

DWV NOTES:

- ALL PLUMBING NOT PROVIDED BY KBS BUILDING SYSTEMS, INC. TO BE SUPPLIED AND INSTALLED ON SITE BY LICENSED PLUMBER.
- ALL WASTE AND VENT LINES IN MODULE ARE PVC PIPE.
- PITCH ON HORIZONTAL WASTE LINE IS 1/8" PER FOOT FOR 3" DIAMETER PIPES AND LARGER. FOR PIPES SMALLER THAN 3" DIAMETER THE PITCH IS 1/4" PER FOOT. UNIFORM PLUMBING CODE REQUIRES ALL HORIZONTAL WASTE PIPES TO HAVE 1/4" PER FOOT SLOPE.
- ALL PLASTIC DWV PIPE MUST BE SUPPORTED AT INTERVALS OF NOT MORE THAN 4'-0" HORIZONTALLY OR VERTICALLY. PLASTIC DWV PIPE UNDER 2" SHALL BE SUPPORTED AT 3'-0" INTERVALS.
- EACH DWELLING UNIT SHALL HAVE ONE MAIN 3" MINIMUM STACK FROM BUILDING DRAIN TO ABOVE ROOF.
- BASEMENT MODELS SHALL BE PROVIDED IN FACTORY WITH A 2" VENT TO BASEMENT STUBBED BELOW FIRST FLOOR, CAPPED AND LABELED FOR BASEMENT VENT.
- HORIZONTAL TO HORIZONTAL AND VERTICAL TO HORIZONTAL DRAIN CHANGES IN DIRECTION SHALL BE 45° WYES, LONG SWEEP ELBOWS, LONG TURN TEE-WYES, 6TH, 8TH OR 16 TH BENDS. APPROVED COMBINATIONS OF THESE OR EQUIVALENT LONG SWEEP FITTINGS. SHORT SWEEPS PERMITTED IN SINGLE BRANCH HORIZONTAL TO VERTICAL CHANGES IN DIRECTION AND ON 3" OR LARGER PIPE.
- NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD WASTE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE.
- TRAPS SHALL BE PLACED AS CLOSE AS POSSIBLE TO FIXTURE OUTLET. MAXIMUM LENGTH FROM FIXTURE OUTLET TO TRAP WEIR IS 24".
- INACCESSIBLE TRAPS SHALL NOT HAVE UNIONS, CLEANOUTS, OR SLIP JOINTS. ACCESSIBLE TRAPS SHALL BE REMOVABLE WITH UNION IN TRAP SEAL OR HAVE CLEANOUT OPENINGS THE SAME SIZE AS TRAP (IN THE STATE OF MASS ON HOUSE SIDE OF TRAP).
- ALL HORIZONTAL VENT BRANCH PIPING SHALL BE LOCATED A MINIMUM OF 6" ABOVE THE FLOOR LEVEL OF THE HIGHEST FIXTURE IN THAT BRANCH.
- MAXIMUM DISTANCE OF FIXTURE TRAP WEIR TO VENT SHALL BE: 1-1/2" PIPE = 3'-6"; 2" PIPE = 5'-0"; 3" PIPE = 6'-0". UNIFORM PLUMBING CODE SAYS 3'-0" MAX. ON 1 1/2" PIPE.
- PLASTIC PIPING SHALL BE PROTECTED WITH 0.062 THICK STEEL PLATE AND SHALL COVER THE PIPE AREA WHEN THE PIPE PASSES THROUGH WOOD MEMBERS LESS THAN 1-1/2" FROM EDGE OF MEMBER AND SHALL EXTEND A MINIMUM OF 2" ABOVE SOLE PLATE AND BELOW TOP PLATES.
- DWV PIPE IS SIZED ACCORDING TO FIXTURE LOAD.
- WHEN REQUIRED BY CODE A 3" VENT FOR A RADON REDUCTION SYSTEM SHALL BE PROVIDED AS A SEPARATE VENT FROM THE HOUSE DWV SYSTEM.
- WATER CLOSETS SHALL BE OF WATER CONSERVING, LOW CONSUMPTION 1.6 GALLON PER FLUSH TYPE. ALL PLUMBING FIXTURES SHALL BE WATER CONSERVING TYPE.
- ALL MODELS MUST HAVE CLOTHES WASHER HOOK-UP. WASHER MAY BE LOCATED IN BASEMENT OR GARAGE.
- TWO STORY, SECOND FLOOR FIXTURES, OR FIXTURE GROUPS SHALL HAVE DRAIN STACKS SEPARATE FIRST FLOOR FIXTURES OR FIXTURE GROUPS. TWO STORY, FIRST FLOOR FIXTURES SHALL DRAIN HORIZONTALLY INTO THE HOUSE DRAIN. TWO STORY ACCESS FOR FIELD FOR FIELD CONNECTION OF BOTH SUPPLY AND DWV SYSTEM WILL BE PROVIDED IN FIRST FLOOR CEILING.
- IF PLASTIC PIPE PENETRATES FIRE RATED ASSEMBLY IT SHALL BE FIRE STOPPED BY AN APPROVED METHOD. I.E., FOR A 1 HOUR RATED ASSEMBLY UL # FC2020, OR FC 2024 OR FC 2033
- ISLAND FIXTURE VENTING SHALL NOT BE PERMITTED FOR FIXTURES OTHER THAN SINKS AND LAVATORIES

SUPPLY NOTES:

- ALL WATER AND DRAIN LINES ARE STUBBED THROUGH FLOOR ONLY, FOR FIELD COMPLETION. ALL HORIZONTAL PIPING IS IN FIELD INSTALLATION IS OPTIONAL.
- ALL POTABLE WATER LINES ARE TYPE "L" COPPER (PLASTIC PIPE IS OPTIONAL).
- RODENT PROTECTION SHOULD BE APPLIED IN FIELD AT WATER INLET WALL PENETRATIONS.
- ALL WATER CLOSETS ARE TO HAVE SHUT OFF VALVES. ALL VALVES ARE GATE OR ANGLE TYPE.
- ALL HOSE BIBS ARE 3/4" NONFREEZING OR DRAIN VALVE TYPE.
- WATER HEATER IS INSTALLED BY BUILDER ON SITE FOR FULL BASEMENT; WATER HEATER MAY BE INSTALLED IN FACTORY FOR CRAWL SPACE MODELS (WHEN REQUESTED BY BUILDER).
- NO PLUMBING IS DONE IN FACTORY BELOW 1st FLOOR, CONNECTIONS BELOW FIRST FLOOR ARE BY BUILDER.
- PLUMBING INSTALLED ON SITE TO BE APPROVED LOCALLY AND FIELD TESTED.
- PLUMBING WALLS ARE NOTCHED OR DRILLED (NOT EXCESSIVE) TO SUPPORT HORIZONTAL PIPING WHEN REQUIRED.
- EQUIVALENT FIXTURES AND MECHANICAL EQUIPMENT MAY BE SUBSTITUTED IF NORMALLY FURNISHED OR SPECIFIED EQUIPMENT IS NOT AVAILABLE.
- ANY VERTICAL COPPER TUBING TO BE SUPPORTED 4'-0" O.C. BY STRAPPING.
- COPPER DISTRIBUTION SUPPORTS: AT THE BASE AND AT EACH FLOOR NOT EXCEEDING 10'-0" ON CENTER (VERTICAL), MAXIMUM EVERY 6'-0" (HORIZONTAL).
- WHERE CODE PERMITS, SHUTOFF VALVES MAY BE INSTALLED BELOW FLOOR WITH ACCESS. (ALL PLUMBING FIXTURES TO HAVE ACCESSIBLE SHUT-OFFS)
- 3/4" MINIMUM HOT AND COLD MAIN SUPPLY LINE TO BE USED (1" FOR 20 DFUS AND OVER) WITH 1/2" SUPPLY FROM MAIN SERVICE TO INDIVIDUAL FIXTURES.
- FLOOR PENETRATIONS FOR SUPPLY LINES ARE TO BE FIRESTOPPED AND BLOCKED IN FIELD WITH MATERIALS EQUIVALENT TO CONSTRUCTION MEMBERS IT PENETRATES AND BE SUITABLE TO PIPE MATERIAL.
- ANTI-SCALD AND/OR THERMAL SHOCK PREVENTING DEVICES SHALL BE INSTALLED IN THE WATER SUPPLY TO ALL SHOWER AND SHOWER/BATHING FIXTURES.
- HORIZONTAL COPPER PIPING SHALL NOT BE SOFT COPPER.
- SUPPLY PIPING IN UNHEATED AREAS (OUTSIDE WALLS AND CRAWL SPACES) SHALL BE INSULATED. PIPING SHALL BE KEPT OUT OF UNHEATED AREAS WHERE POSSIBLE. PLUMBING FIXTURE ACCESS PANELS WILL BE PROVIDED PER APPLICABLE CODES.
- FLOOR JOIST NOTCHES MAY NOT EXCEED 1/6 OF JOIST NOTCH DEPTH AND MAY NOT OCCUR IN MIDDLE 1/3 OF SPAN. HOLES MAY NOT EXCEED 1/3 DEPTH OF JOIST AND MUST OCCUR 2" IN FROM EITHER EDGE.
- SILL COCKS AND HOSE BIBS SHALL BE EQUIPPED WITH PERMANENT VACUUM BREAKERS.
- FUTURE VENT FOR BASEMENT MODELS, WHEN INSTALLED, TO BE CAPPED AND LABELED.
- FACTORY INSTALLED WATER HEATERS: WHEN ENCLOSED AN ACCESS PANEL IS SUPPLIED.
- ALL MATERIALS AND FIXTURES ARE IN COMPLIANCE WITH ACCEPTABLE STANDARDS IN PLANT PLUMBING TO BE PLUGGED OR CAPPED FOR PROTECTION DURING TRANSIT.
- ENVIRONMENTAL CONSERVATION: ALL FIXTURES ARE TO BE WATER CONSERVING. MAXIMUM FLOW RATE FOR FAUCETS AND SHOWERS TO BE 3 GALLONS PER MINUTE, FOR TOILETS 1.6 GALLONS PER FLUSH.
- LEAD CONTENT IN SOLDER AND FLUX FOR COPPER TUBE JOINTS SHALL BE LEAD FREE.
- HOSE SUPPLIED (IF SUPPLIED) FOR SHOWER OR BATH SHALL HAVE A DIVERTER THAT WHEN WATER IS SHUT OFF REVERTS TO TUB POSITION AND PROVIDES A VACUUM BREAKER WHEN UNDER VACUUM (E.G. BATH SPOUT DIVERTER) OR SHALL BE PROVIDED WITH VACUUM BREAKER.
- BATH TUBS AND SHOWERS ARE TO BE LISTED BY AN APPROVED AGENCY.
- WATER HAMMER ARRESTORS ARE TO BE INSTALLED ON QUICK CLOSING VALVES SUCH AS (WASHER AND DISHWASHER)

200 AMP SERVICE PANEL									
CIRCUIT IDENTIF.	DESCRIPTION	BREAKER SIZE		WIRE SIZE	BREAKER SIZE		DESCRIPTION	CIRCUIT IDENTIF.	
		AMP	VOLT		AMP	VOLT			
1	RANGE	40A	240	8-3	14-2	15A	120	BEDROOM 1 (AFCI)	2
3					14-2	15A	120	BEDROOM 2 (AFCI)	4
5	DRYER	30A	240	10-3	14-2	15A	120	BEDROOM 3 (AFCI)	6
7					14-2	15A	120	LIVING ROOM/SMKS (AFCI)	8
9	WASHER GFCI/AFCI COMBO	20A	120	12-2	14-2	15A	120	KIT. / DINING (AFCI)	10
11	DISHWASH GFCI/AFCI COMBO	20A	120	12-2	12-2	20A	120	DINING RECEIPT (AFCI)	12
13	REFRIG GFCI/AFCI COMBO	20A	120	12-2	12-2	20A	120	KIT. RECEIPTS GFCI/AFCI	14
15	MICROWAVE GFCI/AFCI COMBO	20A	120	12-2	12-2	20A	120	KIT. RECEIPTS GFCI/AFCI	16
17	EXTERIOR RECEIPTS GFCI	15A	120	14-2	12-2	20A	120	BATH 1 GFCI	18
19	GAS RANGE	20A	120	12-2	12-2	20A	120	BATH 2 GFCI	20
21	MUDROOM/HALL (AFCI)	15A	120	14-2	14-2	15A	120	BATH 1 LIGHTS	22
23	BASEMNT LIGHTS (AFCI)	15A	120	14-2	14-2	15A	120	BATH 2 LIGHTS	24
25									26
27									28
29									30
31									32
33									34
35									36
37									38
39	FURNACE	15A	120	14-2					40

*** IF DEDICATED SPACE IS NOT USED IT MAY BE REASSIGNED TO AN OPTIONAL CIRCUITS WATER HEATER MAY BE OMITTED WHEN ALTERNATIVE SOURCE OF HEAT FOR WATER SUPPLY IS PROVIDED BY BUILDER NOTE: ADDITIONAL CIRCUITS MAY BE ADDED OR DELETED AS FLOOR PLAN OR SALES CONTRACT DICTATE

GFCI/AFCI= GFCI RECEIPT W/ AFCI BREAKER
GFCI/AFCI COMBO= GFCI AFCI BREAKER
AFCI= AFCI BREAKER
GFI= STARTING RECEIPT TO BE GFI

ELECTRICAL NOTES:

- ALL ELECTRICAL WIRING AND DEVICES INSTALLED BY MANUFACTURER SHALL BE DETERMINED NECESSARY AND PLACED IN ACCORDANCE WITH THE APPLICABLE VERSION OF THE NATIONAL ELECTRICAL CODE. ACTUAL LOCATIONS OF ELECTRICAL DEVICES IN THE MODULES MAY VARY FROM THOSE DEPICTED ON THESE PLANS, BUT IN ALL CASES SHALL CONFORM TO THE APPLICABLE VERSION OF THE NATIONAL ELECTRICAL CODE.
- WALL SWITCHES TO BE 48", RECEPTACLES TO BE 19", AND COUNTERTOP RECEPTACLES TO BE 48" (43" VANITY) TO THE TOP OF THE BOX FROM THE FINISHED FLOOR (HEIGHTS ARE APPROXIMATE).
- ANY WALL 2'-0" IN LENGTH OR GREATER WILL HAVE A RECEPTACLE (HABITABLE SPACE ONLY)
- KITCHEN COUNTERTOP RECEPTACLES SHALL BE INSTALLED IN SUCH A WAY SO THAT NO SPACE OF COUNTERTOP MEASURED ALONG THE WALL WILL EXCEED 4'-0", AND NO COUNTERTOP SPACE GREATER THAN 12" WILL BE WITHOUT A RECEPTACLE. ALL RECEPTACLES WILL BE GFCI PROTECTED.
- RECEPTACLES WILL BE ARRANGED SO THAT NO POINT ALONG THE WALL SHALL BE MORE THAN 6'-0" FROM A RECEPTACLE.
- ALL SMOKE DETECTORS TO BE AC/DC (PHOTOELECTRIC IN MA & VT). ALL SMOKE DETECTORS (INCLUDING THOSE SUPPLIED BY BUILDER) SHALL BE INTERCONNECTED. SMOKE DETECTORS TO BE DIRECTLY CONNECTED TO LIGHTING CIRCUIT WITH NO INTERVENING SWITCH AND POWERED ON SITE BY BUILDER. RED WIRE IS FOR INTERCONNECTION. BLACK WIRE IS FOR POWER. ALL SMOKE DETECTORS TO HAVE A BATTERY BACKUP.
- IGNORING SMOKE DETECTORS INSTALLED IN BEDROOMS, IN THE STATES OF MASS. AND RI. THERE SHALL BE A ONE SMOKE DETECTOR INSTALLED PER 1200 SQ.FT. PER FLOOR.
- IN THE STATES OF RI. SMOKE DETECTOR WIRING IS INSTALLED BY MANUFACTURER. SMOKE DETECTOR IS INSTALLED BY BUILDER AT A LOCATION DETERMINED BY THE FIRE MARSHAL.
- NONMETALLIC-SHEATHED CABLE SHALL BE TYPE NM-B.
- CONDUCTORS AND ELECTRICAL EQUIPMENT SHALL BE LABELED OR LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY. THE EQUIPMENT SHALL BE SUITABLE FOR LOCATION AND USE AND IN COMPLIANCE WITH ITS LABEL AND LISTING.

- ALL RECEPTACLES TO BE GROUNDED TYPE.
- STEEL PROTECTORS TO BE USED AT INTERIOR PARTITIONS, AND EXTERIOR WALLS AS REQUIRED.
- ADDITIONAL CIRCUITS FOR OPTIONAL MODULE WILL BE ADDED PER NEC AS NEEDED.
- AT LEAST ONE RECEPTACLE SHALL BE INSTALLED IN HALLWAYS OF 10'-0" OR MORE IN LENGTH
- CIRCUIT "32" IS DEDICATED FOR CRAWL SPACE OR BASEMENT WIRING OR EQUIPMENT INSTALLATION IS INSTALLED BY BUILDER ON SITE (GFCI PROTECTED).
- BATH FANS ARE VENTED TO EXTERIOR. TO BE ON A TIMER IN VERMONT TO SERVE WHOLE-HOUSE VENTILATION REQUIREMENTS.
- RANGE HOODS TO BE VENTED TO THE EXTERIOR. IF KITCHEN IS PROVIDED WITH 4% OF FLOOR AREA WITH NATURAL VENTILATION, NON VENTED RANGE HOODS MAY BE USED.
- ALL HOLES THROUGH PLATES IN WALL MUST BE FIRESTOPPED.
- ANY CIRCUITS IN MODULES NOT CONTAINING ELECTRICAL PANEL MUST HAVE CIRCUITS WIRED INTO ELECTRICAL PANEL ON-SITE.
- LOCATION OF ELECTRICAL PANEL IN CRAWL SPACE MODELS IS TO COMPLY WITH SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.
- CARBON MONOXIDE DETECTOR, ONE PER FLOOR IN THE STATE OF ME, RI AND MA IN MA, COMBINATION SMOKE / CO DETS. SHALL HAVE VOICE SIMULATED & TONE ALARM
- ALL BEDROOM, FAMILY ROOM, LIVING ROOM, PARLORS, LIBRARIES, DENS, SUNROOMS, DINING ROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOM OUTLETS SHALL BE ARC FAULT PROTECTED, INCLUDING SMOKE DETECTORS.
- ALL EXTERIOR LIGHTS ARE TO BE WATERPROOF.
- WASHER RECEPTACLE IS LOCATED IN THE BASEMENT BY OTHERS WHEN NOT LOCATED ON FLOOR PLAN.

T.R. ARNOLD & ASSOCIATES, INC. PO Box 1081 E. Barn, IN 46515
 State(s) MAINE
 Accredited Evaluation and Inspection Agency
 This document is certified as being in conformance with LISTED CODES
Jul 5, 2016
 Approved By: *Kevin White*
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 TRM APPROVAL LIMITED TO FACTORY-BUILT MODULES ONLY.

ELECTRICAL LEGEND:

- DUPLEX RECEPTACLE
- 220 V RECEPTACLE
- SWITCHED RECEPTACLE
- SINGLE POLE SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- SOFFIT LIGHT
- FAN LIGHT COMBO
- AC/DC SMOKE DETECTOR
- HEAT DETECTOR
- CO DETECTOR
- GROUND FAULT PROTECTED
- JUNCTION BOX
- GFCI RECEPTACLE
- SAFETY SWITCH (DISCONNECT) AT 60" AFF
- SINGLE PORT DATA JACK
- EXTERIOR LIGHT H2O PROOF
- CEILING LIGHT
- FLOURESCENT LIGHT
- WALL LIGHT
- MALE/FEMALE CONNECTOR
- TV JACK
- PHONE JACK
- DOOR CHIMES
- WEATHER PROOF
- 20 AMP RECEPTACLE
- THERMOSTAT @ 60" AFF
- CATV JACK
- CARBON MONOXIDE DETECTOR
- COMBO SMOKE/CARBON MONOXIDE DETECTOR
- 'AF' ARC FAULT PROTECTED

RI, MASS., NH, & VT PROJECTS TO FOLLOW 2014 NEC REQUIREMENTS
 MASS., NH, & VT EXTERIOR RECEIPTS TO HAVE EXTRA DUTY COVERS

JOB NAME Purtell Peaks Island, ME 04108 50# GSL / 90 MPH WIND	BUILDER Hallmark Homes Corp 619 Lewiston Road Topsham, ME 04086	HOUSE TYPE 4-Box Cape FILE NAME: Q-16-0117-JML SERIAL #: KBS-2735	ELEC/PLUMBING NOTES SHEET # P8 SCALE: NONE DWN BY: SAT/ETW DATE: 06/22/16	REVISIONS _____ _____ _____		KBS BUILDERS, INC. 300 PARK STREET, SOUTH PARIS, ME 04281 PHONE: 207-739-2400 FAX: 207-739-2223
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