OSFM
NC DEPT OF INSURANCE
STATE FIRE MARSHAL

BRIAN TAYLOR
STATE FIRE MARSHAL

January 15, 2025

Mr. Mathew Griffith, AIA
in situ studio
704 N. Person Street
Raleigh, NC 27604

RE: 2018 NCRC Section R309.2 Carports

Mr. Griffith:

This letter is in response to your request for a formal interpretation from the Office of State Fire Marshal ("OSFM") dated 2/23/24 and received by OSFM the same day. This delayed formal response letter serves to complete the documentation requested by Mathew Griffith of in situ studio. Thank you for your patience in waiting for this formal interpretation response while our office handled other commitments. Requests are addressed below in the order in which they are posed.

Stated in relevant parts:

"Requesting review of permit review decision by Griffin Todd the City of Raleigh that the carport as designed (REF to attached drawings) is no "open on at least two sides" and is, thus, considered a garage.

The carport as designed has a 6' wide garden to the left side that is open to the sky by a hole in the roof. It was our intent that this would fill the open requirement.

Further, if it is DOI's opinion the carport as designed cannot be considered open on two sides, please confirm the scope of garage requirements that come into play. The language of the code refers to "comply[ing] with the provisions of this section for garages." Section 309 garage requirements only require slope and a noncombustible parking surface. It is unclear that any other requirements for garages would need to be met."

Remarks:

Attachment A is comprised of the request for formal interpretation as well as all supporting information submitted with the request.

Code Analysis: Carports shall be open on not less than two sides otherwise, carports shall be considered garages as noted in 2018 North Carolina Residential Code, Section R309.2.

….

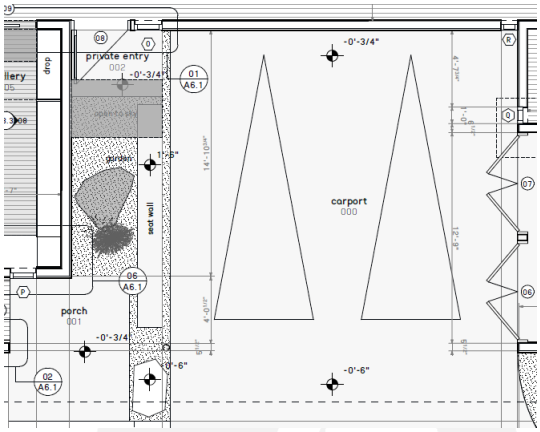
R309.2 Carports. Carports shall be open on not less than two sides. Carport floor surfaces shall be of *approved* noncombustible material. Carports not open on two or more sides shall be considered to be a garage and shall comply with the provisions of this section for garages.

Exception: Asphalt surfaces shall be permitted at ground level in carports.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway

…..

Conclusions: A careful review of the design drawings in Attachment A indicate one open side on the front elevation that extends the entire length of the opening of the space where the parking of automobiles or other vehicles will occur plus the space allocated for the porch, seat wall, garden and private entry. A separate opening to sky is also provided above the garden and seat wall near the private entry. Both the front elevation side opening and the opening to sky do not have any doors.



The code is silent on the configuration of the two open sides required to classify a space used for parking automobiles or other vehicles as a carport. The opening to sky is a separate opening from the front elevation side opening and therefore is considered the second opening required to classify the space called a “carport” in the Attachment A design drawings as a carport in the context in the application of the 2018 North Carolina State Building Code.

Sincerely,

David Rittlinger, PE, LEED AP
Division Chief – Codes & Interpretations
North Carolina Office of State Fire Marshal

cc: Nathan Childs, NCDOJ, counsel for NC Building Code Council, nchilds@ncdoj.gov
Nicki Shaffer, NCDOJ, counsel for NC Residential Code Council, wshaffer@ncdoj.gov
Pak Yip, NCOSFM, Chief Code Consultant, pak.yip@ncdoi.gov

ATTACHMENT A

(see attached pdf)

APPENDIX E
APPEALS
NORTH CAROLINA
BUILDING CODE COUNCIL

1429 Rock Quarry Road, Suite 105
Raleigh, North Carolina 27610
(919) 647-0008
david.rittlinger@ncdoi.gov

APPEAL TO NCDOI/NCBCC **Hearing Date** _____ / _____ / _____

GS 153A-374, GS 160A-434
Formal Interpretation by NCDOI_____
Appeal of Local Decision to NCDOI_____

GS 143-140, GS 143-141
Appeal of Local Decision to NCBCC_____
Appeal of NCDOI Decision to NCBCC_____

APPELLANT Matthew Griffith, AIA **PHONE (** 919 **)** 397 **-** 3949 **x** _____
REPRESENTING Ammarah and Asad Abbasi
ADDRESS 6845 West Lake Anne Drive
CITY Raleigh **STATE** NC **ZIP** 27612
E-MAIL matt@insitustudio.us **FAX (** _____ **)** _____ **-** _____

North Carolina State Building Code, Volume R **- Section** 309.2

REQUEST ONE:
[ ] Formal Interpretation by NCDOI
[x] Appeal of Local Decision to NCDOI
[ ] Appeal of Local Decision to NCBCC
[ ] Appeal of NCDOI Decision to NCBCC

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

Requesting review of permit review decision by Griffin Todd the City of Raleigh that the carport as designed (REF to attached drawings) is no "open on at least two sides" and is, thus, considered a garage.

The carport as designed has a 6' wide garden to the left side that is open to the sky by a hole in the roof. It was our intent that this would fill the open requirement.

Further, if it is DOI's opinion the carport as designed cannot be considered open on two sides, please confirm the scope of garage requirements that come into play. The language of the code refers to "comply[ing] with the provisions of this section for garages." Section 309 garage requirements only require slope and a noncombustible parking surface. It is unclear that any other requirements for garages would need to be met.

Thanks!

REASON:

APPEAL TO NCDOI/NCBCC

Signature _____ **DATE:** 02 23 24 **FORM 3/14/17**

202.9 Appeals

202.9.1 Engineering Division. A written technical interpretation shall be provided as specified in Section 203.2.1.2. Any person may appeal in writing an order, decision, or determination pertaining to the code or any state building law by filing written notice with the Commissioner of Insurance or his designee within ten (10) days after the order, decision, or determination. A copy of the appeal shall be furnished to each party.
(General Statutes 143-140, 153A-374 and 160A-434)

203.2.1 Interpretations

203.2.1.1 Informal Interpretations. The Engineering Division shall provide informal interpretations on code related matters either by e-mail, letter or telephone. These informal interpretations may be accepted by the local code enforcement official or party requesting the interpretation. Either party may request a formal interpretation of the code.

203.2.1.2 Formal Interpretations. Any person may request in writing a formal interpretation of the code. The request shall be addressed to the Chief Code Consultant for the Department of Insurance. The request shall be specific and shall reference the code sections in question. All formal interpretations shall be in writing. A formal interpretation shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. Formal interpretations determined to be of a general nature may be posted on the Department website. (General Statute 143-140)

203.2.2 Appeals. Any person may appeal in writing an order, decision, or determination of a code enforcement official pertaining to the code or any state building law. The appeal shall be addressed to the Chief Engineer for the Department of Insurance by filing written notice within ten (10) days after the order, decision, or determination. The appeal shall contain the type and size of the building in question, the location of the building, and shall reference the code sections in question. The decision shall be in writing and shall set forth the facts found. The decision rendered shall be based on the technical provisions of the code, public health and safety and shall be construed liberally to those ends. A decision shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. A copy of the appeal and written decision shall be furnished to each party. (General Statutes 153A-374 and 160A-434)

202.9.2 Building Code Council. The Building Code Council shall hear appeals from the decisions of State enforcement agencies relating to any matter related to the code. Any person wishing to appeal a decision of a State enforcement agency to the Building Code Council shall give written notice of appeal as follows:

202.9.2.1 Twenty one (21) copies including an original of the Notice of Appeal shall be filed with the Building Code Council c/o NC Department of Insurance, Engineering Division, 325 North Salisbury Street, Room 5_44, Raleigh, NC 27603 and one (1) copy shall be filed with the State enforcement agency from which the appeal is taken.

202.9.2.2 The Notice of Appeal shall be received no later than thirty (30) days from the date of the decision of the State enforcement agency.

202.9.2.3 The Notice of Appeal shall be legibly printed, typewritten or copied and shall contain the following:

(1) Name, address of the party or parties requesting the appeal.
(2) The name of the State enforcement agency, the date of the decision from which the appeal is taken, and a copy of the written decision received from the enforcement agency.
(3) The decision from which the appeal is taken shall be set forth in full in the Notice of Appeal or a copy of the decision shall be attached to all copies of the Notice of Appeal.
(4) The contentions and allegations of fact must be set forth in full in a clear and concise manner with reference to the sections of the code in controversy.
(5) The original Notice of Appeal shall be signed by the party or parties filing appeal.
(6) The Notice of Appeal shall be received by the first day of the month prior to the Building Code Council's quarterly scheduled meeting in order to be placed on the agenda for that meeting. The Chairman may schedule a special meeting to hear an appeal.

202.9.2.4 Upon the proper filing of the Notice of Appeal, the Building Code Council Secretary shall forward one (1) copy of the Notice of Appeal to each member of the Building Code Council. The Chairman may appoint a Hearing Committee to hear appeals. The Secretary shall send notice in writing to the party or parties requesting an appeal and to the Building Code Council Hearing Committee members at least fifteen (15) days prior to the Hearing Committee meeting. A written decision of the Hearing Committee meeting shall be provided to all Building Code Council Members. The actions of the Hearing Committee shall be final, unless appealed to the full Building Code Council in writing within 30 days of the Hearing Committee's action. If a Hearing Committee consists of at least seven Council members, it will constitute a quorum of the full Council. Further appeals shall be as specified in Section 202.9.3.

202.9.2.5 The Building Code Council shall, upon a motion of the State enforcement agency or on its own motion, dismiss appeals for the following reasons:

(1) Not pursued by the appellant or withdrawn;
(2) Appeal not filed in accordance with these rules; or
(3) Lack of jurisdiction.

202.9.2.6 When the Building Code Council finds that a State enforcement agency was in error in its interpretation of the code, the Building Code Council shall remand the case to the agency with instructions to take such actions as the Building Code Council directs. When the Building Code Council finds on appeal that materials or methods of construction proposed are equivalent to those required by the code, the Building Code Council shall remand the case to the State enforcement agency with instructions to permit the use of such materials or methods of construction. The Building Code Council shall immediately initiate procedures for amending the code to permit the use of such materials or methods of construction.

202.9.2.7 The Building Code Council shall provide a written decision setting forth the findings of fact and the Building Code Council's conclusions to each party or parties filing the appeal and to the State enforcement agency from which the appeal was taken.

202.9.3 Superior Court. Whenever any person desires to appeal a decision of the Building Code Council or a decision of a State or local enforcement agency, he may appeal either to the Wake County Superior Court or the Superior Court of the county in which the proposed building is to be situated in accordance with the provisions of Chapter 150B of the General Statutes.
(General Statute 143-141(d))

FLOOR PLAN LEGEND

- gravel
- planted area
- tile
- concrete wall
- sound batt insulation
- wd screen/ batton
- downspout
- hose bib
- area of lowered ceiling at height indicated on A2.2
- skylight or opening location - REF to roof plan
- wood floor
- ipe deck
- concrete
- steel rail + fence
- elevation marker

APPROXIMATELY 6' WIDE OPEN GARDEN ALONG ENTIRE LEFT SIDE OF CARPORT SLAB.

AREA OF OPENING THROUGH THE ROOF TO THE SKY.

SEAT WALL TO BE REMOVED.

EXTENT OF CARPORT SLAB

SECTION B

SECTION A

01 First Floor Plan

1/4" = 1'-0"

door schedule									
door #	type	size	door	frame	face	core	thick	hdwe	notes
00	single	3'-0" 2'-6"	hm	hm	flush	solid	1 3/4"	latch + lock	hm crawlspace door ptd to match concrete
01	single	3'-8" 8'-10"	wd	wd	flush	solid	1 3/8"	latch + lock	custom sized wd door. ADA sill
02	single	3'-0" 8'-9"	clad wd	clad wd	glass	-	1 3/4"	latch + lock	aluminum clad glass door
03	sliding	11'-6" 8'-9"	clad wd	clad wd	glass	-	13/4"	latch + lock	aluminum clad three panel sliding door
04	single	3'-0" 7'-4"	clad wd	clad wd	glass	-	1 3/4"	latch + lock	aluminum clad glass door
05	single	3'-0" 8'-9"	clad wd	clad wd	glass	-	1 3/4"	latch + lock	aluminum clad glass door
06	double	5'-10" 8'-9"	fiberglass	fiberglass	flush	insul	1 3/4"	latch + lock	fiberglass flush panel door ptd. to match siding
07	doub...	5'-10" 8'-9"	fiberglass	fiberglass	flush	insul	1 3/4"	latch + lock	fiberglass clad flush panel door ptd. to match siding
08	single	3'-3" 8'-9"	clad wd	clad wd	glass	-	1 3/8"	latch + lock	aluminum clad flush panel door w/ weather stripping
09	pocket	3'-5" 7'-9"	wd	wd	flush	solid	1 3/8"	latch	-
10	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-
11	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
12	pocket	3'-2" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
13	single	2'-10" 8'-10"	wd	wd				latch + lock	-
14	double	4'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-
15	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
16	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
17	double	3'-6" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-
18	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
19	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
20	double	4'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-

finish schedule							
room #	room name	floor	base trim	wall	ceiling	area (sqft)	notes
000	carport	concrete	-	fiber cement siding	stucco	473.89	-
001	porch	concrete	-	fiber cement siding, stucco, + windows	stucco	84.08	boulder garden per landscape allowance
002	private entry	concrete	-	fiber cement siding, stucco, + windows	stucco	90.00	boulder garden per landscape allowance
003	storage	concrete	-	ptd plywood	ptd plywood	55.23	upper shelves by trim carpenter
004	deck	ipe	-	fiber cement siding, steel rail, + windows	stucco	177.50	-
005	pool patio	concrete	-	fiber cement siding + windows	-	930.12	fiberglass pool per allowance + boulder garden per landscape allowance
006	side court	concrete + gravel	-	fiber cement siding, metal panel, + windows	-	457.01	-
101	entry	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	51.94	wd screen per millwork allowance
102	living	hd wd	ptd wd	ptd gyp bd, stone hearth, + windows	ptd gyp bd	288.31	millwork per allowance
103	dining	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd	205.42	-
104	kitchen	hd wd	-	millwork	ptd gyp bd	158.28	millwork, plumbing fixtures, + appliances per allowance
105	scullery	hd wd	-	millwork + window	ptd gyp bd + skylight	97.34	millwork, plumbing fixtures, + appliances per allowance
106	hall	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	223.59	-
107	laundry	hd wd	ptd wd	ptd gyp bd, tile, + millwork	ptd gyp bd	47.63	millwork, plumbing fixtures, + appliances per allowance per allowance
108	p hall	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	40.21	-
109	p bath	tile, radiant heat	tile	tile, mirror, + windows	ptd gyp bd + skylight	113.14	fixtures, millwork, bath accessories, + tile per allowance; bench by owner
110	p toilet	hd wd	ptd wd	ptd gyp bd + millwork	ptd gyp bd	14.26	fixtures + millwork per allowance
111	primary bed	hd wd	ptd wd	ptd gyp bd, millwork, + windows	ptd gyp bd + skylight	180.00	millwork per allowance
112	f hall	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	40.21	-
113	f bath	tile	tile	ptd gyp bd, tile, + mirror	ptd gyp bd + skylight	63.02	fixtures, millwork, bath accessories, + tile per allowance
114	flex bed	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd	127.25	desk by owner
115	f closet	hd wd	ptd wd	ptd gyp bd	ptd gyp bd	25.00	-
116	g entry	hd wd	ptd wd	ptd gyp bd	ptd gyp bd	46.59	shelf + rod by trim carpenter
117	guest bed	hd wd	ptd wd	ptd gyp bd, millwork, + windows	ptd gyp bd	188.04	millwork, plumbing fixtures, + appliances per allowance
118	g bath	tile	tile	ptd gyp bd, tile, + mirror	ptd gyp bd	56.22	fixtures, millwork, bath accessories, + tile per allowance
119	g closet	hd wd	ptd wd	ptd gyp bd	ptd gyp bd	9.83	shelf + rod by trim carpenter

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Turning Point Survey, Septic, Lysaght + Associates, Survey, Structural

CD

01/12/2024
mns + bs
scale as noted

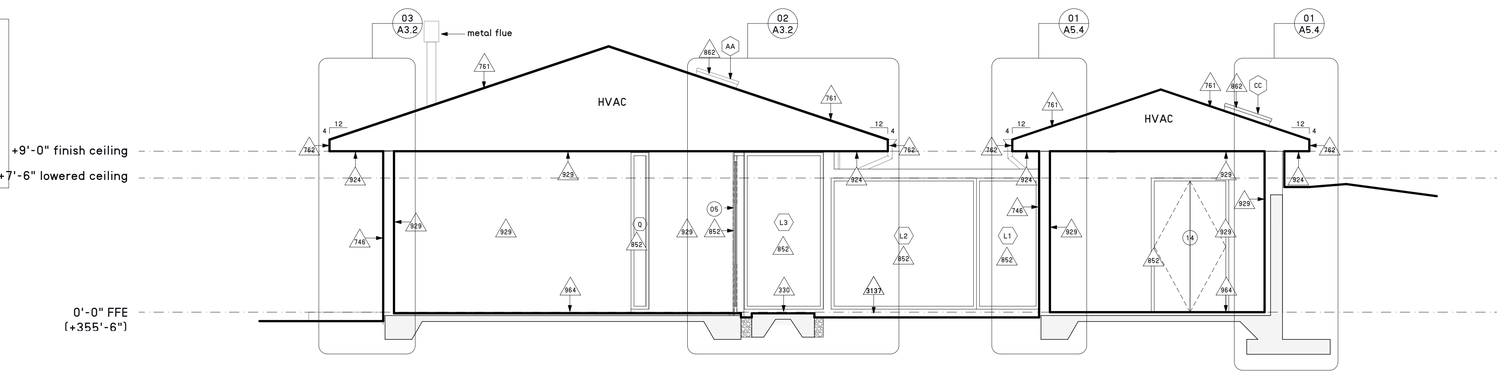
Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

First Floor Plan

A2.1

MATERIAL LEGEND

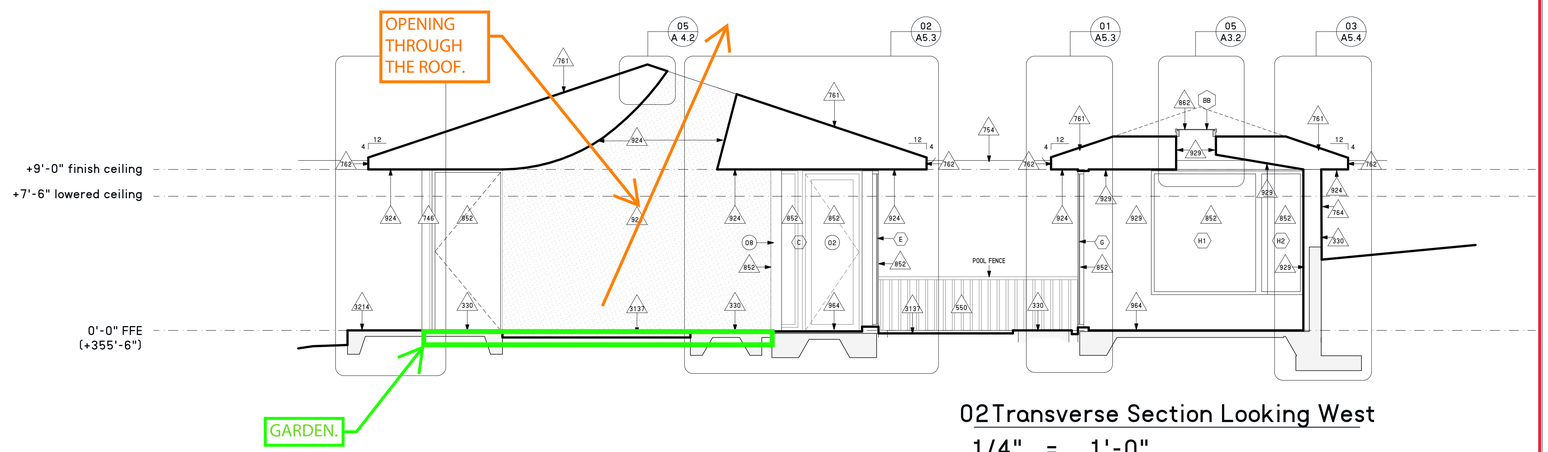
330 CAST-IN-PLACE CONCRETE	746 COMPOSITE CEMENT SIDING	862 UNIT SKYLIGHTS	2631 PHOTOVOLTAIC COLLECTORS
512 STRUCTURAL STEEL	754 MEMBRANE ROOFING	924 STUCCO	3137 GRAVEL
550 METAL FABRICATION	761 METAL ROOFING	929 PAINTED GYPSUM BOARD	3211 CONCRETE + ASPHALT PAVING
615 EXTERIOR FINISH CARPENTRY	762 METAL FLASHING + TRIM	930 TILE	3214 STONE PAVING + SURFACING
621 INTERIOR FINISH CARPENTRY	814 FLUSH WD DOORS	964 WOOD FLOORING	
641 ARCHITECTURAL CABINETS	852 METAL-CLAD WINDOWS + DOORS	1311 BELOW GRADE SWIMMING POOL	



03 Transverse Section Looking West

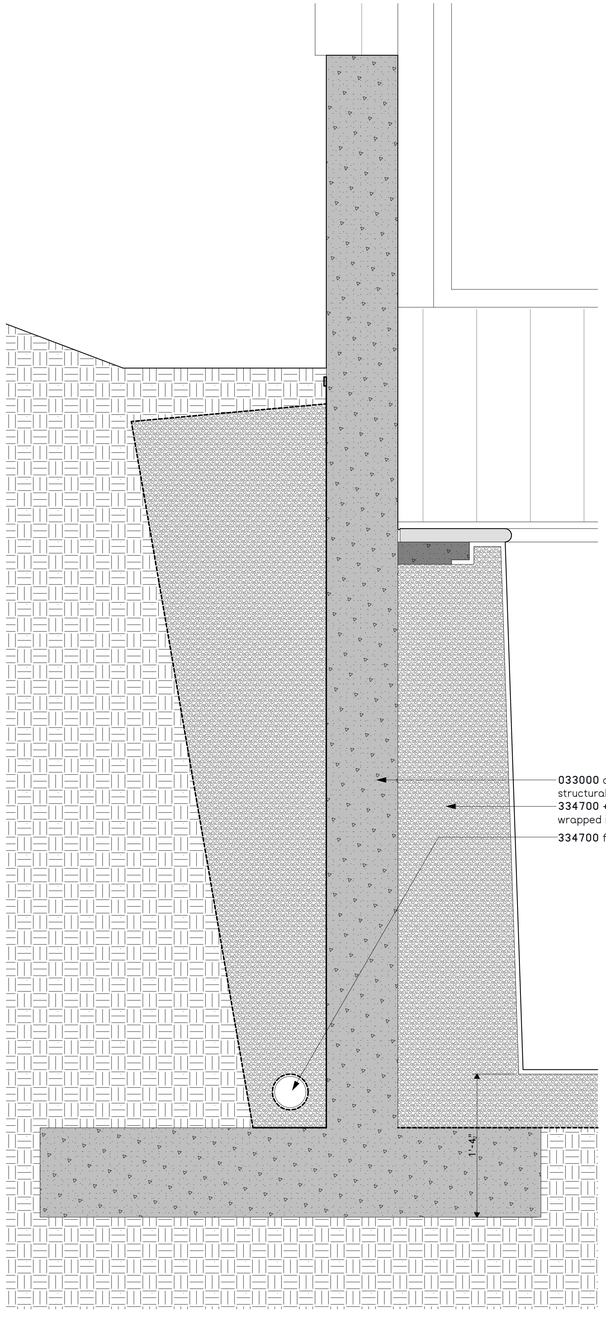
1/4" = 1'-0"

SECTION A



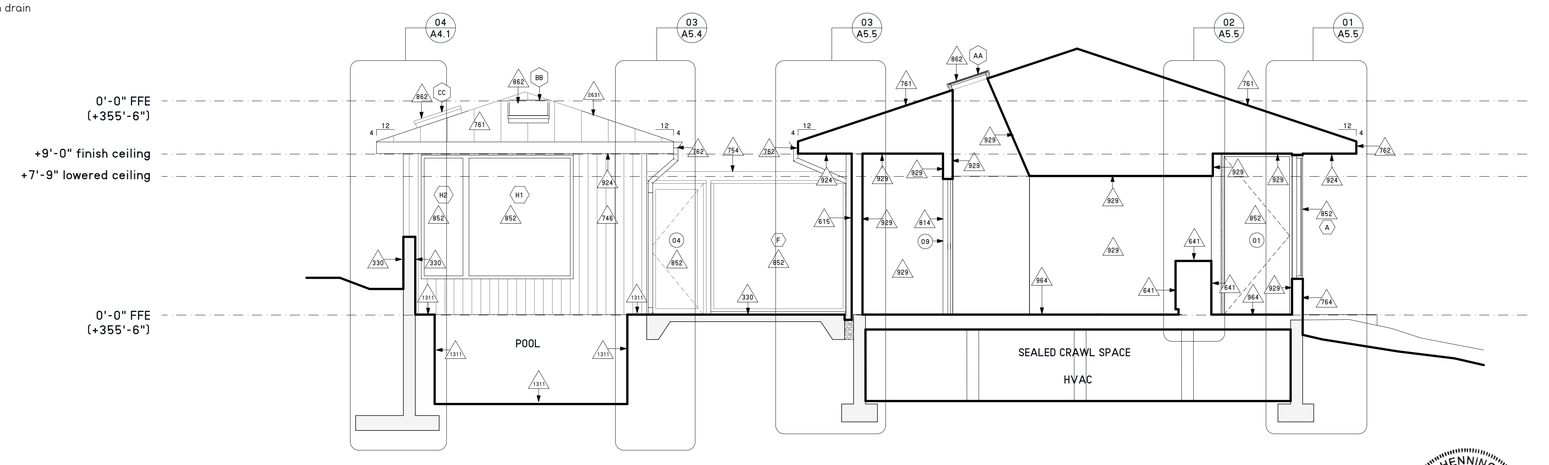
02 Transverse Section Looking West

1/4" = 1'-0"



04 living west

1 1/2"= 1'-0"



01 Transverse Section Looking East

1/4" = 1'-0"

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

CD

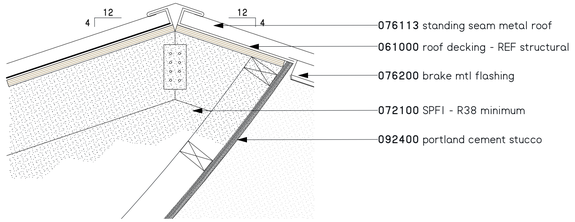
01/12/2024
mns + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

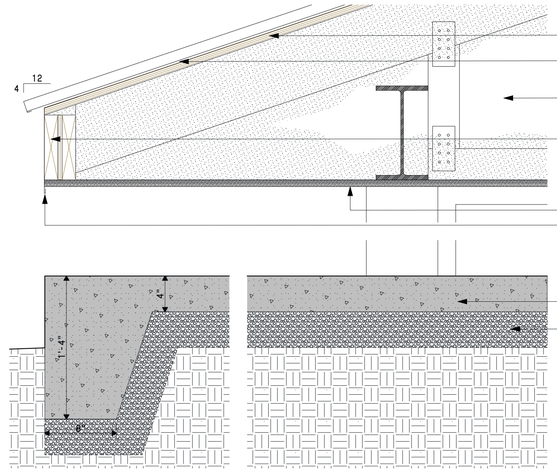
A4.1 Sections + Section Details

MATERIAL LEGEND

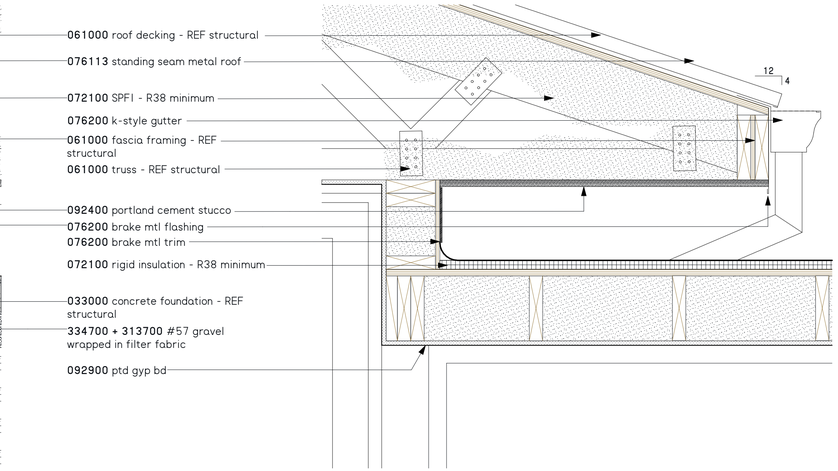
330 CAST-IN-PLACE CONCRETE	746 COMPOSITE CEMENT SIDING	862 UNIT SKYLIGHTS	863 PHOTOVOLTAIC COLLECTORS
512 STRUCTURAL STEEL	754 MEMBRANE ROOFING	924 STUCCO	5137 GRAVEL
550 METAL FABRICATION	761 METAL ROOFING	929 PAINTED GYPSUM BOARD	5211 CONCRETE + ASPHALT PAVING
615 EXTERIOR FINISH CARPENTRY	762 METAL FLASHING + TRIM	930 TILE	5214 STONE PAVING + SURFACING
621 INTERIOR FINISH CARPENTRY	814 FLUSH WD DOORS	964 WOOD FLOORING	
641 ARCHITECTURAL CABINETS	952 METAL-CLAD WINDOWS + DOORS	1311 BELOW GRADE SWIMMING POOL	



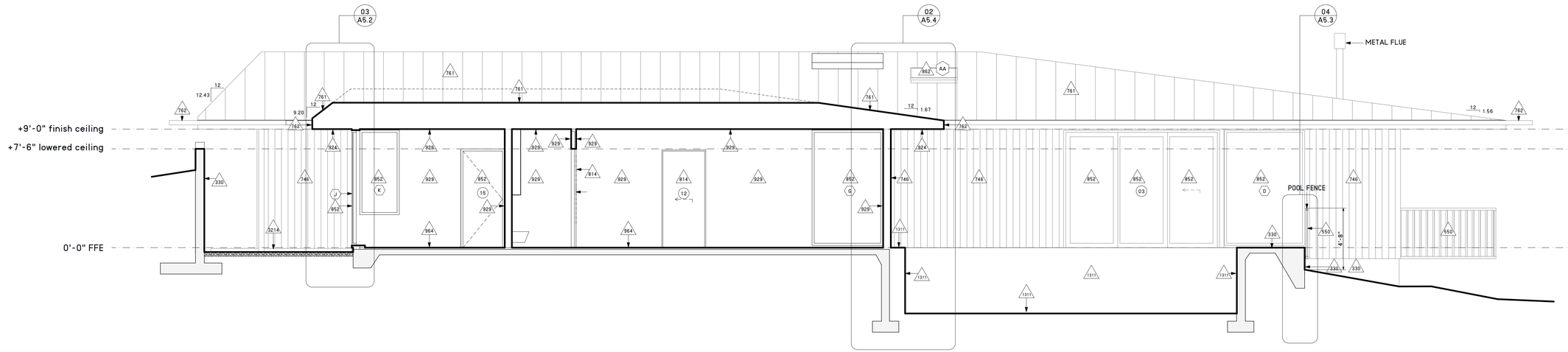
05 detail
1 1/2"= 1'-0"



04 detail
1 1/2"= 1'-0"

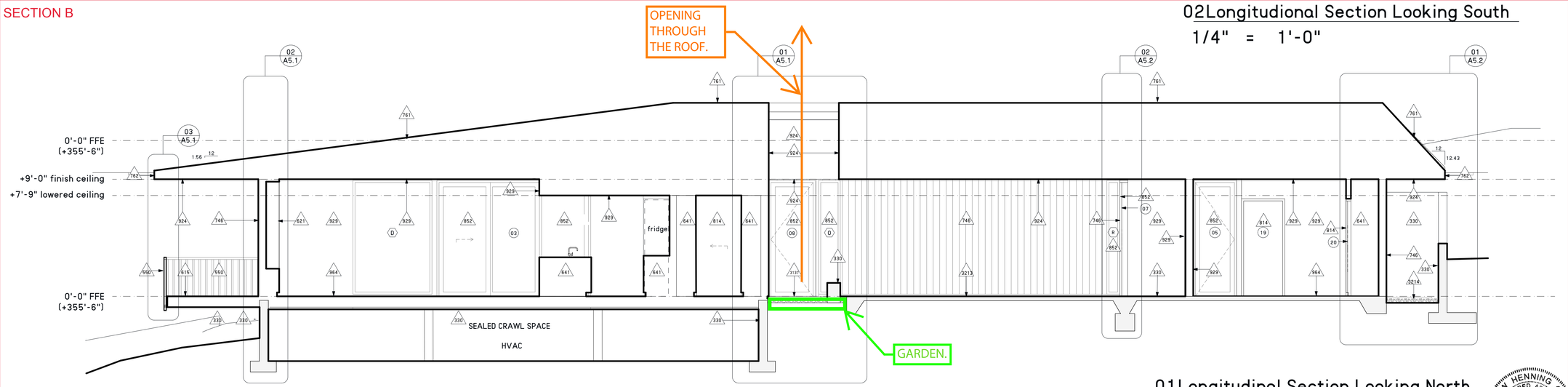


03 detail
1 1/2"= 1'-0"



02 Longitudinal Section Looking South
1/4" = 1'-0"

SECTION B



01 Longitudinal Section Looking North
1/4" = 1'-0"

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio

704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Turning Point Survey
Septic Survey - Lysaght + Associates
Structural

CD

01/12/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A 4.2 Sections + Section Details

02 20 24

Abbasi House

Ammarah + Asad Abbasi
6843 West Lake Anne Drive
Raleigh, NC 27612

PERMIT RESUBMISSION SET

ZONING INFO

R-2 CoR ZONING
PIN 0777931356
0.92 ACRES

PROJECT SQUARE FOOTAGES

ZONING	R-2
LOT AREA	40075.2 SF
TOTAL IMPERVIOUS SF	7031 SF
TOTAL UNDER ROOF SF	4260 SF
GROUND FLOOR CONDITIONED SF	2269 SF
CARPORT	474 SF
UNHEATED CARPORT STORAGE	68 SF
CRAWLSPACE SF	972 SF
PATIO SF	633 SF
POOL SF	280 SF

INFILL STANDARDS DO NOT APPLY

DRAWING LIST

SHEET#	SHEET NAME
A0.0	Cover Sheet
A1.0	Site Plan
A1.1	Septic Layout
A2.0	Foundation Plan
A2.1	First Floor Plan
A2.2	First Floor RCP
A2.3	Roof Plan
A3.1	Elevations
A3.2	Elevation + Section Details
A3.3	Interior Elevations + Window Schedule
A4.1	Sections + Section Details
A4.2	Sections + Section Details
A5.1	Sections Details
A5.2	Sections Details
A5.3	Sections Details
A5.4	Sections Details
A5.5	Sections Details
A6.1	Plan Details
S1.0	General Structural Notes
S1.1	Foundation and First Floor Framing Plan
S1.2	Roof Framing Plan
S1.3	Shear Wall Sections
S2.1	Foundation and Framing Details

DEDUCT ALTERNATES

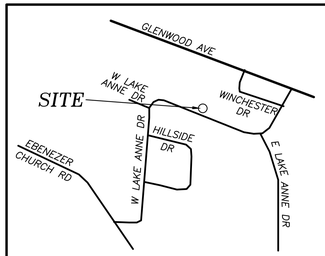
01	HardiePlank siding in lieu of Hardie Artisan siding
02	HardiePanel soffits in lieu of stucco soffits
03	Asphalt shingle roof in lieu of standing seam metal roof

ALLOWANCES

A. APPLIANCES	$16.000
B. DOOR HARDWARE	$3.000
C. MILLWORK	$48.000
D. LIGHT FIXTURES (included cans)	$14.000
E. PLUMBING FIXTURES	$14.000
F. PORCELAIN TILE (materials only)	$8 / SF
G. STRUCTURED WIRING	$5.000
H. WINDOW TREATMENTS	$8.000
I. BATH ACCESSORIES	$5.000
J. COUNTERTOPS (materials only)	$13.000
K. PLANTING + BOULDERS	$20.000
L. STOVE	$12.000
M. POOL	$50.000
N. POOL SOLAR HOT WATER PANELS	$15.000

MATERIAL LEGEND

- 330 CAST-IN-PLACE CONCRETE
- 512 STRUCTURAL STEEL
- 550 METAL FABRICATION
- 615 EXTERIOR FINISH CARPENTRY
- 621 INTERIOR FINISH CARPENTRY
- 641 ARCHITECTURAL CABINETS
- 746 CEMENTIOUS SIDING + TRIM
- 754 MEMBRANE ROOFING
- 731 ASPHALT SHINGLE ROOF
- 782 METAL FLASHING + TRIM
- 814 FLUSH WD DOORS
- 852 METAL-CLAD WINDOWS + DOORS
- 955 VINYL WINDOWS
- 924 STUCCO
- 929 PAINTED GYPSUM BOARD
- 930 TILE
- 964 WOOD FLOORING
- 1311 BELOW GRADE SWIMMING POOL
- 0631 PHOTOVOLTAIC COLLECTORS
- 3132 GRAVEL
- 3213 CONCRETE + ASPHALT PAVING
- 3214 STONE PAVING + SURFACING
- 8821 UNIT SKYLIGHTS



VICINITY MAP
(N.T.S.)

ALL DRIVEWAY AND RIGHT-OF-WAY CONSTRUCTION SHALL BE PER CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS

MATTHEW GRIFFITH AIA
IN SITU STUDIO
919-3697-3949

FLOOD CERTIFICATION

THIS WILL CERTIFY THAT THE SUBJECT PROPERTY (X) IS or ( ) IS NOT located in a SPECIAL FLOOD HAZARD AREA as determined by the Department of Housing and Urban Development, or as shown on the FLOOD INSURANCE RATE MAP.

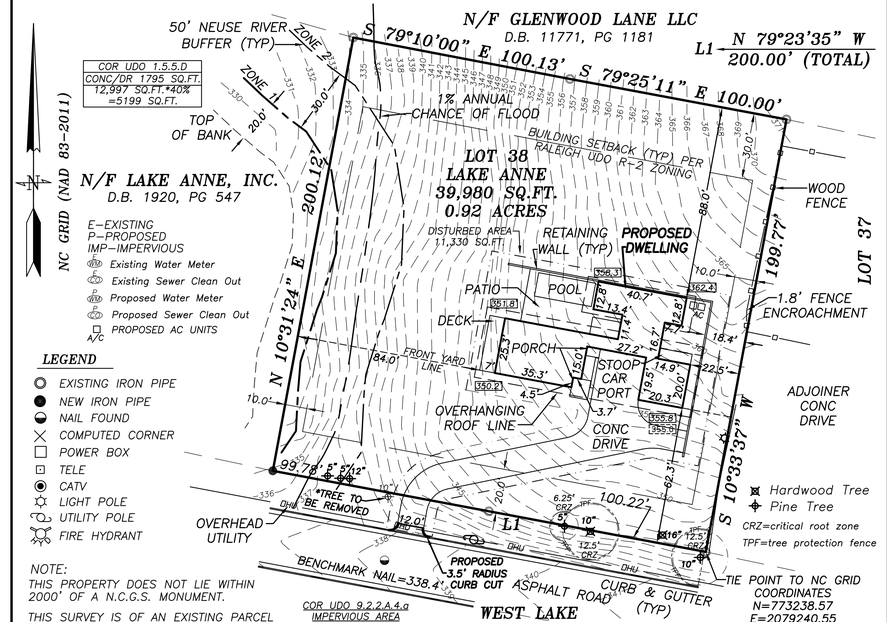
370243 | 0777 | K
COMMUNITY # | PANEL | SUFFIX

PROFESSIONAL LAND SURVEYOR

FLOOD LIMITS SCALED FROM WAKE COUNTY G.I.S.

LOT MAY BE SUBJECT TO A FLOOD HAZARD PERMIT FROM COUNTY ZONING ADMINISTRATION

SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.



E-EXISTING
P-PROPOSED
IMP-IMPERVIOUS
Existing Water Meter
Existing Sewer Clean Out
Proposed Water Meter
Proposed Sewer Clean Out
PROPOSED AC UNITS

LEGEND

- EXISTING IRON PIPE
- NEW IRON PIPE
- NAIL FOUND
- COMPUTED CORNER
- POWER BOX
- TELE
- CATV
- LIGHT POLE
- UTILITY POLE
- FIRE HYDRANT
- Hardwood Tree
- Pine Tree

CRZ=critical root zone
TPF=tree protection fence

NOTE:
THIS PROPERTY DOES NOT LIE WITHIN 2000' OF A N.C.G.S. MONUMENT.

THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND.

UTILITIES SHOWN ARE FOR REPRESENTATION ONLY AND NOT TO BE USED FOR PROPERTY LINE LOCATION

ALL CREEKS, EASEMENTS, BUFFERS, FLOOD LIMITS & SETBACKS TAKEN FROM BOM 2017, PG 1385.

COR UDO 9.2.2.A.4.g IMPERVIOUS AREA

HSE/AC	2320 SQ.FT.
POR/STP	170 SQ.FT.
DECK	180 SQ.FT.
CARPORT	490 SQ.FT.
PATIO	520 SQ.FT.
R-WALL	130 SQ.FT.
DR/WALK	1795 SQ.FT.
TOTAL	5605 SQ.FT.
14.0% IMPERVIOUS NOT INCLUDED IN AREA	
POOL	285 SQ.FT.

WEST LAKE ANNE DRIVE (60' R/W)

*A fee-in-lieu of $100 per inch of DBH, i.e. 10" not replaced, will be paid with a Tree Impact Permit, per City Code Sec. 9-8010.

Tree Disturbing Activity (UDO Article 12.2) to trees or their roots is not allowed in the tree protection area. Mulch, to 3-inches maximum depth, may be placed in the tree protection area and the root flare must remain visible. New sod is not allowed in the tree protection area. Silt fence is not allowed inside of tree protection area unless approved by Urban Forestry staff. Other work not listed on the permit (pruning, chemical use, etc.) requires an additional permit.*

Right of way tree protection fencing to be installed per the specifications of City of Raleigh detail(s) TPP-01, TPP-02.

XXX.X FIELD LOCATED ELEVATIONS
355.0 POST DEVELOPMENT GRADE ELEVATION (ONLY APPLIES TO SOUTHEAST CORNER)

I, Jeffrey H. Davis, PLS, certify this map was drawn under my supervision from an actual survey made under my supervision; and that the error of closure as calculated by latitudes and departures is 1/ 10,000+; that the boundaries not surveyed are shown as broken lines plotted from information found in Book –; Page –; that this map was prepared in accordance with G.S. 47-30 amended.

Witness my original signature, registration number and seal this 17TH day of FEBRUARY 2022.

Signed

Seal

NORTH CAROLINA PROFESSIONAL SEAL L-3463 LAND SURVEYOR JEFFREY H DAVIS

SITE DATA TABLE:
PIN: 0777931356
LOT AREA: 39,980 SQ.FT.
ZONING: R-2
OVERLAY: N/A
USE: SINGLFAM
RESIDENTIAL INFILL STATUS: NO
MAX HEIGHT: 40'/3 STORIES
SETBACKS: SHOWN ON LOT
E-TOTAL IMPERVIOUS: 0 SQ.FT.
E-BUILD SQ.FT.: 0 SQ.FT.

SITE PLAN CREATED 02-13-2024

PRELIMINARY PLAT, NOT FOR RECORDATION, CONVEYANCES, OR SALES THIS PLAN MUST BE APPROVED BY ALL STATE AND LOCAL REVIEWING AUTHORITIES FOR CONCURRENCE WITH SITE ZONING AND CODE OF ORDINANCES

SITE PLAN

B.O.M. 2017
PAGE 1385
WAKE CO. REG.

C.N. = 29371

ASAD ABBASI
AMMARAH ABBASI

LOT 38
LAKE ANNE
6843 WEST LAKE ANNE DRIVE
RALEIGH NORTH CAROLINA

DATE: 02-17-2022
SCALE: 1" = 50'
DWG. NO. A-25061SITE

TURNING POINT SURVEYING PLLC
4113 JOHN S. RABOTEAU WYND
RALEIGH, NORTH CAROLINA 27612
FAX (800)948-0213 PH (919)781-0234
License No: P-0121

FOR REFERENCE ONLY

MATTHEW HENNING GRIFFITH REGISTERED ARCHITECT 11446 NORTH CAROLINA RALEIGH, NC

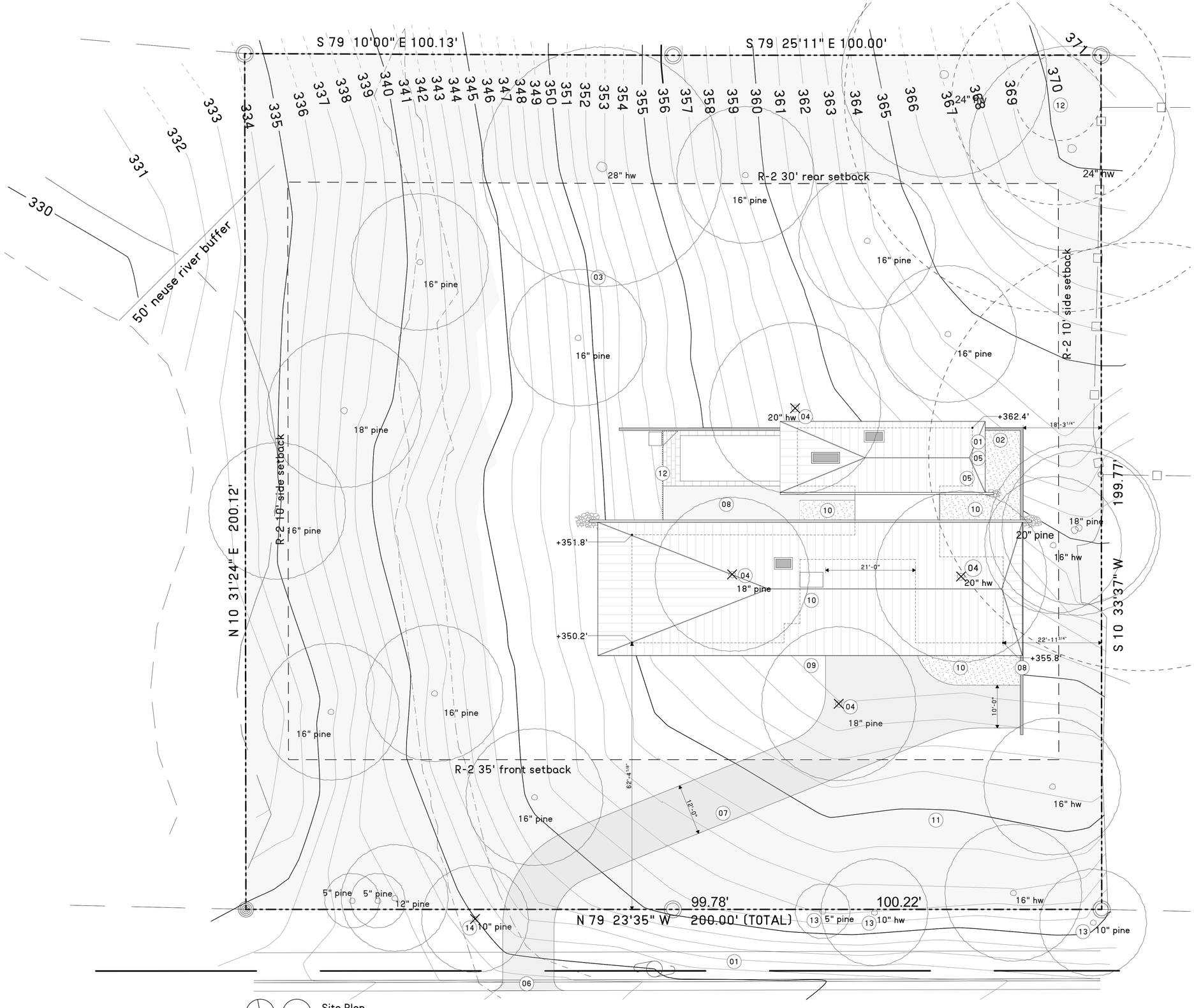
in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Septic, Survey, Structural
Turning Point Survey
Lysaght + Associates

CD
02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A0.0 Cover Sheet



01 Site Plan
SCALE: 3/32" = 1'-0"

SITE NOTES LEGEND

01 Provide 200A single phase electrical and cable services from existing utility locations, accessing the house under the new driveway.

02 Install exterior HVAC units and pool equipment. heat recovery, and heater per site plan and architect's direction.

03 New septic system

04 Trees to be removed, grind rootball. all other trees to remain.

05 Locate exterior cable/internet service per drawings and architect's direction.

06 New curb cut per city of Raleigh standard.

07 New concrete drive and parking.

08 New concrete stoops. patio, and retaining walls.

09 New bluestone paver.

10 Landscape planting per allowance.

11 New well.

12 New pool fence.

13 Tree Disturbing Activity (UDO Article 12.2) to trees or their roots is not allowed in the tree protection area. Mulch, to 3-inches maximum depth, may be placed in the tree protection area and the root flare must remain visible. New sod is not allowed in the tree protection area. Silt fence is not allowed inside of tree protection area unless approved by Urban Forestry staff. Other work not listed on the permit (pruning, chemical use, etc.) requires an additional permit. Right of way tree protection fencing to be installed per the specifications of City of Raleigh detail(s) TPP-01, TPP-02.

14 Tree to be removed, grind rootball. Fee-in-lieu replacement at the rate of $100 per inch of DBH applies to this tree. Fee will be $1000.

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

CD
02/20/2024
mns + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A1.0 Site Plan. Septic Layout

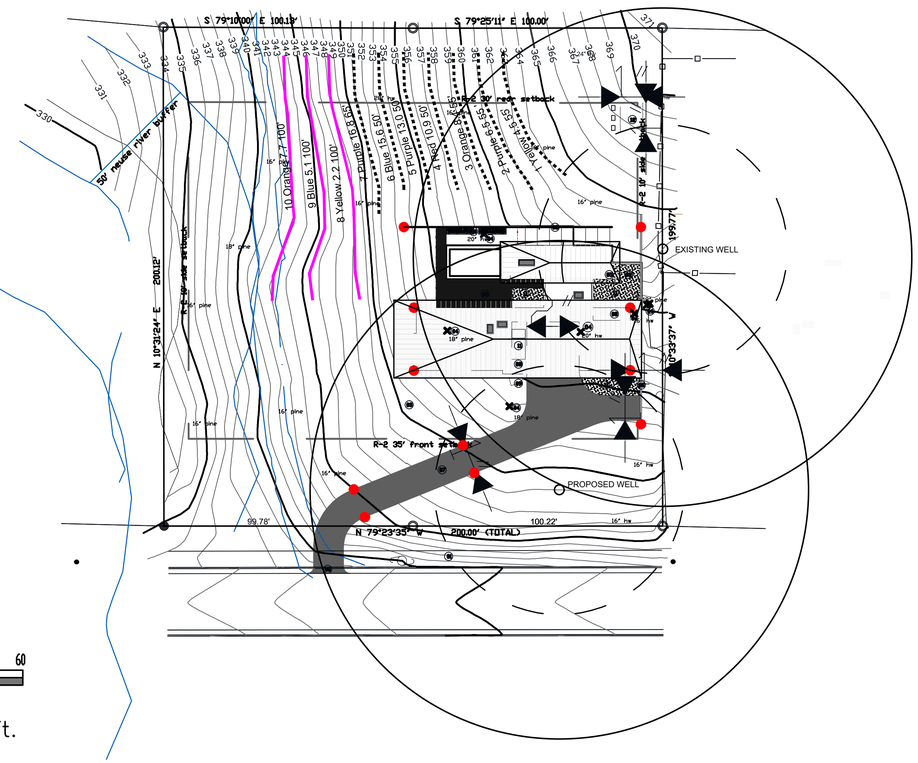
MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

6845 WEST LAKE ANNE DRIVE

3-BEDROOM ACCEPTED GRAVITY SYSTEM
LINES 8-10 (3 X 100' X 3')
EZ FLOW
LTAR 0.3

3-BEDROOM PRETREATED DRIP REPAIR
LINES 1-7
EZ TREAT DRIP TS II
LTAR 0.15

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION



CCSC	Central Carolina Soil Consulting, PLLC 1900 South Main Street, Suite 110 Wake Forest, North Carolina 27587 Phone (919)569-6704 Fax (919)569-6703	Septic System Layout 6845 Lake Anne Drive Raleigh, Wake County, North Carolina	Job# : 4342 Drawn By : MB Date : 10/17/2022 Revision:

FOR REFERENCE ONLY

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio

704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Septic Survey Structural Turning Point Survey Lysaght + Associates

CD

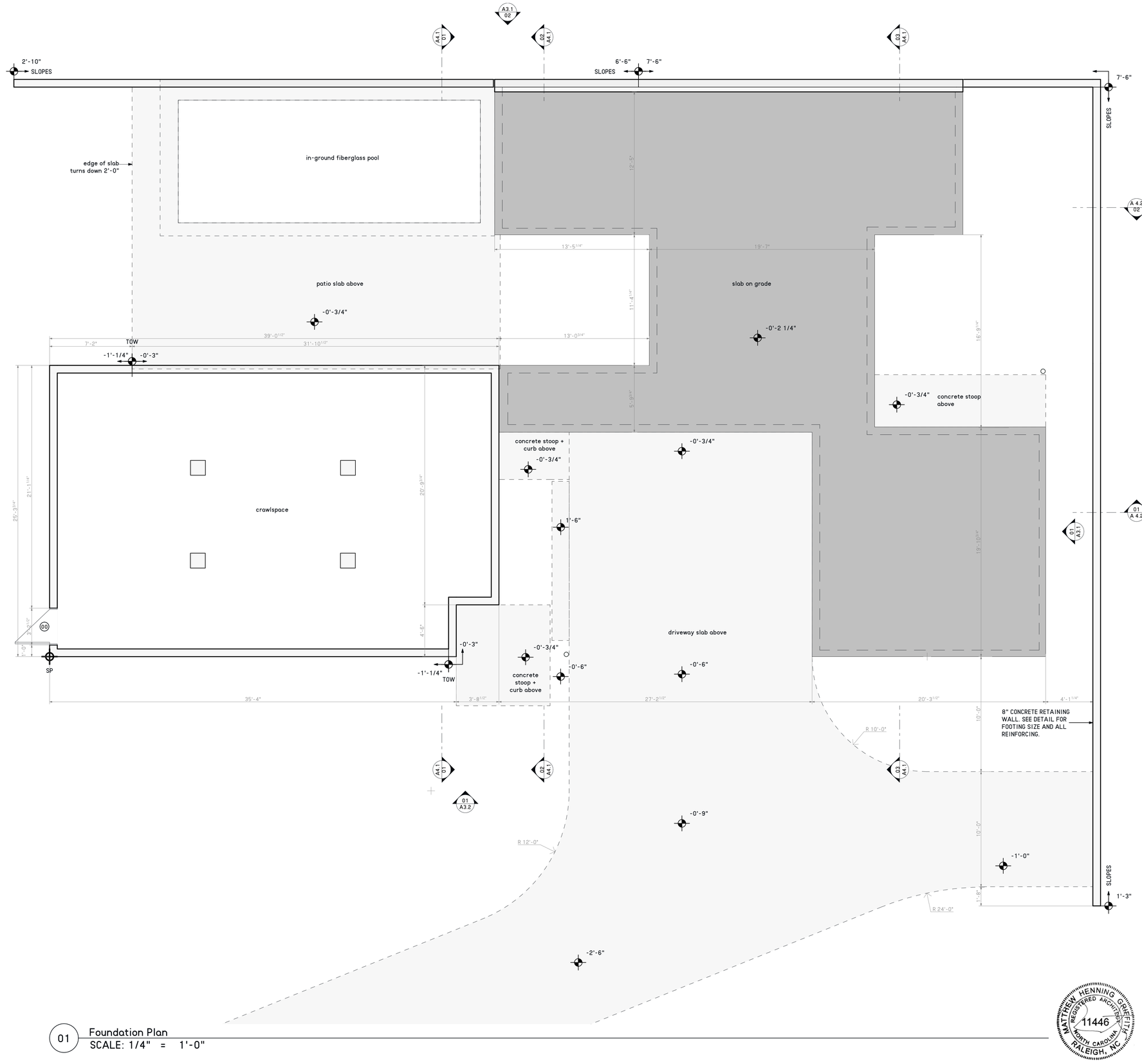
02/20/2024
rns + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A1.1 Septic Layout

FOUNDATION PLAN LEGEND

- exterior slab on grade
- interior slab on grade
- foundation wall
- elevation marker
- footing - REF to structural drawings
- turn down slab - REF to structural drawings



PROJECT SQUARE FOOTAGES

ZONING	R-2
LOT AREA	40075.2 SF
TOTAL IMPERVIOUS SF	7031 SF
TOTAL UNDER ROOF SF	4260 SF
GROUND FLOOR CONDITIONED SF	2269 SF
CARPORT	474 SF
UNHEATED CARPORT STORAGE	68 SF
CRAWLSPACE SF	972 SF
PATIO SF	633 SF
POOL SF	280 SF

INFILL STANDARDS DO NOT APPLY

01 Foundation Plan
SCALE: 1/4" = 1'-0"

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

CD

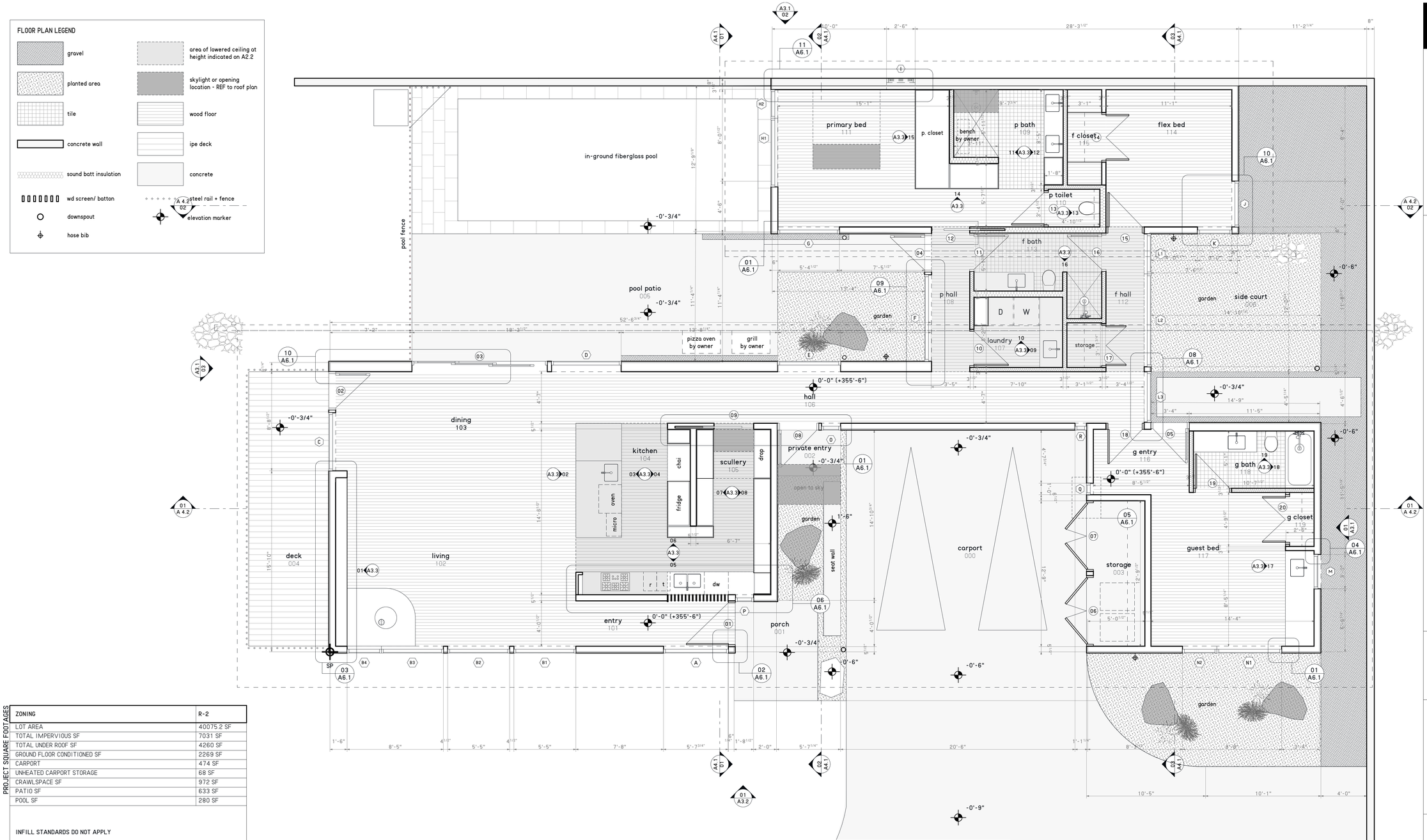
02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A2.0 Foundation Plan

FLOOR PLAN LEGEND

- gravel
- planted area
- tile
- concrete wall
- sound batt insulation
- wd screen/ batton
- downspout
- hose bib
- area of lowered ceiling at height indicated on A2.2
- skylight or opening location - REF to roof plan
- wood floor
- ipe deck
- concrete
- steel rail + fence
- elevation marker



PROJECT SQUARE FOOTAGES

ZONING	R-2
LOT AREA	40075.2 SF
TOTAL IMPERVIOUS SF	7031 SF
TOTAL UNDER ROOF SF	4260 SF
GROUND FLOOR CONDITIONED SF	2269 SF
CARPORT	474 SF
UNHEATED CARPORT STORAGE	68 SF
CRAWLSPACE SF	972 SF
PATIO SF	633 SF
POOL SF	280 SF

INFILL STANDARDS DO NOT APPLY

door schedule

door #	type	size	door	frame	face	core	thick	hdwe	notes
00	single	3'-0" 2'-6"	hm	hm	flush	solid	1 3/4"	latch + lock	hm crawlspace door ptd to match concrete
01	single	3'-8" 8'-10"	wd	wd	flush	solid	1 3/8"	latch + lock	custom sized wd door. ADA sill
02	single	3'-0" 8'-9"	clad wd	clad wd	glass	-	1 3/4"	latch + lock	aluminum clad glass door
03	sliding	11'-6" 8'-9"	clad wd	clad wd	glass	-	13/4"	latch + lock	aluminum clad three panel sliding door
04	single	3'-0" 7'-4"	clad wd	clad wd	glass	-	1 3/4"	latch + lock	aluminum clad glass door
05	single	3'-0" 8'-9"	clad wd	clad wd	glass	-	1 3/4"	latch + lock	aluminum clad glass door
06	double	5'-10" 8'-9"	fiberglass	fiberglass	flush	insul	1 3/4"	latch + lock	fiberglass flush panel door ptd. to match siding
07	doub...	5'-10" 8'-9"	fiberglass	fiberglass	flush	insul	1 3/4"	latch + lock	fiberglass clad flush panel door ptd. to match siding
08	single	3'-3" 8'-9"	clad wd	clad wd	glass	-	1 3/8"	latch + lock	aluminum clad flush panel door w/ weather stripping
09	pocket	3'-5" 7'-9"	wd	wd	flush	solid	1 3/8"	latch	-
10	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-
11		3'-0" 7'-4"						latch + lock	
12	pocket	3'-2" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
13	single	2'-10" 8'-10"	wd	wd				latch + lock	
14	double	4'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-
15	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
16		3'-0" 7'-4"						latch + lock	
17	double	3'-6" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-
18	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
19	single	3'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch + lock	-
20	double	4'-0" 7'-4"	wd	wd	flush	solid	1 3/8"	latch	-

finish schedule

room #	room name	floor	base trim	wall	ceiling	area (sqft)	notes
000	carport	concrete	-	fiber cement siding	stucco	473.89	-
001	porch	concrete	-	fiber cement siding, stucco, + windows	stucco	84.08	boulder garden per landscape allowance
002	private entry	concrete	-	fiber cement siding, stucco, + windows	stucco	90.00	boulder garden per landscape allowance
003	storage	concrete	-	ptd plywood	ptd plywood	55.23	upper shelves by trim carpenter
004	deck	ipe	-	fiber cement siding, steel rail, + windows	stucco	177.50	-
005	pool patio	concrete	-	fiber cement siding + windows	-	930.12	fiberglass pool per allowance + boulder garden per landscape allowance
006	side court	concrete + gravel	-	fiber cement siding, metal panel, + windows	-	457.01	-
101	entry	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	51.94	wd screen per millwork allowance
102	living	hd wd	ptd wd	ptd gyp bd, stone hearth, + windows	ptd gyp bd	288.31	millwork per allowance
103	dining	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd	205.42	-
104	kitchen	hd wd	-	millwork	ptd gyp bd	158.28	millwork, plumbing fixtures, + appliances per allowance
105	scullery	hd wd	-	millwork + window	ptd gyp bd + skylight	97.34	millwork, plumbing fixtures, + appliances per allowance
106	hall	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	223.59	-
107	laundry	hd wd	ptd wd	ptd gyp bd, tile, + millwork	ptd gyp bd	47.63	millwork, plumbing fixtures, + appliances per allowance per allowance
108	p hall	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	40.21	-
109	p bath	tile, radiant heat	tile	tile, mirror, + windows	ptd gyp bd + skylight	113.14	fixtures, millwork, bath accessories, + tile per allowance; bench by owner
110	p toilet	hd wd	ptd wd	ptd gyp bd + millwork	ptd gyp bd	14.26	fixtures + millwork per allowance
111	primary bed	hd wd	ptd wd	ptd gyp bd, millwork, + windows	ptd gyp bd + skylight	180.00	millwork per allowance
112	f hall	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd + LED cove	40.21	-
113	f bath	tile	tile	ptd gyp bd, tile, + mirror	ptd gyp bd + skylight	63.02	fixtures, millwork, bath accessories, + tile per allowance
114	flex bed	hd wd	ptd wd	ptd gyp bd + windows	ptd gyp bd	127.25	desk by owner
115	f closet	hd wd	ptd wd	ptd gyp bd	ptd gyp bd	25.00	-
116	g entry	hd wd	ptd wd	ptd gyp bd	ptd gyp bd	46.59	shelf + rod by trim carpenter
117	guest bed	hd wd	ptd wd	ptd gyp bd, millwork, + windows	ptd gyp bd	188.04	millwork, plumbing fixtures, + appliances per allowance
118	g bath	tile	tile	ptd gyp bd, tile, + mirror	ptd gyp bd	56.22	fixtures, millwork, bath accessories, + tile per allowance
119	g closet	hd wd	ptd wd	ptd gyp bd	ptd gyp bd	9.83	shelf + rod by trim carpenter

01 First Floor Plan
SCALE: 1/4" = 1'-0"

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Septic
- Survey
- Structural

- Turning Point Survey
- Lysaght + Associates

CD

02/20/2024
mns + bs
scale as noted

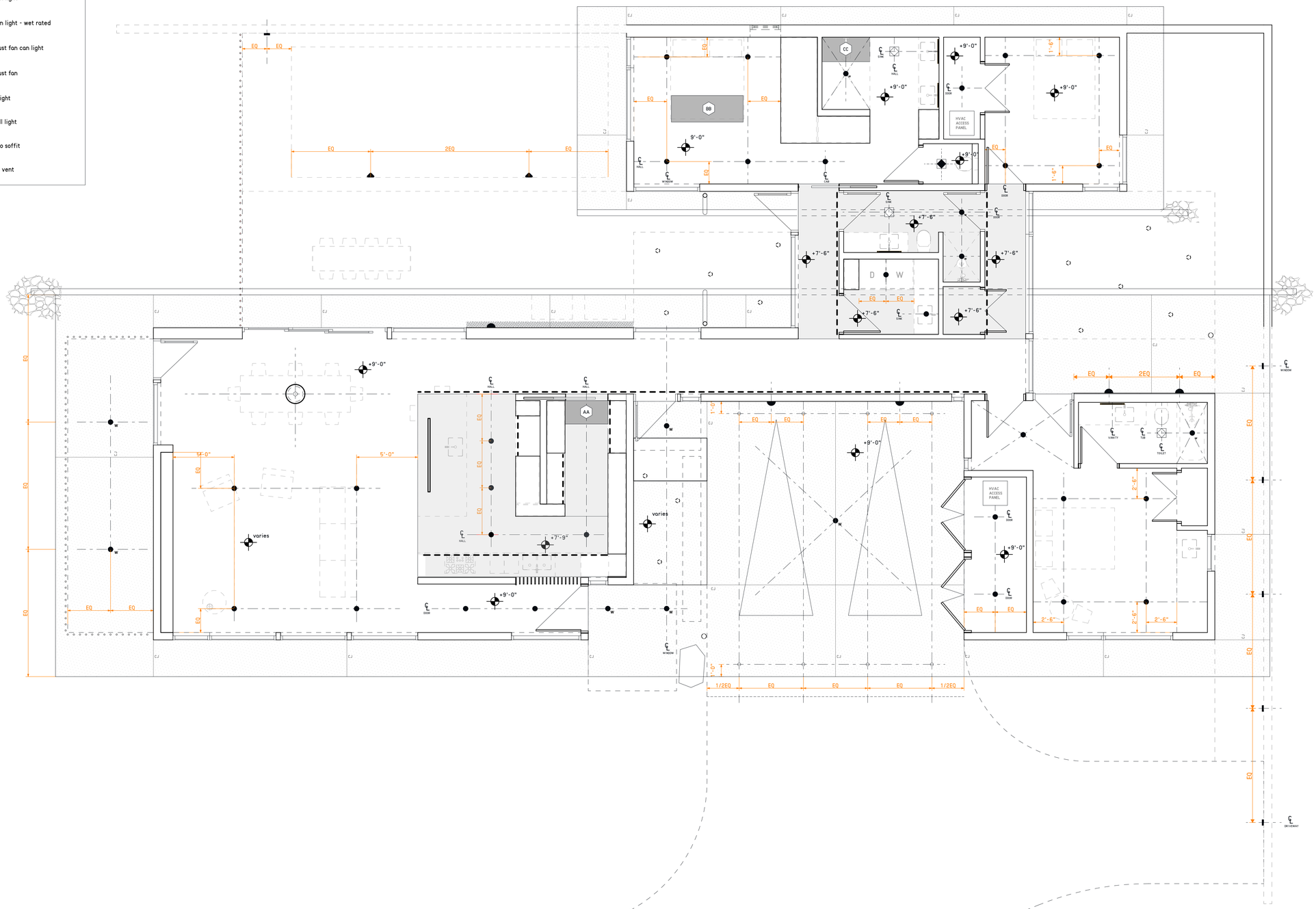
Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

First Floor Plan

A2.1

RCP PLAN LEGEND

large pendant	5" can light
wall mounted light	5" can light - wet rated
sconce	exhaust fan can light
recessed LED channel	exhaust fan
outdoor in-ground light	pool light
linear pendant	in wall light
skylight	stucco soffit
lowered ceiling	soffit vent



01 First Floor RCP
SCALE: 1/4" = 1'-0"

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio

704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
Septic - Turning Point Survey
Survey - Lysaght + Associates
Structural

CD

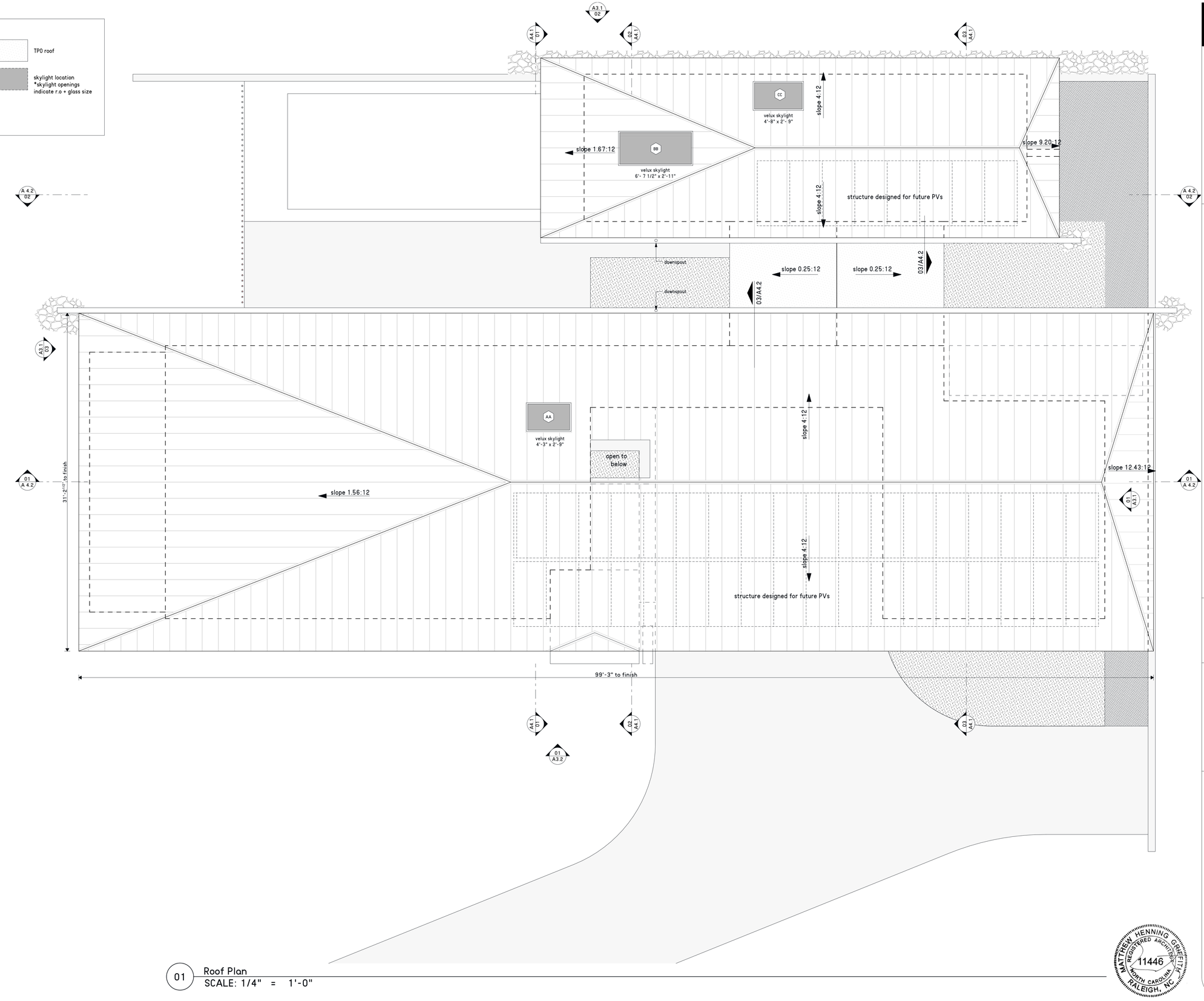
02/20/2024
mns + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A2.2 First Floor RCP

ROOF PLAN LEGEND

- 16" standing seam roof
- TPO roof
- 6" half round galvalume gutter with downspout
- skylight location *skylight openings indicate r.o + glass size
- rain catchment basin



01 Roof Plan
SCALE: 1/4" = 1'-0"

MATTHEW HENNING GAHEFLIH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

CD

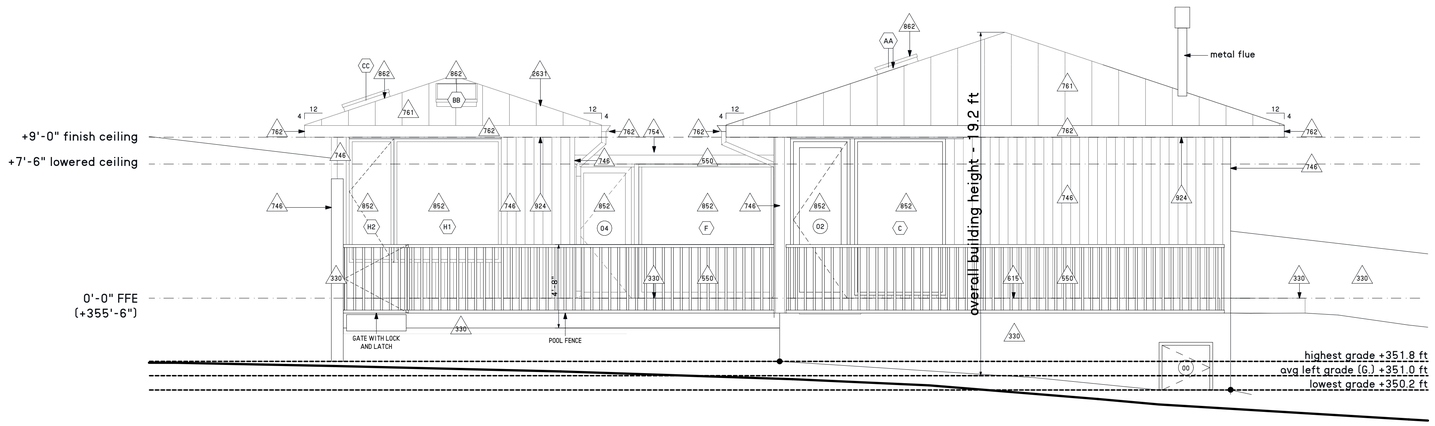
02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

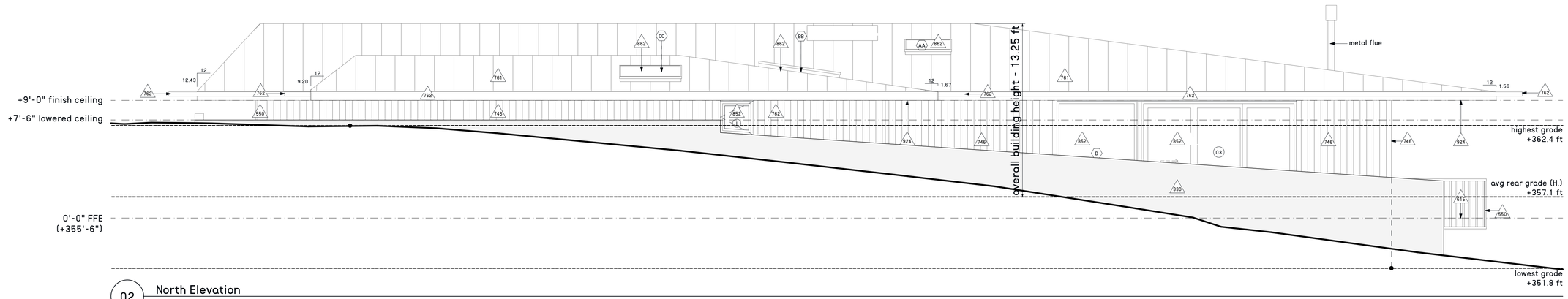
A2.3 Roof Plan

MATERIAL LEGEND

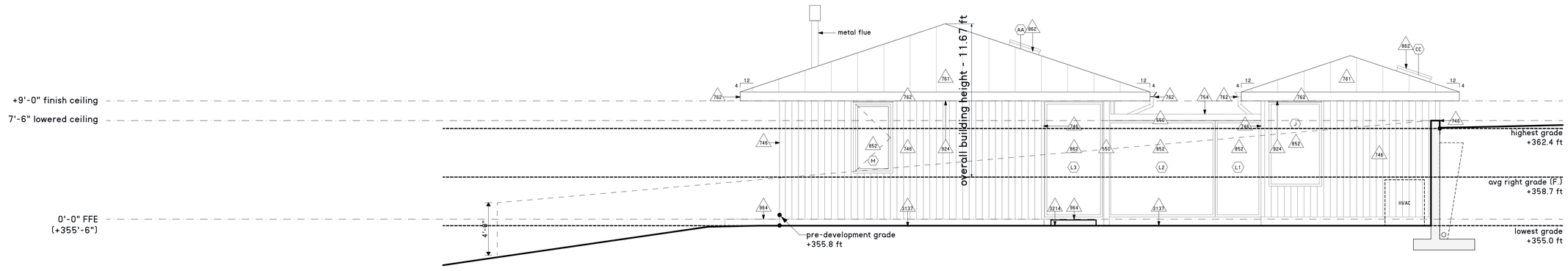
330 CAST-IN-PLACE CONCRETE	746 COMPOSITE CEMENT SIDING	862 UNIT SKYLIGHTS	8631 PHOTOVOLTAIC COLLECTORS
512 STRUCTURAL STEEL	754 MEMBRANE ROOFING	924 STUCCO	5137 GRAVEL
550 METAL FABRICATION	761 METAL ROOFING	929 PAINTED GYPSUM BOARD	3211 CONCRETE + ASPHALT PAVING
615 EXTERIOR FINISH CARPENTRY	762 METAL FLASHING + TRIM	930 TILE	3214 STONE PAVING + SURFACING
621 INTERIOR FINISH CARPENTRY	814 FLUSH WD DOORS	964 WOOD FLOORING	
641 ARCHITECTURAL CABINETS	852 METAL-CLAD WINDOWS + DOORS	1311 BELOW GRADE SWIMMING POOL	



03 West Elevation
SCALE: 1/4" = 1'-0"



02 North Elevation
SCALE: 1/4" = 1'-0"



01 East Elevation
SCALE: 1/4" = 1'-0"

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Septic Survey Structural
Turning Point Survey
Lysaght + Associates

CD

02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

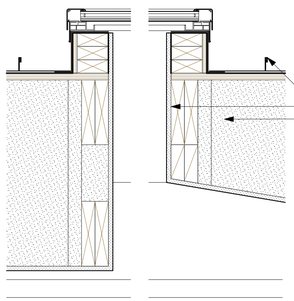
A3.1 Elevations

MATTHEW HENNING GRAEFF
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

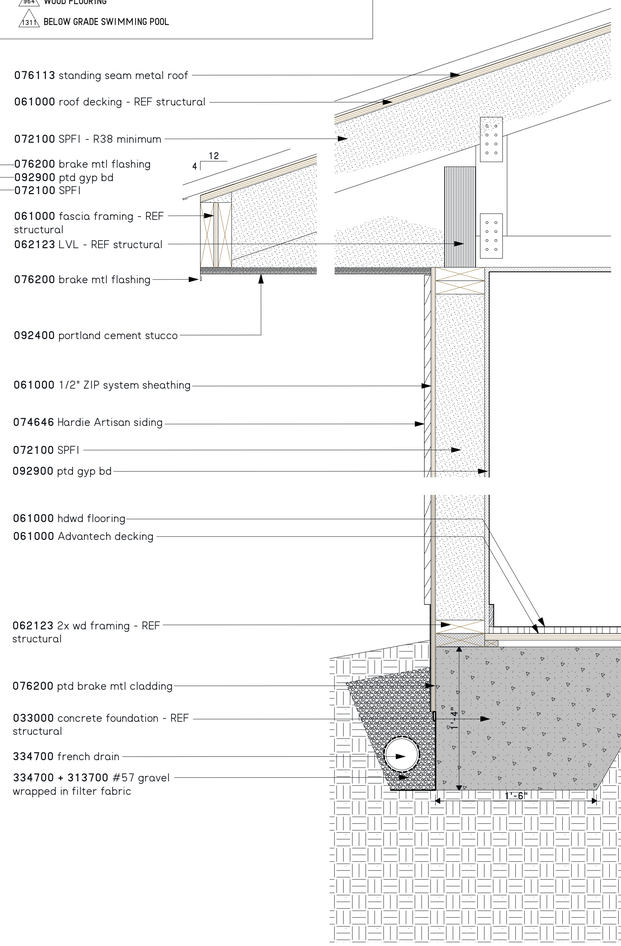
MATERIAL LEGEND

330 CAST-IN-PLACE CONCRETE	746 COMPOSITE CEMENT SIDING	862 UNIT SKYLIGHTS	8531 PHOTOVOLTAIC COLLECTORS
512 STRUCTURAL STEEL	754 MEMBRANE ROOFING	924 STUCCO	3131 GRAVEL
550 METAL FABRICATION	761 METAL ROOFING	929 PAINTED GYPSUM BOARD	3213 CONCRETE + ASPHALT PAVING
615 EXTERIOR FINISH CARPENTRY	762 METAL FLASHING + TRIM	951 TILE	3214 STONE PAVING + SURFACING
621 INTERIOR FINISH CARPENTRY	814 FLUSH WD DOORS	964 WOOD FLOORING	
641 ARCHITECTURAL CABINETS	852 METAL-CLAD WINDOWS + DOORS	1311 BELOW GRADE SWIMMING POOL	

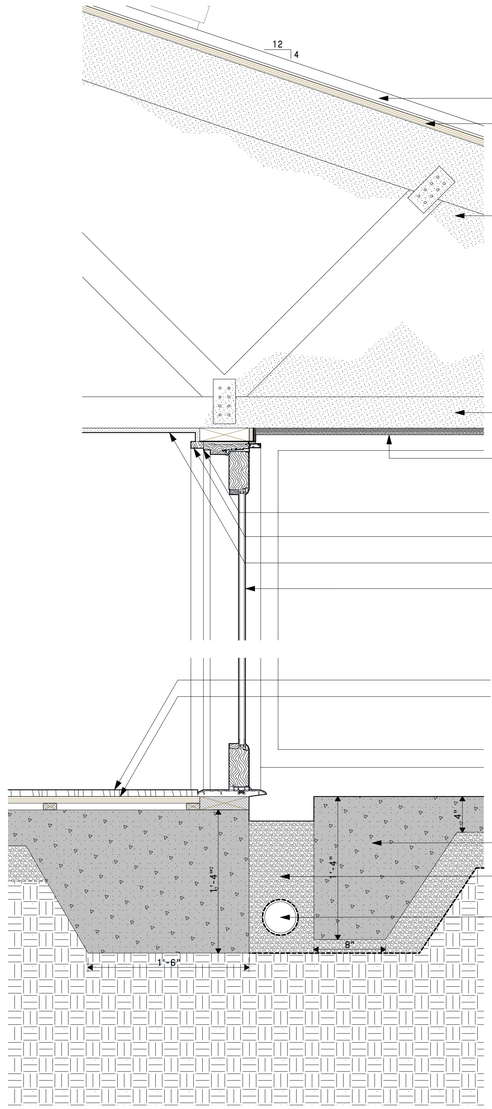
085213 velux skylight - install per manufacturer specifications



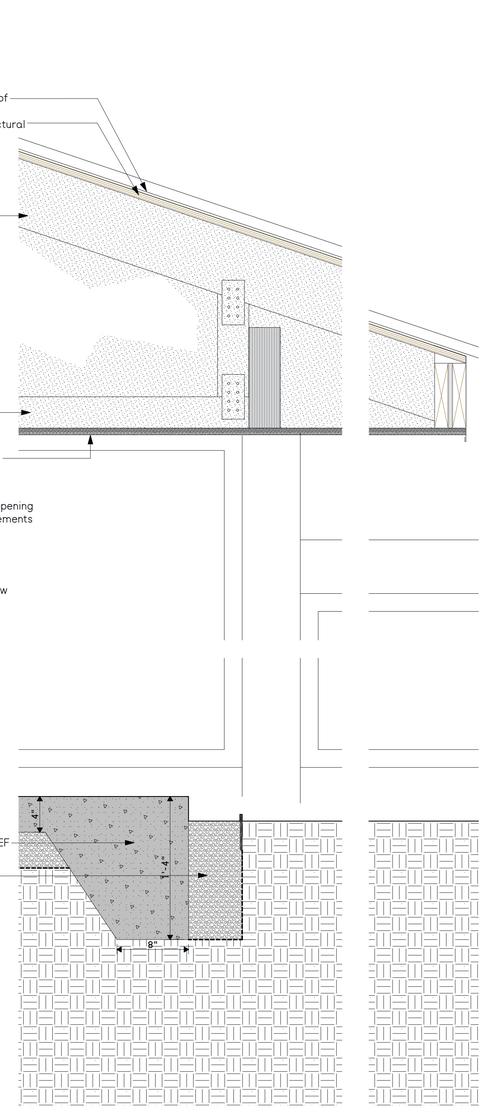
05 DETAIL
SCALE: 1 1/2"= 1'-0"



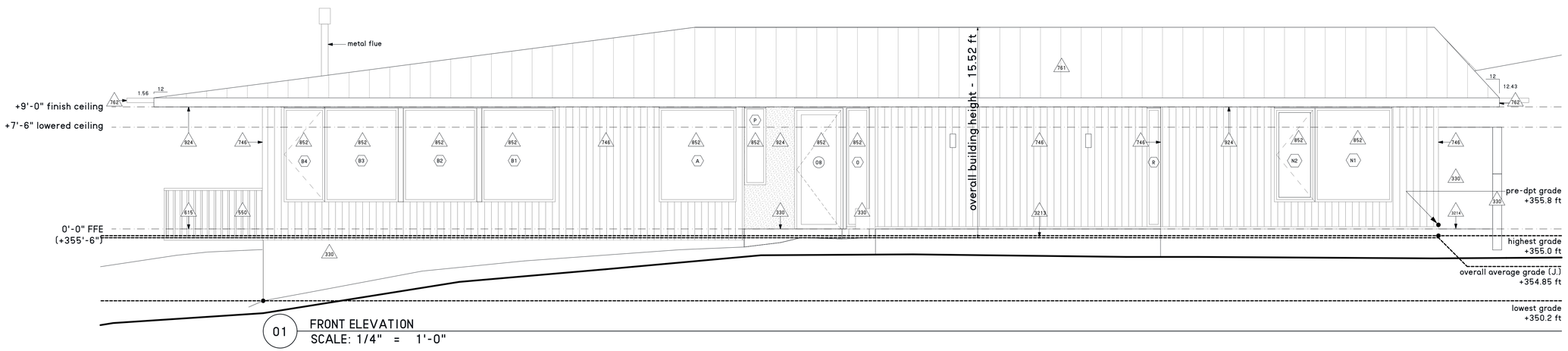
03 DETAIL
SCALE: 1 1/2"= 1'-0"



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



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



01 FRONT ELEVATION
SCALE: 1/4" = 1'-0"

MATTHEW HENNING GRAFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio

704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
- Lysaght + Associates

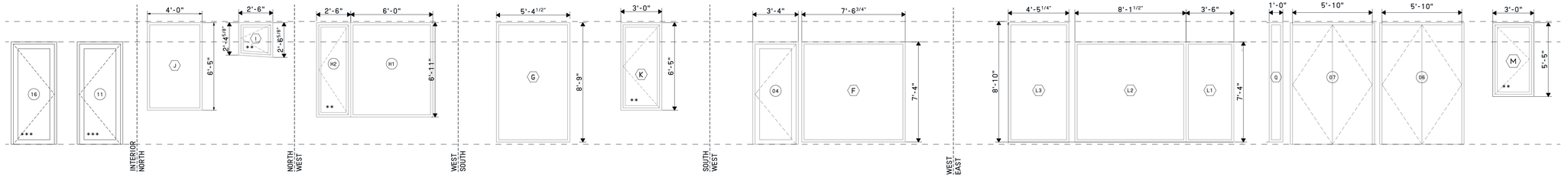
Septic
Survey
Structural

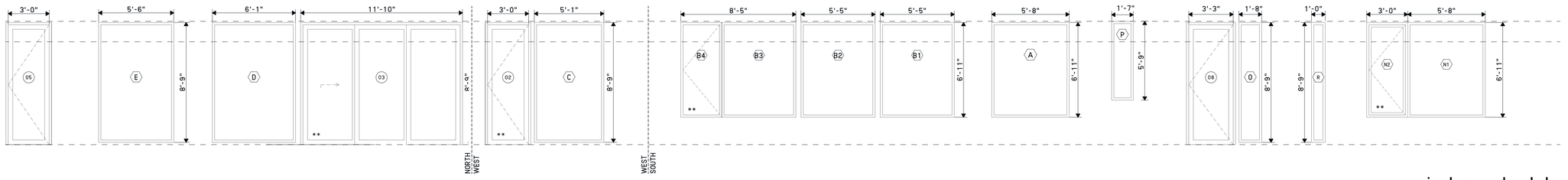
CD

02/20/2024
mns + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A3.2 Elevation + Section Details

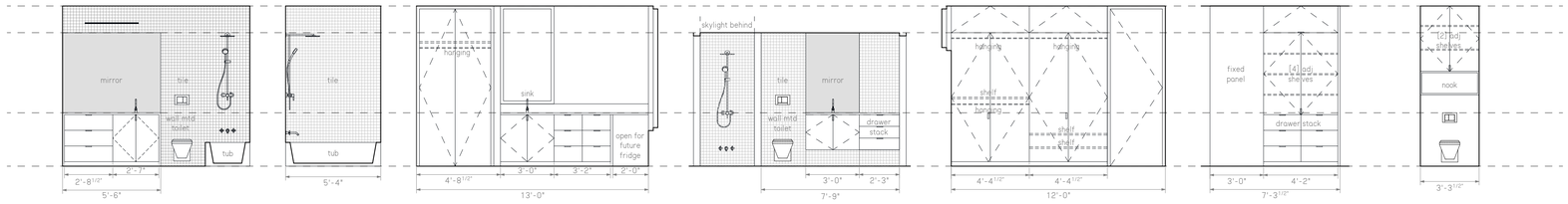




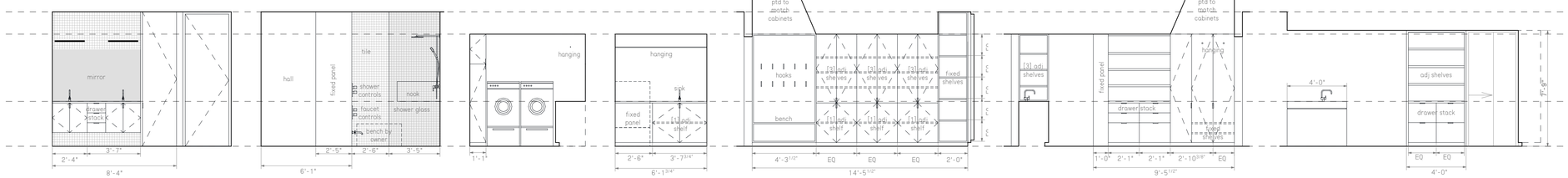
window schedule
1/4" = 1'-0"

rough opening dimensions provided
**include screens for all sliding doors + operable windows
***interior frosted glass

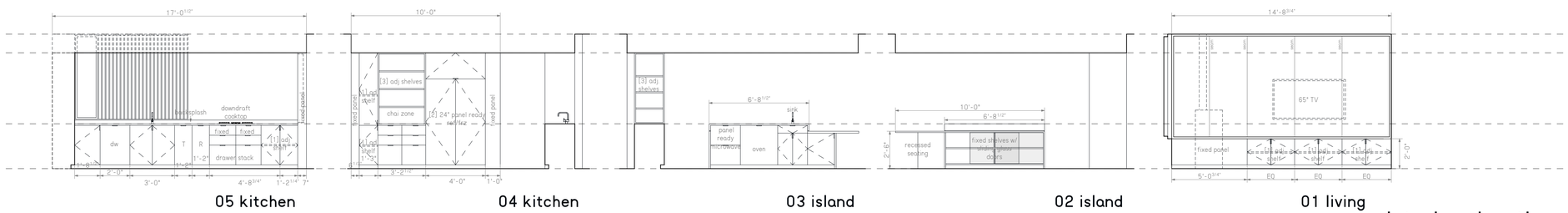
skylight schedule
1/4" = 1'-0"



19 g closet | 18 g bath | 17 g kitchenette | 16 f bath | 15 p closet | 14 p closet | 13 p toilet



12 kitchen north | 11 p bath | 10 laundry | 09 laundry | 08 scullery | 07 scullery | 06 kitchen



05 kitchen | 04 kitchen | 03 island | 02 island | 01 living

interior elevations
1/4" = 1'-0"

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
Septic - Turning Point Survey
Survey - Lysaght + Associates
Structural

CD

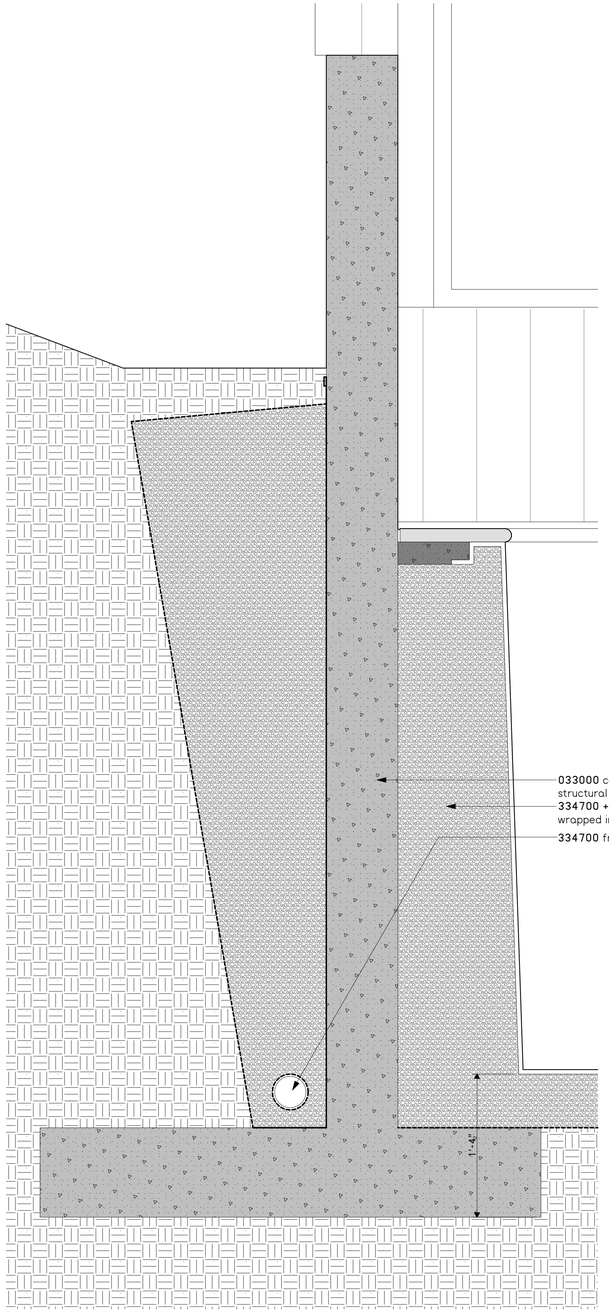
02/20/2024
mns + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

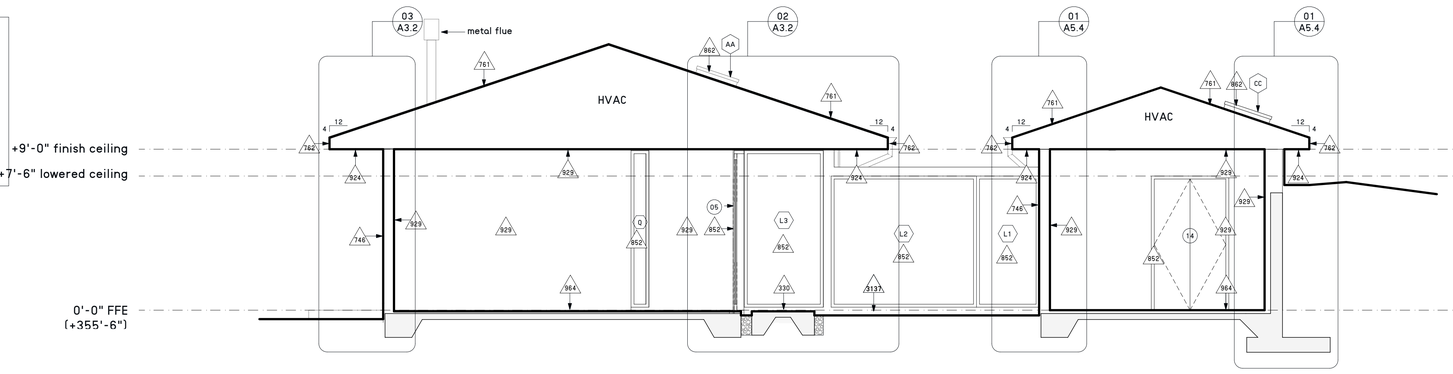
A3.3
Interior Elevations + Window Schedule

MATERIAL LEGEND

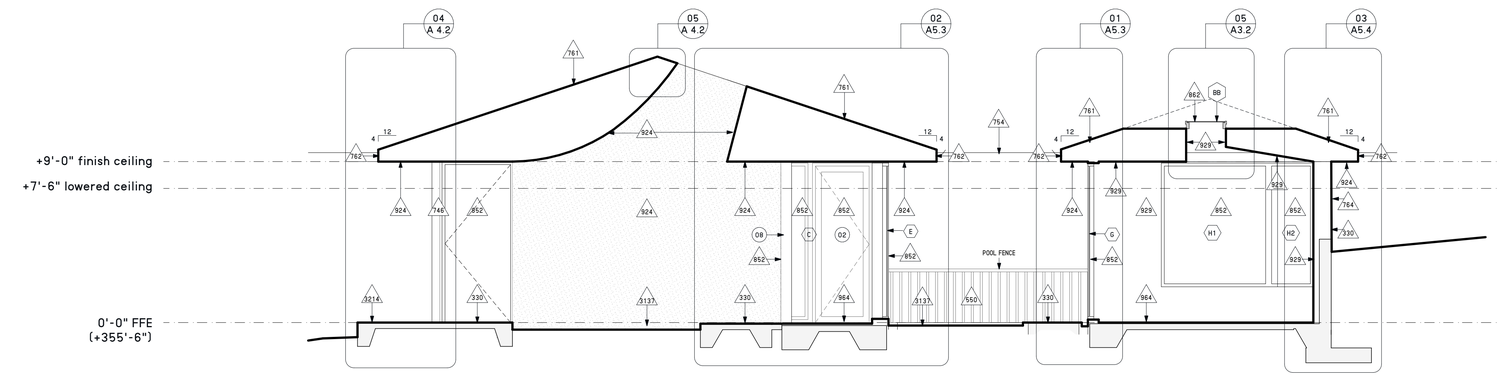
330 CAST-IN-PLACE CONCRETE	746 COMPOSITE CEMENT SIDING	862 UNIT SKYLIGHTS	831 PHOTOVOLTAIC COLLECTORS
512 STRUCTURAL STEEL	764 MEMBRANE ROOFING	924 STUCCO	313 GRAVEL
550 METAL FABRICATION	761 METAL ROOFING	929 PAINTED GYPSUM BOARD	321 CONCRETE + ASPHALT PAVING
615 EXTERIOR FINISH CARPENTRY	762 METAL FLASHING + TRIM	930 TILE	321A STONE PAVING + SURFACING
621 INTERIOR FINISH CARPENTRY	814 FLUSH WD DOORS	964 WOOD FLOORING	
641 ARCHITECTURAL CABINETS	852 METAL-CLAD WINDOWS + DOORS	131 BELOW GRADE SWIMMING POOL	



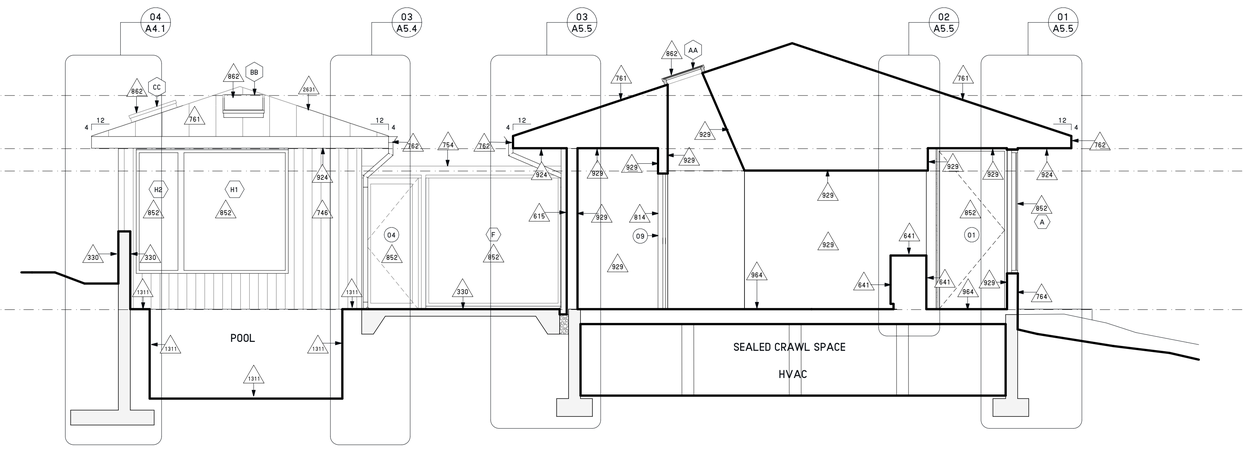
04 living west
SCALE: 1 1/2"= 1'-0"



03 Transverse Section Looking West
SCALE: 1/4" = 1'-0"



02 Transverse Section Looking West
SCALE: 1/4" = 1'-0"



01 Transverse Section Looking East
SCALE: 1/4" = 1'-0"

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

CD

02/20/2024
mns + bs
scale as noted

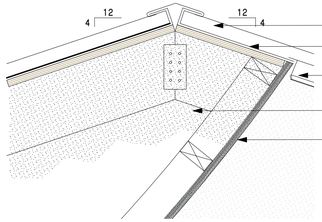
Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

Sections + Section Details

A4.1

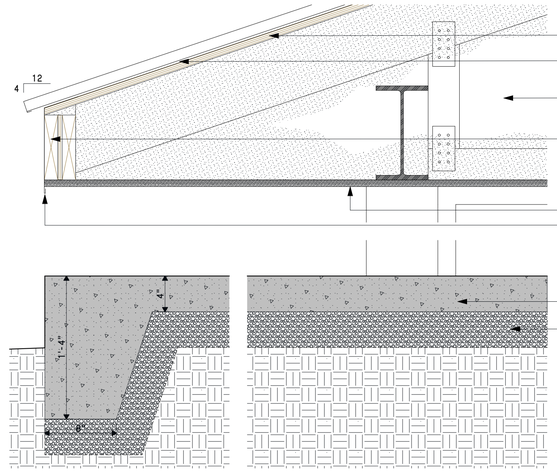
MATERIAL LEGEND

330 CAST-IN-PLACE CONCRETE	746 COMPOSITE CEMENT SIDING	862 UNIT SKYLIGHTS	863 PHOTOVOLTAIC COLLECTORS
512 STRUCTURAL STEEL	764 MEMBRANE ROOFING	924 STUCCO	873 GRAVEL
550 METAL FABRICATION	761 METAL ROOFING	929 PAINTED GYPSUM BOARD	3213 CONCRETE + ASPHALT PAVING
615 EXTERIOR FINISH CARPENTRY	762 METAL FLASHING + TRIM	930 TILE	3214 STONE PAVING + SURFACING
621 INTERIOR FINISH CARPENTRY	814 FLUSH WD DOORS	964 WOOD FLOORING	
641 ARCHITECTURAL CABINETS	852 METAL-CLAD WINDOWS + DOORS	1311 BELOW GRADE SWIMMING POOL	



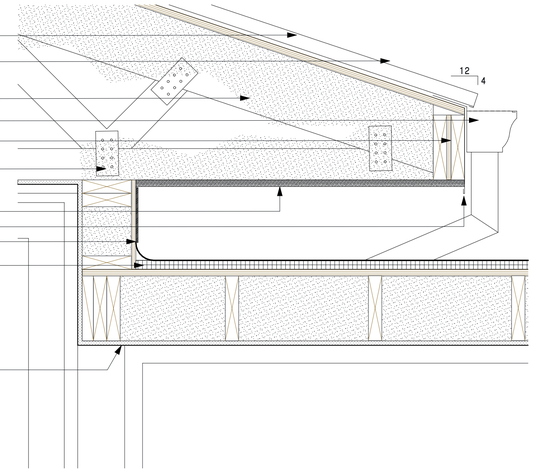
076113 standing seam metal roof
061000 roof decking - REF structural
076200 brake mtl flashing
072100 SPFI - R38 minimum
092400 portland cement stucco

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

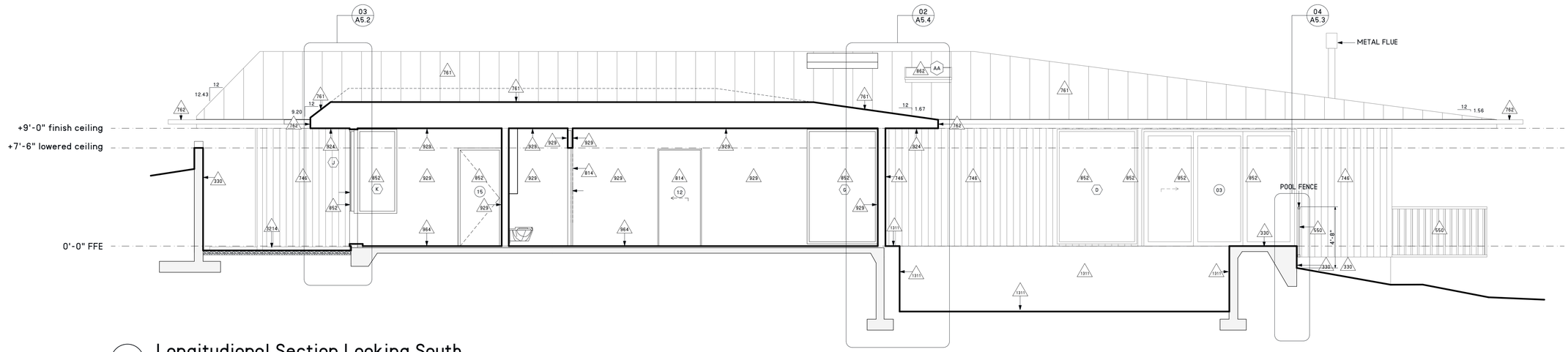


061000 roof decking - REF structural
076113 standing seam metal roof
072100 SPFI - R38 minimum
076200 k-style gutter
061000 fascia framing - REF structural
061000 truss - REF structural
092400 portland cement stucco
076200 brake mtl flashing
076200 brake mtl trim
072100 rigid insulation - R38 minimum
033000 concrete foundation - REF structural
334700 + 313700 #57 gravel wrapped in filter fabric
092900 ptd gyp bd

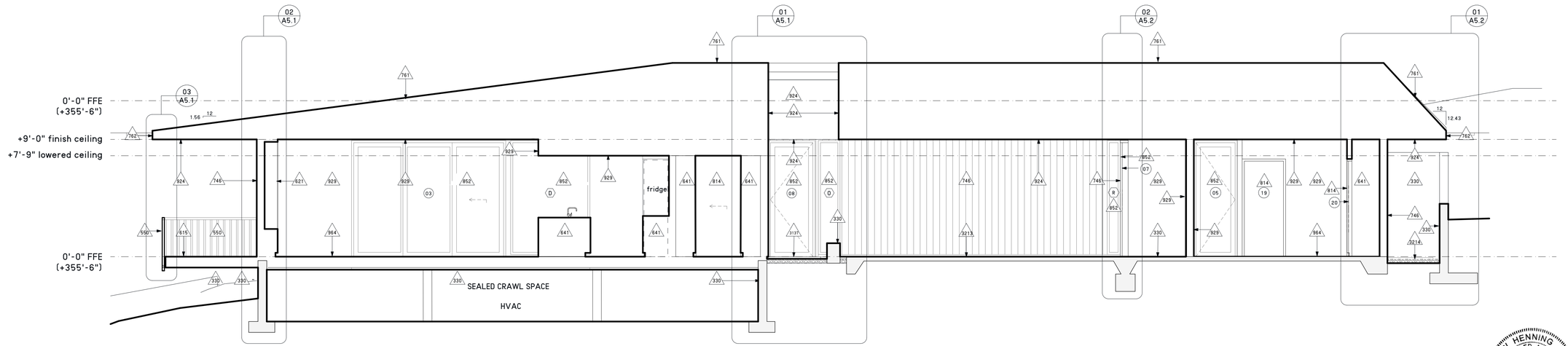
04 detail
SCALE: 1 1/2"= 1'-0"



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



02 Longitudional Section Looking South
SCALE: 1/4" = 1'-0"



01 Longitudinal Section Looking North
SCALE: 1/4" = 1'-0"

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants - Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

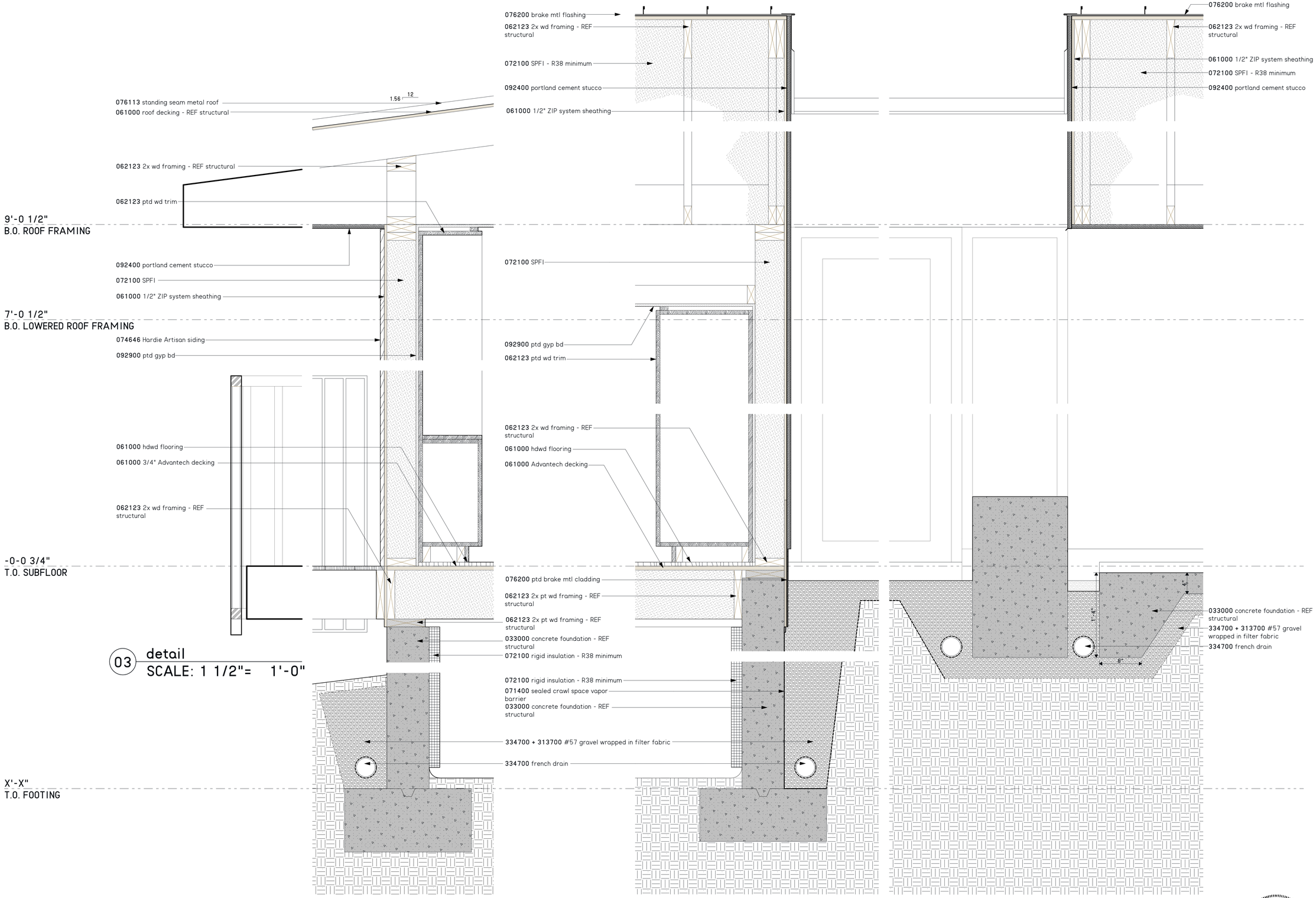
CD

02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A 4.2 Sections + Section Details

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC



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

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

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

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

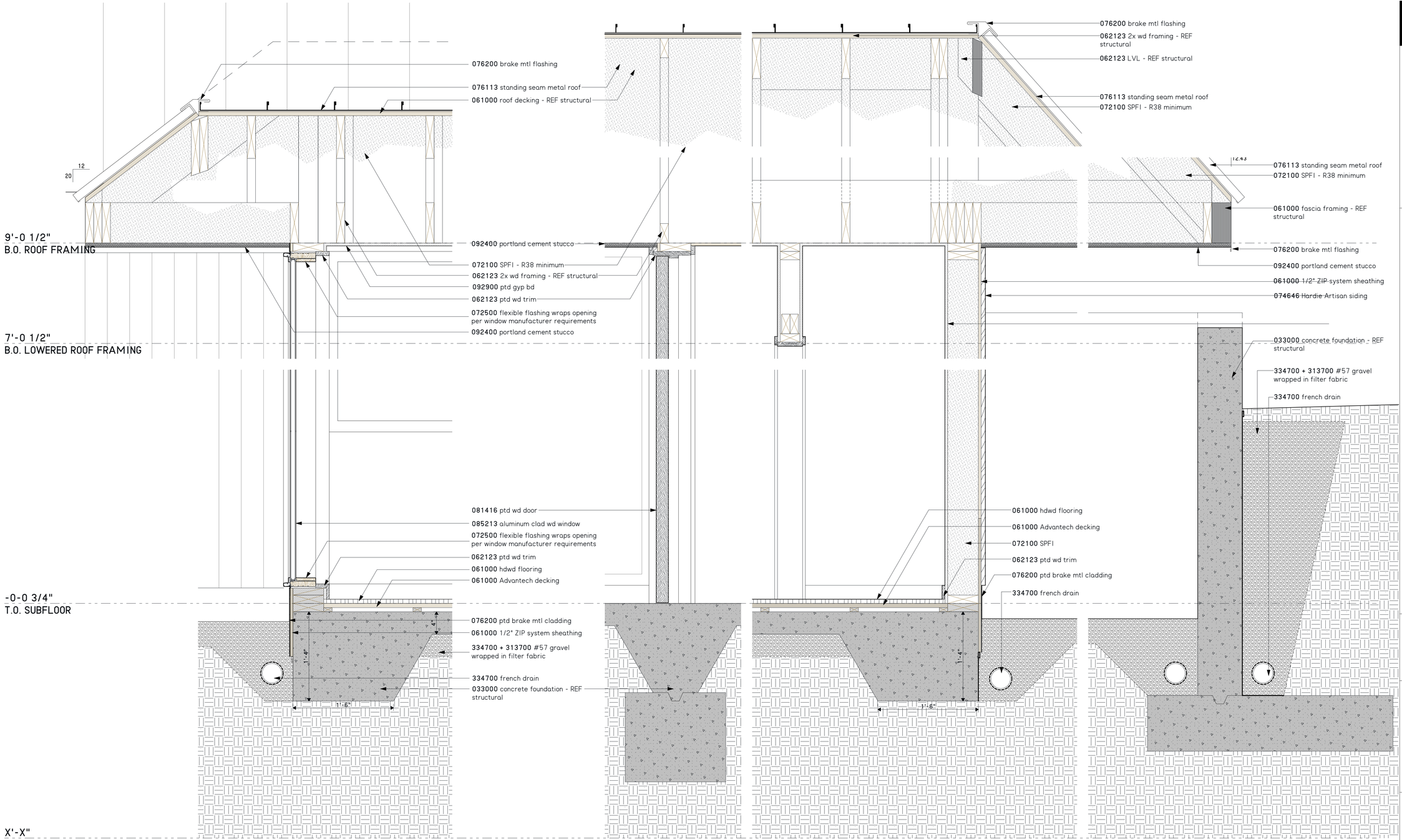
Consultants
- Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

CD

02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A5.1 Section Details



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

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

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

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

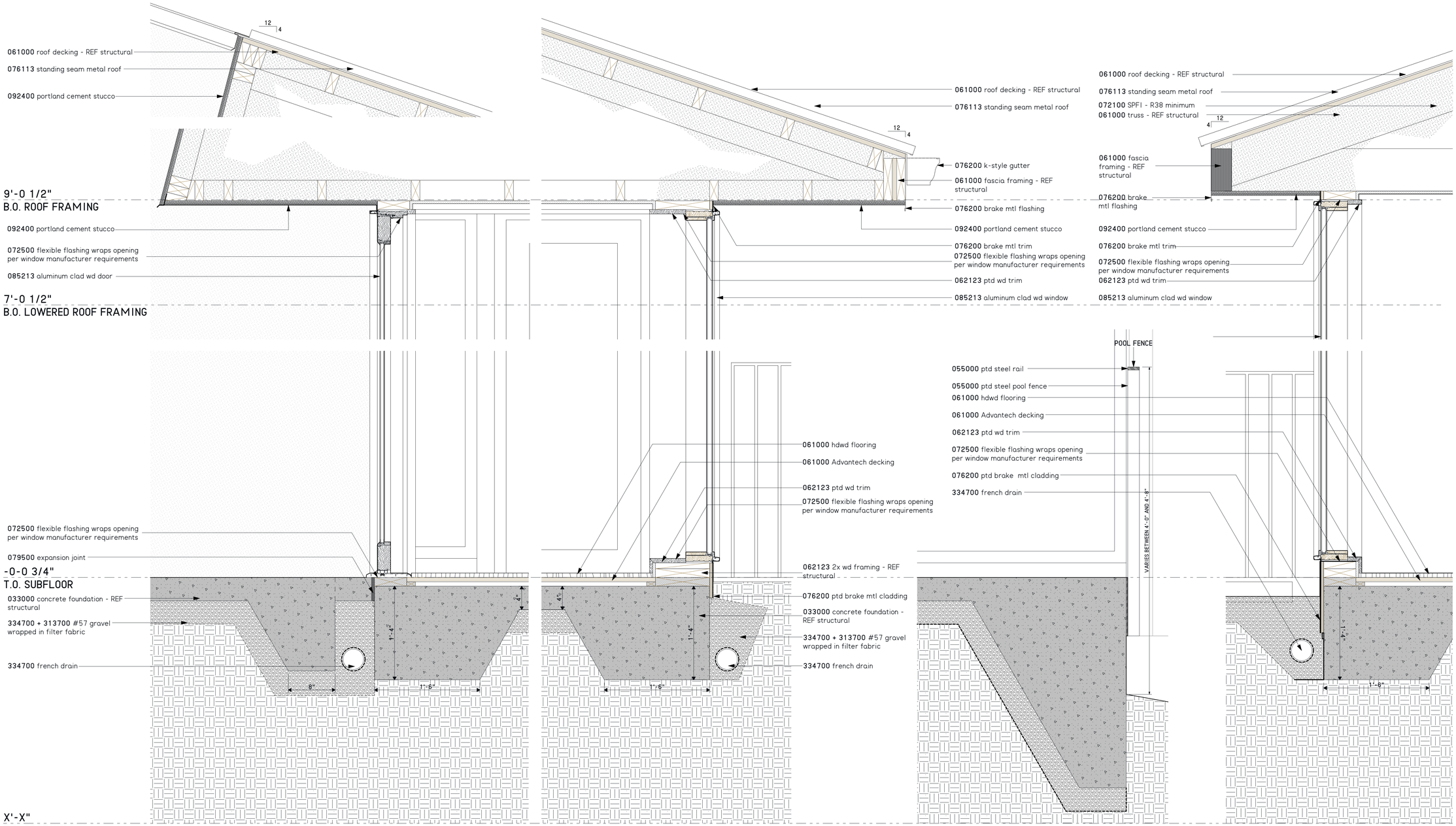
Consultants
- Septic
- Survey
- Structural
- Turning Point Survey
- Lysaght + Associates

CD

02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A5.2 Section Details



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

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

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

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Lysaght + Associates
Septic
Survey
Structural

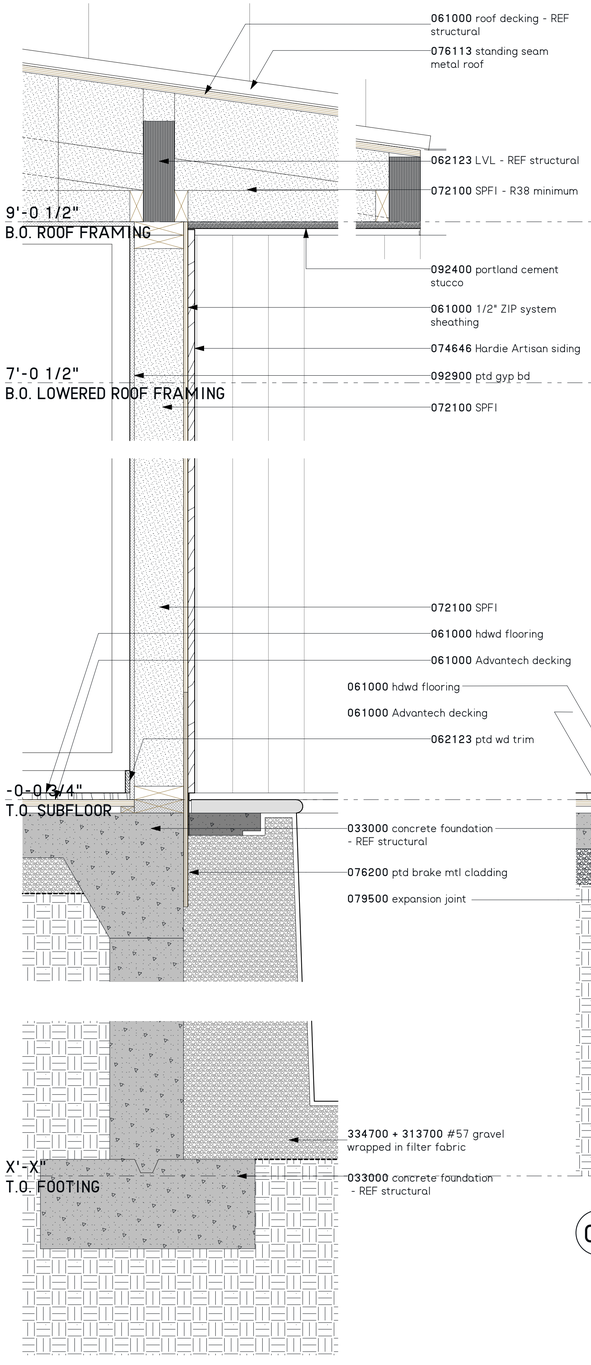
CD

02/20/2024
mns + bs
scale as noted

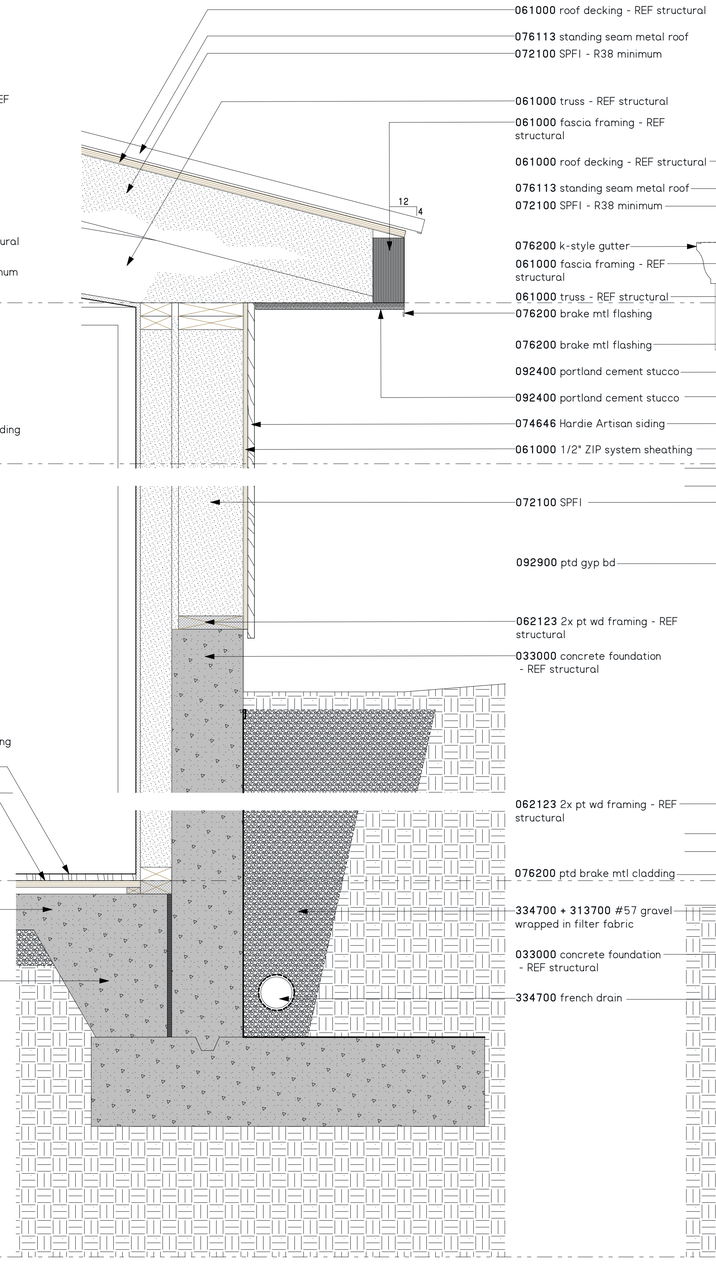
Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A5.3 Section Details

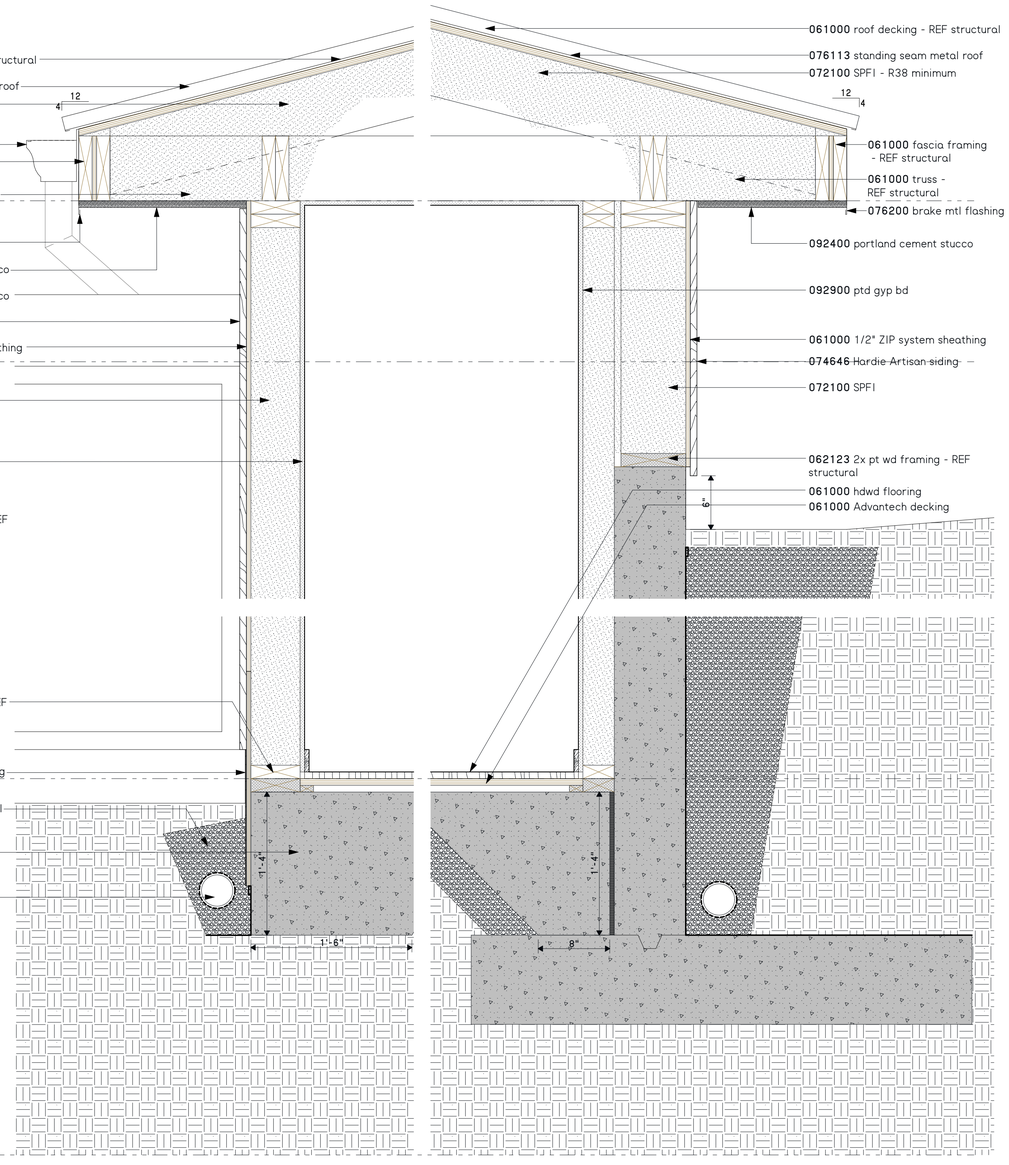
MATTHEW HENNING GRAFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC



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



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



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

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

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
- Lysaght + Associates

Septic
Survey
Structural

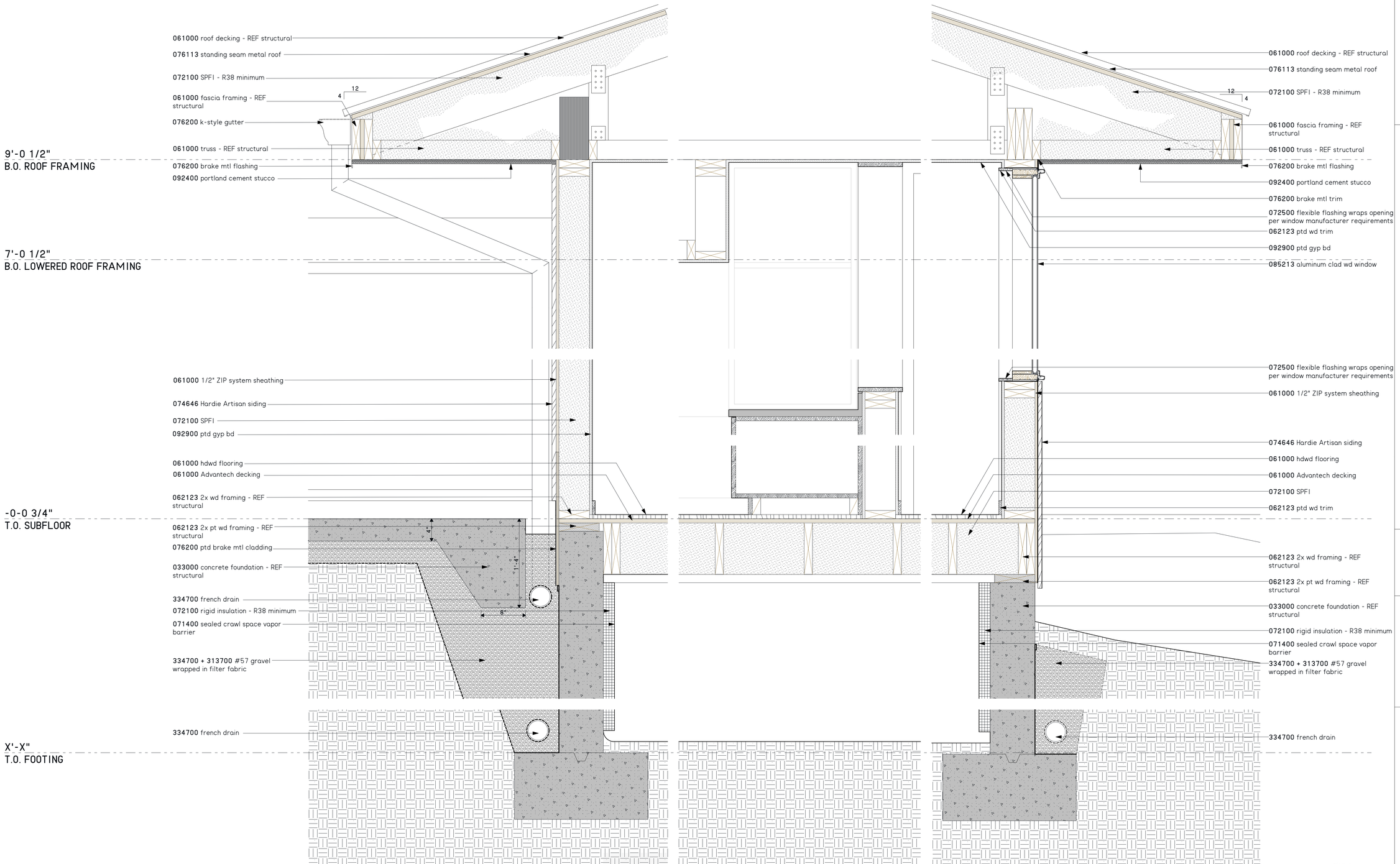
CD

02/20/2024
mm + bs
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A5.4 Section Details

MATTHEW HENNING GAHEFTY
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC



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

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

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

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

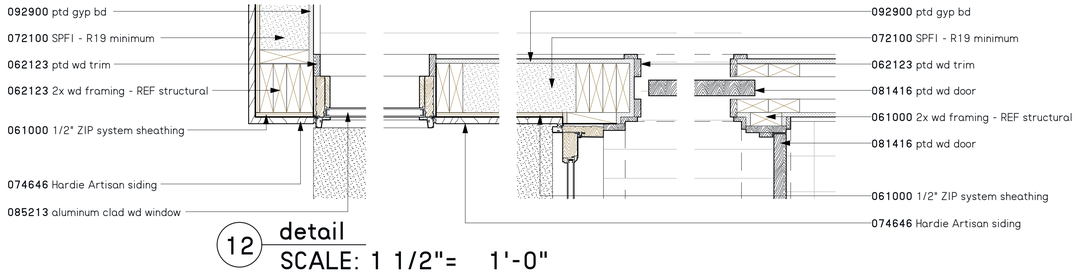
in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Septic Lysaght + Associates
Survey
Structural

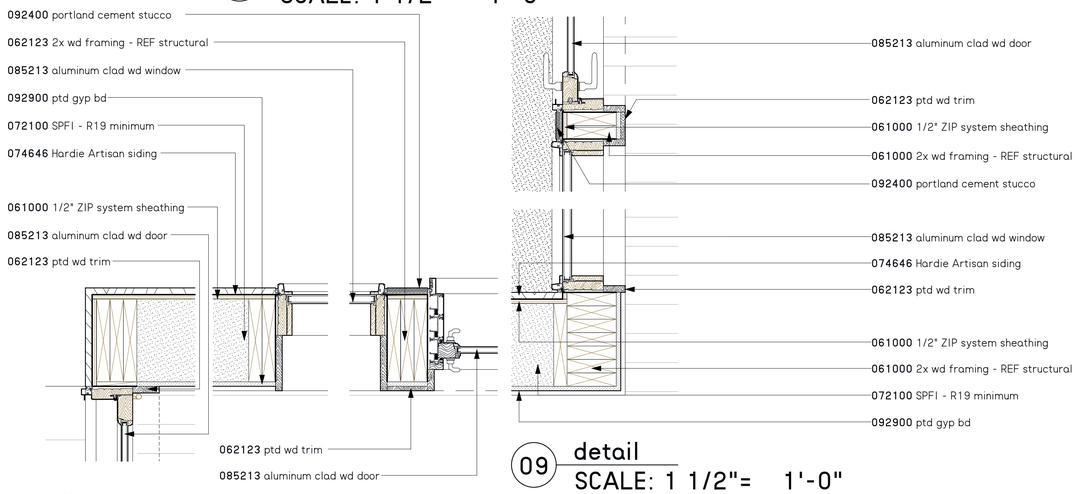
CD
02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A5.5 Section Details

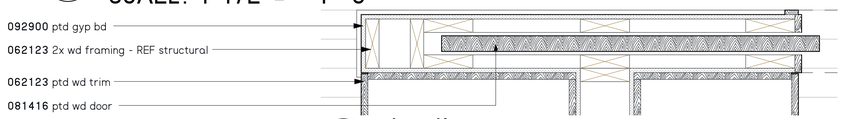


12 detail
SCALE: 1 1/2"= 1'-0"

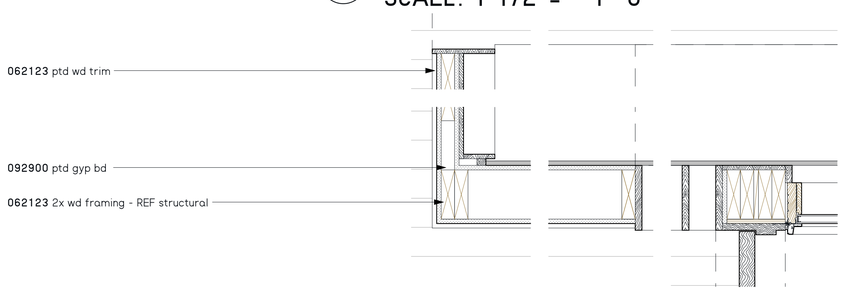


09 detail
SCALE: 1 1/2"= 1'-0"

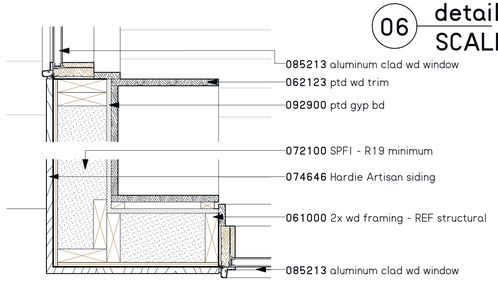
10 detail
SCALE: 1 1/2"= 1'-0"



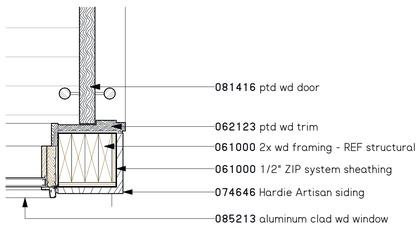
07 detail
SCALE: 1 1/2"= 1'-0"



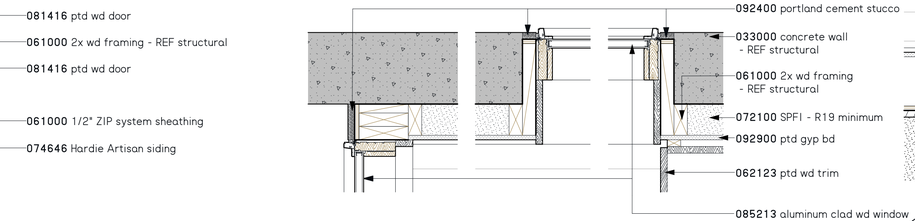
06 detail
SCALE: 1 1/2"= 1'-0"



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

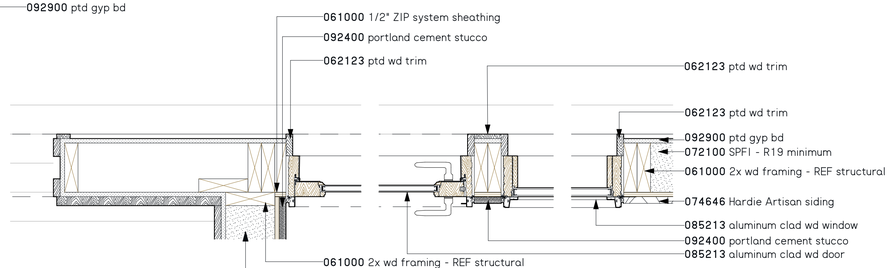


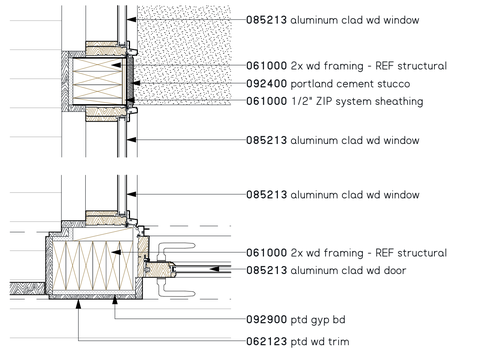
02 detail
SCALE: 1 1/2"= 1'-0"



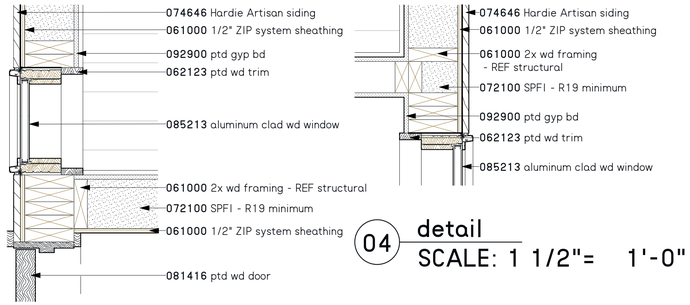
11 detail
SCALE: 1 1/2"= 1'-0"

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



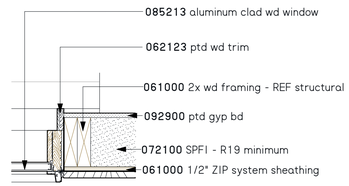


08 detail
SCALE: 1 1/2"= 1'-0"



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

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



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

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
- Turning Point Survey
Lysaght + Associates
Septic
Survey
Structural

CD

02/20/2024
mns + bs
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

A6.1 Plan Details

MATTHEW HENNING GRIFFITH
REGISTERED ARCHITECT
11446
NORTH CAROLINA
RALEIGH, NC

GENERAL STRUCTURAL NOTES

GENERAL

THESE DRAWINGS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF LYSAGHT & ASSOCIATES, P.A., FOR USE SOLELY WITH THIS PROJECT AND SHALL NOT BE REPRODUCED FOR OTHER PURPOSES.

THE PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE PROJECT STRUCTURAL ENGINEER-OF-RECORD (SER) WHO BEARS LEGAL RESPONSIBILITY FOR THE PERFORMANCE OF THE STRUCTURAL FRAMING RELATING TO PUBLIC HEALTH, SAFETY AND WELFARE. NO OTHER PARTY, WHETHER OR NOT A PROFESSIONAL ENGINEER, MAY COMPLETE, CORRECT, REVISE, DELETE OR ADD TO THESE CONSTRUCTION DOCUMENTS OR PERFORM INSPECTIONS OF THE WORK WITHOUT THE WRITTEN PERMISSION OF THE SER.

IN GENERAL, THE FOUNDATION AND FRAMING DETAILS FOR THIS PROJECT CAN BE CATEGORIZED AS "STANDARD RESIDENTIAL CONSTRUCTION" AND ARE TO BE WORKED OUT BY THE CONTRACTOR, IN THE FIELD. SPECIAL DETAILS ARE SHOWN ON THE DRAWINGS. IF ANY SPECIAL CONDITIONS ARISE THAT ARE NOT DETAILED ON THE DRAWINGS, CONTACT THE STRUCTURAL ENGINEER.

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "NORTH CAROLINA RESIDENTIAL CODE", 2018 EDITION.

ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING TO STABILIZE THE BUILDING DURING CONSTRUCTION.

FLAT ROOF DRAINAGE

FLAT ROOFS SHALL HAVE CONTROLLED DRAINAGE PROVISIONS AND SHALL BE EQUIPPED WITH A SECONDARY DRAINAGE SYSTEM AT A HIGHER ELEVATION WHICH PREVENTS PONDING ON THE ROOF ABOVE THAT ELEVATION. THE SECONDARY DRAINAGE SHALL BE SET SO THAT THE OVERFLOW SCUPPER IS 2" ABOVE THE ROOF AND A 6" MAXIMUM DEPTH OF WATER WILL POND ON THE ROOF, AT THE OVERFLOW SCUPPER, DURING THE DESIGN RAINSTORM. THE DESIGN OF THE ROOF DRAINAGE, SECONDARY DRAINAGE AND/OR OVERFLOW SCUPPERS IS BEYOND THE SCOPE OF THE STRUCTURAL ENGINEER'S SERVICES.

SCOPE OF STRUCTURAL ENGINEERING SERVICES

THE STRUCTURAL ENGINEER HAS PERFORMED THE STRUCTURAL DESIGN FOR THE NEW ADDITION AND REVIEWED THE ARCHITECTURAL PLANS FOR THIS PROJECT.

IF THE CONTRACTOR (OR OWNER) WOULD LIKE FOR CONSTRUCTION REVIEW SERVICES TO BE INCLUDED IN THE SCOPE AS AN ADDITIONAL SERVICE, THEN THE CONTRACTOR (OR OWNER) SHALL CONTACT THE STRUCTURAL ENGINEER AT THE FOLLOWING STAGES OF CONSTRUCTION FOR A FIELD REVIEW OF THE WORK:

1. AFTER COMPLETION OF THE WOOD FRAMING SYSTEM, BEFORE INTERIOR FINISHES ARE INSTALLED.
2. AT ANY STAGE OF CONSTRUCTION WHEN DESIGN OR CONSTRUCTION PROBLEMS ARE ENCOUNTERED.

A "CONSTRUCTION REVIEW REPORT" WILL BE SENT TO THE CONTRACTOR AND THE ARCHITECT FOLLOWING EACH FIELD TRIP.

THE STRUCTURAL ENGINEER IS RESPONSIBLE FOR THE DESIGN OF THE PRIMARY STRUCTURAL SYSTEM FOR THE ADDITION. RESPONSIBILITY FOR ANY SECONDARY STRUCTURAL AND NON-STRUCTURAL SYSTEMS NOT SHOWN ON THE STRUCTURAL PLANS RESTS WITH THE CONTRACTOR.

THE STRUCTURAL ENGINEER HAS NOT DONE A SUBSURFACE INVESTIGATION (HE IS NOT A SOILS SPECIALIST). THE FOUNDATION DESIGN IS BASED UPON AN ASSUMED ALLOWABLE BEARING PRESSURE AS SHOWN IN THE "FOUNDATION" STRUCTURAL NOTES. THIS ALLOWABLE BEARING PRESSURE SHALL BE VERIFIED BY THE CONTRACTOR OR OWNER. IF PROBLEMS ARE ENCOUNTERED, A SOILS ENGINEER SHOULD BE RETAINED TO EVALUATE THE CONDITIONS AND RECOMMEND THE APPROPRIATE FOUNDATION SYSTEM.

THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK; NOR WILL HE BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

FIELD MEASUREMENTS AND THE VERIFICATION OF DIMENSIONS SHOWN ON THE ARCHITECTURAL PLANS ARE NOT THE STRUCTURAL ENGINEER'S RESPONSIBILITY.

ABBREVIATIONS

@	AT
ASD	ALLOWABLE STRESS DESIGN
B/U	BUILT-UP
CJ	CONTROL JOINT IN SLAB
CLNG	CEILING
COL	COLUMN
CFMH	CONCEALED FACE MOUNTED HANGER
DJ	DOUBLE JOIST
DR	DOUBLE RAFTER
FMH	FACE MOUNTED HANGER
HD	HOLD DOWN
LBW	LOAD BEARING WALL
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PSL	PARALLEL STRAND LUMBER (PARALLAM)
PT	PRESSURE TREATED
RyL	LARGER OF TWO REACTIONS ON A BEAM, KIPS
RyS	SMALLER OF TWO REACTIONS ON A BEAM, KIPS
SER	STRUCTURAL ENGINEER-OF-RECORD
S-P-F	SPRUCE-PINE-FIR
STD	STANDARD
STL	STEEL
SW	SHEAR WALL
SYP	SOUTHERN YELLOW PINE
TJ	TRIPLE JOIST
TYP	TYPICAL
UDH	UPSIDE DOWN HANGER
UNO	UNLESS NOTED OTHERWISE

DESIGN LOADS

ROOF DEAD LOAD	15 PSF
ROOF LIVE LOAD	20 PSF
DECK DEAD LOAD	10 PSF
DECK LIVE LOAD	40 PSF
FLOOR DEAD LOAD	15 PSF
FLOOR LIVE LOAD	40 PSF
ULTIMATE WIND SPEED (3 SECOND GUST)	115 MPH
EXPOSURE	B

FOUNDATIONS

ALL FOOTINGS SHALL REST ON SOIL CAPABLE OF SAFELY SUPPORTING 2000 PSF. THE CONTRACTOR SHALL CONTACT THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED.

FOOTINGS SHALL BE CARRIED TO A LOWER ELEVATION THAN THOSE INICATED ON THESE DRAWINGS IF NECESSARY TO REACH FIRM UNDISTURBED SOIL.

FOUNDATIONS SHALL EXTEND NOT LESS THAN 12" BELOW THE FINISHED NATURAL GRADE OR ENGINEERED FILL IN NO CASE LESS THAN THE FROST LINE DEPTH.

ALL FILL SHALL BE PLACED IN 8" MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR METHOD). THIS REQUIREMENT SHALL BE INCREASED TO 98 PERCENT OF ASTM D-698 IN THE FINAL FOOT BENEATH FLOOR SLABS AND PAVEMENTS.

THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

WHEN TOP OR SUBSOILS ARE EXPANSIVE, COMPRESSIBLE OR SHIFTING, SUCH SOILS SHALL BE REMOVED TO A DEPTH AND WIDTH SUFFICIENT TO ASSURE STABLE MOISTURE CONTENT IN EACH ACTIVE ZONE AND SHALL NOT BE USED AS FILL.

CONCRETE

MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3000 PSI FOR FOOTINGS AND 4000 PSI FOR FOUNDATION WALLS. DO NOT CAST CONCRETE IN WATER OR ON FROZEN GROUND.

FOUNDATION WALLS, EXTERIOR WALLS, AND OTHER VERTICAL CONCRETE WORK EXPOSED TO THE WEATHER SHALL BE AIR ENTRAINED. TOTAL AIR CONTENT (PERCENT BY VOLUME OF CONCRETE) SHALL BE NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCENT.

SLAB-ON-GRADE CONSTRUCTION

CONCRETE SHALL BE DESIGNED TO MEET 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS AND EXHIBIT <0.04% SHRINKAGE @ 28 DAYS. THE MIX SHALL CONTAIN APPROXIMATELY 12 CUBIC FEET OF COARSE AGGREGATE (1½" TOP SIZE), THE SPECIFIED WATER REDUCING ADMIXTURE AND ACHIEVE A W/CM RATIO OF 0.53 (MAX.). INTERIOR SLABS SHALL NOT BE AIR-ENTRAINED; EXTERIOR SLABS SHALL BE AIR ENTRAINED.

MATERIALS	*MIX*
CEMENT	517-560 LBS.
FLY ASH/SLAG	PROHIBITED
COARSE AGGREGATE	12 CU FT +/- .50
FINE AGGREGATE	7 CU FT +/- (ADJUST AS NECESSARY)
TUF-STRAND FIBER	3 LBS/ CU YD
WATER CONTENT	250 – 300 LBS.
AIR CONTENT (ENTRAPPED AIR ONLY)	3.0% (MAX.) AT INTERIOR SLABS
AIR CONTENT	4% - 6% AT EXTERIOR SLABS
MID-RANGE WATER REDUCER (TYPE A/F)	3OZ.-10OZ./100WT +/-
W/CM	0.53 (MAX.)
INITIAL SLUMP (WATER)	3"
FINAL SLUMP	5.5" (MAX.)
SHRINKAGE	< 0.04% @ 28 DAYS

CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 0.05% CHLORIDE IONS ARE NOT PERMITTED. FLYASH, SLAG, AND BOTTOM ASH ARE NOT PERMITTED.

INTERIOR CURING
MOISTURE RETAINING COVER: ALL INTERIOR CONCRETE SLABS SHALL BE PROTECTED FROM PREMATURE DRYING FOR A MINIMUM OF FIVE DAYS, AS REQUIRED IN ACI 301, USING MOISTURE-RETAINING COVER. FLOOD THE INTERIOR SLAB WITH SUFFICIENT WATER TO COVER THE SLAB. COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER, PLACED IN WIDEST PRACTICAL WIDTH WITH SIDES AND ENDS LAPPED AT LEAST 3" AND SEALED BY WATERPROOF TAPE OR ADHESIVE. IMMEDIATELY REPAIR ANY HOLES OR TEARS DURING CURING PERIOD USING COVER MATERIAL AND WATERPROOF TAPE. REMOVE ANY AIR BUBBLES IN BETWEEN THE COVER AND THE INTERIOR SLAB. AFTER THE MINIMUM FIVE DAY CURING PERIOD, REMOVE MOISTURE-RETAINING COVER AND IMMEDIATELY SCRUB THE ENTIRE AREA WITH AUTO-SCRUBBER AND INTERIOR CONCRETE FLOOR CLEANER. AFTER INTERIOR CONCRETE SLAB IS THOROUGHLY CLEANED OF ALL SALTS, LAITANCE, DIRT AND DEBRIS, ALLOW DRYING FOR AT LEAST SIX (6) HOURS.

EXTERIOR CURING AND SEALING
ASTM C1315, TYPE I, CLASS B, (700G/L): LIQUID TYPE MEMBRANE-FORMING CURING COMPOUND, CLEAR STYRENE ACRYLATE TYPE, COMPLYING WITH ASTM C1315, TYPE I, CLASS B, 25% SOLIDS CONTENT MINIMUM. MOISTURE LOSS SHALL BE NOT MORE THAN 0.30 KG/M2 WHEN APPLIED AT 300 SQ. FT./GAL. MANUFACTURER'S CERTIFICATION IS REQUIRED. ACCEPTABLE PRODUCTS: "SUPER REZ SEAL" BY EUCLID CHEMICAL OR "KURE N SEAL 30" BY BASF.

PLACE FLOOR SLAB ON A WELL COMPACTED BASE. THE SUBGRADE SHALL BE GRANULAR, NON-EXPANSIVE SOIL (THAT IS, WITHOUT CLAY), WHICH HAS BEEN COMPACTED TO AT LEAST 95% AND VERIFIED BY ON-SITE TESTING.

CONCRETE STRENGTH SHALL BE 4000 PSI AT 28 DAYS. USE A WATER REDUCING ADMIXTURE TO REDUCE WATER, INCREASE WORKABILITY AND DECREASE SHRINKAGE CRACKS.

PROVIDE ISOLATION JOINTS IN SLABS AS FOLLOWS:

1. BETWEEN SLABS ON GRADE AND FOUNDATION WALLS,
2. BETWEEN SLABS AND INSERTS SUCH AS PIPES,
3. AT JUNCTION OF GARAGE SLAB AND DRIVEWAY,
4. AROUND STEEL COLUMNS AT SPREAD FOOTINGS,

THE CONTROL JOINT SPACING SHALL BE APPROXIMATELY 12' FOR A 4" THICK SLAB. PLACE CONTROL JOINTS TO AVOID REENTRANT CORNERS. MAKE SAWCUTS TO FORM WEAKEN PLANE CONTROL JOINTS AS SOON AS POSSIBLE.

LIGHTLY DAMPEN THE SUBGRADE BEFORE PLACING CONCRETE TO PREVENT THE SUBGRADE FROM ABSORBING WATER FROM CONCRETE MIX. APPLY WATER AT NEARLY THE SAME RATE IT SOAKS INTO THE SUBGRADE SURFACE.

SEE ARCHITECTURAL FOR SLAB FINISHING REQUIREMENTS.

DURING HOT WEATHER, USE A FOG SPRAY TO KEEP THE SURFACE DAMP BEFORE CURING.

START CURING AS SOON AS THE FINISHERS ARE DONE.

REINFORCING STEEL

ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315.

REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. CLEAR CONCRETE COVER OVER BARS SHALL BE 3" FOR FOOTINGS.

PROVIDE CORNER BARS AT ALL FOOTING STEPS AND CORNERS. BARS SHALL BE A MINIMUM OF 2'-6" LONG AND SHALL HAVE THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.

LAP ALL SPLICES AS SPECIFICALLY CALLED FOR, BUT AT LEAST 36 BAR DIAMETERS IN CONCRETE, UNLESS NOTED OTHERWISE.

PROVIDE DOWELS IN WALL FOOTINGS EQUIVALENT IN SIZE AND NUMBER TO VERTICAL STEEL EXTENDING 16 BAR DIAMETERS INTO FOOTING AND 36 BAR DIAMETERS INTO WALL, UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL

INTERIOR STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PAINT. EXTERIOR STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED OR EPOXY PAINTED. STEEL BELOW GRADE SHALL BE BOTH GALVANIZED AND EPOXY PAINTED.

THE STEEL USED SHALL HAVE THE FOLLOWING MINIMUM YIELD STRESS:

WIDE FLANGE SHAPES	50 KSI
STRUCTURAL TUBE COLUMNS	46 KSI
MISCELLANEOUS SHAPES	36 KSI

USE 3/4" DIAMETER A-325 BOLTS FOR ALL STEEL TO STEEL CONNECTIONS U.N.O. USE 3/4" DIAMETER A-307 BOLTS FOR ALL ANCHOR BOLTS U.N.O. USE E-70 ELECTRODES FOR ALL SHOP AND FIELD WELDING.

WOOD FRAMING

EXTERIOR WALLS STUDS, FLOOR JOISTS AND ROOF JOISTS SHALL BE #2 GRADE S-P-F UNLESS NOTED OTHERWISE ON THE DRAWINGS.

NONBEARING INTERIOR STUDS MAY BE UTILITY GRADE LUMBER.

SUBFLOOR SHALL BE 3/4" T&G PLYWOOD WITH A 48/24 APA RATING. USE SOUTHERN PINE, CDX OR STRUCTURAL EQUIVALENT.

HEADERS OVER OPENINGS IN LOAD BEARING WALLS SHALL BE AS SHOWN AT THE "HEADER SCHEDULE" DETAIL.

USE LVL FOR ALL FLITCH BEAMS AND A36 STEEL FOR FLITCH PLATE. ATTACH THE MEMBERS TOGETHER WITH 5/8" DIAMETER BOLTS @ 16" O.C. STAGGERED, AND DOUBLE BOLTS AT BOTH ENDS. PROVIDE CONTINUOUS LATERAL SUPPORT FOR TOP OF BEAM. DO NOT SPLICE LVL BEAMS BETWEEN SUPPORT POINTS.

LVL BEAMS AND HEADERS THAT ARE DOUBLED SHALL BE NAILED TOGETHER WITH 2 ROWS OF 16d NAILS @ 12" O.C. STAGGERED. PROVIDE CONTINUOUS LATERAL SUPPORT FOR TOP OF HEADER. STRENGTH OF LVL BEAMS AND HEADERS SHALL BE EQUAL TO THAT PROVIDED BY TRUS JOIST: Fv = 285 PSI, Fb = 2600 PSI, E = 1900 KSI.

BUILT-UP STUD COLUMNS SHALL BE SECURELY NAILED TOGETHER TO ACT AS A COMPOSITE MEMBER. USE (2) 12d NAILS FOR EACH STUD AT 9" O.C. WITH NAILS INSTALLED ON ALTERNATE SIDES OF COLUMN.

THE HEIGHT OF STUD BEARING WALLS IS LIMITED TO 10' BETWEEN LATERAL BRACING UNLESS NOTED OTHERWISE BY STRUCTURAL ENGINEER. CONTACT STRUCTURAL ENGINEER FOR STUD HEIGHTS GREATER THAN 10'-0". STUDS SHALL NOT BE SPLICED AT TALL WALLS, EXCEPT AT POINTS OF LATERAL SUPPORT.

ANY WOOD EXPOSED TO THE ELEMENTS, OR IN CONTACT WITH MASONRY, SHALL BE PRESERVATIVE TREATED TO THE RETENTIONS SHOWN IN THE BUILDING CODE.

OUTDOOR DECKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPENDIX M OF THE BUILDING CODE.

LIGHT GAGE SIMPSON CONNECTIONS

SOME PRESERVATIVE TREATED WOOD HAS A CORROSIVE EFFECT ON LIGHT GAGE CONNECTIONS. USE TYPE 304 OR 316 STAINLESS STEEL UNLESS GALVANIZED CONNECTORS ARE SPECIFICALLY RECOMMENDED BY THE TREATED WOOD SUPPLIER.

STRUCTURAL REQUIREMENTS IN 115 MPH WIND ZONE

FOUNDATIONS IN THE 115 MPH WIND ZONE SHALL BE AT LEAST 10" DEEP X 24" WIDE, REINFORCED WITH (3) #4'S LOCATED 3" ABOVE THE BOTTOM OF FOOTING. THE REBARS SHALL BE CONTINUOUS WITH 18" MINIMUM LAPS AT SPLICES AND CORNERS.

PRESERVATIVE TREATED WOOD SILLS ON CONTINUOUS FOUNDATION WALLS SHALL BE ANCHORED WITH 1/2" BOLTS WITH 2 X 2 X 1/8 WASHERS SPACED NOT MORE THAN 4'-0" APART AND WHICH ARE EMBEDDED AT LEAST 8" IN CONCRETE OR 16" IN MASONRY UNITS. INSTALL TWO ANCHOR BOLTS WITHIN 6" OF THE CORNERS OF THE BUILDING, AT EACH DOOR AND WINDOW JAMB AND WITHIN 12" OF EACH END AT SILL SPLICES.

INSTALL THREE STUDS (MIN) AT EVERY CORNER OF AN EXTERIOR WALL.

ALL EXTERIOR WALLS SHALL BE FULLY SHEATHED WITH 7/16" STRUCTURAL SHEATHING TO PROVIDE LATERAL STRENGTH FOR WIND LOADS AND TO PROVIDE A CONTINUOUS TIE FROM ROOF DOWN TO THE FOUNDATION WALL. SHEATHING SHALL BE ATTACHED TO THE STUDS WITH 8d NAILS AT 4" O.C. ALONG THE PANEL EDGES AND 12" O.C. AT INTERMEDIATE LOCATIONS. BLOCK BETWEEN STUDS AT PLYWOOD JOINTS.

EACH ROOF JOIST SHALL BE ATTACHED TO THE EXTERIOR WALL WITH A SIMPSON HURRICANE TIE.

WALL BRACING HAS BEEN DESIGNED TO COMPLY WITH SECTION R301.1, SO IT MEETS THE REQUIREMENTS OF R602.10.

SIMPSON HANGER SCHEDULE

SIZE	HANGER	ALLOW. LOAD
2 X 8	LUS26, LUC26Z	710#
(2) 2 X 8	HU26-2, HUC26-2	1190#
(3) 2 X 8	HU26-3, HUC28-2	1190#
2 X 10	LUS210, LUC210Z	1150#
(2) 2 X 10	HU210-2, HUC210-2	2085#
(3) 2 X 10	HU210-3, HUC210-3	2085#
2 X 12	LUS210, LUC210Z	1150#
(2) 2 X 12	HU212-2, HUC212-2	2385#
(3) 2 X 12	HU212-3, HUC212-3	2385#
3 1/2 X 9 1/4 (9 1/2) LVL OR PSL	HGUS410, HUCQ410-SDS	9100#, 4500#
5 1/4 X 9 1/4 (9 1/2) LVL OR PSL	HGUS5.5/10, HUCQ610-SDS	5635#, 4680#
3 1/2 X 11 1/4 (11 7/8) LVL OR PSL	HGUS412, HUCQ412-SDS	9400#, 5045#
5 1/4 X 11 1/4 LVL OR PSL	HGUS5.5/12, HUCQ612-SDS	9400#, 5185#
3 1/2 X 14 LVL OR PSL	HGUS414, HUCQ414-SDS	9695#, 5045#
5 1/4 X 14 LVL OR PSL	HGUS5.5/14, HUCQ614-SDS	9695#, 5185#
3 1/2 X 16 LVL OR PSL	HGUS414, HUCQ414-SDS	9695#, 5045#
5 1/4 X 16 LVL OR PSL	HGUS5.5/14, HUCQ614-SDS	9695#, 5185#

NOTES

1. LOAD VALUES SHOWN IN THE TABLE ABOVE DO NOT INCLUDE THE LOAD DURATION FACTOR. DO NOT USE CONCEALED HANGERS EXCEPT WHERE SPECIFICALLY CALLED OUT ON DRAWINGS.

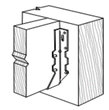
2. USE HANGER PER SCHEDULE ABOVE UNLESS SPECIFIED DIFFERENTLY ON FRAMNG PLAN. ALL FLUSH WOOD/WOOD CONNECTIONS SHALL BE MADE WITH HANGERS. OTHER HANGERS MAY BE SUBSTITUTED FOR THOSE SHOWN IF DESIGN VALUES ARE EQUAL TO OR GREATER THAN THOSE IN THE TABLE.

3. INSTALL HANGERS PER MANUFACTURER'S SPECIFICATIONS.

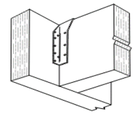
4. USE STAINLESS STEEL HANGERS IF EXPOSED TO THE ELEMENTS OR IN CONTACT WITH TREATED WOOD. (GALVANIZED HANGERS MAY BE USED IN LIEU OF STAINLESS STEEL IF SPECIFICALLY RECOMMENDED BY SIMPSON AND THE TREATING COMPANY.)

5. FACE (OR TOP) MOUNTED HANGERS FOR WOOD TRUSSES AND I-JOISTS SHALL BE DESIGNED AND FURNISHED BY THE SUPPLIERS.

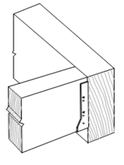
6. AT SPECIAL CONDITIONS - SKEWED, PITCHED, ETC. - CONTRACTOR SHALL SELECT HANGER WITH AN ALLOWABLE LOAD GREATER THAN REACTION SHOWN IN SCHEDULE FOR FACE MOUNTED (NOT CONCEALED) HANGER.



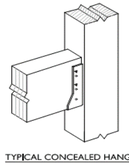
TYPICAL FACE MOUNTED HANGER



TYPICAL UPSIDE DOWN HANGER



TYPICAL CONCEALED HANGER



TYPICAL CONCEALED HANGER TO POST

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 7929 02/21/24 CHARLES A. LYSAGHT

L&A FIRM # C-0621

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

LYSAGHT & ASSOCIATES, P.A.
120 St Mary's Street
Raleigh, NC 27605
919.833.1545
lysaghtassociates.com
Structural Engineers

Consultants

CD

01/12/2024
CAL
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

S1.0 GENERAL STRUCTUAL NOTES

FOUNDATION PLAN LEGEND

exterior slab on grade

interior slab on grade

foundation wall

CONCRETE FOUNDATION WALL NOTES

1 USE CLASS "A" SOIL FOR BACKFILL BEHIND WALL TO MINIMIZE LATERAL PRESSURE. CLASS "A" IS CLEAN SAND OR GRAVEL, FREE OF FINES THAT MIGHT OBSTRUCT FREE DRAINAGE. BACKFILL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.

2 STRUCTURAL DATA: f'c = 3,000 PSI FOR FOOTINGS, f'c = 4,000 PSI FOR WALLS, GRADE 60 REBARS, 2,000 PSF ALLOWABLE SOIL BEARING PRESSURE, 40 PCF EQUIVALENT FLUID PRESSURE AT FOUNDATION WALLS.

3 NEW FOUNDATION WALLS ARE 8" THICK. REINFORCE WITH #4 VERTICALS AT 18" O.C. AND #4 HORIZONTALS AT 18" O.C. REBARS ARE LOCATED AT MID-DEPTH OF WALL.

4 PROVIDE WEAKENED PLANE CONTRACTION JOINTS AT INTERVALS OF ABOUT 25 FEET AND KEYED EXPANSION JOINTS AT EVERY FOURTH CONTRACTION JOINT. CUT ALTERNATE LONGITUDINAL BARS EXACTLY OPPOSITE WEAKENED PLANE JOINTS.

5 REFER TO ARCHITECTURAL PLANS AND/OR SPECIFICATIONS FOR WATER- PROOFING REQUIREMENTS AND DRAINAGE REQUIREMENTS.

6 THE MAXIMUM SIZE AGGREGATE FOR WALLS IS 3/4".

7 IF THE VERTICAL BARS ARE SPLICED, USE 36 BAR DIAMETERS

FLOOR FRAMING NOTES

1 REFER TO ARCHITECTURAL PLANS FOR ALL DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.

2 SUBFLOOR SHALL BE 3/4" T&G PLYWOOD WITH A 40/24 APA RATING. USE SOUTHERN PINE, CDX OR STRUCTURAL EQUIVALENT.

3 COORDINATE OPENINGS IN THE FLOOR FRAMING WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS. OPENINGS LARGER THAN 6" BUT LESS THAN 14" SHALL BE FRAMED ON ALL SIDES WITH 2 X 4 HEADERS. CONTACT STRUCTURAL ENGINEER FOR OPENINGS GREATER THAN 14" WIDE.

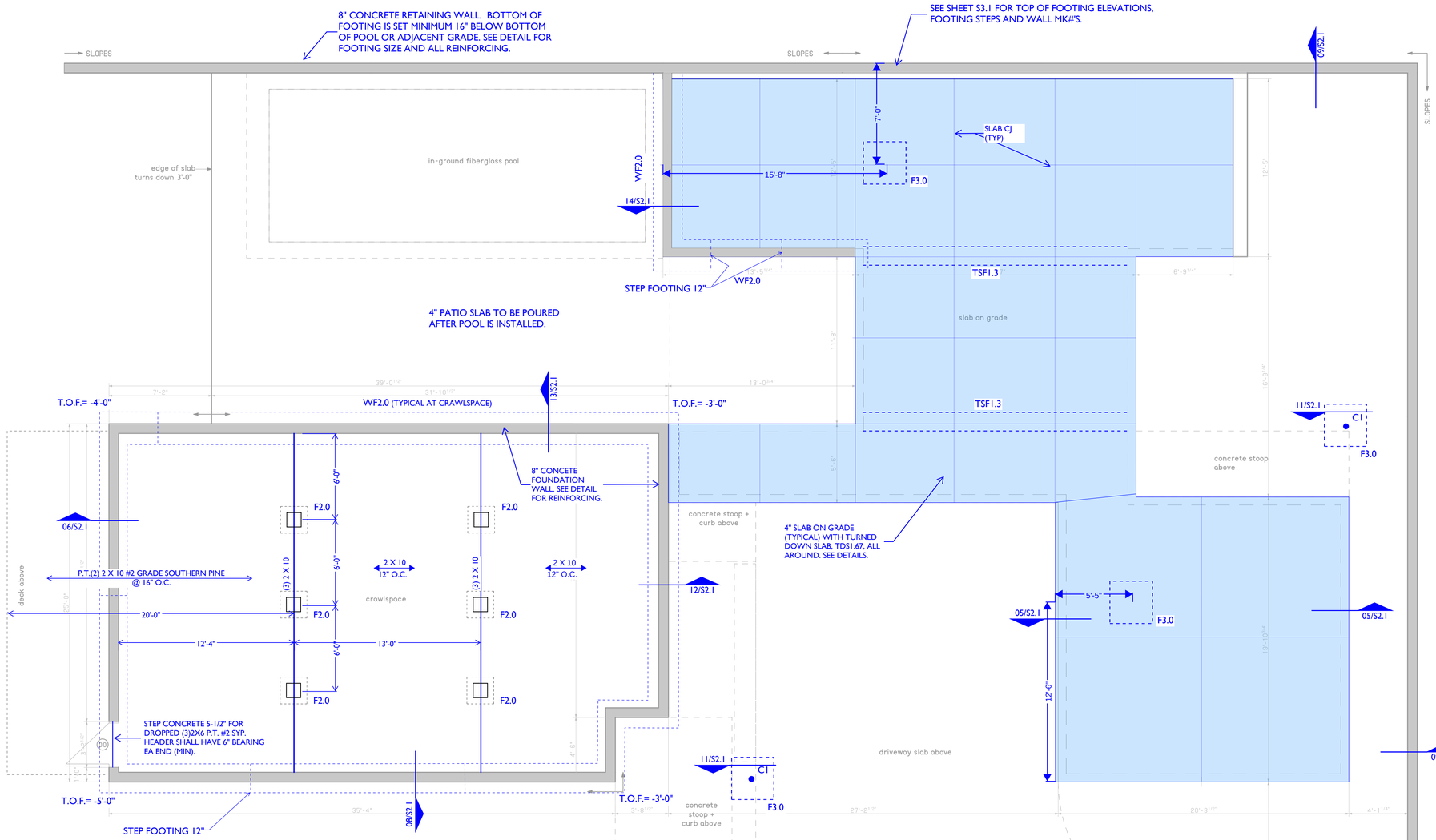
4 WOOD SILLS SHALL BE ATTACHED TO CONTINUOUS FOUNDATION WALLS AS SPECIFIED IN THE GENERAL STRUCTURAL NOTES.

5 ALL EXTERIOR WALLS ARE LOAD BEARING. INTERIOR LOAD BEARING WALLS ARE SHADED. JOISTS MAY BE SPLICED OVER LOAD BEARING WALLS, BUT SHALL NOT BE SPLICED OVER NON-LOAD BEARING WALLS.

6 FLUSH HEADER TO HEADER CONNECTIONS SHALL BE WITH STEEL HANGERS. SEE DETAILS.

7 USE A DOUBLE JOIST UNDER ALL NON-LOAD BEARING WALLS THAT RUN PARALLEL TO THE JOISTS. USE (2) SETS OF DOUBLE JOISTS UNDER BATHTUBS TO CARRY THE EXTRA WEIGHT OF THE TUB.

8 SEE HEADER SCHEDULE FOR SIZES OF MEMBERS DENOTED ON FRAMING PLAN AS H1, H2, H3, ETC.



FOOTING SCHEDULE			
MK#	SIZE	REINFORCING	NOTES
TDS1.67	1'-6" WIDE X 16" DEEP	(2) #4 CONTINUOUS	AT TURNDED DOWN SLAB
WF2.0	2'-0" WIDE X 10" THICK	(3) #4 CONTINUOUS	AT 8" FOUNDATION WALL
F2.0	2'-0" X 2'-0" X 10"	UNREINFORCED	PIER FOOTING
F3.0	3'-0" X 3'-0" X 10"	(4) #4 EACH WAY	COLUMN FOOTING

FOOTING NOTES

1. REINFORCING TO BE LOCATED 3" CLEAR FROM BOTTOM OF FOOTING.

COLUMN SCHEDULE						
MK#	COLUMN SIZE	BASE PLATE			A.B.'S	A. B. PATTERN
		WIDTH	LENGTH	THICK.		
C1	4" DIA. STD. STL. PIPE	10	10	0.5	(4) 5/8"	7" X 7"

NOTES

1. PIPE COLUMNS ARE ASTM A53 GRADE B (Fy = 35 KSI)
2. USE F1554 (GRADE 36) A.B.'S WITH WASHERS AND HEAVY HEX NUTS BOTH ENDS.
3. A.B.'S SHALL HAVE 8" MIN. PROJECTION IN CONCRETE, 15" IN CMU.

FOUNDATION NOTES

1 CONCRETE FOOTINGS SHALL BE ON FIRM UNDISTURBED EARTH (OR ENGINEERED FILL) AND SHALL BE PLACED BELOW THE FROST LINE.

2 TYPICAL TOP OF FOOTING SHALL BE SET AT 16" BELOW FINISH FLOOR OR FINISH GRADE, WHICHEVER IS GREATER.

3 THE PIERS ARE 16" X 16". FILL ALL PIERS SOLID WITH GROUT.

4 SEE DETAIL FOR TYPICAL STEPPED FOOTING DETAIL.

5 DO NOT BACKFILL THE FOUNDATION WALLS BEFORE THE FIRST FLOOR IS IN PLACE. SLOPE FINISHED GRADE AWAY FROM FOUNDATION WALLS FOR GOOD SURFACE DRAINAGE. DO NOT OPERATE HEAVY EQUIPMENT ANY CLOSER TO A WALL THAN THE DISTANCE EQUAL TO THE HEIGHT OF THE FILL.

6 SEE PLUMBING DRAWINGS FOR FLOOR DRAIN AND PIPING PENETRATIONS THROUGH THE FLOOR SLAB AND FOR PIPES ENTERING THE BUILDING. STEP FOOTINGS AS REQUIRED SO THAT PIPES CAN GO UNDER OR OVER FOOTINGS. COMPACT SOIL AROUND PIPES.

7 SEE ARCHITECTURAL PLANS FOR DEPRESSED AND/OR SLOPED SLAB AREAS.

FOUNDATION AND FIRST FLOOR FRAMING PLAN

1/4" = 1'-0"

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 7929 02/21/24 CHARLES A. LYSIGHT

L&A FIRM # C-0621

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

LYSIGHT & ASSOCIATES
120 St Mary's Street
Raleigh, NC 27605
(919) 833-1845
lysightassociates.com

Consultants

CD

01/12/2024
CAL
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

S1.1

FOUNDATION AND FIRST FLOOR FRAMING PLAN

STUD WALL FRAMING NOTES

1 EXTERIOR WALLS SHALL BE CONSTRUCTED AS LOAD BEARING. INTERIOR LOAD BEARING STUD WALLS ARE SHOWN ON THE DRAWINGS. STUDS SHALL BE 2 X 4'S OR 2 X 6'S AT 16" O.C. USE #2 S-P-F FOR EXTERIOR WALLS AND INTERIOR LOAD BEARING WALLS. USE UTILITY GRADE S-P-F FOR INTERIOR NON-LOAD BEARING WALLS.

2 PRESERVATIVE TREATED WOOD SILLS SHALL BE ATTACHED TO FOUNDATION WALLS AS SPECIFIED IN THE GENERAL STRUCTURAL NOTES. ADD SIMPSON HOLD DOWN ANCHORS AT LOCATIONS SHOWN ON THE BUILDING ELEVATIONS.

3 BUILT-UP STUD COLUMNS MUST BE SECURELY NAILED TOGETHER TO ACT AS A COMPOSITE MEMBER. USE (2) 12d NAILS FOR EACH STUD AT 12" O.C.

4 THE MAXIMUM SIZE HOLE THAT MAY BE DRILLED INTO A STUD IS 1 3/16" DIAMETER LOCATED AT LEAST 5/8" FROM THE EDGE OF THE STUD. THIS SIZE HOLE MAY BE CUT ANYWHERE ALONG THE LENGTH OF THE STUD.

5 THE MAXIMUM SIZE NOTCH THAT MAY BE CUT INTO A STUD IS 7/8" X 3 1/2". THE NOTCH CAN BE CUT ANYWHERE EXCEPT THE MIDDLE 1/3 OF THE LENGTH OF THE STUD. STUDS MUST BE DOUBLED WHEN NOTCHED IN MIDDLE 1/3 OF LENGTH.

6 NOTCHES AND HOLES SHALL NOT OCCUR IN THE SAME CROSS SECTION.

7 SEE STUD WALL COLUMN SCHEDULE FOR BUILT-UP COLUMN SIZES. REFER TO FRAMING PLAN FOR STUD COLUMN MK#'S. IF MK# IS NOT SHOWN ON FRAMING PLAN, USE DOUBLE STUDS UNDER DOUBLE JOISTS AND 3 1/2" WIDE LVL'S, AND USE TRIPLE STUD COLUMNS UNDER TRIPLE JOITS AND 5 1/4" WIDE LVL'S. SEE WOOD HEADER SCHEDULE FOR JACK AND KING STUD REQUIREMENTS ON EACH SIDE OF OPENINGS.

ROOF FRAMING NOTES

1 SEE ARCHITECTURAL PLANS FOR ROOF PITCH. REFER TO THE ARCHITECTURAL PLANS FOR ALL DIMENSIONS.

2 USE APA RATED SHEATHING: 40/20, 5/8" MINIMUM THICKNESS. USE 8d NAILS AT 6" OC ALONG THE PANEL EDGES AND 12" OC ALONG INTERMEDIATE SUPPORTS. PANELS SHALL BE CONTINUOUS OVER TWO OR MORE TRUSSES WITH THE LONG DIMENSION (STRENGTH AXIS) ACROSS THE TRUSSES.

3 BUY FULL LENGTH RAFTERS; DO NOT SPLICE.

4 COORDINATE OPENINGS IN THE ROOF FRAMING WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS. OPENINGS LARGER THAN 6" BUT LESS THAN 14" SHALL BE FRAMED ON ALL SIDES WITH 2 X 4 HEADERS. CONTACT STRUCTURAL ENGINEER FOR OPENINGS GREATER THAN 14" WIDE.

5 FLUSH HEADER TO HEADER CONNECTIONS SHALL BE WITH STEEL HANGERS. SEE DETAILS.

STUD COLUMN SCHEDULE						
2 X 4 STUD WALLS				2 X 6 STUD WALLS		
MK#	SIZE	NOTES		MK#	SIZE	NOTES
4SC2	(2) 2 X 4	1		6SC2	(2) 2 X 6	1, 2
4SC3	(3) 2 X 4	1		6SC3	(3) 2 X 6	1, 2
4SC4	(4) 2 X 4	1		6SC4	(4) 2 X 6	1, 2

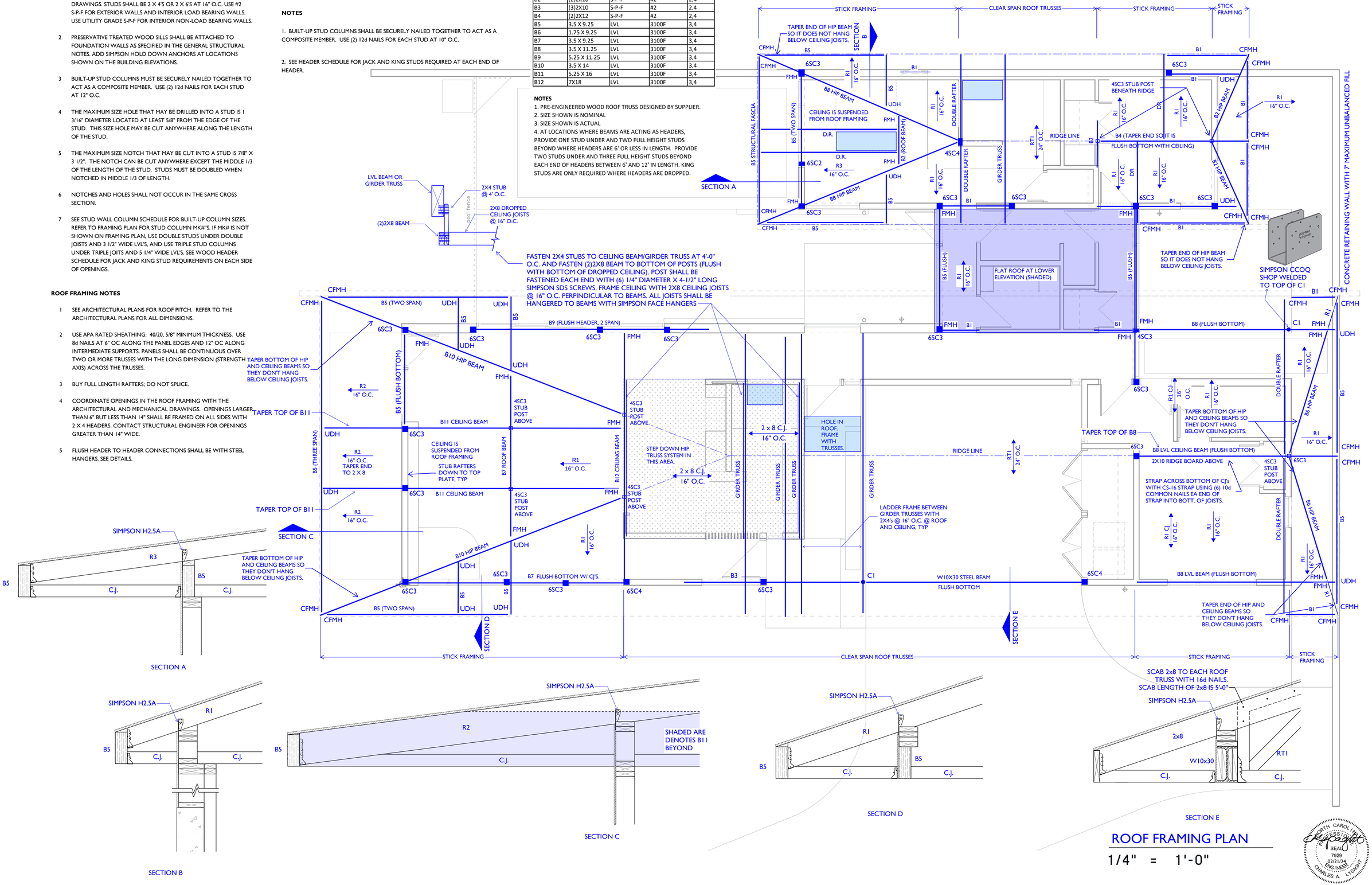
NOTES

1. BUILT-UP STUD COLUMNS SHALL BE SECURELY NAILED TOGETHER TO ACT AS A COMPOSITE MEMBER. USE (2) 12d NAILS FOR EACH STUD AT 10" O.C.

2. SEE HEADER SCHEDULE FOR JACK AND KING STUDS REQUIRED AT EACH END OF HEADER.

ROOF AND CEILING FRAMING SCHEDULE				
MK#	SIZE	MATERIAL	GRADE	NOTE
RT1	ROOF TRUSS	BY SUPPLIER	N/A	1
R1	2X8	S-P-F	#2	2
R2	2X10	S-P-F	#2	2
R3	2X6	S-P-F	#2	2
B1	(2)2X10	S-P-F	#2	2,4
B2	(2)2X10	S-P-F	#2	2,4
B3	(3)2X10	S-P-F	#2	2,4
B4	(2)2X12	S-P-F	#2	2,4
B5	3.5 X 9.25	LVL	3100F	3,4
B6	1.75 X 9.25	LVL	3100F	3,4
B7	3.5 X 9.25	LVL	3100F	3,4
B8	3.5 X 11.25	LVL	3100F	3,4
B9	5.25 X 11.25	LVL	3100F	3,4
B10	3.5 X 14	LVL	3100F	3,4
B11	5.25 X 16	LVL	3100F	3,4
B12	7X18	LVL	3100F	3,4

NOTES
1. PRE-ENGINEERED WOOD ROOF TRUSS DESIGNED BY SUPPLIER.
2. SIZE SHOWN IS NOMINAL
3. SIZE SHOWN IS ACTUAL
4. AT LOCATIONS WHERE BEAMS ARE ACTING AS HEADERS, PROVIDE ONE STUD UNDER AND TWO FULL HEIGHT STUDS BEYOND WHERE HEADERS ARE 6' OR LESS IN LENGTH. PROVIDE TWO STUDS UNDER AND THREE FULL HEIGHT STUDS BEYOND EACH END OF HEADERS BETWEEN 6' AND 12' IN LENGTH. KING STUDS ARE ONLY REQUIRED WHERE HEADERS ARE DROPPED.



ROOF FRAMING PLAN

1/4" = 1'-0"

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

LYSAGHT & ASSOCIATES
120 St Mary's Street
Raleigh, NC 27605
919.833.3005
lysaghtassociates.com

Consultants

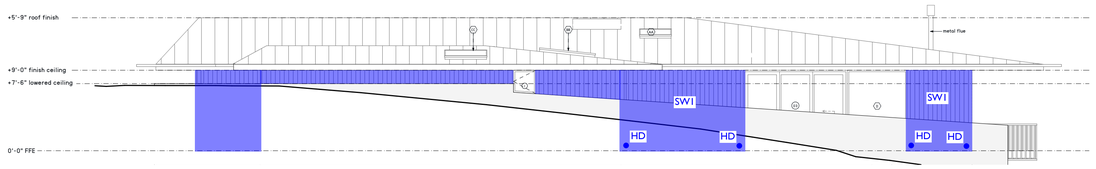
CD

01/12/2024
CAL
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

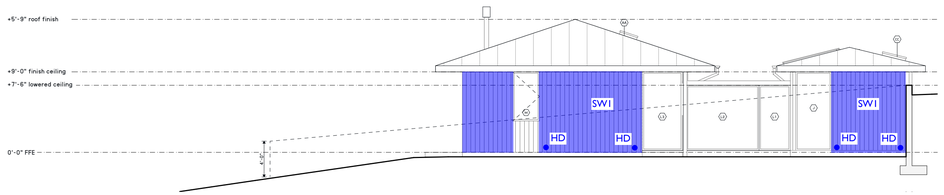
S1.2
ROOF FRAMING PLAN

NORTH CAROLINA PROFESSIONAL SEAL 7929 02/21/24 ENGINEER CHARLES A. LYSAGHT
L&A FIRM # C-0621



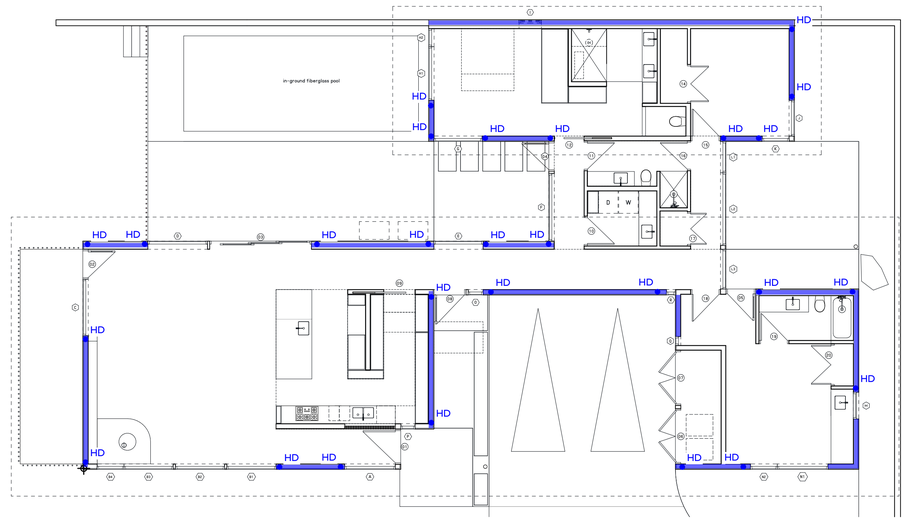
01 NORTH ELEVATION SHEAR WALL LAYOUT

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



02 EAST ELEVATION SHEAR WALL LAYOUT

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

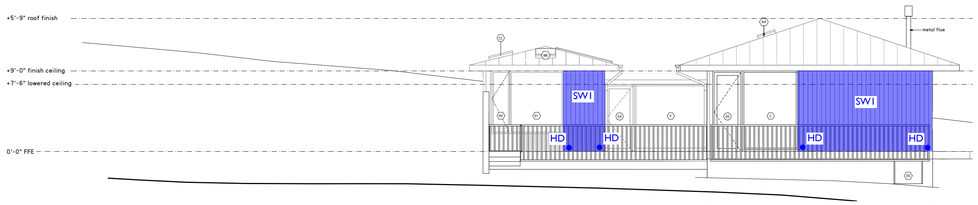


05 PLAN VIEW SHEAR WALL LAYOUT

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

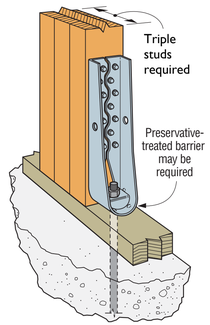
03 SOUTH ELEVATION SHEAR WALL LAYOUT

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



04 WEST ELEVATION SHEAR WALL LAYOUT

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



Vertical HDU Installation

TYPICAL HOLD DOWN DETAIL

SIMPSON HOLD DOWN

Model No.	Ga.	Dimensions (in.)					Fasteners (in.)		Minimum Wood Member Size (in.)	Allowable Tension Loads (160)		
		W	H	B	CL	SO	Anchor Bolt Dia. (in.)	Wood Fasteners		DF/SP	SPF/HF	Deflection at Allowable Load (in.)
HDU8-SDS2.5	10	3	16⅛	3½	1⅛	1½	⅞	(20) ¼ x 2½ SDS	3½ x 3½	6,765	5,820	0.11
									3½ x 3½	6,970	5,995	0.116
									3½ x 4½	7,870	6,580	0.113

HD INDICATES SIMPSON "HDU8-SDS2.5" HOLD DOWN ANCHOR TO BE INSTALLED W/ 7/8" ANCHOR BOLT. ANCHOR TO BE FASTENED TO (3)2X4 STUD COLUMN WITH (20) 1/4" X 2.5" SDS WOOD SCREWS.

SHEAR WALL FRAMING NOTES

1. 7/16" PLYWOOD, OSB OR STRUCTURALLY EQUIVALENT ZIP SHEATHING ARE SHADED BLUE AND PROVIDE OVERALL STABILITY TO THE BUILDING.

2. ATTACH SHEATHING TO STUDS WITH 10d NAILS AT 4" O.C. AROUND PERIMETER OF SHEET AND 12" O.C. AT INTERMEDIATE STUDS. BLOCK ALL HORIZONTAL JOINTS IN SHEATHING.

3. EXTEND SHEATHING UP TO UNDERSIDE OF PLYWOOD ROOF SHEATHING. NAIL ROOF SHEATHING TO TOP OF STUD WALL WITH 10d NAILS AT 4" O.C.

4. SEE LOCATIONS ON ELEVATIONS AND PLANS FOR HOLD DOWNS (HD) AND TYPICAL HOLD DOWN DETAIL THIS SHEET.

NORTH CAROLINA PROFESSIONAL SEAL 7929 ENGINEER CHARLES A. LYSIGHT
02/21/24
L&A FIRM # C-0621

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

LYSIGHT & ASSOCIATES
120 St Mary's Street
Raleigh, NC 27605
919.833.1813
lysightassociates.com

Consultants

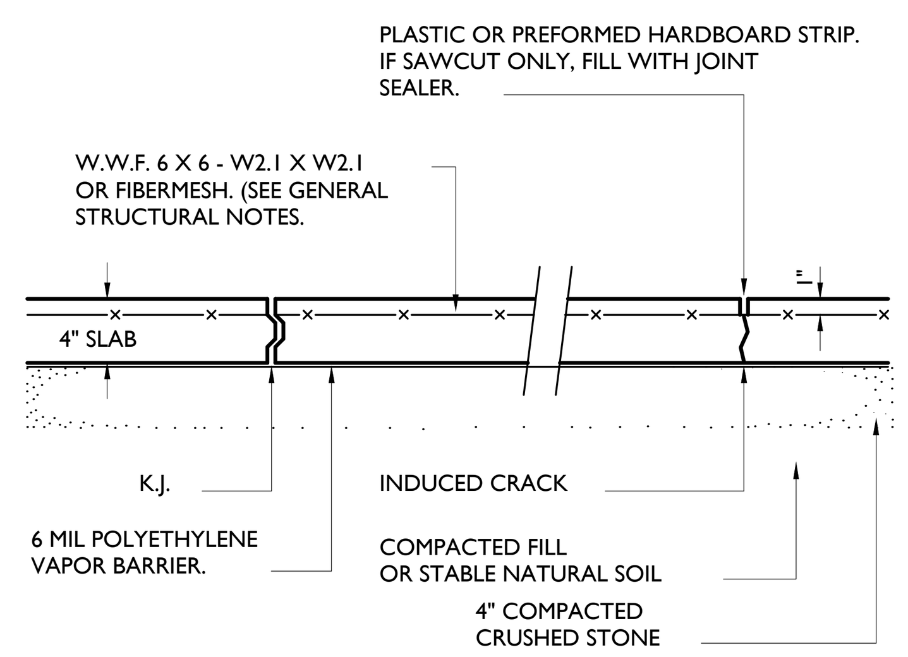
CD

01/12/2024
CAL
scale as noted

Abbosi House
6845 West Lake Anne Drive
Raleigh, NC 27612

SHEAR WALL SECTIONS

S1.3

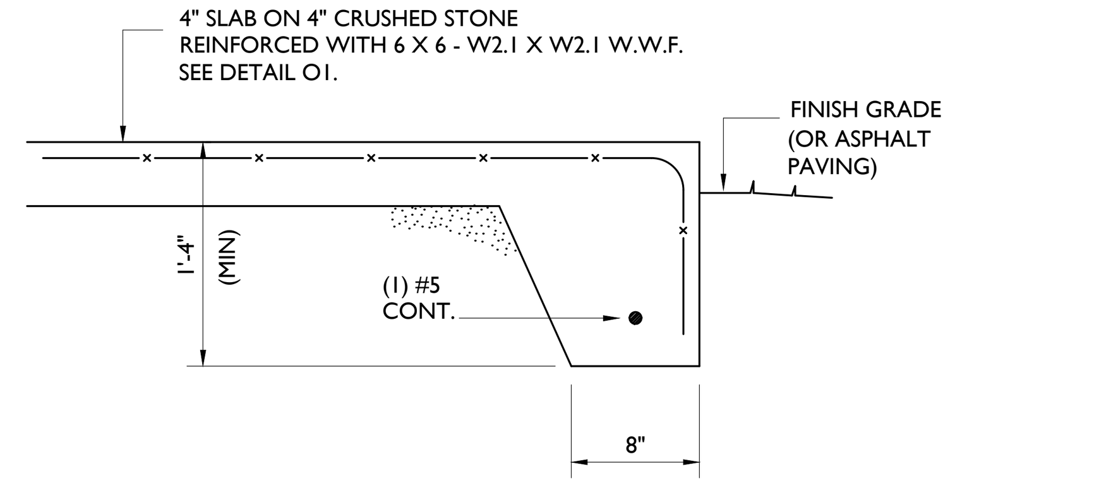


NOTES:

USE A KEYED CONSTRUCTION JOINT (K.J.) BETWEEN POURS.

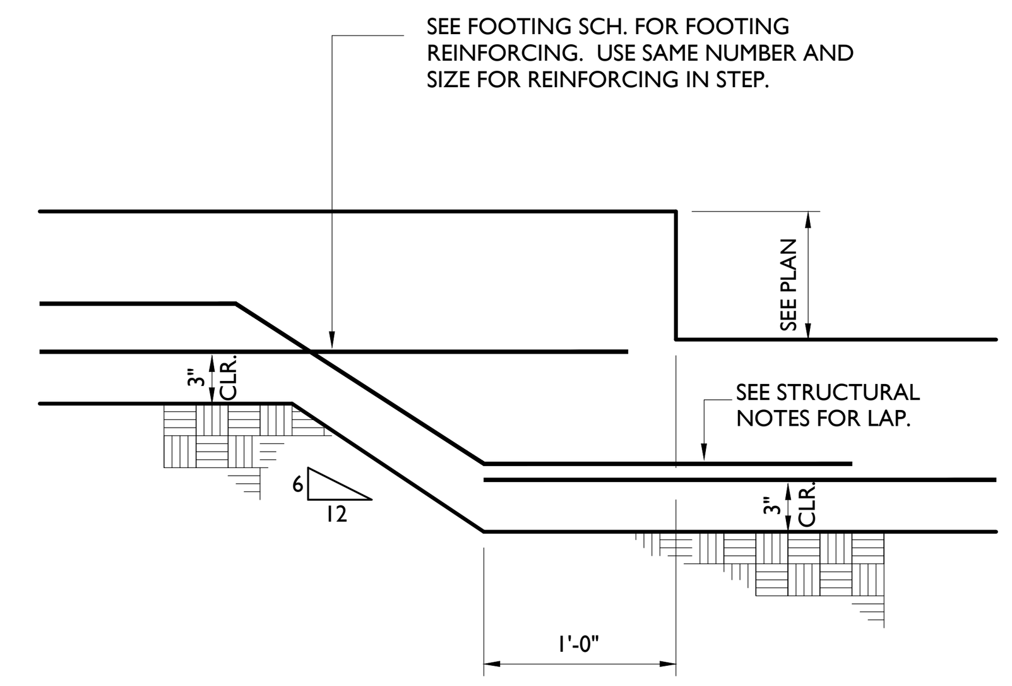
SLAB IS DESIGNED FOR COMMERCIAL OCCUPANCY WITH A MAXIMUM LIVE LOAD OF 200 PSF AND NO LARGE CONCENTRATED LOADS.

01 TYPICAL SLAB ON GRADE

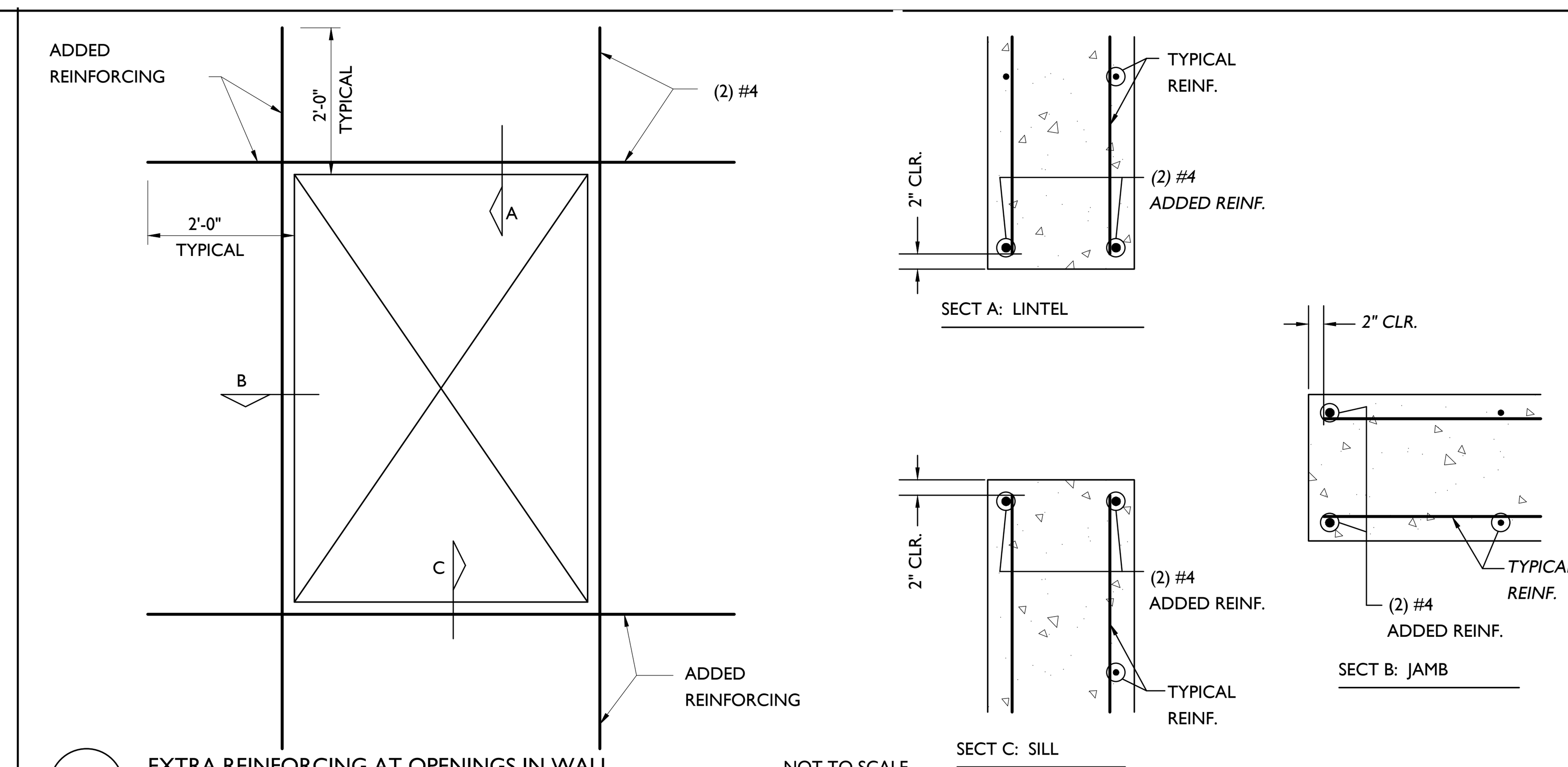


BOTTOM OF FOOTING MUST BE A MINIMUM OF 1'-0" BELOW FINISH GRADE. USE DEEPER TURN DOWN IF NECESSARY.

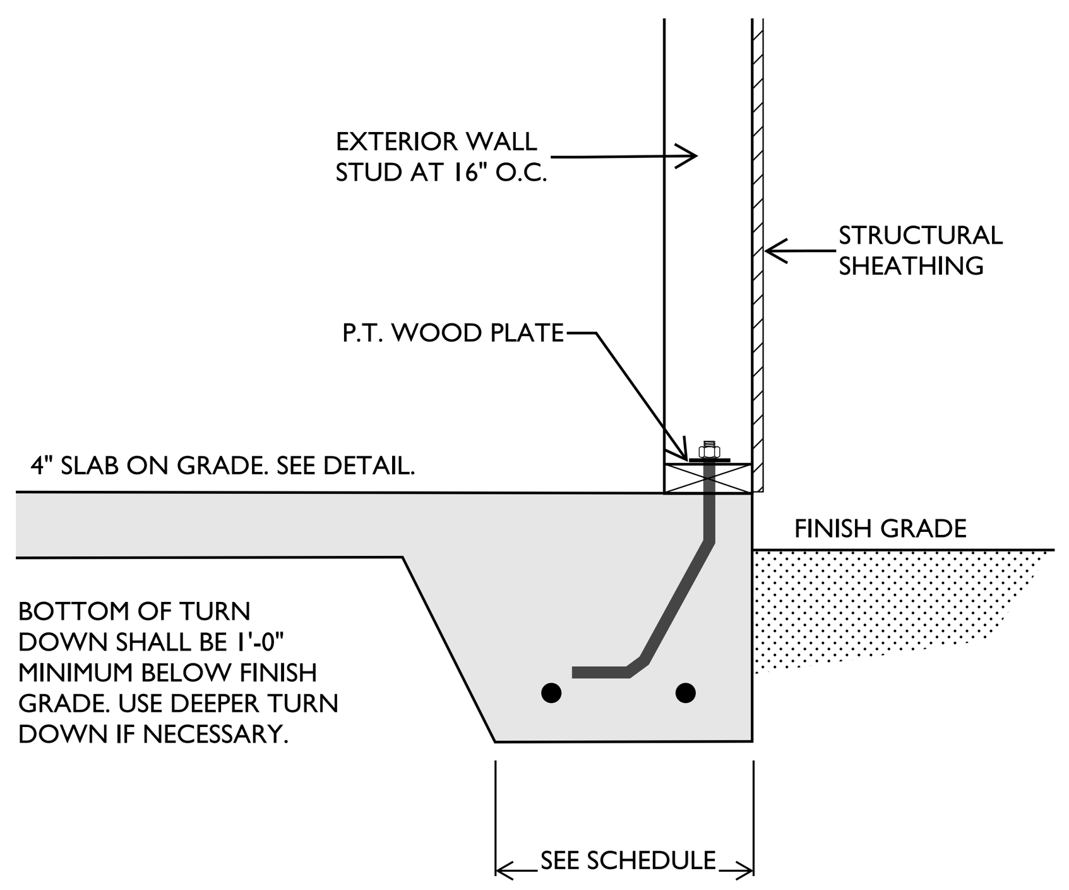
02 TURNED DOWN SLAB, NO WALL ABOVE — NOT TO SCALE



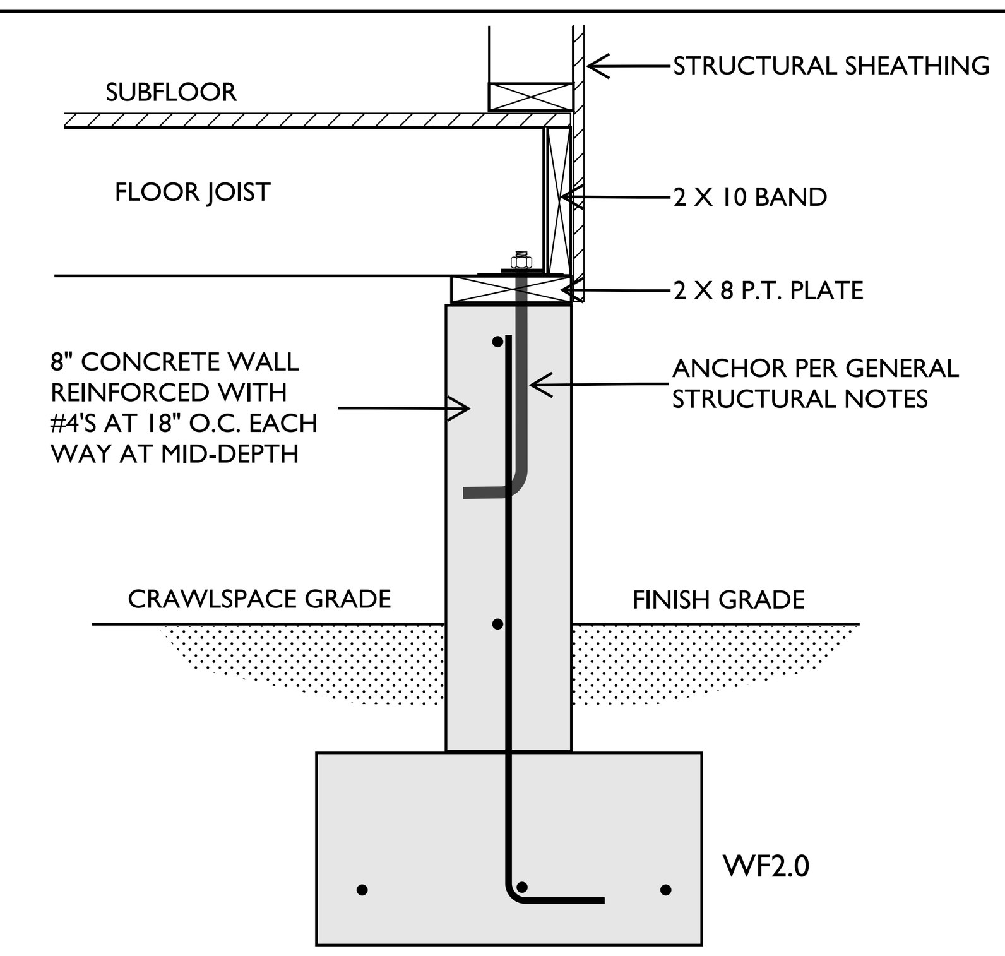
03 TYPICAL STEPPED FOOTING — NOT TO SCALE



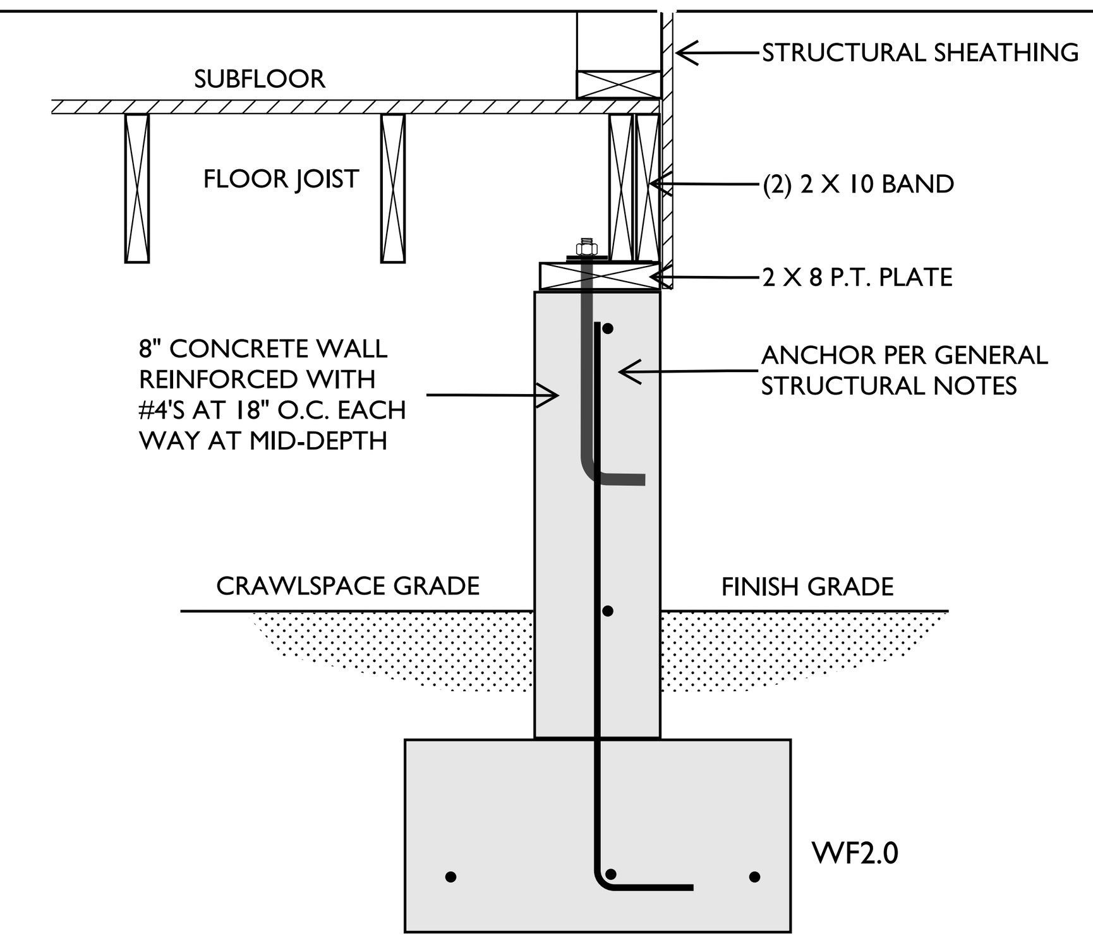
04 EXTRA REINFORCING AT OPENINGS IN WALL — NOT TO SCALE



05 TURNED DOWN SLAB W/ LOAD BEARING WALL ABOVE

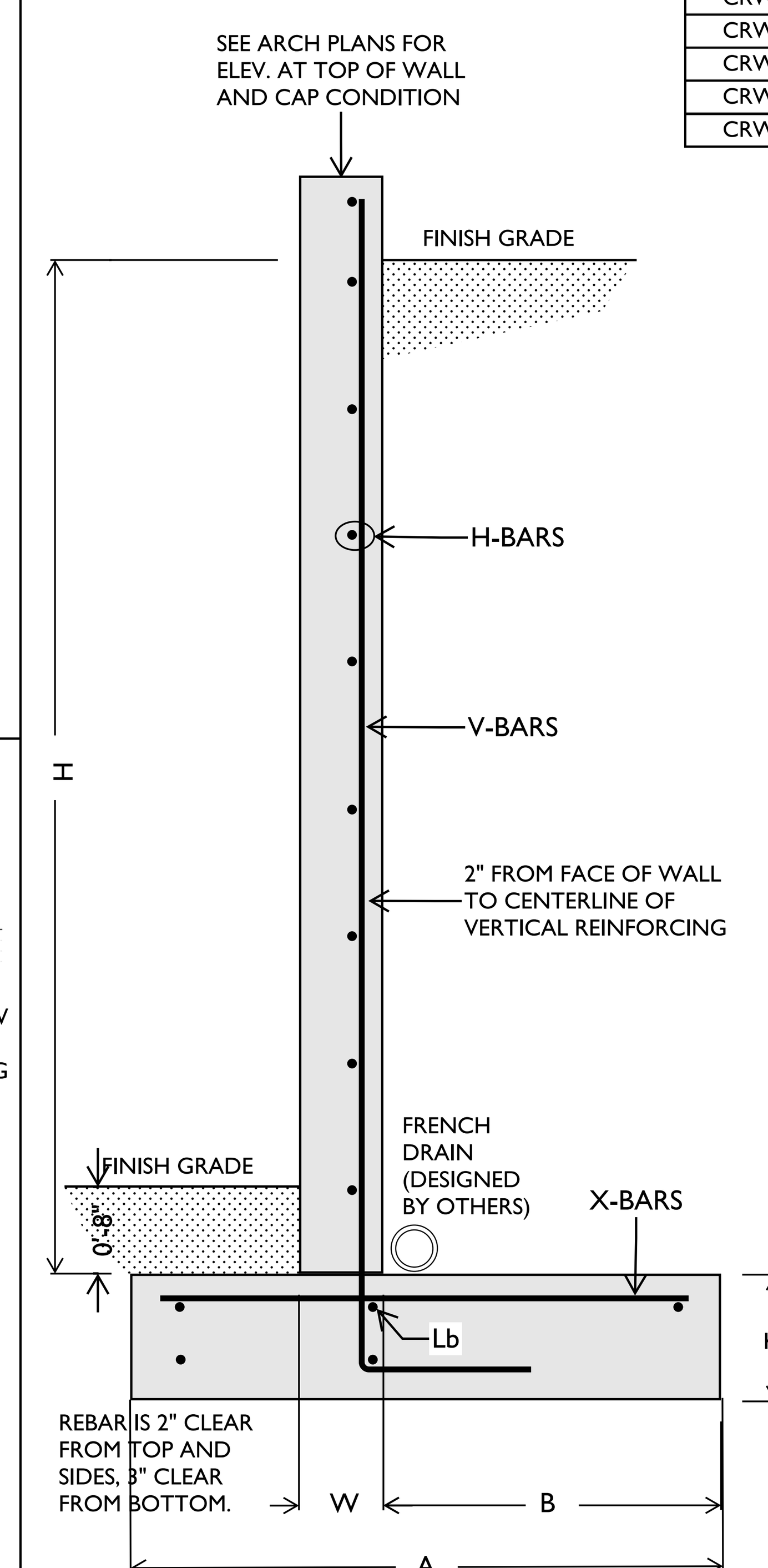


06 SECTION THROUGH CONCRETE FOUNDATION WALL JOISTS PERPENDICULAR



08 SECTION THROUGH CONCRETE FOUNDATION WALL JOISTS PARALLEL

REINFORCED CONCRETE RETAINING WALL SCHEDULE FOR CLASS "A" SOIL WITH LEVEL BACKFILL								
MK#	H	A	B	W	V-BARS	H-BARS	X-BARS	Lb
CRW3	3'-0"	2'-1"	1'-0"	8"	#4 @ 18"	#4 @ 12"	#6 @ 18"	(5) #4
CRW4	4'-0"	2'-8"	1'-6"	8"	#4 @ 18"	#4 @ 12"	#6 @ 18"	(5) #4
CRW5	5'-0"	3'-2"	1'-10"	8"	#4 @ 18"	#4 @ 12"	#6 @ 18"	(5) #4
CRW6	6'-0"	3'-8"	2'-3"	8"	#4 @ 18"	#4 @ 12"	#6 @ 18"	(5) #4
CRW7	7'-0"	4'-2"	2'-7"	8"	#4 @ 12"	#4 @ 12"	#5 @ 13"	(5) #5
CRW8	8'-0"	4'-8"	2'-8"	8"	#5 @ 9"	#5 @ 12"	#6 @ 15"	(5) #5
CRW9	9'-0"	5'-2"	3'-0"	8"	#6 @ 8"	#5 @ 12"	#6 @ 12"	(5) #5

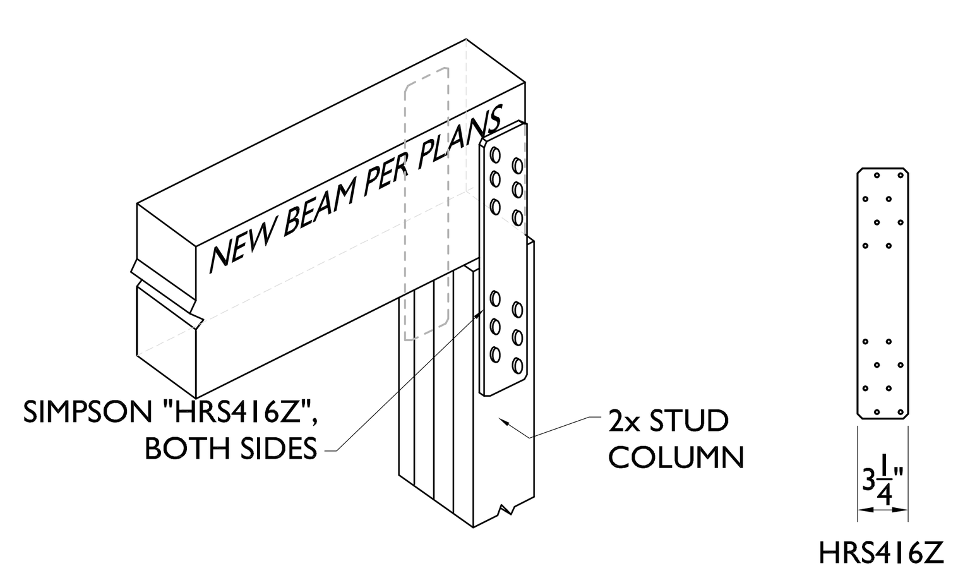


09 CANTILEVERED CONCRETE RETAINING WALL
8'-0" MAXIMUM DESIGN HEIGHT — 3/4" SCALE

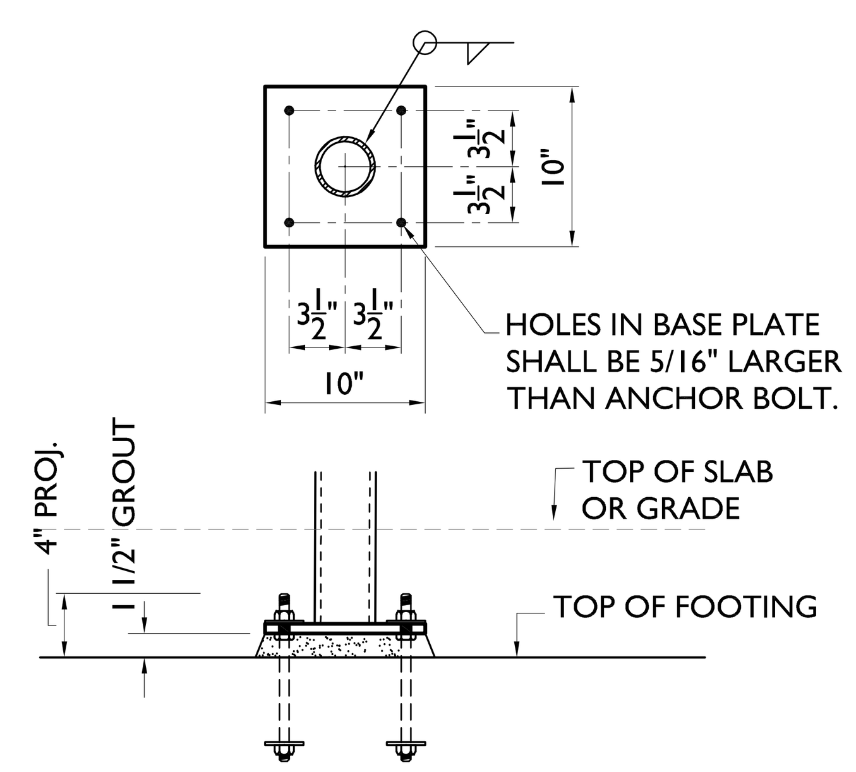
CONCRETE RETAINING WALL NOTES

1. DESIGN HEIGHT IS MEASURED FROM FROM TOP OF FOOTING TO FINISH GRADE ON HIGH SIDE.
2. USE CLASS "A" SOIL FOR BACKFILL BEHIND WALL TO CONTROL LATERAL PRESSURE. CLASS "A" IS CLEAN SAND OR GRAVEL, FREE OF FINES THAT MIGHT OBSTRUCT FREE DRAINAGE. BACKFILL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.
3. STRUCTURAL DATA: f'c = 3,000 PSI FOR FOOTINGS, f'c = 4,000 PSI FOR WALLS, GRADE 60 REBARS, 2,000 PSF ALLOWABLE SOIL BEARING PRESSURE, 30 PCF EQUIVALENT FLUID PRESSURE.
4. THIS DESIGN IS BASED UPON LEVEL BACKFILL AT A MAXIMUM ANGLE OF 5 DEGREES WITH NO ADDITIONAL SURCHARGE LOAD.
5. REINFORCING BARS MUST BE ACCURATELY PLACED AT THE LOCATIONS SHOWN AT THE DETAILS TO ENSURE THAT THE COMPLETED CONSTRUCTION WILL REFLECT THE STRUCTURAL DESIGN.
6. PROVIDE WEAKENED PLANE CONTRACTION JOINTS AT INTERVALS OF ABOUT 25 FEET AND KEYED EXPANSION JOINTS AT EVERY FOURTH CONTRACTION JOINT. CUT ALTERNATE LONGITUDINAL BARS EXACTLY OPPOSITE WEAKENED PLANE JOINTS.
7. CONCRETE FOOTINGS SHALL BE ON FIRM UNDISTURBED EARTH (OR ENGINEERED FILL) AND SHALL BE PLACED BELOW THE FROST LINE.
8. WATERPROOFING AND DRAINAGE DESIGN ARE BEYOND THE SCOPE OF THE STRUCTURAL ENGINEER'S SERVICES, BUT IT HAS BEEN ASSUMED THAT WEEP HOLES THROUGH THE VERTICAL STEM AT INTERVALS OF ABOUT 10', DRAINING OUT ON TOP OF THE EARTH AT THE LOWER LEVEL AND/OR A FRENCH DRAIN.
9. THE MAXIMUM SIZE AGGREGATE FOR WALLS IS 3/4".
10. DO NOT BACKFILL BEHIND WALL UNTIL THE CONCRETE HAS CURED.
11. IF THE VERTICAL BARS ARE SPLICED, USE 48 BAR DIAMETERS.
12. USE THE SITE PLAN TO DETERMINE THE BOTTOM OF WALL AND TOP OF WALL ELEVATIONS. THEN USE THE SCHEDULE ABOVE TO DETERMINE THE WALL REQUIREMENTS AT VARIOUS LOCATIONS ALONG THE SITE. STEP THE FOOTINGS TO SUIT THE GRADE AND CHANGE FOOTING SIZE, WALL SIZE AND AND REINFORCING TO SUIT THE DESIGN LOCATIONS AT VARIOUS LOCATIONS, BUT ALWAYS LAP THE REBAR 36 DIAMETERS (MINIMUM) AT THE TRANSITION POINTS.

NOTE
USE THIS STRAP CONNECTION ON BOTH SIDES OF BEAM AT ALL BEAM TO STUD COLUMN CONNECTIONS.
UNLESS STRAP CONFLICTS WITH BEAM ON ONE SIDE. IN THAT CASE, A SINGLE STRAP IS ACCEPTABLE.

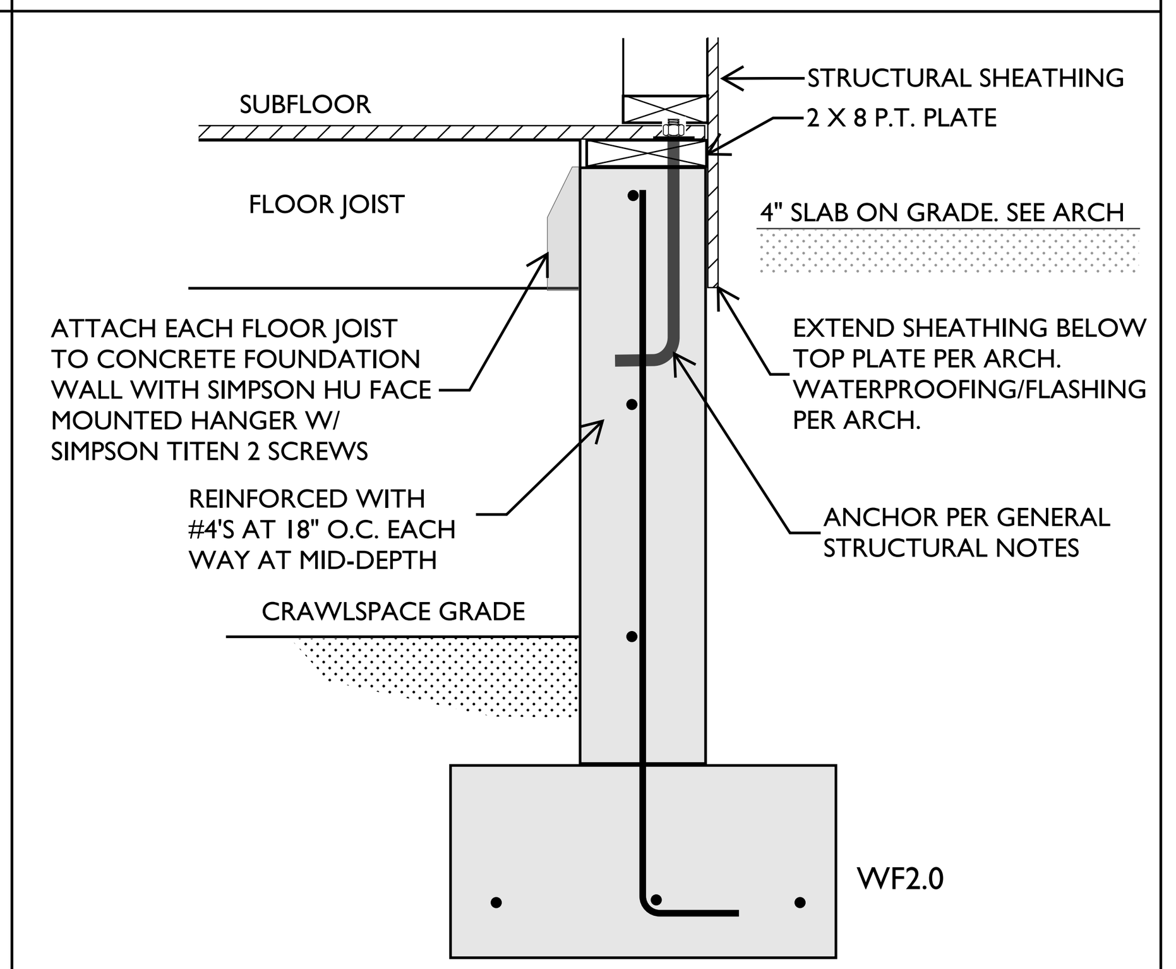


10 WOOD BEAM TO STUD COLUMN CONNECTION

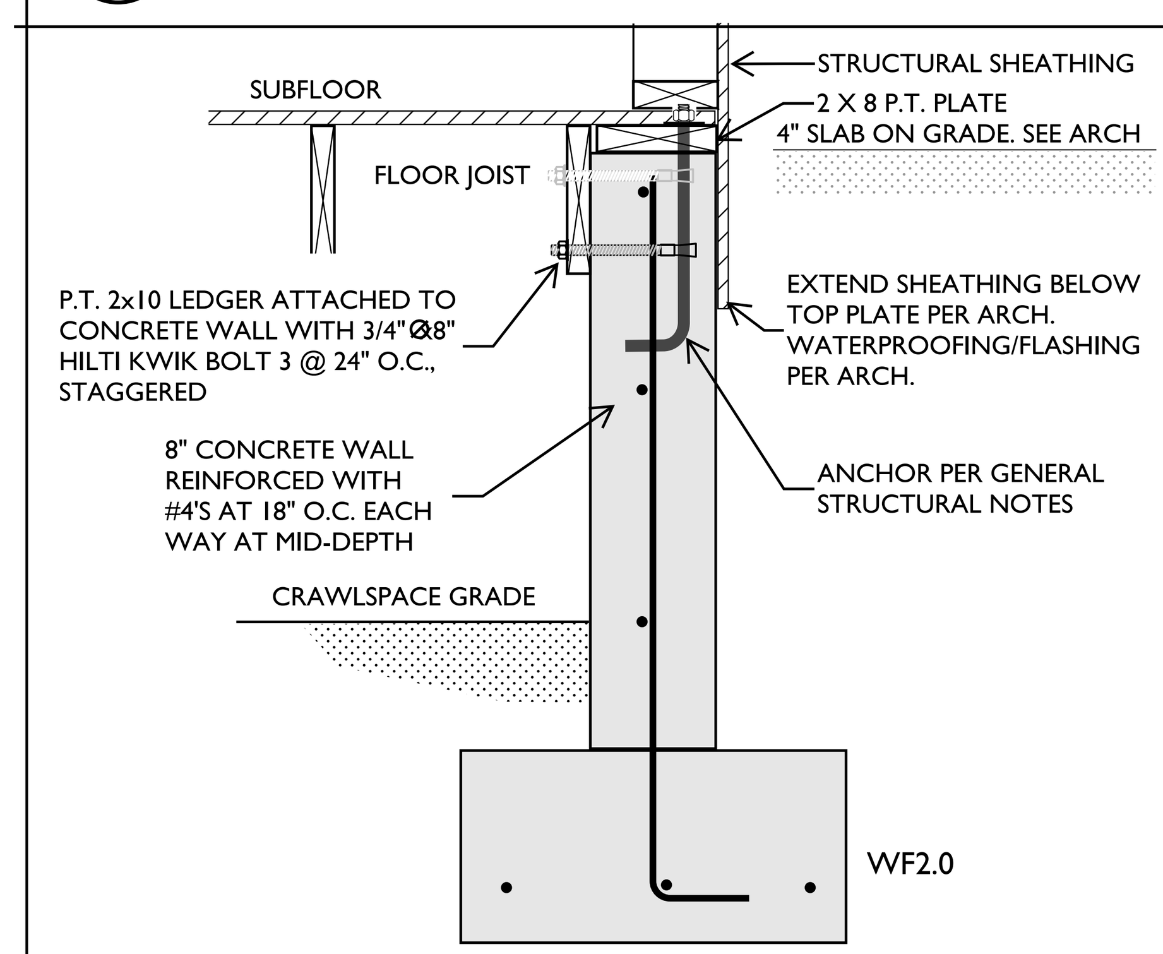


SEE COLUMN SCHEDULE FOR BASE PLATE THICKNESS AND ANCHOR BOLT SIZE.

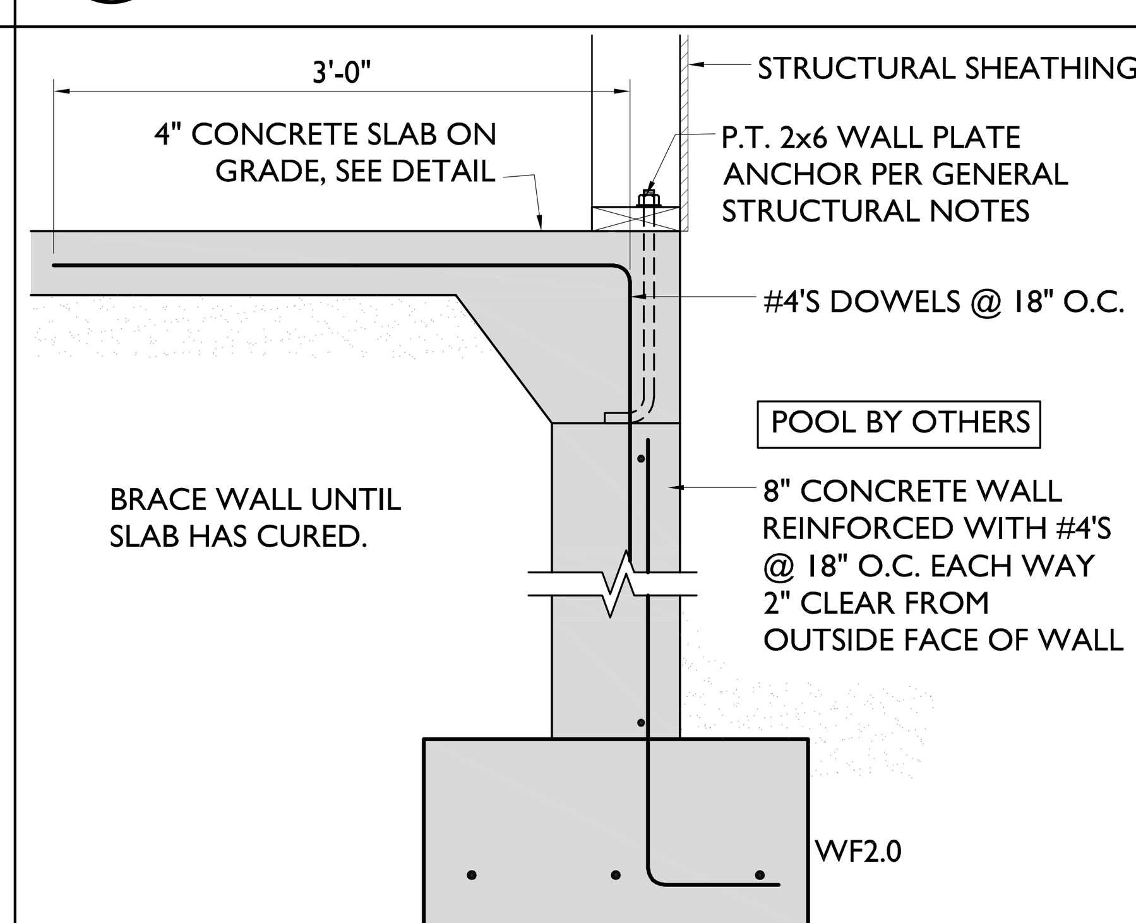
11 COLUMN SETTING DETAIL



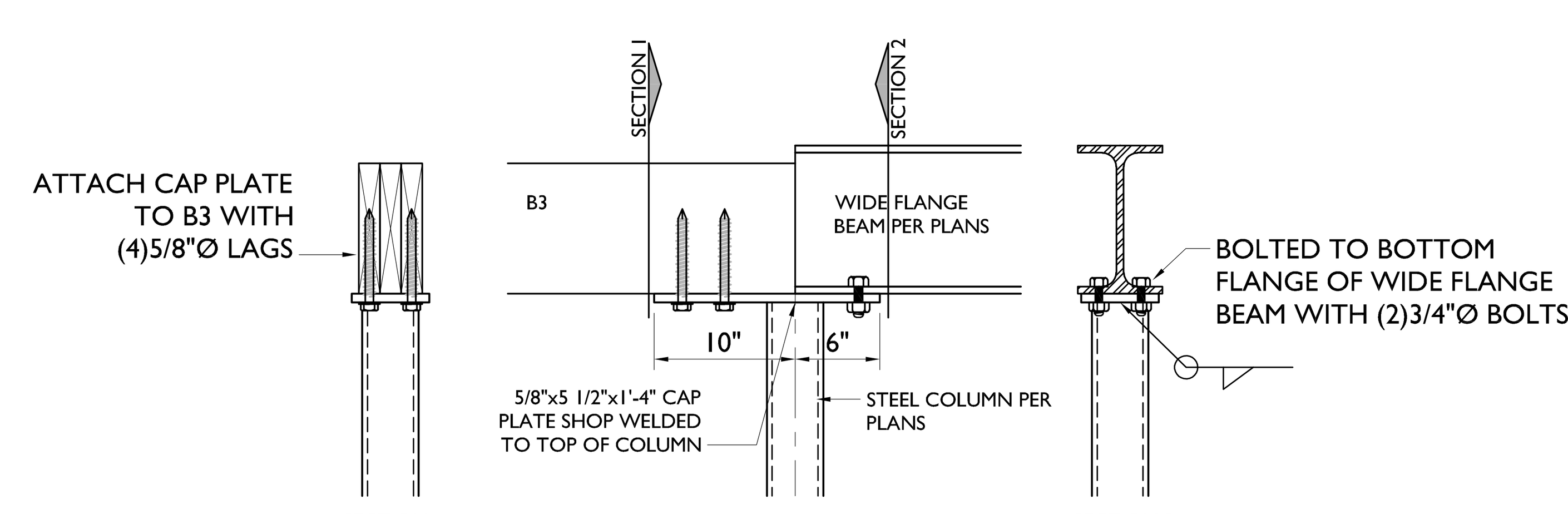
12 SECTION THROUGH CONCRETE FOUNDATION WALL JOISTS PERPENDICULAR AT PATIO CONCRETE STOOP



13 SECTION THROUGH CONCRETE FOUNDATION WALL JOISTS PARALLEL AT PATIO



14 SECTION THROUGH CONCRETE FOUNDATION WALL AT POOL



15 WOOD BEAM AND STEEL BEAM TO HSS COLUMN CONNECTION

NORTH CAROLINA PROFESSIONAL SEAL 7929 ENGINEER CHARLES A. LYSAGHT 02/21/24

L&A FIRM # C-0621

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
L&A LYSAGHT & ASSOCIATES structural engineers

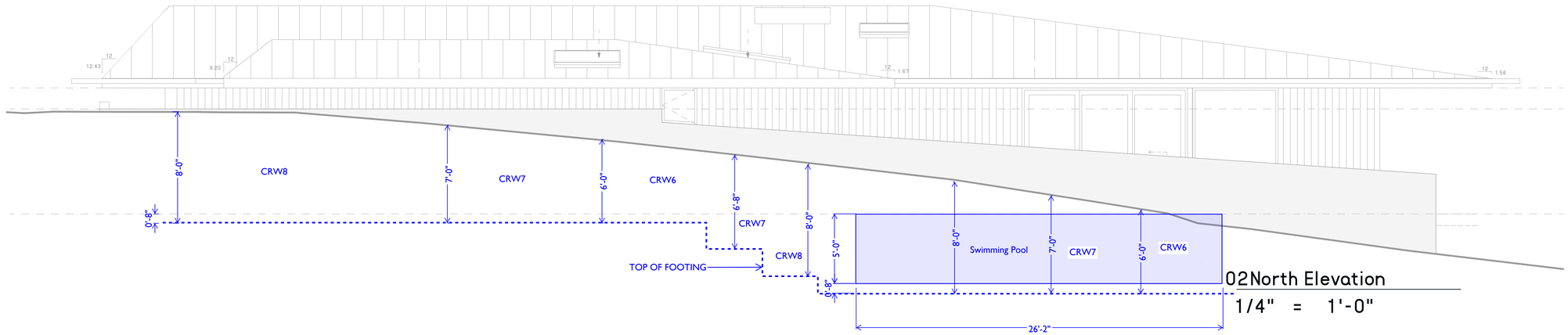
CD

01/12/2024
CAL
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

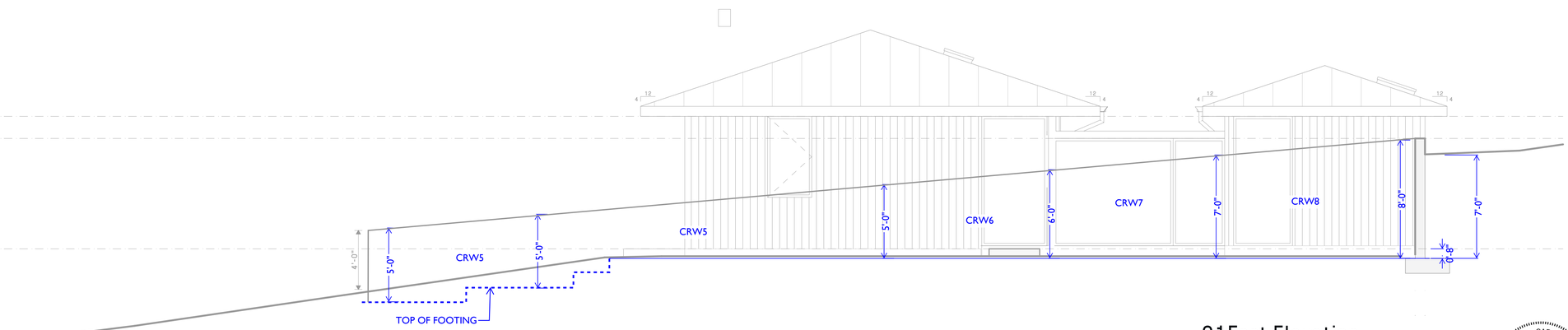
FOUNDATION AND FRAMING DETAILS

S2.1



02 North Elevation

1/4" = 1'-0"



01 East Elevation

1/4" = 1'-0"

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 7929 02/21/24 CHARLES A. LYSIGHT

L&A FIRM # C-0621

in situ studio
704 N Person St
Raleigh NC 27604
www.insitustudio.us

Consultants
LYSIGHT & ASSOCIATES
PROFESSIONAL ENGINEERS
120 St Mary's Street
Raleigh, NC 27605
919.833.1454
lysightassociates.com

CD

01/12/2024
CAL
scale as noted

Abbasi House
6845 West Lake Anne Drive
Raleigh, NC 27612

ELEVATIONS

S3.1