GENOA TOWNSHIP APPLICATION FOR VARIANCE

2911 DORR RD. BRIGHTON, MI 48116 (810) 227-5225 FAX (810) 227-3420

1/1=/11

Case # $14-0$ / Meeting Date: $4/19/14$
PAID Variance Application Fee \$125.00 for residential - \$300.00 for commercial/industrial
Copy of paperwork to Assessing Department
— copy of paper work to Assessing Department
Article 23 of the Genoa Township Zoning Ordinance describes the Variance procedure and the duties of the Zoning Board of Appeals. (Please see attached)
Applicant/Owner: PB DEVELOPMENT LLC
Applicant/Owner: PB DEVELOPMENT LLC Property Address: 4252 i 4260 High crost 248-207-9040
Present Zoning: LRR Tax Code: 11-27-307-209
The applicant respectfully requests that an adjustment of the terms of the Zoning Ordinance be made in the case of their property because the following peculiar or unusual conditions are present which justify variance.
1. Variance Requested: Front YALD AND VOI WEEL PER PLANS
2. Intended property modifications: CONSTRUCTION OF NEW RESON Z LOTS
This variance is requested because of the following reasons:
Unusual topography/shape of land Lake howt property Consistant with Surrounding propertos and prior various Other (explain) Re Aplication with Smaller MAN Res foolpout Than prior approved
Surrounding propertes AND prior VANNOIS
o. Other (explain) ReAplication with SMALLER MAN ROS FOOLPW
from prior approved
Variance Application Requires the Following:
Plot Plan Drawings showing setbacks and elevations of proposed buildings showing all other
pertinent information.
Waterfront properties must indicate setback from water for adjacent homes
Property must be staked showing all proposed improvements 5 days before the meeting and remain in place until after the meeting
Petitioner (or a Representative) must be present at the meeting
Morch 20 2014,
Date:
Signature:
Any Variance not acted upon within 12 months from the date of approval is invalid and must

After the decision is made regarding your variance approval contact Ron at the township office to discuss what your next step is.

receive a renewal from the ZBA.

Charter Township of Genoa

ZONING BOARD OF APPEALS April 15, 2014 CASE #14-07

PROPERTY LOCATION: 4252, 4260 Highcrest

PETITIONER: PB Development LLC, 4252 & 4260 Highcrest, Brighton, 48116

ZONING: LRR (Lake Resort Residential)

WELL AND SEPTIC INFO: Sewer available, well

PETITIONERS REQUEST: Grant a variance which was granted in January 2013 (2' Shoreline

Setback, 10' Front Yard Setback)

CODE REFERENCE: Table 3.04.02

STAFF COMMENTS: See Attached Staff Report

	Front	One Side	Other Side	Rear	Height	Shoreline
Setbacks for	35	5	10	N/A	25	75
Zoning						
Setbacks	25	N/A	N/A	N/A	N/A	73
Requested						
Variance Amount	10	N/A	N/A	N/A	N/A	2



2911 Dorr Road Brighton, MI 48116 810.227.5225 810.227.3420 fax genoa.org

SUPERVISOR

Gary T. McCririe

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

MANAGER

Michael C. Archinal

TRUSTEES

H. James Mortensen Jean W. Ledford Todd W. Smith Linda Rowell

MEMORANDUM

TO: Genoa Township Zoning Board of Appeals

FROM: Ron Akers, Zoning Official

DATE: April 11, 2014

RE: ZBA 14-07

STAFF REPORT

File Number: ZBA#14-07

Site Address: 4252 & 4260 Highcrest

Parcel Number: 4711-22-302-209

Parcel Size: 0.48 Acres

Applicant: PB Development, LLC, 4252 & 4260 Highcrest, Brighton, MI 48116.

Property Owner: Same as Owner

Information Submitted: Application, site plan, elevations

Request: Dimensional Variances

Project Description: Applicant is requesting a variance from Table 3.04.02 shoreline setbacks and a front yard setback variance to construct a new single family residence.

Zoning and Existing Use: LRR (Lakeshore Resort Residential), Vacant

Other:

Public hearing was published in the Livingston County Press and Argus on Sunday March 30, 2014 and 300 foot mailings were sent to any real property within 300 feet of the property lines in accordance with the Michigan Zoning Enabling Act.

Summary

The applicant is requesting a shoreline setback variance and a front yard setback variance in order to construct a new single family home. This request was approved at the January 2013 Zoning Board of Appeals meeting and was deemed null and void because the applicant did not apply for a land use permit within twelve (12) months. The applicant has made one minor change to the request. This change is due to the applicant intending to build a smaller house. The front yard setback variance was decreased from a 15' variance, 20' setback from the road to a 10' variance 25' setback from the road. As the change in the variance request is less impactful than the previous request, I simply recommend that the Zoning Board of Appeals reapprove this variance. You can find the previous motion in the attached minutes from January 2013.

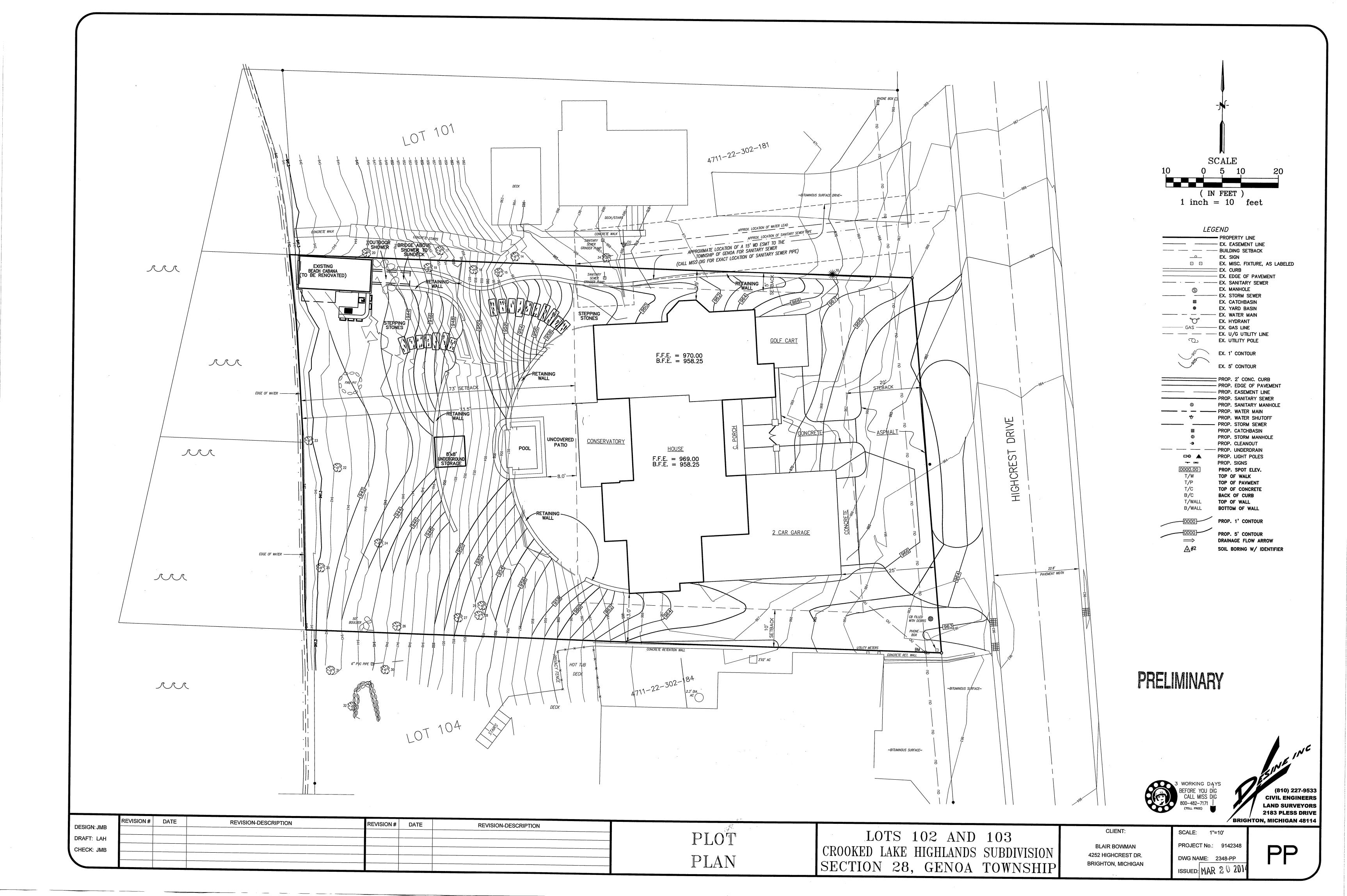


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A3	FIRST FLOOR PLAN
A4	SECOND FLOOR PLAN
A5	FINISHED LOWER LEVEL & ELECTRICAL PLA
A6	FRONT AND LEFT ELEVATIONS
A7	RIGHT AND REAR ELEVATIONS
S1	GENERAL NOTES
S2	FOUNDATION & FIRST FLOOR STR. PLAN
S3	FIRST FLOOR FRAMING PLAN
S4	SECOND FLOOR STRUCTURE PLAN
S5	SECOND FLOOR FRAMING PLAN
S6	SECOND FLOOR CEILING STRUCTURE PLAN
S7	ROOF PLAN
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S9	CROSS SECTIONS & CORNICE DETAILS
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E2	SECOND FLOOR ELECTRICAL PLAN
C1	CABANA PLAN



BOWMAN RESIDENCE

BRIGHTON, MI.

HABITABLE SPACE SECTION R202

HABITABLE SPACE. A SPACE IN A
BUILDING FOR LIVING, SLEEPING, EATING
OR COOKING. BATHROOMS, TOILET ROOMS,
CLOSETS, HALLS, STORAGE OR UTILITY
SPACES AND SIMILAR AREAS ARE NOT
CONSIDERED HABITABLE SPACES.

TOTAL HABITABLE SQUARE FOOTAGE

 1ST FLOOR:
 1,182 S.F.

 2ND FLOOR:
 460 S.F.

 TOTAL HABITABLE SPACE:
 1,642 S.F.

TOTAL HEATED SQUARE FOOTAGE

 1ST FLOOR:
 2,703 S.F.

 2ND FLOOR:
 924 S.F.

 TOTAL HEATED:
 3,627 S.F.

 FIN. LOWER LEVEL:
 2,020 S.F.

VanBrouck & Associates, Inc. Residential Design Group 5517 Arbor Bay Dr. Brighton, MI 48116

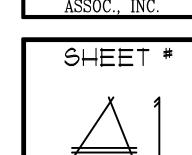
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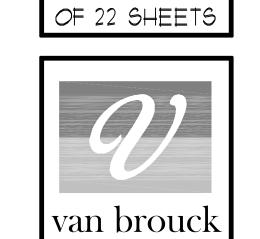
1AVERICK CONSULTING ENGINEE! >H. 517-669-9642 :AX: 517-668-0027

WMAN RESIDENCE 4252 HIGHCREST BRIGHTON, MI

BL.OUT: C.T.
W/D: C.T.

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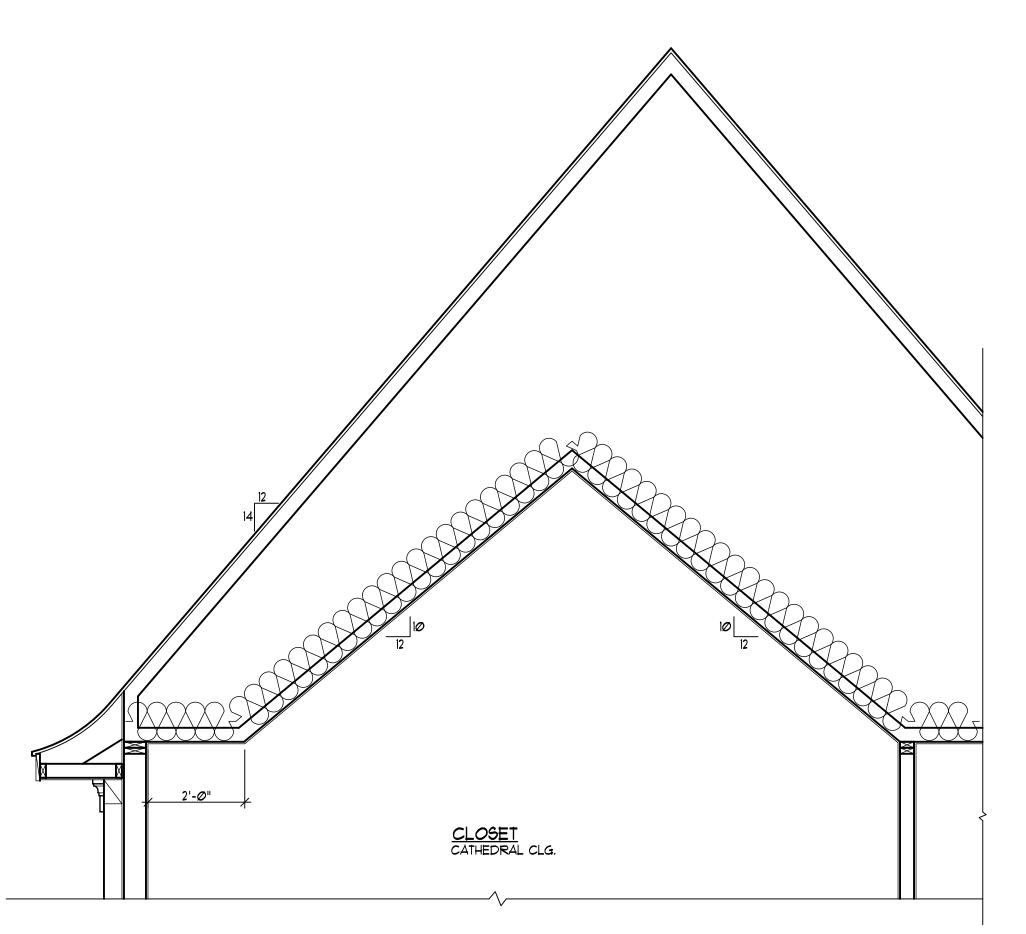




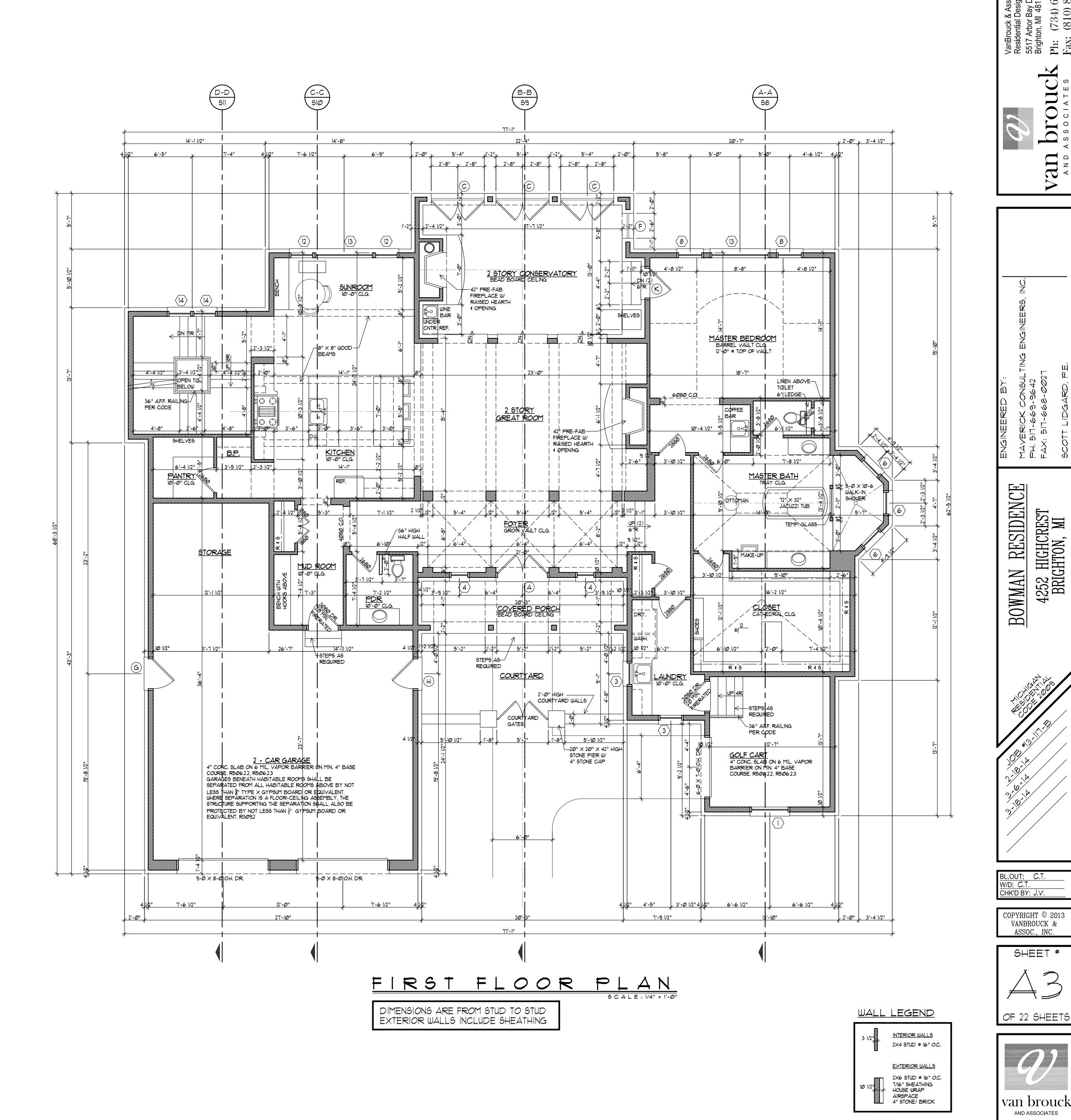
AND ASSOCIATES

	V	WINDOW SCHEDULE
ALL	WINDOWS 8	& DOORS TO BE GENERIC WINDOWS U.N.O.
	SIZE	DESCRIPTION
1	4060	$4'-0" \times 6'-0"$ ARCH TOP FIXED PICTURE WINDOW - T.G.
2	5020 UNIT	(2) 2'-6" \times 2'-0" CONTINUOUS ARCH TOP TRANSOMS - FIX.
3	2636	2'-6" × 3'-6" CASEMENT
4	2 <i>0</i> 5 <i>0</i>	2'-0" × 5'-0" ARCH TOP CASEMENT - FIXED
5	2446	2'-4" × 4'-6" ARCH TOP CASEMENT - FIXED
6	2616	2'-6" × 2'-6" TRANSOM - FIXED - TEMPERED GLASS
٦	6050	6'-0" × 5'-0" PICTURE WINDOW - FIXED - TEMP. GLASS
8	2860	2'-8" × 6'-0" CASEMENT - EGRESS @ BEDROOM
9	6026	6'-0" × 2'-6" ARCH TOP TRANSOM - FIXED
100	268Ø	2'-6" × 8'-0" ARCH TOP CASEMENT - FIXED
11	548Ø	$5'-4" \times 8'-0"$ ARCH TOP PICTURE WINDOW - FIXED - T.G.
12	2660	2'-6" × 6'-0" CASEMENT
13	6060	6'-0" × 6'-0" PICTURE WINDOW - FIXED - TEMP. GLASS
14	2650	2'-6" $ imes$ 5'-0" CSMT EGRESS @ BDRM, TEMP. GL. @ STAIR
15	3 <i>0</i> 4 <i>0</i>	3'-0" × 4'-0" CASEMENT

	EXTERIOR	DOOR SCHEDULE
ALL V	WINDOWS & DOORS	TO BE GENERIC WINDOWS U.N.O.
	SIZE	DESCRIPTION
Д	5080 UNIT	(2) 2'-6" X 8'-0" SOLID CORE CONTINUOUS ARCH TOP FRENCH DOORS W/ FULL LITE GLASS TEMPERED GLASS
В	5070 UNIT	(2) 2'-6" X 7'-0" SOLID CORE FRENCH DOORS W/ FULL LITE GLASS - TEMP. GLASS
С	5480 UNIT	(2) 2'-8" X 8'-Ø" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS
D	548Ø UNIT	(2) 2'-8" X 8'-0" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS (FIXED)
E	6080	6'-0" × 8'-0" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS
F	268Ø	2'-6" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS - FIXED
G	3080	3'-0" X 8'-0" SOLID CORE SERVICE DOOR
H	3080	3'-0" X 8'-0" S.C. ARCH TOP SERVICE DOOR
J	6068	6'-0" × 6'-8" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS
K	3080	3'-0" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS
L	3070	3'-0" × 7'-0" S.C. ARCH TOP SERVICE DOOR
M	6070	(4)2'-0" X 1'-0" SOLID CORE WOOD LOUVERED BI-FOLD DOORS

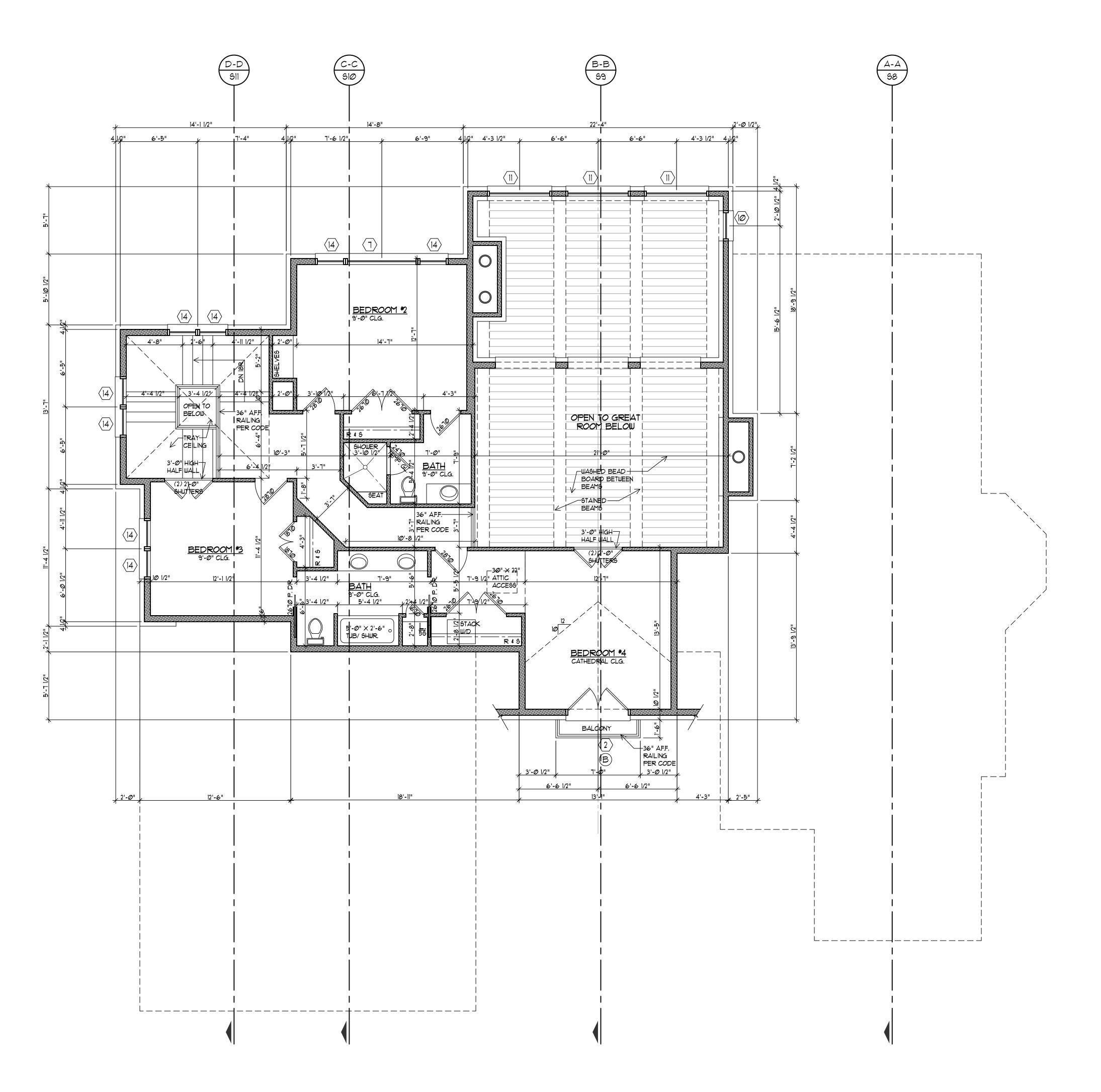


MASTER WALK IN CLOSET CEILING PROFILE



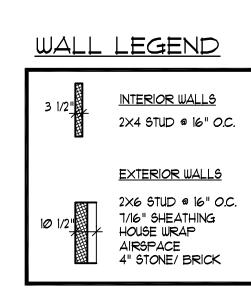
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10	2680	2'-6" × 8'-0" ARCH TOP CASEMENT - FIXED
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15	3Ø4Ø	3'-0" × 4'-0" CASEMENT

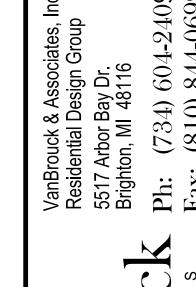
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L	3ØTØ	3'-0" × 1'-0" S.C. ARCH TOP SERVICE DOOR
М	6070	(4)2'-Ø" X T'-Ø" SOLID CORE WOOD LOUVERED BI-FOLD DOORS



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

DIMENSIONS ARE FROM STUD TO STUD EXTERIOR WALLS INCLUDE SHEATHING





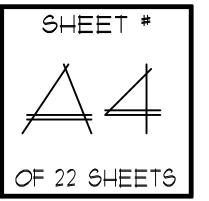
Van brouck

ONSULTING ENGINEERS, INC. 3642 -0027

H MAVERICK CONSULTING ENC PH. 517-669-9642 FAX: 517-668-0027

BOWMAN RESIDENCE 4252 HIGHCREST

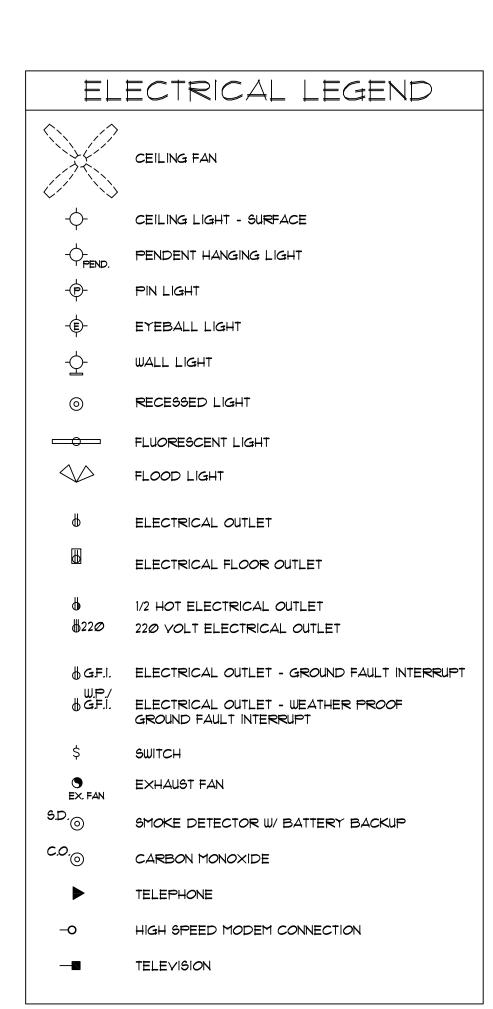
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CHK'D BY: J.V.

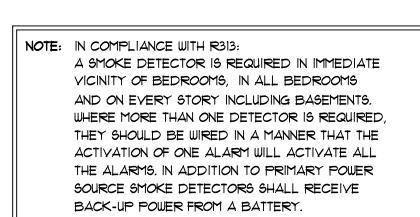


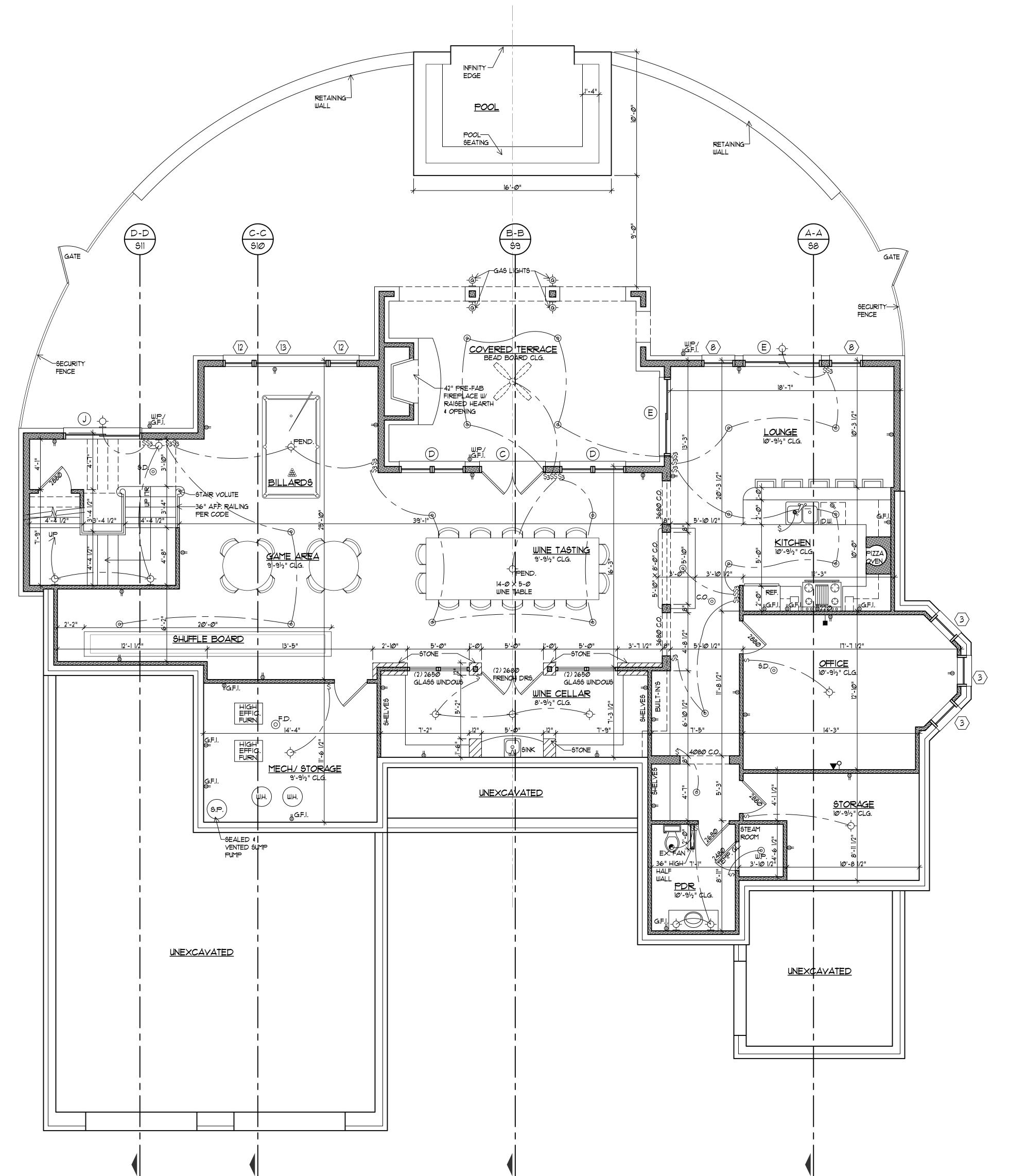


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	EXTERIOR	DOOR SCHEDULE
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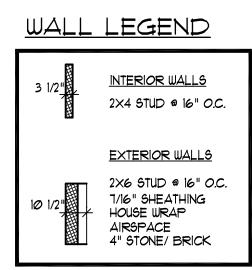






FINISHED LOWER LEVEL # ELECTRICAL PLAN SCALE: 1/4" = 1'-0"

DIMENSIONS ARE FROM STUD TO STUD EXTERIOR WALLS INCLUDE SHEATHING



VanBrouck & Associates, Inc. Residential Design Group 5517 Arbor Bay Dr. Brighton, MI 48116

Ph: (734) 604-2409

VanBroughent Resident S517 Arb Brighton, Brighton, Charles Ph. (2)

Van broch

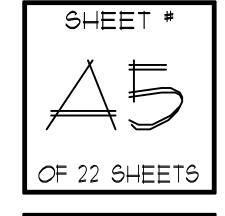
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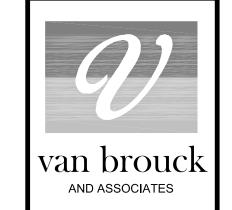
MAVERICK CONSULTING ENGINEERS
PH. 517-669-9642
FAX: 517-668-0027

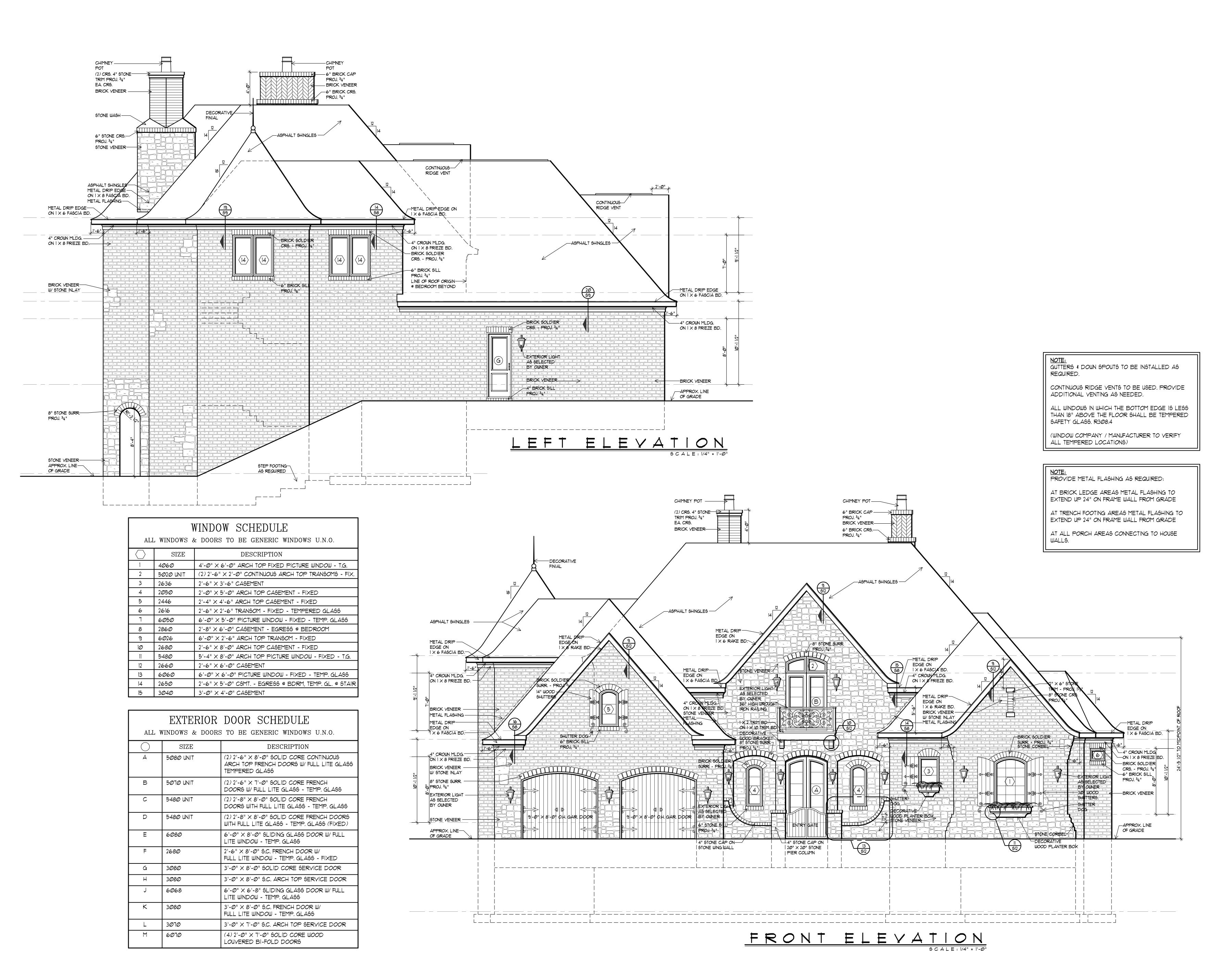
BOWMAN RESIDENCE 4252 HIGHCREST BRIGHTON, MI

W/D: C.T.
CHK'D BY: J.V.

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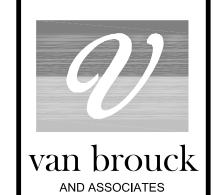
RESIDENCE 4252 HIGHCREST BRIGHTON, MI BOWMAN

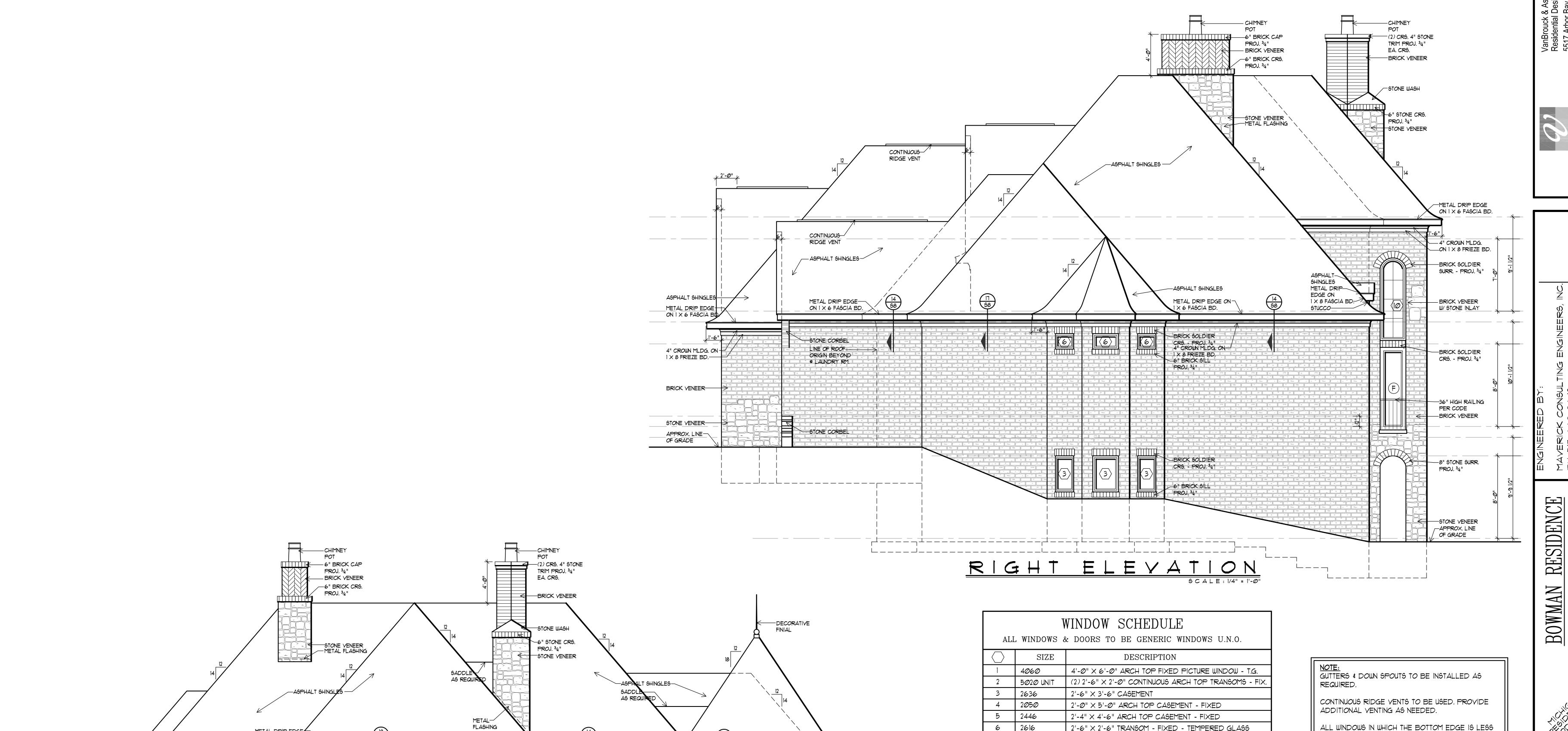
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METAL DRIP EDGE

-4" CROWN MLDG.

1 X 8 FRIEZE BD.

BRICK SOLDIER

CRS. PROJ. 34"

-BRICK YENEER

-6" BRICK SILL

-BRICK SOLDIER

CRS. PROJ. 3/4"

-BRICK VENEER

-6" BRICK SILL PROJ. 3₄"

- EXTERIOR

LIGHT AS

BY OWNER

—36" HIGH

ELEVATION

-BRICK SOLDIER

CRS. PROJ. 34"

---BRICK VENEER
WITH STONE INLAY

RAILING PER CODE

WITH STONE INLAY

WITH STONE INLAY

_ON | X 6 FASCIA BD.

METAL DRIP EDGE

ON 1 X 6 FASCIA/BD

4" CROWN MLDG.

BRICK SOLDIER

CRS. - PROJ. 34"

BRICK VENEER-WITH STONE INLAY 14 58

PER CODE

36" HIGH-RAILING PER CODE

4" STONE SILL PROJ. 34" -LEDGESTONE RETAINING WALL INFINITY EDGE POOL

METAL DEPEDGE— ON 1 X & RAKE BD.

BRICK SOLDIER-

ERS. - PROJ. 34"

BRICK VENEER-

BRICK SOLDIER-

CRS. - PROJ. 34"

METAL DRIP EDGE ON 1 X 6 FASCIA BD.

4" CROWN MLDG.—/ 1 X 8 FRIEZE BD.—/

BRICK SOLDIER — CRS. - PROJ. ³4"

6" BRICK SILL PROJ. 34"

BRICK VENEER-

WITH STONE INLAY

BRICK VENEER-

BRICK SOLDIER-

CRS. - PROJ. 34"

6" BRICK SILL

APPROX. LINE-OF GRADE

36" HIGH└─

RAILING PER CODE |

PROJ. 34"

METAL DRIP EDGE

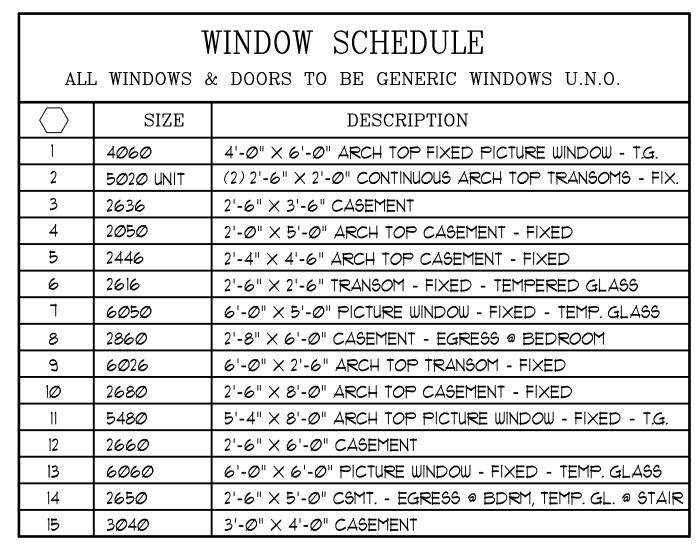
TBRICK SOLDIER

CRS. - PROJ. 34"

6" BRICK SILL PROJ. 34" BRICK SOLDIER CRS. PROJ. 34"

PROJ 34"

BRICK SOLDIER -CRS. - PROJ. 34"



ALL		DOOR SCHEDULE TO BE GENERIC WINDOWS U.N.O.
	SIZE	DESCRIPTION
Д	5080 UNIT	(2) 2'-6" X 8'-0" SOLID CORE CONTINUOUS ARCH TOP FRENCH DOORS W/ FULL LITE GLASS TEMPERED GLASS
В	5070 UNIT	(2) 2'-6" X 7'-0" SOLID CORE FRENCH DOORS W/ FULL LITE GLASS - TEMP. GLASS
С	548Ø UNIT	(2) 2'-8" × 8'-0" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS
D	548Ø UNIT	(2) 2'-8" × 8'-0" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS (FIXED)
E	6080	6'-0" X 8'-0" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS
F	2680	2'-6" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS - FIXED
G	3080	3'-0" X 8'-0" SOLID CORE SERVICE DOOR
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J	6068	6'-0" X 6'-8" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS
K	3080	3'-0" × 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS
L	3070	3'-0" × 1'-0" S.C. ARCH TOP SERVICE DOOR
M	6070	(4)2'-0" X 1'-0" SOLID CORE WOOD LOUVERED BI-FOLD DOORS

ALL WINDOWS IN WHICH THE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR SHALL BE TEMPERED SAFETY GLASS. R308.4

(WINDOW COMPANY / MANUFACTURER TO VERIFY ALL TEMPERED LOCATIONS)

NOTE: PROVIDE METAL FLASHING AS REQUIRED: AT BRICK LEDGE AREAS METAL FLASHING TO EXTEND UP 24" ON FRAME WALL FROM GRADE AT TRENCH FOOTING AREAS METAL FLASHING TO EXTEND UP 24" ON FRAME WALL FROM GRADE AT ALL PORCH AREAS CONNECTING TO HOUSE

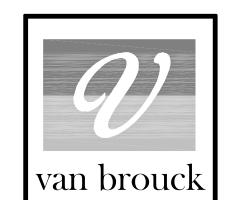
4252 HIGHCREST BRIGHTON, MI

CHK'D BY: J.V.

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AND ASSOCIATES

Consult Design Office for meaning of any symbol or abbreviation not defined. The Design Office shall determine governing information if a conflict should occur between various contract documents. Although every precaution has been taken in the preparation of these drawings, the Design Office cannot guarantee against human error and omission. Therefore, the contractor should verify and use figured dimensions only. Do not scale drawings for construction. Any conflicts or questions that arise due to these drawings should be brought to the attention of the Design Office prior to construction.

The contractor shall verify all dimensions, elevations, materials, and conditions at the job site and shall notify the Design Office of any discrepancies, omissions, and / or conflicts before preceding with the work

All work shall be performed in a thoroughly, first class and workmanlike manner by mechanics skilled in their respective trades, and shall conform to the standards of recognized trade associations. The contractor shall visit the site and check all existing conditions prior to commencing his work. The contractor shall be responsible for the coordination of work by all trades involved in the project.

The contractor shall secure and pay for all necessary permits and fees required in the performance of his work.

Unless noted otherwise, (UN.O.) Dimensions are from finish face to finish face. Nominal thickness dimensions are used for masonry. Interior frame partition thickness to be 4-1/2", (2 \times 4 wood stud) U.N.O.

Steel shall be domestic ASTM-36.

Dimensional framing lumber shall be No.1 Douglas Fir-larch (North) surfaced dry or No.2 Hem-Fir (North) surfaced dry or No.2 Southern Pine kiln dried. Minimum extreme fiber bending stress of 1,200 P.S.I.

Structural Laminated Wood Beams (GLU-LAMS) shall be 24F Southern Pine with extreme fiber bending stress of 2,400 P.S.I.

MICRO-LAM OR LAMINATED VENEER LUMBER Beams shall have a minimum extreme fiber bending stress of 2,850 P.S.I. and minimum E = 2,000,000 P.S.I.

Interior finishes shall be determined by owner or his representative

EXHAUST FANS: PROVIDE FANS AT ALL BATHROOMS AND LAUNDRY ROOM.

RIOG.1.4 TRUSS DESIGN DATA. As an alternative to the submission of truss design drawings, the truss design data sheet may be provided to the building official as part of the construction documents at the time of application. Truss design drawings shall be submitted to the building official prior to truss installation as required by Section R802.10.1

R3015 Live load. The minimum uniformly distributed live load shall be as provide in Table R3015.

Attics without storage (b): 10 pounds per square foot. Table R301.5 Attics with limited storage (b) (g) (h): 20 pounds per square foot. Table R301.5

b. Attics without storage are those where the maximum clear height between joist and rafter is less than 42 inches, or where there are not two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high by 2 feet wide, or greater, located within the plane of the truss. For attics without storage, this live load need not be assumed to act concurrently with any other live load requirements.

q. For attics with limited storage and constructed with trusses, this live load need be applied only to those portions of the bottom chord where there are two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high or greater, by 2 feet wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord WALL CONSTRUCTION and the bottom of any other truss member, provided that each of the following criteria is met:

1. The attic area is accessible by a pull-down stairway or framed opening in accordance with Section R807.1, and 2. The truss has a bottom chord pitch less than 2:12.

h. Attic spaces served by a fixed stair shall be designed to support the minimum live load specified for sleeping rooms.

R303.1 Light required minimum glazing area of not less than 8% of the floor area of habitable rooms.

R303.1 Ventilation required minimum openable area to the outdoors shall be 4% of the floor area being ventilated.

R305.1 Minimum ceiling height 7'-0".

R3072 Bathtub and shower spaces. Bathtub and shower floors and walls above bathtubs with installed shower heads and in shower compartments shall be finished with a nonabsorbent surface. Such wall surfaces shall extend to a height of not less than 6 feet above

R308 GLAZING All windows in which the bottom edge is less than 18" above the floor shall be tempered safety glass as specified in

R308.4 Hazardous Locations. Safety glazing in doors and adjacent to doors within the same wall space. Safety glazing in fixed panels strips not less than nominal 2 inches by 2 inches. more than 9 square feet with the lowest edge less than 18" to floor. Safety glass in walls enclosing bathtubs, showers and whirlpools.

R3086 Safety glazing in skylights, roofs and sloped glazing. Skylights and sloped glazing shall comply with the following tables:

EMERGENCY ESCAPE AND RESCUE OPENINGS

R310.1 Emergency escape and rescue required. Basements with habitable space and every sleeping room shall have at least one openable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section 310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

R310.1.1 Minimum opening area. All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet. Exception: Grade floor openings shall have a minimum net clear opening of 5 square feet. R310.1.2 Minimum opening height. The minimum net clear opening height shall be 24".

R310.1.3 Minimum opening width. The minimum net clear opening width shall be 20". R310.1.4 Operational constraints. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, tools or special knowledge.

R3102 Window wells. The Minimum horizontal area of the window well shall be 9 square feet, with a minimum horizontal projection and width of 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened. Exception: The ladder or steps required by Section R3102.1 shall be permitted to encroach a maximum of 6" into the required dimensions of the window well.

R3102.1 Ladder and steps. Window wells with a vertical depth greater than 44 inches shall be equipped with a permanently affixed ladder or steps usable with the window in the fully opened position. Ladders or steps required by this section shall not be required to comply with Sections R311.4 and R311.6. Ladders or rungs shall have an inside width of at least 12", shall project at least 3" from the R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load bearing wall and shall be spaced not more than 18" on center vertically for the full height of the window well. R310.3 Bulkhead enclosures, Bulkhead enclosures shall provide direct access to the basement. The bulkhead enclosure with the door

panels in the fully open position shall provide the minimum net clear opening required by Section R310.1.1. Bulkhead enclosures shall also comply with Section R311.5.82. R310.4 Bars, grilles, covers and screens. Bars, grilles, covers and screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net

clear opening size complies with Sections R310.1.1 to R310.1.3, and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

R311.5.1 WIDTH. Stairways shall not be less than 36" in clear width at all points above the permitted handrail height and below the

R3115.3.1 & R3115.3.2 TREADS AND RISERS. The maximum riser height shall be 8 1/4" and the minimum tread depth shall be 9". R311.5.2 HEADROOM. The minimum headroom in all parts of the stairway shall not be less than 6'-8" measured vertically from the sloped

plane adjoining the tread nosing or from the floor surface of the landing or platform. R311.5.3.2 WINDER6. The width of the tread at a point not more than 12" from the side where the treads are narrower is not less that 10"

and the minimum width of any tread is not less than 6". R311.5.6 Handrails Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more riser

R311.5.6.1 Height Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches and not more than 38 inches.

riser of the flight to a point directly above lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1 1/2 inch between the wall and the handrails.

R3115.8 Circular stairways, spiral stairways, winders and bulkhead enclosure stairways shall comply with all requirements of Section R311.5 except as specified in sections R311.5.8.1 and R311.5.8.2

R311.5.6.2 Continuity Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top

R3115.8.1 SPIRAL STAIRS. The minimum width shall be 26" with each tread having a 7 1/2 inch width at 12" from the narrow edge.

R312.1 GUARDS REQUIRED. Porches, balconies or raised floor surfaces located more than 30" above the floor or grade below shall

have guards not less than 36" in height. Open sides of stairs with a total rise of more than 30" above the floor or grade below shall have guards not less than 34" in height measured vertically form the nosing of the treads.

R3122 GUARD OPENING LIMITATIONS. Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures that do not allow passage of a sphere 4" in diameter.

R313 SMOKE ALARMS

R313.2 LOCATION Single - and multiple - station smoke alarms shall be installed in the following locations: 1. In each sleeping room

2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms. 3. On each additional story of the dwelling, including basements and cellars but not including crawl spaces and uninhabitable attics When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

R313.3 POWER SOURCE. In new construction, the required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery.

401.4.1 Geotechnical evaluation. In lieu of a complete geotechnical evaluation, the load-bearing values in Table R401.4.1 shall be assumed. Soil bearing pressure assume to be 3,000 P.S.F. If poorer soil conditions are found, the Design Office shall be notified prior to footing construction.

4022 Concrete shall be 3,000 p.s.i. at 28 days testing. Concrete shall have a minimum specified compressive strength as shown in Table R402.2

R403 Footings. R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundation, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil. Footings shall be supported on undisturbed natural soils or

HOLLOW AND SOLID UNREINFORCED MASONRY AND PLAIN CONCRETE: TABLE R404.1.1 (1) Maximum depth of unbalanced fill for a 10" poured concrete wall, or fully grouted masonry wall is 8 feet.

TABLE R4041.1 (1) Maximum depth of unbalanced fill for a 10" masonry - hollow - ungrouted wall is 5 feet. R406.1 Except where required by Section R406.2 to be waterproofed, foundation walls that retain earth and enclose interior spaces

united soil classification system in accordance with TABLE R405.1.

and floors below grade shall be dampproofed from the top of the footing to the finished grade.

Subsoil drainage system shall be provided under all basements floors consisting of: R50622 BASE. A 4" thick base course consisting of clean graded sand, gravel, crushed stone or crushed blast - furnace slag passing a 2" sieve shall be placed on the prepared subgrade when the slab is below grade. EXCEPTION: A base course is not required when the concrete slab is installed on well - drained or sand - gravel mixture soils classified as group I according to the

R405.1 Drains shall be provided around all concrete or masonry foundations that retain earth and enclose habitable or usable spaces 5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood - frame construction. 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

Sump Pump: Provide sealed & vented sump pump.

Crawl Spaces: In compliance with section 408, 408,1 Ventilation. The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement or cellar) shall be provided with ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation openings shall not be less than I square foot for each 150 square feet of under-floor space area. One such ventilating opening shall be within 3 feet of each corner of said building.

R403.16 When braced wall panels are supported directly on continuous foundations, the wall wood sill plate or cold-formed steel bottom track shall be anchored to the foundation in accordance with this section. The wood sole plate at exterior walls on monolithic slabs and wood sill plate shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet on center. There shall be a minimum of two bolts per plate section with one bolt located not more than 12" or less than seven bolt diameters from each end of the plate section. Anchor bolts shall also be located within 12" from the ends of each plate section. Bolts shall be at least 1/2" in diameter and shall extend a minimum of T" into masonry or concrete. Interior bearing wall sole plates on monolithic slab foundations shall be positively anchored with approved fasteners. A nut and washer shall be tightened on each bolt to the plate. Sills and sole plates shall be protected against decay and termites where required by Sections R319 and R320. Cold-formed steel framing systems shall be fastened to the wood sill plates or anchored directly to the foundation as required in Section R505.3.1. or R603.1.1. Exception: Foundation anchor straps, spaced as required to provide equivalent anchorage to 1/2-inich- diameter anchor bolts.

R408.4 Access to crawl spaces minimum size 18" x 24".

R5026 Bearing: The ends of each joist, beam or girder shall not have less than 1.5 inches of bearing on wood or metal and not less than 3 inches on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjacent stud or

R502.6.1 Floor systems: Joists framing from opposite sides over a bearing support shall lap a minimum of 3 inches and shall be nailed together with a minimum three 10d face nails. A wood or metal splice with strength equal to or greater than that provided by the

R502.6.2 Joist framing: Joists framing into the side of a wood girder shall be supported by approved framing anchors or on ledger

R502.8 Drilling and notching. Structural floor members shall not be cut, bored or notched in excess of the limitations specified in this

Exceptions: The vapor retarder may be omitted:

R502.8.1 Sawn lumber. Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2" to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch.

R502.8.2 Engineered wood products. Cuts, notches and holes bored in trusses, laminated veneer lumber, glue-laminated members or 1-joists are not permitted unless the effects of such penetrations are specifically considered in the design of the member.

R50623: 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.

1. From detached garages, utility buildings and other unheated accessory structures. 2. From driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date. 3. Where approved by the building official, based on local site conditions.

All walls 14'-0" and beyond in height and supporting a roof only to be continuous 2 x 6 studs. Refer to table R602.3.1

R6026 Drilling and notching - studs. Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40 percent of a single stud width. Any stud may be bored or drilled, provided that the diameter of the resulting hole is no greater than 40 percent of the stud width, the edge of the hole is no closer than 5/8" to the edge of the stud, and the hole is not located in the same section as a cut or notch. See Figures R602.6(1) and R602.6(2).

Exceptions: Approved stud shoes may be used when installed in accordance with the manufacturer's recommendation. wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0054 inch thick (16 gage) and 1.5 inches wide shall be fastened to each plate across and to each side of the opening with not less

than eight 16d nails at each side or equivalent (see Figure R602.6.1). <u>Exception:</u> When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing.

R602.10 WALL BRACING. All exterior walls shall braced in accordance with this section. In addition, interior braced wall lines shall be provided in accordance with section R602.10.1.1

R602.10.1 BRACED WALL LINES. Braced wall lines shall consist of brace wall panel construction methods in accordance with Section R602.10.3. The amount and location of bracing shall be in accordance with Table 602.10.1 and the amount of bracing shall be the greater of that required by the Seismic Design Category or the design wind speed. Braced wall panels shall begin no more then 12.5 feet from each end of a braced wall line. Braced wall panels that are counted as part of a braced wall line shall be in line, except that offsets out-of-plane of up to 4 feet shall be permitted provided that the total out-to-out offset dimension in any braced wall line is not more then 8 feet.

R602.10.3 BRACED WALL PANEL CONSTRUCTION METHODS. The construction of braced wall panels shall be in accordance with the

6. Continuously sheathed with wood structural panels - min. 7/16" thickness per table R602.3(3)

R602.106 Alternate braced wall panels. Alternate braced wall lines constructed in accordance with one of the following provisions shall be permitted to replace each 4 feet of braced wall panel as required b Section R602.10.4: as noted on the plans. Refer to structural sheets for for special or alternate wall bracing segments.

R102.42 Gypsum backer.m Gypsum board utilized as the base or backer board for adhesive application of ceramic tile or other nonabsorbent finish material shall conform with ASTM C 630 or C 1178. Water-resistant gypsum backing board shall be permitted to be used on ceiling where framing spacing does not exceed 12" on center for 1/2" thick or 16" for 5/8" thick gypsum board. Water-resistant gypsum board shall not be installed over a vapor retarder in a shower or tub compartment. All cut or exposed edges, including those at wall intersections, shall be sealed as recommended by the manufacturer.

ALLOWABLE SF TABLE RTØ3.13 OF MRC 2		LS SUPPORTING	MASONRY VENEER
SIZE OF ANGLE (IN) a, b	ROOF ONLY ABOVE	ONE STORY ABOVE	TWO STORIES ABOVE
31/2 × 31/2 × 1/4	6'-0"	4'-6"	3'-Ø"
4 × 3½ × ¼	8'-Ø"	6'-0"	4'-6"
5 × 31/2 × 5/16	10'-0"	8'-Ø"	6'-0"
6 × 31/2 × 5/16	12'-Ø"	9'-6"	7'-Ø"

a. LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION

b. STEEL MEMBERS INDICATED ARE ADEQUATE TYPICAL EXAMPLES. OTHER STEEL MEMBERS, MEETING STRUCTURAL DESIGN REQUIREMENTS, MAY BE USED

				_	Wa	ill Height "h"	_				
	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
Backfill Height "Z"											
4'-0"	None	None	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
4'-6"	None	None	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
5'-0"	None	None	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
5'-6"	None	None	#4 @ 18 "	#4 @ 18 "	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
6'-0"	None	None	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
6'-6"	None	None	#4 @ 18 "	#4 @ 18 "	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
7'-0"	None	None	#4 @ 18 "	#4 @ 18 "	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
7'-6"	None	None	#4 @ 18"	#4 @ 18 "	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
8'-0"	None	None	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18
8'-6"	_	None	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 16"	#4 @ 18
9'-0"	_	_	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 16"	#4 @ 18"	#4 @ 16"	#4 @ 18"	#4 @ 18"	#4 @ 18
9'-6"	_	_	" -	#4 @ 16"	#4 @ 18"	#4 @ 18"	#4 @ 18"	#4 @ 16"	#4 @ 18"	#4 @ 16"	#4 @ 16
10'-0"	_	_	_		#4 @ 18"	#4 @ 18"	#4 @ 16"	#4 @ 16"	#4 @ 16"	#5 @ 18"	#4 @ 12
10'-6"	_	_	_	_	" -	#4 @ 16"	#4 @ 16"	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12
11'-0"	_	_	_	_	_	" -	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12
11'-6"	_	_	_	_	_	_	" -	#4 @ 12"	#4 @ 12"	#5 @ 18"	#5 @ 16
12'-0"	_	_	_	_	_	_	_	" '	#5 @ 16"	#5 @ 16"	#5 @ 12
12'-6"	_	_	_	_	_	_	_	_	"	#5 @ 12"	#5 @ 12
13'-0"	_	_	_	_	_	_	_	_	_	#5 9 12	#5 @ 12 #5 @ 12

* Horizontal Reinforcement "H" for 12" Walls #5 @ 18" O.C. or #4 @ 12" O.C. * Bent dowel w/ 16" Projection into Foundation Wall for 12-inch Walls (#5 @ 16' o.c.) * Continuous Rebar @ Bottom Third of Footing for 12-inch Walls (#6 Rebar)

POINT LOADS: ALL POINT LOADS SHALL BE SUPPORTED BY MINIMUM 4 STUDS UN.O.

R103.2 WEATHER - RESISTANT SHEATHING PAPER. A minimum of one layer on No. 15 asphalt felt complying with ASTM D 226, as listed in chapter 43, for type I felt or other approved weather-resistive materials shall be applied over sheathing of all exterior walls. See

R103.7.4 Anchorage. Masonry veneer shall be anchored to the supporting wall with corrosion - resistant metal ties. Where veneer is anchored to wood backings through the use of corrugated sheet metal ties, the distance separating the veneer from the sheathing material shall be a maximum of I". Where the veneer is anchored to wood backings through the use of metal strand wire ties, the distance separating the sheathing material shall be maximum of 4 1/2". Where the veneer is anchored to cold - formed steel backings, adjustable metal strand wire ties shall be used. Where veneer is anchored to cold - formed steel backings, the distance separating the veneer from the sheathing material shall be a maximum of 4 1/2".

R103.7.4.1. Size and spacing. Veneer ties, if strand wire, shall not be less in thickness than No. 9 U.S. gauge wire and shall have a hook embedded in the mortar joint, or if sheet metal, shall be not less than No. 22 U.S. gauge by 7/8" corrugated. Each tie shall be spaced not

R703.4.1.1 Veneer ties around wall openings. Additional metal ties shall be provided around all wall openings greater than 16" in either dimension. Metal ties around the perimeter of openings shall be space note more than 3 feet on center and placed within 12" of the

A Flashing Inspection will be required prior to installing the full wall of brick

more than 24" on center horizontally and vertically and shall support not more than 267 square feet of wall area.

R103.1.5 FLASHING. Approved flashing shall be installed 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, shelf angles and lintels when masonry veneers are designed in accordance with SECTION RT03.7 of the code. See section RT03.8 of the code for additional requirements.

R103.16 WEEPHOLES. Weepholes shall be provided in the outside wythe of masonry walls at a maximum spacing of 33" on center. Weepholes shall not be less than 3/16" in diameter. Weepholes shall be located immediately above and directly on the flashing.

R103.8 Flashing. Approved corrosion - resistant flashing shall be applied shingle-fashion in such a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. 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: 1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior

wall finish or to the water-resistive barrier for subsequent drainage. 2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco cobinas 3. Under and at the ends of masonry, wood or metal copings and sills. 4. Continuously above all projecting wood trim.

6. At wall and roof intersections.

R8062 Roof Ventilation. Minimum area. The total net free ventilation area shall not be less than I to 150 of the area of the space ventilated except that the total area is permitted to be reduced to 1 to 300, provided at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross -ventilation area may be reduced to 1 to 300 when a vapor barrier having a transmission rate not exceeding I perm is installed on the warm side of the ceiling.

R807.1 Access to attic minimum 22" x 30".

At built-in qutters.

R309.2 SEPARATION REQUIRED. The garage shall be separated from the residence and its attic area by not less than 1/2" gypsum board applied to the garage side. Garages 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. Garages located less than 3 feet from a dwelling unit on the same lot shall be protected with not less than 1/2 inch aupsum board applied to the interior side of exterior walls that are within this area. Openings in these areas shall be regulated by Section R309.1. This provision does not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.

R9052.7 UNDERLAYMENT APPLICATION. For roof slopes from 2 units vertical in 12 units horizontal (17- percent slope), up to 4 units vertical in 12 units horizontal (33- percent slope), underlayment shall be two layers. For roof slopes 4 units vertical in 12 units horizontal (33- percent slope), or greater, underlayment shall be one layer. See 905.2.82 for more details.

R9052.7.1 ICE BARRIER. In areas where there has been a history of ice forming along the eaves causing a backup of water as designated in Table R3012(1), an ice barrier that consists of a least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches inside the exterior wall line of the building.

MASONRY CHIMNEYS AND FIREPLACES:

RID012 FOOTING AND FOUNDATIONS. Footings for masonry fireplace and their chimneys shall be constructed of concrete or solid masonry at least 12 inches thick and shall extend at least 6 inches beyond the face of the foundation or support wall on all sides. Footings shall be founded on natural undisturbed earth or engineered fill below frost depth. In areas not subjected to freezing, footings shall be at least 12 inches below finished grade.

RIDDIG FIREBOX DIMENSIONS. The firebox of a concrete or masonry fireplace shall have a minimum depth of 20". The throat shall not be less than 8 inches above the fireplace opening. The throat opening shall not be less than 4 inches deep. The cross sectional area of the passageway above the firebox, including the throat, damper and smoke chamber, shall not be less than the cross-sectional area of the flue.

RIDDLY HEARTH AND HEARTH EXTENSION. Masonry fireplace hearths and hearth extensions shall be constructed of concrete or masonry, supported by noncombustible materials, and reinforced to carry their own weight and all imposed loads. No combustible material shall remain against the underside of hearths and hearth extensions after construction.

RIDDI.9.1 HEARTH THICKNESS. The minimum thickness of fireplace hearth shall be 4 inches.

RIDDI.3.2 HEARTH EXTENSION THICKNESS. The minimum thickness of hearth extensions shall be 2 inches. Exception: When the bottom of the firebox opening is raised at least 8 inches above the top of the hearth extension, a hearth

The air space shall not be filled, except to provide fire blocking in accordance with Section RIOO1.12

extension of not less than 3/8" thick brick, concrete, stone, tile or other approved noncombustible material in permitted. RIOOLIO HEARTH EXTENSION DIMENSIONS. Hearth extensions shall extend at least 16" in front of and at least 8" beyond each side of the fireplace opening. Where the fireplace opening is 6 square feet or larger, the hearth extension shall extend at least 20" in front

of and at least 12" beyond each side of the fireplace opening. See RI003 for more details. RIDULII FIREPLACE CLEARANCE All wood beams, joists, studs and other combustible material shall have a clearance of not less than 2 inches from the front faces and sides of masonry fireplaces and not less than 4 inches from the back faces of masonry fireplaces.

E3802 Provide ground fault circuit - interrupters at all exterior electrical outlets and interior outlets adjacent to water sources. E3802.12 BEDROOM OUTLETS. ALL BRANCH CIRCUITS THAT SUPPLY 120 - YOLT, SINGLE - PHASE, 15 AND 20 - AMPERE OUTLETS INSTALLED IN BEDROOMS SHALL BE PROTECTED BY A COMBINATION TYPE ARC - FAULT CIRCUIT INTERRUPTER INSTALLED TO

PROVIDE PROTECTION OF THE ENTIRE BRANCH. R-21 Wall Requirement: If R-21 wall requirement is in effect at time of construction, then use 1" rigid insulation over structural sheathing,

The contractor shall be responsible for the compliance with, and proper execution of, ALL applicable local and state building codes, whether or not noted, drawn, or specified on the drawings. The contractor shall review all drawings and documents prior to construction, and verify all dimensions and details for consistency and compatibility with other consultants' and suppliers' drawings and existing conditions before commencing with any work

The contractor shall inform VanBrouck & Associates (VBA) and structural engineer in writing of any discrepancies and/or omissions noted on the drawings or in the specifications. Upon receipt of such information VBA and/or engineer will provide additional instructions. Any such discrepancy, omission, or variation not reported shall be the responsibility of the contractor, and corrective work shall be preformed as directed by VBA and/ or engineer.

During construction the contractor shall mark-up a record copy of the drawings and structural drawings, detailing all modifications made during construction as a result of field conditions and/or construction procedures not anticipated at the time of design. The contractor is responsible for all costs associated with the correction of deficiencies, as determined by VBA and / or engineer.

Engineering services presented on these drawings are for permanent structure only. The contractor is responsible for all temporary bracing required for structural stability and for construction loading until the project is completed.

In cases of discrepancies on drawings and structural drawings, the more stringent requirements shall govern.

The contractor is responsible for overall safety on the job site during construction and shall ensure temporary guard and safety rails are installed everywhere openings in the floor are present, and at stairways, balconies, etc.

WATERPROOFING, FLASHING, MEMBERANES:

Contractor shall supervise the installation of all waterproofing, flashings, and membranes, and ensure and warrant that all waterproofing, flashings, and membranes are installed properly. Watertight testing of all roof membranes and deck membranes shall be performed during construction to ensure that the intergrity of the material has not been compromised by any punctures and/or penetrations. Contractor shall also test that all membranes are watertight immediately propr to covering with finish materials.

Contractor is responsible for providing that waterproofing, flashings, and membranes are installed everywhere required and needed to ensure that there is no water penetration into the house, whether or not noted, drawn, or specified on the drawings. Further, contractor shall ensure that water runoff be directed away from the house in all cases, and be diverted to an approved point of collection or proper runoff. Areas such as porches, decks, balconies, etc shall slope away from the house, and in no way shall water be directed toward the house or left standing.

All of the designs, drawings, and documents prepared by VanBrouck & Associates, Inc. or on behalf of VanBrouck & Associates, Inc., have been prepared in accordance with generally accepted industry standards and practices and to the requirements of all applicable codes. No other warranty is made, either expressed or implied.

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HABITABLE SPACE:

"HABITABLE SPACE" means space in a building used for living, sleeping, eathing or cooking. Habitable space does not include a heater or utility room, a crawl space, a basement, an attic, a garage, an open porch, a balcony, a terrace, a court, a deck, a bathroom, a toilet room, a closet, a hallway, a storage space, and other similar spaces not used for living, sleeping, eating,

GENERAL STRUCTURAL NOTES:

(REFER ONLY TO NOTES APPLICABLE TO THE PROJECT.

DESIGN CRITERIA:

BUILDING CODES USED FOR DESIGN: 2009 MICHIGAN RESIDENTIAL CODE (MRC)

> FLOOR LIVE AND DEAD LOADS: 40 psf LIVE 15 psf DEAD FOR WOOD, LINOLEUM AND CARPET FLOORING

25 psf DEAD FOR THIN SET CERAMIC FLOORING 35 psf DEAD FOR MARBLE / GRANITE FLOORING

MINIMUM DEFLECTION CRITERIA: L/240 LIVE AND L/180 TOTAL FOR ROOF COMPONENTS L/100 LIVE AND L/360 TOTAL FOR FLOOR COMPONENTS WITH RIGID FLOORING (e.g., TILE) L/480 LIVE AND L/360 TOTAL FOR FLOOR COMPONENTS WITH FLEXIBLE FLOORING (e.g., CARPET, lineoleum, hardwood)

ROOF LIVE AND SNOW LOADS: FLAT-ROOF SNOW LOAD FLAT ROOF DEAD

WIND LOADS: BASIC WIND SPEED WIND IMPORTANCE FACTOR BUILDING CATEGORY WIND EXPOSURE

 DESIGN STRENGTHS: CONCRETE:

STRENGTH A 28 DAYS (PSI) INTERIOR SLABS & WALLS FOOTINGS & FOUNDATION WALLS AIR-ENTRAINED EXTERIOR SLABS & WALLS CONCRETE REINFORCEMENT: ASTM A615/A615M-Ø1B (Fy = 60 KSI) WELDED WIRE FABRIC: ASTM A185-Ø1

STRUCTURAL STEEL: ASTM A301-02 ALTERNATIVELY - FI554-99 GR 36 MAY BE USED ANCHOR RODS: MASONRY:

F'm = 1500 PSI

<u>FOUNDATIONS AND EARTHWORK</u>

NORMAL WEIGHT

• WATER SHALL NOT BE PERMITTED TO ACCUMULATE IN FOOTING EXCAYATIONS. PROVIDE A MINIMUM OF 6 INCHES OF GRANULAR FILL BELOW ALL INTERIOR SLABS-ON-GRADE. PROVIDE GRANULAR BACKFILL FOR BAGEMENT WALLS. ALL BACKFILL SHALL BE WELL DRAINED. • THE FOUNDATION DESIGN IS BASED ON A SOIL BEARING PRESSURE OF: 2,500 PSF.

 ALL FOOTING EXCAVATIONS SHALL BE INSPECTED, PRIOR TO CONCRETE PLACEMENT. WHERE COMPACTION OF FILL IS SPECIFIED, COMPACTION OF FILL MATERIAL SHALL BE A MINIMUM 95% OF MAXIMUM DRY DENSITY • BOTTOM OF EXTERIOR BUILDING FOOTINGS ARE TO BE AT LEAST 42 INCHES BELOW FINAL OUTSIDE GRADE REGARDLESS OF ELEVATION SHOWN ON PLAN.

• ALL CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS AND ALL PIERS AND SPREAD FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR PIERS UNLESS NOTED OTHERWISE. NO SLABS OR FOUNDATIONS SHALL BE PLACED INTO OR ADJACENT TO SUBGRADE CONTAINING WATER, ICE FROST OR ORGANIC MATERIAL

OTHERS SHALL DETERMINE THE ACTUAL BEARING VALUE OF THE SOIL

WHERE FOUNDATION WALLS ARE TO HAVE SOIL PLACED ON BOTH SIDES, PLACE SOIL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL. <u>CONCRETE:</u>

ACCESSORIES, CHAIRS, SPACER BARS AND SUPPORTS NECESSARY TO SECURE THE REINFORCEMENT UNLESS SHOWN OTHERWISE ON THE PLANS AND/OR DETAILS. • REINFORCING STEEL SHALL BE ASTM A615 (GRADE 60). • WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

• THE REINFORCING STEEL CONTRACTOR SHALL FABRICATE ALL REINFORCEMENT AND FURNISH ALL

• CONCRETE REINFORCEMENT SHALL BE PLACED ACCORDING TO THE CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS CONCRETE COVERAGE FOR REINFORCEMENT SLAB ON GRADE CENTER OF SLAB

WALLS EXPOSED TO EARTH 2

COLUMN TIES COMPRESSION LAP SPLICES FOR GRADE 60 BARS SHALL BE 30 BAR DIAMETER MINIMUM. TENSION LAP SPLICES SHALL BE AS DETAILED. USE CLASS "B" SPLICES UNO • ALL WELDED WIRE FABRIC LAPS SHALL BE 8" AT ENDS AND SIDES.

 BAR LENGTHS SHOWN DO NOT INCLUDE HOOKS OR BENDS, • CONCRETE AT THE TIME OF PLACEMENT SHALL HAVE A SLUMP OF 4" +/- 1" UNLESS A SUPER-PLASTICIZING AGENT IS USED. • ALL OPENINGS IN CONCRETE WALLS SHALL HAVE (2) *5 BARS PLACED AROUND ALL OPENINGS. EXTEND BARS 2'-0" BEYOND EACH FACE OF OPENING. PLACE (2) *5 X 4'-0" LONG BARS DIAGONALLY AT EACH CORNER.

GROUT FOR VERTICALLY REINFORCED MASONRY WALLS AND BOND BEAMS SHALL CONSIST OF: I PART CEMENT, 2½ PARTS FINE AGGREGATE, 2 PARTS PEA GRAVEL, F'C = 3,000 PSI AT

28 DAYS, GROUT SLUMP 9" TO 10". GROUT SOLID ALL CELLS CONTAINING REINFORCING. MASONRY WALLS SHALL HAVE HORIZONTAL REINFORCING CONSISTING OF GALVANIZED STANDARD WEIGHT 9 GAUGE DUR-O-WALL D/A 310 TRUSS TYPE OR EQUAL

REINFORCING LOCATED AT EVERY OTHER COURSE, UN.O. • PLACE FILL HEIGHT VERTICAL BAR AT EACH CORNER, WALL END AND AT EACH SIDE OF EACH OPENING AND CONTROL JOINT (MIN.) IN REINFORCED WALLS. BAR SIZE TO MATCH SIZE OF WALL REINFORCING.

 LAP ALL VERTICAL REINFORCING SPLICES 48 BAR DIAMETERS: 24" FOR *4 BARS 30" FOR *5 BARS AND 36" FOR *6 BARS.

• ANCHOR BEAMS AND LINTELS TO WALL. MASONRY WALLS SHALL BE LAID UP AND GROUTED IN 4 FOOT LIFTS (LOW LIFT GROUTING PROCEDURE PER ACI 530.1. IF CLEANOUTS ARE PROVIDED AT EACH GROUTED CORE, WALLS MAY BE GROUTED IN 8 FOOT LIFTS FOLLOWING THE HIGHLIFT GROUTING PROCEDURE PER ACI 530.1

• THE PROCEDURE OF ACI 530.1 FOR COLD WEATHER CONSTRUCTION SHALL BE ADHERED TO WHENEVER THE AIR OUTSIDE TEMPERATURE IS BELOW 40 DEGRESS F. <u>STRUCTURAL STEEL:</u>

 YIELD STRESS AND TYPE OF STEEL: FOR WIDE FLANGE SHAPES: ASTM A992 WITH YIELD STRESS OF 50,000 PSI. FOR 9 SHAPES, CHANNELS, ANGLES, BARS, PLATES AND RODS: ASTM A36 WITH YIELD STRESS OF 36,000 PSI.

FOR RECTANGULAR AND SQUARE TUBULAR SHAPES: ASTM A500 WITH YIELD STRESS OF 46,000 PSI. BOLTS: USE CARBON OR ALLOY STEEL ASTM A325, 34" DIA. OR LARGER IF REQUIRED E CONNECTION DESIGN. ANCHOR BOLTS SHALL BE WEDGE STYLE ANCHOR, HILTI KWIK BOLT 3. NUTS: CARBON STEEL MEETING ASTM A563. WASHERS: HARDENED STEEL WASHERS MEETING ASTM F436. ASTM A307 BOLTS MAY BE USED

FOR WOOD TO WOOD CONNECTIONS AND STEEL LINTEL TO WOOD CONNECTIONS. ANCHOR RODS: ASTM FI554, GRADE 36.

MISCELLANEOUS: PREFABRICATED I-JOISTS SHALL BE DESIGNED TO SUPPORT THEIR OWN WEIGHT PLUS THE SUPERIMPOSED DEAD AND LIVE LOADS STATED IN THE GENERAL NOTES AND 2009 MR(-JOIST SERIES, MANUFACTURER, SPACING, BRIDGING, BLOCKING AND DETAILING SHALL BE DESIGNED BY THE FLOOR SYSTEM PROVIDER, SUCH THAT IT MEETS THE DESIGN CRITERIA IN SECTION A, AS A MINIMUM. THE CONTRACTOR SHALL SUBMIT, TO THE DESIGNER FOR REVIEW,

THE DESIGN LAYOUT AND COMPONENT CALCULATIONS, PRIOR TO USE IN THE STRUCTURE. • MIN. LYL PROPERTIES SHALL BE: $E = 2.0 \times 1000$ psi, Fb = 2,950 psi, Fv = 285 psi. • MIN. PSL COLUMN PROPERTIES SHALL BE: E = 1.8 x 10/E6 psi, Fb = 2,400 psi TRUS JOIST

• GLULAM SHALL BE MIN. 24F-I.TE SP OR BETTER. PROVIDE PRESSURE TREATED

• WALLS SHALL BE BRACED ACCORDING TO 2009 MRC.

GLULAM WHERE CALLED FOR ON DRAWINGS • ALL FASTENERS AND HANGERS ATTACHED TO PRESSURE TREATED WOOD SHALL BE EITHER HOT DIPPED GALVANIZED OR STAINLESS STEEL.

• TRUSSES SHALL BE BRACED IN ACCORDANCE WITH BCSI'S OCTOBER 2008 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES". ALL POINT LOADS SHALL BE CONTINOUSLY BLOCKED THROUGHOUT THE STRUCTURE TO THE FOUNDATION OR SUPPORT BEAM.

• THE STRUCTURAL DESIGN IS BASED ON THE BUILDING IN ITS COMPLETED STATE.

CONTRACTORS AND THEIR SUBCONTRACTORS SHALL TAKE WHATEVER PRECAUTIONS MADE NECESSARY TO WITHSTAND ALL HORIZONTAL AND VERTICAL LOADINGS THAT MAY BE ENCOUNTERED DURING THE CONSTRUCTION PRIOR TO COMPLETION OF THE BUILDING. DO NOT SCALE DRAWINGS. ALL WORK FOR ALL PHASES OF CONSTRUCTION MUST BE IN COMPLIANCE WITH 2009 MICHIGAN RESIDENTIAL CODE

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

ALL ANCHOR BOLTS SHALL HAVE CONTINUOUS POSITIVE CONNECTION FROM FOOTING TO TOP OF SILL. R403.16. ALL SILL PLATES SHALL BE A TREATED SILL PLATE WITH SILL SEALER R317.1 MINIMUM INSULATION R-VALUES SHALL BE: 2×4 WALLS: R-19

AND 2009 MICHIGAN UNIFORM ENERGY CODE.

2X6 WALLS: R-21 CEILINGS: R-38 UNDER SLAB: R-10 PROVIDE 2" × 24" RIGID INSULATION UNDER

PERIMETER OF SLABS - VERTICAL & HORIZONTAL IN NO WAY SHALL SURFACE RUNOFF BE DIRECTED SO AS TO ADVERSELY IMPACT ADJACENT PROPERTIES WITHA FLOODING CONDITION. THE GRADING PLAN SHOULD CONTINUE AS FAR AS A STORM SEWER OUTLET OR OTHER NATURAL OUTLET POINT OF DISCHARGE TO ASSURE PROPER CONTROL OF SURFACE RUNOFF. SURFACE RUNOFF SHALL BE DIVERTED TO A STORM SEWER OR OTHER APPROVED POINT OF COLLECTION SO AS NOT TO CREATE A

	FLOODING COND	ITION.							
	MICHIGA 1.1 - Insulation an		•	• •					
CLIMATE ZONE	FENESTRATION U-FACTOR	a SKYLIGHT U-FACTOR	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	C SLAB R-VALUE & DEPTH	b CRAWL SPACE WALL R-VALUE
54	Ø.35	0.40	38	20 OR 13+5	13/17	3Ø	10/13	1Ø. 2 FT.	10/13
6A	Ø.35	0.40	49	20 OR 13+5	13/19	3Ø,	15/19	10. 4 FT.	10/13
٦	Ø.35	0.40	49	21	19/21	38	15/19	10. 4 FT.	10/13

a. THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS.

THE FIRST R-VALUE APPLIES TO CONTINUOUS INFLATION. THE SECOND TO FRAMING CAVITY INSULATION: EITHER INSULATION MEETS THE R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS. INSULATION DEPTH SHALL BE THE DEPTH OF THE

FOOTING OR 2 FT. WHICHEVER IS LESS. IN ZONES 1-3 FOR HEATED SLABS. d. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY, R-19 MINIMUM.

e. "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF EXTERIOR, R-5 SHEATHING IS NOT REQUIRED WHERE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25% OF EXTERIOR, STRUCTURAL SHEATHING SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2.

f. THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR. g. FIREPLACE DOORS TO COMPLY WITH MUEC 402.4.3.

TABLE RTØ3.7.3 OF MRC 2	905		
SIZE OF ANGLE (IN) a, b	ROOF ONLY ABOVE	ONE STORY ABOVE	TWO STORIES ABOVE
3½ × 3½ × ¼	6'-0"	4'-6"	3'-Ø"
4 × 3½ × ¼	8'-Ø"	6'-0"	4'-6"
5 × 31/2 × 5/6	10'-0"	8'-0"	6'-0"

a. LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION b. STEEL MEMBERS INDICATED ARE ADEQUATE TYPICAL EXAMPLES. OTHER STEEL MEMBERS, MEETING STRUCTURAL DESIGN REQUIREMENTS, MAY BE USED. UPON FINAL INSPECTION, CERTIFICATION PER 2009 MUEC 4013 TO BE PORVIDED AS OUTLINED.

田 HIGHCREST (GHTON, MI RESIDI 252 BRI WM $\overline{0}$

B

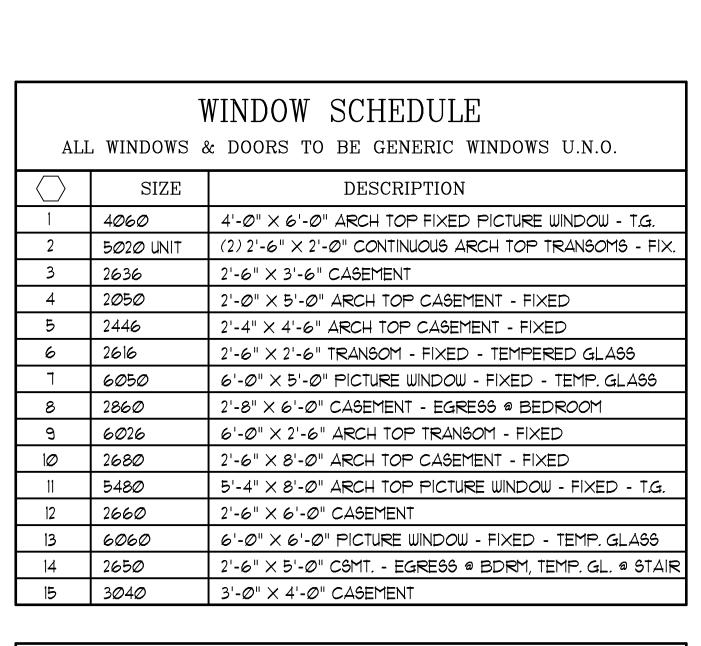
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SHEET # OF 22 SHEETS





ALL V	EXTERIOR DOOR SCHEDULE ALL WINDOWS & DOORS TO BE GENERIC WINDOWS U.N.O.						
	SIZE	DESCRIPTION					
A	5080 UNIT	(2) 2'-6" X 8'-0" SOLID CORE CONTINUOUS ARCH TOP FRENCH DOORS W/ FULL LITE GLASS TEMPERED GLASS					
В	5070 UNIT	(2) 2'-6" X 7'-0" SOLID CORE FRENCH DOORS W/ FULL LITE GLASS - TEMP. GLASS					
С	548Ø UNIT	(2) 2'-8" × 8'-0" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS					
D	548Ø UNIT	(2) 2'-8" × 8'-0" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS (FIXED)					
E	6080	6'-0" X 8'-0" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS					
F	268Ø	2'-6" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS - FIXED					
G	3080	3'-0" × 8'-0" SOLID CORE SERVICE DOOR					
Н	3080	3'-0" × 8'-0" S.C. ARCH TOP SERVICE DOOR					
J	6068	6'-0" X 6'-8" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS					
K	3080	3'-0" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS					
L	3070	3'-0" × 1'-0" S.C. ARCH TOP SERVICE DOOR					
M	6070	(4)2'-@" X T'-@" SOLID CORE WOOD LOUVERED BI-FOLD DOORS					

FIRST FLOOR FRAMING NOTES:

- ALL FIRST FLOOR FRAMING TO BE

117/8" P.R.I. 40 @ 16" O.C. U.N.O. (VERIFY SERIES

W/ FLOOR JOIST MANUFACTURER)

- INSTALL A MINIMUM OF (2) STUDS UNDER

ALL LOAD BEARING HEADERS U.N.O.

- INSTALL EXTRA JOIST UNDER ALL PARALLEL

PARTITION WALLS OVER 5'-0" IN LENGTH

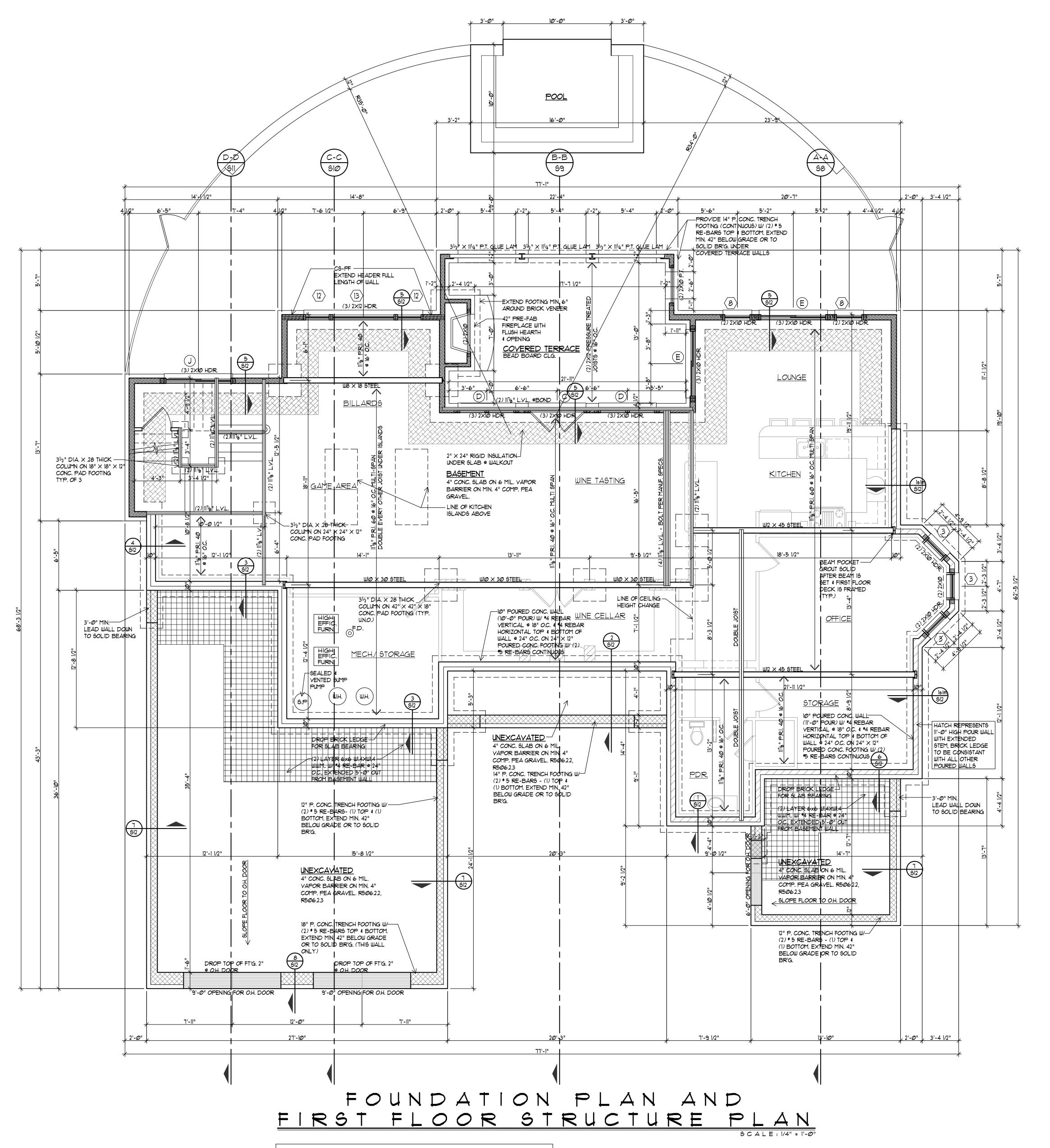
- ALL POINT LOADS FROM THE IST

FLOOR MUST BE TRANSFERRED DOWN

THROUGH TO THE FOUNDATION

WITH EQUAL NUMBER OF SOLID SQUASH

BLOCK MATERIALS



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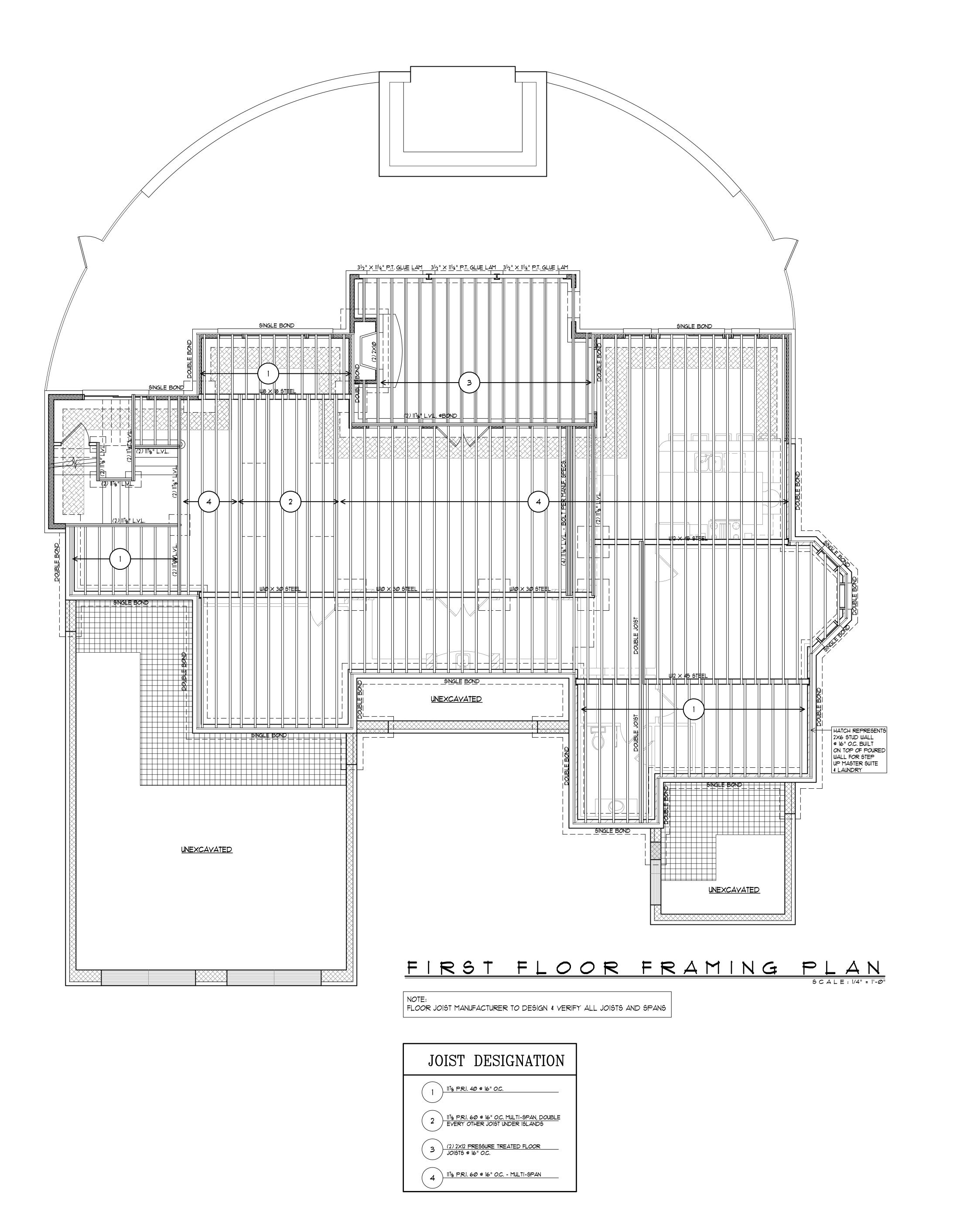
OF 22 SHEETS

RESIDENCE

BOWMAN

4252 HIGHCREST BRIGHTON, MI

NOTE:
| FLOOR JOIST MANUFACTURER TO DESIGN & VERIFY ALL JOISTS AND SPANS |



BOWMAN RESIDENCE 4252 HIGHCREST BRIGHTON, MI

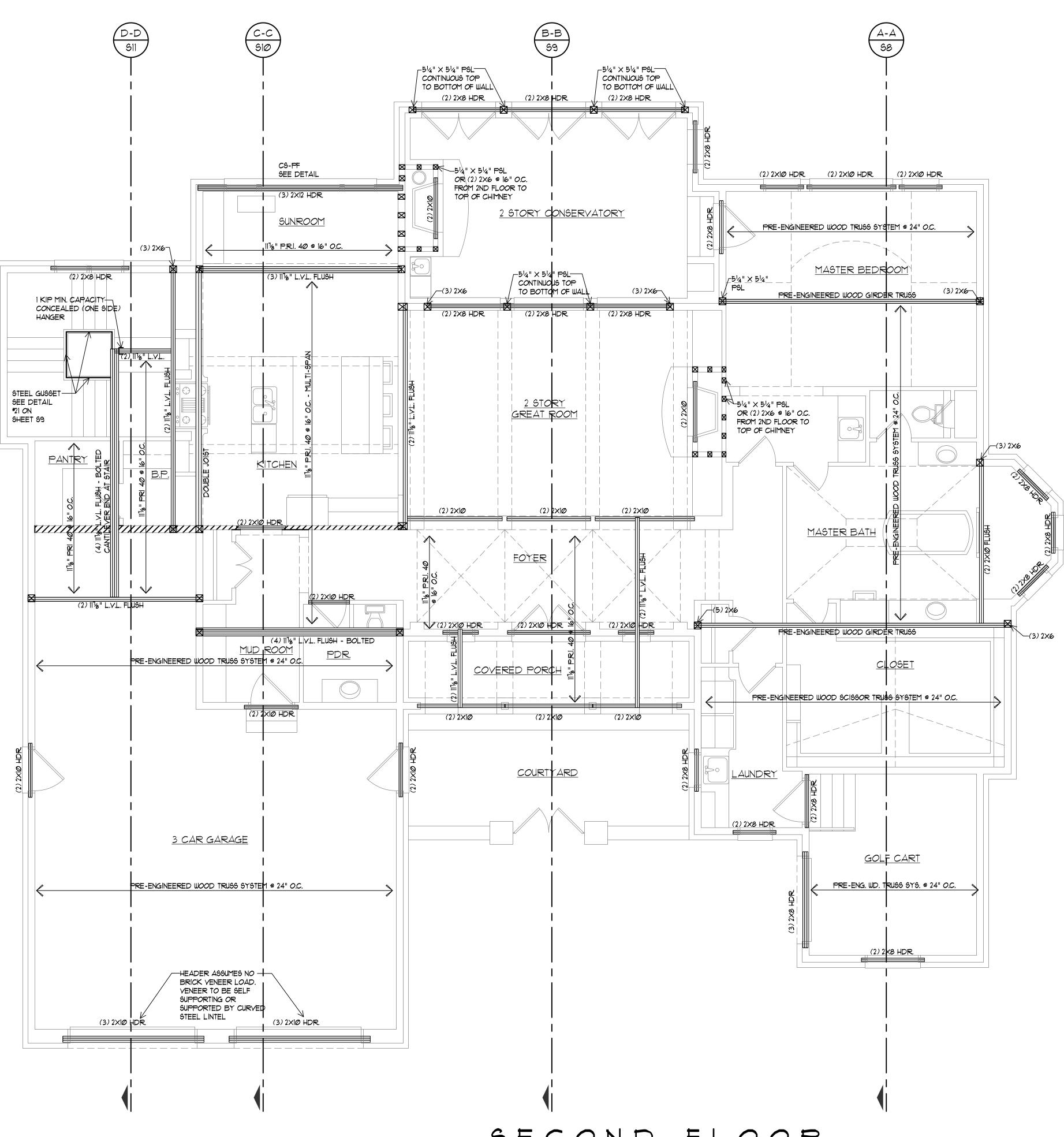
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SHEET #







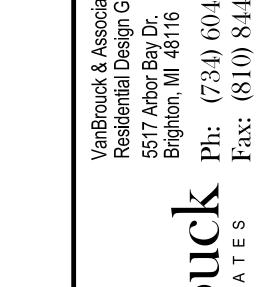
SECOND FLOOR STRUCTURE PLAN 6 C A L E : 1/4" = 1'-0"

- SECOND FLOOR FRAMING NOTES:

 ALL 1ST FLOOR LOAD BEARING HEADERS

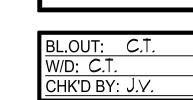
 TO BE (2) 2X10'S U.N.O.
- INSTALL A MINIMUM OF (2) STUDS UNDER
- ALL LOAD BEARING HEADERS UN.O. - ALL 1ST FLOOR INTERIOR WALLS TO BE
- 2×4 @ 16" O.C. U.N.O. - ALL 1ST FLOOR EXTERIOR WALLS TO BE
- 2×6 @ 16" O.C. U.N.O. - INSTALL EXTRA JOIST UNDER ALL PARALLEL PARTITION WALLS OVER 5'-0" IN LENGTH

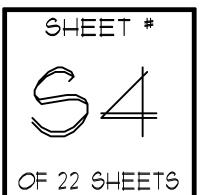
= BEARING WALL



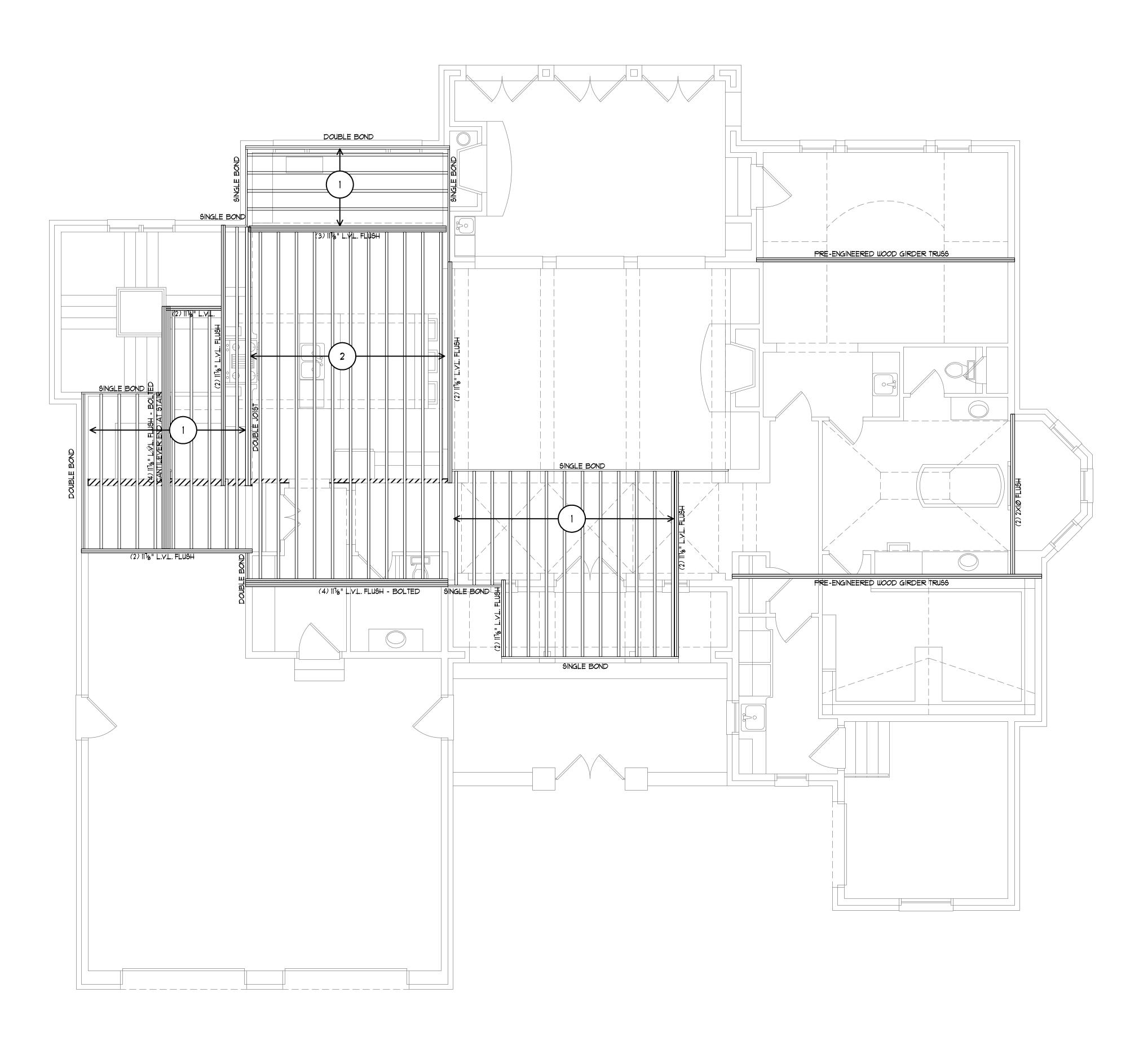


RESIDENCE 4252 HIGHCREST BRIGHTON, MI BOWMAN

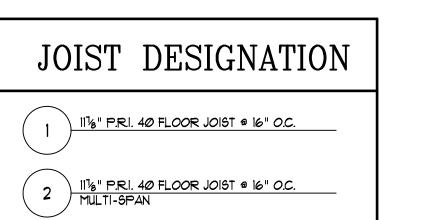








SECOND FLOOR FRAMING PLAN SCALE: 1/4" = 1'-0"

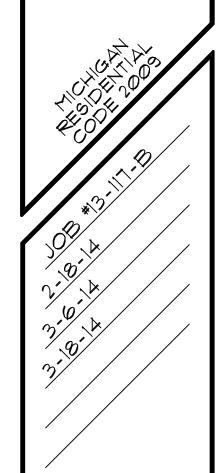


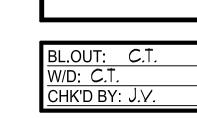


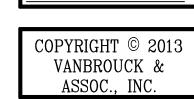


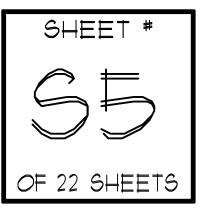
NCL MAVERICK CONSULTING ENGINE ENGINE

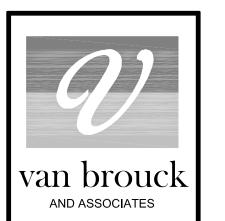
BOWMAN RESIDENCE 4252 HIGHCREST BRIGHTON, MI

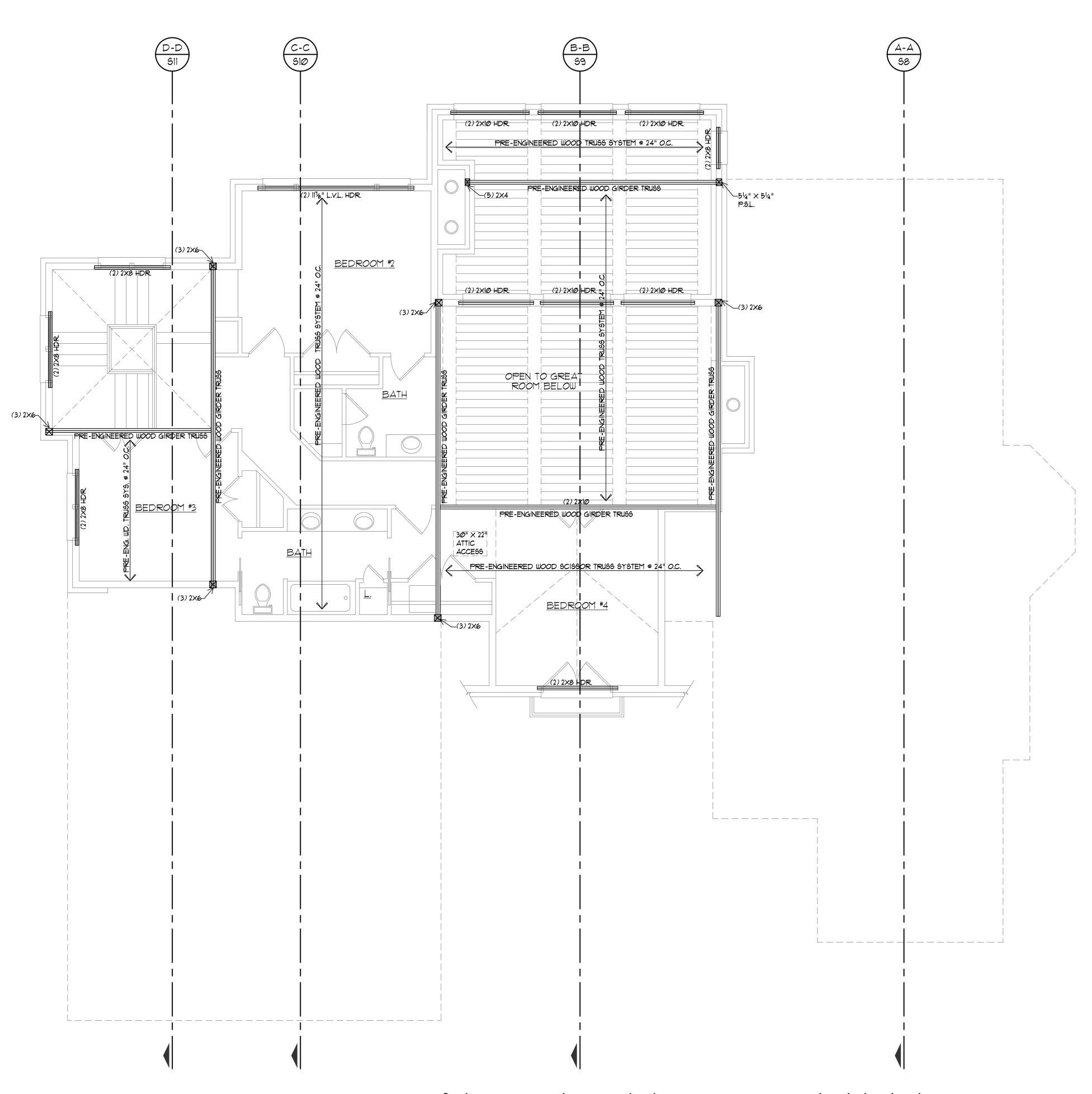












SECOND FLOOR CEILING STRUCTURE PLAN

SECOND FLOOR CEILING FRAMING NOTES:

- ALL 2ND FLOOR LOAD BEARING HEADERS

TO BE (2) 2×10^{1} 5 U.N.O. - INSTALL A MINIMUM OF (2) STUDS UNDER

ALL LOAD BEARING HEADERS UN.O.

- ALL 2ND FLOOR INTERIOR WALLS TO BE 2X4 @ 16" O.C. U.N.O.

- ALL 2ND FLOOR EXTERIOR WALLS TO BE 2×6 @ 16" O.C. U.N.O.

7 Arbor Bay Dr. 7 Arbor Bay Dr. 9hton, MI 48116 734) 604-2409 x: (810) 844-0699

Tan brouch

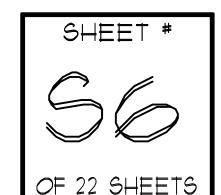
TING ENGINEERS, INC.

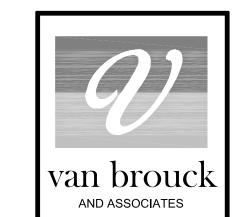
1AVERICK CONSULTING ENGINEE PH. 517-669-9642 :AX: 517-668-0027

BOWMAN RESIDENCE 4252 HIGHCREST BRIGHTON. MI

BL.OUT: C.T.
W/D: C.T.
CHK'D BY: J.V.

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- 2×12 RAFTERS #2 S.P.F.@ 16" O.C. U.N.O.

- ALL VALLEYS TO BE 14" L.V.L. U.N.O.

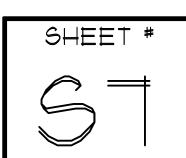
- ALL HIPS AND RIDGES TO BE 14" L.Y.L. U.N.O.

- INSTALL A MINIMUM OF (2)STUDS UNDER ALL ROOF BRACING THAT BEAR ON WALLS UN.O.

RESIDENCE 4252 HIGHCREST BRIGHTON, MI BOWMAN

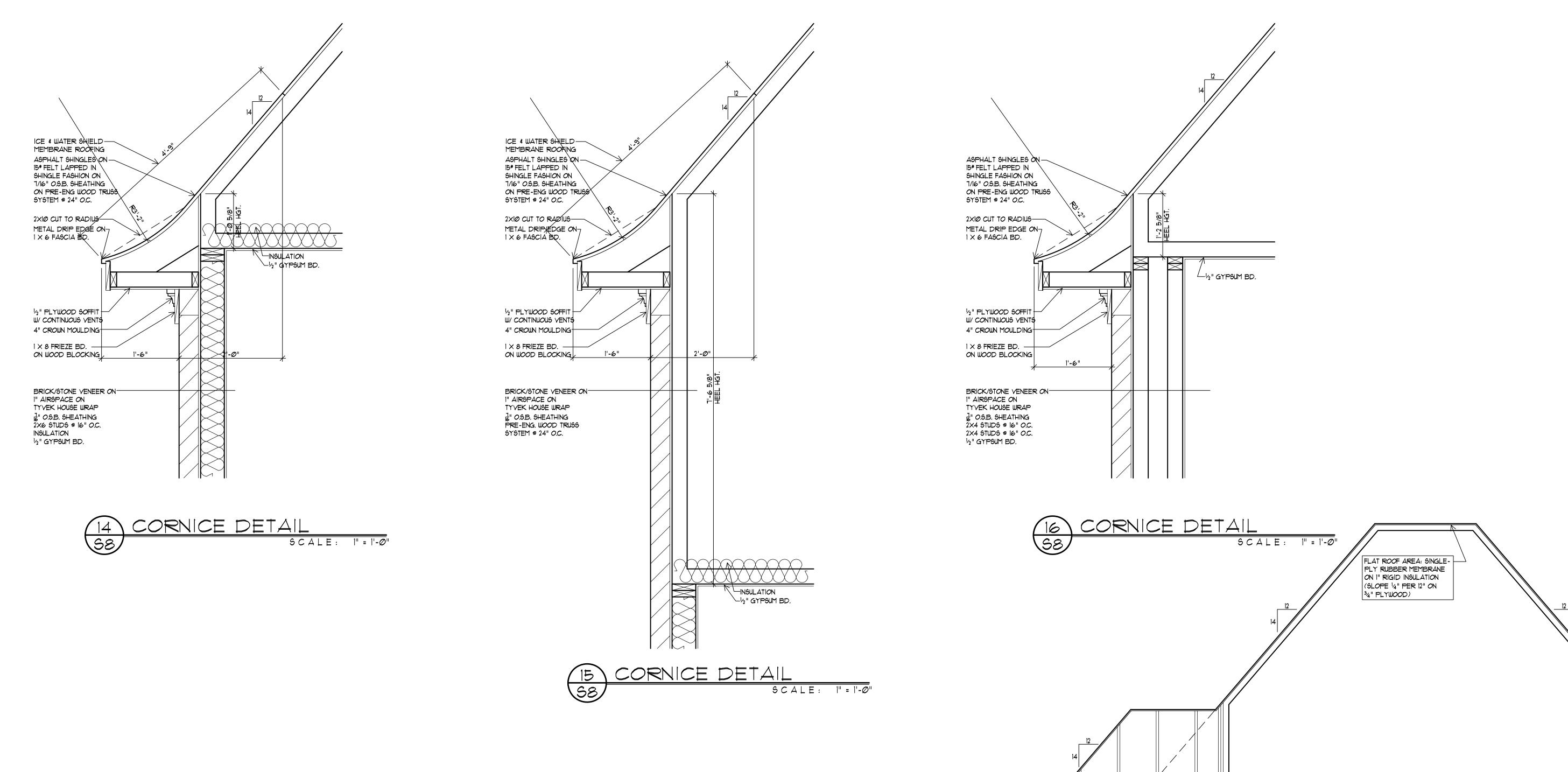
BL.OUT: C.T.
W/D: C.T.
CHK'D BY: J.V.

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van brouck AND ASSOCIATES



NOTE: TRUSS MANUFACTURER TO VERIFY ALL HEEL HEIGHTS

TRUSS NOTE:

PER SECTION R802.10.4 ALTERATIONS TO TRUSSES: ANY ALTERATIONS RESULTING IN THE ADDITION OF LOAD THAT EXCEEDS THE DESIGN LOAD FOR THE TRUSS SHALL NOT BE PERMITTED WITHOUT VERIFICATION THAT IS CAPABLE OF SUPPORTING

SUCH ADDITIONAL LOADING. TRUSS MANUFACTURER TO PROVIDE CALCULATIONS FOR ADDITIONAL TRUSS LOAD.

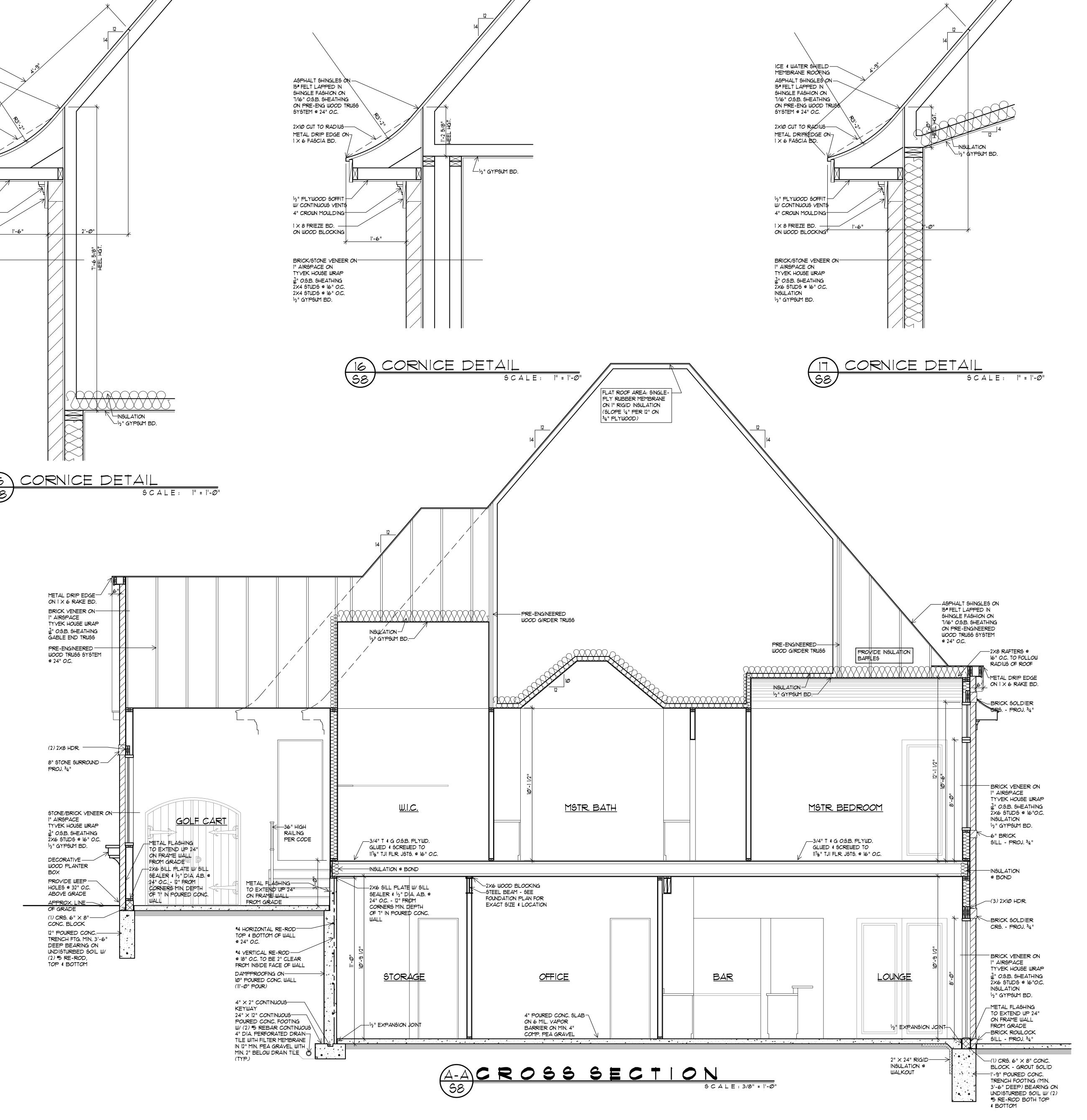
NOTE:

PROVIDE METAL FLASHING AS REQUIRED: AT BRICK LEDGE AREAS METAL FLASHING TO

EXTEND UP 24" ON FRAME WALL FROM GRADE

AT TRENCH FOOTING AREAS METAL FLASHING TO EXTEND UP 24" ON FRAME WALL FROM GRADE

AT ALL PORCH AREAS CONNECTING TO HOUSE



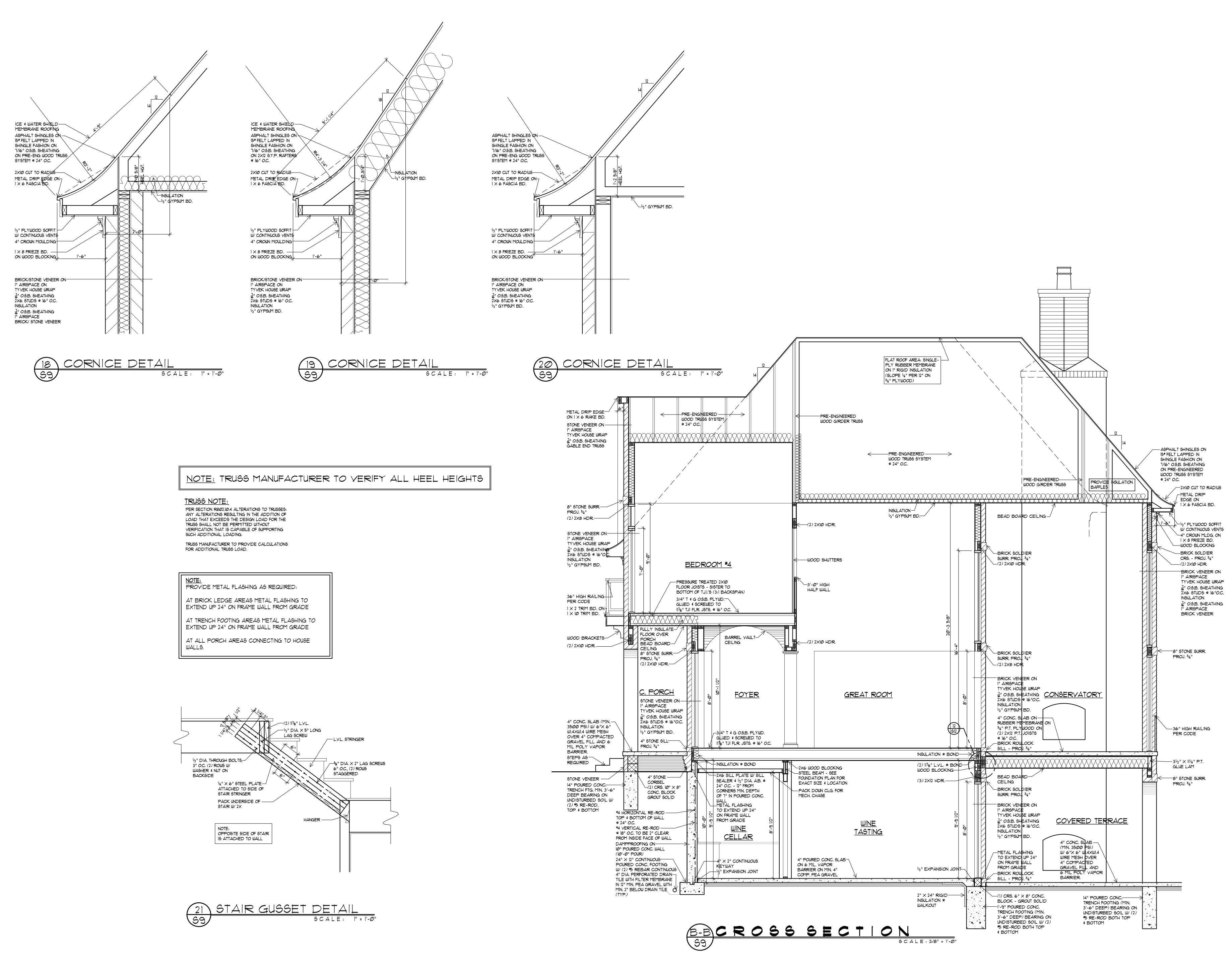
WMAN RESIDENC 4252 HIGHCREST BRIGHTON, MI BOWMAN

CHK'D BY: J.V.

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SHEET # OF 22 SHEETS

van brouck AND ASSOCIATES

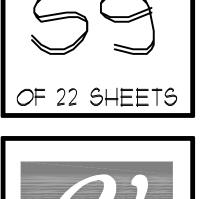


WMAN RESIDENC 4252 HIGHCREST BRIGHTON, MI B0

CHK'D BY: J.V.

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SHEET #





CHIMNEY TRUSS 5 FLASHING DETAIL SCALE: |" = 1'-0" NOTE: TRUSS MANUFACTURER TO VERIFY ALL HEEL HEIGHTS

TRUSS NOTE:

PER SECTION R802.10.4 ALTERATIONS TO TRUSSES: ANY ALTERATIONS RESULTING IN THE ADDITION OF LOAD THAT EXCEEDS THE DESIGN LOAD FOR THE TRUSS SHALL NOT BE PERMITTED WITHOUT VERIFICATION THAT IS CAPABLE OF SUPPORTING SUCH ADDITIONAL LOADING.

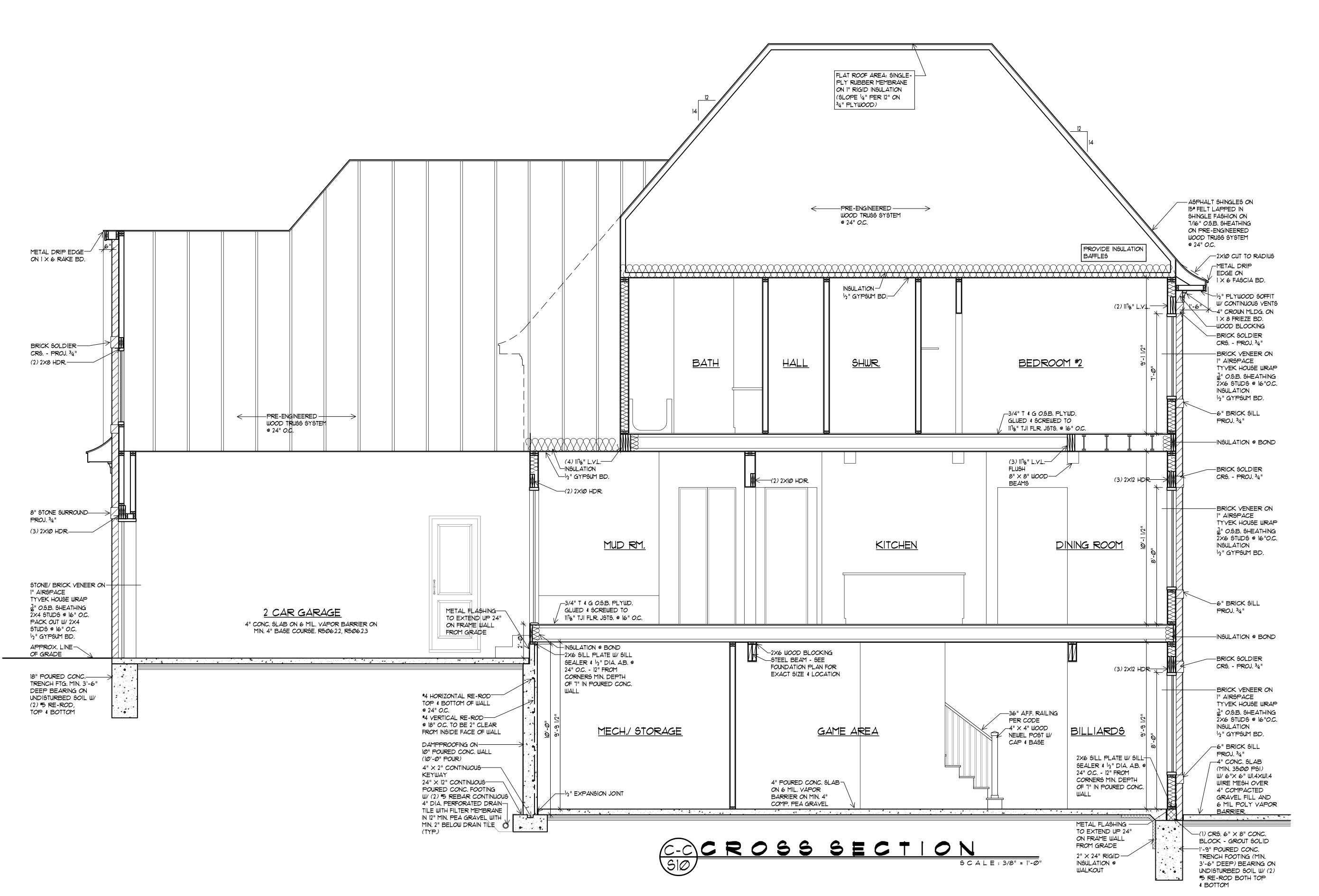
TRUSS MANUFACTURER TO PROVIDE CALCULATIONS FOR ADDITIONAL TRUSS LOAD.

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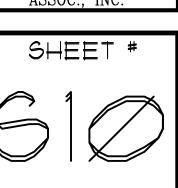
AT ALL PORCH AREAS CONNECTING TO HOUSE



WMAN RESIDENC 4252 HIGHCREST BRIGHTON, MI B0

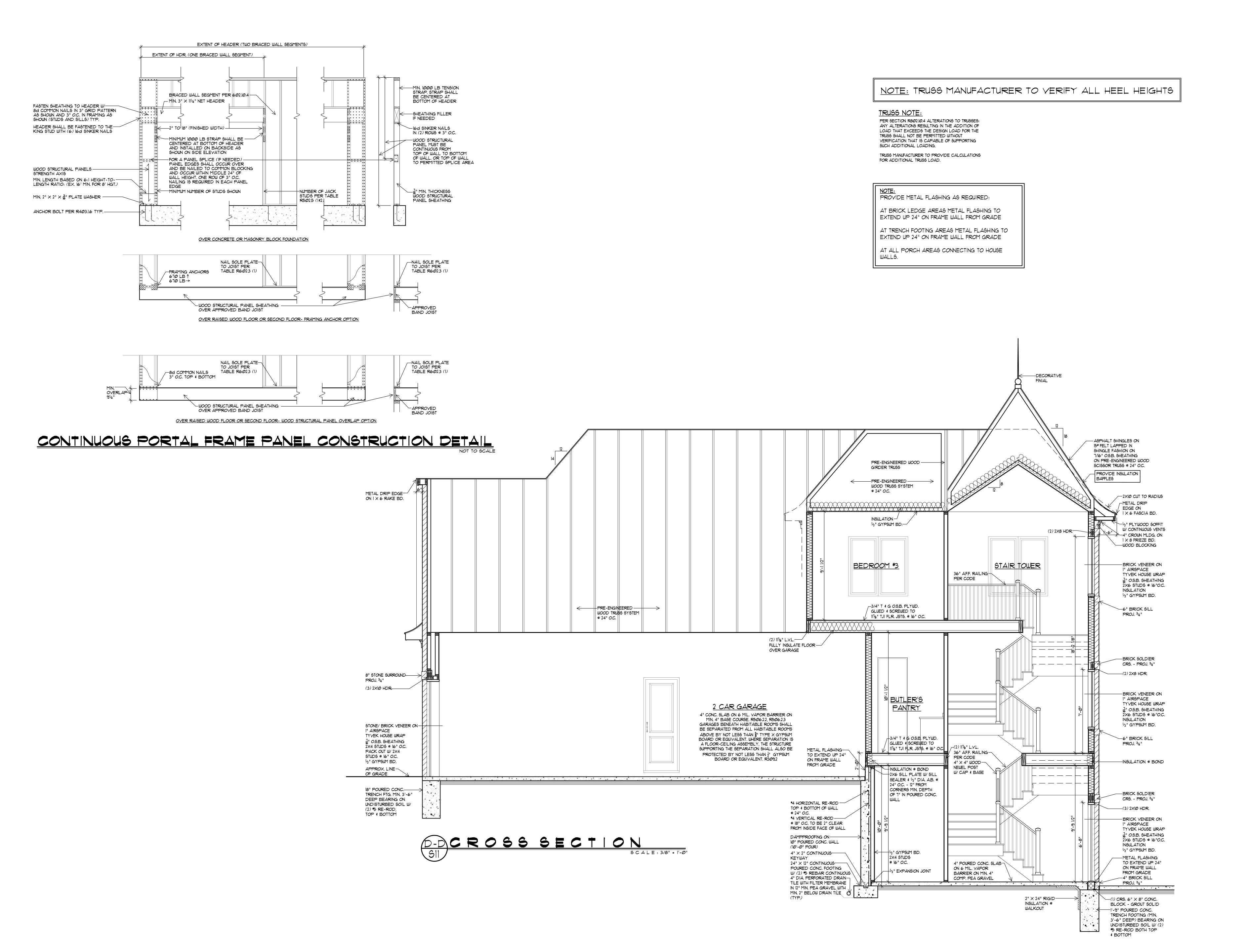
CHK'D BY: J.V.

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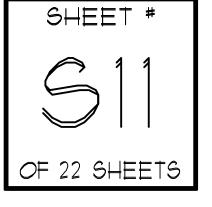


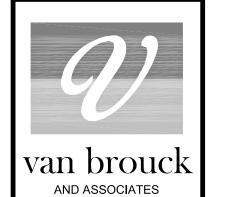
AND ASSOCIATES

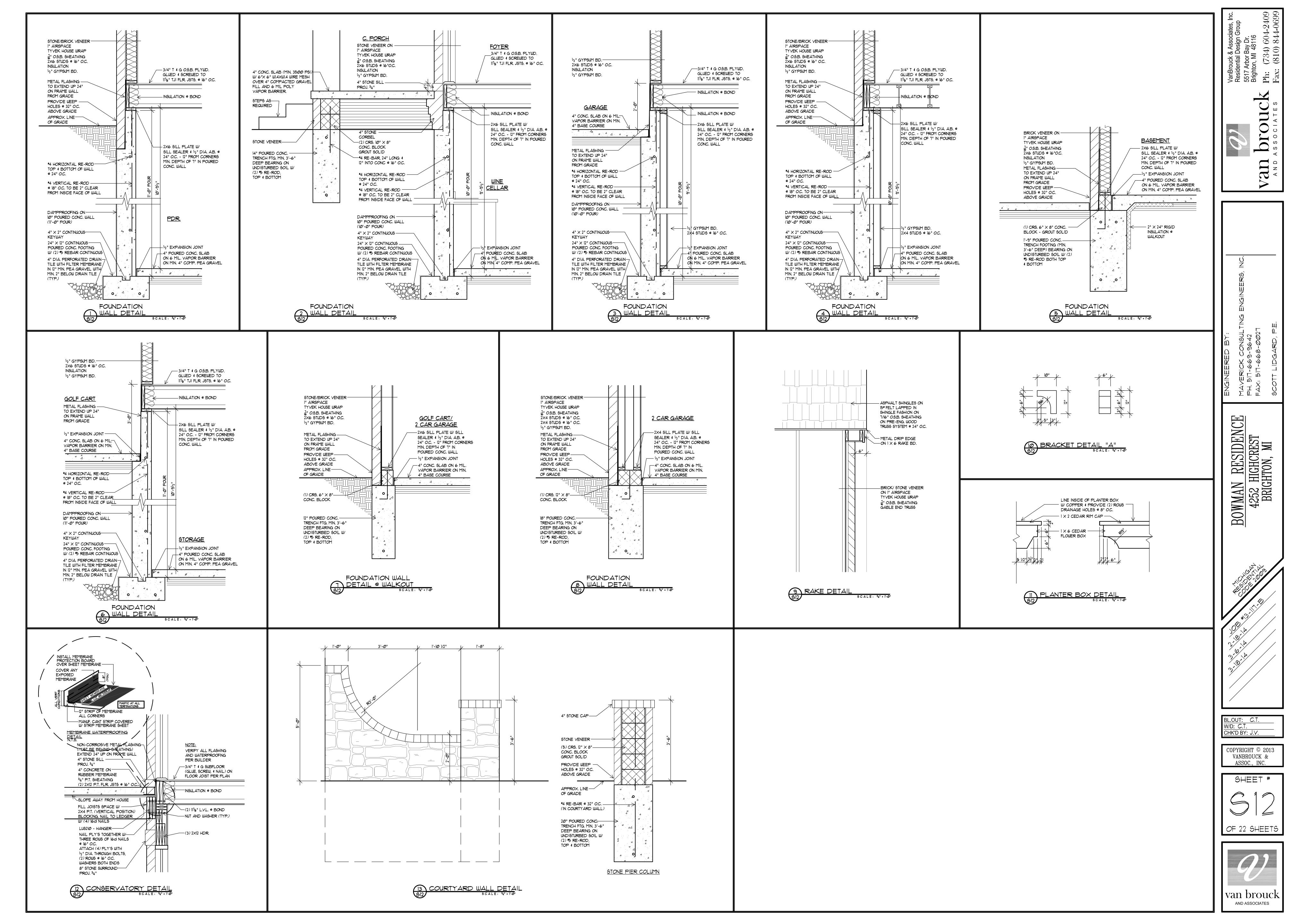


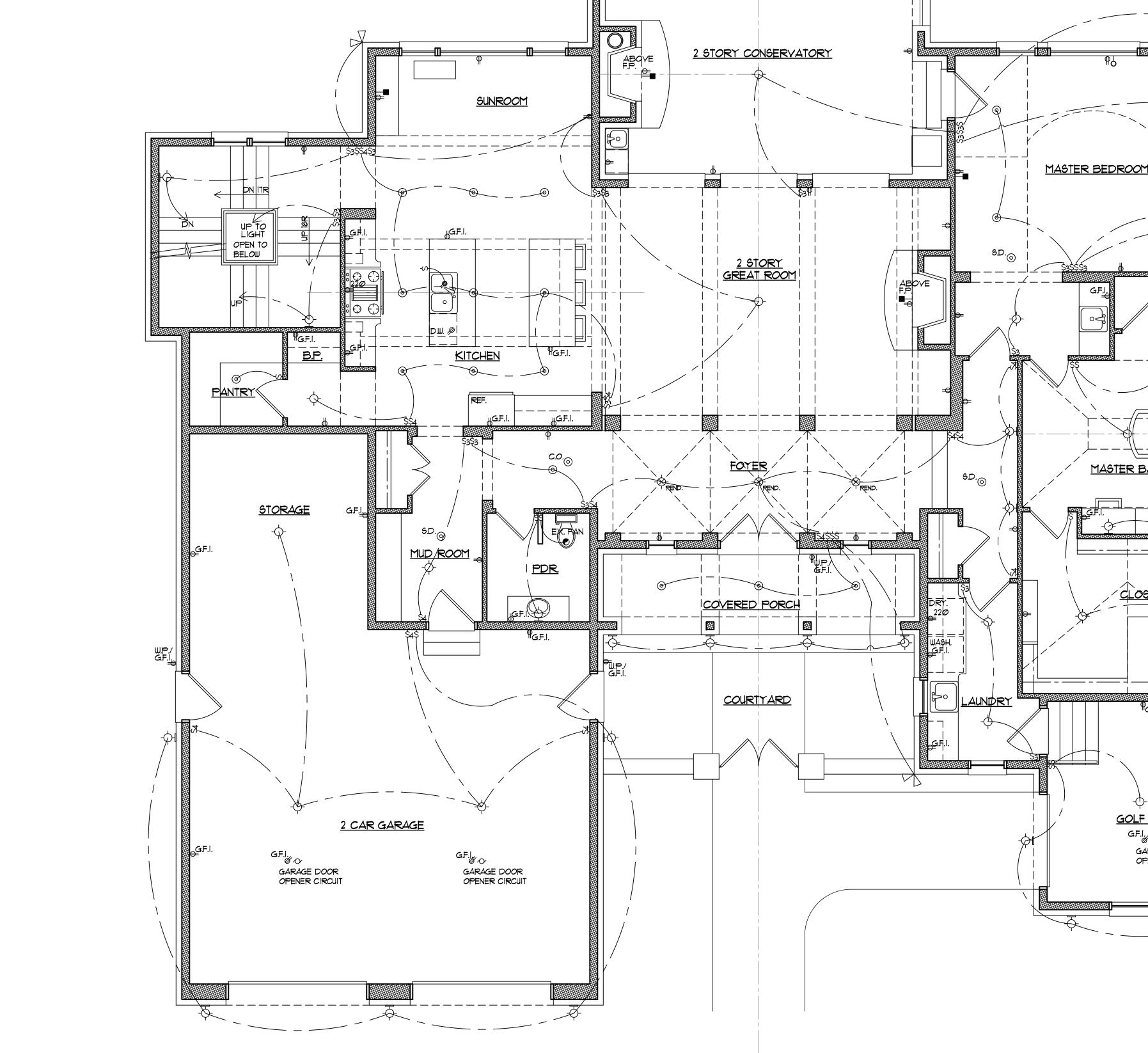
BOWMAN RESIDENCE 4252 HIGHCREST BRIGHTON, MI

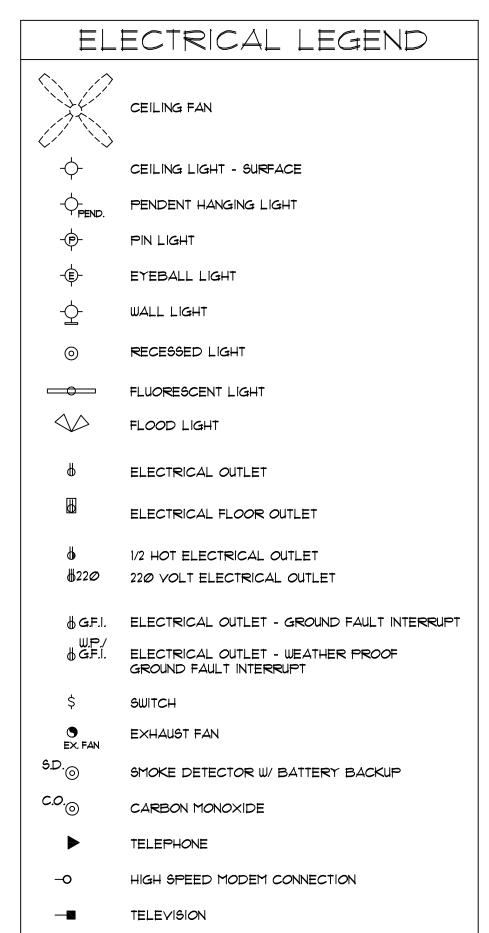
CHK'D BY: J.V.











NOTE: IN COMPLIANCE WITH R313: A SMOKE DETECTOR IS REQUIRED IN IMMEDIATE VICINITY OF BEDROOMS, IN ALL BEDROOMS AND ON EVERY STORY INCLUDING BASEMENTS. WHERE MORE THAN ONE DETECTOR IS REQUIRED, THEY SHOULD BE WIRED IN A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS. IN ADDITION TO PRIMARY POWER SOURCE SMOKE DETECTORS SHALL RECEIVE BACK-UP POWER FROM A BATTERY.

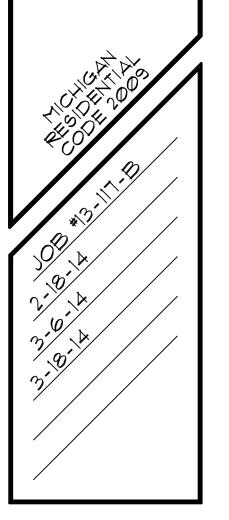
> FIRST FLOOR ELECTRICAL PLAN SCALE:1/4" = 1'-0"

MASTER BATH

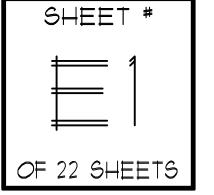
GOLF CART

GARAGE DOOR OPENER CIRCUIT

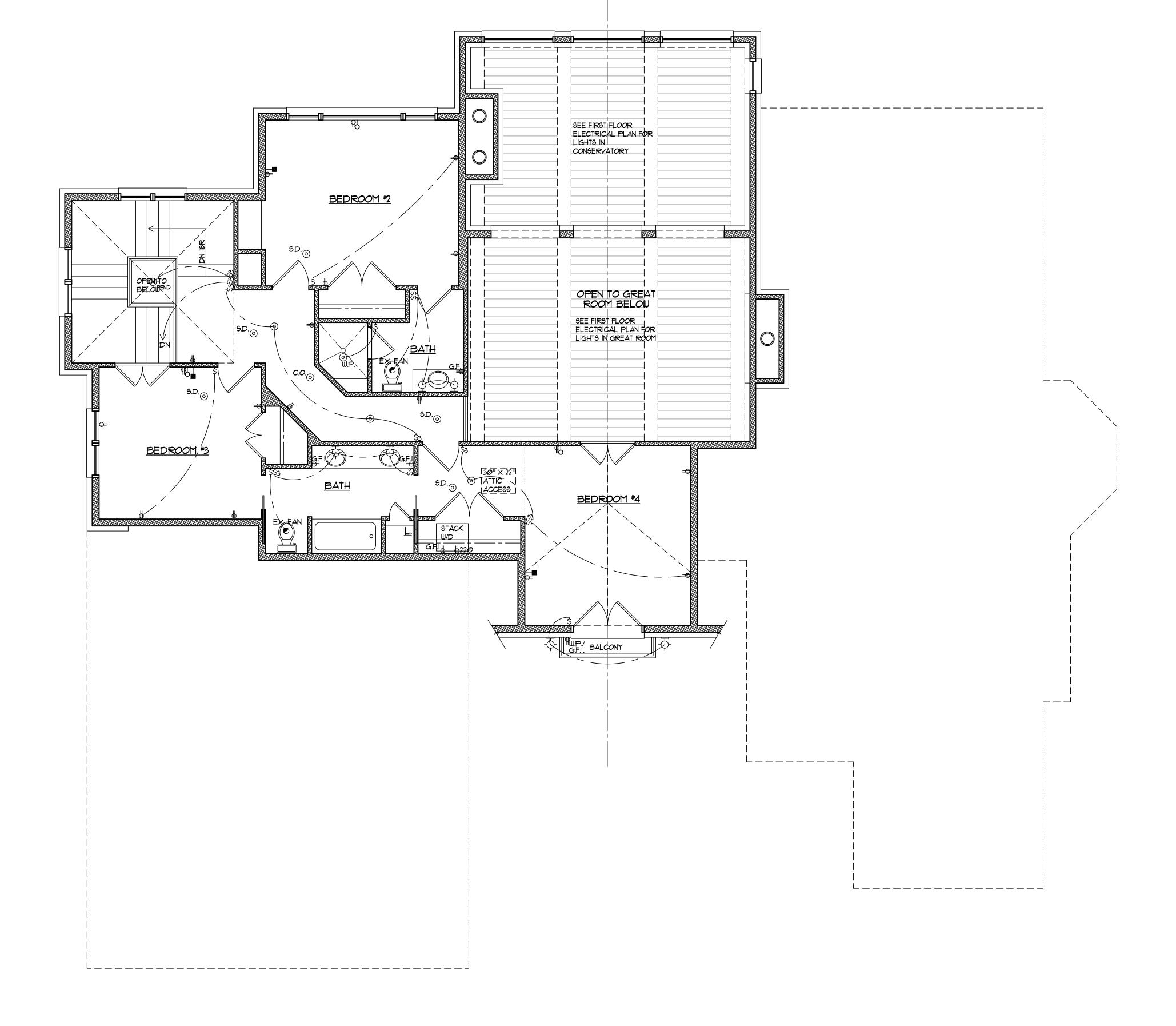
RESIDENCE 4252 HIGHCREST BRIGHTON, MI BOWMAN



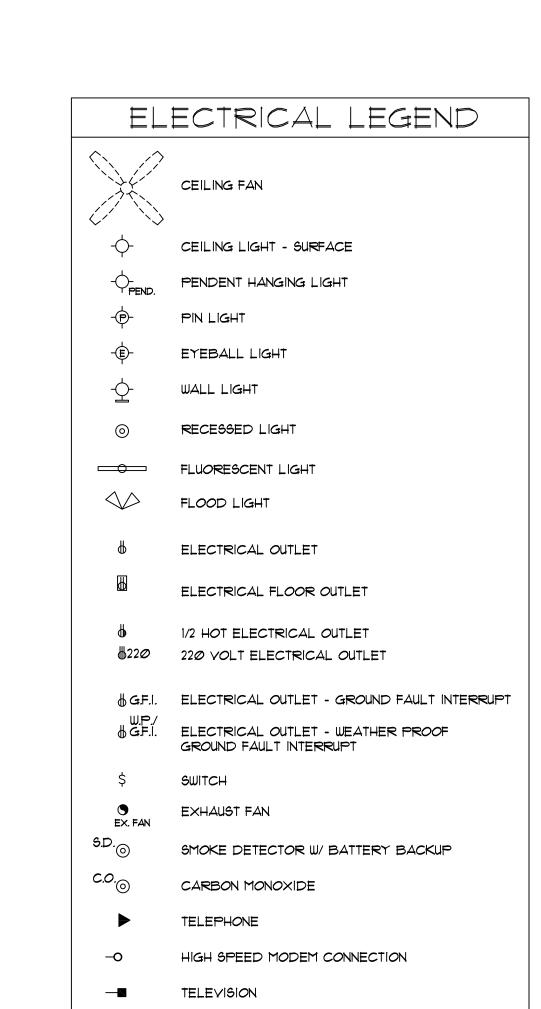
CHK'D BY: J.V.











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sidential Design Group 317 Arbor Bay Dr. ighton, MI 48116 h: (734) 604-2409 ax: (810) 844-0699

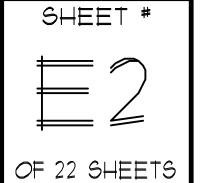
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MAVERICK CONSULTING ENGINE PH. 517-669-9642 FAX: 517-668-0027 SCOTT LIDGARD, P.E.

BOWMAN RESIDENCE 4252 HIGHCREST BRIGHTON. MI

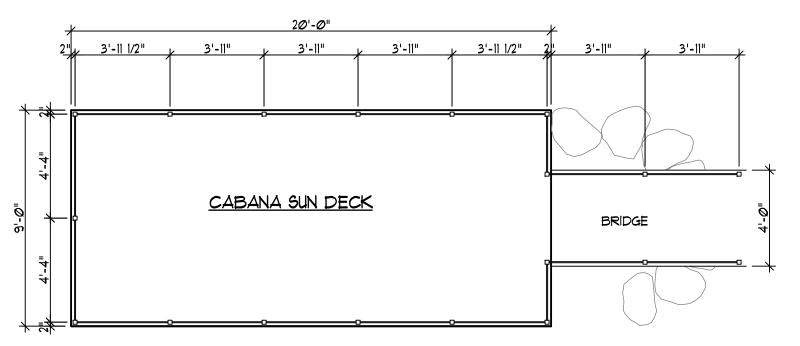
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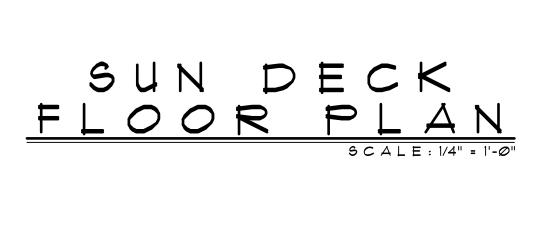




WINDOW SCHEDULE ALL WINDOWS & DOORS TO BE GENERIC WINDOWS U.N.O.							
ALL	WINDOWS C	E DOORD TO DE GENERICE WINDOWS C.IV.C.					
	SIZE	DESCRIPTION					
1	4060	4'-0" × 6'-0" ARCH TOP FIXED PICTURE WINDOW - T.G.					
2	5020 UNIT	(2) $2'-6" \times 2'-0"$ CONTINUOUS ARCH TOP TRANSOMS - FIX.					
3	2636	2'-6" × 3'-6" CASEMENT					
4	2 <i>0</i> 5 <i>0</i>	2'-0" × 5'-0" ARCH TOP CASEMENT - FIXED					
5	2446	2'-4" X 4'-6" ARCH TOP CASEMENT - FIXED					
0	2616	2'-6" × 2'-6" TRANSOM - FIXED - TEMPERED GLASS					
_	6050	6'-0" X 5'-0" PICTURE WINDOW - FIXED - TEMP. GLASS					
8	2860	2'-8" × 6'-0" CASEMENT - EGRESS @ BEDROOM					
ത	6026	6'-0" × 2'-6" ARCH TOP TRANSOM - FIXED					
10	2680	2'-6" × 8'-0" ARCH TOP CASEMENT - FIXED					
11	5480	$5'-4" \times 8'-0"$ ARCH TOP PICTURE WINDOW - FIXED - T.G.					
12	2660	2'-6" × 6'-0" CASEMENT					
13	6060	6'-0" X 6'-0" PICTURE WINDOW - FIXED - TEMP. GLASS					
14	2650	2'-6" × 5'-0" CSMT EGRESS @ BDRM, TEMP. GL. @ STAIR					
15	3040	3'-0" × 4'-0" CASEMENT					

	EXTERIOR DOOR SCHEDULE							
ALL V	ALL WINDOWS & DOORS TO BE GENERIC WINDOWS U.N.O.							
	SIZE	DESCRIPTION						
Д	5080 UNIT	(2) 2'-6" X 8'-0" SOLID CORE CONTINUOUS ARCH TOP FRENCH DOORS W/ FULL LITE GLASS TEMPERED GLASS						
В	5070 UNIT	(2) 2'-6" X 7'-0" SOLID CORE FRENCH DOORS W/ FULL LITE GLASS - TEMP. GLASS						
С	548Ø UNIT	(2) 2'-8" X 8'-Ø" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS						
D	5480 UNIT	(2) 2'-8" X 8'-0" SOLID CORE FRENCH DOORS WITH FULL LITE GLASS - TEMP. GLASS (FIXED)						
E	6080	6'-0" X 8'-0" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS						
F	268Ø	2'-6" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS - FIXED						
G	3080	3'-0" X 8'-0" SOLID CORE SERVICE DOOR						
H	3080	3'-0" X 8'-0" S.C. ARCH TOP SERVICE DOOR						
J	6068	6'-0" × 6'-8" SLIDING GLASS DOOR W/ FULL LITE WINDOW - TEMP. GLASS						
K	3080	3'-0" X 8'-0" S.C. FRENCH DOOR W/ FULL LITE WINDOW - TEMP. GLASS						
L	3070	3'-0" × 7'-0" S.C. ARCH TOP SERVICE DOOR						
M	6070	(4)2'-0" X 7'-0" SOLID CORE WOOD LOUVERED BI-FOLD DOORS						





NOTE:
GUTTERS & DOWN SPOUTS TO BE INSTALLED AS

CONTINUOUS RIDGE VENTS TO BE USED. PROVIDE

ALL WINDOWS IN WHICH THE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR SHALL BE TEMPERED

(WINDOW COMPANY / MANUFACTURER TO VERIFY

PROVIDE METAL FLASHING AS REQUIRED:

AT BRICK LEDGE AREAS METAL FLASHING TO

EXTEND UP 24" ON FRAME WALL FROM GRADE

AT TRENCH FOOTING AREAS METAL FLASHING TO EXTEND UP 24" ON FRAME WALL FROM GRADE

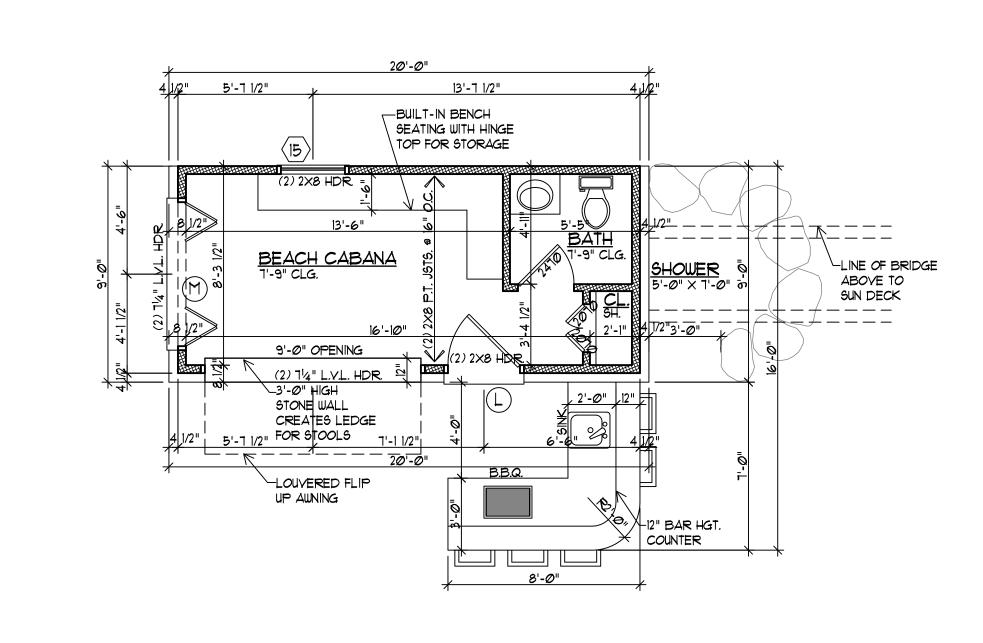
AT ALL PORCH AREAS CONNECTING TO HOUSE

ADDITIONAL YENTING AS NEEDED.

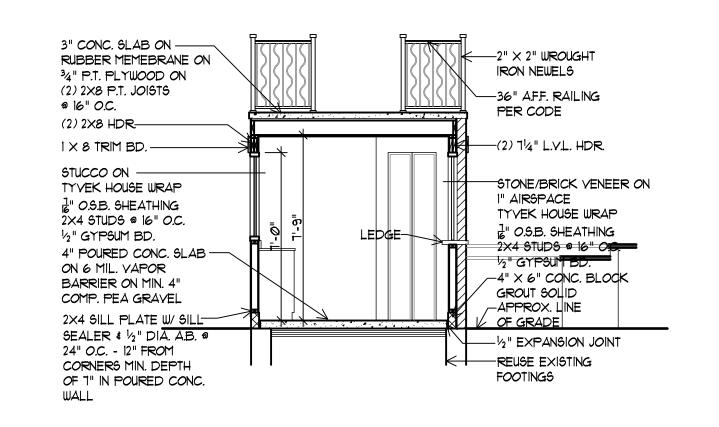
SAFETY GLASS. R308.4

ALL TEMPERED LOCATIONS)

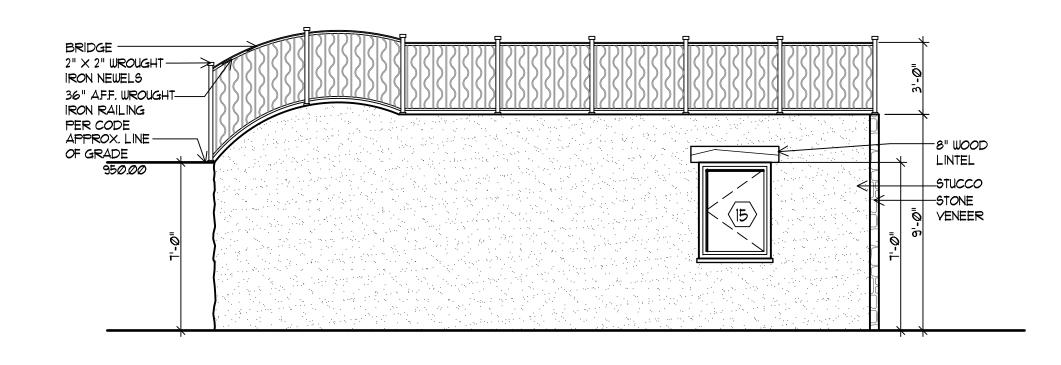
REQUIRED.



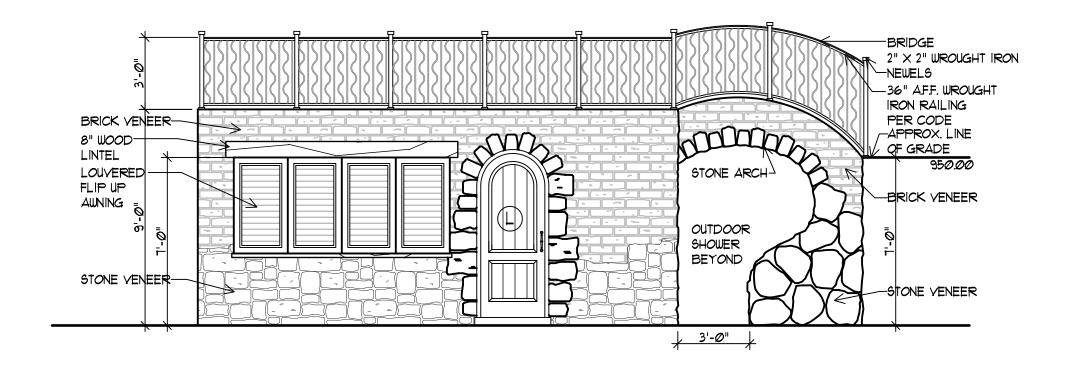
CABANA FLOOR PLAN



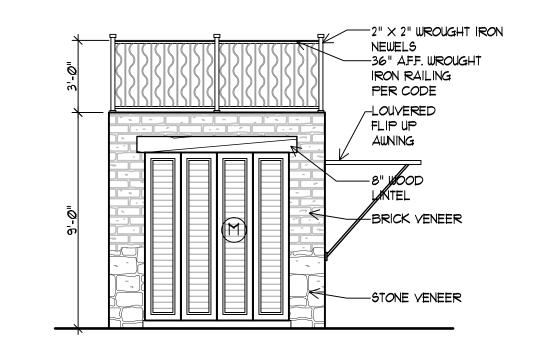
CABANA SECTION SCALE: 1/4" = 1'-0"





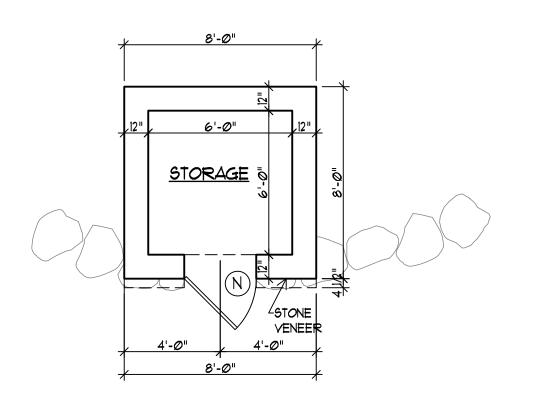


CABANA RIGHT ELEVATION
SCALE: 1/4" = 1'-0"

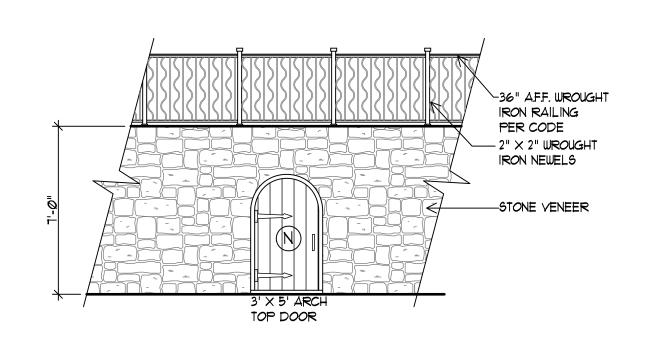


CABANA
FRONT ELEVATION

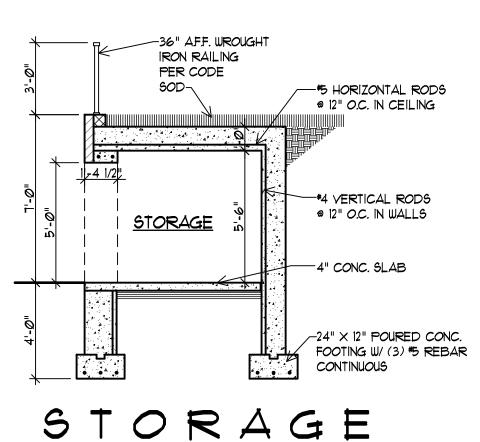
SCALE: 1/4" = 1'-0"



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



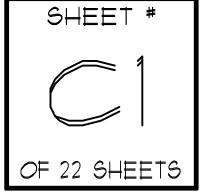
FRONT ELEVATION



STORAGE SECTION SCALE: 1/4" = 1'-0" BL.OUT: C.T.
W/D: C.T.
CHK'D BY: J.V.

BOWMAN RESIDENCE

4252 HIGHCREST BRIGHTON, MI







GENOA CHARTER TOWNSHIP ZONING BOARD OF APPEALS JANUARY 15, 2013 6:30 p.m.

MINUTES

Chairman Dhaenens called the regular meeting of the Zoning Board of Appeals to order at 6:30pm at the Genoa Charter Township Hall. The Pledge of Allegiance was then said. The members and staff of the Zoning Board of Appeals were then introduced. The board members in attendance were as follows: Chris Grajek, Marianne McCreary, Barbara Figurski, Jean Ledford and Jeff Dhaenens. Also present was Township staff member Adam VanTassell and 8 persons in the audience.

Moved by Ledford, supported by Grajek, to approve the agenda with the moving of Item #1 to Item #5. **Motion carried unanimously.**

13-01...A request by Christian and Damian Karch, 5400 Brady Road, Sec. 31, for a variance to construct a detached accessory structure in the front yard.

Christian and Damian Karch were present for the petitioner.

A call to the public was made with the following response: Ryan Dechnowicz, 5512 Brady Road, stated that he finds it completely unacceptable and he is not in favor of the variance. Mr. Dechnowicz supplied pictures to the Board.

Moved by Grajek, supported by McCreary, to deny case #13-01, 5400 Brady Road, for variance to construct a detached accessory structure in the front yard due to there being ample room on the lot. There is no practical difficulty. **Motion carried unanimously.**

13-02...A request by Champion Buick GMC, 7885 W. Grand River, Sec. 13, for a front yard variance to construct an addition to an existing non-conforming building.

Stan Shafer, Shafer Construction, was present for the petitioner.

A call to the public was made with no response.

Moved by Figurski, supported by Ledford, to approve case# 13-02, 7885 W. Grand River, for a front yard variance of 13.7 feet with a Grand River side setback of 56.3 feet. The Finding of fact is the building was non-conforming after the Zoning Ordinance changed.

13-03...A request by Genoa Charter Township, 2911 Dorr Road, Sec. 14, for a sign variance.

Adam Van Tassell, Genoa Township Ordinance Officer, was present for the petitioner.

A call to the public was made with following response: Todd Smith (Township Trustee) 1132 Chemung Drive, stated that part of the branding process was with the Latson Interchange. The Township wants to retain businesses and improve home values. MDOT will not let the Township put their name on exit ramp sign. Only if you are a City can you identify yourself on a sign. In order to identify City can be put on the sign. Joe Agius, 5228 Washakie Trail, stated that he has a variance for a sign at this meeting also and wanted to make sure the he is on the same playing field as this sign variance.

Moved by Grajek, supported by Figurski to approve case# 13-03, 2911 Dorr Road for an 8 foot variance with a 14 foot height and a 257 foot area variance amount for a sign area of 329 feet. The finding of fact is the configuration of the property and the ability to not be able to place a sign on the exit ramp. Motion carried unanimously.

13-04...A request by Blair Bowman, 4252 Highcrest, Sec. 22, for a front yard and waterfront variance to construct a new home.

Blair Bowman was present for the petitioner.

A call to the public was made with the following response: John Booker- 4268 Highcrest, stated that there is an overflow to the lake. The Road Commission placed broken concrete in the sink hole that Ms. McCreary brought to the petitioners attention. He does not have any objections to the variance. Mike Jane-4276 Highcrest, welcomed Mr. Blaire to the community and that the property has been a blight and this will be a great addition to the neighborhood.

Moved by McCreary, supported by Figurski, to approve case# 13-04, 4252 Highcrest, for a front yard variance of 15 feet with a setback of 20 feet and a waterfront variance of 2 feet with a setback of 73 feet. The finding of fact is the typography and conditions of the lot. The motion carried as follows: Ayes- Ledford, Dhaenens, McCreary and Figurski. Nays- Grajek.

12-27...A request by Joe Aguis, Section 27, 5311 Brighton Road, for a sign variance.

Joe Agius was present for the petitioner.

A call to the public was made with no response.

Moved by McCreary, supported by Ledford, to approve case#12-27, 5311 Brighton Road, for a 1 foot variance for a 7 foot tall sign. The finding of fact of the sight distance and visibility from the road. Motion carried unanimously.

Moved by Grajek, Supported by Ledford, to approve the December 12, 2012 Zoning Board of Appeals minutes with corrections. **Motion carried unanimously.**

Moved by Figurski, Supported by Grajek, to adjourn the Zoning Board of Appeals meeting at 7:35 p.m. **Motion carried unanimously.**

Information herein deemed reliable but not guaranteed

Parcel: 4711-22-302-209 **Owner's Name:** PB DEVELOPMENT LLC

Property Address: HIGHCREST

BRIGHTON, MI 48116

2012R-010027 Liber/Page: **Created:** 12/28/2012 12/28/2012 Split: Active: Active

Public Impr.: None Topography: None

Mailing Address: PB DEVELOPMENT LLC BLAIR BOWMAN LIVING TRUST 46100 GRAND RIVER

402.402 RESIDENTIAL-VACANT 402.402 RESIDENTIAL-VACANT 4711 GENOA CHARTER TOWNSHIP **Current Class:** Previous Class: Gov. Unit: MAP # 13FILES

School: 47010 BRIGHTON

Neighborhood: 4306 4306 TRI LAKES LAKE FRONT

Most Recent Sale Information

None Found

NOVI MI 48374

Most Recent Permit Information

Permit W12-076 on 05/22/2012 for \$0 category DEMO.

Physical Property Characteristics

2014 S.E.V.: 135,800 2014 Taxable: 125,374 **Lot Dimensions:**

2013 S.E.V.: 2013 Taxable: 123,400 123,400 Acreage: 0.48 Zoning: LRR **Land Value:** 271,541 Frontage: 102.0 PRE: 0.000 Land Impr. Value: 0 205.0 **Average Depth:**

Improvement Data

None

Grantor	Grantee			Sale Price	Sale Date	Inst. Type	-	Terms of Sale		Liber & Page		erified Y		Prcnt Trans
Property Address		Class: 402 RESIDENTIAL-VA		VA Zoning:	LRR B1	Building Permit(s)			Date Nu		umber S	Status		
HIGHCREST		Scho	School: BRIGHTON			DI	EMO			05/22/	2012 W12-	076	NO STAI	RТ
		P.R.	E. 0%											
Owner's Name/Addre	ss	MAP	#: 13FILES											
PB DEVELOPMENT LLC		_		Est TCV 2	71 541									
BLAIR BOWMAN LIVIN	G TRUST						m = +	es for Land Tab	1.00002 11	יות ד דתי	EC TARE ED	ONT		
46100 GRAND RIVER		1			Lanu v	alue Esti	LIIIa L			.KI LAN	ES LAKE FF	ONI		
NOVI MI 48374			ublic	_	Door ::		7		Factors *	. Dot-	0.7 d = D		7.7	alue
		Improvements			LAKE F			tage Depth From 2.00 205.00 1.0				son		a⊥ue ,541
Tax Description		Dirt Road Gravel Road						Feet, 0.48 Tot			l Est. Lar	d Value =		,541
SEC 22 T2N R5E CRO	OKED LAKE HIGHLANDS	1 1 -	Pavel Road											
SUB. LOT 102, EXC BEG SE COR, TH N 10 FT, TH WLY 72.5 FT TO A PT 8 FT N OF S LOT LINE, TH WLY 33.5 FT TO S LOT LINE, TH ELY TO POB. AND ALSO SEC 22 T2N R5E CROOKED LAKE HIGHLANDS SUB. LOT 103 & PT LOT 102 DESC AS: BEG SE COR LOT 102, TH N 10 FT, TH WLY 72.5 FT TO A PT 8 FT N OF S LOT LINE, TH WLY 33.5 FT TO S LOT LINE, TH ELY TO POB. SPLIT/COMBINED ON 12/28/2012 FROM 4711-22-302-183, 4711-22-302-182;			Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils. Topography of Site											
Comments/Influence		I.	evel											
<pre>Split/Comb. on 12/28/2012 completed 12/28/2012 Duffy COMBINATION ; Parent Parcel(s): 4711-22-302-183, 4711-22-302-182; Child Parcel(s): 4711-22-302-209;</pre>		L H L S W P W	colling Low High Landscaped Wamp Hooded Hood Jaterfront Ravine Hetland											
			lood Plain		Year	L	and	Building	Asse	ssed	Board	of Tribunal	./ I	axab
						Va	lue	Value	V	alue	Revi	ew Othe	r	Valı
		Who	When	What	2014	135,	800	0	135	,800			12	25,37
		-			2013	123,		0		3,400				23,40
The Equalizer. Co	pyright (c) 1999 - 2009.				2013	123,	0	0		0				
	hip of Genoa, County of													
irringatan Michig		1			2011		Λl	0	I	0		1		

2011

County: LIVINGSTON

Jurisdiction: GENOA CHARTER TOWNSHIP

04/11/2014

Printed on

Livingston, Michigan

Parcel Number: 4711-22-302-209

^{***} Information herein deemed reliable but not guaranteed***

GENOA CHARTER TOWNSHIP ZONING BOARD OF APPEALS FEBRUARY 18, 2014 6:30 P.M.

MINUTES

Cal	l to	Ord	er:
Cai	···	OIU	cı.

Pledge of Allegiance:

Introduction:

<u>Approval of Agenda:</u> Moved by Ledford, supported by Figurski to approve the agenda with the addition of an item added to member discussion regarding zoning within lakefront communities. **Motion passed.**

<u>Call to the Public:</u> (Please Note: The Board will not begin any new business after 10:00 p.m.)

14-02...A request by Larry and Christa White, Section 28, 4489 Oak Pointe Drive, for a variance from the maximum allowable building height to construct a new single family residence.

Mr. Dennis Disner, Arcadia Design and Mr. Larry White were present for the petitioner.

Mr. Disner stated that the house is lesser in height and in overall mass than the current home. The owners are trying to be sensitive to not over power the sight of the neighbors. The property is part of the LRR zoning district, however this lot is not typical in that zoning.

It was discussed by the Board that if the structure met the ordinance for a copula it would not have required a variance.

A call to the public was made with Joe Perri- 3962 Highcrest- I think this would be a welcome addition to the community and there is substantial justice. They are very being reasonable. Mr. Disner read into record a letter that was signed by Mr. and Mrs. Price-4495 Oak Pointe Drive, Mr. and Mrs. Rachner of 4514 Lakeshore Ct. and Charles Fort of the Oak Pointe County Club stating the following "Larry and Christa White have been in contact to make them aware of their height restriction variance request and have reviewed the same documents as the ZBA. As described in the drawing, its seems they intend to build a home of less height than they actually could under the ordinance. This recognizes the true intent of the height restriction, and appreciate their sensitivity in developing this proposal. They would like to voice their support for this request."

Moved by McCreary, supported by Grajek, to approve case#14-02, 4489 Oak Pointe Drive, Mr. and Mrs. White for a 5 foot roof height variance with a 30 foot allowed height. Conditioned

upon the owner producing an easement with the Golf Course to cross their property to install a sewer line and the home is to be guttered with downspouts.

The practical difficulty is the uniqueness of the property itself not being part of the Oak Pointe PUD when it was created. There is not a public safety hazard to the neighborhood and it is substantial justice in regards to the neighbor next door. **Motion passes as follows: Ayes-Ledford, Grajek, and McCreary. Nays- Figurski and Dhaenens.**

14-03...A request by Michael and Gail McLean, Section 21, Parcel ID# 4711-21-401-015, on Homestead Drive, for a variance from the required front yard setback to construct a new single family residence.

Mr. Dennis Disner, Arcadia Designs and Mr. and Mrs. McLean were present for the petitioner.

Mr. Disner stated that the lot exists just at the end of Homestead Drive. The proposed home would be 1339 sq.ft. on the main level with a 2 car attached garage. They are looking for help on the front yard setback. It is a 35 foot setback requirement with an 8 foot variance to construct a 2 garage attached garage. It is important to get two cars in the garage and the cars off the road. The owners are sensitive to the two neighbors regarding the waterfront setback.

Dhaenens questioned if the neighbor would be taking down the fence that is along the property line. If it is not taken down then the petitioner would require a 5 foot side yard variance.

A call to the public was made with the following response: Don Davis- 3907 Homestead stated that he is here to support the variance and that he is going to be taking down the landscape trellis as soon as the weather breaks. Tom Rafferty- 4344 Highcrest- thinks this a welcome addition to the area. There is plenty of room to park down there. Caroline Kerr –Siem- she is going to be looking at this structure and she is not against the variance. Scott Thomas- 4291 Homestead stated that he is in support of the variance. Joe Perri- 3962 Highcrest- thinks this will be a wonderful addition and they are being very reasonable.

Moved by Grajek, supported by Ledford to approve case#14-03, parcel 4711-21-401-015, for Mr. and Mrs. McLean for an 8 foot variance with a resulting setback of 27 feet. Conditioned upon the landscaping trellis is removed before issuance of land use permit and the new structure is guttered with downspouts.

The practical difficulty is the narrowness and typography of the lot and there is not a public safety hazard to the neighborhood and it is substantial justice in regards to the neighborhood. **Motion passed.**

Moved by Figurski supported by McCreary to approve the January 14, 2014 Zoning Board of Appeals minutes. **Motion passed**.

Township Board Representative Report: Ledford stated that at the February 3, 2014 Board of Trustees meeting, a request to hold an old car show in the Home Depot Parking lot was heard. The Zoning Ordinance did not have anything specific in regards to this request however it does state that they are not allowed car sales. The applicant would like to have the car show on Wednesday nights. Also at the last board meeting the subject came up for salary raises. Ledford stated that ZBA and Planning Commission members should be included. The salaries will be discussed at the March 17th, 2014 Board of Trustees Meeting.

Planning Commission Representative Report: Figurski reported that the January and February Planning Commission meetings were canceled.

Ron- permits have been slow for this time of the year. I have been working on issues with commercial properties that had lingering site plan compliance issues. There is some interest in the March meeting however there are not applications turned in as of today.

Member Discussion: Discussion was held in regards to updating the Zoning Ordinance for lakefront parcels and parcels in the Lakeshore Resort Residential (LRR) zoning. It was stated that the Planning Commission needs to look at the setbacks from the waterfront and the road side. The majority of variances that are brought before the ZBA are due to the narrowness of the lots. The biggest concern with waterfront properties is parking. Akers recommended an annual report be created describing the variances there were approved for the year. Discussion was held regarding roof height and having the same setback for the front and the rear and waterfront property line.

Moved by Figurski, supported by Grajek to adjourn the Zoning Board of Appeals meeting at 8:02 p.m. **Motion passed.**

2013 ZBA Cases

JANUARY

Variance: 1 Case: 13-01

Applicant Name: Christian and Damian Karch

Address: 5400 Brady Road

Type of Variance: Construction of a detached accessory building in front yard

Lakefront: No **Decision:** Denied

Why? Conditions? Ample room on the lot; no practical difficulty.

Variance: 2 Case: 13-02

Applicant Name: Champion Buick GMC

Address: 7885 W. Grand River

Type of Variance: Front yard variance to construct an addition to a non-conforming

building

Lakefront: No **Decision:** Approved

Why? Conditions? Variance of 13.7 feet with a Grand River side setback of 56.3 feet granted. The finding of fact is the building was non-conforming after the Zoning Ordinance changed.

Variance: 3 Case: 13-03

Applicant Name: Genoa Charter Township

Address: 2911 Dorr Road **Type of Variance:** Sign

Lakefront: No **Decision:** Approved

Why? Conditions? An 8-foot variance with a 14 foot height and a 257 foot area variance amount for a sign area of 329 feet. The finding of fact is the configuration of the property and the ability to not be able to place a sign on the exit ramp.

Variance: 4 Case: 13-04

Applicant Name: Blair Bowman

Address: 4252 Highcrest

Type of Variance: Front yard and waterfront

Lakefront: Yes **Decision:** Approved

Why? Conditions? Front yard variance of 15 feet with a setback of 20 feet and a waterfront variance of 2 feet with a setback of 73 feet. The finding of fact is the topography and conditions of the lot.

Variance: 5 Case: 12-27

Applicant Name: Joe Aguis **Address:** 5311 Brighton Road **Type of Variance:** Sign variance

Lakefront: No **Decision:** Approved

Why? Conditions? A 1-foot variance for a 7-foot-tall sign. The finding of fact is the

sight distance and visibility from the road.

FEBBRUARY

Variance: 6 Case: 13-06

Applicant Name: Angela Nieves-Valentine

Address: 3837 E. Coon Lake Road

Type of Variance: Height variance for a fence

Lakefront: No

Decision: Variance not needed

Why? Conditions? The ZBA interprets the fence is built in the side yard.

MARCH

Variance: 7 Case: 13-05

Applicant Name: Brett Gierak **Address:** 921 Sunrise Park

Type of Variance: Side and rear yard variance for an addition

Lakefront: Yes **Decision:** Approved

Why? Conditions? The finding of fact is the lack of zoning predated the construction of the house. The practical difficulty is due to the location of the utility lines and the sewer

line.

Variance: 8 Case: 13-07

Applicant Name: Charles Horan

Address: 1828 Hughes Road

Type of Variance: Front, waterfront and side yard variance to construct a garage

addition and a second story addition.

Lakefront: Yes **Decision:** Approved

Why? Conditions? Allowed to construct a second story that will match the existing footprint with a 4-foot-4-inch side yard extension. Conditions: Must remove the garage from the plans and the addition must have gutters and downspouts. The finding of the fact is the narrowness of the lot and pre-existing house where it is built in regards to the current zoning.

April

Variance: 9 Case: 13-08

Applicant Name: Champion Buick **Address:** 7885 W. Grand River

Type of Variance: Sign

Lakefront: No **Decision:** Approved

Why? Conditions? Additional sign allowed with the square footage being less than two allowed per the Township Ordinance. The practical difficulty is it will improve the visibility and sign distance of the site.

Conditioned upon the following:

- 1. The drawings provided indicate that the "Champion" and "Certified Service" signs will be channel letters and the "Buick GMC" sign will be a unibody sign. The letters themselves will be black or white in color.
- 2. The plans indicate that the signs require circuits and will be lit.
- 3. The wall signs will be allowed to project up to 1-foot beyond the face of the wall.

Variance: 10 Case: 13-10

Applicant Name: Jeff Gontarski

Address: 4401 Filbert

Type of Variance: Front yard variance to build a new home

Lakefront: No **Decision:** Approved

Why? Conditions? Front yard variance of 25 feet with a setback of 10 feet approved. Conditioned upon the home being guttered. The practical difficulty is the topography of the land.

Variance: 11 Case: 13-11

Applicant Name: Art Van Furniture

Address: 4101 E. Grand River

Type of Variance: Sign

Lakefront: No **Decision:** Denied

Why? Conditions? No practical difficulty.

MAY

Variance: 12 Case: 13-09

Applicant Name: Leo and Karen Mancini

Address: 4057 Homestead Road

Type of Variance: Two side yard variances to construct an attached garage

Lakefront: Yes **Decision:** Approved

Why? Conditions? Given a 5-foot-6-inch variance on both sides with a 4-foot-6-inch setback on both sides. Conditioned upon the garage being guttered. The practical

difficulty is the narrowness of the lot.

Variance: 13 Case: 13-12

Applicant Name: Robert Morrison

Address: 3699 Nixon Road

Type of Variance: Pole barn on a vacant lot

Lakefront: No **Decision:** Denied

Why? Conditions? No practical difficulty.

JUNE

Variance: 14 Case: 13-13

Applicant Name: Curt Brown **Address:** 4010 Homestead

Type of Variance: Front yard variance and a waterfront variances to replace an existing

garage

Lakefront: Yes **Decision:** Approved

Why? Conditions? Given a 25-foot shoreline variance with a 15-foot setback, front yard variance of 27 feet with an 8-foot setback, an accessory building size variance of 442 feet from the 900 feet allowed and an accessory building height variance of 6-foot-6-inches from the 14 feet allowed. Conditioned upon the structure being guttered and having downspouts and any grading issues should be addressed and satisfactorily dealt with by

the petitioner. The practical difficulty is the topography of the lot and the difficulty to construct on the lot.

Variance: 15 Case: 13-15

Applicant Name: Ronald Socia **Address:** 3950 Highcrest Drive

Type of Variance: Home improvements/modernization to non-conforming structures in

excess of 10% of its replacement value.

Lakefront: Yes **Decision:** Approved

Why? Conditions? Can make improvements and modifications on the interior and exterior of the home to a nonconforming structure. Conditioned upon the structures including gutters and downspouts, no improvements shall be made to increase the footprint or height of the structures and the structure shall not be used as rentals. The practical difficulty is the uniqueness of the property.

Variance: 16 Case: 13-16

Applicant Name: Janine and James Exline

Address: 4009 Highcrest Drive **Type of Variance:** Side yard

Lakefront: Yes **Decision:** Approved

Why? Conditions? Given a 2.25-foot side yard setback with a 2.75-foot variance and an 8.15-foot setback on the west side with a 1.85-foot variance. Conditioned upon the structure including gutters and downspouts. The practical difficulty is the narrowness of the lot and the continuing narrowness toward the road side.

JULY

Variance: 17 Case: 13-17

Applicant Name: Thomas and Diana Fleming

Address: 4049 Homestead **Type of Variance:** Side yard

Lakefront: Yes **Decision:** Approved

Why? Conditions? Approved a side yard setback variance of 5 feet and a waterfront setback variance of 16.5 feet for the construction of a new home. Conditions placed on the approval are that the structure is to have gutters and downspouts installed and that any

grading and drainage issues should be addressed and satisfactorily dealt with by the petitioner. The practical difficulty is the topography and narrowness of the lot.

Variance: 18 Case: 13-18

Applicant Name: Mary Dean and Jeff Barringer

Address: 5359 Wildwood Drive

Type of Variance: Front yard setback variance and a water front setback variance for the

construction of a single family home

Lakefront: Yes **Decision:** Approved

Why? Conditions? Approved a 19.9 foot front yard setback variance and a 17.7-foot waterfront setback variance for the construction of a new home. Based on the practical difficulty of a small building envelope and the narrowness of the platted subdivision. Conditioned upon the structure having gutters and downspouts, grading or drainage issues should be addressed and satisfactorily dealt with by the petitioner. If there is damage to the fence and arborvitae plants, they are to be replaced by the expense of the petitioner.

AUGUST

Variance: 19 Case: 13-19

Applicant Name: Bob Maxey Ford **Address:** 2798 E. Grand River

Type of Variance: Front yard setback and parking lot.

Lakefront: No **Decision:** Approved

Why? Conditions? Approved a front yard setback variance of 5 feet and parking lot variance of 7 feet on the rear property line based on the following finding of facts:

- 1. Strict compliance with the front yard setback requirement would limit the ability of the property owner to construct an addition which maintains a consistent front building line with the existing main building;
- 2. The area within the rear lot line parking lot setback is already developed as a parking area and the proposed 6-foot masonry screening wall will adequately mitigate the impact the proposed changes to the site plan will have on the adjacent residential properties;
- 3. The need for the variance is not self-created;
- 4. According to the Planner's Report, the proposed variance will not impair public safety or welfare;
- 5. There will be little if any impact on the surrounding neighborhood. The front yard variance will provide for a consistent appearance on the Grand River corridor and the proposed 6-foot masonry screening wall will mitigate the impacts of the extended parking lot.

Variance: 20 Case: 13-20

Applicant Name: Zion Restoration

Address: 6518 Catalpa

Type of Variance: Side yard for an addition

Lakefront: No **Decision:** Approved

Why? Conditions? Approved a 14-foot side yard variance due to the addition having little impact on the adjacent properties. The addition will be the same distance from the side property line as the attached garage.

The hardship is the property is zoned LDR (Low Density Residential) and was created under less strict zoning requirements. The lot size and building were made non-conforming by the current zoning requirements. The pie shaped lot has limitations. The variance is not self-created.

Conditioned upon the home and garage being guttered.

Variance: 21 Case: 13-21

Applicant Name: Thomas and Donna Phelps

Address: 4470 Clifford Road

Type of Variance: Side yard setback and deck extension

Lakefront: Yes **Decision:** Approved

Why? Conditions? Approved a 2-foot side yard variance and a 3-foot variance from the

rear distance line.

The Finding of Fact is the side yard variance will comply with the current building and is not self-created. The proposed deck will reduce the non-conformity of the deck.

SEPTEMBER

Variance: 22 Case: 13-23

Applicant Name: Charles Denning

Address: Parcel ID 4711-10-301-029 on East Grand River

Type of Variance: Add a carport to property without a principle building

Lakefront: No **Decision:** Denied

Why? Conditions? ZBA based decision on the finding of fact that there is no allowance for additional structures on properties without principle buildings.

Variance: 23 Case: 13-24

Applicant Name: Bob Maxey Ford

Address: 2798 E. Grand River

Type of Variance: To increase allowable wall sign square footage from 150 square feet to 169 square feet and to install two (2) additional walls signs which will exceed the maximum number of allowable wall signs by three (3) for a total of five (5) wall signs on the building.

Lakefront: No **Decision:** Approved

Why? Conditions? Approved a variance of 19 square feet of allowable wall sign area and for two additional wall signs with the finding of fact that the length of the building and the speed of traffic on Grand River Avenue requires additional signage to safely guide traffic in and out of the property.

Variance: 24 Case: 13-25

Applicant Name: Jane and Randy Evans

Address: 4444 Glen Eagles Court

Type of Variance: Variance from the deck setback requirement between condominium

units to extend an existing deck.

Lakefront: No **Decision:** Approved

Why? Conditions? Given a 4-foot variance to extend a deck which is located between two condominium units based on the findings of fact that the condominium was built in 1996 and at the time did not meet the standard set forth in Section 11.04.02(b), the need for the variance was not self-created by the applicant, the layout and design of the building created a need for the variance. Granting this variance will make the property consistent with other properties in the area.

OCTOBER

Variance: 25 Case: 13-27

Applicant Name: Robert Socia

Address: 3950 Highcrest

Type of Variance: Wanted modification of the variance granted on June 18, 2013 in order to remove the condition that limits the applicant's ability to increase the height of the structure.

Lakefront: Yes

Decision: Denied

Why? Conditions? ZBA denied request due to the existing condition stipulated in prior approval on June 18, 2013 for case #13-15 which limited the applicant's ability to increase the height of the structure.

NOVEMBER

Variance: 26 Case: 13-26

Applicant Name: Oren and Jill Lane

Address: 623 Sunrise Park

Type of Variance: Both side yard setbacks, the front yard setback, the shoreline setback,

and the maximum building height.

Lakefront: Yes **Decision:** Approved

Why? Conditions? Given a front yard variance of 25 feet with a 10-foot setback, 3-foot variance on both sides with 7-foot setback on both sides, 2-foot height variance and a 4-foot waterfront variance. Conditioned upon the new home having gutters with downspouts. The finding of fact is the narrowness of the lot; the variances are not self-created and the topography of the lot.

DECEMBER

Variance: 27 Case: 13-28

Applicant Name: Steve Gronow **Address:** 3800 Chilson Road

Type of Variance: Maximum allowable size of a detached accessory building

Lakefront: No **Decision:** Denied

Why? Conditions? No finding of practical difficulty

Variance: 28 Case: 13-29

Applicant Name: Steve Schenck

Address: 4072 E. Grand River; other street addresses at this property include: 4050, 4072, 4080, 4084, 4092, 4096, 4104, 4116, 4128, 4132, 4140, 4144, 4148, and 4160. **Type of Variance:** Temporary sign and exceed time sign is allowed and number of time

sit is used. **Lakefront:** No **Decision:** Approved

Why? Conditions? The finding of fact is that the location of this is a busy location where traffic is very fast. So those passing cannot see the services advertised. It's a seasonal business and therefore, very limited. This does not injure or affect the safety or welfare of the public or neighborhood.