MICHIGAN

BUILDING CODE:

2015 MICHIGAN RESIDENTIAL CODE
2015 MICHIGAN PLUMBING CODE
2015 MICHIGAN UNIFORM ENERGY CODE

ATTENTION LOCAL INSPECTIONS DEPARTMENT

THE FOLLOWING ITEMS HAVE NOT BEING COMPLETED BY CHAMPION MODULAR HOMES, HAVE NOT BEEN INSPECTED BY PFS, & ARE NOT CERTIFIED BY THE MICHIGAN MODULAR LABEL. CODE COMPLIANCE MUST BE DETERMINED AT THE LOCAL LEVEL:

1) CLG FANS
2) ALL DOOR EXT. LIGHTS
3) ALL SITE CONNECTIONS PER INSTALLATION MANUAL AND FINISH MANUAL
4) RODENT PROOFING FOR OPENINGS IN FLR & CLG FOR PASSAGE OF PIPES
5) WINDOW GUARDS AS REQUIRED–SEE NOTE ON PAGE #3
6) ALL FIELD CONNECTIONS IN ROOF SYSTEM DONE ON–SITE BY BUILDER SEE PAGE #9 & #10 & #11
7) ALL SIDING ON–SITE BY BUILDER
8) ELECTRICAL CONNECTIONS BETWEEN MODULES, TO PANEL BOX & TO MAIN SERVICE
9) HOLD DOWN DEVICES BETWEEN MODULES AND FROM MODULES TO FOUNDATION SYSTEM
10) HEATING/COOLING (HVAC) SYSTEM
11) HOLD DOWN STRAPS FROM FOUNDATION TO THE HOUSE

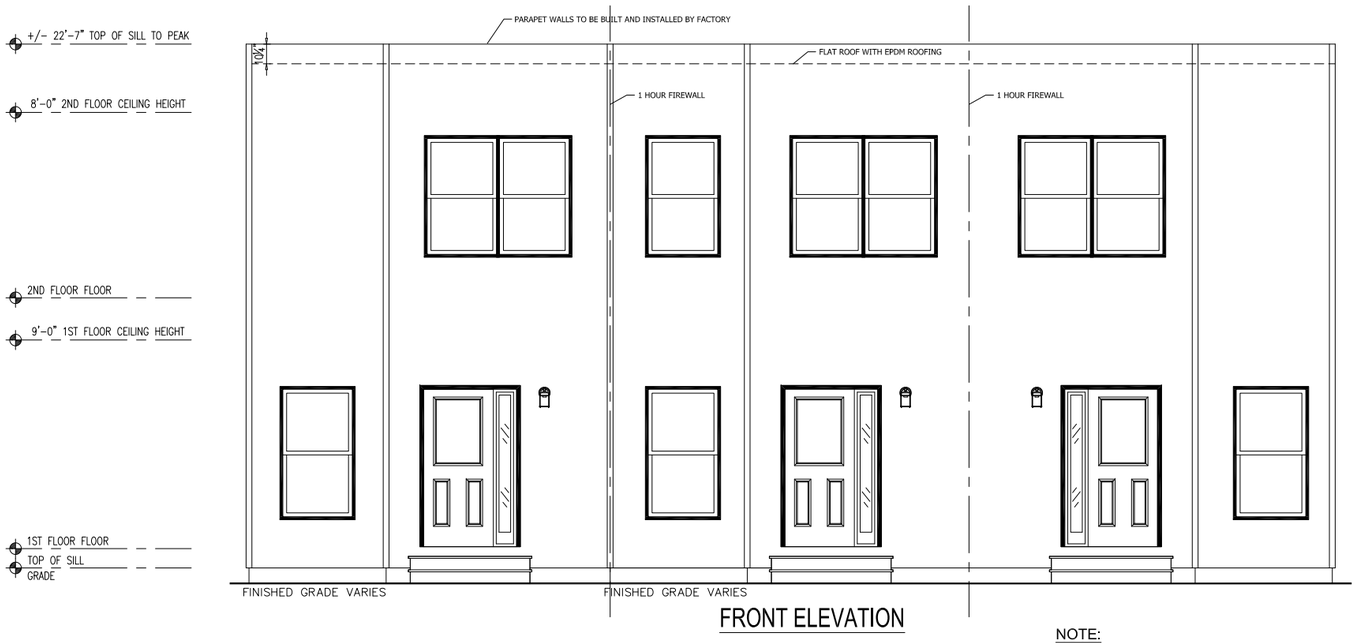
THIS HOME HAS BEEN DESIGNED SPECIFICALLY FOR:

FLINT

309 WEST 5TH AVE.
FLINT, MI 48502
GENESEE COUNTY
(TOWNHOUSE)

BUILDER:

INNOVALAB DEVELOPMENT GROUP



FRONT ELEVATION

PREMANUFACTURED

These documents are approved for compliance with the STATE OF MICHIGAN PREMANUFACTURED UNITS PROGRAM subject to field inspection and the conditions of approval.

NOTES:

1. ITEMS SHOWN ON THE EXTERIOR ELEVATION DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY
2. GRILLS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY (SEE WINDOW MANUFACTURER CATALOG FOR ACTUAL GRILL PATTERN)

NOTES:

1) HEATING SYSTEM AND HEAT LOSS CALCULATIONS FOR THIS HOUSE ARE TO BE COMPLETED ONSITE. ALL HEATING SYSTEM EQUIPMENT IS SUPPLIED ONSITE BY BUILDER.
2) THIS HOUSE MAY BE CONSTRUCTED AS AN EXACT MIRROR OF ITSELF (EITHER SIDE TO SIDE, OR FRONT TO BACK).
3) 1-HOUR FIRE SEPARATION REQUIRED FROM BSMT FLOOR TO UNDERSIDE OF ROOF SHEATHING. (WP3370)

NOTE:

THE MANUFACTURER HAS NOT COMPLETED THE FOLLOWING ITEMS IN THE PRODUCTION FACILITY; THE THIRD PARTY HAS NOT INSPECTED THE ITEMS, AND THE ITEMS ARE NOT CERTIFIED BY THE MARYLAND AND THIRD PARTY CERTIFICATION LABEL. ALL MANUFACTURER SUPPLIED, AND FIELD INSTALLED ITEMS MUST BE INSPECTED AT THE LOCAL LEVEL:

1) PORCH KIT INSTALLATION
2) FIELD CONNECTIONS
3) TRUSS CONNECTIONS
4) GUTTERS
5) SPLASH BLOCKS
6) LEADERS
7) RIDGE VENT
8) ENERGY COMPLETION
9) HVAC UNIT, INCLUDING HEAT LOSS CALCULATIONS
10) BASEMENT STAIRS
11) PANEL BOX
12) WATER HEATER
13) PLUMBING CONNECTIONS
14) CONNECTIONS BELOW SILL PLATE
15) CONDITIONED BASEMENT

DRAWING INDEX:

PAGE NUMBER	DESCRIPTION
1 of 34	COVER PAGE
2 of 34	ELEVATIONS
3 of 34	1ST FLOOR PLAN
4 of 34	2ND FLOOR PLAN
5 of 34	1ST FLOOR ELECTRICAL PLAN
6 of 34	2ND FLOOR ELECTRICAL PLAN
7 of 34	CIRCUIT SCHEDULE
8 of 34	TYPICAL ELECTRICAL NOTES
9 of 34	FOUNDATION
10-12 of 34	CROSS SECTION & CONNECTION DTLS.
13 of 34	PARAPET WALLS
14 of 34	FIRE WALL DETAIL
15 of 34	BLDG. NOTES & MECH. SPECS
16 of 34	PLUMBING RISER DIAGRAM
17 of 34	TYPICAL PLUMBING
18 of 34	WINDOW/DOOR SCHEDULE
19 of 34	ELECTRICAL LOAD CALC
20-29 of 34	RESCHECK (10 PAGES)
30-34 of 34	TRUSS PRINT (5 PAGES)

SITE CONDITIONS:

GROUND SNOW LOAD:	30 PSF
WIND SPEED:	115 VULT MPH
EXPOSURE:	B
SEISMIC CATEGORY:	-
USE GROUP:	TOWNHOUSE
CONSTRUCTION TYPE:	VB WOOD FRAME UNPROTECTED

SQUARE FOOTAGE:

FIRST FLOOR:	2,113 SQ. FT.
SECOND FLOOR:	2,113 SQ. FT.
BONUS ROOM:	- SQ. FT.
GARAGE:	- SQ. FT.
TOTAL:	4,226 SQ. FT.
OVERALL SIZE	47'-1 1/2"x50'-0"
MODEL:	2-STORY TOWNHOUSE

CHAMPION FACTORY 041
CHAMPION MODULAR, INC.
10642 S. SUSQUEHANNA TRAIL
LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

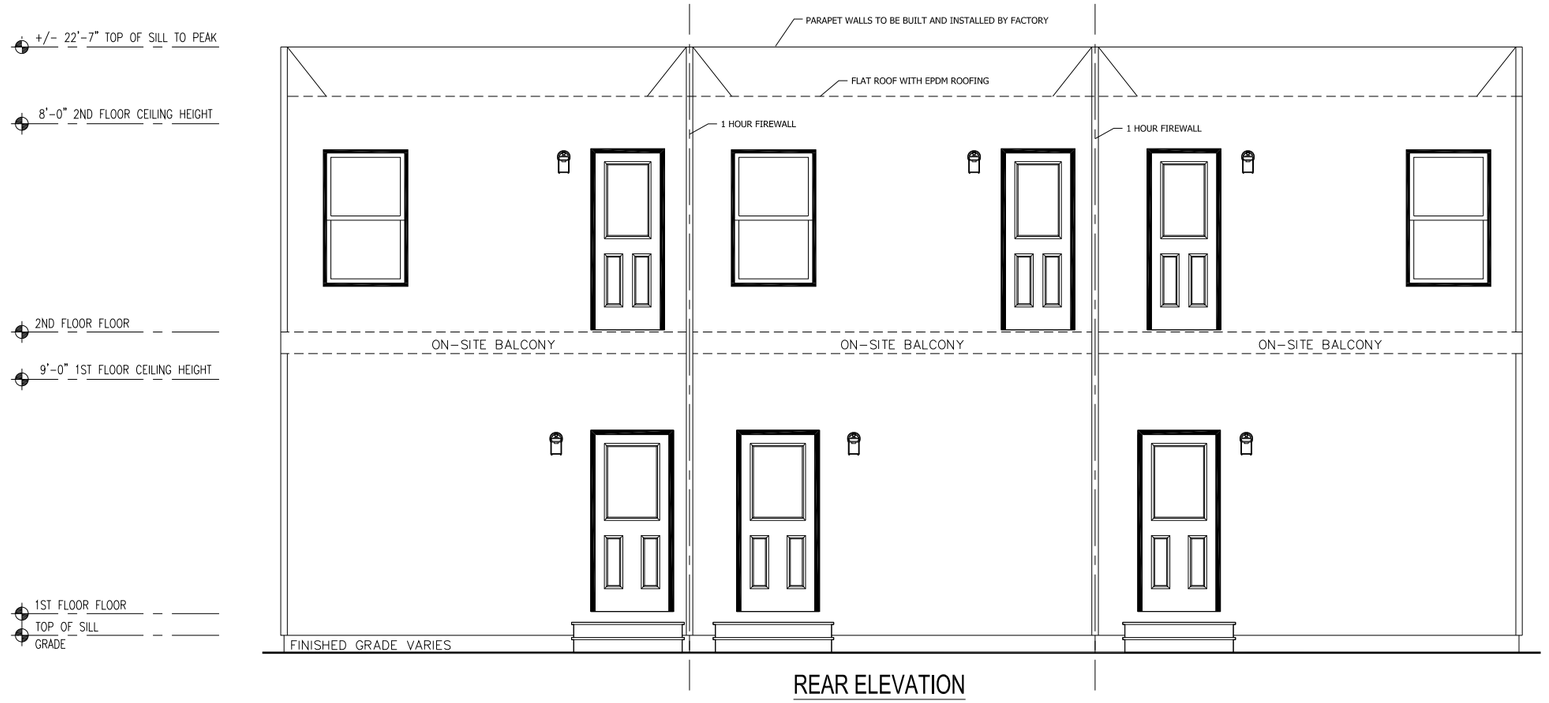
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

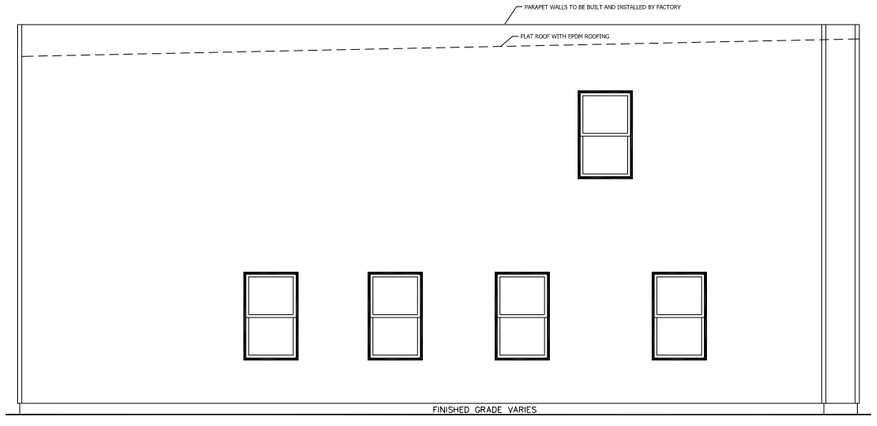
TITLE: COVER SHEET

DRAWN BY: MAB
DATE: 06-16-23
SCALE:
FILENAME: 44593 FN
FN

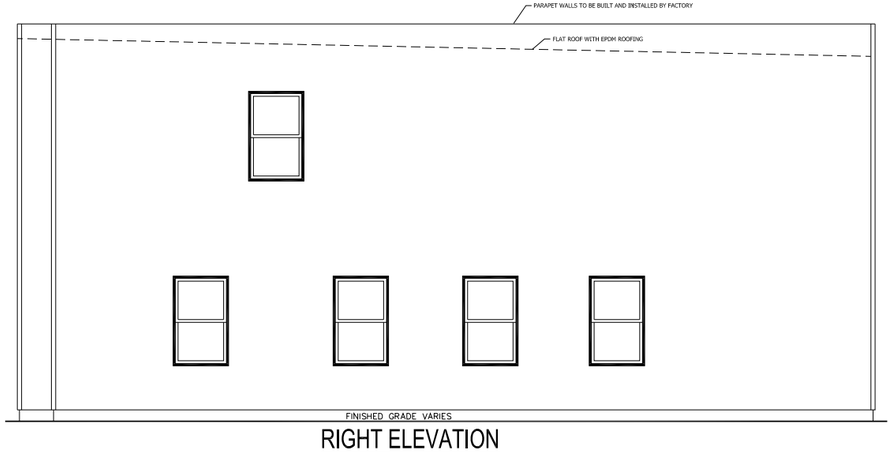
SHEET: COVER



REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION

PREMANUFACTURED

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LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

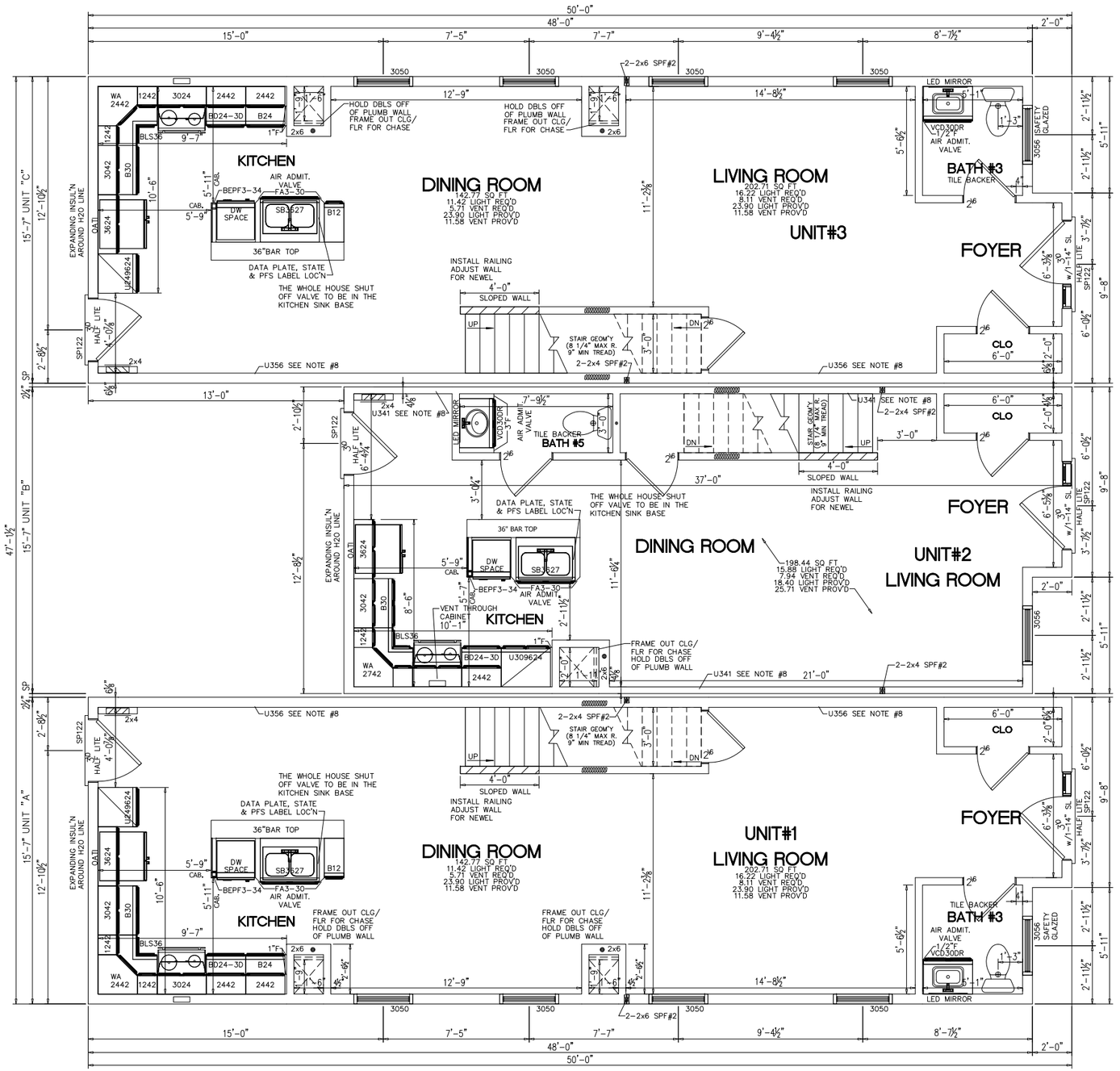
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: ELEVATIONS

DRAWN BY: MAB
DATE: 06-16-23
SCALE:
FILENAME: 44593 FN
FN

SHEET: ELEVATIONS



NOTES:
1. 2x6 EXT WALLS @ 16" O.C./2x4 MARR WALLS @ 16" O.C. (EXCEPT AS NOTED)
2. 9'-0" CLG HT.
3. 2x10 SPF#2 FLOOR JOISTS @ 16" O.C.
4. ROOF SYSTEM TO BE 16" O.C.
5. ANDERSEN 100 SERIES SINGLE HUNG WINDOWS
6. BASED ON 115 VULT MPH WIND LOAD & EXPOSURE "—"
7. SITE LOCATION: FLINT, MI; GENESEE COUNTY; 30 PSF GROUND SNOW LOAD
8. 1 LAYER 5/8" TYPE "X" GYP. ONE SIDE @ MARR. WALL OVER 2x4 STUDS @ 16" O.C., (CROSS BRACED AT MID HEIGHT), ATTACH w/6d CEMENT COATED NAILS @ 7" O.C. (U341)
9. 1 LAYER 5/8" TYPE "X" GYP. APPLIED VERTICALLY ON ONE SIDE OVER 2x4 STUDS @ 16" O.C. ATTACH w/6d CEMENT COATED NAILS (1—7/8" LONG w/1/4" DIA. HEAD) @ 7" O.C. (#U356)

DOOR w/SWEEP LOCATED AT THE TOP OF THE BASEMENT STAIRS TO CLOSE OFF THE BASEMENT FROM THE THERMAL ENVELOPE OF THE 1ST STORY
INSULATE BSMT STAIR WALLS w/R-13

MICHIGAN

2015 INTERNATIONAL RESIDENTIAL CODE
2015 IECC
2017 NFPA NATIONAL ELECTRICAL CODE

NO DOOR/WINDOW HEADERS, EXCEPT AS NOTED
DOUBLE 2x12 CEILING PERIMETER CANNOT BE SPLICED OVER OPENINGS
(1ST LEVEL OF 2—STORY....UNIT A & B)

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LIVERPOOL, PA 17045

CHAMPION MODULAR

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: FIRST FLOOR FLOOR PLAN

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 3/16" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: 1ST FLR

PREMANUFACTURED

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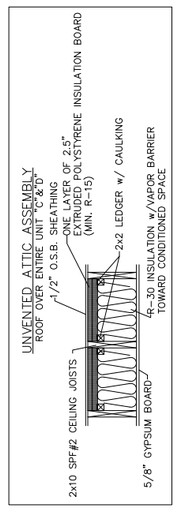

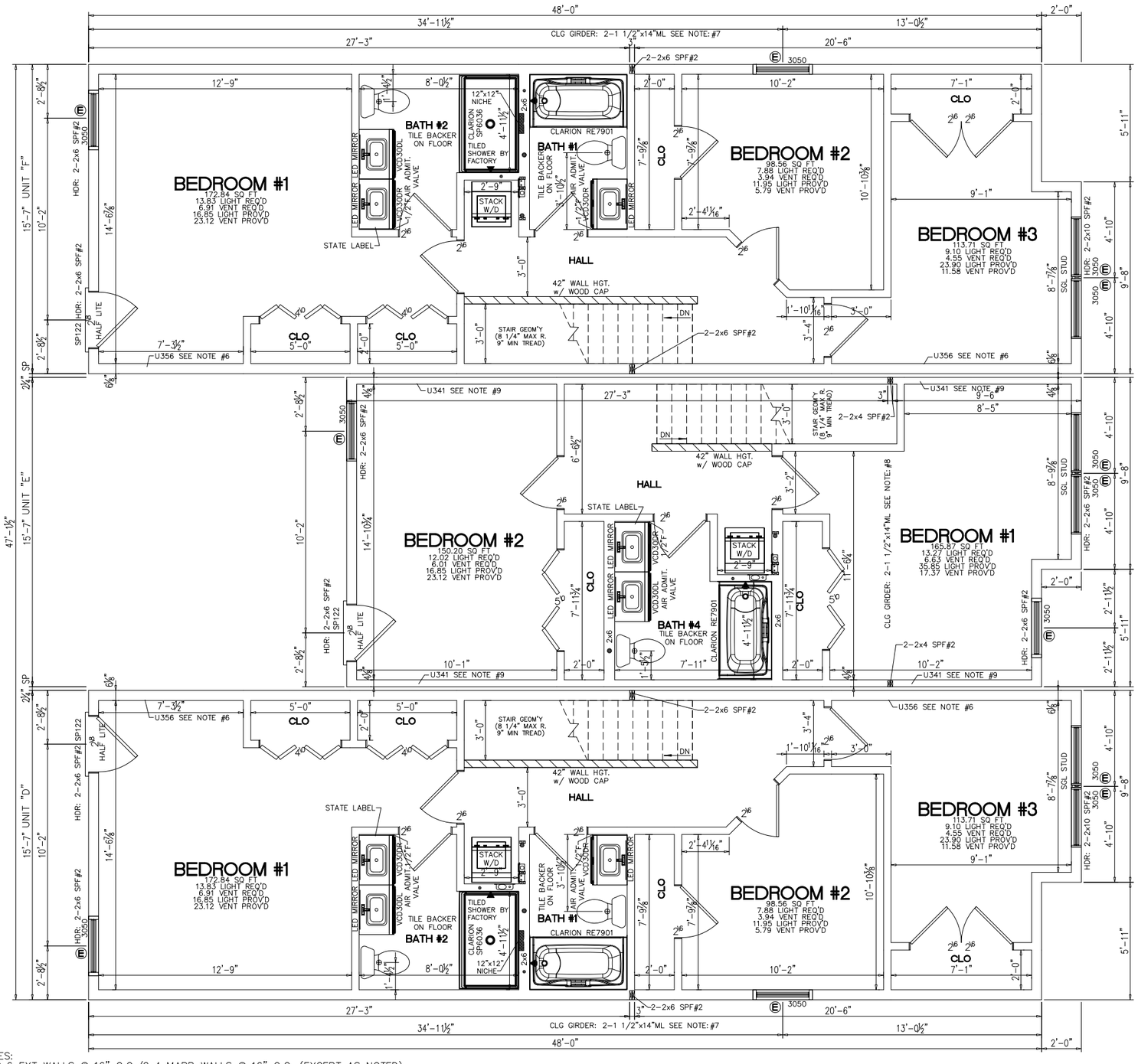

NOTES:
1. 2x6 EXT WALLS @ 16" O.C./2x4 MARR WALLS @ 16" O.C. (EXCEPT AS NOTED)
2. 8'-0" CLG HT.
3. 2x10 SPF#2 FLOOR JOISTS @ 16" O.C.
4. ROOF SYSTEM TO BE 16" O.C.
5. ANDERSEN 100 SERIES SINGLE HUNG WINDOWS
6. 1 LAYER 5/8" TYPE "X" GYP. APPLIED VERTICALLY ON ONE SIDE OVER 2x4 STUDS @ 16" O.C. ATTACH w/6d CEMENT COATED NAILS (1-7/8" LONG w/1/4" DIA. HEAD) @ 7" O.C. (#U356)
7. CLG GIRDER OVER CLOSET/HALL/STAIR TO BE: 2-1 1/2"x14"x15'-7" M.L. (UNITS D & F)
8. CLG GIRDER OVER BEDROOM #1/STAIR TO BE: 2-1 1/2"x14"x15'-7" M.L. (UNIT E)
9. 1 LAYER 5/8" TYPE "X" GYP. ONE SIDE @ MARR. WALL OVER 2x4 STUDS @ 16" O.C., (CROSS BRACED AT MID HEIGHT), ATTACH w/6d CEMENT COATED NAILS @ 7" O.C. (U341)

Ⓔ = EGRESS WINDOWS
SEE THE DOOR AND WINDOW SCHEDULE FOR OPENING SIZES AND EGRESS REQUIREMENTS

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CHAMPION MODULAR

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

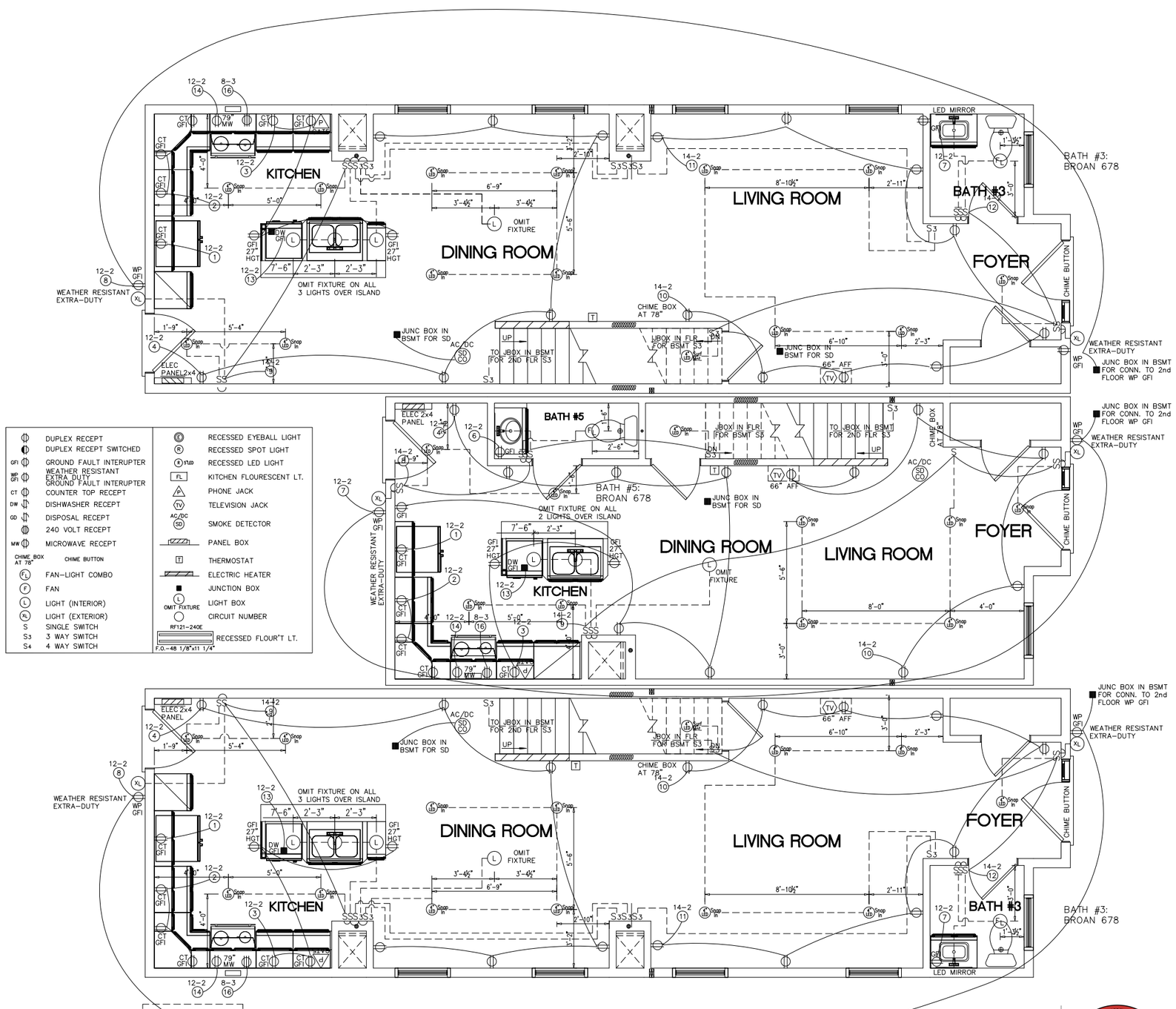
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: SECOND FLOOR FLOOR PLAN

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 3/16" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: 2ND FLR



2017 NEC

* THIS PLAN MAY HAVE ADDITIONAL APPLIANCES/FIXTURES ADDED TO THE ELECTRICAL SCHEMATIC AND/OR PANEL BOX PROVIDING THE LOADING DOESN'T EXCEED THE MAXIMUM ALLOWED BY STATE & LOCAL CODES.
* E-CUTOFF SWITCH ON-SITE BY OTHERS PER ALL STATE & LOCAL CODES.
* ALL BRANCH CIRCUITS SUPPLYING 15 & 20 AMPERE OUTLETS IN LIVING SPACES ARE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12 2017 NEC.
* PER 406.12 OF 2017 NEC ALL 125 -VOLT, 15 AND 20 AMP RECEPTS INSTALLED IN AREAS SPECIFIED BY 210.52, SHALL BE LISTED TAMPER RESISTANT TYPE.
* 50# LIGHT BOXES REQUIRED

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LIVERPOOL, PA 17045

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CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

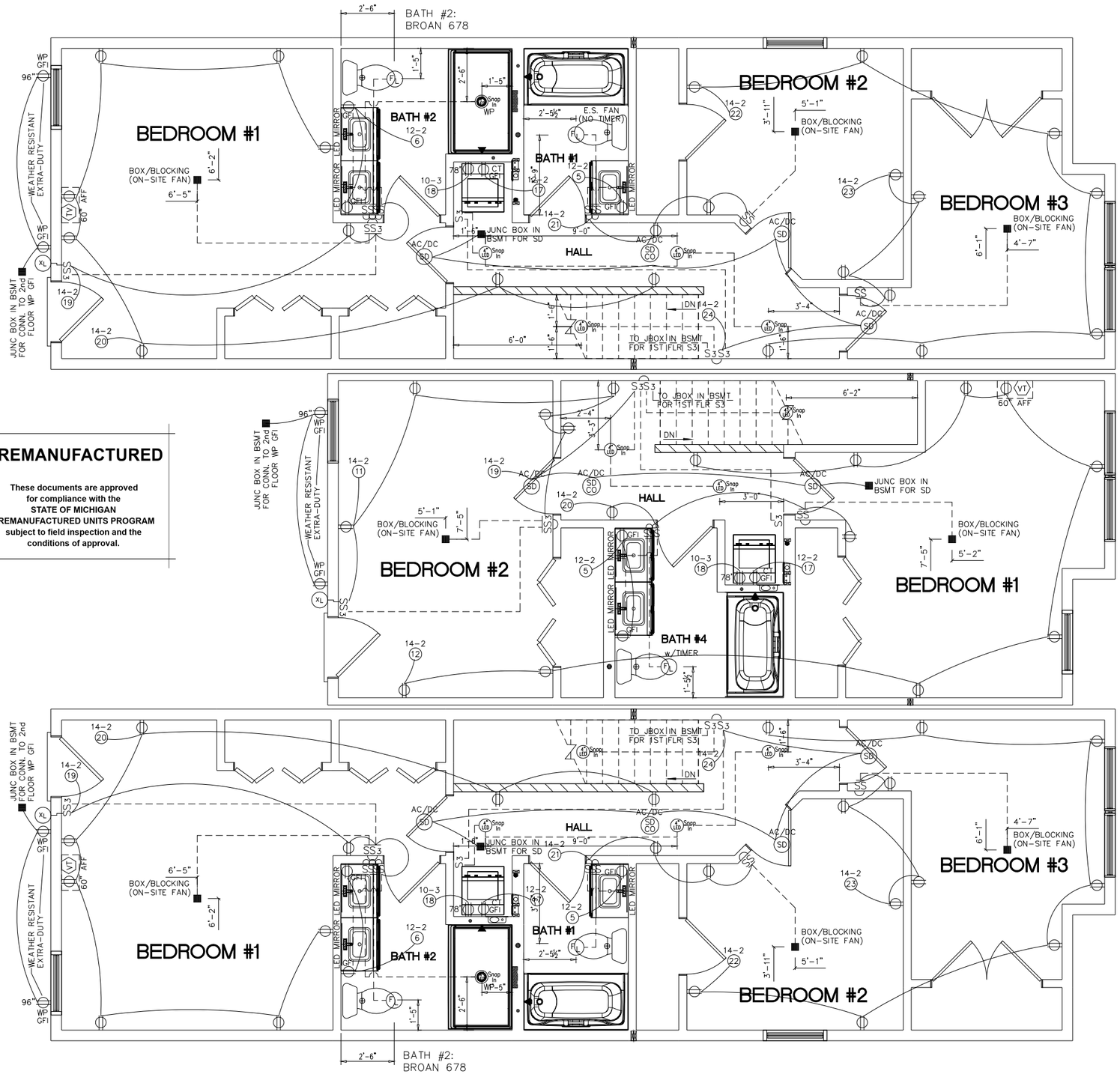
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: FIRST FLOOR ELECTRICAL PLAN

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 3/16" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: 1ST ELEC



THE GREAT SEAL OF THE STATE OF MICHIGAN
A.D. MDCCCXXXVII

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LIVERPOOL, PA 17045

CHAMPION MODULAR

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: SECOND FLOOR FLOOR PLAN

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 3/16" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: 2ND ELEC

UNIT - 1

CIRCUIT SCHEDULE (200 AMP PANEL)

*WIRE WITH GROUND ALL CIRCUITS

CRT. NUM.		BRK	WIRE	LOCATION	VOLT	CRT. NUM.		BRK	WIRE	LOCATION	VOLT
1		20A	12-2	APPLIANCE-REFRIGERATOR	110	9		15A	14-2	GENERAL LIGHTS & REC	110
2		20A	12-2	APPLIANCE-KIT.	110	10		15A	14-2	GENERAL LIGHTS & REC	110
3		20A	12-2	APPLIANCE-KIT.	110	11		15A	14-2	GENERAL LIGHTS & REC	110
4		20A	12-2	APPLIANCE-DIN.	110	12		15A	14-2	GENERAL LIGHTS & REC	110
5		20A	12-2	BATH #1	110	19		15A	14-2	GENERAL LIGHTS & REC	110
6		20A	12-2	BATH #2	110	20		15A	14-2	GENERAL LIGHTS & REC	110
7		20A	12-2	BATH #3	110	21		15A	14-2	GENERAL LIGHTS & REC	110
8		20A	12-2	EXT. GFI	110	22		15A	14-2	GENERAL LIGHTS & REC	110
13		20A	12-2	DISHWASHER	110	23		15A	14-2	GENERAL LIGHTS & REC	110
14		20A	12-2	MICROWAVE	110	24		15A	14-2	GENERAL LIGHTS & REC	110
16	——	40A	8-3	RANGE	220						
17		20A	12-2	WASHER RECEPT.	110						
18	——	30A	10-3	DRYER	220						

UNIT - 2

CIRCUIT SCHEDULE (200 AMP PANEL)

*WIRE WITH GROUND ALL CIRCUITS

CRT. NUM.		BRK	WIRE	LOCATION	VOLT	CRT. NUM.		BRK	WIRE	LOCATION	VOLT
1		20A	12-2	APPLIANCE-REFRIGERATOR	110	9		15A	14-2	GENERAL LIGHTS & REC	110
2		20A	12-2	APPLIANCE-KIT.	110	10		15A	14-2	GENERAL LIGHTS & REC	110
3		20A	12-2	APPLIANCE-KIT.	110	11		15A	14-2	GENERAL LIGHTS & REC	110
4		20A	12-2	APPLIANCE-DIN.	110	12		15A	14-2	GENERAL LIGHTS & REC	110
5		20A	12-2	BATH #4	110	19		15A	14-2	GENERAL LIGHTS & REC	110
6		20A	12-2	BATH #5	110	20		15A	14-2	GENERAL LIGHTS & REC	110
7		20A	12-2	EXT. GFI	110						
8		15A	14-2	GENERAL LIGHTS & REC	110						
13		20A	12-2	DISHWASHER	110						
14		20A	12-2	MICROWAVE	110						
16	——	40A	8-3	RANGE	220						
17		20A	12-2	WASHER RECEPT.	110						
18	——	30A	10-3	DRYER	220						

UNIT - 3

CIRCUIT SCHEDULE (200 AMP PANEL)

*WIRE WITH GROUND ALL CIRCUITS

CRT. NUM.		BRK	WIRE	LOCATION	VOLT	CRT. NUM.		BRK	WIRE	LOCATION	VOLT
1		20A	12-2	APPLIANCE-REFRIGERATOR	110	9		15A	14-2	GENERAL LIGHTS & REC	110
2		20A	12-2	APPLIANCE-KIT.	110	10		15A	14-2	GENERAL LIGHTS & REC	110
3		20A	12-2	APPLIANCE-KIT.	110	11		15A	14-2	GENERAL LIGHTS & REC	110
4		20A	12-2	APPLIANCE-DIN.	110	12		15A	14-2	GENERAL LIGHTS & REC	110
5		20A	12-2	BATH #1	110	19		15A	14-2	GENERAL LIGHTS & REC	110
6		20A	12-2	BATH #2	110	20		15A	14-2	GENERAL LIGHTS & REC	110
7		20A	12-2	BATH #3	110	21		15A	14-2	GENERAL LIGHTS & REC	110
8		20A	12-2	EXT. GFI	110	22		15A	14-2	GENERAL LIGHTS & REC	110
13		20A	12-2	DISHWASHER	110	23		15A	14-2	GENERAL LIGHTS & REC	110
14		20A	12-2	MICROWAVE	110	24		15A	14-2	GENERAL LIGHTS & REC	110
16	——	40A	8-3	RANGE	220						
17		20A	12-2	WASHER RECEPT.	110						
18	——	30A	10-3	DRYER	220						

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LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: PANEL BOX LAYOUT

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: PANEL BOX

ELECTRICAL CODE REVIEW
Electrical Wiring Layout or Diagram

A. Overall Project – General Requirements.

(1) Proper working clearance must be provided and maintained about all electrical equipment especially main service equipment, all panels, disconnects, transformers, ect. They shall be located in dedicated spaces, no foreign pipes ducts or equipment permitted in these dedicated spaces. Illuminstion shall be provided.

(2) Standard receptacles installed on 15 and 20 amp branch circuits shall be grounding type.

(3) At least one receptacle with GFCI protection in addition to any provided for laundry equipment required in basements of dwelling units and in each attached garage with electrical power. This refers to basement receptacles.

(4) At least one wall switch–controlled lighting outlet shall be installed in every habitable room, in bathrooms, hallways, stairways, attached garages, detached garages with electrical power, at outdoor entrances and exits and at entrances to basement, crawlspace and attics. At least one switched lighting outlet required in attic, crawlspace or basement if these spaces are used for storage or contain equipment requiring servicing. This refer especially to basement and attic lights.

(5) In unfinished basements, all nonmetallic sheated cables smaller than two #6 or three #8 shall either be run through bored holes in joists or on running boards.

(6) All nonmetallic– sheated cable requires an equipment grounding conductor within the cable.

(7) All nonmetallic– sheated cable shall be rated 90 deg.c and the ampacity shall be that of 60 deg.c.

(8) All recessed fixtures shall be properly installed, be of proper construction and provide adequate clearances. This includes combination fan/light units.

(9) All recessed incandescent fixtures shall have thermal protection and be so identified. This includes combination fan/light units as per State of Michigan, Electrical Administrative Board letter dated 4/20/88.

(10) All florescent fixtures installed indoors shall have thermal protection integral within the ballast.

(11) Branch circuit conductors supplying a single motor shall have an ampacity not less than 125% of the motor full load current rating.

(12) Proper thermal overload protection shall be required for all motors.

(13) Motors shall have proper short circuit and ground fault (overcurrent) protection using 250% rule maximum for breakers and 300% rule maximum for fuses. Therefore, all motors 6 full load amps or less on breaker curcuits or 5 full load amps or less on breaker curcuits shall require 15 amp maximum overcurrent protection .

(14) A disconnecting means shall be located in sight from the motor location and the driven machinery location and each motor shall be provided with an individual disconnecting means.

in horsepower, a circuit breaker, or a molded case switch (nonautomatic circuit interrupter) and for a cord and plug connected motor, a horsepower rated attachment plug and receptacle.

(16) Nonmetallic–sheathed cable shall be secured in place at intervals not exceeding 4–1/2 feet and within 12 inches from every cabenit, box or fitting.

(17) A branch circuit suppling a fixed storage type water heater having a capacity of 120 gallons or less or any appliance that is continuously loaded shall have a rating not less than 125% of the nameplate rating of the water heater or appliance.

(18) All sub–panels fed with a non–metallic wiring system shall require a cable with a equip. grounding conductor. A grounding connection shall not be made to any grounded (neutral) conductor on the load side of the service disconnecting means. Likewise, feeders to ranges and dryers fed from sub–panels shall require separate equip. grounding conductors in nonmetallic cables.

(19) Receptacle outlets serving countertops in kitchen, dining, island, or peninsular areas shall be located so that no point is more than 24" from a receptacle and be installed above or within 12" of countertop.

(20) Proper service bonding req'd.

(21) No wiring systems of any type shall be installed in ducts used to transport dust, loose stock or flammable vapor.

(22) Outlet boxes shall not be used as the sole support for ceiling (paddle) fans.

(23) Junction, pull and outlet boxes shall be accessable.

(24) Fixtures in clothes closets shall have proper clearance from combustibles. Incandescent fixtures with open or partially enclosed lamps shall not be permitted.

(25) Hydromassage bathtubs and their asociated electric components shall be supplied by a circuit with GFIC protection.

(26) A receptacle is required within 25 ft. of each heating, air conditioning and refrigeration unit.

(27) Openings around electrical penetrations through fire resistance rated walls, partitions, floors, or ceilings shall be firestopped using approved methods to maintain the fire reSiStance rating.

(28) Boxes used at lighting fixture outlets shall be designed for the purpose. Switch boxes shall not be used for support of fixtures.

(29) Horspower and/or full load amp rating, voltage and phase shall be required for motors to verify proper conductor size, overload and overcurrent protection, ect.

C. Floor Plan

(1) Switchboards or panelboards in wet locations or outside of a building shall be enclosed in a waterproof enclosure or cabinet.

(2) Fixtures in wet, damp or corrosive locations or in ducts or hoods shall be suitable for such locations and so marked.

(3) Three–way and four–way switches shall be so wired that all switching is done only in underground circuit conductor. Switches or circuit breakers shall not disconnect the grounded conductor of a circuit.

D. Panel Schedule

(1) A fuse or circuit breaker shall be connected in series with ea. ungrounded conductor and a circuit breaker shall open all ungrounded conductors of the circuit.

B. Service Riser Diagram

(1) Amp rating, voltage, phase and number of conductors required for the service. Only 200 amp service panel noted.

(2) Proper wire type and size and conduit size required for service entrance conductors.

E. (1) Service equipment shall be suitable for the short circuit (fault) current availiable at its supply terminal.

(3) Proper location of service equipment disconnecting means required.

(4) Main service disconnecting means shall be permanently marked to identify it is a service disconnecting means.

(5) Proper over current protection (fuses or main curcuit breaker) required for main service disconnecting means.

(6) Proper type and sizes of service grounding conductor required with connection to both the metal underground water piping system and a supplemental electrode

(7) Branch circuit, feeder and service load calculations required for dwelling unit.

(8) Service disconnect must be installed on the outside of the bldg. next to the meter, when the service panel is located in an interior partition or in a central location away from the exterior walls. The disconnect may be omitted only if the service entrance conductors and conduit are installed under not < 2" of conc. beneath the building or be encased in not < 2" of conc. or brick within the building.

(9) Copper #4 service grounding conductor req'd for standard 200 AMP service panel with connection to both the metal underground water piping system and a supplemental electrode.

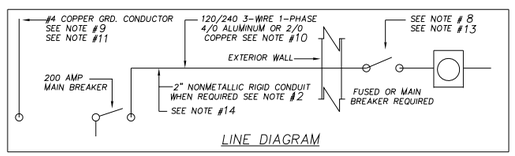
(10) Servie entrance conductors are to be 120/240 V., single phase, 3–wire, 4/0 alum. or 2/0 copper type THHN/RHH XHHW, and to be placed in 2" nonmetallic rigid conduit when req'd. for our standard 200 amp service panels.

(11) Grounding conductor must run through the outside service disconnect, when a second disconnect is placed on the exterior of the house.

(12) When type RHH conductors are used the 2" nonmetallic rigid conduit must be increased to 2 1/2".

(13) When a second disconnect is req'd. to be placed on outside of the exterior wall, this disconnect must be fused or have a main breaker.

(14) When rigid nonmetallic (PVC) conduit or SE cable is used between the outside fused or main breaker and the 200 amp panel in building. Either an equipment grounding conductor of proper size must be installed with feeders or an metallic conduit is required.



LINE DIAGRAM

NOTES & SPECIFICATIONS

ALL 125 VOLT 15AMP AND 20AMP RECEPTACLES TO BE LISTED AS TAMPER RESISTANT

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CHAMPION FACTORY 041
CHAMPION MODULAR, INC.
10642 S. SUSQUEHANNA TRAIL
LIVERPOOL, PA 17045

CHAMPION MODULAR

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

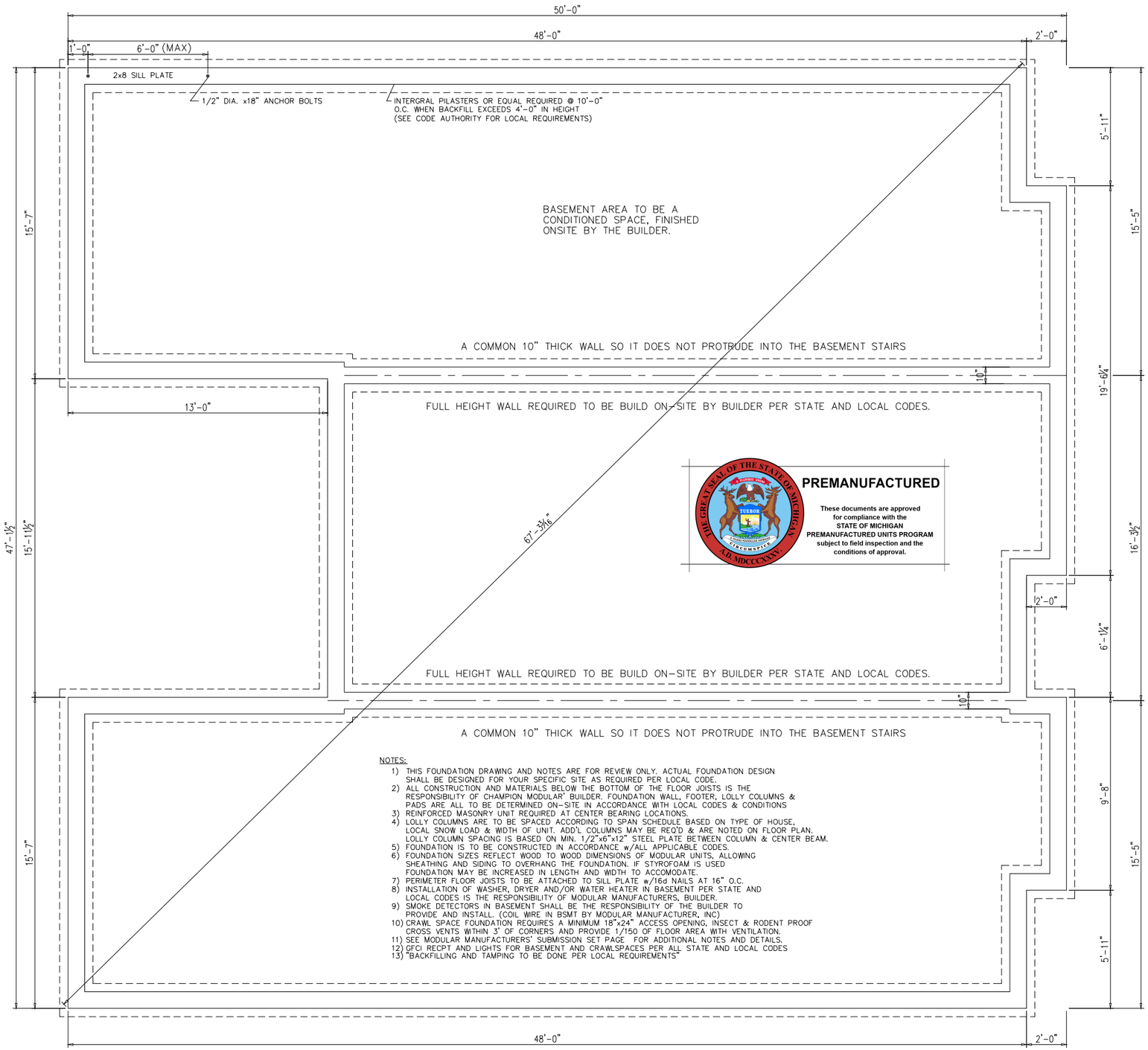
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: TYPICAL ELECTRICAL NOTES

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

SHEET: TYP ELEC



NOTES:

1) THIS FOUNDATION DRAWING AND NOTES ARE FOR REVIEW ONLY. ACTUAL FOUNDATION DESIGN SHALL BE DESIGNED FOR YOUR SPECIFIC SITE AS REQUIRED PER LOCAL CODE.
2) ALL CONSTRUCTION AND MATERIALS BELOW THE BOTTOM OF THE FLOOR JOISTS IS THE RESPONSIBILITY OF CHAMPION MODULAR' BUILDER. FOUNDATION WALL, FOOTER, LOLLY COLUMNS & PADS ARE ALL TO BE DETERMINED ON-SITE IN ACCORDANCE WITH LOCAL CODES & CONDITIONS
3) REINFORCED MASONRY UNIT REQUIRED AT CENTER BEARING LOCATIONS.
4) LOLLY COLUMNS ARE TO BE SPACED ACCORDING TO SPAN SCHEDULE BASED ON TYPE OF HOUSE, LOCAL SNOW LOAD & WIDTH OF UNIT. ADD'L COLUMNS MAY BE REQ'D & ARE NOTED ON FLOOR PLAN. LOLLY COLUMN SPACING IS BASED ON MIN. 1/2"x6"x12" STEEL PLATE BETWEEN COLUMN & CENTER BEAM.
5) FOUNDATION IS TO BE CONSTRUCTED IN ACCORDANCE w/ALL APPLICABLE CODES.
6) FOUNDATION SIZES REFLECT WOOD TO WOOD DIMENSIONS OF MODULAR UNITS, ALLOWING SHEATHING AND SIDING TO OVERHANG THE FOUNDATION. IF STYROFOAM IS USED FOUNDATION MAY BE INCREASED IN LENGTH AND WIDTH TO ACCOMODATE.
7) PERIMETER FLOOR JOISTS TO BE ATTACHED TO SILL PLATE w/16d NAILS AT 16" O.C.
8) INSTALLATION OF WASHER, DRYER AND/OR WATER HEATER IN BASEMENT PER STATE AND LOCAL CODES IS THE RESPONSIBILITY OF MODULAR MANUFACTURERS, BUILDER.
9) SMOKE DETECTORS IN BASEMENT SHALL BE THE RESPONSIBILITY OF THE BUILDER TO PROVIDE AND INSTALL. (COIL WIRE IN BSMT BY MODULAR MANUFACTURER, INC)
10) CRAWL SPACE FOUNDATION REQUIRES A MINIMUM 18"x24" ACCESS OPENING, INSECT & RODENT PROOF CROSS VENTS WITHIN 3' OF CORNERS AND PROVIDE 1/150 OF FLOOR AREA WITH VENTILATION.
11) SEE MODULAR MANUFACTURERS' SUBMISSION SET PAGE FOR ADDITIONAL NOTES AND DETAILS.
12) GFCI RECPT AND LIGHTS FOR BASEMENT AND CRAWLSPACES PER ALL STATE AND LOCAL CODES
13) "BACKFILLING AND TAMPING TO BE DONE PER LOCAL REQUIREMENTS"

CHAMPION FACTORY 041
CHAMPION MODULAR, INC.
10642 S. SUSQUEHANNA TRAIL
LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

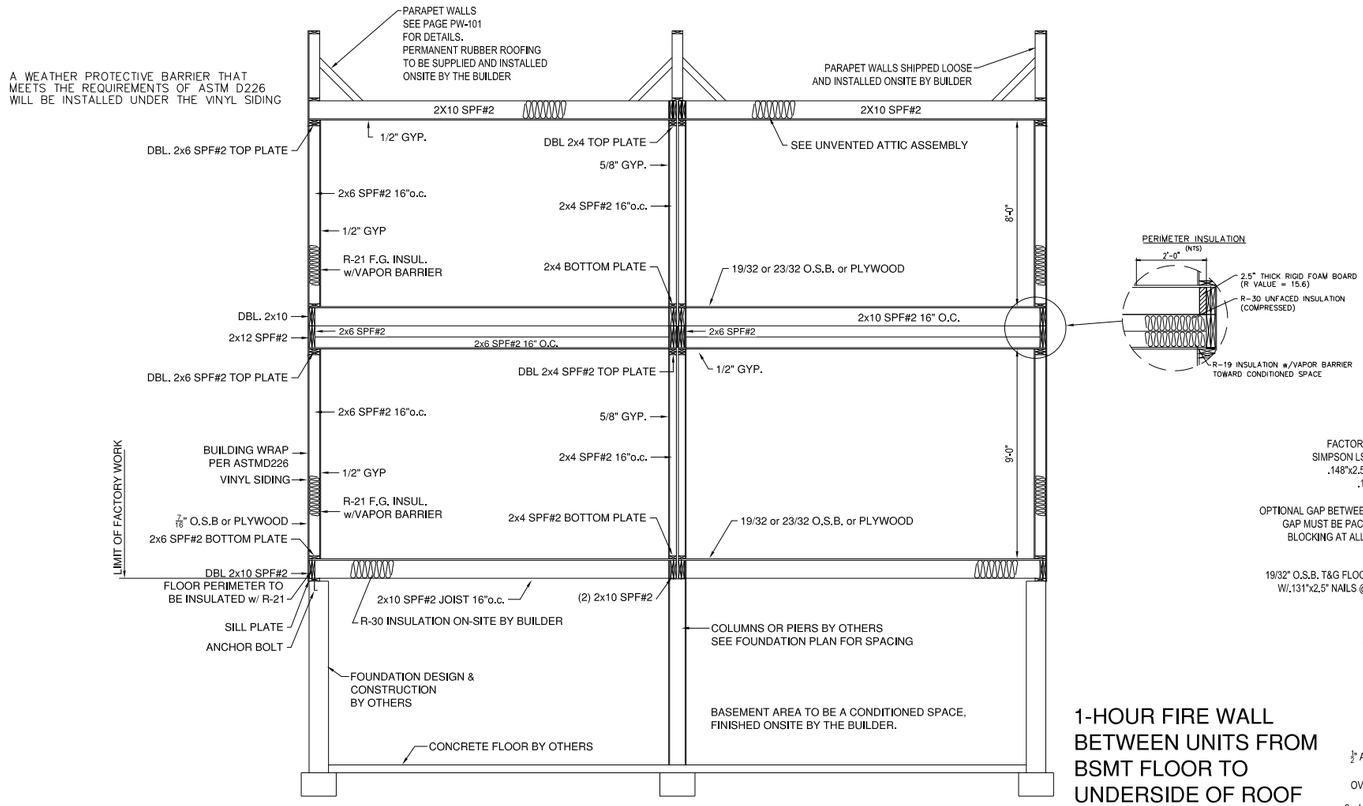
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

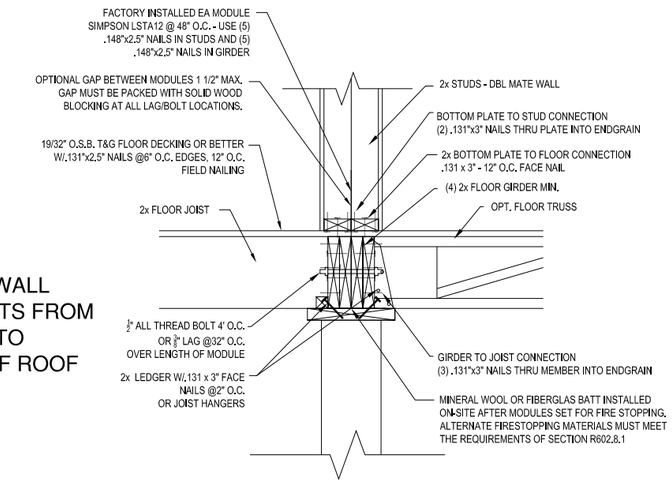
TITLE: FOUNDATION PLAN

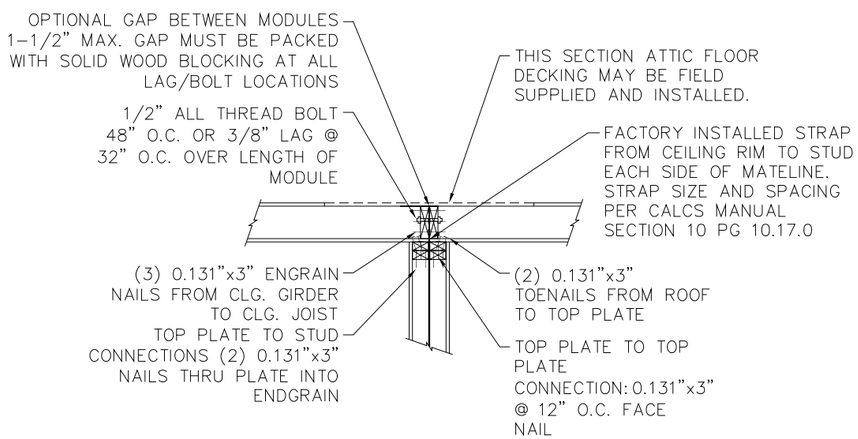
DRAWN BY: MAB
DATE: 06-16-23
SCALE: 3/16" = 1'-0"
FILENAME: 44593 SN
FN

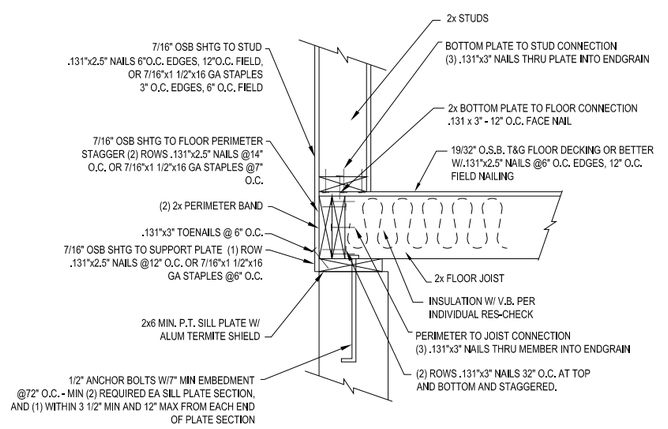
SHEET: FOUNDATION



1-HOUR FIRE WALL BETWEEN UNITS FROM BSMT FLOOR TO UNDERSIDE OF ROOF SHEATHING







THE GREAT SEAL OF THE STATE OF MICHIGAN
TUEBOR
A. D. MDCCCXXXV.

PREMANUFACTURED

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CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

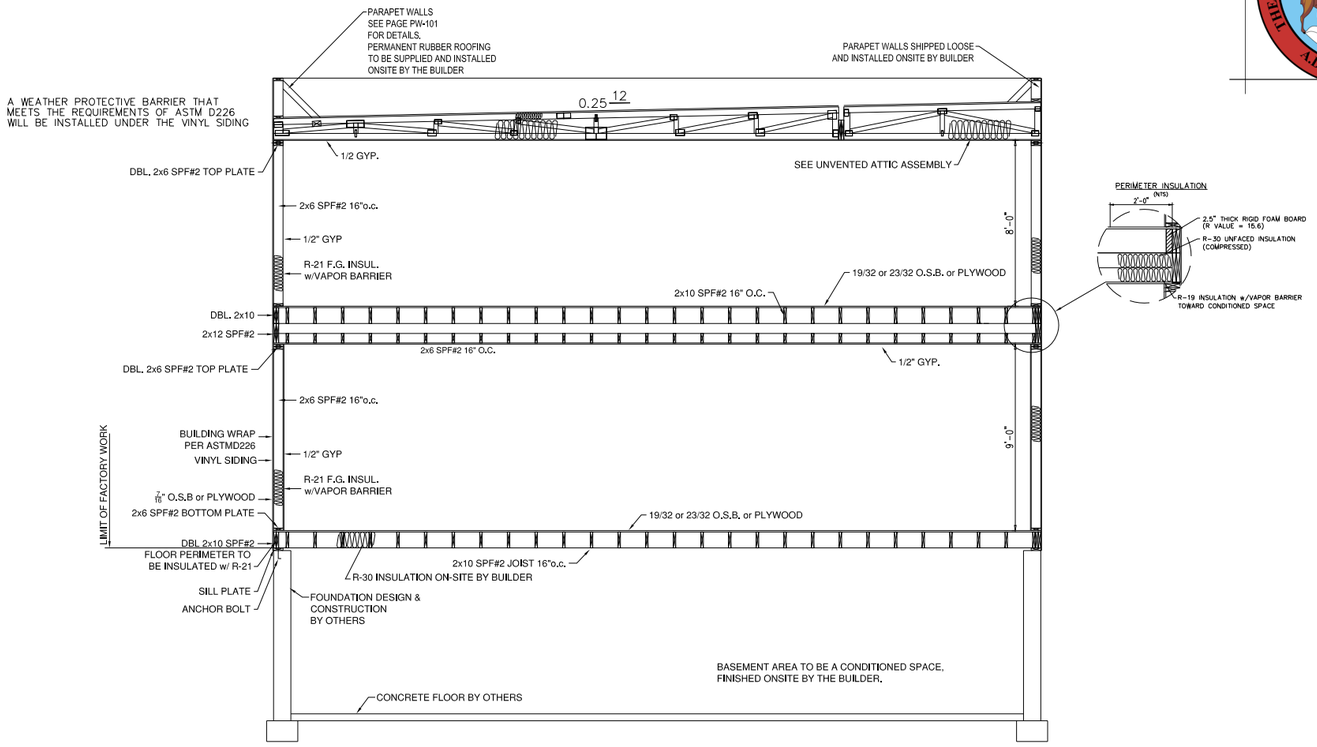
MODIFICATIONS

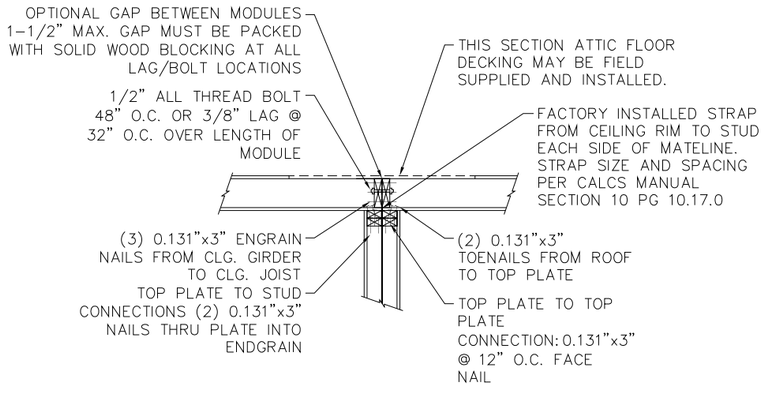
PROJECT: 44593 TOWNHOUSE

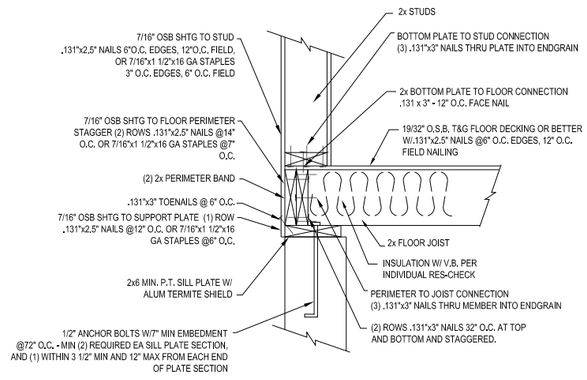
TITLE: SECTIONS

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

SHEET: SECTION







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ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: SECTIONS

DRAWN BY: MAB

DATE: 06-16-23

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

FILENAME: 44593 FN

FN

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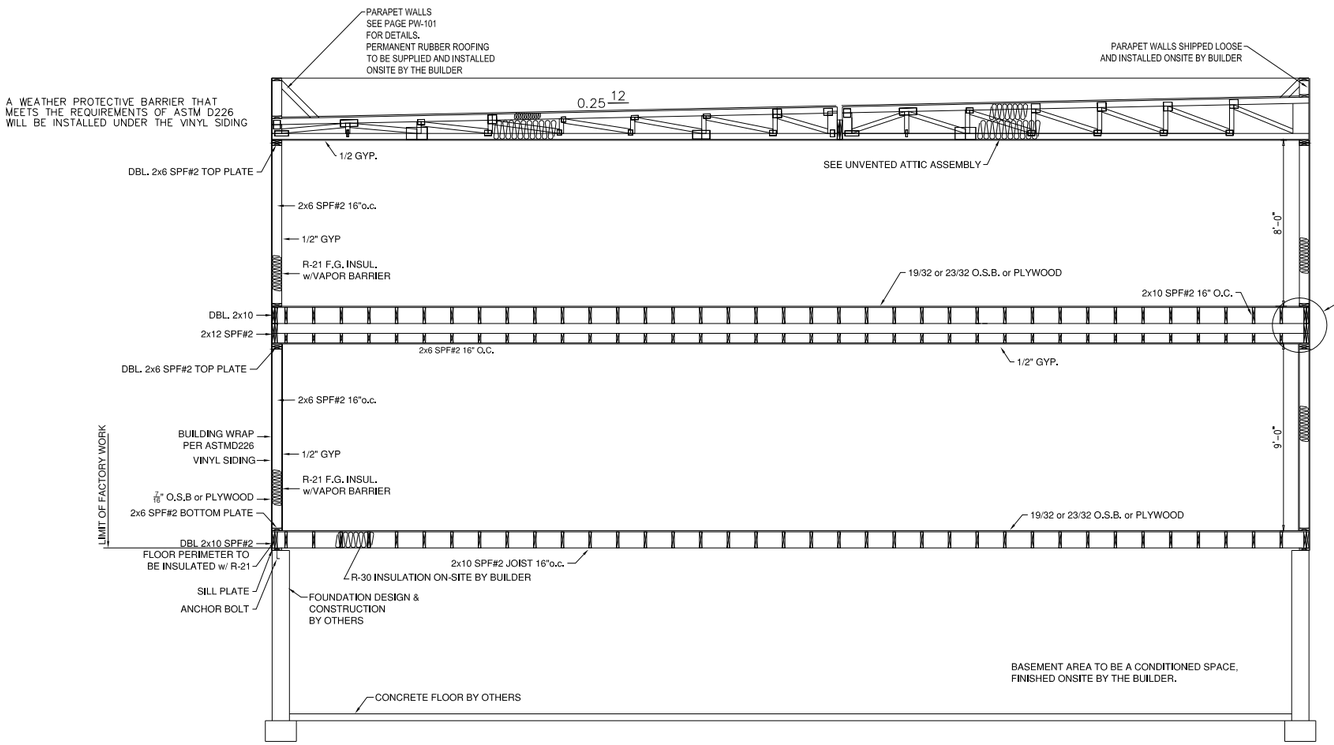

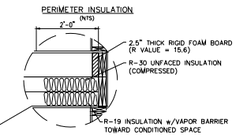

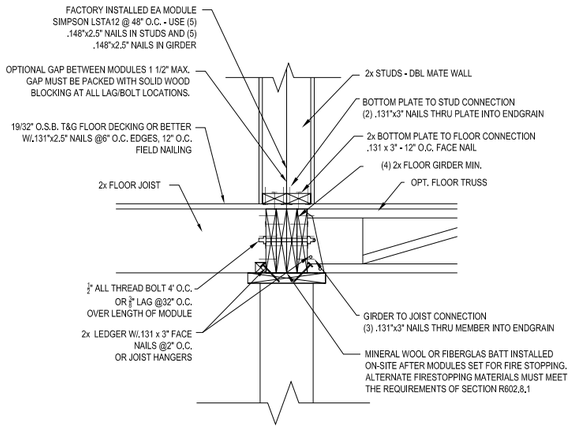

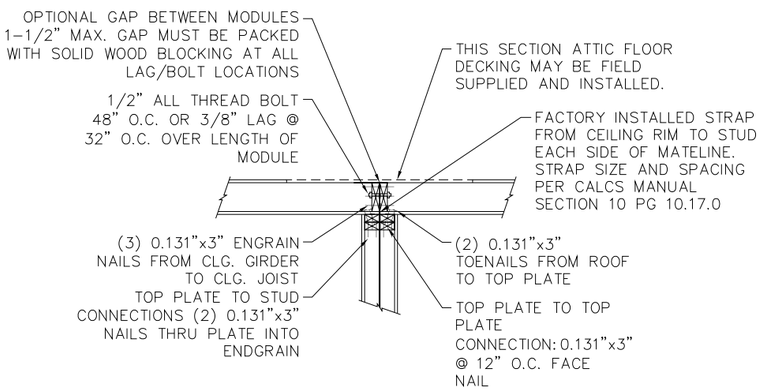

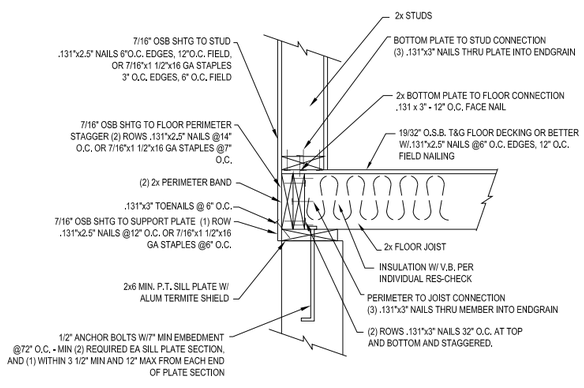

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BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

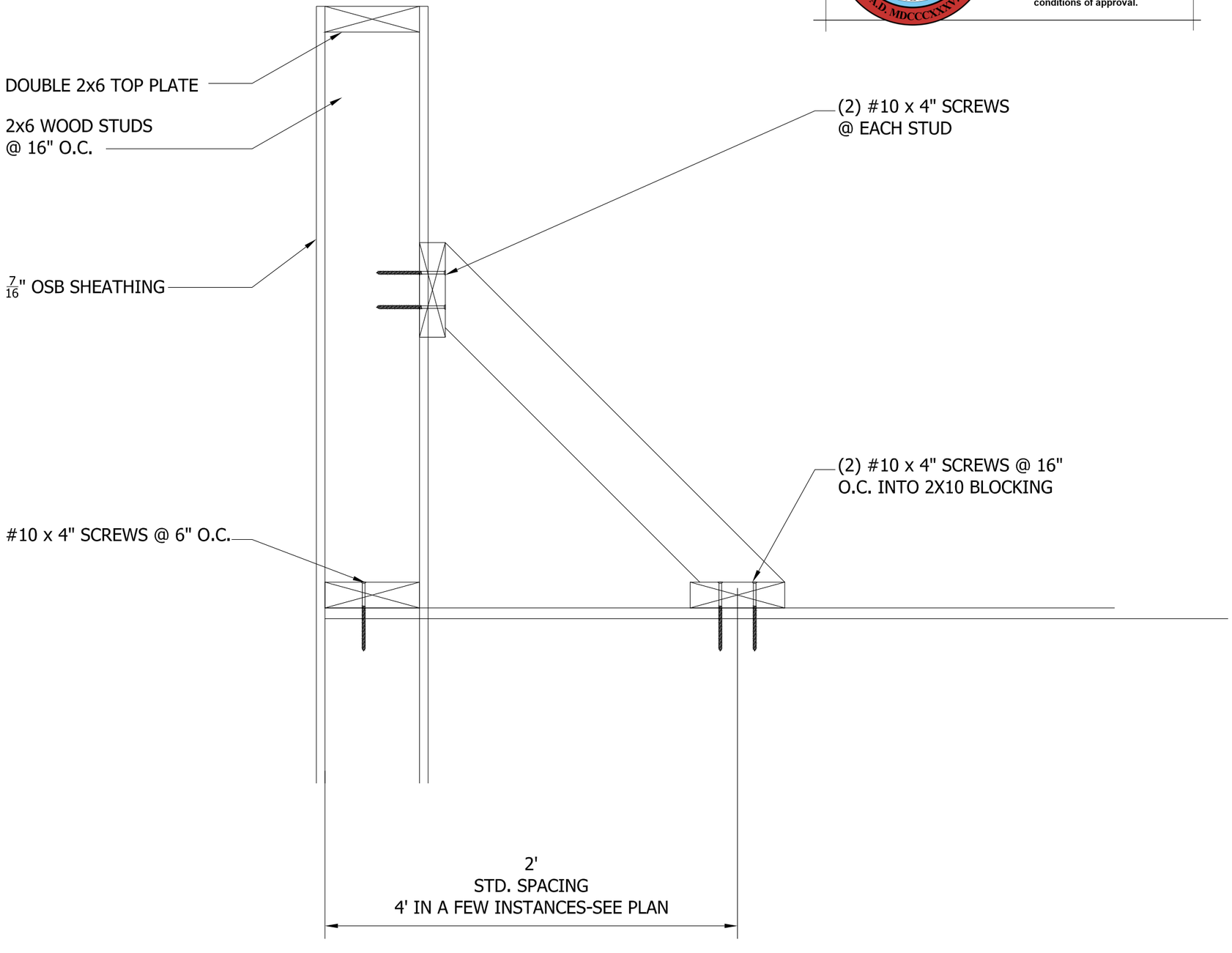
PROJECT: 44593 TOWNHOUSE

TITLE: SECTIONS

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

SHEET: SECTION (3)

PARAPET WALLS TO BE BUILT IN PLANT AND INSTALLED ON SITE. WALLS TO BE ON FRONT AND SIDES ONLY.



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MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

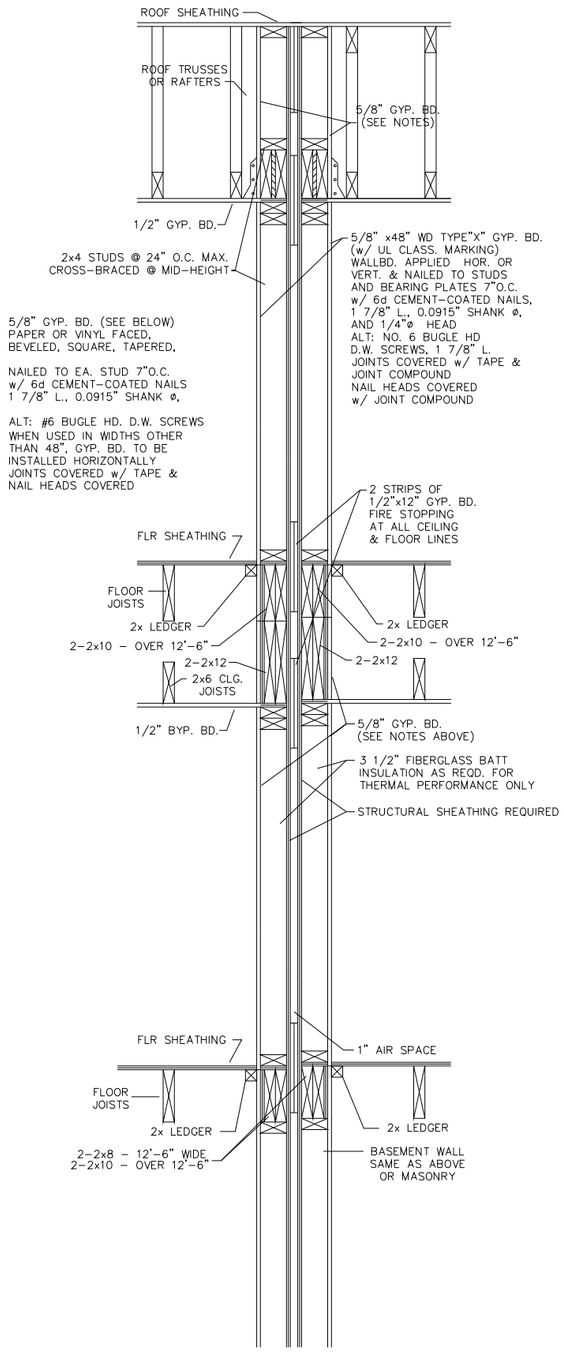
TITLE: PARAPET WALL DETAIL

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

SHEET: PARAPET

ONE HOUR FIRE SEPARATION WALL

DESIGN NUMBER– U341
STC RATING– 46



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CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: FIRE SEPARATION WALL DETAIL

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

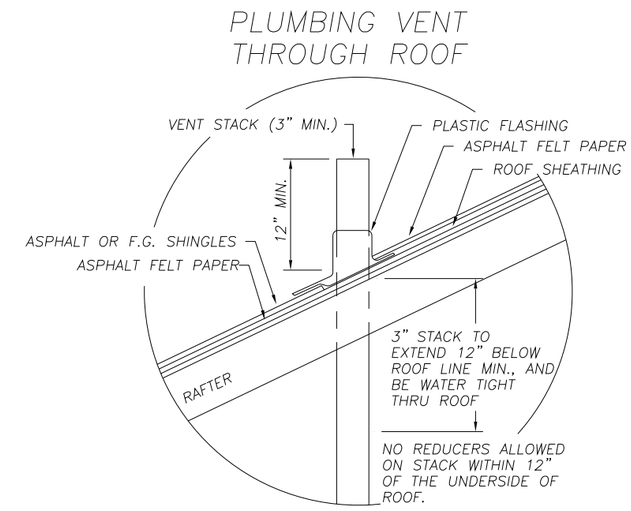
SHEET: FIRE DET

BUILDING CODE REVIEW 2015 MICHIGAN RESIDENTIAL CODE

1. STAIR HANDRAILS SHALL BE MOUNTED 34"-38" ABOVE STAIR. HANDRAILS SHALL BE RETURNED TO A WALL OR POST.
SECTION R311.7.8
2. OPEN GUARDRAILS SHALL HAVE BALUSTERS OR OTHER CONSTRUCTION TO PREVENT PASSAGE OF A 4" DIAMETER SPHERE.
SECTION R312.1.3
3. A SMOKE DETECTOR SHALL BE PROVIDED IN EACH SLEEPING AREA, OUTSIDE OF EACH SEPARATE SLEEPING AREA, AND EACH ADDITIONAL FLOOR, INCLUDING THE BASEMENT (IF APPLICABLE) IN SUCH A MANNER THAT ACTUATION OF ONE WILL ACTUATE ALL DETECTORS.
SECTION R314.3
4. SLEEPING ROOMS AND BASEMENT WITH HABITABLE SPACE SHALL HAVE EGRESS WINDOWS.
SECTION R311
5. ENTRANCE DOOR SIDE LIGHTS SHALL BE SAFETY GLAZED(IF APPLICABLE)
SECTION R308.4.2
6. ALL FLUE CHASES ARE TO BE FIRESTOPPED AT BOTH FLOOR LEVEL AND CEILING LEVEL.
SECTION R1003.20
7. A READILY-ACCESSIBLE OPENING NOT LESS THAN 22"x30" SHALL BE PROVIDED TO ANY ATTIC AREA HAVING A CLEAR HEIGHT OF OVER 30".
SECTION R807
8. VENTILATION IS TO BE PROVIDED IN ATTIC AREA PER SECTION R806
9. SKYLIGHT APPLICATIONS SHALL COMPLY WITH SECTION R308.6
10. THE FLOOR CUT-OUT FOR THE BATHTUB PLUMBING LINES SHALL BE FIRESTOPPED.
SECTION R302.11 AND SECTION 602.8
11. ALL TRUSSES, RAFTERS, AND JOISTS BEARING ON A SINGLE TOP PLATE MUST BE CENTERED OVER STUD, PLUS OR MINUS 1". A SINGLE TOP PLATE USED IN BEARING WALLS SHALL BE ADEQUATELY TIED AT JOISTS, CORNERS, AND INTERSECTING WALLS BY AT LEAST THE EQUIVALENT OF GALVANIZED STEEL THAT IS 3"x6"x0.0036" THICK AND NAILED TO EACH WALL BY (6) 8d NAILS ON EACH SIDE, OR THE EQUIVALENT, AND THE RAFTERS, JOISTS, OR TRUSSES ARE CENTERED OVER THE STUDS.
SECTION R602.3.2
12. THE MINIMUM NET FREE AREA FOR ATTIC VENTILATION MUST BE PROVIDED PER SECTION R806.2
13. ALL SHINGLED ROOFS WITH A SLOPE OF LESS THAN 4:12 SHALL BE PROVIDED NOT LESS THAN (2) LAYERS OF TYPE 15 ASPHALT-SATURATED FELT UNDERLAYMENT PER SECTION R905.1.1
14. A ROOF ICE PROTECTION SHALL BE USED IN AREAS WHERE THE AVERAGE DAILY TEMPERATURE IN JANUARY IS 25°F OR LESS.
SECTION
15. FIRESTOPPING PROVIDED AROUND ALL VENTS, PIPES, DUCTS, CHIMNEYS, AND FIREPLACES AT CEILING/FLOOR LEVELS PER SECTION R602.8 AND SECTION R302.11

MECHANICAL CODE REVIEW MICHIGAN

1. BATH EXHAUST-EXHAUST FROM EXHAUST FANS SHALL BE VENTED TO EXTERIOR AND TERMINATE AT A CAP.
SECTION M1601.3
2. BATH EXHAUST-FLEXIBLE DUCTS SHALL CONFORM TO THE REQUIREMENTS OF UL 181 LISTED IN APPENDIX A FOR CLASS O OR CLASS I FLEXIBLE AIR DUCTS.
SECTION M1601.1
3. BATHROOM EXHAUST-OUTSIDE AIR INTAKE OPENINGS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY HAZARD OR NOXIOUS CONTAMINANTS SUCH AS VENTS, CHIMNEYS, PLUMBING VENTS AND EXHAUST FANS, UNLESS SUCH OPENING IS A MINIMUM OF 2 FEET BELOW THE CONTAMINANT SOURCE.
SECTION M1804.2
4. MECHANICAL EXHAUST SYSTEMS SHALL BE REQUIRED FOR EACH NON-PUBLIC RESTROOM. PLEASE NOTE THAT A SOLID SOFFIT MATERIAL SHALL BE USED FOUR FEET ON EITHER SIDE OF EXHAUST CAP TERMINATION.
SECTION 1804.2
5. EACH COMBUSTION AIR OPENINGS THROUGH A WALL OR HORIZONTAL DUCT SHALL HAVE AN UNOBSTRUCTED AREA EQUAL TO A MINIMUM OF 1 SQUARE INCH PER 2000 TRUH TOTAL INPUT RATINS. SECTION M1703.2. EACH COMBUSTION AIR OPENING THROUGH A FLOOR, CEILING, OR VERTICAL DUCT SHALL HAVE AN UNOBSTRUCTED AREA EQUAL TO A MINIMUM OF 1 SQUARE INCH PER 4000 BTUH INPUT RATING.
SECTION M1703.2
6. FLOOR REGISTERS SHALL NOT BE ALLOWED IN ANY OF THE FOLLOWING ROOMS: TOILET ROOMS, BATHROOMS, WASHROOMS, LAUNDRY ROOMS, UTILITY ROOMS, KITCHENS, OR BASEMENTS.
7. WIND LOADING DESIGN CRITERIA AS PER 1996 BNBC MICHIGAN AMENDMENTS PARTS 1,2,3, AND 4; REFERENCE THE FOLLOWING TABLE FROM 2015 MBC SECTION R301.2(4)A FOR EFFECTIVE WIND DESIGN. MINIMUM OF 90MPH FOR MICHIGAN.
8. SITE INSTALLED FIREPLACES SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. EXCEPTION: COMBUSTION AIR INTAKE MUST BE INSTALLED.
9. PLEASE SEE HVAC CALCULATIONS AND LAYOUT ON PAGES:



NOTE: VENT THRU ROOF CONNECTION TO BE COMPLETED IN FIELD BY OTHERS.

NOTES & SPECIFICATIONS

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CHAMPION MODULAR, INC.
10642 S. SUSQUEHANNA TRAIL
LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

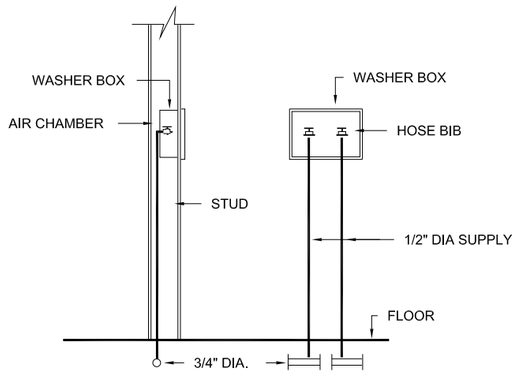
MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: BUILDING NOTES & MECHANICAL SPECS

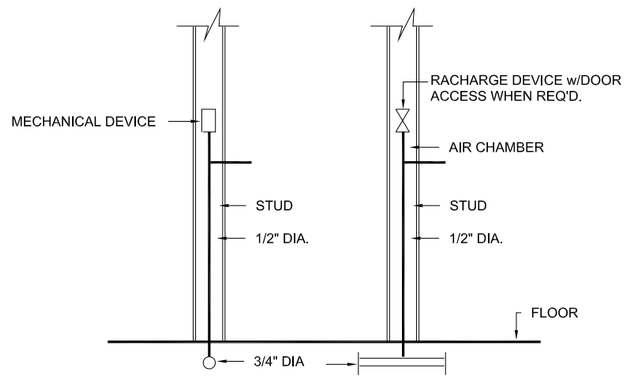
DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

SHEET: BLDG-MECH



WASHER BOX

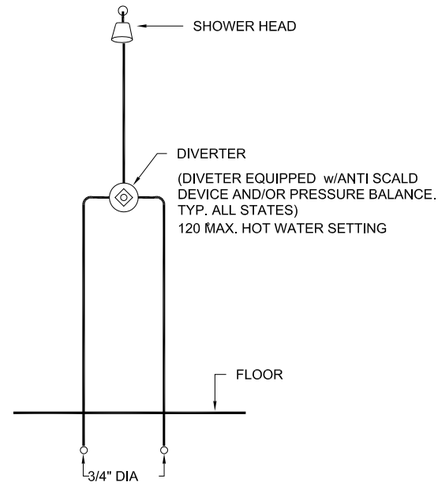
NOTE: THE PAN DRAIN SHALL EXTEND FULL-SIZE AND TERMINATE OVER A SUITABLY LOCATED INDIRECT WASTE RECEPTOR OR FLOOR DRAIN OR EXTEND TO THE EXTERIOR OF THE BUILDING AND TERMINATE NOT LESS THAN 6 INCHES OR MORE THAN 24 INCHES ABOVE THE ADJACENT GROUND SURFACE.(ON-SITE)

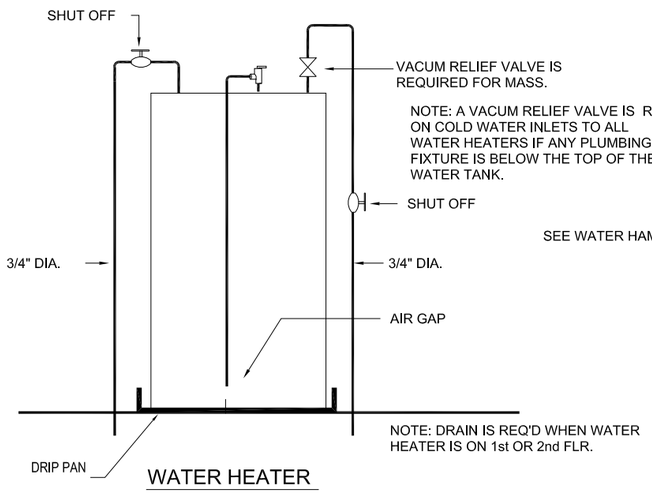


SUPPLY LINE DETAILS

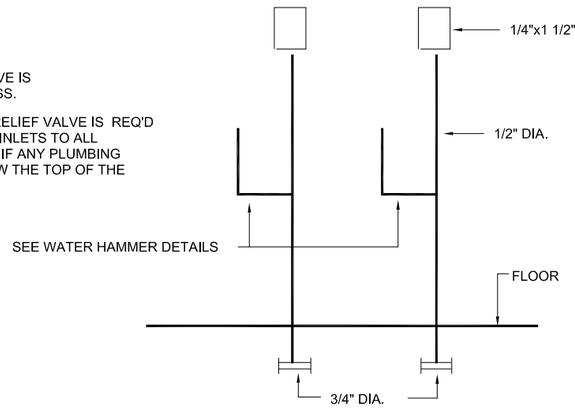
WATER HAMMER

MECHANICAL DEVICES ARE TO BE USED WHERE HIGH WATER PRESSURE (70 psi) OR OR QUICK CLOSING FAUCETS & VALVES ARE INSTALLED TO PREVENT WATER HAMMER AND OBJECTIONABLE LINE NOISES. (WASHER, D/W & ICE MAKER) REQUIRED TO MEET ASSE 1010





WATER HEATER SUPPLY



KITCHEN SINK/VANITY SUPPLY

WATER SUPPLY GENERAL NOTES

1. PIPING IS CPVC OR PEX WITH APPROVED FITTINGS.
2. CONNECTIONS OF CPVC ARE MADE USING AN APPROVED PRIMER AND SOLVENT CONFORMING TO ASTM 493. (NO SLIP JOINT FITTING ARE TO BE USED)
3. HORIZONTAL AND VERTICAL PIPING IS TO BE SUPPORTED AT 3' O.C.
4. DISCHARGE TUBES FROM RELIEF VALVES ARE RUN FULL SIZE TO THE OUTLET. VALVES ARE NOT PERMITTED IN RELIEF VALVE DISCHARGE PIPES.
5. MAIN INLET AND WATER HEATER INLET ARE INSTALLED WITH FULL OPEN VALVES.
6. ALL FIXTURES ARE CONNECTED WITH APPROVED SHUT-OFFS.
7. EXTERIOR FAUCETS SHALL BE PROTECTED BY AN APPROVED VACUUM BREAKER.
8. TUBS AND SHOWERS ARE EQUIPPED WITH CONTROL VALVES OF THE BALANCE TYPE, CAPABLE OF LIMITING WATER TEMPERATURE TO A HIGH OF 120 DEGREES.
9. DISHWASHERS, WASHER, AND LAVS ARE EQUIPPED WITH WATER HAMMER ARRESTORS.MECHANICAL ARRESTORS ARE USED ON QUICK CLOSING DEVICES AAS REQUIRED BY THE RESPECTIVE CODE.
10. PIPING MAY BE DELETED AND INSTALLED ON-SITE BY THE BUILDER IN ACCORDANCE WITH THE LOCAL JURISDICTION.
11. WATER HAMMER ARRESTORS MUST CONFORM TO ASSE 1010 AND BE INSTALLED IN ACCORDANCE WITH THEIR LISTINGS. ACCESS SHALL BE PROVIDED TO ALL ARRESTORS.
12. EXTERIOR FAUCET SHUT OFF VALVES LOCATED IN EITHER THE CRAWLSPACE, OR IN A BASEMENT, SHALL BE IDENTIFIED BY A SELF ADHESIVE LABEL OR A STRING TAG. THE LABEL SHALL READ " SHUT-OFF FOR EXTERIOR FAUCET".
13. IN CONCEALED LOCATIONS, WHERE PIPING IS INSTALLED THROUGH HOLES OR NOTCHES IN STUD, JOISTS, RAFTERS, OR SIMILAR MEMBERS LESS THAN 1 ¼" FROM THE NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE A MINIMUM OF 0.0575" THICK STEEL, SHALL COVER THE AREA OF THE PIPE WHERE THE MEMBER IS OR BORED AND SHALL EXTEND A MINIMUM OF 2" ABOVE SOLE PLATES AND BELOW TOP PLATES.
14. ACCESS AT WHIRLPOOL TUB PUMP SHALL BE THRU A 12"x12" MIN. OPENING. IF PUMP IS MORE THAN TWO FEET FROM THE ACCESS PANEL, THE OPENING MUST BE A MIN. OF 18"x18". (IF APPLICABLE)
15. WHEN HOME IS PLACED ON UNHEATED FOUNDATIONS THERE MUST BE ON-SITE PROVISIONS TO PREVENT FREEZING OF WATER SUPPLY AND DWV MUST BE SUPPLIED AND INSTALLED ON-SITE BY OTHERS.
16. NO LUMBER MAY BE NOTCHED, BORED, OR CUT IN THE FIELD UNLESS IN ACCORDANCE WITH THE CODE AUTHORITY.
17. A ½" WATER SUPPLY SHALL SUPPLY ONLY (1) FIXTURE.
18. ACCESS FOR TUB MOTORS SHALL BE PROVIDED WHERE APPLICABLE.

PREMANUFACTURED

These documents are approved for compliance with the STATE OF MICHIGAN PREMANUFACTURED UNITS PROGRAM subject to field inspection and the conditions of approval.

CHAMPION FACTORY 041
CHAMPION MODULAR, INC.
10642 S. SUSQUEHANNA TRAIL
LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

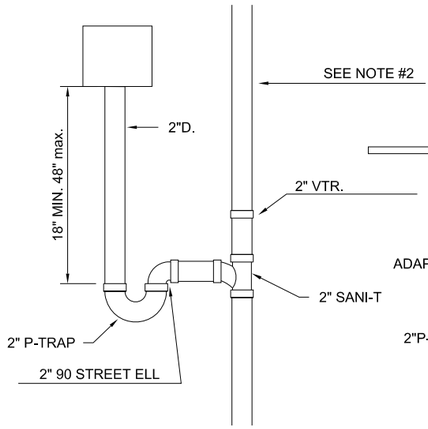
TITLE: PLUMBING RISER DIAGRAM

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 FN
FN

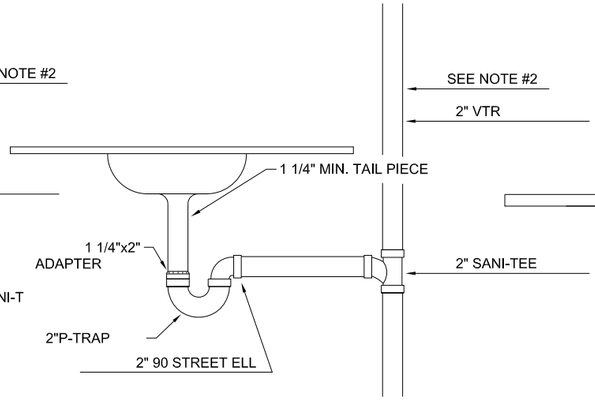
SHEET: PL1

PREMANUFACTURED

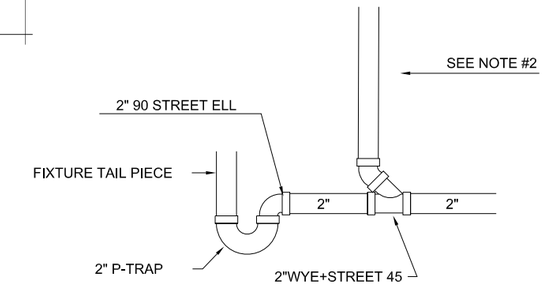
These documents are approved for compliance with the STATE OF MICHIGAN PREMANUFACTURED UNITS PROGRAM subject to field inspection and the conditions of approval.



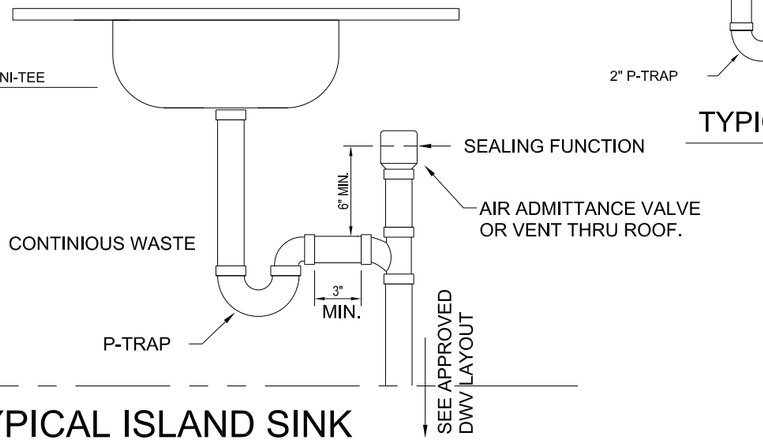
WASHER STANDPIPE



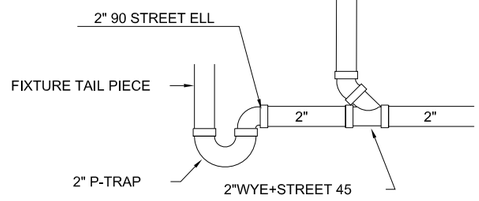
TYPICAL SINGLE LAV.



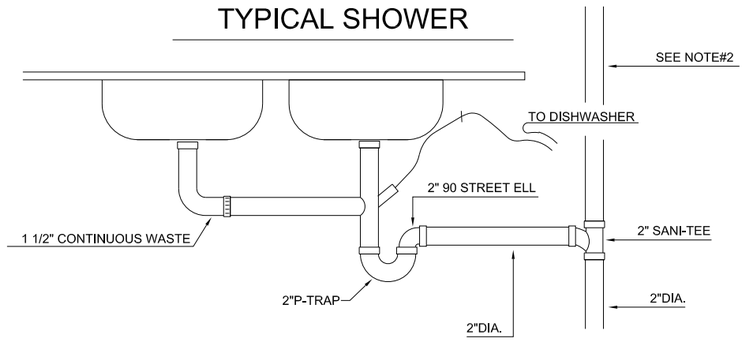
TYPICAL TUB/SHOWER



TYPICAL ISLAND SINK



TYPICAL SHOWER



TYPICAL KITCHEN SINK
w/OPT. DISHWASHER

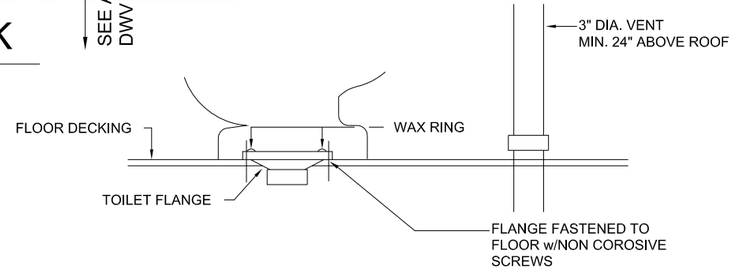
NOTES:

1.) ONE 2" DIA. FUTURE VENT REQ'D AND MUST BE TAGGED & PLUGGED.

2.) THIS VENT CONNECTS TO 3" MAIN VENT WITH 3x3x1 1/2" TEE

3.) ANTI-SCALD DEVICES MUST BE INSTALLED ON ALL TUBS & SHOWERS PER STATE CODE.

4.) FIRESTOPPING PROVIDED AROUND ALL VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING/FLOOR LEVELS



MAIN VENT AND WATER CLOSET
MAIN VENT MUST EXTEND 2' ABOVE ROOF MIN.

5.) ALL WET VENTS SHALL BE 2" MIN.

6.) ALL WATER CLOSETS SHALL HAVE A MIN. 2" VENT.

7.) STANDPIPES SHALL EXTEND NOT LESS THAN 18 INCHES (457 MM) AND NOT GREATER THAN 42 INCHES (1067 MM) ABOVE THE TRAP WEIR.

CHAMPION FACTORY 041
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LIVERPOOL, PA 17045

BRAND: excel HOMES

BUILDER: INNOVALAB

CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: TYPICAL PLUMBING

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: PL2

PREMANUFACTURED

These documents are approved for compliance with the STATE OF MICHIGAN PREMANUFACTURED UNITS PROGRAM subject to field inspection and the conditions of approval.

44593 WINDOW / DOOR SCHEDULE

MANUF. CODE	ROUGH OPENING	MANUF.	TYPE	REMARKS	"U"	AREA	SQ. FT. LIGHT	SQ. FT. VENT	CLEAR OPENING
3050	36 1/2"x60 1/4"	ANDERSEN 100	SH	EGRESS	.30	15.27	11.95	6.06	33"x26 7/16"
3056	36 1/2"x66 1/4"	ANDERSEN 100	SH	EGRESS	.30	16.79	13.22	6.75	33"x29 7/16"
32" HALF LITE	34 3/4"x82 3/4"	PLASTPRO		EGRESS	.25	20	4.9	17.33	
36" HALF LITE	38 3/4"x82 3/4"	PLASTPRO		EGRESS	.25	22.3	4.9	19.26	
36" W/1-14" SL	53 3/4"x82 3/4"	PLASTPRO		EGRESS	.25	30.9	1.7	19.26	

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CUSTOMER/PROJECT: FLINT

ENGINEER'S / ARCHITECT'S SEAL

APPROVERS SEAL

MODIFICATIONS

PROJECT: 44593 TOWNHOUSE

TITLE: WINDOW AND DOOR SCHEDULE

DRAWN BY: MAB
DATE: 06-16-23
SCALE: 1/8" = 1'-0"
FILENAME: 44593 SN
FN

SHEET: WIN-DR

ELECTRIC LOAD CALCULATION

Manuf. *Champion Modular Inc.* **Date** 7/7/2023

QN # *44593* Inside unit only **By** *DDC*

HEAT / COOLING LOADS	Watts	Watts (Volt-Amps)
Air Conditioning (100%)*	By Bldr	By Bldr
Central Electric Space Heating (# of Watts x .65)*	0	0
Less Than 4 Separately Controlled Electric Space Heating Units (# of Watts x .65)	0	0
Four or More Separately Controlled Electric Space Heating Units (# of Watts x .40)	0	0
*** Use the larger of the Air-Conditioning Load or The diversified demand of the heating load**		0

OTHER LOADS		Watts	Ampacity	Wire Size
General Lighting	1130 (sq. ft.) (x 3)	3390	15A	14-2
Small Appliances	3 (# of circuits) (x 1500)	4500	20A	12-2
Laundry		1500	20A	12-2
Furnace		By Bldr	By Bldr	By Bldr
Optional Dryer		5000	30A	10-3
Optional Water Heater		4500	25A	10-2
Optional Range (8KW Max. - Tab. 220-19)		8000	40A	8-3
Optional Dishwaher		1035	20A	12-2
Optional Garbage Disposal		575	15A	14-2
Opt.				

Subtotal:	28500		
First 10KW of subtotal at 100%	10,000		
Remainder at 40%	7400		
Total Calc. Load	17,400		
Req'd Service (T.C.L./240)	**72.5**	**AMPS**	
Installed Service	**200**	**AMPS**	

ELECTRIC LOAD CALCULATION

Manuf. *Champion Modular Inc.* **Date** 7/7/2023

QN # *44593* Outside unit only **By** *DDC*

HEAT / COOLING LOADS	Watts	Watts (Volt-Amps)
Air Conditioning (100%)*	By Bldr	By Bldr
Central Electric Space Heating (# of Watts x .65)*	0	0
Less Than 4 Separately Controlled Electric Space Heating Units (# of Watts x .65)	0	0
Four or More Separately Controlled Electric Space Heating Units (# of Watts x .40)	0	0
*** Use the larger of the Air-Conditioning Load or The diversified demand of the heating load**		0

OTHER LOADS		Watts	Ampacity	Wire Size
General Lighting	1535 (sq. ft.) (x 3)	4605	15A	14-2
Small Appliances	3 (# of circuits) (x 1500)	4500	20A	12-2
Laundry		1500	20A	12-2
Furnace		By Bldr	By Bldr	By Bldr
Optional Dryer		5000	30A	10-3
Optional Water Heater		4500	25A	10-2
Optional Range (8KW Max. - Tab. 220-19)		8000	40A	8-3
Optional Dishwaher		1035	20A	12-2
Optional Garbage Disposal		575	15A	14-2
Opt.				

Subtotal:	29715		
First 10KW of subtotal at 100%	10,000		
Remainder at 40%	7886		
Total Calc. Load	17,886		
Req'd Service (T.C.L./240)	**74.525**	**AMPS**	
Installed Service	**200**	**AMPS**	

Generated by RES*check-Web* Software

Compliance Certificate

Project 44593

Energy Code:	**2018 IECC**
Location:	**Flint, Michigan**
Construction Type:	**Multi-family**
Project Type:	**New Construction**
Conditioned Floor Area:	**4,226 ft2**
Glazing Area	**12%**
Climate Zone:	**5 (6979 HDD)**
Permit Date:	
Permit Number:	

Construction Site:
309 WEST 5TH AVE.
FLINT, MI 48502

Owner/Agent:
INNOVALAB DEVELOPMENT GROUP, LLC.
6610 EGYPT RIDGE ROAD NE
ROCKFORD, MI 49341

Designer/Contractor:
CHAMPION MODULAR, INC.
10642 SOUTH SUSQUEHANNA
LIVERPOOL, PA 17045

Compliance: Passes using UA trade-off

Compliance: **1.9% Better Than Code** Maximum UA: **579** Your UA: **568**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.
It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Ceiling: Flat Ceiling or Scissor Truss	2,113	45.0	0.0	0.027	0.026	57	55
Exterior Walls: Wood Frame, 16" o.c.	3,815	21.0	0.0	0.057	0.060	184	193
Doors: Glass Door (over 50% glazing)	220			0.250	0.300	55	66
Windows: Vinyl Frame	372			0.280	0.300	104	111
Perimeter Bands clg/flr: Wood Frame, 16" o.c.	412	15.6	0.0	0.076	0.060	31	25
Stair Walls: Wood Frame, 16" o.c.	782	13.0	0.0	0.082	0.060	60	44
Door: Solid Door (under 50% glazing)	50			0.140	0.300	7	15
Floor: All-Wood Joist/Truss	2,113	30.0	0.0	0.033	0.033	70	70

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2018 IECC requirements in RES*check* Version : REScheck-Web and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Doug Cramer	Doug Cramer	7/10/23
Name - Title	Signature	Date

RES*check* Software Version : REScheck-Web

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.1, 103.2, 403.7 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
302.1, 403.7 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr_____ Cooling: Btu/hr_____	Heating: Btu/hr_____ Cooling: Btu/hr_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1 [FO11][2]	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.9 [FO12][2]	Snow- and ice-melting system controls installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.4 [FR1][1]	Door U-factor.	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2][1]	Glazing U-factor (area-weighted average).	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.1 [FR23][1]	Air barrier and thermal barrier installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.3 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.5 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.1 [FR12][1]	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.2 [FR13][1]	Ducts, air handlers and filter boxes are sealed with joints/seams compliant with International Mechanical Code or International Residential Code, as applicable.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.5 [FR15][3]	Building cavities are not used as ducts or plenums.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4.1 [FR24][1]	Protection of insulation on HVAC piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.3 [FR18][2]	Hot water pipes are insulated to ≥R-3.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.6 [IN1][1]	Floor insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2, 402.2.8 [IN2][1]	Floor insulation installed per manufacturer's instructions and in substantial contact with the underside of the subfloor, or floor framing cavity insulation is in contact with the top side of sheathing, or continuous insulation is installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.5, 402.2.6 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1][1]	Ceiling insulation R-value.	R-_____ ☐ Wood ☐ Steel	R-_____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.1.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.3 [FI22][2]	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.4 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.2 [FI17][1]	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 =_____	ACH 50 =_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.3 [FI27][1]	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	_____ cfm/100 ft²	_____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.4 [FI4][1]	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	_____ cfm/100 ft²	_____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.2.1 [FI24][1]	Air handler leakage designated by manufacturer at <=2% of design air flow.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.1 [FI9][2]	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.2 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6.1 [FI25][2]	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits per Table R403.6.1.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2 [FI26][2]	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1.1 [FI28][2]	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1.2 [FI29][2]	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.2 [FI30][2]	Demand recirculation water systems have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to <= 104ºF.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.4 [FI31][2]	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1 [FI6][1]	90% or more of permanent fixtures have high efficacy lamps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1.1 [FI23][3]	Fuel gas lighting systems have no continuous pilot light.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
401.3 [FI7][2]	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating systems have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2018 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	21.00
Below-Grade Wall	0.00
Floor	30.00
Ceiling / Roof	45.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.28	
Door	0.25	

Heating & Cooling Equipment	Efficiency
Heating System:_____	_____
Cooling System:_____	_____
Water Heater:_____	_____

Name: _____ **Date:**_____

Comments

Job	Truss	Truss Type	Qty	Ply	CHAMPION HOMES 212
113625	SF400101	SLOPING FLAT	1	1	Job Reference (optional)

UFP Industries Inc., Grand Rapids, MI 49525, Corey Daubert

8.620 e Sep 22 2022 MiTek Industries, Inc. Wed Jun 21 11:16:22 2023 Page 1
ID:7hiTq5ZcHGeHZjqjBv6NyEyM_nr-RY7IScgT_N3StkbK2dE2uI8Y18ADk8CBSrh0LTz458t

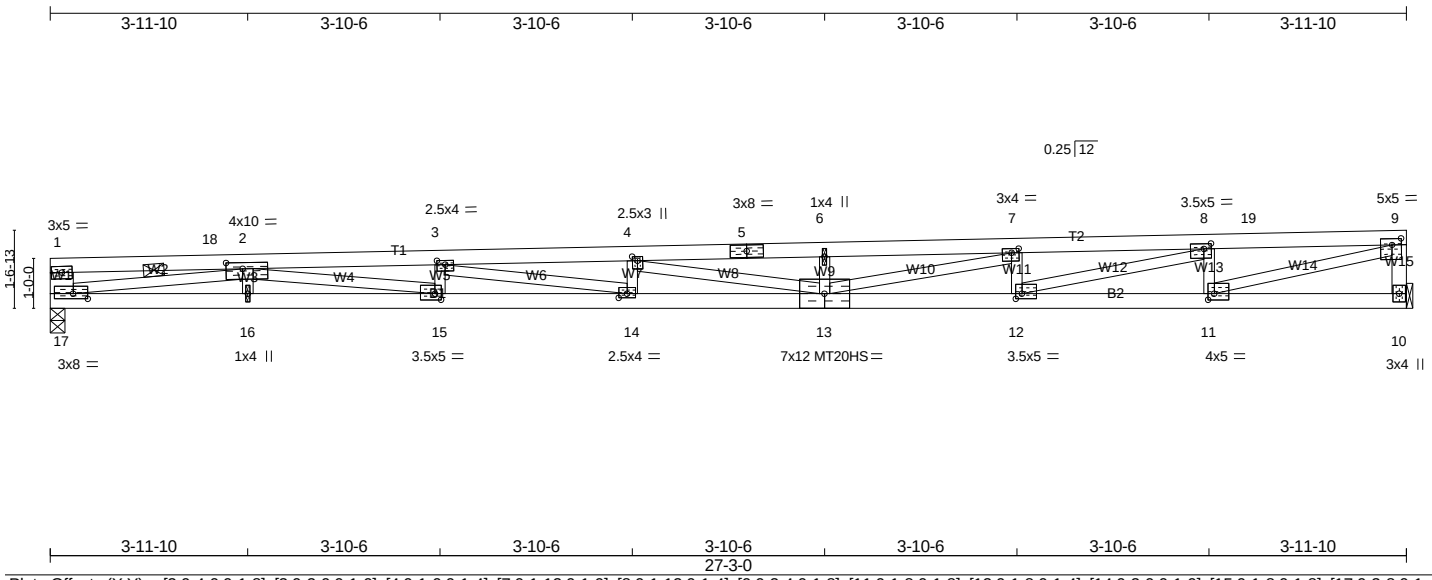

Plate Offsets (X,Y)-- [2:0-4-0,0-1-8], [3:0-2-0,0-1-0], [4:0-1-0,0-1-4], [7:0-1-12,0-1-0], [8:0-1-12,0-1-4], [9:0-2-4,0-1-8], [11:0-1-8,0-1-8], [12:0-1-8,0-1-4], [14:0-2-0,0-1-0], [15:0-1-8,0-1-8], [17:0-3-8,0-1-4]

LOADING (psf)		**SPACING-**	1-4-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	30.8	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-1.02	13-14	>316	240	MT20	197/144
(Ground Snow=40.0)		Lumber DOL	1.15	BC	0.66	Vert(CT)	-1.59	13-14	>203	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-R							Weight: 98 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
T1: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SP 2700F 2.2E
WEBS 2x3 SPF No.2 *Except*
W1: 2x6 SPF No.2, W15: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-5-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-17

REACTIONS. (lb/size) 17=910/0-3-8, 10=910/Mechanical
Max Horz 17=15(LC 9)
Max Uplift 17=-80(LC 8), 10=-80(LC 12)
Max Grav 17=1006(LC 18), 10=1006(LC 18)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-219/34, 1-18=-771/59, 2-18=-766/60, 2-3=-6111/483, 3-4=-6800/538, 4-5=-6258/495, 5-6=-6255/495, 6-7=-6257/497, 7-8=-4924/392, 8-19=-2736/217, 9-19=-2732/218, 9-10=-930/90
BOT CHORD 16-17=-314/3850, 15-16=-314/3850, 14-15=-492/6108, 13-14=-546/6797, 12-13=-394/4920, 11-12=-218/2734, 10-11=-18/215
WEBS 2-16=-62/42, 3-15=-410/67, 4-14=-93/42, 6-13=-226/53, 7-12=-606/83, 8-11=-837/103, 2-17=-3152/249, 2-15=-182/2305, 3-14=-55/706, 4-13=-559/46, 7-13=-111/1388, 8-12=-184/2288, 9-11=-211/2655

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 24-1-4, Exterior(2) 24-1-4 to 27-1-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pg=40.0 psf (ground snow); Ps=30.8 psf (roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 17 and 80 lb uplift at joint 10.
10) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

Job	Truss	Truss Type	Qty	Ply	CHAMPION HOMES 212
113625	SF400201	SLOPING FLAT	1	1	Job Reference (optional)

UFP Industries Inc., Grand Rapids, MI 49525, Corey Daubert

8.620 e Sep 22 2022 MiTek Industries, Inc. Wed Jun 21 11:16:05 2023 Page 1 of 1
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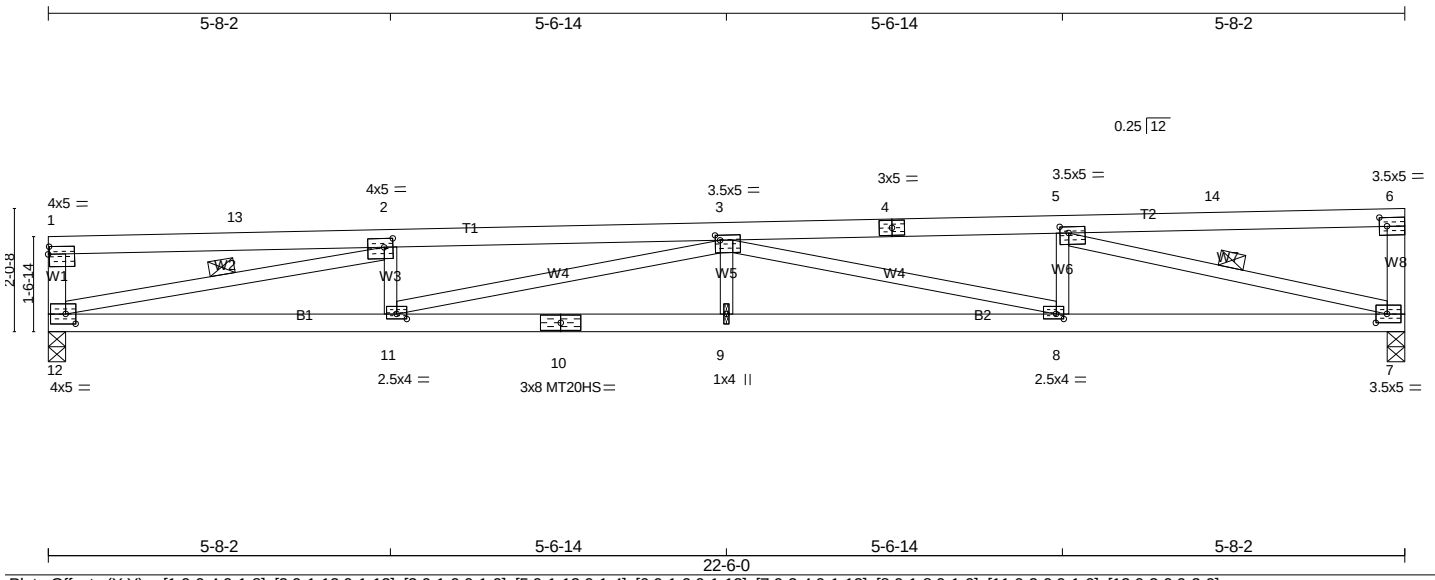

Plate Offsets (X,Y)-- [1:0-0-4,0-1-8], [2:0-1-12,0-1-12], [3:0-1-0,0-1-0], [5:0-1-12,0-1-4], [6:0-1-9,0-1-12], [7:0-2-4,0-1-12], [8:0-1-8,0-1-0], [11:0-2-0,0-1-0], [12:0-2-0,0-2-0]

LOADING (psf)		**SPACING-**	1-4-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	30.8	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.33	9-11	>807	240	MT20	197/144
(Ground Snow=40.0)		Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.52	9-11	>513	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.10	7	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-R							Weight: 75 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
W1,W8: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-11 oc purlins, except end verticals. [P]
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12, 5-7

REACTIONS. (lb/size) 12=752/0-3-8, 7=752/0-3-8
Max Horz 12=30(LC 11)
Max Uplift 12=-66(LC 8), 7=-66(LC 12)
Max Grav 12=822(LC 18), 7=822(LC 18)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-192/39, 1-13=-254/21, 2-13=-250/22, 2-3=-2489/204, 3-4=-2166/180, 4-5=-2162/181, 5-14=-153/25, 6-14=-149/25, 6-7=-173/37
BOT CHORD 11-12=-191/2485, 10-11=-240/3094, 9-10=-240/3094, 8-9=-240/3095, 7-8=-165/2162
WEBS 2-11=0/223, 3-9=0/152, 5-8=0/306, 2-12=-2305/186, 3-11=-632/51, 3-8=-967/78, 5-7=-2098/169

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 19-4-4, Exterior(2) 19-4-4 to 22-4-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pg=40.0 psf (ground snow); Ps=30.8 psf (roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 12 and 66 lb uplift at joint 7.
10) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

Job	Truss	Truss Type	Qty	Ply	CHAMPION HOMES 212
113625	SF400301	SLOPING FLAT	1	1	Job Reference (optional)

UFP Industries Inc., Grand Rapids, MI 49525, Corey Daubert — 8.620 e Sep 22 2022 MiTek Industries, Inc. Wed Jun 21 11:19:15 2023 Page 1 of 1
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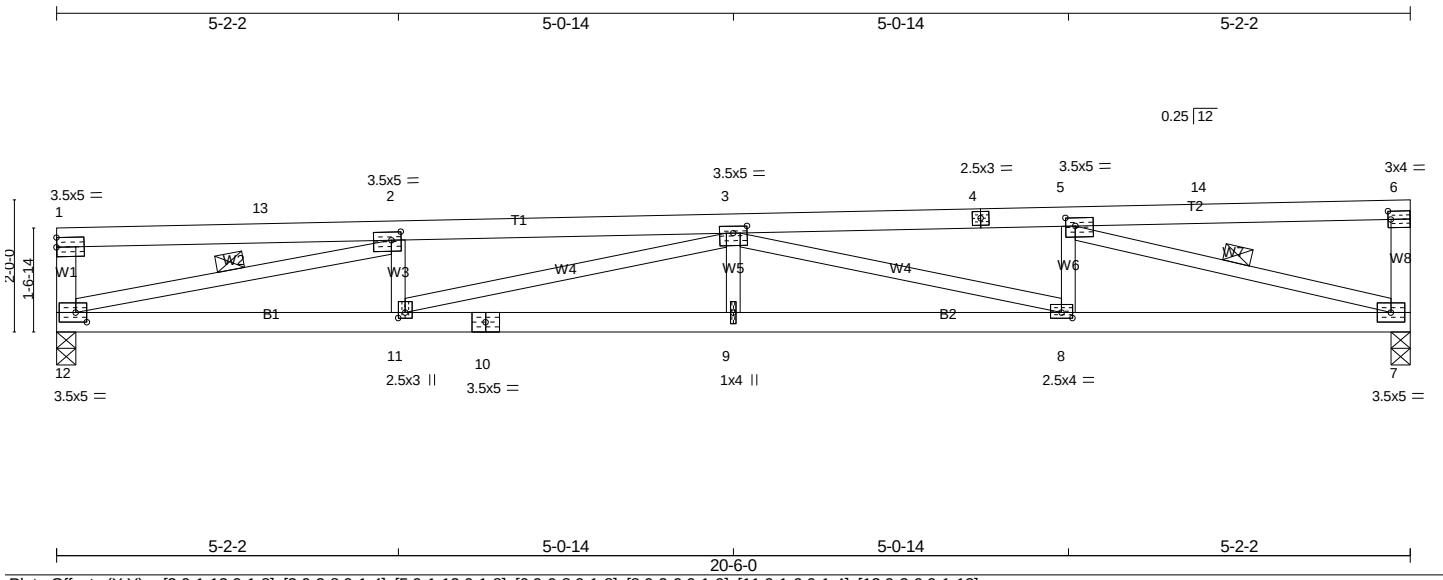

Plate Offsets (X,Y)-- [2:0-1-12,0-1-8], [3:0-2-8,0-1-4], [5:0-1-12,0-1-8], [6:0-0-8,0-1-8], [8:0-2-0,0-1-0], [11:0-1-0,0-1-4], [12:0-2-0,0-1-12]

LOADING (psf)		**SPACING-**	1-4-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	30.8	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.23	9	>999	240	MT20	197/144
(Ground Snow=40.0)		Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.36	9-11	>664	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.07	7	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-R							Weight: 69 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
W1,W8: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-13 oc purlins, except end verticals. [P]
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12, 5-7

REACTIONS. (lb/size) 12=684/0-3-8, 7=684/0-3-8
Max Horz 12=29(LC 11)
Max Uplift 12=-60(LC 8), 7=-60(LC 12)
Max Grav 12=745(LC 18), 7=745(LC 18)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-173/35, 1-13=-209/18, 2-13=-205/18, 2-3=-2065/171, 3-4=-1817/153, 4-5=-1812/153, 5-14=-130/23, 6-14=-127/24, 6-7=-157/34
BOT CHORD 11-12=-158/2061, 10-11=-200/2583, 9-10=-200/2583, 8-9=-200/2584, 7-8=-138/1813
WEBS 2-11=0/205, 3-9=0/138, 5-8=0/274, 2-12=-1925/156, 3-11=-544/45, 3-8=-803/65, 5-7=-1769/143

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-4-4, Exterior(2) 17-4-4 to 20-4-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pg=40.0 psf (ground snow); Ps=30.8 psf (roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 12 and 60 lb uplift at joint 7.
9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

Job	Truss	Truss Type	Qty	Ply	CHAMPION HOMES 212
113625	SF400401	SLOPING FLAT	1	1	Job Reference (optional)

UFP Industries Inc., Grand Rapids, MI 49525, Corey Daubert

8.620 e Sep 22 2022 MiTek Industries, Inc. Wed Jun 21 11:20:48 2023 Page 1 of 1
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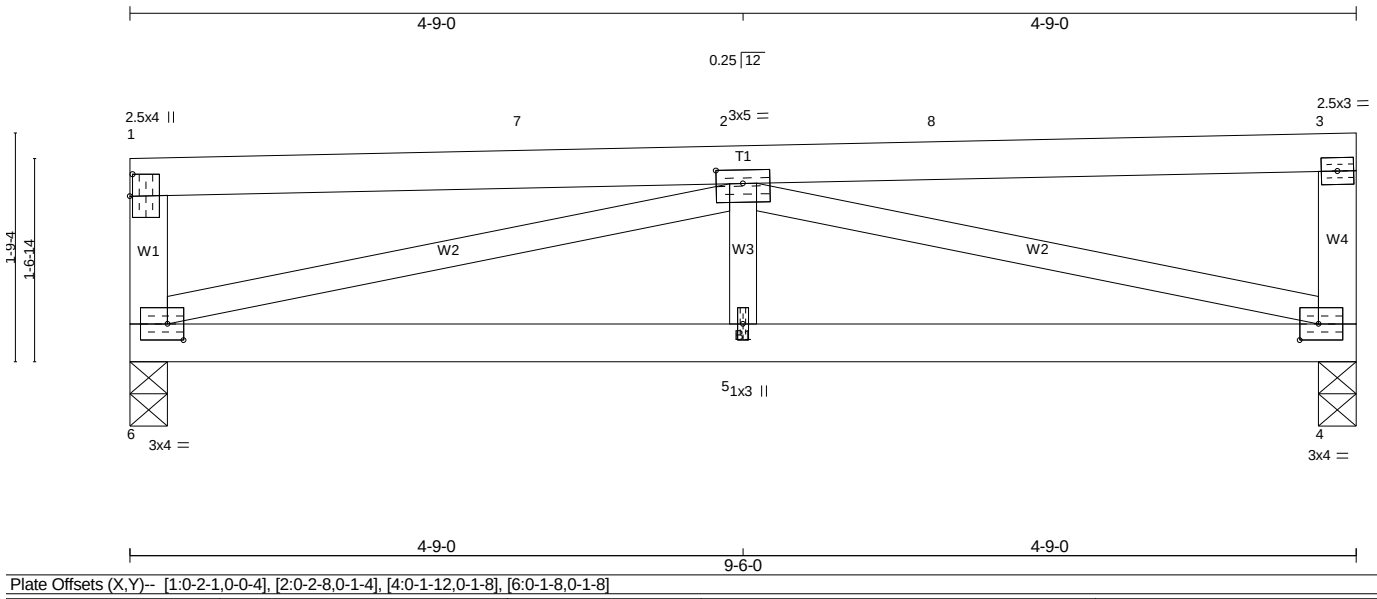

Plate Offsets (X,Y)-- [1:0-2-1,0-0-4], [2:0-2-8,0-1-4], [4:0-1-12,0-1-8], [6:0-1-8,0-1-8]

LOADING (psf)		**SPACING-**	1-4-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	30.8	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.02	5	>999	240	MT20	197/144
(Ground Snow=40.0)		Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-R							Weight: 32 lb	FT = 0%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
W1,W4: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=312/0-3-8, 4=312/0-3-8
Max Horz 6=24(LC 11)
Max Uplift 6=-28(LC 8), 4=-27(LC 12)
Max Grav 6=327(LC 18), 4=327(LC 18)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-139/45, 1-7=-122/18, 2-7=-118/19, 2-8=-104/28, 3-8=-101/29, 3-4=-134/44
BOT CHORD 5-6=-47/597, 4-5=-47/597
WEBS 2-5=0/116, 2-6=-499/59, 2-4=-518/51

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-4-4, Exterior(2) 6-4-4 to 9-4-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pg=40.0 psf (ground snow); Ps=30.8 psf (roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 6 and 27 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.