New York State
Division of Housing
and
Community Renewal

New York State
Housing Trust Fund Corporation

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Design Handbook

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Section 1 ..... Purpose and Goals

1.01 Purpose of Handbook

The Office of Community Development (OCD) has developed the Design Handbook to create minimum housing standards for persons of low-income and to assist project sponsors and architects in creating functional, safe, durable and cost-effective projects. The handbook includes submission, design and specification requirements and design goals and objectives. In addition to the Design Handbook, project sponsors and architects will need the following two publications to ensure full compliance with all submission requirements:

* Request for Proposals (RFP)
* Capital Programs Manual (CPM)

All three publications can be obtained by contacting staff at one of OCD's Regional Offices. *See Appendix A*

The purpose of the handbook is to apprize project sponsors and their architects of OCD's design and specification requirements so they can be factored into a project's design proposal and development budget at the time an application is submitted for funding administered by the New York State Housing Trust Fund Corporation (HFTC) or the Division of Housing and Community Renewal (DHCR).

Potential project sponsors needing technical assistance prior to submitting an application for funding are encouraged to contact OCD's Regional Office staff architects on the design requirements contained in this manual.

Low-income housing projects are recommended for funding to the Commissioner based upon competitive scoring criteria and technical reviews performed by OCD's Underwriting and Design Services staff to determine a project's economic and design feasibility. *See Section 3.01 for preliminary design review criteria.*

Because only ***complete*** applications are scored, care should be taken by the project sponsor to make sure that all application submission requirements prepared by the project architect are provided. All application submissions must also meet certain threshold criteria including program eligibility, site control and site selection requirements. (Refer to Site Requirements, Section 5.03 of the Capital Programs Manual for more detailed information.)

Instead of relying on cost limitations, OCD has adopted scoring criteria to determine cost effectiveness. A project Sponsor's cost estimate will be incorporated into the funding commitment if selected for an award. Therefore, the project sponsor should make sure that the project's scope of work, as represented by the architect's plans and specifications, is well defined and that the preliminary cost estimate is accurately prepared by a construction contractor or cost estimator.

1.02 Design Goals and Objectives

OCD's primary purpose in creating this Design Handbook is to aid project sponsors and architects in producing functional, safe, durable, and cost-effective housing for persons of low-income. Our other objective is to add value to communities and pride amongst occupants. The following objectives must be included, where applicable, in developing design solutions that work to enhance community neighborhoods and create housing projects that promote community pride.

1.02.01 Site Development

A. Site development should be compatible with project surroundings, e.g.:

1. Neighborhood scale should be maintained;
2. New and existing setbacks should be consistent;
3. Building heights and bulk, as seen from the street, should be respected; and
4. Building materials compatible with the neighborhood should be used.

B. Neighborhood traffic patterns should be respected, e.g.:

1. Internal roads should relate to existing and planned alignments of abutting neighborhood roads, but at the same time should discourage through traffic and speeding;
2. Curb cuts should be minimized and alternate parking solutions found;
3. Intersections should generally be at right angles, avoiding off-sets; and
4. If an existing pedestrian or bikeway system exists in the surrounding area, site development should enhance and continue the system.
5. Acoustic buffers must be provided if outside noise levels are higher than 65 decibels.

C. Open space should be useful and accommodating, e.g.:

1. Provisions should be made to accommodate both social interaction and privacy for residents;
2. In age-integrated projects, areas should be provided for both interaction and separation between children and elderly;
3. Sitting areas and walkways should be arranged to facilitate conversation, casual interaction, and social contact (seating should be oriented toward street activities);
4. A clear separation in the use of public and private space should be made;
5. Outdoor space and public sidewalks should be shaded and made attractive by the presence of trees;
6. Paved areas should be characterized by high quality, easily maintained materials which are attractive in terms of their color and texture; and
7. In family projects, children's defined play areas should be safe, related to their building unit and located so as not to disturb residential activities e.g.:

    * Private outdoor space used for children's play should be located for easy supervision;
    * Play areas for the younger groups should be accessible without crossing a vehicular path;
    * Play areas should only be located adjacent to a drive or parking lot if protected by physical barriers capable of stopping a moving car;
    * Play areas should be distinct. Separate areas for toddlers/preschoolers, and teenagers should be provided in family projects; and
    * Safety surfaces should be used at all play equipment in conformance with U.S. Product Safety Commission Guidelines, latest edition.
    * Play areas should be enclosed with fencing to provide safety and protection to the children.
    * Play areas are to be located on an accessible route to allow access to individuals in wheelchairs.

8. Existing trees should be maintained.

D. Common project space should be secure.

1. Public ways and exterior spaces should be visible from dwelling units and interior common spaces e.g.:

* Recessed or hidden spaces should be avoided;
* Public spaces should permit easy supervision by security forces;
* The entire parking area should be visible from a point at the exit;
* Stairwell exit doors, if required, should exit into areas that are visible to the public and nearby dwellings; and
* In projects with individual dwelling unit entrances, parking areas should be small and in proximity to dwellings to allow supervision of space and one's own car.

E. Access to buildings within the site should be easy and convenient.

1. Paved walkways and drives should provide a direct and visible connection between the street and main entrance door.
2. In multi-story buildings, family units should be located on lower floors to enable easy access for children and easy child supervision for parents.

F. Community facilities should abut the most public walkways of the pedestrian system and be generally central to all units.

G. In multi-building projects, concrete walkways should connect each building to the street, to parking, and other buildings.

H. All essential portions of the pedestrian system should be passable in poor weather, i.e., capable of being mechanically snow plowed, sheltered from sweeping winds, and well drained to prevent flooding and icing.

I. Building entrances should provide shelter from sun, wind, and precipitation.

J. Where possible, ramps should be provided instead of stairs.

K. Building and open spaces should be oriented and arranged to benefit from environmental conditions.

L. Sun should enter each dwelling unit some part of the day year-round.

M. Interesting and enjoyable views to areas outside the site should be afforded from dwellings, indoor common areas, and outdoor sitting areas.

N. In addition, elderly housing projects should have:

1. Outdoor space that contains flower and vegetable gardens, (i.e., attractive exterior environment promotes the perception of safety, personal value, and a home-like atmosphere.)
2. Areas for both interaction and separation between children and the elderly in age-integrated projects; and
3. Sitting areas and walkways arranged to facilitate conversation, casual interaction and social contact.

1.02.02 Shared Common Space

This section applies to multi-dwelling projects of twenty or more units.

A. Community space should be informal, varied and accessible.

B. Community space should be functionally and visually related to the circulation pattern of the building or buildings.

C. The interior of a community space should be directly visible from major circulation points.

D. Common outdoor spaces in the form of balconies or terraces should be provided adjacent to and as extensions of indoor community spaces wherever possible.

E. Common support areas should be easily located and accessible.

F. Tenants should be able to collect mail without obstructing traffic.

G. Laundry facilities should be located for accessibility.

H. Interior public circulation and elevators should be safe and secure.

I. Elevator lobbies should have a waiting area and wall indicators describing elevator progress which can be clearly read.

J. Corridors should be a minimum of five feet in width at all points.

K. In addition, elderly housing projects (for persons 55 years of age or older) must include:

1. A communal gathering area that provides privacy from the main building entrance;
2. Common areas that have sufficient *pre-view* area so the resident can choose to join present participants or to withdraw;
3. Common areas should have flexibility for multi-purpose uses and provide an intimate atmosphere for socialization;
4. Comprehensible path systems, such as loop corridors, an orienting central atrium or other interior space;
5. Path systems that allow a preview of the route ahead;
6. Windows that enhance residents' inside/outside reference system to facilitate inside navigation and spatial orientation, particularly if the complex has several wings or is built on a sloping lot;
7. Latent cues that make visually distinctive landmarks or reference points such as plant groupings, fish tanks, art work, distinctive curtains or wallpaper, personal decor, specific furnishings such as a piano, specific areas such as beauty shop/chapel/ post office/elevators, etc.;
8. Reference symbols to identify such features as elevators, dining halls, etc. placed both parallel and perpendicular to the object so as to be seen from both direct and lateral approaches;
9. Wall mounted handrails provided on each side of corridors in multi-unit buildings;
10. Exit signs lowered for the vision impaired who often have limited upward vision;

11. Contrasting colors/surfaces, or the provision of edge cues used on stairs. This will distinguish one step from another and differentiate between steps and risers;

12. Changes in the level of illumination graduated to accommodate a slower dark/light adaptation rate;

13. General lighting that is:

    * Indirect, to avoid glare;
    * Evenly distributed, to reduce shadows; and
    * Increase the number of lighting fixtures in dwelling units to provide more even light distribution to compensate for age related vision loss. (The Illuminating Engineering Society recommends that persons aged 60+ be provided with twice the level of light required for persons 20 years of age.)

14. Large, tactile, contrasting-colored numerals and signs used in elevators, on appliances, on doors, etc. to compensate for declining ability to distinguish edges, small details, and certain colors;

15. Signage colors that are not pastel tones, dark shades, greens, blues, and violets which are difficult to differentiate, as eyes yellow with age;

16. Lighting that reduces visual fatigue and gives better color rendition;

17. Alarm/warning systems that are available to include both visual and audible signals; and

18. Visual signals available to augment doorbells.

1.02.03 Dwelling Unit Space

A. ***Kitchen***

1. Kitchens should have natural light.
2. Kitchens should have direct and easy access from the exterior.
3. Kitchens having no available natural light should open up to the living room/dining room via a *pass-thru* window arrangement.
4. Placement of refrigerators in a circulation path should be avoided.

B. ***Living Room/Dining Room***

1. Living Room/Dining Room areas should have windows that allow for viewing the exterior when seated.
2. Through circulation should be avoided.
3. The unit's entry area should be separated or screened from the living room/dining room.
4. A minimum of one wall, preferably two, should be provided with no fenestrations to allow for adequate furniture placement.

C. ***Bedrooms***

1. Bedrooms should be located away from parking or street noise whenever possible.
2. Closets should be used to provide a sound barrier between bedrooms.
3. Bedrooms should be grouped together and located away from living/dining/kitchen.

D. ***Bathrooms***

1. Vanities should be provided with all lavatory sinks, unless bathrooms are to be handicapped accessible.
2. Bathrooms should be located outside of, but adjacent to bedrooms.

E. ***Storage***

1. Walk-in storage closets should be provided with a light and wall switch.

F. In addition, elderly housing projects (for persons 55 years of age or older) must include:

1. Complete apartments provided rather than studio/efficiency units. Complete apartment units (include kitchen, bathroom, living room, dining area, and bedroom) are appropriate for older persons because they prefer to cook, eat and entertain in their own apartments. Complete apartments are also non-institutional in appearance and provide greater privacy. Sufficient living/dining room space allows and encourages socialization with guests;
2. Individual treatment of apartment entryways that facilitates way-finding, reduces institutional appearance, and enhances individualism;
3. Window sill heights that are no greater than 32 inches above finished floor to allow viewing the outside from a seated position;
4. Pantry cabinetry provided in lieu of wall cabinets over the stove and refrigerator; and
5. Switches, and other operable devices, located no more than 48 inches above finished floor height, electrical outlets mounted between 18 - 24 inches above finished floor.

Section 2 ..... Construction Contracting Requirements

At the time of application, a project sponsor must identify one of two options available to secure a construction contractor. The first option is for a project sponsor to seek construction bids through a publicized, competitive process. The second option is for a project sponsor to identify and select a builder at the time of application submission. The requirements for both options are explained below.

2.01 Publicized, Competitive Bidding Process

Project sponsors electing to publicly and competitively bid the construction portion of their project must indicate this elective at the time of application submission.

This method of contractor selection requires the project sponsor to openly advertise in a well-known local newspaper for a period of four days and have a minimum bidding period of four weeks before bids are received. MBE/WBE outreach requirements will be part of the bidding process. See Section 2.04 for Federal Labor Standards (Davis-Bacon Related Acts) regulatory requirements. Upon receipt of bids, the project sponsor and architect must notify OCD of the bidding results and the name of the selected lowest qualified bidder. The contractor's schedule of values must also be submitted to OCD at that time. DHCR/HTFC reserves the right to rebid a project or to negotiate a reduction in the scope of work if all bids received are higher than the project's estimated total construction cost.

If no contractor has been selected at the time of application submission, the project sponsor must ensure that the terms of the Owner/Architect Agreement include a provision for a detailed construction cost estimate based upon the preliminary drawings and specifications prepared by a cost estimator.

2.02 Pre-Selected Contractor/Construction Manager Requirements

Project sponsors who elect to include a construction manager (CM)/contractor with their application for funding will be required to indicate the CM/contractor's previous professional experience in producing low income housing units and the role the CM/contractor will play during the development and construction phases of the project.

In addition, a pre-selected contractor will be responsible for providing a detailed cost estimate of the construction work based upon the preliminary drawings and specifications with the project sponsor's application submission. See Section 2.04 for Federal Labor Standards (Davis-Bacon Related Acts) regulatory requirements. The construction cost estimate must include general requirements (3% to 6% of the labor and material costs); builder's overhead (up to 4% of the construction amount is allowed); and builder's profit (up to 10% of the construction amount allowed). General requirements that are special conditions such as security, impact fees, etc. to a project should be detailed on a separate itemized listing.

At the time of the funding commitment, the project sponsor will be required to provide a guaranteed price for the total development costs of the project. Any construction cost overruns incurred during the development and construction phases of the project shall be borne by the project sponsor and shall be paid for from the developer's fee amount. Using a pre-selected contractor permits the project sponsor to ***by-pass*** the Bid Document submission stage, thus creating only one set of submission requirements: the Contract Documents.

All MBE/WBE requirements applicable to the pre-selected contractor must be documented through the contractor's selection process for sub-contractor and suppliers.

2.03 General Construction Contracting Requirements

Project sponsors and architects should refer to the Capital Programs manual, sections 5.11.05, 5.11.02 and 5.09.02, for related information on the selection of a builder, construction manager and bonding requirements for payment and performance.

2.03.01 Manufactured Housing Requirements

Project sponsors electing to produce housing through the use of a manufactured housing company, may choose either of the options above for construction contracting. However, the purchase contract and supervision of such housing must be done as a subcontract to the general contractor's/CM's contract.

2.04 Federal Labor Standards

Federal Labor Standards (Davis-Bacon Related Acts) regulatory requirements are enforced for certain Federal programs when projects meet specific threshold requirements such as HOME funded projects with 12 or more units or projects with 9 or more units of project based assistance.

Determination of appropriate schedule for structures on a project (residential or building) is made by the DHCR contracting officer.

A. Competitive Bidding

If the Davis-Bacon Related Acts apply to a project, include the most current wage rate schedule, for the appropriate schedule (residential or building), in the bid package. A wage rate modification published less than ten days before a negotiated contract bid opening may be disregarded if there is insufficient time to notify bidders, and a report is made to the contract file. Otherwise the updated wage rate must be used.

Wage rates are locked in at bid opening, provided the contract is awarded within 90 days. The wage determination must be updated if the contract is awarded more than 90 days after the bid opening.

Promptly file documentation relating to the bidding process, and lock in dates, with the DHCR contracting officer.

B. Pre-Selected Contractor/Construction Manager Requirements

If the Davis-Bacon Related Acts apply to a project, the Federal Labor Standards clauses for the relevant federal program and the most current wage rate for the location and type of construction must be incorporated into the contractor/construction manager agreement.

Section 3 ..... Submission Requirements

The following five sections explain the specific items and level of detail required for the application, architect's contract, bid, contract and close-out submissions. Completeness will be determined based upon compliance with these submission requirements. Incomplete submissions will not be reviewed by staff. Complete submissions will be reviewed and comments provided to the project sponsor.

3.01 Preliminary Design Review Criteria

The most critical review stage is that of the preliminary documents. Listed below are the documents reviewed by the Design Services Unit (DSU) architects:

A. Proposal Summary
B. Organization's Relevant Experience
C. Site Specific Information
D. Building Information
E. Preliminary Design Documents
F. Outline Specifications
G. Detailed Cost Estimate
H. Development Budget
I. Development Timetable
J. Zoning Compliance
K. Site Photographs

The review criteria for each of the above-listed documents are as follows:

A. The ***Proposal Summary*** is reviewed to get an overall understanding of the proposed project; to identify any special housing conditions that may need to be addressed by the design solution based on a specified tenancy; and to verify the number and unit mix indicated in the summary with the information found within the drawings.

B. The ***Organization's Relevant Experience*** is reviewed to ascertain the project sponsor's development team members' experience. DSU reviews to ensure that the architect selected by the project sponsor has sufficient knowledge and expertise in designing low-income housing; has historic preservation experience, should the building be identified as such; and, to identify any previous experience that DSU has had with the project architect.

C. ***Site Specific Information*** : DSU architects verify that the information represented in this exhibit is in agreement with the drawings; that any State regulations such as SHPS, Coastal Zone, Flood Plain or Waterfront Revitalization planning has been incorporated into the design solution; that all existing utility connections are indicated on both the drawings and this exhibit; that the most efficient heating source for the building has been selected; and that there are no unusual conditions that would be costly to mitigate.

D. ***Building Information***: DSU architects verify that the information provided in this exhibit is consistent with the drawings submitted; that the unit mix is identical to the plans; and that the square foot figures are accurate.

E. ***Preliminary Design Documents***:

1. ***Site Plan***: DSU architects verify that the site can accommodate the size and scale of the proposed project; that the site is level or can accommodate minor changes in contours without costly cut and fill procedures; that there is adequate space on the site to

accommodate all parking requirements; that any zoning regulations, setbacks, existing rights-of-way do not interfere with the location of the building or other permanent structures; and, for New York City projects involving new construction; that the proposed building footprint is in compliance with the zoning regulations. For non-urban projects where a septic system or well is required, DSU architects verify that the proposed site has adequate space and distance separation for locating on-site utilities.

2. ***Floor Plans***: DSU architects verify that the minimum square footage has been achieved; that the building(s) is in compliance with all building code and zoning requirements; that the project meets all handicapped accessibility requirements: that the building(s) meets all design requirements in Section 4.00 of the Design Handbook; and, if the building has any non-residential space, that the HVAC and electrical systems are separate and independent from the systems of the residential space.

3. ***Elevations***: DSU architects verify that the scale, site, materials and fenestrations proposed are in keeping with the existing fabric of the adjacent structures and/or any new construction occurring in the surrounding communities; and, that the height and/or massing of the building is in compliance with all building and zoning codes and regulations.

F. ***Outline Specifications***: DSU architects check that the notes on the drawings and the materials of the outline specifications are consistent with each other and are in compliance with the DSU specifications; that the materials and methods specified are reflected in the detailed cost estimate provided and are reflective of the approximate amounts of materials indicated; and, if the project is a rehabilitation and is for family units, that a section on lead-based paint testing and abatement is included.

G. ***Detailed Cost Estimate***: DSU architects verify that the items *costed out* include all of the work specified on the drawings and in the specifications; that the labor and material costs are reasonable for the amount of work shown and the location of the project; that the amount for general requirements is no more than 6% of the labor and material costs; that the overhead and profit amount is no more than 14% of the total construction amount; that the TCC, TDC and TPC costs per square foot and per unit are in keeping with DSU's experience for that type of construction and for the location of the proposed project; and, if the building is impacted by SHPO requirements, that costs for repairing the historic fabric is incorporated into the estimate and if the project requires remediation of hazardous materials, that those costs are also clearly incorporated into the cost estimate.

H. ***Development Budget***: DSU architects verify that the architect's fee is within the range of reasonableness for the scope of work proposed; that the total construction cost matches the cost shown on the detailed cost estimate; that all construction line items such as overhead, general requirements, profit, bond premium, site work, testing asbestos/LBP/soils, etc. are broken out and match the amounts represented in the detailed cost estimate; and, if the project has a non-residential component, to ascertain that the construction cost shown is representative of the amount of non-residential work to be constructed.

I. ***Development Timetable***: Based upon the scope of construction work proposed, DSU architects review the proposed time frames for completion of construction documents and construction work for reasonableness based upon case studies of previous projects developed in that area; any required governmental approvals needed; and, the project sponsor's and the architect's capacity (if DSU has had previous experience with them).

J. ***Zoning Compliance***: DSU architects check this document against the drawings to ensure that the project architect has complied with the existing zoning regulations and/or has filed for a variance if compliance cannot be achieved.

K. ***Site Photographs***: DSU architects review the photos to ensure that the height, size and

character of the building are in keeping with the surrounding structures.

In addition to the above, DSU architects conduct a site visit to ensure that all existing conditions noted in the application are, in fact, actual; that no hazardous materials are visible on or adjacent to the site; that there are no visible adverse environmental conditions; that the site is of appropriate size and has adequate road access; that utilities are adjacent to the site and are available from a public access; that the contours of the site are *buildable* with a minimum amount of cut and fill required; that, if a rehabilitation project, the building has not deteriorated beyond repair; that any replacement schedules for building systems are reasonable; and that the scope of work proposed can be accomplished within the confines of the site and/or building restraints.

3.01.01 Preliminary Design Documents

The preliminary design documents are required to be submitted by the project sponsor and architect as part of the application submission for project funding for OCD's review and approval.
Architects are reminded that if they are designing a project for an applicant who is requesting HOME funds then that project design must comply Section 504 of the Rehabilitation Act of 1973. A CD ROM of the preliminary design documents, in Autocad or a compatible format, may be submitted in lieu of one of the two required sets of paper preliminary design documents. The following documents are to be prepared by an architect or engineer licensed to practice in New York State:

A. ***Site Plan***:

1. Use scale 1 in.= 20 ft. or larger;
2. Use a North arrow;
3. Show existing locations of building(s); roadway(s), parking area(s), utilities, plantings, etc.;
4. Show existing site restrictions including set-backs; rights of way, boundary lines, etc.;
5. Show all proposed changes to building(s) roadway(s), parking, utilities, plantings, etc.;
6. Show zoning classification; and
7. Show notations of all new and existing materials
8. Show existing and proposed site slopes and approximate grade elevations.
9. Show boundaries of any unusual site features ie: 100 year flood plain, wetlands, bedrock outcroppings, etc.

B. ***Floor Plan(s)***:

1. Use scale 1/8 in. = 1 ft. or larger;
2. Use a North arrow;
3. Show all proposed changes to building components identifying removals and new construction;
4. Show room/space designation;
5. Show occupancy classification;
6. Show building construction classification;
7. Show fire area allowances;
8. New York City projects must include zoning calculations;
9. New York City projects must indicate which code and chapter the project is designed under;
10. Show gross building square footage and gross dwelling unit square footage;
11. Show general notes identifying all new and existing materials.
12. Show any deviations that were allowed by an official code variance.

C. ***Elevations***:

1. Use scale 1/8 in. = 1 ft. or larger;
2. Show existing elevations of buildings (if applicable);
3. Show all new conditions of building exteriors;
4. Show general notes identifying all existing and new materials;
5. Show overall building height dimensions; and
6. Show finished floor height dimensions.

D. ***Wall Section***

1. Use scale 1/8 in = 1 ft. or larger;
2. Show construction system(s);
3. Show ceiling heights;
4. Show window heights (and floor to sill heights).

E. Provide written specifications based on HUD Contractor Outline Specifications, HUD form 5087 or the Construction Specification Institute's (CSI) format division of work items. List and describe all work to be performed and type of materials to be provided.

F. Provide a construction cost estimate prepared by a cost estimator, by major trade items, including estimated costs of general requirements, builder's overhead and profit.

Please Note:

All proposals must have a cost estimate prepared by a builder or construction estimator. OCD reserves the right to use an independent consultant to review and evaluate the reasonableness of the proposed construction costs. Consultant cost estimates that are more than five percent greater or less than those presented by a project sponsor will be used in the final evaluation and may result in a change of rank due to adjustments in reevaluating scoring and feasibility.

3.01.02 Professional Agreements and Certifications

A. ***Owner/Architect Agreement***

After a project has been selected for funding, the project sponsor must submit a copy of the executed Owner/Architect Agreement at a Project Development Meeting.

OCD's architectural staff review Owner/Architect (OA) Agreements for cost reasonableness and scope of work. Although no fixed fee scale is used for determining the architect's contract, a general rule of thumb that may be applied is a range of 5% to 15% of the estimated total construction cost, with 15% applying to small scale rehabilitation and/or historic preservation projects and 5% to large scale new construction projects. All contracts must use the current AIA B 141, Owner/Architect Agreement, specify a fixed-fee and include the provisions outlined in Appendix B. All O/A Agreements in excess of $25,000 must comply with the State's Equal Opportunity and Minority/Women Business Enterprises (M/WBE) requirements.

The percentage of fee by design phase will be reviewed for compliance with the following schedule:

* Preliminary phase < 15% fee
* Design Development phase < 20% fee
* Construction Documents < 40% fee
* Bidding/Negotiating < 5% fee
* Construction Monitoring > 20% fee

Total Fee = 100% fee

It is the project sponsor's and architect's responsibility to ensure that the Agreement has the proper dates, names, project address(es), project description and authorized signatures.

B. ***Certifications***

The project sponsor and architect will be required to certify to DHCR/HTFC that plans and specifications comply with the Design Handbook's requirements, local government, State and Federal requirements including applicable environmental and applicable accessibility and adaptability requirements, at the time of each submission. *(See Appendix C for boilerplate certification statement.*)

C. ***Construction Manager Agreement, if applicable***

If the use of a construction manager is planned, a Construction Management Plan must be submitted. The Plan must include the following:

1. The review process for selecting sub-contractors and suppliers;

2. The review process for compliance with Minority/Women Owned Business Requirements;

3. If applicable, the review process for compliance and staffing, to meet Federal Labor Standards (Davis-Bacon Related Acts) regulatory requirements.

4. The procedures and staffing capacity for monitoring the quality of construction work and progress, disbursements, change orders and cost overruns; projects in a timely manner; and

5. The procedures and staffing capacity for conducting final inspections and completion.

6. The financing available to cover all cost overruns and construction change orders.

If a Construction Manager is to be hired in lieu of a General Contractor, submit an unexecuted copy of the Owner/Construction Manager's Agreement.

3.02 Bid Documents

Project sponsors using a publicized competitive bidding process to procure a general contractor for the construction work of the project are required to submit bid documents to OCD for review and approval prior to requesting bids from contractors. The specific due date for this submission will be established and will be made a condition of the Project's Funding Commitment.

Project sponsors applying with a builder/construction manager as part of their development team have guaranteed to OCD a fixed price contract for the total development cost of the project at the time of application for funding and are not required to submit bid documents for review.

3.02.01 Drawings and Project Manual

In addition to the site plan, floor plan, elevations and wall section requirements, outlined in Section 3.01.01, include the following information in the Bid Document submission wherever applicable:

A. ***Site Plan(s)***

1. Show all elevation changes; all drainage structures; and utilities. If public utilities are not available for project and a well and/or leachfield are proposed, provide a test well report showing: GPM, potability, local authority review report; and, soils percolation test report.

2. Show handicapped parking, curb cuts, parking area striping, etc.

3. Show details of all new construction including sidewalks, paving, retaining walls, landscaping and plantings, utilities, fences, etc.

B. ***Floor Plan(s)***

1. Show exterior and interior dimensions of all new construction work including section, detail, elevation, window, door and room markers referencing work shown elsewhere;

and, material and symbol key. Include abbreviation list.

C. ***Roof Plan(s) and Details***

1. Use scale 1/8 in. = 1 ft. or larger.

2. Use North arrow.

3. Show overall dimensions and dimensions for all roof structures (i.e., roof drains, hatches, smoke vents, parapets, vent pipes, ventilators, intake/exhaust shafts, chimneys, skylights, etc.).

4. Show all roof structures and note their material, type and fire-rating; show roof pitch and/or slope; all section and detail markers referencing work shown elsewhere.

5. Detail roof construction including all roof structures, flashing details, copings, etc.

D. ***Exterior Elevations***

1. Show all new gradelines and elevation markers; all building section markers; window operation (if operable); foundation walls and footings below grade; and, all light fixtures, service connections, HVAC louvers or fan units and hydrants.

E. ***Building Sections/Wall Sections***

1. Use scale 1/8 in. = 1 ft. or larger for building sections, and scale 3/4 in. = 1 ft. or larger for wall sections to show all wall, floor, ceiling, foundation and roof components including structural members, fire rated assemblies, plumbing and heating piping and/or ductwork and specialty equipment (i.e., elevators).

2. Indicate all dimensional heights indicating floor heights, ceiling heights, window and door openings, wall component dimensions, etc.

3. Show all detail markers referencing work shown elsewhere including notations indicating all materials and assembly instructions.

F. ***Stair Plan(s), Sections and Details***

1. Use scale 1/4 in.= 1 ft. or larger for plans and sections, and scale 3/4 in.= l ft. or larger for details to show section through entire stair shaft showing all wall assemblies, floor assemblies and roof assembly.

2. Show details of stair landings, risers, treads, handrails, etc.; dimensions of overall floor to floor heights, stair landings, risers, treads, handrails, etc.; notations of all materials and fire ratings of all assemblies and smoke vent(s).

G. ***Elevator Plans, Sections and Details***

1. Use scale 1/4 in. = 1 ft. or larger for plans and sections, and scale 3/4 in. = 1 ft. or larger for details on plans showing foundation and conditions at each floor level and at roof; section showing footing and conditions at each floor level and at roof.

2. Show all firestopping, fire rated construction and flashing.

3. Detail sump pit and provide notations for all materials and components.

H. ***Interior Elevations***

1. Use scale 1/4 in.= 1 ft. or larger to show all complex major components (i.e., kitchen cabinetry); show all cabinets, heights, soffits, sinks, appliances, countertops, lighting and any special features; show dimensions for all critical heights; indicate special details such as handicapped accessibility requirements; and provide notations for all materials.

I. ***Door Schedule, Types and Details***

1. Use scale 1/4 in. = 1 ft. or larger for door types, and scale 1-1/2 in. = 1 ft. or larger for details to show door height, width, thickness, material, door type, louvers or glazing, if any, frame type, frame material, and fire rating, if any. Hardware schedule may be included on door schedule or in specifications.

2. Show door types, dimensioning all locations of louvers and/or glass panels.

3. Detail all door type conditions at head, jamb and sill.

4. Provide notations and dimensions for all materials and components.

J. ***Window Schedule, Types and Details***

1. Use scale l/4 in.= l ft. for types, and use scale 1-1/2 in.= l ft. or larger for details.

2. Schedule should show window type, height and width for unit dimensions and height and width for rough opening or masonry opening.

3. Detail all window type conditions at head, jamb and sill.

4. Provide notations and dimensions for all materials and components.

K. ***Finish Schedule***

1. Show room name, number, base material, floor material and finish, wall material and finish (North, South, East and West), ceiling material, finish and height.

L. ***Miscellaneous Details***

1. Furnish, as required, clarification for all construction components.

2. Furnish energy calculations and compliance forms indicating compliance with the Energy Conservation Construction Code of New York State.

M. ***Structural Plans and Details***

1. For multiple dwellings requiring new foundation work, provide a soils test report.

2. For foundation, floor and roof framing plans use a minimum scale 1/8 in.= 1 ft. to show notation of materials, dimensions and section and detail markers.

3. For structural details use minimum scale ½ in.= 1 ft. to show all connections with wall assemblies, floor and roof assemblies, notations of materials and dimensions.

N. ***Heating, Ventilating and Air Conditioning (HVAC)***

For floor plans use minimum scale 1/8 in.= 1 ft. showing location of all HVAC equipment including exhaust fans, grilles, registers, furnace/boilers, fin tube radiation, ducts, supply and return piping, fire-dampers, valves, tanks, service connections, etc.; notation of all materials, sizes of all components; schedule of HVAC equipment; and heating riser diagrams for piped heating systems and symbol legend.

O. ***Plumbing***

1. For floor plans use minimum scale 1/8 in.= 1 ft. to show locations of all plumbing equipment including plumbing fixtures, supply and return piping, valves, gates, tanks, heaters, connection to main service, etc.; notation of all materials and sizes of all components.

2. For riser diagram(s) use minimum scale 1/8 in.= 1 ft. to show all piping connections, vent pipes, water and sewer connections, fixture connections, traps, valves, etc.; notations of all materials; plumbing fixture schedule and symbol legend.

P. ***Electrical***

1. For floor plans, use minimum scale 1/8 in.= 1 ft. to show locations of lighting, power, wiring connections, panel boxes, telephone connections, transformers, etc.; notations of all materials; and sizes of all light fixtures, panel boxes, equipment.

2. For site plan use minimum scale 1 in.= 20 ft. to show locations of all lighting, outside outlets, pad mounted or buried transformers, pull boxes, wiring, connections to existing utilities.

3. Show lighting schedule and symbol legend.

4. Show lighting load calculations and completed compliance forms indicating compliance with the New York State Energy Code.

Q. ***Project Manuals***

In addition to the construction drawings, the Project Architect must prepare a manual containing the following information:

1. All pertinent information regarding the construction of a project must be bound together into a Project Manual. At a minimum, the Project Manual must contain the following *front end* documents: all required bidding information including, if applicable, the Federal Labor Standards regulatory requirements' (Davis-Bacon Related Acts) labor standards clause for the program and proposed wage rate; proposed AIA Owner/Contractor Agreement including the provisions outlined in Appendix E; OCD's Contractor's Assurances Agreement (see Appendix D), and the written specifications.

2. All projects must provide a Project Sign as specified in Appendix F. This information should be incorporated into Part I - General Requirements of the bid documents, unless other arrangements for its procurement have been made by the applicant.

3. Written specifications must contain written descriptive detailed account of all product and work to be performed as indicated elsewhere in the bid documents. Organize all information using the Construction Specification Institute (CSI) Section Format as established by the three basic specification section parts:

   * Part 1, General: Defines the specific administrative and procedural requirements unique to the section.

* Part 2, Products: Describes, in detail, the quality of items that are required for incorporation into the project under the section.

* Part 3, Execution: Describes, in detail, preparatory actions and how the products are to be incorporated into the project.

Further organize each part of a section into either articles or paragraphs using the CSI broad scope/medium scope or narrow scope concept as defined in the CSI Master format. Bind all specifications and required *front end* documents into a Project Manual whose title shall include the following information:

* Name of applicant/owner;
* Name and location of project site;
* DHCR/HTFC (project ID) number;
* Name of the architectural firm; and
* Architectural firm's address and telephone number.

3.02.02 Cost Estimate

Bid document phase cost estimate by major trade items, including estimated costs of general requirements, builder's overhead and profit.

For all projects provide Annual Heating Cost Estimate.

1. BTU loss calculations can be based on either an analysis of the entire building envelope or an analysis of the building by dwelling unit types such as end unit, upper floor unit, first floor unit, middle unit, etc.

2. If the Heating Cost Estimate is based on a unit analysis, furnish worksheets and calculations for each unit type.

3.02.03 Government and Environmental Approvals

Submit documentation from the State Historic Preservation Office, indicating the final determination/conditions for the project, if not previously submitted.

Submit documentation from the municipality, indicating compliance with the State Environmental Quality Review process, if project is classified as a Type I action.

Submit any Federal, State or local permits or other approvals required to comply with environmental regulations.

Submit documentation and written approval from the Code Review Board of any variances from code requirements.

3.03 Contract Documents

The Contract documents which include the Bid Documents as enumerated in 3.02.01 are required to be submitted by the project sponsor and the project architect for OCD's review and approval prior to a construction loan closing. The specific due date for this submission will be established and will be made a condition of the Project's Funding Commitment. The following Contract Documents are required:

A. Two complete sets of Construction documents sealed by the project architect, including all trades, approved by the local building department having jurisdiction over the project.

B. A Bid Tabulation showing that a minimum of 3 qualified contractors submitted bids for the proposed project and an indication of which bidder has been selected for contract award. (If the applicant has selected a contractor that is not the *apparent low bidder*, written justification for such a selection must accompany the submission.) If the project is to be managed by a construction manager or if the builder has been pre-selected at the time of application, submit a list of all bids received from all major sub-contractor(s) and suppliers, indicating which bidder has been selected.

C. A copy of the selected contractor's Trade Payment breakdown showing the contract amount for each major trade as outlined by the specification, or by each subcontractor and supplier.

D. An executed copy of the Owner/Contractor's agreement, with all applicable information and attachments completed and included.

E. Two copies of the Building Permit for the project.

F. A copy of the Contractor's 100% Payment and Performance Bond.

3.04 Construction Administration

Please refer to OCD's Capital Programs Manual, Section 6.00 which describes the general construction processing procedures and requirements; the roles and responsibilities of the project participants; the procedures for change orders, budget modifications, award increases and escrow accounts; the disbursement process; and the requirements for inspections, cost certification and project closeout.

A. Davis-Bacon Related Acts Submissions:

Federal Labor Standards (Davis-Bacon Related Acts) regulatory requirements are enforced for certain Federal programs when projects meet specific threshold requirements such as HOME funded projects with 12 or more units or projects with 9 or more units of project based assistance.

Determination of appropriate wage rate schedule for structures on a project (residential or building) is made by the DHCR contracting officer.

1. Wage Rate Lock In Submissions

Projects subject to Federal Labor Standards regulatory requirements may generally lock in wage rates by one of three different methods:

a. The Owner–General Contractor Contract method: through submission of a signed copy of a valid owner-general contractor contract to the DHCR contracting officer. For an owner general contract to be considered effective for the purposes of Labor Standards, it must contain a copy of the Federal program's labor standard clause (e.g. for CDBG and HOME, a copy of the HUD 4010 form); a copy of the wage rate schedule for the locality and type of construction (residential or building rate), current on the date the contract is signed.

b. Start of construction method: by determining a date that 'beneficial start of construction' was achieved for a project. This is determined by submitting documentation identifying which contractors were on site, performing which type of work, to the DHCR contracting officer who can then make a determination as to whether US Department of Labor criteria has been met and assign a lock-in date.

c. Variance method (or other similar communications from the U.S. Department of Labor): an assigned wage rate(s) to a project may be submitted to the DHCR contracting officer and serves to lock in a rate.

2. Payroll Submissions:

a. Mechanics and laborers employed by the contractor and sub-contractors are required to report on weekly payrolls. Reports should be collected on a regular basis, most often in conjunction with the construction draw meetings.

b. Reports should be reviewed for errors and omissions, as well as spot checked for compliance with the locked in wage rate schedule posted for the project, and for overtime payment compliance, prior to submission to the DHCR contracting officer.

c. Each Payroll submission must contain:

i.. Cover Sheet with the project name, SHARS number, and any particular problems with overdue or missing reports from each payroll draw; Contact information for the person submitting the report;

ii. Lists of all active subcontractors working on the projects, identifying which are reporting this contract draw period.

iii. All collected and reviewed WH 347 payroll reports and WH 348 certifications. (Computerized payroll reports, or any reasonable substitute containing the same information as the WH 347 may be used if accompanied with a signed 348 certification.)

iv. For each sub-contractor ending work on a project, indicate “final report” on the cover sheets.

v. At the end of a project, submit a report marked “Final. No further payrolls expected”.

vi. For punch list work, submit new reports, even if considerable time has passed since the completion of the project.

d. If a construction delay of more than one month occurs, submit a simple report on a cover sheet indicating “no construction this period”.

B. Final as-built drawings must comply with the following:

1. Final submission of as-built drawings shall be submitted either printed on mylar sheets; or on 20# archival bond paper plus three copies of the documents on CDs (compact disks) submitted in AutoCad or Adobe PDF format. A preliminary submission of the final drawings printed on bond paper may be submitted for review before producing the final as-built set. Drawings submitted on CDs must comply with the following:

   a. Include a generic text file document which explains the contents of the disk and the format of the drawing files.

   b. Save files in folders and with file names which correlate to the printed documents.

   c. Save drawings files in a format which matches the final version of the printed drawings. Provide only information relevant to the each drawing and do not include extraneous information and details which are not included in the final documents. All interrelated information such as x-reference information, hatch patterns, fonts and plot configuration files are to be bound in the drawing file and provided on the CD for use by DHCR.

2. Label all drawing sheets with an as-built drawing title and final date. Any sheets with no changes are to have a statement added that no changes have been made from the original drawing sheet.

3. Drawings shall consist of a reproduction of the complete contract drawings updated to reflect changes made during the construction of the project and with added information, as necessary, to explain aspects of the project in further detail than in the contract set.

   a. Add details to the contract set of drawings issued during construction by the project architect for change orders and supplementary instructions.

   b. Add sheets which include shop drawings, manufacture data, or details from product submissions issued during construction which explains this information in better detail.

(Boilers schematics of controls & piping are a good example of this).

c. Update the drawing index to denote changes made by adding or deleting drawings from the original contract drawings.

4. Insure that special attention is given to explain locations, with dimensions, of buried utilities & structures, utility valves & shut-offs, electrical controls, and other maintenance devices.

   a. Any buried utilities which are installed as located on the contract drawings shall be noted as such.

5. Drawings shall be submitted with a cover memo from the project architect stating that he/she has reviewed the set and is satisfied that the set is complete and that included information is well coordinated without inaccuracies or confusing duplications.

C. Warranties must comply with the following:

1. All components and building systems to have a minimum of one year materials and labor warranty.

2. All the warranties and guarantees listed in the project specifications must be submitted in the close out manual. The following items, although not entirely inclusive, must be included in the project close out warranty manual (as applicable): Roof; doors; door hardware and accessories; windows; flooring; specialties; appliances; mechanical systems; electrical systems; plumbing; and elevators.

Section 4 ..... Design and Specification Requirements

Office of Community Development has developed design and specification requirements to ensure minimum standards of quality for function and durability. OCD's Design Services architects will review all submissions for compliance with the requirements contained herein. Any proposal not meeting these minimum standards will not be recommended by DSU architects for further processing.

Minor deviations from these requirements will be allowed if they are necessary to avoid costly structural changes in rehabilitation projects or if they result in a superior design solution. These requests will be reviewed on a case-by-case basis, by the Deputy Commissioner of the Office of Community Development, who may consider waiving a requirement based upon the project sponsor's ability to demonstrate one of the following:

* Cost-effectiveness of the alternate solution
* Functional appropriateness of the alternate solution
* Durability and operating appropriateness of the alternate solution. (Impacts on operating costs/efficiency must also be reviewed by the Director of Underwriting.)

All waiver requests must be in writing and must be presented to Office of Community Development 60 days prior to the submission.

Once design is approved, there will be no substitutions. A waiver process will be available if the waiver request is submitted at least 60 days prior to submission of contract documents.

4.01 Applicable Programs and Housing Activities

The design and specification requirements contained herein apply to all projects applying for funding administered by DHCR or HTFC except as noted below:

* Housing Development Fund (HDF);
* Low-Income Housing Credit Program (LIHC)(See special requirements in CPM);
* Rural Rental Assistance Program (RRAP); and
* HOME Program (multi-site programs only).

In addition, all HOME-funded projects must comply with the U.S. Department of Housing and Urban Development's (HUD) Section 8 Housing Quality Standards (HQS). Copies of HQS can be obtained from the U.S. Department of Housing and Urban Development, Jacob K. Javits Federal Building, Room 3200, 26 Federal Plaza, New York, New York 10278-0068, Telephone (212)264-0777, Extension 3701.

All projects with 12 or more HOME financed units are subject to Federal Labor Standards regulatory requirements (described in Title 29 CFR Parts 1,3,5,6,7) comprised of the Davis-Bacon Related Acts (DBRA); Contract Work Hours and Safety Standards Act (CWHSSA); the Copeland Act (Anti-Kickback Act) and the Fair Labor Standards Act (FLSA).

All projects located within New York City that involve the City of New York Department of Housing Preservation and Development (HPD) funding, site control and approval must also comply with HPD's applicable ***Design Guidelines for Housing***. Copies may be obtained by contacting: NYC Department of Housing Preservation, Division of Architecture and Engineering, 100 Gold Street, New York, New York, 10038, telephone (212) 978-6326.

4.02 Applicable Codes, Regulations and Laws

The purpose of this section is to establish minimum requirements for the development of low-income housing projects funded under the Housing Trust Fund Corporation or the Division of Housing and Community Renewal. These requirements are not intended to supersede the requirements of any other laws, rules or regulations of any other agency having jurisdiction.

In addition, where applicable, all projects must comply with:

* NYS Uniform Fire Prevention and Building Code or, in New York City, the New York City Building Code;
* Energy Conservation Construction Code of New York State;
* Multiple Dwelling Law;
* New York State Labor Law, Industrial Code Rule 56;
* Federal Fair Housing Act;
* Section 504 of the Rehabilitation Act of 1973.(applies to projects funded with HOME funds-refer to Appendix G) and;
* Federal Labor Standards regulatory requirements (Davis-Bacon Related Acts).

4.02.01 Accessibility

The Housing Trust Fund Corporation and the Division of Housing and Community Renewal has adopted the following definitions relating to accessibility and adaptability. HTFC/DHCR encourages developers of affordable housing to initially adapt as many units as possible.

A. **ACCESSIBLE** when used with respect to the design, construction, or alteration of an individual dwelling unit, means that the unit is located on an accessible route and when designed, constructed, altered or adapted can be approached, entered and used by individuals with physical disabilities. A unit that is on an accessible route and is adaptable and otherwise in compliance with the applicable standards set forth in the Building Code of New York State, New York City Building Code, Section 504 of the Rehabilitation Act of 1973, the Federal Fair Housing Act and their respective regulations and guidelines is accessible within the meaning of this paragraph.

B. **ACCESSIBLE ROUTE** means a continuous unobstructed path connecting accessible elements and spaces in a building or facility that complies with the space and reach requirements of applicable standards prescribed by the Building Code of New York State, New York City Building Code, Section 504 of the Rehabilitation Act of 1973 and the Federal Fair Housing Act and their respective regulations and guidelines.

C. **ADAPTABLE** means the ability of certain elements of a dwelling unit, such as, but not limited to, kitchen counters, sinks, and grab bars, to be added to, raised, lowered, or otherwise altered, to accommodate the needs of persons with or without disabilities, or to accommodate the needs of persons with different types or degrees of disability. The adaptation of an element shall require no special knowledge or tools and shall be accomplished with no structural change. For example, in a unit adaptable for a hearing-impaired person, the wiring for visible emergency alarms may be installed but the alarms need not be installed until such time as the unit is made ready or occupancy by a hearing-impaired person.

4.02.02 Lead Based Paint

Family projects involving the rehabilitation of buildings constructed prior to 1978 must comply with HUD guidelines for testing and abatement of lead-based paint. (Refer to *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, HUD-1539-LBP, July, 1995)

4.02.03 Variances

Any proposed variances from code requirements or local zoning ordinances must be submitted concurrently to OCD and the applicable governmental review agency. Written governmental approval of any variances must be submitted by the project sponsor with the Bid Document submission.

4.02.04 Environmental Review

All projects are required to undergo an environmental review. Project sponsors and architects are required to review and certify that the project complies with the following State and Federal agencies that may have jurisdiction over the proposed scope of work:

* Environmental Protection Agency
* Department of Housing and Urban Development
* Department of State (Waterfront Revitalization and Coastal Resources Act)
* Department of Health
* Department of Environmental Conservation (DEC)
* Adirondack Park Agency (APA) (if applicable)
* Department of Labor
* New York City Environmental Review Board (CEQR) (Refer to the Capital Programs Manual, Section 5.02 for additional information)
* Office of Parks, Recreation and Historic Preservation
* United States Army Corps of Engineers (Wetlands)
* Occupational Safety and Health Administration

4.02.05 Federal Labor Standards (Davis-Bacon Related Acts)

Federal Labor Standards (Davis-Bacon Related Acts) regulatory requirements are enforced for certain Federal programs when projects meet specific threshold requirements such as HOME funded projects with 12 or more units or projects with 9 or more units of project based assistance.

The DHCR contracting officer enforces the Federal Labor Standards requirements contained within Title 29 CFR Parts 1,3,5,6 and 7 and rules promulgated by the HUD Office of Labor Relations. These requirements include providing initial information on wage rates, making determinations of appropriate rate schedules, locking in wage rates and serving as the depository for required federal payroll filings throughout the project.

4.02.06 Mold

Where mold is identified prior to, or during the construction or rehabilitation of any project, the project must comply with New York City "Guidelines on Assessment and Remediation of Fungi in Indoor Environments" www.nyc.gov/html/doh/html/epi/moldrpt1.shtml.

An independent certified industrial hygienist, retained by the project owner, must prepare a mold remediation report, including a plan for future maintenance, and certify that the remediation work has been successfully completed.

4.02.07 Radon

For new construction projects in EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab along with a vertical vent pipe with junction box available, if an active system should prove necessary. The passive radon-reduction system shall be activated should tests confirm the presence of radon gas in the building. For rehabilitation projects, install an active radon-reduction system and measures should test confirm the presence of radon gas in the building (in EPA Zones 1 and 2).

4.03 Design Requirements

4.03.01 Exterior Design Requirements

1. The main building entrance must be designed to be prominent, attractively delineated, covered to protect residents as well as designed to maximize energy efficiency.

2. Building facades exceeding 45 feet in length, and that face the street, must include design measures that increase the building's aesthetic appeal in all of the following areas:

    a. provide articulation of the building facade using forms such as porches, terraces, bay windows, dormers, pilasters or other building setbacks, and

    b. provide architectural details such as brackets, banding, railings, chimneys, entry columns or shutters which must be provided to be compatible with the better buildings in the neighborhood context, and

    c. provide roof shapes for sloped roofs, such as hips, gables, or cupolas that are visually appealing and compatible with the better buildings in the neighborhood context. For buildings with flat roofs provide a parapet with coping and cornice.

3. Buildings constructed in any of the following locations must have masonry exteriors:

    a. the five boroughs of New York City;

    b. urban areas where the immediate neighborhood context is masonry;

    c. urban areas where the proposed building(s) is greater than two stories in height.

4. Provide landscaping that enhances the building, including indigenous shrubs, berms, decorative fencing, special lighting and signage. For senior projects shade trees must be provided.

5. Provide screening for all exterior mechanical equipment, meters and dumpsters.

6. Commercial signage, installed by either the project owner or tenant, must be compatible with the building design and consistent in size, lettering, shape and color.

4.03.02 Shared Common Space

Residential space is defined as space provided for the exclusive rights of the tenant or homeowner including shared common space in multiple dwelling buildings (i.e., hallways, stairways, lobby, mailroom,

trash room, manager's office, laundry room, community room, etc.).

Non-residential space is defined as any space that is not for the exclusive use of the residents such as civic space, commercial space, public day-care centers, organizational offices, training rooms, counseling offices, etc.

1. ***All Multiple Dwelling Buildings:***

    a. All non-residential and residential space must be self supportive, e.g., separate heating, ventilation and electrical systems.

    b. Electric resistance heating systems and electric resistance domestic hot water heaters are not permitted.

    c. Shared common space must be less than 25% of the total residential space.

    d. The lobby area must have clear sight lines to the elevators/stairways, manager's office and mailboxes.

    e. Public corridors must have clear sight lines to stairways/elevators.

    f. Laundry rooms are required in all rental projects and must contain a minimum of one commercial washer and one commercial dryer for every ten dwelling units.

    g. Elderly housing projects, for persons 55 years of age or older, having two or more floors, must have an elevator.

2. ***All Multiple Dwelling Projects having 20 or More Units:***

    a. A community space must be provided as follows: 15 square feet for each 1 bedroom unit, 25 square feet for 2 and 3 bedroom units and 35 square feet for 4 and more bedroom units.

    b. A janitor's closet with slop sink is required on every floor.

    c. A trash collection room or trash compaction system must be provided on every floor.

4.03.03 Dwelling Unit Space

Visitability shall mean that a residential unit includes the provision of at least one means of entry on an accessible route (no-step entrance), a 36 inch or greater clear circulation path through the first floor of the unit, including all interior doorways, and at least, a half-bath on the first floor of the unit large enough to accommodate a person in a wheelchair and allow that person to close the door.

These standards shall apply to all first floor residential units in all new construction projects without an elevator; all residential units in new construction projects with an elevator; and as many units as feasible in an adaptive reuse or rehabilitation project.

A ***dwelling unit*** is defined as the private space provided for the exclusive rights of a tenant or homeowner consisting of a bathroom, kitchen (kitchenette), bedroom/living/dining room area. All substantial rehabilitation and newly constructed dwelling units must meet the minimum gross square footage enumerated below and cannot be larger than the maximum square footages:

Studio - 450 sq. ft. but not greater than 550 SF
1-Bedroom - 600 sq. ft. but not greater than 725 SF
2-Bedrooms - 750 sq. ft. but not greater than 950 SF
3-Bedrooms - 900 sq. ft., w/additional one half bath but not greater than 1150SF
4-Bedrooms - 1,050 sq. ft., w/additional full bath but not greater than 1300 SF
5-Bedrooms - 1,200 sq. ft., w/additional full bath but not greater than, 1450 SF

1. Gross square footage is defined as the area contained within exterior wall surfaces and/or centerline of common wall(s) separating adjacent common space and/or dwelling units (s)

2. For dwelling units located on more than one level add an additional 60 square feet.

3. All dwelling units shall have ceiling heights of 8 ft.-0 in. minimum and maximum.

4. Unit occupancy is based upon two persons per bedroom.

5. All habitable rooms must have natural light (minimum of 8% of floor area) and natural ventilation (minimum of 4% of floor area).

A. ***Living Room***

1. Provide adequate wall area in living room to allow for the placement of furniture based upon the maximum allowable number of unit occupants.

2. Fireplaces are not fundable.

B. ***Dining Room***

Provide adequate floor area to accommodate a table and chairs to seat the maximum allowable number of occupants.

C. ***Kitchen/Kitchenette***

1. Each kitchen shall be separated from the living area and be equipped with a range/oven, vented exhaust fan, refrigerator, sink, base and wall cabinets. The following minimum lineal foot of countertop space and shelving shall be provided:

Unit Size	***Countertop***	***Shelving***
0-Bd./Studio	4.5 lineal ft.	25 lineal ft.
l -Bedroom	5.0 lineal ft.	30 lineal ft.
2-Bedrooms	6.0 lineal ft.	35 lineal ft.
3-Bedrooms	7.0 lineal ft.	40 lineal ft.
4-Bedrooms	8.0 lineal ft.	50 lineal ft.

2. Each kitchen shall have a minimum of three cabinet drawers. A minimum of 18 inches of counter space shall be adjacent to both sides of the sink and at least one side of the refrigerator and range.

3. The minimum aisle width between cabinets shall be 42 inches.

D. ***Bedrooms***

1. The primary bedroom must have minimum dimensions of at least 10 feet by 10 feet; secondary bedrooms must be a minimum of 80 square feet.
2. Every bedroom must have a closet with a shelf, closet rod and a door.
3. Every bedroom must be of sufficient size to accommodate a bed, storage chest, night table, chair and circulation space.
4. All bedrooms must have door units with a privacy lock set.

E. ***Bathrooms***

1. Every unit must have a bathroom containing a bathtub unit with shower head, a sink, a wall mirror medicine cabinet and a toilet. Every three-bedroom unit must have an additional half bathroom containing a sink, mirror and a toilet. Every unit having four or more bedrooms must have a second full bathroom, although a shower unit may be substituted for a tub/shower unit in the second bathroom.
2. All bathrooms must have door units with a privacy lock set.
3. All bathrooms must be mechanically ventilated.
4. Windows must not be located over tub or shower units.
5. Bathrooms must be accessible from within the dwelling unit and without traveling through the kitchen, living room or dining room.
6. Whirlpool/baths or spas and residential washers and dryers are not fundable.

F. ***Storage Areas***

1. Each dwelling unit entry area must have a storage closet for outerwear with the following minimum square foot floor area:

   0 Bedroom - 6 sq. ft.
   1-Bedroom - 8 sq. ft.
   2-Bedroom - 8 sq. ft.
   3-Bedroom - 10 sq. ft.
   4-Bedroom - 12 sq. ft. (Add 2 sq. ft. for each additional bedroom above a four bedroom unit.)

2. Every bedroom must have a clothes closet with the minimum dimensions of 2 feet, 0 inches by 4 feet, 0 inches wide.
3. Every dwelling unit must contain a storage closet for linens with 6 linear feet of shelving with minimum dimensions of 1 foot, 6 inches deep and 2 feet, 0 inches wide.
4. Additional bulk storage must be provided for each dwelling unit as follows:

   0 Bedroom - 15 sq. ft.
   1-Bedroom - 20 sq. ft.
   2-Bedrooms - 25 sq. ft.
   3-Bedrooms - 35 sq. ft.
   4-Bedrooms - 45 sq. ft.

5. All storage closets must have door units and door hardware.

4.04 Specification Requirements

4.04.01 General Requirements

The definition for ***general requirements*** is all project specific expenses that are borne by the general contractor, including but not limited to: supervision (including project scheduling, project meetings, submittals); field engineering; field office expenses; temporary facilities; temporary utilities; cleaning and rubbish removals; temporary security; project sign; and project closeout. General requirement costs must not exceed 6% of the total cost of labor and materials.

Note:Builder's overhead is a separate line item from general requirements and includes the administrative office expenses of the contractor as they relate to the general management of the project. These may include, but are not limited to: payroll and accounts; general office telephone charges; rental or mortgage cost of operating a construction office; utilities of the main office; administrative staff salaries; MBE/WBE processing; and Davis-Bacon wage compliance.

4.04.02 Sitework

A. Provide a minimum 4-inch base of compacted, sound, granular, durable material, free from organic materials, beneath all exterior driving or walking surfaces.

B. Asphalt paving must be a minimum of 2" in thickness and compacted with a 10 ton roller. Provide positive drainage of all driveways, parking areas, ramps and walkways to prevent standing water.

C. Outdoor benches and seats must have backs.

D. Exterior seating must be of durable, low maintenance materials. Assemblies of concrete, wood and/ or metal are acceptable if manufactured for the intended purpose. Exterior seating, and other amenities must be permanently anchored in place.

E. Plant material must be indigenous to the climate and area, non-poisonous, and be selected to minimize water usage and maximize energy efficiency.

F. Trees at streetscape must be at least 2-1/2 inch caliper. Trees sited for building landscaping must be at least 1-1/2inch in caliper.

G. All primary walkways, sidewalks from parking areas, and sidewalks to secondary entrances must be concrete.

4.04.03 Concrete

A. Provide a chemical hardener to all troweled finished interior floors which are to be left exposed.

B. Provide a non-skid finish to all concrete walkways and pitch to avoid ponding.

C. All concrete exposed to weather must have a minimum ultimate design strength of 4000 psi and contain an air entrainment admixture. Concrete walkways must be reinforced and have a non-skid finish.

4.04.04 Masonry

A. Provide brick masonry units of ***SW*** grade meeting ASTM-C-216 standards.

B. Provide adjustable unit type wall ties of a non-corrosive material.

C. For all masonry cavity walls provide three horizontal rows of weepholes spaced a maximum of 32 inches on center at the base courses and at the lintel courses above all openings.

D. Provide control joints in all masonry walls no less often than every 50 feet. Locate all control joints at points of natural weakness in the masonry work.

4.04.05 Metal

A. All steel work must conform to the following standards:

* Standard Practice: ***Code of Standard Practice for Steel Buildings and Bridges by the American Institute of Steel Construction (AISC Code)***, latest edition.

* Welding: ***Structural Welding Code - Steel, AWS D1.1***, by the American Welding Society (AWS Code).

* Cleaning Painted Steel: Comply with the appropriate specifications, ***SSPC SP-X*** by the Steel Structures Painting Council.

4.04.06 Wood

A. All construction lumber and sheathing must at a minimum conform to the referenced standards in the ***New York State Uniform Fire Prevention and Building Code***.

B. All wood siding applications must be free and clear of knots, checks and other defects.

C. All wood exposed to the weather and wood blocking used in roofing must be pressure treated.

D. For buildings utilizing wood roof trusses spaced at 24 inches on center H clips must be used with a minimum of 5/8 inch thick plywood roof sheathing, or OSB sheathing panels manufactured with an exterior adhesive system. All roof sheathing to have an exposure 1 classification and a structural 1 classification. OSB panels must be water resistant and not subject to deterioration or delamination when exposed to the elements for a minimum period of 90 days, and shall carry a 50 year manufacturer's warranty.

E. All floor sheathing must be a minimum of 3/4" tongue and grooved plywood or OSB tongue and groove sheathing panels manufactured with an exterior adhesive system. All floor sheathing to have an exposure 1 classification and a structural 1 classification. OSB panels must be water resistant and not subject to deterioration or delamination when exposed to the elements for a minimum period of 90 days, and shall carry a 50 year manufacturer's warranty.

F. Underlayment must be in conformance with the floor finish manufacturer's acceptable standards.

4.04.07 Thermal And Moisture Protection

A. For all construction/rehabilitation projects, provide R and U values that comply with Energy Conservation Construction Code of New York State, latest edition. Submit thermal rating documentation for the walls, roofs, windows, perimeter slabs, basements, HVAC, lighting, etc.

B. New roofing systems are required on all projects.

C. Non-urban units, and low-rise multi-dwelling buildings (2-3 stories i.e., row houses, garden apartments) must have pitched roofs with a minimum roof pitch of 5/12, or match those of existing surrounding residential structures.

D. For new or rehabilitated units with flat roofs, provide single ply EPDM, single ply PVC, single ply Hypalon roofing membranes or modified bitumen.

E. Provide pressure treated wood nailers and curbing for all flat roof installations.

F. All flat roofing systems must provide a 15-year, full systems warranty for labor and materials with no dollar limit. In addition, the roofing contractor is to provide a minimum two-year, labor and material warranty for all roofing and sheetmetal work.

G. For all shingle roofing, provide a minimum warranty of 25 years and a two-year roofing contractor's labor and material warranty for all roofing and sheetmetal work.

H. For all metal roofing and others not listed, a 20-year material and workmanship warranty must be provided and a two-year roofing contractor's labor and material warranty for all work.

I. All flashing material must be a minimum of .019 inches aluminum.

J. Provide acoustical privacy for family multiple dwelling unit projects. Each unit's ceiling, floor and surrounding wall assemblies shall have a minimum sound transmission class (STC) rating of 50.

K. Provide a minimum STC rating of 55 at the ceiling, floor and wall assemblies of all mechanical spaces.

L. Provide vibration and sound absorbing bases or support for equipment subject to motion which could transmit vibration or noise to the structure.

M. Solid vinyl siding shall not have fillers, and shall be a minimum of .044 inch in thickness. Provide backing as recommended by the manufacturer. Wood clapboard siding is permissible when required by the State Historic Preservation Office (SHPO). Fiber cement board siding shall be prefinished with a manufacturer’s finish warranty of 25 years.

4.04.08 Doors And Windows

A. ***Doors***

1. For multiple dwelling unit projects provide insulated primary entry doors with vision panels. Exterior steel doors and frames should be galvanized/shop primed.

2. Interior apartment entrance door units are to be made of reinforced hollow metal and shall conform to steel door institute standards.

3. Provide a security peep hole on all dwelling unit entry doors.

4. Interior room doors are to be at a minimum molded hardboard construction.

B. ***Windows***

1. Window units are to meet the AAMA/NWWDA 101/I.S.2-97 standard. The standard was created by the American Architectural Manufacturers Association (AAMA) and the National Wood Window and Door Association (NWWDA). The minimum acceptable performance classification for vinyl and aluminum windows is H-C-50. Wood and fiberglass windows are required to have a minimum design pressure rating of 40 PSF. Wood windows must have exterior cladding except as may be required in historic preservation projects. Window units must have a maximum U value of .41 and an air infiltration rate of .19. All operable windows are to be provided with full aluminum mesh screens.

2. For rehabilitation projects where original primary windows are remaining, provide aluminum triple track storm/screen window units at all windows. If original window unit must be replaced, replace with a unit of the same size and configuration.

3. All windows must have a locking device as well as locks that are tamperproof from the exterior.

4. For family units located in urban neighborhoods, provide window child guards on all unit windows and hall windows above the first floor. Window child-guards to comply with New York City Housing Authority standards for size and configuration.

C. ***Hardware***

1. For multiple dwelling buildings with interior dwelling unit entry doors, provide a mechanical doorbell device.

2. Provide door bumpers at all doors, interior and exterior, as applicable.

3. If allowable by code, provide self-closing door hinge in lieu of surface mounted door closer, at entry door unit.

4. For family units provide commercial (Grade 1) locksets for unit entry doors. For senior units, provide Grade 1 lever handle mortise locksets for all unit entry doors. For all public space and maintenance spaces provide Grade 1 lever handle mortise locksets. All locksets are to be master keyed with removable cylinders.

5. Provide deadbolt locks with one inch throw and interior thumbpiece latch on all unit entry doors.

6. For multiple dwelling unit projects located in areas with security concerns, provide decorative security grilles at basement, first floor and all other windows accessible from the exterior. Security grilles must be constructed of expanded metal or wrought iron and secured in place with hardware that is not removable from the exterior. Security grilles must have push bars that make them operable in an emergency from within the apartment.

7. Provide all operable windows with hardware pulls or integral recessed pulls for ease of operation.

8. For elderly units, provide combination entry lever-latch and lock in which the key will disengage both with one action.

9. For elderly units, provide loop or *D* shape handles on cabinet doors and drawers.

4.04.09 Finishes

A. In all dwelling units provide either a minimum of 26 oz., level-loop, commercial grade carpet or minimum 26 oz. residential cut-loop carpet, or 3/4" tongue and groove hardwood flooring or resilient vinyl flooring with minimum thickness of 1/8".

B. Provide waterproof assemblies for floor systems of laundry rooms, bathrooms or similar spaces located above the lowest level. Extend waterproofing six inches or more above the floor.

C. Provide one coat of primer and one coat of flat paint to all interior walls and ceilings except in bathroom, kitchen, shared common spaces and all trim, where one coat of primer and two coats of semigloss paint must be provided.

D. For all dwelling units, interior wall finishes must be smooth finished gypsum board or existing smooth plaster finish. Interior ceiling finishes must be smooth finished gypsum board, smooth finished plaster or sprayed or textured paint (popcorn finish). Acoustical ceiling tiles and wall paneling are not acceptable.

E. Provide moisture resistant gypsum wallboard on all bathroom walls.

F. For ceramic tile applications, provide cementitious backer board. Ceramic tile bathtub and shower surrounds shall received solid wood blocking for the installation of grab bars.

G. The maximum vertical rise in any change in flooring material must be no greater than 1/4 inch.

H. In family multiple dwelling units rental projects, public corridors and stairways must have vinyl composition flooring.

I. Provide finished ceilings in all spaces that may be accessed by tenants.

J. Provide a base finish at all exposed walls and cabinetry base locations.

4.04.10 Specialties

A. All bathrooms must be provided with a grab bar and soap dish in tub/shower unit; a shower curtain rod, permanently anchored to the wall; toilet paper holder; two towel bars; and a minimum height of 32 inches, top lighted, mirrored medicine cabinet.

B. For urban projects, mail boxes must be vaulted type with a 3-point locking system.

C. Provide balustrades for stairs, ramps or balconies with no horizontal members. Vertical balustrades must be spaced so that a 4 inch sphere cannot pass through any part of the railing system.

D. For rental projects provide mini blinds at all dwelling unit windows and patio doors with lites.

4.04.11 Equipment

A. Provide Energy Star labeled equipment and appliances.

B. For family units of 3 bedrooms or larger, provide a minimum of an 18 cubic foot, two door, frost free refrigerator with freezer compartment; a 30 inch self cleaning range/oven with integral backsplash; and a 30-inch wide double bowl stainless steel sink.

C. For zero, one and two bedroom units, provide a minimum of a 14 cubic foot, two-door, frost free refrigerator with freezer compartment, a 30 inch, self-cleaning, range/oven, and a 24 inch wide, single-bowl, stainless steel sink. Stoves in elderly dwelling units must have front control knobs and an integral backsplash.

D. Kitchen and bathroom cabinet doors and front rails and stiles must be made of natural wood or plywood with a laminate finish. Particle board is not permitted.

E. Provide kitchen cabinet hinges which are inter-locking and self adjusting.

F. Countertops and backsplashes must be exterior grade plywood with a laminate finish in all family dwelling units. Particle board countertops and backsplashes are permitted in elderly dwelling units.

4.04.12 Conveying Systems

A. *General Requirements*

1. Elevator must be in compliance with ASME/ANSI A17.1 safety code for elevator, latest edition, the National Electrical Code or applicable local electrical codes, NYS Building Code, applicable local building code and HUD property standards.

2. All elevators must comply with ANSI A 117.1, latest edition, for handicapped accessibility requirements.

B. *Number of Elevators*

1. In multi-dwelling, family projects, elevator(s) must be provided to serve approximately six to seven percent of the population in a five minute demand. Acceptable waiting time shall be 50 to 90 seconds. Calculate the anticipated population as two occupants per bedroom unless a higher population is known.

2. In multi-dwelling, elderly projects, provide an elevator to serve five to six percent of the population in a five minute demand period. Population statistics must be calculated, at a minimum of 1.25 to 1.5 occupants per bedroom.

3. For determining the number of elevators, allow for an area of three square feet per person to accommodate heavy clothing and packages.

C. *Size Requirement*:

1. Provide a car with a 2500# rating. Inside clear dimensions must be a minimum of 80 inches wide by 51 inches deep.

D. *Finishes*

1. Flooring must be heavy-duty, wear-resistant, vinyl tile;

2. Wall and ceiling panels must be plastic laminate;

3. Handrails must be stainless steel; and

4. Lighting must be recessed fluorescent.

E. *Car Controls*

Provide, at a minimum, the following car controls and accessories:

* Lighted call button at each landing;
* Position indicator in the car;
* Prominent direction arrows in the car and, at each landing;
* Shatterproof mirror mounted on one upper corner of the car to allow over-view of the car before entrance;
* Floor designation mounted on both jambs of every door;
* Car position indicator in main lobby;
* Audible signals which sound at each floor, sounding once in the up direction and sounding twice in the down direction;
* Emergency call phone connected to the managers office; and
* An in-car alarm button.

F. *Guarantee*

1. Provide a written guarantee from the manufacturer to cover parts and components for a period of one year after the date of final acceptance.

2. Repairs or replacements made under the guarantee, must be guaranteed for an additional one year period.

G. *Service Contract*

1. Elevator contractor must provide a service contract to cover maintenance and callback service for a period of one year after the date of final acceptance by owner. Coverage must include regular and systematic examination, adjustment, lubrication and repair and/or replacement of equipment whenever required by the wear and tear of normal elevator usage. A service contract must be in continual enforcement for the entire length of the regulatory period.

2. Owners are required to provide an Annual Service Contract for continual coverage for the entire length of the regulatory period. Service Contracts are to provide the same level of coverage as outlined above.

4.04.13 Mechanical

A. ***Plumbing***

1. All water supply piping must be of type K soft temper copper for below grade exterior lines, and either type L hard temper copper for interior domestic water lines or cross linked polyethylene (PEX) piping. PEX piping is allowable for hydronic heating and domestic water lines in installations meeting ALL of the following requirements:
   a. PEX piping system runs are contained within individual dwelling units.

b. All plumbing fixtures and heating units are piped directly to fixtures from a central copper or brass manifold which includes individual brass shut-off valves on each branch line.

c. There are no connectors or unions located between the central manifold and the termination.
Note: heating units are allowed to be piped as a continuous loop from heating unit to heating unit with no intervening connections.

d. All piping shall carry a 25 manufacturer's warranty.

e, The connectors shall carry a 2 year manufacturer's warranty.

f. Connectors shall be brass fittings with annealed copper or brass clamp ring connectors that utilize crimping tools meeting the connector manufacturer's specifications (slip type, push-fit and adjustable strap clamp type connectors shall not be used).

g. This system shall be installed meeting all requirements of the pipe and connector manufacturers.

h. The installing contractor shall provide an installation warranty of 2 years.

i. Installation shall be pressure tested to 100 psi for a minimum of 4 hours.

2. Provide drain pans for all hot water tanks, washing machines, etc. that are not located on the lowest level of the building.

3. All tubs/ shower units are to be at a minimum made of a seamless one-piece molded construction. One piece bathtub and shower units in accessible and adaptable dwelling units shall be factory reinforced to accept grab bars meeting applicable accessibility requirements.

4. Tub/shower fixture handles must be the *paddle handle* type, single-mixing valve with a scald-proof feature.

5. All tub and shower units are to be provided with a slip resistant finish

6. For elderly units, provide lever faucet controls for the kitchen sink and bathroom lavatory.

7. For elderly units, provide a hand-held shower head with a least 5 feet of hose on an adjustable bracket.

8. For family homeowner units, provide a washer and dryer hook-up with vent in each homeowner's unit.

9. Provide water conserving fixtures as follows: toilets – 1.6 gpm; showerheads – 2.2 gpm; kitchen faucets – 2.2 gpm; bathroom faucets – 2.0 gpm or better for all fixtures.

B. ***HVAC***

1. Provide Energy Star labeled heating equipment, or equivalent.

2. Provide mechanical ventilation for all bathrooms and kitchens. Vent all to exterior with vent hoods. Filtered vents are not acceptable. Vents must be on independent wall switches or relay switched.

3. If through-the-wall air conditioning unit sleeves are provided, they must be constructed of non-corrosive materials.

4. Provide central heat to all habitable rooms including kitchens and baths.

5. Provide adequate ventilation in attic to reduce heating/cooling loads on top floors of buildings.

6. HVAC ducts shall not run in exterior walls.

7. All forced air heating and cooling systems shall be provided with rigid metal ductwork with a smooth interior surface. Insulated ductwork shall have insulation jackets or covers placed over the exterior surface of the duct surround.

4.04.14 Electrical

A. Provide exterior lighting on a sun sensor or timer at all exterior entrance doors and on all outdoor lighting.

B. For projects in areas with security concerns, provide a security alarm for all exterior door units.

C. Provide a doorbell system for all exterior dwelling entry doors.

D. Provide a minimum of one pre-wired telephone jack in the living area of each dwelling unit. The entire telephone system is to be prewired. Cables are to be concealed within walls, ceilings, floors, chases, etc.

E. For multiple dwelling projects of 20 or more units, provide a minimum of one cable TV jack in living area, wired to a master TV antenna in such a way as to allow conversion to a cable service network in the future on a unit-by-unit basis. Cables are to be concealed within walls, ceilings, floors, chases, etc.

F. Provide Energy Star labeled, or equivalent, light fixtures, either wall sconces or ceiling light fixtures, controlled by a wall switch, in each room and each corridor of all units; and in all public residential spaces and utility spaces.

G. Provide an intercom system for multiple dwelling projects where unit entry doors are not accessible directly to the outside.

H. Provide Energy Star labeled, or equivalent, ceiling light fixtures which have a glass enclosure that completely surrounds the lamp, or a pendant type fixture with lamp exposed on the bottom. Ceiling fixtures which have a glass plate suspended below the lamp are not acceptable.

I. Branch circuit wiring must be 12 gauge or larger.

J. Provide overall minimum lighting of 3 foot-candles in parking lots, with all fixtures with daylight sensors or timers.

K. In units for the elderly, provide an emergency call system in each dwelling unit's bedroom and bathroom that is connected to a central station. Provide a toggle switch activated in a downward direction and pull cord dropping to within 4 inches above the floor.

L. In projects for the elderly, a central fire alarm system is required for all buildings with twelve or more units and for projects two or more stories in height.

Appendix A .....

New York State
Division of Housing and Community Renewal

Community Development Regional and Design Services Unit Offices

Capital Region

38-40 State Street
Hampton Plaza / 2nd Floor
Albany, NY 12207
(518) 486-5012

Counties Served

Albany, Clinton, Columbia, Delaware, Dutchess, Essex, Fulton, Greene, Hamilton, Montgomery, Orange, Otsego, Putnam, Rensselaer, Saratoga, Schenectady, Schoharie, Sullivan, Ulster, Warren and Washington

Buffalo Region

535 Washington St
Suite 105
Buffalo, NY 14203
(716) 847-7955

Counties Served

Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming and Yates

New York City Region

25 Beaver Street / 7th Floor
New York, NY 10004
(212)-480-7644

Counties Served

All New York City's Counties and Nassau, Suffolk, Rockland and Westchester

Syracuse Region

620 Erie Boulevard West, Suite 312
Syracuse, NY 13204
(315) 478-7179 ext. 200

Counties Served

Broome, Cayuga, Chenango, Cortland, Franklin, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence, Tioga and Tompkins

Design Services Unit

38-40 State Street
Albany, NY 12207
(518) 474-1030

Leslie Adler, DSU Director

Appendix B .....

OCD's Owner/Architect Contract Provisions

For projects following the Development Track Two Process (HTF Construction Loan), the following information shall be included in the Standard Form of Agreement Between Owner and Architect, and Standard Form of Architect's Services: Design and Contract Administration:

1. The Architect shall use his/her best efforts to assure the Contractor's compliance with the Contract Documents.
2. Section 1.3.2.2 - If this agreement is terminated before the completion of the Architect's services, the owner may use the drawings, specifications, and other documents prepared by the Architect to complete the work, provided that the Architect is relieved of any responsibility or liability arising from the use of his/her documents and the owner retains a licensed, registered architect to seal such documents and to assume full responsibility therefore.
3. Section 1.3.9.2. - Expenses for allowable reimbursable expenses shall be identified as an aggregate amount with an identified not to exceed dollar amount.
4. Payments are due and payable to the Architect within 30 days from date of Architect's invoice.
5. Compensation for Architect's services shall be a stipulated sum or fixed fee amount. All expenses of the Architect are included in the Basic Compensation, Section 1.5.
6. Section 1.5 - Basic services of the Architect must include providing detailed estimates of construction costs. This may entail the hiring of a consultant to provide required detailed construction costs estimates, but this cost must be included in the Architect's basic services.
7. Section 1.5 - Basic services of the Architects must include the preparation of reproducible record drawings showing changes in the work made during construction based on marked-up drawings and other data furnished by the contractor to the Architect.
8. Sec. 2.6.1.2 - The Architect's contract terminates at the correction and completion of punch list items by the contractor, and compensation for services should reflect this requirement.
9. Section 2.6.1.1 - The Architect shall keep the Owner informed of the progress and quality of the Work by performing site visits at a minimum interval of once every two weeks.
10. Compensation for Change in Services of the Architect's consultants and for Reimbursable expenses shall be computed as a multiple of 1.00.
11. Section 2.6.5. - All proposed changes in the work must be accepted by DHCR/HTFC to ensure they meet the design requirements of DHCR/HTFC.
12. Section 2.8.1 - There shall be no limit on the schedule of services to be provided.
13. Section 2.8.2 - Change in Services will only be permitted for items number 4 and 5. All other services identified in this section are considered basic services.
14. Section 2.8.3 - Architect to provide the following services as part of Compensation 1.5.1: .16 Detailed Cost Estimating, and .20 Record Drawings.

Appendix C ..... Architect's Certification Statement

I, the undersigned architect, am licensed to practice in the State of New York. My architectural firm represents _____ , the (HOME/HTFC) project sponsor.

I hereby certify that to the best of my knowledge the project described as (Project Name) and located at (Project Address) is in compliance with all applicable subdivision, zoning, building, energy and other similar State and local government laws, regulations and/or requirements relating to location, size, use and construction. I also certify that the project complies with all DHCR/HTFC design and specification requirements.

I also certify that the project (will) (has) satisfy(ied) any requirements set forth by the applicable New York State agency for compliance with the State Environmental Quality Review Act, the Historic Preservation Act, the Waterfront Revitalization and Coastal Resources Act, and the National Environmental Protection Act.

I also certify that the project (will have)(has) ____ handicapped accessible/adaptable units and ____ fully adapted for wheelchair use units and that the project plans and specifications are in compliance with all applicable state and federal laws concerning accessibility and adaptability.

I also certify that the project (will have) (has) ____ visitable units, as defined in the Design Handbook.

_____

Signed

_____

Notary Public

_____

Date

Appendix D ..... *OCD's Contractor's Assurances Agreement*

For projects following the Development Track Two Process (HTF Construction Loan), the following Assurances Agreement must be included in the project manual:

ASSURANCES AGREEMENT

AGREEMENT made as of, _____(date) between the HOUSING TRUST FUND CORPORATION (the "Corporation"), a public benefit Corporation created and existing as a subsidiary of the New York State Housing Finance Agency pursuant to Section 45-a of the New York Private Housing Finance Law (the "PHFL") with an office at 38-40 State Street, Albany, New York 12207,_____GENERAL CONTRACTOR(the “Contractor”), a _____(GC ENTITY) organized and existing under the laws of New York State, having its principal place of business at _____(GC'S OFFICE ADDRESS) and _____OWNER/BORROWER (the “Owner/Borrower” "), a _____ _____(OWNER/BORROWER ENTITY) organized and existing under the laws of New York State, having its principal place of business at _____(OWNER/BORROWER ADDRESS).

W I T N E S S E T H :

WHEREAS, the Contractor and the Owner/Borrower have entered into a certain Agreement dated _____(DATE OF GC'S CONTRACT WITH OWNER) for the improvement of the property located at _____(PROJECT ADDRESS), based upon American Institute of Architects (AIA) Form A101-1997 Standard Form of Agreement between Owner and Contractor ("Owner/ Contractor Agreement") and A201-1997 General Conditions of the Contract for Construction ,("General Conditions").

WHEREAS, the Corporation is closing or about to close a Construction Loan (the "Construction Loan") with the Borrower in the Amount of _____(AMOUNT OF AWARD ALL CAPS) DOLLARS ($ _____AMOUNT OF AWARD IN NUMERALS)to be evidenced by a construction loan agreement (the "Construction Loan Agreement") and construction loan mortgage;

NOW THEREFORE, in consideration of the Corporation making said Construction Loan to the Borrower, and the acknowledgments and/or undertakings in favor of the Contractor, with the consent of the Borrower, it is agreed as follows:

SECTION I- GENERAL

1. The Contractor shall deliver a Performance and Payment Bond or AIA Form of Performance Bond and accompanying Labor and Material Payment Bond naming the Borrower as obligee in a Penal Sum equal to the Contract Sum under the Owner/Contractor Agreement, covering all work to be performed under said Owner/Contractor Agreement.

2. The Contractor shall provide the Corporation, and the Corporation's agents access to the work in preparation and progress. The Corporation's representatives may observe the completed work, evaluate requisitions and recommend payment based upon percentage of completion.

3. No claims shall be allowed for conditions which, while not directly visible, can be reasonably inferred based on visible conditions, and are noted in the Owner/Contractor Agreement.

4. The Contractor shall furnish the Corporation and Borrower the names of proposed subcontractors for subcontracts or purchases, and shall provide any information necessary to evaluate the subcontractor's qualifications in time to allow a minimum of seven days for review. Failure to provide the requested information shall constitute a reasonable objection for purposes of Article 5.2 of the General Conditions.

5. The Borrower shall schedule and conduct a pre-construction meeting, prior to the initiation of construction. The Borrower shall give seven days notice to the Corporation and the Contractor of the time and location of said meeting. The Contractor shall submit the construction schedule required by §3.10.1 of the General Conditions of the Owner/Contractor Agreement to all parties at this meeting. The schedule shall not exceed the time limits currently under the Owner/Contractor Agreement and shall provide for expeditious and practicable execution of the work.

SECTION II - CHANGE ORDERS

1. Contractor will not undertake to perform any extra work or furnish any extra materials, or make any substitutions of materials or delete any portion of the construction, unless the same has been reduced to a Change Order between Borrower and Contractor or has been approved in

writing by Corporation. Change Orders reflecting the following conditions must be approved prior to any changes to the scope of the work:

a. changes to the project scope, or adding work which was not in the approved construction documents;

b. deleting work which was provided for in the construction documents;

c. changes to material, placement or number of work items which were provided for in the construction documents;

d. unforeseen field conditions, such as deteriorated material, not visible upon normal inspection of the building;

e. errors or omissions in the construction documents which must be corrected in order to complete the construction and obtain a Certificate of Occupancy;

f. time extensions beyond the date specified in the Owner/Contractor Agreement for completion of construction; and

g. no-cost change orders, which substitute items or have an impact on the project cost.

2. The Corporation's approval shall not be required for architect's field orders on minor variations required to effect the work, provided there is no change in contract sum, an extension of contract time or an affect on the fitness of the project for its intended use.

SECTION III- INSURANCE PROCEEDS

1. During construction, should any loss be incurred necessitating that all or any part of the work be repaired, reconstructed and/or replaced, which loss is covered under the Builder's Risk Insurance Policy or Policies, the Corporation will not require said insurance proceeds to be applied to reduction of the Construction Loan Mortgage unless such loss is declared by Corporation to be substantial.

2. If the loss is so substantial that Corporation does elect to apply any insurance proceeds to the Borrower's indebtedness owed to Corporation, then the insurance proceeds will be first paid to the Contractor for work that had been completed to the date of such loss plus all retainage plus a sum equal to the actual costs incurred to cancel and terminate material purchase orders and subcontracts, less prior payments all without limiting liability of Borrower or any other party who may be liable to Contractor.

SECTION IV- BORROWER DEFAULT

1. The Corporation may elect to disburse proceeds of the Construction Loan Agreement directly to the Contractor. All payments shall be held by the Contractor subject to the trust fund provisions of Section 13 of the New York Lien Law. The Borrower consents to the Corporation making disbursement of proceeds directly to the Contractor for all amounts due to it on said Owner/Contractor Agreement and all payments so made shall be deemed to have been paid directly by the Borrower for all purposes.

2. Before the Contractor is bound to proceed with the work under the Owner/Contractor Agreement, without waiving any other conditions precedent required to be met by the Borrower, the Corporation shall notify Contractor in writing of its approval for Contractor to commence construction and of the fact that all of the conditions precedent contained in Corporation's Construction Loan Agreement that must be met to entitle Borrower to take down the first advance thereunder have been met, other than those conditions relating solely to the filing and processing of the first payment request.

3. Should the Borrower default under the Owner/Contractor Agreement, Contractor shall give Corporation notice of such default in writing within forty eight hours of said default and Corporation shall similarly give Contractor notice of any Borrower's default under the Construction Loan Agreement for which the Corporation makes an election to cease or delay funding to Borrower.

4. If the Borrower defaults under the Owner/Contractor Agreement or the Construction Loan Agreement and the Contractor is current in performance of its obligations under the Owner/Contractor Agreement, the Contractor will continue performance under the Owner/Contractor Agreement for the Corporation if within 30 days of the default the Corporation in writing: (i) authorizes Contractor to continue work; (ii) agrees in writing to pay or cause to be paid to Contractor all sums due through the date on which Borrower defaulted including all sums due under all Change Orders that did not require consent of Corporation and all Change Orders approved by Corporation, and; (iii) agrees to continue to pay or cause to be paid to Contractor the moneys for all work through final completion, including all retainage. If Corporation does determine to complete construction of the Project after the Borrower's default Corporation agrees that it will complete such Project with Contractor as above recited provided the Contractor is current in performance under the Owner/Contractor Agreement.

5. If the Borrower's default occurs after completion of the work under the Owner/Contractor Agreement and prior to the time that the balance of the payments thereunder have been made to the Contractor, so that the Corporation has benefit of the completed Project under the Owner/Contractor Agreement, the Corporation shall disburse to Contractor the balance due under said Owner/Contractor Agreement.

6. If the Corporation does not authorize the Contractor in writing to continue or recommence the work within thirty days as above recited, then, without limiting such liability which the Borrower, or any parties who may be liable for payment thereof on behalf of Borrower, may have under the Owner/Contractor Agreement, the Corporation shall pay Contractor for all work through the date on which the Borrower defaulted and/or the date on which work was stopped by Contractor due to Borrower's default, whichever is the later, inclusive of all retainage, and all cost incurred by the Contractor to close down and protect the construction site as may be required under applicable building codes and regulations.

7. In the Construction Loan Agreement the Corporation has or will require the Borrower to make a conditional assignment of the Owner/Contractor Agreement to Corporation. The Contractor consents to such conditional assignment. If Borrower defaults under the Construction Loan Agreement and/or under the Owner/Contractor Agreement, and Corporation elects to exercise its rights under such Assignment, the Corporation shall notify Contractor in writing and hereby agrees to make payments to the Contractor for all work as called for under the Owner/Contractor Agreement in the same manner as is applicable under Paragraph 4. The rights of the Corporation under such Assignment must be activated within the same time as is

provided in Paragraph 4.

SECTION V- NOTICES

1. All notices hereunder shall be in writing and shall be deemed to have been sufficiently given or served for all purposes when sent by certified or registered mail, return receipt requested, to the address herein set forth, or at such other address of which the party to receive such notice shall have notified the party giving such notice in writing except that any notice of such a change of address shall be deemed given when it is received.

2. Nothing herein contained shall operate as a waiver or relinquishment of any obligation or liability which may be owed by the Owner/Borrower, or any other party liable on Borrower's behalf, to the Contractor under the Owner/Contractor Agreement.

HOUSING TRUST FUND CORPORATION

By _____
Name:
Title:

GENERAL CONTRACTOR

By:_____
Name:
Title:

OWNER/BORROWER ENTITY

By:_____
Name:
Title:

Appendix E .....

OCD's Owner/Contractor Contract Provisions

For projects following the Development Track Two Process (HTF Construction Loan) the following information shall be included in the Standard Form of Agreement Between Owner and Contractor:

1. Provided an Application for Payment is received by the Architect no later than 10 days prior to the scheduled requisition day of a month, the Owner shall make payment to the contractor no later than 30 days after the Architect issues the Certificate for Payment. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner no later than ten days after the Architect receives the Application for Payment and issues the Certificate for Payment.

2. The amount of construction retainage released by DHCR/HTFC at the time of substantial completion will be calculated based upon the retainage being reduced from 10% to 5%, or the value of incomplete work, as determined by the Architect and DHCR/HTFC, times a multiplier of 2.5 (whichever is lesser).

3. The construction contract is contingent upon execution of all contracts from all construction financing sources.

4. Payments are contingent upon DHCR/HTFC review and approval.

Appendix F .....
Master Specification Project Funding Sign

The following information is designed to assist developers in creating a sign to post at their project site. Any questions about these specifications can be directed to Leslie Adler / Design Service Unit (518) 474-1030.

Part 1. ***General***

1.01 References

(a) Internet Website: ***www.dhcr.state.ny.us***
(b) For Low-Income Housing Credit stand alone projects contact:
Arnon Adler, (518) 486-5044, aadler@dhcr.state.ny.us.

1.02 Submittals

If *Optional Information* is included, submit proposed layout on 8.5 x 11 inch paper to DHCR's project manager.

1.03 Quality Assurance

The project funding sign shall be fabricated by a professional sign manufacturer.

Part 2. ***Products***

(a) Four by eight foot sheet of overlaid Plywood, MDO B-B EXT-APA.
(b) Primer - as recommended by finish coat manufacturer for the substrate and finish material.
(c) Lettering and striping shall be uniform with sharp, neat profiles.
(d) *Optional Information* included on sign shall be visually subordinate to other information provided.
(e) *Color*: Reflex Blue (R23, G23, B150) for color blocks, with a light blue (R173, G216, B230) top box.

Part 3. ***Execution***

3.01 Installation

(a) Install sign within one week after work begins at the site.
(b) Erect sign in a prominent location, secure from vandalism.

3.02 Maintenance and Removal

(a) Maintain the sign plumb and level for the duration of the work.
(b) When directed, at completion of project, remove sign from property.

This project has been made possible by funds from

New York State Housing Trust Fund Corporation

David A. Paterson, Governor

Deborah VanAmerongen, Chairperson

Local Officials

OPTIONAL

See Appendix F for specifications.

This project has been made possible by funds from

New York State Division of Housing and Community Renewal

David A. Paterson, Governor

Deborah VanAmerongen, Commissioner

Local Officials

OPTIONAL

See Appendix F for specifications.

Please Note:
This version of the project sign is for use at the site of a project assisted solely by the Low-Income Housing Credit Program with no other HTFC/DHCR programs.

Appendix G…… HTFC Preservation Standards

For projects applying to HTFC to renovate occupied buildings meeting the HTFC definition for a preservation project, the following standards shall apply:

1. The applicant shall have the HTFC Physical Needs Assessment Form completed by an architect or engineer licensed in the State of New York. All components and systems identified in this form that are contained in the project shall be evaluated. Add additional lines and information as necessary to evaluate components and systems which are not listed on the form.

2. All new work shall meet the requirements of the current DHCR Design Handbook.

3. As part of the HTFC required project replacement reserve budgets, the applicant must document that there are sufficient funds budgeted to address systems and components which are not being replaced, repaired, or will not last through fifteen years from the date of the last HTFC payment.

4. Life expectancy evaluations shall be based upon nationally recognized sources and account for local conditions which may reduce life expectancies due to unique situations and project specific conditions.

5. The work scope shall include replacing and upgrading systems and components as outlined below. These items shall be included in the HTFC Physical Needs Assessment Form.

   - For projects constructed prior to 1978, provide a lead assessment survey and develop a lead based paint work plan in accordance with current HUD Guidelines. (Refer to *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, HUD-1539-LBP, July, 1995).

   - For projects which have not undergone an asbestos removal plan, do not have a current asbestos survey, or otherwise are suspected to contain asbestos containing materials which were not previously addressed, conduct an asbestos survey and corresponding asbestos removal plan.

   - Provide a survey to determine if hazardous mold exists in the building. Where mold is identified, it must be addressed in accordance with New York City "Guidelines on Assessment and Remediation of Fungi in Indoor Environments", www.nyc.gov/html/doh/html/epi/moldrpt1.shtml.

   - For buildings located in EPA zones 1 and 2, provide an independent third party test to determine if radon gasses exceeding the EPA action level exist in the building. Mitigate in accordance with EPA Guidelines if radon gasses exceeding the EPA action level are found in the building.

- Include an assessment of other readily observable hazardous materials such as leaking oil tanks, stored hazardous materials, and fluorescent light ballasts containing PCBs.

- Re-grade as necessary to provide positive drainage away from buildings.

- Correct deficiencies of the exterior accessible route to the extent possible within existing grades. Include work such as: re-paving sidewalks along the exterior accessible route, adding or repairs to curb cuts, re-striping of parking lots and adding signage at accessible parking aisles.

- Relocate laundry facilities for Accessibility, if feasible.

- Include handrails on each side of corridors in elderly housing projects.

- Test all elevators and include all necessary repairs in the proposed work scope.

- Add wall indicators at the entry level elevator lobby.

- Upgrade elevator controls and alarms to current Accessibility standards.

- All windows must have locks that are tamperproof from the exterior.

- For multiple dwelling unit buildings located in areas with safely concerns, provide decorative security grilles at all windows accessible from the exterior. Where possible, locate security grills at the exterior. Provide at least one security grill in each habitable room which can be opened in an emergency from within the apartment.

- Repaint all dwelling units and interior public spaces.

- Provide a non-combustible wall surface where existing kitchen ranges abut sidewalls.

- Provide a grab bar at all bathtubs and shower units if none currently exist.

- Provide safety guards or decorative heavy duty wire mesh as necessary to prevent a 4" sphere from passing through balcony and stair railings.

- Test all fire alarm systems and sprinkler system alarms. Include all necessary repairs in the work scope.

- Test all emergency and exit lights. Replace fixtures accordingly.

- Provide fire alarm systems meeting current State Building Code requirements, if none currently exist.

- Provide new hardwired smoke alarms in dwelling units meeting current State Building Code requirements for new buildings, if none currently exist.

- Provide fire extinguishers in cabinets as required by the State Fire Code.
- Balance all HVAC systems.
- Replace existing electric heating and electric hot water heaters unless past utility bills clearly indicate that the dwelling units will be affordable in accordance with the proposed rent plans.

Submit documentation of any existing Building Code violations or other non-compliance conditions. Include the correction of these conditions in the work scope.

Appendix H - Handicap Accessibility Requirements

Handicap Accessibility Requirements	Building Code of NYS	Federal Fair Housing Amendments Act General Information www.usdoj.gov/crt/housing/title8.htm Fair Housing Act Design Manual www.hud.gov/library/bookshelf09/fhefhag.cfm	Section 504 of the 1973 Rehabilitation Act General Information www.hud.gov/offices/fheo/disabilities/sect504faq.cfm Uniform Federal Accessibility Standards (UFAS) www.access-board.gov/ufas/ufas-html/ufas.htm
New Construction	All dwelling units in residential buildings with four or more units with elevator; all ground floor units in buildings without elevator service. (Multistory dwelling units or townhouses are not included.)	Covered Dwelling Units: all dwelling units in buildings containing four or more dwelling units if such buildings have one or more elevators, and all ground floor dwelling units in other buildings containing four or more units. (Multistory dwelling units or townhouses are not covered dwelling units.)	For federally funded multifamily (five or more units) new construction projects: 5% of the units or at least one unit, be accessible; plus 2% of the units or at least one unit be accessible for persons with vision or hearing impairments, both as per 24CFR 8.22
Rehab Projects	Projects classified as renovations, alterations, and change of occupancy (unless technically infeasible) must meet applicable accessibility requirements.	Not Required	Projects with 15 or more units and the cost of alterations is 75% or more of the replacement cost of the completed facility (unless structurally impracticable) must have 5% of the units or at least one unit be accessible, and an additional 2% of the units for vision or hearing impaired as per 24CFR 8.23(a). Projects with less than 15 units and the cost of alterations is 75% or less of the replacement cost of the completed facility must comply to the maximum extent feasible, as per 24CFR 8.23(b)