CONNECTICUT HOUSING FINANCE AUTHORITY

Unlocking Solutions, Building Strong Communities.

Connecticut Housing Finance Authority

Construction Guidelines: Project Planning & Architectural & Construction Services Review

2027

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I. PROJECT PLANNING, ARCHITECTURAL & CONSTRUCTION SERVICES REVIEW

CHFA has developed a series of "Construction Guidelines" (Guidelines) to assist development teams through the application and review process. Each of these Guidelines focuses on specific subjects in this process including: Construction Cost, Environmental & Hazardous Materials, Energy Conservation & Sustainability and Project Planning & Architectural & Construction Services Review (ACS Review Process). These Guidelines are to be used in conjunction with the Multifamily Design & Construction Standards (the Standards).

This Guideline outlines the construction document review requirements for multifamily housing financed by CHFA, DOH and/or LIHTC. It is the intent of the Standards and the Guidelines, that multifamily housing financed through CHFA, DOH and/or LIHTC is designed with as much quality, durability, comfort, indoor air quality and sustainability as available resources permit. It is acknowledged, however, that individual developments may face unique site, design, financing or market constraints, for which full compliance may be difficult or impossible. Unique constraints should be identified early in the design review process, so that the owner/developers may request a modification of specific items that prove to be problematic. CHFA aims to be flexible and will consider such requests on a case-by-case basis.

The Department of Housing project funding is based on the availability of federal and state resources, so project teams should plan for the use of Federal funds and the corresponding requirements including, but not limited to, procurement, environmental requirements and design and building standards.

II. DEVELOPMENT TEAM/DESIGN APPROACH

Owners/Developers should assemble an integrated development team – including a qualified architect, a general contractor (GC), and other professional consultants for the project. For projects receiving federal funding through the Department of Housing (DOH), consult the Housing Policies of the Connecticut DOH for environmental, accessibility and procurement requirements.

A. Development Team Selection Process

CHFA encourages a qualified development team selection approach where the owner/developer: 1.) Issues a Request for Qualifications ("RFQ") for architectural/engineering services; 2.) Selects several candidates, from the Architectural/Engineering ("A/E") firms, or teams, that respond to the RFQ, to be interviewed; 3.) Conducts the interviews, selects an architectural firm or team, and negotiates a contract; and 4.) Uses competitive bidding to select a GC, and negotiates a contract using the same RFQ and interview process.

CHFA reserves the right to require competitive bidding among three general contractors pre-qualified by the Applicant in order to achieve the lowest reasonable construction cost. If the Development Team does not select the GC with the lowest bid, they should demonstrate there is sufficient justification to select a GC with a higher bid price. The final contract amount is subject to CHFA approval.

B. Bidding Related Questions:

Regarding applications where a competitive bid process has taken place prior to submission, and if changes occur between Application and Initial Closing:

a. If the project hard cost and Scope of Work ("SOW") remain the same, and cost changes for Divisions 2-50 as submitted in the Project Cost Summary ("PCS") and Exploded Trade payment Breakdown ("ETPB") are minor, CHFA may allow adjustments within Divisions 2-50 as long as

subtotal for Divisions 2-50 is the same. The GC is expected to maintain the percentages for general requirements, builders overhead and builders profit-GMP fees that were accepted at the time of application review by ACS.

b. If the project hard cost increases due to changes in the SOW, such as additional deterioration of existing conditions, or price escalation due to time lapse between Application and Initial Closing:
   i. Value engineer and prioritize the critical SOW that needs to remain in project. CHFA would require the work related to Life Safety and Building Codes to remain in the project. The eliminated portions of the SOW can be added as Alternates in the Owner/GC contract, to be included if funds become available later.
   ii. Submit revised PCS and ETPB, along with a letter of explanation to CHFA for approval.
   iii. Add additional source to balance the project budget if possible.

Regarding applications that haven't had a competitive bid process prior to submission, but have bid the project after funding approval:

a. CHFA recommends Owner/Developer select a Guaranteed Maximum Price (GMP) contract versus a Stipulated Sum contract.

   If the development team insists on a Stip Sum contract against the recommendations of CHFA, the following language shall be added to the Stip Sum contract: “The development team and GC/CM are aware that CHFA will only recognize builder’s profit, overhead and general requirements to the extent that it does not exceed the maximum allowed by CHFA. Any excess profit, overhead and general requirements will not be recognized.”

   This language must be included as part of the GC / CM contract so expectations at GC Cost Certification review are understood by all parties. The Development Team is responsible for including this requirement within their bid solicitation package and inform the GC/CM.

b. CHFA requires the GC to submit hard costs with general requirements, overhead and builder’s profit-GMP fees not to exceed percentages accepted by ACS at the time of application review.

c. The Development Team is responsible for including this requirement within their bid solicitation package and to notify the GC of these limits, as these percentage limits must also be included in the GC Contract.

C. Architect

The Architect is the licensed design professional who: a) coordinates the owner/developer’s design goals, aesthetics, function, safety, economy, and future user needs; b) develops documents which enable the GC to build the project; and c) acts as the owner/developer’s representative throughout the design and construction process, to ensure that the final product meets the owner/developer’s expectations; and supervises the design team, bidding and construction administration services.

1. Architect Qualifications: The Architect shall be licensed by the State of Connecticut and must have a minimum of five (5) years of relevant, multifamily residential design and construction experience. Proof of such experience, in the form of three (3) reference letters from current and/or past clients, performance on multifamily residential projects of similar types and sizes, must be provided. Proof of experience may be provided at the discretion of ACS if the architect has successfully delivered prior CHFA projects.

2. Owner/Architect Agreement: The owner/developer/architect agreement shall include the following AIA contract documents:
    a. AIA Document B101-2017 – Standard Form of Agreement between owner and architect with Standard Form of Architect's Services.
    b. AIA Document B201-2017 – Standard Form of Architect's Services: Design and Construction Administration.

3. Scope Definition: The language below is required for inclusion in the contract or within exhibits to clearly indicate conformance to CHFA's AE provision of services scope requirements.
    a. Contract documents shall be assignable to CHFA.
    b. The construction administration portion of the architect's fee (including their consultants, if any) should be a minimum of 30-35% of the total fee, to be paid in equal monthly installments based upon the length of the agreed-upon construction schedule. The intent is to ensure that the project architect and their consultant team of MEPs etc. have enough fee allocated to perform all of the necessary CA work related to a project. Weekly site visits by the architect and other members of the design team is important and the CA fee should be suitable to ensure these visits can be accommodated throughout construction.
    c. Architect's Construction (Administration) Phase Scope of Services shall include:
        1. Weekly OAC Meetings: The Architect shall schedule, run, prepare agenda for, take and distribute meeting minutes for weekly Owner Architect Contractor (OAC) Meetings. Those meetings shall also include any professional consultants, sub-contractors, CHFA's Field Observer or other parties necessary to maintain work progress. Minutes shall be distributed to all attendees and CHFA ACS.
        2. Progress of the Work/Field Inspection: The Architect shall perform weekly field inspections during construction, and shall prepare and distribute field reports accordingly for the record to communicate the progress of the work and any issues found in the field that may pertain to change orders, etc. Field reports shall be distributed to the Owner/Developer and to CHFA ACS.
    d. The architect shall also prepare and distribute a final punch list to all parties, and verify that the work is completed by the GC.
    e. The architect shall contract with currently-licensed professional consultants as necessary to carry out the design and construction. All professional consultants shall be licensed by the State of Connecticut and must have a minimum of five (5) years of relevant, multifamily residential design and construction experience. The Architect shall provide the necessary due diligence to ensure that all sub-consultants have the required minimum experience.

4. Insurance for Design/Supervisory Architects and Professional Consultants:
Professional liability insurance in a form, amount and term satisfactory to CHFA shall be provided prior to the date of Initial Closing. All insurance policies must be in full force and effect as of the date of submission, and must be maintained after substantial completion of construction as required by CHFA, which shall be a named certificate holder on all insurance certificates. For detailed CHFA insurance requirements, refer to the CHFA website.

D. Architectural Design Responsibilities

1. All architectural, planning, engineering, landscaping and other services, which contribute to drawings and specifications, shall be under the direction of the design architect. As a general rule, CHFA discourages multiple professional service contracts; however, consideration for such arrangements may be made, on a case-by-case basis. Exceptions may be made for civil engineering site work and licensed survey work contracted directly by the developer; however, the architect will be required to coordinate these with other design work.

2. The design architect should review and opine on the reasonableness of the GC's proposed cost estimate and submit it as a letter to CHFA.

   The design architect for CHFA-financed rehabilitation projects must determine which existing exterior and interior building components are suitable for re-use. Replacement building materials, components and finishes shall comply with the requirements of the Standards, and all work shall conform to applicable codes.

   (NEW) On Renovation/Rehab projects of minor, moderate and substantial scope, the AE Team shall perform professional due diligence to confirm existing conditions and project scope by performing investigatory site visits, as required to accurately reflect existing conditions in its Contract Documents, prior to proceeding with project design and documentation.

   The AE Team shall not rely solely on the CNA and available existing conditions drawings to determine project scope, but shall also, by means of site visit(s) determine additional scope items that may have arisen since the date of the CNA, or items not observed by the CNA investigation that fall under the professional purview of the AE team member disciplines. The AE Team shall also interview the Owner/Developer and or its representatives to obtain feedback regarding existing conditions and deferred maintenance items effecting scope.

   Prior to proceeding with design, the AE Team shall confirm acceptability of Project Scope with the Owner/Developer, as determined through CNA Review, Site Visit Investigation, and Feedback. The project budget shall reflect the above approved Project Scope.

   Per the above, the Architect shall modify any existing conditions drawings it may have obtained to more accurately reflect the conditions found in the field, per site review, in order that project design and documentation accurately reflect existing conditions for all spaces and construction configurations relevant to the project. Accurate existing conditions drawings shall be provided within the drawing set as the basis for demo drawings and new design. It is understood that accuracy can only be afforded to a certain level of detail, and accordingly, those items known to require additional verification in the field shall include the "VIF" designation in their dimension annotations.

   On moderate and substantial rehabilitation projects, site investigations shall include structural review, plumbing review for existing system adequacy and code acceptability, and electrical system review to check for existing system/infrastructure adequacy to accept new appliances and mechanical elements, as well as to confirm that wiring type is adequate to meet current code standards (no fabric wrapped wiring allowed).

3. CHFA prefers the traditional Owner/Architect/GC development process, in which the owner, architect, professional consultants and contractor are separate, independent business interests. Design/build development teams should not be used; consideration for such arrangements may be made for minor-moderate rehabilitation projects on a case-by-case basis, provided the developer can adhere to the requirements for application and underwriting review and a thorough and complete assessment of the project can be performed to achieve a level of comfort with the project's scope of work, budget and hard costs.

Development team experience with CHFA, capacity and evidence of significant cost savings and successful delivery of previous design/build projects is required, since these factors are critical in the design/build consideration. The developer is encouraged to hire a third-party construction management or project management consultant to draft a very detailed Request for Proposal which clearly outlines project needs and requirements so project interests are adequately covered. Development teams must submit a minimum of five (5) years of design/build affordable multifamily development experience and/or three (3) successfully completed design/build projects.

4. Typically, construction trade or design/build contractors and sub-contractors shall not be employed to carry out design work; however, consideration for such arrangements may be made, on a case-by-case basis. Where work such as fire suppression design, irrigation design, truss design, commercial kitchen design, and modular building design is proposed to be carried out by design-build contractors, such work shall be certified by a licensed engineer, and the design architect shall be responsible for coordinating and accepting their work.

E. General Contractor (GC): CHFA encourages constructive participation by the GC during the design process to help maintain cost control for the development.

1. The GC is responsible for the construction of a property, pursuant to the terms of a primary contract with the owner/developer. The GC is responsible for all means and methods such as materials, vehicles, tools and labor used in the construction of the project, in accordance with the contract documents such as construction contract, schedule, general conditions, material/systems specifications and drawings prepared by the architect. The GC manages the construction process, including planning, staffing, budgeting, scheduling and supervision.

2. GC Qualifications: The GC shall be licensed by the State of Connecticut as a major contractor, and must have a minimum of five (5) years of relevant experience in the construction of residential facilities. The GC shall provide proof of such experience by submitting a minimum of three (3) reference letters from current and/or past clients, regarding the GC's performance on residential projects of similar type and size. The GC shall provide a minimum of three (3) reference letters from major material suppliers, regarding the GC's credit account payment history. Proof of experience may be provided at the discretion of ACS if the GC has successfully delivered prior CHFA projects.

   If the project is for replacement reserve requests or priority needs funding and includes only a limited scope of critical needs, capital improvements and/or repairs/replacements, a CT-licensed Home Improvement Contractor (HIC) with a minimum of five (5) years of relevant experience may be acceptable. The HIC may provide proof of such experience by submitting a minimum of three (3) reference letters from current and/or past clients, regarding the GC's performance on residential projects of similar type and size. The HIC may provide a minimum of three (3) reference letters from major material suppliers, regarding the HIC's credit account payment history. Proof of experience may be provided at the discretion of ACS if the HIC has successfully completed similar work on other CHFA projects.

3. Owner/GC or CM Agreement: CHFA prefers a Guaranteed Maximum Price (GMP) contract. However, if a Stipulated Sum (also known as Fixed Price or Lump Sum) contract is favored by the Development Team, the project should be subjected to competitive bidding. In the case of a stipulated sum contract, CHFA will only recognize builder's profit to the extent that it does not exceed the maximum allowed by CHFA. CHFA will recognize actual incurred costs for divisions 2-50 and percentages for mark-ups that were accepted at Initial Closing.

The agreement shall include the following AIA contract documents:

a. AIA Document A102-2017 Standard Form of Agreement Between Owner and GC where the basis of payment is the Cost of the Work Plus a fee with a Guaranteed Maximum Price (GMP). The CHFA recognized amount for cost certification purposes shall be:
   i. The actual cash paid and to be paid at final closing, as reflected on the General Contractor's Certificate of Actual Costs, or
   ii. The contract price under the construction contract, as reflected on the most recent approved PCS. For reimbursement of costs associated with permit, other fees and bond premiums, the GC shall provide proof of their payment, such as cancelled check, paid receipt or paid invoice.

   CHFA-recognized general requirements, overhead and builder's profit-GMP fees are calculated as a percentage of the CHFA recognized construction cost (Subtotal for Divisions 2-50). The percentage for general requirements, overhead and builder's profit-GMP fees is computed based on the approved PCS at initial closing.

   Proposed Change Orders should be limited to reasonable additional costs for unforeseen conditions and project betterments that increase the CHFA recognized construction cost, or credits that are applied to the development budget construction contingency. All CHFA-approved change orders will be added to the above-mentioned recognized construction cost. Additional bond and/or permit costs generated by the change order preparation and approval process during construction will be handled separately through a final change order at the completion of construction. The amount of actual cash paid or to be paid as described above shall be reduced by CHFA to the extent such amount includes any costs disallowed by CHFA in its review of the contractor's certificate of actual cost.

   Any hard cost savings realized during or at the end of the construction may be used for betterments to the project upon approval from CHFA. To use these savings for betterments to the project, the savings will be added to the construction contingency via credit change orders. These savings will be controlled by the owner. Any cost saving agreement between Owner and GC must be disclosed to and approved by CHFA at the time of Initial Closing or a 42M letter is issued by CHFA. Note that CHFA will only recognize GMP savings for the GC to the extent that the builder's profit, overhead or general requirements do not exceed the maximum allowed by CHFA.

b. AIA Document A101-2017 Standard Form of Agreement Between Owner and GC where the basis of payment is a Stipulated Sum:

   The recognized construction cost amount shall be the contract price under the construction contract, as reflected on the PCS at initial closing, excluding costs for permit, other fees and bond premiums. For reimbursement of costs associated with permit, other fees and bond premiums, the GC shall provide proof of payment, such as a paid receipt or paid invoice. The PCS submitted at Initial Closing shall be updated to reflect these actual incurred amounts if possible. Note that CHFA will only recognize builder's profit to the extent that it does not exceed the maximum allowed by CHFA.

   All CHFA-approved change orders will be added to the above-mentioned recognized construction cost. Additional bond and/or permit costs generated by the change order preparation and approval process during construction will be handled separately through a final change order at the completion of construction. The amount of actual cash paid or

to be paid as described above shall be reduced by CHFA to the extent that such amount includes any costs disallowed by CHFA in its review of the contractor's certificate of actual cost.

c. AIA Document A201-2017 – General Conditions of the Contract for Construction, with Instructions.
d. AIA Document A312-2010 – Payment and Performance Bonds, with Instructions.
e. Contracts must be assignable to CHFA, and shall include dates for commencement and completion of construction, and provisions for liquidated damages and/or early completion incentives (if any), progress payments and reduction of retainage.
f. Contracts must include the final PCS, ETPB and Construction Schedule as exhibits to the agreement. Note that the PCS will be used as a source document for evaluating GC costs for cost certification purposes.
g. The GC shall include the cost of a General Contractor's Cost Certification prepared by an independent, third-party CPA in the construction contract amount. This cost for the GC Cost Certification shall be carried within the Overhead percentage for the project with a maximum of 2% per CHFA Procedures. For guidance on Cost Certifications, refer to the Cost Certification Preparation Guidelines on the CHFA website.
h. Stored Materials Requests: All approved stored materials requests shall be included as an Exhibit to the GC / Owner Contract wither Stip Sum or GMP. All requests must be submitted to CHFA ACS PRIOR to initial closing, and must be approved and included in the GC Contract. No change orders for hard cost increases will be considered when stored materials have been requested and approved.

4. Other Requirements for GCs:
   a. The GC may use their own employees to perform at least 15% of the construction work, but can utilize the services of specialty trade firms such as sub-contractors to perform particular tasks under the direction and coordination of the GC in a direct contractual relationship, to complete the project.
   b. The GC will divide the total general requirements into equal monthly payments based upon the length of the agreed-upon construction schedule, which will be included in the monthly payment requisitions during construction.
   c. The GC is expected to maintain the percentages for general requirements, overhead and builder's profit-GMP fees that were accepted at the time of application review by ACS.
   d. For detailed CHFA insurance requirements, refer to the CHFA website. The cost for any GC insurance shall be carried within the General Requirements for the project.
   e. Refer to CHFA Procedures for bonding requirements. Note that that if a subcontractor places a lien, the GC is required to bond over it within 30 days, after which it becomes the responsibility of the developer to bond over it, and or place funds in escrow to cover it.
   f. In the event of a pandemic, the GC must follow all Federal, State and local regulations and guidance, including guidance from the CDC, for managing/maintaining safe job sites.

5. General Contracting arrangement: The traditional owner/architect/GC construction project delivery process is preferred, in which the GC provides the material, labor, equipment (such as engineering vehicles and tools) and services necessary for the construction of the project for a guaranteed maximum price. The GC's responsibilities generally include applying for building permits, securing the property, providing temporary utilities on site, managing personnel on site, providing site surveying and engineering, disposing or recycling of construction waste, monitoring schedules and cash flows, maintaining accurate records and also hiring specialized subcontractors to portions of the construction work the GC's own employees cannot provide.

6. Construction Manager as Constructor and Construction Manager at-Risk (CM@R) agreements: Typically, the construction management project delivery method shall not be employed; however, consideration for such arrangements may be made by CHFA. Exceptions may be made for experienced construction management firms with a proven record of minimum five (5) years of affordable multifamily development experience, or three (3) successfully-completed affordable multifamily development projects. Use AIA document A133-2009 Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of Work Plus a Fee, with a Guaranteed Maximum Price.
   a. These terms refer to a particular business relationship of owner, architect and construction manager, which entails a commitment by the construction manager to deliver the project within a Guaranteed Maximum Price (GMP). The CM as Constructor is similar to the GC during the construction phase. The CM@R delivery method is an alternative procurement process similar to longstanding private sector construction contracting, wherein the construction manager acts as consultant to the owner in the design development phase, but as the equivalent of a GC during the construction and final closing phases.
   b. The CM as Constructor and CM@R shall work closely with the owner/developer and architect on design review, project schedule analysis, constructability review and cost control management. In conjunction with the architect, CM shall prepare a cost estimate and evaluate the cost estimate against the construction budget. CM shall recommend, if necessary, the appropriate action to correct and/or avoid potential cost over-runs. The CM as Constructor and CM@R shall not include a construction cost contingency in its fee proposal; construction cost contingencies shall be included as a line item in the approved Owner's development budget. Any contract that includes a hard cost contingency will be rejected, even if it means the project must be rebid.

6. Cost estimates shall reflect the best professional estimate of actual anticipated costs, while establishing internal estimating allowances consistent with good professional practices appropriate to each phase of development. Larger allowances held at early phases of development should gradually diminish to zero for the final cost estimate at 100% CDs.

III. FIELD ENGINEERING SUBMISSION REQUIREMENTS

A. Boundary and Topographic Site Survey

The purpose of these specifications is to describe the minimum requirements for a boundary and topographic site survey for use in the design, construction and post-construction verification of "as-built" conditions. In general, the surveyor shall perform all field work necessary to accurately determine the location of property lines and existing physical conditions of the site, set monument markers, establish benchmarks and record on a Property and Topographic Survey, the information and data as required. All data and information required by these specifications shall be depicted and noted on a survey map in accordance with Sections 20-300b-1 through 20-300b-20 of the Regulations of Connecticut State Agencies – Standards for Surveys and Maps in the State of Connecticut as adopted by the Connecticut Association of Land Surveyors, Inc. All surveys shall meet or exceed Horizontal Accuracy Class A-2 and Topographic Accuracy Class T-2, and shall be signed and sealed by a Connecticut licensed professional land surveyor, and should include the following:

1. North Arrow with appropriate source reference (record map; CT Coordinate System; NAD27; NAD83; etc.).

2. Precise legal perimeter description ("metes and bounds" or "course and distances") shall appear on the face of the survey map, preceded by identification of the appropriate street address, if available. Said description to conform entirely to the survey. Any contiguous plot shall be described by a single perimeter description of the entire subject property. Division into parcels shall be avoided, unless such is requested so as to serve a special purpose. If the property is described as being on a filed map, the survey map shall specifically reference that filed map.

3. Two benchmarks referenced to an established datum permanent objects adjacent to the site located and described.

4. All boundary lines, labeled with bearings and distances.

5. Mark all corners of the site and other boundary line intersections not previously marked by a monument. Where existing structures preclude setting monuments at the intersection of property lines, a brass pin should be set in the property line extended, tagged and so noted, along with the distance from the true corner. At least one corner of the property shall be designated by course and distance from, or by the coordinates of, a readily discernible reference marker. Depict and label position and description of each marker.

6. Designate the total area within boundary lines in both square feet and acreage. If the overall boundary is made up of individual parcels, include the area of each.

7. Easements, Encroachments, and Improvements
   a. Indicate any and all servient and appurtenant easements by Book and Page, if any, the origin (e.g. Deed from A to B), if applicable, and nature. It is also desirable to describe an easement appurtenant to a fee parcel by using a separate parcel description.
   b. Clearly indicate the location, dimensions and nature of (A) all encroachments upon the property; (B) all encroachments upon adjoining property, streets or alleys, by any buildings, structures or other improvements upon the property; and (C) all party walls between, with or adjoining the property and other property.
   c. Indicate position, size and material of any and all improvements on the property, including buildings, retaining walls, decorative walls, areaways, driveways, paving, etc. Indicate the existence and location of off-site structures within 10 feet of the property lines. Indicate the location of any and all adjacent building lines. Note names of adjoining property owners.

8. Trees: Indicate location, species and size of trees over 6" in trunk diameter, measured at breast height (dbh).

9. Roads and Rights of Way: The following data shall be indicated on survey drawing for all streets, alleys, roads, highways and rights-of-way adjacent to the site:
   a. Dimensions and distances from property lines
   b. Type(s) and condition of material(s)
   c. Type(s) of curbs and gutters
   d. Elevations of sidewalks along edges nearest the site, at 20-foot intervals, at corners, and points of slope change

e. Elevations of tops of curbs and flow-line of gutters, at 20-foot intervals, at corners, and points of slope change

10. Sanitary Service: Development of sites without access to sanitary service is discouraged, due to the costs associated with providing well-designed, efficient on-site wastewater treatment and disposal systems. Development of sites without access to public water and sanitary services may not be funded.

11. Other Utilities: The following data pertaining to utilities adjacent to the site should be depicted and noted on the survey:
    a. Location and type of available electric service, including lines, poles and manholes
    b. Location of water mains, hydrants and manholes, indicating size of water mains
    c. Location and size of gas mains, including type (low or high pressure)
    d. Location, size, direction of flow, pipe slope, and type(s) of material of sanitary, storm or combined sewer mains. Indicate public or private, and if use is exclusively for sanitary waste or storm water drainage. Indicate elevations of flow-line, "in" and "out" inverts, and locations of manholes.
    e. If a utility is not available at the site, it shall be noted whether or not, and where service is available in the community.
    f. List the company or governmental body of jurisdiction for all utilities.

12. Topography: Elevations of the site should be taken on a grid suitable to the topography and size of the site. Contour lines shall be at two-foot intervals. Elevations shall be marked on contour lines at regular intervals, and the reference datum shall be specifically stated.

13. Miscellaneous Information:
    a. Note other information pertaining to site conditions, e.g. abandoned foundations, ditches, culverts, mine shafts and tunnels (if visible or known), wells, sanitary drain fields, excavations, etc. Also indicate locations of any and all waterways, wetlands, and established floodplains and floodways. Use the FEMA flood maps for established floodplains and floodways.
    b. In addition to other contractual services, the surveyor shall obtain and/or verify requisite information and data from public records, including names, locations, dimensions and elevations of streets, curbs, gutters, sidewalks, established building lines, easements, utilities, proposed improvements, condemnations, etc., necessary for, and incidental to, a completed site survey, preparation of the drawing thereof, and the certification by the surveyor that the data presented meets, at a minimum, the horizontal and topographic accuracy classifications specifies in the referenced standards to which the survey was prepared.

14. Coordination with Legal Survey: The survey shall meet the requirements of CHFA's Legal Department; including long-form certification language. This can be found on CHFA website under Standard Closing requirements.

15. (NEW) The Architect's plans shall be based on the latest digital Survey of existing as-built conditions depicted by a licensed surveyor and other consultants, and any Owner contracted consultants such as Civil and Landscape Architect have worked off of the same Survey in a coordinated manner. Architects and engineers, and all other consultants shall confirm they have all worked form the same Survey.

A. Capital Needs Assessment (CNA) Report

(NEW) The Architect shall provide a statement that the scope of work on the project conforms to the scope of work as outlined in the CNA. If the scope of work does not cover items enumerated in the CNA, or entails scope in addition to that listed in the CNA, the Architect shall list those items and provide explanations for those items' inclusion or exclusion.

If rehabilitation work is involved, the owner/developer shall commission a CT-licensed Architect or Professional Engineer to conduct a physical evaluation and energy assessment of all building components to remain during and after the rehabilitation. (NEW for 2026) While licensure and energy assessments are typically required for CNAs, they may be waived on a case-by-case basis depending on the scope, scale, budget and goals of the project. Contact CHFA ACS to discuss project details. The findings shall be compiled into a Capital Needs Assessment (CNA) Report, including a written description indicating the level of the rehabilitation and 20-year replacement schedule. For new construction projects, it is recommended that teams submit a Capital Needs Assessment (CNA) six months post-construction. This aids the Development Team to consider and plan for the long-term capital needs of the project in the early phase of project development. This helps encourage more efficient design, as well as maintenance of appropriate reserve levels, which improve the viability of the project over the long term.

In the case of a complete gutting of buildings, a CNA is not required. Instead, provide an Architectural Needs Assessment Report by an Architect, and a Structural Needs Assessment Report by a structural engineer, to identify and assess the age, appearance, condition, useful life expectancy, and structural capacity of all materials, assemblies, fabrications, equipment and systems that are to remain after the gut rehabilitation. The reports shall include the age, the material, the condition and life expectancy for such components.

CNA requirements include the following:

1. A narrative description of the development, including the evaluator's overall assessment of the property condition including of the building exterior and interior, including mechanical and accessible spaces; e.g., attics, roofs, crawl spaces, etc. Any spaces not accessed shall be noted in the report. The narrative shall include property location, age, physical attributes, number of units inspected and the physical condition of the units inspected.

2. The presence of, or suspected presence of, environmental hazards, such as asbestos, lead paint or mold shall be detailed.

3. The number of living units required to be assessed shall be as follows:
   a. Developments with 4 – 40 units $\geq$ 50%
   b. Developments with 41 – 60 units $\geq$ 35%
   c. Developments with 61 – 80 units $\geq$ 30%
   d. Developments with 81 – 100 units $\geq$ 25%
   e. Developments over 100 units $\geq$ 20%

   If determining the number of units to be assessed results in a fraction, round up to the next number.

4. The report shall include photographs of building characteristics that accurately reflect the existing conditions present.

5. Physical Assessment: The report shall further examine and analyze:

a. The site, including general topography, ground water drainage, bituminous/concrete pavement, bituminous/concrete walks and curbs, site amenities, water, storm, sanitary sewer, gas and electric services.
b. Structural systems, both for substructures and super structure, including exterior wall systems, doors and windows, roofing system and drainage, (NEW) including porches, decks, entrance landings, balconies, and exterior egress stairs and their associated roofs, canopies and overhangs, including the condition of existing framing and connection points and fastening/anchoring.

c. (NEW) Wind Load Diagram: For projects entailing roof installations, and new windows, a wind load diagram must be provided by the Structural engineer. Minimum performance product data for roof and openings assemblies shall include performance data indicating that uplift and other wind load criteria meet or exceed the loads listed on the Wind Load Diagram.

(NEW) Provide window elevation diagrams to for all window instance types indicating dimensions, square footages, and the dimension from finish floor to top of sill.

(NEW) Confirm acceptability per current code for interior sill heights from finish floor to top of sill, and clear opening dimensions and areas required for openings that function as points of egress.

d. Common area and unit interiors, including existing finishes (carpet, vinyl wall covering, paint, VCT, ceramic tile, etc.), appliances, cabinets, toilet fixtures, exhaust fans, range hoods, etc.
e. Building thermal envelope components, including an evaluation of insulation and air-sealing measures.
f. Building mechanical systems and controls, including HVAC systems, plumbing and domestic hot water, fire protection, electrical lighting and power, communication and security systems, etc.
g. Any components which are non-compliant with the ADA, Section 504 or Fair Housing Guidelines. The report shall include a copy of the owner's certification that the specific development complies with all of the ADA and 504 regulations, along with compliance with Fair Housing Guidelines. If the owner is unable to certify, then the report shall state how the owner plans to achieve compliance.

6. Energy Assessment: The report may include a Level I – Walk-through Energy Assessment (minimum) to assess building energy efficiency, identify defects and simple, low-cost improvements, and create a list of energy conservation measures and retrofit opportunities, including implementation costs and energy savings. This inspection is based on visual verifications, study of installed equipment and operating data, analysis of historic energy use and cost, and a benchmarking comparison to the performance of similar buildings in the area. A Level II – Detailed/General Audit is preferred.

7. The report shall include an interview with on-site property management and maintenance personnel to gain knowledge of past repairs, pending repairs and chronic physical deficiencies. The consultant shall obtain and include a 5-year history of the owner's capital repair expenditures for the development.

8. The report shall include a budget and an in-depth scope of work for the proposed rehabilitation work. This budget shall include expenditures and costs for all property improvements that

may affect the project's future marketability. Improvements may include energy efficiency upgrades, adding central air to the development, community room additions, etc. All proposed improvements (e.g., doors, windows, siding, roofing, paving, etc.) shall strive to comply with the Standards. Individual building materials, components, fabrications, and equipment for all proposed repair, replacement and capital improvement projects shall comply with the applicable section(s) of the current Standards.

9. The CNA report shall include a spreadsheet that outlines, by line item, the costs of proposed improvements expensed in year one, with a life-cycle replacement budget reflecting appropriate line item costs expensed over the proposed mortgage term, if applicable; otherwise a 20 year life-cycle is acceptable. The spreadsheet shall show all costs in today's dollars, with an appropriate rate of inflation for costs expended over the life-cycle term. Refer to the "Comprehensive Capital Needs Assessment Schedule" on the CHFA website.

C. Soil Boring Reports

A soil survey in accordance with ASTM D 1586 shall be performed under the direction of a CT-licensed structural and/or civil engineer, by a CT-licensed Geotechnical Engineer. The site is to be investigated, tested and evaluated with respect to soil and water conditions through subsurface exploration, however, a focus should be the building footprint and where other site improvements are proposed. The resulting report shall include test data, narrative descriptions and recommendations regarding the proposed site development. Boring locations are to mirror the proposed building footprint and reflect varying site conditions. Special attention is to be given to boring locations in low or marshy areas and where there is a history or evidence of fill or where rock may be expected.

Soil borings are to be made with a drilling rig, taking samples as often as the character of the soil changes, and describing it in accordance with acceptable engineering standards. Samples are to be submitted to a soil specialist for analysis. The engineer is to indicate the location of borings on a boundary survey and log the borings on the site plan or on a separate document. The logs are to use an exaggerated vertical scale to indicate, with acceptable key names and symbols, the nature of soil composition at each stratum to a depth of 15 to 20 feet.

For sites anticipating high-rise buildings, borings are to be concentrated in the area of the anticipated building location. Borings should be drilled to a depth of 100 feet or to hardpan.

Borings are to be performed after buildings have been located on the site plan. There should be a minimum of two borings per building for low-rise structures and at least two borings per wing for mid-rise structures with a minimum of three to four borings overall for this building type. Borings should also be carried out in parking areas and roadways.

The engineer should indicate bearing capacities of soils at various levels and note ground water conditions such as high water tables, flood zones, etc. The soils report should include boring logs, written analysis and recommendations for earthwork, fill and compaction, foundation design, floor slab support, wall backfill, subgrade preparation and pavement design, as well as identification of any special needs for subsurface water control. If unusual or suspect subsurface conditions are evident, additional subsurface investigation may be needed. If subgrade soils are determined to be unsuitable for the proposed site improvements, soils correction must be undertaken to avoid structural failure.

D. Remediation/Re-use of Existing Brownfield Sites

CHFA encourages the re-use and redevelopment of abandoned or underutilized commercial and industrial sites, where redevelopment and re-use has not occurred due to the presence or potential presence of pollution in the buildings, soil and/or groundwater that requires remediation before, or in conjunction with, the restoration, redevelopment and re-use of the property. CHFA may recognize abandoned, underutilized commercial and industrial sites as "Brownfields", if they are included by the Federal Government or the State of Connecticut on a published list of Brownfields, or can be documented to have received Brownfield remediation funds from the Federal Government or the State of Connecticut.

IV. CRITERIA FOR EVALUATING DEVELOPMENT PROPOSALS

Regarding housing for elderly persons, particular emphasis is placed on locating these developments in close proximity to services such as medical care and senior citizens centers. If federal funding is involved, such as HOME funds, particular care must be taken in selecting sites that are fully accessible. Per HUD guidelines, site accessibility must be provided to all community facilities involving new construction, including expansions to existing facilities.

A. Project Narrative and Site Selection

The architect shall provide a project narrative on notes sheet in drawing set. This requires scope confirmation between architect and developer and is a standard item typically required of architectural sets for agency review.

Ideally, development sites shall not be selected where the development would have an adverse effect upon its surroundings. Consider issues such as lot orientation, storm-water management, access to transit, and minimizing street widths. Site considerations include: Planning and Zoning, Land and Soil, Site Utilities, Existing Structures and Site Development Cost.

Floodplain Development

CHFA and DOH may fund development of properties where a portion of the site lies in a flood zone, if a flood management plan acceptable to CT DEEP is provided. For new construction, adaptive re-use/gut rehab developments, CHFA and DOH will not fund the development of critical activities (dwelling units) at or below the 500-year flood elevation.

(NEW) Also, per HUD's Final Rule on Floodplain Management, if new construction may be proposed in a flood zone area, the lowest floor of new construction shall be at least two feet above base flood elevation (BFE), however, CHFA will defer to the more stringent standard of CT DEEP and other funding sources. Additionally, the State of CT Resiliency Policy also does not permit housing in a high risk flooding areas.

For both federal funds and non-federal funds being considered for the project, the project must comply with 24 CFR Part 55 Floodplain Management requirements to receive funding. Projects that receive federal and/or non-federal funds that are located within the 100-year floodplain are required to obtain flood insurance under the National Flood Insurance Program. No projects will be funded in a community that is not participating in the National Flood Insurance Program.

New construction projects within the FEMA 100- or 500-year floodplain cannot commit units to the HUD Section 811 PRA Program. However, 811 PRA Program funds can go into existing properties

in the 100- or 500-year floodplain as long as: • The structure is flood-proofed or the lowest habitable floor and utilities are elevated above both the 100- and 500-year floodplain; • The project must have an early warning system and evacuation plan that includes evacuation routing; and • If the project is within the 100-year floodplain it must obtain flood insurance under the National Flood Insurance Program.

B. Development Costs

Location, available services, ease of development, type of construction, quality of materials, size and number of units and amenities provided, all contribute to overall costs. Site improvement and building costs should be consistent with the type and quality of the proposed development and reasonable in cost per unit. Costs should be evaluated for the level of maintenance required over the mortgage term of the development and for the amenities planned in its design.

C. Project Data for Construction Cost

In order for CHFA to evaluate the construction costs for proposed developments, the Architect must provide the following project data on the construction drawings, which must be updated and re-submitted if revisions are made.

Unit Plan Data: The Developer and Architect shall provide and confirm Tabular Unit Data in Plans at 40%, 90% and 100% CDs at Application, Board, and Initial Closing to confirm. That data shall coordinate and conform to the unit numbers in the loan document and ConApp iterations.

1. Number of Buildings
2. Building Gross Area (Total Project Square Footage – all buildings)
3. Total Number of Units and Breakdown of Unit Type (including number of bedrooms and accessibility types)
4. Unit Net Area (Net Residential Area – each dwelling unit)
5. Total Living Unit Area
6. Total Common Area (Net Common Area – all buildings)
7. Total Commercial Area (Net Commercial Area – mixed-use buildings)
8. Total Parking Area (Net Area – parking within the footprint of the building; or Gross Area – separate parking garages)

D. Area and Use Definitions for Construction Cost Calculations (for use in conjunction with the Architect SF Info Table from the Consolidated Application)

1. Building Gross Area: All floor areas, including construction and shaft spaces within the building, measured from the outside of the exterior walls; spaces only partially enclosed, such as balconies, entrance canopies, etc., are not included; basements in town houses are not included. Floor areas of non-housing, such as commercial spaces, are to be included; basements with common space that has a housing use are included.

2. Unit Net Area: The floor area inside the finished surfaces of a residential unit, inside face of all walls.

3. Residential Area: Spaces to be included are dwelling units (including the manager's unit), entry vestibules, lobby spaces deemed necessary for foot travel from the building entry to the elevator and from the elevator to the unit entry, corridors, elevator lobbies, elevators,

receiving, mechanical/electrical/meter rooms, stairways, trash rooms and tenant storage.

4. Common Area: Spaces to be included in Common Area calculations include community buildings, community rooms, common kitchens, offices, reception areas, maintenance areas, library areas, meeting rooms, common laundries, lounges, restrooms, mailrooms, janitor closets, craft rooms, game rooms, conference rooms, mechanical/electrical rooms for common areas and common storage space.

5. Commercial Area: Spaces to be included in Commercial Area calculations include all areas available for commercial lease in mixed-use buildings.

6. Parking Garage: If a parking garage is included within the footprint of the building, provide the Net Square Footage of the garage itself. If a separate garage structure is included in the project, provide the Gross Square Footage of the entire garage.

E. Project Cost Summary (PCS) and Exploded Trade Payment Breakdown (ETPB)

The submission of the CHFA/DOH Consolidated Application exhibits for PCS and ETPB are intended as the final contract pricing based on costs developed by the Contractor for each of the 50-divisions of the Construction Specification Institute MasterFormat 2014 standard construction specification filing system. The PCS and ETPB also serve as the contractor's requisition template and cost certification template.

1. All PCS and ETPB exhibits should be prepared by a qualified General Contractor. Estimates prepared by the Architect, Owner or Development Consultant are not acceptable. If a GC selection process has been completed prior to the submission of a PCS and ETPB, the selected GC must be the preparer.

2. Housing Authorities, Non-Profit Entities and Municipalities may be sales and use tax exempt for goods and services used in connection with creating and maintaining low and moderate income housing. All ETPB and PCS construction cost exhibits must include sales and use tax at the time of funding application, except as indicated below:
   a. If the development entity has already been determined to be tax exempt, the CT DRS determination letter and CERT-126 "Certificate for Exempt Purchases of Tangible Personal Property for Low and Moderate Income Housing Facilities" form must be provided with the funding application.
   b. If the Applicant/Owner and Co-sponsor are individually tax exempt, and a determination by CT DRS is pending, or an application to CT DRS has not yet been made, IRS 501(c)(3) letters for both the Applicant/Owner and Co-sponsor, and a signed written statement that the proposed development entity will assume responsibility for any additional costs arising out of a denial of tax exempt status by CT DRS, must be provided with the funding application. A CT DRS determination letter and a CERT-126 form must be provided prior to finalizing the ETPB & PCS for initial closing, or a 42M letter is issued by CHFA.

F. Prevailing Wages/Davis-Bacon Wages

State Prevailing Wages and/or Davis-Bacon Wages may be required. It is the responsibility of the applicant to determine if these requirements apply to their project. Please contact the necessary State and Federal authorities to determine the applicability of prevailing wages and/or Davis-Bacon wage rates prior to submitting an application. The rationale for including or excluding Prevailing Wages and/or Davis-Bacon Wages in the construction cost shall be included with the

application. When Prevailing Wage Rates are required by the Connecticut Department of Labor, and/or Davis-Bacon Wage Rates are required by the U.S. Department of Labor, provide a summary analysis of the various labor categories and the hard cost increase in the labor rate over standard labor rates. The data provided by the applicant must be supported by the State of CT prevailing wage sheets or Davis-Bacon wage rates for each labor type and category.

G. CHFA Very Low-Income (VLI) Construction Employment and Affirmative Action (AA) Policy

All multifamily projects funded by CHFA and/or LIHTC are required to comply with CHFA's Very Low-Income (VLI) Construction Employment Policy. Projects funded by CHFA are required to comply with the AA Policy. Refer to this policy located on the CHFA website.

H. CHFA Procedures and Cost Limits

1. General Requirements: 6% of Total Hard Cost (max.)
2. Builder's Overhead: 2% of Total Hard Cost (max.)
3. Builder's Profit- GMP Fees: 6% of Total Hard Cost (max.)
4. Identity of Interest: For applications where there is a stated Identity of Interest between a Developer and General Contractor, or a Contractor and Architect, i.e. they are related entities, the following limits would apply for Overhead and Builders Profit-GMP Fees and General Requirements:
   a. Builders Overhead and Builders Profit/GMP Fees (combined): 6 percent of construction costs
   b. General Requirements: 5 percent of construction costs.
5. Percentage Stacking: Percentage Stacking is typically not allowed, but may be considered on a case-by-case basis at ACS discretion.
   a. The maximum GC markup for General Requirements including the Subcontractor's cost shall be 6%, (or 5% with Identity of Interest), or less for Initial Closing.
   b. The maximum GC mark-up for Overhead & Profit for self-performed work shall not exceed 8% (or 6% with Identity of Interest), or less as may be reflected in the final Project Cost Summary accepted for Initial Closing.
   c. In general, PCOs should not include mark-ups for additional General Requirements. Requests for additional General Requirements, if any, will be considered only through separate PCOs, for substantial increases to the construction schedule beyond the GC's control, and with the Owner's consent.
6. Note: limits may be further restricted if a HUD subsidy layering review is required.

V. ARCHITECTURAL & CONSTRUCTION SERVICES REVIEW

A. Pre-Design/Application Meeting: A pre-design meeting with CHFA is encouraged prior to submittal of a financing application as early as possible to discuss ACS processes and review.

B. Application Review Process: Projects will be reviewed by the CHFA Architectural & Construction Services Department at application. For all developments, including those receiving Low-Income Housing Tax Credits (both 9% and 4%) and developments financed with tax-exempt and taxable bonds, the review of the ConApp is the first stage of the ACS Review Process.

All finance and LIHTC applications must comply with CHFA Procedures, and the requirements of the CHFA/DOH Consolidated Application. Building materials, products, fabrications, assemblies, equipment and systems for all proposed development projects (rehabilitations and new construction), and all capital improvement repair, replacements and installations, must comply

with all applicable Building Codes, and all local, State and Federal regulations. However, if a Notice of Funding Availability (NOFA) or the Qualified Allocation Plan (QAP) has different requirements, the more restrictive requirements shall take precedence.

C. 90% Construction Contract Document Requirements: Plans and Specifications ≥ 90% complete may be required for CHFA Board approval. Note that, except for additional post-bid clarifying notes, details, and any necessary revisions due to value engineering, ≥ 90% complete drawings and specs are expected to include all of the elements outlined below, to be construction contract bid- and building permit review-ready. All hard costs shall be reflected in the PCS and ETPB. Only electronic sets of Construction Drawings and Specifications are to be uploaded.

1. 90% Construction Contract Drawings shall include site development plans, sections and details, building, dwelling unit, community and other non-residential facility life-safety, structural, HVAC, fire suppression and electrical floor plans, demolition plans (if applicable), building elevations, sections, elevations, details, interior elevations, and schedules. All 90% complete drawings in the construction set shall be coordinated and all pages shall be bound together as a complete set. All drawings must include sheet titles and numbers, graphic and lettered scales and a north arrow.
   a. Title sheets shall include development location, including location map, names and contact information for the Sponsor, Architect, Landscape Architect, Site Planner, Surveyor, Engineer and any other special consultants, revision dates, index of drawings, complete project area data for construction cost review, a graphic/tabular analysis of the applicable Building Codes to which the proposal has been designed and a large note on the title sheet clearly indicating that the drawings are intended as “90% Construction Drawings”. Building Code requirements to be addressed in the analysis include, but are not limited to: use and occupancy classification(s), building height(s) and area(s), type(s) of construction and fire-resistance rating(s), fire protection system(s), means of egress and accessibility. For projects with CHFA funding, space on the cover sheet should be provided to accommodate the CHFA 5-party Development Team Signature requirements.
   b. ALTA Survey: Boundary and topographic surveys shall be prepared by a Connecticut licensed professional Land Surveyor to meet the current Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and Sections 20-300b-1 through 20-300b-20 of the Regulations of Connecticut State Agencies – Standards for Surveys and Maps in the State of Connecticut as adopted by the Connecticut Association of Land Surveyors and Horizontal Accuracy Class A-2/Topographic Accuracy Class T-2 requirements.

2. 90% Construction Contract Specifications shall define all proposed building materials, products, fabrications, equipment and systems in division 2 through 50, of the CSI MasterFormat 2014, including Part 1 – General, Part 2 – Products and Part 3 – Execution. Unless otherwise permitted by CHFA, manufacturers’ instructions shall be followed for the installation of all materials, products, fabrications and equipment. For projects with CHFA funding, space on the cover sheet should be provided to accommodate the CHFA 5-party Development Team Signature requirements.

3. IECC: When required, indicate what path to IECC conformance the project is pursuing.

4. In addition to updating plans and specifications, the project architect shall provide a written response to CHFA ACS comments and requests for clarification. The written response will function as a change log noting sheet numbers and items changed, and specification

numbers changed for those responses resulting in changes to plans and specifications. (NEW)

VI. 100% CONSTRUCTION CONTRACT DOCUMENTS and INITIAL CLOSING

This phase culminates with the final documents from which the development will be constructed, the construction contract documents or CDs.

A. 100% Construction Contract Document and Initial Closing Submission Requirements

1. Architect and GC qualifications, zoning approval, capital, energy and/or structural needs assessments should have been submitted with the original application. If any of these have changed, updated documents are required for review.

2. Environmental Assessment: Provide Environmental Site Assessment and Hazardous Material Survey reports.

3. Soils / GeoTech Report: If not previously submitted, or if revisions to previously-submitted boring and test pit report by a licensed Geotechnical Engineer, provide updated documents.

4. Energy Conservation Plan: Provide a final estimate of anticipated energy incentives from the utilities based on a Letter of Agreement (LOA) with incentive amounts, energy savings details and verification requirements.

5. Availability of Utilities: If not previously submitted, submit updated documents. If there will be no changes to the utilities available at an existing development, this may not be required.

6. Property and Topographic Survey and Legal Description: Submit a pdf version of the Property and Topographic Surveys, including a certification statement to CHFA, its successors and assigns; the title insurance company/companies insuring the Mortgage; the owner/developer, DOH (if applicable) and/or other interested parties; with no statement of facts objectionable to CHFA. The survey certification language and attendant notes should include the following basic elements in a format acceptable to CHFA, and should be used for both the pre-construction and As-built surveys:
   a. Survey Certification Statement:
      To: Connecticut Housing Finance Authority, [State of Connecticut/DOH/Other Lenders], [Title Insurance Company], [owner/developer] [Other Interested Parties]:
      This is to certify that this map and the survey on which it is based were made in accordance with the [current adopted year] Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1(existing), 2, 3, 4, 5, 6, 7(a), 8, 9, 10, 11, 13, 14, 16, 17, 18, 19 and 20 of Table A thereof. The fieldwork was completed on [Date].
      Date: [Certification Date]
      Signature: [Licensed Land Surveyor's Signature with Professional Seal Affixed]
      Note: Table A item 20 may be excluded from the Survey Certification Statement, if there are no unique circumstances or unavoidable impediments to meeting the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys that may apply to the subject property represented on the survey.
   b. Other Applicable Notes (including, but not necessarily limited to):
      i. This survey map has been prepared in accordance with Sections 20-300b-1 through 20-300b-20 of the Regulations of Connecticut State Agencies and the' "Standards for

Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. as a Property and Topographic Survey, the Boundary Determination Category of which is a [Resurvey or First Survey] conforming to Horizontal Accuracy Class A-2 Topographic Accuracy Class T-2. This [survey/resurvey] is intended to be used for conveyance or financing purposes, and as a base for engineering site design.

ii. Reference is made to [List of Maps] of the [Municipality] Land Records.
iii. Reference is made to deeds of record found in [List of Books/Pages] of the [Municipality] Land Records.
iv. Reference is made to instruments of record as labeled hereon.
v. Areas of the surveyed parcel(s):
    1. Total = [Sq. Ft. (Acres)]
vi. There are no wetlands on the subject property as indicated in [Wetlands/Watercourses and Soils Report], prepared by [Soils Science and Environmental Services Consultant], [Date].
vii. Property does not lay within a FEMA Flood Hazard Zone, as depicted on Flood Insurance Rate Map, Panel [Number], Map [Number], Effective Date: [Date].
viii. Reference is made to map titled [Title] dated [Date], prepared by [Surveyor].
ix. Elevations depicted hereon are based on the North Atlantic Vertical Datum of 1988 (NAVD88).
x. Subsurface utility, structure and facility locations depicted hereon have been compiled, in part, from municipal records and field measurements. These locations must be considered as approximate, may not be complete, and other such structures may exist on site. The size, location and existence of all such features must be verified by the appropriate authorities prior to construction.

7. 100% Construction Contract Drawings: Provide an electronic set of 100% complete Construction Drawings, in accordance with CHFA requirements. All drawings developed for use in the construction of the development shall be coordinated to allow printing on the same standard sized print pages, and all pages shall be bound together as a complete set. All drawings must include sheet titles and numbers, graphic and lettered scales, and a north arrow. Changes to previously-submitted drawings (revisions and additional notes/details, etc.) based on specific review comments shall be identified in accordance with architectural graphic standards by drawing a "cloud".
    a. Title Sheet: Development location, including location map, names and contact information for the Sponsor, Architect, Landscape Architect, Site Planner, Surveyor, Engineer and any other special consultants, revision dates, index of drawings, a development data summary, a list of the applicable Building Codes, use group, building classification to which the proposal has been designed and a large note on the title sheet clearly indicating that the drawings are intended as "100% construction drawings".
    b. Boundary and Topographic Survey
    c. Site Plans (list of typical site plan drawings):
        i. Demolition Plan
        ii. Road and Building Location Plan
        iii. Site Layout Plan
        iv. Grading Plan
        v. Planting Plans
        vi. Site Utility Plan
        vii. Site Lighting and Photometric Plan
        viii. Sewer Profiles
        ix. Irrigation Plans

d. Residential and Community Building Plans (list of typical Residential and Community Building construction drawings):
   i. Building Demolition Plans and Elevations
   ii. Building Foundation Plan
   iii. Interior Demolition Plans and Elevations
   iv. Building Elevations
   v. Building Roof Plan
   vi. Unit Floor Plans
   vii. Unit Interior Elevations
   viii. Building Sections
   ix. Exterior Section Details
   x. Interior Architectural Construction Details
   xi. Door, Window and Finish Schedules (gut rehab and new projects) and Scope of Work Matrix (less-than-gut rehab projects)
   xii. Structural Framing Plans - Composite floor/roof plans and unit floor plans and mechanical equipment room plans
   xiii. Mechanical, Plumbing, Fire Protection and Electrical Plans - Composite floor/roof plans and unit floor plans and mechanical equipment room plans

8. 100% Construction Contract Specifications: Provide an electonic copy of a Construction Contract Project Manual at a 100% level of completion. 100% Construction Contract Specifications should define all required bidding, contract and general requirements in division 1 of the CSI MasterFormat 2014, and include technical specifications for all building materials, components, assemblies, fabrications, equipment and systems in divisions 2 through 50, including Part 1 – General, Part 2 – Products and Part 3 – Execution. Manufacturers' instructions shall be followed for the installation of all materials, products and equipment.

9. Other Contract Documents related to the Architect:
   a. Standard AIA owner/Architect Agreement and Amendments. The fee distributed for construction administration (CA) shall be approx. 30 - 35% of the architect's total fee
   b. Certificate of Liability Insurance naming CHFA as certificate holder
   c. Certification that the documents adhere to all applicable codes and CHFA requirements
   d. ADA/ Uniform Federal Accessibility Standards Compliance Certification if required

10. Other Contract Documents related to the GC:
   a. Standard AIA owner/Contractor Agreement, including contract time, contract sum, list of addenda, list of drawings and specs, and liquidated damages
   b. Riders and Exhibits
   c. Contractor's General Liability, Automobile, Umbrella, Worker's Compensation and Latent Defects insurance coverage per applicable CHFA requirements for multi-family developments under construction and/or with permanent financing, which can be found on the CHFA website
   d. Schedule of Values; if available
   e. Construction Schedule: CHFA prefers Critical Path Method (CPM) construction schedules, such as those created with Primavera, Suretrack, Microsoft Project or other project scheduling and control software, in order to develop, analyze, update, monitor and report the progression of construction projects such that the owner/developer is informed quickly and accurately of project events, potential problems, and corrective actions. If Microsoft Excel-type bar charts are used, the construction operations shall be consolidated onto one page, or a series of pages, to continuously show all concurrent

work. If the project is to be divided into major sub-projects for multiple buildings, color coding the bars can keep the sub-project work together.

g. Performance & Payment Bonds – refer to CHFA Procedures for requirements
h. List of Sub-contractor(s)
i. Building Permit(s)

B. Early-Start: <u>CHFA discourages owner/developers from starting construction prior to Initial Closing. Early Start is entirely at the owners/developers own risk.</u> If the owner/developer finds that there is no other viable alternative, and chooses to assume total liability for all construction costs, all fees and all liens and encumbrances incurred prior to Initial Closing and the recordation of a mortgage shall be paid by the owner/developer. The CHFA Field Observer will not visit the site until the Initial Closing has occurred.

The owner/developer must understand that CHFA will not be responsible in any way for any liens or any other objection to title, or any other additional risks, which might result from the owner/developer decision to start construction of a project commenced prior to the CHFA Initial Closing and the recordation of a mortgage. Starting construction early, is at the sole risk of the owner/developer.

C. CHFA 5-Party Development Team Signature Requirement: Prior to Initial Closing, one (1) full size printed sets of the final contract drawings and specifications accepted by CHFA must be submitted with the signatures of representatives of the Owner/Developer, Architect, General Contractor and Bonding Company. The CHFA ACS will sign after delivery to CHFA. The Architect must include the statement and table indicated below on the cover sheet of each bound printed set of the construction drawings, and each bound printed volume of the construction specifications. The statement and table may be included on the cover pages prior to printing, may be included on an adhesive label that is applied to the cover pages of the bound/printed drawing sets/specification volumes, or may be included on separate cover sheets that are bound into the printed drawing sets/specification volumes.

Statement and Table:

"These drawings and specifications are the final contract drawings and specifications, which are submitted for CHFA's acceptance."

ACKNOWLEDGED and ACCEPTED:

Authorized Representative for:	Printed Name	Title	Signature	Date
Owner				
Architect				
General Contractor				
Bonding Company				
CHFA				

D. Stored Materials Requests

Stored materials may be funded by CHFA only if there is a long lead-time. Site-specific items include precast concrete, structural steel, elevators, and large project-specific mechanical equipment. Acceptable storage space with appropriate security measures must be available on-site so all

materials are secure and locked. Off-site storage anywhere other than a manufacturer's facility is generally unacceptable. Funding for stored materials is not meant to finance contractors for items easily obtained and readily incorporated into the work. The development team must submit a request noting the list of items and a rationale for specific items to be considered for funding as stored materials prior to the start of construction. The request should also include the total amounts of stored material payments to be requested for each item, and a schedule for any partial payments to be requested with each requisition. CHFA will consider all stored material requests on a case-by-case basis and encourage development teams to share in the risk for stored materials requests with a 50/50 split with CHFA on these costs. All accepted stored materials must be readily available for inspection by the CHFA Field Observer and CHFA, and the Field Observer must accept the storage location and confirm deliveries of the subject materials in the Field Observation reports.

- A list of Stored Materials items being requested.
- The rationale/reason for requesting each item.
- The amount or number of each material or piece of equipment being requested.
- The total cost for each item (type) being requested.
- A schedule of partial payments for items being requested.
- A description of the storage space, whether on site or off site, including security measures and the availability for the FO to review the site for acceptability. If remote off site locations such as manufacturer's facilities apply, provide a description and statement of acceptability by the manufacturer's representative.

If the materials are to be stored off-site at a manufacturer's facility, upon acceptance by CHFA, the GC shall provide the following:

1) Insurance, including, but not limited to, casualty and theft for the stored materials and the manufacturer's facility (Please see CHFA's website for detailed insurance requirements);
2) Bonding company's consent to the off-site storage; and
3) UCC-1's for the stored materials, creating a security interest for CHFA.
4.) All materials must be stored securely in a locked area or container.

Once a stored materials request is approved by CHFA and construction commences, a "Contractor's On-site Inventory Requisition – Form 5372 MR11" must be completed and attached to each monthly requisition as materials are properly stored in accepted storage locations. This form captures the listing of all stored materials, and charts how much has been installed from month to month. Once this form starts being used in the construction phase, it must continue to be included until all the stored materials have been installed, even if there was not a change from the previous month. All new inventory must be accompanied by copies of invoices and/or paid receipts, as agreed prior to closing. This form must be signed by the same duly authorized representatives of the development team who sign the GC's requisition. In addition, lien waivers for all stored materials and all on-site inventory should also be provided and these amounts should be included in the total lien waiver calculation on the contractor's requisition.

For requests for deposits on long-lead items such as structural steel, historic windows, etc, an invoice is required which notes the cost of the materials and the deposit amount required. Change orders will not be considered on costs for stored materials.

VII. CONSTRUCTION and POST-CONSTRUCTION

A. CHFA Construction Observation Requirements: For all developments with CHFA construction funding, or other funds administered by CHFA, construction observation is required by an assigned CHFA Field Observer. For all developments funded through tax credit equity of 9% and

4%, CHFA staff may periodically visit the development to conduct on-site observations of the construction process. Observations may occur at any time within the duration of the construction process. In addition, as-built drawings and specifications reflecting compliance with the Standards, prepared by the GC, and verified/approved by the architect, shall be submitted prior to the execution of the IRS Form 8609 and/or Release of Retainage.

B. Pre-Construction Guidelines: Prior to or immediately after Initial Closing, CHFA will distribute the Pre-Construction Guidelines. The guidelines are shared by the development team including the owner, the architect, the contractor and any other project management/administrative personnel involved with preparing and submitting payment requisitions, or as otherwise deemed necessary by the owner. The CHFA Field Observer shall perform bi-weekly site visits to the development and provide field reports and progress photos to CHFA, among other duties and tasks as the representative for CHFA.

The Pre-Construction Guidelines provide information regarding all CHFA-required project management and administrative procedures, responsibilities and expectations during, and immediately after, the construction phase. Note that the representative of the architect-of-record who provides on-site administration services must be a CT-licensed architect. The CHFA document “Pre-Construction Guidelines”, can be found on the CHFA website.

C. Initial Site Meeting: Discussion and coordination of the following construction-phase logistical issues and process recommendations by the Development Team and the CHFA Field Observer at the first site meeting is recommended:

1. Introductions/exchange of contact information
2. Schedule of Values
3. List of Sub-contractors
4. Change Orders
5. As-built Drawings
6. Building Permits
7. Additional Sets of Drawings
8. Project Site Cleaning
9. Deliveries and Site Access
10. Color Schedule
11. Start/Completion Dates
12. Construction Schedule
13. Coordination of Work
14. Daily Reports
15. Roles of Architects and Engineers
16. Testing REQUIREMENTS
17. Examination of Site
18. Dimensions
19. Enclosures and Barricades
20. Field Office
21. Utility Connections and Charges
22. Fire Extinguishers
23. Emergency Phones
24. Insurance
25. Warranties and Guarantees
26. Applications for Payment
27. Protection and Safety
28. Project Sign
29. Sanitary Facilities
30. Shop Drawings
31. Soil Erosion and Sedimentation Control
32. Soils Information
33. Substitutions
34. Lien Waivers
35. Surveyor
36. Minority Work Requirements
37. Labor Rates
38. RFI Log
39. PCO Log
40. Allowance Log