

A NEW HOME IN ASHEVILLE

DOCTOR DUCKBUTTER'S

SOLAR SHED

15 March 2010
KIRKMAN ROAD
PIN: 9648.08.87-5601
ZONING DISTRICT RS-4

MAR 26 2010



Stephens Smith Farrell

OWNER: STEVE FARRELL, ARCHITECT

CONTACT: STEVE FARRELL
828.252.3002
SSF@ASHEVILLEARCHITECT.COM

ARCHITECT: STEPHENS SMITH FARRELL
ARCHITECTURE, PA
17 ZILICOA STREET
ASHEVILLE, NC 28801
NC LICENSE NUMBER 7486

ELECTRICIAN: KENRON ELECTRIC
NC LICENSE NUMBER 22025-1

STRUCTURAL ENGINEER: MEDLOCK & ASSOCIATES
53 ASHELAND AVE. # 101
ASHEVILLE, NC 28801
NC LICENSE NUMBER 025950

PLUMBER: HOWARD'S PLUMBING
NC LICENSE NUMBER 10470

HVAC: BULLMAN HEATING AND AIR
NC LICENSE NUMBER 13843

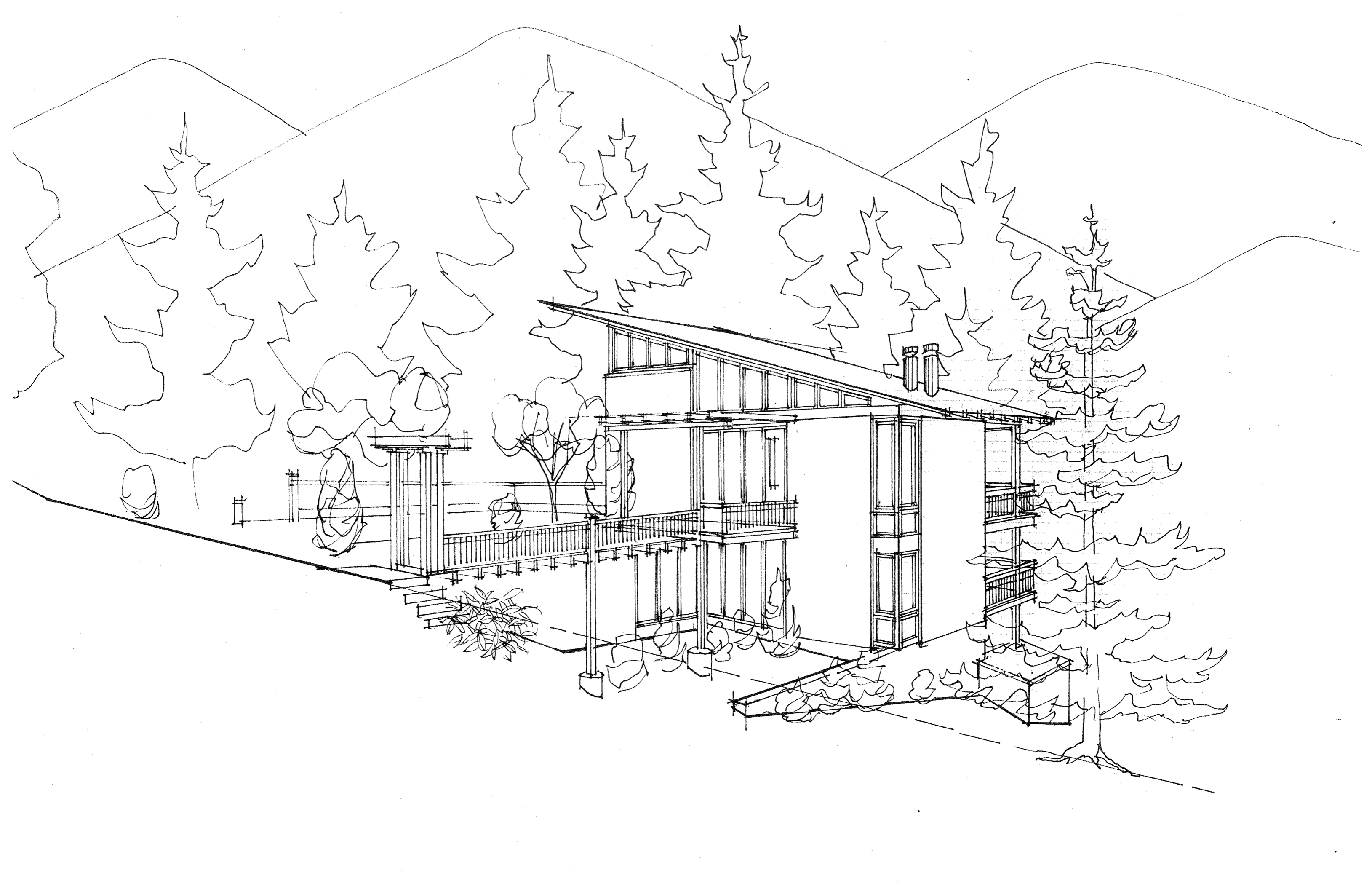
CONTRACTOR: OWNER/OCCUPANT

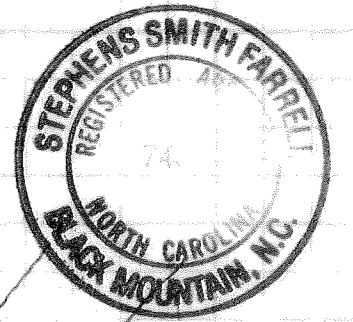
SOLAR: SUNDANCE POWER SYSTEMS

HEALTHY HOUSE CONSULTANT: VAN DER MUSSER

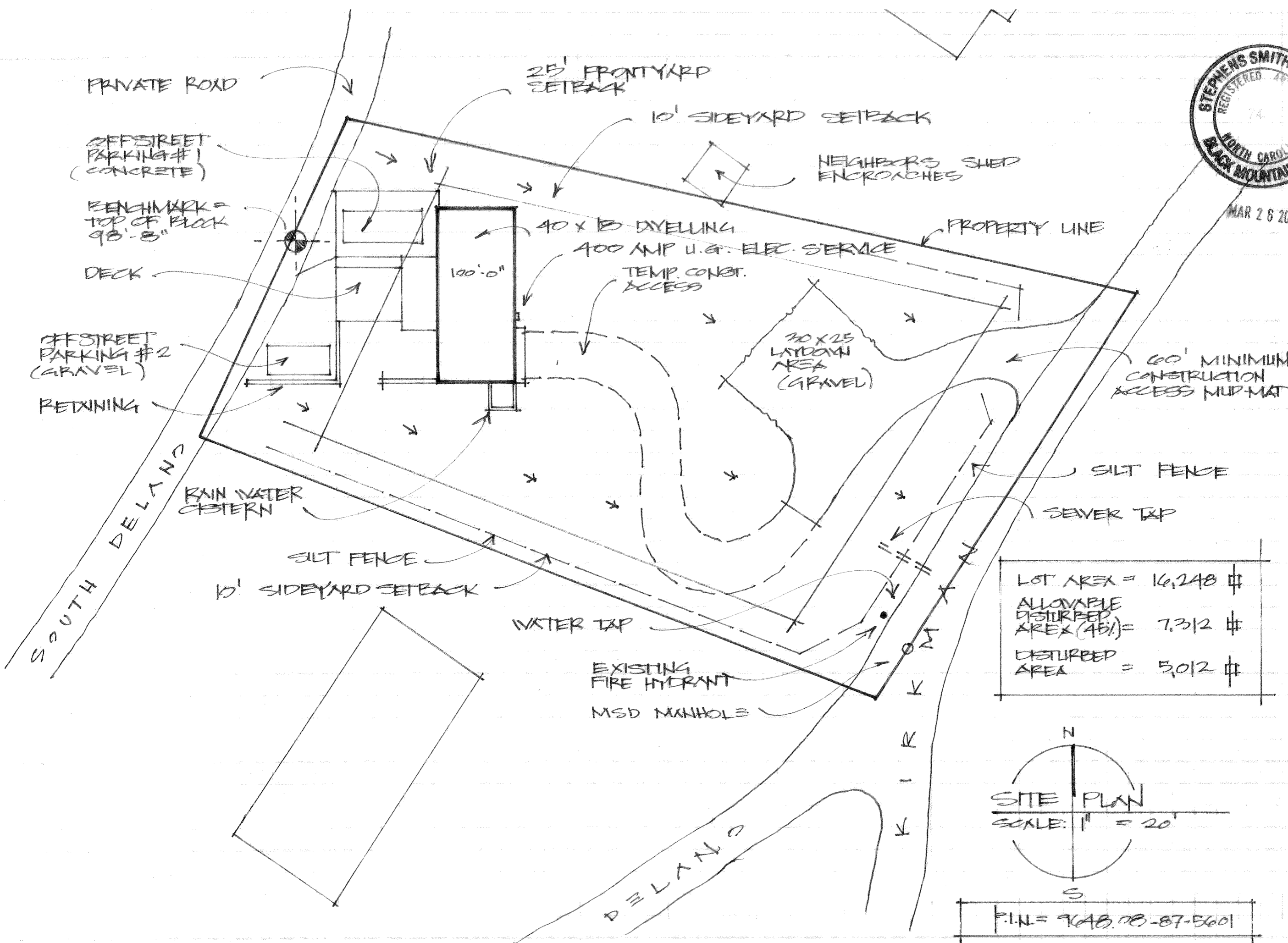
GRADING: RIVERROCK CONSTRUCTION

RELEASED FOR PERMIT

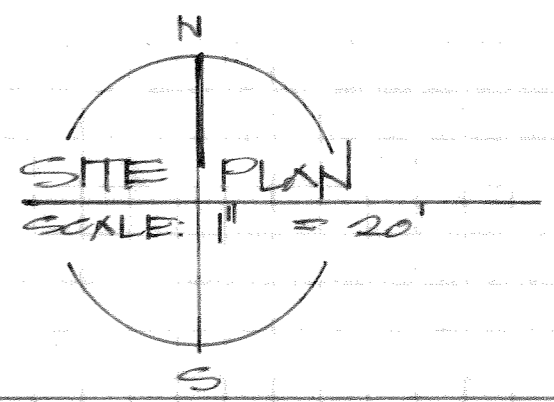




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LOT AREA =	16,248	sq ft
ALLOWABLE DISTURBED AREA (45%) =	7,312	sq ft
DISTURBED AREA =	5,012	sq ft



P.I.N. = 9648.08-87-5601

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Christopher K. & Joanna C. Amato
D.B. 4129, P. 834
Plat Book 80, Page 104, Lot 6



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Monte C. & Tanya M. Lyon
D.B. 4165, P. 228

Tie N02°04'48"W 21.21'

AREA = 0.373 ACRE
(by coordinates)

Michelle M. Thompson
D.B. 1645, P. 777

NOTES

SURVEY IS SUBJECT TO ANY EASEMENTS, ENCUMBRANCES, RIGHTS OF WAY, PREVIOUS CONVEYANCES, OR ANY OTHER FACTS THAT MAY BE DISCOVERED BY A TITLE EXAMINATION. UNLESS STATED OTHERWISE HEREDON, ONLY EVIDENCE OF EASEMENTS, BURIED UTILITIES, OR PIPELINES AND STRUCTURES THERE TO WHICH ARE READILY APPARENT FROM A CASUAL ABOVE GROUND VIEW OF PREMISES ARE SHOWN. INTERESTED PARTIES SHOULD INVESTIGATE THE EXISTENCE OF EASEMENTS, BURIED UTILITIES, OR PIPELINES, IF ANY, AND VERIFY. LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR LOSS THAT MAY BE ASSOCIATED WITH THE EXISTENCE OF ANY EASEMENT, BURIED UTILITY, OR PIPELINE ON THE PREMISES. DISTANCES SHOWN ARE GRID DISTANCES. TO CONVERT TO ROUND DISTANCES, DIVIDE BY THE COMBINED FACTOR OF 0.999780834

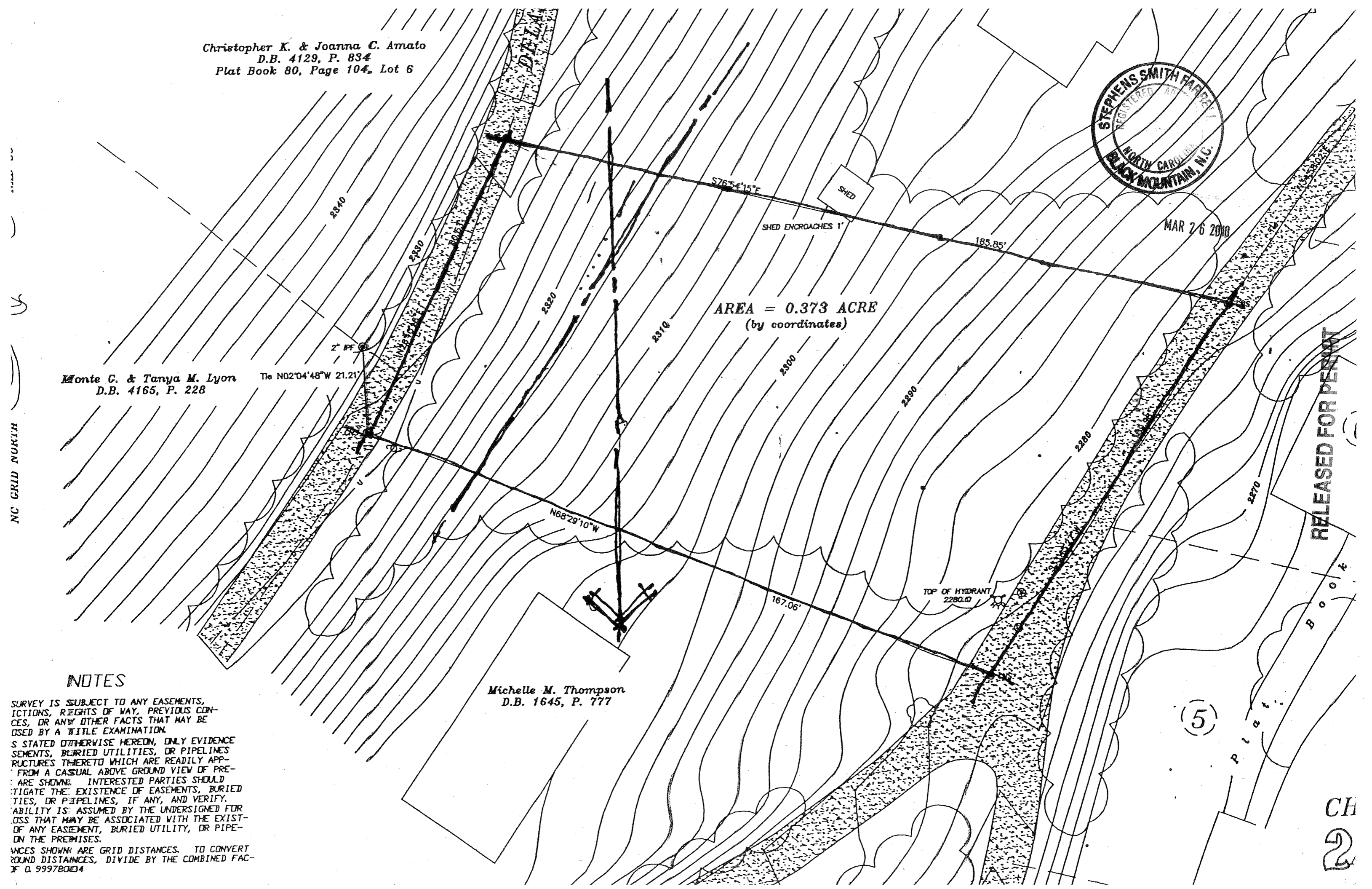
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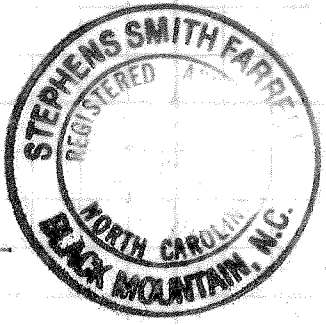
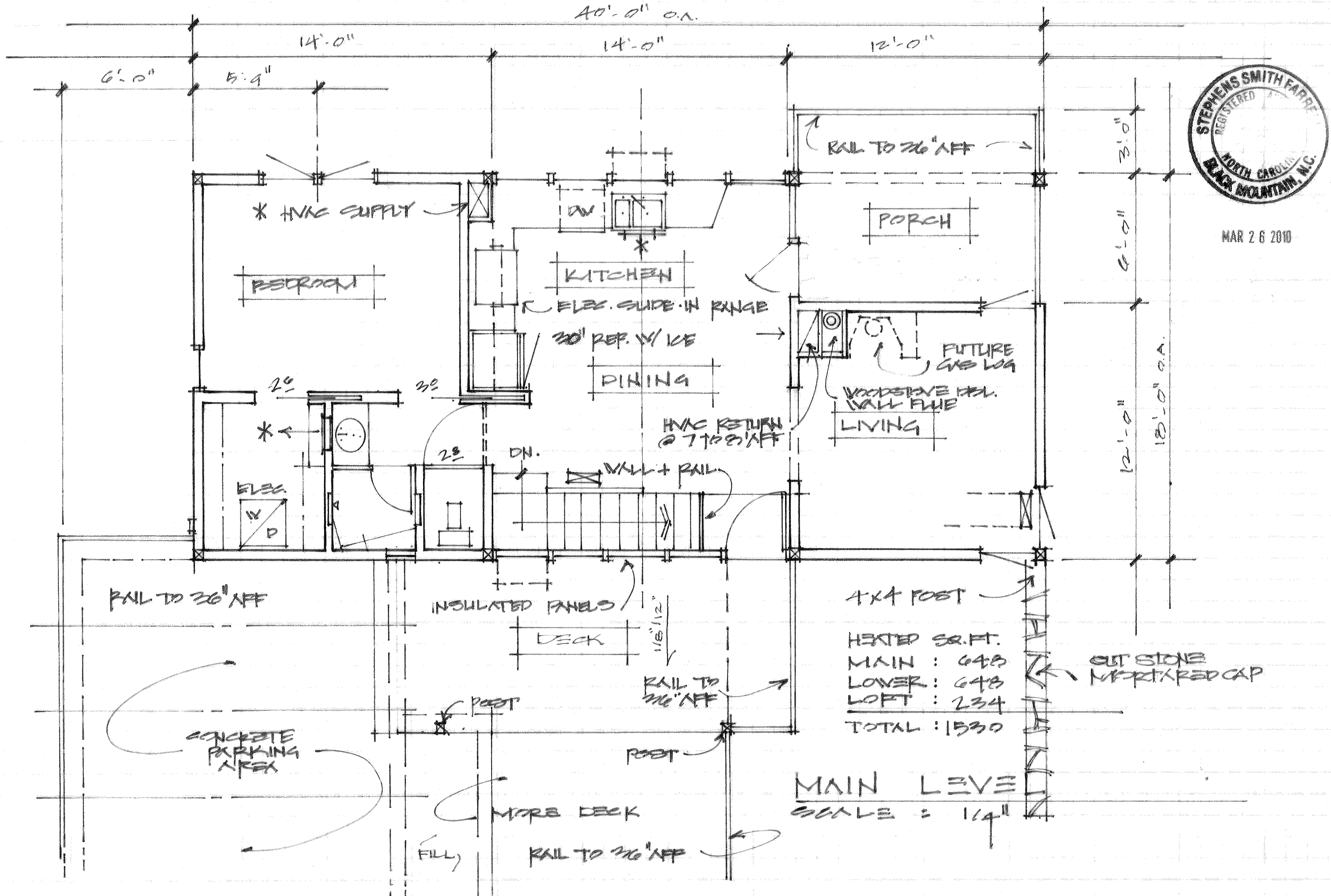
(5)

Plat Book

CH 2

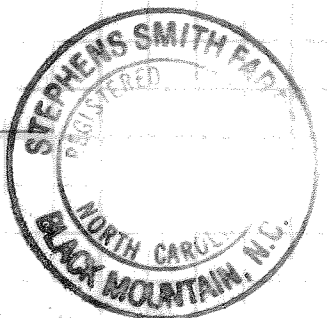
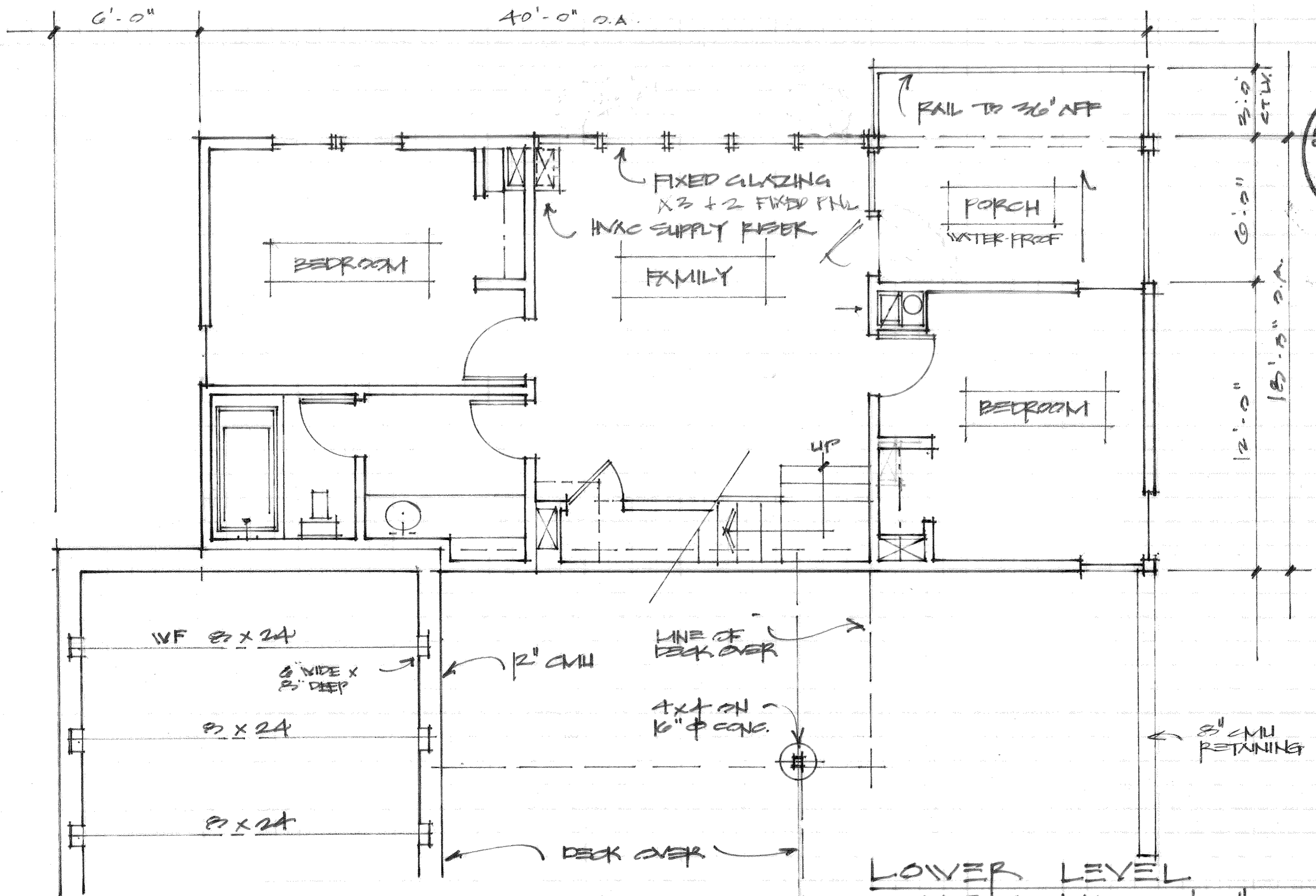
NC GRID NORTH





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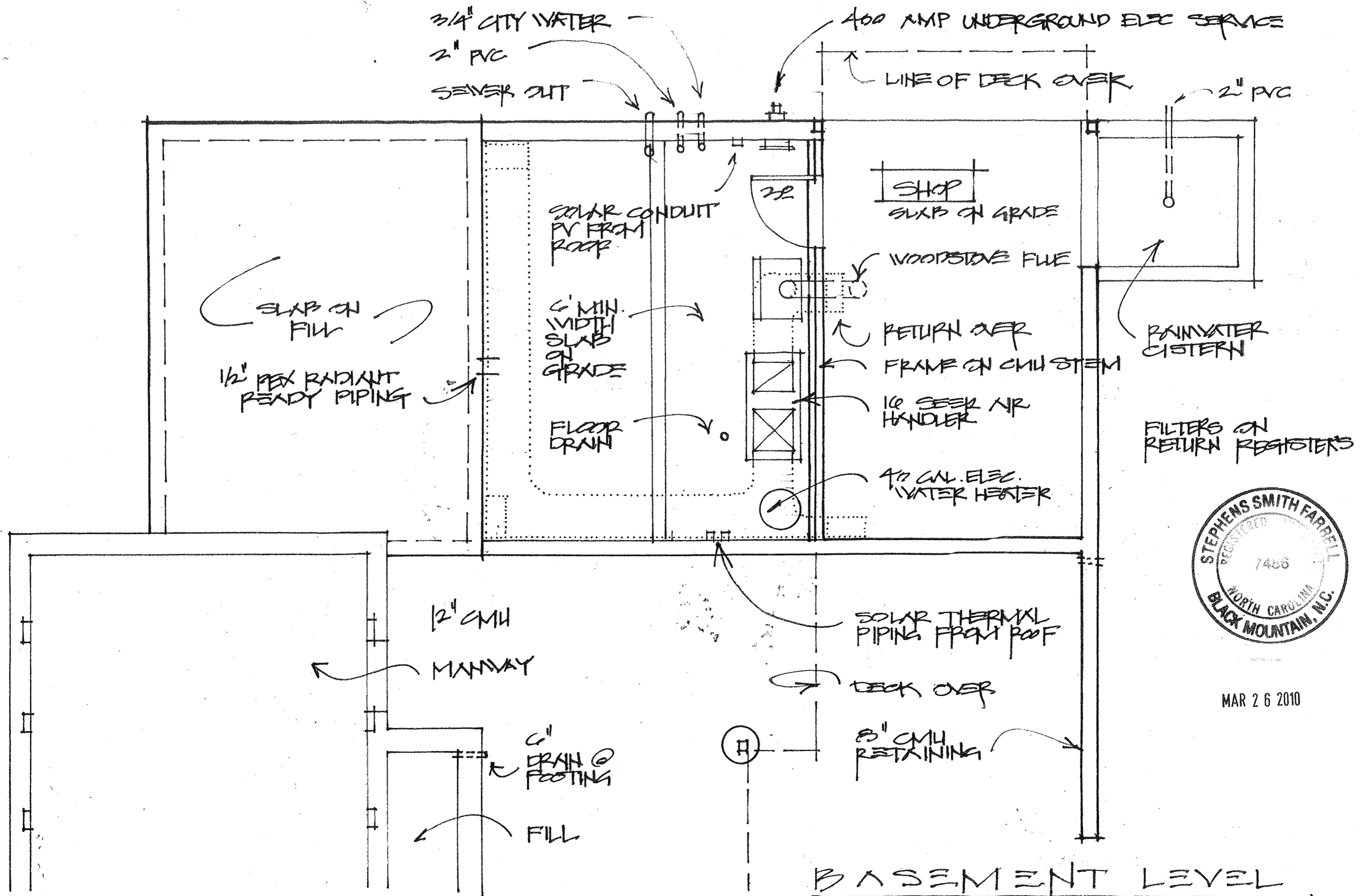


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LOWER LEVEL
SCALE: 1/4" = 1'-0"

THIS LEVEL IS NOT FINISHED -
ROUGH-IN ONLY!



3/4" CITY WATER
 2" PVC
 SEWER OUT

400 AMP UNDERGROUND ELEC SERVICE
 LINE OF DECK OVER

SLAB ON FILL
 1/2" PEX RADIANT READY PIPING

SOLAR CONDUIT
 PV FROM ROOF

6' MIN. WIDTH
 SLAB ON GRADE

FLOOR DRAIN

SHOP
 SLAB ON GRADE

WOODSTONE FUE

RETURN AIR
 FRAME ON CMU STEM

10 SEER AIR
 HANDLER

47 GAL. ELEC.
 WATER HEATER

RAINWATER
 CISTERN

FILTERS ON
 RETURN REGISTERS

12" CMU
 MANNWAY

6" DRAIN @
 FOOTING

FILL

SOLAR THERMAL
 PIPING FROM ROOF

DECK OVER

8" CMU
 RETAINING

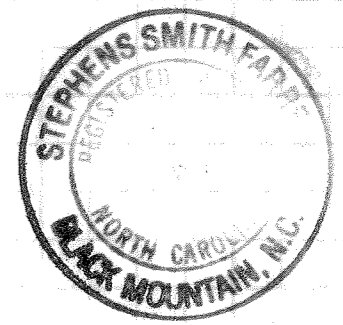


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BASEMENT LEVEL
 SCALE: 1/4" = 1'-0"

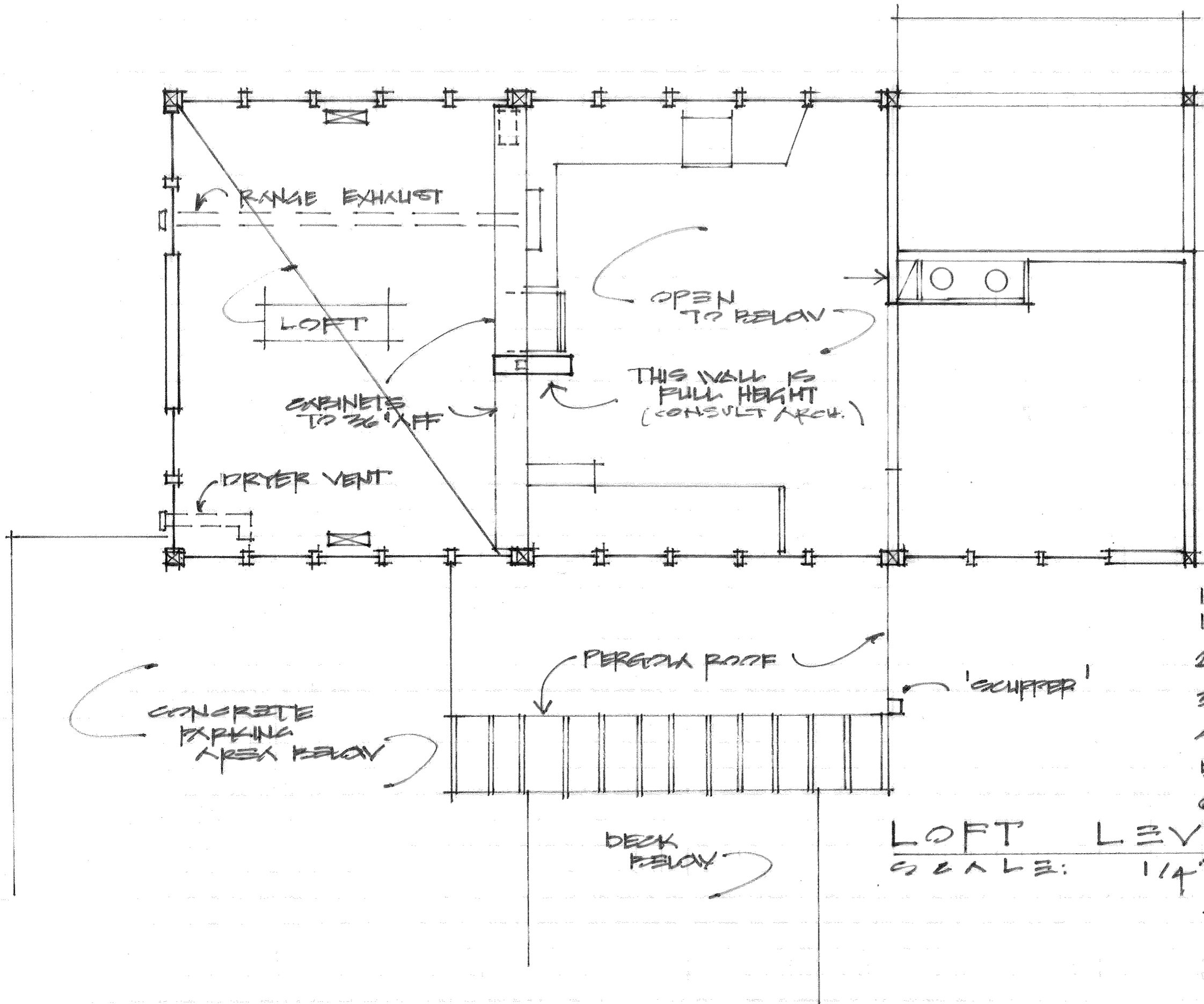
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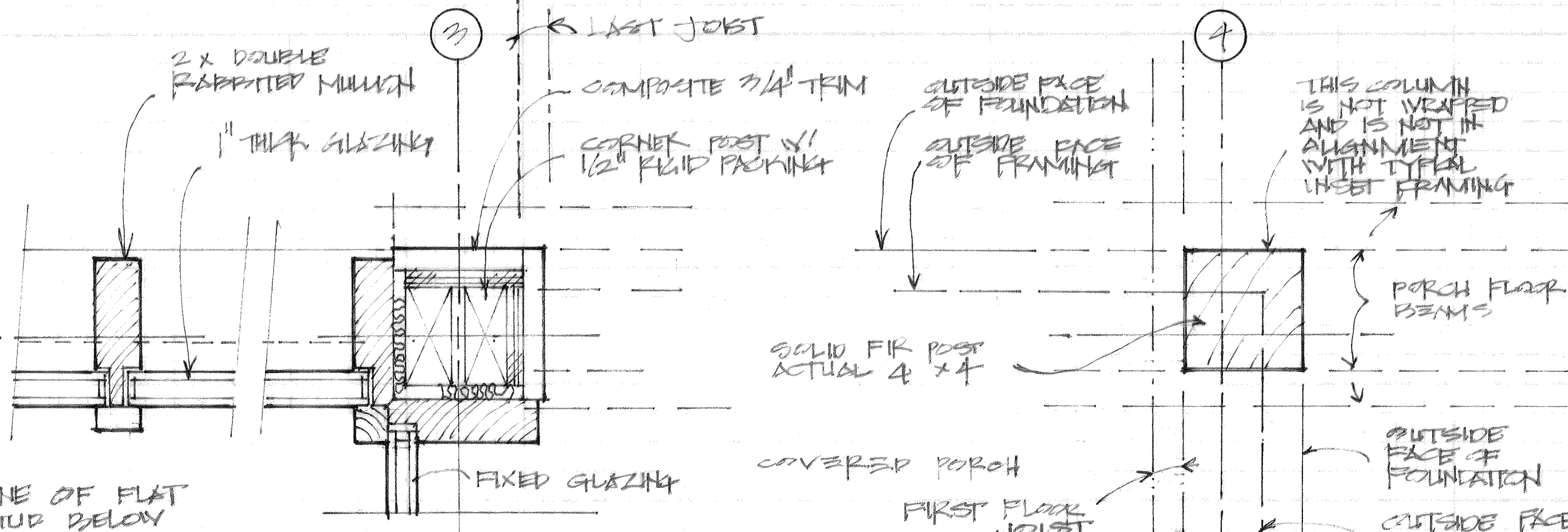


- INSULATION SCHEDULE**
1. SLABS BELOW HEATED SPACE
- 1 1/2" RIGID POLYISO
 2. FRAME FLOORS OVER UNHT'D.
- 6" MINIMUM SPRAY FOAM
 3. FLOORS OVER HEATED SPACE
- 2" MIN. SPRAY FOAM (SOUND)
 4. 2x4 WALLS
3" MINIMUM SPRAY FOAM
 5. FLAT STUD WALLS - 1 1/2"
SPRAY + 3/4" RIGID POLYISO
 6. ROOF - MIN. 6" SPRAY + 1/2" RIGID

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

7. BATHROOM WALLS + MASTER KITCHEN WALL - 2" MIN. SPRAY FOAM SOUND

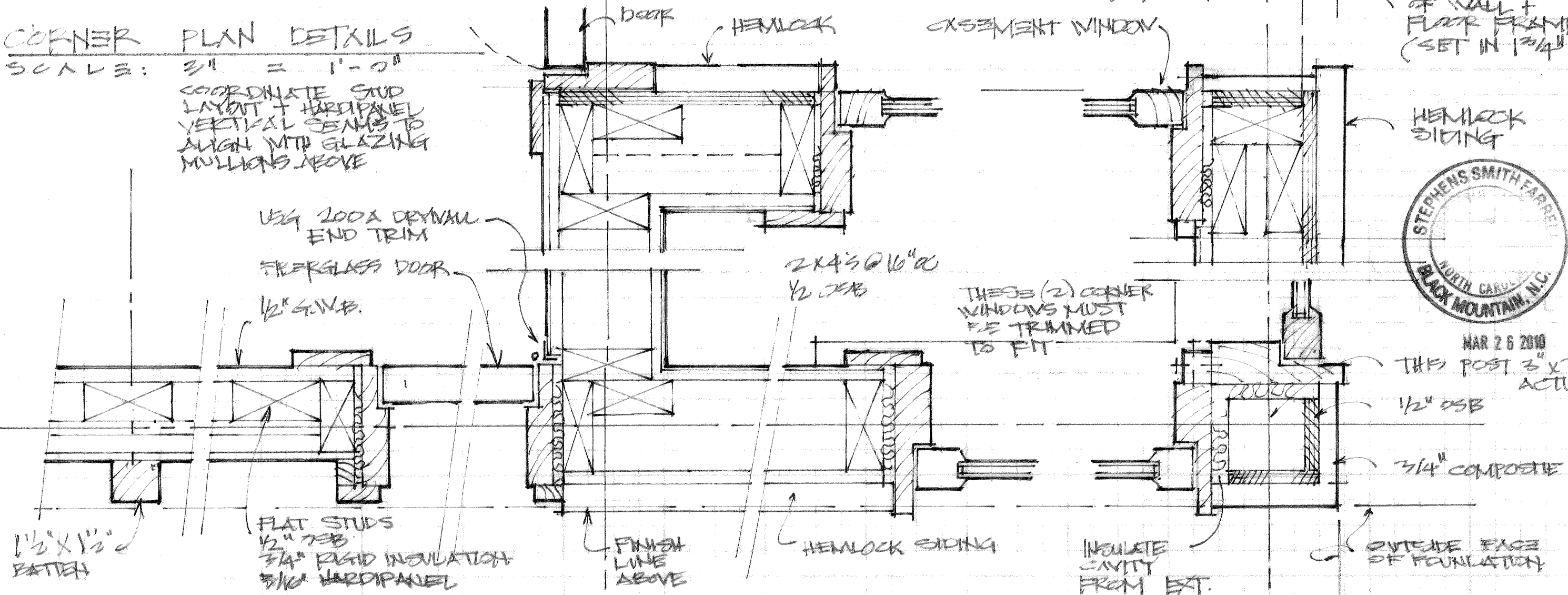
A



CORNER PLAN DETAILS
SCALE: 3/4" = 1'-0"

COORDINATE STUD LAYOUT + HARDIPANEL VERTICAL SEAMS TO ALIGN WITH GLAZING MULLIONS ABOVE

B



1 1/2" x 1 1/2" BATTERY

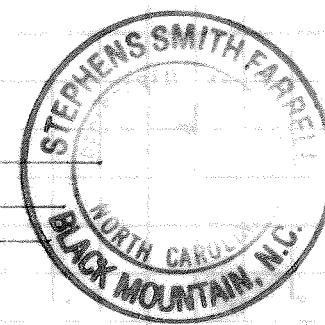
FLAT STUDS 1/2" OSB 3/4" FLUID INSULATION 5/16" HARDIPANEL

FINISH LINE ABOVE

HEMLOCK SIDING

INSULATE CAVITY FROM EXT.

OUTSIDE FACE OF FOUNDATION



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THIS POST 3" x 3" ACTUAL
1/2" OSB

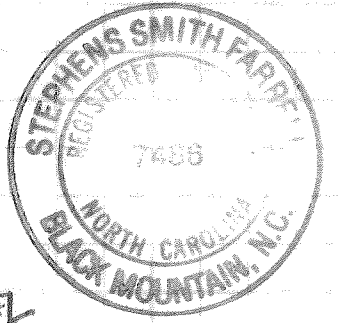
3/4" COMPOSITE

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ALL GLAZING THIS ELEVATION TO HAVE SHGC OF 0.32 OR LESS.

ALL GLAZING TO BE LOW EMISSIVITY COATED.

Ø FIXED 1" INSULATED GLAZING



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+ HARDI-PANEL

CULTURED STONE w/ IN COAT STUCCO

NOTE: USE STAINLESS STEEL NAILS ON WEST EXT. SIDING

HEMLOCK 1x6 CHUPLAP

DOWN SPOUT

SCORED BLOCK WHERE EXPOSED

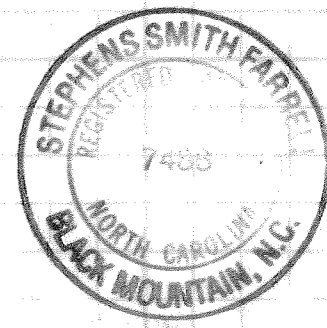
CISTERN

SHIP SLAB

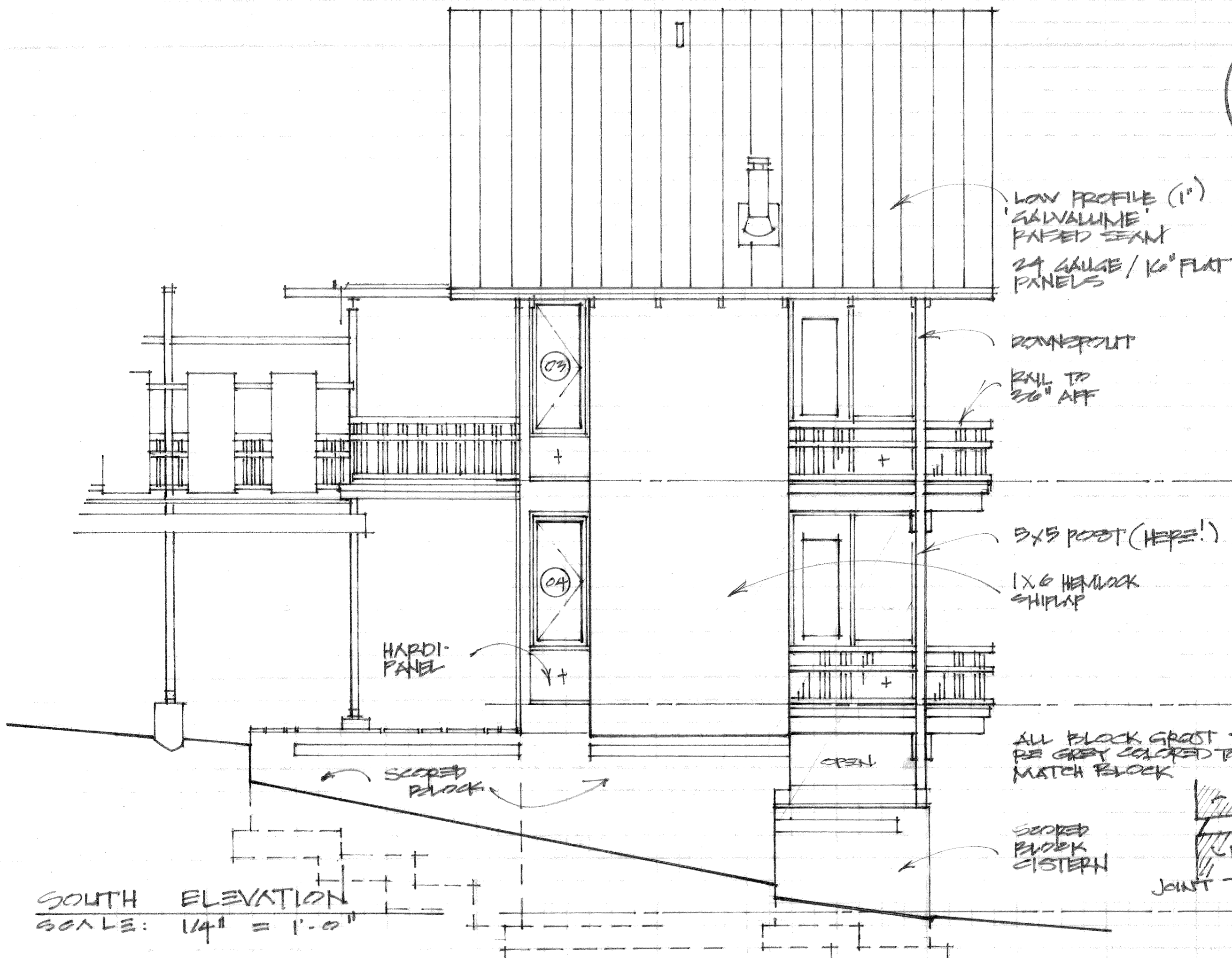
WEST ELEVATION
SCALE: 1/4" = 1'-0"

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LOW PROFILE (1")
'GALVALUME'
PAPERED SEAM
24 GAUGE / 1/2" FLAT
PANELS

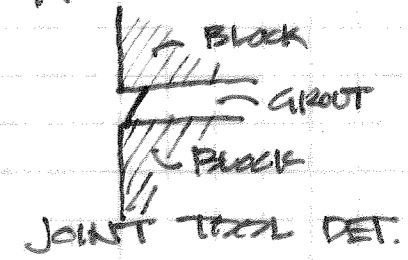
DOWNSPOUT
RUN TO
20" AFF

5x5 POST (HERE!)
1x6 HEMLOCK
SHIP LAP

HARDI-
PANEL

ALL BLOCK GROUT TO
BE GREY COLORED TO
MATCH BLOCK

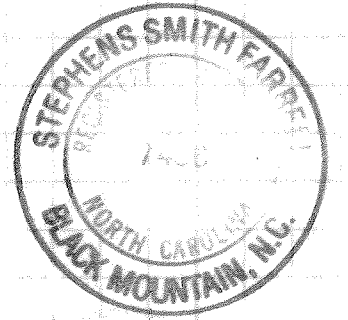
SCOPED
BLOCK
CISTERN



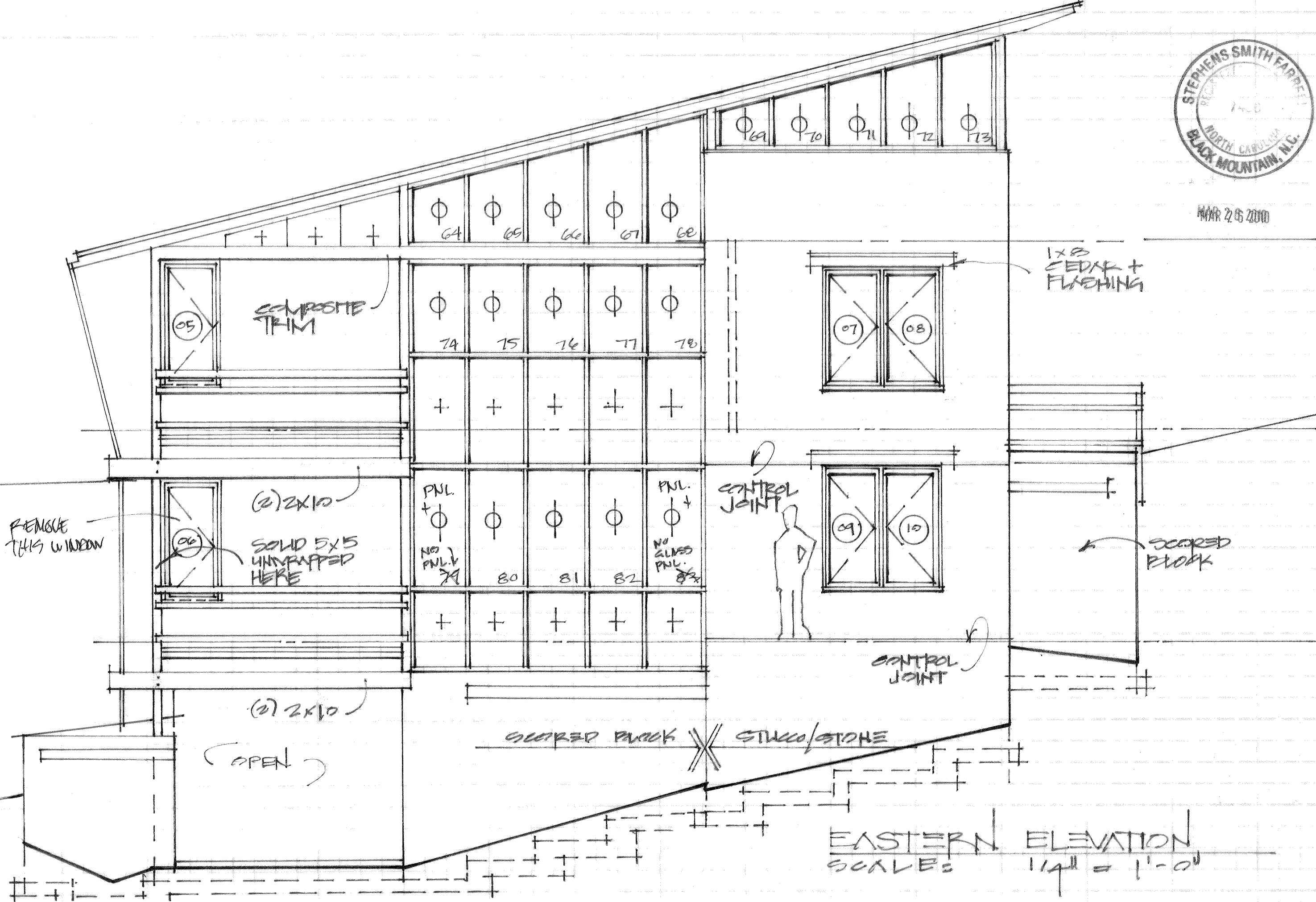
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

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9

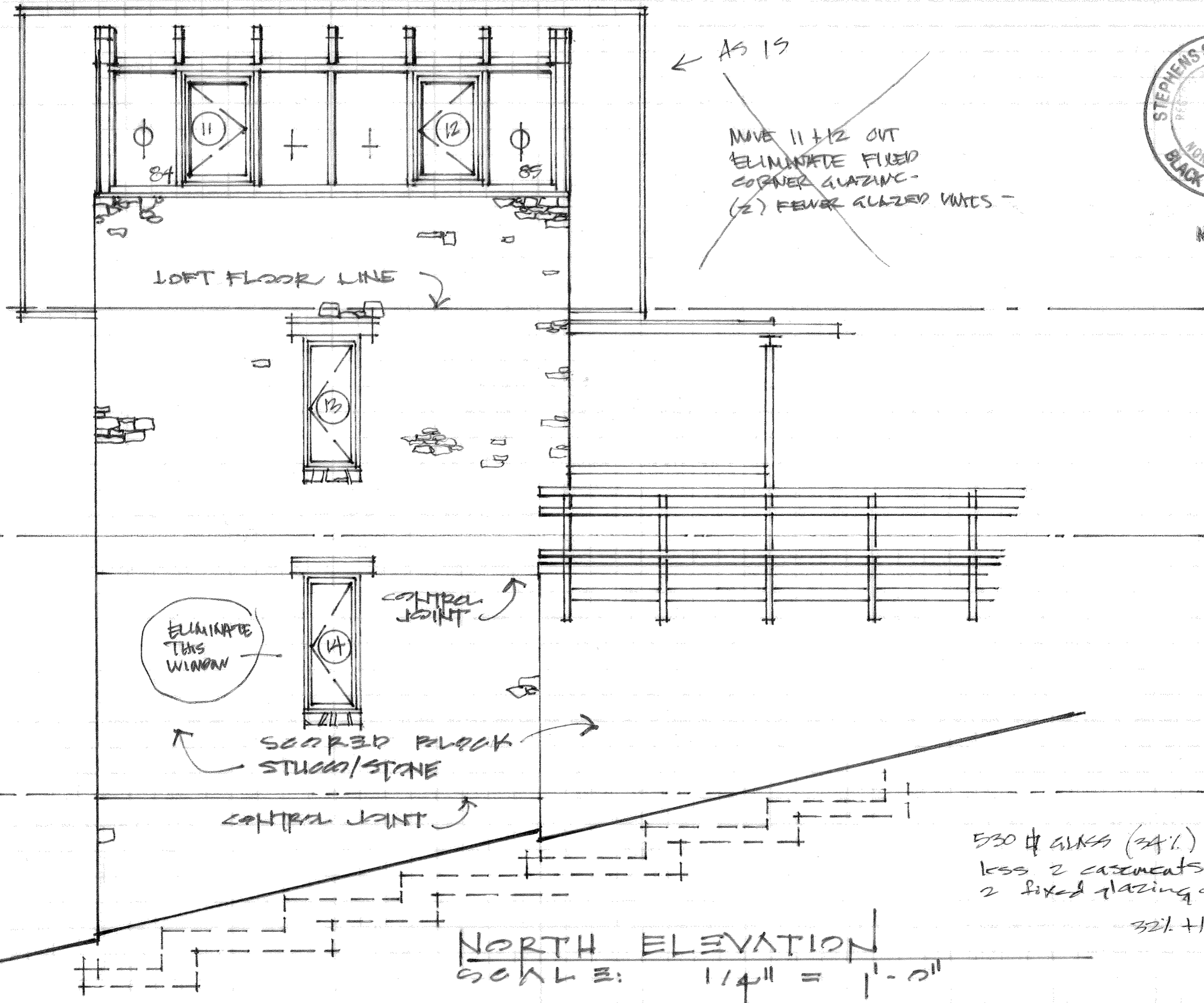


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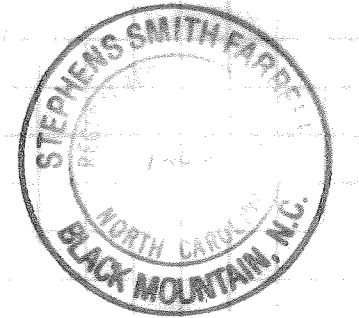
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EASTERN ELEVATION
SCALE: 1/4" = 1'-0"



← AS IS

~~MOVE 11 + 12 OUT
ELIMINATE FIXED
CORNER GLAZING -
(2) FEWER GLAZED UNITS -~~

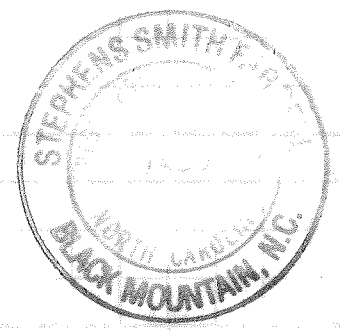
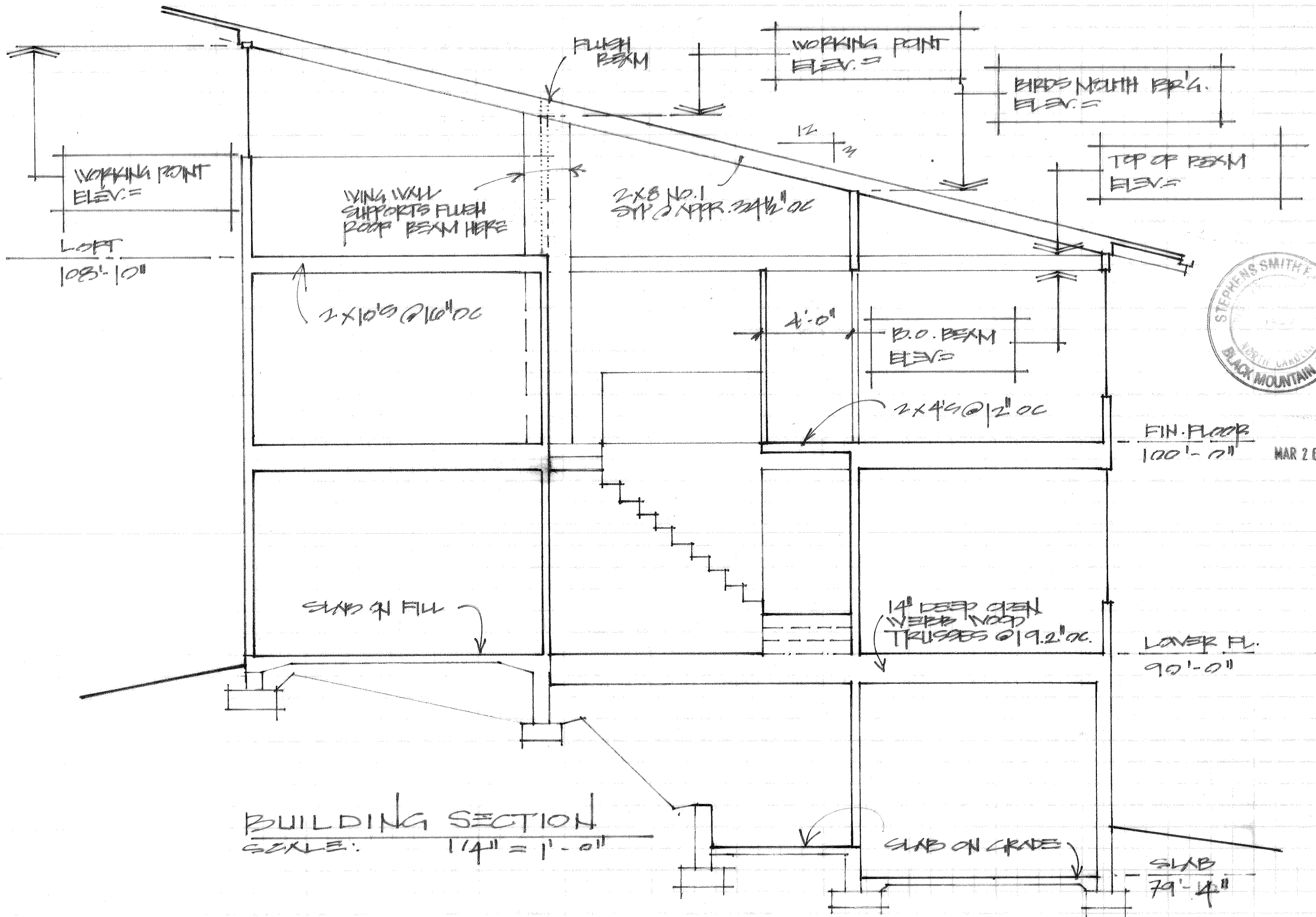


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530 # GLASS (34%)
less 2 casements +
2 fixed glazing openings
32% +/-

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



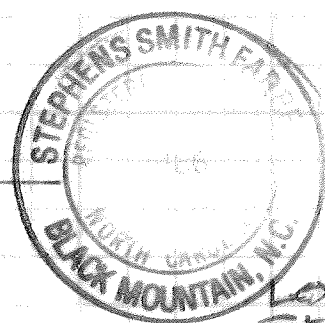
BUILDING SECTION
 SCALE: 1/4" = 1'-0"

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OUTSIDE FACE / FOUNDATION

SOFFIT DETAIL

COULLS: 3" = 1'-0"
3'-6"



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LOW PROFILE RAISED
SEAM ROOF 24 GAUGE
GALVALUME

2x6 x 12' LONG FT OR
SYP CANTILEVER
STRAPPING @ 24" OC

3/4" PLYWOOD -
FULL SHEETS @
ALL OVERHANGS

SIMPSON
HYPERLOCKE
CLIP EACH RAFTER

3/4" COMP.
PLUGS CONT.
(NO NOTCH -
1/2" / STEP
PING) *

1/2" RIGID
1x4 PINE

PREP
METAL
FLASHING
OVER
2x FT.
SLOPED
SILL

FLSHG.

2x4'S
@ AP. 18" OC
FLASHING

CULTURED
STONE
3" CONT
STUCCO

1/2" GYP @
FIXED AD.

3/4" COMP

CONT. 2x4
TOP PLATE

2x8 RAFTERS @
APPROXIMATELY
2'-10" O.C.

2x4 INFL
@ EXPOSED
SOFFITS

4x10

2x6

3'-3/4"

2'-3/4"

EQUID SPACING @ CENTER BAYS

2'-8 1/2"
R.O.

2'-9 1/2"

1x INFL
@ DOUBLE
RAFTERS

FIXED

CASEMENT

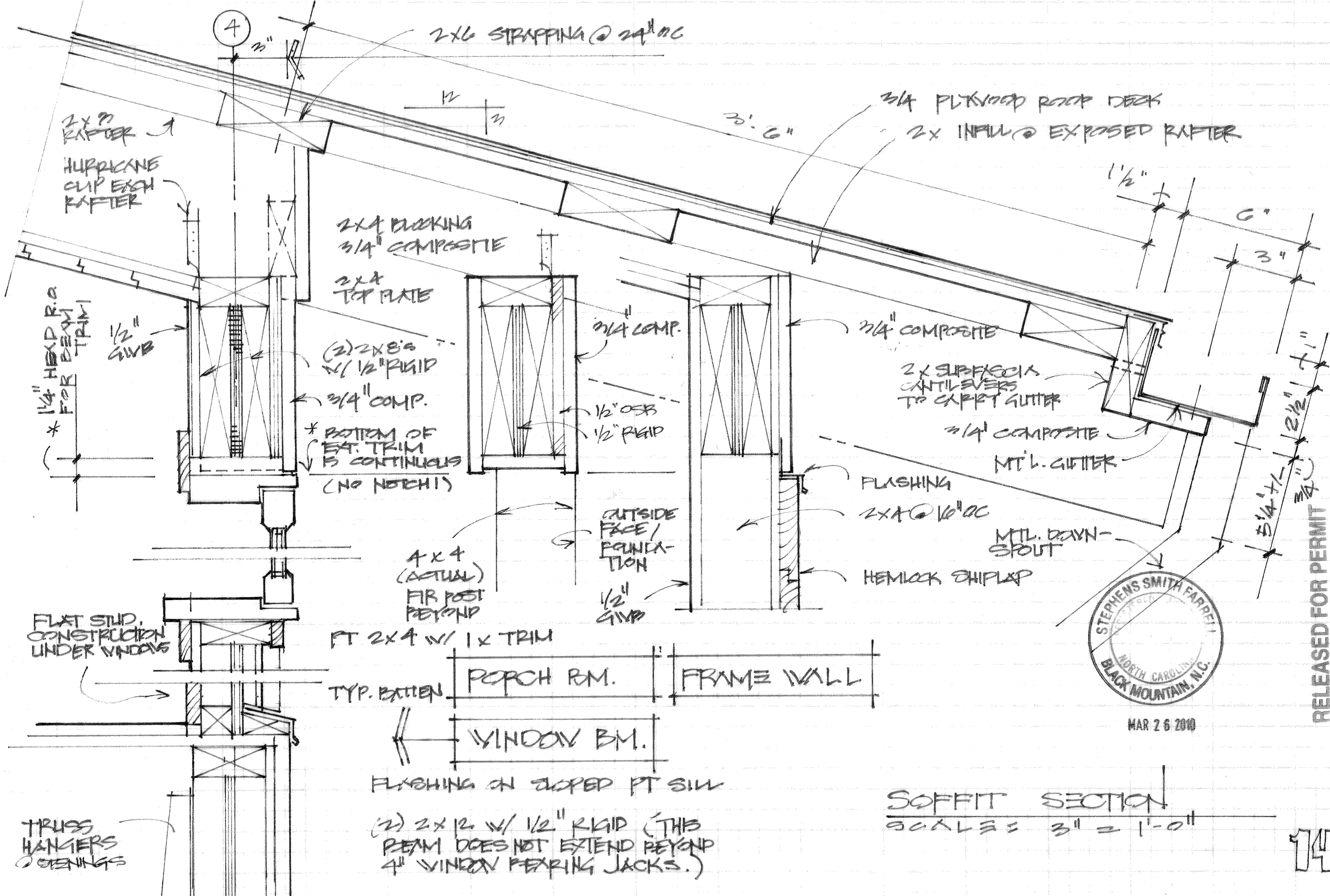
RAFTER LAYOUT DETAIL
PARTIAL NORTH ELEVATION - 1/2" = 1'-0"

SECTION @ HARDI-PAN

SECTION @ FIXED

SECTION @ CASEMENT

RELEASED FOR PERMIT



2x6 STRAPPING @ 24" OC

3/4" PLYWOOD ROOF DECK
2x INFL @ EXPOSED RAFTER

2x7 RAFTER
HURRICANE CLIP EACH RAFTER

2x4 BLOCKING
3/4" COMPOSITE

2x4 TOP PLATE

(2) 2x8's w/ 1/2" RIGID
3/4" COMP.

* BOTTOM OF EXT. TRIM IS CONTINUOUS (NO NOTCH)

3/4" COMP.

1/2" OSB
1/2" RIGID

3/4" COMPOSITE

2x SURFACE CANTILEVERS TO CARRY GUTTER

3/4" COMPOSITE

MTL. GUTTER

FLASHING

2x4 @ 16" OC

MTL. DOWN-SPOUT

HEMLOCK CHIP LAP

4x4 (ACTUAL) FIR POST BEYOND

OUTSIDE FACE / PENETRATION
1/2" GIVE

PT 2x4 w/ 1x TRIM

TYP. BATTEN

POORCH RM.

FRAME WALL

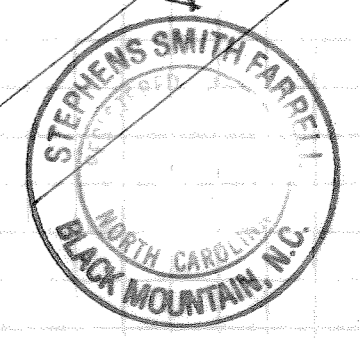
WINDOW BM.

FLASHING ON SLOPED PT SILL

(2) 2x12 w/ 1/2" RIGID (THIS BEAM DOES NOT EXTEND BEYOND 4" WINDOW PEAKING JACKS.)

FLAT STUD. CONSTRUCTION UNDER WINDOWS

TRUSS HANGERS & STENINGS

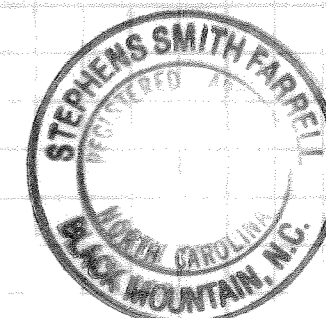


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SOFFIT SECTION

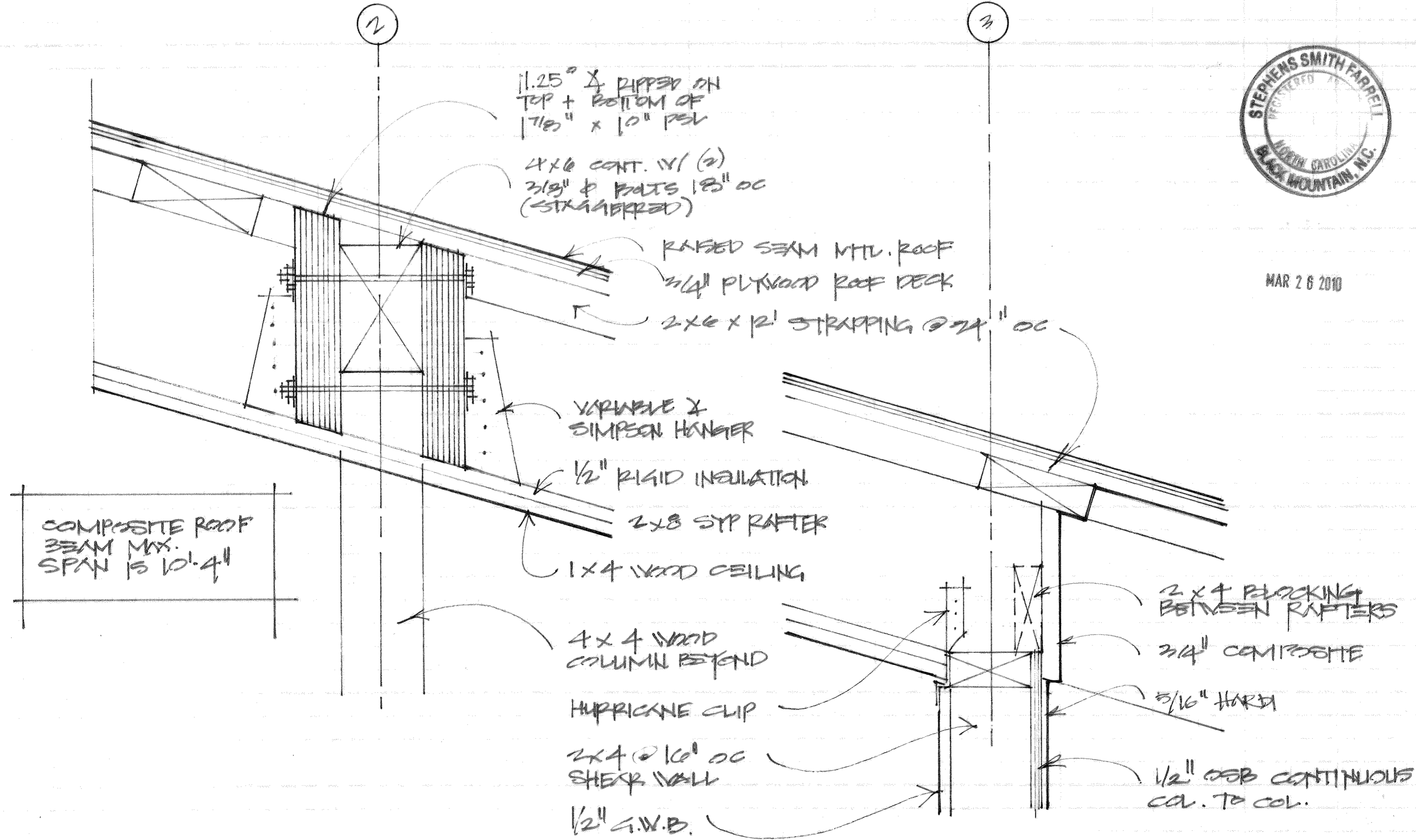
SCALE: 3/8" = 1'-0"

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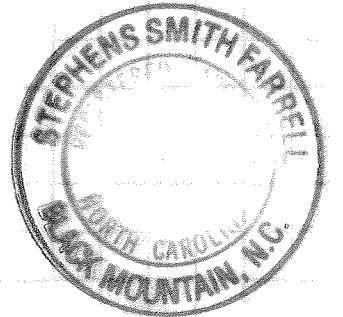
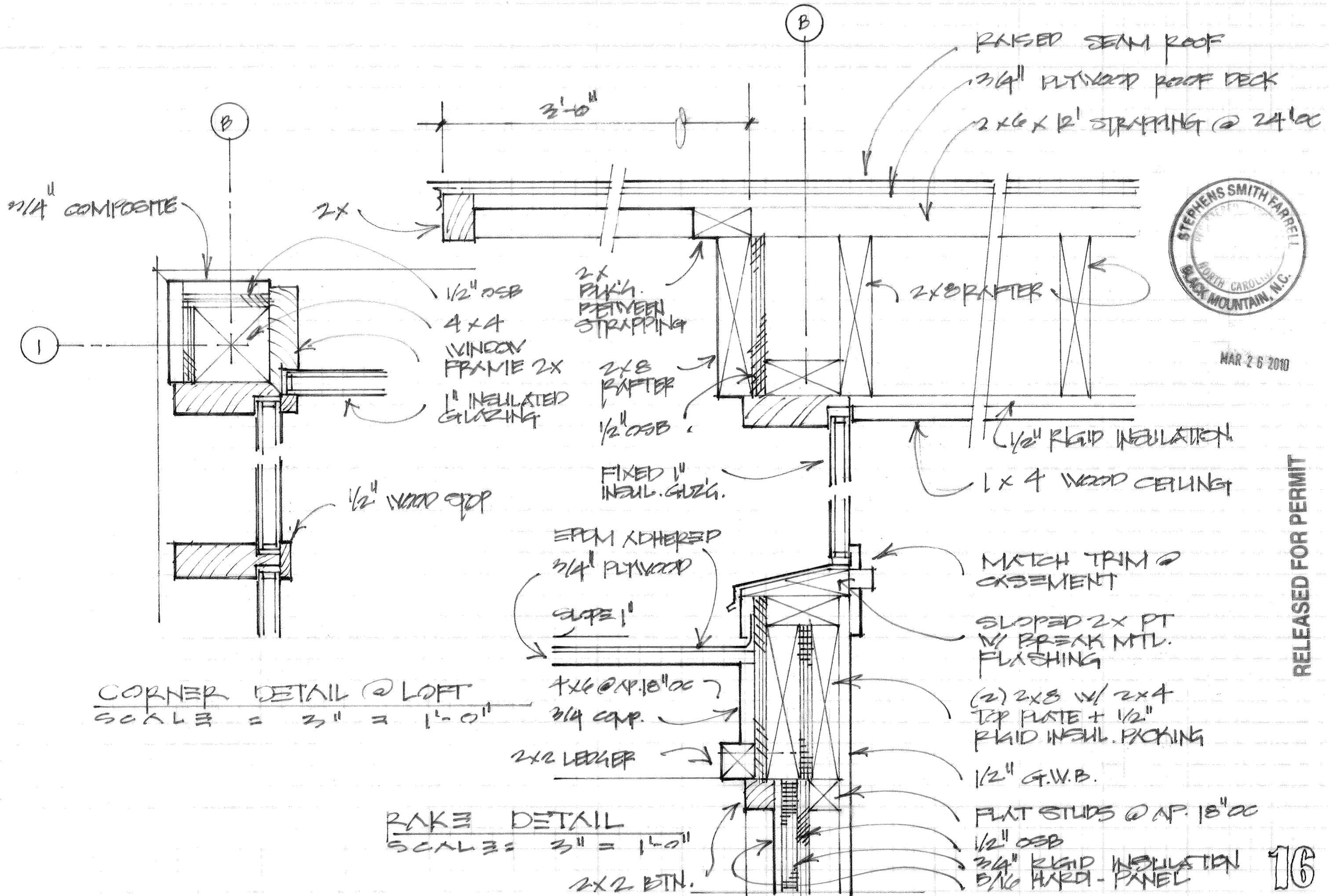
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ROOF BEAM
 SCALE = 3" = 1'-0"

BEARING/SHEAR WALL
 SCALE = 3" = 1'-0"

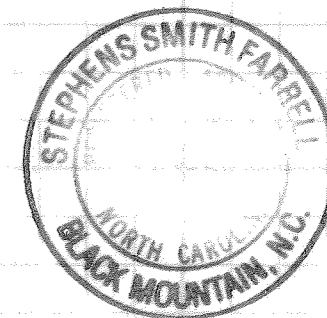


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CORNER DETAIL @ LOFT
SCALE = 3" = 1'-0"

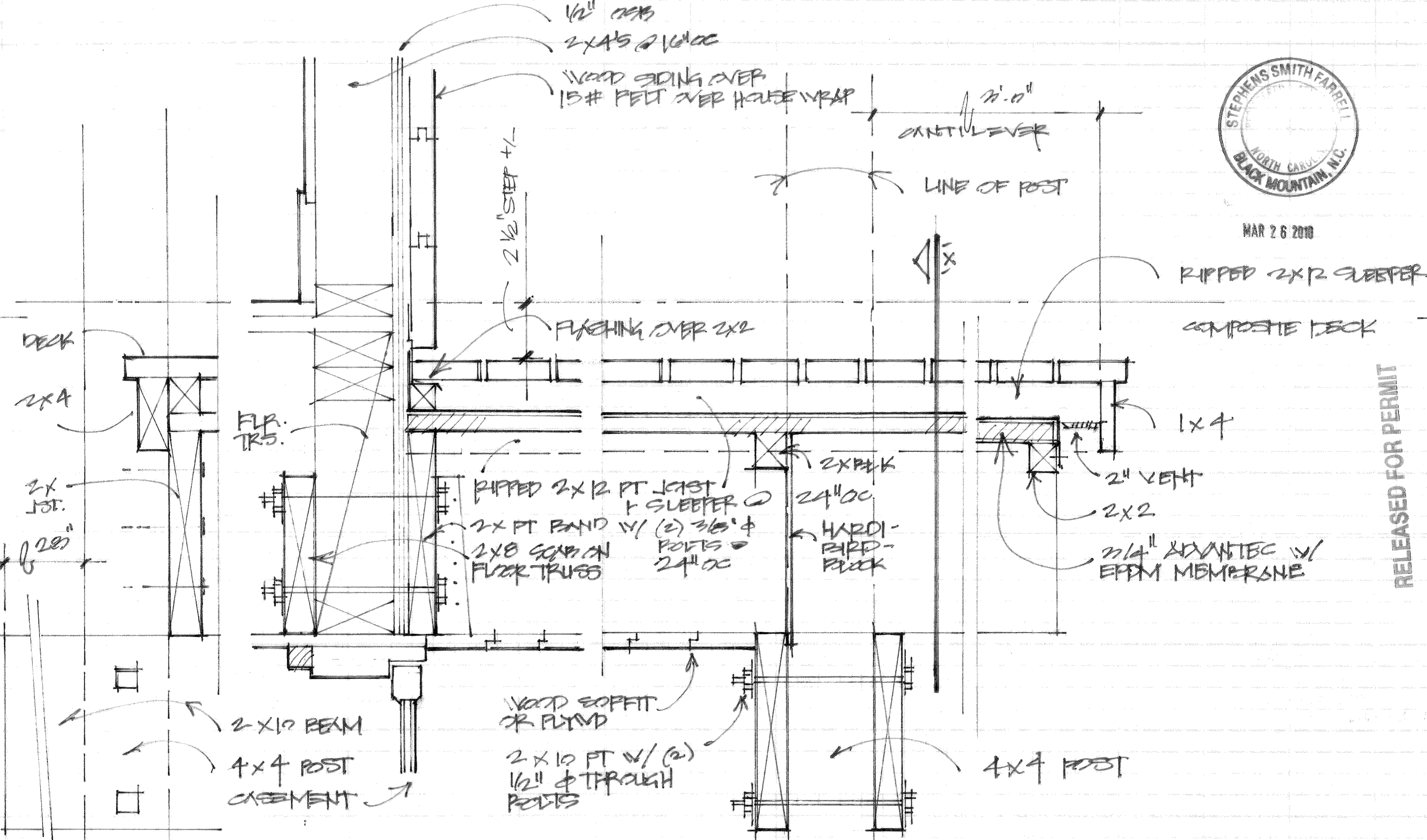
RAKE DETAIL
SCALE = 3" = 1'-0"

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1/2" OSB
2x4's @ 16" OC

WOOD SIDING OVER
15# FELT OVER HOUSE WRAP

7'-0"
CANTILEVER

LINE OF POST

2 1/2" STEP +/-

FLASHING OVER 2x2

RIPPED 2x12 SLEEPER

COMPOSITE DECK

DECK

2x4

FLR. TRS.

2x
1ST.

28"

RIPPED 2x12 FT LAST
+ SLEEPER @ 24" OC

2x FT BAND W/ (2) 3/8" ϕ
2x8 COMMON FLOOR TRUSS
POSTS @ 24" OC

2x2x2

HARD-
PIPED-
BLOCK

1x4

2" VENT

2x2

3/4" ADVANTEC W/
EPDM MEMBRANE

2x10 BEAM

4x4 POST
CASEMENT

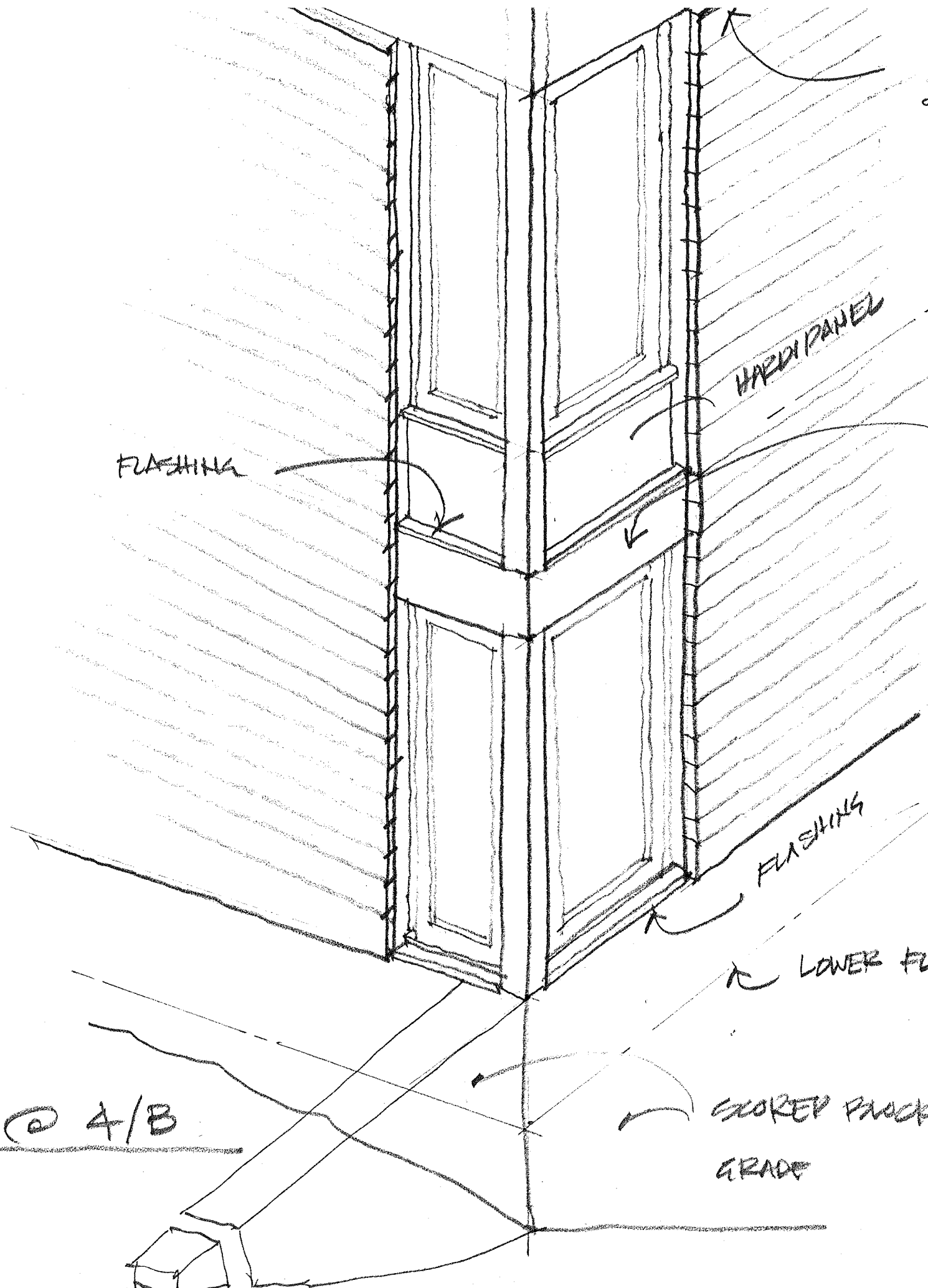
WOOD SOFFIT
OR PLYND

2x10 FT W/ (2)
1/2" ϕ THROUGH
POSTS

4x4 POST

POST DETAIL 'X'
SCALE: 3" = 1'-0"

PORCH SECTION 17
SCALE: 3" = 1'-0"



FLASHING
SHIPLAP

DATE:



MAR 26 2010

MAR 09 2010

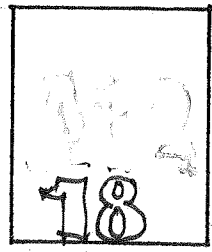
FLOOR FRAMING
FINISH A
W/ OUTSIDE
FACES OF
COLUMN

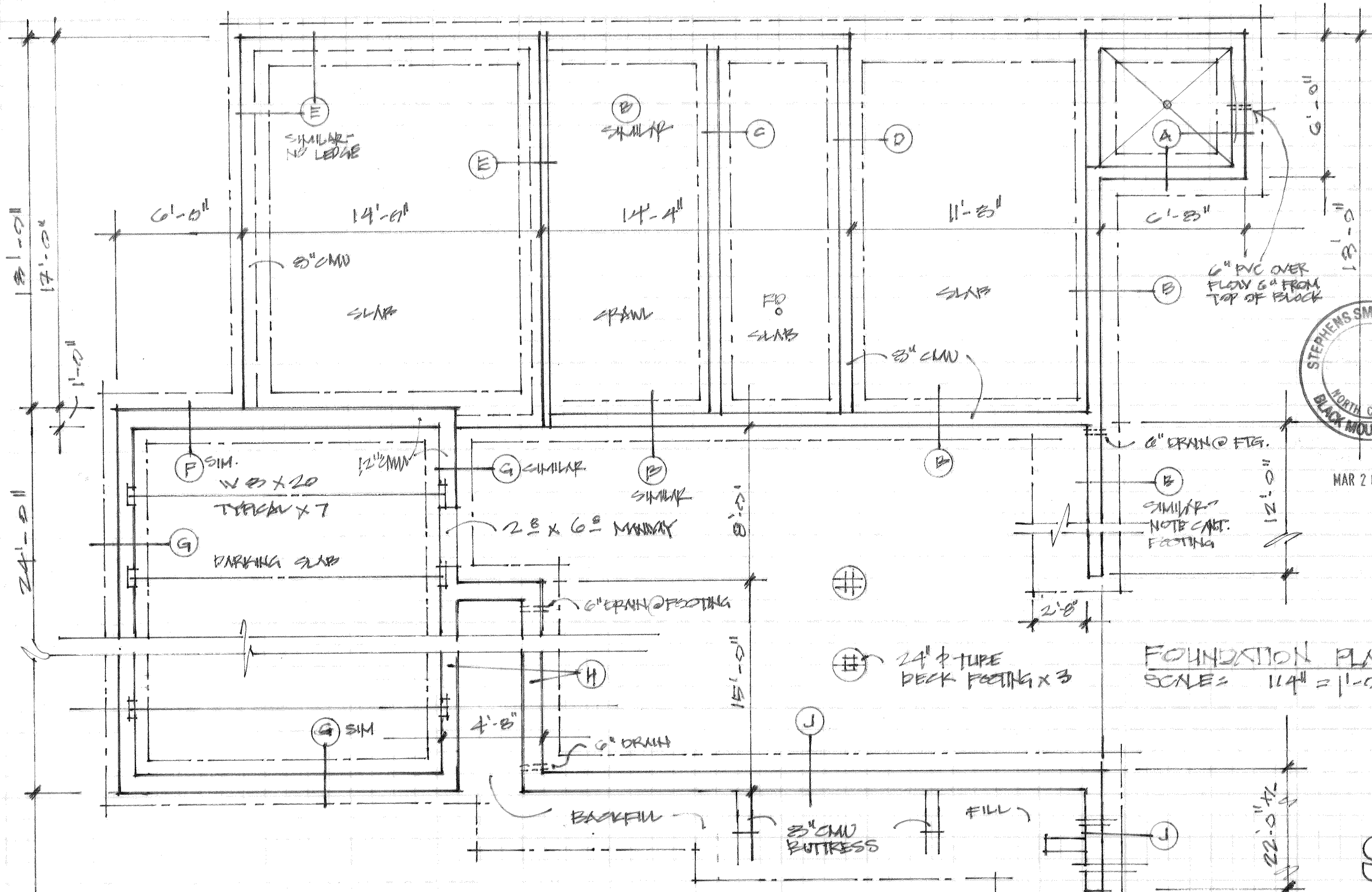
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DR. DUCKBUTTERS
SOLAR TOWNHOUSE
SOUTH DELANO ROAD
ASHEVILLE, NORTH CAROLINA

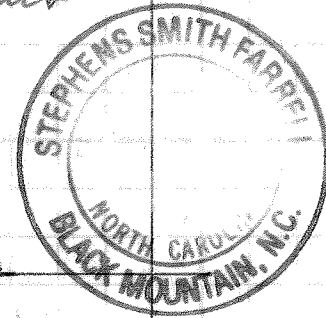
DETAIL @ 4/B

SCORED PACK
GRADE





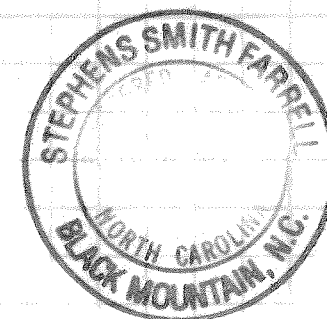
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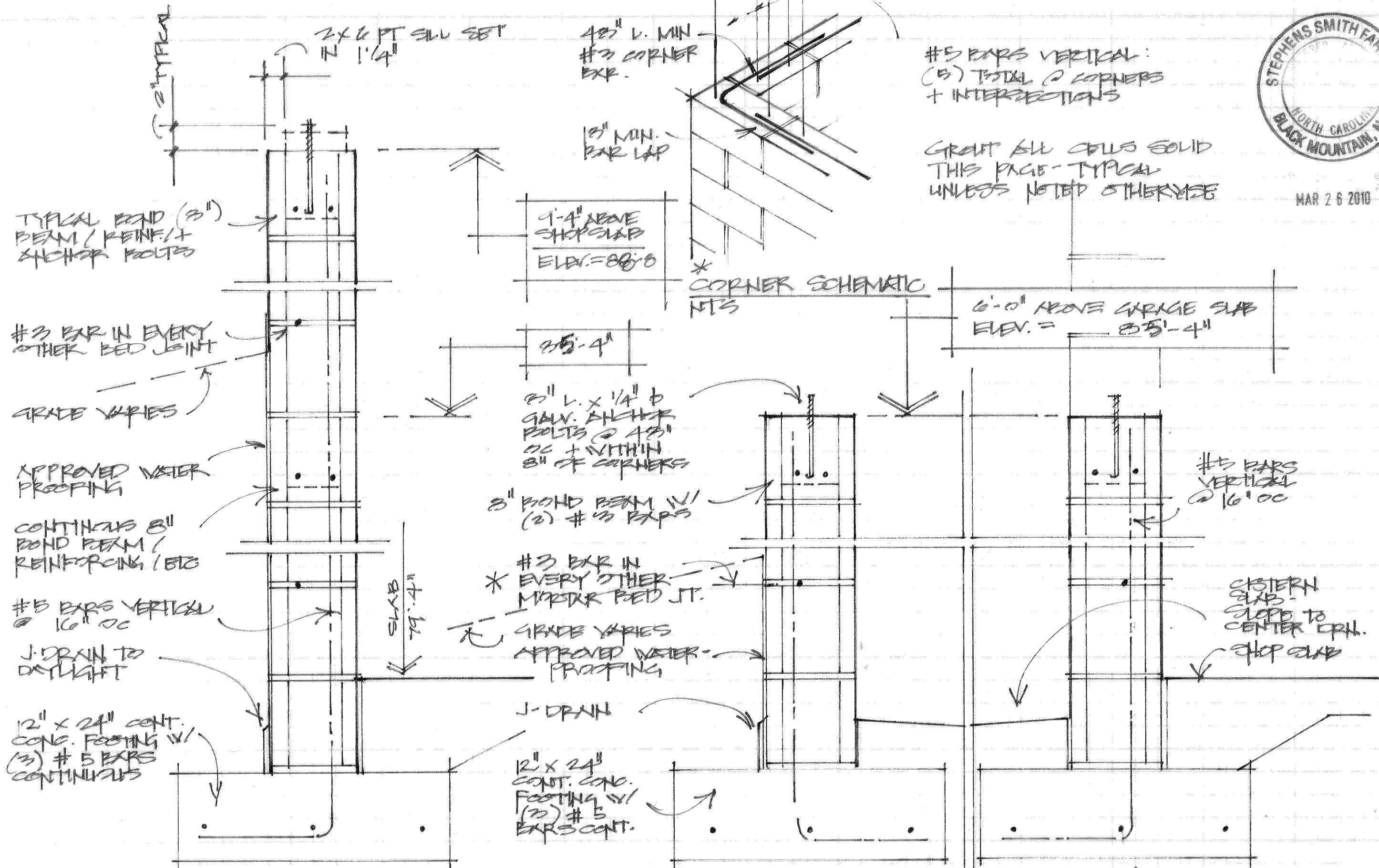
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FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

S1



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#5 BARS VERTICAL:
(5) TOTAL @ CORNERS
+ INTERSECTIONS

GRANT ALL CELLS SOLID
THIS PAGE - TYPICAL
UNLESS NOTED OTHERWISE

* CORNER SCHEMATIC
NTS

#5 BARS
VERTICAL
@ 16" OC

CISTERN
SLAB -
SLOPE TO
CENTER CRN.
AND DPT
SHOP SLAB

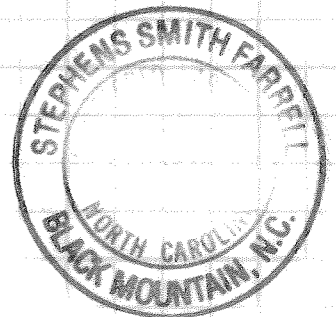
BLOCK DESIGN B (SHOP FDN.)

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

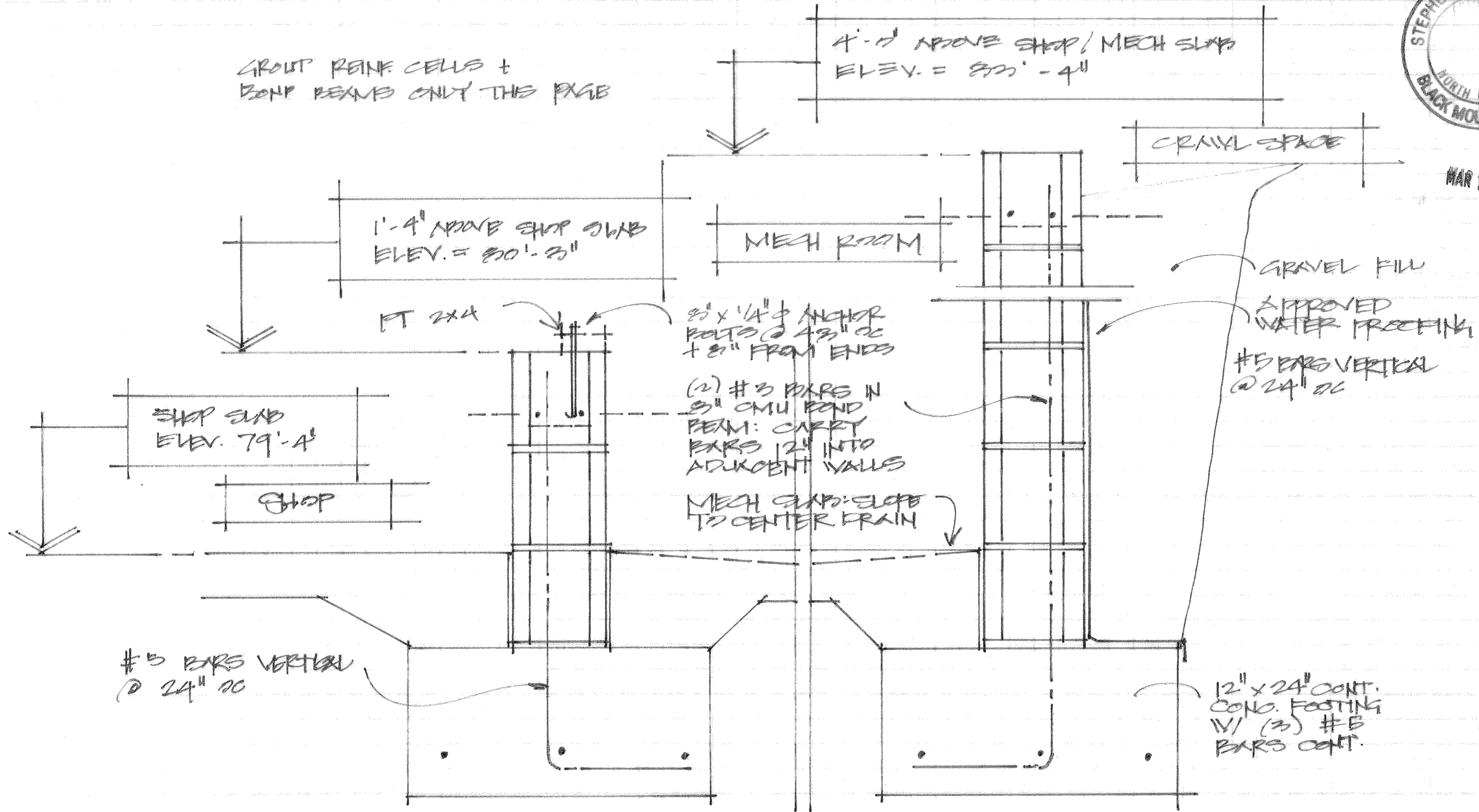
BLOCK DESIGN A (CISTERN)

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

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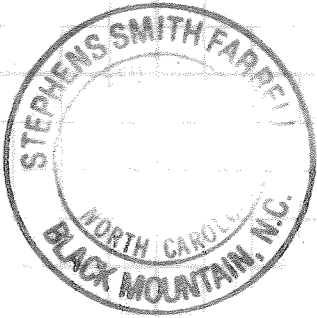
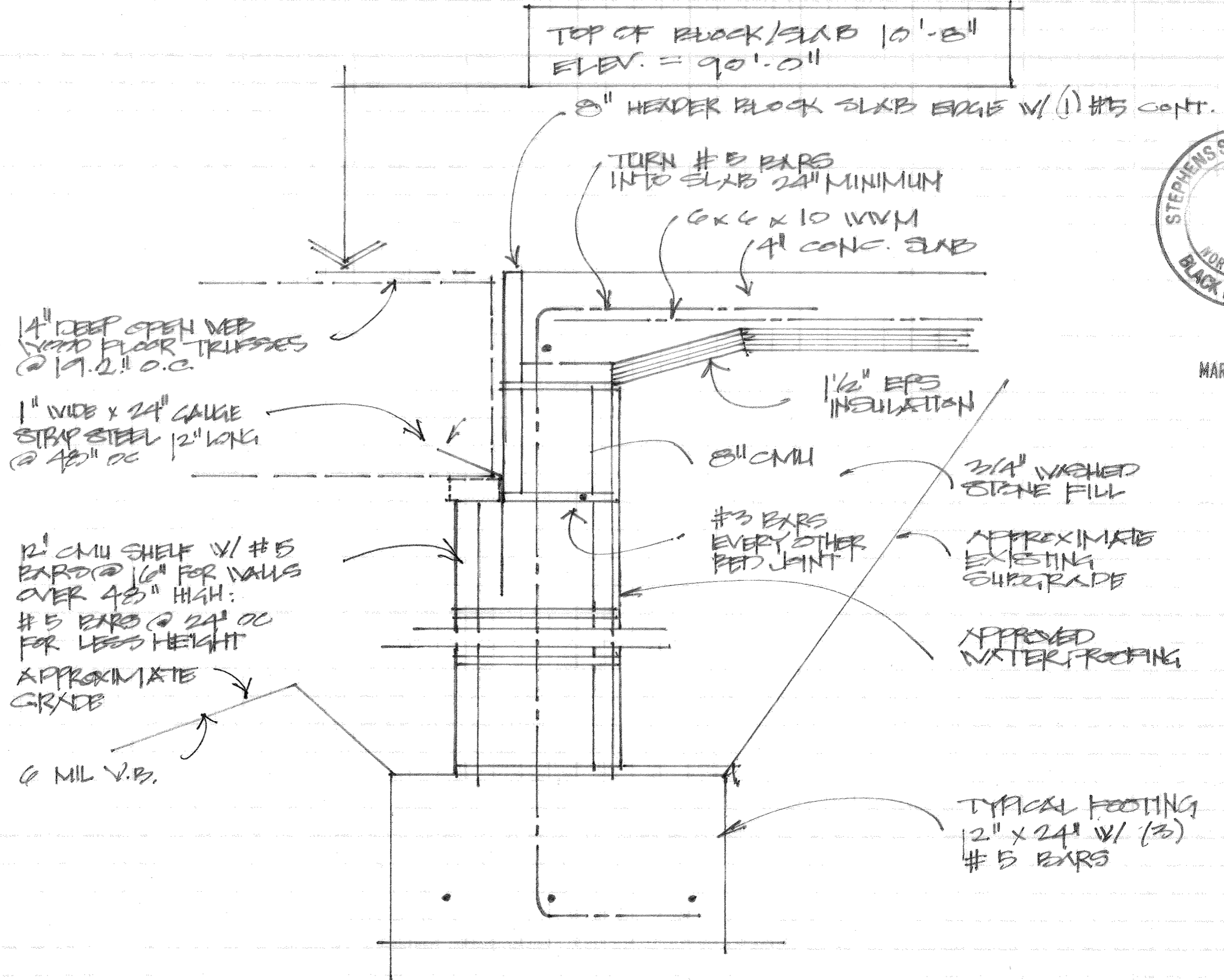
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BLOCK DESIGN D (SHOP STEM)
 SCALE: 1/2" = 1'-0"

BLOCK DESIGN C (MECH STEM)
 SCALE: 1/2" = 1'-0"

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BLOCK DESIGN E (PARTIAL SLAB/BEDROOM)

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

RELEASED FOR PERMIT

TOP OF BLOCK = 9'-0" BENCHMARK = 9'-0" B

A" BOLT EXTENSION

SLOPE 3/4" FROM 8" TO 6" MINIMUM

#5 BARS @ 6" EACH WAY

1 1/2" x 26 GA MTL. DECK

1/2" x 24

3" CMU RIBBON BEAM W/ (2) #5 BARS

#3 BAR IN EVERY OTHER BED JOINT

3/8" d x 12" L GALV. RAIL ANCHORS (2) EVERY 48"

TYPICAL 2" CMU REINFORCING

PURPLE WELLS @ 48" OC

1/2" x 24

12" x 3/8" d ANCHOR BOLTS

BEAM POCKET 8" x 8" x 4" MIN. BEARING DEPTH

1/4" BEARING DETAIL 1/2"

1 1/2" x 26 GA GALV. METAL DECK

12" CMU RIBBON BEAM W/ (2) #5 BARS CENT

2" CMU (2) #5 VERT. UNDER BEARING

#3 BAR IN EVERY OTHER BED JOINT

12" x 30" CONT. CONG. FOOTING W/ (4) #5 BARS

A'-0" RL 4'-0" RL

1 1/2" d x 10"

3" TO 6" SUB

LIMIT OF DECK = 3" 2 x 4 @ 16" OC FLOOR FINISH

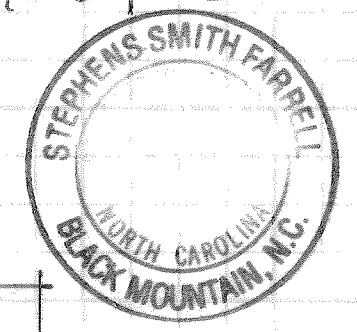
PT ON SILL SEWER

14" DEEP STEEL WEB FLOOR JOIST

1" RIGID

1 1/2" Δ B. HEIGHT W/ 2 x 8 PT 8" L x 1/4" d ANCHOR BOLTS @ 48" OC

#5 BARS VERTICAL @ 24" OC



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BLOCK DESIGN G (SLAB EDGE)

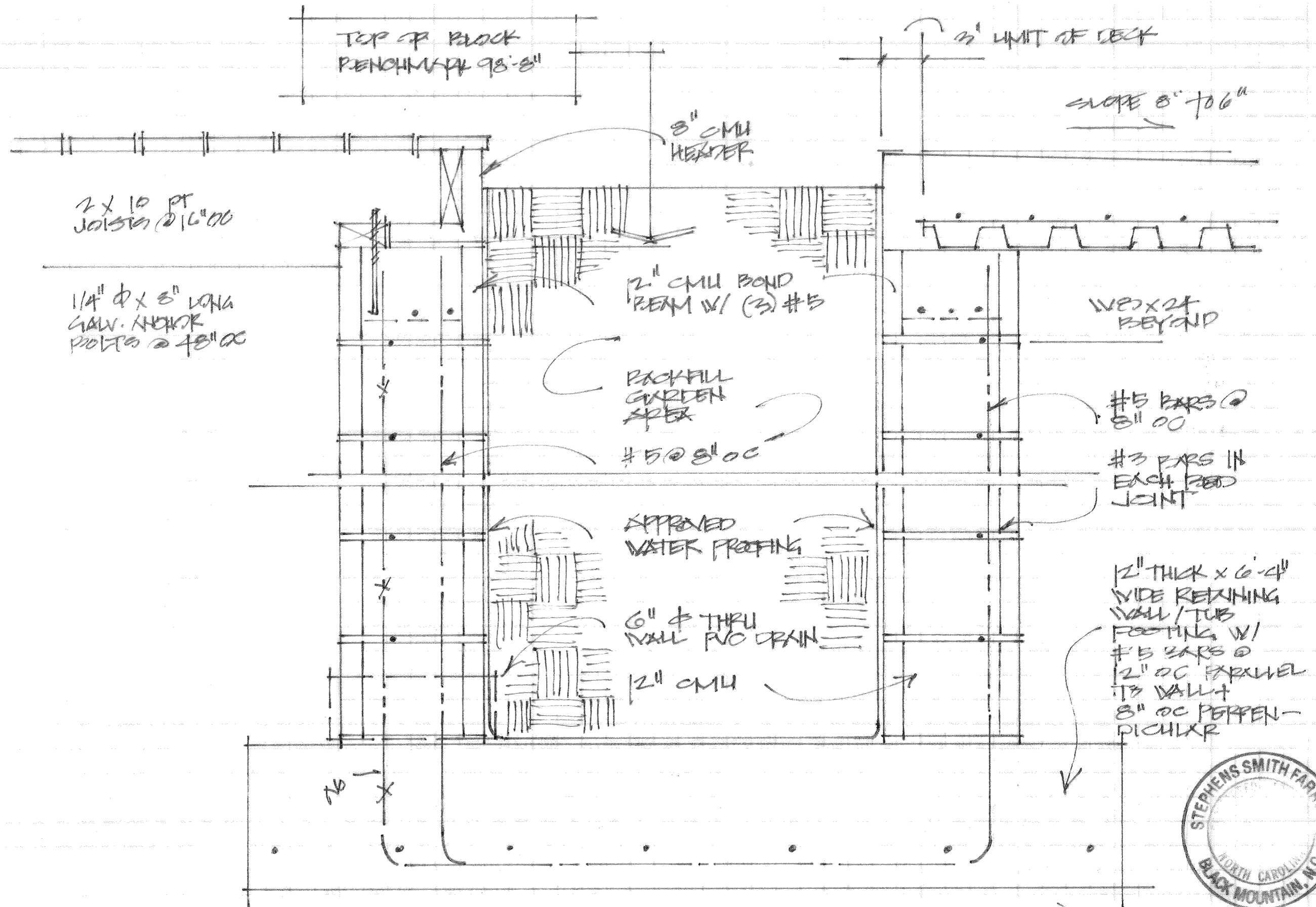
SCALE = 1/2" = 1'-0"

BLOCK DESIGN F (SLAB/FOUNDATION)

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

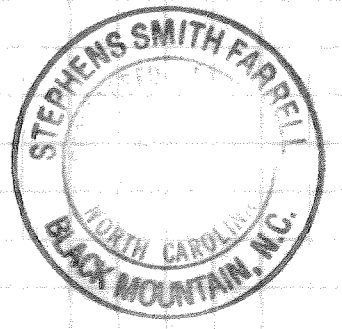
S5

RELEASED FOR PERMIT



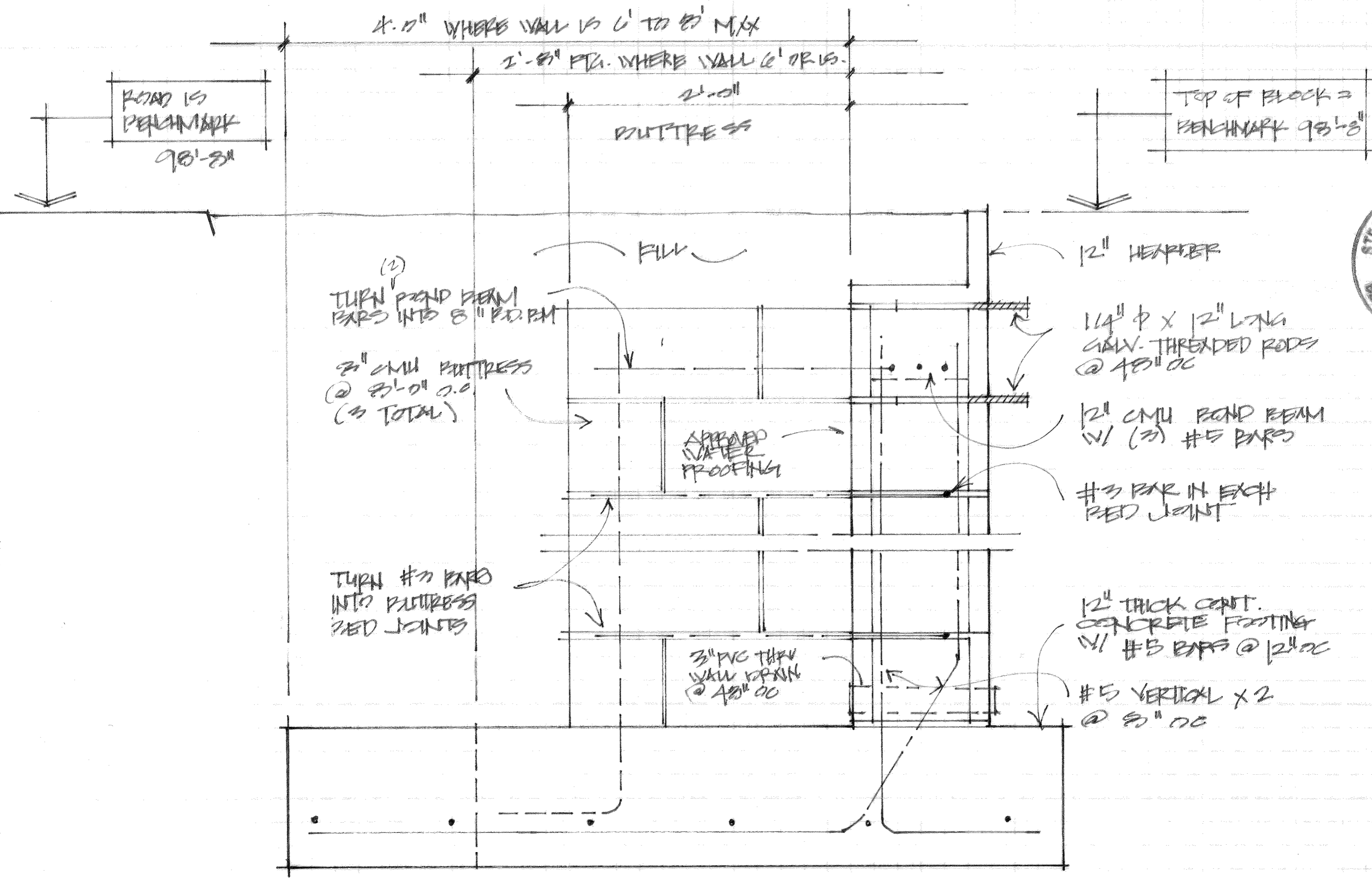
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BLOCK DESIGN H (RETAINING/TUB)
 SCALE: 1/2" = 1' - 0"



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SG



(2)
TURN BOND BEAM
BARS INTO 8" P.D. BEAM

8" CMU PARTRESS
@ 8'-0" O.C.
(3 TOTAL)

TURN #3 BARS
INTO PARTRESS
BED JOINTS

3" PVC THRU
WALL DRAIN
@ 48" OC

APPROVED
WATER
PROOFING

2'-0"
OUTTRESS

2'-8" PTG. WHERE WALL 6' OR LS.

4'-0" WHERE WALL IS 6' TO 8' MAX

ROAD IS
BENCHMARK
98'-8"

TOP OF BLOCK 2
BENCHMARK 98'-8"

12" HEADER

1/4" φ x 12" LONG
GALV.-THREADED RODS
@ 48" OC

12" CMU BOND BEAM
W/ (3) #5 BARS

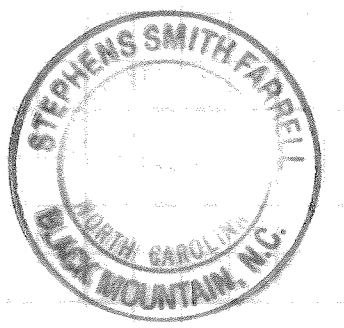
#3 BAR IN EACH
BED JOINT

12" THICK CONCR.
CONCRETE FOOTING
W/ #5 BARS @ 12" OC

#5 VERTICAL x 2
@ 8" OC

BLOCK DESIGN J (RETAINING)

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



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