HWC

ENGINEERING • INSPECTIONS
CERTIFICATIONS • TESTING

June 8, 2022

New Baxley, LLC
DBA Impact Housing
137 West Park Dr.
Baxley, GA 31513

RE: Manufacturer: New Baxley/Impact Housing
S/N Size & Occupancy: 1672018GSH; IHG-43FL; 15'-4" X 72'-0"; SFD
HWC Plan #: 2773-0073F

To Whom It May Concern:

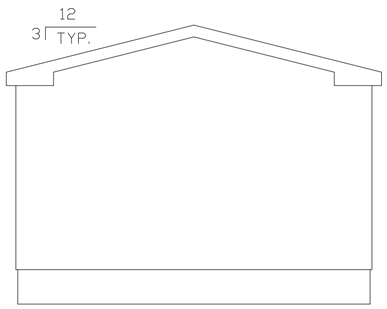
This is to certify that the plans for the referenced manufactured building have been reviewed and approved as being in compliance with the 2020 Florida Codes with 2021 Supplement and Standards, as noted on the approved drawings, subject to the following limitations:

1. Approval covers factory-built structure only. (Note: Any alterations to factory built structure on site voids state approval)
2. Items installed at the site are subject to review, approval, and inspection by the local authority having jurisdiction.
3. The Chapter 633 Plan Review and Inspection shall be conducted by the local fire safety inspector.
4. Signed and sealed plans shall be on file with HWC Engineering.
5. NOT approved for High Velocity Hurricane Zone (i.e. Broward and Dade Counties)

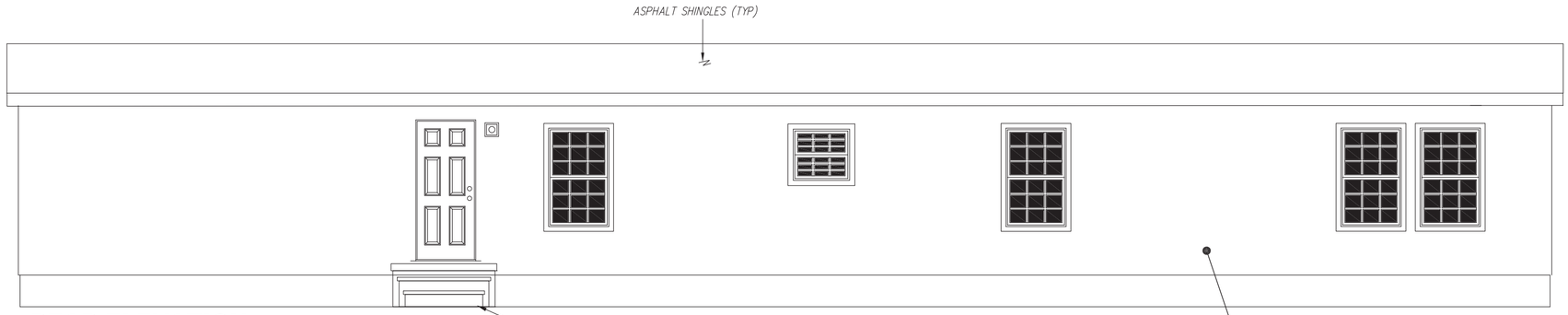
Sincerely,
HILBORN, WERNER, CARTER & ASSOCIATES, INC.

Plan Reviewer

HILBORN, WERNER, CARTER AND ASSOCIATES, INC.
1627 SOUTH MYRTLE AVENUE CLEARWATER, FLORIDA 33756
(727) 584-8151
FAX: (727) 586-3343 Modular / (727) 585-2392 Oapia / (727) 587-0447 Inspection

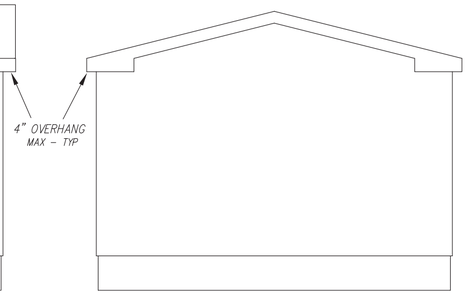


LEFT ELEVATION



REAR ELEVATION

FRONT ELEVATION



RIGHT ELEVATION

BUILDING SITE INSTALLATION REQUIREMENTS

ATTENTION LOCAL INSPECTIONS DEPARTMENT:

The following items have not been completed by the building manufacturer, have not been inspected by the third party inspection agency and are not certified by the state modular label and/or certification. Code compliance for these items must be determined at the local level:

1) *The completed foundation support system and tiedown and/or anchorage system.*
2) *Ramps, stairs and general access to the building.*
3) *Building drains, cleanouts and hook-ups to plumbing system, and finish plumbing.*
4) *Electrical service hook-up (including feeders and the main Electrical Panel).*
5) *Connection of electrical circuits crossing over modular mating lines (multi-wide units only).*
6) *Structural and aesthetic interconnections between modules (multi-units only).*
7) *Installation of insulation at floor, ceiling and end-walls at mating lines (multi-wide units only).*
8) *Install R6.5 insulation on all piping installed in unconditioned spaces.*
9) *Install firestopping at all module mate lines at the marriage wall ceiling height and at the floor system.*
10) *Crawl space light and switch*
11) *HVAC system crossover ducts, and HVAC systems; HVAC system energy code compliance documentation to be provided by the HVAC designer*
12) *Ridge vents must be installed in accordance with the vent manufacturers instructions.*
13) *Storm Protection Panels Required For Glazed Openings*
14) *Lamps in permanent light fixtures to be site-installed.*
15) *On-site fastenings and framing at gable walls, truss transitions and/or hinged trusses.*
16) *Window Guards when required (see notes on Dwg #2)*
17) *Hose Bibbs and Backflow Preventors*
18) *Foundation Design*
19) *Floor Insulation*
20) *Installation of Air Admittance Valves After Drainage System Testing*
21) *Communications Outlet and Cable to be site-installed*
22) *Low Velocity Blade Fans*
23) *Fire Separation Distance for building to be 3 feet minimum from the property line or assumed property line*
24) *Thermal Envelope Blower Door Testing and Whole House Ventilation System to be Performed/Installed On-Site*

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	VB
OCCUPANCY	SFD
ALLOWABLE NO. OF FLOORS	1
RISK CATEGORY	II
WIND VELOCITY (ULT)	150
WIND VELOCITY (ASD)	116
FIRE RATING OF EXT. WALLS	0
PLAN NO.	2773-0073F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	06-08-2022
MANUFACTURER	New Baxley
HIGH VELOCITY HURRICANE ZONE	NO

IWC
MUR-261

Date 06-08-22 Plan No. 2773-0073F
Approved By SCOTT S. FRANCIS

Modular Building Plans Examiner
Florida License No. SMP-42

NOTE: THE FLOOR AND ROOF DESIGN OF THIS BUILDING IS "LIGHT-FRAME" TRUSS-TYPE CONSTRUCTION AS REFERENCED IN FAC RULE 69A-3.012(6). THE POSTING OF NOTICE SIGN(S) AS REQUIRED BY FAC RULE 69A-3.012(6) SHALL BE SITE-INSTALLED AND IS THE RESPONSIBILITY OF THE BUILDING OWNER.

NOTE: ALL MATERIALS USED IN THE CONSTRUCTION OF THIS BUILDING WHICH ARE COVERED BY THE FLORIDA BUILDING COMMISSION FAC 61G20-3 RULES SHALL HAVE A CURRENT FLORIDA PRODUCT APPROVAL AND/OR SHALL BE APPROVED IN ACCORDANCE WITH FS 553.8425

NOTE: BUILDING IS DESIGNED TO MEET THE THERMAL ENVELOPE PRESCRIPTIVE REQUIREMENTS OF THE 2020 FBC-ENERGY CONSERVATION, 7TH EDITION, FOR CLIMATE ZONES 1 AND 2

NOTE: THIS STRUCTURE CANNOT BE LOCATED ON THE UPPER HALF OF AN "ISOLATED HILL, RIDGE OR ESCARPMENT" WHICH IS EQUAL TO OR HIGHER THAN 15 FEET IN EXPC OR EXPD LOCATIONS OR EQUAL TO OR HIGHER THAN 60 FEET IN EXPB LOCATIONS

THIS STRUCTURE CANNOT BE LOCATED ON THE SEAWARD SIDE OF THE COASTAL CONSTRUCTION CONTROL LINE

6/8/22

WILLIAM J. KALKER, JR., P.E.

Digitally signed by WILLIAM J. KALKER, JR., P.E.
DN: C=US, CN="WILLIAM J. KALKER, JR., P.E.", O="W.J. KALKER, JE., P.E."
Reason: I am the author of this document
Location: your signing location here
Date: 2022.06.08 07:14:48-04'00'
Foxit PDF Reader Version: 11.2.1

WILLIAM J. KALKER, JR. LICENSE No.33841 STATE OF FLORIDA PROFESSIONAL ENGINEER

NOTE: THIS STRUCTURE IS A MODULAR (FACTORY-BUILT) BUILDING WHICH IS TO BE CONSTRUCTED AND INSPECTED IN ACCORDANCE WITH AN APPROVED THIRD-PARTY QUALITY ASSURANCE PROGRAM TO INSURE COMPLIANCE WITH THE REFERENCED CODES AND STANDARDS.

STATE OF FLORIDA

CODE: 2020 FBC, RESIDENTIAL WITH 2021 SUPP. (7TH EDITION) AND 2017 NEC

FLOOR LIVE LOAD: 40 PSF
FLOOR DEAD LOAD: 10 PSF
ROOF LIVE LOAD: 20 PSF > ON TRUSS TOP CHORD
ROOF DEAD LOAD: 7 PSF > ON TRUSS TOP CHORD
ATTIC LIVE LOAD: 10 PSF
ATTIC DEAD LOAD: 7 PSF

WIND SPEED Vult: 150 MPH, EXPC (3 SEC. GUST; ENCLOSED BLDG)

OCCUPANCY GROUP: SINGLE FAMILY DWELL.

CONSTRUCTION TYPE: WOOD FRAME

RISK CATEGORY: II (PER ASCE 7-16)

MEAN ROOF HEIGHT NOT TO EXCEED 15' ABOVE GRADE

COMPONENT & CLADDING DESIGN LOADS (ASD):

WALL ZONE 4: 31.9 PSF	WALL ZONE 5: 39.4 PSF
ROOF ZONE 1: 54.2 PSF	ROOF ZONE 2: 79.2 PSF
	ROOF ZONE 3: 94.1 PSF

SEISMIC DESIGN CATEGORY: A AND B

Not to be located in coastal or flood hazard areas or in HIGH VELOCITY HURRICANE ZONES

NOTE THE BUILDING SPECIFIED ON THESE DRAWINGS IS EXCLUDED FROM COVERAGE OF THE MANUFACTURED HOUSING CONSTRUCTION AND SAFETY STANDARDS ACT, 42 U.S.C. 5401 ET SEQ, UNDER PROVISIONS OF 24 CFR 3282.12, IN THAT THE BUILDING IS:

1) INTENDED ONLY FOR ERECTION OR INSTALLATION ON A SITE-BUILT PERMANENT FOUNDATION;
2) NOT DESIGNED TO BE MOVED ONCE ERECTED OR INSTALLED; AND
3) DESIGNED AND MANUFACTURED TO COMPLY WITH A NATIONALLY RECOGNIZED MODEL BUILDING CODE OR AN EQUIVALENT BUILDING CODE FOR SITE-BUILT HOUSING.

FOUNDATION NOTES

IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION, THESE BUILDING PLANS DO NOT CONTAIN FOUNDATION SUPPORT AND TIEDOWN SYSTEM DETAILS AND SPECIFICATIONS.

THE DESIGNER OF THE BUILDING PLANS SHOULD BE CONTACTED TO OBTAIN APPROPRIATE FOUNDATION PLANS. IF FOUNDATION PLANS ARE DESIGNED BY OTHERS, THE DESIGNER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND THE CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE'S STRUCTURAL COMPONENTS AND SYSTEMS RELATED THERETO.

THE FBC-R CODE REQUIRES THAT ALL BUILDINGS LOCATED IN AREAS WITH WIND SPEEDS (Vult) EQUAL TO OR GREATER THAN 140 MPH AND ALL BUILDINGS LOCATED IN AREAS WITH WIND SPEEDS (Vult) EQUAL TO OR GREATER THAN 130 MPH WHICH ARE WITHIN ONE MILE OF THE COASTAL MEAN WATER LINE MUST BE PROVIDED WITH EITHER OF THE FOLLOWING:

(I) IMPACT RESISTANT GLAZING COMPLYING WITH AN IMPACT GLAZING STANDARD, ASTM E1996 AND ASTM E1886 AS MODIFIED IN SECTION 301.2.1.2.1, TAS 201, TAS 202 AND TAS 203 OR AAMA 506

(II) STORM PROTECTION WOOD STRUCTURAL PANELS (I.E., MIN. 7/16" OSB OR PLYWOOD) PRECUT TO FIT THE GLAZING OPENINGS WITH THE ATTACHMENT HARDWARE PROVIDED. THE PROTECTIVE PANELS MUST BE INSTALLED IN ACCORDANCE WITH THE FASTENING SPECIFICATIONS PROVIDED IN THE EXCEPTION LISTED IN SECTION R301.2.1.2.

NOTE, THE STORM PROTECTIVE PANELS MAY BE PROVIDED BY THE LOCAL CONTRACTOR OR INSTALLER RATHER THAN THE BUILDING MANUFACTURER.

IN ADDITION, EXTERIOR WINDOWS AND DOORS MUST BE DESIGNED TO RESIST THE DESIGN WIND LOADS SPECIFIED IN TABLE R301.2(2) OF THE FBC-R CODE ADJUSTED FOR HEIGHT AND EXPOSURE PER TABLE R301.2(3) OF THE FBC-R CODE.

ALL EXTERIOR WINDOWS AND GLASS DOORS MUST BE TESTED AND APPROVED BY AN APPROVED INDEPENDENT LABORATORY AND BEAR A LABEL INDICATING COMPLIANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440 OR TAS 202 (HVHZ SHALL COMPLY WITH TAS 202 AND ASTM E1300)

ELEVATION NOTES: Typical

See cross section for method of roof ventilation.

Handicap ramp(s), Stair(s), and Handrails are site installed, designed by others, and subject to local jurisdiction review and approval.

Foundation enclosure (when provided) must have 1 square foot net vent area per 1/150th of the floor area and an 18"x24" minimum crawl space access, site installed by others. subject to local jurisdiction, review & approval. (min 7.4 ft² net vent area req'd)

DRAWING INDEX:

NEW BAXLEY,LLC
DBA IMPACT HOUSING
137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: *6/3/22*		
CODES: *FBC*		
LABELS: *FL*	REVISIONS:	DRAWN BY: C.A.Leblanc
SCALE: *NTS*		
MODEL: 1672018GSH ELEVATIONS	PLAN NO. *IHG-43FL*	SHEET 1 OF 8

WILLIAM J. KALKER, JR., P.E.
CONSULTING ENGINEER
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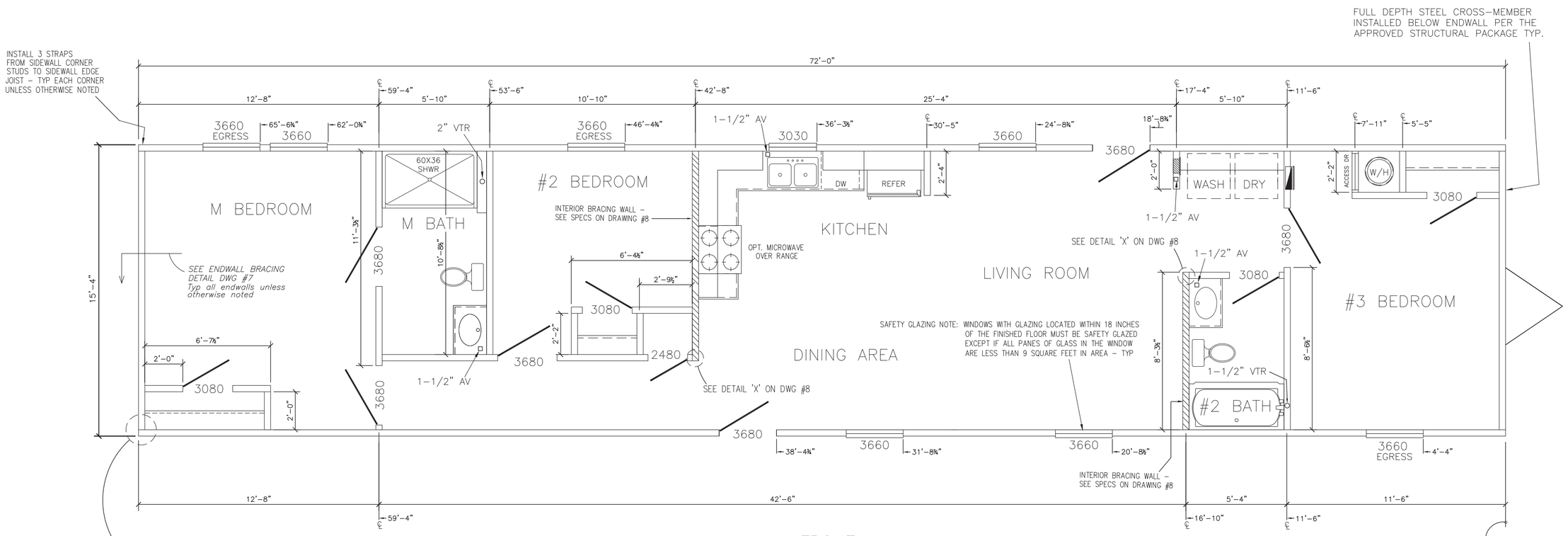

FRONT

LIGHT & VENT CHART	FLOOR AREA SQ. FT.	LIGHT REQUIRED	LIGHT PROVIDED	VENT REQUIRED	VENT PROVIDED
MASTER BEDROOM	163.0	13.04	24.42	6.52	11.98
KITCHEN/LIVING/DINING RM	370.3	29.62	41.08	14.81	20.04
BEDROOM #2	96.5	7.72	12.21	3.86	5.99
BEDROOM #3	142.0	11.36	12.21	5.68	5.99
* ART. LIGHT AND MECH. VENTILATION PROVIDED					

WINDOW SCHEDULE					
WIDTH	HEIGHT	TYPE	LIGHT SQ FT	VENT SQ FT	
30"	30"	Single hung	4.97	2.45	
30"	60"	Single hung	9.95	4.91	
36"	60"	Single hung	12.21	5.99	
30"	40"	Single hung	6.28	3.02	
30"	30"	Single hung	4.45	2.07	
36"	36"	Single hung	6.81	3.22	
46"	60"	Single hung	16.07	7.84	
40"	60"	Single hung	13.71	6.71	

SUPPLEMENTAL NOTES:

WHEN THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE AND IS LOCATED LESS THAN 24 INCHES ABOVE THE FINISHED FLOOR, THE WINDOW MUST BE PROVIDED WITH A WINDOW FALL PREVENTION DEVICE OR AN OPENING CONTRTOL DEVICE THAT COMPLIES WITH ASTM F2090. EGRESS WINDOWS MUST BE PROVIDED WITH AN OPENING CONTROL DEVICE THAT PERMITS THE WINDOW TO STILL COMPLY WITH THE MINIMUM EGRESS WINDOW OPENING REQUIREMENTS SPECIFIED IN CODE SECT. R310.2

NOTE: All windows to be single hung w/insulated glazing
All egress windows must comply w/FBC–R Section R310 with the distance from the the finished floor to the bottom of the egress opening not exceeding 44 inches)
(Kinro Series 9750 Low E Vinyl with U=.35 & SHGC = .25)

All Exterior doors to be insulated with U=.35 except Sliding Glass Doors and Atrium Doors to have U=.35 and SHGC=.25

NOTE: All windows and sliding glass doors shall have an infiltration rate not exceeding .3 CFM per square foot and swinging doors not exceeding .5 CFM per square foot when tested per NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440.

All Interior partitions 2x4 studs @ 16" O.C. SPF #3 min. unless otherwise noted.

All straps referenced on the floor plan are 1–1/2" x 26 GA steel with 8–15 GA x 1" staples each end from ridge beam to stud and stud to edge joist(s) or from header to stud and stud to edge joist(s) – typical unless noted otherwise (steel strap Fy = 36 KSI MIN)

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LISTING AGENCY APPROVAL

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ALLOW. FLOOR LOAD	40
APPROVAL DATE	06-08-2022
MANUFACTURER	New Baxley
HIGH VELOCITY HURRICANE ZONE	NO

IIWC MUR–261

NEW BAXLEY,LLC
DBA IMPACT HOUSING
137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 6/3/22		
CODES: FBC		
LABELS: FL	REVISIONS:	DRAWN BY:
SCALE: 1/4" = 1'–0"		
MODEL: 1672018GSH FLOOR PLAN	PLAN NO. IHG–43FL	SHEET 2 OF 8

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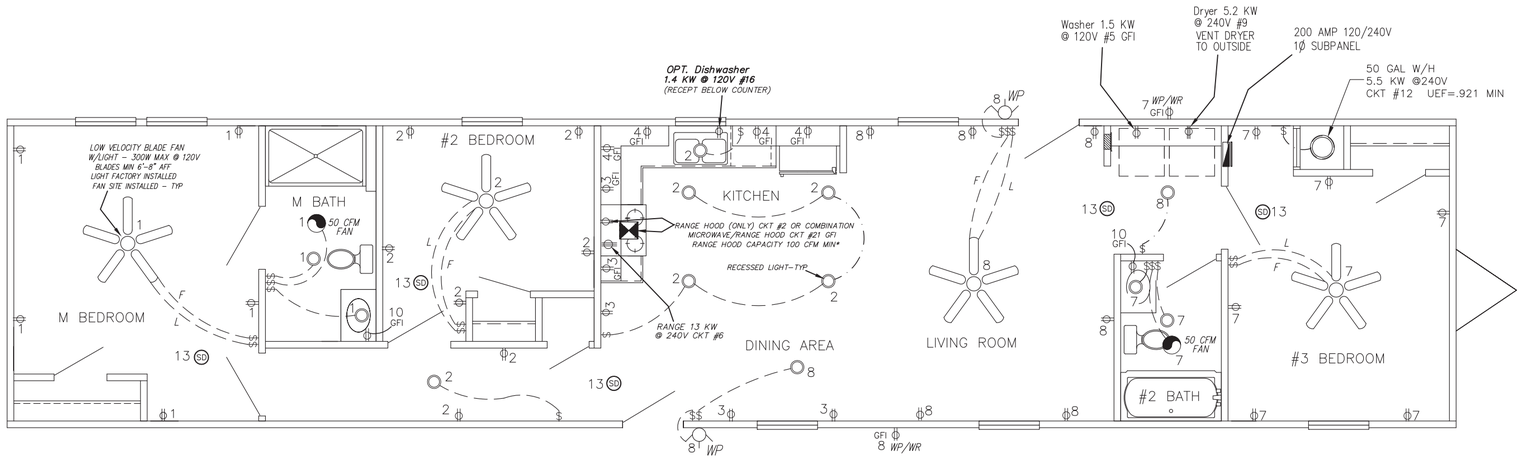

FRONT

*HOOD EXHAUSTS TO EXTERIOR OF BUILDING

NOTE: ALL RECEPTACLES INSTALLED ON 15 AMP AND 20 AMP CIRCUITS MUST BE LISTED AS 'TAMPER RESISTANT'

NOTE: ALL APPLIANCES AND ELECTRICAL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH THE LISTINGS

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IWC
MUR-261

NOTE: ALL BRANCH CIRCUITS SUPPLYING 15 AND 20 AMP OUTLETS IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LAUNDRY AREAS, LIVING ROOMS, LIBRARIES, DENS, BEDROOMS, CLOSETS, SUN ROOMS, HALLWAYS, RECREATION ROOMS OR SIMILAR AREAS MUST BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12 OF THE NEC. (CIRCUITS 1, 2, 3, 4, 5, 7, 8, 13 AND 16 MUST BE PROTECTED BY AN ARC-FAULT TYPE CIRCUIT BREAKER)

NOTE: THE HVAC SYSTEM IS TO BE SITE INSTALLED AND DESIGNED BY OTHERS, SUBJECT TO LOCAL BUILDING OFFICIAL REVIEW AND APPROVAL. (HVAC SYSTEM TO BE ALL ELECTRIC - GAS OR OIL FUEL NOT PERMITTED)

ELECTRICAL NOTES: NEC

1. *All circuits and equipment shall be grounded in accordance with the appropriate articles of the NEC.*
2. *When light fixtures are installed in closets they shall be surface mounted or recessed. Incandescent fixtures shall have completely enclosed lamps. Surface mounted incandescent fixtures shall have minimum clearance of 12 inches and all other fixtures shall have a minimum clearance of 8 inches from the "Closet Storage Space" as defined by NEC 410-2.*
3. *When water heaters are installed they shall be provided with readily accessible disconnects adjacent to the water heaters served. The branch circuit switch or circuit breakers shall be permitted to serve as disconnecting means only where the switch or circuit breaker is within sight from the water heater or is capable of being locked in the open position.*
4. *HVAC equipment shall be provided with readily accessible disconnects adjacent to the equipment served. A unit switch with a marked "OFF" position that is a part of the HVAC equipment and disconnects all ungrounded conductors shall be permitted as the disconnecting means where other disconnecting means are also provided by a readily accessible circuit breaker.*
5. *Prior to energizing the electrical system the interrupting rating of the main breaker must be designed and verified by as being in compliance with section 110-9 of the NEC by local electrical consultant.*
6. *The main electrical panel, service disconnect (main circuit breakers) and feeders are site installed, designed by others and subject to local jurisdiction review and approval.*
7. *All circuits crossing over modular mating line(s) shall be site connected with approved accessible junction boxes, located below the floor or in the attic.*
8. *All circuits to be copper NM except HVAC and Range circuits to be copper SE cable. (75°C).*
9. *Light and switch to be site-installed in the crawl space near the crawl space access door (light to be connected to any of the installed general lighting circuits).*
10) *Receptacles installed in wet locations must be in a weatherproof enclosure the integrity of which is not affected when the attachment plug cap is inserted or removed. All 15 amp and 20 amp receptacles installed on the exterior of the building shall be listed as 'Weather Resistant'*
11) *Smoke alarms must be wired to activate all alarms simultaneously if any alarm is activated. All smoke alarms located within twenty feet of a cooking appliance shall be the photoelectric type.*
12) *All fans must be ducted to the exterior of the building and terminate at an approved vent cap.*
13) *Carbon monoxide alarms must have an audible alarm and must be listed to comply with either ANSI/UL 2034 or UL-2075*
14) *Minimum of 90% of lamps in permanently installed lighting fixtures shall have an efficacy of not less than 65 lumens per watt.*
15) *A Communications Outlet and Cable to the Outlet to be Site-Installed*
16) *Recessed luminaires installed in the thermal envelope shall be sealed to limit air leakage to not more than 2 CFM per ASTM E283 at a 1.57 psf pressure differential and shall be IC-rated and labeled.*

6/8/22

WILLIAM J. KALKER, JR., P.E.

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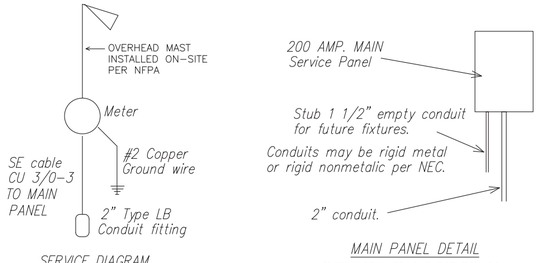

SERVICE DIAGRAM
200 AMP SERVICE

MAIN PANEL DETAIL
(SITE INSTALLED SUBJECT TO LOCAL BUILDING OFFICIAL REVIEW AND REVIEW)

PANEL SIZING

1104 Sq. Ft. @ 3 watts/Sq. Ft.	3.31	KW
2 -20 AMP Appliance ciruits	3.00	KW
Laundry circuit	1.50	KW
Range	13.00	KW
Clothes Dryer	5.20	KW
Water Heater	5.50	KW
Opt. Dishwasher	1.40	KW
Fans	2.10	KW
TOTAL	35.01	KW

First 10 KW @ 100%	10.00	KW
Remainder @ 40% (25.01)(.4)=	10.00	KW
Assumed HVAC (max)	15.90	KW
TOTAL	35.90	KW

Calculated Load for sevice size
35900 w/240 volts= 149.6 Amperes
200 AMP service standard

ELECTRICAL LEDGEND

- $ Light Switch
- Duplex Recept
- 240V Recept
- (T) Thermostat
- (SD) Smoke Alarm w/Battery Backup
- (WP) Porch light W/P
- Incandescent Light
- Exhaust fan w/Light
- Panel box
- Exhaust fan
- Fluorescent Light
- Range hood w/Exhaust Fan and Light

NOTE: NOT ALL CIRCUITS LISTED IN CIRCUIT SCHEDULES ARE USED IN THE ELECTRICAL PLAN ABOVE

ELECTRICAL CIRCUIT SCHEDULE

CIR	DESCRIPTION	COND. SIZE (CU)	BRK.(A)
1,2	General Lighting	14-2 w/GND	15
3,4	Small Appliance	12-2 w/GND	20
5	Washer	12-2 w/GND	20 GFI
6	Range	8-3 w/GND	40 2P
7,8	General Lighting	14-2 w/GND	15
9	Dryer	10-3 w/GND	30 2P
10	Bath	12-2 w/GND	20
12	Water Heater	10-2 w/GND	30 2P
13	Smoke Alarms	14-2 w/GND	15
14,15	General Lighting	14-2 w/GND	15
16	Dishwasher (opt)	12-2 w/GND	20 GFI
17	Freezer (opt)	12-2 w/GND	20
18,19	General Lighting	14-2 w/GND	15
20	Small Appliance	12-2 w/GND	20
21	Microwave	12-2 w/GND	20 GFI

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DATE: 6/3/22		
CODES: FBC		
LABELS: FL	REVISIONS:	DRAWN BY:
SCALE: 3/16" = 1'-0"		
MODEL: 1672018GSH ELECTRICAL PLAN	PLAN NO. IHG-4.3FL	SHEET 3 OF 8

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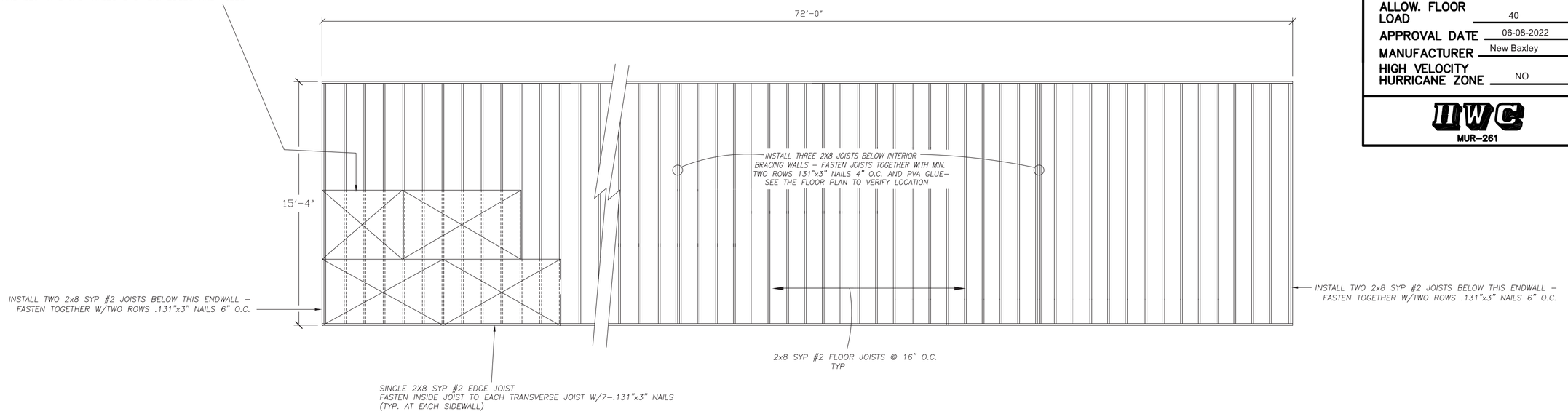
33 ROCKWOOD LANE
MONROE, CT 06468
(203) 261-1167

19/32" PLYWOOD SHEATHING PERPENDICULAR TO JOISTS W/ NEXT ROW STAGGERED
@ MIN. 2'-8" (STURDIFLOOR, EXP 1, 20" O.C.) T&G EDGES FASTENED W/ 100% PVA FLUE
AND .120" X 2-1/2" NAILS @ 6" O.C. EDGES AND FIELD
OR
19/32" OSB SHEATHING PERPENDICULAR TO JOISTS W/ NEXT ROW STAGGERED
@ MIN. 2'-8" (STURDIFLOOR, EXP 1, 20" O.C.) T&G EDGES FASTENED W/ 100% PVA FLUE
AND .120" X 2-1/2" NAILS @ 6" O.C. EDGES AND FIELD



FRONT

FLOOR FRAMING PLAN

LISTING AGENCY APPROVAL	
THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.	
CONST. TYPE	VB
OCCUPANCY	SFD
ALLOWABLE NO. OF FLOORS	1
RISK CATEGORY	II
WIND VELOCITY (ULT)	150
WIND VELOCITY (ASD)	116
FIRE RATING OF EXT. WALLS	0
PLAN NO.	2773-0073F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	06-08-2022
MANUFACTURER	New Baxley
HIGH VELOCITY HURRICANE ZONE	NO

IWC
MUR-261

6/8/22

WILLIAM J. KALKER, JR., P.E.

Digitally signed by WILLIAM J. KALKER, JR., P.E.
DN: C=US, CN="WILLIAM J. KALKER, JR., P.E.", O="W.J. KALKER, JE., P.E."
Reason: I am the author of this document
Location: your signing location here
Date: 2022.06.08 07:13:29-04'00'
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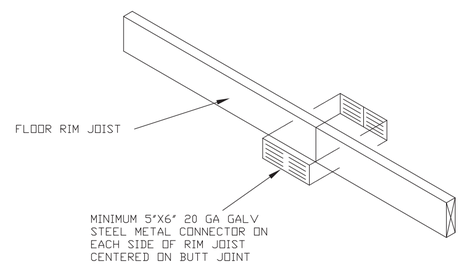
NOTE: THE FOUNDATION SYSTEM FOR THIS BUILDING MUST PROVIDE PIERS TO SUPPORT THE FLOOR EDGE JOISTS BELOW ALL OPENING STUDS ON EACH SIDE OF OPENINGS EXCEEDING 48" IN WIDTH BELOW EACH SIDEWALL AND MUST PROVIDE PIERS TO SUPPORT THE FLOOR EDGE JOISTS BELOW EACH SIDEWALL AT A MAX-IMUM SPACING OF 8'-0" O.C. BETWEEN THE OPENING PIERS. THESE PIERS MUST BE DESIGNED TO SUPPORT THE ROOF LIVE LOADS AND THE ROOF AND WALL DEAD LOADS.

SUPPLEMENTAL NOTES:

METAL PLATES, CONNECTORS, SCREWS, BOLTS, NUTS AND WASHERS EXPOSED DIRECTLY TO WEATHER OR SUBJECT TO SALT CORRISION IN COASTAL AREAS SHALL BE HOT DIPPED GALVANIZED STEEL WITH ZINC COATING WEIGHTS IN ACCOR-DANCE WITH ASTM A153.

ALL CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESER-VATIVE-TREATED WOOD SHALL BE TREATED IN ACCORDANCE WITH AWPA M4



FLOOR EDGE JOIST BUTT JOINT SPLICE DETAIL

EDGE JOIST BUTT JOINTS MUST BE SPACED NOT LESS THAN 10' O.C.

NEW BAXLEY,LLC
DBA IMPACT HOUSING
137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 3/1/22		
CODES: IRC		
LABELS: FL	REVISIONS:	DRAWN BY: C.A.Leblanc
SCALE: NTS		
MODEL: 1676010GSH FLOOR FRAMING	PLAN NO. IHG-37FL	SHEET 4 OF 8

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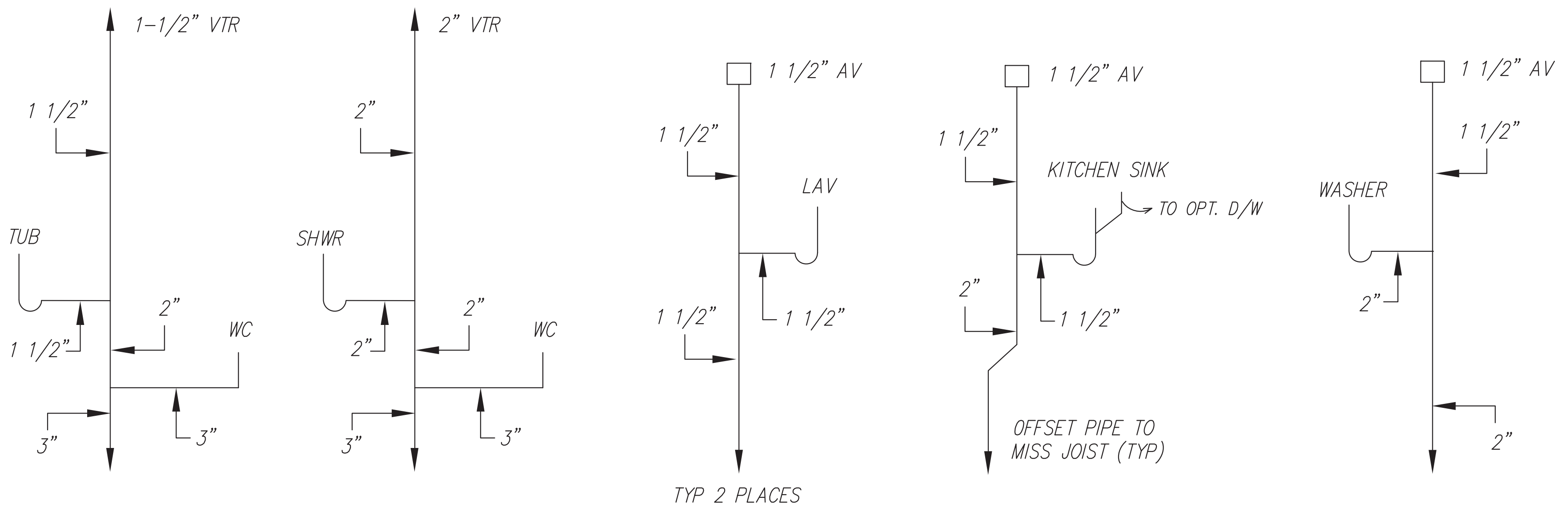

DWV RISER

NTS

Change in direction in Schedule 40 DWV –PVC and ABS drainage piping shall be made by the appropriate use of 45° (0.785 rad) wyes, quarter bends or long sweep quarter bends, one–sixth, one–eighth, one–sixteenth bends, or by a combination of these or equivalent fittings. Single and double sanitary tees and quarter bends may be used in drainage lines only where the direction of flow is from the horizontal to the vertical.

Short sweeps nat less than 3 inches diameter may be used in soil and waste lines where the change in direction of flow is from the horizontal to the vertical and may be for making necessary offsets between the ceiling and the next floor above.

LISTING
AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE: VB
OCCUPANCY: SFD
ALLOWABLE NO. OF FLOORS: 1
RISK CATEGORY: II
WIND VELOCITY (ULT): 150
WIND VELOCITY (ASD): 116
FIRE RATING OF EXT. WALLS: 0
PLAN NO.: 2773-0073F
ALLOW. FLOOR LOAD: 40
APPROVAL DATE: 06-08-2022
MANUFACTURER: New Baxley
HIGH VELOCITY HURRICANE ZONE: NO

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MUR–261

SUPPLEMENTAL NOTES:

SHOWER UNITS TO BE PRE–MANUFACTURED AND SHALL HAVE AT LEAST 900 SQUARE INCHES OF INTERIOR CROSS–SECTIONAL AREA WITH AN INTERIOR DIMENSION OF NOT LESS THAN 30 INCHES, EXCLUSIVE OF FIXTURE VALVES, SHOWER HEADS, SOAP DISHES AND GRAB BARS OR RAILS, AND SHALL HAVE WATER RESISTANT WALL SURFACES EXTENDING A MINIMUM OF 72 INCHES ABOVE THE SHOWER DRAIN OUTLET. HINGED SHOWER DOORS SHALL OPEN OUTWARD. FOLD–DOWN SEATS ARE ACCETABLE PROVIDED THE REQUIRED 900 SQUARE INCH MINIMUM AREA IS MAINTAINED WITH THE SEAT IN THE FOLDED–UP POSITION.

A THERMAL EXPANSION TANK MUST BE INSTALLED BETWEEN THE INLET SHUTOFF VALVE AND ALL STORAGE WATER HEATER TANKS TO CONTROL PRESSURES IN THE WATER SUPPLY SYSTEM CAUSED BY WATER THERMAL EXPANSION. (TO BE SITE INSTALLED)

IN AREAS WHERE HOSE BIBBS ARE SUBJECT TO FREEZING, THE HOSE BIBBS SHALL BE EQUIPPED WITH AN ACCESSIBLE STOP–AND–WASTE–TYPE VALVE INSIDE THE BUILDING TO PERMIT DRAINING OF THE HOSE BIBB DURING COLD PERIODS,

STORAGE WATER HEATERS NOT EQUIPPED WITH INTEGRAL HEAT TRAPS AND HAVING VERTICAL PIPE RISERS SHALL HAVE HEAT TRAPS INSTALLED ON BOTH THE INLETS AND OUTLETS. EXTERNAL HEAT TRAPS SHALL CONSIST OF EITHER A COMMERCIALLY AVAILABLE HEAT TRAP OR A DOWNWARD AND UPWARD BEND OF AT LEAST 3–1/2 INCHES IN THE HOT WATER LINE AND COLD WATER LINE AS CLOSE AS POSSIBLE TO THE STORAGE TANK.

INSULATION WITH A MINIMUM THERMAL RESISTANCE OF R–3 SHALL BE INSTALLED ON ALL HOT WATER PIPE FROM THE WATER HEATER TO A DISTRIBUTION MANIFOLD AND ON ALL HOT WATER PIPE LOCATED OUTSIDE THE CONDITIONED SPACE. IN ADDITION, INSULLATION WITH A MINIMUM THERMAL RESISTANCE OF R–3 SHALL BE INSTALLED ON ALL 3/4" DIAMETER AND LARGER HOT HOT WATER SUPPLY PIPE.

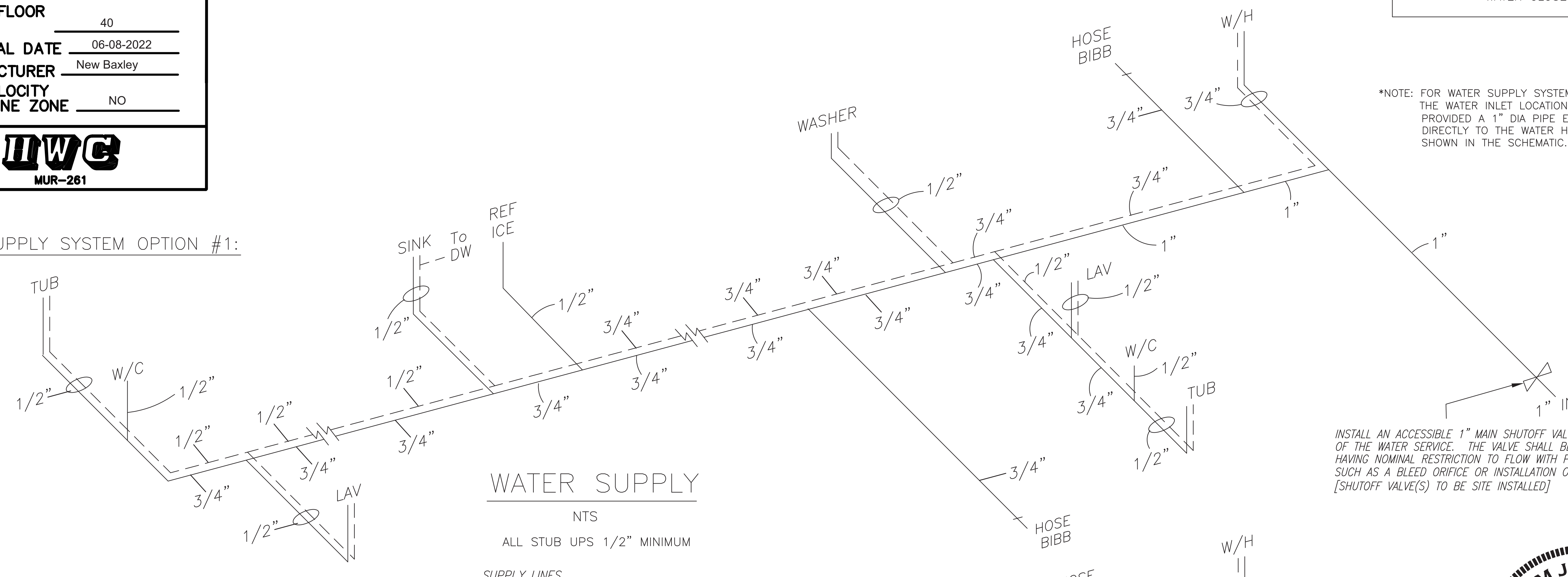
FLOW RATES FOR PLUMBING FIXTURES SHALL NOT EXCEED THE FOLLOWING RATES:

LAVATORY	2.2 GPM AT 60 PSI
SHOWER HEAD	2.5 GPM AT 80 PSI
HAND HELD SHOWER SPRAY	2.5 GPM AT 80 PSI
SINK FAUCET	2.2 GPM AT 60 PSI
WATER CLOSET	1.6 GALLONS PER FLUSH CYCLE

PLUMBING NOTES:

1. *Tub access provided under home unless otherwise noted.*
2. *All plumbing fixtures shall have separate shut–off valves.*
3. *Water heater shall have safety pan with drain to exterior. T & P relief valve with drain to exterior, And a shut–off valve within 3 feet on the cold water supply line.*
4. *DWV system shall be either ABS or PVC–DWV.*
5. *Water supply lines shall be Copper Tube (Type K or L) or PEX. Water supply lines may be stubbed through the floor (only) with the on–site installation of all lines below the floor to be in accordance with the specifications on this drawing.*
6. *Water closets average water usage shall not exceed 1.6 gal. /flush.*
7. *Building drain and cleanouts are designed and site installed by others, subject to local jurisdiction approval. Underfloor trap arms not installed in the factory due to possible in–transit damage are to be site installed in accordance with the specifications on this drawing.*
8. *An accessible shut off valve shall be provided ahead of the first outlet or branch connection to the service or distribution pipe. This shut–off valve may be site installed.*
9. *Sinks and lavs shall not use more than 2.2 gal./min @ 60 PSI.*
10. *Shower heads shall not use more than 2.5 gal/min @ 80 PSI per ANSI Std A 112.18.1M.*
11. *All showers to have temperature of water controlled by a pressure–balance, thermostatic–mixing or combination pressure–balance/thermostatic–mixing valve to limit the water temp. to 120°F (valve to comply w/ASSE 1016 or CSA–B125)*
12. *All bathtubs to have temperature of water controlled by a water–temperature–limiting device to limit the water temperature to 120°F (device to comply w/ASSE 1070) except when the water temp. protection is provided by a combination tub/shower valve as specified in note 11.*
13. *Air admittance valves (AV) shall conform to ASSE 1051. The AV valves shall be located a minimum of 4 inches above the horizontal drain or fixture drain being vented and must be installed in well ventilated spaces or provided with ventilated access doors.*
14. *When metal water supply lines are installed, water hammer arrestors must also be installed where quick closing valves are utilized (i.e., dishwashers, clothes washers, ice makers or other quick closing devices with solenoid valves) Arrestors must comply with ASSE/ANSI 1010 and must be installed in accordance with the manufacturers instructions.*
15. *An approved thermal expansion device shall be installed in the water supply system in accordance with the manufacturers installation instructions. (this device is required when backflow preventors, pressure reducing valves, check valves or storage water heaters are installed in the water supply system which may prevent pressure relief in the system)*
16. *Storage water heaters shall have automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use. The minimum temperature setting range shall be from 100 Deg F to 140 Deg F.*

WATER SUPPLY SYSTEM OPTION #1:



*NOTE: FOR WATER SUPPLY SYSTEM OPTION #1 (ONLY):
THE WATER INLET LOCATION MAY VARY FROM THE LOCATION SHOWN PROVIDED A 1" DIA PIPE EXTENDS FROM THE REVISED INLET LOCATION DIRECTLY TO THE WATER HEATER WITH ALL OTHER WATER PIPING AS SHOWN IN THE SCHEMATIC.

INSTALL AN ACCESSIBLE 1" MAIN SHUTOFF VALVE NEAR THE ENTRANCE OF THE WATER SERVICE. THE VALVE SHALL BE A FULL–OPEN TYPE HAVING NOMINAL RESTRICTION TO FLOW WITH PROVISIONS FOR DRAINAGE SUCH AS A BLEED ORIFICE OR INSTALLATION OF A SEPARATE DRAIN VALVE [SHUTOFF VALVE(S) TO BE SITE INSTALLED]

WATER SUPPLY

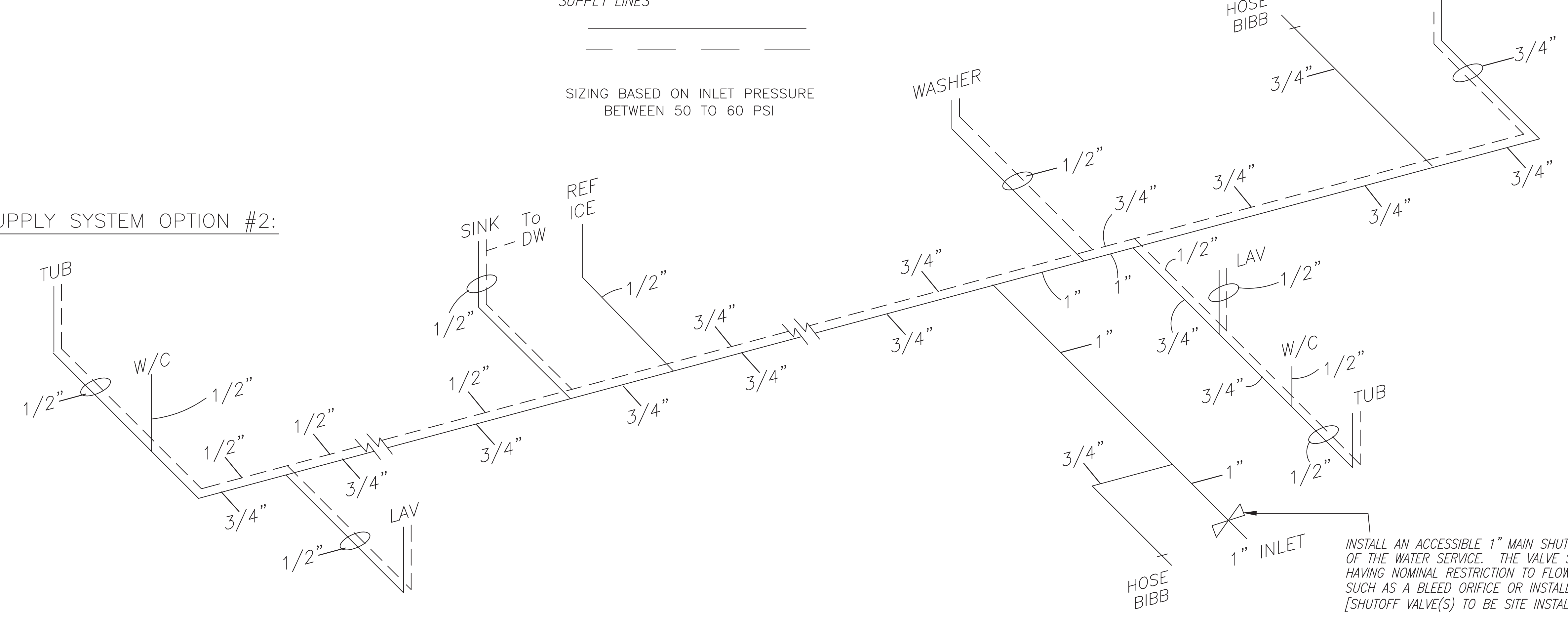
NTS

ALL STUB UPS 1/2" MINIMUM

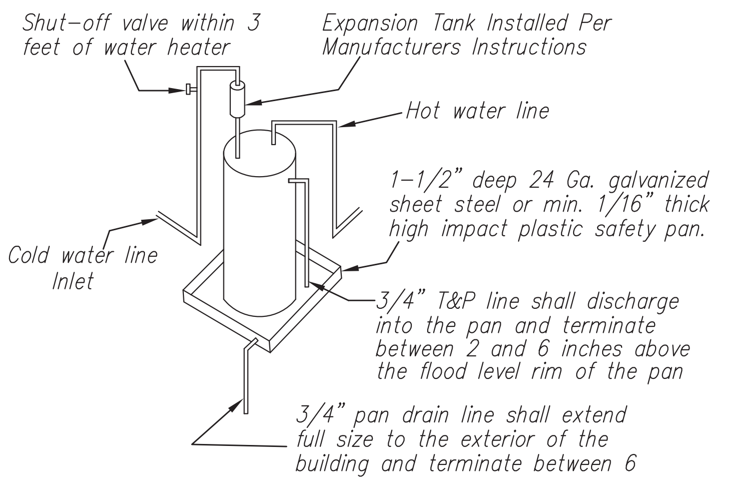
SUPPLY LINES

SIZING BASED ON INLET PRESSURE BETWEEN 50 TO 60 PSI

WATER SUPPLY SYSTEM OPTION #2:



INSTALL AN ACCESSIBLE 1" MAIN SHUTOFF VALVE NEAR THE ENTRANCE OF THE WATER SERVICE. THE VALVE SHALL BE A FULL–OPEN TYPE HAVING NOMINAL RESTRICTION TO FLOW WITH PROVISIONS FOR DRAINAGE SUCH AS A BLEED ORIFICE OR INSTALLATION OF A SEPARATE DRAIN VALVE [SHUTOFF VALVE(S) TO BE SITE INSTALLED]



NOTES:

1. *Water heater shall be provided with a cold water "Dip" tube with a hole at the top or a vacum relief valve installed in the cold water supply line above the top of the water heater tank; bottom fed water heaters shall have a vacuum relief valve complying with ANSI Z21.22 installed.*
2. *Water heaters shall be provided with a temperature and pressure relief valve complying with ANSI Z21.22 installed in the shell of the water heater tank. The valve shall be actuated by the water in the top 6 inches of the tank and shall have a temperature rating of not more than 210° F and a pressure setting not exceeding the tanks rated working pressure or 150 psi, whichever is less*
3. *Water heaters shall be equipped with an energy cutoff device that will cut off the supply of heat energy to the water tank before the temperature of the water in the tank exceeds 210° F.*

TYPICAL WATER HEATER DETAIL

NTS

No.33841

6/8/22

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NEW BAXLEY,LLC
DBA IMPACT HOUSING
137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 6/3/22
CODES: FBC
LABELS: FL
SCALE: NTS
REVISIONS:
DRAWN BY:
MODEL: 1672018GSH
PLUMBING
PLAN NO. IHG–43FL
SHEET 5 OF 8

WILLIAM J. KALKER, JR., P.E.
CONSULTING ENGINEER

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MONROE, CT 06468
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GENERAL NOTES

Exterior joints in the building envelope that are sources of air leakage. Such as around windows and door frames: Between wall cavities and windows or door frames; Between walls and foundations; Between walls and roof/ ceiling and Between wall panels; Openings at penertations of utility services through walls, floors and roofs; and all other such openings in the building envelope shall be caulked, gasketed. Weather stripped or otherwise sealed in an approved manner.

Soffit vents and ridge vents equal to 1/150 of total roof area (min 7.4 sq. ft. net vent air is required) with a minimum 1/2 of the total provided with soffit vents and minimum 1/2 of the total provided with ridge vent

LISTING AGENCY APPROVAL

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CONST. TYPE	VB
OCCUPANCY	SFD
ALLOWABLE NO. OF FLOORS	1
RISK CATEGORY	II
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PLAN NO.	2773-0073F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	06-08-2022
MANUFACTURER	New Baxley
HIGH VELOCITY HURRICANE ZONE	NO

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MUR-261

ALL STRAPS REFERENCED IN THESE DRAWINGS ARE MINIMUM 26 GA STEEL X WIDTH SPECIFIED WITH A MINIMUM YIELD STRENGTH = 36 KSI TYPICAL UNLESS OTHERWISE NOTED

ALL PVA GLUE TO COMPLY WITH ASTM D3930 AND SPECIFICATION CA25-4

SUPPLEMENTAL NOTES:

ATTIC VENTILATION OPENINGS MUST BE PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW AND PROVIDED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16 INCH MINIMUM AND 1/4 INCH MAXIMUM OPENINGS.

ASPHALT SHINGLES MUST BE CLASSIFIED IN ACCORDANCE WITH ASTM D3161 OR ASTM D7158. SHINGLES CLASSIFIED AS ASTM D3161 CLASS D ARE ACCEPTABLE WITH WIND SPEEDS UP TO 129 MPH Vult AND SHINGLES CLASSIFIED AS ASTM D7158 CLASS G ARE ACCEPTABLE WITH WIND SPEEDS UP TO 155 MPH Vult. SHINGLES CLASSIFIED AS ASTM D3161 CLASS F OR AS ASTM D7158 CLASS H ARE ACCEPTABLE FOR USE IN ALL WIND SPEEDS.

ASPHALT SHINGLE UNDERLAYMENT AND METAL ROOF PANEL UNDERLAYMENT SHALL COMPLY WITH ASTM D226, TYPE II OR ASTM D4869, TYPE III OR TYPE IV OR ASTM D6757.

ASPHALT SHINGLE UNDERLAYMENT AND METAL ROOF PANEL UNDERLAYMENT SHALL BE INSTALLED IN ACCORRDANCE WITH TABLE R905.1.1.1 OF THE 2021 SUPP. OF THE 2020 FBC-R.

ALL WINDOWS AND DOORS SHALL BE INSTALLED AND FLASHED IN ACCORDANCE WITH THE WINDOW MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS

ALL EXTERIOR WALL OPENINGS, PROJECTING WOOD TRIM AND ALL CONNECTIONS OF DECKS, STAIRS OR PORCHES TO MODULAR BUILDING LUMBER CONSTRUCTION MUST BE PROTECTED WITH APPROVED CORROSION-RESISTANT FLASHING INSTALLED IN 'SHINGLE-FASHION' TO PREVENT ENTRY OF WATER INTO THE BUILDING FRAMING CAVITIES. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH.

ALL EXPOSED INSULATION INSTALLED IN ATTICS MUST HAVE A CRITICAL RADIANT FLUX NOT LESS THAN .12 WATT PER SQUARE CENTIMETER

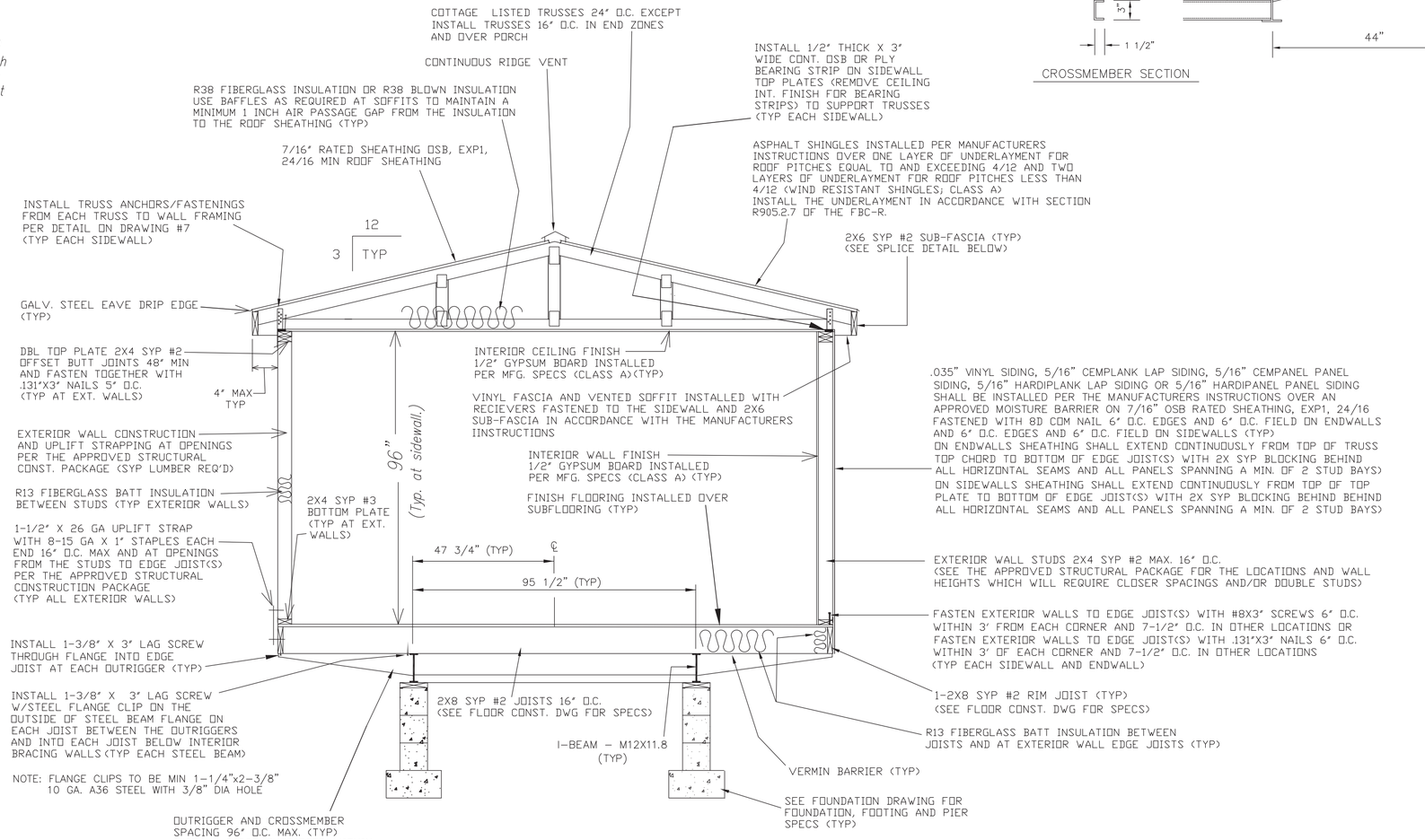
METAL PLATES, CONNECTORS, SCREWS, BOLTS, NUTS AND WASHERS EXPOSED DIRECTLY TO WEATHER OR SUBJECT TO SALT CORRISION IN COASTAL AREAS SHALL BE HOT DIPPED GALVANIZED STEEL WITH ZINC COATING WEIGHTS IN ACCORDANCE WITH ASTM A153.

UNIVERSAL COTTAGE TRUSS #P2092901

TRUSS DESIGN LOADS:

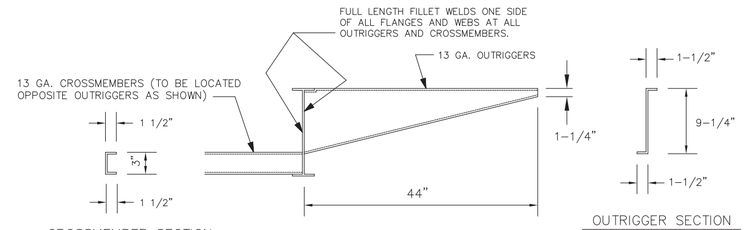
20 PSF ROOF LL ON TOP CHORD
7 PSF ROOF DL ON TOP CHORD
10 PSF ATTIC LL ON BTM CHORD***
7 PSF ROOF DL ON BTM CHORD

*** ATTIC LL NOT TO BE APPLIED CONCURRENTLY WITH OTHER LIVE LOADS



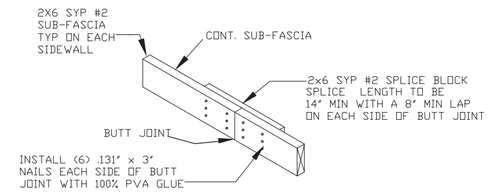
CROSS SECTION

NOTE: THE 'END ZONE' FOR THIS STRUCTURE EXTENDS 6.0 FEET FROM EACH CORNER FOR WALL CONSTRUCTION AND WALL TO FLOOR UPLIFT STRAP SPECIFICATIONS AND 3.0 FEET FROM THE GABLES/ENDWALLS FOR THE ROOF FRAMING AND TRUSS INSTALLATION SPECIFICATIONS



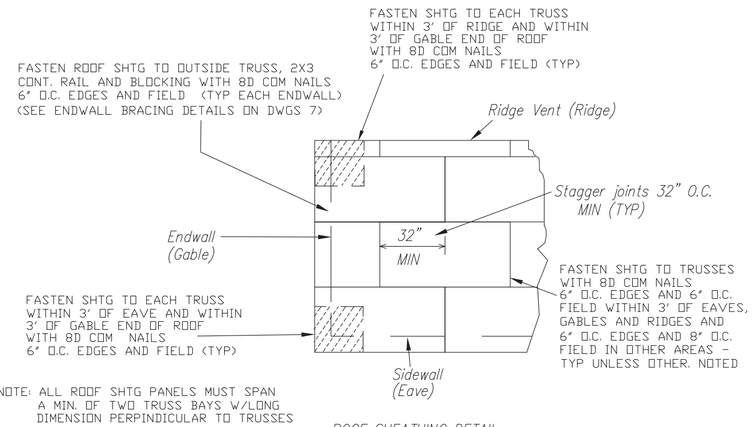
CROSSMEMBER SECTION

OUTRIGGER SECTION



ROOF SUB-FASCIA SPLICE DETAIL

NTS



NOTE: ALL ROOF SHTG PANELS MUST SPAN A MIN. OF TWO TRUSS BAYS W/LONG DIMENSION PERPINDICULAR TO TRUSSES

ROOF SHEATHING DETAIL

6/8/22

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NEW BAXLEY,LLC
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137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 6/3/22		
CODES: IRC		
LABELS: FL	REVISIONS:	DRAWN BY: C.A.Leblanc
SCALE: NTS		
MODEL: 1672018GSH CROSS SECTION	PLAN NO. IHG-43FL	SHEET 6 OF 8

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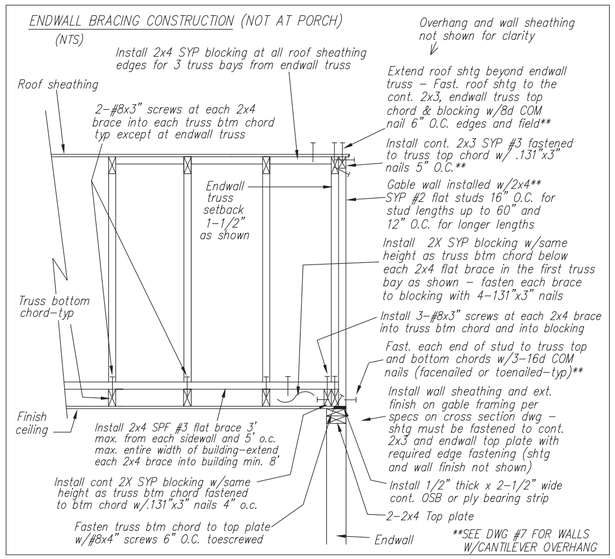
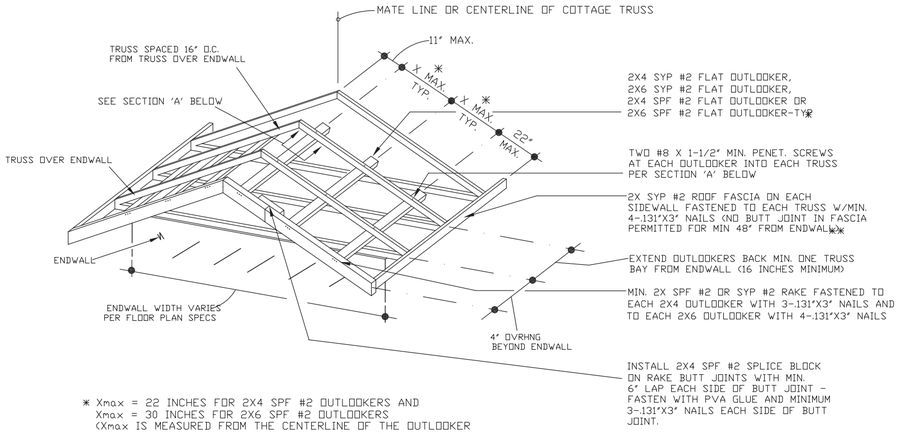
ENDWALL BRACING CONSTRUCTION (NOT AT PORCH)

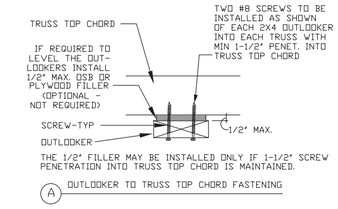
(NTS)



GABLE ROOF OVERHANG

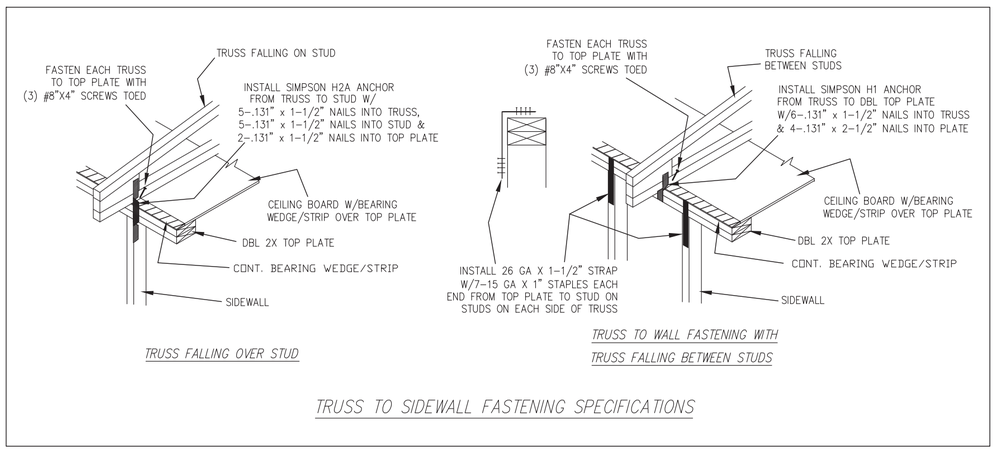


* Xmax = 22 INCHES FOR 2X4 SPF #2 OUTLOOKERS AND
Xmax = 30 INCHES FOR 2X6 SPF #2 OUTLOOKERS
(Xmax IS MEASURED FROM THE CENTERLINE OF THE OUTLOOKER TO THE CENTERLINE OF THE ADJACENT OUTLOOKER ON EACH SIDE)



THE 1/2" FILLER MAY BE INSTALLED ONLY IF 1-1/2" SCREW PENETRATION INTO TRUSS TOP CHORD IS MAINTAINED.

(A) OUTLOOKER TO TRUSS TOP CHORD FASTENING



TRUSS TO SIDEWALL FASTENING SPECIFICATIONS

LISTING AGENCY APPROVAL

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APPROVAL DATE	06-08-2022
MANUFACTURER	New Baxley
HIGH VELOCITY HURRICANE ZONE	NO

IWC
MUR-261

WILLIAM J. KALKER, JR. LICENSE No.33841 STATE OF FLORIDA PROFESSIONAL ENGINEER

6/8/22

WILLIAM J. KALKER, JR., P.E.

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NEW BAXLEY,LLC
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137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 6/3/22		
CODES: FBC		
LABELS: FL	REVISIONS:	DRAWN BY: C.A.Leblanc
SCALE: NTS		
MODEL: 1672018GSH DETAILS	PLAN NO. IHG-43FL	SHEET 7 OF 8

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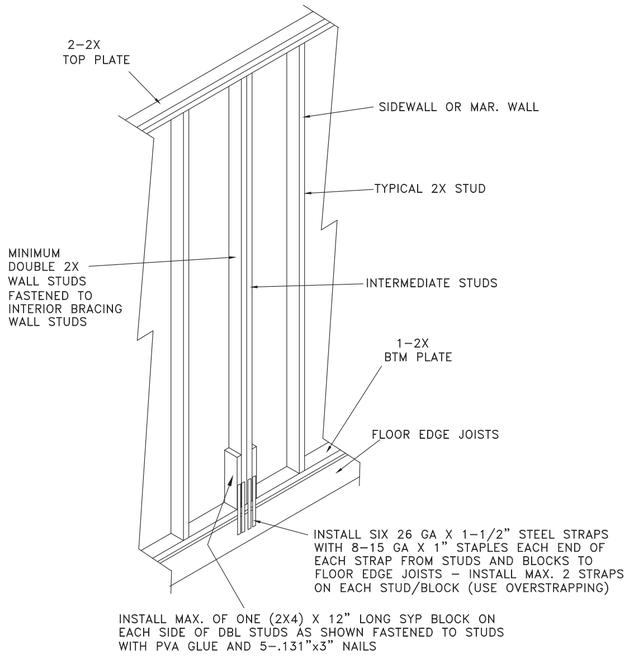
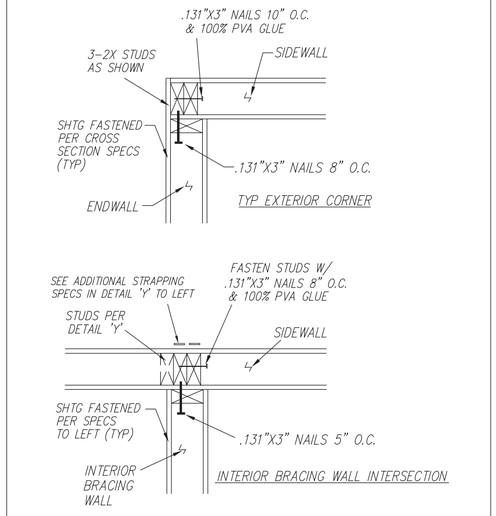


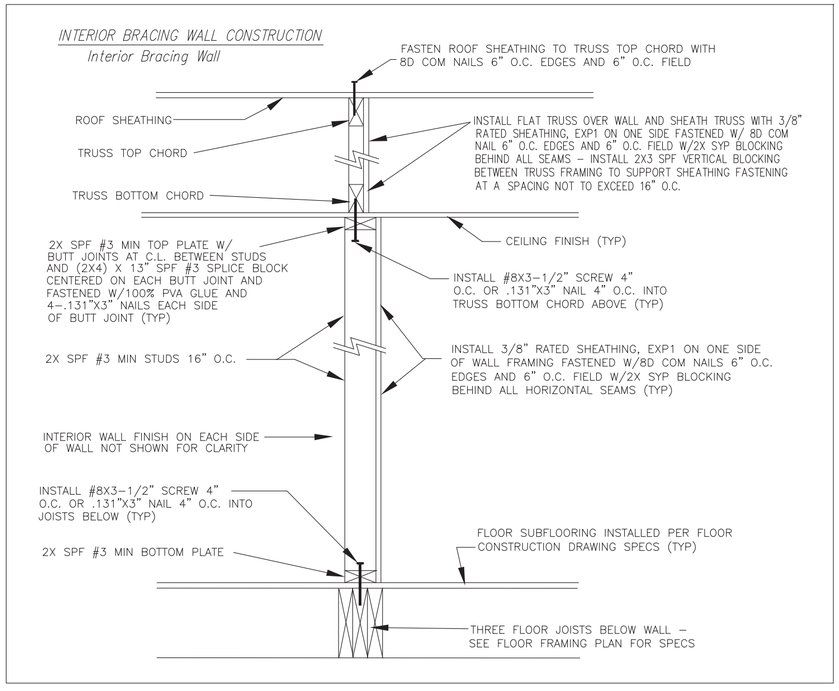
DETAIL 'Y'

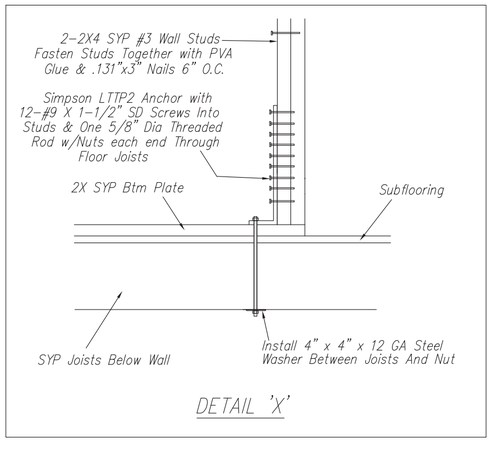
ADDITIONAL WALL TO FLOOR UPLIFT STRAPPING AT INTERIOR BRACING WALLS

TYP EACH END OF INTERIOR BRACING WALL UNLESS OTHERWISE NOTED ON FLOOR PLAN DRAWING



ENDWALL/INTERIOR BRACING WALL INTERSECTION DETAILS





DETAIL 'X'

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	VB
OCCUPANCY	SFD
ALLOWABLE NO. OF FLOORS	1
RISK CATEGORY	II
WIND VELOCITY (ULT)	150
WIND VELOCITY (ASD)	116
FIRE RATING OF EXT. WALLS	0
PLAN NO.	2773-0073F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	06-08-2022
MANUFACTURER	New Baxley
HIGH VELOCITY HURRICANE ZONE	NO

IWC
MUR-261

WILLIAM J. KALKER, JR. LICENSE No.33841 STATE OF FLORIDA PROFESSIONAL ENGINEER

6/8/22

WILLIAM J. KALKER, JR., P.E.

Digitally signed by WILLIAM J. KALKER, JR., P.E.
DN: C=US, CN="WILLIAM J. KALKER, JR., P.E.", O="W.J. KALKER, JE., P.E."
Reason: I am the author of this document
Location: your signing location here
Date: 2022.06.08 07:14:08-04'00'
Foxit PDF Reader Version: 11.2.1

NEW BAXLEY,LLC
DBA IMPACT HOUSING
137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 6/3/22		
CODES: IRC		
LABELS: FL	REVISIONS:	DRAWN BY: C.A.Leblanc
SCALE: NTS		
MODEL: 1672018GSH DETAILS	PLAN NO. IHG–43FL	SHEET 8 OF 8

WILLIAM J. KALKER, JR., P.E.
CONSULTING ENGINEER
33 ROCKWOOD LANE
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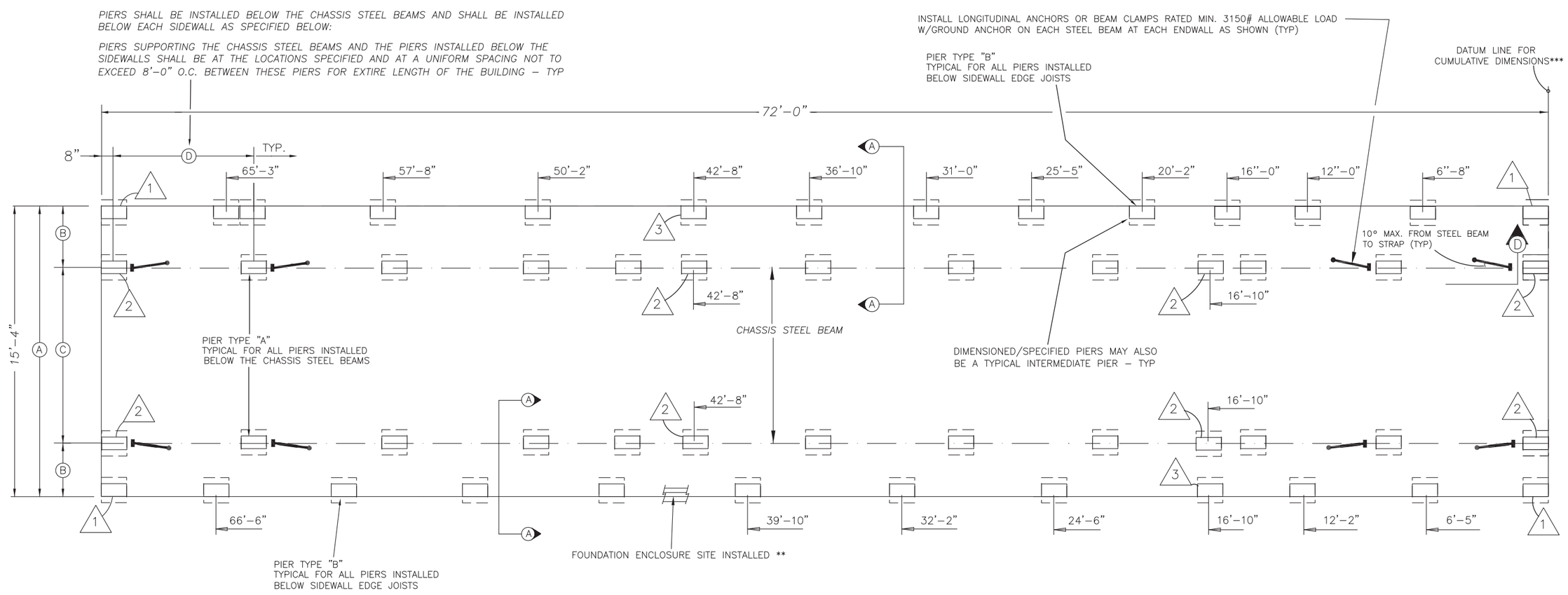


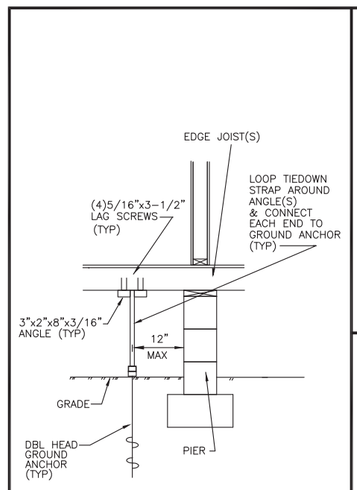
FRONT

ADD PLATFORMS, STAIRS AND RAILINGS AS REQUIRED FOR ACCESS TO BUILDING - ALL PLATFORMS, STAIRS AND RAILINGS TO BE DESIGNED BY SITE (LOCAL) ENGINEER, SUBJECT TO BUILDING OFFICIAL REVIEW AND APPROVAL - TYP

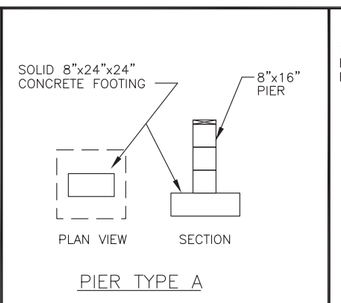
PIER FOUNDATION WITH STEEL FRAME

THIS REFERENCE FOUNDATION IS DESIGNED FOR A MAX. 150 MPH WIND SPEED (EXPC) PER THE 2020 FBC-R (7TH EDITION) SUPPLEMENT FOR MODEL '1672018GSH' (IHG-43FL) WITH THE STEEL FRAME CHASSIS (SEE THE MODEL DRAWINGS FOR FURTHER LIMITATIONS)

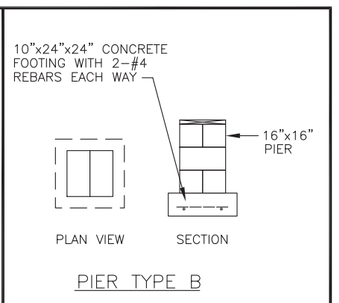
** FOUNDATION ENCLOSURE TO BE DESIGNED BY OTHERS. ENCLOSURE MUST HAVE VENTILATION OPENINGS WITH A MINIMUM NET VENT AREA OF NOT LESS THAN 1 SQ. FT. FOR EACH 150 SQUARE FEET OF CRAWL SPACE AREA. LOCATE OPENINGS WITHIN 3 FEET OF EACH CORNER AND UNIFORMLY SPACED BETWEEN THE CORNERS. AROUND BUILDING PERIMETER ALSO INSTALL A MINUIMUM 18"X24" CRAWL SPACE ACCESS DOOR.



PIER TYPE "X"



PIER TYPE A



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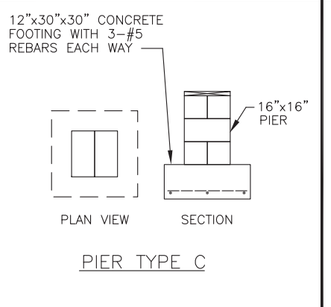
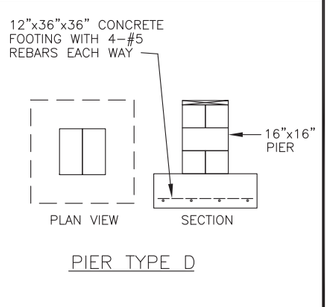
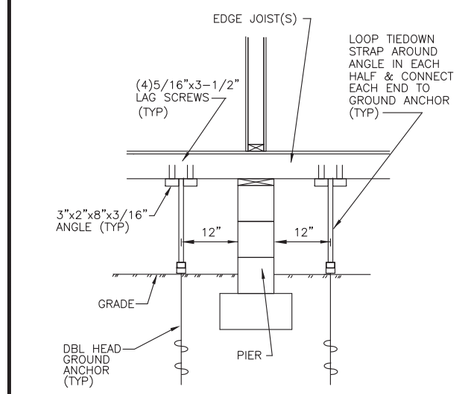


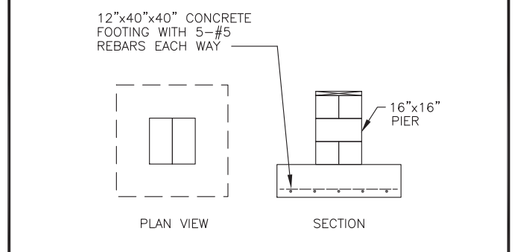
PIER TYPE C



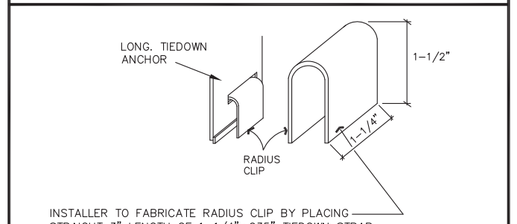
PIER TYPE D



PIER TYPE "Y"



PIER TYPE E



INSTALLER TO FABRICATE RADIUS CLIP BY PLACING STRAIGHT 3" LENGTH OF 1-1/4"x.035" TIEDOWN STRAP IN ANCHOR SLOT AND MANUALLY BENDING THE STRAP TO THE CONFIGURATION SHOWN.

RADIUS CLIP DETAIL

SUPPORT PIER REQUIREMENTS

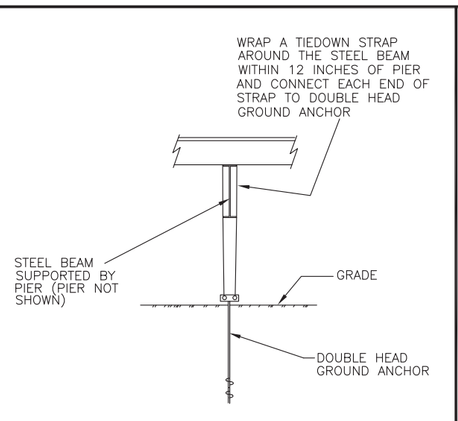
PIER NUMBER	MINIMUM SOIL BEARING CAPACITY	PIER TYPE	NUMBER OF VERTICAL TIE DOWN STRAPS REQUIRED (EACH MODULE)
1	2000 PSF	B & X	SEE DETAIL
	3000 PSF	B & X	SEE DETAIL
2	2000 PSF	A & Z	SEE DETAIL
	3000 PSF	A & Z	SEE DETAIL
3	2000 PSF	B & Y	SEE DETAIL
	3000 PSF	B & Y	SEE DETAIL
	2000 PSF		
	3000 PSF		
	2000 PSF		
	3000 PSF		

FOUNDATION DIMENSIONS

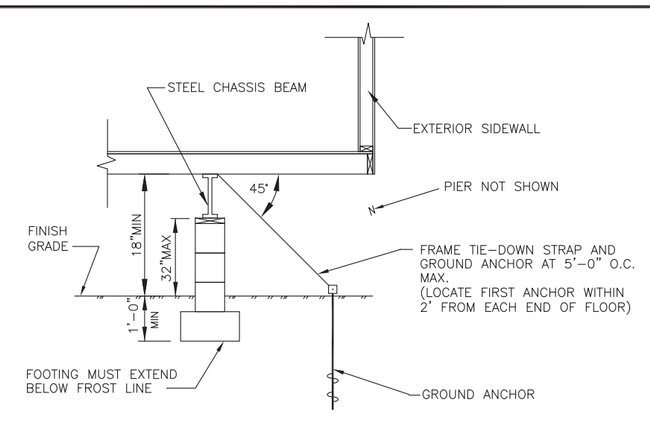
A MODULE WIDTH	B PIER TO MODULE EDGE	C STEEL BEAM SPACING
184"	44-1/4"	95-1/2"

D MAXIMUM PIER SPACING	MINIMUM SOIL BEARING CAPACITY
8'-0" O.C.	2000 PSF

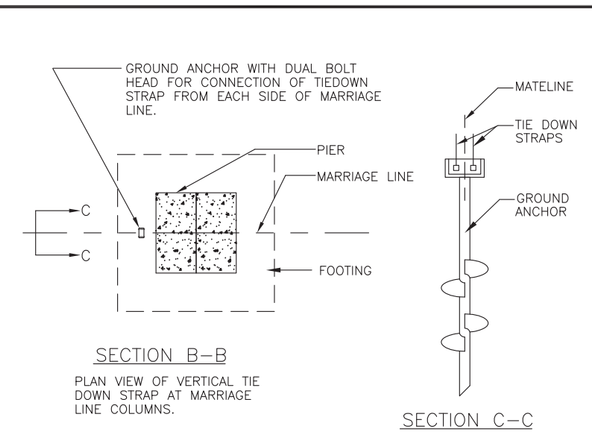
THE SUITABILITY OF THIS 'REFERENCE' FOUNDATION FOR A SPECIFIC SITE MUST BE DETERMINED AND/OR VERIFIED BY A DESIGN PROFESSIONAL FAMILIAR WITH THE SITE.



ANCHOR TYPE 'Z'



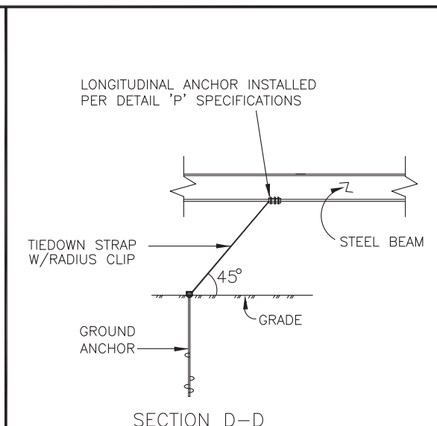
SECTION A-A



SECTION B-B

PLAN VIEW OF VERTICAL TIE DOWN STRAP AT MARRIAGE LINE COLUMNS.

SECTION C-C



SECTION D-D

FOUNDATION NOTES:

1. ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
2. TIE-DOWN STRAPS TO BE 1-1/4"x.035" GALVANIZED STEEL TYPE-1, FINISH-B, GRADE-1 CONFORMING WITH ASTM D3953. TIEDOWN STRAPS AND CONNECTING HARDWARE SHALL HAVE A MINIMUM 4725# ULTIMATE TENSION LOAD CAPACITY.
3. GROUND ANCHORS SHALL HAVE A 5000# MINIMUM ULTIMATE LOAD CAPACITY, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. ALL GROUND ANCHORS CONNECTED TO THE SIDEWALL OR LONGITUDINAL TIEDOWNS MUST BE PROVIDED WITH STABILIZER PLATES TO MINIMIZE HORIZONTAL MOVEMENT. THE DESIGN OF GROUND ANCHOR, INCLUDING SHAFT LENGTH, NUMBER AND DIAMETER OF HELIXES, STABILIZER PLATES, ETC. TO BE AS SPECIFIED BY THE GROUND ANCHOR MANUFACTURER FOR THE ACTUAL SOIL TYPE ENCOUNTERED. IF THE ULTIMATE LOAD CAPACITIES OF GROUND ANCHORS ARE BELOW THE REQUIRED VALUES SPECIFIED ABOVE THE DESIGN ENGINEER MUST BE CONSULTED FOR AN ALTERNATE FOUNDATION DESIGN.
4. THE FIRST TIDOWN STRAP FROM THE ENDWALLS SHALL BE LOCATED NOT MORE THAN 2' FROM THE END OF THE FLOOR. (TYP EACH END OF FLOOR)
5. CONCRETE MUST HAVE A MIN. COMPESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS.
6. ALL PIERS SHALL BE CONSTRUCTED OF 8"x8"X16" CONCRETE MASONARY UNITS CONFORMING WITH ASTM C90. MASONRY UNITS SHALL BE STANDARD WEIGHT BLOCKS LAID IN TYPE M OR S MORTAR OR WHEN PERMITTED BY THE LOCAL BUILDING OFFICIAL MAY BE COVERED WITH SURFACE BONDING CEMENT. SURFACE BONDING CEMENT MUST BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND/OR THE PRODUCTS LISTING. ALL SURFACE BONDING CEMENTS MUST COMPLY WITH ASTM C887. (WHEN SURFACE BONDING CEMENT IS USED THE FIRST COURSE OF CONCRETE BLOCKS MUST BE LAID IN TYPE M OR S MORTAR). ALL FOUNDATION AND/OR PIER CONSTRUCTIONS MUST COMPLY WITH THE MINIMUM SPECIFICATIONS PROVIDED ABOVE.
7. ALL REINFORCEMENT BARS SHALL COMPLY WITH ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING.
8. CHASSIS STEEL BEAM SUPPORT PIERS MUST BE INSTALLED WITH THE CENTERLINE OF EACH PIER LOCATED DIRECTLY BELOW THE STEEL BEAM CENTERLINE.
9. ALL PIERS SHALL BE CAPPED WITH 2x8 SYP PRESSURE TREATED SILL PLATES INSTALLED OVER 4" THICK CONCRETE CAP BLOCKS COVERING THE ENTIRE PIER.
10. INSTALL A CONC. BLOCK PIER ON EACH SIDE OF ALL EXTERIOR DOOR OPENINGS. SLIGHT ADJUSTMENTS MAY BE REQUIRED TO INSURE OPENABILITY AFTER INSTALLATION OF BUILDING IS COMPLETE.
11. CHASSIS STEEL BEAM SUPPORT PIERS MAY BE ROTATED 90 DEGREES FROM THE ORIENTATION SHOWN ON THE FOUNDATION PLAN ABOVE (SEE NOTE #8).
12. MIN. 2000 PSF ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED. IF THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN 2000 PSF, THE DESIGN ENGINEER MUST BE CONSULTED FOR AN ALTERNATE FOUNDATION DESIGN. ALL FOOTINGS SHALL BE PLACED ON STABLE AND ON NON-EXPANSIVE SOILS ONLY.
13. ALL GROUND ANCHORS SPECIFIED ON THIS DRAWING MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER OR A RECOGNIZED THIRD-PARTY TESTING LABORATORY TO ADEQUATELY SUPPORT A MIN. 5000# ULTIMATE WITHDRAWL LOAD WHEN LOADED BOTH PARALLEL WITH THE ANCHOR SHAFT AND AT A 45° ANGLE (WITH STABILIZER PLATE) FROM THE ANCHOR SHAFT.
14. THE GROUND ANCHORS MUST BE INSTALLED TO THEIR FULL DEPTH IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. GROUND ANCHORS MUST BE APPROVED FOR INSTALLATION IN THE SOIL TYPE IN WHICH THEY WILL BE INSTALLED AND MUST EXTEND BELOW THE FROST DEPTH

6/8/22

WILLIAM J. KALKER, JR., P.E.

Digitally signed by WILLIAM J. KALKER, JR., P.E.
DN: C=US, CN="WILLIAM J. KALKER, JR., P.E.", O="W.J. KALKER, JR., P.E."
Reason: I am the author of this document
Location: your signing location here
Date: 2022.06.08 07:15:20-04'00'
Foxit PDF Reader Version: 11.2.1

NEW BAXLEY,LLC
DBA IMPACT HOUSING
137 WEST PARK DR.
BAXLEY, GA. 31513

DATE: 6/3/22		
CODES: IRC		
LABELS: FL	REVISIONS:	DRAWN BY: C.A.Leblanc
SCALE: NTS		
MODEL: 1672018GSH REFERENCE FOUNDATION	PLAN NO. IHG-43FL	SHEET 1 OF 1

WILLIAM J. KALKER, JR., P.E.
CONSULTING ENGINEER
33 ROCKWOOD LANE
MONROE, CT 06468
(203) 261-1167

WILLIAM J. WALKER, JR., P.E.
93 ROCKWOOD LANE
MONROE, CT 06468

2020 FLORIDA ENERGY CODE
MODULAR BUILDING THERMAL ENVELOPE
PRESCRIPTIVE COMPLIANCE FORM R402-2020
FOR PLAN NO.
IH4 - 43FL

FLORIDA BUILDING CODE, ENERGY CONSERVATION	
Residential Building Thermal Envelope Approach	
R-Value Computation Method	
FORM R402—2020	1 & 2 Florida Climate Zone

PROJECT NAME AND ADDRESS:	BUILDER: SEE BELOW
	PERMITTING OFFICE:
OWNER:	JURISDICTION NUMBER:
PERMIT TYPE:	PERMIT NUMBER:
WORST CASE?	NUMBER OF UNITS:
	CONDITIONED FLOOR AREA: 1104 FT²

Scope: Compliance with Section R402.1.2 of the *Florida Building Code, Energy Conservation*, shall be demonstrated by the use of Form R402 for single- and multiple-family residences of three stories or less in height, additions to existing residential buildings, alterations, renovations and building systems in existing buildings, as applicable. To comply, a building must meet or exceed all of the energy efficiency requirements and applicable mandatory requirements summarized on this form. If a building does not comply with this method, or by the UA Alternative method, it may still comply under Section R405 or R406 of the *Florida Building Code, Energy Conservation*.

General Instructions:

1. Fill in all the applicable spaces of the "INSTALLED" row in the INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT table with the information requested. All "INSTALLED" values must be equal to or more efficient than the required levels. "AVG" indicates an area weighted average is allowed; "LOWEST" indicates the lowest *R*-value to be installed must be entered.
2. Complete the tables for air infiltration and installed equipment.
3. Read the MANDATORY REQUIREMENTS table and check each box to indicate your intent to comply with all applicable items.
4. Read, sign and date the "Prepared By" certification statement at the bottom of this form. The owner or owner's agent must also sign and date the form.

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[1]

REQUIREMENTS	FENESTRATION *U*-FACTOR[2, 3, 4]	SKYLIGHT[2] *U*-FACTOR	GLAZED FENESTRATION SHGC[2, 3]	CEILING *R*-VALUE	WOOD FRAME WALL *R*-VALUE[5]	MASS WALL *R*-VALUE[5, 6]	FLOOR *R*-VALUE	BASEMENT WALL *R*-VALUE	SLAB[7] *R*-VALUE & DEPTH	CRAWL SPACE WALL *R*-VALUE
CLIMATE ZONE 1	NR	0.75	0.25	30	13	3/4	13	0	0	0
CLIMATE ZONE 2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
VALUE	AVG	AVG	AVG	LOWEST	LOWEST	LOWEST	LOWEST	LOWEST	LOWEST	LOWEST
INSTALLED:	.35		.25	R38	R13		R13			

R-Value Calculation Method - [PASS / FAIL]

APPROVED · HILBORN, WERNER, CARTER & ASSOCIATES, INC · 06-08-2022 HWC

For SI: 1 foot = 304.8 mm; NR = No requirement.

(1) *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.
(2) The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.
(3) For impact rated fenestration complying with Section R301.2.1.2 of the *Florida Building Code, Residential* or Section 1609.1.2 of the *Florida Building Code, Building*, the maximum U-factor shall be 0.65 in Climate Zone 2. An area-weighted average of *U*-factor and SHGC shall be accepted to meet the requirements, and up to 15 square feet of glazed fenestration area are exempted from the *U*-factor and SHGC requirement based on Section R402.3.1, R402.3.2 and R402.3.3.
(4) One side-hinged opaque door assembly up to 24 square feet is exempted from this *U*-factor requirement based on Section R402.3.4.
(5) *R*-values are for insulation material only as applied in accordance with manufacturer's installation instructions.
(6) The second R-value applies when more than half the insulation is on the interior of the mass wall.
(7) 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 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.

Air Infiltration:	Blower door test is required on the building envelope to verify leakage 7 ACH50; test report must be provided to code official before CO is issued. *Florida Building Code, Energy Conservation* Section R402.4.1.2 testing exception may apply for additions, alterations, or renovations.

NEW BAXLEY, LLC
dba IMPACT HOUSING

M. Walker 6/8/22

Job	Truss	Truss Type	Qty	Ply	High Line Structures 407 GA
108483	P2092901	QUEENPOST	1	1	Ref. #10014869

UFP Industries Inc., Grand Rapids, MI 49525, Weston Gorby

Tue Dec 14 14:40:49 2021 Page 1 of 1

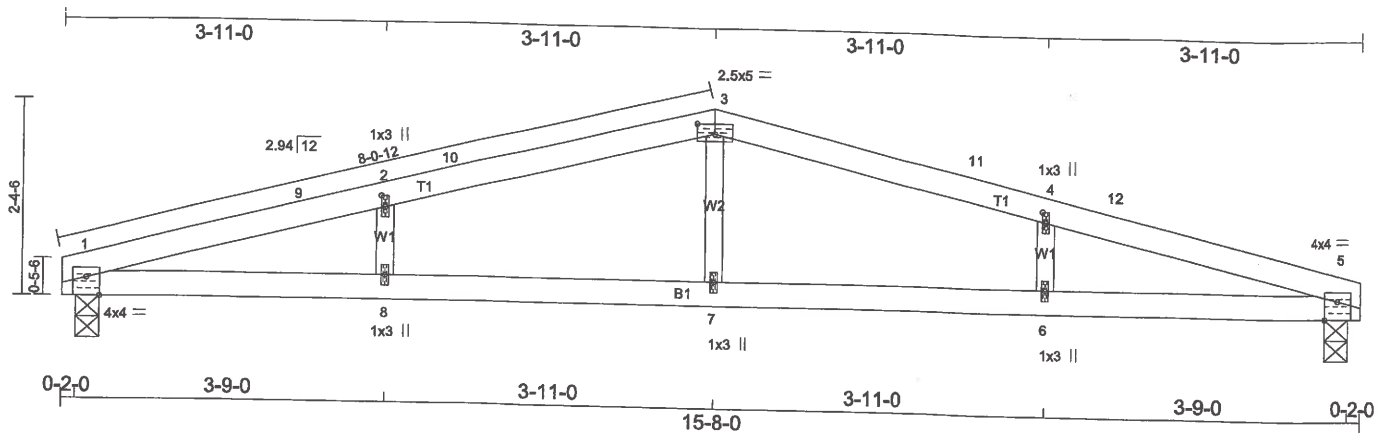


Plate Offsets (X,Y)— [1:0-2-0,Edge], [2:0-1-10,0-0-8], [3:0-2-8,0-1-7], [4:0-1-10,0-0-8], [5:0-2-0,Edge]

SPACING-: 2-0-0		**SPACING-:** 1-4-0		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d
LOADING (psf)		**LOADING** (psf)		Plate Grip DOL	1.25	TC	0.89	Vert(LL)	0.27	8	>683	240
TCLL	20.0	TCLL	30.0	Plate Metal DOL	1.00	BC	0.98	Vert(CT)	0.24	8	>780	180
TCDL	7.0	TCDL	10.5	Lumber DOL	1.25	WB	0.10	Horz(CT)	0.02	5	n/a	n/a
BCLL	0.0 *	BCLL	0.0 *	Rep Stress Incr	YES	Matrix-P						
BCDL	7.0	BCDL	10.5	Code FBC2020/TPI2014								

PLATES
WAVE

Weight: 51 lb
FT = 0%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x3 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-7-4 oc bracing.

REACTIONS. (lb/size) 1=523/0-3-8 (min. 0-1-8), 5=523/0-3-8 (min. 0-1-8)
Max Horz 1=-65(LC 15)
Max Uplift 1=-415(LC 6), 5=-415(LC 7)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-1173/1472, 2-9=-1133/1474, 2-10=-1149/1553, 3-10=-1132/1556, 3-11=-1132/1556, 4-11=-1149/1553, 4-12=-1133/1474, 5-12=-1173/1472
BOT CHORD 1-8=-1349/1100, 7-8=-1349/1100, 6-7=-1349/1100, 5-6=-1349/1100
WEBS 3-7=-339/303, 2-8=-128/294, 4-6=-128/294

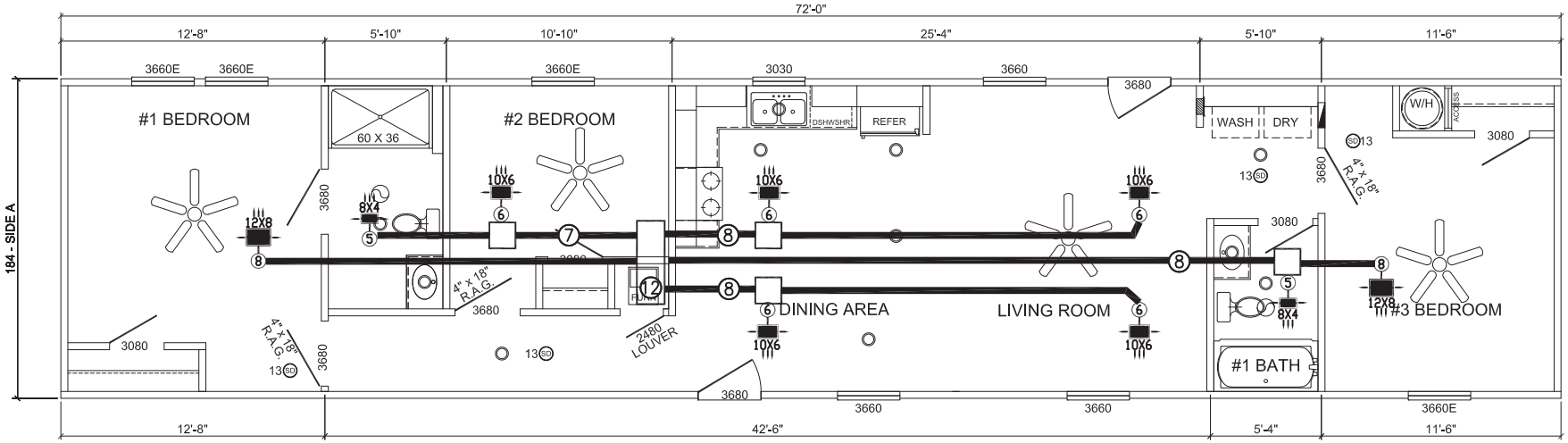
NOTES-
1) This truss has been checked for uniform roof live load only, except as noted.
2) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=116mph @24in o.c.; TCDL=2.8psf; BCDL=2.8psf; (Alt. 180mph @16in o.c.; TCDL=4.2psf; BCDL=4.2psf); h=30ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-10-0, Exterior(2R) 4-10-0 to 10-10-0, Interior(1) 10-10-0 to 12-6-4, Exterior(2E) 12-6-4 to 15-6-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 Plate metal DOL=1.00
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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 ta by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 415 lb uplift at joint 1 ar 415 lb uplift at joint 5.
7) This design has been checked for Alpine Wave 20 gauge plates.

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 06-08-2022 HWC

KEVIN FREEMAN LICENSE No 56254 STATE OF FLORIDA PROFESSIONAL ENGINEER
12/14/2021

The professional engineering seal indicates that a licensed professional engineer has designed the truss under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

UFP Industries, Inc.
PHONE (616)-364-6161 FAX (616)-365-0060
2801 EAST BELTLINE RD, NE
GRAND RAPIDS, MI 49525



APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. •
06-08-2022
HWC

NOTES:

UNDERCUT BEDROOM DOORS 2" MINIMUM

ALL SUPPLY DUCTS INSTALLED IN ATTIC UNLESS NOTED OTHERWISE

ALL SUPPLY REGISTERS TO BE 3-WAY ADJUSTABLE (SEE SPECIFICATION ON PLAN FOR SIZE)

ALL ATTIC FLEX DUCT TO BE R-8 MINIMUM. ALL ATTIC PLENUMS AND MIXING BOXES TO BE FABRICATED FROM R-8.0 MIN DUCT BOARD; ALL DUCT AND PLENUM DIMENSIONS ARE INSIDE DIMENSIONS.

DUCT TIGHTNESS TO BE VERIFIED BY TESTING IN ACCORDANCE WITH SECTION R403.3.3 OF ENERGY CODE

DUCT PENETRATIONS OF THE CEILING SHOULD BE PROVIDED WITH 1/2" GYPSUM BOARD TIGHT FITTING FIREBLOCKING.

DUCT INSULATION SHALL BE INSTALLED WITH A VAPOR RETARDER HAVING A PERMEANCE OF NOT GREATER THAN .05 PERM IN ACCORDANCE WITH ASTM E96 OR ALUMINUM FOIL WITH A THICKNESS OF NOT LESS THAN 2 MILS INSTALLED ON THE EXTERIOR OF THE INSULATION ON ALL DUCTS LOCATED IN THE ATTIC.

THE AMS GROUP ELKHART, IN.

CUSTOMER:
IMPACT HOUSING

DESCRIPTION: OVHD
MODEL: 1672018GSH
DRAWN: BPW
CAD FILENAME: DS\IMPACT HOUSING

SCALE:

DATE: 5/23/22

wrightsoft

Load Short Form
Entire House
AMS Of Indiana, Inc.

3933 East Jackson Blvd., Elkhart, IN 46516

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 06-08-2022 HWC

Job: 1672018GSH
Date: 5/23/22
By: AMS of Indiana, Inc.

Project Information

For: IMPACT HOUSING
1672018GSH

Design Information

	Htg	Clg
Outside db (°F)	18	99
Inside db (°F)	72	75
Design TD (°F)	54	24
Daily range	-	M
Inside humidity (%)	50	50
Moisture difference (gr/lb)	48	50

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

HEATING EQUIPMENT

Make	Generic		
Trade			
Model	AFUE 100		
AHRI ref			
Efficiency	100 AFUE		
Heating input	7.9	kW	
Heating output	26887	Btuh	
Temperature rise	30	°F	
Actual air flow	810	cfm	
Air flow factor	0.034	cfm/Btuh	
Static pressure	0.50	in H2O	
Space thermostat			

COOLING EQUIPMENT

Make	Generic		
Trade			
Cond	SEER 14.0		
Coil			
AHRI ref			
Efficiency	12.2 EER, 14 SEER		
Sensible cooling	20091	Btuh	
Latent cooling	8610	Btuh	
Total cooling	28701	Btuh	
Actual air flow	810	cfm	
Air flow factor	0.045	cfm/Btuh	
Static pressure	0.50	in H2O	
Load sensible heat ratio	0.79		

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
B1	194	5479	4365	187	197
BA2	65	1268	612	43	28
LR\DR\KT	385	8611	7383	294	333
A	66	0	0	0	0
BA1	47	965	464	33	21
B3	172	4797	2926	164	132
U	40	0	0	0	0
B2	121	2623	2197	90	99

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

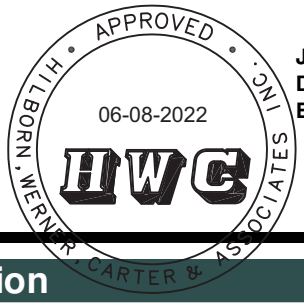
Entire House	1090	23743	17948	810	810
Other equip loads		3144	1389		
Equip. @ 1.04 RSM			20091		
Latent cooling			5013		
TOTALS	1090	26887	25104	810	810

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Component Constructions
Entire House
AMS Of Indiana, Inc.

3933 East Jackson Blvd., Elkhart, IN 46516



Job: 1672018GSH
Date: 5/23/22
By: AMS of Indiana, Inc.

Project Information

For: IMPACT HOUSING
1672018GSH

Design Conditions

Location:
Bob Sikes AP, FL, US
Elevation: 190 ft
Latitude: 31 °N

Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	18	99
Daily range (°F)	-	20 (M)
Wet bulb (°F)	-	78
Wind speed (mph)	15.0	7.5

Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	72	75
Design TD (°F)	54	24
Relative humidity (%)	50	50
Moisture difference (gr/lb)	48.0	50.2

Infiltration:	
Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0sw: Frm wall, vnl ext, 3/8" wood shth, r-13 cav ins, 2"x4" wood frm, 16" o.c. stud	n	137	0.091	13.0	4.92	676	2.78	381
	e	578	0.091	13.0	4.92	2843	2.78	1603
	s	137	0.091	13.0	4.92	676	2.78	381
	w	556	0.091	13.0	4.92	2738	2.78	1544
	all	1408	0.091	13.0	4.92	6933	2.78	3909
Partitions								
(none)								
Windows								
2 glazing, clr low-e outr, argon gas, vnl frm mat, clr innr, clr strm, 1/4" gap, 1/8" thk: 2 glazing, clr low-e outr, argon gas, vnl frm mat, clr innr, clr strm, 1/4" gap, 1/8" thk; NFRC rated (SHGC=0.25); 6.67 ft head ht	e	45	0.350	0	18.9	852	32.3	1455
	w	66	0.350	0	18.9	1254	32.3	2142
	all	111	0.350	0	18.9	2107	32.3	3598
Doors								
Door, wd sc type	e	21	0.350	0	18.9	398	12.4	261
	w	21	0.350	0	18.9	398	12.4	261
	all	42	0.350	0	18.9	795	12.4	522
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins		1090	0.026	38.0	1.41	1534	1.53	1673
Floors								
19A-13cstp: Flr floor, frm flr, 6" thkns, r-13 cav ins, tight crwl ovr		1090	0.065	13.0	2.57	2807	1.14	1240

Project Summary
Entire House
AMS Of Indiana, Inc.

Job: 1672018GSH
Date: 5/23/22
By: AMS of Indiana, Inc.

3933 East Jackson Blvd., Elkhart, IN 46516

Project Information

For: IMPACT HOUSING
1672018GSH

Notes:

Design Information

Weather: Bob Sikes AP, FL, US

Winter Design Conditions

Outside db	18	°F
Inside db	72	°F
Design TD	54	°F

Summer Design Conditions

Outside db	99	°F
Inside db	75	°F
Design TD	24	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	50	gr/lb

Heating Summary

Structure	19707	Btuh
Ducts	4036	Btuh
Central vent (53 cfm)	3144	Btuh
Outside air		
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	26887	Btuh

Sensible Cooling Equipment Load Sizing

Structure	14395	Btuh
Ducts	3553	Btuh
Central vent (53 cfm)	1389	Btuh
Outside air		
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.04	
Equipment sensible load	20091	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft²)	1090	1090
Volume (ft³)	9813	9813
Air changes/hour	0.57	0.23
Equiv. AVF (cfm)	94	38

Latent Cooling Equipment Load Sizing

Structure	2277	Btuh
Ducts	932	Btuh
Central vent (53 cfm)	1805	Btuh
Outside air		
Equipment latent load	5013	Btuh
Equipment Total Load (Sen+Lat)	25104	Btuh
Req. total capacity at 0.70 SHR	2.4	ton

Heating Equipment Summary

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	

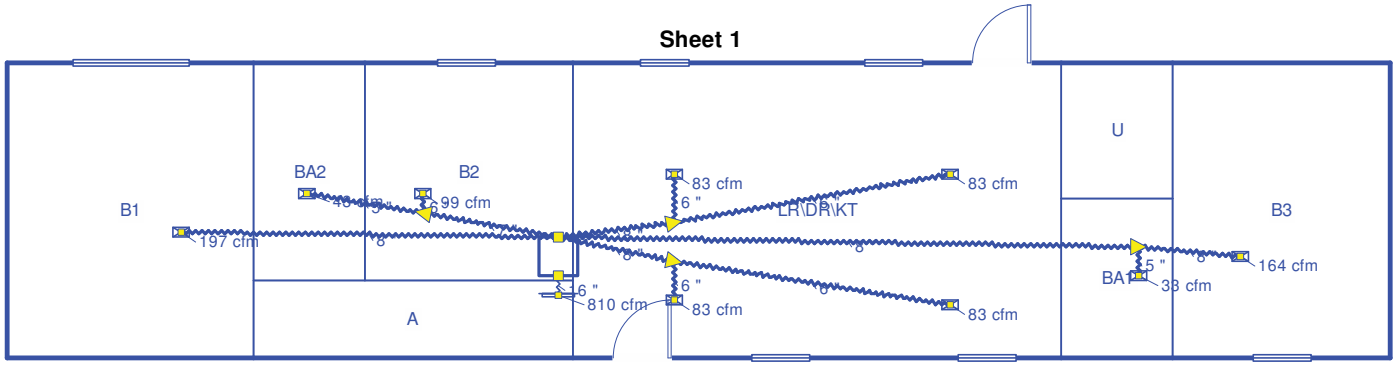
Efficiency	100	AFUE
Heating input	7.9	kW
Heating output	26887	Btuh
Temperature rise	30	°F
Actual air flow	810	cfm
Air flow factor	0.034	cfm/Btuh
Static pressure	0.50	in H2O
Space thermostat		

Cooling Equipment Summary

Make	Generic
Trade	
Cond	SEER 14.0
Coil	
AHRI ref	

Efficiency	12.2 EER, 14 SEER	
Sensible cooling	20091	Btuh
Latent cooling	8610	Btuh
Total cooling	28701	Btuh
Actual air flow	810	cfm
Air flow factor	0.045	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.79	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Job #: 1672018GSH **Performed by AMS of Indiana, Inc. for:** IMPACT HOUSING 1672018GSH	**AMS Of Indiana, Inc.** 3933 East Jackson Blvd. Elkhart, IN 46516	Scale: 1 : 119 Page 1 Right-Suite® Universal 2022 22.0.01 RSU02009 2022-May-23 09:39:56 ...es)\1672018GSH-FL(OVHD-FUR...

Duct System Summary
Entire House
AMS Of Indiana, Inc.

3933 East Jackson Blvd., Elkhart, IN 46516

Job: 1672018GSH
Date: 5/23/22
By: AMS of Indiana, Inc.

Project Information

For: IMPACT HOUSING
1672018GSH

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0.26 in H2O	0.26 in H2O
Available static pressure	0.24 in H2O	0.24 in H2O
Supply / return available pressure	0.171 / 0.069 in H2O	0.171 / 0.069 in H2O
Lowest friction rate	0.114 in/100ft	0.114 in/100ft
Actual air flow	810 cfm	810 cfm
Total effective length (TEL)	211 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
B1	c 4365	187	197	0.149	8.0	0x 0	VlFx	19.5	95.0	
B2	c 2197	90	99	0.139	6.0	0x 0	VlFx	8.1	115.0	st1
B3	h 4797	164	132	0.114	8.0	0x 0	VlFx	35.3	115.0	st2
BA1	h 965	33	21	0.117	5.0	0x 0	VlFx	31.5	115.0	st2
BA2	h 1268	43	28	0.133	5.0	0x 0	VlFx	13.2	115.0	st1
LR\DR\KT	c 1846	73	83	0.138	***6.0***	***0x 0***	VlFx	8.5	115.0	st4
LR\DR\KT-A	c 1846	73	83	0.126	***6.0***	***0x 0***	VlFx	20.5	115.0	st4
LR\DR\KT-B	c 1846	73	83	0.139	***6.0***	***0x 0***	VlFx	8.1	115.0	st3
LR\DR\KT-C	c 1846	73	83	0.126	***6.0***	***0x 0***	VlFx	20.6	115.0	st3

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	133	127	0.133	497	7.0	0 x 0	VinlFlx	
st2	Peak AVF	197	153	0.114	563	8.0	0 x 0	VinlFlx	
st3	Peak AVF	147	167	0.126	478	8.0	0 x 0	VinlFlx	
st4	Peak AVF	147	167	0.126	478	8.0	0 x 0	VinlFlx	

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HWC

Bold/italic values have been manually overridden

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x 0	810	810	61.0	0.114	580	16.0	0x 0		VlFx