

PLUMBING & HEATING SPECIFICATIONS

1. PROVIDE PLUMBING AND HEATING AS SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION INCLUDING, BUT NOT LIMITED TO:

- A. PEX MANIFOLD DOMESTIC HOT AND COLD WATER PIPING SYSTEMS;
- B. DRAIN, WASTE AND VENT SYSTEMS;
- C. PLUMBING FIXTURES AND TRIM AS SHOWN ON THE DRAWINGS.
- D. OIL PIPING
- E. SUMP PUMP AND DISCHARGE PIPING
- F. CAST IRON OIL-FIRED BOILER W/ INTEGRAL DOMESTIC WATER HEATER AND 2-ZONE COPPER BASEBOARD DISTRIBUTION SYSTEM

2. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS AS REQUIRED BY STATE AND LOCAL CODES AND ALL WORK SHALL BE IN ACCORDANCE THEREWITH.

3. PROVIDE FROST-FREE HOSE BIBS AT FRONT AND REAR OF DWELLING.

4. PROVIDE SHUTOFF VALVES AT ENTRANCE OF SYSTEM, AT FIXTURES AND AT HOSE BIB BRANCHES.

5. FURNISH AND INSTALL ALL PLUMBING FIXTURES AS INDICATED AND SELECTED BY OWNER.

6. BEFORE COVERING PIPES, THE ENTIRE WATER SYSTEM SHALL BE TESTED TO 100 LBS. PRESSURE AND DEFICIENCIES CORRECTED.

ELECTRICAL SPECIFICATIONS

1. PROVIDE COMPLETE ELECTRIC, TELEPHONE, ETHERNET (CAT-5), AND CABLE (COAX) SERVICE AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

2. PROVIDE INTERIOR AND EXTERIOR LIGHTING AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

- A. KITCHEN LIGHTING TO BE RECESSED IN CEILING.
- B. BATHROOMS: OVERHEAD GENERAL LIGHT, MIRROR LIGHT, EXHAUST FANS.
- C. BEDROOM LIGHTS TO BE WIRED FOR PADDLE FANS.

3. USE ONLY NEW MATERIALS OF THE TYPE AND QUALITY SPECIFIED. WHERE UNDERWRITERS' LABORATORIES, INC. HAVE ESTABLISHED STANDARDS FOR SUCH MATERIALS, USE ONLY MATERIALS BEARING THE UL LABEL.

4. WIRING

- A. NONMETALLIC SHEATHED CABLE, SIZE 12 THROUGH 4 AWG; COPPER CONDUCTOR, 600-VOLT INSULATION, RATED 60 DEGREE C, TYPE NM.
- B. SERVICE ENTRANCE CABLE: COPPER CONDUCTORS, 600-VOLT INSULATION, TYPE SE.

5. TELEPHONE & CABLE

- A. PROVIDE SERVICE ENTRANCE EQUIPMENT, OUTLETS, TERMINAL BOARDS AND OTHER ITEMS REQUIRED FOR A COMPLETE, APPROVED, AND OPERATING TELEPHONE AND CABLE SERVICE, EXCEPT FOR SUCH ITEMS AS ARE PROVIDED BY THE SERVING COMPANY.
- B. PROVIDE TELEPHONE, CAT-5, AND COAX OUTLETS AS SPECIFIED ON DRAWINGS.

6. MAIN DISTRIBUTION PANELS: NEMA PB 1, CIRCUIT BREAKER TYPE OF 200-AMP CAPACITY.

- A. PROVIDE SURFACE CABINET FRONT WITH SCREW COVER AND HINGED DOOR.
- B. BUS: COPPER.
- C. GROUND BUS: COPPER.
- D. VOLTAGE: 120/208 VOLTS.

7. WIRING DEVICES AND WALL PLATES

- A. PROVIDE EXTERIOR RECEPTACLES AT FRONT AND REAR OF RESIDENCE.
- B. WALL SWITCH: AC GENERAL USE, QUIET OPERATING SNAP SWITCH RATED 20-AMP AND 120-277 VOLTS AC, COLOR AND HANDLE TYPE AS SELECTED BY THE OWNER.
- C. RECEPTACLE: TYPE S-20 R, PLASTIC FACE, COLOR SELECTED BY OWNER. ALL RECEPTACLES TO BE SPACED AND INSTALLED TO CODE.
- D. WALL DIMMER: LINEAR SLIDE/ROTARY DIAL TYPE, COLOR SELECTED BY OWNER, RATED FOR 600 WATTS MINIMUM, SIZE TO ACCOMMODATE CIRCUIT SHOWN ON THE DRAWINGS.
- E. WEATHERPROOF COVER PLATE: GASKETED CAST METAL WITH HINGED GASKETED DEVICE COVERS.

8. SMOKE DETECTORS

- A. SMOKE DETECTORS TO BE INSTALLED IN THE CEILING OF EACH BEDROOM, UPSTAIRS HALL, BASEMENT, AND GARAGE. DETECTORS TO HAVE BATTERY BACKUP AND BE INTERCONNECTED.

CONCRETE SPECIFICATIONS

CONCRETE FORMWORK

1. PROVIDE FORMWORK FOR CAST-IN-PLACE CONCRETE FOR THE CONSTRUCTION SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

2. FOR FOUNDATIONS, USE WOOD, METAL OR FIBERGLAS FORMS SUBSTANTIALLY CONSTRUCTED TO PREVENT BOWING OR DISFIGUREMENT DURING CONCRETE PLACEMENT AND CURING.

3. CONSTRUCT FORMWORK SO CONCRETE MEMBERS AND STRUCTURES ARE OF CORRECT SIZE, SHAPE ALIGNMENT, ELEVATION AND POSITION.

4. FOR FOOTINGS AND FOUNDATIONS, USE BOARDS OR PLANKS SECURED TO WOOD OR STEEL STAKES, SUBSTANTIALLY CONSTRUCTED TO SHAPES INDICATED AND TO SUPPORT THE REQUIRED LOADS.

CAST-IN-PLACE CONCRETE

1. PROVIDE CAST-IN-PLACE CONCRETE WHERE SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

2. CONCRETE:

- A. PROVIDE A STANDARD BRAND OF PORTLAND CEMENT, TYPE I OR II.
- B. FINE AGGREGATE: PROVIDE WASHED NATURAL SAND HAVING STRONG, HARD, DURABLE PARTICLES. GRADE FROM COARSE TO FINE.
- C. COARSE AGGREGATE: USE COARSE AGGREGATE OF THE LARGEST PRACTICABLE SIZE FOR EACH CONDITION OF PLACEMENT.
- D. USE ONLY CLEAN POTABLE WATER.

3. UNLESS OTHERWISE DIRECTED USE PORTLAND CEMENT TO ACHIEVE A WEIGHT OF NOT MORE THAN 110 PCF AND AN ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.

7. CONCRETE FLOORS TO BE 4" THICK WITH MONOLITHIC FINISH TROWELED TO A HARD SMOOTH SURFACE. PROVIDE 6" X 6" #8/8 WELDED WIRE MESH REINFORCING WHERE SHOWN ON DRAWINGS.

8. CURING: PREVENT PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES.

ROUGH FRAMING SPECIFICATIONS

1. PROVIDE WOOD, NAILS, BOLTS, SCREWS, FRAMING ANCHORS AND OTHER ITEMS AND PERFORM ROUGH CARPENTRY FOR THE CONSTRUCTION SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

2. LUMBER MATERIALS: USE LUMBER, S4S, S-DRY UNLESS OTHERWISE INDICATED, GRADE MARKED.

3. SIZES OF FRAMING MEMBERS TO BE AS SHOWN AND ERECTED IN ACCORDANCE WITH THE DETAILED DRAWINGS. WHERE ROOF TRUSSES ARE SPECIFIED, THE TRUSSESS ARE TO BE OF AN APPROVED DESIGN AND FABRICATION REQUIRED FOR VARIOUS GEOGRAPHICAL AREAS. ROOF TRUSSES SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC.

4. FASTENERS: GALVANIZED STEEL FOR EXTERIOR, HIGH HUMIDITY, AND TREATED WOOD LOCATIONS. PLAIN FINISH ELSEWHERE.

5. JOIST HANGERS: GALVANIZED STEEL, SIZED TO SUIT FRAMING.

6. SHEATHING MATERIALS: ORIENTED STRAND BOARD (OSB).

7. SUBFLOORING: APA RATED SUBFLOOR T&G PLYWOOD 3/4".

8. ROOF SHEATHING: APA RATED PLYWOOD, EXTERIOR GRADE.

9. SUBFLOOR GLUE: APA AFG-01, SOLVENT BASE, WATERPROOF.

10. SUBFLOOR TO BE GLUED AND SCREWED TO JOISTS

INSULATION SPECIFICATIONS

1. PROVIDE INSULATION AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

2. INSULATION BATS WITH AN R-VALUE NOT LESS THAN 19 SHALL BE USED IN ALL LIVING SPACE EXTERIOR WALLS AND SLOPED CEILINGS OF THE DWELLING AND 2ND STORY OF THE GARAGE AND IN THE FLOORS OVER UNINSULATED SPACES. INSULATION BATS WITH AN R-VALUE NOT LESS THAN 11 SHALL BE USED IN ALL EXTERIOR WALLS OF THE GARAGE.

3. BLOWN-IN INSULATION 12" THICK SHALL BE INSTALLED IN ALL HORIZONTAL UNDER-ROOF CEILINGS.

4. MOISTURE BARRIER: INSTALL POLY VAPOR BARRIER ON INSIDE SURFACE OF ALL EXTERIOR WALLS AND CEILINGS.

5. INSULATION SHALL MEET THE REQUIREMENTS OF THE MAINE STATE ENERGY CODE AND MAINE LAW TITLE 10 CHAPTER 214.

GENERAL REQUIREMENTS

1. THE SUB-CONTRACTOR SHALL MAINTAIN, AT HIS OWN EXPENSE, FULL AND COMPLETE INSURANCE ON ITS WORK UNTIL FINAL APPROVAL OF THE WORK DESCRIBED IN THE CONTRACT. THE SUB-CONTRACTOR SHALL NOT HOLD THE CONTRACTOR LIABLE FROM ANY AND ALL COSTS, DAMAGES, FEES AND EXPENSES FROM ANY CLAIMS ARISING ON THE PROJECT. FAILURE OF THE SUB-CONTRACTOR TO MAINTAIN APPROPRIATE INSURANCE COVERAGE MAY BEEM A MATERIAL BREACH ALLOWING THE CONTRACTOR TO TERMINATE THIS CONTRACT OR TO PROVIDE INSURANCE AT THE SUB-CONTRACTOR'S EXPENSE. PRIOR TO THE START OF WORK, SUBCONTRACTOR SHALL PROVIDE TO THE CONTRACTOR, A CERTIFICATE OF INSURANCE SHOWING, AS APPLICABLE GENERAL LIABILITY AND WORKMEN'S COMPENSATION COVERAGE FOR EACH WORKMAN.

2. PRIOR TO THE START OF WORK, SUBCONTRACTOR SHALL PROVIDE TO THE CONTRACTOR A COMPLETED IRS FORM W-9.

3. SUB-CONTRACTOR UNDERSTANDS AND AGREES THAT NO CHANGE ORDERS OR CONTRACT ADDITIONS WILL BE MADE UNLESS AGREED TO IN WRITING BY CONTRACTOR. IF ANY ADDITIONAL WORK IS PERFORMED AND NOT COVERED IN THIS CONTRACT, THE SUB-CONTRACTOR PROCEEDS AT HIS OWN RISK AND EXPENSE. NO ALTERATIONS, ADDITIONS, OR SMALL CHANGES CAN BE MADE IN THE WORK OR METHOD OF THE PERFORMANCE, WITHOUT THE WRITTEN CHANGE ORDER SIGNED BY THE CONTRACTOR AND SUB-CONTRACTOR.

4. SUB-CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING UP THE JOB ON A DAILY BASIS, INCLUDING ALL GENERATED CONSTRUCTION DEBRIS, DRINK CANS, FOOD WRAPPERS, AND/OR OTHER TRASH. IF IT BECOMES NECESSARY, THE SUB-CONTRACTOR WILL BE BACK CHARGED FOR APPROPRIATE CLEAN UP BY DEDUCTING CLEAN UP COSTS FROM PAYMENTS.

5. SUB-CONTRACTOR SHALL WARRANT ALL LABOR, MATERIALS AND EQUIPMENT FURNISHED ON THE PROJECT FOR ONE YEAR AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UTILIZED. THE MANUFACTURERS WARRANTY WILL PREVAIL.

EARTHWORK SPECIFICATIONS

1. EXCAVATING: THE SUBCONTRACTOR SHALL DO ALL EXCAVATING AS REQUIRED ON THE DRAWINGS. EARTH BANKS SHALL BE BRACED AGAINST CAVING IN THE WORKING AREA. THE BOTTOMS OF ALL FOOTING EXCAVATIONS SHALL BE EXACTLY LEVEL ON SOLID UNDISTURBED EARTH. EXCAVATIONS ARE TO BE KEPT FREE OF STANDING WATER. CONTRACTOR WILL BE RESPONSIBLE FOR ROUGH AND FINISH GRADE.

- A. EXCAVATE TOPSOIL AND STOCKPILE IN AREA DESIGNATED ON SITE.
- B. EXCAVATE SUBSOIL REQUIRED FOR BUILDING FOUNDATIONS, CONSTRUCTION OPERATIONS AND OTHER WORK.
- C. IN EXCAVATING FOR FOOTINGS AND FOUNDATIONS, TAKE CARE NOT TO DISTURB BOTTOM OF EXCAVATION. EXCAVATE THE ENTIRE AREA OF THE BASEMENT AS SHOWN ON THE DRAWINGS. SAME TO BE MADE 18 INCHES LARGER THAN OUTSIDE WALL DIMENSIONS IN EVERY DIRECTION TO ALLOW FOR INSPECTION, WATERPROOFING, DRAIN TILE, ETC.
- D. EXCAVATE AND BACKFILL IN A MANNER AND SEQUENCE THAT WILL PROVIDE PROPER DRAINAGE AT ALL TIMES. DRAIN PIPE AND TRENCHING WILL BE REQUIRED. DRAIN PIPE TO BE INSTALLED BOTH INSIDE AND OUTSIDE THE FOUNDATION WITH THE INSIDE CONNECTED TO SUMP AND COUTSIDE PIPE CONNECTED TO INSIDE PIPE. SUBCONTRACTOR TO PROVIDE DRAIN PIPE AND SUMP.
- E. PROTECT ACTIVE UTILITY LINES. IF DAMAGED, REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER. IF EXISTING UTILITIES ARE FOUND TO INTERFERE WITH THE PERMANENT FACILITIES BEING CONSTRUCTED, IMMEDIATELY NOTIFY THE OWNER AND SECURE HIS INSTRUCTIONS.
- F. WHERE ROCKS, BOULDERS, GRANITE OR SIMILAR MATERIAL IS ENCOUNTERED, REMOVE SUCH MATERIAL BY MEANS WHICH WILL NEITHER CAUSE ADDITIONAL COST TO THE OWNER NOR ENDANGER BUILDINGS OR STRUCTURES ON OR OFF THE SITE.

TRENCHES

- A. DIG TRENCHES FOR FOUNDATION WALLS AND FOOTINGS TO DIMENSIONS SHOWN ON THE DRAWINGS. SEWER TRENCH SHALL BE PITCHED WITH A UNIFORM FALL AND THE TRENCH BACKFILLED UPON COMPLETION OF THE INSTALLATION AND AFTER PROPER INSPECTION.
- B. DIG TRENCH FOR UTILITIES TO STANDARDS REQUIRED BY UTILITY COMPANIES. BACKFILL TO SAME STANDARDS.

2. BACKFILLING: BACKFILL EXCAVATIONS AS PROMPTLY AS PROGRESS OF THE WORK PERMITS, BUT NOT UNTIL COMPLETION OF THE FOLLOWING:

- A. ACCEPTANCE OF CONSTRUCTION BELOW GRADE.
- B. REMOVAL OF CONCRETE FORMWORK.
- C. INSPECTING, TESTING, AND APPROVING UNDERGROUND UTILITIES.
- D. REMOVING TRASH AND DEBRIS.
- E. PLACEMENT OF HORIZONTAL BRACING ON HORIZONTALLY SUPPORTED WALLS.
- F. APPLICATION OF DAMPPROOFING

THE CONTRACTOR SHALL BRING THE ROUGH GRADE TO 12 INCHES BELOW TOP OF FOUNDATION WALL WITH CLEAN FILL AND STOCKPILED SUB SOIL. BACKFILL TO BE WELL PULDED AND TAMPED.

G. FILL AND BACKFILL MATERIALS: PROVIDE SOIL MATERIALS FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES, CONTAINING NO ROCKS OR LUMPS OVER 3 INCHES IN GREATEST DIMENSION.

3. GRADING:

A. THE CONTRACTOR SHALL BRING THE FINISH GRADE TO 12" BELOW THE TOP OF THE FOUNDATION WALL WITH STOCKPILED TOP SOIL. BACKFILL TO BE WELL PULDED AND TAMPED.

B. GRADE THE AREA TO PROVIDE DRAINAGE AWAY FROM THE STRUCTURES AND TO PREVENT PONDING.


C. WHERE AND IF SHOWN ON THE DRAWINGS OR OTHERWISE REQUIRED, PROVIDE TOPSOIL CONSISTING OF FRIABLE, FERTILE SOIL OF LOAMY CHARACTER, CONTAINING AN AMOUNT OF ORGANIC MATTER NORMAL TO THE REGION, CAPABLE OF SUSTAINING HEALTHY PLANT LIFE, AND REASONABLE FREE FROM SUBSOIL, ROOTS, HEAVY OR STIFF CLAY, STONES LARGER THAN 2 INCHES IN GREATEST DIMENSION, NOXIOUS WEEDS, STICKS, BRUSH, LITTER AND OTHER DELETERIOUS MATTER.

DAMPPROOFING SPECIFICATIONS

1. PROVIDE ASPHALT BITUMEN DAMPPROOFING AS SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

2. USE MATERIALS THAT COMPLY WITH THE FOLLOWING STANDARDS:

- A. ASPHALT: ASTM D449, TYPE I.
- B. ASPHALT PRIMER: ASTM D41, COMPATIBLE WITH SUBSTRATE.

 www.StoneandThatch.com	PROJECT COTSWOLD	LOT 5, STEPPING STONE LANE AUTUMN GLEN SUBDIVISION PORTLAND, ME	SHEET
	TITLE NOTES AND SPECIFICATIONS	SCALE	A-7