

CEILING JOISTS PER TRUSS MANUF.

# FIRST FLOOR PLAN

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

9'-0" CLG. HGT. U.N.O.  
SET WINDOWS @ 6'-8" U.N.O.

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10-1215-DT

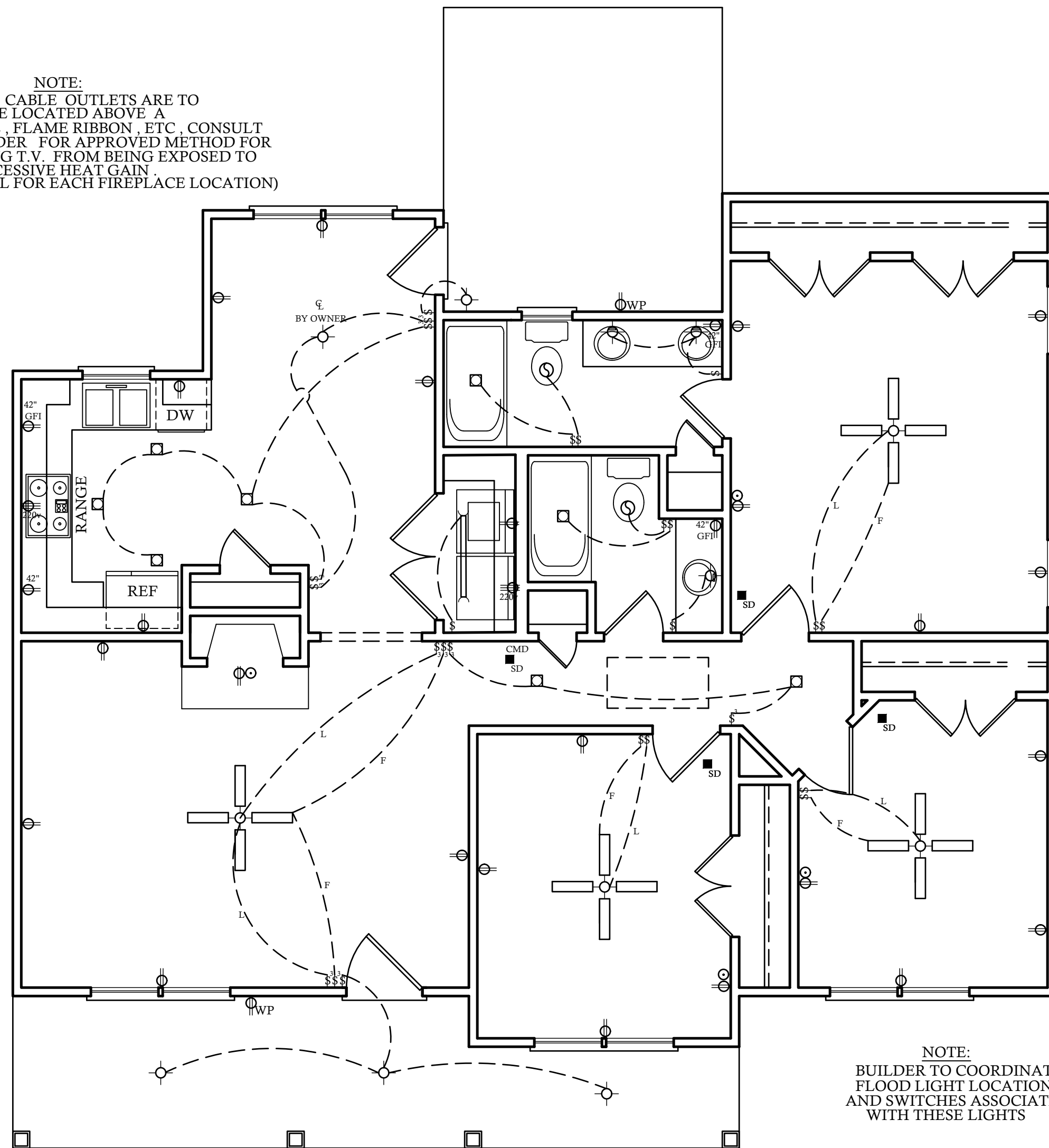


**10-1215-DT**  
1016 RED HILL RD

**A/B/D** SHEET NO. **3** OF **7**

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NOTE:  
IF T.V. CABLE OUTLETS ARE TO  
BE LOCATED ABOVE A  
FIRE PLACE, FLAME RIBBON, ETC. CONSULT  
WITH BUILDER FOR APPROVED METHOD FOR  
PREVENTING T.V. FROM BEING EXPOSED TO  
EXCESSIVE HEAT GAIN  
(NOTE TYPICAL FOR EACH FIREPLACE LOCATION)



## FIRST FLOOR ELECTRICAL PLAN

### ELECTRICAL LEGEND

- - LIGHT FIXTURE
- ⊙ - FAN/LIGHT
- ⊕ WP - WATERPROOF OUTLET
- - RECESSED LIGHTING
- ⊠ - CAN LIGHT W/ FAN
- § - SINGLE SWITCH
- §<sub>3</sub> - 3-WAY SWITCH
- §<sub>4</sub> - 4-WAY SWITCH
- §<sub>D</sub> - DIMMER SWITCH
- CMD - CARBON MONOXIDE DETECTOR
- SD - SMOKE DETECTOR
- ⊠ - FLOOD LIGHTS
- ▽ - EYEBALL SPOTS
- ⊕ - DUPLEX RECEPTACLE (110V)
- ⊕ - 220 VOLT RECEPTACLE
- ⊕ - SWITCHED RECEPTACLE (TOP WIRE ONLY)
- GFI - GROUND FAULT CIRCUIT INTERRUPTOR
- ⊕ - CLG FAN/LIGHTS
- - TRACK LIGHTS
- - FLUORESCENT/LED LIGHTING
- - CABLE OUTLET
- ▲ - TELEPHONE OUTLET
- △ - COMPUTER DATA OUTLET
- - INTERCOM

NOTE:  
ALL ELECTRICAL INSTALLATIONS SHALL BE  
IN ACCORDANCE WITH THE NEC.

### ELECTRICAL NOTES:

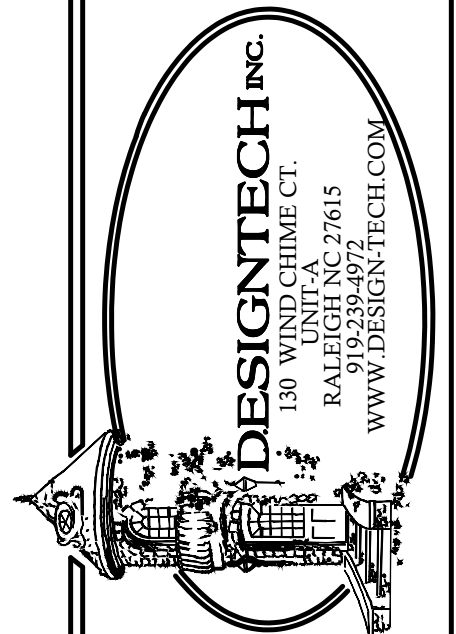
1. THE ELECTRICAL DIAGRAMS SHOWN ON THESE PLANS ARE TO BE USED AS A GUIDE. HOME OWNER AND BUILDER ARE REQUIRED TO REVIEW AND CONFIRM WITH LICENSED ELECTRICAL CONTRACTOR THESE CONTENTS PRIOR TO ROUGH-IN FOR CODE COMPLIANCE AND SPECIAL REQUIREMENTS BY THE HOME OWNER. ONCE CONSTRUCTION BEGINS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR, NOT DESIGN TECH, INCORPORATED.
2. SEE ELECTRICIAN, BUILDER, AND OWNER FOR POSSIBLE GENERATOR LOCATION, SWITCHES, RECEPTACLES, AND ATTACHMENTS. COORDINATE SIZE AND MODEL OF GENERATOR TO HANDLE LOADS ADEQUATELY.
3. UNDER-CABINET COUNTER LIGHTING FOR KITCHEN IS OPTIONAL. PLEASE CONFIRM WITH CABINET MAKER AND ELECTRICIAN.
4. ELECTRICAL FOR EXTERIOR LANDSCAPE LIGHTING AND POOL EQUIPMENT BY BUILDER AS PER CODE.
5. IT IS AN OPTION FOR EVERY TOP RECEPTACLE AT FRONT WINDOWS TO BE ON ONE SWITCH LOCATED BY OWNER/ BUILDER FOR WINDOW DECORATION LIGHTING.
6. CLOSET LIGHTING TO BE CONTROLLED BY SWITCH AS SHOWN OR IN-JAMB SWITCH WHICH WOULD ILLUMINATE LIGHT WHEN DOOR IS OPENED. SOME ELECTRICAL PLANS MAY OR MAY NOT SHOW CLOSET LIGHTING. SEE OWNER AND CONFIRM WITH BUILDER.
7. EXHAUST FANS ARE REQUIRED IN BATHROOMS WITHOUT NATURAL VENTILATION. OUR PLANS WILL ALWAYS SHOW EXHAUST FAN.
8. NO HEAT LAMPS OR HEATERS MAY BE SHOWN IN THIS DRAWING. PLEASE CONFIRM WITH BUILDER FOR PRESENCE AND LOCATION.
9. ALL SLEEPING AREAS/BEDROOMS SHOULD CONTAIN SMOKE DETECTORS. SOME CORRIDORS ALSO REQUIRE SMOKE DETECTORS. PLEASE SEE LOCAL, STATE, AND FEDERAL BUILDING CODES TO CONFIRM THESE REQUIREMENTS.
10. PANEL BOX LOCATION BY ELECTRICIAN/BUILDER AS PER CODE.

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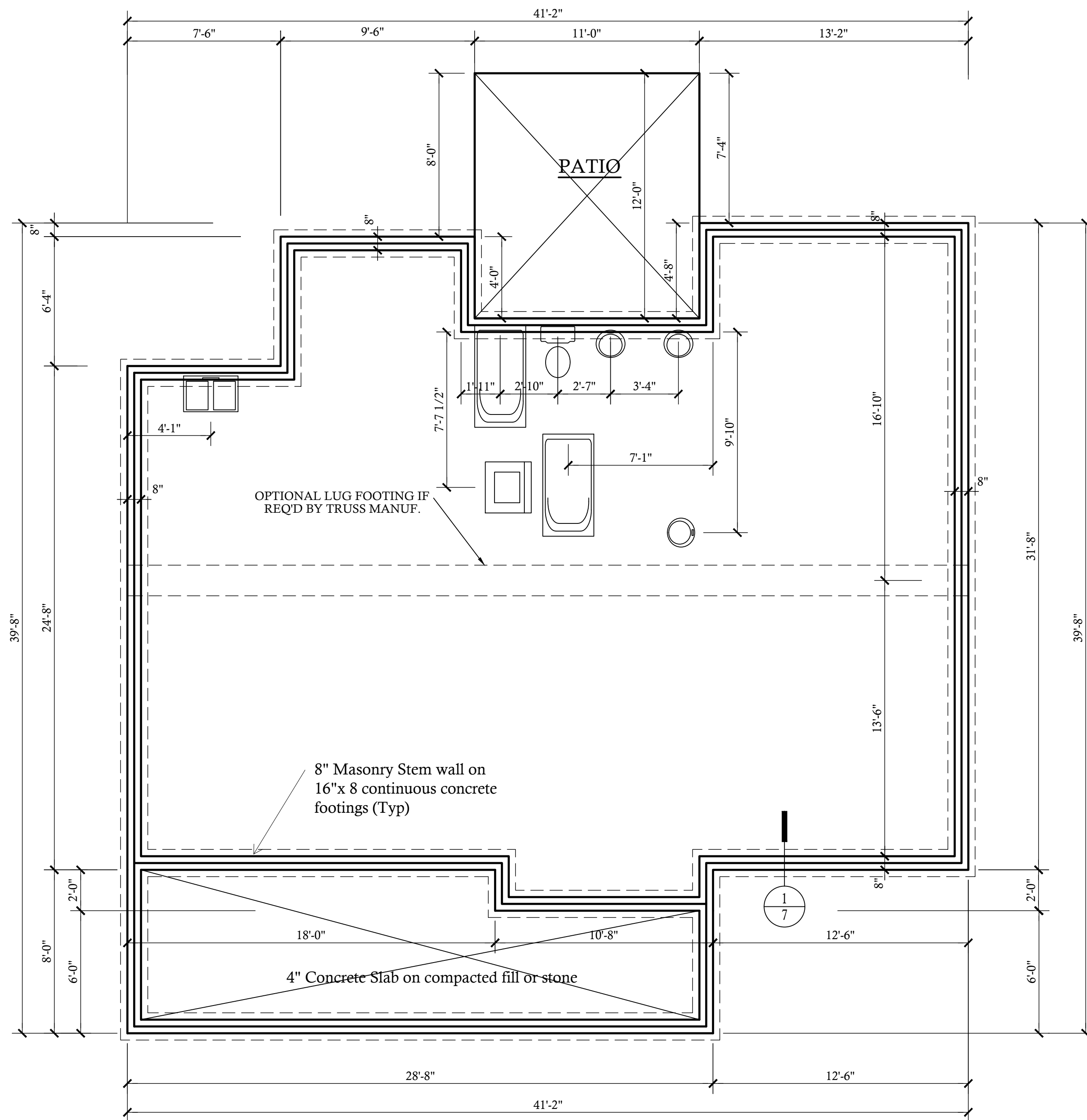
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**STEM WALL FOUNDATION PLAN**

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

STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, PLLC**  
 3513 CATHEDRAL BELL ROAD  
 RALEIGH, NC 27614  
 LICENSE P-1716

\* ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS.  
 \* ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO IMMEDIATE ATTENTION OF THE ENGINEER. FAILURE TO DO SO WILL VOID ENGINEER'S LIABILITY.



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All Roof Members to be Trusses by Others

### ROOF VENTILATING REQUIREMENTS

$$\frac{\text{SQ.FT. OF AREA VENTILATED}}{150} (144) = \frac{1254.7}{150} \text{ TOTAL SQ. IN. OF ATTIC VENTILATION REQ'D}$$

NOTE: FIGURE BASED ON SECTION R-806.2 OF THE 2018 NCRC .

MINIMUM NET FREE VENTILATING AREA IS PERMITTED TO BE REDUCED TO 1 TO 300 WHEN CONDITIONS ARE MET AS PER SECTION R806.2 OF THE 2018 NCRC

**INLET:**

$$1254.7 (.5) = 627.4 \text{ SQ. IN. OF INLET VENTING REQ'D}$$

**OUTLET:**

$$1254.7 (.5) = 627.4 \text{ SQ. IN. OF OUTLET VENTING REQ'D}$$

**BRACED WALL NOTES:**

- BRACED WALLS ARE REQUIRED PER SECTION R602.10.1 2018 NCBC RESIDENTIAL CODE
- THE EXTERIOR WALL STRUCTURE SHALL BE CONTINUOUSLY SHEATHED, FULL HEIGHT WITH MIN. THICKNESS 7/16" OSB. THESE WALLS SHALL BE CONSTRUCTED IN CONFORMANCE TO TYPE CS-WSP DETAILS. REFER TO PLAN FOR LOCATION OF REQUIRED BRACING LABELED "CS BRACING" AND LENGTH OF WALL BRACING LABELED IN LINEAR FEET.
- INTERIOR WALLS WHERE NOTED SHALL BE BRACED PER INDICATED METHOD IN REFERENCE TO NCBC-RESIDENTIAL CODE, TABLE R602.10.2.

**LIB METHOD:**

INSTALL 1X4 WOOD OR CONTINUOUS METAL STRAPPING AT 45 DEGREES TO 60 DEGREES FROM TOP PLATE TO BOTTOM PLATE ACROSS STUDS WITH MAXIMUM STUD SPACING OF 16" ON CENTER. CONNECT AS INDICATED IN CODE SECTION.

**GB METHOD:**

MINIMUM 5/8" GYPSUM BOARD TURNED VERTICALLY AND CONTINUOUS FROM TOP PLATE TO BOTTOM PLATE. SCREW CONNECTION TO FRAMING USING SPACING CRITERIA AS INDICATED IN CODE TABLES.

- SPECIAL BRACING DETAILS ARE ILLUSTRATED IN THE CODE AND ALLOWED WHERE WALLS DO NOT MEET THE MINIMUM REQUIREMENTS FOR SUPPORT.
- SEE TABLE R602.7.5 FOR CORRECT NUMBER OF KING STUDS PER HEADER.

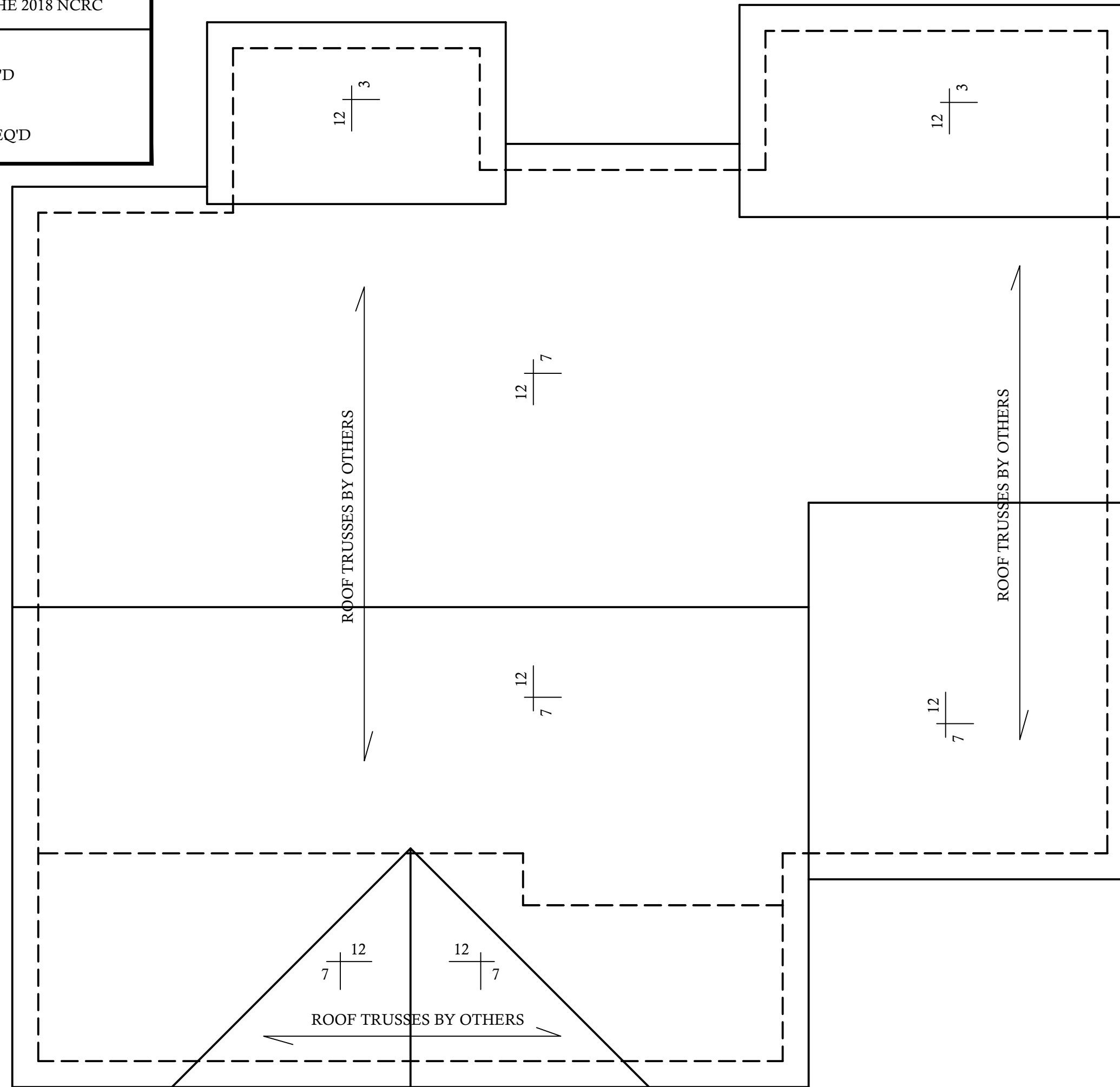
**GENERAL FRAMING NOTES:**

- THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
- GLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 15% OF THE GROSS AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF N1101.2.1, RESIDENTIAL BUILDING, TYPE A-1.
- WALL CLADDING IS DESIGNED FOR A 24.1 #/SF OR GREATER POSITIVE/NEGATIVE PRESSURE.
- ALL WALLS, FLOORS AND CEILINGS SHALL BE INSULATED IN ACCORDANCE WITH CODE SUMMARY.
- DESIGN CRITERIA:
 

	DEAD	LIVE
PRIMARY FLOOR	10 PSF	40 PSF
SECONDARY FLOOR	10 PSF	40 PSF
SLEEPING AREAS	10 PSF	30 PSF
ATTIC	10 PSF	20 PSF
ROOF	10 PSF	20 PSF

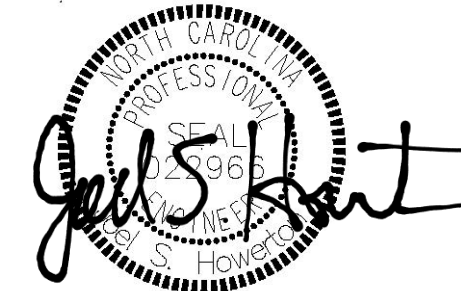
DEFLECTION LIMITS:

FLOOR	L/360(LIVE LOAD ONLY)
ROOF	L/240
- ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10 U.O.N.
- ALL WALLS ARE 2X4 @ 16" O.C. U.O.N.
- PROVIDE DOUBLE FLOOR JOISTS UNDER WALLS ABOVE.
- PROVIDE FOUNDATION VENT WITHIN 36" OF EACH CORNER.
- ALL JOISTS TO BE SPF.



### ROOF FRAMING PLAN

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



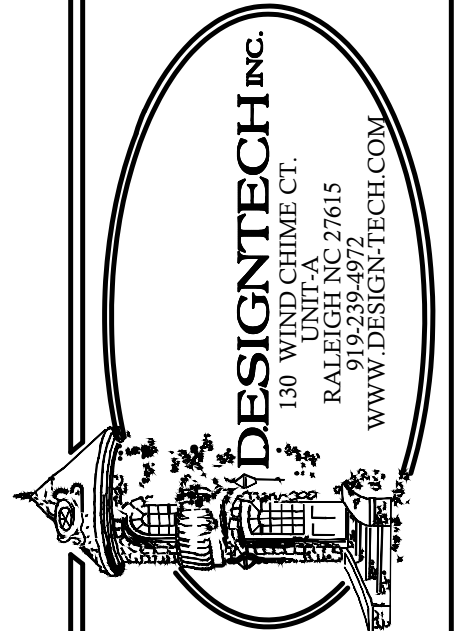
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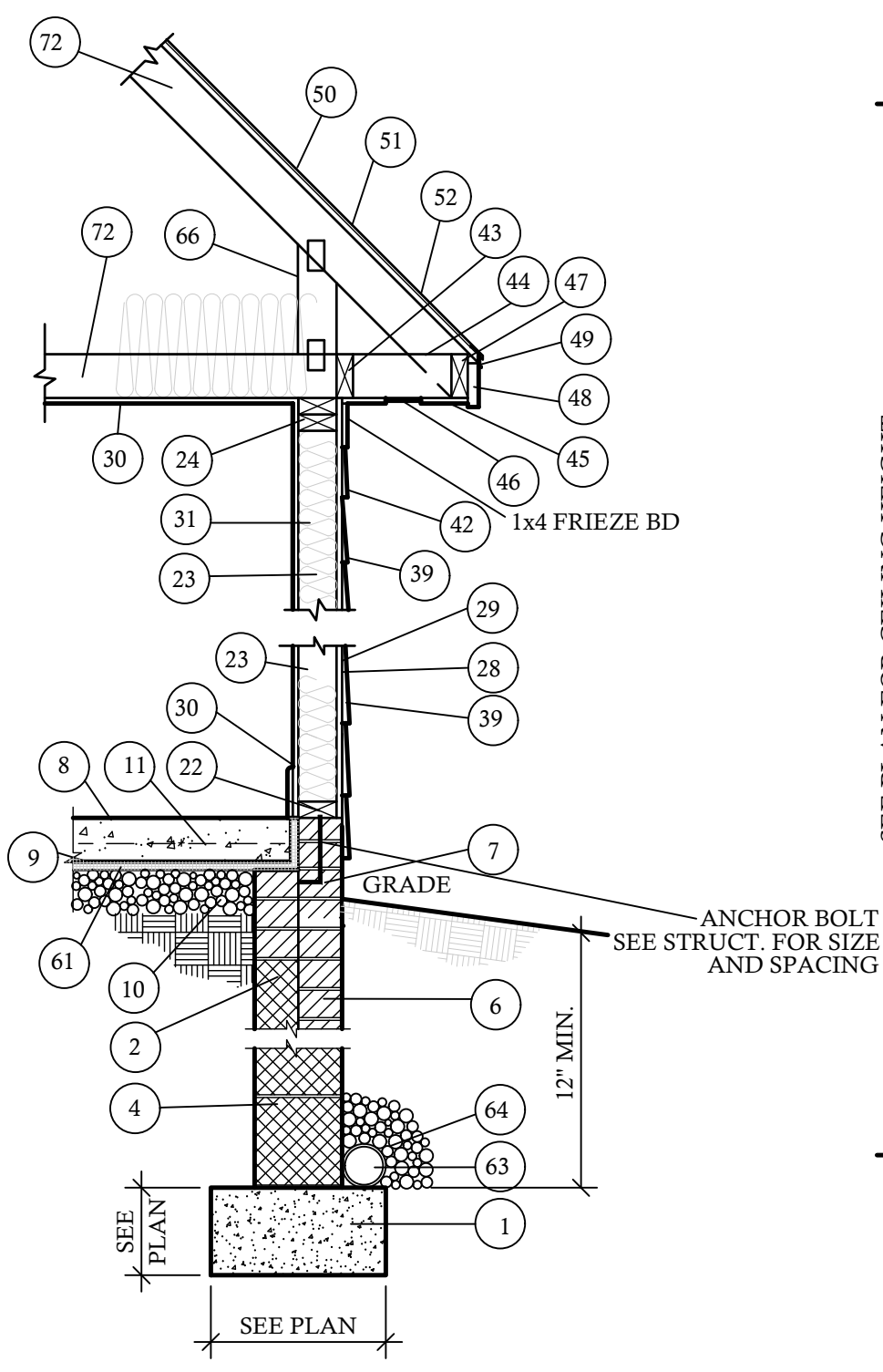
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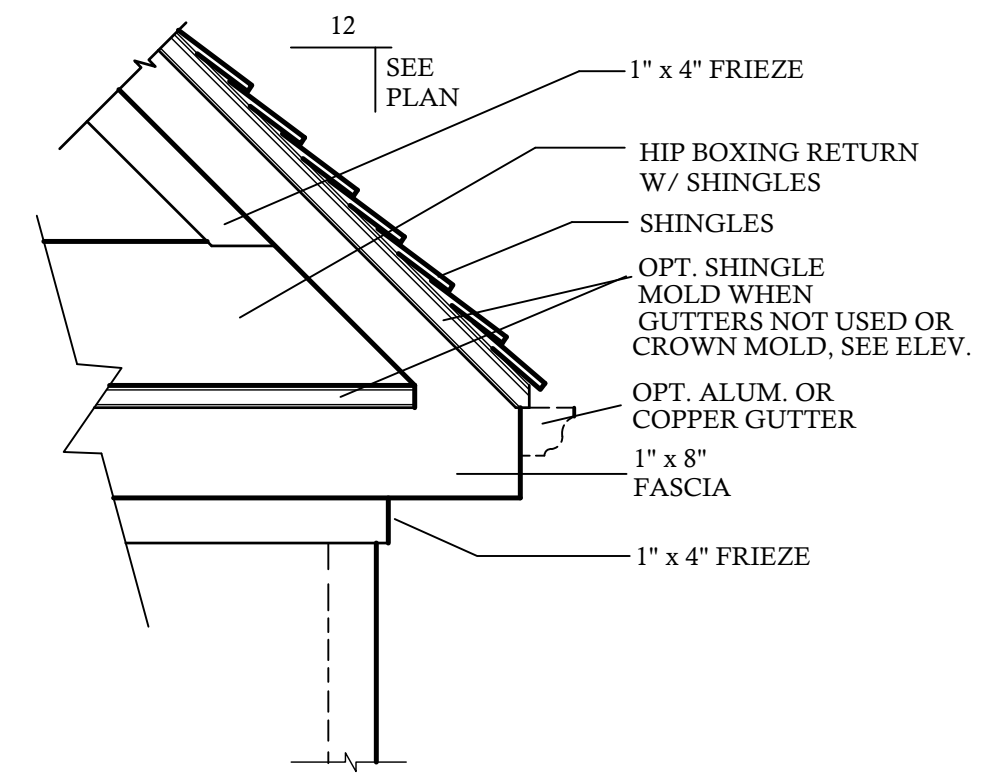
**MATERIAL REFERENCE**

- |                                  |   |
|----------------------------------|---|
| 1. CONT. POURED CONC. FOOTING    | 42. 1 X FRIEZE BOARD  |
| 2. 4 X 8 X 16 C.M.U.             | 43. NAILER  |
| 3. 6 X 8 X 16 C.M.U.             | 44. LOOKOUT   |
| 4. 8 X 8 X 16 C.M.U.             | 45. 3/8" EXT PLYWOOD SOFFIT   |
| 5. 12 X 8 X 16 C.M.U.            | 46. SOFFIT VENT   |
| 6. BRICK                         | 47. SUB FASCIA  |
| 7. SOLID MASONRY CAP             | 48. 1 X FASCIA  |
| 8. 4" CONCRETE SLAB              | 49. METAL DRIP STRIP  |
| 9. 6 MIL VAPOR BARRIER           | 50. SHINGLES AS SPECIFIED   |
| 10. 4" STONE BASE                | 51. 15 LB. FELT PAPER   |
| 11. 6" X 6" 10-10 W.W.M.         | 52. A.P.A. RATED SHEATHING  |
| 12. 2 X 4 TREATED SILL PLATE     | 53. 2 X 8 RAFTER  |
| 13. 2 X 6 TREATED SILL PLATE     | 54. 2 X 6 RAFTER  |
| 14. 2 X 6 JOIST                  | 55. R-38 BATT INSULATION MIN.                                       |
| 15. 2 X 6 BAND                   | 56. C.M.U. PIER   |
| 16. 2 X 8 JOIST                  | 57. TREATED 2 X 6 SHIM PLATE  |
| 17. 2 X 8 BAND                   | 58. GIRDER SIZE PER PLAN  |
| 18. 2 X 10 JOIST                 | 59. 2 X 2 LEDGER BOARD  |
| 19. 2 X 10 BAND                  | 60. 1/2" EXPANSION JOINT  |
| 20. A.P.A. RATED SUB-FLOOR       | 61. 1 1/2" RIGID INSULATION (R 5.0 MIN)                             |
| 21. A.P.A. RATED UNDERLAYMENT    | 62. WATERPROOFING   |
| 22. 2 X 4 SOLE PLATE             | 63. 4" PERFORATED DRAIN TILE (SLOPE TO DRAIN)                       |
| 23. 2 X 4 STUD WALL              | 64. CRUSHED STONE W/ INFILTRATION BARRIER ABOVE                     |
| 24. DBL 2 X 4 TOP PLATE          | 65. CONC. WASH  |
| 25. 2 X 6 SOLE PLATE             | 66. 2 X 4 RAFTER TIE BACKS PER ENG SPECS. AT MIN EVERY THIRD RAFTER |
| 26. 2 X 6 STUD WALL              | 67. SEE STRUCTURAL SHEETS FOR JOIST DIRECTION                       |
| 27. DBL 2 X 6 TOP PLATE          | 68. R-19 BATT INSULATION (MIN.)                                     |
| 28. EXTERIOR SHEATHING           | 69. POURED CONC. FND. WALL  |
| 29. SHEATHING PAPER              | 70. OPT. TRIM SEE BLDG.   |
| 30. 1/2" DRY WALL                | 71. STONE VENEER  |
| 31. R-15 BATT INSULATION MIN.    | 72. TRUSSES PER MANUFACTURER  |
| 32. BRICK VENEER                 | 73. STUCCO DRIP CAP   |
| 33. WALL TIE                     | 74. STUCCO ON CMU OR CONCRETE WALL                                  |
| 34. WEEP HOLES @ 16" O.C. HORZ.  | 75. BAND W/ DRIP CAP  |
| 35. FLASHING AS REQ. PER CODE    | 76. SOFFIT BED MOLD TRIM  |
| 36. SELF FURRING GALV METAL LATH | 77. 2 X 8 TREATED SILL PLATE  |
| 37. METAL BEAD                   | 78. 2 X 12 JOIST  |
| 38. STUCCO PLASTER               | 79. 2 X 12 BAND   |
| 39. SIDING AS SPECIFIED          | 80. 66 MIL. OF THRU WALL FLASHING                                   |
| 40. TPL 2 X BLOCKING             |   |
| 41. WOOD FILLER                  |   |

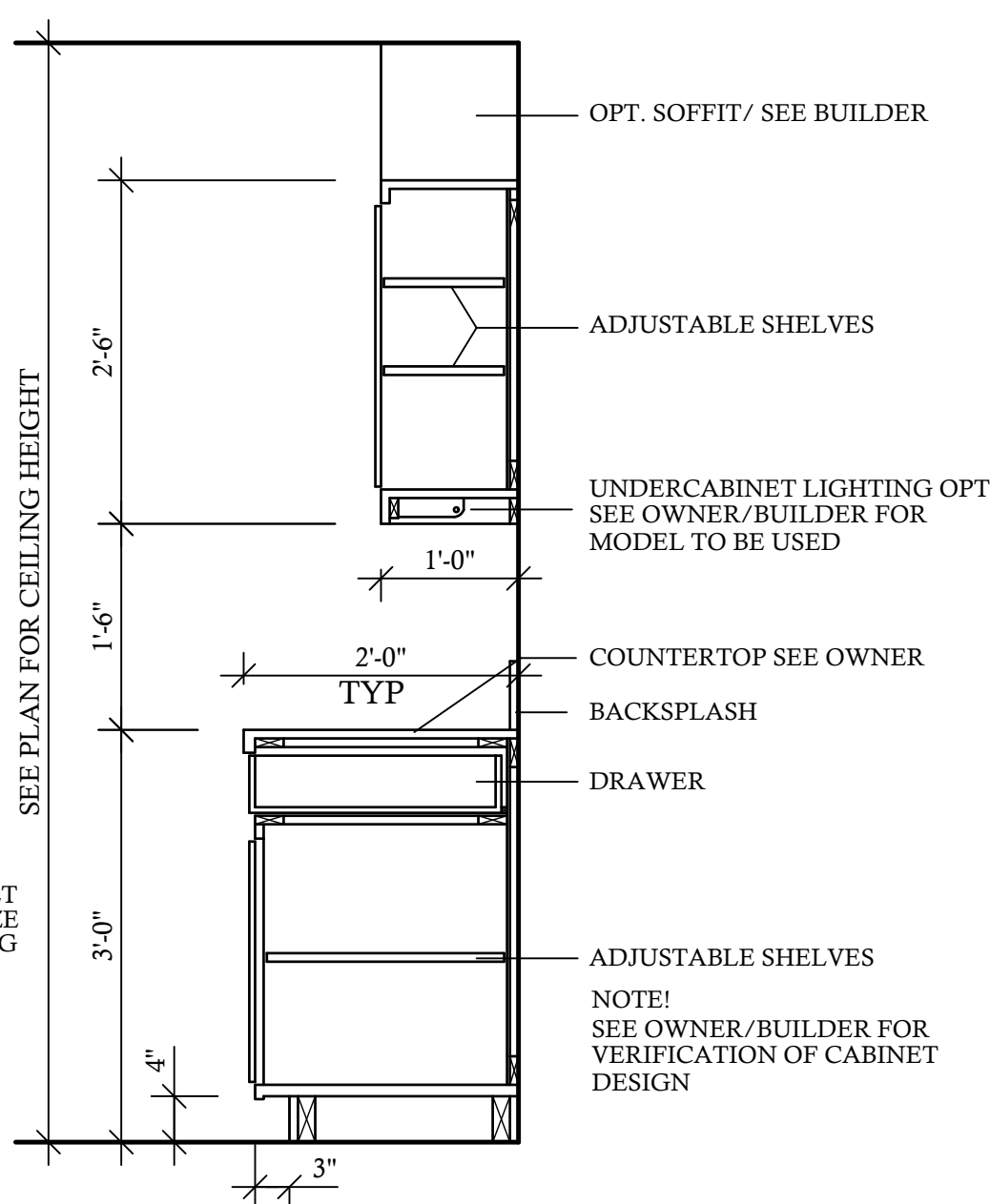
	BRICK		GRAVEL BED
	CONC. MASONRY UNIT		WELDED WIRE MESH
	CONCRETE		DETAIL NUMBER
	STEEL		SHEET NUMBER
	EARTH		INT ELEV LETTER
	BATT INSULATION		INT ELEV NUMBER
	RIGID INSULATION		SECTION NUMBER
	STUCCO		SHEET NUMBER
	WOOD		ROOF PITCH RATIO
	STONE		ROOM NUMBER



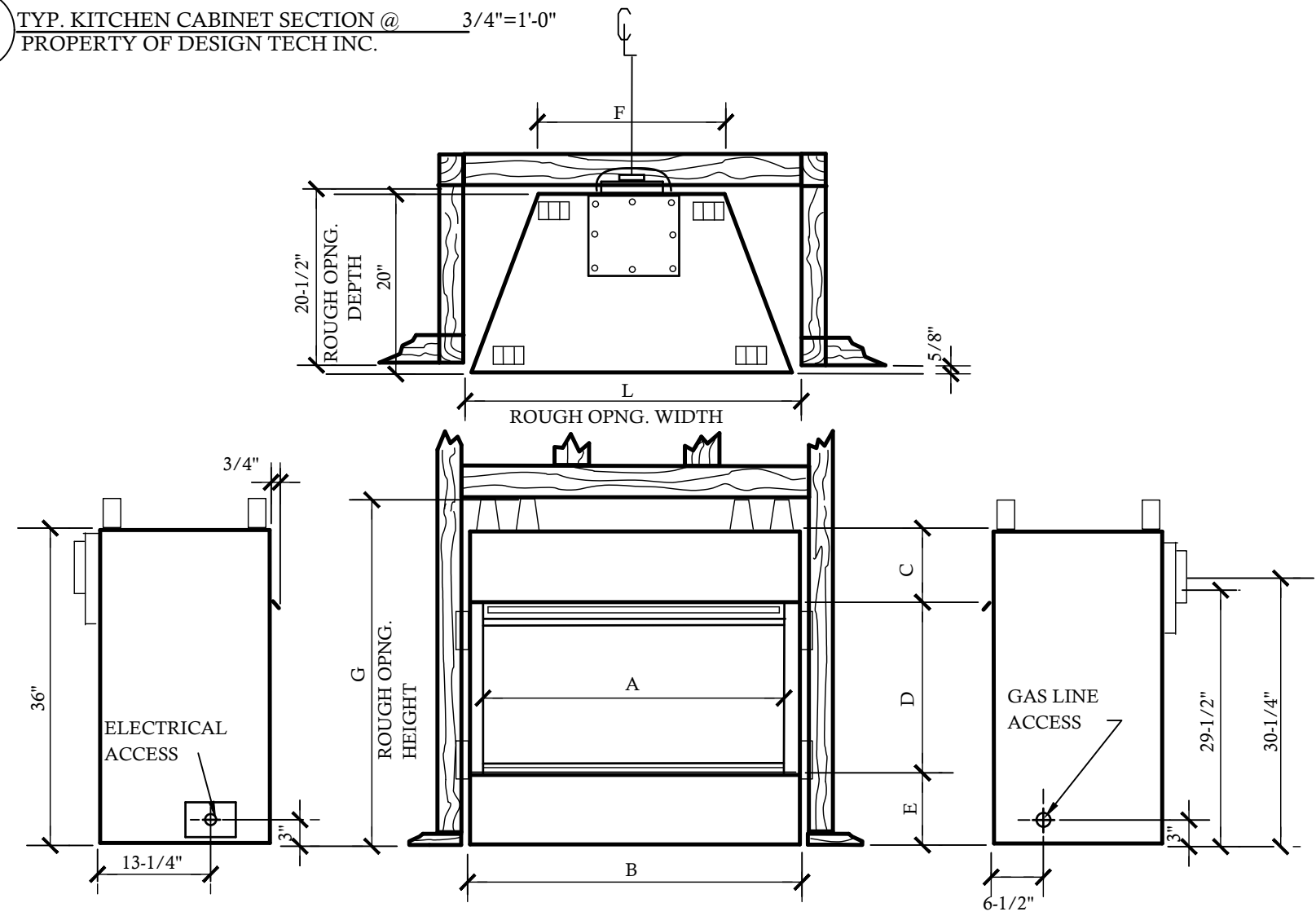
**1** SLAB ON GRADE WALL W/ SIDING @ 3/4"=1'-0"  
PROPERTY OF DESIGN TECH INC.  
DESIGNED FOR 120 MPH WINDS



**5** HIP BOXING RETURN DETAIL @ 3/4"=1'-0"  
PROPERTY OF DESIGN TECH INC.



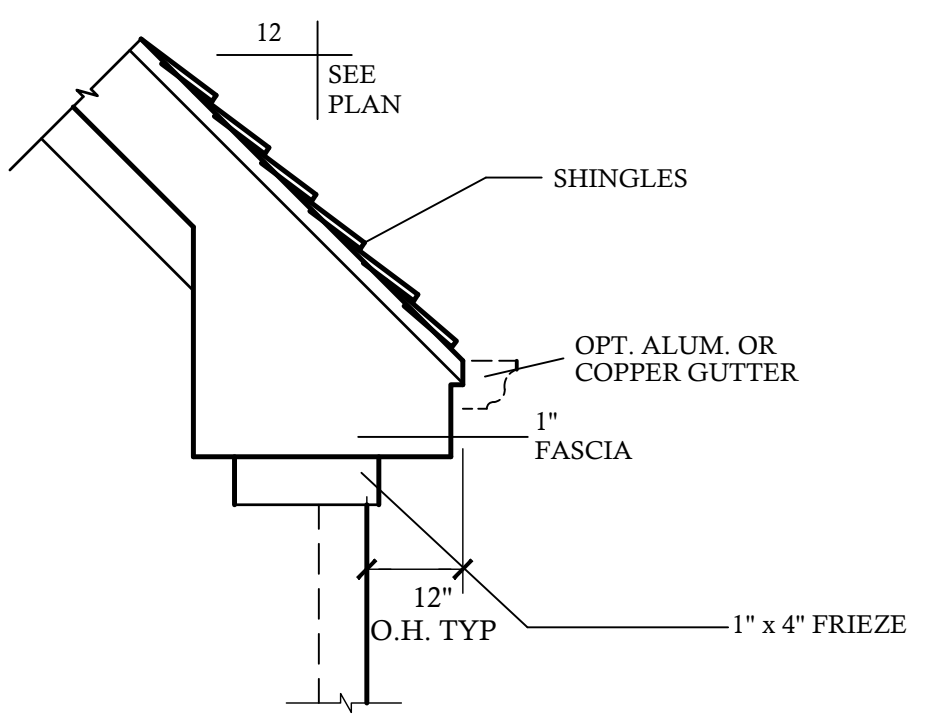
**2** TYP. KITCHEN CABINET SECTION @ 3/4"=1'-0"  
PROPERTY OF DESIGN TECH INC.



**3** DIRECT VENT FIREPLACE NTS  
PROPERTY OF DESIGN TECH INC.

FIREPLACE DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M
DVBR36	36"	40"	6-3/8"	23-1/4"	6-3/8"	22"	40-1/2"	45-3/4"	45-3/4"	64-3/4"	41"	32-3/8"
DVBR42	42"	46"	6-3/8"	23-1/4"	5-3/8"	28"	40-1/2"	49"	49"	69-1/2"	47"	35-1/4"

NOTE - VERIFY W/ MANUF. UNIT MODEL NO. & DIMENSIONS REQUIRED FOR FRAMING AROUND FIREPLACE UNIT PRIOR TO CONSTRUCTION



**4** BOXING DETAIL @ 3/4"=1'-0"  
PROPERTY OF DESIGN TECH INC.



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