511 P19 APPROVED EQUAL P19 ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAR C511 P19 APPROVED EQUAL P19 ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAR C511 P19 APPROVED EQUAL P19 ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAR C511 P19 APPROVED EQUAL	' 1/2 '	1/2"	BY FRANKE OR MOEN DELTA FAUCET SET 140-DST (PC TO VERIFY WITH OWNER IF SPRAYER OPTION IS NEEDED) OR EQUAL BY	SINK DOUBLE BOWL	P12
MIXING VALVE LAWLER, LEDNARD VALVE, DR WATTS BODY, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE 1/2' P15 FLOOR DRAIN ZURN FD1 DR EQUAL BY WATTS DR JR SMITH DIN GRADE EPDXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEP HOLES, ADJUSTABLE ROUND NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED. - P16 3/4' RPZ BACKFLOW PREVENTER WATTS LF909 QT DR EQUAL BY CONBRACO DR WILKINS RPZ ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTOFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTOFF VALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWAA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL DR APPROVED EQUAL AUTO DRAIN W. BACKFLOW PREVENTION. BURY DEPTH TO BE BELOW FROST LINE. COORDINATE WITH SITE - CONDITIONS. - - - - CONDITIONS. - - - - - - - - - - - - -	1/2"	-	JR VALVE DATEY DR APPROVED EQUAL HIGH IMPACT POLYSTYRENE BOX WITH 1/4 TURN BRASS BALL VALVE. COMPLIANT WITH NSF 61, SECTION 9.		P13
P16 3/4' RPZ BACKFLOW PREVENTER CONBRACO OR WILKINS POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTDFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTDFF VALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWWA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL CONDITIONS. NICKEL BRONZE STRAINER, AND NO HUB DUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED. - PROVIDE TRAP PRIMER CONNECTION IF NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION IN THE NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION IN THE NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION IN THE NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION IN THE NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION IN THE NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION IN THE NOTED. - PROVIDE TRAP PRIMER CONNECTION OPTION OPTION IN THE NOTED. - PROVIDE TRAP PROVIDE TRAP PRIMER CONNECTION OPTION OPTIO	' 1/2 '	1/2"	VE LAWLER, LEDNARD VALVE, DR BODY, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE		P14
PREVENTER CONBRACO OR WILKINS POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTOFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTOFF VALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWWA C511 YHD YARD HYDRANT WOODFORD MODEL S4H-LL OR APPROVED EQUAL CONDITIONS. - CONDITIONS	-	-		FLOOR DRAIN	P15
APPROVED EQUAL CONDITIONS	3/4"	-	CONBRACO OR WILKINS POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTOFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST		P16
	1'	-		YARD HYDRANT	YHD
FCD FLOOR CLEANOUT ZURN, WATTS, JR SMITH EPOXY COATED CAST IRON FLOOR CLEANOUT WITH ROUND ADJUSTABLE GASKETED NICKEL BRONZE TOP, REMOVABLE GAS TIGHT GASKETED BRASS CLEANOUT PLUG, AND NO HUB INLET.	_	_		FLOOR CLEANOUT	FCD
WCD WALL CLEANDUT ZURN, WATTS, DR JR SMITH CAST IRDN CLEANDUT FERRULE WITH THREADED BRASS COUNTERSUNK CLEANDUT PLUG, STAINLESS STEEL ACCESS COVER, AND VANDAL PROOF STAINLESS STEEL SCREW	-	-		WALL CLEANDUT	WCD

FIXTURE TYPE	DCCUPANCY	QTY	DRAINAGE FIX	TURE UNITS		WATER	SUPPLY FIXTUR	PF LINITS	
TINIONE THE	BCCOI TINCT	wii i	EACH	TOTAL	CW	HW	CW & HW	HW TOTAL	TOTAL
WATER CLOSET (FLUSH TANK)	PUBLIC	9	4. 00	36. 00	5. 00	0.00	5. 00	0, 00	45. 00
SHOWER	PUBLIC	3	2. 00	6. 00	3. 00	3. 00	4. 00	9. 00	12. 00
LAVATORY	PUBLIC	8	1. 00	8. 00	1. 50	1. 50	2. 00	12. 00	16. 00
URINAL (¾" FLUSH VALVE)	PUBLIC	2	2. 00	4. 00	5. 00	0, 00	5, 00	0. 00	10. 00
DRINKING FOUNTAIN	PUBLIC	3	0. 50	1, 50	0. 25	0, 00	0, 25	0. 00	0. 75
DEMAND CIVILIDE	СРМ	ntv	тптал срм				TOTAL DELL	55	5
DEMAND FIXTURE	GPM 5	QTY 6	TOTAL GPM				TOTAL DFU	55.	
DEMAND FIXTURE HOSE BIBBS YARD HYDRANT	GPM 5	QTY 6 1	TOTAL GPM 30, 00				TOTAL DFU TOTAL VFSUs GPM	55. 21. 0 19. 98	83. 8
HOSE BIBBS	5	6	30. 00			OTHER F	TOTAL WFSUs	21. 0	83. 8 39. 14
HOSE BIBBS	5	6	30. 00			OTHER F	TOTAL WFSUs	21. 0 19. 98	83. 8 39. 14 31. 00
HOSE BIBBS	5	6	30. 00			OTHER F	TOTAL WFSUs GPM IXTURES' GPM	21. 0 19. 98 0. 00	83. 8 39. 14 31. 00
HOSE BIBBS	5	6	30. 00			OTHER F	TOTAL WFSUs GPM IXTURES' GPM	21. 0 19. 98 0. 00	
HOSE BIBBS	5 1	6	30. 00			OTHER F	TOTAL WFSUs GPM IXTURES' GPM	21. 0 19. 98 0. 00	83. 8 39. 14 31. 00

ELECTRIC WATER HEATER SCHEDULE												
MARK	MEC	MUDE	TANK VOL	INPUT	PUT RECOVERY SET POINT			VER .	CONNE	CTIONS	DDTIDNS	
MAKK	MFG	MODEL	GALS	kW	GPH @ 60° ∆T	° F	VOLTAGE	PHASE	HOT	COLD	OPTIONS	
WH-1	STATE	PCE3020LSA	30	4. 5	30	110	208	1	3/4	3/4	1-5	
WH-2	STATE	PCE2010MSA	20	4. 5	30	110	208	1	3/4	3/4	1-5	

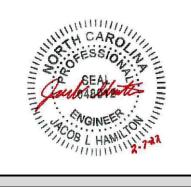
PROVIDE GALVANIZED STEEL SAFETY PAN

DO NOT TAP WATER

- UL 174 LISTED PROVIDE ASME LISTED TEMPERATURE AND PRESSURE RELIEF VALVE
- MEET OR EXCEED ENERGY FACTOR REQUIREMENTS OF ASHRAE 90.1-2007 5. OR EQUAL BY A.O. SMITH, BRADFORD WHITE, OR STATE

LINE	TYPE LEGEND
COLD WATER SLIPPLY	
HOT WATER SUPPLY	··
SANITARY SEWER LINE VENT LINE	

BUILDING & DEVELOPMENT CO.





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NO. REVISION DATE CODE COMENTS 2-7-2022

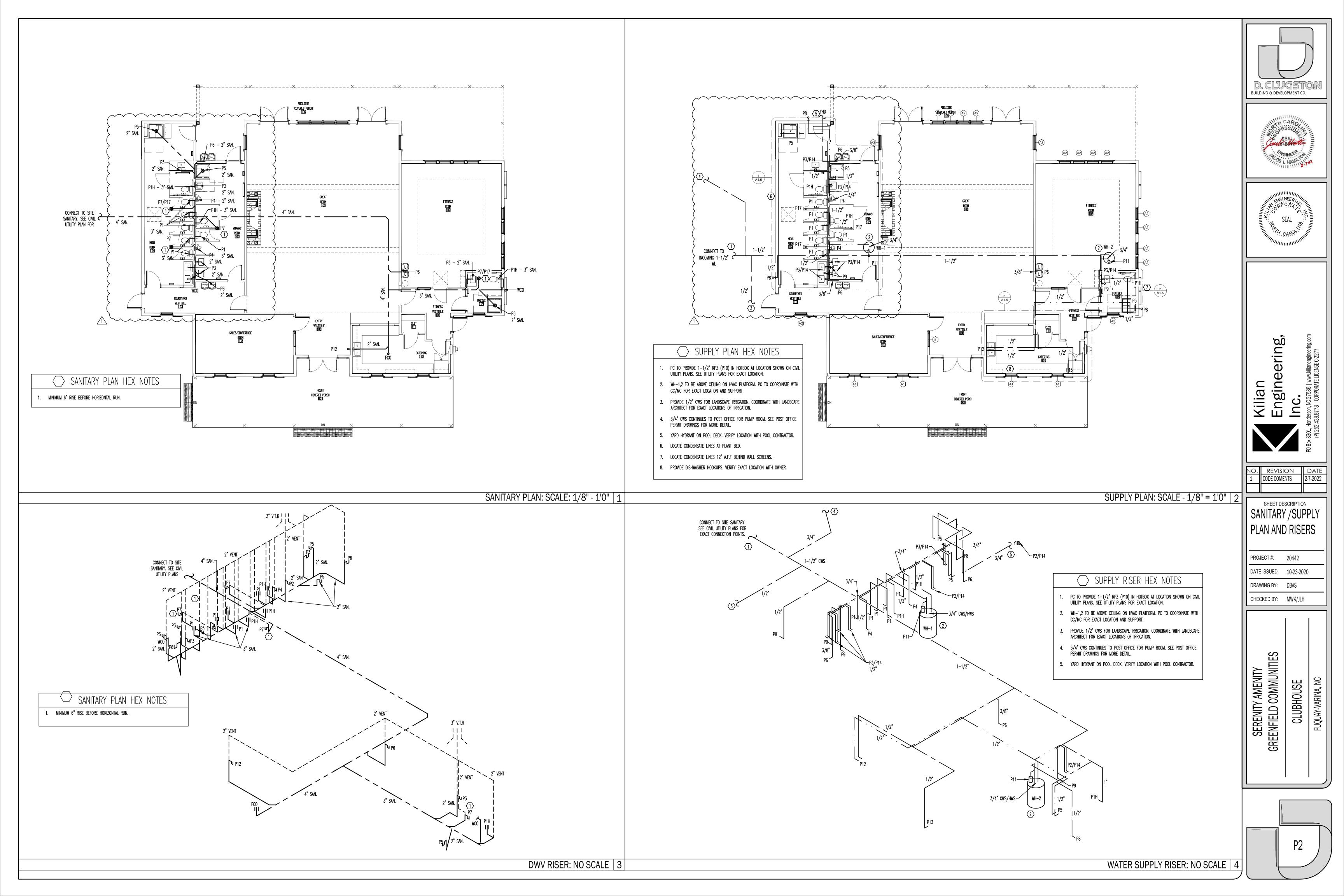
SHEET DESCRIPTION PLUMBING NOTES AND SCHEDULES

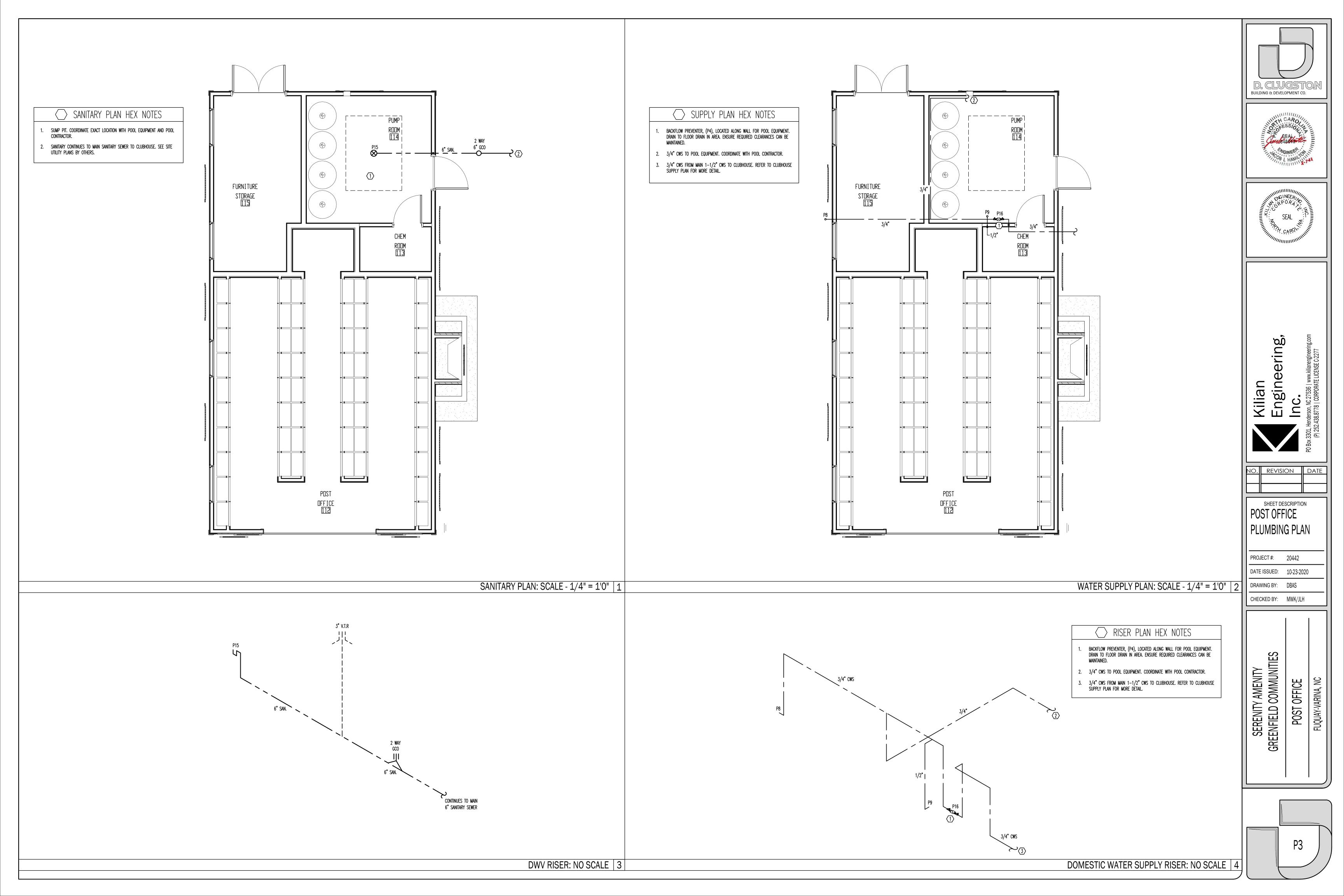
PROJECT #: 20442 DATE ISSUED: 10-23-2020

DRAWING BY: DBAS CHECKED BY: MWK/JLH

/ AMENITIES COMMUNITIE SERENITY , REENFIELD (

JBHOUSE





GENERAL MECHANICAL NOTES:

- 1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR,
- FASC FIRE ALARM SYSTEM CONTRACTOR. 2. "PROVIDE" MEANS TO FURNISH AND INSTALL. MC SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND GENERAL CONTRACTOR AS SHOWN ON THE PLANS OR
- NECESSARY FOR A COMPLETE INSTALLATION. 3. THE MC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
- 4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE CONTRACTOR AT AN APPROVED LOCATION. THE MC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE MC UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE
- 5. THE MC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA MECHANICAL AND BUILDING CODES AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MC SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE
- REQUIREMENTS. 6. THE MC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS
- NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT. 7. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR
- DIMFNSIONS. 8. THE MC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE MC SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE MC SHALL
- COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION. ALL MECHANICAL MATERIALS SHALL BE NEW AND FREE OF DEFECT AND LISTED AND LABELED BY UL OR AN APPROVED THIRD PARTY AGENCY. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE MC WITHOUT ADDITIONAL COST TO THE OWNER. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, THE CITED EXAMPLE IS INTENDED TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. SUCH EXAMPLES ARE USED TO CONVEY A GENERAL STYLE, TYPE, CHARACTER, AND QUALITY OF THE PRODUCT DESIRED; PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL
- 10. THESE PLANS ARE DIAGRAMMATIC. THE MC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, DUCTS, REGISTERS, GRILLES, ETC, TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE MC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO
- 11. THE MC SHALL VERIFY THE FUNCTIONALITY AND OPERATION OF ALL EXISTING MECHANICAL EQUIPMENT IN THE AREA OF WORK. REPLACE FILTERS, LEAK TEST AND RECHARGE REFRIGERANT LINES, REPLACE OR LUBRICATE BEARINGS, CHECK LINKAGES AND ACTUATORS, AND PERFORM OTHER MAINTENANCE SERVICE AS
- NECESSARY TO GET THE EQUIPMENT IN PROPER ORDER. 12. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING.
- 13. IT IS THE MC'S RESPONSIBILITY TO VERIFY THAT ITEMS FURNISHED FOR THIS CONTRACT WILL FIT IN THE SPACE AVAILABLE. THE MC SHALL MAKE FIELD MEASUREMENTS AS NECESSARY TO DETERMINE SPACE REQUIREMENTS. IF THE MC MUST ALTER EQUIPMENT DUE TO SPACE CONSIDERATIONS, THE MC SHALL PROVIDE SIZES AND SHAPES THAT FIT THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS.
- 14. MC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT BEING PROVIDED.
- 15. MAINTAIN CLEARANCES FOR ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR SERVICEABILITY. ALL ROOFTOP EQUIPMENT MUST BE A MINIMUM OF 10 FEET FROM ROOF EDGE. 16. MC SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE
- INSTRUCTIONS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF THE PROJECT. MC SHALL PROVIDE ALL DOCUMENTATION TO THE OWNER AS NECESSARY TO SUBMIT FOR FACTORY WARRANTIES.
- 17. CONTRACTOR SHALL PROTECT ALL HVAC EQUIPMENT FROM CONSTRUCTION AND SHEET ROCK DUST DURING CONSTRUCTION. ALL FILTERS SHALL BE REPLACED WITH NEW AT THE COMPLETION OF THE PROJECT.
- 18. ALL EQUIPMENT INSTALLED ON ROOF MUST BE WITHIN THE ROOF SCREEN. 19. IF A ROOF PENETRATION IS REQUIRED AND THE ROOF IS UNDER WARRANTY, USE THE AUTHORIZED ROOFER. PROVIDE DOCUMENTATION.
- 20. ALL PIPING, WIRING, CONDUIT, INSULATION, EQUIPMENT, SUPPORTS, ETC. SHALL BE SUITABLE FOR INSTALLATION IN A RETURN PLENUM AS NECESSARY. COORDINATE
- WITH OTHER TRADES ON LOCATIONS OF ALL PLENUMS. 21. MC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

- 1. THE MC SHALL PROVIDE ALL DX UNITARY HEATING AND COOLING EQUIPMENT AS SCHEDULED ON THE DRAWINGS. AIR-COOLED SPLIT SYSTEM HEAT PUMPS AND AIR-CONDITIONERS SHALL BE BY TRANE, CARRIER, OR YORK. AIR-COOLED ROOFTOP PACKAGE HEAT PUMPS, GAS-ELECTRIC UNITS, AND AIR-CONDITIONERS SHALL BE BY TRANE, CARRIER, OR YORK. GAS FURNACES SHALL BE BY TRANE, CARRIER, OR YORK, THE MC SHALL PROVIDE FACTORY AND FIELD INSTALLED ACCESSORIES AS SCHEDULED OR AS NECESSARY FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM.
- 2. THE MC SHALL PROVIDE ALL EXHAUST AND SUPPLY FANS AS SCHEDULED. FANS SHALL BE BY GREENHECK, LOREN COOK, TWIN CITY, OR PENNBARRY.
- 3. DUCTWORK IS SHOWN WITH FREE AREA DIMENSIONS. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT STANDARD, 2 INCH S.P. EXTERNAL DUCT INSULATION AND FACTORY—INSULATED FLEXIBLE DUCT SHALL BE
- LEGIBLY PRINTED OR IDENTIFIED AT INTERVALS NOT GREATER THAN 36 INCHES WITH THE NAME OF THE MANUFACTURER, THE THERMAL RESISTANCE R-VALUE AT THE SPECIFIED INSTALLED THICKNESS AND THE FLAME SPREAD AND SMOKE-DEVELOPED INDEXES OF THE COMPOSITE MATERIALS. ALL DUCT INSULATION PRODUCT R-VALUES SHALL BE BASED ON INSULATION ONLY, EXCLUDING AIR FILMS, VAPOR RETARDERS OR OTHER DUCT COMPONENTS, AND SHALL BE BASED ON TESTED C-VALUES AT 75°F MEAN TEMPERATURE AT THE INSTALLED THICKNESS, IN ACCORDANCE WITH RECOGNIZED INDUSTRY PROCEDURES. THE INSTALLED THICKNESS OF DUCT INSULATION USED TO DETERMINE ITS R-VALUES SHALL BE DETERMINED AS FOLLOWS:

- 4.1. FOR DUCT BOARD, DUCT LINER AND FACTORY—MADE RIGID DUCTS NOT NORMALLY SUBJECTED TO COMPRESSION, THE NOMINAL INSULATION
- THICKNESS SHALL BE USED. FOR DUCT WRAP, THE INSTALLED THICKNESS SHALL BE ASSUMED TO BE 75 PERCENT (25-PERCENT COMPRESSION) OF NOMINAL THICKNESS. FOR FACTORY-MADE FLEXIBLE AIR DUCTS, THE INSTALLED THICKNESS SHALL BE DETERMINED BY DIVIDING THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO.
- DUCT LINER MAY BE SUBSTITUTED FOR EXTERIOR DUCT WRAP. DUCT LINER INSULATION MATERIALS SHALL MEET THE REQUIREMENTS OF ASTM C 1071, AND ASTM G 21. EXTERIOR DUCT R-VALUE SHALL BE R-8 AND INTERIOR R-VALUE SHALL BE R-6 IN ACCORDANCE WITH THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE. NOMINAL DUCT SIZES SHALL BE ADJUSTED AS NECESSARY SO THAT FREE AREA DIMENSIONS ARE PRESERVED AS SHOWN ON THE PLANS. FABRICATION AND INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND TO THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION FIBROUS GLASS DUCT LINER STANDARDS AND/OR SMACNA HVAC DUCT CONSTRUCTION STANDARDS. DUCT LINER SHALL HAVE A BLACK PIGMENTED MAT ON THE AIRSTREAM SIDE TO RESIST DAMAGE DURING INSTALLATION AND SERVICE. EDGES SHALL BE FACTORY COATED WITH BLACK PIGMENTED COATING TO COMPLY WITH SMACNA DCS REQUIREMENTS. ALL PORTIONS OF DUCT DESIGNATED TO RECEIVE DUCT LINER SHALL BE COMPLETELY COVERED WITH DUCT LINER. TRANSVERSE JOINTS SHALL BE NEATLY BUTTED AND THERE SHALL BE NO INTERRUPTIONS OR GAPS. THE BLACK PIGMENTED OR MAT FACED SURFACES SHALL FACE THE AIRSTREAM. DUCT LINER SHALL BE ADHERED TO THE SHEET METAL WITH 90 PERCENT COVERAGE OF ADHESIVE COMPLYING WITH REQUIREMENTS OF ASTM C 916. ALL EXPOSED LEADING EDGES AND TRANSVERSE JOINTS SHALL BE FACTORY COATED OR COATED WITH ADHESIVE DURING FABRICATION. DUCT LINER SHALL BE ADDITIONALLY SECURED WITH MECHANICAL FASTENERS, EITHER WELD-SECURED OR IMPACT DRIVEN, WHICH SHALL COMPRESS THE DUCT LINER SUFFICIENTLY TO HOLD IT FIRMLY IN PLACE. ADHESIVE BONDED PINS ARE NOT PERMITTED DUE TO LONG-TERM ADHESIVE AGING CHARACTERISTICS. LININGS SHALL BE INTERRUPTED AT THE AREA OF OPERATION OF A FIRE DAMPER AND AT A MINIMUM OF 6 INCHES UPSTREAM AND 6 INCHES DOWNSTREAM OF ELECTRIC RESISTANCE AND FUEL-BURNING HEATERS IN A DUCT SYSTEM. METAL NOSINGS OR SLEEVES SHALL BE INSTALLED OVER EXPOSED DUCT LINER THAT FACE OPPOSITE THE DIRECTION OF AIRFLOW. UPON COMPLETION OF INSTALLATION OF DUCT LINER AND BEFORE OPERATION IS TO COMMENCE, VISUALLY INSPECT SYSTEM AND VERIFY THAT THE DUCT LINER IS PROPERLY INSTALLED. OPEN ALL SYSTEM DAMPERS AND TURN ON FANS TO BLOW ALL SCRAPS AND OTHER LOOSE PIECES OF MATERIAL OUT OF THE DUCT SYSTEM. ALLOW FOR A MEANS OF REMOVAL OF SUCH MATERIAL.
- ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578. ALL INSULATION SHALL HAVE FORMALDEHYDE EMISSIONS NOT GREATER THAN 0.05 PPM. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE
- JURISDICTION IN WHICH THE BUILDING IS LOCATED. MASTIC USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A-95 OR UL 181B-98. MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURER OF ADHESIVES. MASTICS, AND INSULATION CEMENTS. DO NOT INSTALL DUCT SEALANT WHEN TEMPERATURES ARE LESS THAT THOSE RECOMMENDED BY THE SEALANT
- ALL ADHESIVES AND SEALANTS SHALL HAVE VOC CONTENT BELOW 20 GRAMS PER LITER AND WHICH MEET THE REQUIREMENTS OF THE MANUFACTURER OF THE PRODUCTS BEING ADHERED OR INVOLVED, ADHESIVES AND SEALANTS SHALL CONTAIN NO HEAVY METALS OR FORMALDEHYDE.
- FACTORY-MADE AIR DUCTS AND CONNECTORS SHALL COMPLY WITH UL 181-96. FLEXIBLE DUCT SHALL BE UL LISTED CLASS 0 OR CLASS 1, INSULATED, AND COMPLY WITH UL 181, FLEXIBLE DUCT SHALL BE FACTORY FORMED, COMPOSED OF SPIRAL WOUND CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC LINER. DUCT SHALL BE FACTORY INSULATED WITH A FOIL VAPOR BARRIER JACKET. CONNECT TO RIGID DUCT WITH SPIN-IN FITTING AND DAMPER. FLEXIBLE DUCTS AND AIR CONNECTORS SHALL NOT PASS THROUGH ANY FIRE RESISTANCE RATED
- 11. THE MC SHALL PROVIDE ALL DIFFUSERS GRILLES, LOUVERS, AND OTHER AIR DISTRIBUTION OUTLETS AND INLETS. LOUVERS, GRILLES, AND DIFFUSERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. FOR LAY-IN CEILINGS, INSTALL SUPPORT FROM THE STRUCTURE FOR EACH DIFFUSER OR DAMPER, AIR DISTRIBUTION OUTLETS AND INLETS SHALL BE BY HART & COOLEY, PRICE, METAL—AIRE, NAILOR, OR CARNES.
- AIR FILTERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 605 OF THE 2018 NC MECHANICAL CODE.
- THE MC SHALL PROVIDE ALL REFRIGERATION PIPING. ALL PIPE AND FITTINGS SHALL BE TYPE ACR HARD COPPER TUBING WITH SWEAT FITTINGS. REFRIGERATION LINES SHALL BE RUN NEATLY. WHERE A GROUP OF LINES ARE RUN, TRAPEZE HANGERS MAY BE USED. DO NOT USE CHAIN OR WIRE HANGERS. WRAP TUBING WITH RUBBER TAPE AT EACH CLAMP OR HANGER. FOR COVERED PIPES, HANGERS SHALL FIT AROUND THE OUTSIDE OF THE COVERING WITH 12 GAUGE GALVANIZED STEEL SHIELDS OF A LENGTH EQUAL TO THE OUTSIDE DIAMETER OF THE INSULATION AND COVERING 3/4 OF THE CIRCUMFERENCE OF THE INSULATION. SAGS SHALL NOT BE PERMISSIBLE. HORIZONTAL LINES SHALL PITCH DOWN NOT LESS THAN 1 INCH IN 40 FEET. INSULATE WITH 1 INCH CLOSED CELL ARMAFLEX TYPE INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50. ALL JOINTS AND SPLICES IN INSULATION SHALL BE TAPED AND AIR TIGHT. SOLDER REFRIGERATION LINES USING 15 PERCENT SILVER SOLDER AND EVACUATE LINES TO 300 MICRONS. PROVIDE MOISTURE INDICATING SIGHT GLASS AND FILTER DRYER IN LIQUID LINE. PROVIDE OIL TRAPS AND DOUBLE RISERS IN REFRIGERANT SUCTION AND HOT GAS LINES WHERE REQUIRED TO PREVENT OIL SLUGGING AT THE COMPRESSOR AND INSURE PROPER LUBRICATION. MC SHALL BE RESPONSIBLE FOR SEALING LINE SET PENETRATIONS

INSULATE DUCTWORK WITH FIBERGLASS DUCT WRAP: INSTALLED R-VALUE SHALL BE A MINIMUM R-6. COVERINGS AND LININGS, INCLUDING ADHESIVES WHEN USED, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL NEW DUCTWORK SHALL RECEIVE INSULATION ON THE OUTSIDE. INSTALL DUCT WRAP INSULATION WITH FACING OUTSIDE SO THAT TAPE FLAP OVERLAPS INSULATION AND FACING OF ADJACENT PIECE OF DUCT WRAP. INSULATION SHALL BE TIGHTLY BUTTED. FOR RECTANGULAR DUCTS, INSTALL SO

OF ANY RATED ASSEMBLIES IN ACCORDANCE WITH A SYSTEM LISTED IN THE UL

PLANS FOR A LIST OF ALL UL FIRE RATED ASSEMBLIES.

DIRECTORY FOR THE SPECIFIC ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL

INSULATION IS NOT EXCESSIVELY COMPRESSED AT DUCT CORNERS. STAPLE SEAMS APPROXIMATELY 6 INCHES ON CENTER WITH OUTWARD CLINCHING STAPLES. SEAL SEAMS WITH PRESSURE SENSITIVE TAPE MATCHING THE FACING. FOR RECTANGULAR DUCTS 24 INCHES IN WIDTH OR GREATER, SECURE DUCT WRAP TO THE BOTTOM OF THE DUCT WITH MECHANICAL FASTENERS SPACED 18 INCHES ON CENTER TO PREVENT SAGGING OF INSULATION. ADJACENT SECTIONS OF DUCT WRAP SHALL BE TIGHTLY BUTTED WITH THE 2 INCH TAPE FLAP OVERLAPPING. ALL TEARS, PUNCTURES, ETC. OF THE DUCT WRAP INSULATION SHALL BE SEALED WITH TAPE OR MASTIC TO PROVIDE A VAPOR TIGHT SYSTEM. INSULATION SHALL BE BY KNAUF

- INSULATION, OWENS CORNING CORP, OR CERTAINTEED CORPORATION. 2. VERIFY THAT DUCTS HAVE BEEN TESTED BEFORE APPLYING INSULATION MATERIALS. VERIFY THAT DUCT SURFACES ARE CLEAN, DRY AND FREE OF FOREIGN MATERIAL PRIOR TO INSULATING. DUCT COVERINGS SHALL NOT PENETRATE A WALL OR FLOOR REQUIRED TO HAVE A FIRE-RESISTANCE RATING OR REQUIRED TO BE FIRE
- WHERE DUCTS ARE CONNECTED TO EXTERIOR WALL LOUVERS AND DUCT OUTLET IS SMALLER THAN LOUVER FRAME, PROVIDE BLANK-OUT PANELS SEALING LOUVER AREA AROUND DUCT. USE SAME MATERIAL AS DUCT, PAINTED BLACK ON EXTERIOR
- SIDE; SEAL TO LOUVER FRAME AND DUCT. 4. DUCTS CONNECTING TO A FURNACE SHALL HAVE A CLEARANCE TO COMBUSTIBLES IN ACCORDANCE WITH THE FURNACE MANUFACTURER'S INSTALLATION INSTRUCTIONS. 5. FOR STRUCTURES IN FLOOD HAZARD AREAS, DUCTS SHALL BE LOCATED ABOVE
- THE DESIGN FLOOD ELEVATION. DUCT SHALL NOT BE INSTALLED IN OR WITHIN 4 inches of the Earth. 6. PROVIDE DUCT ACCESS DOORS FOR INSPECTION AND CLEANING BEFORE AND
- AFTER FILTERS, COILS, FANS, AUTOMATIC DAMPERS, AT FIRE DAMPERS, COMBINATION FIRE AND SMOKE DAMPERS. 7. CONSTRUCT T'S, BENDS, AND ELBOWS WITH RADII OF NOT LESS THAN 1-1/2
- TIMES THE WIDTH OF THE DUCT ON CENTERLINE, WHERE NOT POSSIBLE AND WHERE RECTANGULAR ELBOWS MUST BE USED, PROVIDE TURNING VANES. 8. INCREASE DUCT SIZES GRADUALLY. NOT EXCEEDING 15 DEGREES DIVERGENCE: MAXIMUM OF 30 DEGREES DIVERGENCE UPSTREAM OF EQUIPMENT AND 45
- DEGREES CONVERGENCE DOWNSTREAM. 9. IT SHALL BE THE RESPONSIBILITY OF THE MC TO SUSPEND AND SUPPORT ALL EQUIPMENT, DUCTWORK, DIFFUSERS, AND OTHER MATERIALS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALLY ACCEPTED HANGERS AND SUSPENSION EQUIPMENT. ALL HVAC EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT OR PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED STEEL
- 10. DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA AT INTERVALS NOT EXCEEDING 10 FEET. DUCTS 36 INCHES OR LARGER SHALL HAVE TRAPEZE TYPE HANGERS SUSPENDED WITH THREADED ROD. SUPPORT DUCTS FROM BAR JOISTS, GIRDERS, OR BEAMS.
- 11. CHECK LOCATIONS OF AIR OUTLETS AND INLETS AND MAKE NECESSARY ADJUSTMENTS IN POSITION TO CONFORM WITH ARCHITECTURAL FEATURES, SYMMETRY. AND LIGHTING ARRANGEMENT. COORDINATE WITH SPRINKLER CONTRACTOR IF APPLICABLE.
- 12. PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL MINIMUM 2 DUCT WIDTHS FROM DUCT TAKE-OFF. PROVIDE BALANCING DAMPERS ON DUCT TAKE-OFFS TO DIFFUSERS, AND REGISTERS, REGARDLESS OF WHETHER DAMPERS ARE SPECIFIED AS PART OF THE DIFFUSER OR REGISTER ASSEMBLY. ADJUST AIR HANDLING AND DISTRIBUTION SYSTEMS TO PROVIDE DESIGN SUPPLY, RETURN, AND EXHAUST AIR QUANTITIES AT SITE ALTITUDE.
- 13. MC SHALL INSTALL FIRE DAMPERS AT EACH PENETRATION OF A RATED WALL AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. FIRE DAMPERS SHALL BE UL LABELED (UL 555), CURTAIN TYPE, WITH INTEGRAL FACTORY SLEEVE AND BLADES LOCATED OUTSIDE THE AIR STREAM. INSTALLATION OF ALL FIRE DAMPERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SECTION 607 OF THE 2018 NC MECHANICAL CODE, PROVIDE ACCESS PANELS FOR TESTING AND SERVICE AS NECESSARY. MC SHALL PROVIDE RADIATION DAMPERS AND THERMAL BLANKETS FOR ALL PENETRATIONS OF RATED CEILING ASSEMBLIES. RADIATION DAMPERS SHALL BE UL LABELED (UL 555C) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. FIRE DAMPERS. COMBINATION FIRE/SMOKE DAMPERS, AND CEILING RADIATION DAMPERS SHALL BE
- BY RUSKIN, NAILOR, OR LLOYD INDUSTRIES. 14. MC SHALL INSTALL A SMOKE DETECTOR—UL LISTED FOR DUCT INSTALLATION (UL 268A) IN EACH UNIT'S RETURN UPSTREAM OF ANY FILTERS, OUTSIDE AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT, DUCT SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72. DUCT SMOKE DETECTOR SUPERVISION SHALL COMPLY WITH 606.4.1 OF THE 2018 NC MECHANICAL CODE. IF THE BUILDING IS (TO BE) EQUIPPED WITH A FIRE ALARM SYSTEM. THE FIRE ALARM SYSTEM CONTRACTOR SHALL FURNISH AND WIRE ALL DUCT SMOKE DETECTORS. IF THE BUILDING IS NOT PROVIDED WITH A FIRE ALARM SYSTEM, THE MC SHALL FURNISH AND WIRE THE DUCT SMOKE DETECTORS AND A/V DEVICE. IT SHALL BE THE RESPONSIBILITY OF THE MC TO INSTALL ALL SMOKE DUCT DETECTORS PER NFPA AND MFG'S INSTALLATION INSTRUCTIONS REGARDLESS OF WHO FURNISHES THE DEVICES.
- 15. MC SHALL INSTALL PROGRAMMABLE THERMOSTATS AS SHOWN ON THE PLANS. THERMOSTAT SHALL BE MOUNTED AT 48 INCHES AFF. THERMOSTATS SHALL MEET THE REQUIREMENTS OF SECTION C403.2.4 OF THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.
- 16. FRESH AIR INTAKES SHALL BE INSTALLED ON ALL UNITS AS SHOWN ON DRAWINGS. MAINTAIN 10 FEET OF DISTANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST TERMINATIONS AND PLUMBING VENT THRU ROOFS. 17. UNITS PROVIDED WITH ECONOMIZERS SHALL ALSO BE PROVIDED WITH POWERED
- EXHAUST AND COMPARATIVE ENTHALPY CONTROLS. 18. MC SHALL INSTALL ALL EXHAUST FANS AND VENT TO THE BUILDING'S EXTERIOR.
- EC SHALL SWITCH FANS WITH LIGHTS OR ON SEPARATE SWITCH AS SHOWN. 19. P-TRAPS MUST BE INSTALLED ON ALL UNITS. MC SHALL INSTALL AUXILIARY DRAIN PANS UNDER OVERHEAD AIR HANDLERS AND AN AUTOMATIC CUT-OFF FLOAT SWITCH FOR EACH. P-TRAPS AND CONDENSATE LINES SHALL BE 1 INCH. P-TRAPS AND CONDENSATE LINES MAY BE PVC WHERE NOT LOCATED IN
- PLENUMS; OTHERWISE, THEY SHALL BE TYPE M COPPER. 20. INSTALL BACKDRAFT DAMPERS ON FRESH AIR AND EXHAUST DUCTS WHERE THEY PENETRATE THE THERMAL ENVELOPE PER NORTH CAROLINA ENERGY CONSERVATION CODE C402.5.5

SPLIT SYSTEM HEAT PUMP SCHEDULE												
	MFG / MODEL #	NOMINAL	REF LINES		MOTORS		EFFICIENC IES	ELECTRICAL		-	WEIGHT	
MARK		CAPACITY	GAS	LIQ	COMPRESSOR	COND. FAN	SEER	V /DU	MCA	МПСВ		REMARKS
		TONS	uAS	LIG	N□.	ND.		V/PH	MCA	M□CP	LBS	
HP−1,2	GUARDIAN / RHP14L60B23S	5	1-1/8	3/8	1	1	14	230/1	31. 7	50	261	1, 3-5, 10-15

	GAS FURNACE AND COOLING COIL SCHEDULE																	
	MFG / MDDEL #		NOMINAL	AIR	AIR FLOW FA			HEATING CAPACITY		COOLING CAPACITY		CITY	ELECTRICAL		-	VETCUT		
MARK			CAPACITY	NDMINAL SUPPLY	MIN. DA	ESP	INPUT	ОИТРИТ	STAGES	AFUE	EAT WB/DB	TOTAL	SENSIBLE	V/PH	MCA	MDCP	WEIGHT	REMARKS
			TONS	CFM	CFM	in wg	MBH	MBH	ND.	%	• F	MBH	MBH				LBS	
GF-1, 2	GUARDIAN / RGF1L130DE20MP12	CF64DXA1	5	2000	SEE TABLE	. 6	130	104	1	80	67/80	54. 9	42. 0	120/1	13. 7	20	136	2, 6-10, 13-15

- PROVIDE CONCRETE PAD FOR UNIT TO SIT ON
- PROVIDE DUCT DETECTOR IN RETURN DUCT. PROVIDE RELAY FOR KILLING POWER TO UNIT'S FAN.
- PROVIDE HEAT STRIP DUTDOOR TEMPERATURE LOCKOUT TO PREVENT SUPPLEMENTAL HEAT OPERATION IN RESPONSE TO THE THERMOSTAT BEING CHANGED TO A WARMER SETTING. SET NO LOWER THAN 35°F AND NO HIGHER THAN 40°F
- PROVIDE HINGED ACCESS DOORS
- PROVIDE HAIL GUARDS FOR COIL
- REPLACE ALL FILTERS AT PROJECT'S COMPLETION PROVIDE CO2 SENSOR FOR MODULATING OUTSIDE AIR
- PROVIDE MOTORIZED OUTSIDE AIR DAMPER. CONNECT TO FAN RELAY AT AIR HANDLER PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
- 10. CONSULT MANUFACTURER ON LINE SET LENGTHS EXCEEDING 60FT
- 11. PROVIDE HARD START KIT
- 12. HEATER RATED AT 240V
- 13. OR EQUAL BY CARRIER, LENNOX, OR TRANE
- R EXCEED EFFICIENCIES LISTED (RATINGS PER ARI) 13. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES

14.	ANY EQUIPMENT SUBSTITUTIONS MUST EQUAL OR	-
15.	MATNITATIN MANUFACTURER'S RECOMMENDED OF FAR	ΔΙ

			1	REGISTER &	GRILLE SCHEDULE	
MARK	MFG	MODEL #	SIZE	MOUNTING	DESCRIPTION	NOTES
Α	HART & COOLEY	S SERIES	4′	SURFACE	STEEL SUPPLY DIFFUSER, 3 SLOTS	1
В	HART & COOLEY	HV	8X4	SURFACE	ALUMINUM, DOUBLE DEFLECTION C, WHITE	1,2
С	HART & COOLEY	HV	10X6	SURFACE	ALUMINUM, DOUBLE DEFLECTION C, WHITE	1,2
D	HART & COOLEY	HV	14X6	SURFACE	ALUMINUM, DOUBLE DEFLECTION C, WHITE	1,2
E	HART & COOLEY	TG/TGF	8X8	WALL	ALUMINUM TRANSFER GRILLE	1,2
R	HART & COOLEY	RE5	10X10	SURFACE	RETURN GRILLE	1,2
R2	HART & COOLEY	RE5	12X12	SURFACE	RETURN GRILLE	1,2
R3	HART & COOLEY	RE5	14X14	SURFACE	RETURN GRILLE	1,2

	OR EQUAL BY	PRICE,	METAL-AIRE,	CARNES,	TITUS OR NAILOR.
).	VERIFY WITH	OWNER/	ARCHITECT FOR	R DIFFUSE	ER COLOR

RECTANGULAR/SQUARE TO ROUND DUCT EQUIVALENT				
RECTANGULAR DUCT	ROUND DUCT			
30 " X26"	30 ° ø			
20 " X26"	24 " ø			
18" X18"	20 " ø			
18 " X20"	20 " ø			
20 " X16"	18 " ø			
16" X16"	16 " ø			
10 " X16"	14 " Ø			
10 " X20"	16 ° ø			
16" X14"	16 ′ ø			
16 " X12"	14 " Ø			

Ventilation Calculation (For Clubhouse)																			
Room Name(s) All Other Rooms Fitness Room Bathroom/Shower Rooms Corridors		Zone Type Office Space Health/Weight Rooms N/A Corridors	Area (sq.ft.) 2085 540 540 235	5 20 0 0	Ra 0.06 0.06 0	Default Occupancy 5 10 0 0	Pz 10.43 5.40 0.00 0.00	0.8 0.8 0.8 0.8	Airflow to Zone (cfm) 2800 600 400 200										
												N/A	0	0	0	0	0.00	0.8	0
													Maximum Zp:	0.2925					
										K-12 School?	No		Ev:	0.8					
			Actual System	25															
			Population:	25															
Uncorrected Intake	425	cfm																	
Outdoor Air Intake	531	cfm																	
Percent of Unit Air	13%																		

		EXHAUS	T FAN SCHEDUL	.E				
MARK	MFG / MDDEL #	TYPE	ESP (in WG)	CFM	VOLT/PH	FLA	SONES	NOTES
EF-1	GREENHECK CSPA700	INLINE	0. 40	684	120/1	1. 19	2. 7	1-4
EF-2	GREENHECK SP-B110	CEILING	0, 40	96	120/1	1. 14	2. 0	1-3

BACKDRAFT DAMPER CAP AS APPLICABLE.

PROVIDE WITH SQUARE TO ROUND DUCT ADAPTER AS NECESSARY

OR EQUAL BY LOREN COOK OR PENNBARRY OR TWIN CITY OR GREENHECK EXHAUST FAN IS TO BE WIRED TO RUN CONTINUOUSLY DURING OCCUPIED HOURS.

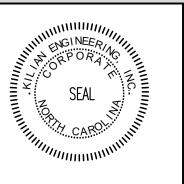
MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE PRESCRIPTIVE THERMAL ZONE ZONE 3A EXTERIOR DESIGN CONDITIONS 23. 1°F HEATING DESIGN DRY BULB COOLING DESIGN DRY BULB 91. 7° F COOLING DESIGN WET BULB 75. 6° F INTERIOR DESIGN CONDITIONS 70° F HEATING DESIGN DRY BULB COOLING DESIGN DRY BULB 75° F COOLING RELATIVE HUMIDITY <u>HEATING LOAD:</u> 72,089 BTU/H SENSIBLE COOLING LOAD: 78,344 BTU/H LATENT COOLING LOAD: 25, 794 BTU/H MECHANICAL SPACING CONDITIONING SYSTEM: AIR COOLED DX DESCRIPTION OF UNIT(S) (2) 5 TON SPLIT SYSTEMS N/A TOTAL BOILER DUTPUT N/A TOTAL CHILLER CAPACITY N/A EQUIPMENT EFFICIENCIES: SEE SCHEDULES EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS): SEE SCHEDULES

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE, THE MECHANICAL DESIGN FOR THIS BUILDING COMPLIES WITH MECHANICAL AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA STATE BUILDING CODE AND 2018 NORTH CAROLINA ENERGY CONSERVATION BUILDING & DEVELOPMENT CO.







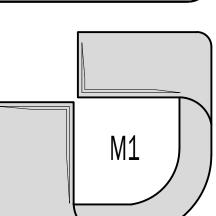
NO. REVISION DATE 2-7-2022 CODE COMENTS

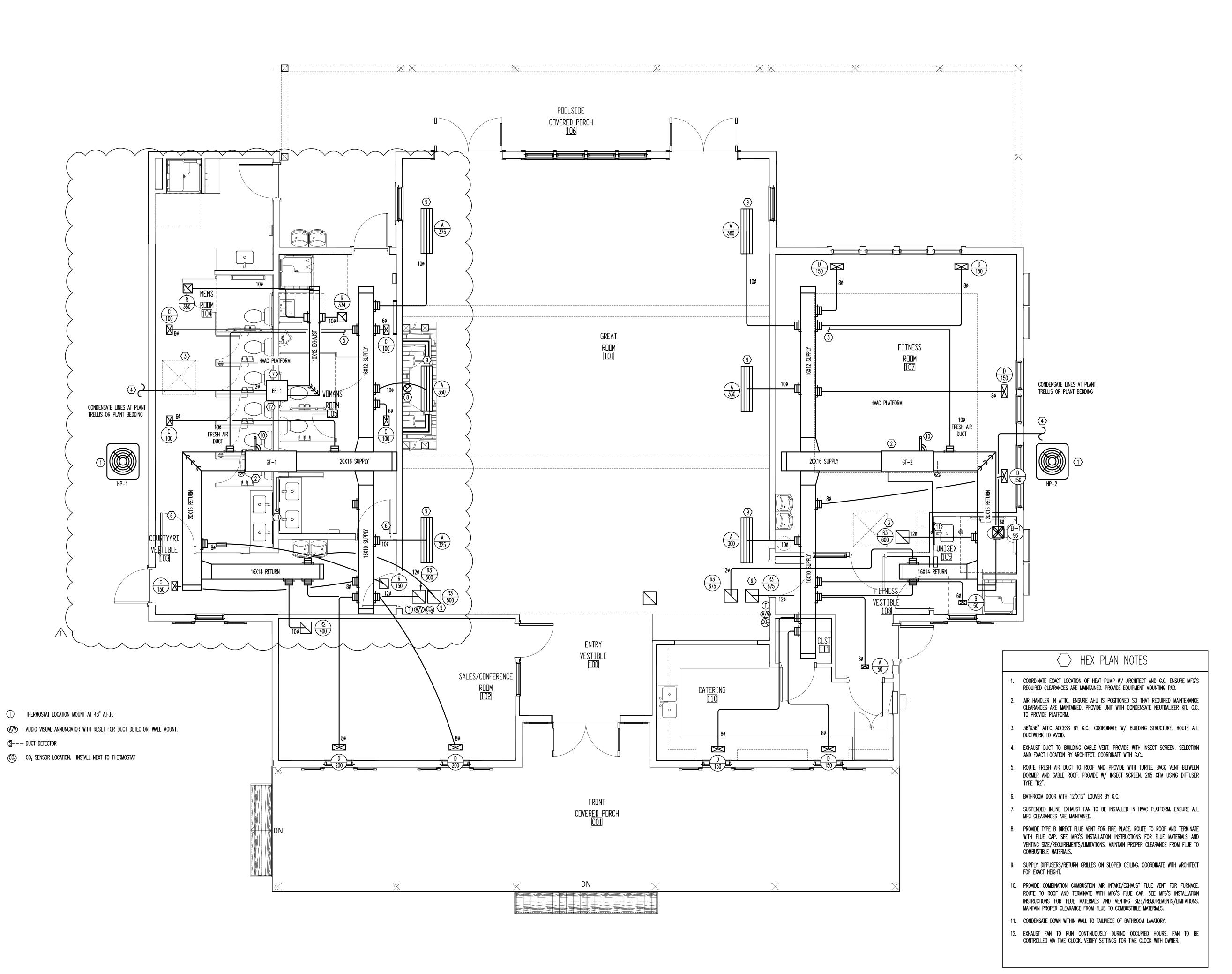
SHEET DESCRIPTION MECHANICAL NOTES AND SCHEDULES

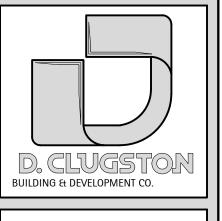
> PROJECT #: 20442 DATE ISSUED: 10-23-2020 DRAWING BY: DBAS

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Y AMENITY COMMUNITIES CLUBHOUSE SERENITY /



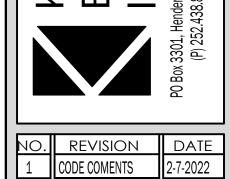








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SHEET DESCRIPTION
MECHANICAL PLAN

PROJECT #: 20442

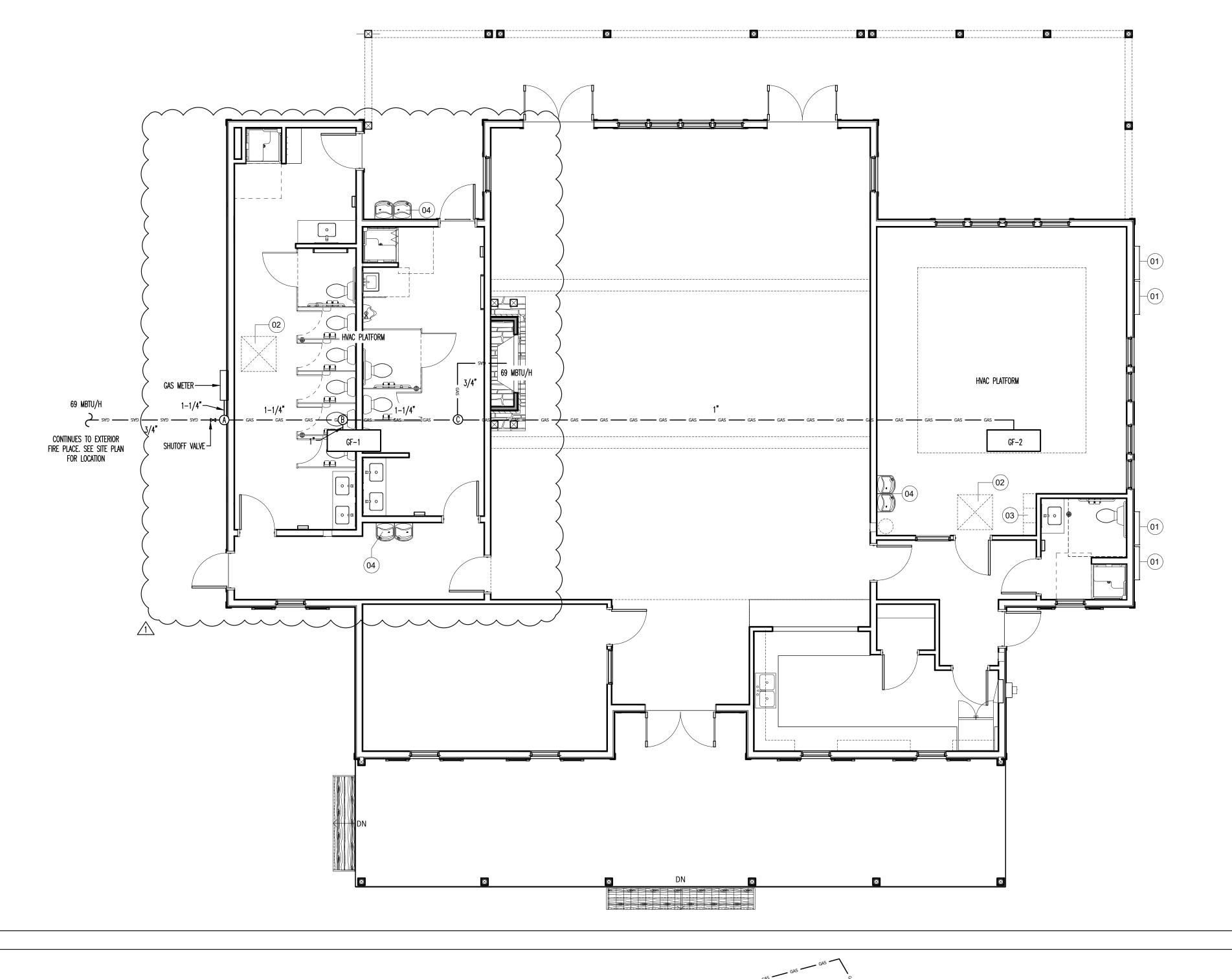
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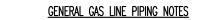
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SERENITY AMENITY
GREENFIELD COMMUNITIES
CLUBHOUSE

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- 1. THE GAS PIPING CONTRACTOR (GPC) SHALL PROVIDE ALL MATERIALS AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM
- AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS. 2. THE GPC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA FUEL GAS CODE AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED. THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ENGINEER IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
- 3. THE GPC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK
- UNDER THIS CONTRACT. 4. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS
- FOR DIMENSIONS. 5. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN
- EXISTING CONDITIONS AND THESE PLANS. 6. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
- 7. INSTALL A DRIP LEG IN GAS LINE AT EACH POINT WHERE CONDENSATE COULD COLLECT. ALL DRIP LEGS SHALL BE READILY ACCESSIBLE FOR CLEANING OR EMPTYING.
- 8. PIPING SHALL BE SCHEDULE 40 STEEL OR WROUGHT IRON AND COMPLY WITH ANSI/ASME B36.10, ASTM A 53, OR ASTM A 106. 9. ALL PIPES AND FITTINGS SHALL BE NEW, FREE OF DEFECTS, AND
- RATED FOR THE APPLICATION. 10. ALL PIPING SHALL BE INSTALLED SO AS NOT TO BE SUBJECT TO
- PHYSICAL DAMAGE. 11. PVC VENT PIPING SHALL NOT BE INSTALLED INDOORS.
- 12. THE TYPE OF PIPING JOINT USED SHALL BE SUITABLE FOR THE PRESSURE-TEMPERATURE CONDITIONS AND SHALL BE SELECTED CONSIDERING JOINT TIGHTNESS AND MECHANICAL STRENGTH UNDER THE SERVICE CONDITIONS.
- 13. PIPE JOINTS SHALL BE THREADED, FLANGED, BRAZED, OR WELDED. 14. FLEXIBILITY SHALL BE PROVIDED BY THE USE OF BENDS, LOOPS, OFFSETS, OR COUPLINGS OF THE SLIP TYPE. PROVISIONS SHALL BE MADE TO ABSORB THERMAL CHANGES BY THE USE OF EXPANSION JOINTS OF THE BELLOWS TYPE OR BY THE USE OF 'BALL' OR 'SWIVEL' JOINTS. DO NOT USE EXPANSION JOINTS OF THE SLIP TYPE INSIDE THE BUILDING. PIPE ALIGNMENT GUIDES SHALL BE USED WITH
- EXPANSION JOINTS PER THE MFG. 15. ALL GAS PIPING SHALL BE LABELED TO INDICATE THE PRESSURE.
- 16. PIPE HANGERS AND SUPPORTS SHALL CONFORM TO ANSI/MSS
- 17. BENDS SHALL BE MADE ONLY WITH BENDING TOOLS AND PROCEDURES INTENDED FOR THAT PURPOSE. DO NOT BEND PIPE THROUGH AN ARC OF MORE THAN 90°. ALL BENDS SHALL BE SMOOTH AND FREE OF CRACKS, BUCKLING, OR OTHER EVIDENCE OF
- 18. INSTALL GAS SHUTOFF VALVES UPSTREAM OF EACH GAS REGULATOR. VALVES SHALL BE READILY ACCESSIBLE AND NOT SUBJECT TO
- PHYSICAL DAMAGE. 19. WHERE A SEDIMENT TRAP IS NOT INCORPORATED AS PART OF THE APPLIANCE, A SEDIMENT TRAP SHALL BE INSTALLED DOWNSTREAM OF THE APPLIANCE SHUTOFF VALVE AS CLOSE TO THE INLET OF THE
- APPLIANCE AS PRACTICAL. 20. PRIOR TO ACCEPTANCE BY THE OWNER, ALL GAS PIPING INSTALLATIONS SHALL BE INSPECTED AND PRESSURE TESTED IN ACCORDANCE WITH SECTION 406 OF THE NC FUEL GAS CODE.

BUILDING & DEVELOPMENT CO.





NO. REVISION DATE
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SHEET DESCRIPTION GAS PLAN AND RISER

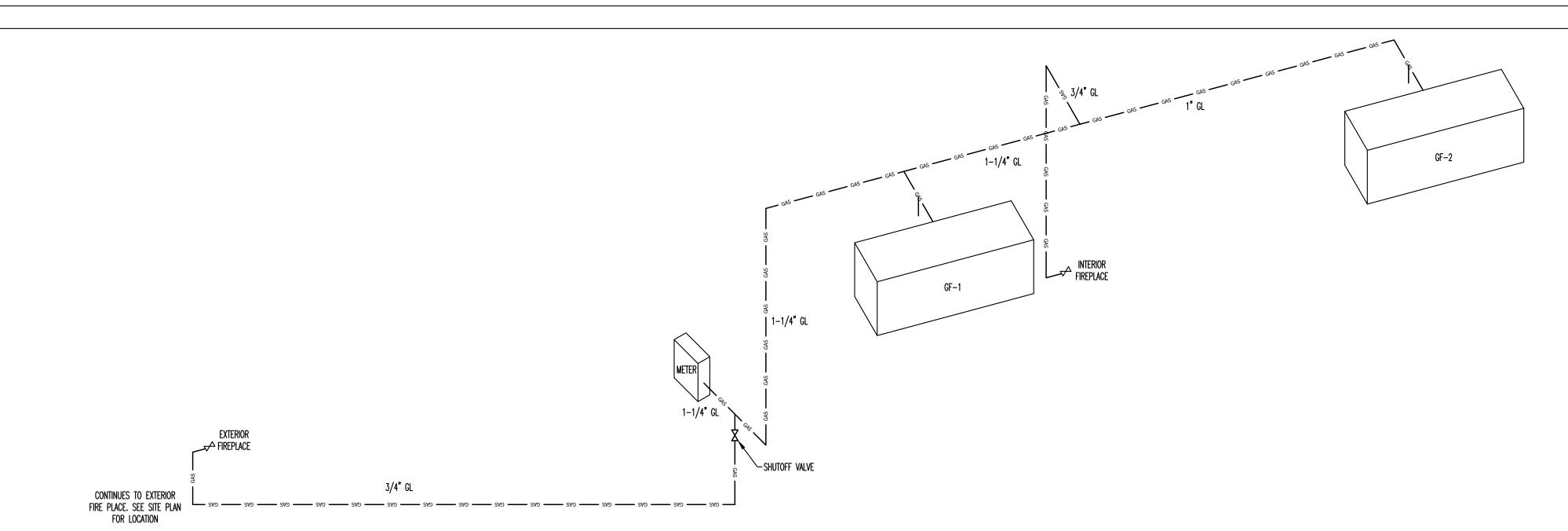
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SERENITY AMENITY
GREENFIELD COMMUNITIES

CLUBHOUSE



GAS LINE SIZING VERIFICATION TABLE

PER 2018 NC FUEL GAS CODE TABLE 402. 4(2)

A-B

B-GF-1

B-C

C-GF-2

C-FIRE(INTERIOR) 69.0

BASED ON 100' OF DEVELOPED LENGTH

A-FIRE(EXTERIOR) 69.0 3/4

130

199. 0

130. 0

ENGINEER IF DISCREPANCIES ARISE.

GAS LOAD | LINE SIZE | CAPACITY | PRESSURE

398. 0 | 1-1-4 | 400. 0 | 7"

329. 0 | 1-1-4 | 400. 0 | 7"

1-1-4

3/4

PLAN NOTES

VERIFY EXACT BTU/H AND GAS LINE SIZE REQUIREMENTS

OF FIRE PLACES PRIOR TO BEGINNING WORK. CONTACT

INCHES | CFH | IN WC

104. 0 7"

195. 0 7"

400. 0 7"

104. 0 7"

195. 0 7"

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

	ELECTRIC UNIT HEATER SCHEDULE									
MARK	MFG / MODEL #	AIR FLOW	HEATER	VOLT/PH	FLA	MOCP	NOTES			
		CFM	KW		AMPS	AMPS				
UH-1,2	MARKEL / H3425T	245	5	240/1	20. 8	25. 0	1-6			

1. BUILT-IN THERMOSTAT SET TO 40°.
2. BUILT-IN DISCONNECT SWITCH.
3. PROVIDE WITH SURFACE MOUNTING SLEEVE KIT.

4. U.L. LISTED

5. MOUNT HEATER AT 12' A.F.F. 6. CORROSION RESISTANT.

EXHAUST FAN SCHEDULE
 MFG / MODEL #
 TYPE
 ESP (in WG)
 CFM
 VOLT/PH
 FLA
 SONES
 NOTES

 GREENHECK BSQ-70-5
 INLINE
 0.35
 405
 120/1
 9.8
 23
 1-6

PROVIDE WITH PITCHED ROOF CURB & CAP FOR FLAT OR SLOPED ROOF, OR HOODED WALL WITH BACKDRAFT DAMPER CAP AS APPLICABLE.
PROVIDE WITH SQUARE TO ROUND DUCT ADAPTER AS NECESSARY

3. OR EQUAL BY LOREN COOK OR PENNBARRY OR TWIN CITY
4. INTEGRAL DISCONNECT SWITCH

CORROSION RESISTANT

6. CONTINUOUS OPERATION

REGISTER & GRILLE SCHEDULE							
MARK	MFG	MODEL #	SIZE	MOUNTING	DESCRIPTION	NOTES	
Α	NAILOR	5145H	12X12	CEILING	ALUMINUM LOUVERED RETURN GRILLE	1	

1. OR EQUAL BY PRICE, METAL-AIRE, CARNES, TITUS OR HART AND COOLEY.



D. CLUGSTON
BUILDING & DEVELOPMENT CO.

POST OFFICE MECHANICAL SCHEDULE | :

VENTILATION CALCS

37 SQFT X 10' HIGH CEILING = 370 CU. FT @ 10 ACH = 62 CFM *75 CFM PROVIDED

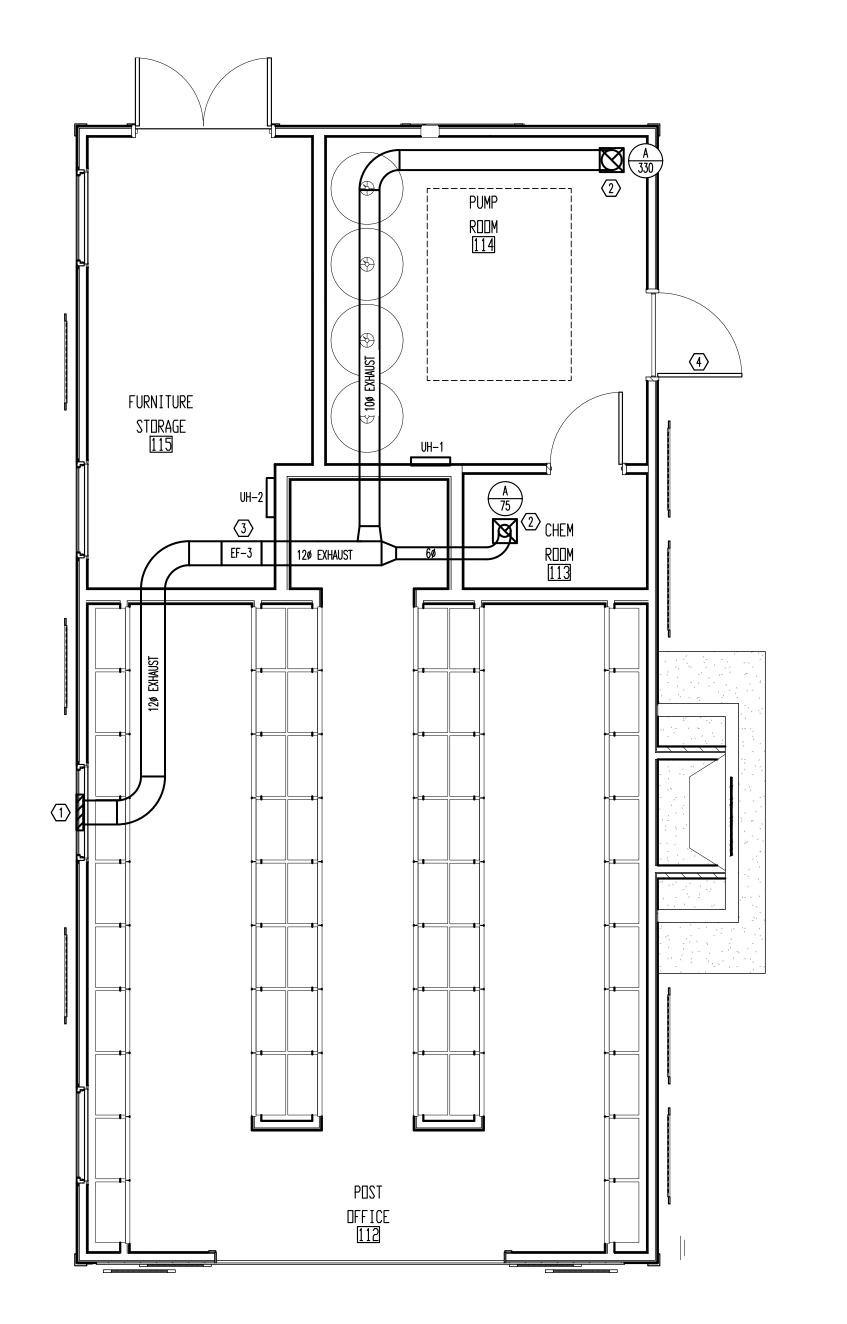
PUMP ROOM:

CHEMICAL STORAGE:

184 SQFT X 10' HIGH CEILING = 1840 CU. FT @ 10 ACH = 307 CFM *330 CFM PROVIDED

HEX PLAN NOTES

- EXHAUST DUCT TO BUILDING GABLE VENT. PROVIDE WITH INSECT SCREEN. SELECTION AND EXACT LOCATION BY ARCHITECT. COORDINATE WITH G.C.
- 2. LOUVERED EXHAUST GRILLE INSTALLED IN GYPSUM CEILING. TURN LOUVERED BLADES TOWARDS WALL.
- 3. SUSPENDED INLINE EXHAUST FAN TO BE INSTALLED IN ATTIC. ENSURE ALL MANUFACTURER CLEARANCES ARE MAINTAINED.
- PUMP EQUIPMENT DOOR WITH WEATHER PROOF LOUVER AND INSECT SCREEN BY G.C. LOUVER TO HAVE MINIMUM FREE AREA OF 240 SQIN.



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NO. REVISION DATE

SHEET DESCRIPTION POST OFFICE MECHANICAL PLAN

PROJECT #: 20442 DATE ISSUED: 2-7-22 DRAWING BY: DBAS

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SERENITY AMENITY
GREENFIELD COMMUNITIES POST OFFICE

GENERAL ELECTRICAL NOTES:

- THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR, FASC - FIRE ALARM SYSTEM CONTRACTOR.
- 2. "PROVIDE" MEANS TO FURNISH AND INSTALL. THE ELECTRICAL CONTRACTOR SHALL ALSO INSTALL MATERIALS AND EQUIPMENT FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR AS REQUIRED.
- EC SHALL PROVIDE LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY AND REASONABLY INCIDENTAL TO INSURE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. MINOR ITEMS. ACCESSORIES, AND DEVICES REASONABLY INFERABLE AS NECESSARY FOR THE COMPLETION AND PROPER OPERATION OF ANY ELECTRICAL SYSTEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR
- 4. WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA 1 "STANDARD PRACTICE FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING."
- ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE ELECTRICAL CONTRACTOR AT AN APPROVED LOCATION. THE ELECTRICAL CONTRACTOR SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE ELECTRICAL CONTRACTOR UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
- 6. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK
- UNDER THIS CONTRACT. 7. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR
- DIMENSIONS. 8. TRADE NAMES AND MANUFACTURERS ARE SPECIFIED TO ESTABLISH A QUALITY STANDARD. SUBSTITUTIONS SHALL BE PERMITTED IF APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL LISTED MODEL NUMBERS SHALL BE VERIFIED WITH THE MANUFACTURER FOR PROPER APPLICATION OF
- 9. THE FLECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF
- 10. GROUNDING AND BONDING SHALL BE PER NEC ARTICLE 250. THE RACEWAY SYSTEM SHALL NOT BE RELIED UPON FOR GROUNDING CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC TABLE 250-122, SHALL BE RUN IN ALL POWER RACEWAYS. FOR NON-ISOLATED GROUND CIRCUITS PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. FOR ISOLATED GROUND CIRCUITS, PROVIDE ONE NEUTRAL AND ONE ISOLATED GROUND WIRE FOR EACH CIRCUIT; IN ADDITION, PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. MAIN BONDING JUMPERS AND SYSTEM BONDING JUMPERS SHALL BE INSTALLED IN ACCORDANCE WITH 250.28 OF THE NEC. FOR BUILDINGS OR STRUCTURES SUPPLIED BY FEEDERS OR BRANCH CIRCUITS, GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH 250.32. SEPARATELY DERIVED AC SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH 250.30. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS; ADDITIONAL GROUNDING ELECTRODES SHALL BE INSTALLED PER 250.56 AS NECESSARY.
- THE ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE WITH THE GENERAL CONTRACTOR REGARDING THE BONDING OF THE FOOTING REBAR, SO THAT IT WILL BE IN PLACE AND READY AT TIME OF FOOTING INSPECTION. 12. ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH THE UNDERWRITERS' LABORATORIES, INC. STANDARDS OR HAVE UL APPROVAL, OR BEAR UL
- FOR THE TYPE OF DEVICE IN QUESTION. 13. CONDUCTORS, FUSES, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES SHOWN ON THESE PLANS HAVE BEEN SIZED FOR THE SPECIFIED EQUIPMENT. BEFORE ORDERING ELECTRICAL EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON THE SITE AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES SHOULD CONDUCTOR,

RE-EXAMINATION LISTING WHERE SUCH APPROVAL HAS BEEN ESTABLISHED

- CIRCUIT BREAKER, OR FUSE SIZES REQUIRE CHANGE. 14. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE THE FOLLOWING MATERIALS ARE RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT: LIGHT FIXTURES. INCLUDING PROPER DISPOSAL OF BALLASTS, FLUORESCENT LIGHT BULBS, AND TRANSFORMERS, WIRING AND ELECTRICAL EQUIPMENT, AND INSULATION. WASTE MATERIALS CONTAINING LEAD, ASBESTOS, PCBs (FLUORESCENT LAMP BALLASTS), OR OTHER HARMFUL SUBSTANCES SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL AND STATE LAWS AND
- REQUIREMENTS CONCERNING HAZARDOUS WASTE. 15. ALL WORK SHALL CONFORM TO 2020 NATIONAL ELECTRIC CODE, 2018 STATE BUILDING CODE, AND ALL APPLICABLE LOCAL CODES.

- 1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, RECEPTACLES, TERMINALS, ETC, UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS AND CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SERVICE ENTRANCE EQUIPMENT, SUB PANELS, AND OTHER ELECTRICAL DISTRIBUTION EQUIPMENT AS NECESSARY FOR A COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH UTILITY REGARDING SERVICE AND METERING DETAILS. PRIOR TO ORDERING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT OR TRANSFORMER SIZE AND IMPEDANCE FROM THE UTILITY AND CONTACT THE ENGINEER IF THE VALUE EXCEEDS THE EQUIPMENT SPECIFIED. PANEL BOARDS AND SWITCH BOARDS SHALL BE SQUARE D, CUTLER-HAMMER, SIEMENS, OR GE. BUSES SHALL BE COPPER UNLESS OTHERWISE APPROVED BY THE ENGINEER. RECESSED PANEL BOARDS SHALL BE INSTALLED FLUSH WITH THE WALL FINISH. METER BASES SHALL COMPLY WITH THE UTILITY'S SPECIFICATIONS AND SHALL BE MOUNTED AT A HEIGHT APPROVED BY THE UTILITY. ALL EQUIPMENT IDENTIFIED FOR SERVICE ENTRANCE USE SHALL BE SO LABELED AND UL LISTED FOR SUCH USE. ELECTRICAL CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT WITH CLEARANCES PER NEC 110.26. ELECTRICIAN
- SHALL PERMANENTLY LABEL EQUIPMENT PER NEC 110.24. ENCLOSED SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE BY SQUARE D, EATON, OR GE. ENCLOSED SWITCHES SHALL HAVE A HANDLE LOCKABLE IN THE OFF POSITION AND SHALL HAVE A HANDLE INTERLOCKED TO PREVENT OPENING THE FRONT COVER WHILE IN THE ON POSITION. ENCLOSED SWITCHES OF THE FUSIBLE TYPE SHALL BE FUSED IN ACCORDANCE WITH NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN, LITTELFUSE. OR MERSEN.
- 4. OCCUPANCY SENSORS SHALL BE BY WATTSTOPPER, LUTRON, LEVITON,
- SENSOR SWITCH, HUBBELL, OR APPROVED EQUAL. CIRCUIT BREAKERS SHALL BE MOLDED-CASE, THERMAL MAGNETIC TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM, COMMON TRIP ON MULTI-POLE BREAKERS, AND UL LISTED FOR BOTH COPPER AND ALUMINUM CONDUCTORS. CIRCUIT BREAKERS IN PANELS SHALL BE SERIES RATED WITH THE MAIN BREAKER, FULLY RATED FOR THE SYSTEM, OR SERIES RATED WITH THE BREAKER FEEDING THE PANEL FROM THE FACTORY.
- ALL WIRE, CONNECTORS, TERMINALS, AND LUGS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. WHERE CONDUCTORS ARE RUN IN PARALLEL, LUGS SHALL BE LISTED FOR PARALLEL CONDUCTORS. PUSH WIRE CONNECTORS ARE NOT ALLOWED FOR BUILDING WIRE. PUSH CONNECTORS ARE ONLY ALLOWED, WHEN APPROVED, AS PART OF MANUFACTURED LISTED PRODUCTS. ALL WIRE SHALL BE INSTALLED IN CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE.
- THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL RATED THHN/THWN OR XHHW: ALL WIRING INSTALLED BELOW GRADE OR IN MOIST OR WET LOCATIONS SHALL HAVE TYPE THWN OR XHHW INSULATION. INSULATION VOLTAGE RATING SHALL BE 600 VOLTS AND A MINIMUM TEMPERATURE RATING OF 75°C. CONDUCTORS SHALL BE SOLID OR STRANDED COPPER FOR #10 AWG AND #12 AWG, AND STRANDED COPPER FOR #8 AWG AND LARGER SIZES. ALL WIRING AND CABLE SHALL BE UL LISTED. ALL TERMINATIONS AND DEVICES SHALL BE RATED FOR USE WITH 75°C CONDUCTORS. FINAL CONNECTIONS TO ALL MOTORS AND EQUIPMENT SUBJECT TO VIBRATION OR MOVEMENT SHALL BE MADE WITH STRANDED

- COPPER CONDUCTORS. CONDUCTORS SHALL BE BY CERRO WIRE. INC. INDUSTRIAL WIRE & CABLE, INC, OR SOUTHWIRE COMPANY. 8. JOINTS IN SOLID CONDUCTORS SHALL BE SPLICED USING IDEAL "WIRE NUTS", 3M "SCOTCH LOCK", OR T&B "PIGGY" CONNECTORS IN JUNCTION BOXES, OUTLET BOXES, AND LIGHTING FIXTURES. JOINTS IN STRANDED CONDUCTORS SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS AND GUM RUBBER TAPE OR FRICTION TAPE. SOLDERLESS MECHANICAL CONNECTORS FOR SPLICES AND TAPS, PROVIDED WITH UL APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE. IN ALL CASES, CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPLICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUGHS, OR GUTTERS. WHERE CONCENTRIC, ECCENTRIC, OR OVERSIZED KNOCKOUTS ARE ENCOUNTERED, A GROUNDING
- TYPE INSULATED BUSHING SHALL BE PROVIDED. 9. ALL LUMINAIRES SHALL BE LISTED. LUMINAIRES IN WET OR DAMP LOCATIONS SHALL BE MARKED AS SUITABLE FOR THE RESPECTIVE USE. EMERGENCY LIGHTING SHALL BE INSTALLED AS SHOWN. FINAL LOCATIONS OF ALL EXIT AND EMERGENCY LIGHTS SHALL BE VERIFIED WITH THE BUILDING INSPECTOR PRIOR TO INSTALLATION. ALL FLUORESCENT FIXTURES SHALL HAVE ELECTRONIC BALLASTS MEETING ANSI C82.11 FOR ELECTRONIC BALLAST PERFORMANCE. ALL BALLASTS SHALL BE UL LISTED AND MEET FEDERAL AND STATE EFFICIENCY REQUIREMENTS.
- 10. ALL CONDUIT, FITTINGS, COUPLINGS, AND SUPPORTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CONDUIT FITTINGS AND COUPLINGS SHALL BE BY APPLETON, RACO, OR O-Z/GEDNEY. COUPLINGS SHALL BE THREADED, SET-SCREW, OR COMPRESSION TYPE. INDENTER OR CRIMP TYPE ARE NOT PERMITTED. CONDUIT FITTINGS AT ALL ELECTRICAL BOXES INCLUDING PULL, JUNCTION, AND OUTLET BOXES, SHALL HAVE INSULATED THROATS TO PREVENT INSULATION SCORING. DIE CAST FITTINGS ARE NOT
- 11. EMT SHALL BE MANUFACTURED IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE-AMERICAN NATIONAL STANDARD FOR STEEL ELECTRICAL METALLIC TUBING (EMT), ANSI C80.3 AND UL 797. RIGID METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI-AMERICAN NATIONAL STANDARD FOR ELECTRICAL RIGID STEEL CONDUIT (ERSC), ANSI C80.1 AND UL 6. INTERMEDIATE METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI-AMERICAN NATIONAL STANDARD FOR
- INTERMEDIATE METAL CONDUIT ANSI C80.6 AND UL 1242. 12. METAL CONDUIT SHALL BE BY ALLIED TUBING & CONDUIT, BECK MANUFACTURING, INC, OR WHEATLAND TUBE COMPANY. FLEXIBLE METAL CONDUIT, LIQUID-TIGHT FLEXIBLE METAL CONDUIT, AND NONMETALLIC CONDUIT SHALL BE BY AFC CABLE SYSTEMS, INC, ELECTRI-FLEX COMPANY, OR INTERNATIONAL METAL HOSE.

- EC SHALL REVIEW THE MECHANICAL PLANS TO ESTABLISH POINTS OF CONNECTION AND THE EXTENT OF THE ELECTRICAL WORK TO BE PROVIDED IN THE CONTRACT.
- 2. ALL CIRCUIT BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR BREAKERS. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE MINIMUM #12 AWG IN 3/4 in CONDUIT. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE SOURCE PER NEC 210.4(B). GROUP ALL CONDUCTORS OF EACH MULTI-WIRE BRANCH CIRCUIT PER 210.4(D) WITH WIRE TIES OR SIMILAR MEANS. DO NOT EXCEED THREE HOMERUNS PER CONDUIT. DO NOT INSTALL ISOLATED GROUND AND NON-ISOLATED GROUND CIRCUITS IN THE SAME CONDUIT. INSTALL CONDUCTORS OF DIFFERENT VOLTAGES IN SEPARATE CONDUITS.
- COLOR CODE CONDUCTORS PER NEC. FEEDERS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 215.12. USE BLACK AND RED FOR PHASES A AND B RESPECTIVELY ON 120/240 VOLT SINGLE-PHASE SYSTEMS AND WHITE FOR THE NEUTRAL. THIS IDENTIFICATION SHALL BE MADE AT EACH POINT WHERE A CONNECTION IS MADE. COLORS SHALL BE FACTORY APPLIED FOR CONDUCTORS #6 AWG AND SMALLER. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN IN COLOR AND MINIMUM #12 AWG. THE EC SHALL PROVIDE PLENUM RATED CABLE FOR ANY ELECTRICAL, TELEPHONE, COMMUNICATION, OR OTHER CABLE THAT ENTERS CEILING RETURN
- 4. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING. COORDINATE LIGHTING LAYOUT WITH CEILING GRID MECHANICAL EQUIPMENT, DUCTWORK AND SPRINKLER HEADS AS NECESSARY SEE REFLECTED CEILING PLAN FOR DETAILS. FLUORESCENT FIXTURES UTILIZING DOUBLE-ENDED LAMPS MUST HAVE A DISCONNECTING MEANS COMPLYING WITH NEC 410.130(G).
- MOUNT LIGHT SWITCHES AT 48 in AFF. MULTIPLE SWITCHES AT SAME LOCATION SHALL BE UNDER ONE WALL PLATE. VERIFY WALL PLATE COLOR AND MATERIAL WITH THE ARCHITECT/OWNER. INSTALL SWITCHES WITH off POSITION DOWN. ALL SWITCHES SHALL BE HEAVY DUTY. IVORY PLASTIC WITH TOGGLE HANDLE. RATED 120-277V AC. AND COMPLYING WITH NEMA WD 6 AND WD 1. SWITCHES SHALL BE BY COOPER WIRING DEVICES. LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL, PROVIDE BOX DEVICE PARTITION/DIVIDERS FOR MULTI-GANG BOXES FOR COMPLIANCE WITH NEC
- 6. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE-STOPPING AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND WALLS TO PRESERVE OR RESTORE THE FIRE-RESISTANCE RATING. SEAL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THIS PROJECT.
- ELECTRICAL CONTRACTOR SHALL PROVIDE GFCI RECEPTACLES IN KITCHENS, RESTROOMS, OUTDOORS, AND IN SHOP AREAS AS REQUIRED BY NEC. REFRIGERATORS AND WATER COOLERS MUST HAVE A DEDICATED GFCI BREAKER. EACH OUTDOOR HVAC UNIT MUST HAVE A GFCI RECEPTACLE WITHIN 25 FEET FOR SERVICING. GFCI RECEPTACLES SHALL CONFORM TO UL 943 CLASS A AND UL 498 STANDARDS. RECEPTACLES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. ALL RECEPTACLES SHALL BE 125V RATED, HEAVY DUTY, AND COMPLY WITH NEMA WD 6 AND WD 1.
- 8. LOCATIONS AND HEIGHTS OF ALL WALL-MOUNTED DEVICES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION.
- 9. CONCEAL ALL CONDUIT EXCEPT IN MECHANICAL ROOMS OR UNFINISHED AREAS AS NOTED. USE EMT CONDUIT FOR ALL BRANCH CIRCUITS AND FEEDERS INSIDE THE BUILDING. TYPE MC CABLE AND TYPE AC CABLE MAY BE INSTALLED WITHIN WALLS IF ALL NEUTRAL WIRES, ISOLATED GROUND WIRES, AND EQUIPMENT GROUND WIRES AS LISTED ABOVE ARE CONTAINED IN THE CABLE. FLEXIBLE CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SHALL BE MADE USING WEATHERPROOF FLEXIBLE CONDUIT. FOR LAY-IN LIGHT FIXTURES, USE MAXIMUM OF SIX (6) FEET OF FLEXIBLE MC CABLE (OR THE FLEXIBLE CONDUIT PROVIDED BY THE FIXTURE MANUFACTURER). SCHEDULE 40 PVC CONDUIT MAY BE USED FOR THE SECONDARY UNDERGROUND SERVICE, UNDERGROUND TELEPHONE SERVICE, AND BRANCH AND FEEDER CIRCUITS UNDER SLAB OR EXTERIOR TO THE BUILDING. EXPOSED EXTERIOR CONDUIT SHALL BE SCHEDULE 80 PVC. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED WITH UNDERGROUND LINE MARKING TAPE 6-8 in BELOW GRADE DIRECTLY ABOVE THE RACEWAY. PROVIDE PULL WIRE IN EMPTY CONDUITS. UPSIZE CONDUIT FROM MINIMUM SIZE AS NECESSARY FOR LONGER PULLS. UNDERGROUND RACEWAYS THAT STUB INTO THE BOTTOM OF SWITCHBOARDS, OUTDOOR TRANSFORMERS, GENERATORS, ETC., SHALL RISE AT LEAST 2 in ABOVE THE FINISHED SLAB TO PREVENT WATER FROM DRAINING INTO THE RACEWAYS. RACEWAYS THAT PENETRATE EXTERIOR WALLS OR INTERIOR PARTITIONS SEPARATING SPACES THAT WILL BE AT SIGNIFICANTLY DIFFERENT TEMPERATURES SHALL BE SEALED IN ACCORDANCE WITH 300.5(G), 300.7(A), AND 300.50(E) OF THE NEC. ROUTE CONDUIT IN AND UNDER SLAB FROM POINT-TO-POINT. ROUTE EXPOSED CONDUIT AND CONDUIT INSTALLED ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS. COMPLETELY AND THOROUGHLY SWAB ALL RACEWAYS BEFORE INSTALLING WIRE. PULL ALL CONDUCTORS INTO EACH RACEWAY AT ONE TIME. USE A SUITABLE WIRE PULLING LUBRICANT FOR BUILDING WIRE #4 AWG AND LARGER.

10. CABLES, RACEWAYS, OR BOXES, INSTALLED IN EXPOSED OR CONCEALED

LOCATIONS UNDER METAL-CORRUGATED SHEET ROOF DECKING, SHALL BE

INSTALLED AND SUPPORTED SO THERE IS NOT LESS THAN 1-1/2 in

MEASURED FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE

TOP OF THE CABLE, RACEWAY, OR BOX. A CABLE, RACEWAY, OR BOX

SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS IN

- METAL-CORRUGATED, SHEET DECKING-TYPE ROOF, SEE NEC 300.4(E). 11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL OUTLET, JUNCTION, PULL BOXES, FITTINGS, AND SUPPORTS, ALL OUTLET AND JUNCTION BOXES SHALL BE GALVANIZED STEEL TYPE BY APPLETON, STEEL CITY, OR RACO. EXTERIOR BOXES SHALL BE TYPE FS. VAPORTITE BOXES SHALL BE TYPE GS. WHERE SURFACE MOUNTED BOXES ARE USED, THOSE BOXES AND THEIR FACEPLATES SHALL HAVE ROUNDED CORNERS. BOXES INSTALLED IN FLOORS SHALL BE RATED FOR THE APPLICATION. MOUNT JUNCTION AND OUTLET BOXES FLUSH WITH FINISH SURFACES UNLESS OTHERWISE NOTED. WHERE MOUNTING HEIGHTS ARE GIVEN, THEY SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE BOX. ALL BOXES SHALL BE SIZED PER NEC ARTICLE 314. ALL OUTLET AND JUNCTION BOXES SHALL HAVE A COVER PLATE, PROVIDED BY THE ELECTRICAL CONTRACTOR. OUTLET BOXES IN RATED WALLS SHALL BE INSTALLED IN ACCORDANCE WITH NORTH CAROLINA BUILDING CODE 712.3.2 (MAXIMUM BOX SIZE IS 16 SQUARE in AND MAXIMUM OF SIX (6) BOXES PER 100 SQUARE FEET). INSTALL OUTLET BOXES IN RATED WALLS SUCH THAT OPENINGS OCCUR IN ONE SIDE ONLY WITHIN ANY GIVEN STUD SPACE. ALL CLEARANCES BETWEEN THE OUTLET BOX AND THE GYPSUM BOARD SHALL BE FILLED WITH JOINT COMPOUND OR OTHER APPROVED FIRE STOP MATERIAL. FLUSH MOUNTED JUNCTION BOXES IN ADJACENT ROOMS SHALL NOT BE MOUNTED BACK-TO-BACK. SURFACE MOUNTED FIXTURES SHALL BE FED THROUGH FLUSH MOUNTED 4X4 OCTAGONAL OR SQUARE BOXES.
- ALL CONDUIT, BOXES, AND ELECTRICAL EQUIPMENT SHALL BE FIRMLY AND SECURELY FASTENED TO OR SUPPORTED FROM THE BUILDING STRUCTURAL MEMBERS OR EMBEDDED IN CONCRETE OR MASONRY. ELECTRICAL SUPPORTS SHALL NOT BE ATTACHED TO DUCTWORK, PIPING, OR THEIR SUPPORTS. HANGERS SHALL BE CATALOG ITEMS COMPATIBLE WITH AND SUITABLE FOR THE INTENDED USE. FOR METAL ROOF DECK INSTALLATIONS, 1 in EMT CONDUIT MAXIMUM AND 4 in JUNCTION BOXES MAXIMUM MAY BE SUPPORTED BY DECKING. THE SUSPENDED CEILING SYSTEM SHALL NOT BE USED FOR THE SUPPORT OF ELECTRICAL RACEWAY SYSTEMS OR SUPPORT OF COMMUNICATIONS OR DATA SYSTEMS WIRING, CONTRACTOR SHALL COMPLY WITH 1613 OF THE NORTH CAROLINA GENERAL CONSTRUCTION BUILDING CODE.
- ABANDONED CONDUIT AND BOXES SHALL HAVE ALL ELECTRICAL WIRING REMOVED COMPLETELY AND NOT JUST "MADE SAFE." CONDUIT AND BOXES SHALL BE REMOVED WHERE PRACTICAL WITHOUT CREATING ADDITIONAL
- DEMOLITION/RESTITUTION WORK FOR OTHER TRADES. 14. WHERE CONDUCTORS ARE RUN IN PARALLEL, THE EC SHALL COMPLY WITH

LIGHTING SCHEDULE:

LAMP TYPE REQUIRED IN FIXTURE:

| NUMBER OF LAMPS PER FIXTURE:

| BALLAST TYPE USED IN FIXTURE:

NUMBER OF BALLASTS IN FIXTURE:

TOTAL INTERIOR WATTAGE SPECIFIED VS

ARFA (sf)

4900

1083

| EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)

DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS

FOR THE ADDITIONAL PRESCRIPTIVE REQUIREMENT REQUIRED BY C406 OF 2018 NORTH CAROLINA

ENERGY CONSERVATION CODE, WE ARE CHOOSING C406.3 - REDUCED LIGHTING POWER DENSITY.

4159 W SPECIFIED <= 5429 W (6032 W ALLOWED X 90%)

BUILDING COMPLIES WITH THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.

TOTAL WATTAGE PER FIXTURE:

| ALLOWED:

DCCUPANCY

LEISURE

POST OFFICE

TOTAL

| MOTOR TYPE: N/A

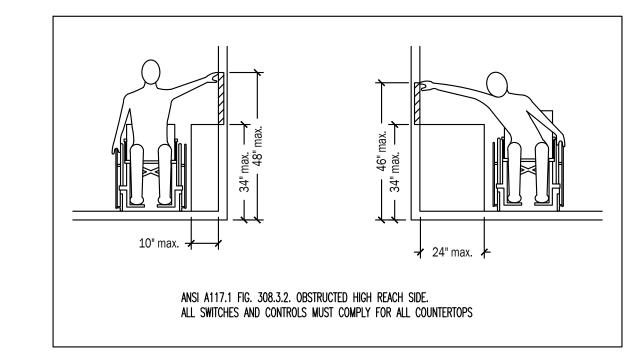
NUMBER OF POLES: N/A

MOTOR HORSEPOWER: N/A

NUMBER OF PHASES: N/A

| MINIMUM EFFICIENCY: N/A

- NEC 310.4. ISOLATED-GROUND TYPE RECEPTACLES SHALL BE INSTALLED IN ACCORDANCE WITH 250.146(D). ISOLATED GROUND RECEPTACLES SHALL BE
- ORANGE IN COLOR. 16. ALL RECEPTACLES LOCATED WITHIN DWELLING UNITS SHALL HAVE AFCI PROTECTION IN ACCORDANCE WITH SECTION 210.12 OF THE NEC.
- RECEPTACLES IN DWELLING UNITS SHALL BE LISTED TAMPER-RESISTANT PER NEC 406.12. 17. IN ASSEMBLY AREAS EXCEEDING 100 PERSONS OCCUPANCY, WIRING
- METHODS SHALL COMPLY WITH NEC 518. 18. PROVIDE AN UNDERGROUND PVC CONDUIT SYSTEM FOR TELEPHONE SERVICE WITH PULL WIRES. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELEPHONE UTILITY REGARDING ADDITIONAL FACILITIES REQUIRED FOR THE SERVICE INSTALLATION.
- 19. INSTALL ONE (1) 3/4 in FIRE RETARDANT TREATED PLYWOOD BACKBOARD WHERE INDICATED ON THE DRAWINGS FOR THE USE BY THE TELEPHONE SYSTEM. PROVIDE A 120 VOLT RECEPTACLE ADJACENT TO THE TELEPHONE BOARD. GROUND ALL TELEPHONE AND COMMUNICATIONS CIRCUITS PER NEC
- 20. ALL TELEPHONE AND COMMUNICATIONS OUTLETS AND RACEWAYS ARE ROUGH-INS ONLY. EACH TELEPHONE AND COMMUNICATIONS OUTLET SHALL BE A 4 in SQUARE BY 2-1/8 in DEEP BOX WITH 3/4 in KNOCK-OUTS AND A 3/4 in CONDUIT STUBBED FROM THE OUTLET BOX TO ABOVE THE CEILING. PROVIDE A NON-METALLIC INSULATING BUSHING ON ALL CONDUITS STUBBED ABOVE THE CEILING. PROVIDE A BLANK COVER PLATE ON ALL OUTLET BOXES.
- ELECTRICAL CONTRACTOR SHALL INSTALL DISCONNECT SWITCHES IN SIGHT OF ALL HARDWIRED EQUIPMENT AND APPLIANCES OR PROVIDE BREAKERS CAPABLE OF BEING LOCKED IN THE OPEN POSITION PER NEC 422.31. FOR MOTOR DRIVEN APPLIANCES, PROVIDE A DISCONNECTING MEANS PER NEC 422.31 AND 430 PART IX. WHERE AN INDIVIDUAL DISCONNECT SWITCH, CIRCUIT BREAKER, STARTER, ETC, IS SHOWN ON THE PLANS ADJACENT TO ITS LOAD AND NOT LOCATED ON A WALL, PROVIDE NECESSARY MATERIALS
- AND LABOR TO SUPPORT THE DEVICE 22. ELECTRICAL CONTRACTOR SHALL FIELD IDENTIFY ALL SWITCH BOARD, PANEL BOARDS, CONTROL PANELS, METER SOCKETS, ETC., TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS PER 110.16 OF
- 23. ELECTRICAL CONTRACTOR SHALL PROVIDE NAMEPLATES FOR IDENTIFICATION OF ALL EQUIPMENT, SWITCHES, PANELS, ETC. THE NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT, AND BACK WITH WHITE CORE, WHITE ENGRAVED LETTERS (1/4 in MINIMUM) ETCHED INTO THE WHITE CORE, ELECTRICAL CONTRACTOR SHALL PROVIDE A TYPE WRITTEN DIRECTORY CARD THAT ACCURATELY IDENTIFIES CIRCUITS INSIDE EACH PANEL. HANDWRITTEN LABELS ARE NOT ACCEPTABLE.



			LIGHTING DEVICE LEGEND					
		SYMBE	DESCRIPTION	REMARKS				
		\$	SINGLE POLE WALL SWITCH	HEAVY DUTY, AC ONLY, COMMERCIAL GRADE GENERAL USE SNAP SWITCH COMPLYING WITH NEMA WD 6 AND WD 1. IVORY PLASTIC BODY WITH TOGGLE HANDLE. 120-277V, 20A. MEET FEDERAL SPECIFICATION W-S-896.				
		\$ _M	WALL MOUNTED OCCUPANCY SENSOR	WATTSTOPPER DW-100 LINE VOLTAGE OCCUPANCY SENSOR. ULTRA SONIC AND INFRARED.				
		\$LV	LOW VOLTAGE SWITCH	WATTSOPPER LVS-1 LOW VOLTAGE MOMENTARY CONTROL SWITCH.				
	IGNER'S STATEMENT	1	CEILING DCCUPANCY SENSOR	WATTSTOPPER, DT-300 LOW VOLTAGE OCCUPANCY SENSOR. 360° ULTRA SONIC AND INFRARED.				
<u>ELECTRICAL SYSTEM AND EQU</u> PRESCRIPTIVE _X_ PERFORMANO	I <u>IPMENT METHOD OF COMPLIANCE</u> CE ENERGY COST BUDGET	P	POWER PACK	WATTSTOPPER, BZ-150 LOW VOLTAGE POWER PACK FOR CEILING PACK SENSORS.				
NG SCHEDULE:		<u></u>	JUNCTION BOX	GALVANIZED METAL BOX CONSTRUCTED IN ACCORDANCE WITH 314, 40 OF THE NEC.				
YPE REQUIRED IN FIXTURE:	SEE LIGHTING LEGEND		EXHAUST FAN	VENT FAN, 120V, CFM AS NOTED MC TO PROVIDE AND VENT, EC TO WIRE.				
OF LAMPS PER FIXTURE:	SEE LIGHTING LEGEND	L						
T TYPE USED IN FIXTURE:	SEE LIGHTING LEGEND							

		POWER DEVICE LEGEND
SYMBOL	DESCRIPTION	REMARKS
	DATA AND TELEPHONE JACK	PHDNE/DATA DUTLET. EC TO INSTALL 3/4'C WITH PULL-STRING FROM DUTLET BOX TO ABOVE CEILING FOR FUTURE USE. JACKS AND COMMUNICATION CABLING BY OTHERS.
=	DUPLEX RECEPTACLE	NEMA 5-20R, HEAVY DUTY, COMMERCIAL GRADE, 125V, 20A COMPLYING WITH NEMA WD 6 AND WD 1. GFCI OR AFCI IF NOTED. 'WP' DENOTES WEATHERPROOF COVER. 'CH' DENOTES COUNTER HEIGHT. LISTED TAMPERPROOF IF NOTED. MEET FEDERAL SPECIFICATION W-C-596.
#	QUAD RECEPTACLE	QUAD RECEPTACLE OF SAME CHARACTERISTICS AS DUPLEX TYPE ABOVE.
=	DEDICATED RECEPTACLE	NEMA 5-20R, HEAVY DUTY, COMMERCIAL GRADE, 125V, 20A COMPLYING WITH NEMA WD 6 AND WD 1 UNLESS OTHERWISE NOTED ON PLANS. VERIFY PLUG TYPE PRIOR TO PURCHASE & INSTALLATION. GFC OR AFCI IF NOTED. 'WP' DENOTES WEATHERPROOF COVER. 'CH' DENOTES COUNTER HEIGHT. LISTED TAMPERPROOF IF NOTED. MEET FEDERAL SPECIFICATION W-C-596. MAY BE EITHER SIMPLEX, DUPLEX OR QUAD.
\oplus	DUPLEX FLOOR RECEPTACLE	DUPLEX RECEPTACLE OF SAME CHARACTERISTICS AS ABOVE WITH BRASS COVER. MOUNT IN FLOOR. ALL FLOOR BOXES MUST BE LISTED FOR FLOOR APPLICATION.
⟨TV⟩	TELEVISION JACK	TELEVISION OUTLET. EC TO INSTALL 3/4°C WITH PULL-STRING FROM OUTLET BOX TO ABOVE CEILING FOR FUTURE USE. JACKS AND COMMUNICATION CABLING BY OTHERS.
	FUSIBLE DISCONNECT SWITCH	HEAVY DUTY TYPE. TYPE 1 ENCLOSURE IN INTERIOR APPLICATIONS, TYPE 3R ENCLOSURE IN EXTERIOR APPLICATIONS, FUSE ACCORDING TO NAMEPLATE DATA.
	DISCONNECT SWITCH	HEAVY DUTY TYPE. TYPE 1 ENCLOSURE IN INTERIOR APPLICATIONS, TYPE 3R ENCLOSURE IN EXTERIOR APPLICATIONS.
<u> </u>	JUNCTION BOX	GALVANIZED METAL BOX CONSTRUCTED IN ACCORDANCE WITH 314.40 OF THE NEC.

	LIGHT FIXTURE SCHEDULE											
	LIGHT FIXTURE SCHEDULE LAMPS LAMPS											
MARK	DESCRIPTION	LOUVER/LENS	TYPE	QTY.	CCT	VOLTAGE	WATTAGE	MOUNTING	REMARKS	MFG	MODEL	
Α	6' CAN LIGHT	-	LED	1	-	120	12	RECESSED	2,3	JUND	IC22LED-G4-09LM-35K-90CRI-MVOLT	
В	WALL SCONCE 17. 25"	-	LED	1	-	120	20	RECESSED	2, 4	KICHLER	PAI COLLECTION 49876BK	
С	WALL SCONCE 21.5"	-	LED	1	-	120	20	RECESSED	2, 4	KICHLER	PAI COLLECTION 49876BK	
D	PENDANT LIGHT	-	LED	1	-	120	30	RECESSED	2, 4	KICHLER	PAI COLLECTION 49879BK	
E	3 LIGHT VANITY	-	LED	3	ı	120	11	WALL	2	KICHLER	45945BK	
F	DECURATIVE PENDANT	-	LED	9	-	120	100	PENDANT	2, 4	KICHLER	43639UZL18	
G	INTERIOR FAN	-	-	-	-	120	91	SUSPENDED	2	KICHLER	330025SBK	
Н	EXTERIOR FAN	-	LED	1	-	120	32	SUSPENDED	2	KICHLER	3003002BK	
I	FLOOD LIGHT	-	LED	2	-	120	25	WALL	2	LITHONIA	OLF-2RH-40K-120-MD	
J	GREAT ROOM PENDANT	-	LED	5	-	120	100	PENDANT	2, 4	KICHLER	42196BK	
K	GODSENECK WALL SCONCE	-	LED	1	-	120	30	WALL	2, 4	KICHLER	49775BK	
L	CUSTOM EXTERIOR FIXTURE	-	LED	1	-	120	30	WALL	2, 4	PROVIDED BY OTHERS	PROVIDED BY OTHERS	
M	1X4 STRIP LIGHT	-	LED	1	3500K	120	35	SURFACE	2	EPCO	G4LED-FX-S3534	
N	FLUSH MOUNT LIGHT	-	LED	1	-	120	11	SURFACE	2	KICHLER	43878WHLED	
0	LED STRIP	-	LED	-	-	LOW	2	SURFACE	2	COMMERCIAL ELECTRIC	17067	
Р	UNDERCOUNTER LIGHTING	-	LED	1	-	120	7	SURFACE	2	LITHONIA	UCES-36IN-SWW4-90CRI-WH-M6	
EXH	LED EXIT/COMBO W/ BATTERY BACKUP	ACRYLIC	LED	MULT.	N/A	120	4	VARIES	1,2	EMERGI-LITE	LSNX42NGC	
EM	DUAL HEAD EMERGENCY FIXTURE	ACRYLIC	LED	MULT.	N/A	120	2	VARIES	1,2	EMERGI-LITE	W-EL-2LED	
OE .	EXTERIOR LED EMERGENCY LIGHT	POLYCARBONATE	LED	2	-	120	2	SURFACE	1,2	EMERGI-LITE	OW-LUXSB	

- FIXTURE SHALL HAVE BATTERY BACKUP FOR 90 MINUTE ILLUMINATION. OR EQUAL BY COOPER, PHILIPS, DAY-BRITE LIGHTING, OR OWNER APPROVED EQUAL
- TRIM APPROVED AS WET/DAMP LOCATION LISTED

SEE LIGHTING LEGEND

SEE LIGHTING LEGEND

WATTS ALLOWED

6032. 00

WATTAGE ALLOWED

4949. 00

1083. 00

6032. 00

WATTS SPECIFIED

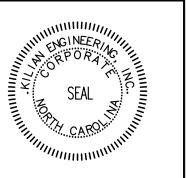
4159. 0

ALLOWANCE (W/sf)

1. 00

LAMP WITH LED EQUIVALENT PROVIDE TXS-300-SS-120 OR EQUIVALENT LOW VOLTAGE TRANSFORMER FOR FIXTURE BUILDING & DEVELOPMENT CO.





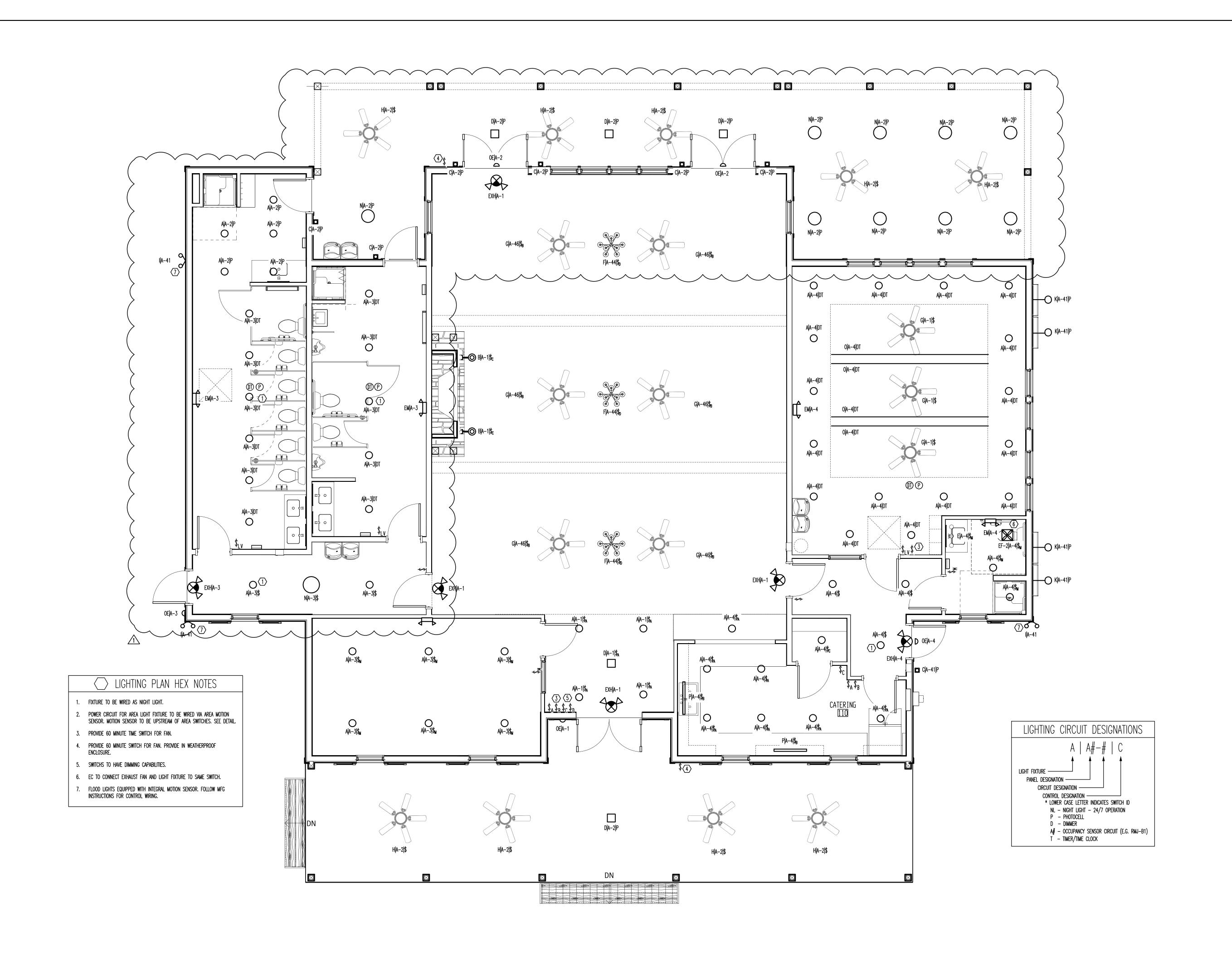
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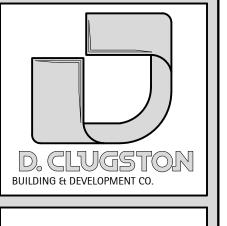
ELECTRICAL NOTES AND SCHEDULES

PROJECT #: 20442 DATE ISSUED: 10-23-2020 DRAWING BY: DBAS

CHECKED BY: MWK/JLH

SERENITY AMENITY
REENFIELD COMMUNITIES CLUBHOUSE

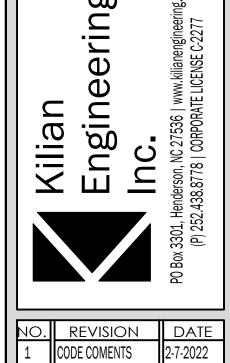












SHEET DESCRIPTION
FIRST FLOOR
LIGHTING PLAN

PROJECT #: 20442

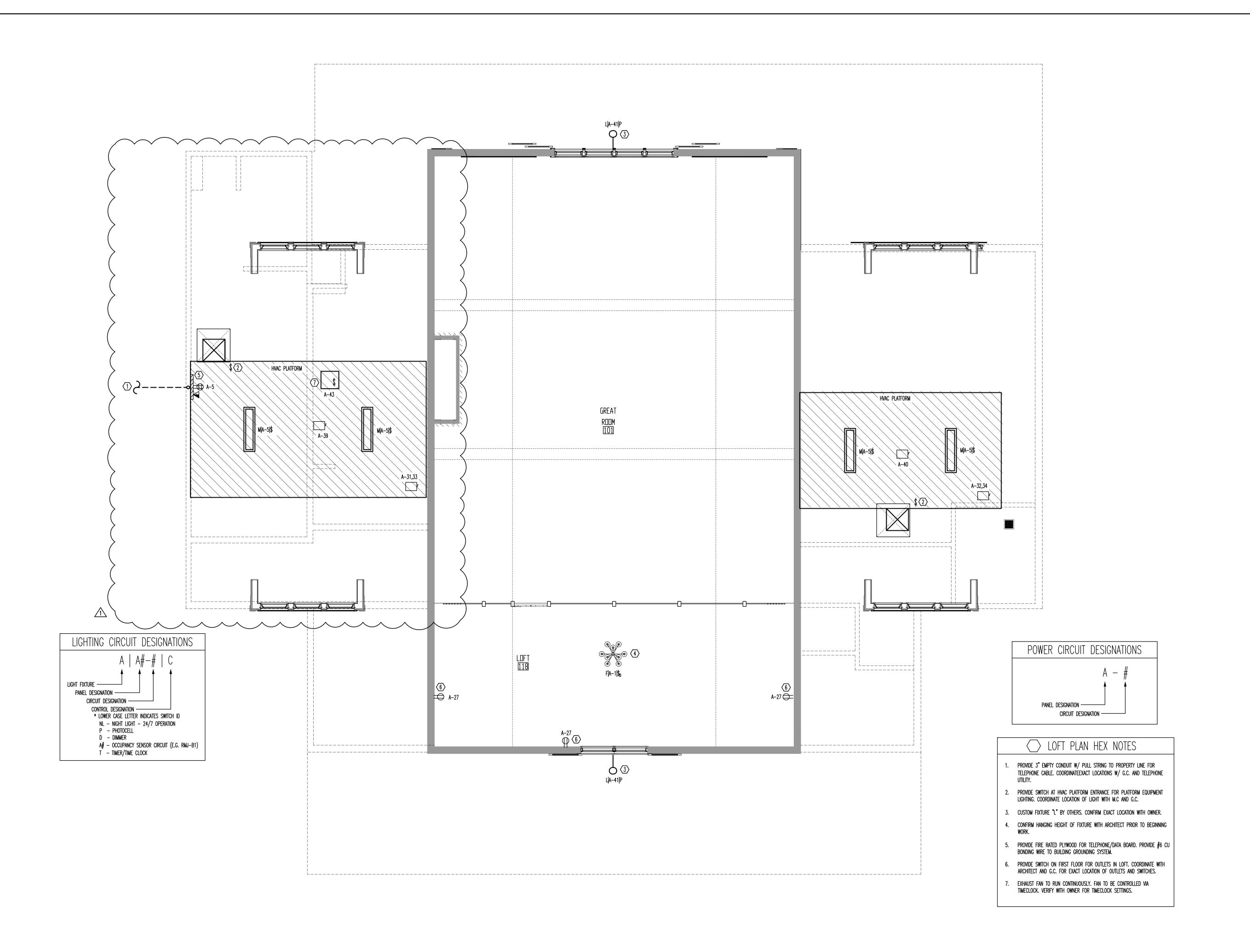
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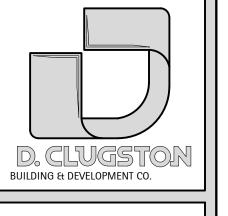
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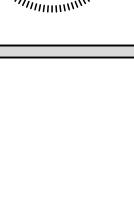
SERENITY AMENITY
GREENFIELD COMMUNITIES
CLUBHOUSE













SHEET DESCRIPTION LOFT LIGHTING AND POWER PLAN

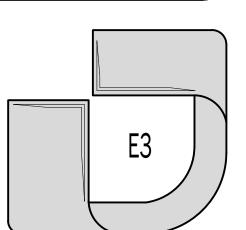
NO. REVISION DATE
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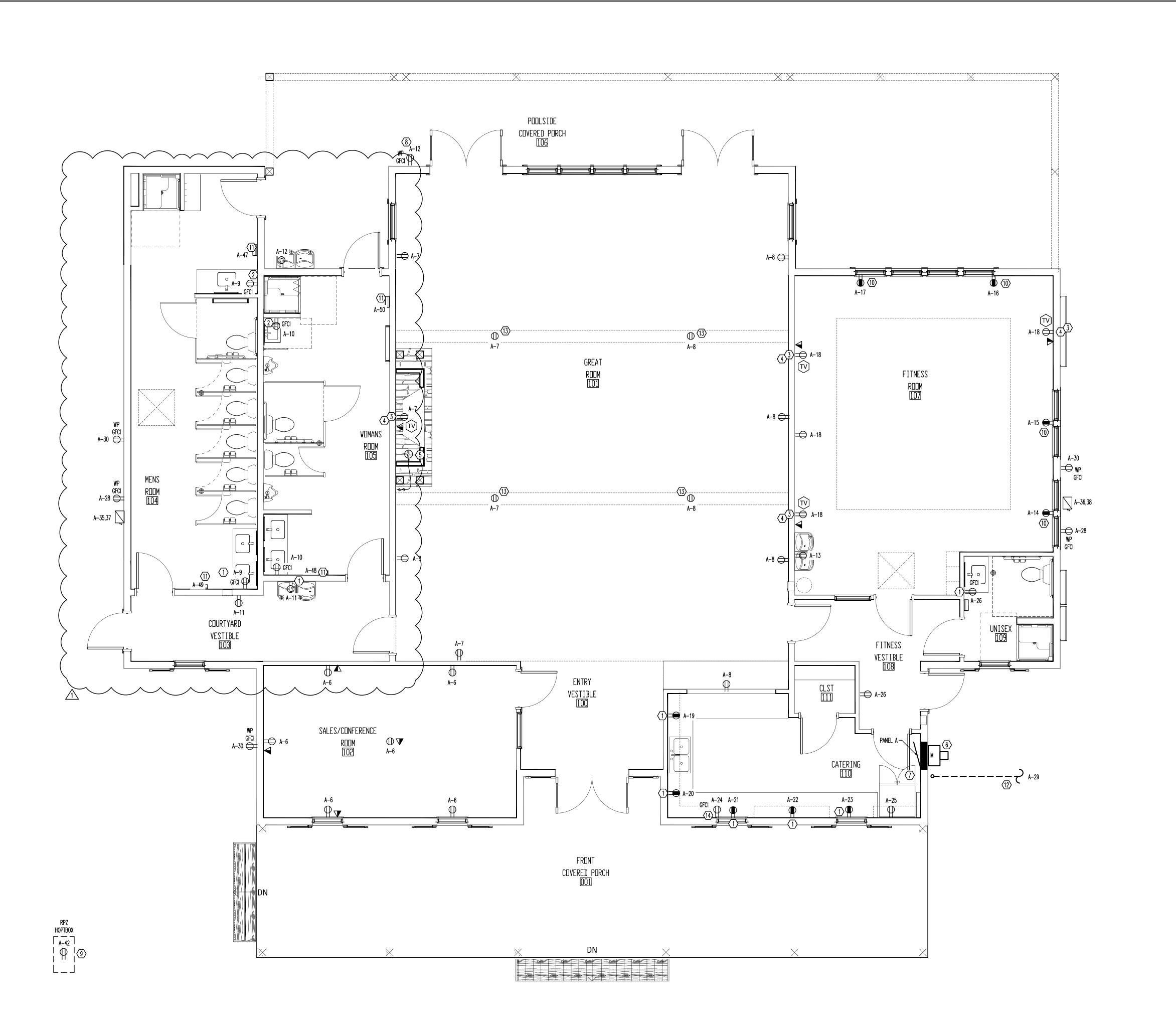
PROJECT #: 20442

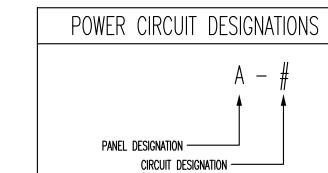
DATE ISSUED: 10-23-2020 DRAWING BY: DBAS

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SERENITY AMENITY
GREENFIELD COMMUNITIES CLUBHOUSE



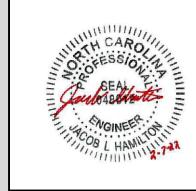




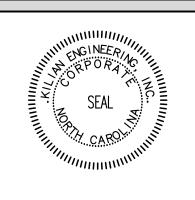
POWER PLAN HEX NOTES

- . RECEPTACLE TO BE MOUNTED AT COUNTER HEIGHT.
- RECEPTACLE TO BE MOUNT 48" A.F.F.
- RECEPTACLE AND DATA BOX TO BE MOUNTED 96" A.F.F.
- EC TO CONFIRM EXACT LOCATION OF TV OUTLET WITH OWNER PRIOR TO BEGINNING WORK.
- PROVIDE POWER FOR GAS FIREPLACE. COORDINATE REQUIREMENTS AND LOCATION WITH M.C.
- 6. NEW METER BY UTILITY.
- . NEW PANEL. SEE RISER FOR MORE DETAIL.
- E.C TO COORDINATE WITH POOL CONTRACTOR TO ENSURE A GFCI/WEATHER PROOF RECEPTACLE IS WITHIN 20' OF EDGE OF POOL (BUT NO CLOSER THAN 6') AS REQUIRE BY NEC 680.22(A)(1).
- 9. PROVIDE RECEPTACLE AT BUILDING RPZ FOR HOT BOX HEAT TAPE. COORDINATE EXACT LOCATION WITH SITE PLANS AND P.C.
- 10. PROVIDE POWER FOR FITNESS EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURERS INSTRUCTIONS.
- I. PROVIDE JUNCTION BOX ABOVE CEILING FOR BATHROOM HAND DRYER. VERIFY EQUIPMENT REQUIREMENTS WITH PRODUCT MANUFACTURER.
- 12. VERIFY WITH LANDSCAPE ARCHITECT AND G.C. WHICH SIDE OF BUILDING FOR IRRIGATION CIRCUIT TO COME FROM PRIOR TO BEGINNING WORK.
- 13. VERIFY WITH G.C. FOR FINAL LOCATION OF FLOOR RECEPTACLES BASED ON INTERIOR DESIGN DRAWINGS.
- 14. VERIFY EXACT LOCATION OF DISHWASHER WITH OWNER.





D. CLUGSTON
BUILDING & DEVELOPMENT CO.





Engineering,
Inc.
PO Box 3301, Henderson, NC 27536 | www.kilianengineering.con
(P) 252.438.8778 | CORPORATE LICENSE C-2277

NO. REVISION DATE
1 CODE COMENTS 2-7-2022

SHEET DESCRIPTION
FIRST FLOOR
LIGHTING PLAN

PROJECT #: 20442

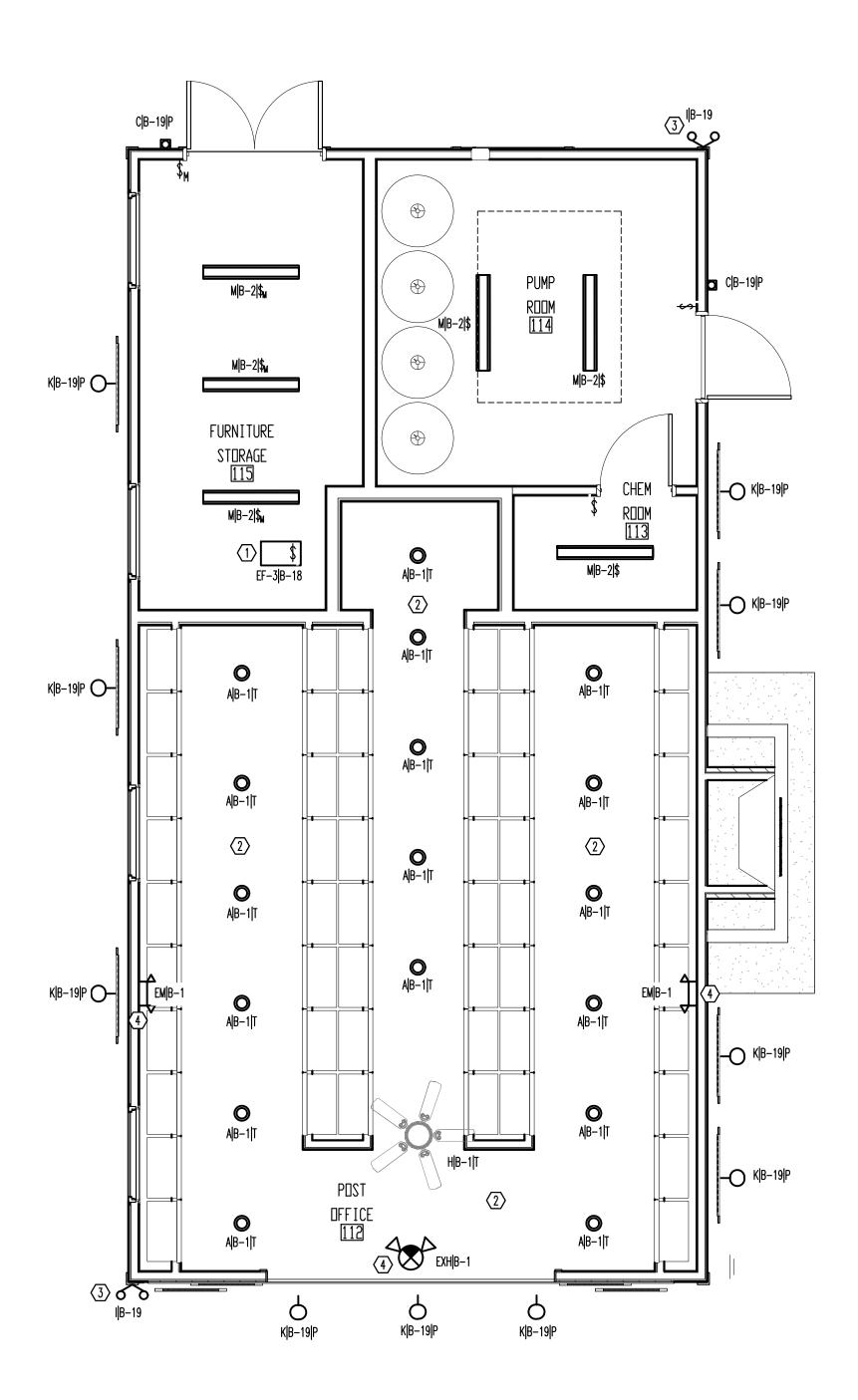
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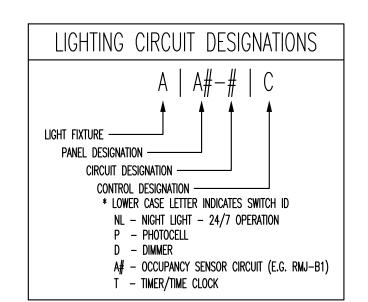
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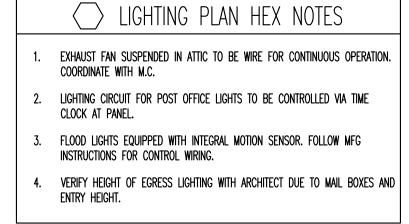
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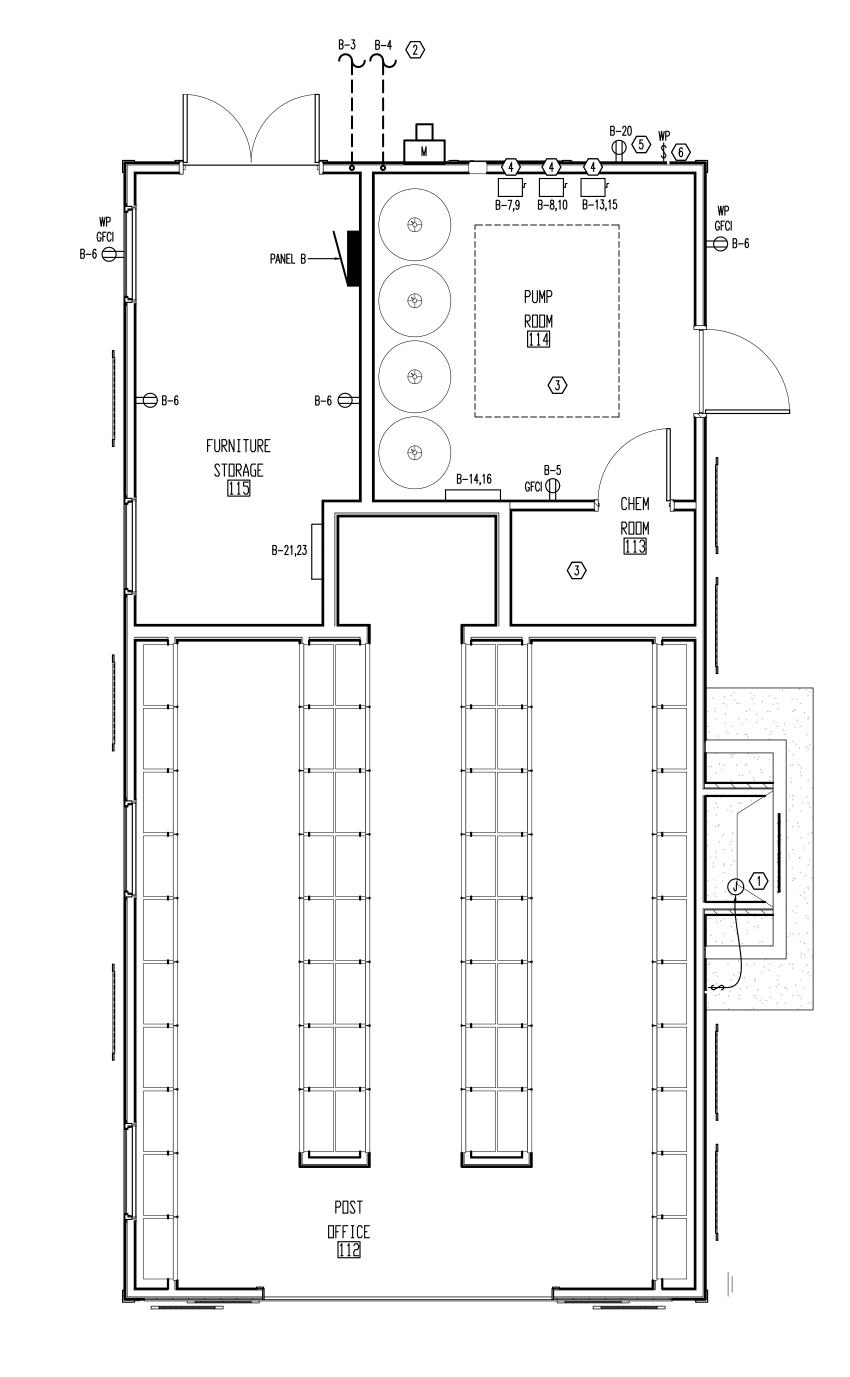
SERENITY AMENITY
GREENFIELD COMMUNITIES
CLUBHOUSE

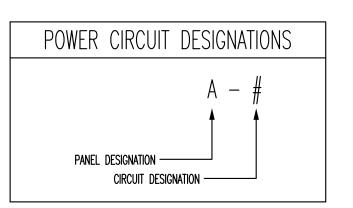
E4













- PROVIDE POWER FOR GAS FIREPLACE. COORDINATE REQUIREMENTS AND LOCATION WITH M.C.
- PROVIDE (2) 1" CONDUITS WITH CIRCUITS AS SHOWN TO POOL FOR POOL LIGHTS AND OTHER POOLSIDE EQUIPMENT. COORDINATE EXACT LOCATIONS WITH G.C. AND POOL CONTRACTOR. CIRCUIT TO CONTROLLED VIA TIME CLOCK AT
- AREA IS CORROSIVE ENVIRONMENT PER NEC 680.14.
- PROVIDE POWER TO 60A NON-FUSED DISCONNECT FOR POOL PUMP. PUMP MUST HAVE GFCI PROTECTION. PROVIDE GFCI BREAKER IN NON-FUSED DISCONNECT. DISCONNECT MUST HAVE NEMA 4X RATED ENCLOSURE.

 COORDINATE EXACT LOCATION AND SPEC WITH G.C AND POOL CONTRACTO
 BEFORE BEGINNING WORK. FINAL CONNECTIONS BY E.C.
- PROVIDE POWER TO EMERGENCY PHONE RECEPTACLE. FIELD VERIFY LOCATION WITH LOCAL AHJ.
- PROVIDE EMERGENCY "PUSH IN" POWER OFF SWITCH FOR POOL PUMPS. VERIFY LOCATION WITH LOCAL AHJ. WIRE TO SHUNT TRIP BREAKERS IN PANEL. SEE PANEL SCHEDULE.

D. CLUGSTOR
BUILDING & DEVELOPMENT CO.





Kilian Engineering,

NO. REVISION DATE

SHEET DESCRIPTION POST OFFICE POWER AND LIGHTING

PROJECT #: 20442

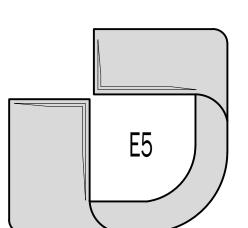
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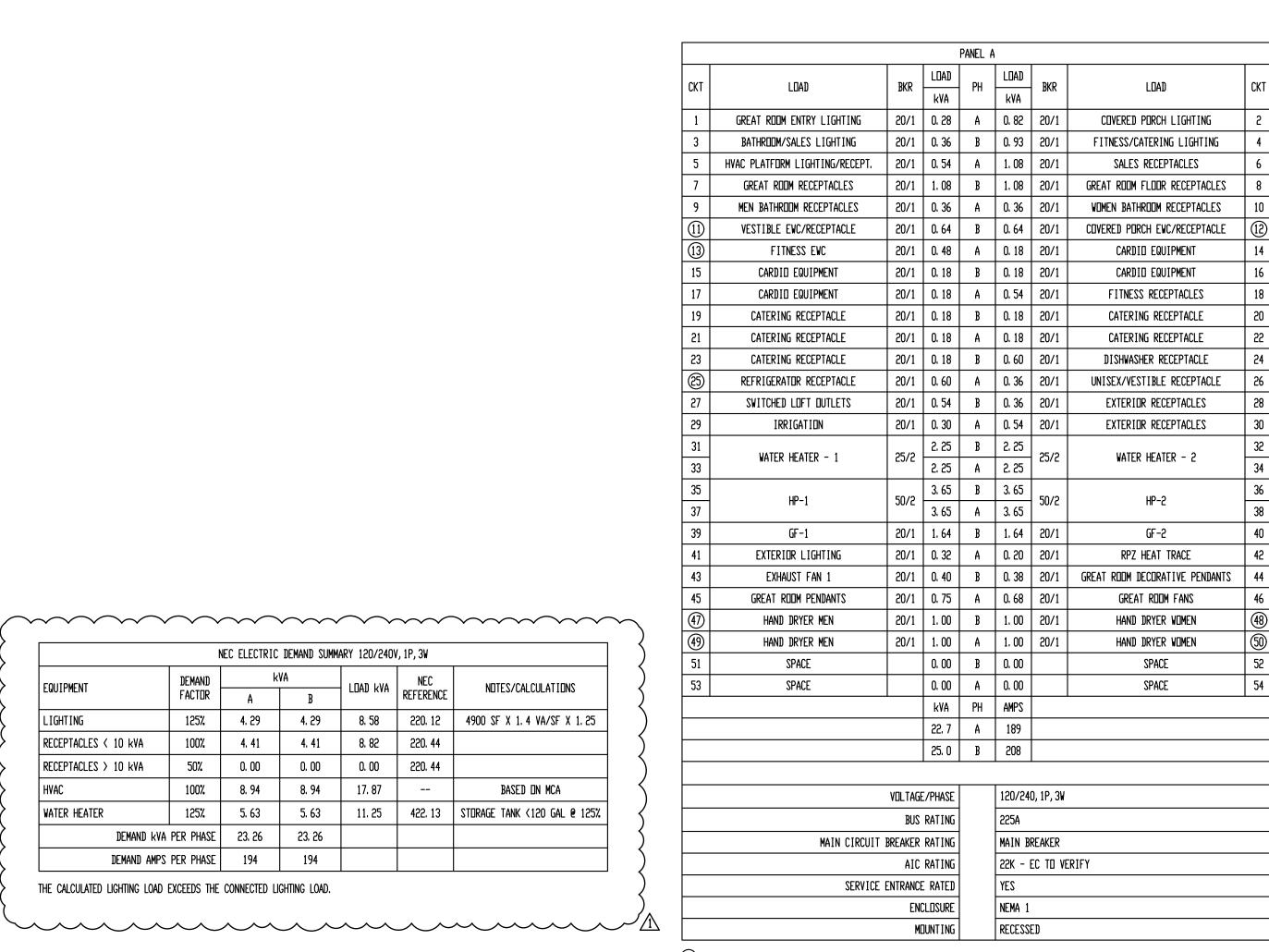
DRAWING BY: DBAS

CHECKED BY: MWK/JLH

SERENITY AMENITY
GREENFIELD COMMUNITIES

POST OFFICE





\bigcirc -	- INDICATES	GFCI	Breaker	

NEC ELECTRIC DEMAND SUMMARY 120/240V, 1P, 3W

100% 4. 41 4. 41 8. 82 220. 44

50% 0.00 0.00 0.00 220.44

100% 8.94 8.94 17.87 --

FACTOR A B

Demand kva per phase | 23, 26 | 23, 26 DEMAND AMPS PER PHASE | 194 | 194

THE CALCULATED LIGHTING LOAD EXCEEDS THE CONNECTED LIGHTING LOAD.

EQUIPMENT

LIGHTING

WATER HEATER

RECEPTACLES < 10 kVA

RECEPTACLES > 10 kVA

- LOAD kVA REFERENCE

125% 4. 29 4. 29 8. 58 220. 12 4900 SF X 1. 4 VA/SF X 1. 25

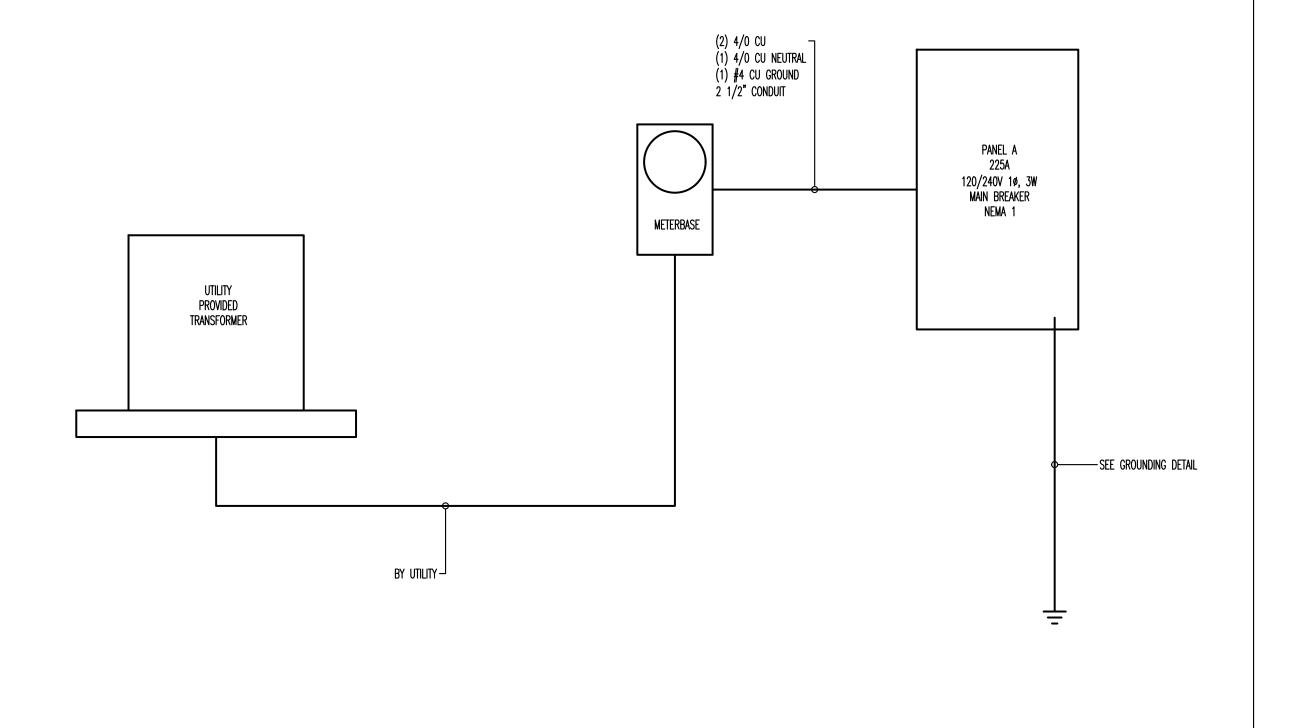
| 125% | 5.63 | 5.63 | 11.25 | 422.13 | STDRAGE TANK <120 GAL @ 125% |

NOTES/CALCULATIONS

BASED ON MCA

CKT	LOAD	BKR	LOAD kva	PH	LOAD kva	BKR	LOAD	CKT	
1	GREAT ROOM ENTRY LIGHTING	20/1	0. 28	A	0. 82	20/1	COVERED PORCH LIGHTING	2	
3	BATHROOM/SALES LIGHTING	20/1	0. 36	В	0, 93	20/1	FITNESS/CATERING LIGHTING	4	
5	HVAC PLATFORM LIGHTING/RECEPT.	20/1	0. 54	Α	1. 08	20/1	SALES RECEPTACLES	6	
7	GREAT ROOM RECEPTACLES	20/1	1. 08	В	1. 08	20/1	GREAT ROOM FLOOR RECEPTACLES	8	
9	MEN BATHROOM RECEPTACLES	20/1	0. 36	Α	0. 36	20/1	WOMEN BATHROOM RECEPTACLES	10	
(1)	VESTIBLE EWC/RECEPTACLE	20/1	0. 64	В	0. 64	20/1	COVERED PORCH EVC/RECEPTACLE	(12)	
<u>i</u>	FITNESS EWC	20/1	0. 48	Α	0. 18	20/1	CARDIO EQUIPMENT	14	
15	CARDIO EQUIPMENT	20/1	0. 18	В	0. 18	20/1	CARDIO EQUIPMENT	16	
17	CARDIO EQUIPMENT	20/1	0. 18	Α	0. 54	20/1	FITNESS RECEPTACLES	18	
19	CATERING RECEPTACLE	20/1	0. 18	В	0. 18	20/1	CATERING RECEPTACLE	20	
21	CATERING RECEPTACLE	20/1	0. 18	A	0. 18	20/1	CATERING RECEPTACLE	22	
23	CATERING RECEPTACLE	20/1	0. 18	В	0. 60	20/1	DISHWASHER RECEPTACLE	24	
25)	REFRIGERATOR RECEPTACLE	20/1	0. 60	Α	0. 36	20/1	UNISEX/VESTIBLE RECEPTACLE	26	
27	SWITCHED LOFT DUTLETS	20/1	0. 54	В	0. 36	20/1	EXTERIOR RECEPTACLES	28	
29	IRRIGATION	20/1	0. 30	Α	0. 54	20/1	EXTERIOR RECEPTACLES	30	
31			2. 25	В	2, 25			32	
33	WATER HEATER - 1	25/2	2, 25	Α	2, 25	25/2	WATER HEATER - 2	34	
35			3. 65	В	3, 65			36	
37	HP-1	50/2	3, 65	Α	3, 65	50/2	HP-2	38	
39	GF-1	20/1	1. 64	В	1. 64	20/1	GF-2	40	
41	EXTERIOR LIGHTING	20/1	0. 32	Α	0, 20	20/1	RPZ HEAT TRACE	42	
43	EXHAUST FAN 1	20/1	0. 40	В	0, 38	20/1	GREAT ROOM DECORATIVE PENDANTS	44	
45	GREAT ROOM PENDANTS	20/1	0. 75	Α	0, 68	20/1	GREAT ROOM FANS	46	
47)	HAND DRYER MEN	20/1	1. 00	В	1. 00	20/1	HAND DRYER WOMEN	48	
49	HAND DRYER MEN	20/1	1. 00	Α	1. 00	20/1	HAND DRYER WOMEN	(50)	
51	SPACE		0, 00	В	0, 00		SPACE	52	
53	SPACE		0, 00	A	0, 00		SPACE	54	
		•	kVA	PH	AMPS			_	
			22. 7	Α	189				
			25. 0	В	208				
		VOLTAGE	E/PHASE		120/24	O, 1P, 3W			
		BUS	RATING		225A				
	MAIN CIRCUIT	BREAKER	RATING		MAIN BREAKER				
			RATING		22K - EC TO VERIFY				
	SERVICE				YES				
			CLOSURE		NEMA 1				
MDUNTING					RECESSED				

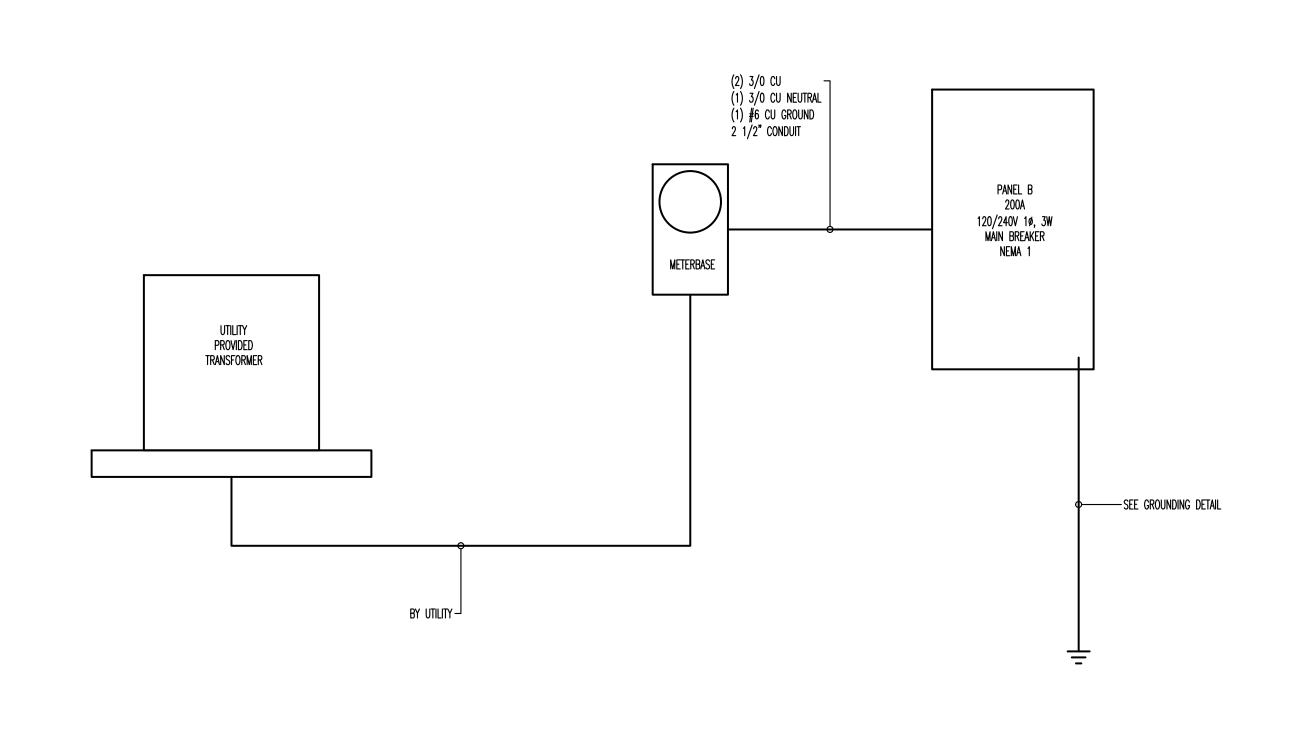
O - I	NDICATES	GFCI	Breaker	

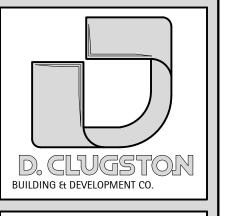




NEC ELECTRIC DEMAND SUMMARY 120/240V,1P,3W								
EQUIPMENT	DEMAND	kVA		LOAD KVA	NEC	NOTES/CALCULATIONS		
Eddifficiti	FACTOR	A	В	LBIID KIII	REFERENCE	Nateo oneociti ino		
LIGHTING	125%	1. 08	1. 08	2. 17	220. 12	1083 SF X 1.6 VA/SF X 1.25		
RECEPTACLES < 10 kVA	100%	0, 45	0, 45	0. 90	220. 44			
HVAC	100%	5. 00	5. 18	10. 18		Based on MCA		
POOL EQUIPMENT	100%	10, 08	10. 08	20. 16		BASED ON MOTOR SIZE		
DEMAND KVA	PER PHASE	16. 61	16. 79					
DEMAND AMPS	138	140						

THE CALCULATED LIGHTING LOAD EXCEEDS THE CONNECTED LIGHTING LOAD.

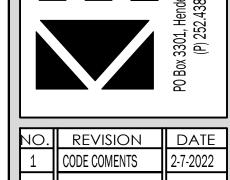












SHEET DESCRIPTION
PANEL SCHEDULE
AND POWER RISER

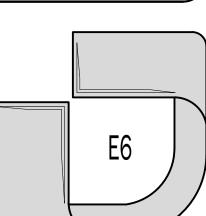
PROJECT #: 20442

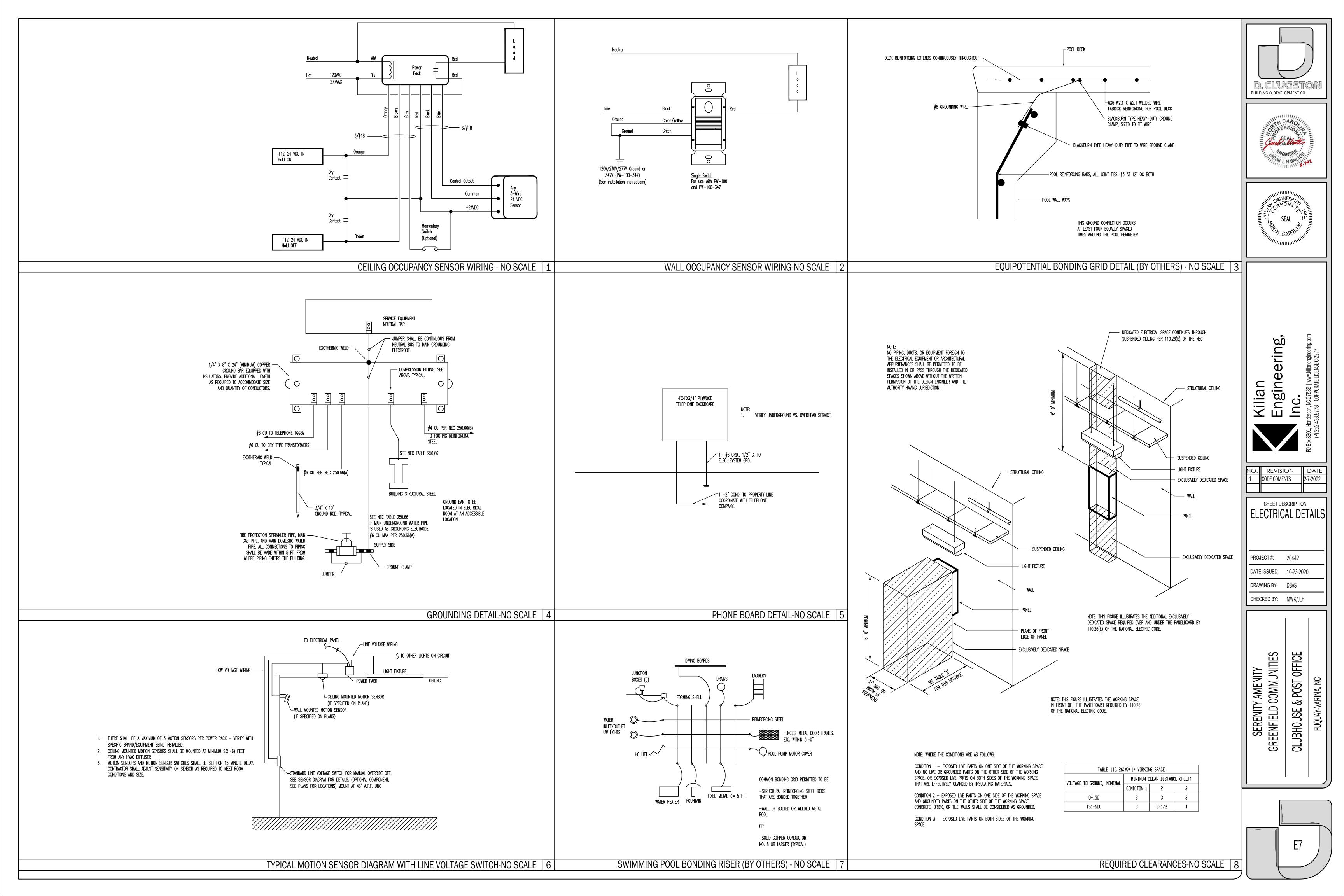
DATE ISSUED: 10-23-2020 DRAWING BY: DBAS

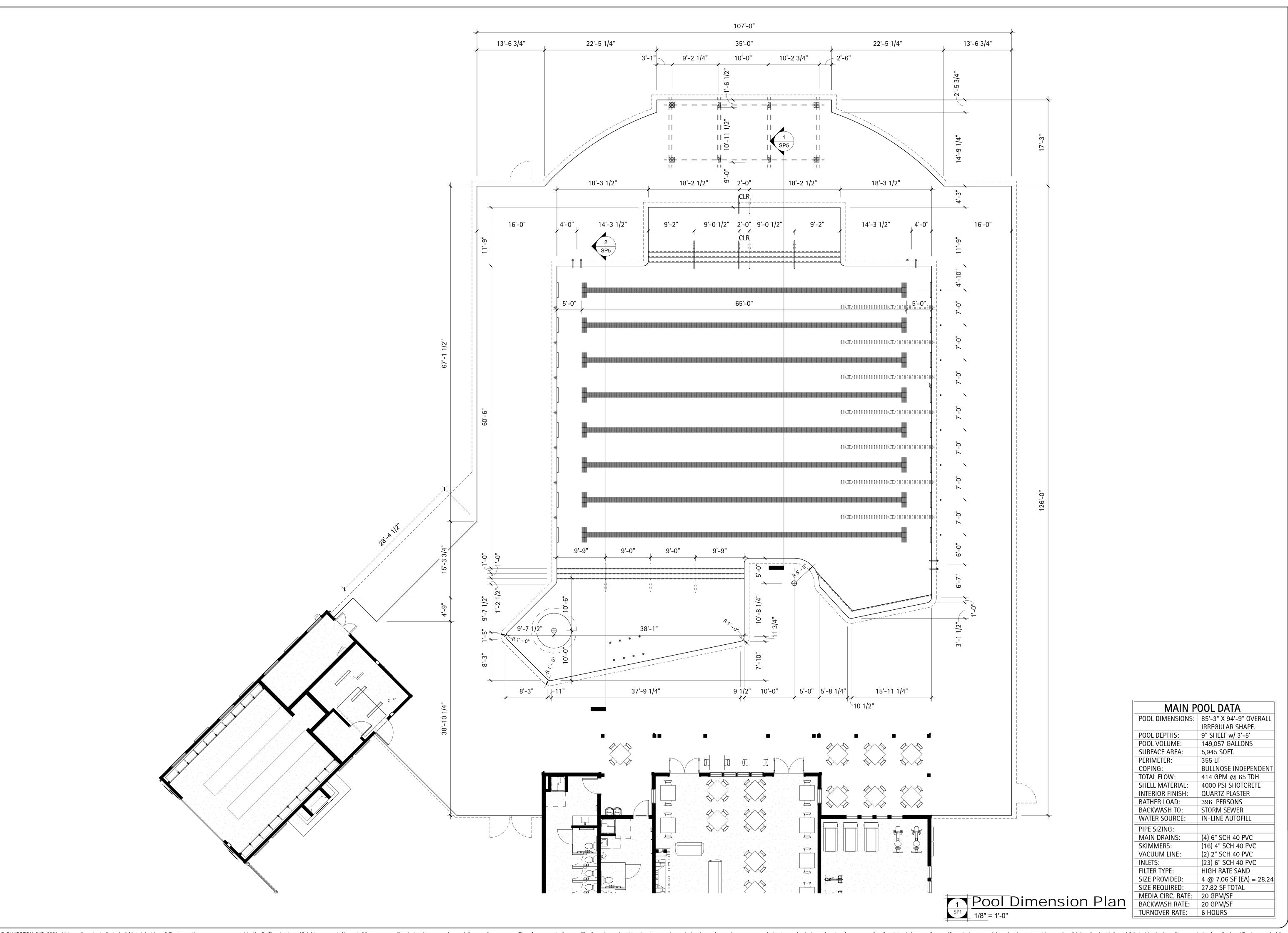
CHECKED BY: MWK/JLH

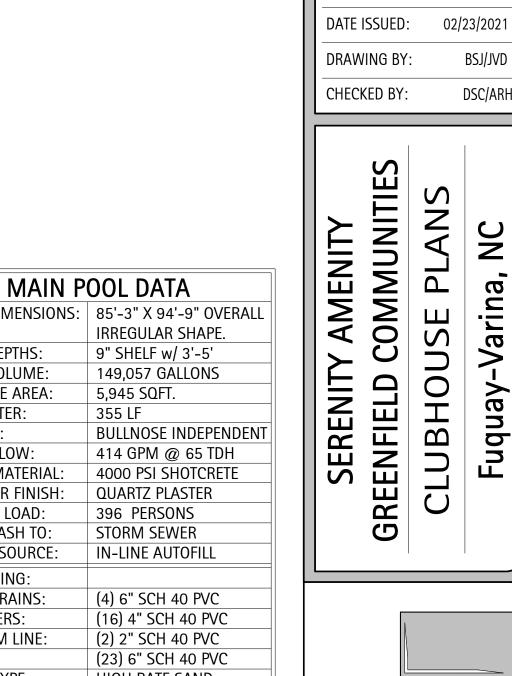
CLUBHOUSE & POST OFFICE

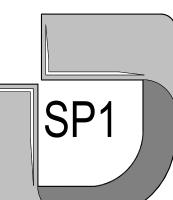
SERENITY AMENITY GREENFIELD COMMUNITIES











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BUILDING & DEVELOPMENT CO.

Hine's Aquatic Engineering PLLC P-1455 Alan Hine, P.E. 405 Willowcrest Dr. Winston-Salem, NC 27107 Phone & Fax: (336)769-4900

SHEET DISCRIPTION

Pool

Dimension

Plan

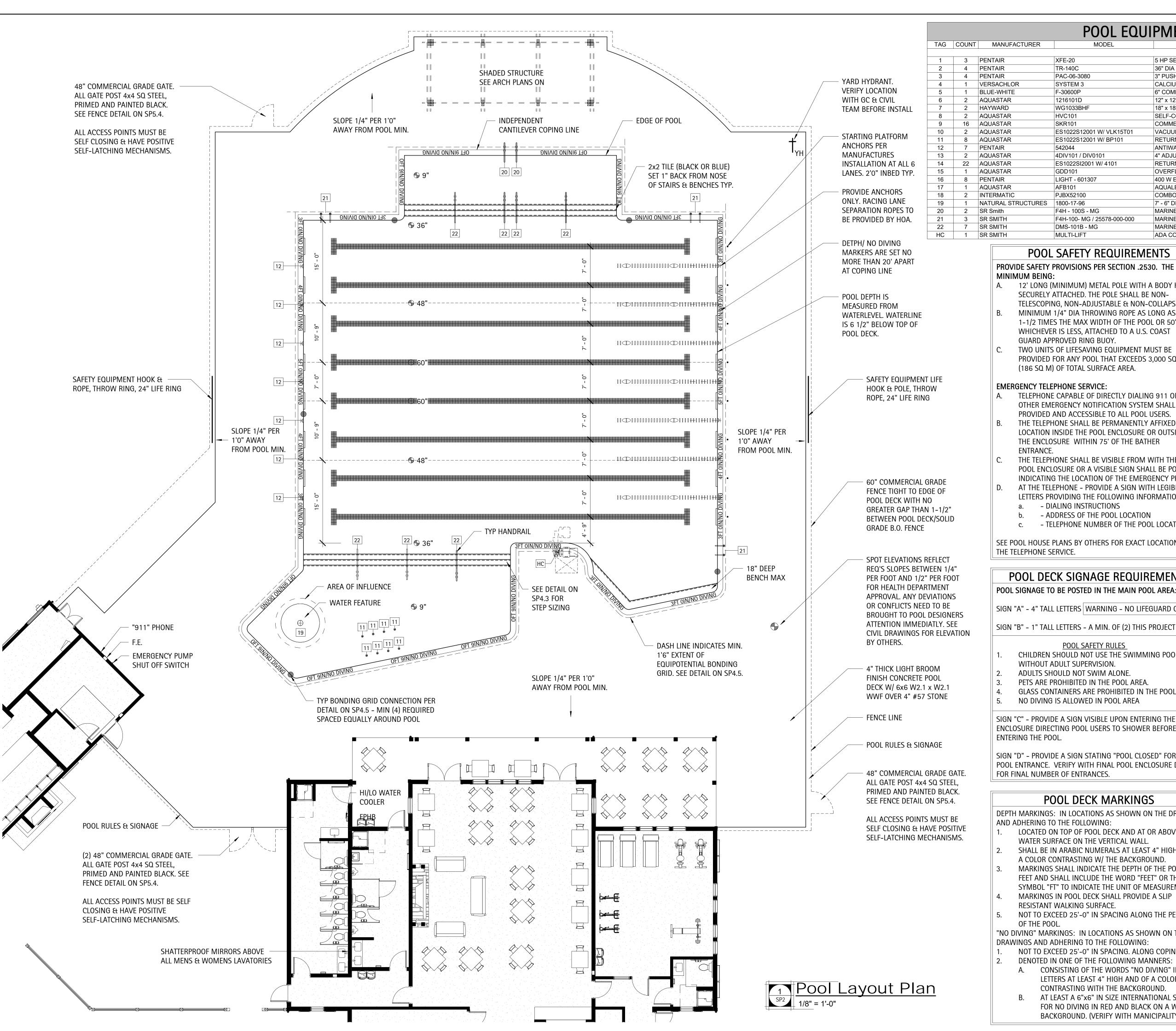
2018.037

NC

Fuquay-Varina,

PROJECT #:

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ADA COMPLIANT MULTILIFT WITH FOLDING SEAT

POOL SAFETY REQUIREMENTS

PROVIDE SAFETY PROVISIONS PER SECTION .2530. THE MINIMUM BEING:

MULTI-LIFT

- 12' LONG (MINIMUM) METAL POLE WITH A BODY HOOK SECURELY ATTACHED. THE POLE SHALL BE NON-
- TELESCOPING, NON-ADJUSTABLE & NON-COLLAPSIBLE. MINIMUM 1/4" DIA THROWING ROPE AS LONG AS 1-1/2 TIMES THE MAX WIDTH OF THE POOL OR 50', WHICHEVER IS LESS, ATTACHED TO A U.S. COAST GUARD APPROVED RING BUOY.
- TWO UNITS OF LIFESAVING EQUIPMENT MUST BE PROVIDED FOR ANY POOL THAT EXCEEDS 3,000 SQ FT (186 SQ M) OF TOTAL SURFACE AREA.

EMERGENCY TELEPHONE SERVICE:

- TELEPHONE CAPABLE OF DIRECTLY DIALING 911 OR OTHER EMERGENCY NOTIFICATION SYSTEM SHALL BE PROVIDED AND ACCESSIBLE TO ALL POOL USERS.
- THE TELEPHONE SHALL BE PERMANENTLY AFFIXED TO A LOCATION INSIDE THE POOL ENCLOSURE OR OUTSIDE THE ENCLOSURE WITHIN 75' OF THE BATHER ENTRANCE.
- THE TELEPHONE SHALL BE VISIBLE FROM WITH THE POOL ENCLOSURE OR A VISIBLE SIGN SHALL BE POSTED INDICATING THE LOCATION OF THE EMERGENCY PHONE
- AT THE TELEPHONE PROVIDE A SIGN WITH LEGIBLE LETTERS PROVIDING THE FOLLOWING INFORMATION.
 - DIALING INSTRUCTIONS - ADDRESS OF THE POOL LOCATION
- TELEPHONE NUMBER OF THE POOL LOCATION.

SEE POOL HOUSE PLANS BY OTHERS FOR EXACT LOCATION OF

POOL DECK SIGNAGE REQUIREMENTS POOL SIGNAGE TO BE POSTED IN THE MAIN POOL AREA:

SIGN "A" - 4" TALL LETTERS WARNING - NO LIFEGUARD ON DUTY

POOL SAFETY RULES

- CHILDREN SHOULD NOT USE THE SWIMMING POOL WITHOUT ADULT SUPERVISION.
- ADULTS SHOULD NOT SWIM ALONE.
- PETS ARE PROHIBITED IN THE POOL AREA.
- GLASS CONTAINERS ARE PROHIBITED IN THE POOL AREA. NO DIVING IS ALLOWED IN POOL AREA
- SIGN "C" PROVIDE A SIGN VISIBLE UPON ENTERING THE POOL ENCLOSURE DIRECTING POOL USERS TO SHOWER BEFORE

SIGN "D" - PROVIDE A SIGN STATING "POOL CLOSED" FOR EVERY POOL ENTRANCE. VERIFY WITH FINAL POOL ENCLOSURE DESIGN FOR FINAL NUMBER OF ENTRANCES.

POOL DECK MARKINGS

DEPTH MARKINGS: IN LOCATIONS AS SHOWN ON THE DRAWINGS AND ADHERING TO THE FOLLOWING: LOCATED ON TOP OF POOL DECK AND AT OR ABOVE THE

- WATER SURFACE ON THE VERTICAL WALL. SHALL BE IN ARABIC NUMERALS AT LEAST 4" HIGH AND OF
- A COLOR CONTRASTING W/ THE BACKGROUND. MARKINGS SHALL INDICATE THE DEPTH OF THE POOL IN FEET AND SHALL INCLUDE THE WORD "FEET" OR THE
- SYMBOL "FT" TO INDICATE THE UNIT OF MEASUREMENT. MARKINGS IN POOL DECK SHALL PROVIDE A SLIP RESISTANT WALKING SURFACE.

NOT TO EXCEED 25'-0" IN SPACING ALONG THE PERIMETER OF THE POOL. "NO DIVING" MARKINGS: IN LOCATIONS AS SHOWN ON THE

DRAWINGS AND ADHERING TO THE FOLLOWING: NOT TO EXCEED 25'-0" IN SPACING. ALONG COPING EDGE.

DENOTED IN ONE OF THE FOLLOWING MANNERS: CONSISTING OF THE WORDS "NO DIVING" IN LETTERS AT LEAST 4" HIGH AND OF A COLOR

CONTRASTING WITH THE BACKGROUND.

AT LEAST A 6"x6" IN SIZE INTERNATIONAL SYMBOL FOR NO DIVING IN RED AND BLACK ON A WHITE BACKGROUND. (VERIFY WITH MANICIPALITY)

POOL DECK EXIT REQUIREMENTS

POOL DECK AREA - 8,219 SF @ 15 SF PER PERSON DECK OCCUPANT LOAD IS 548.

POOL AREA IS 5,945 SF @ 50 SF PER PERSON. POOL OCCUPANT LOAD IS 119.

TOTAL OCCUPANT LOAD OF 667 * 0.2 EQUAL 133.4 INCHES REQUIRED. 144" SHOWN ON PLAN.

REQ'D EXIT SEPARATION - 168' 0" / 2 = 84' 0" 105' 8" SHOWN ON PLANS.

BUILDING FIXTURE DATA

TOTAL BATHER LOAD = 5945/15 = 396 PERSONS (50% - 50% SPLIT) = 198 PERSONS CLUBHOUSE & PUMP HOUSE REQUIREMENTS: MINIMUM FIXTURE REQUIRMENTS ARE:

198 MEN 2 LAVATORIES

> 2 WATER CLOSET(S) - 2 URINAL(S)

198 WOMEN

- 3 LAVATORIES

3 WATER CLOSET(S) 2 SHOWERS ARE REQUIRED

SEE ARCHITECTURAL PLANS BY OTHERS FOR RESTROOM LOCATION & LAYOUTS

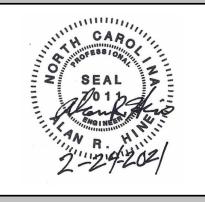
POOL DESIGN NOTES

- SEE PLANS BY OTHERS FOR CONSTRUCTION OF BATHHOUSE, PUMP & CHEMICAL STORAGE ROOMS, SITE WORK, ETC.
- POOL IS DESIGNED FOR DAWN TO DUSK **SWIMMING ONLY**

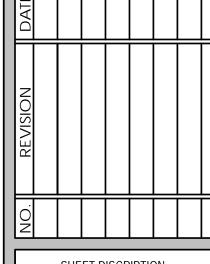
MAIN P	OOL DATA
POOL DIMENSIONS:	85'-3" X 94'-9" OVERALL
	IRREGULAR SHAPE.
POOL DEPTHS:	9" SHELF w/ 3'-5'
POOL VOLUME:	149,057 GALLONS
SURFACE AREA:	5,945 SQFT.
PERIMETER:	355 LF
COPING:	BULLNOSE INDEPENDENT
TOTAL FLOW:	414 GPM @ 65 TDH
SHELL MATERIAL:	4000 PSI SHOTCRETE
INTERIOR FINISH:	QUARTZ PLASTER
BATHER LOAD:	396 PERSONS
BACKWASH TO:	STORM SEWER
WATER SOURCE:	IN-LINE AUTOFILL
PIPE SIZING:	
MAIN DRAINS:	(4) 6" SCH 40 PVC
SKIMMERS:	(16) 4" SCH 40 PVC
VACUUM LINE:	(2) 2" SCH 40 PVC
INLETS:	(23) 6" SCH 40 PVC
FILTER TYPE:	HIGH RATE SAND
SIZE PROVIDED:	4 @ 7.06 SF (EA) = 28.24
SIZE REQUIRED:	27.82 SF TOTAL
MEDIA CIRC. RATE:	20 GPM/SF
BACKWASH RATE:	20 GPM/SF
TUDALON (ED. DATE	- 1101106

TURNOVER RATE: 6 HOURS





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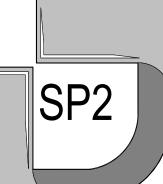


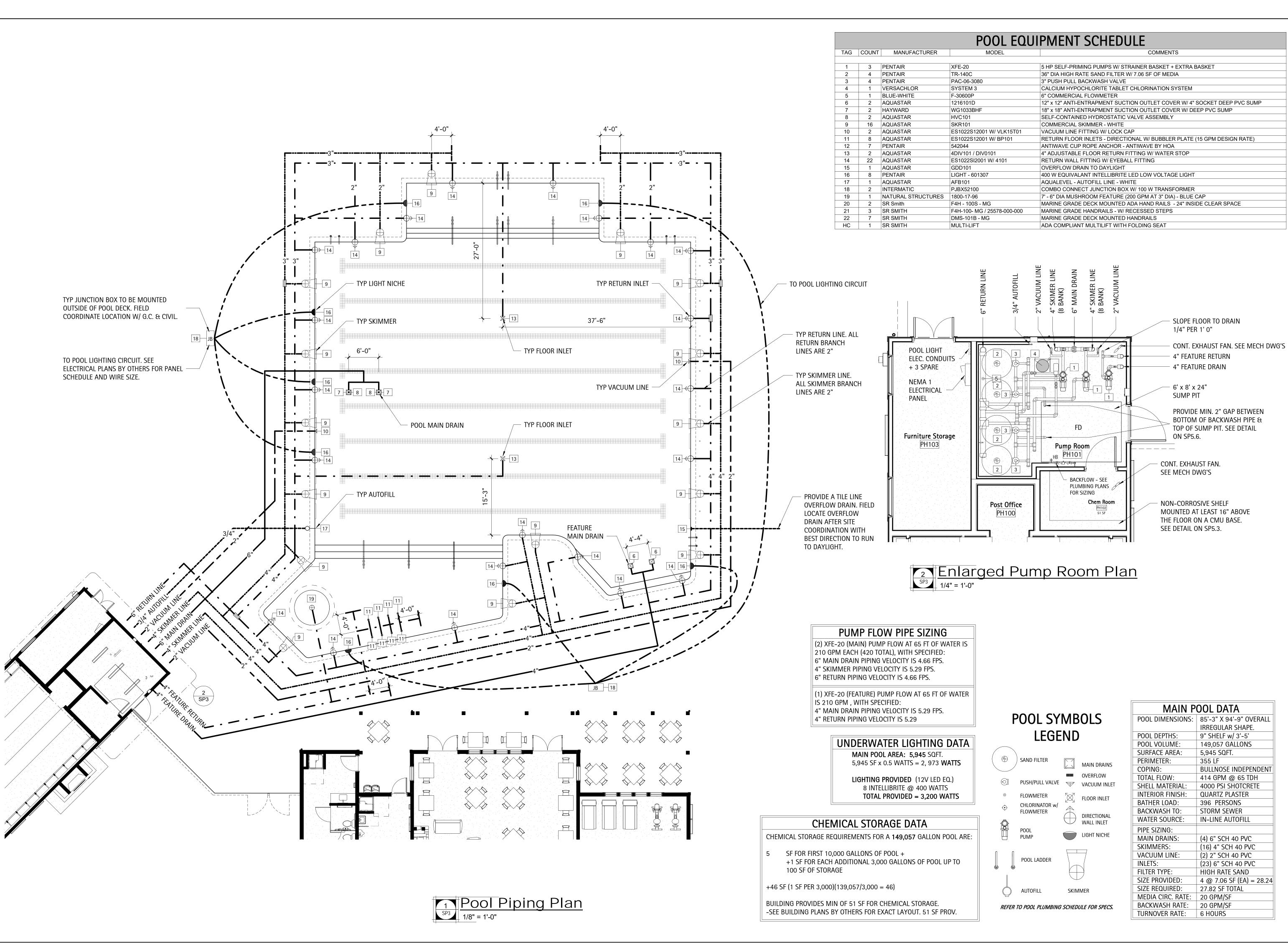
SHEET DISCRIPTION **Pool Layout** Plan

PROJECT #: 2018.037 DATE ISSUED: 02/23/2021 DRAWING BY: BSJ/JVD CHECKED BY: DSC/ARH

> **OMMUNITIES** Z PL ENFIELD UBHO!

> > \propto

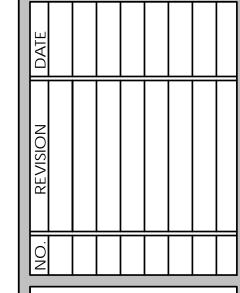








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Pool Piping & Electrical Plan

PROJECT #: 2018.037

DATE ISSUED: 02/23/2021

DRAWING BY: BSJ/JVD

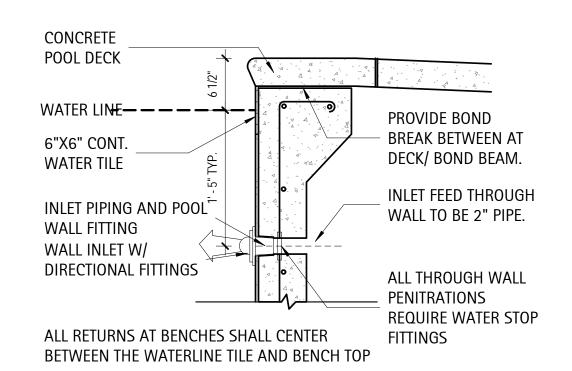
CHECKED BY: DSC/AR

SERENITY AMENITY
REENFIELD COMMUNITI
CLUBHOUSE PLANS

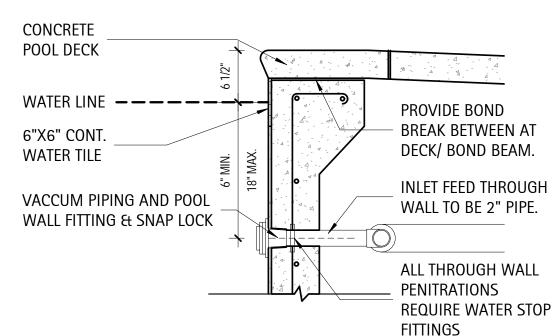
/-Varina,

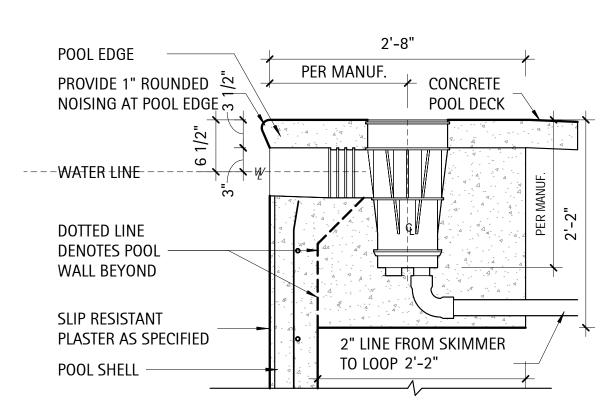
Fuquay.



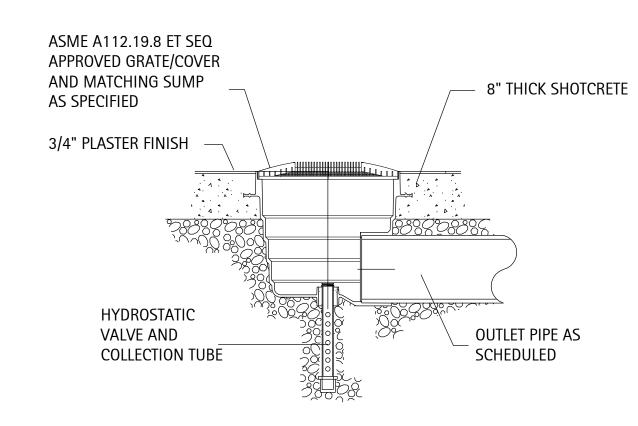




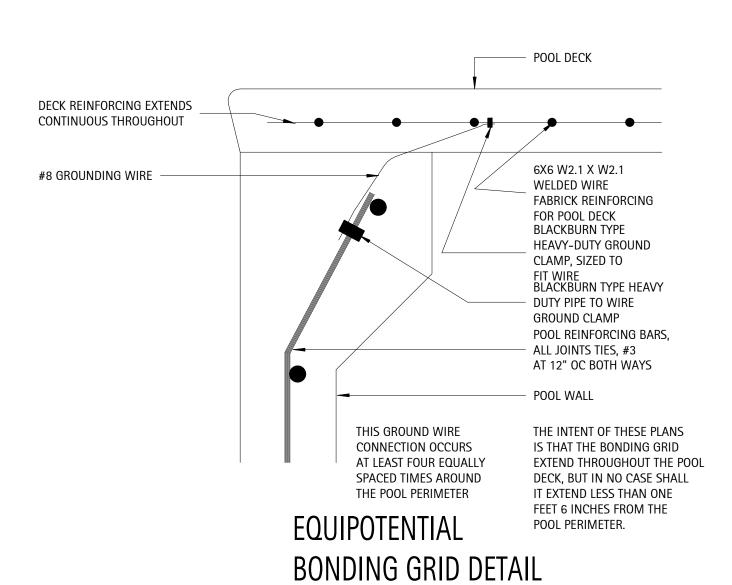


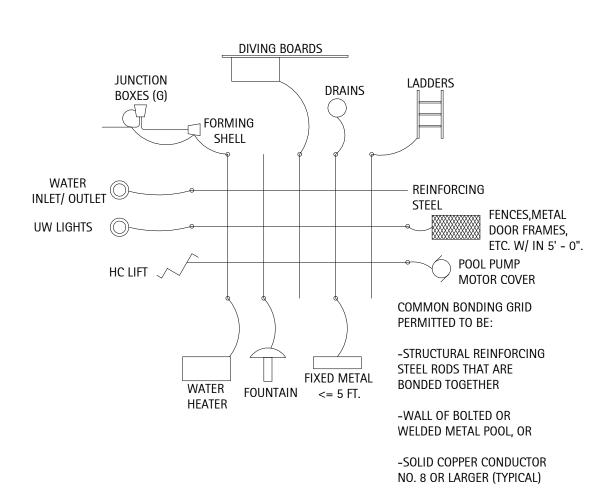


9 Detail - Pool Skimmer 1" = 1'-0"



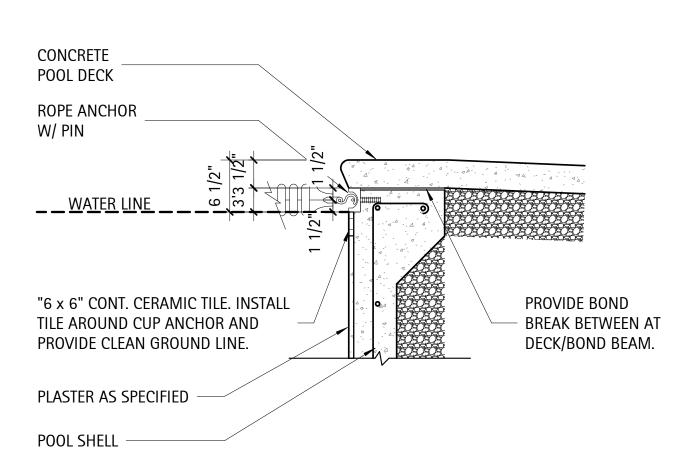




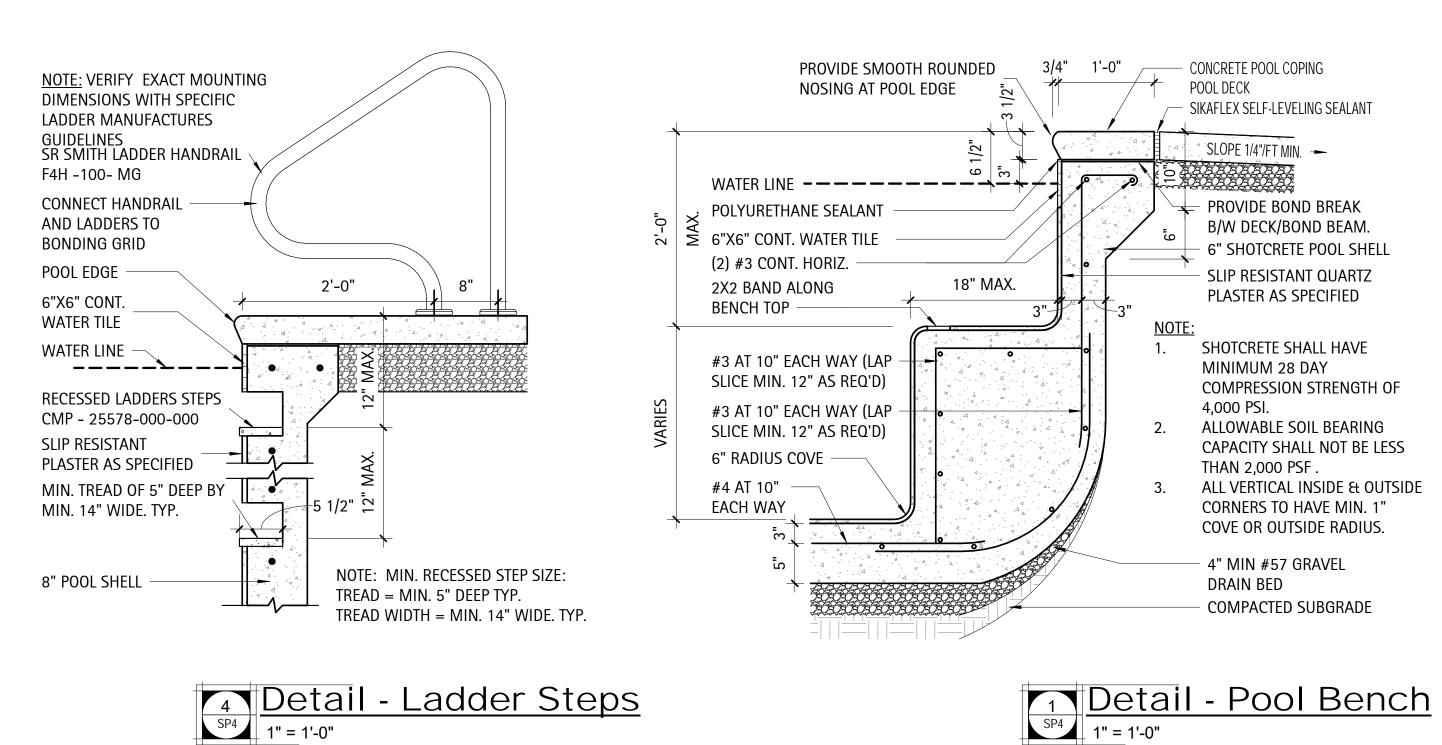


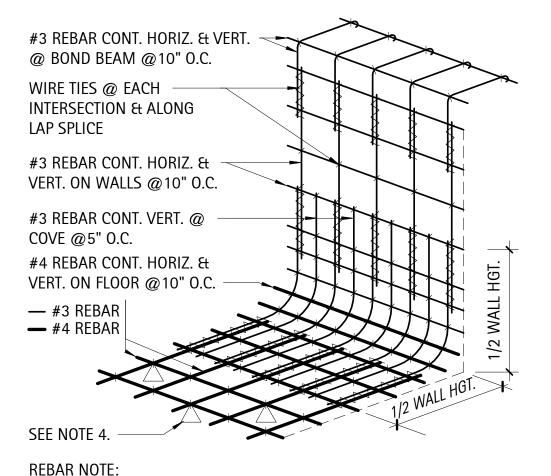
SWIMMING POOL BONDING RISER





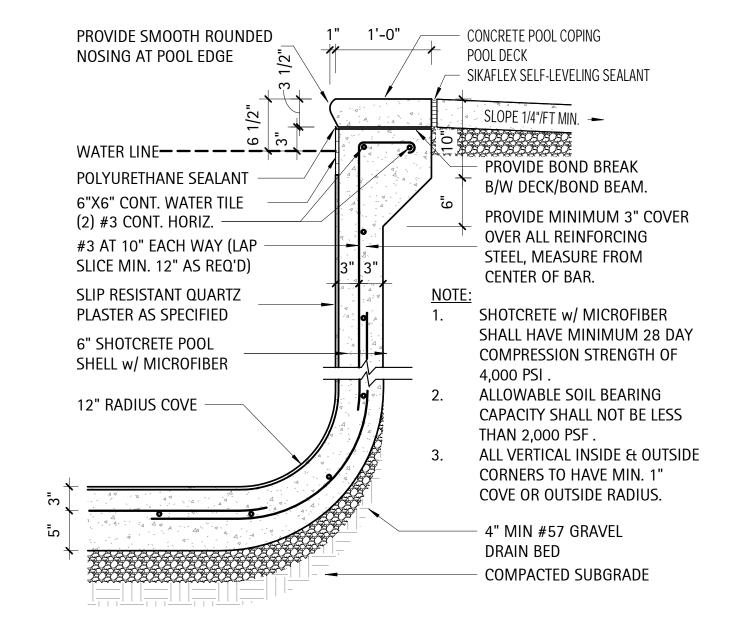


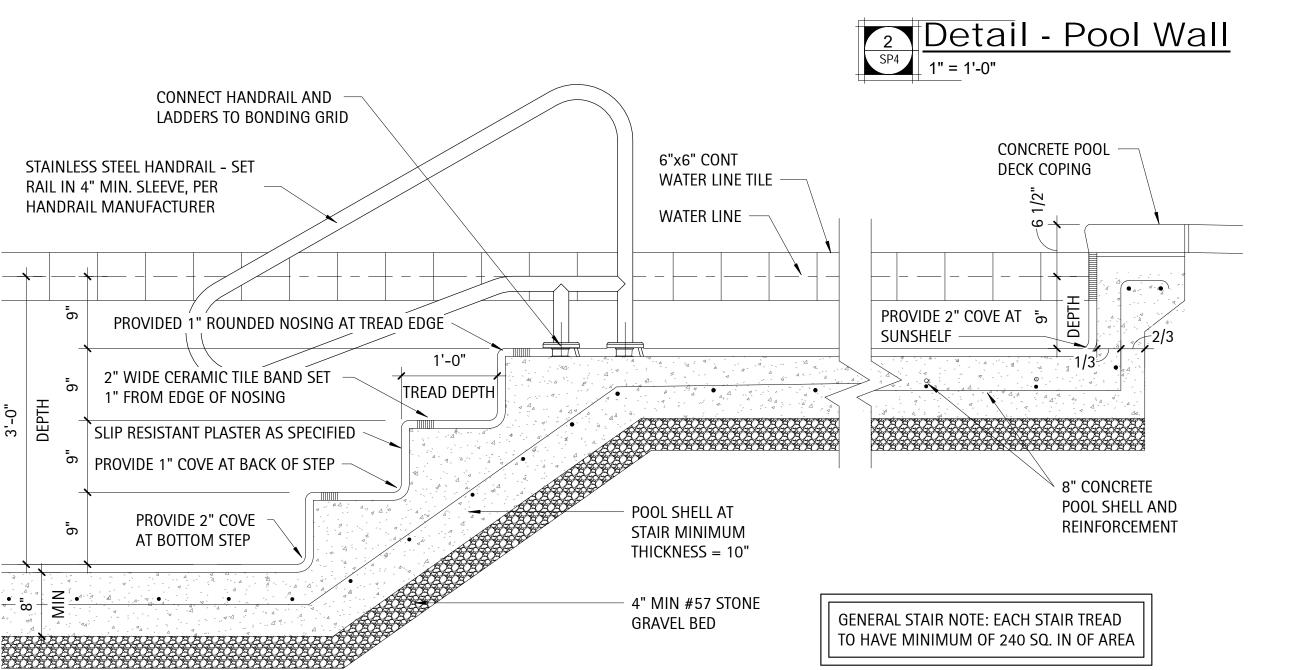




ALL REBAR OVERLAP LENGTHS TO BE 20X DIA OF REBAR.

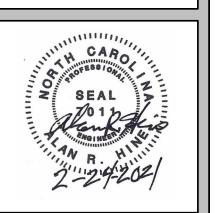
ALL BAR INTERSECTIONS SHALL HAVE WIRES TIES. ALL REINFORCING STEEL SHALL BE GRADE 60. ALL SLAB BOLSTERS - GRIP-RITE 5" X 5FT MANF# SBU5



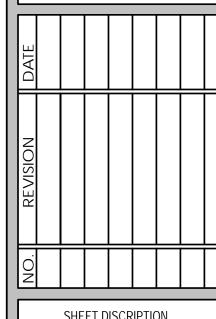








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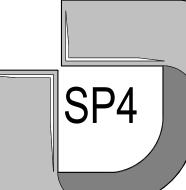


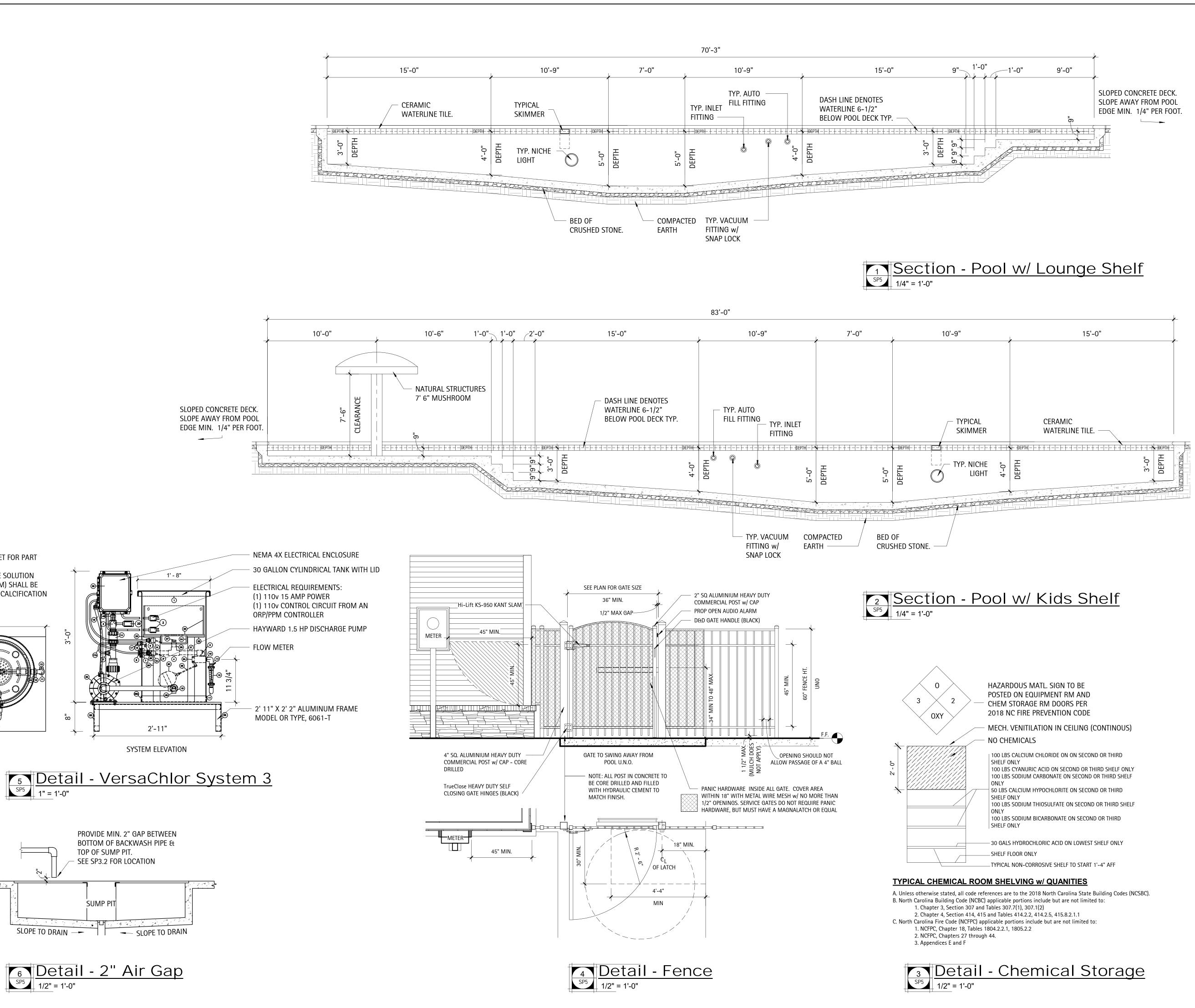
SHEET DISCRIPTION Sections & Details

PROJECT #: 2018.037 DATE ISSUED: 02/23/2021 DRAWING BY: BSJ/JVD CHECKED BY: DSC/ARH

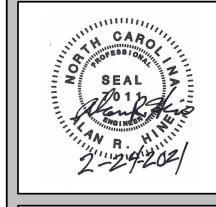
PLAN /-Varina,

CLUBHOU Fuquay. RE

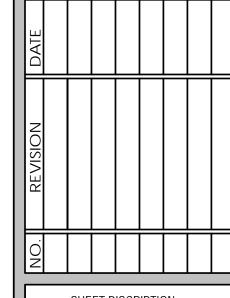




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SHEET DISCRIPTION Sections & Details

PROJECT #: 2018.037 02/23/2021 DATE ISSUED: DRAWING BY: BSJ/JVD CHECKED BY: DSC/ARH

PLAN --Varina, LUBHOU ENFIELD Fuquay. RE

SP5

1)SEE SPECIFICATION SHEET FOR PART

2) A MAXIMUM CHLORINE SOLUTION

LEVEL OF 0.15% (1500 PPM) SHALL BE

MAINTAINED TO PREVENT CALCIFICATION

2'-11"

SYSTEM PLAN

2'-11"

SYSTEM ELEVATION

PROVIDE MIN. 2" GAP BETWEEN BOTTOM OF BACKWASH PIPE &

TOP OF SUMP PIT.

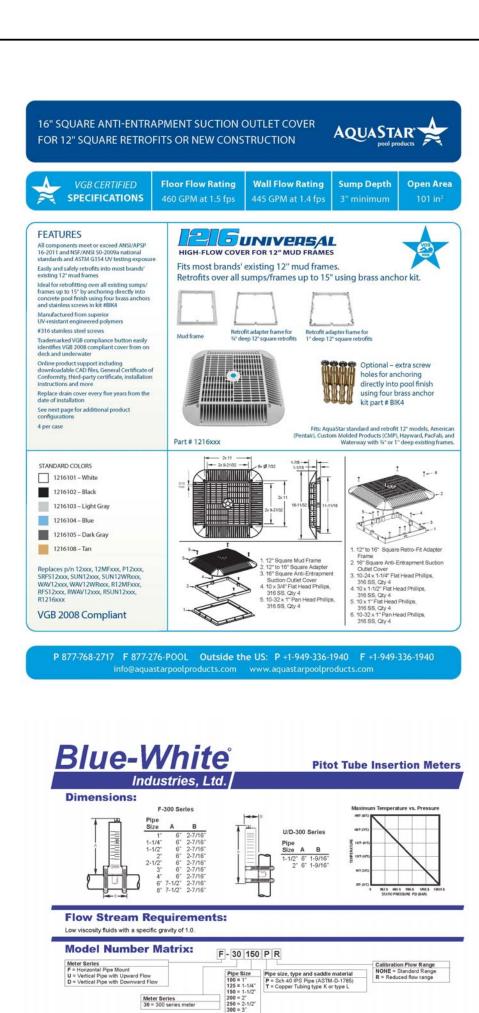
SLOPE TO DRAIN — SLOPE TO DRAIN

6 Detail - 2" Air Gap
1/2" = 1'-0"

SEE SP3.2 FOR LOCATION

NUMBERS AND DETAILS.

IN SYSTEM COMPONENTS.



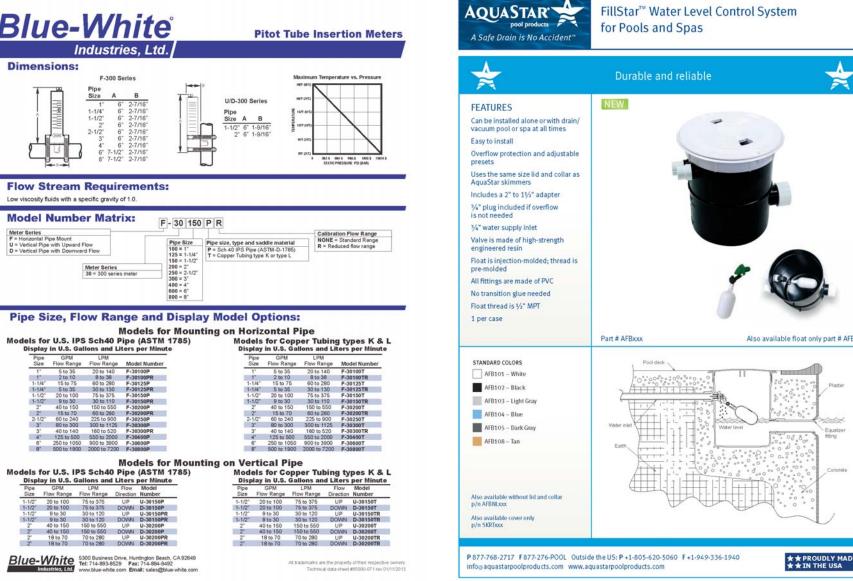
Pipe GPM LPM Size Flow Range Flow Range Model Number

Models for U.S. IPS Sch40 Pipe (ASTM 1785)

Display in U.S. Gallons and Liters per Minute

Pipe GPM LPM Flow Model

Blue-White
15300 Business Drive, Huntington Beach, CA 92649
11: 714-893-8529 Fax: 714-893-4924
www.blue-white.com Email: sales@due-white.com



nfo@aquastarpoolproducts.com www.aquastarpoolproducts.com

AQUASTAR'

FEATURES

Fits outside 11/2" pipe

13/2" FPT in front face Finishes flush, no protrusion past the surface

Integrated water stop reduces leaks

Manufactured from enginee UV-resistant ABS material

Also available in Clear (p/n 3200)

250 per case

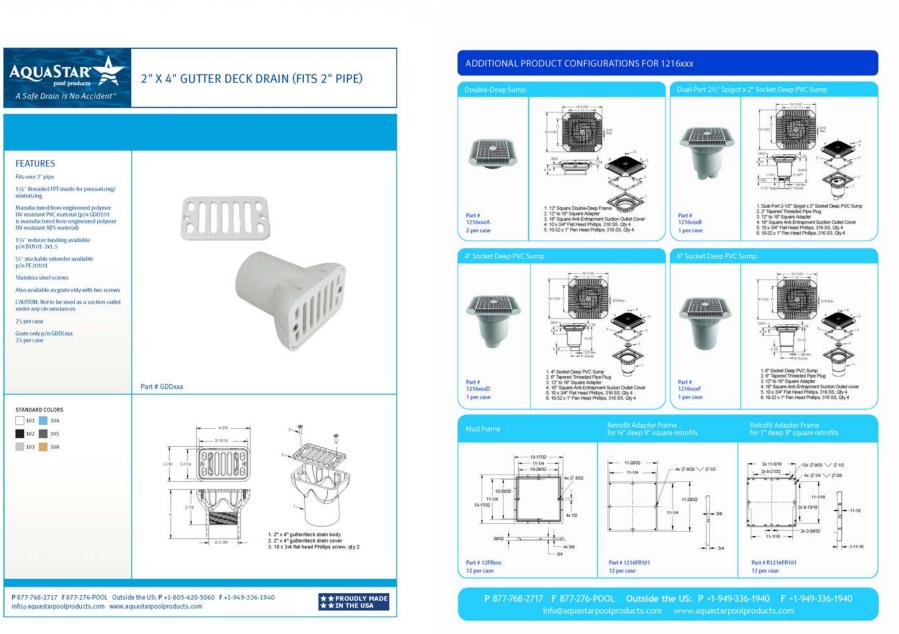
101 104

102 105

103 108

VACUUM FITTING WITH WATER STOP

(FITS OUTSIDE 11/2" PIPE)

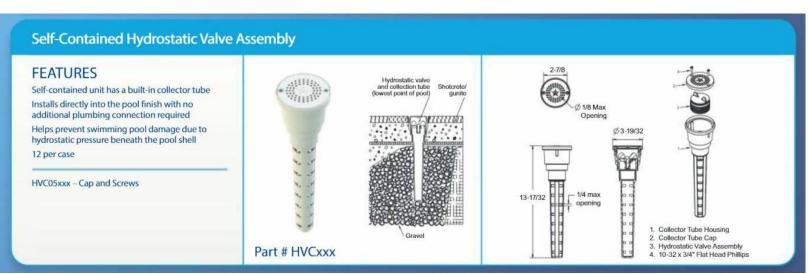




Three-Piece Directional Eyeball Fi	tting 1½" Knock-In		
FEATURES Knocks into 1½" pipe Self-leveling for pipe and surface construction variations Manufactured from engineered polymer UV-resistant ABS material 250 per case Eyeball orifice size part #s: 1" - 41xx, ¾" - 42xx, ½" - 43xx, slotted - 44xx (i.e. 4201 = white ¾" orifice) Also available in clear (p/n 4100, 4200, 4300, 4400)	Part # 41xx, 42xx, 43xx, 44xx	2.5/32 2.5/32	Directional Knock-In Body, 1-1/2" Spigot Directional Eyeball Directional Locking Ring









2",2-1/2",3" VALVULA DE RETROLAVADO XF ENTRADA SUPR. (PAC-06-3080)

Product #: PAC-06-3080

Product UPC: 788379852955

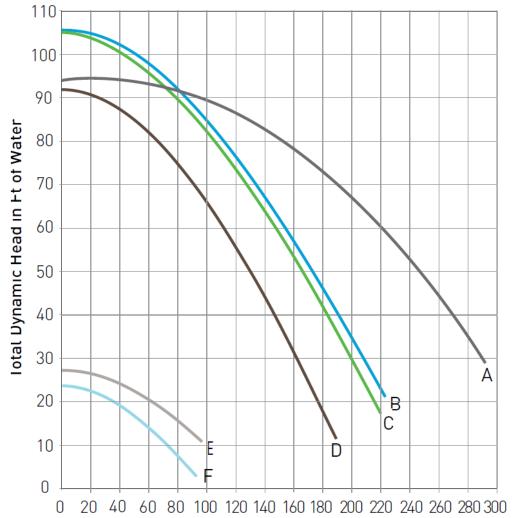
Mfg: PENTAIR WATER POOL AND SPA INC

Mfg#: 263080 Department: FILTER ACCESSORIES

UOM (Default): PZA Obsolete: This product is not obsolete.

Ship Weight (lbs): 8.50 Shipping Dimensions: 17.40x12.20x8.10

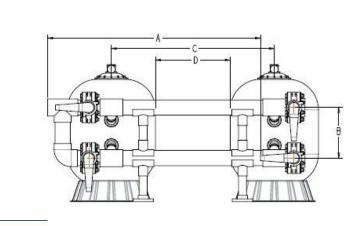




Performan Curve	nce Model	Description
Α	XFE-20	5 HP, Single Speed Full Rated
Α	XFET-20	5 HP, TEFC Super-Duty Single Speed
G	XFK-20	5 HP, 3-Phase, Super-Duty Motor
В	XFE-12	3 HP, Single Speed Full Rated
B, E	XFDS-12	3 HP, 2-Speed Full Rated
В	XFET-12	3 HP, TEFC Super-Duty Single Speed
н	XFK-12	3 HP, 3-Phase, Super-Duty Motor
С	XF-12	3 HP, Single Speed Full Rated
D	XFE-8	2 HP, Single Speed Full Rated
D	XFET-8	2 HP, TEFC Super-Duty Single Speed
D	XF-8	2 HP, Single Speed Full Rated
D, F	XFDS-8	2 HP, 2-Speed Full Rated
D	XFE-30	2.5 HP, Single Speed Up Rated
D	XF-30	2.5 HP, Single Speed Up Rated
D, F	XFDS-30	2.5 HP, 2-Speed, Up Rated
1	XFK-8	2 HP, 3-Phase, Super-Duty Motor

Model Number Filter Area Sq. Ft.	Elle A Co El	Flow Rate	Turnover Capacity Gallons		Dimension		Media Required	
	15 GPM/sq. ft.*	6 Hours	8 Hours	Α	В	Sand	Sand/Gravel	
TR100C	4.91	74	26,640	35,520	39 3/4"	30 ½"	600 lbs.	450 lbs./150 lbs
TR140C	7.06	106	38,160	50,880	45 1/4"	36 1/2"	925 lbs.	650 lbs./275 lbs
TR100C-3	4.91	74	26,640	35,520	39 3/4"	30 ½"	600 lbs.	450 lbs./150 lbs
TR140C-3	7.06	106	38,160	50,880	45 1/4"	36 1/2"	925 lbs.	650 lbs./275 lbs

*15 GPM/sq. ft. typical commercial flow rate.

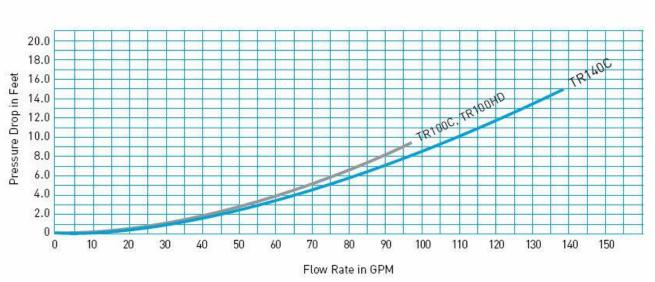


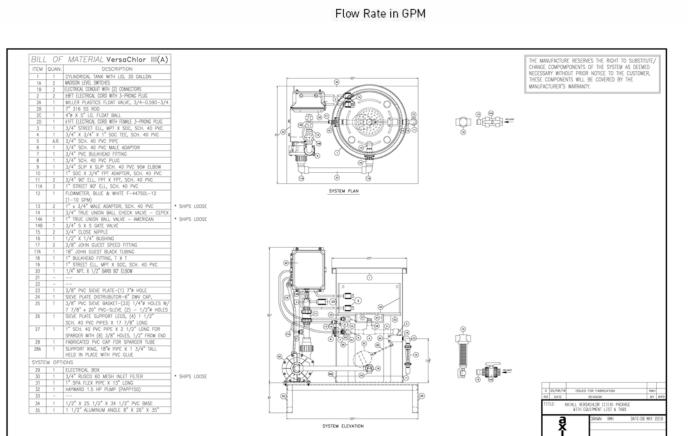
Part # VLK20Txx (2" NPT)

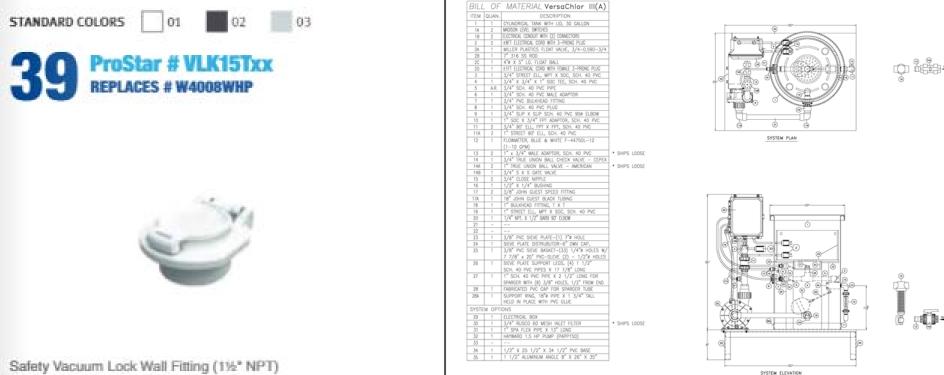
Meets SPS-4-2009 Standard

Two Filter System	A	В	C	D	Total Wt.
3" -TR100C	82 ¾"	17 15/16"	48" Min.	18" Min.	2,300 lbs.
3" -TR140C	88 ⅓"	17 15/16"	54" Min.	18" Min.	3,200 lbs.
4" -TR140C	95 ¾"	19 35/₄"	54" Min.	18" Min.	2,300 lbs.
6" -TR140C	111 ¾"	24 7/52"	54" Min.	18" Min.	3,550 lbs.

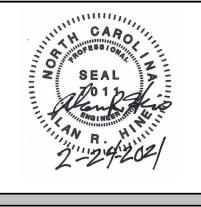
Note: 6" piping needs to be rotated upward as shown at 25° so handle will clear the floor.



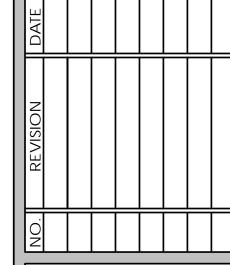








Hine's Aquatic Engineering PLLC P-1455 Alan Hine, P.E. 405 Willowcrest Dr. Winston-Salem, NC 27107 Phone & Fax: (336)769-4900

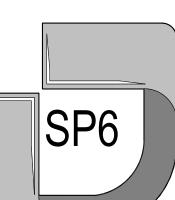


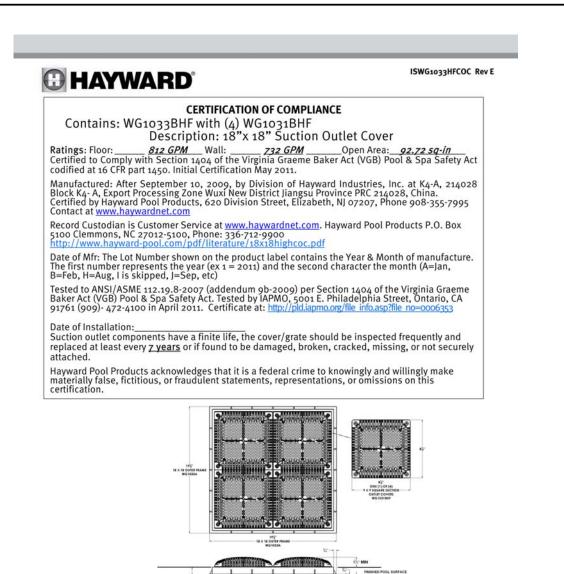
SHEET DISCRIPTION **Specifications**

PROJECT #: 2018.037 DATE ISSUED: 02/23/2021 DRAWING BY: BSJ/JVD CHECKED BY: DSC/ARH

> COMMUNITIE PLAN N /-Varina, LUBHOU ENFIELD Fuquay.

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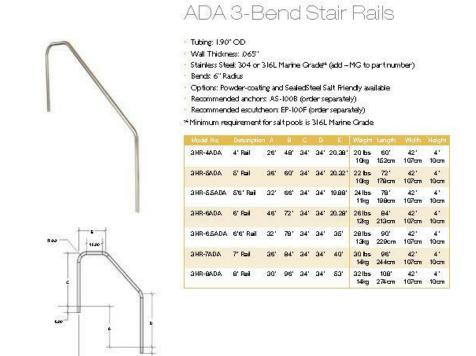
lets and/or suction outlet covers which are installed in a small area and/or below the surrounding

surface can cause severe injury or death due to body entrapment hazard.

To reduce the risk of body entrapment, installation of the field fabricated sumps must be such that the top of the

mounted cover is a minimum of 1 1/2" above the finished pool surface over an area larger than 40" on a diagonal

▲ Warning – Suction Entrapment Hazard.



SRSmith.



NTERMATIC

SPECIFICATIONS: • Input Voltage: 120 VAC

• Input Ports: 2

• Cycles: 60 Hz

Output Ports: 5 (with 1/2" 3/4" and 1" reducers)

www.srsmith.com / 800.824.4387

Output Voltage: 12 VAC or
13 VAC

COMBOConnect® Junction Box Transformer

SIMPLIFY POOL, SPA AND LANDSCAPE LIGHTING INSTALLATIONS COMBOConnect combines the simplicity of a standard junction box with the power of a 100 W low-voltage transformer. Save time and money on installation of low-voltage

Compact Size – Great for space-constrained areas, COMBOConnect uses at least 20 percent less space than traditional components, preserving wall space and fittings. It's also compatible with direct gluing of non-metallic flexible conduit.

Voltage Options – 12 or 13 volt tap option gives installers the ability to compensate for voltage drop.

Expandable – Two high-voltage ports allows "daisy-chaining" between two COMBOConnect units for larger lighting projects. Low-voltage ports accept 16/2 and 18/2 AWG cord sizes, accommodating all major pool safety

 Noise Reduction – Built-in electronic noise reduction technology helps the electrical performance of the LED lights. Easy Access – COMBOConnect provides quick access to all connection points and openings. Terminal bars allow for quick, clean and secure connections, as well as easy troubleshooting and testing.

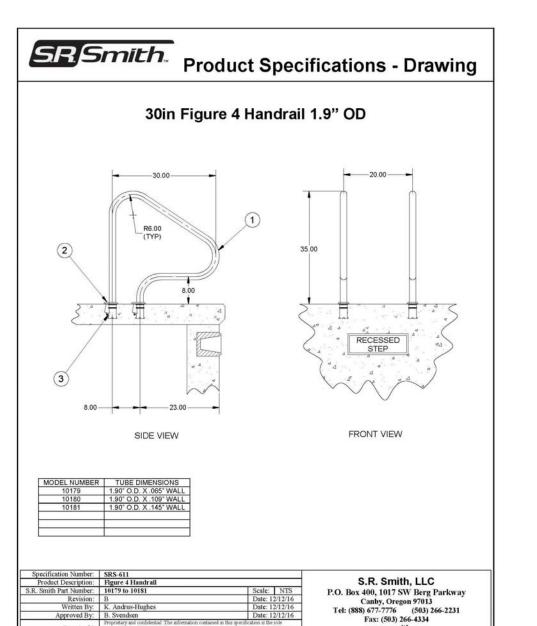
nicheless pool lights and landscape lighting.

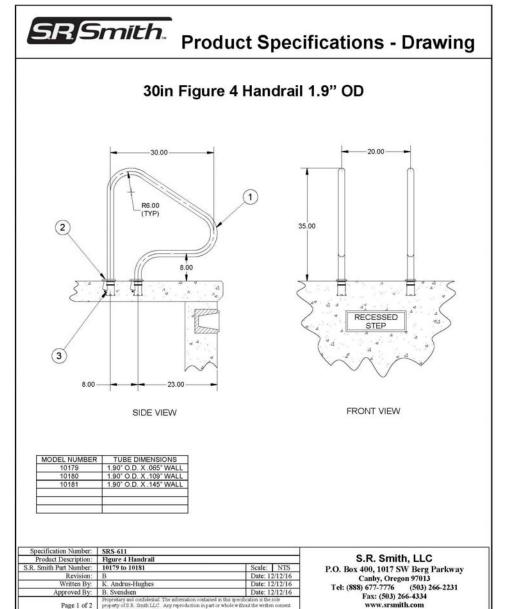
SR Smith.

FEATURES & BENEFITS:

APPLICATIONS:

Model PJBX52100





multiLift™

State of California compliant

350 lb/159kg lifting capacity Retrofit anchor jig is standard Optional folding seat assembly LiftOperator® Intelligent Controller

575-0000 multiLift 575-0000N multiLift, no anchor

armrests and retrofit anchor jig.

500-5500 Wheel-A-Way

Parts & Accessories 1001495 Battery

900-2000 Stability Vest

500-5100FC Folding Seat Cover

Order pool lift and new construction Jig at same time

900-1000 Seat Belt
 300-6700A Anchors, set of 4

1001495 Battery

Third-party tested & verified ADA compliant

575-1000N multiLift with activation key, no anchor

Powder-coated stainless steel and aluminum construction

multiLift with Folding Seat

* Models without armrests are not compliant with State of California requirements.

New Construction Guidelines

575-0100N multiLift with folding seat, no anchor*

575-0105 multiLift with armrests and folding seat

575-1105N multiLift with armrests, folding seat, and activation key, no anchor

A flanged pool lift, with left or right side mounting, and optional folding seat version.

. Includes battery, charger, battery console cover, water-resistant hand control, footrest, seat belt assembly,

575-0105N multiLift with armests and folding seat, no anchor 230 lbs/104kg 127cm 61cm 71cm 575-1105 multiLift with armests, folding seat, and activation key 230 lbs/104kg

200 lbs/91kg 50" 24" 28"

230 lbs/104kg 50" 24" 28"

300-6900 Retrofit Anchor lig

970-5000 Seat Saver Cover

900-4000 Seat Pad

• 970-0000 Seat Saver Cover

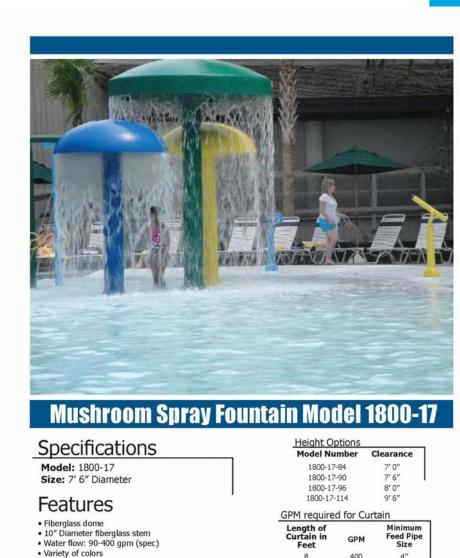
676-3000N 600-6000A (comes with anchors)

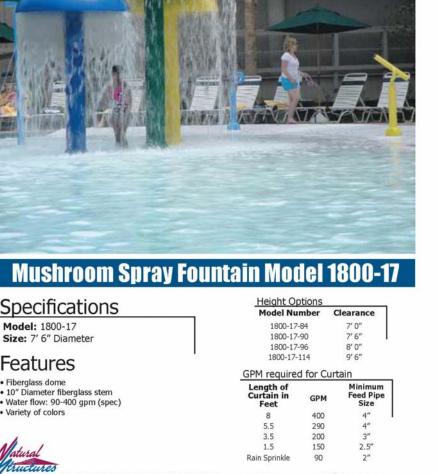
170-2320 Armrest Assembly, gray,

• 300-6800A Anchor Bolts, set of 4











D. CLUGSTON

Hine's Aquatic Engineering

Phone & Fax: (336)769-4900

SHEET DISCRIPTION

Specifications

2018.037

02/23/2021

JVD

DSC/ARH

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--Varina,

Fuquay.

PROJECT #:

DATE ISSUED:

DRAWING BY:

CHECKED BY:

PLLC P-1455 Alan Hine, P.E. 405 Willowcrest Dr. Winston-Salem, NC 27107

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Lift Color GRAY MIST

New Construction Jig with Anchors

to transport the lift if needed

Optional folding seat assembly

Wheel-A-Way mobility option provides flexibility