MaineHousing
Maine State Housing Authority

Quality Standards and Procedures Manual

June, 2016

MAINEHOUSING QUALITY STANDARDS AND PROCEDURES MANUAL

TABLE OF CONTENTS

PREFACE ii

PART 1 – CODES, QUALITY STANDARDS, ACCESSIBILITY

A. Codes 1
B. Accessibility Laws, Regulations, and Minimum Standards 3
C. MaineHousing's Minimum Room Sizes 3
D. Quality Standards 3

PART 2 – PROCESS AND PROCEDURES

A. Design and Construction Documents
   1. Introduction 20
   2. Licensed Design Professional Services 20
   3. Pre-Application Submission 21
   4. Concept Submission – 1 copy for MaineHousing's review 22
   5. Design Development 23
   6. Construction Documents 24
   7. Pre-Construction Loan Closing (CLC) requirements 34
B. Project Delivery Methods
   1. General 35
   2. Design-Bid-Build 35
   3. Construction Manager-at-Risk 37
C. Project Construction
   1. General Conditions of Construction and Quality Control 38
   2. Project Close-out 42

APPENDIX A – DOCUMENTS

1. MaineHousing and Alta Survey Requirements
2. Construction Documents Certification
3. Accessibility Policies and Procedures
4. Construction Services Document Review Sign-off
5. Addendum to CM Contracts
6. Building and Unit Square Foot Tabulations

APPENDIX B - PROJECT CLOSE-OUT CHECKLIST AND FORM

1. Construction Services Final Completion Checklist
2. Certificate of Completion of Design Professional
3. Final Certificate and Release for Contractors/Subcontractors/Vendors
4. Incomplete Work Escrow (IWE)
5. Supportive Housing/One Write Project Certificate of Completion

MAINEHOUSING QUALITY STANDARDS AND PROCEDURES MANUAL

PREFACE

This *Quality Standards and Procedures Manual* (*Quality Manual*) has been assembled for use by MaineHousing staff and project partners and their agents who are participating with MaineHousing in the development of safe and affordable housing through their applications for various funding sources administered by MaineHousing.

The material contained herein shall be used in the design and construction of all new and rehabilitated multi-family and supportive housing projects financed all or in part by MaineHousing. This *Manual* establishes both general and minimum performance, quality, and durability to ensure a basis for providing safe, sanitary, cost effective, energy efficient, accessible, and decent housing for all occupants, as well as protecting the Authority's security interests in the property. This manual is also available on MaineHousing's website: www.MaineHousing.org.

APPLICABILITY

MaineHousing understands that not all codes, standards, processes, procedures, and documents may apply to every project, in every instance. For example, projects with limited scope, such as existing building rehabilitation supportive housing projects that do not include substantial additions or major site alterations, will likely require much less documentation and review than large-scale, new-construction or substantial rehabilitation, multi-family projects that include complete site development, require local approvals, and will include the latest materials and construction technologies and techniques.

Acquisition/rehabilitation and/or preservation projects also present unique challenges in matching work scope with available funds. In developing scopes of work for such projects the allocation of funds should be prioritized based on the specifics of each project using a hierarchy that starts with an evaluation of code compliance including structural integrity, life-safety (may include sprinklers), hazardous materials and environmental issues, accessibility, and then an evaluation of deferred maintenance, durability, and energy concerns, and lastly include the feasibility of project upgrades and/or amenities including any proposed additions.

Structures proposed for rehabilitation must meet, or be rehabilitated to meet all of the new construction codes and standards contained herein, wherever reasonably and practicably possible. Re-use of existing materials, i.e., doors, windows, siding, roofing, structure, woodwork, finishes, etc., will be judged on a case-by-case basis utilizing the new construction criteria as a reference point. It should be further noted that rehabilitation projects present unique accessibility, mechanical, structural, and fire stopping characteristics/challenges that will need to be upgraded to the latest standards in most instances. Consideration must be given to the needs to provide extermination services for all proposed buildings prior to the rehabilitation construction. All rehabilitation projects shall be evaluated for any environmental issues and any such issues shall be fully remediated as part of the project.

USE OF THE MANUAL

This *Quality Manual* provides specific information that defines applicable codes, minimum quality and durability standards, and outlines the process of project design review, project delivery, and construction oversight. The use of MaineHousing, MSHA, Maine State Housing Authority, and/or the "Authority" all reference the Maine State Housing Authority. This *Quality Manual* as well as a *Best Practices Guide* is available on MaineHousing's website: www.mainehousing.org/programs-services/Development/construction-services.

All applicants are encouraged to review this *Quality Manual* in detail and reach a consensus with the Construction Analyst assigned to their project as to the standards, scopes of work, processes, procedures, and documents that will be applicable for their project. The Concept Meeting, as discussed later in this *Quality Manual*, provides for the project kick-off and is an opportune time to discuss the project scope, level of design detail, and review procedures for each project. If consensus can't be reached, applicants may make further requests, to the Construction Services Manager of MaineHousing for final determinations.

STRUCTURE OF THE MANUAL

This *Manual* has been divided into two parts plus an Appendix section:

- Part One contains the Design and Construction Codes and MaineHousing's Quality Standards to be used in the development of contract documents
- Part Two discusses the project delivery processes and procedures and contains the Design and Construction Document requirements and document submittal procedures
- The appendix section contains additional information that is referenced in the body of the *Quality Manual*

BEST PRACTICES GUIDE

MaineHousing has also created a *Best Practices Guide* that provides useful general information to help define the hoped for outcomes when developing a housing project with MaineHousing. The material contained therein provides guidance in the design and construction of all new and rehabilitation multi-family and supportive housing projects developed under the various programs administered by MaineHousing. It is the intent of that *Guide* to assist our partners by outlining MaineHousing's goals and expectations to ensure an agreed upon basis for providing safe, sanitary, cost effective, energy efficient, accessible, and decent housing for all occupants, as well as protecting the Authority's security interests in the property.

This *Quality Manual* has been generated in an effort to provide a quick and easy reference for interested parties involved with the design and construction of housing projects administered by MaineHousing, and supersedes all previous editions and/or publications printed to date. This is the second edition of this *Quality Manual*.

Final interpretations, variances, clarifications, amendments, etc. related to this *Quality Manual* shall be made by MaineHousing.

MAINEHOUSING QUALITY STANDARDS AND PROCEDURES MANUAL

PART 1 – CODES, QUALITY STANDARDS, ACCESSIBILITY

A. CODES

MaineHousing recognizes and endorses the use of the following national, state, and/or locally adopted building, plumbing, electrical, fire protection, and engineering codes and standards as applicable as minimal requirements for all projects.

* Maine Uniform Building and Energy Code (MUBEC). MUBEC is MaineHousing's Minimum Building Code as applicable by Project Type; which includes the following:
  International Building Code (IBC) 2009
  International Existing Building Code (IEBC) 2009
  International Residential Code (IRC) 2009
  International Energy Conservation Code (IECC) 2009
  ASHRAE 62.1 Ventilation for Acceptable Indoor Air Quality 2007
  ASHRAE 62.2 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings 2007
  ASHRAE 90.1 Energy Standard for Buildings except Low-Rise Residential Buildings 2007
  ASTM E1465-06 Radon Standard for new residential construction - (Maine Model Standard) 2006

* NFPA 101 Life Safety Code 2009 ..... State Standard
* NFPA 211 (chimneys, etc.) 2003 ..... State Standard
* NFPA 1 Fire prevention Code 2003 ..... State Standard
* State Plumbing Code. (Based on IAPMO 2000 Uniform Plumbing Code) ..... State Standard
* National Electric Code 2011 ..... State Standard
* ADA ..... Federal Requirement
* ICC/ANSI A-117.1 2009 ..... State and Federal Requirements
* Fair Housing Act (design manual) ..... Federal Standard
* State Fair Housing, Maine Human Rights Act ..... State Law
* Section 504 (UFAS Standard or 2004 ADAAG with Exceptions per HUD deeming notice)…… ……..... Federal Standard
* Housing Quality Standards (HQS) Housing Choice Voucher (HCV) regulations, 24 CFR Pt 982
* Uniform Physical Conditions Standard (UPCS) ..... Federal Standard

All multi-family and/or licensed facilities shall be reviewed by and be permitted by the State Fire Marshal for both Life Safety and Accessibility requirements.

MaineHousing requires full compliance with state and local codes and/or standards for zoning and subdivision regulations.

Energy Conservation Standards

MaineHousing recognizes that energy conservation is one of the best ways to manage operating costs and that controlling operating costs is the best way to ensure long term solvency of affordable residential developments that typically generate limited additional operating surpluses. Therefore, all new and renovated residential projects financed by MaineHousing shall be constructed to the following energy conservation standards and requirements:

1. Meet the energy conservation components of the currently adopted version of the Maine Uniform Building and Energy Code (MUBEC) for new construction which includes compliance with:
   a. Commercial and Mid-High Rise Residential (more than three stories)– ASHRAE 90.1, currently, the 2009 version OR IECC (optional)
   b. Low-Rise Single/Multi-family Residential (three stories or less) – International Energy Conservation Code (IECC) currently, the 2009 version.

2. MaineHousing New Construction Energy Conservation Standards (these standards exceed MUBEC requirements).

a. Glazed Windows:	Meet Energy Star (for Northern Climate) and NFRC rating performance requirements and have an Air Leakage rate (AL) of 0.30 or less U Factor < 0.30, or U Factor = 0.31 and SHGC > 0.35, or U Factor = 0.32 and SHGC > 0.40
b. Glazed Doors:	Meet Energy Star performance requirements. U Factor < 0.21, or U Factor = 0.27 and SHGC > 0.30, or U Factor = 0.32 and SHGC > 0.30
c. Glazed Skylight:	Meet Energy Star performance requirements. U Factor < 0.55
d. Max. Glazed area:	One and two family dwellings: 15% of the gross insulated exterior wall area. All other buildings: 25% of the gross insulated exterior wall area. Note: This requirement applies to all glazed components of the exterior walls of the building as a whole. Proposals that exceed listed maximum glazed areas shall provide increased performance values, supported by an energy analysis, in other insulation envelope systems or glazed systems that equal the additional performance loss incurred by the increased glazing area proposed.
e. Insulated Doors:	U Factor < 0.15 + Air Leakage Rate < 0.30 cfm/SF
f. Ceiling R Value:	R-49, minimum
g. Exterior Walls:	R-21, minimum, or R-5 continuous LTTR + R-15 cavity insulation (no fiberglass), or R-10 continuous LTTR + R-15 cavity insulation (any kind), or R-5 continuous LTTR + R-19 cavity insulation (any kind).
h. Framed Floors:	R-30, minimum (when over unconditioned spaces)
i. Basement Walls:	Above exterior grade = match Exterior Walls Below exterior grade = per MUBEC
j. Foundations:	Below exterior grade, horizontal and vertical = per MUBEC
k. Interior Slabs:	Inboard of Foundation, R = 5

3. MaineHousing Existing Facilities Energy Conservation Standards (exempt by MUBEC)

1. Change of Use	Creation of new residential units - meet overall performance of New Construction MaineHousing Energy Conservation Standards supported by a building energy model that demonstrates equal "Whole building" performance compared to the New Construction

		Energy Conservation standards. This recognizes that, in many situations, the individual standards may be difficult to achieve and, accordingly, meeting the new building performance for the building as a whole by other means is an acceptable alternative to meeting individual component requirements.
b.	Preservation	Preservation of existing housing units – balance redevelopment needs including weatherproofing, durability, marketability and energy conservation to provide the best long term operating benefit, supported by an operating budget analysis, while striving to meet the performance values of the MaineHousing Energy Conservation Standards where possible
c.	Historic Re-use	Re-use of Historic Structures- balance historic reservation objectives with requirements of both Change of Use and Preservation strategies (see above).

B. ACCESSIBILITY LAWS, REGULATIONS, AND MINIMUM STANDARDS

See Appendix A.3 for Maine State Housing Authority's Accessibility Policy and Procedures for the Design and Construction of Multifamily and Supportive Housing Projects.

C. MAINEHOUSING MINIMUM ROOM SIZES

MaineHousing herein establishes minimum room sizes and critical space dimensions for us by all designers and Owners. Projects must meet all of the following requirements:

1. Minimum Dwelling Unit Room Sizes
   In order for a dwelling unit to be considered for funding it must meet the following minimum criteria before it can be submitted to Construction Services for review and/or approval:

   Separate Living, Dining, Bedrooms

   Living area: Each dwelling unit shall contain space that is conducive to general family living and group activities such as entertaining, reading, writing, listening to music, watching television, relaxing and frequently children's play.

   Dining Area: Each dwelling unit shall contain space for dining. This area may be combined with the living room or kitchen, or it may be a separate room.

   Bedrooms: Each dwelling unit shall contain space(s) allocated to sleeping, dressing, and personal care. All beds shall be accessible from two sides and one end

2. <u>Minimum Room Sizes, square foot area:</u>

The table below shall be used when designing the designated paces. The table shall be used throughout the project for all rooms of all dwelling rooms. All dimensions and area calculations are to be based on interior finished face of wall surfaces (not framing) as the point of measurement.

Minimum sizes for separate rooms:

	Minimum Area (SF)					Least
Name of Space	0 BR	1 BR	2 BR	3 BR	4 BR	Dimension
LR (8)	NA	160	160	170	180	11'-0"
DR	NA	100	100	110	120	8'-6"
BR, Primary (1), (2), (9)	NA	120	120	120	120	9'-6"
BR, Secondary (2), (9)	NA	NA	80	80	80	8'-0"
Total area, BR's	NA	120	200	280	360	

Minimum sizes for combined spaces:

	Minimum Area (SF) (7)				
Name, Combined Space (4)	0 BR	1 BR	2 BR	3 BR	4 BR
LR – DA (8)	NA	210	210	230	250
LR-DA-SL (2), (8)	250	NA	NA	NA	NA
LR-DA-K (5), (8)	NA	270	270	300	330
LR-SL (2), (8)	210	NA	NA	NA	NA
K-DA (6)	100	120	120	140	160

Abbreviations:

SF: Square Feet	DR: Dining Room	DA: Dining Area	K: Kitchen
LR: Living Room	NA: Not Applicable	BR: Bedroom	SL: Sleeping Area

Notes applicable for both methods of room designs and layouts:

1. Primary bedrooms shall have at least one wall of at least 10 feet uninterrupted by openings less than 44 inches above the floor.
2. All bedrooms or sleeping areas shall have at least one operable window in the exterior envelope wall.
3. The minimum dimensions of a combined room shall be the sum of the dimensions of the individual single rooms involved, except for the overlap or combined use space.
4. For two adjacent spaces to be considered a combined room, the horizontal opening between spaces shall be at least 8'–0", except that between kitchen and dining functions, the opening may be reduced to 6'-0". Spaces not providing this degree of openness shall meet minimum room sizes required for separate rooms.
5. A combined LR-DA-K shall have a clear opening between the kitchen and dining area of at least 4'-0".
6. These required minimums apply when the only eating space is in the kitchen.
7. The floor area of an alcove, or recess off a room, having a least dimension less than required for the room, shall be included only if it is not more than 10 percent of the minimum room size permitted and is useful for the placement of furniture.
8. All Living room spaces shall have operable windows in the exterior envelope walls.
9. A Bedroom is a fully enclosed room with fixed walls and a door that provides complete visual and acoustical privacy.

3. <u>Kitchen:</u>
   a. Each living unit shall include adequate space to provide for efficient food preparation, serving and storage, as well as utensil storage and cleaning up after meals.
   b. Kitchen fixtures and countertops shall be provided in accordance with the table below. Required countertops shall be approximately 24" deep and 36" high (except for units specifically designed and fitted to meet accessibility codes and/or regulations). Clearance between base cabinet fronts in food preparation area shall be 40" minimum (except for units specifically designed and fitted to meet accessibility codes and/or regulations).
   c. Required countertops may be combined when they are located between two fixtures – stove, refrigerator, sink. Such a countertop shall have a minimum frontage equal to that of the larger of the countertops being combined. This combined counter may also be the work counter when its minimum length is equal to that required for the work counter. Countertop frontages may continue around corners. A 72" compact kitchen with wall cabinets may be used in efficiency apartments.

Countertops and Fixtures:

	Number of Bedrooms				
	0	1	2	3	4
Work Counter	Minimum Frontages in Lineal Inches (1)				
Sink	18	24	24	32 (2)	32 (2)
Countertop, each side	15	18	21	24	30
Range or Cooktop Space (3) (4)	24	24	24	30	30
Countertop, one side (5)	15	18	21	24	30
Refrigerator Space	30	30	32	32	36
Countertop, one side (5)	15	15	15	15	18
Work Countertop	21	30	36	36	42

Notes to Countertops and Fixtures table:

1. Frontages are the lineal dimension along the front edge of the counter.
2. When a dishwasher is provided, a 24" sink is acceptable
3. Where a built-in wall oven is installed, provide an 18" wide counter adjacent to it.
4. A range burner shall not be located under a window nor within 12" of a window. Where a cabinet is provided directly above a range, 30" clearance shall be provided to the bottom of an unprotected cabinet, or 24"to the bottom of a protected cabinet.
5. Provide at least 9" from the edge of the range to an adjacent corner cabinet and 15" from the side of a refrigerator to an adjacent corner cabinet.

4. <u>Closets and Storage Space</u>:
   A. CLOSETS AND STORAGE SPACE shall be provided for personal and housekeeping items and equipment within each living unit and should be appropriately located and sized in relation to use. Adequate general storage shall also be provided. (The minimum standards that follow are required for new construction projects and are to be met to the extent feasible in renovation projects.) The following minimum sized closet/storage spaces shall be provided for each living unit:

a. BEDROOM CLOSETS - each bedroom (or in the case of zero bedroom units, each sleeping area) shall have readily accessible clear hanging space equipped with a rod and shelf as follows:

Primary and/or double occupancy bedrooms:
2'- 0" deep by 5' – 0" wide by 7' – 0" high minimum
Secondary and/or single occupancy bedrooms:
2'- 0" deep by 3' – 0" wide by 7' – 0" high minimum

b. COAT CLOSET - At least one coat closet convenient to the main entrance of all units:

2' – 0" deep by 2' – 0" wide by 7' – 0" high minimum

c. LINEN STORAGE in all units:
Minimum shelf area:

10 SF for 2 bedrooms or less;
15 SF for 3 bedrooms or more.

Shelves to be spaced at least 6" but not more than 12" o.c. vertically, and shelving over 74" above the floor shall not be counted as part of the required shelf area.

B. GENERAL STORAGE space shall be provided for the storage of items and equipment essential to the use of the occupants. This storage requirement or capacity is separate from, and in addition to, required closets listed above and/or kitchen storage. General storage may be integrated with required closet space, by separate storage closet(s) within the unit, in assigned/secured storage areas within the same building, or assigned/secured storage areas in separate buildings.

GENERAL STORAGE REQUIREMENTS (in cubic feet)

Dwelling Size:	
0 Bedroom	50
1 Bedroom	100
2 Bedrooms	100
3 Bedrooms	150
4 or more Bedrooms	175

Storage spaces less than four feet or more than eight feet in height, or more than four feet in depth without two feet of access space shall not be included within the required volume. Storage area requirements shall not include access space and/or door swing space.

5. Telemedicine Room:

If required by the QAP or any other program financed through MaineHousing, the project shall include a room that is designated for the sole purpose of offering telemedicine services to the tenants of the project, including counseling, home health services, diagnostic and monitoring activities, rehabilitation services (including assessment and therapy) and education. The services must be provided by qualified medical professionals in a private and confidential manner.

The room must designed and constructed in accordance with the Plans and Specifications (as defined below) and contain the following features: (i) audio and visual privacy, (ii)

finishes (such as wall coverings, ceilings and flooring) that absorb sound, but do not absorb or reflect light, (iii) minimal surrounding noise and activity, (iv) well lit, using light sources as close to daylight as possible, such as fluorescent day-light or full spectrum bulbs, and (v) full accessibility. The room must include a fully accessible bathroom with a changing area, toilet and sink and sufficient space for an exam table or gurney and must be equipped with lockable cabinets, a sink, a desk and chairs for a provider and tenant, and the necessary infrastructure for wireless or internet service and telephone service. The project Owner must provide and pay for dedicated internet or wireless service with band width capacity to support live videoconferencing in real time between persons on-site and off-site using telecommunication technology (i.e. minimum of FCC Speed Tier 3 with a download speed of 10 Mpbs or greater) and dedicated telephone service.

The room must be used exclusively by the qualified medical providers offering the services and by the tenants of the project accessing the services. The providers and the tenants may not be charged for the use of the room or the internet or wireless and telephone services.

D. QUALITY STANDARDS

MaineHousing has experienced that certain materials and/or construction practices are uneconomical when considered over the life of the project or the cause of reoccurring problems. Therefore, outlined in this section are specific materials, installations, and construction practices that have demonstrated proven performance characteristics, minimum quality and/or durability and are appropriate to the developments it wishes to finance.

In general, MaineHousing's quality standards are meant to complement, supplement, or improve upon any national, state, or local regulations. However, in any situations where duplication occurs, the more stringent standard or procedure shall apply.

The items are arranged in accordance with the original Construction Specifications Institute (CSI) headings.

Division 1, General Conditions

1. RESERVED

Division 2, Sitework

1. GEOTECHNICAL INVESTIGATION reports, if produced, shall be either referenced and be readily available for viewing or be included in the project manual. Note: Projects of limited site work scope, such as renovations to existing structures, may not be required to provide geotechnical investigations. Such scopes shall be reviewed and a determination of applicability shall be made by the project's construction analyst.
2. SOIL TESTING services from a qualified testing agency shall be retained by owner or contractor to monitor and test all critical soil fill operations.
3. POSITIVE DRAINAGE slopes away from all buildings shall be provided; a 6" pitch in first 10 feet is a recommended minimum slope. In the event of the inability to provide such natural drainage, an engineered drainage system may be provided.
4. FOUNDATION DRAINS shall be provided for all foundation types including frost wall designs. These drains shall be provided both inside and outside of all walls unless soil and/or site conditions can adequately justify alternative designs. Soils Engineers'

(geotechnical) reports must be provided as part of any requests for alternatives. These drains should connect to a permanent and positive storm drainage system or daylight to a properly designed surface drainage system. All daylight drains should have their outlooks screened and protected from erosion and the entrance of rodents. Backflow preventers should be provided for all foundation drains.

5. PASSIVE UNDER SLAB RADON VENTING SYSTEMS shall be provided beneath all slabs-on-grade and measures should be taken to prevent unwanted air leakage into the gas permeable layer. The interior radon piping should be run within the thermal envelop and be properly labeled. All passive system pipe routes shall provide space for installing a radon fan and a monitor should testing confirm the need for such added components. Provide an electrical supply adjacent to the vent stack that is located above the highest occupied space and provides adequate clearance for the potential future installation of a fan. Consideration should be given for access to this location. Whenever practicable, the system should be vented through the highest roof or ridge in such a position that it can neither be covered by snow or other material. The vent stack discharge shall meet the separation distances required by code from any window, door, or other opening into the conditioned space. Active systems may be required if radon testing confirms the need for such added capacity.
6. FLOOR DRAINS AND/OR SUMPS shall be provided in all basements. The floor should be pitched to these drains or sumps and, to the maximum extent feasible, these should be connected to a positive drainage system, exterior of the building. Connections to storm water systems should be equipped with backflow preventers.
7. SUBSURFACE DRAIN PIPING of styrene or corrugated polyethylene pipe may be used for foundation drains, leaching fields, or other below grade applications only when the materials and its installation are in accordance with ASTM Standards. Rigid perforated PVC pipe is also permissible provided the minimum wall thickness for 4" pipe is 0.075", and for 6" pipe is 0.10", and it is installed in accordance with applicable ASTM Standards.
8. POLYETHYLENE OR OTHER APPROVED VAPOR/MOISTURE/RADON BARRIER MATERIAL shall be placed under all concrete slabs including basement and/or crawl space and on-grade floors. Polyethylene under slabs and in crawl spaces shall be at least six (6) mils thick and shall have all joints lapped a minimum of six inches and sealed with mastic or tape. All pipe or other penetrations shall have the vapor/moisture/radon barrier taped around them in a secure fashion to prevent moisture infiltration.
9. LIQUID ASPHALT AND/OR GRAVEL ROADS AND/OR DRIVES are not acceptable within the project bounds. Such surfaces, if acceptable by town standards, may be considered up to the project bounds.
10. EROSION during and after construction shall be controlled in accordance with the "Standards and Specifications" published in the "Environmental Quality Handbook" by the Maine Soil and Water Conservation Commission.
11. FOUNDATION FOOTINGS shall be constructed on undisturbed material unless otherwise specified by the designer-of-record. All fill placed under footings must be engineered fill, designed, tested, and certified by a Professional Engineer, registered in the State of Maine.
12. PARKING shall be provided at a minimum of 1 parking space per dwelling unit. For sites with limited developable area for on-site parking such that 1:1 unit/parking ratio cannot be met or is not justified, an alternative parking plan will be considered by MaineHousing on a case-by-case basis. In order to be considered for less than a 1:1 unit/parking ratio, the Developer shall, as part of the pre-application phase, document a plan that meets the local municipalities requirements or, if none are available, the following:
    a. Documents the demand for on-site or off-site parking consistent with projects of similar size, location, and population.

b. Documents the availability and costs of transportation alternatives that service the project site.
c. Describes alternatives to car parking that will be provided on-site such as parking for motorcycles and/or scooters and/or storage for bicycles.
d. Describes any proposed tenant incentive programs that will reduce car parking needs.
e. Describes tenant education efforts that will be implemented that will reduce car parking needs.
f. Provides for timely and ongoing monitoring of the plan and describes how adjustments to the plan will be implemented.
g. In addition to the documented plan, a written acceptance from the Municipality of the plan shall be provided.

13. PARKING SPACES shall be permanently delineated upon the pavement. Accessible parking areas shall be so marked on the surface and properly signed.
14. WHEEL STOPS may be provided for parking stalls based on topography, drainage, pedestrian separation needs, protection of improvements, etc. These may be pre-cast concrete stops or materials of similar size and mass acceptable to MaineHousing. Standard asphalt curbing, if used as a wheel stop, shall be backed up with full depth compacted earth fill.
15. PAVED AREAS within the subject property that are deemed in need of new bituminous concrete paving will be required to meet the following:
    a. Prior to the laying of the new bituminous concrete paving (pavement) the existing paving shall be removed completely. All exposed gravel base material shall be inspected for contamination by silts or other foreign, deleterious material. Any contaminated base is to be removed down to clean, sound material. Unless otherwise designed and specified by a design professional, the removed material should be replaced with aggregate base material as per M.D.O.T. Sec. 703.06 Type A. All new material should generally be evenly spread in lifts not to exceed eight (8") inches in depth and compacted in place to a minimum of 95% of the maximum density as per ASTM D1 557. Minimum total base thickness shall be 18" for Roadways and Parking Areas; 12" for Walkways and Ramps.
    b. Minimum compacted thickness and mix design for the pavement courses shall be:
    c. Base/Binder Course: 2" MDOT Type B
    d. Surface/Finish Course: 1" MDOT Type D
    e. Existing and new surfaces shall meet in a smooth continuous plane free from variations in height or smoothness. Clean and treat all areas thoroughly prior to installation of asphalt.
    f. The temperature of the pavement mix shall be regulated to ensure that at the time of spreading the mix is within specifications. Pavement having temperatures outside of the specified temperature range when dumped into the spreader should be rejected.
    g. The pavement mixture shall be thoroughly compacted by rolling. Rolling is to begin as soon as the placement of the mixture will bear the roller without undue displacement or delay.
    h. The construction of the new pavement shall be carried on only when the surface on which the mix is to be placed is dry, and when the surface temperature of the underlying course is greater than 45 degrees F for course thickness greater than one-inch and 55 degrees F for course thickness one-inch or less.
    i. It shall be the Contractor's responsibility to prohibit vehicular traffic, including heavy equipment, from traveling upon the pavement until the surface temperature has cooled to 120-degrees F.

16. SOILS USED FOR PLANTINGS, PLANTING BEDS, AND GRASSED AREAS are to be purposely specified and field tested for conformance to the construction documents. Lawn areas of projects should be planted and properly maintained to assure proper establishment coverage and growth. Because plantings and grass growth are season dependent, an Incomplete Work Escrow (IWE) in the amount of the cost of the work as determined by the Construction Analyst, times 150% may need to be established at the conclusion of the project and will be held by MaineHousing until the work is completed to the satisfaction of Construction Services.
17. SMOKE-FREE SIGNAGE provide adequate notice to building occupants, visitors, guests and employees of the scope and extent of applicability of the project's smoke-free status (re: reduction of exposure to Environmental Tobacco Smoke (ETS)). To effectively accomplish this, provide conspicuous notices (building and/or site signage) of 'smoke free' status at all entry ways to smoke free buildings, and, if applicable, at the points of entry for vehicles or for foot traffic onto the grounds of the property. Notices, at a minimum, shall be: "Smoke Free Building" and "Smoking Prohibited 25 feet from entryways, windows, vents and balconies" or "Smoke Free Property" (as the case may be). Signage shall meet applicable signage design requirements of the Americans with Disabilities Act of 1990.
18. EXTERIOR WALKWAYS, PARKING AREAS AND UNLOADING AREAS and other exterior routes and features that are required to be accessible shall be finished with asphalt or concrete. Stone dust is not an acceptable ground cover for accessible routes.

Division 3, Concrete

1. FOUNDATION DESIGN shall be consistent with the findings and recommendations of the geotechnical engineer's soils report.
2. CAST-IN-PLACE CONCRETE shall achieve the following minimum 28 day compressive strengths: Footings: 3,000 PSI; Foundation walls: 3,000 PSI; Interior flatwork: 3,000 PSI; Exterior flatwork: 4,000 PSI with 5-7% air entrainment. All concrete shall be designed and specified by the designer-of-record for both strength and durability; strengths listed herein are minimums for durability.
3. ADMIXTURES proposed for use in concrete shall be used in accordance with the American Concrete Institute's recommendations with the exception of calcium chloride which is undesirable due to the side effects and conditions it creates within the concrete. Accelerating admixtures, if needed, are to be used in place of calcium chloride. The accelerator used should be a national brand which has been performance tested. Any and all admixtures shall be specified by the designer-of-record and be used in strict accordance with the manufacturer's instructions.
4. CONCRETE TESTING shall be conducted by a qualified testing agency retained by the owner or contractor to monitor and test all structural concrete. Concrete placement records shall be provided by the testing agent to the Owner, Contractor and MaineHousing of all slump and strength tests required in accordance with ACI documents and/or specifications. At a minimum, there should be one strength test for each 50 cubic yds or fraction thereof of material placed in any one day. Three (3) test cylinders constitute one strength test; one cylinder is tested at 7 days for information only; 2 cylinders are tested at 28 days to determine acceptance. It is recommended that a fourth cylinder be cast in case a 56 day test becomes necessary.

Division 4, Masonry

1. All masonry ties and anchors for veneer walls shall be stainless steel.

Division 5, Steel & Metals

1. STEEL TESTING shall be conducted by a qualified testing agency retained by the Owner or general contractor to monitor and test all steel fabrications.
2. ALL STRUCTURAL ELEMENT FIELD-WELDING should be third party inspected and/or tested and appropriate documentation provided to assure quality of welds consistent with the construction documents requirements.

Division 6, Carpentry

1. PRESSURE TREATED (PT) LUMBER shall meet manufactures' requirements for installation location, e.g., framing in contact with concrete or masonry; or posts embedded in soil. Fasteners and hangers are to be hot dipped galvanized or stainless steel. Metallic flashings, except copper, are to be isolated from PT lumber.
2. DRYWALL OR OTHER HARD CEILING FINISHES in buildings with the bottom chords of roof trusses or floor framing spaced at 24" on center shall be installed on wood strapping or resilient channels spaced at a maximum of 16" on center.
3. WOOD FOUNDATIONS are not permitted without the express approval of MaineHousing and may be suggested only when all other proven methods of foundation construction have been eliminated, and/or when MaineHousing determines for a particular installation that wood foundations constitute a substantial advantage over other materials. The system must be listed and certified by a national listing service.
4. INTERIOR TRIM OF COMPOSITION OR PARTICLE BOARD with or without plastic coating, is not permitted.
5. COMPOSITE or particle board shelving is not permitted.
6. NEW STAIRS serving more than one dwelling unit shall provide a minimum clear width of 44" unless otherwise required to be wider by code.
7. UNDERLAYMENT**,** as required by product manufacturers shall be provided at all areas scheduled to receive sheet vinyl, linoleum, rubber, or VCT finish flooring materials.

Division 7, Thermal and Moisture Protection

1. POLYETHYLENE (MINIMUM 6 MILS THICK) VAPOR BARRIERS shall be placed on the interior surfaces of all envelope framing that is insulated with fiberglass insulation. All joints and penetrations shall be properly sealed to prevent moisture migration.
2. SPECIALTY INSULATION PRODUCTS (SUCH AS SPRAY FOAMS) shall be presented to and be reviewed by MaineHousing for approval prior to use in any project. Products that provide superior air-sealing qualities are encouraged. Any such products shall be installed per industry standards and be protected per the State Fire Marshal's requirements.
3. INSULATION such as R-5 closed cell rigid insulation or R-5 composite, cross woven polyethylene, aluminum and polyethylene closed cell foam core blankets are required beneath the entire floor slab-on-grade floor area. Note: The use of composite blankets beneath slabs-on-grade must be used in conjunction with R-10 foundation wall insulation as follows: Rigid insulation, minimum R-10 vertically continuous from footing to under slab AND rigid insulation, minimum R-10, 2' – 0" in horizontally around the entire slab perimeter. To assure an effective moisture barrier is provided, all blanket seams shall be securely sealed utilizing blanket manufacturer's recommended products. All blankets are to be placed on top of horizontal rigid insulation and be continuous from outside wall to outside wall.
4. ALUMINUM AND T-1 11 WOOD SHEETING are not permitted as siding materials on any buildings.

5. VINYL SIDING AND TRIM shall be a minimum of .044" thickness and simulate standard wood sidings as to exposure, shadow lines, depths, etc.
6. ROOF SHINGLES shall be a minimum standard of quality of a 30-year warranty organic asphalt or fiberglass. Heavier grade, "Architectural" shingles are strongly recommended.
7. EPDM ROOFING shall be a minimum standard of quality is equal to Firestone fully adhered (0.060) system, with a minimum 15 year Full System Warranty.
8. FLASHING AND SHEET METAL roof drip edge shall be 0.032" min aluminum (galvanized steel is not permitted).
9. THE USE OF "ICE & WATERSHIELD" BY W.R. GRACE CO. OR MAINEHOUSING APPROVED EQUAL is required for all drip edge (minimum 6' up the roof), rake (minimum 3' in from roof edge, and valley underlayments beneath shingles (minimum of 4.5' up each side of valley). Also, roof to wall intersections shall receive an additional layer of the same fabric flashings/underlayments, run up walls and onto roof substrates 18" minimum.
10. THE BUILDING ENVELOPE must be air-sealed to prevent leaks. All penetrations through the building envelope must be carefully sealed. Typical penetrations include chimney, duct & plumbing chases and penetrations of pipes and wires through the top plates of top story walls. It is particularly important to seal all possible air paths to the attic. Other items to consider and apply:
    a. Provide gaskets or sill seals under mud sills along foundation walls.
    b. Seal first floor band joists to the adjoining mud sills and plywood decking using adhesive or caulk. Use construction adhesive or caulking between multiple sill plates.
    c. Seal any band joists between upper floors to the adjoining top plates and plywooddecking.
    d. Use construction adhesive or caulking between multiple top plates.
    e. Seal bottom plates of exterior frame walls to the sub-floor with construction adhesive or caulking.
    f. Avoid locating bathtubs and shower enclosures on exterior walls. If installed on exterior walls insulate and air-seal this area BEFORE shower/tub is installed.
    g. Recessed lights must be air-sealed and airtight. (Recessed lights may not penetrate the building envelope).
    h. Window frames and door jambs must be sealed to their rough openings using low expansion foam, backer rod or caulk but NOT fiberglass.
    i. Building areas such as knee wall-floor transitions, dropped soffits, split-level transitions, tuck-under garages and cantilevers must be identified and sealed with a continuous air barrier.
    j. Where joist spans or stud bays run between a heated and unheated area all bays must be blocked and sealed at the transition.
    k. Attic and crawl space access doors and hatches must be weather-stripped and insulated.
    l. Electrical boxes on exterior walls and ceilings should either be air-sealed or placed in airtight enclosures/systems (LESSCO boxes or equivalent).
    m. Dehumidification systems should be considered for unconditioned basement spaces.

11. BLOWER DOOR TESTING is required for each project and is to include either a whole building test if possible based on building type and configuration or a representative number of units, as determined by MaineHousing, to verify effectiveness of air sealing. The intent of Blower door testing is to verify that the building meets

MaineHousing requirements for effective air sealing to prevent heat loss and creation of cold surfaces that can causecondensation and mold growth

Test Procedure:

a. Blower Door test conducted with calibrated equipment operated by a trained and qualified technician to be performed before the drywall is installed if polyethylene is the air barrier & after installation if airtight drywall approach (ADA).
b. Maximum building envelope leakage is to not exceed 0.20 cubic feet per minute per square foot at 50 pascals negative pressure (0.20 CFM/SF @ 50 PA).

   The SF (Square Foot) reference in the standard is the total building envelope square footage area measured using the outside surface dimensions. The intent is to analyze the effectiveness of the air sealing.

   Example: A building that is 8' tall (single story) and has dimensions that are 24' by 24' would have an envelope SF of:

   Walls: 4 walls 8'x24' = 768
   SF Floor: 24 x 24 = 576
   SF
   Roof: 24 x 24 = 576 SF
   Total: 1,920 SF of Envelope

c. Air sealing individual units may have no real bearing on building envelope heat loss if the building shell is leaky. Therefore, MaineHousing requires building shell air sealing from design through to construction completion.

Division 8, Doors and Windows

1. METAL FRAMES FOR DOORS AND WINDOWS will not be permitted without thermal breaks between interior and exterior surfaces which prevent any parts exposed to the interior air from reaching temperatures which would cause condensation. Manufacturer's certification of the effectiveness of the thermal breaks shall be furnished to MaineHousing before approval for installation of such doors and/windows will be considered.
2. SCREENS shall be provided for all operable windows that are accessible to tenants.
3. STORM AND SCREEN DOORS, IF PROVIDED shall be of sufficient strength to withstand hard use, and shall be equipped with closers which will prevent the springing of the door from wind and hard use.
4. HOLLOW CORE DOORS are not acceptable as pass through or security doors.

Division 9 Finishes

1. DRYWALL USED FOR WALLS AND/OR CEILINGS shall have a minimum nominal thickness of 1/2". If used with supporting members spaced more than 16" on centers, minimum drywall thickness shall be 5/8". Fired Rated drywall shall be provided where required by codes and be installed in accordance with nationally listed and labeled assemblies.
2. METAL OR PLASTIC CASING BEAD shall be used whenever gypsum board butts up against a dissimilar material wherever covering trim will not be used
3. ALL GYPSUM BOARD USED ON WALLS AND CEILINGS AS A FINISH MATERIAL shall be fastened with drywall screws (not nails) in accordance with manufacturer's instructions.

4. CEILING FINISHES OTHER THAN STANDARD PAINT ON TAPED AND PATCHED DRYWALL shall be approved by MaineHousing as being easily patched in an indiscernible manner. A sample shall be prepared by the contractor and submitted to MaineHousing for approval before installation of the finish.
5. ALL EXPOSED PIPING shall be finish painted.
6. CARPETING shall have a minimum 10 year performance warranty including but not limited to abrasive wear static protection, tuft bind, delamination and meet the following:

	Moderate Traffic *includes carpets inside units*	**Heavy Traffic** *Common corridors, community rooms and public spaces*
Carpet		
Construction:	Tufted Level & Textured Level Loop	Tufted Level & Textured Level Loop
Fiber:	100% Nylon	100% Nylon
Dye Method:	70% or greater solution dyed	70% or greater solution dyed
Face Weight:	24 oz or greater	24 oz or greater
Secondary backing:	Action Backing or Unitary Backing w/20lbs Tuft or Equal	Unitary Backing w/20lbs Tuft or Equal
Gauge:	1/8 min.	1/10 min.
Standard:	UM44d, Green Label Plus Certification Program	UM44d, Green Label Plus Certification Program
Carpet Emission Limits		
VOC:	0.50 $mg/m^2 \cdot hr$	0.50 $mg/m^2 \cdot hr$
4-Phenycyclohexane:	0.05 $mg/m^2 \cdot hr$	0.05 $mg/m^2 \cdot hr$
Formaldehyde:	0.05 $mg/m^2 \cdot hr$	0.05 $mg/m^2 \cdot hr$
Styrene:	0.40 $mg/m^2 \cdot hr$	0.40 $mg/m^2 \cdot hr$
Standard:	Green Label Plus Certification	Green Label Plus Certification
Cushion (Recommended, but not required.)		
Material:	Synthetic Fiber	Synthetic Fiber
Thickness/Weight:	.25" thick / 6-8 lbs	.3" thick / 6-8 lbs
Standard:	Green Label Plus Certification	Green Label Plus Certification
Cushion Emission Limits		
TVOC's:	1.00 $mg/m^2 \cdot hr$	1.00 $mg/m^2 \cdot hr$
BHT:	0.30 $mg/m^2 \cdot hr$	0.30 $mg/m^2 \cdot hr$
Formaldehyde:	0.05 $mg/m^2 \cdot hr$	0.05 $mg/m^2 \cdot hr$
4-PCH:	0.05 $mg/m^2 \cdot hr$	0.05 $mg/m^2 \cdot hr$
Standard:	Green Label Plus Certification	Green Label Plus Certification

IF MODULAR CARPETS ARE SCHEDULED they must meet the following criteria:

a. Construction: tufted Level and Textured Level Loop
b. Fiber: 100% nylon
c. Dye Method: 70% or greater solution dyed
d. Face Weight: 22 oz or greater
e. Backing: high-performance, PVC-free with min 15% recycled content backing with fiberglass or equal stabilizer
f. Standard: HUD UM44d

g. Warranties: Fiber- abrasion wear and static protection, Backing-tuft bind, edge revel and delamination
h. All modular carpets must meet green label and green label plus program requirements for product and adhesives
i. Carpet Emission limits: Same as broadloom

7. TO HELP AVOID MILDEW, there shall be no carpet in kitchens, bathrooms or within 3' of at-grade entry doors.

8. MOISTURE RESISTANT (MR) BOARD shall be provided on all walls and ceilings of all bathrooms.

Division 10, Specialties

1. ROOM DARKENING SHADES OR BLINDS shall be provided for all sleeping area windows. Shades shall be sufficiently opaque to darken the room when drawn closed. Pull down shades with cardboard rollers are prohibited.
2. TOILET PAPER HOLDERS AND TOWEL BARS shall be provided at all living unit bathrooms. All bathroom and toilet room accessories are to be mounted to in-wall blocking.

Division 11, Equipment

1. RANGES AND/OR COOK TOP SURFACES shall not be located adjacent to wall surfaces.
2. ENERGY STAR LABELED SYSTEMS & APPLIANCES (EXCEPT RANGE HOODS) shall be provided if available.
3. THE NUMBER OF WASHER AND DRYERS for common laundries shall be based on a minimum of one washer and one dryer for every ten (or fraction thereof) dwelling units in family housing and one for every twenty-five (or fraction thereof) dwelling units in elderly housing. Mid and high rise buildings and elderly housing without washer and dryer hookups provided within the units shall have a common laundry facility provided.
4. WASHER AND DRYER HOOKUPS shall be provided in each living unit of family housing if common laundry facilities are not provided as part of the development.
5. DRYER VENTS shall be smooth surfaced metal with joints that are hard-cast sealed and are equipped with self-closing dampers and are ducted full sized to the exterior
6. KITCHEN EQUIPMENT shall be provided for all dwellings and include a cook top and oven, or a range with oven, and a refrigerator with freezer space. Specifications on ranges should include front mounted controls for accessibility in elderly and required accessible units. Selection of residential kitchen appliances shall be based on number of residents.

   The minimum size of refrigerators shall be as follows:
   0 bedroom units: 12.5 cu feet usable
   1 bedroom units: 14 cu feet usable
   2 and 3 bedroom units: 15.5 cu feet usable
   4 bedroom units: 17.5 cu feet usable
7. RANGES shall be provided with a minimum of 4 burners and a full sized oven for all living units. (See Kitchen requirements in Room Size Tables)
8. RANGE HOODS shall be provided in each kitchen over the range; be vented full size directly to the outside; and be equipped with a damper which is self-closing when the fan is not in operation. Ductwork runs shall be as short as possible and with as few elbows as possible to assure proper fan operation. All ductwork shall be concealed

within the living unit. Ductwork shall be within heated spaces or properly insulated to eliminate condensation problems.

In accessible units, separate wall switches mounted for easy accessibility for a wheelchair occupant shall be provided for, and be wired to, both the range hood and light. These switches are to be in addition to the integral switches provided with the fixture.

Note: In projects incorporating whole-building ventilation systems which include kitchen area exhaust, such as Historic Renovation projects which are generally not permitted to have multiple exterior wall penetrations per National Park Services requirements, the use of ductless range hoods will be an acceptable alternative. In projects that are not historic but decide to provide both whole-building ventilation systems and ducted range hoods are also acceptable.

Division 12, Furnishings

1. RESIDENTIAL KITCHEN CABINETS shall be of all plywood box construction and all drawer fronts, cabinet faces, styles, and rails shall be constructed of hardwood. The use of particle board and/or melamine is prohibited.
2. ACCESSIBLE UNITS WITH REMOVABLE CASEWORK shall be easily removable by maintenance staff, and all of the exposed components including piping, cabinet sides, walls, flooring, base, etc. shall be fully finished as part of the initial installation.
3. UTILIZING THE ADJUSTIBLE countertop option is highly discouraged – setting countertops at a fixed, 34" height is a preferred option.
4. SEAL all countertop miters with silicone sealant during assembly.
5. CLOSETS AND STORAGE SPACE shall be provided for personal and housekeeping items and equipment within each living unit and should be appropriately located and sized in relation to use. Adequate general storage shall also be provided. See the Minimum Dwelling Room Sizes requirements at the end of this Section.

Division 13, Fire Protection

1. WET SPRINKLER LINES shall not be run in unheated attic spaces, outside wall cavities, unheated crawl spaces or any other areas subject to freezing temperatures. Use of anti-freeze loops or dry pipe systems for sprinkler lines in such areas are acceptable alternatives but shall be engineered for such use.
2. TAMPER PROOF SWITCHES shall be provided for all sprinkler valves.
3. ALL EXPOSED PIPING shall be finish painted.

Division 15, Mechanical Systems

1. MAIN WATER SUPPLY SHUTOFF shall be provided for each building.
2. DOMESTIC ABOVE GRADE WATER SUPPLY PIPING shall be Type "L" copper or Chlorinated Poly Vinyl Chloride (CPVC) tubing or cross-linked polyethylene (PEX) tubing which is designed, specified, and be installed per the mechanical design professional's requirements for the systems provided.
3. ABOVE GRADE HEAT SYSTEM PIPING shall be type "L" copper, steel, or cross-linked polyethylene (PEX) tubing designed, specified, and be installed per the design professional's requirements for the systems provided.
4. "POWER VENTS" FOR COMBUSTION EXHAUST ON HEATING APPLIANCES are prohibited.

5. COMBUSTION AND VENTILATION AIR is required in all mechanical rooms housing fuel burning appliances that require combustion air or produce residual heat as part of their function. All such systems shall be designed by design professionals.
6. TANKLESS COILS FOR DHW GENERATION are discouraged. If proposed, they shall be sized to produce adequate DHW for 125% of the projected worst case unit needs.
7. DOMESTIC HOT WATER DELIVERY shall be set to prevent scalding at all fixtures.
8. FLOOR DRAINS AND/OR SUMP HOLES shall be provided in all basements. The floor should be pitched to these drains or sumps and these should be connected to a positive drainage system, or to the exterior of the building. Connections to storm water systems should be equipped with backflow preventers.
9. PLUMBING VALVES AND TRAPS shall be located so as to be accessible. Access panels shall be constructed in accordance with the Maine State Plumbing Code and be properly fire rated should they be installed in fire rated assemblies.
10. WATER HEATER DRAINS FROM PRESSURE-TEMPERATURE RELIEF VALVES shall not discharge on living unit floors. Pressure-temperature relief valve piping shall be securely mounted.
11. DOMESTIC WATER AND/OR HEAT PIPING shall not be run in unheated attic spaces, outside wall cavities, unheated crawl spaces or any other areas subject to freezing temperatures.
12. HEAT AND DOMESTIC HOT AND COLD WATER SUPPLY PIPING shall be properly insulated to both prevent heat loss to surrounding spaces and loss of energy within the piping systems.
13. MECHANICAL SUBCONTRACTOR shall be responsible for maintaining the entire heating system in good working order for at least one year from the date of substantial completion of the entire project.
14. EXISTING FIXTURES and/or devices containing mercury shall be removed and properlydisposed of.
15. THE INSTALLATION OF ANY PRESSURIZED PIPING including domestic hot and cold water and heat piping of any materials beneath slab on grade construction is strongly discouraged.
16. DUCTWORK FOR HEATING, VENTILATING, AND AIR-CONDITIONING SYSTEMS AND INCLUDING VENTING FOR CLOTHES DRYERS, BATHROOM EXHAUSTS, AND KITCHEN RANGE HOODS shall be smooth surfaced metallic type and be hard-cast sealed at all joints.
17. PLUMBING AND/OR MECHANICAL COMPONENTS penetrating into building thermal envelope components shall be properly air-sealed.
18. BATHROOM EXHAUST FANS when provided shall be low noise with energy efficient fan motor rated for continuous duty with a minimum rating of 50 cfm unless engineered otherwise.
19. LOW FLOW FAUCETS, SHOWERHEADS AND TOILETS shall be provided to reduce water consumption as follows:
    a. FAUCETS: Flow rate of no more than 1 gallon per minute (GPM)
    b. SHOWERHEADS: Flow rate of no more than 2 gallons per minute (GPM)
    c. TOILETS: Rated at 1.6 gallons per flush (GPF) or less OR dual flush
    d. URINALS: Rated at 1.0 GPF or waterless
20. HEATING SYSTEM shall be safe, quiet, and economical in operation and complete in all respects. This system shall provide a uniform temperature of 70 degrees F. (75 degrees F for elderly) in all living spaces as may be noted on the drawings, when the outside temperature

is the appropriate outdoor design temperature for each development location which shall be specified in accordance with the ASHRAE 99% scale.

21. WHOLE-BUILDING VENTILATION where whole-building ventilation is proposed, such systems shall be professionally designed and shall include provisions for make-up air, heat recovery, kitchen, and bathroom exhaust, at a minimum. It is important that the expected operational costs of such systems be included in the Owner's project budget.

Division 16, Electrical Systems

1. PRODUCTS OF COMBUSTION DETECTORS (SMOKE & CARBON MONOXIDE DETECTORS) shall be PHOTOELECTRIC TYPE powered to meet state law and codes.
2. UNIT ELECTRICAL PANELS IN ACCESSIBLE AND ADAPTABLE UNITS shall be mounted compliant with accessibility reach requirements to the highest breaker. In general, electric panels should be located behind the master bedroom door whenever possible. Electric panels shall not be located in closets and shall not be located back to back in common walls.
3. ELECTRICAL CIRCUITS shall be 20 amps minimum and the use of #14 wire is prohibited.
4. RECESSED "CAN" TYPE LIGHTING FIXTURES IN THE CEILING OF TOP STORY are prohibited if they would be within the thermal envelope.
5. ELECTRICAL SUPPLY FOR FUTURE RADON FANS in the area of all future radon fan locations should they become necessary.
6. AIR SEALING of all wiring penetrating into building thermal envelope components shall be provided.
7. BATHROOM LIGHTING shall include a switched light fixture at or over the mirror.
8. LIGHTING FIXTURES shall be Energy Star rated or equivalent or better as documented/recognized by Efficiency Maine or MaineHousing. Incandescent Lamps are prohibited. Pin-type compact fluorescent fixtures or other types of energy efficient fixtures are allowable alternatives.
9. EMERGENCY EXIT SIGNS shall be LED type.
10. TELEPHONE SYSTEMS shall be pre-wired in suitable proximity to likely placement of furniture. Outlets are to be located in all of the following spaces:
    a. Master Bedroom
    b. Living Room or Corridor or Dining Room
11. TELEVISION MASTER ANTENNA SYSTEMS, MASTER SATELLITE SYSTEMS, AND/OR CABLE TV SYSTEMS shall be provided in all projects in appropriate locations for viewing and likely furniture placements. At a minimum, jacks shall be installed in all of the following locations:
    a. Master Bedroom
    b. Living Room
12. INTERNET ACCESS (if a hard-wired distribution system is provided) shall be pre-wired and be available in the same spaces as the TV and/or Telephone systems. All pre-wiring shall be compatible with the local service provider requirements. If a wireless service is provided, the signal distribution shall be tested and documented to assure adequate signal strength to each space within each living unit where it is reasonable to expect a computer will likely be used.
    a. Master Bedroom
    b. Living Room

END OF PART 1

MAINEHOUSING QUALITY STANDARDS AND PROCEDURES MANUAL

PART 2 – PROCESS AND PROCEDURES

A. DESIGN AND CONSTRUCTION DOCUMENTS

1. INTRODUCTION

Design and construction documents shall be submitted to MaineHousing at three points during their development for review and acceptance by Construction Services. The formal submissions are defined in detail below and include Concept, Design Development (50% Completion of Construction Documents), and Construction Documents (90% Completion and Pricing Phase). All documents shall be prepared by, or under the direction of, a design professional (usually an architect) registered in the State of Maine, stamped with the design professional's registration seal, and accompanied by a statement signed by the professional certifying compliance with MaineHousing's standards. Each submission shall be prepared in accordance with the requirements of this Quality Manual and all other applicable referenced documents and shall be approved by MaineHousing before submission of the next phase of document development. Review by MaineHousing's Construction Analyst is strictly assistance to the design professionals; responsibility for compliance with MaineHousing's standards and codes rests solely and entirely with the developer, designers, and contractors. Due to the very nature of the periodic reviews by the construction analysts, it is impossible to identify all areas of non-compliance and/or deficiencies. If the developer does not agree with a determination or interpretation made by the project construction analyst during plan review or construction, the developer may contact the Construction Services Manager to discuss such matters. Such requests shall be in writing and provide good cause with each request. MaineHousing and its staff assume no responsibility or liability for errors or omissions in the design and contract documents as prepared by the Owner's project team. MaineHousing will not review any submittals which are not complete.

2. LICENSED DESIGN PROFESSIONAL SERVICES

All construction drawings and specifications shall be prepared, completed, and be certified in accordance with State of Maine statutes by a design professional (for most projects, an architect) licensed in the State of Maine. It is further required that design professionals, trained and licensed in specific disciplines (i.e., civil, structural, mechanical, electrical engineering) be retained and administered by the designer-of-record for such services. In each instance, the designer-of-record shall be the primary responsible professional. It is required that an Owner-Architect (or Design Professional) Agreement be executed for all design services to be performed on MaineHousing projects. Such agreements shall clearly state scopes of work to be performed and the compensation arrangements between the parties. Owner-Architect Agreement, AIA Document B181, is one suggested format that is acceptable to MaineHousing.

The Owner/Architect (or Design Professional) Agreement shall, at a minimum, include:

a. The scope of work shall (as applicable based on the extent of the project) include all architectural, structural, mechanical, electrical, civil, landscape, and other consulting services necessary to clearly identify the requirements for the construction of the entire project. The scope of services should include provisions

for the administration of the construction contract through to project completion, including regular on-site visitations by all designers and engineers, special inspections, bi-monthly (minimum) on-site project meetings, responses to requests for information, tracking of change proposals, creation of field reports, and keeping and distributing meeting minutes. Copies of all documentation created by the architect shall be provided to MaineHousing.

b. The Owner-Architect (or Design Professional) Agreement shall delineate the responsibility for all services to be provided whether by the design professional, owner, or others.

c. Responsibilities related to design and construction administration services shall each be clearly delineated.

d. Adequate errors and omissions professional liability insurance shall be provided in accordance with MaineHousing's Insurance requirements.

3. **PRE-APPLICATION SUBMISSION – 1 Copy**; Pre-application documentation shall be submitted in hard copy (1 each) and shall include the following:

   a. Project narrative describing the project scope including number of units and planned amenities, site size, amenities near the project site, targeted population, unit size breakdowns

   b. CONCEPTUAL, DIAGRAMMATIC SITE PLAN at a scale not less than 40' = 1" showing the general development of the site and include:

      1. location of streets and sidewalks
      2. locations of existing utilities
      3. *proposed parking and driveways

      * If proposed parking is less than 1 parking space per dwelling unit, a written waiver request shall be provided that addresses the following:

         a. A justification statement explaining the reasons for not providing 1:1 parking including an assessment of the targeted populations' needs.
         b. Documenting the demand for on-site or off-site parking consistent with projects of similar size, location, and population.
         c. Documenting the availability and costs of transportation alternatives that service the project site.
         d. Describing alternatives to car parking that will be provided on-site such as parking for motorcycles and/or scooters and/or storage for bicycles.
         e. Describing any proposed tenant incentive programs that will reduce car parking needs.
         f. Describing tenant education efforts that will be implemented that will reduce car parking needs.
         g. Providing for timely and ongoing monitoring of the plan and describes how adjustments to the plan will be implemented.

      4. in retrofit construction – location of existing and adjacent buildings
      5. in new construction existing and proposed buildings
      6. passive and active recreation areas
      7. intention of dedication of streets where applicable
      8. property lines for the site, streets, and rights-of-way
      9. north arrow
      10. contours at 2 foot intervals (errors shall not exceed one-half contour interval) of the property and of adjacent roads and of adjacent areas which either conduct concentrated drainage onto the site, or receive concentrated drainage from the site in sufficient area to determine its effects on site drainage

11. locations of existing and proposed underground and/or overhead utilities

c. CONCEPTUAL FLOOR PLANS at a minimum scale of 1/8" = 1'-0" for new construction should diagrammatically show the orientation of areas for daytime use, the principle entrances to structures, and the way the living units relate to the exterior to provide an arrangement which achieves privacy and a sense of home for the inhabitants. Plans to also include locations of units with accessible features including referenced standards/codes/regulations being met and all accessible parking, drop-offs, walking routes, and entrances.
d. CONCEPTUAL FLOOR PLANS FOR THE REHABILITATION OF AN EXISTING BUILDING at a minimum scale of 1/8" = 1'-0" shall be submitted for the building both as they exist and as they proposed. A plan for each floor or typical floors should be submitted at a scale not less than eight feet to the inch. When possible one set of plans can be submitted showing existing walls, partitions, columns, doors, windows, stairs and plumbing (unless the building is to be gutted, in which case indicating only the major structural systems) and showing proposed modifications to the layout of the existing building to indicate rooms, entrances, stairs, halls, storage and common areas. Differentiation should be made between existing to remain, existing to be removed, and new construction. Plans to also include locations of units with accessible features and accessible parking, routes, and entrances.
e. CONCEPTUAL BUILDING ELEVATIONS drawn to convenient scale (not less than
1/8" = 1'-0") indicating the design intent for the primary façade(s).
f. STATEMENT ADDRESSING ANY KNOWN OR SUSPECTED ENVIRONMENTAL IMPACTS on or adjacent to the site.
g. CONCEPTUAL CONSTRUCTION ESTIMATE prepared by a qualified general contractor or estimator. Estimate to include trade breakdowns in the form of a Schedule of Values (including a reasonable estimating contingency, if applicable) with sufficient detail to demonstrate expected construction related costs. Any exclusions or qualifications to the estimate shall be clearly stated.
h. LINE ITEM PROJECT BUDGET consistent with MaineHousing's standard underwriting criteria including all anticipated soft and hard costs.
i. Transmittal of Pre-Application submittal identifying items provided by date and party preparing the item.

4. CONCEPT/PROJECT KICK-OFF SUBMISSION - 1 COPY for MaineHousing's review and records

The design of a project begins after the selection of a proposed application by MaineHousing. The mechanism utilized to initiate the design process is through a concept/project kickoff meeting and is described herein.

A joint meeting between Applicant, the design professional(S), and MaineHousing is held, at which time preliminary design as well as other facets of the project/program are discussed. Preliminary design discussions relate to form, type, and number of buildings, and proposed unit mix that will comprise the project, parking, and the respective siting of the buildings.

a. A <u>SOIL SURVEY</u> shall be made of all sites for new construction, and may be required on project sites that include substantial rehabilitation and/or additions. A

soil survey shall be of high intensity type performed by a soil scientist registered by the State of Maine and reported in accordance with the standards and nomenclature of the National Comprehensive Soil Survey.

It is at the discretion of MaineHousing to accept soil surveys provided by a certified engineer. Additional information may be required where circumstances merit and in particular, all filled sites will require several borings under each proposed building site to determine both bearing capacity and composition of the various strata of fill.

b. SURVEY OF EXISTING CONDITIONS – a survey or surveys consistent with either Article 5.4 of the B101 – 2007 Edition or Article 6.5 of B105 – 2010 Edition of the Standard Forms of Agreement between Owner and Architect.
c. A review of the completed Pre-Application Submission as described in 3. Above.

Agreement must be reached by the Applicant and MaineHousing on the general form the project will take before proceeding to the Design Development Phase (50% Completion).

5. DESIGN DEVELOPMENT SUBMISSION (50% Completion of Construction Documents) - 1 COPY for MaineHousing's review

The Design Development Submission is expected to present approximately 50% of the Construction Documents level of information and should formalize the site plan, building configuration, and internal layout of the living units in sufficient detail to allow preparation of an estimate of the construction costs without proceeding to the preparation of the final construction drawings. MaineHousing will review this submission for conformance with the Concept/Project Kick-off Submission and previously referenced standards relating to general layout of site, buildings, and dwelling units, room size and shape, special provisions of plan layout for accessibility requirements, fire separation and the provision of adequate means of egress, and removal of solid waste and any other program requirements.

MaineHousing may waive, in writing, the requirement of some of the information defined herein or may require in writing, additional information. Design Development Submissions will not be reviewed or processed by MaineHousing until MaineHousing is in receipt of approved Concept/Project Kick-off submission.

a. SOILS ENGINEER'S REPORT shall be submitted for all new construction developments specified by MaineHousing. This report should include recommendations for foundation design and site drainage in accordance with soil survey information previously obtained. (In many instances the developer may choose to do both portions of the soil study at one time. If this is done, the report should be provided at Concept and re-submitted at with the Design Development Submission.)
b. SITE PLAN(S) drawn to a scale no less than forty (40) feet to the inch, showing the general development of the site with locations of buildings, walks, streets, parking spaces, driveways, service areas, including solid waste collection areas, recreation and private outdoor spaces. Topography should be shown at two (2) foot intervals, indicating both existing (dotted lines) and finish (solid lines) grades where changed. First floor elevation should be noted for each building; utilities should be shown, including underground and/or overhead power feeds, transformer locations, water and sewer mains, hydrants, storm drains, catch basins and outfalls. Streets intended

for dedication and public acceptance should be delineated and accessible units, accessible parking, and means of access shall be indicated. Preservation of existing growth and new planting should be shown, identifying form, size and whether deciduous or coniferous.

c. BUILDING PLANS, ELEVATIONS AND TYPICAL SECTION(S) drawn to scale of not less than 1/8" per foot, showing the location of living units, accessible units, common areas, entrances, windows, circulation, and relation to site features. Lines of fire and acoustical separation and ratings shall be shown on plans and sections as necessary to demonstrate conformance with codes and standards.
d. FLOOR PLANS of typical living units drawn to a scale not less than ¼" per foot, showing furniture layouts and indicating dimensions of rooms measured as clear distance between walls. Usable storage areas are to be shaded/blocked out/cross-hatched or otherwise delineated with applicable dimensions and volumes.
e. MECHANICAL AND ELECTRICAL SYSTEMS drawings indicting overall scopes of work, locations of major components, and overall design concepts of systems.
f. A DESCRIPTION OF THE TYPE OF SPACE AND WATER HEATING SYSTEMSAND VENTILATION, ENERGY RECOVERY, AND CONDITIONING SYSTEMS proposed. This must be submitted separately and accompany schematic drawings that document proposed equipment locations and distribution systems for heat, cooling, and ventilation.
g. OUTLINE SPECIFICATIONS are to include a brief description of all of the applicable trades, their proposed work scopes, and the major materials that are being considered for each trade.
h. CALCULATIONS AND STATEMENT OF EXPECTED CONSTRUCTION COSTS for the scope of work defined in the documents. Estimates shall be by line item utilizing the CSI format and be of sufficient detail with proper backup to demonstrate an accurate reflection of the materials, equipment, and labor that will be necessary to construct the project. Estimates may be submitted after the initial 50% submittal but must be before comments on the submittal will be delivered.
i. PRELIMINARY CODE STUDY demonstrating compliance with local, state, and federal building and fire codes and regulations.
j. DESIGN PROFESSIONAL'S TRANSMITTAL FORM
k. TABULATION OF BUILDING, LIVING UNIT FLOOR AREAS according to the format provided in Appendix A.
l. ADAAG Compliant Kitchen Storage Worksheet
m. Solid waste removal plan

6. CONSTRUCTION DOCUMENTS SUBMISSION (90% Completion, and Pricing Documents) - 1 COPY each for MaineHousing's review

Working drawings and specifications shall be the contract construction documents which completely describe the design, materials and assembly of the entire development to determine the finished state of work and shall follow from the 50% submittal. Formal submittals shall be provided at the 90% completion stage and a set of the documents used to solicit Pricing shall be provided at the beginning of the pricing phase. . The term "or equal," alternates of methods, materials or equipment shall not be used without qualification (i.e. "approved equal," prior to bids). The comments from the 90% review process shall be incorporated into the Pricing Documents prior to their issuance. Further, written responses to the 90% comments shall be provided to MaineHousing along with a set of the Pricing Documents at time of pricing. Any changes subsequent to the 90% submittal noted from review of the Pricing Documents shall be made by Addendum during the pricing phase.

Drawings shall be of uniform size and be stamped on each sheet by the designer-of-record and include all of the information provided in the 50% submittal including a narrative response to the 50% submittal review comments provided. The Construction Documents shall include the following information:

a. COVER SHEET
   1. TITLE OF PROJECT, the Maine State Housing Authority Project Number and Project Location.
   2. INDEX OF DRAWINGS by name, numbered consecutively.
   3. SITE LOCATION MAP
   4. CODE STUDY/ANALYSIS SUMMARY
   5. SIGNATURE BLOCK setting forth space for signatures of the Architect, Owner, Contractor, MaineHousing, and the Construction Lender.

b. PLOT OR SITE PLAN
   1. SCALE to be not less than 1" = 40'
   2. PROPERTY BOUNDARIES and markers
   3. NORTH INDICATION with true and magnetic north points
   4. EXISTING PUBLIC AND PRIVATE WAYS adjacent to or within the property boundaries, indicating, as applicable, legal boundaries, the traveled way, edges of pavements, curbs, walks, wheel stops, and other physical features existing to remain or to be removed, and improvements to them.
   5. NEW STREETS AND DRIVES parking areas, walks, curbs, edges of pavement, wheel stops, and boundaries of any property for dedication and public acceptance.
   6. OTHER PAVED AREAS and constructed site improvements such as play and sitting areas, service courts, drying yards, fences, retaining walls, solid waste collection facilities, outdoor mail boxes
   7. UTILITIES including water mains and hydrants; electric lines: overhead and underground, poles, lighting and transformers, telephone lines, cable TV lines, MATV lines, sanitary and storm sewers, manholes, and catch basins. Indicate diameters and inverts for storm, sanitary sewers, and foundation drainage systems at building exits, in and out of all manholes, connections, and cross-over points. Also show diameters for water mains. Show utilities to the point of connection with the existing system.
   8. TOPOGRAPHY information indicating finish grades by solid lines and existing grades to be changed by dotted lines at two (2) foot intervals if a separate grading and drainage plan is not provided.
   9. EXISTING TREES AND OTHER NATURAL FEATURES, indicating whether to be removed or preserved.
   10. BUILDING LOCATIONS AND DESIGNATIONS with grade elevations at corners and entrances if not show on a separate grading and drainage plan.
   11. PROFILES of streets, walks, storm and sanitary sewers showing existing and proposed grades and appurtenances.
   12. DIMENSIONS for locating and over all dimensions of all of the above.
   13. LAYOUT LINES with dimensions and bearing for all structures and paving.

c. GRADING & DRAINAGE PLAN – Minimum scale of 1" = 40' When the information listed below cannot be shown clearly on the Site Plan, a Grading and Drainage Plan shall be provided to show the following:
   1. FINISH GRADE ELEVATIONS at all building corners and at entrances.

2. EXISTING AND FINISH GRADE CONTOURS shall be shown at two (2) foot intervals indicated in solid line where changed, and with exiting contours indicated with dotted line.
3. MEANS OF COLLECTING SURFACE DRAINAGE protection of abutting properties and relation to any subsurface system provided.
4. FOUNDATION drainage layouts and connections to subsurface systems or outlooks.
5. RADON piping and system information.
6. DISTRIBUTION OF PLANT MATERIAL location, quantity and key number of each general species of plant in group, lawn areas, and existing trees, if any, to be preserved or transplanted.
7. ENLARGED SCALED PARTIAL PLANS clearly indicating compliance with all accessibility requirements.

d. LANDSCAPE PLAN - Scale not less than the Site Plan (minimum 1" = 40').
1. OUTLINE OF BUILDINGS and other improvements of the project, together with physical features of the site for the purpose of establishing the location and relationships between planting and other construction.
2. DISTRIBUTION OF PLANT MATERIAL providing location, quantity, and key number of each general species of plant in group; lawn areas, and existing trees, if any, to be preserved or transplanted.
3. SCHEDULE OF PLANT MATERIAL giving standardized plant names, key number for each variety in reference to plan, and the size, quality, or other pertinent description.
4. OTHER EQUIPMENT with sufficient details such as benches, fences, drying lines, paths, game areas, play equipment, etc.

e. FOUNDATION PLANS - Minimum scale of 1/8" = 1'
1. FOOTINGS, step footings, pilings, grade beams, walls, columns, piers, and slabs with dimensions, thicknesses, and locations
2. CONSTRUCTION AND EXPANSION JOINTS, bond outs, windows, sumps, electrical, telephone, plumbing, and air duct locations.
3. ENLARGED DETAILS of reinforcing, foundation drainage systems, keys, corners, joints, insulation, sub-base, vapor barrier, waterproofing, etc. when not shown clearly at the above scale, or explained in notes.

f. BUILDING FLOOR PLANS – Minimum scale of 1/8" = 1" unless fully shown on living unit plans for small buildings, Building Floor Plans of each building shall show the following:
1. THE DIMENSIONED RELATIONSHIPS of living units and buildings to each other; over-all dimensions of buildings, partition arrangement and fenestration of end living units, units at corners and units at offsets; other partitions as may be necessary only to show variations from the typical living unit plans and relation of rooms in adjacent living units; walls separating living units and their material and thickness.
2. ALL BUILDINGS IDENTIFIED by numbers or letters and each living unit identified, including designations and types of accessible units.
3. WALL CONSTRUCTION TYPES AND LEGEND WITH KEYS indicating locations required for fire and acoustical separation. Provide adequate cross references as to locations of all wall types and details. Provide design references justifying all fire and sound rated assemblies.

g. LIVING UNIT FLOOR PLANS - Minimum scale of 1/4" = 1'

1. LIVING UNIT FLOOR PLANS for each type of living unit and variation.
2. SEPARATE UNIT PLANS are not required when the general floor plans are provided at the above scale and contain all essential information.
3. OVER-ALL DIMENSIONS and dimensions to all partitions, window locations and type designations referring to schedule, dimensioned stair location, runs and widths, landings and handrails.
4. CLOSETS, shelving and clothes rods; radiators or other heating devices, chimneys, and all other such items, unless shown on separate plumbing, mechanical and electrical drawings to same scale.
5. LOCATION OF STRUCTURAL ELEMENTS such as columns, lintels, joists, beams, girders, and bearing partitions. Show sizes, spacing and direction of members. Submit separate structural drawings where structural information cannot be shown clearly.
6. ALL CONDITIONS where units are to join other units, including end unit conditions
7. LIVING UNIT TYPES identified by a number or letter.

h. ROOF PLANS - Minimum scale of 1/8" = 1'

1. RELATIONSHIP of intersection of the various building roofs; direction of slopes on roofs; parapets, chimneys, vents, and other projections above roofs; downspout location and sizes, flashing and underlayment details.
2. FIRE AND SMOKE barriers.

i. BUILDING ELEVATIONS - Minimum scale of 1/8" = 1'

1. ALL FACADES of each typical building showing finish materials; window and exterior door types must be labeled consistent with schedules.
2. FLOOR LINES and elevations, exterior grades.
3. FLASHING locations, widths, and exposure dimensions

j. PARTIAL ELEVATIONS - Minimum scale of 1/4" = 1'

(Partial elevations may be omitted when Building Elevations have been drawn to the above scale to include information required of partial elevations.)

1. Portions of each type of façade showing the exterior design, including materials, jointing, flashing, special features, windows, doorways, cornices, parapets and references to all necessary details.

k. BUILDING SECTIONS – Minimum scale of 1/4" = 1'

1. Cross sectional characteristics of the building and floor level relations at one or more points as necessary to show typical configurations.

l. CONSTRUCTION SECTIONS - Minimum scale of 3/8" = 1'

1. EXTERIOR WALL SECTIONS from footing to roof to show each type. Complete construction of: walls with thickness at various stories; floors; furring; waterproofing; ceilings; roofs; including pitch and material; window heads and sills; window heights; flashings; room heights; anchorage and bearings; cornice and gutter; insulations and air-sealing; vapor barrier, foundation walls and footings; footing drains; radon systems; conditions at various depth basements, basement floors or crawl space; roof space, and attic vents.
2. BEARING WALL OR PARTITION SECTIONS for all types of walls and partitions with floor, ceiling and roof construction; supporting walls or members, columns and girders; foundations and footing; size and spacing of all members' joists, splices or ties; sub and finished floors; walls and ceilings. Provide adequate cross- references to plans

for locations of all wall types. Provide design references for all required fire and sound rated assemblies.

m. DETAILS - Minimum scale of 1/2" = 1'
   1. STAIRS with plans and sections showing stringers, treads, risers, newels, balusters, handrails, rise, run and headroom; show all dimensions.
   2. KITCHEN LAYOUTS with plans and elevations showing accessories, cabinets, location of heaters and ductwork runs. Note accessibility requirements, including critical dimensions, clearances, maneuvering spaces, and all appropriate features where applicable.
   3. PLAN OF BATHROOM LAYOUTS with elevations showing accessories, radiator or heater, cabinets and fixtures, including critical dimensions, clearances, maneuvering spaces, and all appropriate features where applicable.
   4. SPECIAL EXTERIOR AND INTERIOR DETAILS such as bay windows, dormers, cupolas, vents, built-in furniture, closet sections, blocking for grab bars, range hoods, wood trim details, sheet rock details if returned at windows and doors.

n. SCHEDULES (Shown on any drawing or in project manual convenient for reference.)
   1. DOOR SCHEDULE: size, thickness, materials, and design of each door, keyed to designations on plans. All fire doors shall be indicated with their listed rating.
   2. WINDOW SCHEDULE: Size, thickness, glazing, material and design of each window, with designation on plan elevation. Identify egress windows. Identify egress windows as well as any specialty hardware required to meet accessibility requirements.
   3. FINISH SCHEDULE: Material and type of finish of floors, walls, ceilings and trim for all rooms. Flame spread and smoke generation ratings for all surfaces required to be rated.
   4. HARDWARE SCHEDULE: Material and type of hardware for each door in door schedule. Include special hardware such as closets, electric door strikes intercom devices, and panic hardware. Where applicable, provide compliance with all accessibility requirements.

o. STRUCTURAL
   1. Structural drawings shall include a framing plan for each floor and roof of each structure not identical to other structures in the project.
      a. REPETITIVE FRAMING plans for the floors of structures with more than one story may be combined on one (1) drawing, provided that variations are minor and are clearly identified.
      b. FRAMING PLANS shall identify the material, size, location and orientation of all structural members, bracing and bridging, and the structural materials acting as the surfaces of the floors and roof.
      c. THE CONNECTIONS of the walls and floor to the foundation shall be detailed.
      d. STRUCTURAL FRAMING around all openings, including those for mechanical ducts, shall be shown, as well as that supporting mechanical equipment.
   2. Trusses, at a minimum, should be detailed and/or specified by performance criteria meeting all stated live and dead load requirements as set forth by the design professional substantiated by shop drawings and computations from the manufacturer and approved by the design professional prior to installation. The manufacturer's drawings shall be signed and sealed by a professional engineer, registered in the State of Maine. The drawings should show:
      a. THE CONNECTION at each joint should clearly be shown and the connecting device or method specifically identified.

b. CONNECTORS should be located by dimensions from the sides and ends of the members connected.
c. STRUCTURAL ADHESIVES used in connections should be specifically identified and the standard applicable to their use referenced on the structural drawings.
d. THE ANALYSIS of trusses should take full account of their method of support. Line stress diagrams are acceptable.
e. LATERAL AND WIND BRACING details as well as handling details shall be provided.
f. WHERE THE LOADS occurring between panel points induce bending significantly affecting the member stresses, such effects shall be included.
g. ADEQUATE HOLD DOWN for uplift due to wind and overhang conditions.

3. With the exception of simple connections, such as the typical end nailing of studs to top and bottom plates which can be covered by notes, all connections shall be detailed. Notching of trusses will not be allowed.
4. Consideration of any items that may be installed in and on structures should be evaluated and appropriate upgrades made. An example of such items might be solar panels, domestic water tanks, etc.

p. MECHANICAL

The following information should be shown on separate drawings at an appropriate scale. If the information can provide clear indication of all details, the preferred scale is that used in earlier drawings for the basement and floor layout (1/8" = 1')

1. HEATING AND VENTILATION DESIGN
   a. Drawings should show, with dimensions, the location, size, and clearance for all equipment and fixed appliances, e.g., fans, warm air furnaces, boilers, absorption units, etc.
   b. Equipment Schedules: provide a tabulation of all equipment and fixed appliance used, showing the listing, the manufacturer's name, make, model number, BTU/hr, and input rating for all energy inputs.
   c. Mechanical Ventilation Systems should be provided with layouts and sizes for all equipment, ductwork, insulation, controls, etc. to describe each total system; show all parts of systems that are to be thermally insulated.
   d. Include air-sealing details at all penetrations of mechanical systems through and into building envelopes.

2. PLUMBING AND SPRINKLER DESIGN
   a. Plans and/or schematic drawings of the plumbing layouts, including but not limited to, sizes of piping, fittings, traps, and vents, cleanouts and valves; gas, sprinklers, water, radon, and drainage systems should be provided.
   b. Horizontal and vertical sewer and drainage system drawings should include riser diagrams of typical stacks. These diagrams should show pipe, vents, and trap sizes, cleanouts fixtures, interceptors and floor drains. Connection and installation details between pipes, fixtures, and appliances shall be provided. Drawings should show proper slope of waste and vent lines and should clearly define how such lines penetrate walls and floors without destroying the structural and/or fire safety integrity of such systems.

c. Hot and cold water supply drawings should include all supply pipe sizes, shutoff valves and descriptions of fixtures supplied, along with a statement as to the supply water-pressure used for the design. Note: All fixtures are required to have shut-off valves for both hot and cold water supply and are also required to be connected by threaded unions. Provide hot and cold main water supply shut-offs for each living unit.

d. All plumbing materials should be shown either on the drawings, on schedules, or in the specifications with applicable cross-references provided for clarity. All fixtures should be located on appropriate drawings with fixture unit capacity of system (s) and make, model, and rating/capacity of all equipment and appliances shall be indicated and installed in accordance with these requirements and the manufacturer's instructions. Provide piping insulation details for ALL mechanical and domestic water piping.

e. Where not covered in other drawing, i.e., mechanical or electrical, details, make and model of safety controls (such as for water heaters), their location and listings or labelings, should be provided.

f. Drawings should indicate details of pipe and fixture supports (i.e., type and spacing) and indicate pipe protection such as wrapping, sealing and insulating and provide for thermal expansion as applicable.

g. Where not provided by other details, locations of vents above roofs and required clearances from air intakes, windows, other flues and vents, should be provided.

h. Sprinkler designs shall at least indicate the main feeds and distribution, understanding that the final designs will need to be provided by qualified subcontractors of the trade and be approved by the State Fire Marshal's Office prior to their installation. Full coordination of the various mechanical systems is necessary prior to installation.

i. Radon piping from beneath all slab areas up through the building and the roof shall be provided.

j. Include air-sealing details at all penetrations of plumbing systems through and into building envelopes.

q. <u>ELECTRICAL DESIGN</u>

1. Provide details and diagrams of the number, types and sizes of service entrances, types and sizes of service conductors and all installation requirements including location, assembly, mounting, protection, and the short circuit current available at all supply terminals from the electric utility. Details of wall penetrations and service entrance cable protection shall be shown.

2. Provide details of all over-current protection provisions for equipment and conductors, including sizes, ratings, types and locations.

3. Provide complete details of the grounding and bonding provisions including the methods used, the location of connections, and types and sizes of conductors and electrodes. Provide installation details and location of all outlet, switch and junction boxes. NOTE: Do not locate outlet boxes and/or other devices and/or back to back boxes in "Party" or "Fire or Smoke Rated Walls."

4. Provide plans showing branch circuit distribution system, cable TV systems, telephone systems, television antenna systems, emergency call systems, emergency lighting systems, fire alarm systems including the details and identification of all circuits, outlets, appliances and equipment.

5. Provide panel schedules for each scheduled panel.
6. Lighting of all public spaces including yard lighting within the buildings and grounds, including controls, shall be shown on the drawings.
7. Include air-sealing details of all penetrations of electrical systems into the thermal envelope.

r. PROJECT MANUAL

A project manual shall accompany the drawings and should include the following:

PART 1: Contract Documents

1. Cover Page: Printed in black or blue on white paper, stating:
   a. Title of project
   b. MaineHousing's project number
   c. Project location
   d. Signature block setting forth space for the signatures of the Architect, Owner, Contractor, MaineHousing and Construction Lender
2. Index: Reference and page number for each section and all portions of both Part 1 and Part 2 of the Project Manual
3. General Conditions of the Contract for Construction (AIA 201 or approved equivalent)
4. Performance Bond (AIA A31 1 or approved equivalent)
5. Labor and Material Payment Bond (AIA A311 or approved equivalent)
6. Instructions to Bidders (AIA A701 or approved equivalent for projects subject to bidding)
7. Supplementary Conditions of the Contract for Construction
8. Geotechnical Report – By reference or inclusion labeled: "For Information Only"
9. Application and Certificate of Payment (AIA G702 or approved equivalent)
10. Continuation Sheet (reference 9 above (AIA G703 or approved equal)
11. MaineHousing Final Certificate and Lien Release for Contractors/Subcontractors/Vendors
12. MaineHousing Owner/Agency Certificate of Completion
13. MaineHousing Construction Services Final Completion Checklist
14. Incomplete Work Escrow (IWE)

PART 2: Specifications

The specifications should be divided into sections separately describing the work to be done by each of the trades which is essential to the completion of the project. The CSI format should be used unless prior approval to use another system is accepted by MaineHousing. In each section, under the Trade Title, a complete description, in detail, of all the work to be performed by that trade, including descriptions of "Scope of Work", "Workmanship", and "Materials" and the manufacturer, grade, or model designation of each item of material or equipment as well as any necessary specific instructions for coordinating the work with that of other trades; also specific instruction and detailed descriptions of work not clearly evident from the drawings.

s. CONTRACT FORM
   1. The contract should reference the scope of work, project manual, plans, specs and addenda by the most recent revision date.
   2. Contracts should contain a detailed schedule of values and unit prices.
   3. The contract should specify a completion date or number of calendar days to complete the project.
   4. The contract should specify amount and terms of liquidated damages, if any.
   5. The contract should specify that the owner will retain a percentage of the billed amount until the project is complete. Suggested retainage language is: "Retainage shall be 10% of the work in-place and billed and may be reduced, at the owner's discretion, when the amount of retainage equals 5% of the contract value (including change orders) provided all contractual obligations have been met and work progress and quality is acceptable."
   6. A MaineHousing Construction Analyst must review, accept, and sign all change order proposals and change orders before they are a valid amendment to the contract.
   7. The Contractor shall provide a list of Subcontractors with subcontracts in excess of $2,000.00 and Material Suppliers/Vendors with purchases ~~in~~ exceeding $10,000.00.

t. OTHER
   1. REVISED COST ESTIMATES (at 90% Submittal)
   2. DESIGN PROFESSIONAL'S CERTIFICATION (at Pricing Phase-See appendix)
   3. TRANSMITTAL FORM

ADMINISTRATIVE SUBMITTAL PROCEDURES: Once the completion of the review of Construction Documents and the correction of all discrepancies and/or omissions has been accomplished, and the Pricing Phase is completed, the final submission becomes an administrative function.

The Design Professional submits, at a minimum, five (5) "clean" copies of the Drawings, and Project Manual for sign-off by all interested parties, including MaineHousing. All drawing sheets and the Project Manual are to be sealed by the Design Professional providing the professional services contained therein. The cover sheet of the project manual and drawings shall also bear the primary Design Professional's seal and signature. One set of documents will be retained by MaineHousing for its use. Two of the sets of documents should be retained by the contractor, one for his records and one for on-site use by all parties. One set of the documents is to be retained by the Owner and one by the Architect. Any additional sets of signed documents (more than the 5 outlined above) must also be submitted to MaineHousing for signatures.

7. PRE-CONSTRUCTION LOAN CLOSING (CLC) requirements

Once the final construction costs have been determined, Construction Services is responsible for the review of several additional documents. These documents are required to be provided with sufficient time for review prior to the CLC. The pre-CLC documentation shall include the following information:

a. Full set of approved, sealed working drawings and specifications signed by the Owner, Architect, Contractor, and MaineHousing. (For projects with a rehab cost of less than $100,000, a written scope of work along with some descriptive sketches and/or schedules may be sufficient to satisfy this requirement.)
b. Construction contract signed by the Owner and Contractor and acceptable to MaineHousing.

c. For MaineHousing's Insurance requirements see: http://www.mainehousing.org/Documents/HousingDevelopments/HousingDev-InsuranceChecklist.pdf
d. Copy of the Building permit from the local Code Enforcement Officer or other satisfactory evidence of local approval.
e. Copy of the Construction Permit and Barrier Free Permit issued by the Department of Public Safety, State Fire Marshal's Office. (For small, non-licensed rehab projects this requirement may be waived)
f. Copy of letter of acceptance from the Department of Health Engineering (If applicable)
g. One hundred percent Performance and Payment bonds with dual oblige rider naming MaineHousing. (For projects under $200,000 this requirement may be waived)
   Generally, the General Contractor (GC) or Construction Manager (CM) will be required to furnish surety in the form of 100% Performance & Payment bonds in favor of the Owner and MaineHousing. In certain situations and at the sole discretion of MaineHousing, an Unconditional Irrevocable Letter of Credit (LOC) may be considered as an alternative to bonding only if there are very specific conditions that warrant such consideration. Decisions of the form of security will be made on a case-by-case basis and the general evaluation criteria for these requirements will be based on the value of the proposed work scope as follows:
   Up to $150,000 of construction value – no bonds or LOC are required
   $150,000 to $300,000 of construction value – bonds or LOC may be required.
   Over $300,000 of construction value – bonds or LOC are required.

   For projects when MaineHousing accepts a LOC in lieu of bonds, the LOC shall equal 20% of the construction contract and shall be in place until MaineHousing's determination that the work is complete and acceptable. A LOC in the amount of 5% of the construction contract shall be secured during the warranty period for projects allowed to use the LOC form of surety.
h. In certain cases additional information such as an Environmental Site Assessment or itemized cost breakdown may be required.
i. Alta Survey (See Appendix for detailed requirements)
j. If the project contains historic tax credits, National Parks Service (NPS) written acceptance of the project as meeting historic preservation requirements shall be provided.

   Once all of the pre-CLC documentation is received and is found acceptable by the Construction Analyst, the Construction Services Manager is required to provide notification of such acceptance via a checklist sign-off to the loan officer.

B. PROJECT DELIVERY METHODS

1. GENERAL

The development of a project involves the evaluation of ideas, building and use programs, budgets, and considerable time and, as such, the project team and delivery method utilized must fit together to achieve the overall project goals. MaineHousing recognizes that not all projects fit within the same parameters and, therefore, recognizes two viable project delivery methods, which may be considered for its projects. Specifically, the Design - Bid – Build project delivery method and the Construction Manager - At - Risk project delivery method. MaineHousing will generally allow the developer to choose which delivery method is utilized; however, the method chosen must be disclosed to MaineHousing and is subject to review and approval by the Construction Services Manager.

Understanding that both methods have their own inherent strengths and weaknesses to

achieving cost effective, timely construction, MaineHousing has set forth parameters for consideration for each project delivery method. For all of PART 3, the term "Architect" shall also mean Design Professional or Designer-Of-Record.

2. DESIGN – BID – BUILD

Traditionally, the Owner selects an architect of choice with whom he prefers to work, usually based on professional qualifications and experience and who is qualified to meet all of MaineHousing's requirements and standards. The Architect, based on the Owner's program requirements including the project budget, then provides design documents for the pre-conceptual, conceptual, design development, and construction documents phases of the project development. The Architect and his design consultants, who normally include civil, structural, mechanical, and electrical engineers, are expected to design within a construction budget set by the Owner and the Authority at the onset. The Architect and consultants will be responsible for estimating the project as designed and advising the Owner of the expected construction costs, based on their respective experience, for each phase of the design process, and the Architect is responsible for communicating the entire design intent through accurate, complete, and well-coordinated construction documents (plans, project manual, and specifications) such that the project can be put out for competitive bidding. Once the design is complete and the expected costs are estimated by the Architect and the entire package is acceptable to the Owner and to MaineHousing, the project is advertised for bidding. A bidding procedure and time frame is set up and contractors, including generals, subcontractors, suppliers, and venders, assemble their prices based on the content of the documents and submit "bids" to accomplish the work per the parameters set forth by the Architect and his consultants in the bidding documents. Subcontractors, suppliers, and venders "bid" for their respective scopes of work to the general contractors (GCs) and the GCs submit their bid for the entire project using a combination of their own estimates, the bids they receive, and their proposed methods of executing the work. Unless there is some irregularity discovered just after the bids are received, usually the low bidder is offered the project, assuming that it is within the project budget as set by the Owner. MaineHousing's Construction Services shall be included and participate throughout the bidding process.

In general, the bidding process shall: be either Open Bid or Select Bid; assure that a minimum of 3 (4 preferred) bids will be received; provide for an open public bid opening format; provide bids that are valid for a minimum of 60 days. If there are extenuating circumstances that may require a longer bid hold period, these are to be discussed with the Construction Analyst and any such extension shall be agreed to by MaineHousing prior to bidding.

If a select bid process is proposed, all preselected bidders shall be presented to MaineHousing for review and acceptance prior to the bidding process.

After bids are opened, references are to be checked/confirmed by the developer. Bids vs. budget:

If the lowest responsible bid exceeds the project budget by ten percent (10%) or less, the developer may negotiate changes (conduct a "value engineering" process) with the contractor, provided all changes are approved by the developer, designers of record, and MaineHousing prior to adoption. Negotiated changes requiring modification of the approved plans and specifications that are in excess of ten percent (10%) of the project construction budget will not be accepted. If negotiated changes to the plans and specifications do exceed ten percent (10%) of the construction budget, then re-design by the designers of record (and approved by MaineHousing) and re-bidding will be required. Additional bids may be required should MaineHousing consider the general contractor cost or any subcontractor costs are excessive.

During the construction period, the Architect is retained by the Owner to administer the terms and conditions of the construction contract between the Owner and the General Contractor and to provide field oversight to assure that the design intent, the construction schedule, and the expected quality are met.

With this project delivery method, the Owner has a contract with the Designer of Record for all design services and the Designer of Record has agreements for the professional services of his consultants. The Owner has a contract with the low bidder/General Contractor for the construction.

Focus points of emphasis related to this method of project delivery:

- It is perceived to be the method that is most "fair" to the construction industry generally resulting in the lowest cost for the construction phase based on competition for the work.
- The design intent is communicated solely through the documents – they are the basis of the bid, the relationships during construction, and the construction contract. The documents must be complete, properly coordinated, and timely.
- Change Orders result if the documents are incomplete, not coordinated, or the intent is not clear.
- The Architect administers the Construction Contract and continues to provide services on an as-needed basis as the construction takes place.

3. CONSTRUCTION MANAGER-AT-RISK

In this scenario, the owner hires an Architect as described above. The Owner and the Architect get together and discuss criteria that they are looking for in a Construction- Manager-At-Risk and choose to openly advertise for qualifications of Construction Managers (CMs), develop a list of qualified CMs (minimum of 4), interview, make a selection, and negotiate a contract for services. MaineHousing's Construction Services shall be included and be an overseer throughout the selection process.

With this project delivery method, a "team" is set up very early in the design process, which includes the Owner, the Architect (and his engineering consultants), and the Construction Manager. The traditional design phases of pre-concept, concept, design development, and construction documents are followed however, the CM has the responsibility of developing all estimates, not the Architect. The CM also has the added responsibility of offering input to the Owner and Architect for alternatives to achieve the design intent and to maintain the construction budget. All team members participate in the decision making process as the design evolves and all parties are expected to communicate their ideas, concerns, etc. openly and freely to the betterment of the project.

During the final pricing at the construction documents stage, the CM is responsible for soliciting multiple/competitive quotes (a minimum of 3 in each trade or work scope) from suppliers, venders, and subcontractors and usually selects companies that he has pre-qualified to provide the necessary scopes of work, rather than simply opening it up to all. This helps to assure that the entire construction team will work well together. All of the prices are tabulated and the CM makes recommendations to the project team on which sub are best qualified to the other members of the project team. Once the construction team is assembled and a final price put together (guaranteed maximum price or GMP), the construction process begins.

With this project delivery method, the Owner has a contract with the Designer of Record for all design services and the Designer of Record has agreements for the professional services of his consultants. The Owner has a two-part contract with the CM: Part 1, for pre- construction services and Part 2, for the actual construction. NOTE: It is important that all parties understand the importance of avoiding "Choice Limiting Actions" – Please see Appendix for MaineHousing's required Amendment attachment to all CM Contracts.

Focus points of emphasis related to this method of project delivery:

- The Owner and Architect must be willing, qualified, and committed to administer and participate in the pre-construction services portion of the project with the CM.
- The Owner and Architect must carefully define the level of services and the pre-qualifications they require of the CM and conduct an interview/selection process that results in the best possible project team.
- The CM must be qualified and be held accountable and actively participate during the preconstruction phases of the project.
- The CM has the responsibility for soliciting competitive pricing by assembling and administering a "bidding" process for all trades and major scopes of work and establishes a Guaranteed Maximum Price (GMP) which all parties can rely upon. In order to assure a competitive pricing process occurs, the CM must strive to solicit competitive pricing.
- The CM should be careful not to exclude suppliers, subcontractors, and venders who might otherwise provide quotes in a traditional bid project delivery.
- Usually the form of contract for the construction phase is based on the costs of the work plus a negotiated flat fee. Financial incentives for both the owner and/or the CM are also usually discussed and negotiated and might include considerations for early completion and actual costs vs. estimated costs. These incentives are usually structured in such a way to encourage the CM to continue to find the best value for the Owner during the construction phase.
- The design intent is communicated through the documents and through the ongoing participation of the project team members. The CM assumes a level of understanding beyond the documents by actively participating in the decision making and design processes during the pre-preconstruction phase of the project development.
- The Architect administers the Construction Contract and continues to provide services on an as-needed basis as the construction takes place.
- The Owner must hold the CM accountable for justifying all costs related to the project. A full accounting shall be provided by the CM for review by the Owner and/or his agents. MaineHousing strongly suggests that Owners hold the CM's Construction Contingency line within the GMP item to less than 3% of construction costs.

C. <u>PROJECT CONSTRUCTION</u>

1. GENERAL CONDITIONS OF CONSTRUCTION & QUALITY CONTROL

A. Standards for Construction and Contractor's Warranty:

1. The Project shall be constructed according to accepted Construction Documents and in full compliance with applicable building codes and regulations. All materials and equipment shall be new, unless otherwise specified, and all construction shall be of good quality, free from faults and defects.
2. The Contractor warrants to the Owner, the Design Professional, and MaineHousing that all construction will be accomplished in compliance with the Standards for Construction stated above.

B. Notwithstanding any additional requirements imposed by either the architect or theOwner in the construction contract, or the Construction Lender, Construction Contract Retainage shall be:
   1. For construction contracts less than $100,000 stipulated sum or guaranteed maximum, MaineHousing does not require construction contract retainage.
   2. For construction contracts more than $100,000 but less than $200,000 stipulated sum or guaranteed maximum, MaineHousing may waive its retainage requirements. If not waived, retainage shall be 10% on all progress payments until the project is complete.
   3. For construction contracts more than $200,000 stipulated sum or guaranteed maximum, MaineHousing requires 10% retainage on all progress payments until the project is 50% complete. Once the dollar value of the work scope meets or exceeds 50% of the contract value (including change orders) then the contractor may request that no further retainage be withheld. With agreement from the architect, Owner, and MaineHousing, no further retainage shall be withheld.

C. The Contractor shall provide the following on-site facilities:
   1. A site office of sufficient size for the review and discussion of the construction documents
   2. A site phone
   3. A site toilet
   4. A current set of signed drawings, specifications, and other documents as amended and as accepted by MaineHousing for the use of the MaineHousing personnel at all times.
   5. A "project sign" which designates the project as an Equal Housing Opportunity project and includes references to the Project name, Developer, Architect, Contractor, Bank, Bonding Company, and MaineHousing. This sign should also provide contact information for rental information.

D. Quality Control Inspections
   MaineHousing requires inspections of the construction by the designer-of-record to determine that work is proceeding according to the Standards for Construction stated above, the contract documents, and generally accepted construction practices. MaineHousing reserves the option to make similar or additional inspections for the same purposes. These inspections should generally be as follows for each building and/or unit:
   1. Initial excavations; the following items should be completed and visible for inspections:
      a. all excavation for footings and foundations;
      b. forms for footings and any required footing reinforcing steel in place; and
      c. batter boards or other suitable locating devices in place and wall lines established
   2. Foundation Preparation; the following items should be completed and visible for inspection:
      a. forms for walls and any required reinforcing in place; and
      b. forms should be aligned, securely braced, and properly treated with release agents
   3. Foundation Completed; the following items should be completed and visible for inspection prior to placing backfill:
      a. all footings, foundation walls, piers, and any other foundation work, including rodent barriers;
      b. damp proofing or water-proofing and foundation drainage installations
   4. Concrete Slabs; an inspection of the non-capillary bed, slab vapor, barrier, below slab insulations, embedded piping including drainage and radon systems, reinforcing steel, etc. should be made prior to the placement of concrete floor slabs.

5. Close-In; a "close-in" inspection is required to inspect work completed after the initial inspections and prior to the concealment of all building systems. The following construction should be completed and visible for inspection:
   a. the structure should be enclosed with all wall, ceiling, and roof framing exposed;
   b. masonry veneer, if applicable, should not be installed;
   c. interior wall and ceiling finish material and insulation should not be installed, but
   d. roofing may be applied;
   e. heating, plumbing and electrical work should be roughed in;
   f. footings and foundations for stoops, porches and terraces before backfilling, with any required reinforcing and flashing for slabs in place, before pouring slabs, if not inspected during previous inspections.
6. All air-barriers should be established and be sealed including, but not limited to, all mechanical and electrical penetrations in framing.
7. Final Inspection; at "final inspection," all required construction should be completed and ready for inspection. The Contractor shall arrange to have the building(s) open for the Architect and MaineHousing review. The following items should be completed and ready for inspection:
   a. the dwelling structure completed, cleaned and ready for occupancy - this should include the installation and operation of permanent equipment, buildings and on-site improvements except for those items specified and accepted as suitable for deferred completion in accordance with the provision for Uncompleted Work Escrows;
   b. finish grading, seeding, sodding, and landscape planting completed;
   c. walks and drives completed, including their extension to the public walk, curb or pavement, and utilities installed including their extension and connection to off-site public mains;
   d. fences, garden walls, retaining walls, and other accessory structures completed;
   e. off-site improvements, if any, completed;
   f. all non-compliances noted by the Architect and/or Authority during the construction should be corrected and accepted by the Architect and MaineHousing.

E. Concealments

If the Authority encounters construction that has been concealed before being properly inspected as required by a scheduled inspection or a follow-up thereto, MaineHousing may require the uncovering of concealed work or an alternative verification acceptable to the MaineHousing. MaineHousing shall not be liable for the cost of any such uncovering or alternative verification.

F. Re-inspections

Any inspection performed by MaineHousing which, in its sole discretion, is determined to be necessary due to an action, omission, or deficiency caused by the Contractor, Owner, or Design Professional shall be considered a re-inspection. Re-inspections shall be made after corrections have been completed and the Contractor or Architect shall notify MaineHousing of the status of all work requiring re-inspections.

G. Inspection Documentation

A report should be provided to the Contractor following each inspection or re- inspection by the architect. The Contractor should carefully review his copy of the report and correct any noncompliance. Copies of all reports are also to be submitted to MaineHousing.

MaineHousing will generally rely on the Architect's field reports and/or meeting minutes for the proper documentation and tracking of all required inspections and/or re-inspections.

H. Corrective Actions

Upon its sole determination that the construction is not proceeding in compliance with the Standards for Construction, MaineHousing may require of either the Contractor or the Owner or both any of the following corrective actions:

1. Repair or correct non-compliance; then notify the Architect and MaineHousing for re-inspection.
2. Stop construction in area of non-compliance until further notice.
3. Establish a Full Time Project Representative of the Design Professional.

I. Change Orders

Any modifications, including but not limited to, additions, variations, substitutions, or revisions to the accepted Construction Documents shall be submitted to MaineHousing, the Architect, and Owner for review and acceptance prior to the execution of those changes. All change orders shall be submitted on a Change order form acceptable to the Architect and MaineHousing and shall be accompanied by adequate information describing the proposed changes including drawings and description of materials when needed. MaineHousing may request such additional information as it deems reasonably necessary under the circumstances to justify any change order requests. In an effort to expedite approvals for changes, MaineHousing may decide to review and approve individual "Change Proposals" as they are presented, understanding that a Change Order will later be developed to summarize and total approved Change Proposals into a formal Change Order prior to requests for payment of such change items.

J. Incomplete Work Escrow (IWE)

When completion of site or limited building improvements is prevented by seasonal conditions or other considerations deemed by MaineHousing as being beyond the control of the Contractor, the final inspection will not include the uncompleted construction, provided MaineHousing finds that the development can be occupied without hazards caused by such uncompleted work.

MaineHousing will require a complete written description of all deferred work and the holding in escrow a sum of money equal to not less than one and one half times MaineHousing's estimated cost of completion, and the establishment of a suitable date of completion of the deferred items shall be established. MaineHousing will require an inspection of the deferred work upon completion prior to the release of any escrow amount.

In establishing Incomplete Work Escrows (IWE), MaineHousing will consider the estimated value of the work to be completed as a minimum basis but also may include costs, both direct and indirect, that might be incurred should the Contractor default on his obligations to complete the identified work. The establishment of the IWE amounts is at the sole discretion of MaineHousing. See Appendix for further description of the IWE process.

2. PROJECT CLOSE-OUT

As part of the final project accounting, establishment of the incomplete work list and prior to the permanent loan closing (PLC), MaineHousing's Construction Services requires the submittal, review, and acceptance of several documents. The following documents shall be provided:

A. Certificate of Substantial Completion (AIA document prepared by architect)
B. Elevator License (if applicable)
C. Fire Alarm system Test Report and Sign-off by System Manufacturer's Rep

D. Sprinkler Test Report/Sign-off by qualified installer and SFMO permit signed-off by "RMS"
E. Certificate of Occupancy from local municipality
F. Electrical Permit Sign-off by state or local electrical inspector
G. Plumbing Permit Sign-off by state or local plumbing inspector
H. Certificate of Completion of Design Professional (MSHA Document)
I. Incomplete Work Escrow Agreement
J. Requisition for all items not identified on Incomplete Work Escrow list
K. Lien Releases (typically using MSHA's Contractors Final Certificate and Release Form)
L. O& M manuals (deliver to Owner) as applicable
M. Warranty information to Owner (e.g. Roofing, Boilers.) as applicable
N. As-built drawings (deliver to Owner)
O. As-built (Alta) survey with MSHA Certification (may be waived if work did not increase building footprint)
P. State Fire Marshal Inspection and Plan of Correction (if required)
Q. Evidence of satisfactory Lead Based Paint Clearance testing (not required for new construction)
R. Consent of Surety to release of final payment
S. Blower Door Test Results
T. Historic Part III Approval

END OF PART 2

APPENDIX A

1. MaineHousing and Alta Survey Requirements
2. Construction Documents Certification
3. Accessibility Policies and Procedures
4. Construction Services Document Review Sign-off
5. Addendum to CM Contracts
6. Building and Unit Square Foot Tabulations

MAINEHOUSING SURVEY REQUIREMENTS

General Requirements

The developer must submit to MaineHousing for review, sufficiently in advance of a loan closing to allow adequate time for review, an ALTA/NSPS Land Title Survey using the *2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys* as adopted by ALTA and NSPS effective February 23, 2016 (the "2016 Standards"), including the items from *Table A Optional Survey Responsibilities and Specifications* ("Table A") noted below. The survey must be performed by a professional land surveyor licensed in Maine.

The survey must contain, on its face, the certification appearing in Section 7 of the 2016 Standards, including Items 1, 2, 3, 4, 6(a) and (b), 7(a) and (b)(1), 8, 9, 11, and 18 of Table A. The certification must be addressed to Maine State Housing Authority, the title insurance company insuring MaineHousing's mortgage, and any other appropriate parties; must be signed by the surveyor; and must bear the current date and the surveyor's seal and license number.

Additional Requirements

In addition to the General Requirements noted above, the survey must comply with the following, notwithstanding any contrary provision of the 2016 Standards:

1. The scale must be not less than 40 feet to the inch and indicated on the survey, with the plat or map drawn on one or more sheets not less than 24" x 36" in size and provided to MaineHousing in hard-copy form.

2. The face of the survey must include the description of the surveyed property. A metes and bounds description of the surveyed property, including bearings and distances, that accurately follows the drawing of the surveyed property must be used if (i) the current record description of the surveyed property is not a metes and bounds description, or (ii) no record description of the surveyed property exists.

3. The street address of the property, conforming to the municipality's records, must be shown on the face of the survey.

4. The survey must include the following items from Table A: Items 1, 2, 3, 4, 6(a) and (b), 7(a) and (b)(1), 8, 9, 11, and 18.

   NOTE FOR AS-BUILT SURVEYS: With respect to Item 11, the precise location of all aboveground and underground utilities and related appurtenances and structures, including existing utilities and utilities installed during construction and their related structures and appurtenances, must be shown on the as-built survey. Locations in streets to points of entry into buildings on the surveyed property must be shown. All at-grade or aboveground appurtenances related to the various utilities (including but not limited to sanitary sewer, storm sewer, domestic water, fire service, electric power, gas, telephone, cable, and internet

service) shall be field located and shown on the as-built survey. The locations of all below-grade structures (including but not limited to pipes, ducts, conduits, lines, cables, and connections) shall be shown on the as-built survey and shall be based on as-built drawings provided by the owner of the project, or in the absence of accurate as-built drawings, information provided by Dig Safe or a similar service. The documentation used to identify the below-grade utilities and structures shall be referenced on the as-built survey.

MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS

(Effective February 23, 2016)

***NOTE** - Attention is directed to the fact that the National Society of Professional Surveyors, Inc. (NSPS) is the legal successor organization to the American Congress on Surveying and Mapping (ACSM) and that these 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys are the next version of the former Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys.*

1. <u>Purpose</u> - Members of the American Land Title Association® (ALTA®) have specific needs, unique to title insurance matters, when asked to insure title to land without exception as to the many matters which might be discoverable from survey and inspection, and which are not evidenced by the public records.

For a survey of real property, and the plat, map or record of such survey, to be acceptable to a title insurance company for the purpose of insuring title to said real property free and clear of survey matters (except those matters disclosed by the survey and indicated on the plat or map), certain specific and pertinent information must be presented for the distinct and clear understanding between the insured, the client (if different from the insured), the title insurance company (insurer), the lender, and the surveyor professionally responsible for the survey.

In order to meet such needs, clients, insurers, insureds, and lenders are entitled to rely on surveyors to conduct surveys and prepare associated plats or maps that are of a professional quality and appropriately uniform, complete, and accurate. To that end, and in the interests of the general public, the surveying profession, title insurers, and abstracters, the ALTA and the NSPS jointly promulgate the within details and criteria setting forth a minimum standard of performance for ALTA/NSPS Land Title Surveys. A complete 2016 ALTA/NSPS Land Title Survey includes:

(i) the on-site fieldwork required pursuant to Section 5,
(ii) the preparation of a plat or map pursuant to Section 6 showing the results of the fieldwork and its relationship to documents provided to or obtained by the surveyor pursuant to Section 4,
(iii) any information from Table A items requested by the client, and
(iv) the certification outlined in Section 7.

2. <u>Request for Survey</u> - The client shall request the survey, or arrange for the survey to be requested, and shall provide a written authorization to proceed from the person or entity responsible for paying for the survey. Unless specifically authorized in writing by the insurer, the insurer shall not be responsible for any costs associated with the preparation of the survey. The request shall specify that an **"ALTA/NSPS LAND TITLE SURVEY"** is required and which of the optional items listed in Table A, if any, are to be incorporated. Certain properties or interests in real properties may present issues outside those normally encountered on an ALTA/NSPS Land Title Survey (*e.g.*, marinas, campgrounds, trailer parks; easements, leases, other non-fee simple interests). The scope of work related to surveys of such properties or interests in real properties should be discussed with the client, lender, and insurer; and agreed upon in writing prior to commencing work on the survey. The client may need to secure permission for the surveyor to enter upon the property to be surveyed, adjoining properties, or offsite easements.

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

3. <u>Surveying Standards and Standards of Care</u>

A. Effective Date - The 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys are effective February 23, 2016. As of that date, all previous versions of the Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys are superseded by these standards.

B. Other Requirements and Standards of Practice - Many states and some local jurisdictions have adopted statutes, administrative rules, and/or ordinances that set out standards regulating the practice of surveying within their jurisdictions. In addition to the standards set forth herein, surveyors shall also conduct their surveys in accordance with applicable jurisdictional survey requirements and standards of practice. Where conflicts between the standards set forth herein and any such jurisdictional requirements and standards of practice occur, the more stringent shall apply.

C. The Normal Standard of Care - Surveyors should recognize that there may be unwritten local, state, and/or regional standards of care defined by the practice of the "prudent surveyor" in those locales.

D. Boundary Resolution - The boundary lines and corners of any property being surveyed as part of an ALTA/NSPS Land Title Survey shall be established and/or retraced in accordance with appropriate boundary law principles governed by the set of facts and evidence found in the course of performing the research and fieldwork.

E. Measurement Standards - The following measurement standards address Relative Positional Precision for the monuments or witnesses marking the corners of the surveyed property.

i. "Relative Positional Precision" means the length of the semi-major axis, expressed in feet or meters, of the error ellipse representing the uncertainty due to random errors in measurements in the location of the monument, or witness, marking any corner of the surveyed property relative to the monument, or witness, marking any other corner of the surveyed property at the 95 percent confidence level. Relative Positional Precision is estimated by the results of a correctly weighted least squares adjustment of the survey.

ii. Any boundary lines and corners established or retraced may have uncertainties in location resulting from (1) the availability, condition, history and integrity of reference or controlling monuments, (2) ambiguities in the record descriptions or plats of the surveyed property or its adjoiners, (3) occupation or possession lines as they may differ from the written title lines, or (4) Relative Positional Precision. Of these four sources of uncertainty, only Relative Positional Precision is controllable, although, due to the inherent errors in any measurement, it cannot be eliminated. The magnitude of the first three uncertainties can be projected based on evidence; Relative Positional Precision is estimated using statistical means (see Section 3.E.i. above and Section 3.E.v. below).

iii. The first three of these sources of uncertainty must be weighed as part of the evidence in the determination of where, in the surveyor's opinion, the boundary lines and corners of the surveyed property should be located (see Section 3.D. above). Relative Positional Precision is a measure of how precisely the surveyor is able to monument and report those positions; it is not a substitute for the application of proper boundary law principles. A boundary corner or line may have a small Relative Positional Precision because the survey measurements were precise, yet still be in the wrong position (*i.e.*, inaccurate) if it was established or retraced using faulty or improper application of boundary law principles.

iv. For any measurement technology or procedure used on an ALTA/NSPS Land Title Survey, the surveyor shall (1) use appropriately trained personnel, (2) compensate for systematic errors, including those associated with instrument calibration, and (3) use appropriate error propagation and measurement design theory (selecting the proper instruments, geometric layouts, and field and computational procedures) to control random errors such that the

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

maximum allowable Relative Positional Precision outlined in Section 3.E.v. below is not exceeded.

v. The maximum allowable Relative Positional Precision for an ALTA/NSPS Land Title Survey is 2 cm (0.07 feet) plus 50 parts per million (based on the direct distance between the two corners being tested). It is recognized that in certain circumstances, the size or configuration of the surveyed property, or the relief, vegetation, or improvements on the surveyed property, will result in survey measurements for which the maximum allowable Relative Positional Precision may be exceeded. If the maximum allowable Relative Positional Precision is exceeded, the surveyor shall note the reason as explained in Section 6.B.x. below.

4. **Records Research** - It is recognized that for the performance of an ALTA/NSPS Land Title Survey, the surveyor will be provided with appropriate and, when possible, legible data which can be relied upon in the preparation of the survey. The request for an ALTA/NSPS Land Title Survey shall set forth the current record description of the property to be surveyed or, in the case of an original survey prepared for purposes of locating and describing real property that has not been previously separately described in documents conveying an interest in the real property, the current record description of the parent parcel that contains the property to be surveyed.

In order to complete an ALTA/NSPS Land Title Survey, the surveyor must be provided with complete copies of the most recent title commitment or, if a title commitment is not available, other title evidence satisfactory to the title insurer. In addition, the surveyor must be provided with the following:

(i) The following records established under state statutes for the purpose of imparting constructive notice of matters relating to real property (public records):
  (a) The current record descriptions of any adjoiners to the property to be surveyed, except where such adjoiners are lots in platted, recorded subdivisions;
  (b) Any recorded easements benefitting the property;
  (c) Any recorded easements, servitudes, or covenants burdening the property;

(ii) Any unrecorded documents affecting the property being surveyed and containing information to which the survey shall make reference, if desired by the client.

Except, however, if the documents outlined above in (i) and (ii) of this section are not provided to the surveyor or if non-public or quasi-public documents are required to complete the survey, the surveyor shall be required to conduct only that research which is required pursuant to the statutory or administrative requirements of the jurisdiction where the property being surveyed is located and that research (if any) which is negotiated and outlined in the terms of the contract between the surveyor and the client.

5. **Fieldwork** - The survey shall be performed on the ground (except as otherwise negotiated pursuant to Table A, Item 15 below, if selected by the client). The fieldwork shall include the following, located to what is, in the surveyor's professional opinion, the appropriate degree of precision based on (a) the planned use of the property, if reported in writing to the surveyor by the client, lender, or insurer, or (b) the existing use, if the planned use is not so reported:

A. Monuments

i. The location, size, character, and type of any monuments found during the fieldwork.

ii. The location, size, character, and type of any monuments set during the fieldwork, if item 1 of Table A was selected or if otherwise required by applicable jurisdictional requirements and/or standards of practice.

iii. The location, description, and character of any lines that control the boundaries of the

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

surveyed property.

B. Rights of Way and Access

- **i.** The distance from the appropriate corner or corners of the surveyed property to the nearest right of way line, if the surveyed property does not abut a right of way.
- **ii.** The name of any street, highway, or other public or private way abutting the surveyed property, together with the width of the travelled way and the location of each edge of the travelled way including on divided streets and highways. If the documents provided to or obtained by the surveyor pursuant to Section 4 indicate no access from the surveyed property to the abutting street or highway, the width and location of the travelled way need not be located.
- **iii.** Visible evidence of physical access (*e.g.*, curb cuts, driveways) to any abutting streets, highways, or other public or private ways.
- **iv.** The location and character of vehicular, pedestrian, or other forms of access by other than the apparent occupants of the surveyed property to or across the surveyed property observed in the process of conducting the fieldwork (*e.g.*, driveways, alleys, private roads, railroads, railroad sidings and spurs, sidewalks, footpaths).
- **v.** Without expressing a legal opinion as to ownership or nature, the location and extent of any potentially encroaching driveways, alleys, and other ways of access from adjoining properties onto the surveyed property observed in the process of conducting the fieldwork.
- **vi.** Where documentation of the location of any street, road, or highway right of way abutting, on, or crossing the surveyed property was not disclosed in documents provided to or obtained by the surveyor, or was not otherwise available from the controlling jurisdiction (see Section 6.C.iv. below), the evidence and location of parcel corners on the same side of the street as the surveyed property recovered in the process of conducting the fieldwork which may indicate the location of such right of way lines (*e.g.*, lines of occupation, survey monuments).
- **vii.** Evidence of access to and from waters adjoining the surveyed property observed in the process of conducting the fieldwork (*e.g.*, paths, boat slips, launches, piers, docks).

C. Lines of Possession and Improvements along the Boundaries

- **i.** The character and location of evidence of possession or occupation along the perimeter of the surveyed property, both by the occupants of the surveyed property and by adjoiners, observed in the process of conducting the fieldwork.
- **ii.** Unless physical access is restricted, the character and location of all walls, buildings, fences, and other improvements within five feet of each side of the boundary lines, observed in the process of conducting the fieldwork. Trees, bushes, shrubs, and other natural vegetation need not be located other than as specified in the contract, unless they are deemed by the surveyor to be evidence of possession pursuant to Section 5.C.i.
- **iii.** Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the evidence, location and extent of potentially encroaching structural appurtenances and projections observed in the process of conducting the fieldwork (*e.g.*, fire escapes, bay windows, windows and doors that open out, flue pipes, stoops, eaves, cornices, areaways, steps, trim) by or onto adjoining property, or onto rights of way, easements, or setback lines disclosed in documents provided to or obtained by the surveyor.

D. Buildings

The location of buildings on the surveyed property observed in the process of conducting the fieldwork.

E. Easements and Servitudes

- **i.** Evidence of any easements or servitudes burdening the surveyed property as disclosed in the documents provided to or obtained by the surveyor pursuant to Section 4 and observed in the process of conducting the fieldwork.

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

ii. Evidence of easements, servitudes, or other uses by other than the apparent occupants of the surveyed property not disclosed in the documents provided to or obtained by the surveyor pursuant to Section 4, but observed in the process of conducting the fieldwork if they appear to affect the surveyed property (*e.g.*, roads; drives, sidewalks, paths and other ways of access; utility service lines; water courses; ditches; drains; telephone, fiber optic lines, or electric lines; or water, sewer, oil or gas pipelines on or across the surveyed property and on adjoining properties).

iii. Surface indications of underground easements or servitudes on or across the surveyed property observed in the process of conducting the fieldwork (*e.g.*, utility cuts, vent pipes, filler pipes).

iv. Evidence on or above the surface of the surveyed property observed in the process of conducting the fieldwork, which evidence may indicate utilities located on, over or beneath the surveyed property. Examples of such evidence include pipeline markers, manholes, valves, meters, transformers, pedestals, clean-outs, utility poles, overhead lines and guy wires.

F. Cemeteries

As accurately as the evidence permits, the perimeter of cemeteries and burial grounds, and the location of isolated gravesites not within a cemetery or burial ground, (i) disclosed in the documents provided to or obtained by the surveyor, or (ii) observed in the process of conducting the fieldwork.

G. Water Features

i. The location of springs, ponds, lakes, streams, rivers, canals, ditches, marshes, and swamps on, running through, or outside, but within five feet of the perimeter boundary of, the surveyed property, observed during the process of conducting the fieldwork.

ii. The location of any water feature forming a boundary of the surveyed property. The attribute(s) of the water feature located (*e.g.*, top of bank, edge of water, high water mark) should be congruent with the boundary as described in the record description or, in the case of an original survey, in the new description (see Section 6.B.vi. below).

6. **<u>Plat or Map</u>** - A plat or map of an ALTA/NSPS Land Title Survey shall show the following information. Where dimensioning is appropriate, dimensions shall be annotated to what is, in the surveyor's professional opinion, the appropriate degree of precision based on (a) the planned use of the property, if reported in writing to the surveyor by the client, lender, or insurer, or (b) existing use, if the planned use is not so reported.

A. The evidence and locations gathered, and the monuments and lines located during the fieldwork pursuant to Section 5 above, with accompanying notes if deemed necessary by the surveyor or as otherwise required as specified below.

B. Boundary, Descriptions, Dimensions, and Closures

i. (a) The current record description of the surveyed property, or
(b) In the case of an original survey, the current record description of the parent tract that contains the surveyed property.

ii. Any new description of the surveyed property that was prepared in conjunction with the survey, including a statement explaining why the new description was prepared. Except in the case of an original survey, preparation of a new description should be avoided unless deemed necessary or appropriate by the surveyor and insurer. Preparation of a new description should also generally be avoided when the record description is a lot or block in a platted, recorded subdivision. Except in the case of an original survey, if a new description is prepared, a note shall be provided stating (a) that the new description describes the same real estate as the record description or, if it does not, (b) how the new description differs from

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

the record description.

iii. The point of beginning, the remote point of beginning or point of commencement (if applicable) and all distances and directions identified in the record description of the surveyed property (and in the new description, if one was prepared). Where a measured or calculated dimension differs from the record by an amount deemed significant by the surveyor, such dimension shall be shown in addition to, and differentiated from, the corresponding record dimension. All dimensions shown on the survey and contained in any new description shall be ground dimensions unless otherwise noted.

iv. The directional, distance and curve data necessary to compute a mathematical closure of the surveyed boundary. A note if the record description does not mathematically close. The basis of bearings and, where it differs from the record basis, the difference.

v. The remainder of any recorded lot or existing parcel, when the surveyed property is composed of only a portion of such lot or parcel, shall be graphically depicted. Such remainder need not be included as part of the actual survey, except to the extent necessary to locate the lines and corners of the surveyed property, and it need not be fully dimensioned or drawn at the same scale as the surveyed property.

vi. When the surveyed property includes a title line defined by a water boundary, a note on the face of the plat or map noting the date the boundary was measured, which attribute(s) of the water feature was/were located, and the caveat that the boundary is subject to change due to natural causes and that it may or may not represent the actual location of the limit of title. When the surveyor is aware of natural or artificial realignments or changes in such boundaries, the extent of those changes and facts shall be shown or explained.

vii. The relationship of the boundaries of the surveyed property with its adjoiners (*e.g.*, contiguity, gaps, overlaps), where ascertainable from documents provided to or obtained by the surveyor pursuant to Section 4 and/or from field evidence gathered during the process of conducting the fieldwork. If the surveyed property is composed of multiple parcels, the extent of any gaps or overlaps between those parcels shall be identified. Where gaps or overlaps are identified, the surveyor shall, prior to or upon delivery of the final plat or map, disclose this to the insurer and client.

viii. When, in the opinion of the surveyor, the results of the survey differ significantly from the record, or if a fundamental decision related to the boundary resolution is not clearly reflected on the plat or map, the surveyor shall explain this information with notes on the face of the plat or map.

ix. The location of all buildings on the surveyed property, located pursuant to Section 5.D., dimensioned perpendicular to those perimeter boundary lines that the surveyor deems appropriate (*i.e.*, where potentially impacted by a setback line) and/or as requested by the client, lender or insurer.

x. A note on the face of the plat or map explaining the site conditions that resulted in a Relative Positional Precision that exceeds the maximum allowed pursuant to Section 3.E.v.

xi. A note on the face of the plat or map identifying areas, if any, on the boundaries of the surveyed property, to which physical access within five feet was restricted (see Section 5.C.ii.).

xii. A note on the face of the plat or map identifying the source of the title commitment or other title evidence provided pursuant to Section 4, and the effective date and the name of the insurer of same.

C. Easements, Servitudes, Rights of Way, Access, and Documents

i. The location, width, and recording information of all plottable rights of way, easements, and servitudes burdening and benefitting the property surveyed, as evidenced by documents provided to or obtained by the surveyor pursuant to Section 4.

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

ii. A summary of all rights of way, easements and servitudes burdening the property surveyed and identified in the title evidence provided to or obtained by the surveyor pursuant to Section 4. Such summary shall include the record information of each such right of way, easement or servitude, a statement indicating whether or not it is shown on the plat or map, and a related note if:

(a) the location cannot be determined from the record document;
(b) there was no observed evidence at the time of the fieldwork;
(c) it is a blanket easement;
(d) it is not on, or does not touch, the surveyed property;
(e) it limits access to an otherwise abutting right of way;
(f) the documents are illegible; or
(g) the surveyor has information indicating that it may have been released or otherwise terminated.

In cases where the surveyed property is composed of multiple parcels, indicate which of such parcels the various rights of way, easements, and servitudes cross or touch.

iii. A note if no physical access to a public way was observed in the process of conducting the fieldwork.

iv. The locations and widths of rights of way abutting or crossing the surveyed property, and the source of such information, (a) where available from the controlling jurisdiction, or (b) where disclosed in documents provided to or obtained by the surveyor pursuant to Section 4.

v. The identifying titles of all recorded plats, filed maps, right of way maps, or similar documents which the survey represents, wholly or in part, with their recording or filing data.

vi. For non-platted adjoining land, recording data identifying adjoining tracts according to current public records. For platted adjoining land, the recording data of the subdivision plat.

vii. Platted setback or building restriction lines which appear on recorded subdivision plats or which were disclosed in documents provided or obtained by the surveyor.

D. Presentation

i. The plat or map shall be drawn on a sheet of not less than 8 ½ by 11 inches in size at a legible, standard engineering scale, with that scale clearly indicated in words or numbers and with a graphic scale.

ii. The plat or map shall include:

(a) The boundary of the surveyed property drawn in a manner that distinguishes it from other lines on the plat or map.
(b) If no buildings were observed on the surveyed property in the process of conducting the fieldwork, a note stating *"No buildings observed*."
(c) A north arrow (with north to the top of the drawing when practicable).
(d) A legend of symbols and abbreviations.
(e) A vicinity map showing the property in reference to nearby highway(s) or major street intersection(s).
(f) Supplementary or detail diagrams when necessary.
(g) Notes explaining any modifications to Table A items and the nature of any additional Table A items (*e.g.*, 21(a), 21(b), 21(c)) that were negotiated between the surveyor and client.
(h) The surveyor's project number (if any), and the name, registration or license number, signature, seal, street address, telephone number, company website, and email address (if any) of the surveyor who performed the survey.
(i) The date(s) of any revisions made by the surveyor who performed the survey.
(j) Sheet numbers where the plat or map is composed of more than one sheet.
(k) The caption "ALTA/NSPS Land Title Survey."

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

iii. When recordation or filing of a plat or map is required by law, such plat or map shall be produced in recordable form.

7. **Certification -** The plat or map of an ALTA/NSPS Land Title Survey shall bear only the following certification, unaltered, except as may be required pursuant to Section 3.B. above:

To (name of insured, if known), (name of lender, if known), (name of insurer, if known), (names of others as negotiated with the client):

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items _____ of Table A thereof. The fieldwork was completed on _____ *[date].*

Date of Plat or Map: _____ *(Surveyor's signature, printed name and seal with Registration/License Number)*

8. **Deliverables** - The surveyor shall furnish copies of the plat or map of survey to the insurer and client and as otherwise negotiated with the client. Hard copies shall be on durable and dimensionally stable material of a quality standard acceptable to the insurer. A digital image of the plat or map may be provided in addition to, or in lieu of, hard copies pursuant to the terms of the contract. When required by law or requested by the client, the plat or map shall be produced in recordable form and recorded or filed in the appropriate office or with the appropriate agency.

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

TABLE A

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

NOTE: The twenty (20) items of Table A may be negotiated between the surveyor and client. Any additional items negotiated between the surveyor and client shall be identified as 21(a), 21(b), etc. and explained pursuant to Section 6.D.ii.(g). Notwithstanding Table A Items 5 and 11, if an engineering design survey is desired as part of an ALTA/NSPS Land Title Survey, such services should be negotiated under Table A, Item 21.

If checked, the following optional items are to be included in the ALTA/NSPS LAND TITLE SURVEY, except as otherwise qualified (see note above):

1. _____ *Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner.*

2. _____ *Address(es) of the surveyed property if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork.*

3. _____ *Flood zone classification (with proper annotation based on federal Flood Insurance Rate Maps or the state or local equivalent) depicted by scaled map location and graphic plotting only.*

4. _____ *Gross land area (and other areas if specified by the client).*

5. _____ *Vertical relief with the source of information (e.g., ground survey, aerial map), contour interval, datum, and originating benchmark identified.*

6. _____ *(a) If set forth in a zoning report or letter provided to the surveyor by the client, list the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements. Identify the date and source of the report or letter.*

_____ *(b) If the zoning setback requirements are set forth in a zoning report or letter provided to the surveyor by the client, and if those requirements do not require an interpretation by the surveyor, graphically depict the building setback requirements. Identify the date and source of the report or letter.*

7. _____ *(a) Exterior dimensions of all buildings at ground level.*

(b) Square footage of:

_____ *(1) exterior footprint of all buildings at ground level.*

_____ *(2) other areas as specified by the client.*

_____ *(c) Measured height of all buildings above grade at a location specified by the client. If no location is specified, the point of measurement shall be identified.*

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

8. _____ *Substantial features observed in the process of conducting the fieldwork (in addition to the improvements and features required pursuant to Section 5 above) (e.g., parking lots, billboards, signs, swimming pools, landscaped areas, substantial areas of refuse).*

9. _____ *Number and type (e.g., disabled, motorcycle, regular and other marked specialized types) of clearly identifiable parking spaces on surface parking areas, lots and in parking structures. Striping of clearly identifiable parking spaces on surface parking areas and lots.*

10. _____ *(a) As designated by the client, a determination of the relationship and location of certain division or party walls with respect to adjoining properties (client to obtain necessary permissions).*

_____ *(b) As designated by the client, a determination of whether certain walls are plumb (client to obtain necessary permissions).*

11. _____ *Location of utilities existing on or serving the surveyed property as determined by:*
- *observed evidence collected pursuant to Section 5.E.iv.*
- *evidence from plans requested by the surveyor and obtained from utility companies, or provided by client (with reference as to the sources of information), and*
- *markings requested by the surveyor pursuant to an 811 utility locate or similar request*

Representative examples of such utilities include, but are not limited to:
- *Manholes, catch basins, valve vaults and other surface indications of subterranean uses;*
- *Wires and cables (including their function, if readily identifiable) crossing the surveyed property, and all poles on or within ten feet of the surveyed property. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the dimensions of all encroaching utility pole crossmembers or overhangs; and*
- *Utility company installations on the surveyed property.*

Note to the client, insurer, and lender - With regard to Table A, item 11, source information from plans and markings will be combined with observed evidence of utilities pursuant to Section 5.E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response, in which case the surveyor shall note on the plat or map how this affected the surveyor's assessment of the location of the utilities. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary.

12. _____ *As specified by the client, Governmental Agency survey-related requirements (e.g., HUD surveys, surveys for leases on Bureau of Land Management managed lands).*

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

13. _____ *Names of adjoining owners according to current tax records. If more than one owner, identify the first owner's name listed in the tax records followed by "et al."*

14. _____ *As specified by the client, distance to the nearest intersecting street.*

15. _____ *Rectified orthophotography, photogrammetric mapping, remote sensing, airborne/mobile laser scanning and other similar products, tools or technologies as the basis for the showing the location of certain features (excluding boundaries) where ground measurements are not otherwise necessary to locate those features to an appropriate and acceptable accuracy relative to a nearby boundary. The surveyor shall (a) discuss the ramifications of such methodologies (e.g., the potential precision and completeness of the data gathered thereby) with the insurer, lender, and client prior to the performance of the survey, and (b) place a note on the face of the survey explaining the source, date, precision, and other relevant qualifications of any such data.*

16. _____ *Evidence of recent earth moving work, building construction, or building additions observed in the process of conducting the fieldwork.*

17. _____ *Proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction. Evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.*

18. _____ *If there has been a field delineation of wetlands conducted by a qualified specialist hired by the client, the surveyor shall locate any delineation markers observed in the process of conducting the fieldwork and show them on the face of the plat or map. If no markers were observed, the surveyor shall so state.*

19. _____ *Include any plottable offsite (i.e., appurtenant) easements or servitudes disclosed in documents provided to or obtained by the surveyor as a part of the survey pursuant to Sections 5 and 6 (and applicable selected Table A items) (client to obtain necessary permissions).*

20. _____ *Professional Liability Insurance policy obtained by the surveyor in the minimum amount of $_____ to be in effect throughout the contract term. Certificate of Insurance to be furnished upon request, but this item shall not be addressed on the face of the plat or map.*

21. _____ _____

Adopted by the Board of Governors, American Land Title Association, on October 8, 2015.
American Land Title Association, 1800 M St., N.W., Suite 300S, Washington, D.C. 20036-5828.
www.alta.org

Adopted by the Board of Directors, National Society of Professional Surveyors, on October 9, 2015.
National Society of Professional Surveyors, Inc., 5119 Pegasus Court, Suite Q, Frederick, MD 21704.
http://www.nsps.us.com/

Copyright 2016. All rights reserved.

American Land Title Association and
National Society of Professional Surveyors

Construction Documents Certification

MaineHousing Project Number: _____Municipality: _____

Owner: _____

Design Professional: _____

I certify to my best belief that the attached documents listed below are completed construction documents and meet the requirements of the Maine State Housing Authority described in the current edition of the Design and Construction Manual, and satisfy the requirements of this submission for Construction Documents. I further certify that the proposed construction (or rehabilitation) described by these construction documents are consistent with the Proposal approved by MSHA, and that the proposed construction (or rehabilitation) in accordance with these plans and specifications is permissible under the applicable zoning, building, housing and other codes, ordinances, or regulations as modified by any waivers obtained from the appropriate officials.

I further certify to my best belief that the construction documents are in compliance with the Maine State Housing Authority Design and Construction Standards. I take responsibility for the correction of any problems of construction arising from errors or omissions of these construction documents.

Name of Document	Date	Number of Sheets
_____	_____	_____
_____	_____	_____
_____	_____	_____

Signed:

Date:

Design Professional's Seal

(<u>List all documents provided and also note documents to be provided by others if applicable.</u>)

MAINE STATE HOUSING AUTHORITY

ACCESSIBILITY POLICY AND PROCEDURES FOR THE DESIGN AND CONSTRUCTION OF MULTIFAMILY AND SUPPORTIVE HOUSING PROJECTS

Maine State Housing Authority (MaineHousing) has adopted the following policy and procedures to provide equal access to the housing funded under MaineHousing's multifamily and supportive housing programs and to further fair housing in the State of Maine. The policy and procedures replace all prior policies, procedures and practices.

Policy

Housing funded under MaineHousing's multifamily and supportive housing programs shall, at a minimum, comply with all applicable local, state and federal accessibility requirements, including without limitation:

- Federal Fair Housing Act
- Section 504 of the Rehabilitation Act of 1973 (Section 504)
- Title II and Title III of the Americans with Disabilities Act of 1990 (ADA)
- Maine Human Rights Act (State fair housing act and publicly-funded housing)

The owner of any housing funded under MaineHousing's multifamily housing and supportive housing programs is responsible for compliance with all applicable accessibility laws. This policy and the procedures set forth herein are solely for the benefit of MaineHousing, the purpose of which is to ensure that all housing funded by MaineHousing complies with applicable accessibility laws pursuant to MaineHousing's obligations to governing regulatory agencies. MaineHousing has no responsibility or liability of any nature whatsoever to the owner or its agents, contractors, successors or assigns or any other party for noncompliance with accessibility laws.

The applicability of these laws to housing funded under MaineHousing's multifamily and supportive housing programs and a summary of the requirements is set forth in the Summary of Accessibility Requirements Appendix attached hereto. Note that Section 504 applies to all housing funded under MaineHousing's multifamily housing programs because these programs are considered federally-assisted regardless of the direct source(s) of funding for the project. Also note that Title II of the Americans with Disabilities Act (and the new 2010 ADA Standards for Accessible Design) applies to all housing funded under MaineHousing's multifamily and supportive housing programs.

Most projects are subject to more than one accessibility law. A project must comply with all applicable laws. For example, a 25-unit, new construction multi-family project for which construction begins after March 15, 2012 will be subject to the Federal Fair Housing Act, Section 504, the ADA and all of the requirements of the Maine Human Rights Act.

The requirements and standards under these laws may be different. To the extent the requirements and standards differ, the most restrictive requirement or standard applies. Note that one standard

may be more restrictive with respect to a particular specification but less restrictive than another standard with respect to a different specification. A project must comply with the most restrictive of each specification among the different standards.

If it is unclear which requirement or specification is more restrictive or if the requirements or specifications are inconsistent, MaineHousing, in consultation with its legal counsel and applicable regulatory agencies if advisable or necessary, will provide guidance on the appropriate requirement or specification.

When selecting a site for and designing a proposed project to be funded under MaineHousing's multifamily or supportive housing programs, a developer must consider whether full compliance with applicable accessibility laws and any additional accessibility required under the program can be achieved. Selecting sites and designing proposed projects that cannot fully comply with applicable accessibility laws due to structural impracticability, technical infeasibility, or otherwise will not fully comply with applicable accessibility laws is strongly discouraged, and under some laws, may not be allowed.

Any site or proposed project design that will not fully comply with applicable accessibility laws because of structural impracticability, technical infeasibility or otherwise must be approved by MaineHousing. The burden to prove the proposed project is structurally impracticable, technically infeasible or is otherwise exempt from fully complying with applicable accessibility laws is on the owner. MaineHousing will reject any proposed project that cannot fully comply with applicable accessibility laws if MaineHousing determines the proposed housing could be achieved at an alternative site or with an alternate design that could fully comply with applicable accessibility laws. Applicants should seek MaineHousing's approval of proposed projects that cannot fully comply with applicable accessibility laws as early in the process as possible. Most multifamily and supportive housing programs require site selection as a condition of application. Applicants should have MaineHousing's approval before submitting an application to these programs. If a multifamily or supportive housing program does not require site selection at the time of application, an applicant should have MaineHousing's approval before entering into a purchase and sale agreement or option agreement or otherwise establishing site control.

MaineHousing will resolve any disputes about compliance with applicable accessibility laws through consultation with applicable regulatory agencies.

Compliance and Monitoring Procedures

MaineHousing has adopted the following procedures to provide notice of and ensure compliance with the applicable accessibility requirements.

Program Requirements

1. The policy and procedures will be included or incorporated by reference in all program guides or offerings to notify an applicant of the accessibility requirements applicable to its

project prior to submitting an application to the program.

2. The policy and procedures will be included or incorporated by reference in all of MaineHousing's design and construction requirements for multifamily and supportive housing.

3. The policy and procedures will be posted on MaineHousing's web page(s) containing information about MaineHousing's multifamily and supportive housing programs.

Pre-Application or Pre-Site Control

1. All proposed sites to be funded under MaineHousing's multifamily and supportive housing programs must undergo a site review by MaineHousing. If the program requires site control at the time of application, the site review is required before an application is submitted. If site control is not required at the time of application, the site review is required before the applicant establishes site control. MaineHousing will notify applicants in writing of any accessibility concerns about a proposed site or project design.

2. Prior to submitting an application or prior to establishing site control, if site control is not a condition of applying to a program, an applicant shall submit a written request to MaineHousing to review any proposed project that will not fully comply with applicable accessibility laws. The request shall include (a) information about the site and proposed design of the project, (b) an explanation of the structural impracticability, technical infeasibility or other failure to fully comply with applicable accessibility laws and any supporting documentation as may be required by MaineHousing, including without limitation, an analysis from a design professional, (d) a detailed description of the applicants efforts to find an alternative site for the proposed housing and the lack of suitable alternative sites, (e) if required by law, an explanation of how the applicant intends to construct or alter a comparable residential unit for each unit that would have been required at the proposed site. A complete request must be submitted at least sixty (60) days prior to the applicable application deadline or establishing site control.

3. An applicant may be required to construct or alter a comparable residential unit for each unit that would have been required at the proposed site as a condition of approval of the request pursuant to applicable accessibility laws. Comparability will be determined based on location, number of bedrooms, amenities in the unit, types of common spaces within the facility and proximity to community resources and services.

4. All requests must be reviewed by a MaineHousing construction analyst and legal counsel and approved by MaineHousing's Director. MaineHousing may consult appropriate regulatory agencies in making its determination. All determinations must be in writing, specify the basis for denying any request or any conditions of approval, and be kept in the project file.

5. The applicant will be notified in writing if MaineHousing denies a request and the basis for the denial.

Application

1. All applicants will be required to certify compliance with applicable accessibility laws in their applications to MaineHousing's multi-family and supportive housing programs.

2. Each applicant will be required to explain how the applicant's project complies with applicable accessibility laws and any additional requirements of the program in the application to the program.

3. If the proposed project will not fully comply with applicable accessibility laws, the project should have been reviewed and approved by MaineHousing prior to the submission of the application. If not, MaineHousing may reject the application.

Pre-Construction

1. Successful applicants will receive an award notice, which is sometimes referred to as a notice to proceed. All award notices will include these policies and procedures as a condition of any funding and will specify the consequences for failure to comply with the applicable requirements. MaineHousing will not issue a funding commitment to any project that does not comply with applicable accessibility requirements.

2. Promptly after an award notice or notice to proceed is issued to a successful applicant, MaineHousing staff assigned to the project, including the loan officer, the construction analyst, the asset manager and counsel, will meet to discuss the project, including the accessibility requirements applicable to the project.

3. Following the internal meeting of MaineHousing staff, the MaineHousing construction analyst, loan officer and asset manager will meet with the applicant and its design and development team to discuss the project, including the accessibility requirements applicable to the project.

4. Project plans and specifications are subject to MaineHousing's approval pursuant to the multifamily and supportive housing programs. MaineHousing's construction analyst will review plans and specifications for compliance with applicable accessibility laws and program accessibility requirements. The construction analyst will provide written notice (which can be in the form of an e-mail or other form of electronic transmission) of any findings of noncompliance to the owner. Any findings of noncompliance must be corrected before MaineHousing will approve the plans and specifications. Once the plans and specifications are finalized, the construction analyst will document in writing that the analyst has reviewed the plans and specifications, and, to the best of the construction analyst's knowledge, concurs that the plans and specifications comply with applicable accessibility laws. All

communications and documentation about a project's accessibility will be kept in the project file.

Construction

1. Funding commitments and loan documents will include these policies and procedures as a condition of any funding and will specify the consequences for failure to comply with the applicable requirements, including without limitation, loss of funding or other default rights and remedies under the funding commitment and loan documents, as applicable. The loan documents will include a specific certification of compliance with applicable accessibility laws and indemnification by the owner of the project.

2. MaineHousing's construction analysts monitor the construction of projects funded under its multifamily and supportive housing projects. Construction analysts will periodically inspect the installation of accessibility features in projects during construction in an effort to identify any noncompliance prior to completion of the project in an effort to reduce costs and construction delays to correct any noncompliance. All inspections will be documented and kept in the project file. The construction analyst will provide written notice (which can be in the form of an e-mail or other electronic transmission) of any findings of noncompliance to the owner. Any noncompliance identified by the construction analyst during the construction of the project must be corrected before any MaineHousing funding is disbursed except as provided below. If MaineHousing is providing funding during construction, MaineHousing may cease disbursing funds until the noncompliance is corrected.

3. Upon completion of construction of a project, the construction analyst will perform a full inspection of the accessibility features of the project. The construction analyst will document in writing that the construction analyst (a) has conducted the inspection, and (b) to the best of the construction analyst's knowledge, either (i) concurs that the project complies with applicable accessibility laws or (ii) has determined that the project does not fully comply with applicable accessibility laws, specifically identifying the findings of noncompliance.

4. The construction analyst will provide written notice (which can be in the form of an e-mail or other electronic transmission) of any findings of noncompliance to the owner. Except as provided below, any findings of noncompliance must be corrected before MaineHousing will approve the final disbursement of funds, including any retainage, or use of contingency funds if MaineHousing is providing construction financing (including any participation in a construction loan) or, if MaineHousing is providing permanent funding only, before MaineHousing will provide any funding or approve the release of retainage or use of contingency funds.

5. If any findings of noncompliance (a) cannot be corrected due to seasonal limitations or other extraordinary circumstances pursuant to MaineHousing's incomplete work escrow policies and procedures, or (b) are minor in nature and easily correctable, as determined by MaineHousing in its sole discretion, and are agreed upon by the developer, architect and

contractor, then MaineHousing will utilize an incomplete work escrow agreement to ensure project completion in accordance with applicable accessibility laws.

6. Upon correction of any findings of noncompliance, the construction analyst will inspect the corrected features. All inspections and communications with the owner about the findings of noncompliance shall be documented and kept in the file. If the noncompliance is corrected to MaineHousing's satisfaction, the construction analyst will document in writing that the analyst has conducted a final inspection, and, to the best of the construction analyst's knowledge, concurs the corrected features comply with applicable accessibility laws.

7. MaineHousing will not issue IRS Form 8609 for any low-income housing tax credit project unless all findings of noncompliance identified in the incomplete work escrow agreement or otherwise are corrected.

8. All inspections, communications and documentation about a project's accessibility must be kept in the project file for a period of three (3) years after the end of the term of any MaineHousing funding for the project.

Disclaimer

ALL INSPECTION REPORTS AND OTHER MAINEHOUSING DOCUMENTATION CONCERNING COMPLIANCE WITH FAIR HOUSING AND ACCESSIBILITY REQUIREMENTS ARE FOR MAINEHOUSING'S PURPOSES ONLY, AND MAY NOT BE RELIED ON BY ANY OTHER PERSON OR ENTITY OR USED FOR ANY OTHER PURPOSE. WITHOUT IN ANY WAY LIMITING THE FOREGOING, THE ABSENCE OR SATISFACTION OF ANY DEFICIENCIES IDENTIFIED IN ANY REPORT OR OTHER MAINEHOUSING DOCUMENTATION IS IN NO WAY A REPRESENTATION OR GUARANTEE THAT A PROPERTY COMPLIES WITH FAIR HOUSING AND ACCESSIBILITY REQUIREMENTS. MAINEHOUSING HAS NO RESPONSIBILITY OR LIABILITY TO THE OWNER OF A PROPERTY OR ANY OTHER PERSON OR ENTITY FOR THE PROPERTY'S COMPLIANCE WITH FAIR HOUSING AND ACCESSIBILITY REQUIREMENTS.

Summary of Accessibility Requirements Appendix

The following is a summary of certain accessibility requirements applicable to MaineHousing's multifamily and supportive housing programs. The summary is for informational purposes only. MaineHousing is in no way representing or guaranteeing that the summary is a complete and accurate description of the obligations under applicable accessibility laws. Reference should be made to the actual laws and standards for the full scope and context of the requirements.

Also, please note that the term "accessible" may have a different meaning under the various federal and state accessibility laws. What is accessible for purposes of complying with the Federal Fair Housing Act is different than what is accessible for purposes of complying with Section 504 of the Rehabilitation Act. Each accessibility law has implementing regulations and associated accessibility standards which contain scoping requirements and technical requirements. The scoping requirements identify which facilities, elements, features and areas of a project must be accessible and the technical requirements specify the level of accessibility, e.g. grab bars at toilets and in showers or just blocking in the walls for later installation of grab bars as needed.

Federal Fair Housing Act
Title VIII of the Civil Rights Act of 1968 (as amended by Fair Housing Amendments of 1988)
42 U.S.C. § 3601 et seq. **www.law.cornell.edu/uscode/text/42/3601**
24 CFR Part 100 **www.ecfr.gov.cgi-bin/text-idx?tpl=/ecfrbrowse/Title24/cfr100_main_02.tpl**

Applicability

- Applies to all newly-constructed multifamily housing constructed for first occupancy after March 13, 1991
    - Multi-family housing is defined as buildings with 4 or more units
    - A project with one or more buildings with a total of 4 or more units is multi-family housing subject to these requirements
    - Multi-family housing includes both rental and homeownership units, except multi-family townhouses
    - First occupancy means the building has never been used for any purpose – applies if a building is occupied on March 13, 1991 or if the last building permit or renewal for the dwelling is issued by a State, county or local government on or before June 15, 1990
    - Common use areas are rooms or spaces inside or outside a building that are available for use by the residents or their guests
    - Public use areas are rooms or spaces inside or outside a building that are available to the general public (regardless of whether the building is privately or publicly owned)
- Applies to the addition of 4 or more units to an existing building after March 13, 1991

Requirements

- At least one building entrance on an accessible route unless it is impractical to do so because of the terrain or unusual characteristics of the site
- If at least one building entrance on an accessible route, then the following requirements apply:

- The public use areas and common use areas are readily accessible to and usable by persons with physical and mental disabilities
- All doors designed to allow passage into and within all premises must be sufficiently wide to allow passage by persons with disabilities in wheelchairs
- Dwelling units
    - If a building contains an elevator, then all of the units in the building must be accessible
    - If a building does not contain an elevator, then only the ground floor units must be accessible
- All premises within the covered dwelling units must contain following features of adaptable design:
    - An accessible route for a person in a wheelchair into and through the unit
    - Light switches, electrical outlets, thermostats and other environmental controls in accessible locations
    - Reinforcements in bathroom walls to allow later installation of grab bars around the toilet, tub, shower stall and shower seat, where such facilities are provided
    - Usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space

- Parking
    - Minimum of 2% of total parking spaces, but no less than one space, for dwelling units
    - Must be on an accessible route
    - If different types of parking (e.g. surface, garage, covered), at least one of each must be accessible – if covered parking, at least one and more than one is preferable, and an accessible covered space can be substituted for an accessible garage space if the garage parking is not accessible
    - If a resident needs an accessible space and none are available, one must be provided – must be on same terms as other residents and the full range of choices available to other residents (e.g. surface, garage or covered) must be offered

- A resident with a disability can request an unused accessible space to be moved, but the relocated space must be on an accessible route

- Minimum of at least one accessible space for each common use or public use facility that is separate from the dwelling units (e.g. a sales/rental office, or a community service facility that is available to the public, or a community room or laundry facilities that are in a separate building from the dwelling units)

- If visitor parking is provided, then accessible visitor parking must be provided – no specific number of units are required, but it must be sufficient to provide access to the grade level entrances of housing – for larger projects, several visitor spaces should be provided and should be distributed throughout the site

Standard

- HUD recognizes 10 safe harbors, which are set forth in 24 CFR §100.205 – www.ecfr.gov.cgi-bin/text-idx?tpl=/ecfrbrowse/Title24/cfr100_main_02.tpl - The requirements for Type B units under American National Standard: Accessible and Usable Buildings and Facilities, 2003 Edition (ICC/ANSI A117.1-2003) is the preferred standard of MaineHousing

- United States Department of Housing and Urban Development's Fair Housing Act Design Manual www.huduser.org/portal/publications/destech/fairhousing.html

Exception

- If it is impracticable to provide at least one building entrance on an accessible route because of the terrain or unusual characteristics of the site, the project is exempt from the above requirements

Section 504 of the Rehabilitation Act of 1973
29 U.S.C. §794 **www.law.cornell.edu/uscode/text/29/794**
24 CFR Part 8 **www.ecfr.gov.cgi-bin/text-idx?tpl=/ecfrbrowse/Title24/cfr8_main_02.tpl**

Applicability

- Applies to the new construction and rehabilitation of federally-assisted multi-family housing designed, constructed or altered on or after July 11, 1988
    - MaineHousing's multi-family housing programs are federally-assisted, so all projects funded under these programs are federally-assisted
    - MaineHousing's supportive housing programs are not federally-assisted, so projects funded under these programs are not federally-assisted unless they receive direct federal assistance from another source
    - Federal assistance includes capital funding, such as FedHOME, McKinney-Vento funds (such as Continuum of Care funds), Rural Development Section 515 funding and funding under HUD's Section 202 and Section 818 programs
    - Federal assistance also includes federal rental assistance, such as Section 8 project-based vouchers, project-based rental assistance under HUD's Section 8, Section 202 and Section 818 programs, and Rural Development project-based rental assistance
    - Applies to the whole project even if less than all of the units in the project are federally-assisted
    - Multi-family housing is defined as a project containing 5 or more dwelling units
    - A project is defined as the whole of one or more residential structures and related common areas which are covered by a single contract, or designated as a whole for processing purposes, whether or not all of the units are located in the same building or on the same site, e.g. multiple buildings on a single site or buildings on scattered sites that are owned by the same entity and operated as a single project

      NOTE: If an owner is combining existing housing projects into a single project, each existing housing project may be considered a separate project for purposes of determining the accessibility requirements because each existing housing project should have met the accessibility requirements before they were combined.
    - Multi-family housing includes rental and homeownership opportunities – multifamily townhouses are not exempt

- Date a project is designed, constructed or altered is the date bids for the construction or alteration of the project are solicited

- Alteration (or rehabilitation) means any change in a facility (including all or any portion of buildings, structures, equipment, roads, walks, parking lots, rolling stock or other real or personal property) or its permanent fixtures or equipment, including without limitation remodeling, renovation, rehabilitation, reconstruction, changes or rearrangements in structural parts and extraordinary repairs – does not include normal maintenance and repairs, interior decoration, energy improvements, or changes to mechanical systems

- "Maximum extent feasible" means to the extent it would not impose an undue financial or administrative burden on the operation of the housing: factors to be considered are limited to the project construction budget; they include the nature and cost of the improvements, the overall financial resources of the owner, the resources available to pay for the improvements (including without limitation available government funding), documented good faith efforts to explore less restrictive or expensive alternatives, the availability of the equipment and technology to comply with the requirements, whether the alteration will result in a fundamental change in the nature of the housing, efforts to minimize costs by spreading costs over time and the extent to which other costs could be cut or deferred to cover the costs of the alterations

- NOTE: Under the alteration requirements set forth below, each and every element or feature that is altered must be made accessible until the new construction requirements are met. For example, if the showers in 10 units in a 20 unit project are replaced, then each of the showers that are replaced must be accessible until the project, as a whole, meets the new construction requirements. Owners should consider complying with the new construction requirements, which will avoid partially accessible units of little use and will likely be more cost effective.

Requirements

- Access

  - New Construction, Substantial Alteration and Completely Altered Vacant Buildings

    - At least one accessible entrance and accessible route to, into and through the project connecting all accessible elements and spaces, including units accessible to persons with physical disabilities and accessible common areas, spaces and amenities

    - Substantial alteration is alteration of a project with 15 or more units and the cost of the alterations is 75% or more of the replacement cost of the completed project, replacement cost being the current cost of construction

and equipment (not land, demolition, site improvements, non-dwelling facilities and administrative costs for project development activities) for a newly constructed housing facility of the size and type of building altered

- Additions
  - If addition has an entrance, comply with new construction requirements
  - If addition does not have an entrance, then at least one entrance in the existing building must be accessible and there must be an accessible route from the accessible entrance through the existing building to and connecting the accessible spaces, elements and features in the addition
- Other Alterations
  - If existing elements, spaces, features or areas are altered, then each altered element, space, feature or area must comply with the accessibility requirements for new construction to the maximum extent feasible
  - If alterations of elements, when considered together, would constitute alteration of a space, then entire space must comply with the accessibility requirements for new construction to the maximum extent feasible
- Elevators or other accessible means of vertical movement are not required if (a) no accessible dwelling units are located above or below the accessible grade level, <u>and</u> (b) at least one of each type of common area and amenity provided for use by residents and visitors is available at the accessible grade level
  - If an elevator is provided or is required, it must be accessible
  - For rehabilitation projects, a platform lift may be substituted for an elevator, provided persons with disabilities must be able to enter and exit the platform lift without assistance

- Common Areas and Amenities
  - New construction, Substantial Alteration and Completed Altered Vacant Buildings
    - At least one of each type of common area and amenity in project must be accessible and must be located on an accessible route to accessible dwelling units

- Additions
    - Any common areas and amenities in the addition must comply with new construction requirements
    - If the addition does not have common areas or amenities, then at least one of each type of common area and amenity in the existing building must comply with the accessibility requirements for new construction to the maximum extent feasible
- Other Alterations
    - If existing elements, spaces, features or areas are altered, then each altered element, space, feature or area must comply with the accessibility requirements for new construction to the maximum extent feasible
    - If alterations of elements, when considered together, would constitute alteration of a space, then entire space must comply with the accessibility requirements for new construction to the maximum extent feasible

- Dwelling Units
    - New Construction, Substantial Alteration and Completely Altered Vacant Buildings
        - At least 5% of the dwelling units, but not less than one unit, must be accessible to persons with mobility impairments, and an additional 2% of the dwelling units , but not less than one unit, must be accessible to persons with hearing or vision impairments
        - The number of required accessible units is based on the total number of units in the project, even if less than all of the units in a project are federally-assisted
    - Additions
        - New construction requirements apply to the residential units added until the total number of units in the whole project complies with the minimum number of units required for the whole project
    - Other Alterations
        - Altered elements, features and spaces must comply with the accessibility requirements for new construction to the maximum extent feasible

        - If alterations to elements or spaces of a dwelling unit, when considered as a whole, constitute alteration of an entire unit, then the entire unit must comply with the accessibility requirements for new construction to the maximum extent feasible; for example, alterations involving the renovation of a kitchen (or at least replacement of cabinets), the renovation of a bathroom (or at least replacement or addition of tubs or showers, toilets or flooring), and the replacement of entrance door jams would, as a whole, constitute the alteration of an entire unit

    - Distribution of Accessible Units

        - To the maximum extent feasible and subject to reasonable health and safety requirements, accessible units must be distributed throughout the project and sites, and shall be available in a sufficient range of sizes and amenities so that choice of living arrangements is, as a whole, comparable to and integrated with those available to other residents

        - If a project has different bedroom sizes, there should be accessible units of each size throughout the project, and the accessible units per each bedroom size should be proportionate to the total units per each bedroom size

        - If a project is only required to have one accessible unit in a project that has a mix of one- and two- or more bedroom units, a two-bedroom unit should be accessible (to accommodate the need of a caregiver or the family of a person with a disability)

        - If multi-story units, such as townhouses, are one of the types of units provided, a one-story unit may be used as a substitute for a multi-story unit if equivalent spaces, bedroom sizes and amenities are provided in the one-story unit

        - A multi-story townhouse unit may be considered accessible if the first floor is accessible and contains an accessible bathroom, kitchen and bedroom if a two unit, and two accessible bedrooms if a three-bedroom unit

- Parking

    - If at least one parking space is provided for each unit (one-for-one parking), at least one accessible space is required for each accessible unit

    - If less than one-for-one resident parking, an accessible parking space must be provided upon request

    - If parking is provided for visitors, at least 2% of the spaces, but no less than one space, must be accessible

- Accessible parking spaces must be located on an accessible route and closest to the nearest accessible entrance

- Accessible parking spaces must have an adjacent access aisle, which can be shared with another accessible parking space, and the access aisle must be part of an accessible route

- Van spaces are not required, but if provided, each van space must be accessible and have an accessible access aisle and be part of an accessible route

- Historic Preservation

  - Alterations to historic buildings eligible for listing on the National Register of Historic Places or designated historic under State or local law must comply with the accessibility requirements for new construction to the maximum extent feasible

  - Priority must be given to making facilities accessible

  - If Section 106 of the National Historic Preservation Act applies, a determination by the Advisory Council on Historic Preservation that the alterations would threaten the historic significance of the features is required

  - MaineHousing may require a determination from the State Historic Preservation Commission that the alteration would threaten the historic significance of the features

  - If compliance with the requirements for accessible routes, ramps, entrances, bathroom facilities, parking and displays and signs would substantially impair the significant historic features or integrity of the facility, then alternative access provided pursuant to Section 4.1.7(2) of UFAS may be utilized

Standards

- Uniform Federal Accessibility Standard (UFAS) www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/ufas

- An alternative standard can only be used if it provides substantially equivalent or greater access to and usability of the housing – NOTE: HUD has designated an alternative standard in Notice, Docket No. FR-5784-N-01, dated May 16, 2014. www.gpo.gov/fdsys/pkg/FR-2014-05-23/pdf/2014-11844.pdf

  This alternative standard is the 2010 Standards of Accessible Design (28 CFR Section 35.151 and 2004 ADAAG) modified to replace certain requirements that HUD has deemed are not equivalent alternatives with the more restrictive requirements under HUD's regulations and

UFAS as follows:

(i) 24 CFR §§ 8.4(b)(5) instead of 28 CFR §35.151(a)(2) and (b) concerning structural impracticability;

(ii) 24 CFR §§ 8.20 – 8.26 and UFAS 4.1.6 instead of 28 CFR §35.151(b) concerning alterations;

(iii) 24 CFR §§ 8.20 – 8.26 and UFAS 4.1.5 instead of Section 202.2 concerning additions;

(iv) 24 CFR §§ 8.20 – 8.26, and Section 202.4 without the exception to Section 202.4 for alterations affecting primary function areas, and Section 215 without exception 215.1 concerning visible alarms;

(v) 2010 Standards without the following: Section 203.8 general exception for residential facilities; Sections 203.9 and 206.2.8 concerning employee work areas; exceptions to Sections 403.5 and 405.8 concerning employee work areas; exception 2 to Section 206.2.1 concerning site arrival points; exception to Section 206.2.2 concerning sites; and exception 1 to Section 206.2.3 concerning multi-story buildings and facilities; and

(vi) 24 CFR Part 8 and UFAS 4.34.7 instead of Section 214 concerning laundry facilities.

Exceptions

- Structural Impracticability
  - Full compliance with the accessibility requirements (that is the requirements that apply to new construction) is required except to the extent it is structurally impracticable
  - Structurally impracticable means "changes having little likelihood of being accomplished without removing or altering a load-bearing structural member and/or incurring an increased cost of 50 percent or more of the value of the element of the building or facility involved."
  - Applies to alterations only – not new construction

Title II of the Americans with Disabilities Act
42 U.S.C. 12101 et seq. **www.law.cornell.edu/uscode/text/42/12101**
28 CFR Part 35 **www.ecfr.gov.cgi-bin/text-idx?tpl=/ecfrbrowse/Title28/cfr35_main_02.tpl**

Applicability

- Applies to all State-funded housing constructed or altered after January 26, 1992
    - Applies to all projects with 3 or more units funded under MaineHousing's programs if physical construction or alteration begins before March 15, 2012
    - Applies to all projects (no minimum number of dwelling units) funded under MaineHousing's multi-family and supportive housing programs if physical construction or alteration begins on or after March 15, 2012
    - A project is all or any portion of buildings, structures, site improvements, elements and pedestrian routes or vehicular ways located on each site, unless there are 15 or fewer units in total
    - For housing with 15 or fewer units in total, the requirements apply to the total number of units constructed under a single contract, or developed as a whole, whether or not located on a common site
    - For scattered-site housing with more than 15 units in total, each site is a project so the requirements apply to each site
    - Project includes rental housing and single-family housing – townhouses are not exempt
    - Alteration means a change to a facility (including all or any portion of buildings, structures, site improvements, elements and pedestrian routes or vehicular ways located on a site) that affects or could affect the usability of the facility or a portion thereof, and include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions – do not include normal maintenance, reroofing, painting and wallpapering or changes to mechanical and electrical systems unless they affect the usability of the facility
    - Maximum extent feasible means technical infeasibility, which means something that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame; or because other physical or site constraints prohibit modification or addition of elements, spaces or features that are in full and strict compliance with the requirements – unlike Section 504, there is no cost factor

- NOTE: Under the alteration requirements set forth below, each and every element or feature that is altered must be made accessible until the new construction requirements are met. For example, if the showers in 10 units in a 20 unit project are replaced, then each of the showers that are replaced must be accessible until the project, as a whole, meets the new construction requirements. Owners should consider complying with the new construction requirements, which will avoid partially accessible units of little use and will likely be more cost effective.

Requirements

- Access
  - New Construction
    - At each site, at least one accessible route (i.e. accessible parking, passenger loading, public streets and sidewalks or public transportation stops) to the accessible facility entrance
    - At each site, at least one accessible route between all accessible buildings, facilities, elements and spaces within the site
    - At least one accessible route shall connect each story in a multi-story building, except:
      - Installation of elevator is not required in a facility that is less than 3 stories or has less than 3,000 square feet per story
      - Not required where accessible dwelling units, all common areas and public use areas serving the accessible dwelling units are on an accessible route
    - At least one accessible route between the accessible facility entrance and all accessible spaces and elements within the facility, except as provided above
  - Alterations
    - If existing elements, spaces, features or areas are altered, then each altered element, space, feature or area must comply with the accessibility requirements for new construction to the maximum extent feasible
    - If alterations of elements, when considered together, would constitute alteration of a space, then entire space must comply with the accessibility requirements for new construction to the maximum extent feasible

- If alterations that could affect the usability of or access to a primary function area, then path of travel to the primary function area must comply with the accessibility requirements for new construction to the maximum extent feasible

- Primary function is a major activity for which the project is intended, such as community rooms, dining rooms, resident storage areas and other common areas for resident use – does not include dwelling units (for which there is an exception) and does not include mechanical and electrical rooms, boiler rooms or other rooms not for resident use

- Path of travel is a continuous, unobstructed pedestrian path by which the altered area can be approached, entered and exited and which connects the altered area to an exterior approach to the facility (such as sidewalks, streets and parking), the entrance of the facility and other parts of the facility – includes restrooms, telephones and drinking fountains serving the altered area

- An accessible path of travel may consist of walks, sidewalks, curb ramps and other interior and exterior pedestrian ramps, clear floor paths through lobbies, corridors, rooms and other altered areas, parking access aisles, elevators or lifts, or a combination of these

- If the cost of alterations necessary to make the path of travel to the altered primary function area accessible is disproportionate to the cost of the overall alteration, the path of travel must comply with the accessibility requirements for new construction to the extent that it can without incurring disproportionate costs - costs of alterations to make a path of travel accessible are disproportionate if these costs exceed 20% of the cost of the alteration to the primary function area. ADAAG establishes a priority of accessible features to make the path of travel accessible to the extent it is not disproportionate

- Installation of an elevator is required except in a facility that is less than 3 stories or has less than 3,000 square feet per story – if an elevator is required, a platform lift may be substituted for an elevator if persons with disabilities are able to enter and exit the platform lift without assistance

- Additions

  - Comply with new construction requirements

  - If the addition does not have an accessible entrance, then the path of travel requirements above require an accessible route from the addition through the existing facility, including its entrance and exterior approaches, subject to the

above disproportionality limitation above

        - If addition affects usability of or access to a primary function area, the path of travel requirements apply

    - All floor and ground surfaces must be stable, firm and slip resistant – MaineHousing's Quality Standards no longer permit the use of stone dust

- Common Areas

    - New Construction

        - Common areas and spaces in projects must be accessible

        - Common areas that do not serve dwelling units with accessible mobility features are not required to be accessible or located on an accessible route

    - Alterations

        - If existing elements, spaces, features or areas are altered, then each altered element, space, feature or area must comply with the accessibility requirements for new construction to the maximum extent feasible

        - If alterations of elements, when considered together, would constitute alteration of a space, then entire space must comply with the accessibility requirements for new construction to the maximum extent feasible

    - Additions

        - Any common areas, elements and amenities in the addition must comply with new construction requirements

        - If addition does not have common areas or amenities, then at least one of each type of common area, element and amenity in the existing building must comply with the accessibility requirements for new construction to the maximum extent feasible and path of travel requirements above apply

- Dwelling Units

    - Projects subject to Section 504 shall provide the number of units required by Section 504 (NOTE: All projects funded under MaineHousing's multifamily housing programs are subject to Section 504. Projects funded under MaineHousing's supportive housing programs are not subject to Section 504 unless they are federally assisted, e.g. receive project-based rental assistance, McKinney-Vento funding or

other federal assistance)

- Projects not subject to Section 504 shall provide the following number of accessible dwelling units
    - New Construction and Alteration of Vacant Buildings with 15 or more Units
        - At least 5% of the dwelling units, but not less than one unit, must have accessible mobility features, and an additional 2% of the dwelling units , but not less than one unit, must have accessible communication features
    - Additions
        - New construction requirements apply only to the dwelling units that are added until the total number of dwelling units in the project complies with the minimum number of units required for the whole project
    - Other Alterations
        - Comply with the accessibility requirements for new construction to the maximum extent feasible
        - If compliance is technically infeasible, the owner of the project must alter or construct a comparable residential unit for each unit required to comply with the new construction requirements – comparability is in terms of location, number of bedrooms, amenities in the unit, types of common spaces within the facility and proximity to community resources and services
        - Regardless of technical infeasibility, at least 2% of the units, and not less than one unit, must include accessible communication features
- Distribution of Accessible Units
    - Accessible units must be dispersed among the various types of dwelling units in the project and must provide choices of dwelling units comparable to, and integrated with, those available to other residents
    - If a project has different bedroom sizes, there should be accessible units of each size throughout the project, and the accessible units per each bedroom size should be proportionate to the total units per each bedroom size

        - If a project is only required to have one accessible unit in a project that has a mix of one- and two- or more bedroom units, a two-bedroom unit should be accessible (to accommodate the need of a caregiver or the family of a person with a disability)

        - If multi-story units, such as townhouses, are one of the types of units provided, a one-story unit may be used as a substitute for a multi-story unit if equivalent spaces, bedroom sizes and amenities are provided in the one-story unit

        - A multi-story townhouse unit may be considered accessible if the first floor is accessible and contains an accessible bathroom, kitchen and bedroom if a two unit, and two accessible bedrooms if a three-bedroom unit

- Historic Preservation

    - Alterations to historic buildings eligible for listing on the National Register of Historic Places or designated historic under State or local law must comply with the accessibility requirements for new construction to the maximum extent feasible

    - Priority must be given to making the project accessible

    - A determination by the State Historic Preservation Commission or the Advisory Council on Historic Preservation that the alterations would threaten or destroy the historic significance of the features is required

    - If compliance with the requirements for accessible routes, ramps, entrances, bathroom facilities, parking and displays and signs would substantially impair the significant historic features or integrity of the facility, then alternative methods may be utilized

- Transitional Housing, Group Homes and Shelters

    - Comply with the requirements for residential facilities described herein, and in addition:

        - In sleeping rooms with more than 25 beds, at least 5% of the beds shall have clear floor space

        - Facilities with more than 50 beds that provide common bathing facilities shall provide at least one roll-in shower with a seat (transfer –type showers are not permitted in lieu of roll-in showers and exceptions for residential facilities do not apply), and if separate shower facilities are provided for men and women, at least one roll-in shower with seat for each group

- Parking
    - If one space is provided for each unit (one-for-one parking), then one accessible space is required for each accessible unit
    - If there is more than one-for-one resident parking, then 2% of total parking spaces, with a minimum of one space, not covered by the one-for-one requirement
    - One van accessible space is required for every 6 (or fraction of 6) accessible spaces, but no less than one space
    - If parking provided for visitors, then one accessible space is required for every 25 (or fraction of 25) units, but not less than one
    - Accessible spaces must be located on the shortest accessible route from the space to the dwelling unit served by the space
    - If there is more than one accessible route, then the parking spaces should be distributed among the accessible routes
    - If different types of parking (e.g. surface, garage, covered), accessible parking spaces should be distributed among the different types unless substantially equivalent or greater accessibility is provided in terms of distance from an accessible route, parking fee or user convenience – user convenience takes into consideration protection from the weather, security, lighting and comparative maintenance of the alternative parking site - covered parking is preferable
    - Any passenger loading zones must be accessible

Standards

- Projects constructed or altered before March 15, 2012, UFAS) www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/ufas
- For projects constructed or altered on or after March 15, 2012, the standard is the 2010 Standards for Accessible Design applicable to Title II (2004 ADAAG and 28 CFR Section 35.151) www.ada.gov/2010ADAstandards_index.htm
- NOTE: Section 504 applies to all projects funded under MaineHousing's multifamily housing programs. Compliance with the alternative standard to UFAS designated by HUD on May 16, 2014 will satisfy the owner's obligations under Section 504 and Title II. If an owner elects to comply with UFAS, the owner must satisfy the more restrictive of each requirement under UFAS and the 2010 Standards for Accessible Design.

Exceptions

- Structural Impracticability
    - Full compliance is not required if the owner can demonstrate that it is structurally impracticable to meet the requirements.
    - Structurally impracticable means only those "rare circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features."
    - Any portion of the facility that can be made accessible shall be made accessible to the extent that it is not structurally impracticable
    - If compliance is technically infeasible, the owner of the project must alter or construct a comparable residential unit for each unit required to comply with the new construction requirements – comparability is in terms of location, number of bedrooms, amenities in the unit, types of common spaces within the facility and proximity to community resources and services
    - Regardless of structural impracticability, a project must include accessible communication features in at least 2% of the units, and not less than one unit

Title III of the Americans with Disabilities Act
42 U.S.C. 12101 et seq. **www.law.cornell.edu/uscode/text/42/12101**
28 CFR Part 36 **www.ecfr.gov.cgi-bin/text-idx?tpl=/ecfrbrowse/Title28/cfr36_main_02.tpl**

Applicability

- Applies to places of public accommodation designed and constructed for first occupancy after January 26, 1993 or altered after January 26, 1992
    - Places of public accommodation are facilities operated by a private entity whose operations affect commerce and fall into one of 12 categories
    - For purposes of MaineHousing's multifamily and supportive housing programs, places of public accommodation include facilities such as on-site rental offices and other common areas available to the public, social service establishments, group homes, transitional housing and shelters
    - Social service center establishments may include, without limitation, supportive housing depending on the level and type of services of provided, whether the services are voluntary or mandatory and whether the services are made available throughout the facility or only in limited spaces within the facility
    - A facility was designed and constructed for first occupancy after January 26, 1993 if the last date the application for a building permit for the facility was certified, or if not certified then received, by the municipality issuing the permit was after January 26, 1992 and the facility received a certificate of occupancy after January 26, 1993
    - Definitions of alterations, maximum extent feasible and structural impracticability are the same as those used in Title II of the ADA

Requirements

- Places of public accommodation must be accessible, must have an accessible entrance and must be on an accessible route - similar requirements to those in Title II for new construction and alterations
- Social Service Center Establishments, Transitional Housing, Group Homes and Shelters
    - Comply with the requirements for residential facilities in Title II, and in addition:
        - In sleeping rooms with more than 25 beds, at least 5% of the beds shall have clear floor space

- Facilities with more than 50 beds that provide common bathing facilities shall provide at least one roll-in shower with a seat (transfer –type showers are not permitted in lieu of roll-in showers and exceptions for residential facilities do not apply), and if separate shower facilities are provided for men and women, at least one roll-in shower with seat for each group

Standards

- Projects constructed or altered before September 15, 2010, 1991 ADAAG

- For projects constructed or altered on or after September 15, 2010 but before March 15, 2012, either 1991 ADAAG or the 2010 Standards for Accessible Design applicable to Title III (2004 ADAAG and 28 CFR Section 36.104 and Section 36, Part D)

- For projects constructed or altered on or after March 15, 2012, the applicable standard is the 2010 Standards for Accessible Design applicable to Title III (2004 ADAAG and 28 CFR Section 36.104 and Section 36, Part D) www.ada.gov/2010ADAstandards_index.htm

Exceptions

- Structural Impracticability

    - Full compliance is not required if the owner can demonstrate that it is structurally impracticable to meet the requirements

    - Structurally impracticable means only those "rare circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features"

    - Any portion of the facility that can be made accessible shall be made accessible to the extent that it is not structurally impracticable

Maine Human Rights Act
State Fair Housing Act
5 MRSA §4582-B (for construction before September 1, 2012)
www.mainelegislature.org/legis/statutes/5/title5ch337sec4582-B.html
5 MRSA §4582-C (for construction on or after September 1, 2012)
www.mainelegislature.org/legis/statutes/5/title5ch337sec4582-C.html
Chapter 8 – Housing Regulations of the Maine Human Rights Commission
www.maine.gov/mhrc/laws/index.htm (click on Chapter 8)

Applicability

Housing constructed before September 1, 2012

- Applies to new construction of multifamily housing constructed for first occupancy after March 13, 1991
    - Multi-family housing is defined as buildings with 4 or more units
    - A project that has more than one building with less than 4 units in each building but has a total of 4 or more units in all of the buildings is multi-family housing subject to these requirements
    - Multi-family housing includes both rental and homeownership units, except multifamily townhouses
    - First occupancy means the building has never been used for any purpose – applies if a building is occupied on March 13, 1991 or if the last building permit or renewal for the dwelling is issued on or before June 15, 1990
    - Applies to the addition of 4 or more units to an existing building or project after March 13, 1991
    - Common use areas are rooms or spaces inside or outside a building that are available for use by the residents or their guests
    - Public use areas are rooms or spaces inside or outside a building that are available to the general public (regardless of whether the building is privately or publicly owned)

Housing constructed on or after September 1, 2012

- Applies to new construction and substantial alteration of multifamily housing constructed on or after September 1, 2012

- Multi-family housing is defined as buildings with 4 or more units

- A project that has more than one building with less than 4 units in each building but has a total of 4 or more units in all of the buildings is multi-family housing subject to these requirements

- New construction means the construction of housing for first occupancy, including an addition of 4 or more units to an existing building or project, or alteration if the cost of the alteration is 75% or more of the replacement cost of the completed project

- Alteration means a change to a facility that affects or could affect the usability of the facility or any part of the facility, including but not limited to, reconstruction, remodeling, rehabilitation, historic restoration, changes or rearrangement in structural parts or elements and changes or rearrangement in the plan configuration of walls and full-height partitions. Alteration does not include normal maintenance, decoration and upgrades, including but not limited to re-roofing, re-siding, painting, wallpapering, replacement of doors and windows, asbestos removal and changes to mechanical and electrical systems unless they affect the usability of the facility

- Housing is considered to be constructed or altered on or after September 1, 2012 if:

  - the date when the last application for a building permit or permit extension is certified to be complete by the municipality is on or after September 1, 2012

  - if a municipality does not certify completion of applications, the date the last application for a building permit or permit extension was received by the municipality is on or after September 1, 2012

  - if no building permit is required, the date the construction or alteration starts is on or after September 1, 2012

- Common use areas are rooms or spaces inside or outside a building that are available for use by the residents or their guests

- Public use areas are rooms or spaces inside or outside a building that are available to the general public (regardless of whether the building is privately or publicly owned)

Requirements

- At least one building entrance on an accessible route unless it is impractical to do so because of the terrain or unusual characteristics of the site

- If at least one building entrance on an accessible route, then the following requirements apply:

- The public use areas and common use areas are readily accessible to and usable by persons with physical and mental disabilities
- All doors designed to allow passage into and within all premises must be sufficiently wide to allow passage by persons with disabilities in wheelchairs
- Dwelling units
    - If a building contains an elevator, then all of the units in the building must be accessible
    - If a building does not contain an elevator, then only the ground floor units must be accessible
- All premises within the covered dwelling units must contain following features of adaptable design:
    - An accessible route for a person in a wheelchair into and through the unit
    - Light switches, electrical outlets, thermostats and other environmental controls in accessible locations
    - Reinforcements in bathroom walls to allow later installation of grab bars around the toilet, tub, shower stall and shower seat, where such facilities are provided
    - Usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space

- Parking
    - Minimum of 2% of total parking spaces, but no less than one space, for dwelling units
    - Must be on an accessible route
    - If different types of parking (e.g. surface, garage, covered), at least one of each must be accessible – if covered parking, at least one and more than one is preferable, and an accessible covered space can be substituted for an accessible garage space if the garage parking is not accessible
    - If a resident needs an accessible space and none are available, one must be provided – must be on same terms as other residents and the full range of choices available to other residents (e.g. surface, garage or covered) must be offered

- A resident with a disability can request an unused accessible space to be moved, but the relocated space must be on an accessible route

- Minimum of at least one accessible space for each common use or public use facility that is separate from the dwelling units (e.g. a sales/rental office, or a community service facility that is available to the public, or a community room or laundry facilities that are in a separate building from the dwelling units)

- If visitor parking is provided, then accessible visitor parking must be provided – no specific number of units are required, but it must be sufficient to provide access to the grade level entrances of housing – for larger projects, several visitor spaces should be provided and should be distributed throughout the site

Standard

- American National Standard: Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1)

- If constructed before September 1, 2012, ANSI A117.1-1986

- If constructed on or after September 1, 2012, the requirements for "Type B" units of the "most recent" ANSI A117.1 standard (currently ICC/ANSI A117.1 - 2009)

Maine Human Rights Act
Publicly-funded Housing
5 MRSA §4582 (for construction or alteration before September 1, 2012)
www.mainelegislature.org/legis/statutes/5/title5ch337sec4582.html
5 MRSA §4582-C (for construction or alteration on or after September 1, 2012)
www.mainelegislature.org/legis/statutes/5/title5ch337sec4582-C.html
Chapter 8 – Housing Regulations of the Maine Human Rights Commission
www.maine.gov/mhrc/laws/index.htm (click on Chapter 8)

Applicability

- Applies to the construction and alteration of housing containing 20 or more units that is financed in whole or part with public funds
    - All MaineHousing funding is considered public funds
    - A project (public housing) is defined as one or more buildings or structures on a single parcel of land – a scattered site project with 10 units on one parcel of land and 10 units on another parcel of land is not subject to the requirements
    - For housing constructed or altered on or after September 1, 2012, new construction means the construction of housing for first occupancy or alteration if the cost of the alteration is 75% or more of the replacement cost of the completed project
    - Alteration means a change to a facility that affects or could affect the usability of the facility or any part of the facility, including but not limited to, reconstruction, remodeling, rehabilitation, historic restoration, changes or rearrangement in structural parts or elements and changes or rearrangement in the plan configuration of walls and full-height partitions. Alteration does not include normal maintenance, decoration and upgrades, including but not limited to re-roofing, re-siding, painting, wallpapering, replacement of doors and windows, asbestos removal and changes to mechanical and electrical systems unless they affect the usability of the facility
    - Ground floor means the first floor of a building with units and a building entrance on an accessible route – the first floor of a building with parking at ground level below the building is the first floor with units and an accessible entrance (which can be by elevator from the ground level)
    - Housing is considered to be constructed or altered on or after September 1, 2012 if:
        - the date when the last application for a building permit or permit extension is certified to be complete by the municipality is on or after September 1, 2012
        - if a municipality does not certify completion of applications, the date the last application for a building permit or permit extension was received by the

municipality is on or after September 1, 2012

- if no building permit is required, the date the construction or alteration starts is on or after September 1, 2012

- Does not apply to multifamily townhouses

Requirements and Standards

- New construction

  - If constructed after January 1, 1984 but before October 1, 1988, at least one unit for each multiple of 20 units must be accessible to persons with physical disabilities in accordance with ANSI A117.1-1980 (Section 4.34)

  - If constructed on or after October 1, 1988, at least 10% of the ground level units in the project and at least 10% of the upper story units connected by an elevator in the project must be accessible to persons with physical disabilities in accordance with ANSI A117.1-1986

  - If constructed on or after September 1, 2012, at least 10% of the ground level units in the project and at least 10% of the upper story units connected by an elevator in the project must be accessible to persons with physical disabilities and at least 2% of the units in the project, but not less than one, must include accessible communication features, all in accordance with the requirements for "Type A" units in the "most current" version of ANSI A117.1 (currently ICC/ANSI A117.1 - 2009)

- Alterations and Additions

  - If constructed before October 1, 1988 <u>and</u> altered or enlarged on or after January 1, 1984 <u>and</u> the cost of the alterations exceeds $100,000, at least one unit for each multiple of 20 units must meet the following 4 parts of ANSI A117.1-1980: Section 4.3 - accessible route; Section 4.13 – doors; Section 4.34.5 – adaptable bathroom and Section 4.29.3 – tactile warnings on doors to hazardous areas.

  - If altered or enlarged on or after October 1, 1988, at least 10% of the ground level units in the project and at least 10% of the upper story units connected by an elevator in the project must meet the following 4 parts of ANSI A117.1-1986: Section 4.3 - accessible route; Section 4.13 – doors; Section 4.34.5 – adaptable bathroom and Section 4.29.3 – tactile warnings on doors to hazardous areas.

  - If altered on or after September 1, 2012, at least 10% of the ground level units in the project and at least 10% of the upper story units connected by an elevator in the project must meet the parts of the "most current" version of ANSI A117.1 (currently ICC/ANSI A117.1 - 2009) for "Type A" units regarding accessible routes,

accessible doors and adaptable bathrooms. **Note:** If the cost of alterations is 75% or more of the replacement cost of the project, then the new construction requirements apply.

- Parking
    - If at least one parking space is provided for each unit (one-for-one parking), then at least one accessible space is required for each unit accessible to persons with mobility impairments
    - If less than one-for-one parking is provided, then a proportionate number of parking spaces, based on the ratio of parking spaces to the total number of units and units accessible to persons with mobility impairments, is required, e.g. if a total of 10 parking spaces are available for a total of 20 units, including 2 accessible units, then one accessible parking space is required

MaineHousing
Maine State Housing Authority

CONSTRUCTION SERVICES
Document Review Sign-Off

To: _____ Date:

CA: _____ Project:

Location: _____

Total Area (S.F.) _____ Cost / Sq Ft: _____

Applicant:

CONSTRUCTION DOCUMENTS:

1) A. Drawings:	
B. Specifications:	
2) G.C. Contract	
3) Building Permit:	
4) SFMO Permit(s):	
5) Bonds:	
6) ALTA Survey	

CONSTRUCTION BUDGET:

Total Available (Proforma Attached):	$
Contract Amount:	$
Construction Contingency Amount:	$

Construction Services has received and reviewed the above documents and finds them suitable for contract purposes and for proceeding to the construction loan closing with the following conditions:	
Donald R. McGilvery, Construction Services Manager	Date:

Distribution: Original to Program Assistant; copy to LO and CA

ADDENDUM TO
AIA DOCUMENT A133™ - 2009 *STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER AS CONSTRUCTOR*

THIS ADDENDUM TO AIA DOCUMENT A133™ - 2009, *STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER AS CONSTRUCTOR (the "Addendum")* is entered into by and between

Owner: _____
(Insert Name of Owner)

and

Construction Manager: _____
(Insert Name of Construction Manager)

for a project located at _____ (the "Project").
(Insert street and city of Project)

Owner and Construction Manager hereby enter into this Addendum and acknowledge and agree as follows:

1. Owner and Construction Manager acknowledge and agree that:

a. Maine State Housing Authority ("MaineHousing") proposes to provide funds from the U.S. Department of Housing and Urban Development ("HUD") to the Owner for the Project.

b. As a condition of providing HUD funds to the Owner for the Project, MaineHousing must complete a satisfactory environmental review of the Project under HUD's environmental review rules at 24 C.F.R. Part 58. The Project's environmental review may require compliance with certain conditions that may be applicable to the Project, including but not limited to construction conditions dealing with the protection of historic and archaeological resources, remediation of environmental contamination on the Project site, addressing impacts to any wetlands or a 100-year floodplain, and protecting the Project's occupants from explosive and flammable hazards.

c. In addition to completing a satisfactory environmental review, MaineHousing must apply to HUD for the release of the HUD funds for the Project and obtain HUD approval of the release of the HUD funds ("Environmental Clearance").

d. Until Environmental Clearance of the Project, HUD's rules prohibit the Owner and the Construction Manager from taking certain actions, referred to as "choice-limiting actions", in connection with the Project, including but not limited to construction-related activities.

e. HUD's environmental review rules prohibit MaineHousing from providing any HUD funds for the Project if the Owner, the Construction Manager, or any other participant in the development process for the Project takes a choice-limiting action prior to Environmental Clearance.

f. Owner and Construction Manager are simultaneously entering into AIA Document A133™ - 2009 Standard Form of Agreement between Owner and Construction Manager as Constructor (referred to in this Addendum as the "CM Contract").

g. To ensure that no choice-limiting actions are taken in connection with the CM Contract, Owner and Construction Manager are entering into this Addendum to the CM Contract, which is effective as of the date of the CM Contract.

2. Notwithstanding any contrary or inconsistent provision of the CM Contract or of any other document incorporated by reference into the CM Contract, this Addendum is and at all times shall be and remain an integral part of the CM Contract as if each and every one of the terms and provisions of this Addendum were expressly stated and contained within the CM Contract. In the case of any inconsistency between the CM Contract and this Addendum, this Addendum shall take precedence and shall govern. Owner and Construction Manager shall be bound by and comply with the terms of this Addendum.

3. Notwithstanding any contrary or inconsistent provision of the CM Contract or of any other document incorporated by reference into the CM Contract, prior to written notification by MaineHousing to the Owner of the Project's Environmental Clearance, the Owner and Construction Manager agree not to take, and shall not actually take, any of the following actions:

a. Commence the Construction Phase or undertake the Work or any other Construction Phase responsibilities.

b. Order or otherwise take steps to procure any construction equipment or materials.

c. Incur or pay any costs or enter into any other agreements (including but not limited to any subcontracts) relating to the Work or any other Construction Phase responsibilities.

d. Enter into or execute the Guaranteed Maximum Price ("GMP") Amendment (AIA Document A133™ – 2009 Exhibit A) to the CM Contract.

e. Issue a Notice to Proceed for the Project.

4. In the event that the environmental review of the Project requires compliance with any conditions, including but not limited to one or more of the conditions listed in Section 1.b above, Owner and Construction Manager shall ensure that the Work includes compliance with such conditions, including any measures required by MaineHousing.

5. Capitalized terms not defined in this Addendum are defined in the manner provided in the CM Agreement.

This Addendum is entered into and is effective as of the date of the CM Contract.

_____	_____
OWNER ***(Signature)***	**CONSTRUCTION MANAGER** ***(Signature)***
_____	_____
Printed Name and Title	***Printed Name and Title***
_____	_____
Date	***Date***

MaineHousing
Maine State Housing Authority

Building and Unit Square foot (SF) Tabulations

Location: Project Name:

For Each Building containing Living Units (Units) provide the following: *Note 1*

Building #: Building Gross SF (Including basements):

Basement Spaces SF: Building Net SF (Excluding basements): 0

For Each Unit within the above referenced Building provide the following: *Note 2*

Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	
Unit #:		#Bedrooms:		#Bathrms:		Access. Type (n/a, A, B):		SF:	

NOTES FOR TABLES

1. For building gross SF calculations use outside of foundation wall to outside of foundation wall.
2. For units provide gross SF using face to face of interior finished surfaces.
3. Provide Separate Sheets for each building
4. Provide additional sheet per building if necessary and properly reference as "continued."

APPENDIX B

PROJECT CLOSE-OUT CHECKLIST AND FORMS

1. Construction Services Final Completion Checklist
2. Certificate of Completion of Design Professional
3. Final Certificate and Release for Contractors, Subcontractors, and Venders
4. Incomplete Work Escrow (IWE)
5. Supportive Housing/One Write Project Certificate of Completion

MaineHousing
Maine State Housing Authority

Project:
Address:
Project No.

CONSTRUCTION SERVICES
FINAL COMPLETION CHECKLIST

1	*	Date	Architect	Certificate of Substantial Completion (AIA document normally prepared by architect)
2	*		Arch/Owner	Architects Certificate of Punch list Completion (MSHA Document or letter from Design Professional)
3	*		Contractor	Elevator License (if applicable)
4	*		Contractor	Fire Alarm system Test Report and Sign-off by System Manufacturer's Rep
5	*		Contractor	Sprinkler Test Report/Sign-off by qualified installer and SFMO permit signed-off by "RMS" (Responsible Managing Supervisor)
6	*		Contractor	Certificate of Occupancy from local municipality
7	**		Contractor	Electrical Permit Sign-off by state or local electrical inspector
8	**		Contractor	Plumbing Permit Sign-off by state or local plumbing inspector
9	*		Architect	Certificate of Completion of Design Professional (**MSHA Document**)
10	*		All	Incomplete Work Escrow in the Amount of: $
11	*		Contractor	Requisition for all items not identified on Incomplete Work Escrow list (item #10)
12	*		Contractor	Lien Releases (typically using **MSHA's Contractors Final Certificate and Release Form**)
13	*		Contractor	O & M manuals (deliver to Owner) *as applicable*
14	*		Contractor	Warranty information to Owner (e.g. Roofing, Boilers.) *as applicable*
15	*		Contractor	As-built drawings (deliver to Owner, and 1 hard copy to MSHA)
16	*		Owner	As-built ALTA Survey with Certification (may be waived if work did not increase building footprint)
17	*		Contractor	State Fire Marshal Inspection and Plan of Correction (if required)
18	*		Owner	Owner/Agency Certificate of Completion (**MSHA Doc.) Not Applicable for Tax Credit Projects**
19	*		Contractor	Evidence of satisfactory Lead Based Paint Clearance testing (not required for new construction)
20	*		Contractor	Consent of Surety to release of final payment
21	*		Owner	Blower Door Test
22	*		Owner	NPS Part 3 Approval (required for Historic Tax Credit projects only)

* Required NR Not Required ** Required unless covered under local Certificate of Occupancy

Construction Services has received and reviewed the documents outlined above and find them suitable to satisfy closeout/completion requirements per Construction Services requirements:

/Construction Analyst :	Date:
Don McGilvery /Construction Services Manager :	Date:

MaineHousing
Maine State Housing Authority

CERTIFICATE OF COMPLETION OF DESIGN PROFESSIONAL

Project: _____

Project Address: _____

_____

Architect/Engineer: _____

I certify that the construction/improvements to the above-named project have been completed to my knowledge, information and belief in accordance with the contract documents including any change orders approved by Maine State Housing Authority. I have endeavored to guard the completed work against defects and deficiencies of construction, though not necessarily through exhaustive or continuous on-site inspections to check the quality of the construction.

Change Order	Date	MaineHousing Approval Date

Architect/Engineer: _____

Title: _____

_____
Signature of Design Professional

Date: _____

353 Water Street, Augusta, Maine 04330-4633 207-626-4600 800-452-4668 TTY 800-452-4603 Fax 207-626-4678
www.mainehousing.org

MaineHousing
Maine State Housing Authority

FINAL CERTIFICATE AND LIEN RELEASE
for
CONTRACTORS / SUBCONTRACTORS / VENDORS

Any subcontractor who supplied material or labor with a value greater than or equal to $2,000 or any material supplier who supplied materials with a value greater or equal to $10,000 must complete this form.

PROJECT ADDRESS _____

Contract/Subcontract Date: _____
Contract/Subcontract Amt: $ _____
Contract/Subcontract for (trade) _____

1. The undersigned certifies that there is due and payable under the above contract a final payment of $_____.

2. The undersigned certifies that all work required under this contract has been performed in accordance with the terms of the contract and was completed on _____, 20__.

3. The undersigned certifies that, except as set forth above, there are no unpaid claims for materials, supplies or equipment and no claims of laborers or mechanics for unpaid wages arising out of the performance of the contract.

4. The undersigned releases any and all claims, other than for the final payment set forth above, arising under or by virtue of the contract and agrees to indemnify the Maine State Housing Authority and the owner against any such claims.

5. The undersigned has attached to this certificate all manufacturers' and suppliers' written guarantees and warranties covering materials and equipment furnished under the contract.

Contractor:_____ Date:_____

Signature:_____

State of Maine

County of _____, ss. Date:_____

Personally appeared the above-named _____ and gave oath to the foregoing.

Before me,

_____
Name
Notary Public of Maine/Attorney-at-Law
My Commission Expires:_____

MaineHousing
Maine State Housing Authority

Incomplete Work Escrow

Project name/address:

MH project number:

Owner/Developer:
Contractor:
Architect:
CA:

The following items represent project features that have been determined to be incomplete as the result of:

☐ Seasonal limitations. ☐ Extraordinary circumstances w/MSHA concurrence ☐ Other

The value of all incomplete items as determined by the project team, with concurrence by Maine Housing, shall be multiplied by a factor of 150% to establish the total amount to be subject to escrow in accordance with MaineHousing policy.

#	Description	$ Value	x 150%
1			
2			
3			
4			
	Sub Total:		

Notes: _____

The amount of $ _____ shall be withheld by MaineHousing till such time that work has been completed and determined acceptable by the Owner and representative of MaineHousing. Work shall be completed by: _____
Upon satisfactory completion of the items listed above, the Authority will prepare a release of funds being withheld against those work items. At no time shall an aggregate amount exceeding 50% of the total escrow amount be released prior to completion of all escrow items.

Contractor *Date* *Owner* *Date* *Architect* *Date* *MaineHousing CA* *Date*

Request for Concurrence *for MaineHousing use only*

As the result of an inspection on _____ , Construction Services finds:

☐ All work is complete/satisfactory
☐ Outstanding work remains as follows… _____

○ **Completion date exceeded**
☐ Extend to:_____ ☐ No extension… MH/Owner to complete

Construction Analyst *Date* *Construction Services Manager* *Date*

To: Development Assistant
RE: Request for check **Date:** _____
CC: AM, LO
In accordance with CS findings/recommendations, please prepare check in the amount of
$ _____ made payable to:

1st _____

2nd _____

Request for Concurrence *for MaineHousing use only*

As the result of an inspection on _____ , Construction Services finds:

☐ All work is complete/satisfactory
☐ Outstanding work remains as follows… _____

○ **Completion date exceeded**
☐ Extend to:_____ ☐ No extension… MH/Owner to complete

Construction Analyst *Date* *Construction Services Manager* *Date*

To: Development Assistant
RE: Request for check **Date:** _____
CC: AM, LO
In accordance with CS findings/recommendations, please prepare check in the amount of
$ _____ made payable to:

1st _____

2nd _____

INCOMPLETE WORK ESCROW POLICY

Following represents the complete policy for the handling of incomplete work escrow and expressly supersedes any and all instructions to Authority personnel.

1. MaineHousing will establish the content, completion date and appropriate retainage for the incomplete work escrow at the time of the final inspection in consultation with the contractor and architect, and in accordance with policy herein.

2. Eligible escrow items shall be limited to seasonal items, and back-ordered items (if proof of ordering is provided at the final inspection), unless the Authority determines that extraordinary circumstances warrant inclusion of other, non-safety related items.

3. 150% times the actual escrow amount shall be held in escrow by MaineHousing to cover any and all escrow items.

4. All escrow work shall be completed in full within 60 days from date of agreement, unless a longer period is agreed upon initially for seasonal or back-ordered items. No more than two (2) 15-day extensions shall be allowed beyond the initial completion date.

5. The Owner shall notify MaineHousing in writing when all items of an escrow section are complete and ready for inspection. No inspections shall be made until said notification has been received. MaineHousing shall schedule an inspection within 5 working days after receipt of notice from the owner.

6. Any MaineHousing inspection which determines the necessity for a re-inspection due to an action, omission, or deficiency caused by the development team, may result in charges billable to the Developer to cover the costs of labor and expense to MaineHousing for the re-inspection. The rate of charge shall be $25.00 per man-hour for on-site time, $15.00 per man-hour for travel time from MaineHousing's office to site and return. A maximum charge per re-inspection shall not exceed $200.00.

7. Upon acceptance of all items in an escrow section MaineHousing will prepare a release of those funds being withheld against those work items. AT NO TIME SHALL AN AGGREGATE AMOUNT EXCEEDING 50% OF THE TOTAL ESCROW AMOUNT BE RELEASED PRIOR TO COMPLETION OF ALL ESCROW ITEMS.

8. Upon the forfeiture of escrow monies to MaineHousing, MaineHousing shall proceed to have all incomplete work escrow items completed by a contractor, determined in the sole discretion of MaineHousing to be capable of completing said escrow items. Any escrow funds remaining, if any, after completing said escrow items shall be returned to the Developer.

9. WAIVERS TO THE ABOVE POLICY MAY ONLY BE APPROVED BY MAINEHOUSING'S EXECUTIVE DIRECTOR.

SUPPORTIVE HOUSING/ONE WRITE PROJECT
CERTIFICATE OF COMPLETION
OF CONSTRUCTION/REHAB ACTIVITIES

Owner(s): _____
_____

Property Address: _____
_____

MaineHousing Project No. _____ Number of Units _____

The undersigned Owner(s) certifies as follows:

1. The loan funds I have received from the Maine State Housing Authority to undertake property improvements have now been appropriately spent.

2. The improvements for which I used the money have been completed to my satisfaction and are the same improvements listed in Exhibit "A" of the Rehab Escrow or as listed in the Technical Services Document Sign Off, except as amended with the prior written consent of the Maine State Housing Authority.

The undersigned Owner(s) swears under penalty of law that he/she/they have read and understood this Certificate and that to the best of his/her/their knowledge and belief it is true.

OWNER:

By: _____ Date: _____
Name:

By: _____ Date: _____
Name:

APPROVAL BY Maine State Housing Authority:

By: _____ Date: _____

MAINE STATE HOUSING AUTHORITY USE ONLY

Final Escrow Draw occurred on: _____ (Date) Remaining Escrow Funds _____

Recommended Initial Annual Inspection _____ (Mo. / Yr.) Remaining Funds to: _____

CC: Legal; Asset Management); Development Manager