



COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road
Novi, MI 48375
(248) 347-0415 Phone
(248) 735-5600 Facsimile
www.cityofnovi.org

ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals

ZONING BOARD APPEALS DATE: November 10, 2020

REGARDING: 25556 Danyas Way, Parcel # 50-22-22-100-031 (PZ20-0043)

BY: Larry Butler, Deputy Director Community Development

I. GENERAL INFORMATION:

Applicant

Compo Builders Inc

Variance Type

Dimensional Variance

Property Characteristics

Zoning District:	Single Family Residential
Location:	East of Taft Road and South of Eleven Mile Road
Parcel #:	50-22-22-100-031

Request

The applicant is requesting variance from the Novi Zoning Ordinance Section 4.19.1.E.i for a proposed 1,400 square foot garage (850 square feet permitted by code, variance of 550 square feet). This variance would accommodate the building the garage for a proposed new residential home. This property is zoned Single Family Residential (R-4).

II. STAFF COMMENTS:

III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1. I move that we **grant** the variance in Case No. **PZ20-0043**, sought by _____, for _____ because Petitioner has shown practical difficulty requiring _____.

 - (a) Without the variance Petitioner will be unreasonably prevented or limited with respect to use of the property because _____.
 - (b) The property is unique because _____.
 - (c) Petitioner did not create the condition because _____.

_____.

(d) The relief granted will not unreasonably interfere with adjacent or surrounding properties because_____.

_____.

(e) The relief if consistent with the spirit and intent of the ordinance because

_____.

_____.

(f) The variance granted is subject to:

1. _____.

2. _____.

3. _____.

4. _____.

2. I move that we **deny** the variance in Case No. **PZ20-0043**, sought by _____, for _____ because Petitioner has not shown practical difficulty requiring _____.

(a) The circumstances and features of the property including _____ are not unique because they exist generally throughout the City.

(b) The circumstances and features of the property relating to the variance request are self-created because _____.

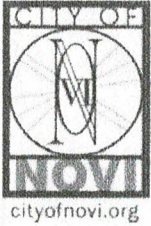
(c) The failure to grant relief will result in mere inconvenience or inability to attain higher economic or financial return based on Petitioners statements that _____.

(d) The variance would result in interference with the adjacent and surrounding properties by _____.

(e) Granting the variance would be inconsistent with the spirit and intent of the ordinance to _____.

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0417.

Larry Butler
Deputy Director Community Development
City of Novi



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ZONING BOARD OF APPEALS APPLICATION

APPLICATION MUST BE FILLED OUT COMPLETELY

I. PROPERTY INFORMATION (Address of subject ZBA Case)				Application Fee: _____
PROJECT NAME / SUBDIVISION <u>Hillier Residence</u>				Meeting Date: _____
ADDRESS <u>25556 Danyas way</u>		LOT/SUITE/SPACE # <u>50</u>		ZBA Case #: <u>PZ</u>
SIDWELL # <u>50-22-22-100-031</u>		May be obtain from Assessing Department (248) 347-0485		
CROSS ROADS OF PROPERTY <u>11 mile Rd. & Taft Rd.</u>				
IS THE PROPERTY WITHIN A HOMEOWNER'S ASSOCIATION JURISDICTION? <input type="checkbox"/> YES <input type="checkbox"/> NO		REQUEST IS FOR: <input checked="" type="checkbox"/> RESIDENTIAL <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> VACANT PROPERTY <input type="checkbox"/> SIGNAGE		
DOES YOUR APPEAL RESULT FROM A NOTICE OF VIOLATION OR CITATION ISSUED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
II. APPLICANT INFORMATION				
A. APPLICANT		EMAIL ADDRESS <u>Info@compo-inc.com</u>	CELL PHONE NO. <u>248-640-1488</u>	
NAME <u>David Compo</u>		TELEPHONE NO. <u>248-513-4170</u>		
ORGANIZATION/COMPANY <u>Compo Builders, Inc.</u>		FAX NO. <u>248-513-4173</u>		
ADDRESS <u>42700 W. Ten Mile Rd.</u>		CITY <u>Novi</u>	STATE <u>MI</u>	ZIP CODE <u>48375</u>
B. PROPERTY OWNER <input type="checkbox"/> CHECK HERE IF APPLICANT IS ALSO THE PROPERTY OWNER				
Identify the person or organization that owns the subject property:		EMAIL ADDRESS <u>adamhillier008@gmail.com</u>	CELL PHONE NO. <u>708-220-1402</u>	
NAME <u>Adam Hillier & Kell Kern</u>		TELEPHONE NO. <u>248-410-0195</u>		
ORGANIZATION/COMPANY _____		FAX NO. _____		
ADDRESS <u>25183 Mystic Forest Dr.</u>		CITY <u>Novi</u>	STATE <u>MI</u>	ZIP CODE <u>48375</u>
III. ZONING INFORMATION				
A. ZONING DISTRICT				
<input type="checkbox"/> R-A <input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input checked="" type="checkbox"/> R-4 <input type="checkbox"/> RM-1 <input type="checkbox"/> RM-2 <input type="checkbox"/> MH <input type="checkbox"/> I-1 <input type="checkbox"/> I-2 <input type="checkbox"/> RC <input type="checkbox"/> TC <input type="checkbox"/> TC-1 <input type="checkbox"/> OTHER _____				
B. VARIANCE REQUESTED				
INDICATE ORDINANCE SECTION (S) AND VARIANCE REQUESTED:				
1. Section <u>Dimensional</u> Variance requested <u>850 sq. ft. Garage to 1400 sq. ft. garage</u>				
2. Section _____ Variance requested _____				
3. Section _____ Variance requested _____				
4. Section _____ Variance requested _____				
IV. FEES AND DRAWINGS				
A. FEES				
<input type="checkbox"/> Single Family Residential (Existing) \$200 <input type="checkbox"/> (With Violation) \$250 <input checked="" type="checkbox"/> Single Family Residential (New) \$250 <input type="checkbox"/> Multiple/Commercial/Industrial \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> Signs \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> House Moves \$300 <input type="checkbox"/> Special Meetings (At discretion of Board) \$600				
B. DRAWINGS 1-COPY & 1 DIGITAL COPY SUBMITTED AS A PDF				
<ul style="list-style-type: none"> • Dimensioned Drawings and Plans • Site/Plot Plan • Existing or proposed buildings or addition on the property • Number & location of all on-site parking, if applicable • Existing & proposed distance to adjacent property lines • Location of existing & proposed signs, if applicable • Floor plans & elevations • Any other information relevant to the Variance application 				



ZONING BOARD OF APPEALS APPLICATION

V. VARIANCE

A. VARIANCE (S) REQUESTED

DIMENSIONAL USE SIGN

There is a five-(5) hold period before work/action can be taken on variance approvals.

B. SIGN CASES (ONLY)

Your signature on this application indicates that you agree to install a **Mock-Up Sign** ten-(10) days before the schedule ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Board, postponed to the next schedule ZBA meeting, or cancelled. A mock-up sign is **NOT** to be actual sign. Upon approval, the mock-up sign must be removed within five-(5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five-(5) days of the meeting.

C. ORDINANCE

City of Novi Ordinance, Section 3107 – Miscellaneous

No order of the Board permitting the erection of a building shall be valid for a period longer than one-(1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty-(180) days unless such use is establish within such a period; provided, however, where such use permitted is dependent upon the erection or alteration or a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one-(1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL

PLEASE TAKE NOTICE:

The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made

CONSTRUCT NEW HOME/BUILDING ADDITION TO EXISTING HOME/BUILDING SIGNAGE

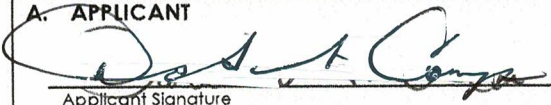
ACCESSORY BUILDING

USE

OTHER _____

VI. APPLICANT & PROPERTY SIGNATURES

A. APPLICANT



Applicant Signature


9/1/2020

Date

B. PROPERTY OWNER

If the applicant is not the owner, the property owner must read and sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and is/are aware of the contents of this application and related enclosures.



Property Owner Signature

9/1/2020

Date

VII. FOR OFFICIAL USE ONLY

DECISION ON APPEAL:

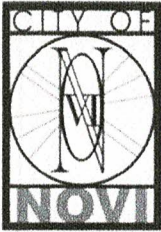
GRANTED

DENIED

The Building Inspector is hereby directed to issue a permit to the Applicant upon the following and conditions:

Chairperson, Zoning Board of Appeals

Date



Community Development Department

45175 Ten Mile Road
Novi, MI 48375
(248) 347-0415 Phone
(248) 735-5600 Facsimile
www.cityofnovi.org

cityofnovi.org

**REVIEW STANDARDS
DIMENSIONAL VARIANCE**

The Zoning Board of Appeals (ZBA) will review the application package and determine if the proposed Dimensional Variance meets the required standards for approval. In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards. (Increased costs associated with complying with the Zoning Ordinance will not be considered a basis for granting a Dimensional Variance.)

Standard #1. Circumstances or Physical Conditions.

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

a. Shape of Lot. Exceptional narrowness, shallowness or shape of a specific property in existence on the effective date of the Zoning Ordinance or amendment.

Not Applicable Applicable If applicable, describe below:

OTHER LOTS IN CONNECTING DEVELOPMENT ARE 1/3 ACRE
THIS IS A ACREAGE PIECE THAT IS 3 1/2 ACRES. THIS UNIT
SHOULD NOT BE CONSIDERED THE SAME IN ANY WAY AS THE
and/or CLOSE BY COMMUNITY

b. Environmental Conditions. Exceptional topographic or environmental conditions or other extraordinary situations on the land, building or structure.

Not Applicable Applicable If applicable, describe below:

and/or

c. Abutting Property. The use or development of the property immediately adjacent to the subject property would prohibit the literal enforcement of the requirements of the Zoning Ordinance or would involve significant practical difficulties.

Not Applicable Applicable If applicable, describe below:

Standard #2. Not Self-Created.

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

THIS IS AN EXTRA LARGE HOME ON A VERY LARGE ACREAGE PARCEL WITH MULTIPLE ADULTS WITH MULTIPLE CARS AND TRUCKS. ALL OTHER LARGER PARCELS IN NOVI, FROM ACREAGE TO LUXURY COMMUNITIES ALLOW 4 CAR + GARAGES

Standard #3. Strict Compliance.

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose, or will render conformity with those regulations unnecessarily burdensome.

ON THIS LARGE PARCEL, THE OWNER WOULD BE REQUIRED TO HAVE 1-2 CARS PARKED OUTSIDE ALL YEAR. THEY ARE GOING TO DO A CAR LIFT IN ONE GARAGE AS THEY HAVE 5 CARS / TRUCKS NOW

Standard #4. Minimum Variance Necessary.

Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

GOING FROM 3 CAR TO 4 CAR EQUIVALENT THAT CAN HANDLE 2 LARGE TRUCKS VS PUTTING THEM OUTSIDE

Standard #5. Adverse Impact on Surrounding Area.

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

- ① ACREAGE LOT - SHOULD NOT BE APPLICABLE
- ② VERY LARGE HOME - ANY TYPICAL HOME THIS SIZE WOULD HAVE 4-CAR PLUS BASED ON HOME VALUE / SIZE
- ③ THIS IS AN APPROPRIATE "ADD TO VALUE" FOR THE HOME
- ④ WOULD NOT AFFECT ANYONE IN COMMUNITY

LEGAL DESCRIPTION:
Proposed Parcel 22-22-100-031

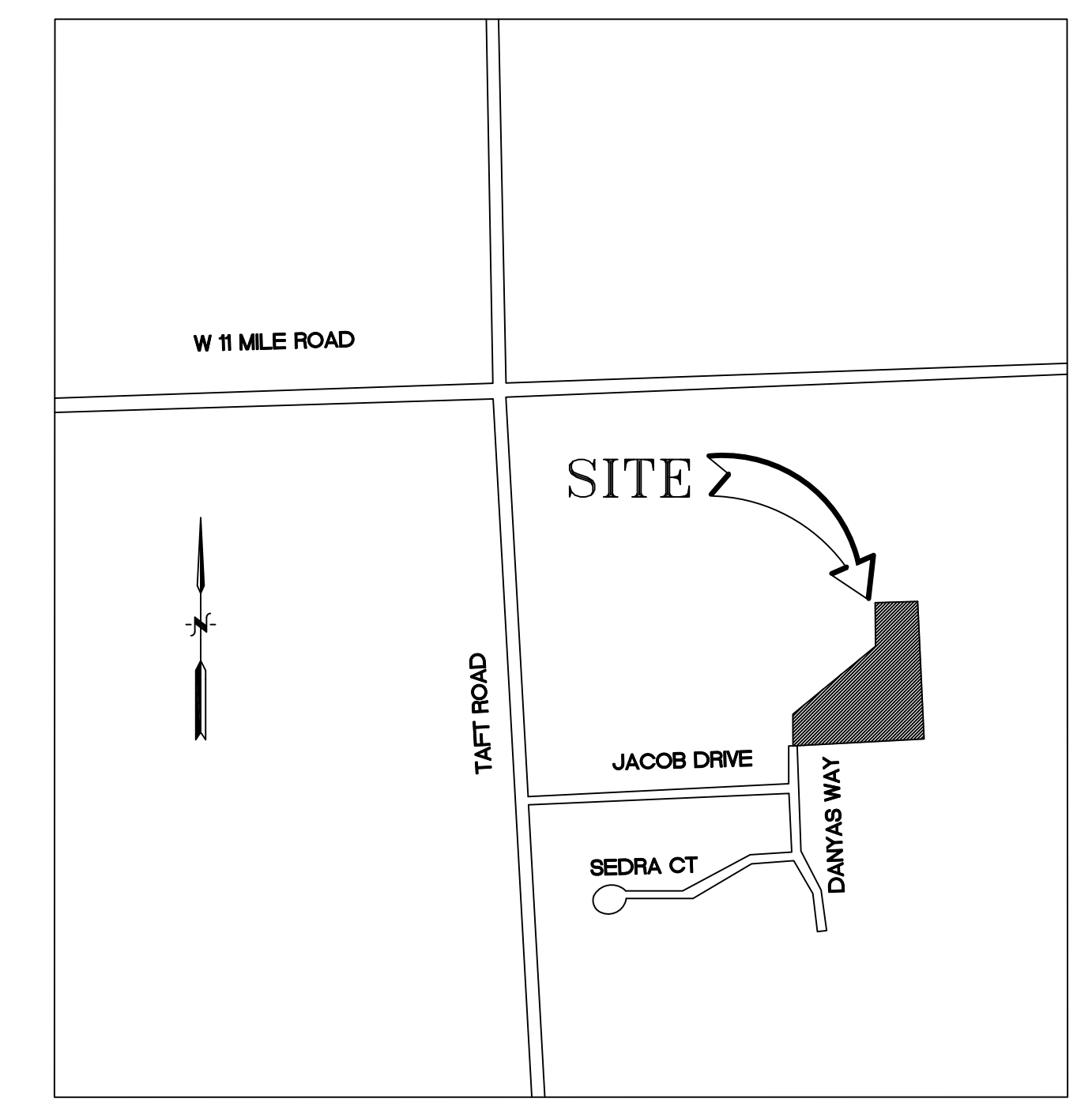
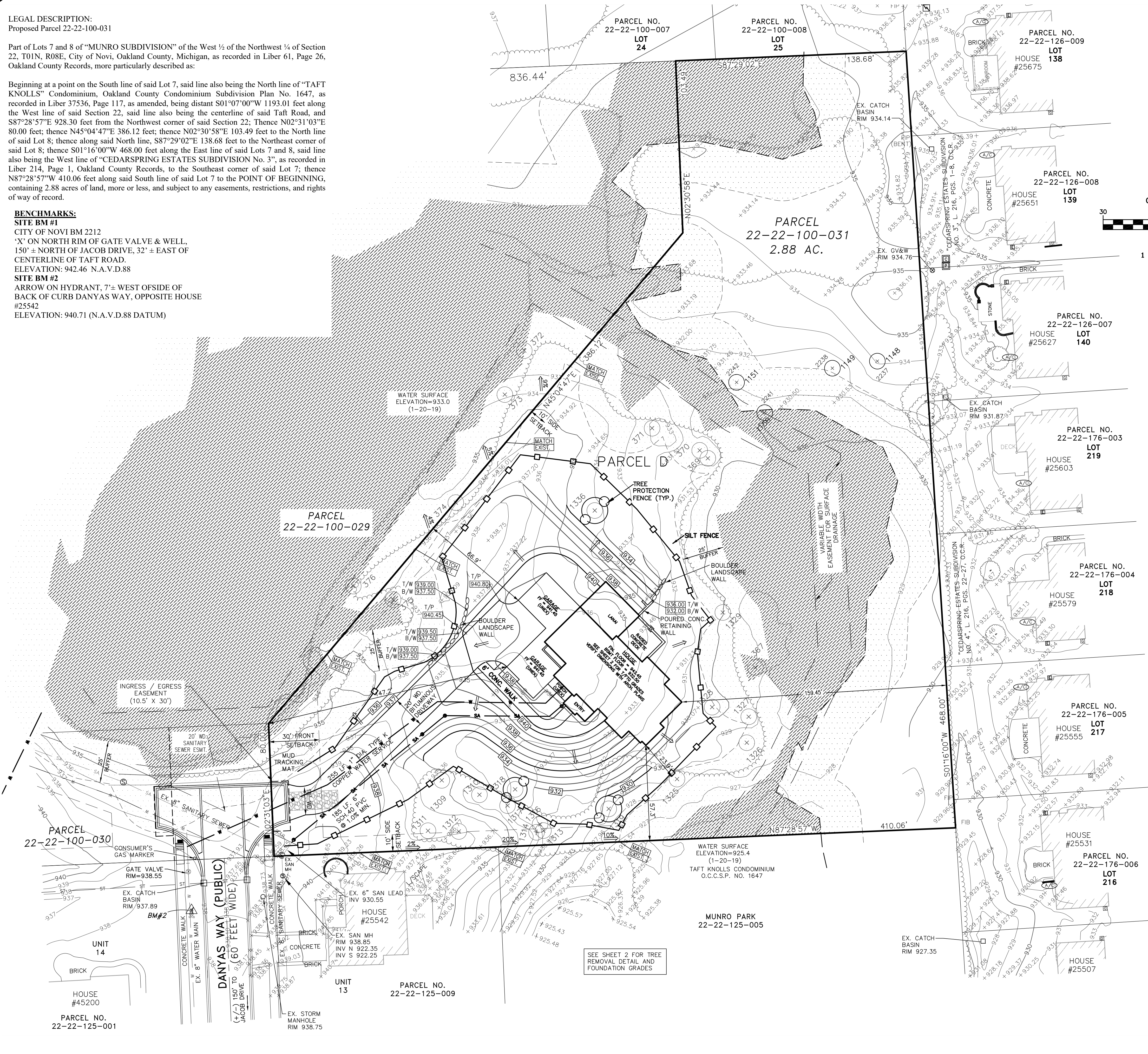
Part of Lots 7 and 8 of "MUNRO SUBDIVISION" of the West 1/2 of the Northwest 1/4 of Section 22, T01N, R08E, City of Novi, Oakland County, Michigan, as recorded in Liber 61, Page 26, Oakland County Records, more particularly described as:

Beginning at a point on the South line of said Lot 7, said line also being the North line of "TAFT KNOLLS" Condominium, Oakland County Condominium Subdivision Plan No. 1647, as recorded in Liber 37536, Page 117, as amended, being distant S01°07'00"W 1193.01 feet along the West line of said Section 22, said line also being the centerline of said Taft Road, and S87°28'57"E 928.30 feet from the Northwest corner of said Section 22; Thence N02°31'03"E 80.00 feet; thence N45°04'47"E 386.12 feet; thence N02°30'58"E 103.49 feet to the North line of said Lot 8; thence along said North line, S87°29'02"E 138.68 feet to the Northeast corner of said Lot 8; thence S01°16'00"W 468.00 feet along the East line of said Lots 7 and 8, said line also being the West line of "CEDARSPRING ESTATES SUBDIVISION No. 3", as recorded in Liber 214, Page 1, Oakland County Records, to the Southeast corner of said Lot 7; thence N87°28'57"W 410.06 feet along said South line of said Lot 7 to the POINT OF BEGINNING, containing 2.88 acres of land, more or less, and subject to any easements, restrictions, and rights of way of record.

BENCHMARKS:

SITE BM #1
CITY OF NOVI BM 2212
"X" ON NORTH RIM OF GATE VALVE & WELL,
150' ± NORTH OF JACOB DRIVE, 32' ± EAST OF
CENTERLINE OF TAFT ROAD.
ELEVATION: 942.46 N.A.V.D.88

SITE BM #2
ARROW ON HYDRANT, 7' ± WEST OFSIDE OF
BACK OF CURB DANYAS WAY, OPPOSITE HOUSE
#25542
ELEVATION: 940.71 (N.A.V.D.88 DATUM)



LEGEND

- PROPERTY LINE
- - - EXISTING EASEMENT LINE
- EXISTING BUILDING SETBACK
- 936- EXISTING 1' CONTOUR
- 940- EXISTING 5' CONTOUR
- EXISTING CURB AND GUTTER
- 830.55- EXISTING SPOT GRADE
- ST --- EXISTING STORM SEWER
- SA --- EXISTING SANITARY SEWER
- W --- EXISTING WATER MAIN
- (X) 285 EXISTING TREE W/ IDENTIFIER
- PROPOSED DRIVEWAY
- 943- PROPOSED 1' CONTOUR
- 945- PROPOSED 5' CONTOUR
- > DRAINAGE FLOW ARROWS
- PROPOSED SILT FENCE
- 000.00 GND GROUND
- 000.00 T/C TOP OF PAVEMENT
- 000.00 T/W TOP OF WALL
- 000.00 B/W BOTTOM OF WALL
- 000.00 B/C BACK OF CURB
- 000.00 E/M EDGE OF METAL
- PROPOSED TREE PROTECTION FENCE
- ROCK LANDSCAPING WALL
- WETLAND AREA
- WETLAND BUFFER AREA

NOTES

- 1) All benchmarks are from Greentech Inc.
- 2) All work to comply with current City of Novi requirements.
- 3) Sump discharge shall be 4" dia. SCH.40 PVC at 2% slope, Minimum.
- 4) Water lead shall be min. 1" dia. Type K copper or HDPE SDR 9.
- 5) Sanitary lead shall be 6" dia. SDR 23.5 at 1% slope, Minimum.
- 6) Drive shall be 22' wide at back of curb and 16' wide at face of walk.
- 7) Tree protection fence to be installed around trees to remain.

SEE SHEET 2 FOR TREE INVENTORY

TREE, TOPOGRAPHIC, AND BOUNDARY SURVEY PERFORMED BY GREENTECH, RECEIVED BY DESINE INC. VIA CLIENT ON 5-13-2020.

811
Know what's below.
Call before you dig.

3 WORKING DAYS BEFORE YOU DIG
CALL 811 OR 1-800-482-7171 (TOLL FREE)
OR VISIT CALL811.COM

DESINE INC.
(810) 227-9533
CIVIL ENGINEERS
LAND SURVEYORS
2183 PLESS DRIVE
BRIGHTON, MICHIGAN 48114

DESIGN:SVB	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: SVB						

PARCEL D
DANYAS WAY

PARCEL ID 22-22-100-031
CITY OF NOVI
PLOT PLAN

CLIENT: COMPO BUILDERS 42700 W. TEN MILE RD NOVI, MI 48375 (248) 513-4170	SCALE: 1in. = 30ft. PROJECT No.: 203902 DWG NAME: 3902 PP ISSUED: AUG. 25, 2020
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EXISTING CONDITION & TREE REMOVAL DETAIL
SCALE: 1in. = 50ft.

- TREE NOTES:**
- 1) APPLICANT TO COMPLY WITH CITY OF NOVI WOODLAND ORDINANCE, CHAPTER 37 DURING CONSTRUCTION.
 - 2) A WOODLAND PERFORMANCE FINANCIAL GUARANTEE FOR THE REPLACEMENT TREE CREDITS SHALL BE PAID BY THE APPLICANT PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
 - 3) REQUIRED REPLACEMENT TREES WILL BE PLANTED ON THE OWNERS LOT AND THE LANDSCAPE PLAN IS TO BE PROVIDED. THE LANDSCAPE PLAN IS TO BE IN CONFORMANCE WITH THE CITY OF NOVI WOODLAND ORDINANCE, CHAPTER 37 AND BE CONSISTENT WITH THE NOVI LANDSCAPE DESIGN MANUAL. IF SUITABLE REPLACEMENT LOCATIONS ARE NOT AVAILABLE ON SITE FOR ALL REQUIRED REPLACEMENT TREES THE APPLICANT SHALL PAY INTO THE CITY TREE FUND THE APPROPRIATE AMOUNT. A WOODLAND MAINTENANCE GUARANTEE WILL BE PROVIDED PER THE CITY OF NOVI WOODLAND ORDINANCE, CHAPTER 37.
 - 4) NO GRADING SHALL OCCUR IN THE CRITICAL ROOT ZONE OF EXISTING TREES. TREE PROTECTION FENCE SHALL BE PROVIDED AT THE EDGE OF THE CRITICAL ROOT ZONE OF TREES TO REMAIN.
 - 5) ALL ON-SITE WOODLAND REPLACEMENT TREES TO BE PROPOSED AND INSTALLED SHALL COMPLY WITH THE CITY OF NOVI WOODLAND ORDINANCE.

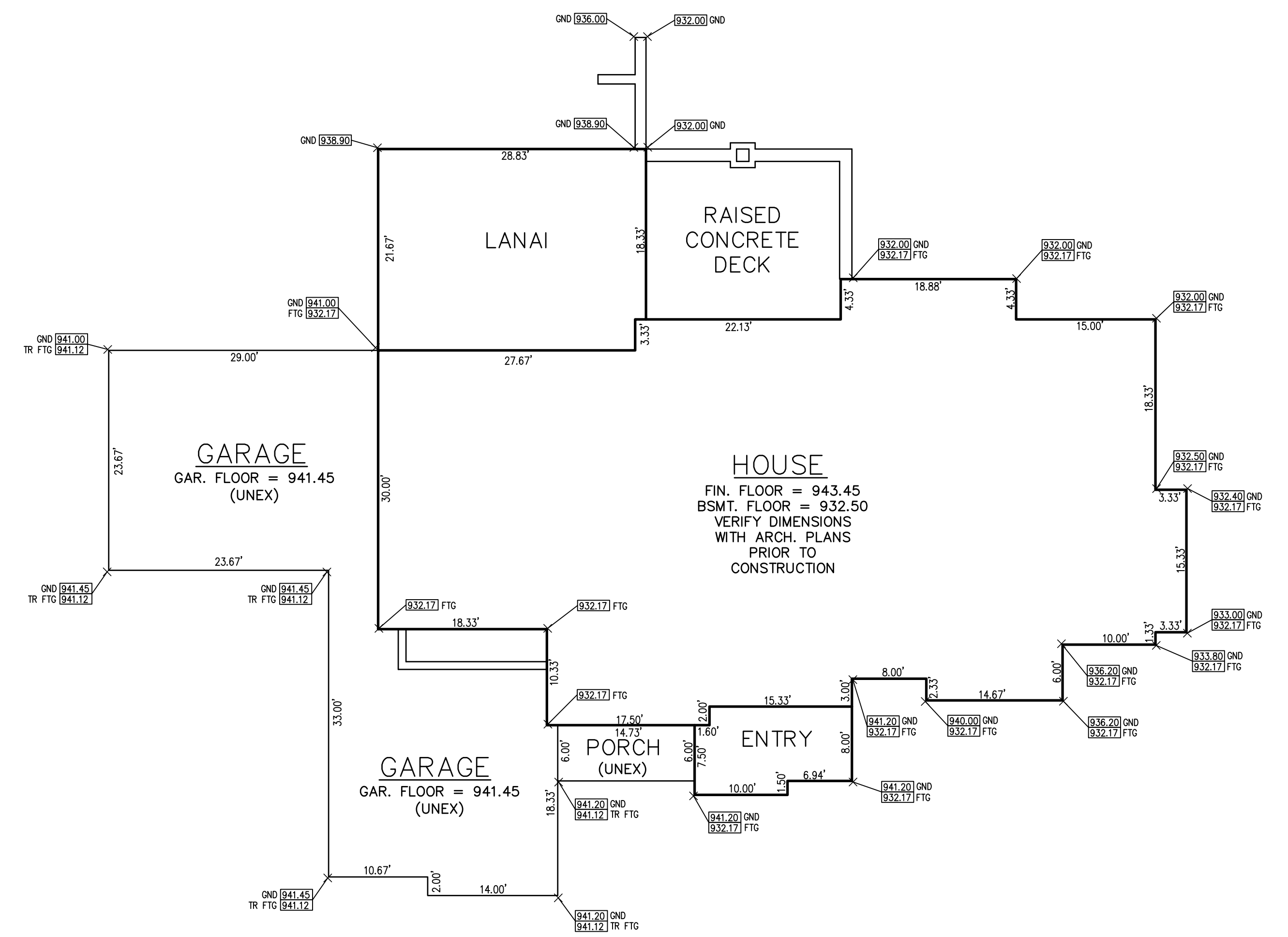
19 TREES TO BE REMOVED FOR 27 REPLACEMENT TREES (OR EQUIVALENT). IF FURTHER TREES ARE TO BE REMOVED ADDITIONAL REPLACEMENT TREES (OR EQUIVALENT) MUST BE ACCOUNTED FOR.

TREE PROTECTION FENCE MUST REMAIN IN PLACE THROUGH CONSTRUCTION.

TREE, TOPOGRAPHIC, AND BOUNDARY SURVEY PERFORMED BY GREENTECH, RECEIVED BY DESINE INC. VIA CLIENT ON 5-13-2020.

TAG #	SIZE (DBH)	COMMON NAME	SCIENTIFIC NAME	
1148	10	Red Maple	Acer rubrum	
1149	10	Burr Oak	Quercus macrocarpa	
1151	12	Ash (Dead)	-	
1160	12	Ash (Dead)	-	
T.B.R.	365	Box Elder	Acer negundo	
T.B.R.	366	Apple	Malus sp.	
T.B.R.	367	Box Elder	Acer negundo	
T.B.R.	368	Box Elder	Acer negundo	
T.B.R.	369	Cottonwood	Populus deltoides	
T.B.R.	370	Cottonwood	Populus deltoides	
T.B.R.	371	Cottonwood	Populus deltoides	
T.B.R.	374	Burr Oak	Quercus macrocarpa	
T.B.R.	375	Burr Oak	Quercus macrocarpa	
T.B.R.	1306	Burr Oak	Quercus macrocarpa	
T.B.R.	1308	Burr Oak	Quercus macrocarpa	
T.B.R.	1309	Burr Oak	Quercus macrocarpa	
T.B.R.	1310	Cottonwood	Populus deltoides	
T.B.R.	1311	Burr Oak	Quercus macrocarpa	
T.B.R.	1312	Burr Oak	Quercus macrocarpa	
T.B.R.	1313	Basswood	Tilia Americana	
T.B.R.	1314	Red Maple	Acer rubrum	
T.B.R.	1316	Cottonwood	Populus deltoides	
T.B.R.	1317	Basswood	Tilia Americana	
T.B.R.	1318	Basswood	Tilia Americana	
T.B.R.	1319	Burr Oak	Quercus macrocarpa	
T.B.R.	1321	Box Elder	Acer negundo	
T.B.R.	1322	Burr Oak	Quercus macrocarpa	
T.B.R.	1323	Burr Oak	Quercus macrocarpa	
T.B.R.	1324	Burr Oak	Quercus macrocarpa	
T.B.R.	1325	Burr Oak	Quercus macrocarpa	
T.B.R.	1326	18, 10, 8	Box Elder	Acer negundo
T.B.R.	1327	12	Box Elder	Acer negundo
T.B.R.	1328	20	Cottonwood	Populus deltoides
T.B.R.	1329	15	Box Elder	Acer negundo
T.B.R.	1331	8	Apple	Malus sp.
T.B.R.	1332	8	Burr Oak	Quercus macrocarpa
T.B.R.	1333	10	Burr Oak	Quercus macrocarpa
T.B.R.	1334	12	Burr Oak	Quercus macrocarpa
T.B.R.	1335	16	Cottonwood	Populus deltoides
T.B.R.	1336	14	Red Pine	Pinus resinosa
T.B.R.	1341	48	Black Willow	Salix nigra
T.B.R.	1342	8	Burr Oak	Quercus macrocarpa
T.B.R.	1344	8	Apple	Malus sp.
T.B.R.	1345	12	Box Elder	Acer negundo
T.B.R.	1346	8	Apple	Malus sp.

T.B.R. = TO BE REMOVED



PROPOSED HOUSE DIMENSION DETAIL
SCALE: 1in. = 10ft.

DESIGN:SVB	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: SVB						

PARCEL D
DANYAS WAY

PARCEL 22-22-100-031
TREE REMOVAL &
BUILDING DETAILS

CLIENT:
COMPO BUILDERS
42700 W. TEN MILE RD
NOVI, MI 48375
(248) 513-4170

SCALE: N/A

PROJECT No.: 203902
DWG NAME: 3902 PP
ISSUED: AUG. 25, 2020



GENERAL NOTES

WOOD TRUSS SPECIFICATIONS

- Design shall conform with the latest version of NDS, "National Design Specification for Wood Construction" by the American Forest & Paper Association and Design Standard for Metal Plate Connected Wood Truss Construction by the American Institute of Steel Construction, Inc. and the latest edition of the AISI "Manual of Steel Construction".
- Trusses shall be spaced as indicated on the plan unless the designer determines that different spacing is required to meet deflection requirements.
- Minimum deflection of roof trusses shall be limited to 1/80 for total load and 1/480 for live load. Maximum deflection of roof trusses shall be limited to 1/40 for total load and 1/80 for live load u.n.o.
- Adequate care shall be built into floor and parallel chord roof trusses to compensate for normal dead load deflection.
- Design loads:

FLOOR JOIST LOADING CRITERIA

FIRST FLOOR LOADING:
LIVE LOAD 40 P.S.F.
DEAD LOAD 8 P.S.F.
TOTAL LOAD 48 P.S.F.
LIVE LOAD DEFLECTION L/480
TOTAL LOAD DEFLECTION L/160

SECOND FLOOR LOADING:
LIVE LOAD 40 P.S.F.
DEAD LOAD 10 P.S.F.
TOTAL LOAD 50 P.S.F.
LIVE LOAD DEFLECTION L/480
TOTAL LOAD DEFLECTION L/160

FLOOR JOIST MAXIMUM ALLOWABLE LIVE LOAD:
LIVE LOAD 40 P.S.F.
DEAD LOAD 8 P.S.F.
TOTAL LOAD 48 P.S.F.
LIVE LOAD DEFLECTION L/120
TOTAL LOAD DEFLECTION L/360

FLOOR JOIST MAXIMUM ALLOWABLE DEAD LOAD:
LIVE LOAD 28 P.S.F.
DEAD LOAD 8 P.S.F.
TOTAL LOAD 36 P.S.F.
LIVE LOAD DEFLECTION L/120
TOTAL LOAD DEFLECTION L/360

COND. JOIST LOADING CRITERIA:
DECK LOADING:
LIVE LOAD 50 P.S.F.
DEAD LOAD 10 P.S.F.
TOTAL LOAD 60 P.S.F.
LIVE LOAD DEFLECTION L/360
TOTAL LOAD DEFLECTION L/180

COND. JOIST LOADING CRITERIA:
DECK LOADING:
LIVE LOAD 50 P.S.F.
DEAD LOAD 10 P.S.F.
TOTAL LOAD 60 P.S.F.
LIVE LOAD DEFLECTION L/360
TOTAL LOAD DEFLECTION L/180

HANDLING AND ERECTION SPECIFICATIONS

- Trusses are to be handled with particular care during fabrication, handling, loading, delivery, unloading and installation in order to avoid damage and weakening of the trusses.
- Temporary and permanent bracing for holding the trusses in a straight and plumb position is always required and shall be designed and installed by the erecting contractor. Temporary bracing during installation, includes cross bracing between the trusses to prevent tipping or "doming" of the trusses.
- Permanent bracing shall be installed in accordance with the latest of the "National Design Specification" as published by the American Forest & Paper Association and H.B.-70 and D.B.-88 as published by the true plate institute. Permanent bracing consists of lateral and diagonal bracing to exceed spacing requirements of the true fabricator. Top chords of trusses must be continuously braced by roof sheathing unless otherwise noted on the truss shop drawings. Bottom chords must be braced at intervals not to exceed 10' o.c. or as noted on the true fabricator drawings.
- Construction loads greater than the design loads of the trusses shall not be applied to the trusses at any time.
- No loads shall be applied to the truss until all fastening and required bracing is installed.
- The supervision of the true erecting shall be under the direct control of persons experienced in the installation and proper bracing of load trusses.
- Field modification or cutting of pre-engineered roof trusses is strictly prohibited unless approved prior written consent and details from a licensed professional structural engineer experienced in wood truss design and modification.

SOIL REQUIREMENTS & EARTH WORK AND CONCRETE

- All top soil, organic and vegetative material should be removed prior to construction. Any required fill shall be clean, granular material compacted to at least 95% of maximum dry density as determined by ASTM D-1557.
- Foundations bearing on existing soils have been designed for a minimum allowable soil bearing capacity of 3000 psf u.n.o.
- Notify the engineer immediately if the available soil bearing capacity is less than 3000 psf so that the foundations can be redesigned for the real available bearing capacity.
- Re-entrant backfill placement: Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above or has been sufficiently braced to prevent damage by the backfill.
- Fill material shall be free of vegetation and foreign material. The fill shall be compacted to assure uniform support of the slab and, except where approved, the fill depths shall not exceed 24 inches for clean sand or gravel and 8 inches for earth.
- Rebar Vapor Retarder: A 6 mil polyethylene or approved vapor retarder with joints lapped not less than 6 inches shall be placed between the concrete floor slab and the base course or the prepared subgrade where no base course exists.
- Concrete work shall conform to the requirements of ACI 301-86, "Specifications for Structural Concrete for Buildings" except as modified by supplemental requirements.
- Concrete shall have a minimum of 3000 psi, 28 day compressive strength unless noted otherwise. (A sack) (A sack) is a strength ratio not to exceed 6 gills per sack. Exterior concrete slabs shall have a minimum of 4000 psi, 28 day compressive strength, 4" MIN. air entrainment.
- The use of additives such as fly ash or calcium chloride is not allowed without prior review from the architect.
- Concrete or masonry foundations: Foundations shall retain earth and enclose infiltration or voids spaces located below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot beyond the outside edge of the footing and 6 inches above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper and the drainage tiles or perforated pipe shall be placed on a minimum of 2 inches of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches of the same material.
- Exception: A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group 1 soils, as detailed in Table RD-01.

STRUCTURAL STEEL SPECIFICATIONS

- Structural steel shapes, plates, bars, etc. are to be ASTM A-36 (unless noted other wise) designed and constructed per the 1989 AISC "Specifications For The Design, Fabrication, And Erection Of Steel For Buildings", and the latest edition of the AISC "Manual Of Steel Construction".
- Steel columns shall be ASTM A-501, Fy36 KSI. Structural tubing shall be ASTM A500, grade B, Fy46 KSI.
- Labels shall conform with the latest AISI D11 "Specifications For Labeling In Building Construction". And shall utilize EPOXY electrodes unless noted otherwise.
- Bolted connections shall utilize ASTM A-325 bolts tightened to a " snug fit" condition (unless noted otherwise).

REINFORCING STEEL SPECIFICATIONS

- Reinforcing bars, couels and ties shall conform to ASTM #65 grade 60 requirements and shall be free of rust, dirt, and mud.
- Spaced wire fabric shall conform to ASTM A-95 and be positioned at the mid height of slabs u.n.o.
- Reinforcing shall be placed and securely tied in place sufficiently ahead of placing of concrete to allow inspection and correction, if necessary without delaying the concrete placement.
- Extend reinforcing bars a minimum of 36" around corners and lap bars at splice a minimum of 24" u.n.o.
- Splicing of reinforcing steel is not allowed.

STAIRWAYS AND HANDRAILS

- R311.1 width: Stairway shall not be less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height. Handrail shall not project more than 4.5 inches (114 mm) on either side of the stairway and the minimum clear width of the stairway, at and below the handrail height, including treads and landings, shall not be less than 3'-0" (914 mm) where a handrail is installed on one side and 27 inches (686 mm) where handrails are provided on both sides.
- Exception: The width of spiral stairways shall be in accordance with Section R311.1.0.1.
- R311.2 handrail: Handrail shall be provided on at least one side of each continuous run of treads or flight with four or more risers.
- R311.2.1 height: Handrail height, measured vertically from the sloped plane adjoining the tread nosing or finish surface of step slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).
- Exception: 1. The use of a volute, turnout or starting railing shall be allowed on the lowest tread.
- When handrail fittings or bendings are used to provide continuous transition between flights, the transition from handrail to guardrail, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

SMOKE ALARMS

- R314.3 Smoke Alarm: Smoke alarm shall be installed in the following locations:
 - In each sleeping room.
 - Outside each separate sleeping area in the immediate vicinity of the bedrooms.
 - On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
- Where more than one smoke alarm is installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit.

CARBON MONOXIDE DETECTOR

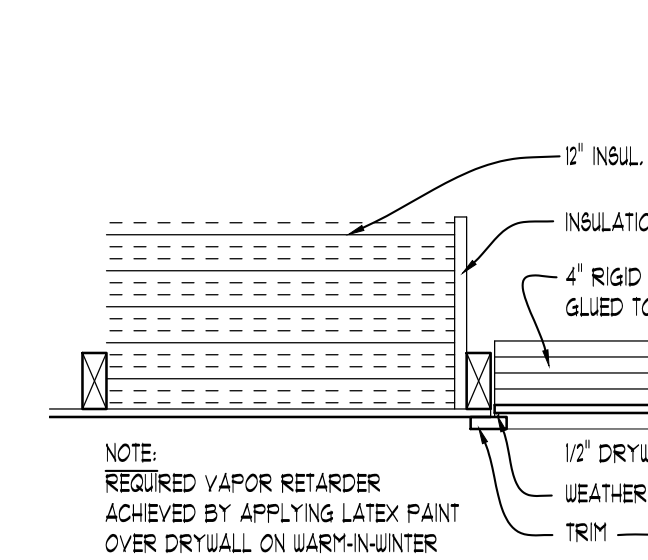
- A Carbon monoxide detector shall be located in the vicinity of the bedrooms, which may include a device capable of detecting carbon monoxide near all adjacent bedrooms. It shall be installed in the dwelling adjacent to or attached garage and in areas adjacent to any fuel-burning appliances. Carbon Monoxide Detectors shall not be placed within fifteen feet of fuel-burning heating or cooking appliances such as gas stoves, furnaces, or fireplaces, or in or near very humid areas such as bathrooms.

FLASHING AND WEEPHOLES

- R703.5.5 Flashing: Flashing shall be located beneath the first course of masonry above finished ground level above the foundation wall or slab and at other points of support, including structural floors, wall angles and lintels when masonry veneers are designed in accordance with Section R703.1. See Section R703.8 for additional requirements.
- R703.6.5 Weepholes: Weepholes shall be provided in the outside wythe of masonry walls at a maximum spacing of 33 inches (838 mm) on center. Weepholes shall not be less than 3/16 inch (5 mm) in diameter. Weepholes shall be located immediately above the flashing.
- R703.7.5 Flashing: Approved corrosion-resistant flashing shall be applied single-lap fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membranes used as flashing shall comply with ASTM A717. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:
 - Exterior windows and door openings. Flashing at exterior windows and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage.
 - At the intersection of chimneys or other masonry construction with frame or masonry walls with projecting tile or parapet walls under sloped copings.
 - Under and at the ends of masonry wood or metal copings and sills.
 - Continuously above all projecting wood trim.
 - Where exterior porches, decks or eaves attach to a wall or floor assembly of wood-frame construction.
 - At wall and roof intersections, i.e. At built-in gutters.

FIREPLACES

- R1001.0 Hearth extension dimensions: Hearth extensions shall extend at least 6 inches (152 mm) front of and at least 8 inches (203 mm) beyond each side of the fireplace opening, or larger. Where the fireplace opening is 8 square feet (0.8 m²) the hearth extension shall extend at least 20 inches (508 mm) in front and at least 12 inches (305 mm) beyond each side of the fireplace opening.



ATTIC ACCESS DETAIL

SCALE: 1" = 1'-0"

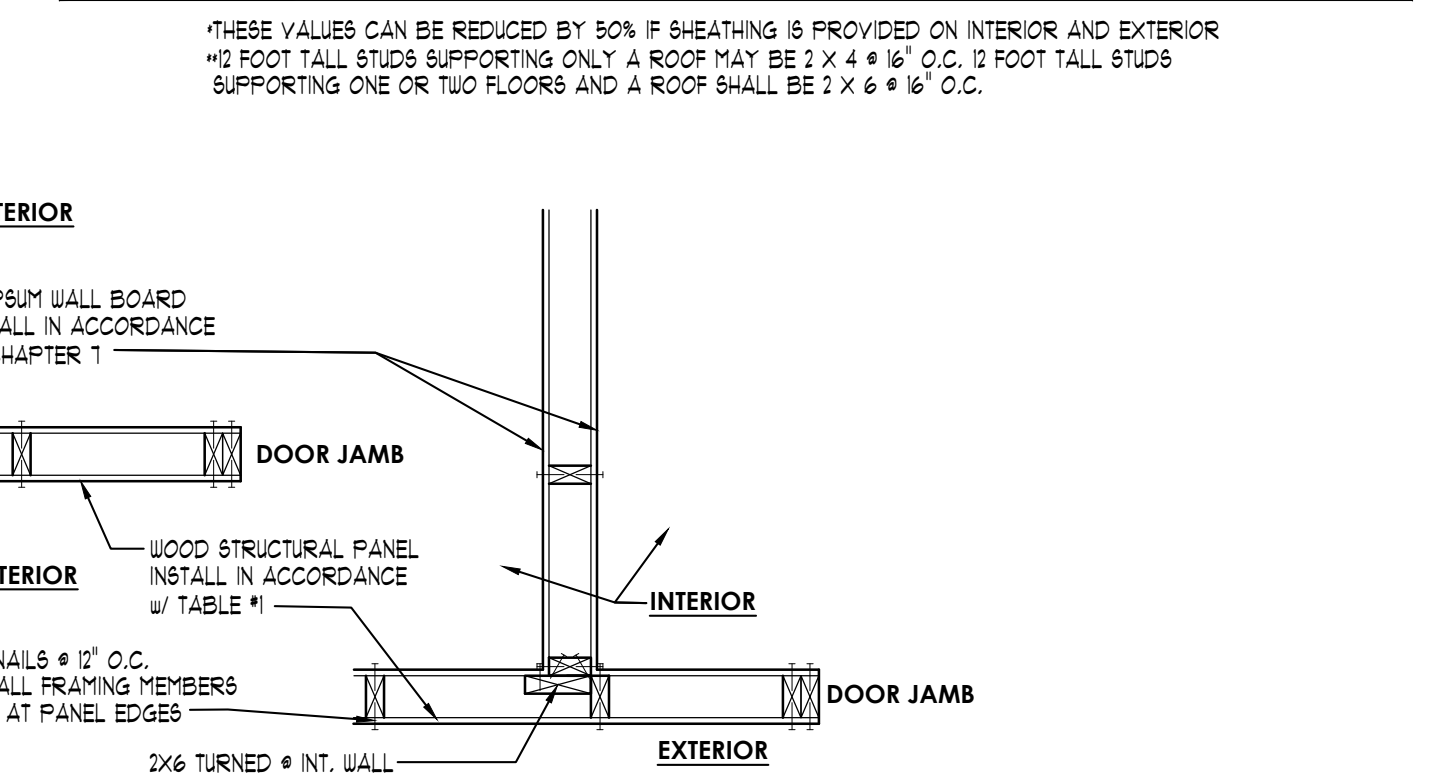
EGRESS WINDOW REQUIREMENTS

- Min. net clear opening of 5.7 sq. ft. (second floor bedrooms)
- Min. net clear opening of 5.0 sq. ft. (first floor bedrooms only)
- Min. net clear opening of .24 inches
- Min. net clear opening width of 20 inches
- Max. sill m. above finish floor of 44 inches

AREAS THAT REQUIRE SAFETY GLAZING

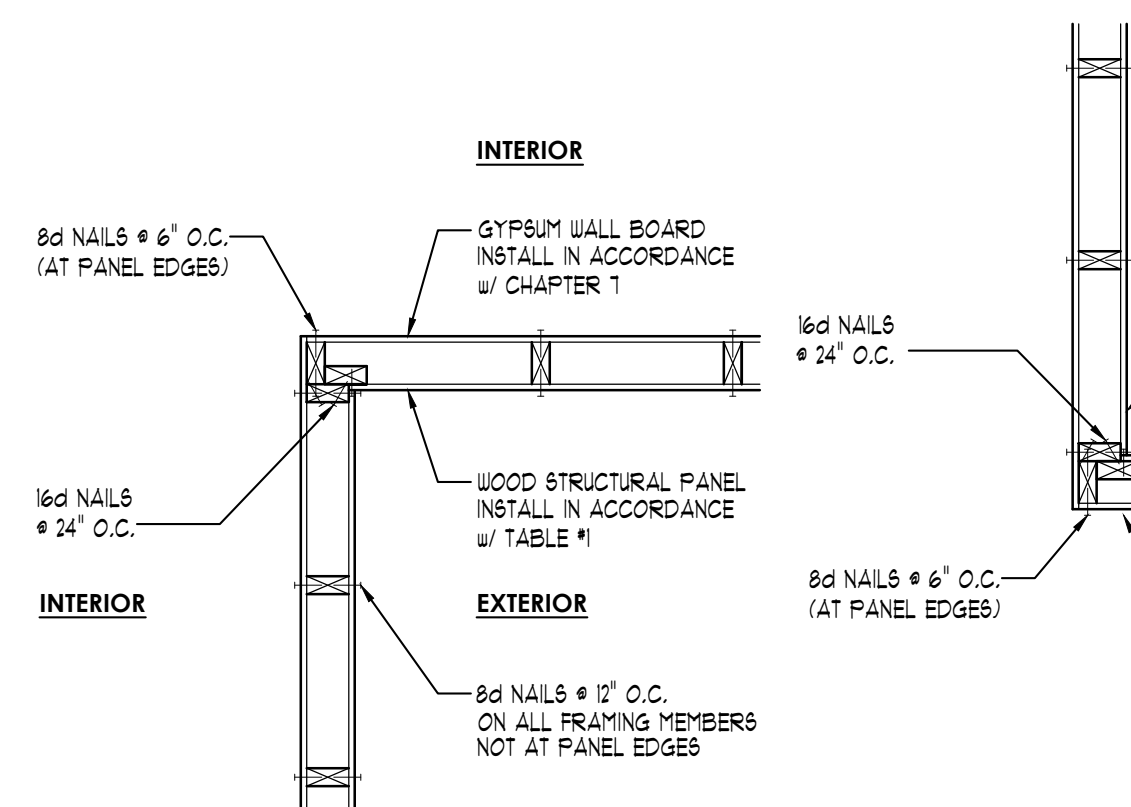
- R308.4 Hazardous locations: The locations specified in Sections R308.4.1 through R308.4.7 shall be considered to be hazardous locations for the purposes of glazing.
 - R308.4.1 Glazing in doors: Glazing in fixed and operable panels of swinging sliding and bifold doors considered to be a hazardous location.
 - Exception: 1. Glazed openings of a size through which a 3-inch diameter (76 mm) sphere is unable to pass.
 - 2. Decorative glazing.
 - R308.4.2 Glazing adjacent to doors: Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:
 - Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
 - Where the glazing is on a wall perpendicular to the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an insulating door.
 - Exception: 1. Decorative glazing.
 - 2. Where there is an intervening wall or other permanent barrier between the door and the glazing.
 - 3. Where access through the door is to a closet or storage area 5 feet (1524 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
 - 4. Glazing that is adjacent to the fixed panel of patio doors.
 - R308.4.3 Glazing in windows: Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered to be a hazardous location:
 - The exposed area of an individual pane is larger than 9 square feet (0.836 m²).
 - The bottom edge of the glazing is less than 18 inches (457 mm) above the floor.
 - The top edge of the glazing is more than 36 inches (914 mm) above the floor; and
 - One or more walking surfaces are within 36 inches (914 mm), measured horizontally and in a straight line, of the glazing.
 - Exception: 1. Long leg of angle shall be placed in a vertical position.
 - 2. Depth of reinforcing lites shall not be less than 8 inches and all cells of hollow masonry lites shall be grouted solid. Reinforcing bars shall extend not less than 8 inches into the support.
 - 3. Steel members indicated are adequate typical examples; other steel members meeting structural design requirements shall be permitted to be used.
 - 4. Other steel angle or reinforced lites shall upon opening.

LENGTH REQUIREMENTS FOR BRACED WALL PANELS IN A CONTINUOUSLY SHEATHED WALL TABLE #1				
LENGTH OF BRACED WALL PANEL (INCHES)				MAXIMUM OPENING HEIGHT NEXT TO BRACED WALL PANEL (% OF WALL HEIGHT)
8-FOOT WALL	9-FOOT WALL	10-FOOT WALL	12-FOOT WALL**	
48"	54"	60"	72"	100%
32"	36"	40"	48"	85%
24"	27"	30"	36"	65%



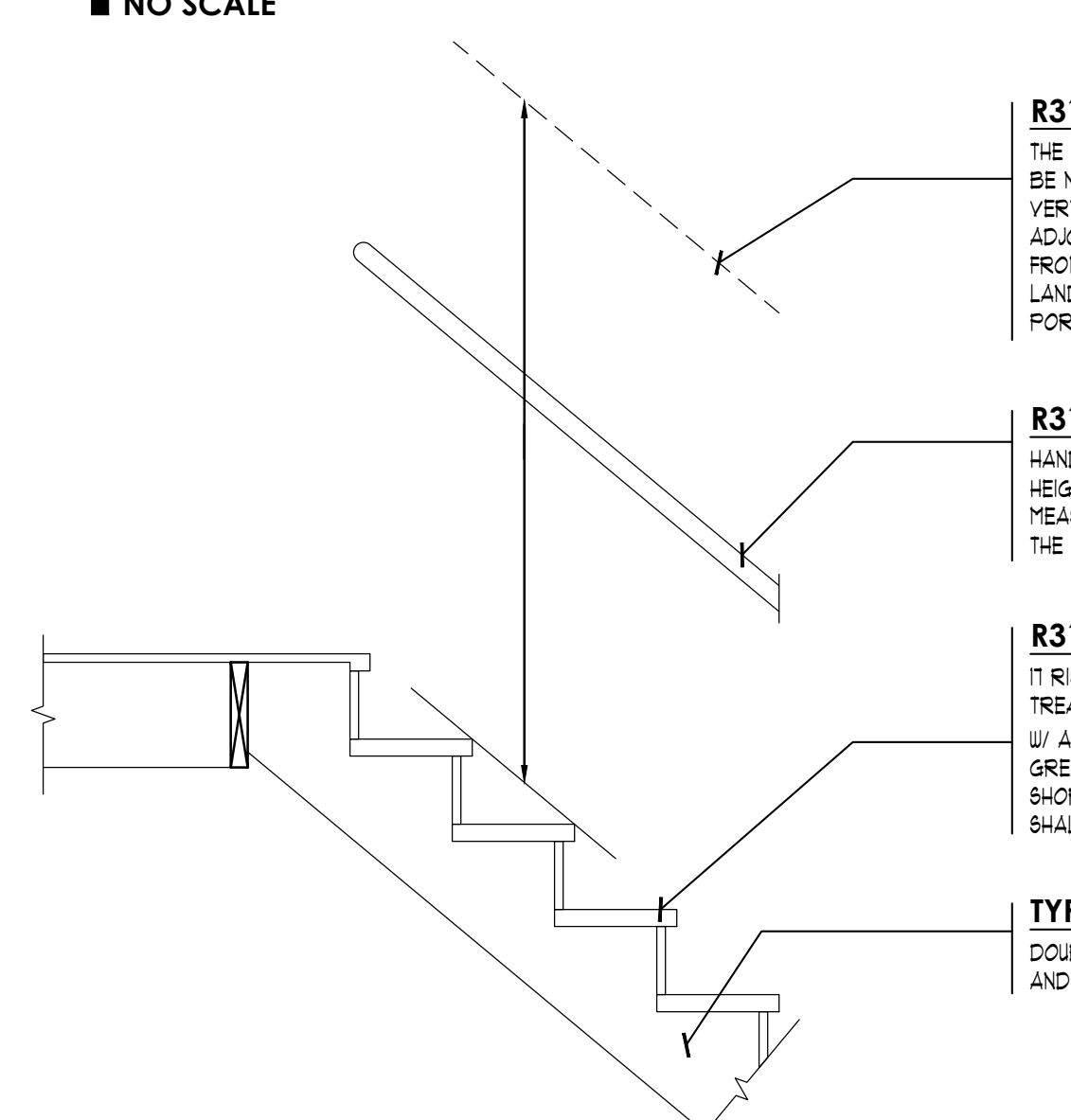
WALL BRACING DETAIL

NO SCALE



WALL BRACING DETAIL

NO SCALE

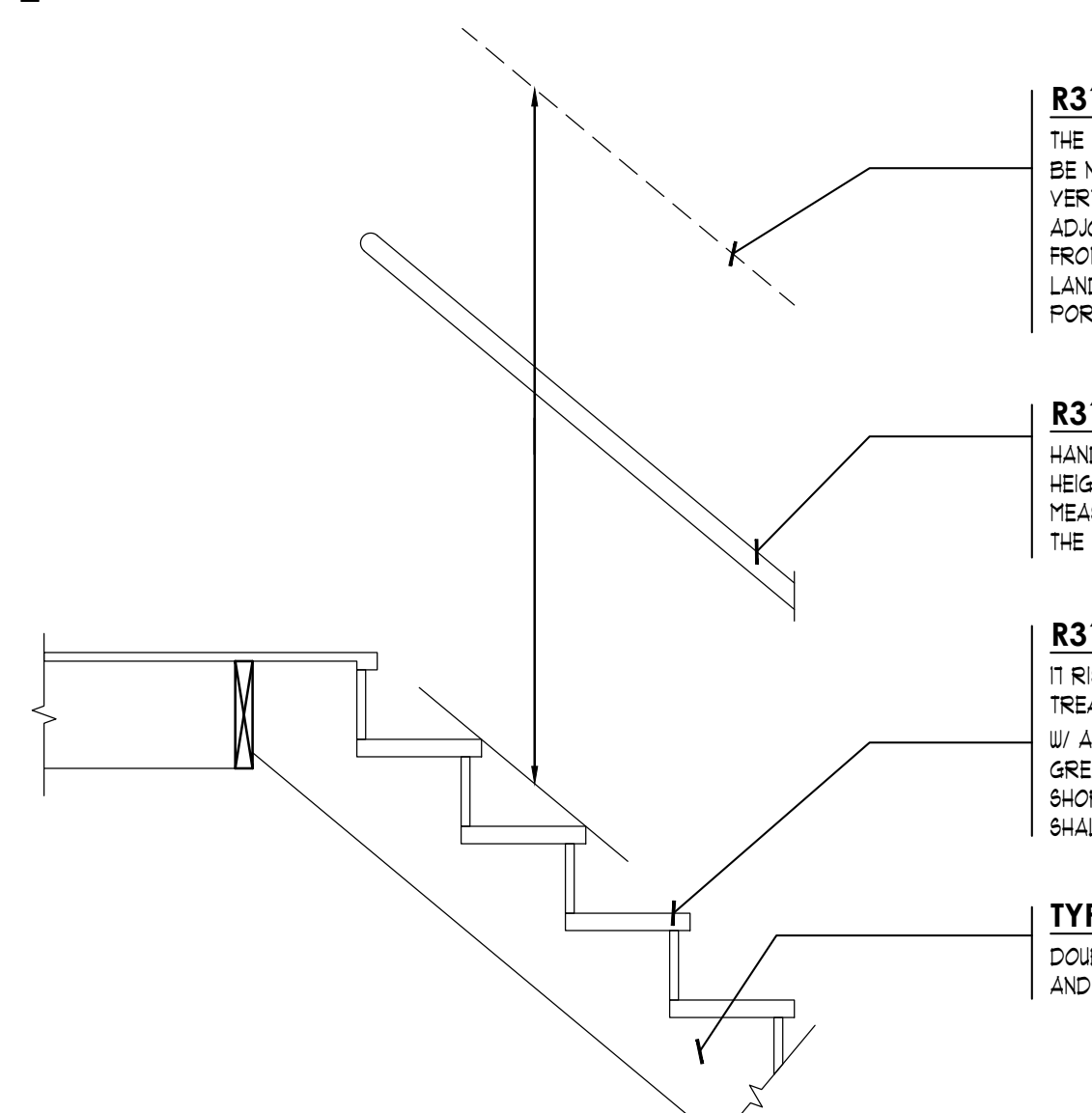


TYPICAL STRINGERS

DOUBLE 2x2 MINIMUM STRINGERS AT ENDS AND ONE (1) STRINGER AT CENTER

TYPICAL STAIR DETAIL FIRST FLOOR TO SECOND FLOOR

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



TYPICAL STAIR DETAIL BASEMENT TO FIRST FLOOR

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

TABLE R602.3.(5) SIZE, HEIGHT AND SPACING OF WOOD STUDS o.

STUD SIZE (INCHES)	BEARING WALLS				NONBEARING WALLS	
	Laterally unsupported stud height (feet)	Maximum spacing when supporting one floor plate assembly or a roof-ceiling assembly (inches)	Maximum spacing when supporting one floor plate assembly or a roof-ceiling assembly (inches)	Maximum spacing when supporting one floor height (inches)	Laterally unsupported stud height (feet)	Maximum spacing (inches)
2x3 b	-	-	-	-	10	14
2x4	10	24 c	16 c	-	24	24
3x4	10	24	24	16	24	24
2x6	10	24	24	-	24	24
2x8	10	24	24	16	24	20

For 1" thick = 25 mm, 1 foot = 304.8 mm.

- Unlabeled heights are distances between points of lateral support placed perpendicular to the plane of the wall. Bearing walls shall be sheathed on not less than one side or bracing shall be installed not greater than 8 feet apart measured vertically from either end of the stud. Increases in unsupported height are permitted where in compliance with Section 5 of Section R602.3.1 as designed in accordance with accepted engineering practice.
- Stud not to be used in exterior walls.
- A habitable attic assembly supported by 2 x 4 studs is limited to a roof span of 32 feet. Where the roof span exceeds 32 feet, the wall studs shall be increased to 2 x 6 or the studs shall be designed in accordance with accepted engineering practice.

TABLE R703.8.1 ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER a,b,c,d

SIZE OF STEEL ANGLE (a,b,d) (INCHES)	NO STOREY ABOVE	ONE STOREY ABOVE	TWO STORES ABOVE	NO. OF JOIST OR EQUIVALENT REINFORCING BARS (c,d)
3x3x1/2	6'-0"	4'-6"	3'-0"	1
4x3x1/2	8'-0"	6'-0"	4'-6"	1
5x3x1/2	10'-0"	8'-0"	6'-0"	2
6x3x1/2	14'-0"	9'-6"	7'-0"	2
2-4x3x1/2	20'-0"	12'-0"	9'-6"	4

- Long leg of angle shall be placed in a vertical position.
- Depth of reinforcing lites shall not be less than 8 inches and all cells of hollow masonry lites shall be grouted solid. Reinforcing bars shall extend not less than 8 inches into the support.
- Steel members indicated are adequate typical examples; other steel members meeting structural design requirements shall be permitted to be used.
- Other steel angle or reinforced lites shall upon opening.

TYPICAL CONVENTIONAL ROOF FRAMING

* BEAM RIDGE SIZE WILL BE EQUAL TO THE RAFTER CUT EDGE *

RAFTER SPANS	0'-0" - 4'-0"	4'-0" - 8'-0"	8'-0" - 12'-0"	12'-0" - 16'-0"
LUMBER SIZE	2x4	2x6	2x8	2x12



8-10-2020

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CLIENT / PROJECT

COMPO BUILDERS
HILLIER RESIDENCE

JOB No. 20-160

DRAWN: ECT
CHECKED: ECT

REVIEW -

FINAL: 6-24-20
REVISION 7-21-20
REVISION 7-24-20
REVISION 8-4-20
REVISION 8-11-20
REVISION 9-10-20

SCALE: PER PLAN

SHEET #
GN1

TABLE R404.1.2(1)
MINIMUM HORIZONTAL REINFORCEMENT FOR CONCRETE BASEMENT WALLS^{a,b}

MAXIMUM UNSUPPORTED HEIGHT OF BASEMENT WALL (feet)	LOCATION OF HORIZONTAL REINFORCEMENT
≤ 8	One No. 4 bar within 12 inches of the top of the wall story and one No. 4 bar near mid-height of the wall story
> 8	One No. 4 bar within 12 inches of the top of the wall story and one No. 4 bar near third points in the wall story

For Sl: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa.
 a. National reinforcement requirements are for reinforcing bars with a minimum yield strength of 40,000 psi and concrete with a minimum compressive strength of 2,800 psi.
 b. See Section R601.1.2.2 for minimum reinforcement required for foundation with supporting above-grade concrete walls.

TABLE R404.1.2(2)
MINIMUM VERTICAL REINFORCEMENT FOR 6-, 8-, 10-, 12-INCH NOMINAL FLAT CONCRETE BASEMENT WALLS^{a,b,c,d}

MAXIMUM WALL HEIGHT (feet)	MAXIMUM UNBALANCED BACKFILL HEIGHT ^e (feet)	MINIMUM VERTICAL REINFORCEMENT - BAR SIZE AND SPACING (INCHES)											
		Soil classes ^f and design lateral soil (psf per foot of depth)											
		GW, GP, SW, SP 30				GM, GC, SM, SM-SC and ML 45				SC, ML-CL and Inorganic CL 60			
Minimum nominal wall thickness (inches)													
		6	8	10	12	6	8	10	12	6	8	10	12
5	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	NR	NR	NR	NR	4 @ 35	NR	NR	NR
7	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 48	NR	NR	NR	NR	NR	NR	NR
8	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR
9	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 46	NR	NR	NR	NR	NR	NR	NR
10	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR
11	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 46	NR	NR	NR	NR	NR	NR	NR
12	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR
13	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 46	NR	NR	NR	NR	NR	NR	NR
14	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR
15	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 46	NR	NR	NR	NR	NR	NR	NR
16	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR
17	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 46	NR	NR	NR	NR	NR	NR	NR
18	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR
19	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 46	NR	NR	NR	NR	NR	NR	NR
20	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	5 @ 42	NR	NR	NR	NR	NR	NR	NR

For Sl: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa.
 a. Soil classes are in accordance with the Unified Soil Classification System. Refer to Table R605.1.
 b. Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi.
 c. Vertical reinforcement with a yield strength of less than 40,000 psi and/or bars of a different size than specified in the table are permitted in accordance with Section R604.1.2.2.4 and Table R604.1.2(1).
 d. NR indicates no vertical reinforcement is required, except for 4-inch nominal walls formed with stay-in-place forming systems in which case vertical reinforcement shall be #4@8 inches on center.
 e. Allowable deflection criterion is L/240, where L is the unsupported height of the basement wall in inches.
 f. Where walls are built on or above undisturbed fill, they shall be laterally supported at the top and bottom below backfilling.
 g. Vertical reinforcement shall be located to provide a cover of 1.25 inches measured from the inside face of the wall. The center of the steel shall not vary from the specified location by more than the greater of 10 percent of the wall thickness or 1.25 inches.
 h. Concrete cover for reinforcement measured from the inside face of the wall shall not be less than 3/4-inch. Concrete cover for reinforcement measured from the outside face of the wall shall not be less than 1 1/2 inches for No. 5 bars and not less than 2 inches for larger bars.
 i. DR means design is required in accordance with the applicable building code, or where there is no code it is in accordance with ACI 318.
 j. Concrete shall have a specified compressive strength, f'c, not less than 2,800 psi at 28 days, unless a higher strength is required by Table R404.1.2(1).
 k. The minimum thickness is permitted to be reduced 2 inches, provided the minimum specified compressive strength of concrete, f'c, is 4,000 psi.
 l. A 3-inch concrete wall with a minimum nominal thickness of 3 inches is permitted, provided minimum specified compressive strength of concrete, f'c, is 3,000 psi.
 m. See Table R602.3 for tolerance from nominal thickness permitted for foot walls.
 n. The use of this table shall be prohibited for soil classifications not shown.

TABLE R602.10.6.4
TENSION STRAP CAPACITY FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHODS PFH, PFG AND CS-PF BRACED WALL PANELS

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE	MAXIMUM PONY WALL HEIGHT (feet)	MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM OPENING WALL HEIGHT (feet)	TENSION STRAP CAPACITY REQUIRED (pounds) ^{a,b}						
				Ultimate Design Wind Speed V ₀ (mph)						
				110	115	130	110	115	130	
2 x 4 No. 2 Grade	0	10	18	1,000	1,000	1,000	1,000	1,000	1,050	
				9	1,000	1,000	1,000	1,000	1,750	
				16	1,000	1,025	2,050	2,075	3,950	
				18	1,000	1,275	2,375	2,400	2,850	
				9	1,000	1,000	1,475	1,500	1,875	
				16	1,775	2,175	3,525	3,550	4,125	
	2	10	18	2,075	2,500	3,950	3,975	DR	DR	
					9	1,150	1,500	2,650	2,675	3,175
					16	2,875	3,375	DR	DR	DR
					18	3,425	3,975	DR	DR	DR
					9	2,275	2,750	DR	DR	DR
					12	3,225	3,775	DR	DR	DR
2 x 6 Stud Grade	2	12	18	1,000	1,000	1,700	1,700	2,025	3,050	
				16	1,825	2,150	3,225	3,225	3,675	
				18	2,200	2,550	3,725	3,750	DR	
				9	1,450	1,750	2,700	2,725	3,125	
				16	2,050	2,400	DR	DR	DR	
				18	3,350	3,800	DR	DR	DR	

For Sl: 1 inch = 25.4 mm, 1 ft/hr = 0.447 m/s.
 a. DR = Design Required.
 b. Straps shall be installed in accordance with manufacturer's recommendations.

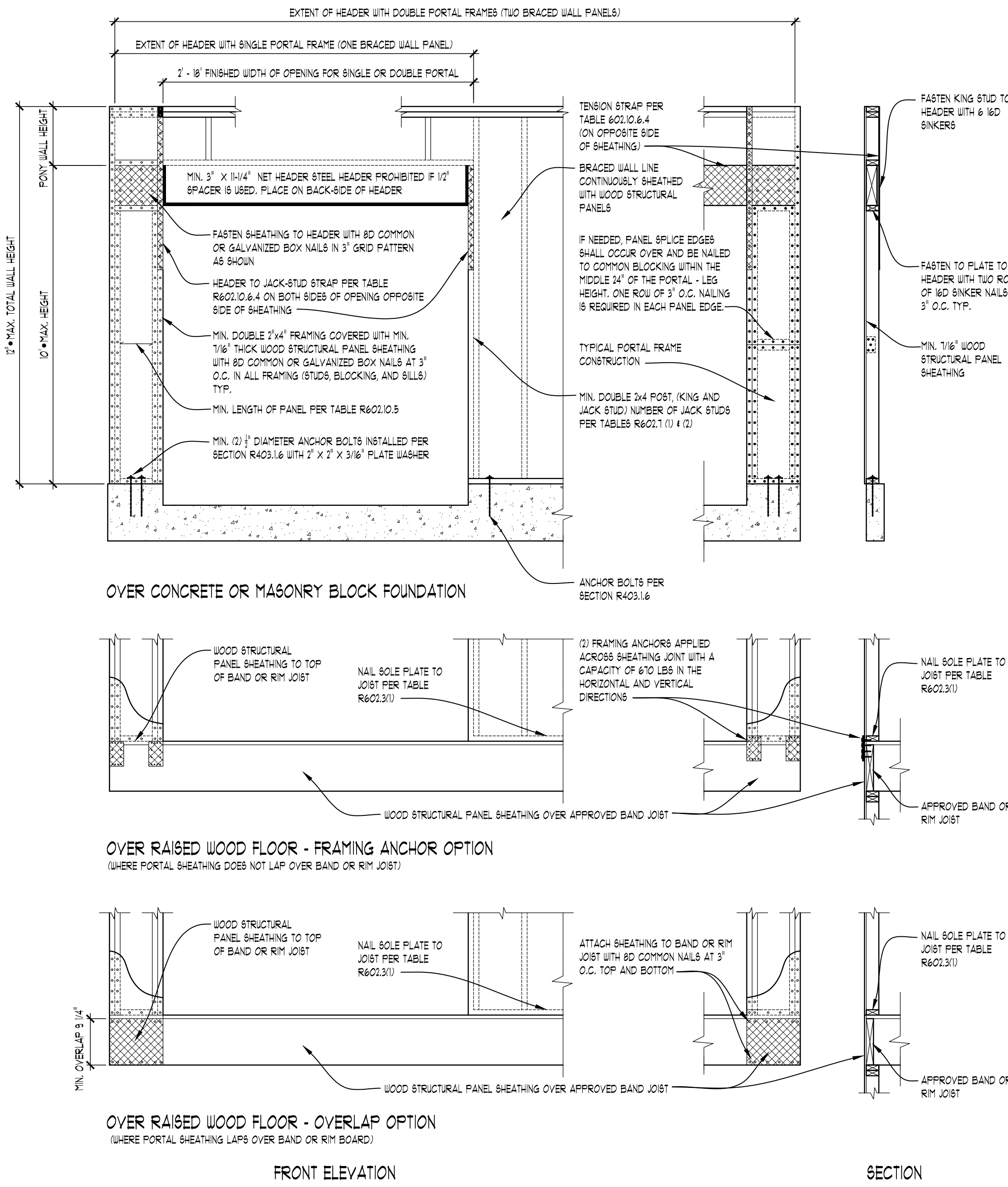


FIGURE R602.10.6.4
METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION
FOR Sl: 1 inch = 25.4 mm, 1 foot = 304.8 mm NOT TO SCALE

TABLE R602.3.(5)
SIZE, HEIGHT AND SPACING OF WOOD STUDS^a

STUD SIZE (inches)	BEARING WALLS				NONBEARING WALLS	
	Laterally unsupported stud height (feet)	Maximum spacing when supporting one floor, plus one habitable attic assembly (inches)	Maximum spacing when supporting two floors, plus one habitable attic assembly (inches)	Maximum spacing when supporting one floor height or (inches)	Laterally unsupported stud height (feet)	Maximum spacing (inches)
2x3 b	-	-	-	-	10	16
2x4	10	24 c	16 c	-	24	24
3x4	10	24	24	16	24	24
2x5	10	24	24	-	24	24
2x6	10	24	24	16	24	24

For Sl: 1 inch = 25.4 mm, 1 foot = 304.8 mm.
 a. Listed heights are distances between points of lateral support placed perpendicular to the plan of the wall. Bearing walls shall be sheathed on not less than one side or bracing shall be installed not greater than 4 feet apart measured vertically from either end of the stud. Increases in unsupported height are permitted where in compliance with Section 2 of Section R602.3.1 or designed in accordance with accepted engineering practice.
 b. Shall not be used in exterior walls.
 c. A habitable attic assembly supported by 2 x 4 studs is limited to a roof span of 32 feet. Where the roof span exceeds 32 feet, the wall studs shall be increased to 2 x 6 or the studs shall be designed in accordance with accepted engineering practice.

TABLE R703.8.3.1
ALLOWABLE SPANS FOR LITELS SUPPORTING MASONRY VENEER^{a,b,c,d}

SIZE OF STEEL ANGLE (inches)	NO STORY ABOVE	ONE STORY ABOVE	TWO STORES ABOVE	NO. OF 2" OR EQUIVALENT REINFORCING BARS ^{b,d}
3x3x1/2	6'-0"	4'-6"	3'-0"	1
4x3x1/2	8'-0"	6'-0"	4'-6"	1
5x3x1/2	10'-0"	8'-0"	6'-0"	2
6x3x1/2	14'-0"	9'-6"	7'-0"	2
2-4x3x1/2	20'-0"	12'-0"	9'-6"	4

a. Long leg of angle shall be placed in a vertical position.
 b. Depth of reinforcing litels shall not be less than 8 inches and all cells of hollow masonry litels shall be grouted solid. Reinforcing bars shall extend not less than 8 inches into the support.
 c. Steel members indicated are adequate typical examples; other steel members meeting structural design requirements shall be permitted to be used.
 d. Either steel angle or reinforced litel shall span opening.

TYPICAL CONVENTIONAL ROOF FRAMING
* RIDGE BEAM SIZE WILL BE EQUAL TO THE RAFTER CUT EDGE *

RAFTER SPANS	0'-0" - 4'-0"	4'-0" - 8'-0"	8'-0" - 12'-0"	12'-0" - 16'-0"
LUMBER SIZE	2x4	2x6	2x8	2x12



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REVISION:	8-4-20
REVISION:	8-10-20
REVISION:	9-10-20

SCALE:
PER PLAN

SHEET #
GN2

OPT. EGRESS WINDOW WELL DETAIL
SCALE 1/4" = 1'-0"

EGRESS WINDOW WELL
OPT. WINDOW WELL TO BE FILLED W/ PEA GRAVEL DOWN TO TOP OF HOUSE DRAIN TILE. THE DRAIN INTO HOUSE DRAIN TILE FROM BOTTOM OF WINDOW WELL.
RAILING OR METAL REMOVABLE GRATE + LADDER COVER TOP (AS CODE REQUIRES).
WINDOW WELLS WITH A DEPTH GREATER THAN 44" BELOW GRADE SHALL BE EQUIPPED WITH A PERMANENTLY APPLIED LADDER OR STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION.
WINDOW WELL SHALL HAVE HORIZONTAL DIMENSIONS THAT PROVIDE A MIN. NET CLEAR AREA OF 3 SQ. FT. WITH A MIN HORIZONTAL PROJECTION AND WIDTH OF 36".

FOUNDATION NOTES

- NOTE:**
ALL FOOTINGS ARE DESIGNED FOR 3000 P.S.F. SOIL BRG. CAPACITY 1.00 P.S.F. ROOF SNOW LOAD. FOR VARYING CONDITIONS REFER TO TABLE R403.1(1), R403.1(2), & R403.1(3) OF THE 2018 IRC.
- ALL COLUMNS SHOWN SHALL BE 3" DIA. SCHEDULE 40 STANDARD STEEL PIPE COLUMN ON 30" X 30" X 18" DEEP CONC. FTG. TOP OF CONCRETE FTG. TO BE 4" BELOW FINISH BASEMENT SLAB. (TYPICAL UNLESS NOTED OTHERWISE)
 - WHERE STEEL BEAMS REST ON FOUNDATION WALLS, 6" BEAM POCKET APPROPRIATELY AND SHIM AS REQUIRED.
 - AS REQUIRED DROP FLOOR SHEATHING 3/4" FOR MUDSET TILE INSTALLATION.
 - VERIFY ALL UTILITY LOCATIONS W/ BUILDER.
 - PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
 - PROVIDE LADDERING UNDER ANY WALL RUNNING PARALLEL W/ JOIST THAT DOES NOT LAND DIRECTLY ON A JOIST.
 - PROVIDE SQUASH BLOCKS UNDER ALL BEARING CONDITIONS.
 - GROUT SOLID + BEARING CONDITIONS WHERE BLOCK IS USED.
 - PROVIDE 2" X 24" MIN. R-10 RIGID PERIMETER INSULATION AT ALL BASEMENT SLABS THAT ARE LESS THAN 4" BELOW EXTERIOR FINISHED GRADE.

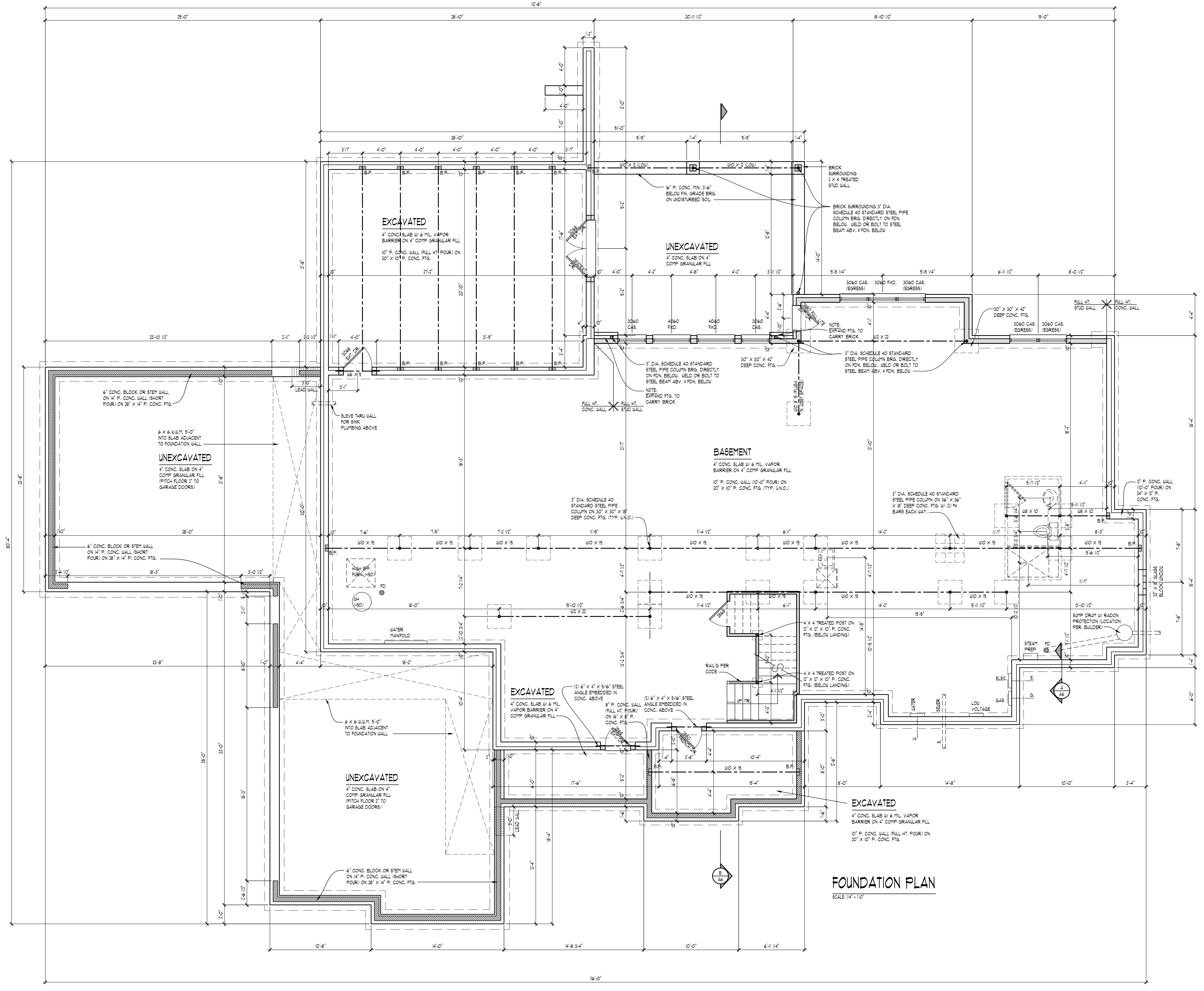
NOTE:
PROVIDE MIN. (2) 2" X 4" HEADER AT ALL INTERIOR + EXTERIOR DOOR + WINDOW OPENINGS (UNLESS NOTED OTHERWISE).

NOTE:
PROVIDE MIN. (1) JACK STUD + (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).

NOTE:
PROVIDE MIN. (1) JOIST OR LADDER FRAMING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS.

NOTE:
GROUT ALL CONCRETE BLOCK CORERS SOLID THAT SUPPORT POINT LOADS FROM ABOVE (TYPICAL).

NOTE:
WOOD BEAM
STEEL BEAM
BRG. WALL
BRG. WALL ABOVE
BRG. WALL + BRG. WALL ABOVE
POINT LOAD
POINT LOAD FROM ABOVE



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



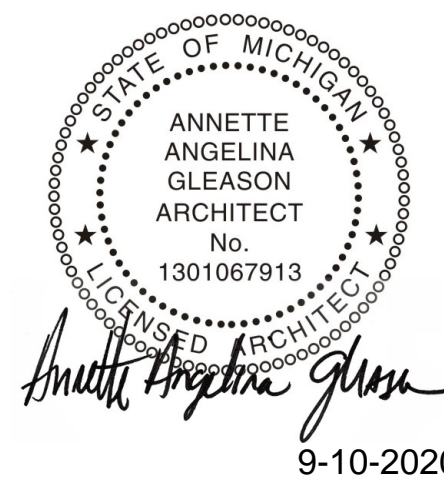
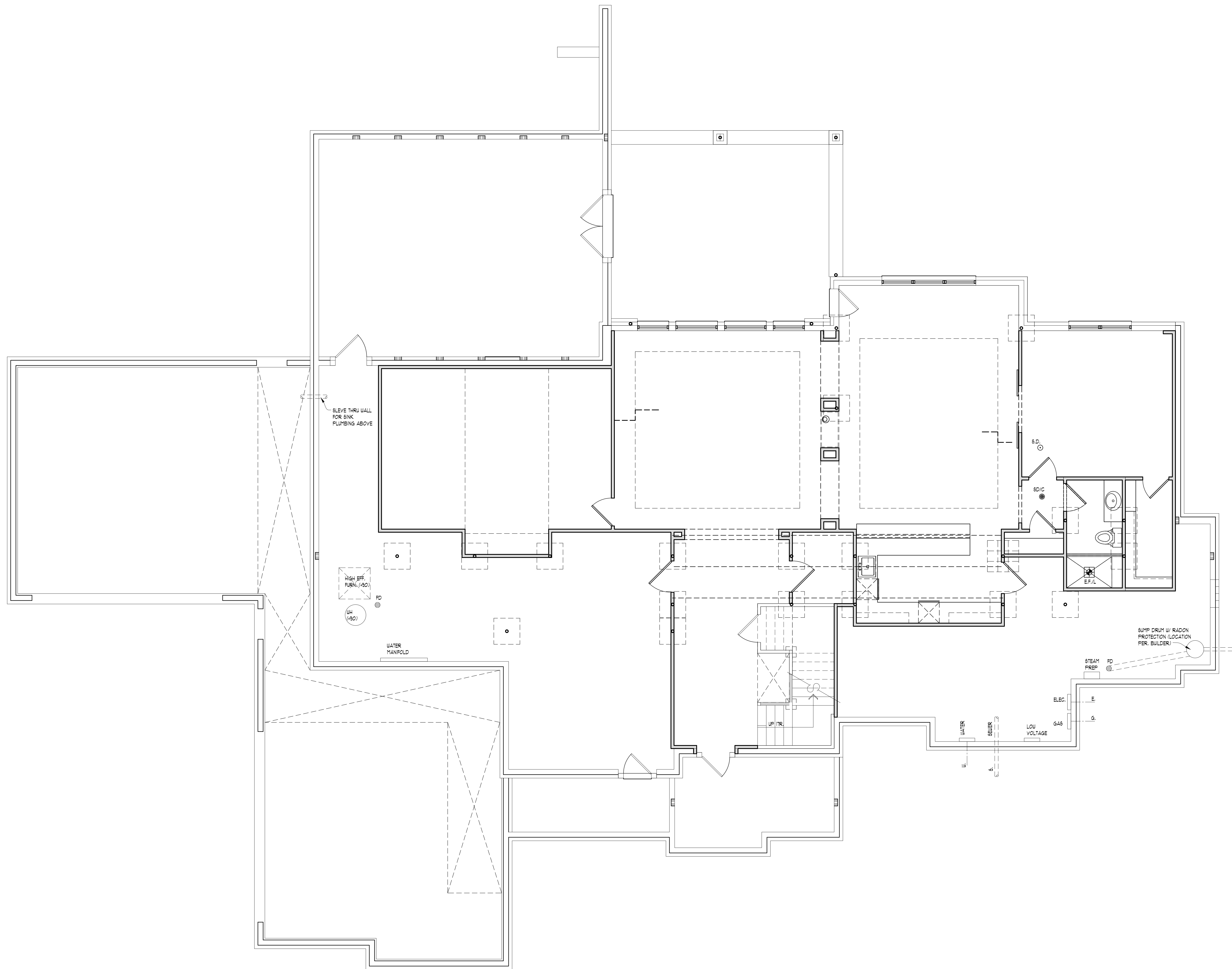
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SCALE:
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SHEET #
A-1



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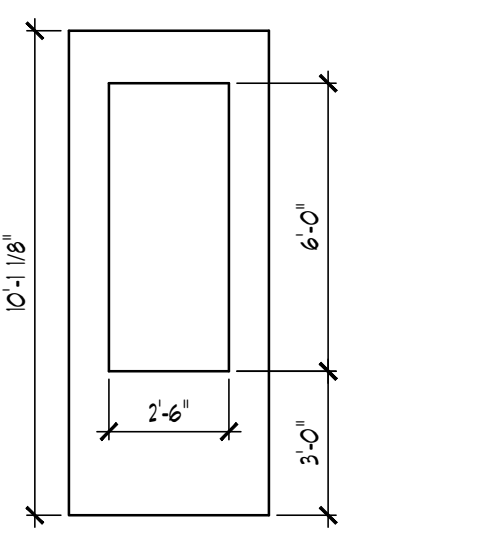
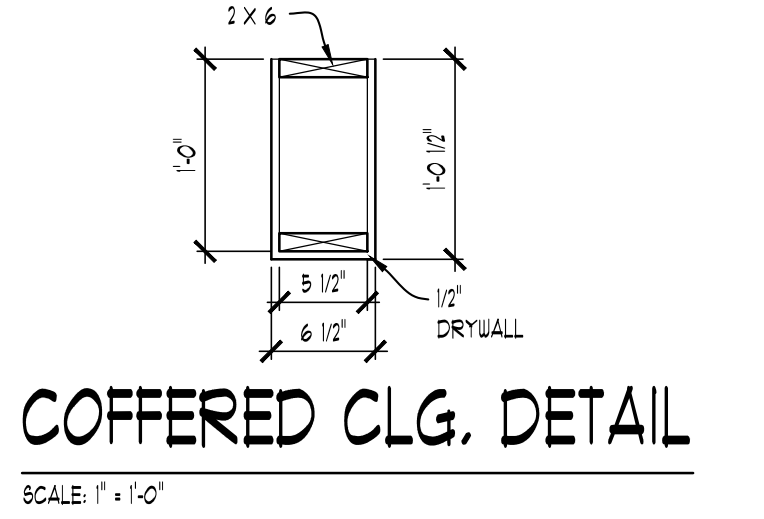
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REVISION	8-10-20
REVISION	9-10-20

SCALE:
 PER PLAN

SHEET #
FB-1



OPT. INTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



AREA SUMMARY:

HABITABLE SPACE AREA:	1785 S.F.
FIRST FLOOR:	1329 S.F.
SECOND FLOOR:	456 S.F.
FINISHED BASEMENT:	1504 S.F.
TOTAL AREA:	4589 S.F.

AREA SUMMARY:

OVERALL FLOOR AREA:	1329 S.F.
FIRST FLOOR:	1329 S.F.
SECOND FLOOR:	2206 S.F.
TOTAL AREA:	3535 S.F.



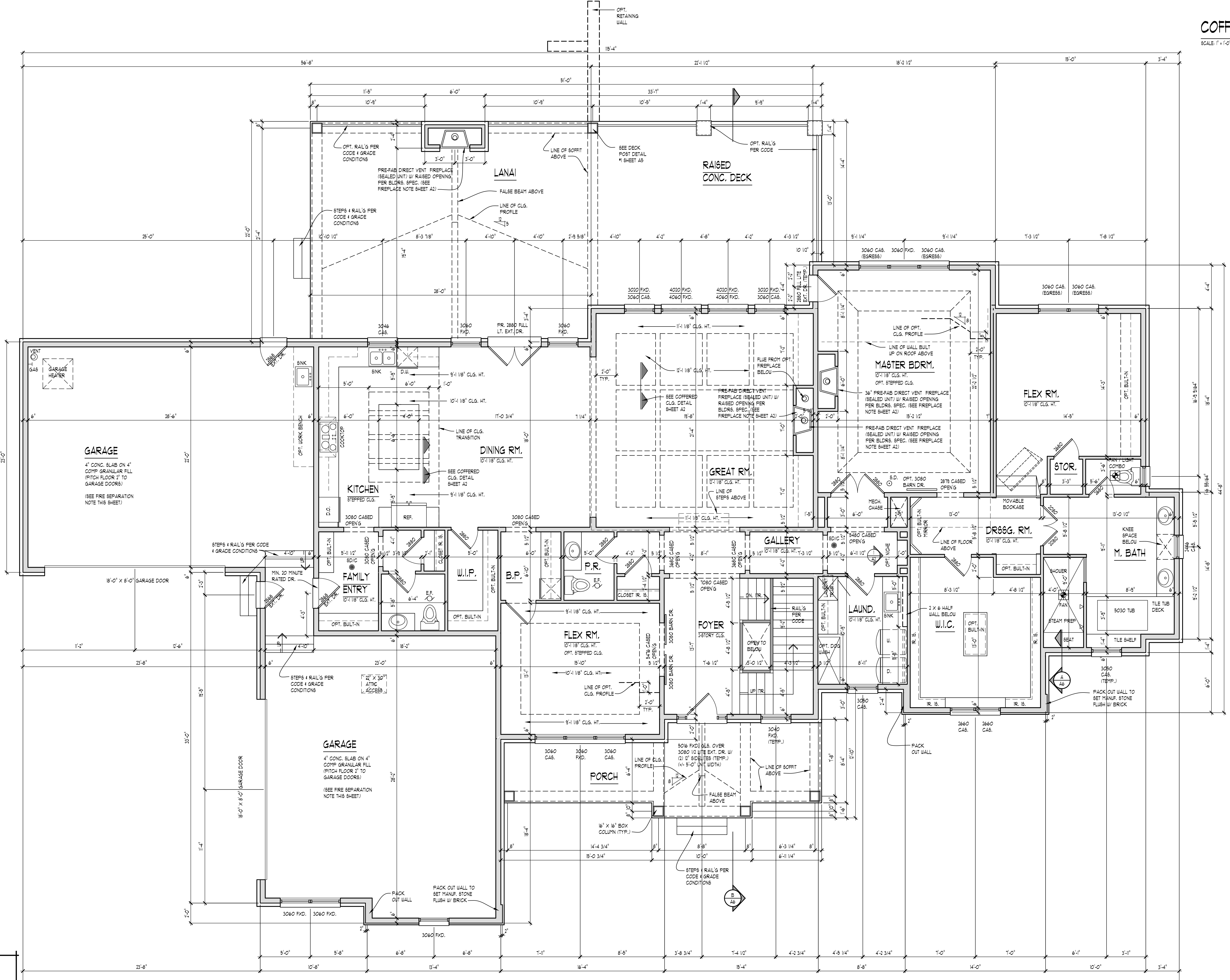
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CHECKED:	ECT
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REVISION:	7-24-20
REVISION:	8-4-20
REVISION:	8-11-20
REVISION:	9-10-20

SCALE:
PER PLAN

SHEET #
A-2



FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

NOTE:
PROVIDE MIN. (2) 2 X 4 HEADER AT ALL INTERIOR & EXTERIOR DOOR & WINDOW OPENINGS (UNLESS NOTED OTHERWISE).

NOTE:
PROVIDE MIN. (1) JACK STUD & (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).

NOTE:
PROVIDE MIN. (1) JOIST OR LADDER TRAINING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS.

PLAN NOTES

- INTERIOR WALLS:**
1/2" GYPSUM WALL BOARD ON EACH SIDE OF 2x4 WOOD STUDS @ 16" O.C. 3 1/2" THICK TYPICAL (UNLESS NOTED OTHERWISE). ALL DIMENSION TAKEN FROM STUD EDGES.
- EXTERIOR WALLS:**
SIDING AND/OR MASONRY WITH AIRSPACE, MOISTURE BARRIER PAPER (HOUSE WRAP) ON 1/8" O.S.B. SHEATHING ON 2x6 WOOD STUDS @ 16" O.C. OR AS NOTED. MIN. R5.0 WALL CONSTRUCTION 1/2" GYPSUM WALL BOARD (5/8" & 1" SCREWS). WALL TO BE 6" THICK WITH SIDING AND 10" THICK WITH MASONRY (TYPICAL UNLESS NOTED OTHERWISE). ALL DIMENSION TAKEN FROM FRAMING (FLOOR PLANS) OR FOUNDATION CORNERS (FOUNDATION PLAN).
- OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH 20-MINUTE FIRE RATED DOORS (OR EQUIVALENT PER 203 BIRC SECTION R302.1).
 - VENT ALL EXHAUST FANS TO EXTERIOR.
 - WHEN POSSIBLE DIRECT ALL FLUES AND VENTS THAT PENETRATE ROOF BEHIND MAIN RIDGE.
 - INSTALL WATER SUPPLY AND DRAIN BOX (GREY BOX) AT WASHING MACHINE LOCATION.
 - USE MOISTURE RESISTANT DRYWALL AT ALL AREAS SUSCEPTIBLE TO MOISTURE.
 - ALL FIRST FLOOR INTERIOR DOORS TO BE FRAMED 6'-0" TALL. ALL SECOND FLOOR INTERIOR DOORS TO BE FRAMED 6'-6" UNLESS NOTED OTHERWISE. VERIFY W/ BUILDER.
 - PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
 - PROVIDE SQUASH BLOCKS UNDER ALL BEARING CONDITIONS.
 - GARAGE WALLS TO BE 2x6 STUDS IF OVER 10'-0" TALL.

NOTE:
PORCH CLG. FINISH PER BUILDER'S SPEC.

NOTE:
ALL SMOKE & CARBON MONOXIDE DETECTORS INTERCONNECTED W/ BATTERY BACK-UP PER CODE.

NOTE:
DOOR & WINDOW LOCATIONS:
ALL DOORS & WINDOWS ARE ASSUMED TO BE EITHER IN THE CENTER OF THE WALL MASS OR MIN. 4 INCHES FROM PERPENDICULAR WALL FOR CENTER UNLESS NOTED OTHERWISE.

NOTE:
VERIFY DROPPED FLOOR AREAS FOR TILE WITH BUILDER.

FIREPLACE NOTE
ALL FIREPLACE DIMENSIONS & ROUGH OPENINGS TO BE VERIFIED BY MANUFACTURER SPECS INCLUDING BUT NOT LIMITED TO WIDTH, DEPTH, HEIGHT, CHIMNEY CLEARANCES, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL SPECS TO CARPENTER PRIOR TO FRAMING.

FIRE SEPARATION NOTE
FIRE SEPARATION (R302.6)
GARAGE SPACE BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8-INCH TYPE X GYPSUM BOARD OR EQUIVALENT. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2-INCH GYPSUM BOARD OR EQUIVALENT. ALL OTHER GARAGE SPACE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2-INCH GYPSUM BOARD APPLIED TO THE GARAGE SIDE. DROP CLG. UNDER FLR. ADV. (ENCLOSE MECHANICAL AND STRUCTURAL ELEMENTS) VERIFY W/ BLDG.

PLAN NOTES

INTERIOR WALLS:
1/2" GYPSUM WALL BOARD ON EACH SIDE OF 2x4 WOOD STUDS @ 16" O.C. 3/16" THICK TYPICAL (UNLESS NOTED OTHERWISE). ALL DIMENSION TAKEN FROM STUD EDGES

EXTERIOR WALLS:
BDG AND/OR MASONRY WITH AIRSPACE MOISTURE BARRIER PAPER (HOUSE WRAP) ON 1/8" O.S.B. SHEATHING ON 2x6 WOOD STUDS @ 16" O.C. OR AS NOTED. MIN. R-10 WALL CONSTRUCTION, 1/2" GYPSUM WALL BOARD (GLUE & SCREWS). WALL TO BE 6" THICK WITH BDG AND 1/2" THICK WITH MASONRY (TYPICAL UNLESS NOTED OTHERWISE). ALL DIMENSION TAKEN FROM FRAMING (FLOOR PLANS) OR FOUNDATION CORNERS (FOUNDATION PLAN)

1. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH 20-MINUTE FIRE RATED DOORS (OR EQUIVALENT PER 20B MRC SECTION R302.3.1).
2. VENT ALL EXHAUST FANS TO EXTERIOR.
3. WHEN POSSIBLE DIRECT ALL FLUES AND VENTS THAT PENETRATE ROOF BEHIND MAIN RIDGE.
4. INSTALL WATER SUPPLY AND DRAIN BOX (GREY BOX) AT WASHING MACHINE LOCATION.
5. USE MOISTURE RESISTANT DRYWALL AT ALL AREAS SUSCEPTIBLE TO MOISTURE.
6. ALL FIRST FLOOR INTERIOR DOORS TO BE FRAMED 6'-0" TALL. ALL SECOND FLOOR INTERIOR DOORS TO BE FRAMED 6'-0" UNLESS NOTED OTHERWISE. VERIFY W/ BUILDER
7. PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
8. PROVIDE SQUASH BLOCKS UNDER ALL BEARING CONDITIONS.
9. GARAGE WALLS TO BE 2x6 STUDS IF OVER 10'-0" TALL.

NOTE:
PROVIDE MIN. (2) 1" X 4" HEADER AT ALL INTERIOR & EXTERIOR DOOR & WINDOW OPENINGS (UNLESS NOTED OTHERWISE).

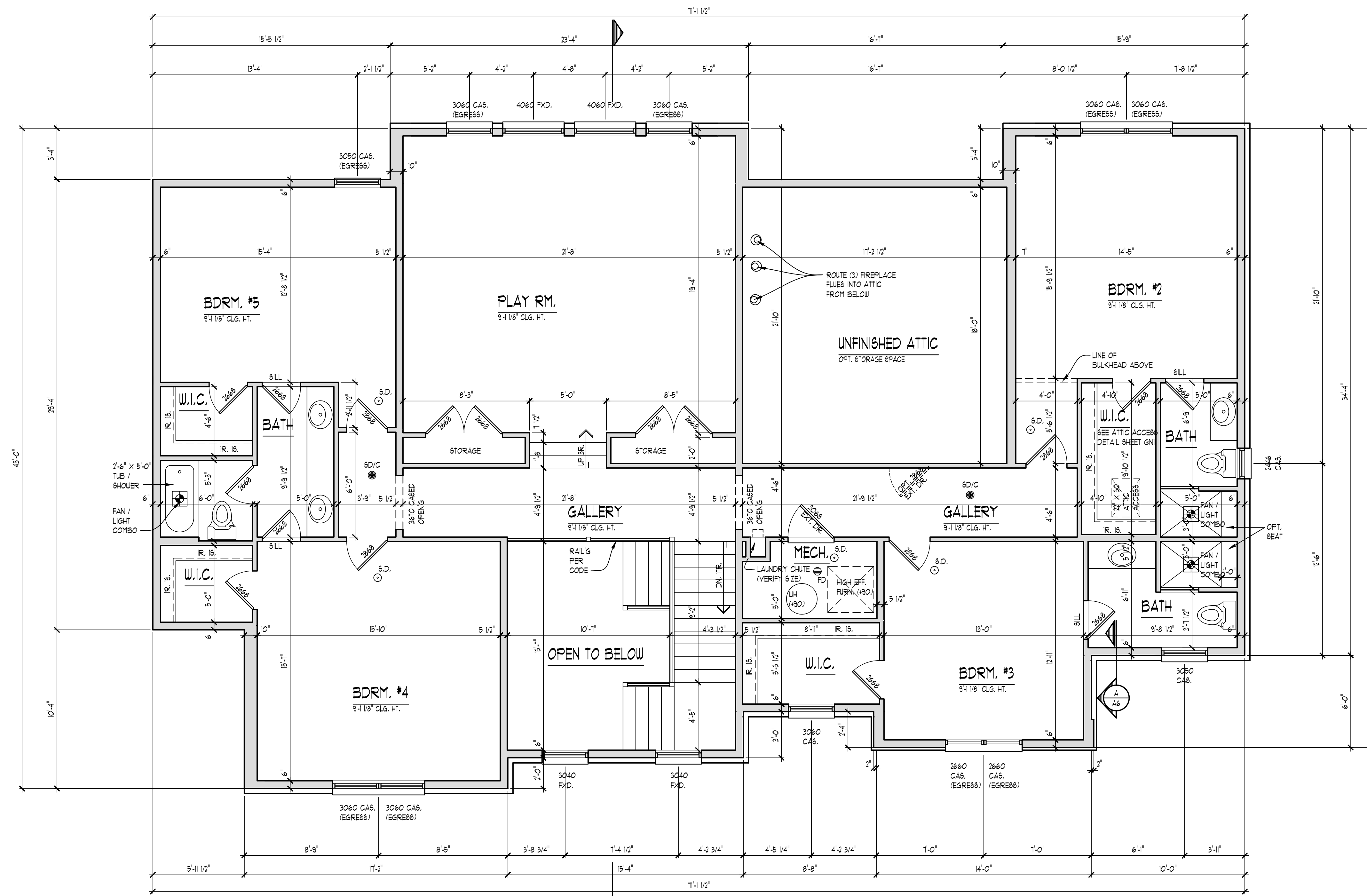
NOTE:
PROVIDE MIN. (1) JACK STUD & (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).

NOTE:
PROVIDE MIN. (1) JOIST OR LADDER FRAMING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS

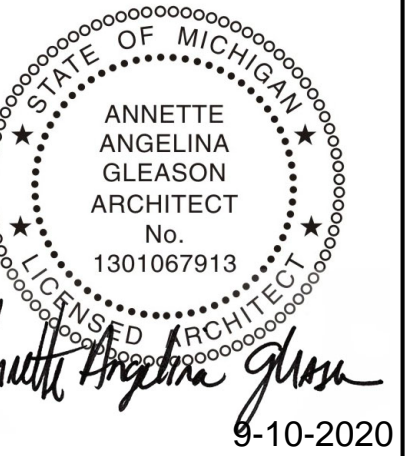
NOTE:
8-D. ○
6-DIC ●
ALL BREAK & CARBON MONOXIDE DETECTORS INTERCONNECTED W/ BATTERY BACK-UP PER CODE.

NOTE:
EIGHT WINDOW LOCATIONS.
ALL DOORS & WINDOWS ARE ASSUMED TO BE EITHER IN THE CENTER OF THE WALL MASS OR MIN. 4" INCHES FROM PERPENDICULAR WALL FOR CABING UNLESS NOTED OTHERWISE

NOTE:
VERIFY DROPPED FLOOR AREAS FOR TILE WITH BUILDER



SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"



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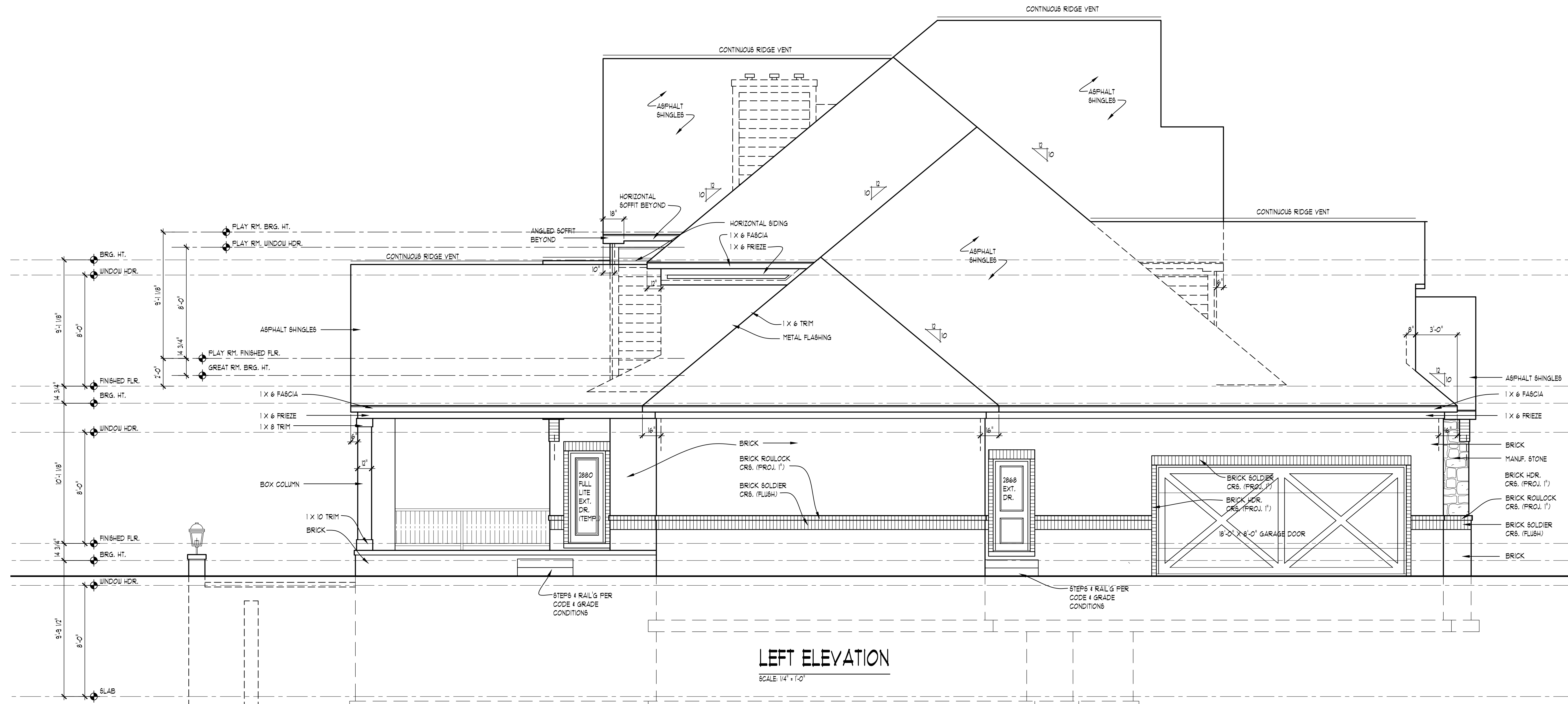
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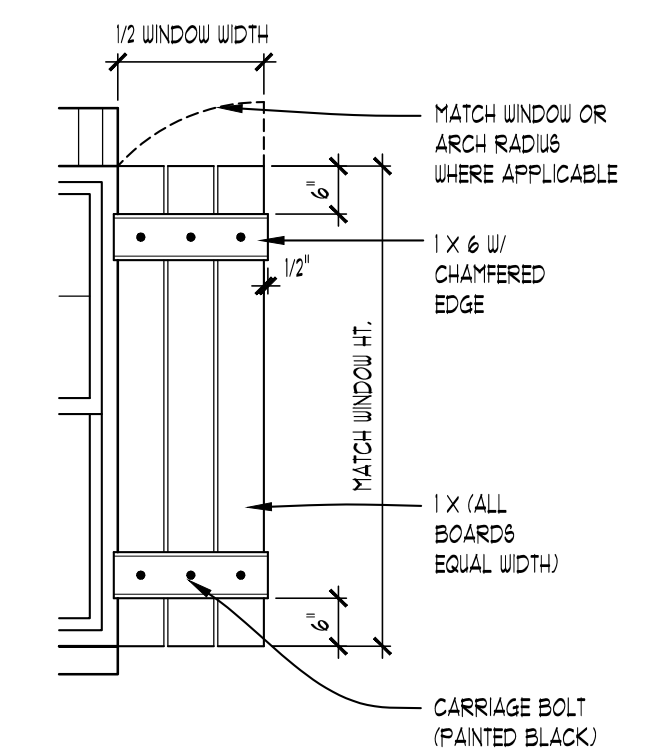
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REVISION:	8-10-20
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SCALE:
PER PLAN

SHEET #
A-3



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



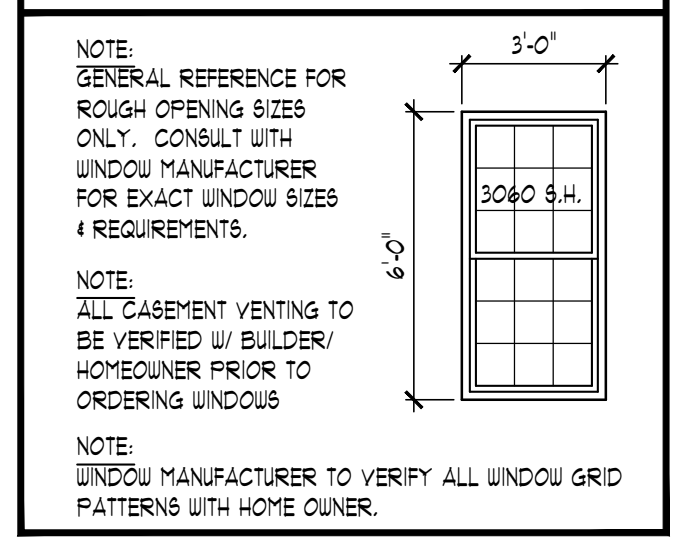
SHUTTER DETAIL
SCALE: 1/2" = 1'-0"

ELEVATION NOTES

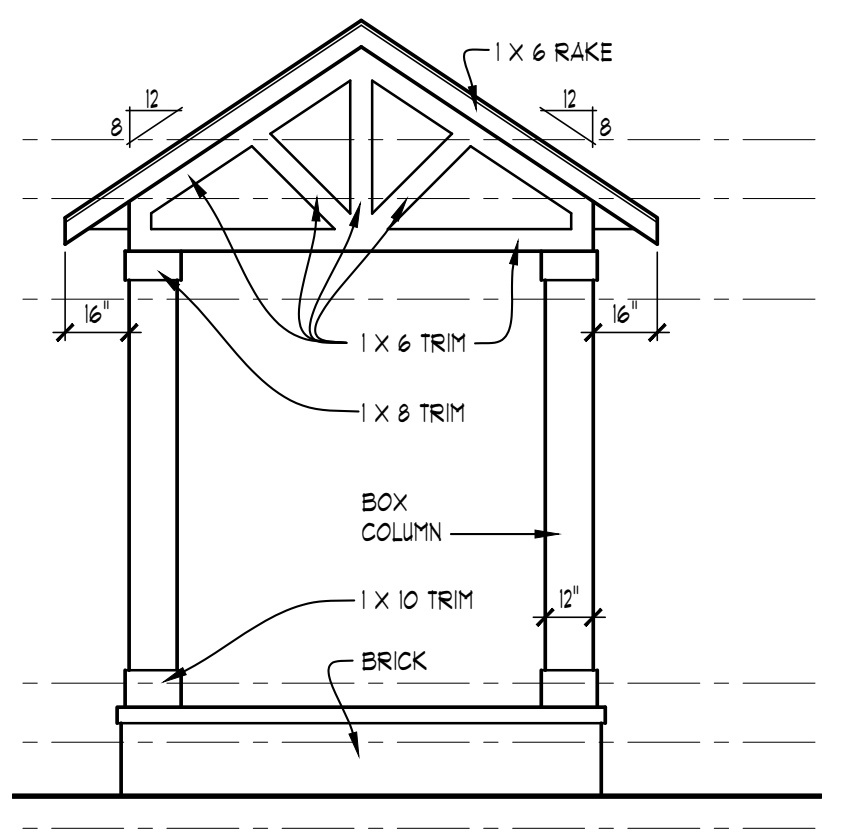
- ALL ROOF SADDLES TO BE O.S.B. SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
- PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL VALLEYS.
- REPLACE FLUE TO BE DETERMINED PER MANUFACTURER'S SPECIFICATION.
- METAL FLASHING AS REQUIRED BY CODE.
- ROOF & SOFFIT VENTS AS REQUIRED BY CODE.
- PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.
- CARPENTER TO VERIFY THICKNESS OF MASONRY PRIOR TO BUILDING BRICK RACK.

NOTE:
OVERHANG DIMENSIONS (O.A.) ARE FROM SHEATHING U.N.O.

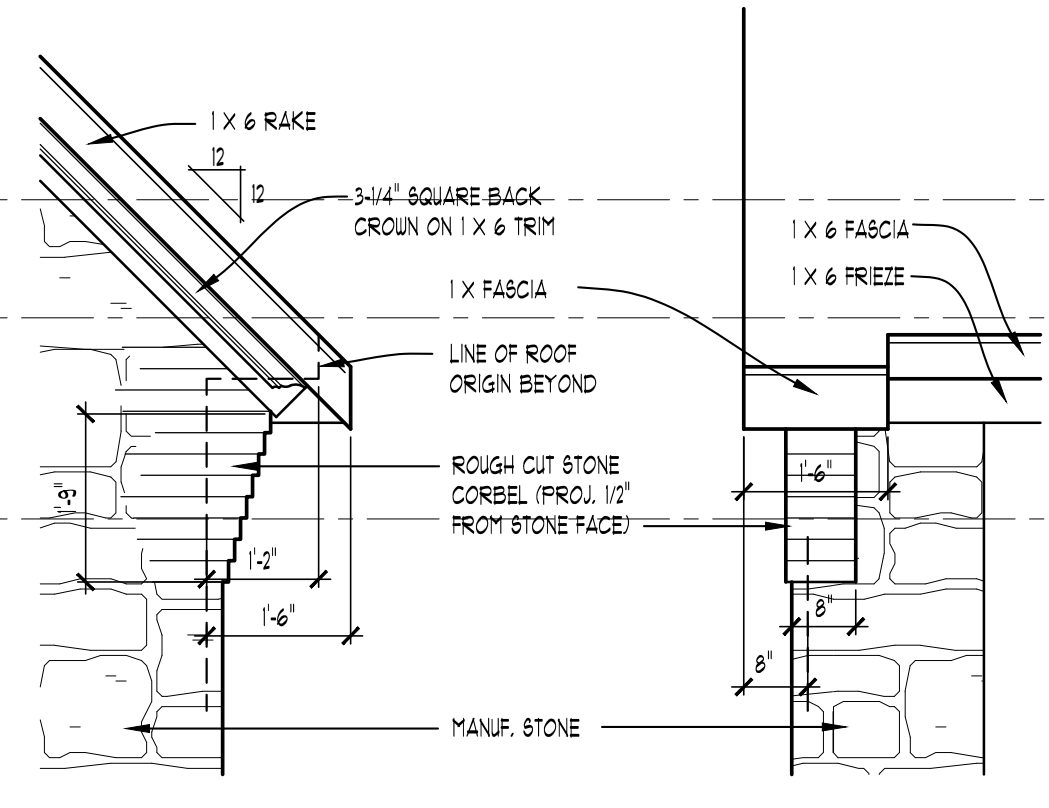
TYPICAL WINDOW DESIGNATION



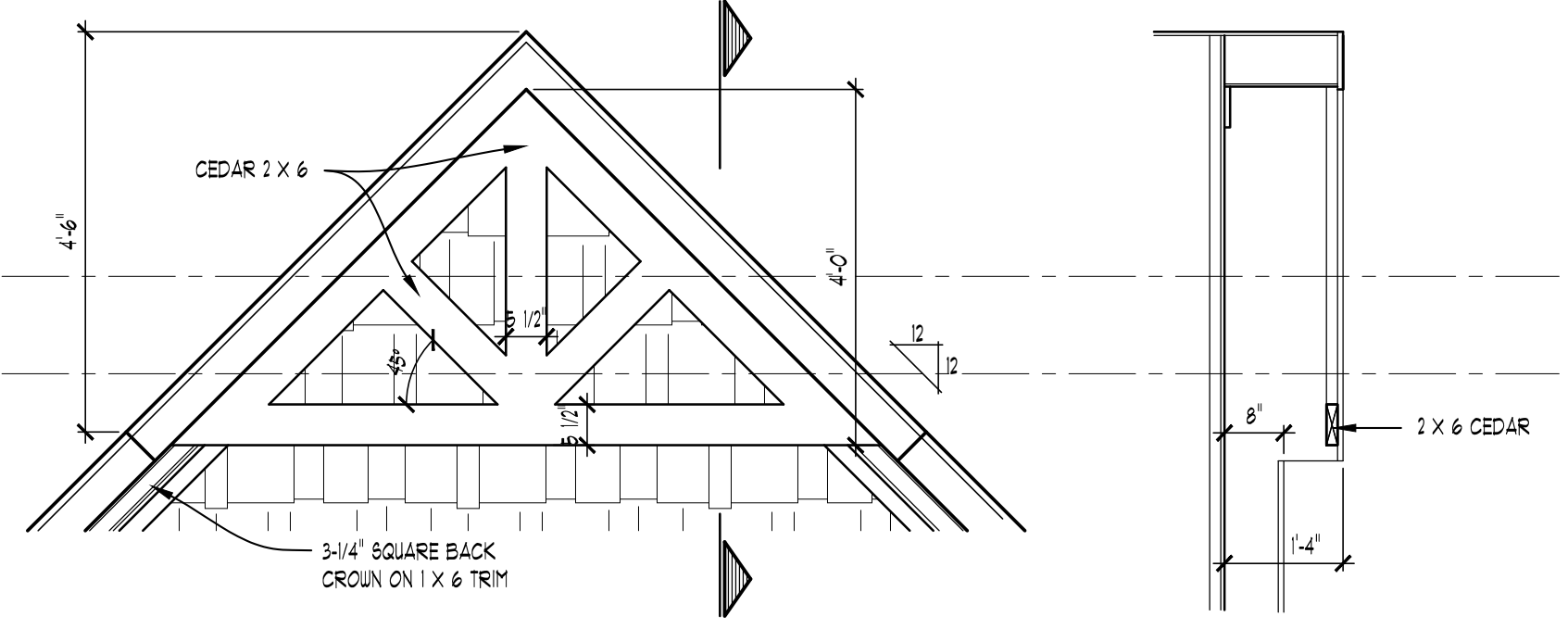
NOTE:
ALL WINDOW SILLS OVER 6'-0" ABOVE EXTERIOR GRADE OR SURFACE BELOW TO BE MINIMUM 1/4" ABOVE FINISHED FLOOR OR HAVE 80MM LITERS PER CODE REQUIREMENTS



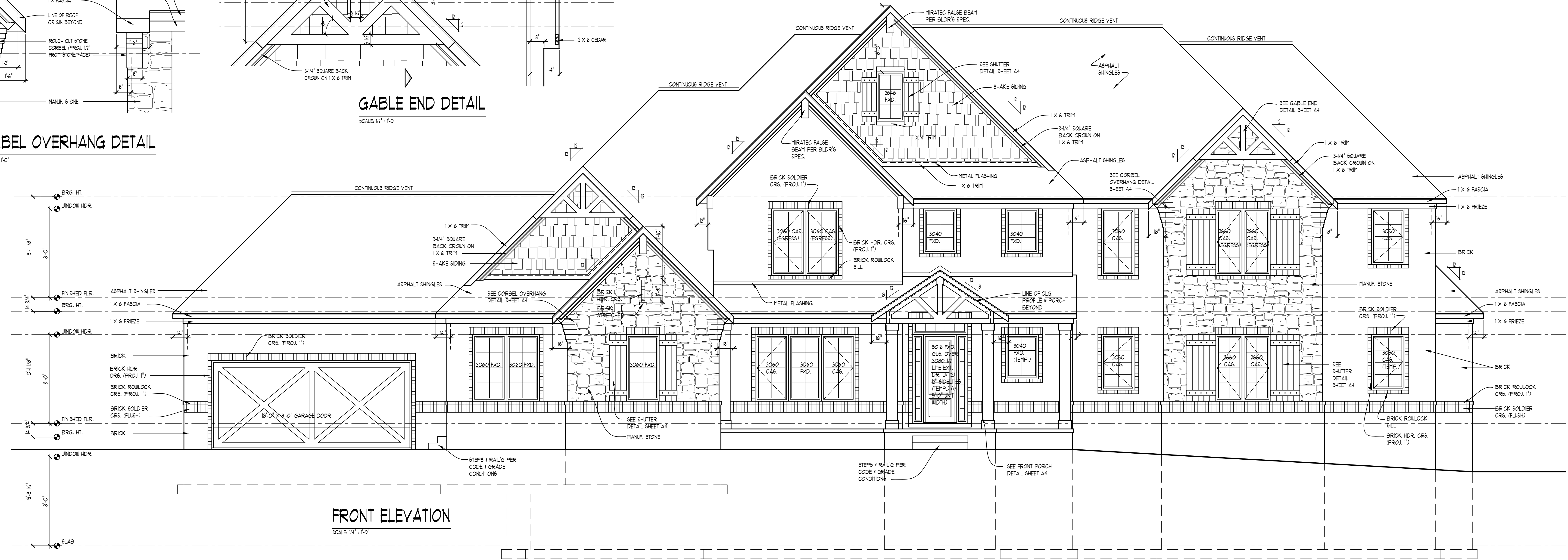
FRONT PORCH DETAIL
SCALE: 1/4" = 1'-0"



CORBEL OVERHANG DETAIL
SCALE: 1/2" = 1'-0"



GABLE END DETAIL
SCALE: 1/2" = 1'-0"



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



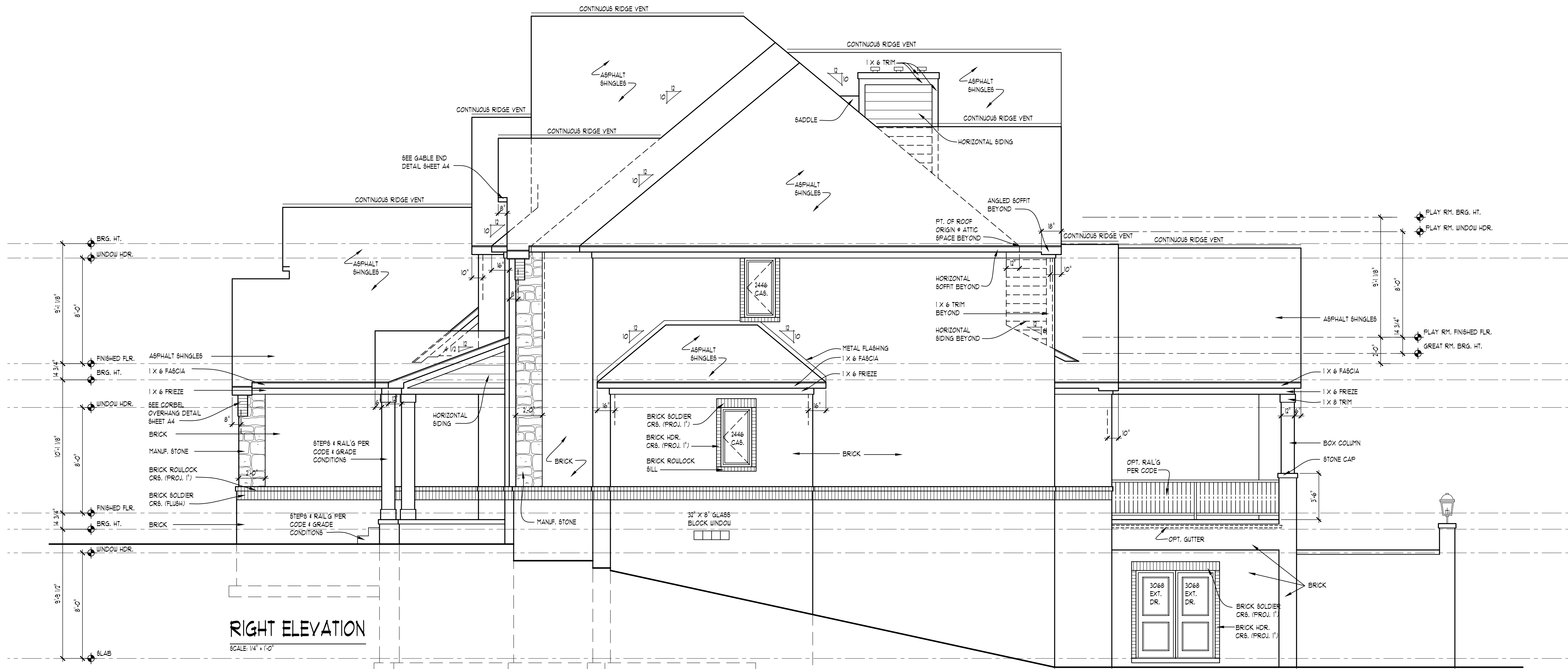
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SCALE: PER PLAN

SHEET #
A-4



RIGHT ELEVATION

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

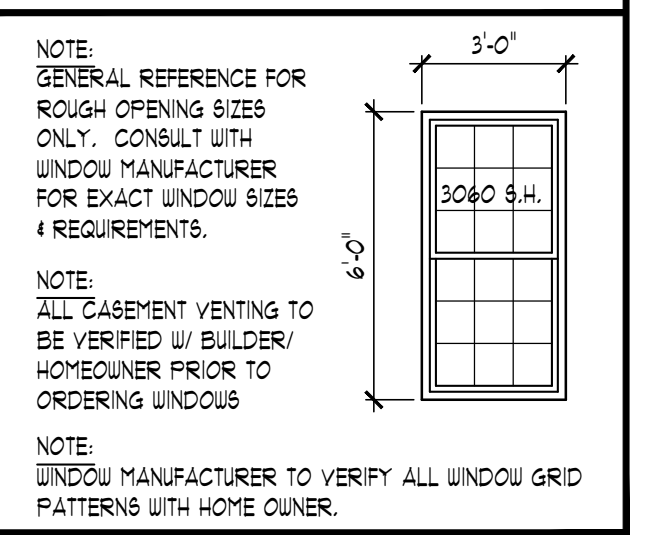
ELEVATION NOTES

1. ALL ROOF SADDLES TO BE O.S.B. SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
2. PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL VALLEYS.
3. FIREPLACE FLUE TO BE DETERMINED PER MANUFACTURER'S SPECIFICATION.
4. METAL FLASHING AS REQUIRED BY CODE.
5. ROOF & BOFFIT VENTS AS REQUIRED BY CODE.
6. PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.
7. CARPENTER TO VERIFY THICKNESS OF MASONRY PRIOR TO BUILDING BRICK RACK.

NOTE:

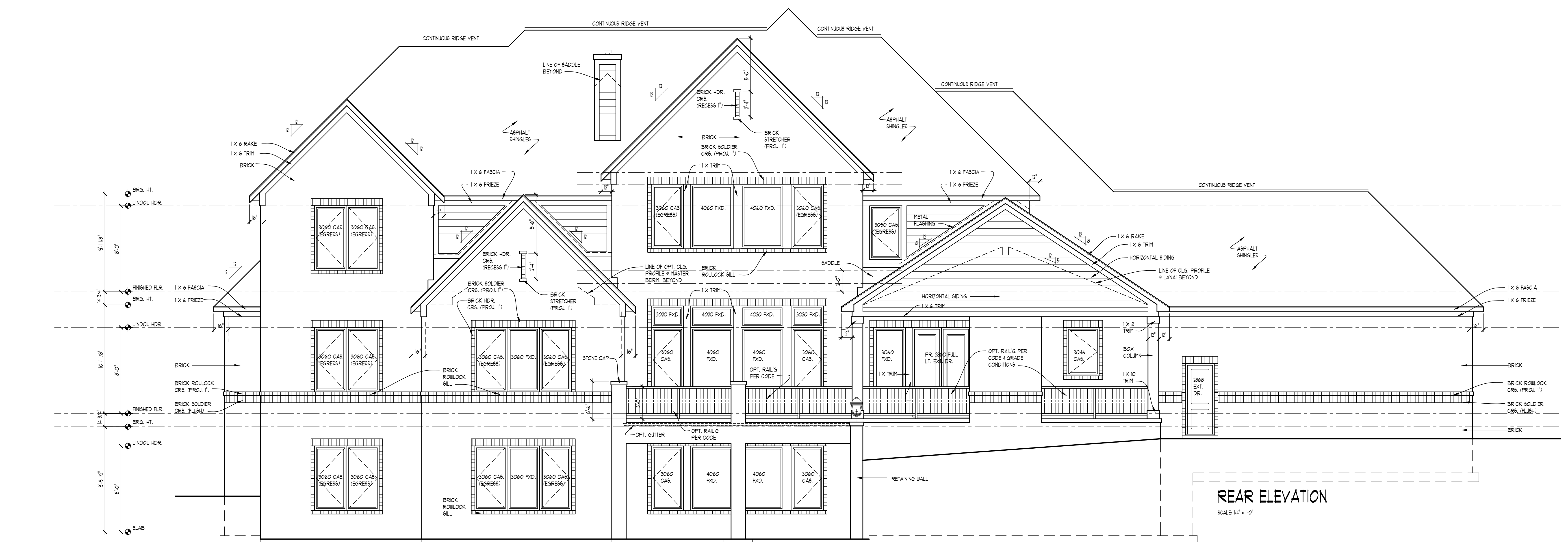
OVERHANG DIMENSIONS (O.A.) ARE FROM SHEATHING U.N.O.

TYPICAL WINDOW DESIGNATION



NOTE:

ALL WINDOW SILLS OVER 6'-0" ABOVE EXTERIOR GRADE OR SURFACE BELOW TO BE MINIMUM 14" ABOVE FINISHED FLOOR OR HAVE 84MM LITERS PER CODE REQUIREMENTS



REAR ELEVATION

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



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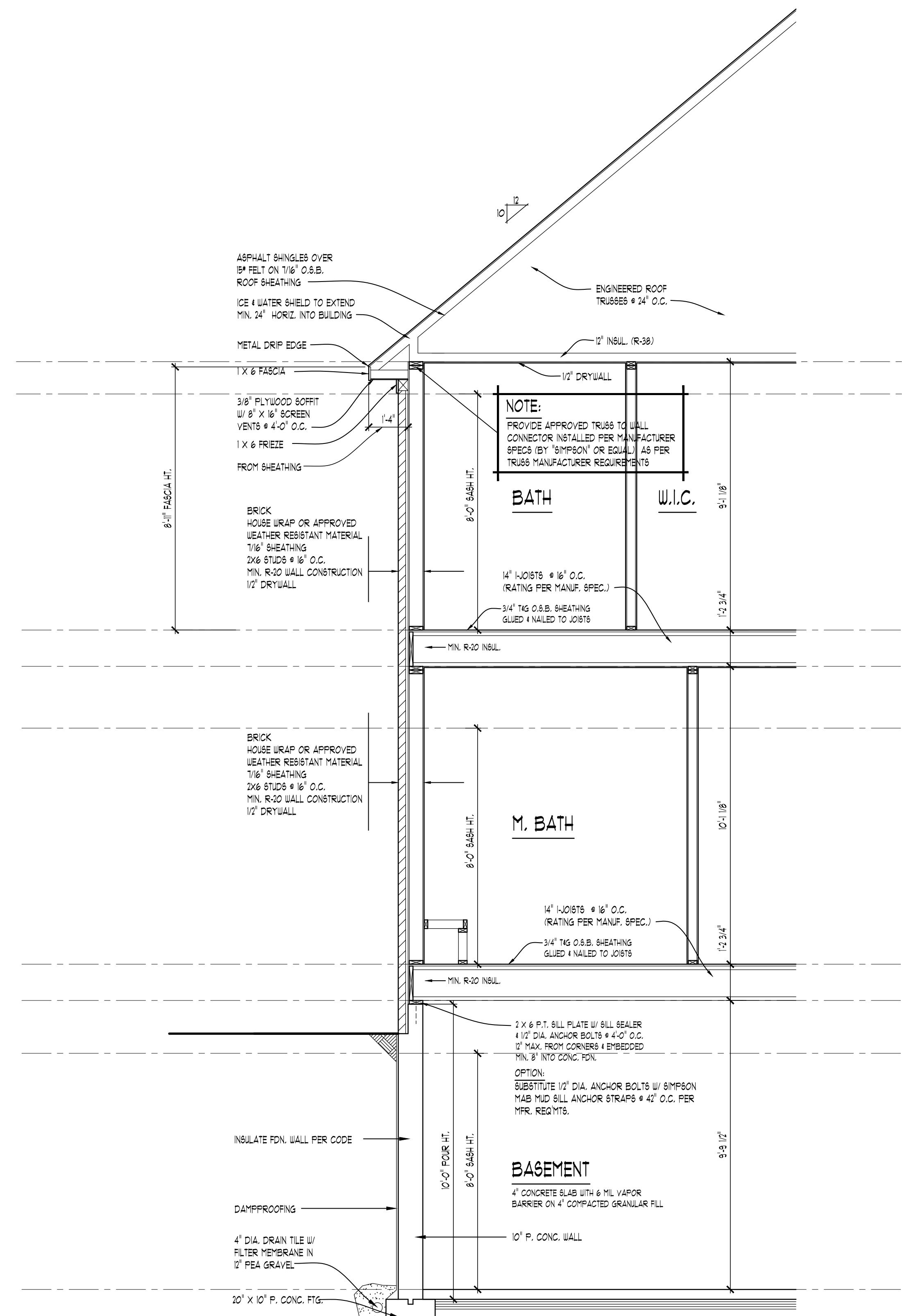
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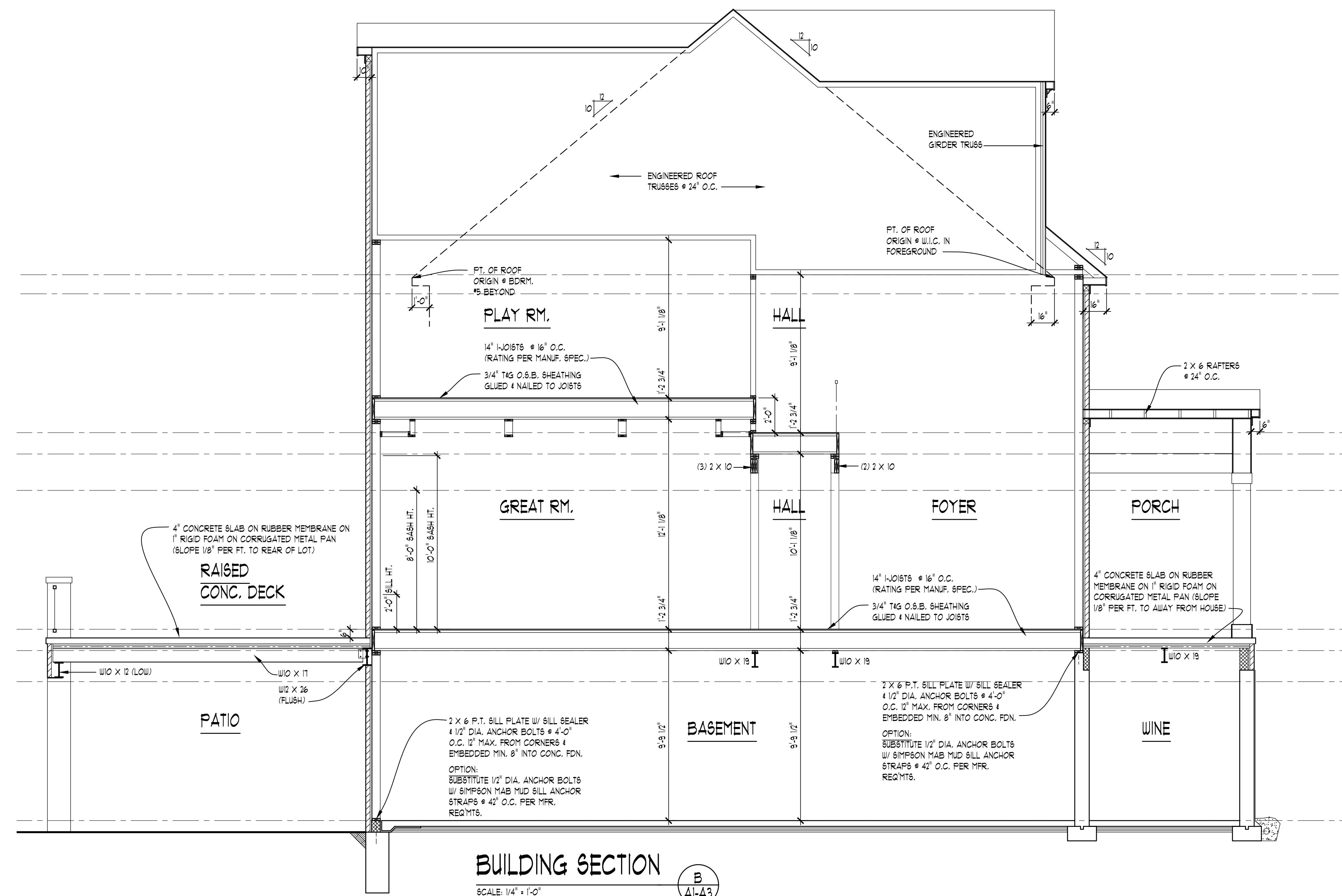
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REVISION:	9-10-20

SCALE: PER PLAN

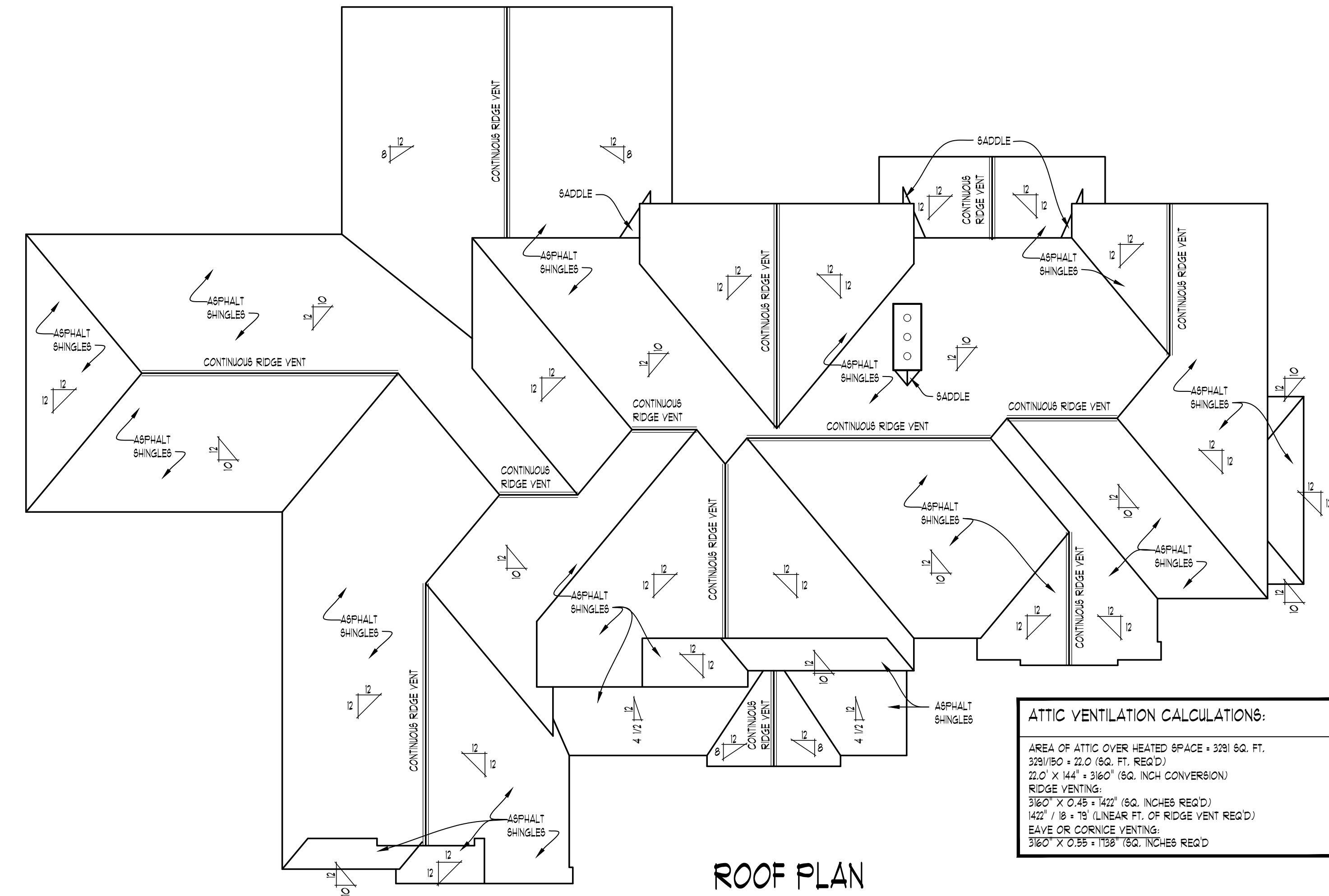
SHEET #
A-5



WALL SECTION
SCALE: 3/8" = 1'-0"
A
A1-A3



BUILDING SECTION
SCALE: 1/4" = 1'-0"
B
A1-A3



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

ATTIC VENTILATION CALCULATIONS:

AREA OF ATTIC OVER HEATED SPACE	= 1201 SQ. FT.
1201/80 x 21.0 (SQ. FT. REQ'D)	
22.0 x 44 = 968 (SQ. INCH CONVERSION)	
1 RIDGE VENTING:	
3160" x 0.45 = 1422 (SQ. INCHES REQ'D)	
422 / 8 = 53 (LINEAR FT. OF RIDGE VENT REQ'D)	
1 EAVE OR CORNER VENTING:	
3160" x 0.35 = 1106 (SQ. INCHES REQ'D)	



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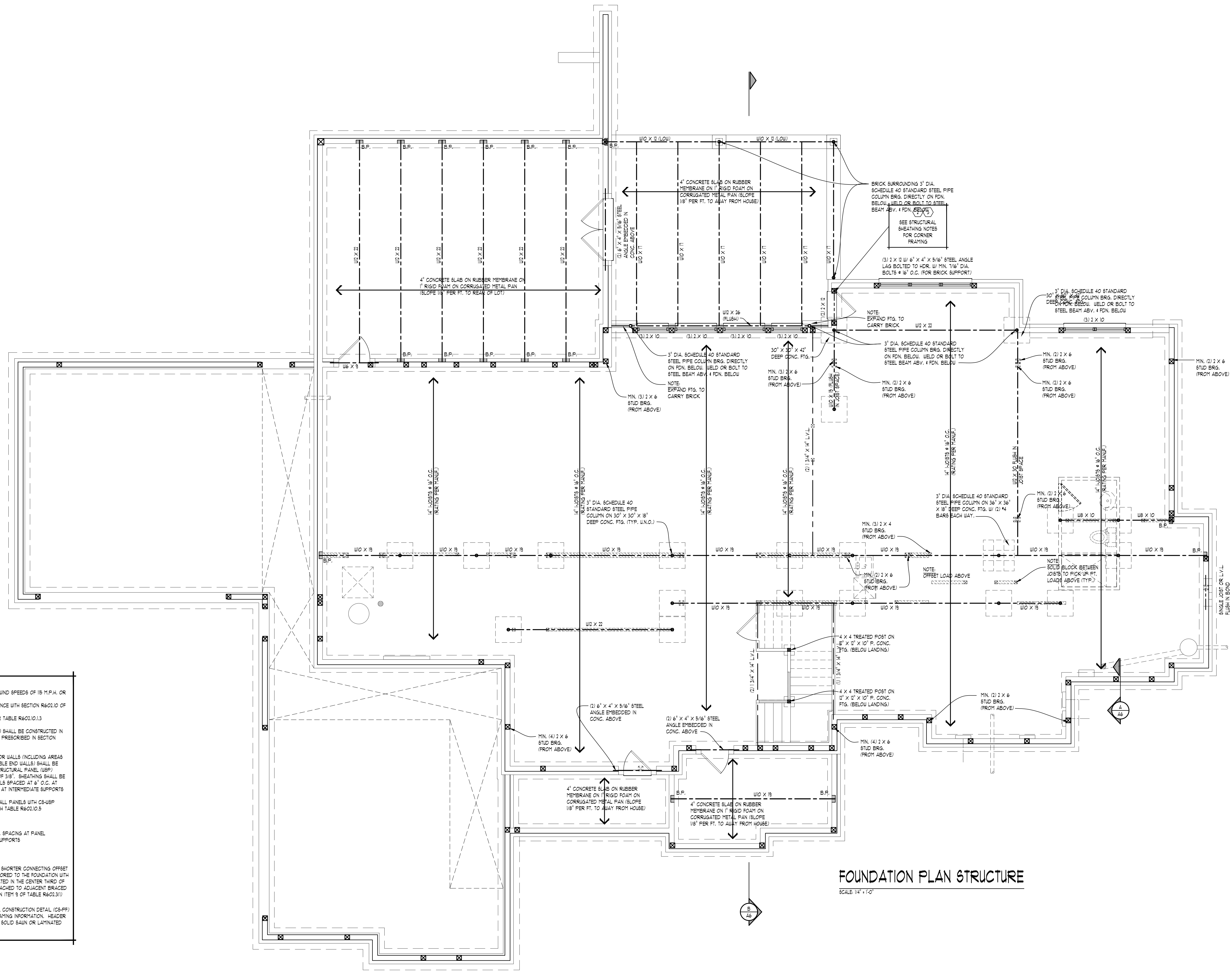
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CLIENT / PROJECT
COMPO BUILDERS
HILLIER RESIDENCE

JOB No.	20-160
DRAWN:	ECT
CHECKED:	ECT
REVIEW:	-
FINAL:	6-24-20
REVISION:	7-21-20
REVISION:	7-24-20
REVISION:	8-4-20
REVISION:	8-10-20
REVISION:	9-10-20

SCALE:
PER PLAN

SHEET #
A-6



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

- NOTE:**
PROVIDE MIN. (2) 2 X 4 HEADER AT ALL INTERIOR EXTERIOR DOOR & WINDOW OPENINGS (UNLESS NOTED OTHERWISE).
- NOTE:**
PROVIDE MIN. (1) JACK STUD & (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).
- NOTE:**
PROVIDE MIN. (1) JOIST OR LADDER FRAMING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS.
- NOTE:**
GROUT ALL CONCRETE BLOCK CORNER SOLID THAT SUPPORT POINT LOADS FROM ABOVE (TYPICAL).
- NOTE:**
WOOD BEAM
STEEL BEAM
- BRG. WALL
BRG. WALL ABOVE
BRG. WALL & BRG. WALL ABOVE
- POINT LOAD
POINT LOAD FROM ABOVE
- STRUCTURAL SHEATHING NOTES:**
- DESIGNED FOR SERRICZONE A-C AND WIND SPEEDS OF 15 M.P.H. OR LESS.
 - WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE IBC IRC CODE.
 - BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3.
 - EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-UBP METHOD AS PRESCRIBED IN SECTION R602.10.4 (I.N.O.).
 - ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
 - LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CS-UBP METHOD SHALL BE IN ACCORDANCE WITH TABLE R602.10.3.
- PROVIDE 6d COMMON NAILS AT 6" O.C. SPACING AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
- R603.1.6. WALLS 24" TOTAL LENGTH OR SHORTER CONNECTING OFFSET BRACED WALL PANELS SHALL BE ANCHORED TO THE FOUNDATION WITH A MINIMUM OF ONE ANCHOR BOLT LOCATED IN THE CENTER THIRD OF THE PLATE SECTION AND SHALL BE ATTACHED TO ADJACENT BRACED WALL PANELS AT CORNERS AS SHOWN IN ITEM 3 OF TABLE R603.1(1).
- SEE CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION DETAIL (CS-PFP) SHEET 042 FOR HEADER / CORNER FRAMING INFORMATION. HEADER PROVIDED MUST BE MINIMUM 3" X 11 1/4" SOLID BAIN OR LAMINATED VENER LUMBER (L.V.L.).



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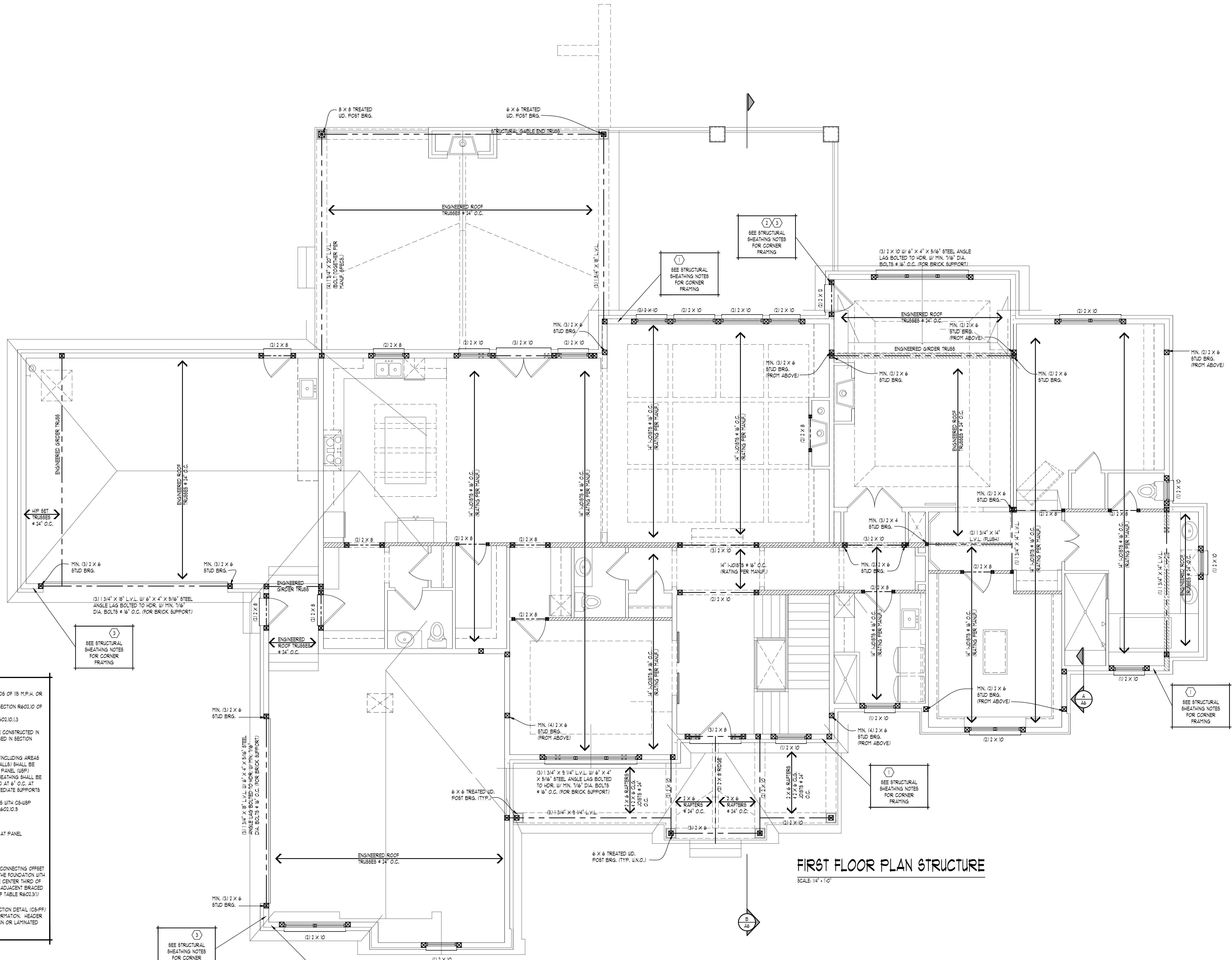
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CLIENT / PROJECT	COMPO BUILDERS HILLIER RESIDENCE
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JOB No.	20-160
DRAWN:	ECT
CHECKED:	ECT
REVIEW:	-
FINAL:	6-24-20
REVISION	7-21-20
REVISION	7-24-20
REVISION	8-4-20
REVISION	8-10-20
REVISION	9-10-20

SCALE:
PER PLAN

SHEET #
S1



NOTE:
 PROVIDE MIN. (1) 2 X 4 HEADER AT ALL INTERIOR & EXTERIOR DOOR & WINDOW OPENINGS (UNLESS NOTED OTHERWISE).

NOTE:
 PROVIDE MIN. (1) JACK STUD & (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).

NOTE:
 PROVIDE MIN. (1) JOIST OR LADDER FRAMING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS.

NOTE:
 GROUT ALL CONCRETE BLOCK CORES SOLID THAT SUPPORT POINT LOADS FROM ABOVE (TYPICAL).

NOTE:
 WOOD BEAM
 STEEL BEAM

BRG. WALL
 BRG. WALL ABOVE
 BRG. WALL & BRG. WALL ABOVE

POINT LOAD
 POINT LOAD FROM ABOVE

STRUCTURAL SHEATHING NOTES:

- DESIGNED FOR DESIGN WIND SPEEDS OF 15 M.P.H. OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10.1 OF THE 2018 IRC CODE. BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.1.3.
- EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-JSP METHOD AS PRESCRIBED IN SECTION R602.10.4 (U.N.O.).
- ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (OSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 60 COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
- LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CS-JSP METHOD SHALL BE IN ACCORDANCE WITH TABLE R602.10.5.

1 PROVIDE 60 COMMON NAILS AT 6" O.C. SPACING AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

2 R403.1.6 WALLS 24" TOTAL LENGTH OR SHORTER CONNECTING OFFSET BRACED WALL PANELS SHALL BE ANCHORED TO THE FOUNDATION WITH A MINIMUM OF ONE ANCHOR BOLT LOCATED IN THE CENTER THIRD OF THE PLATE SECTION AND SHALL BE ATTACHED TO ADJACENT BRACED WALL PANELS AT CORNERS AS SHOWN IN ITEM 3 OF TABLE R602.10.1.

3 SEE CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION DETAIL (CS-PF) SHEET GN-1 FOR HEADER / CORNER FRAMING INFORMATION. HEADER PROVIDED MUST BE MINIMUM 3" X 11/4" SOLID SAUN OR LAMINATED VENEER LUMBER (L.V.L.).

TRUSS NOTE:
 SET OLD DETAILS BACK 15" IN TRUSS PROFILE TO ALLOW ROOM FOR TRUSSER TO RUN OUT TO STRAIGHTEN LINES (VERIFY W/ BUILDER).

FIRST FLOOR PLAN STRUCTURE
 SCALE: 1/4" = 1'-0"



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CLIENT / PROJECT
 COMPO BUILDERS
 HILLIER RESIDENCE

JOB No.	20-160
DRAWN:	ECT
CHECKED:	ECT
REVIEW:	-
FINAL:	6-24-20
REVISION:	7-21-20
REVISION:	7-24-20
REVISION:	8-4-20
REVISION:	8-10-20
REVISION:	9-10-20

SCALE:
 PER PLAN

SHEET #
S2

NOTE:
 PROVIDE MIN. (1) 2 X 4 HEADER AT ALL INTERIOR EXTERIOR DOOR & WINDOW OPENINGS (UNLESS NOTED OTHERWISE).

NOTE:
 PROVIDE MIN. (1) JACK STUD & (1) KING STUD AT EACH END OF ALL HEADERS (UNLESS NOTED OTHERWISE).

NOTE:
 PROVIDE MIN. (1) JOIST OR LADDER FRAMING UNDER ALL UPPER FLOOR PARALLEL PARTITIONS.

NOTE:
 GROUT ALL CONCRETE BLOCK CORES SOLID THAT SUPPORT POINT LOADS FROM ABOVE (TYPICAL).

NOTE:
 WOOD BEAM
 STEEL BEAM
 BRG. WALL
 BRG. WALL ABOVE
 BRG. WALL & BRG. WALL ABOVE
 POINT LOAD
 POINT LOAD FROM ABOVE

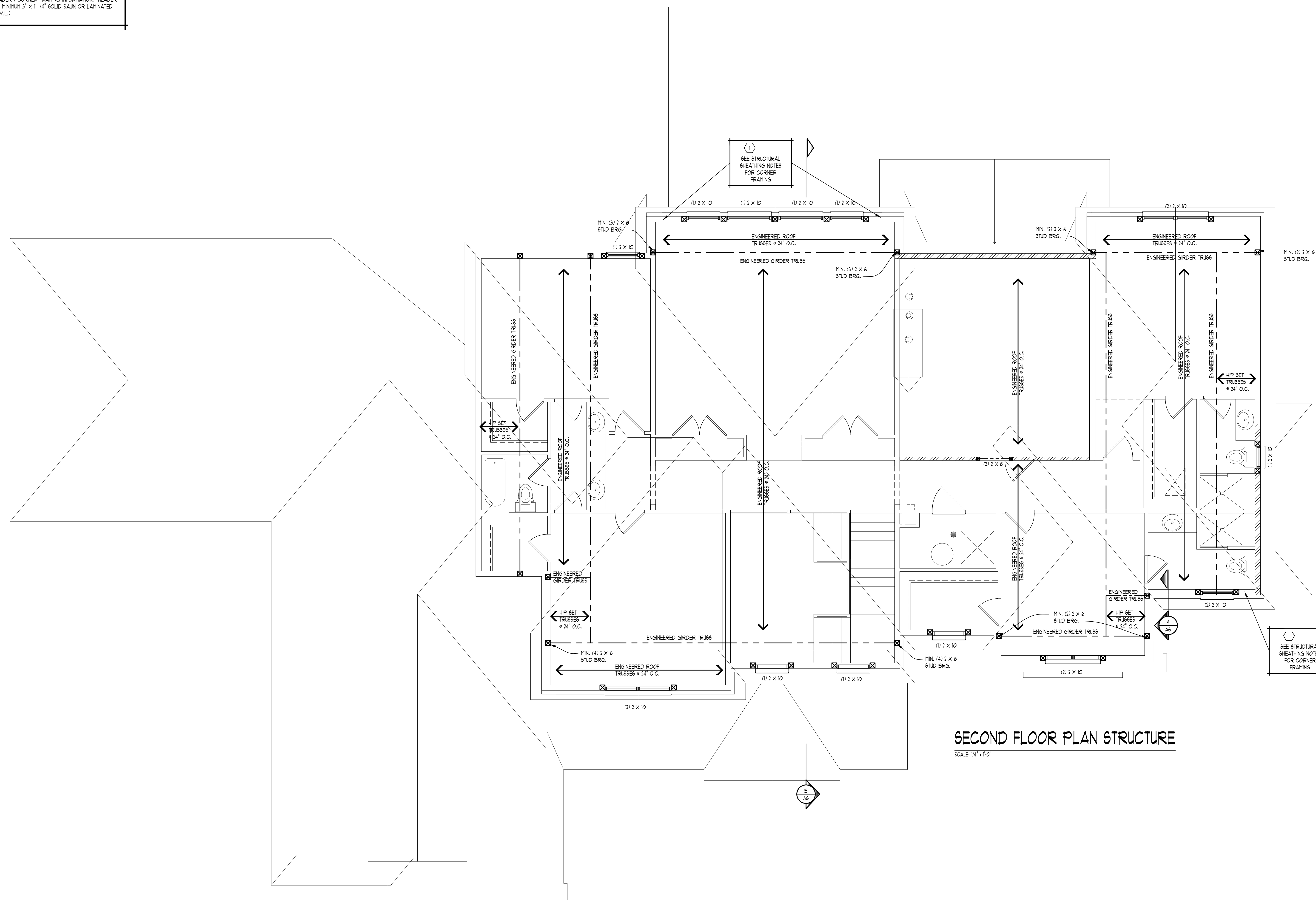
TRUSS NOTE:
 SET CLG. DETAILS BACK 15' IN TRUSS PROFILE TO ALLOW ROOM FOR FRAMER TO FUR OUT TO STRAIGHTEN LINES (VERIFY W/ BUILDER).

STRUCTURAL SHEATHING NOTES:
 1. DESIGNED FOR SEBTFC ZONE 4-C AND WIND SPEEDS OF 15 M.P.H. OR LESS.
 2. WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2015 IRC CODE.
 3. BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.13.
 4. EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-UBP METHOD AS PRESCRIBED IN SECTION R602.10.4 (I.N.C.).
 5. ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH 5/8" STRUCTURAL PANEL (BSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
 6. LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CS-UBP METHOD SHALL BE IN ACCORDANCE WITH TABLE R602.10.5.

① PROVIDE 6d COMMON NAILS AT 6" O.C. SPACING AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

② R403.1.6. WALLS 24" TOTAL LENGTH OR SHORTER CONNECTING OFFSET BRACED WALL PANELS SHALL BE ANCHORED TO THE FOUNDATION WITH A MINIMUM OF ONE ANCHOR BOLT LOCATED IN THE CENTER THIRD OF THE PLATE SECTION AND SHALL BE ATTACHED TO ADJACENT BRACED WALL PANELS AT CORNERS AS SHOWN IN ITEM 9 OF TABLE R603.1(1).

③ SEE CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION DETAIL (CS-PF) SHEET 042 FOR HEADER / CORNER FRAMING INFORMATION. HEADER PROVIDED MUST BE MINIMUM 2" X 11 1/4" SOLID SAUN OR LAMINATED VENEER LUMBER (L.V.L.).



SECOND FLOOR PLAN STRUCTURE
 SCALE: 1/4" = 1'-0"



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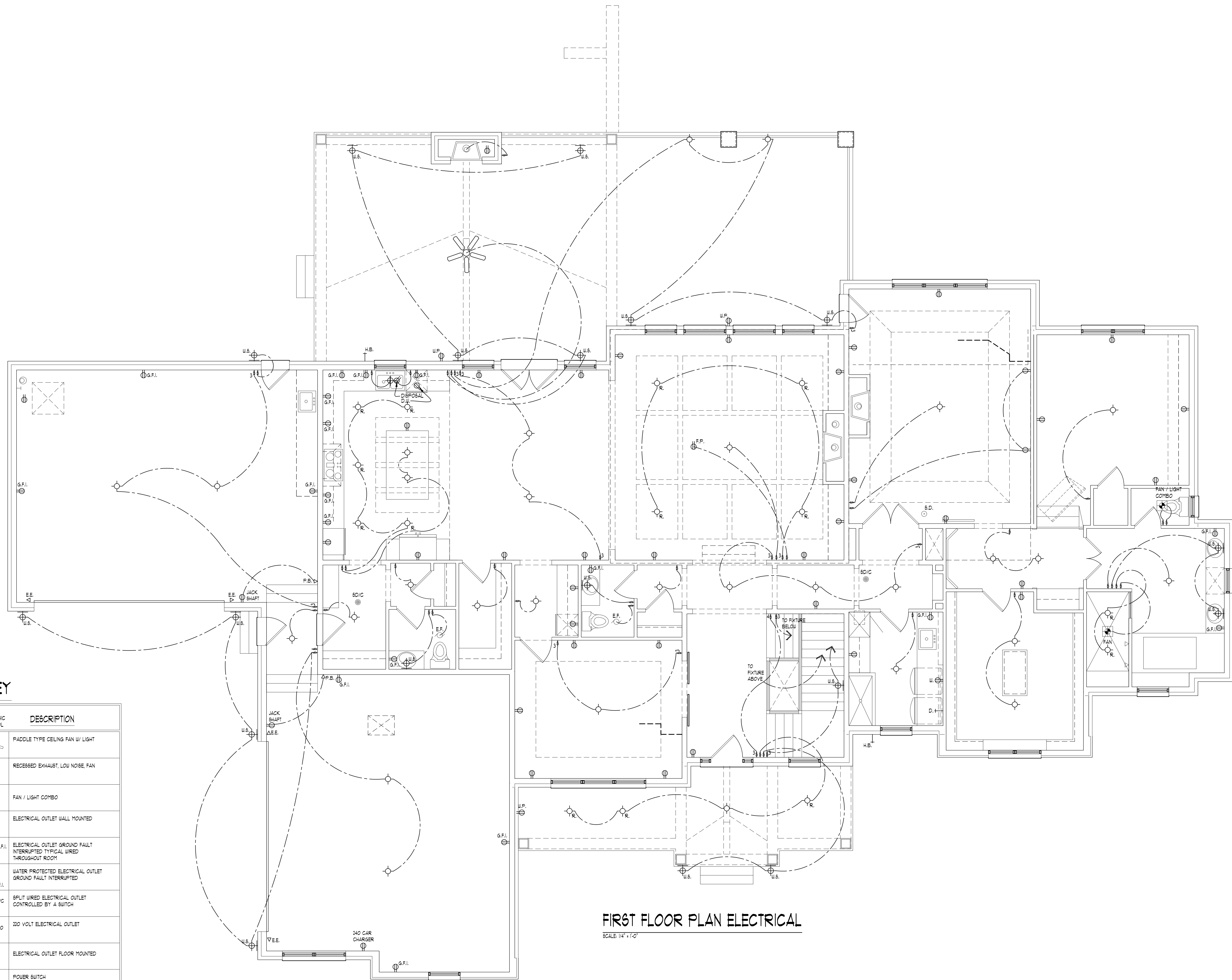
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 CALL AND DO NOT MAKE ANY CHANGES TO ANY DRAWING OR CONSTRUCTION BEFORE THE DATE SPECIFIED BY THE ENGINEER.

CLIENT / PROJECT
 COMPO BUILDERS
 HILLIER RESIDENCE

JOB No.	20-160
DRAWN:	ECT
CHECKED:	ECT
REVIEW:	-
FINAL:	6-24-20
REVISION	7-21-20
REVISION	7-24-20
REVISION	8-4-20
REVISION	8-10-20
REVISION	9-10-20

SCALE:
 PER PLAN

SHEET #
S3



ELECTRICAL SYMBOL KEY

GRAPHIC SYMBOL	DESCRIPTION	GRAPHIC SYMBOL	DESCRIPTION
	RECESSED WHITE BAFFLE 6" FIXTURE		PADDLE TYPE CEILING FAN W/ LIGHT
	RECESSED WHITE BAFFLE 4" FIXTURE		RECESSED EXHAUST, LOW NOISE FAN
	KEYLESS FIXTURE		FAN / LIGHT COMBO
	RECESSED ADJUSTABLE WALL WASH FIXTURE		ELECTRICAL OUTLET WALL MOUNTED
	SURFACE MOUNTED INCANDESCENT FIXTURE		ELECTRICAL OUTLET GROUND FAULT INTERRUPTED TYPICAL WIRED THROUGH-OUT ROOM
	HANGING DECORATIVE FIXTURE, PENDANT OR CHANDALIER		WATER PROTECTED ELECTRICAL OUTLET GROUND FAULT INTERRUPTED
	FULL-CHAIN OPERATED SURFACE MOUNTED INCANDESCENT FIXTURE		SPLIT WIRED ELECTRICAL OUTLET CONTROLLED BY A SWITCH
	WALL MOUNTED INCANDESCENT DECORATIVE SCOSNCE		220 VOLT ELECTRICAL OUTLET
	WALL MOUNTED COMPACT FLUORESCENT LOW PROFILE DECORATIVE SCOSNCE		ELECTRICAL OUTLET FLOOR MOUNTED
	UNIVERSAL SERIAL BUS		POWER SWITCH
	PHONE LINE		3WAY POWER SWITCH
	CABLE T.V.		SMOKE DETECTOR INTER-CONNECTED W/ BATTERY BACKUP PER CODE
	GAS LINE		SMOKE DETECTOR / CARBON MONOXIDE DETECTOR INTER-CONNECTED W/ BATTERY BACKUP PER CODE
	SURFACE MOUNTED FLOURESCENT W/ ACRYLIC DIFFUSER		ELECTRIC METER
	KEYLESS FIXTURE - JUNCTION BOX		GAS METER

FIRST FLOOR PLAN ELECTRICAL

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



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 CALL WEBSITE AT 248-446-1901 3 DAYS PRIOR TO ANY OCCUPATION.
 CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE OWNER/CLIENT.

CLIENT / PROJECT
**COMPO BUILDERS
 HILLIER RESIDENCE**

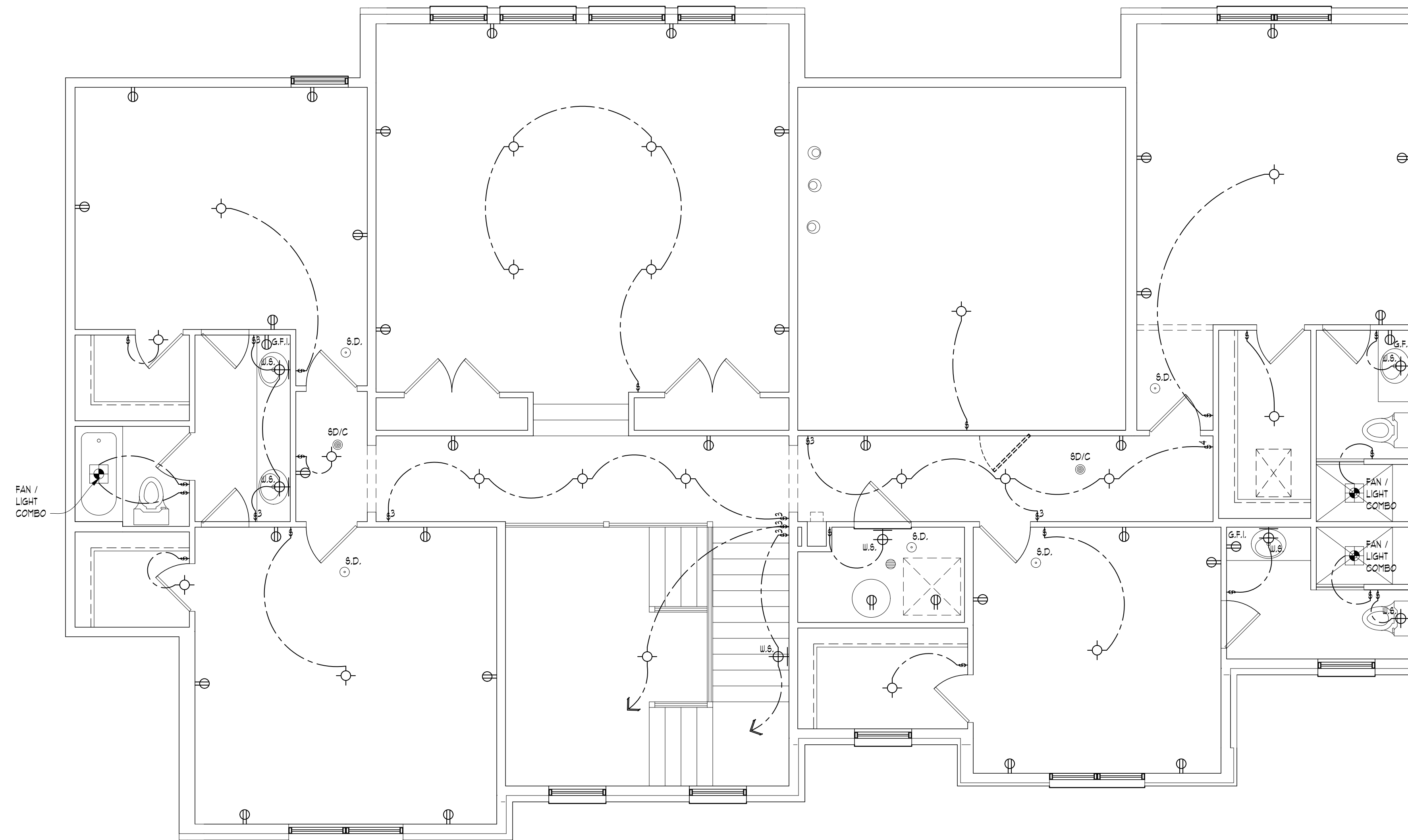
JOB No. 20-160
 DRAWN: ECT
 CHECKED: ECT
 REVIEW: -
 FINAL: 6-24-20
 REVISION 7-21-20
 REVISION 7-24-20
 REVISION 8-4-20
 REVISION 8-10-20
 REVISION 9-10-20

SCALE:
 PER PLAN

SHEET #
E-1

ELECTRICAL SYMBOL KEY

GRAPHIC SYMBOL	DESCRIPTION	GRAPHIC SYMBOL	DESCRIPTION
	RECESSED WHITE BAFFLE 6" FIXTURE		PADDLE TYPE CEILING FAN W/ LIGHT
	RECESSED WHITE BAFFLE 4" FIXTURE		RECESSED EXHAUST, LOW NOISE FAN
	KEYLESS FIXTURE		FAN / LIGHT COMBO
	RECESSED ADJUSTABLE WALL WASH FIXTURE		ELECTRICAL OUTLET WALL MOUNTED
	SURFACE MOUNTED INCANDESCENT FIXTURE		ELECTRICAL OUTLET GROUND FAULT INTERRUPTED TYPICAL WIRE THROUGHOUT ROOM
	HANGING DECORATIVE FIXTURE, PENDANT OR CHANDELIER		WATER PROTECTED ELECTRICAL OUTLET GROUND FAULT INTERRUPTED
	FULL-CHAIN OPERATED SURFACE MOUNTED INCANDESCENT FIXTURE		SPLIT WIRED ELECTRICAL OUTLET CONTROLLED BY A SWITCH
	WALL MOUNTED INCANDESCENT DECORATIVE SCONCE		220 VOLT ELECTRICAL OUTLET
	WALL MOUNTED COMPACT FLUORESCENT LOW PROFILE DECORATIVE SCONCE		ELECTRICAL OUTLET FLOOR MOUNTED
	UNIVERSAL SERIAL BUS		POWER SWITCH
	PHONE LINE		3-WAY POWER SWITCH
	CABLE T.V.		SMOKE DETECTOR INTER-CONNECTED W/ BATTERY BACKUP PER CODE
	GAS LINE		SMOKE DETECTOR / CARBON MONOXIDE DETECTOR INTER-CONNECTED W/ BATTERY BACKUP PER CODE
	SURFACE MOUNTED FLUORESCENT W/ ACRYLIC DIFFUSER		ELECTRIC METER
	KEYLESS FIXTURE - JUNCTION BOX		GAS METER



SECOND FLOOR PLAN ELECTRICAL

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



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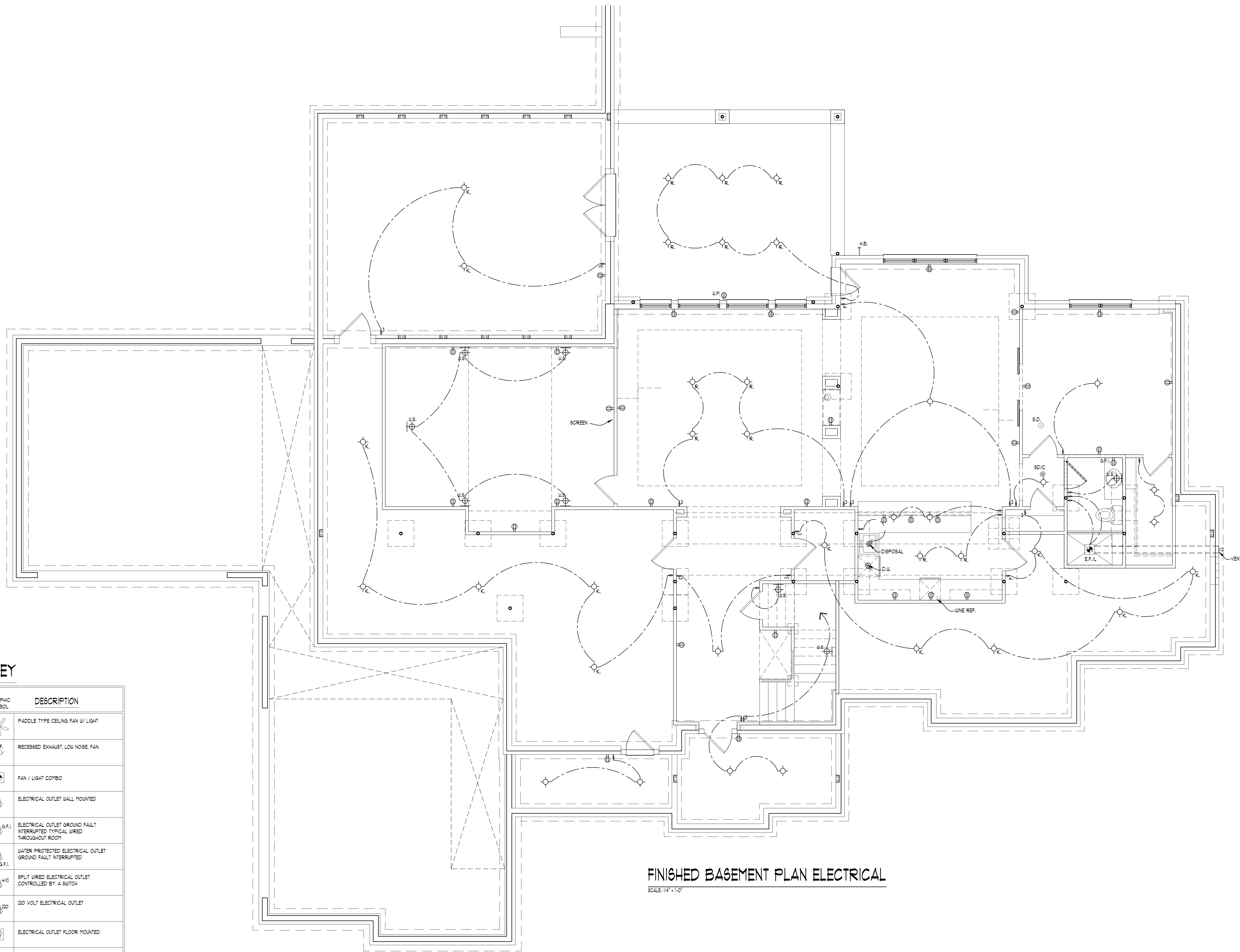
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 CONSTRUCTION ERRORS THAT ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

CLIENT / PROJECT
**COMPO BUILDERS
 HILLIER RESIDENCE**

JOB No.	20-160
DRAWN:	ECT
CHECKED:	ECT
REVIEW:	-
FINAL:	6-24-20
REVISION:	7-21-20
REVISION:	7-24-20
REVISION:	8-4-20
REVISION:	8-10-20
REVISION:	9-10-20

SCALE:
 PER PLAN

SHEET #
E-2

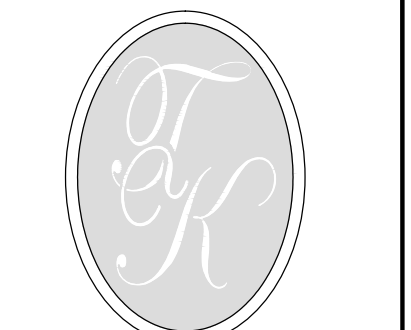


FINISHED BASEMENT PLAN ELECTRICAL

SCALE 1/4" = 1'-0"

ELECTRICAL SYMBOL KEY

GRAPHIC SYMBOL	DESCRIPTION	GRAPHIC SYMBOL	DESCRIPTION
	RECESSED WHITE BAFFLE 6" FIXTURE		PADDLE TYPE CEILING FAN W/ LIGHT
	RECESSED WHITE BAFFLE 4" FIXTURE		RECESSED EXHAUST, LOW NOISE FAN
	KEYLESS FIXTURE		FAN / LIGHT COMBO
	RECESSED ADJUSTABLE WALL WASH FIXTURE		ELECTRICAL OUTLET WALL MOUNTED
	SURFACE MOUNTED INCANDESCENT FIXTURE		ELECTRICAL OUTLET GROUND FAULT INTERRUPTED TYPICAL WIRED THROUGHOUT ROOM
	HANGING DECORATIVE FIXTURE, PENDANT OR CHANDALIER		WATER PROTECTED ELECTRICAL OUTLET GROUND FAULT INTERRUPTED
	PULL-CHAIN OPERATED SURFACE MOUNTED INCANDESCENT FIXTURE		6/11 WIRE ELECTRICAL OUTLET CONTROLLED BY A SWITCH
	WALL MOUNTED INCANDESCENT DECORATIVE SCENCE		220 VOLT ELECTRICAL OUTLET
	WALL MOUNTED COMPACT FLUORESCENT LOW PROFILE DECORATIVE SCENCE		ELECTRICAL OUTLET FLOOR MOUNTED
	UNIVERSAL SERIAL BUS		POWER SWITCH
	PHONE LINE		3-WAY POWER SWITCH
	CABLE T.V.		SMOKE DETECTOR INTER-CONNECTED W/ BATTERY BACKUP PER CODE
	GAS LINE		SMOKE DETECTOR / CARBON MONOXIDE DETECTOR INTER-CONNECTED W/ BATTERY BACKUP PER CODE
	SURFACE MOUNTED FLOURESCENT W/ ACRYLIC DIFFUSER		ELECTRIC METER
	KEYLESS FIXTURE - JUNCTION BOX		GAS METER



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 CALL AND SEE AT 800-451-1313 DAILY PRIOR TO ANY OCCUPATION
 CONSTRUCTION TO THE FULL RESPONSIBILITY OF THE PROFESSIONAL

CLIENT / PROJECT
**COMPO BUILDERS
 HILLIER RESIDENCE**

JOB No. 20-160
 DRAWN: ECT
 CHECKED: ECT
 REVIEW:
 FINAL: 6-24-20
 REVISION: 7-21-20
 REVISION: 7-24-20
 REVISION: 8-4-20
 REVISION: 8-10-20
 REVISION: 9-10-20

SCALE:
 PER PLAN

SHEET #
E-3