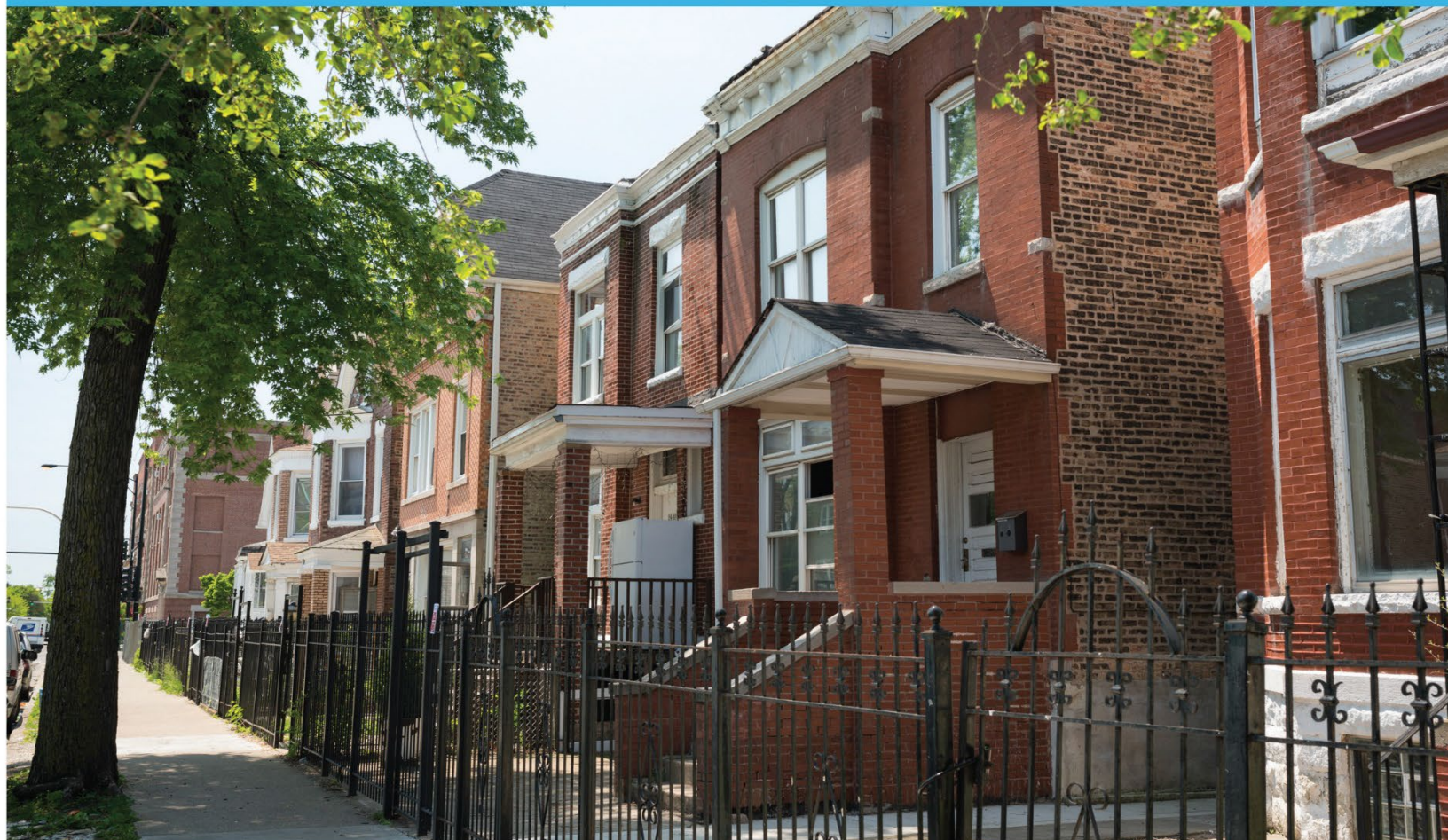


2021 Architectural Technical Standards Manual

[Chicago.gov/housing](https://chicago.gov/housing)

Email: DOH@cityofchicago.org

312.744.3653





CITY OF CHICAGO

DEPARTMENT OF HOUSING CONSTRUCTION SERVICES ARCHITECTURAL TECHNICAL STANDARDS (ATS) MANUAL



City of Chicago Department of Housing Architectural and Technical manual
Replaces all prior documents and is effective **5/19/2021**



DISCLAIMER

The City of Chicago Department of Housing (DOH) does not guarantee, warrant, or make representations that the information in this document is complete, accurate, or current. DOH assumes no responsibility for the application of the material or information contained herein nor for any error, omissions, or other discrepancies. Nothing in the document is intended to create nor does it create any enforceable rights, remedies, entitlements, or obligations. DOH reserves the right to change or suspend any or all this document without notice.

The illustrations included within this document are intended merely to assist in navigating the various requirements and architectural/technical standards; to aid staff during the plan review for projects participating in DOH programs and activities; and to add clarity and transparency to designers responding to DOH design review comments. This document is not meant to offer a design template, but rather to document and illustrate some of the design controls and potential outcomes.

The Architect of Record is responsible to ensure a project is designed in a manner to comply with the applicable laws, regulations, codes, and design standards including, but not limited to, those related to non-discrimination.

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1.0 INTRODUCTION

The Department of Housing (DOH) is committed to meeting Chicago residents' needs for decent, safe, and sustainable affordable housing. Affordable housing represents a substantial and long-term public investment in the City's housing stock. Since building codes and local regulations and ordinances primarily focus on health and safety and or protecting property values, they cannot be relied on to meet all DOH's expectations. To better meet the residents of the City of Chicago's needs and communicate expectations, DOH Construction Services has developed architectural/technical standards for City-funded affordable housing projects.

The Architectural/Technical Standards (ATS) manual is a support for developers, architects and general contractors for the design and construction of quality housing. The ATS shall be used as a guide for the minimum design requirements for all projects submitted to the DOH. The Development team is encouraged to exceed the minimum requirements especially when incorporating accessibility, innovation, and creativity in design to provide long-lasting benefits to constituents of Chicago.

DOH invests in housing units and the people who live in them by providing safe, healthy quality homes, where families are free to focus on what matters most in their lives. When the requirements of the ATS are met, families can achieve a better quality of life for their families.

This ATS manual replaces all previous DOH standards associated with the design and construction of housing and is applicable to all DOH involved projects. Projects involving adaptive reuse and or gut rehabilitation of housing must comply with standards for new construction to the greatest extent feasible as determined by DOH Construction Services Division (Construction Services).

The ATS manual standards are subject to change and modification. It is highly recommended that Developers engage DOH, Construction Services and Mayor's Office for People with Disabilities (MOPD) at the earliest stage of design. Open communication is encouraged between the Development Team, DOH and DPD to ensure that all steps and requirements in the process are met.



2.0 ARCHITECT OF RECORD

Architects of record (AOR), working on DOH funded projects must submit drawings, a design review package, and initial meeting minutes from the MOPD to DOH and Construction Services for review upon request. DOH's Architectural Design Review process increases design integrity of affordable housing by ensuring architecture enhances the livability of neighborhoods, enhances racial equity, and transforms communities most in need of affordable housing. New developments must adhere to DOH's ATS manual as it remedies design and equity issues impacting residential developments.

All DOH funded projects must have design review, construction document review completed prior to closing. Failure to comply with DOH Construction Services protocol will result in closing delays. Projects participating in DOH Construction Services Design Review are subject to revision to ensure the project conforms to Construction Services Architectural and Technical Standards. An architectural design review with DOH Construction Services must take place prior to proceeding to Department of Building for permitting or submission for planned development or zoning changes. Modifications to the initial design must return to DOH Construction Services for review and authorization prior to proceeding to construction documentation phase.

Prior to closing the project and initiating construction, all requested documents must be received, reviewed, and approved to receive a notice to proceed prior to construction from DOH, Construction Services. The AOR shall be same individual who created the plans and specifications. Any on-site architectural observation shall be conducted by the AOR. The Architect is responsible for certifying that all the work requested for payment, at a minimum of one site visit per pay application, is accurate and has been completed.

AOR prepares plans and specifications including consultations, estimates, and professional engineering services typically associated with the architectural portion of the plans, including structural design and landscape architecture.

Drawings and specifications must be prepared under the direct supervision of a licensed architect in accordance with the Architectural Practice Act, bear the license number of the architect and if the architect is part of any business structure other than a sole proprietorship, he or she must include the project design firm registration number on the drawings. Drawings must be signed and sealed by the AOR. Engineers licensed to practice in the State of Illinois, when acting as a consultant to the AOR or under a separate contract with the developer and or owner must sign and seal their work and provide proof of their professional liability insurance.

3.0 DEVELOPER

The developer must submit required documentation to DOH Construction Services for review and authorization. Clarification letters may be submitted to the developer outlining required documents for project review. Documents must be submitted digitally and hard copy, in a timely manner and provide DOH Construction Services review, comment and re-request time. DOH Construction Services construction approval must be obtained by the developer prior to closing.

DOH Construction Services requires the following from the developer in order to issue them a Notice to Proceed prior to closing:

1. Three (3) or more general contractor bids for all developments.
2. The evaluation of three (3) general contractor's bids will include but not be limited to the review of past performance in addition to the requirements as indicated on the general contractor's application package.
3. General construction contracts must be an AIA A102 Guaranteed Maximum Price.
4. The developer, AOR, and general contractor must be independent of one another and cannot be a related entity or subsidiary of any other part of the development team.

5. Documents used by the AOR, general contractor and developer must be on standard AIA contract documents or forms and deviations from these must be approved in writing by DOH Construction Services.
6. General contractors selected must submit a full DOH Contractor's Application Package for review and approval.
7. Early construction starts prior to finance closing are not allowed.
8. Developer's fees must be used for all construction contingency items once the construction contingency has become depleted and the project has not been completed.

4.0 GENERAL CONTRACTOR: CONTRACTURAL AND POLICY REQUIREMENTS

4.1 Construction Contract

DOH requires all contracts for general construction to be an AIA A102 Guaranteed Maximum Price (GMP) Contract and that the developer obtains a minimum of three (3) general contractor bids.

The following items apply to the general contractor for each project. Please note DOH does not allow profit, overhead and general conditions for work the general contractor will self-perform.

The general contractor is allowed:

- Profit: in the amount of 6%
- Overhead: in the amount of 2% and
- General conditions: including performance bond, in the amount of 6%, all of which are maximum amounts calculated from the net construction costs
- Insurance can be carried as a soft cost separate line item

Profit is defined as the proceeds of the transaction minus the cost, including intangibles such as contract incentives. If there is an identity of interest between the owner and or developer and general contractor, the following will apply:

- Developer fee will be removed, or
- General contractor's 6% profit must be eliminated

Overhead being the expense necessary to conduct a business. Cost shall also include those specific to the project and include transportation, travel expenses and temporary housing. If there is an identity of interest between the owner and or developer and general contractor, the following will apply:

- Developer fee will be removed, or
- General contractor's 2% overhead must be eliminated

General conditions and or general requirements are functions needed to complete the construction phase and must include but not be limited to the following costs:

- Project manager and or superintendent
- Draw related paperwork
- Layout, surveys
- Plans and or printing
- Material testing
- Temporary heat and utilities
- Portable toilets
- Temporary fencing
- OSHA protection
- Field Office
- Hoisting equipment
- Communications
- General labor, including, but not limited to, items identified within Construction Specifications Institute (CSI) Master Format Divisions 0 and 1 within the project manual (when provided)
- Security
- Small tools
- Disposal
- Construction photography
- Cost certifications
- Daily construction site cleaning
- Final cleaning
- Performance Bond
- Mobilization
- Mockups
- Audits
- Security

As the general contractor is responsible for these functions any subcontracting of these out to lower tier subcontractors will reduce the amount of the general contractor's general conditions percentage.

DOH, Construction Services review and approval of a general contractor for the project includes the following process:

- The selected general contractor from the initial bidding process must submit a complete contractor's application package.
- Once the developer selects a general contractor, they must submit a minimum of three (3) subcontractor bids for all line items.
- A minimum of three (3) bids for all self-performed work must be obtained and provided to DOH for review.
- Self-performed or related entity work cannot include general conditions, overhead or profit for those line items.
- Subcontractor bids must be submitted digitally in an e-binder organized format, preferably via Outlook 365 One Drive.
- Sworn statements and successful subcontractor bids must be updated accordingly to reflect the issued for construction drawings prior to closing.
- Prospective general contractors and subcontractors must be licensed by the City of Chicago for their applicable trade.
- A letter on the general contractor's letterhead stating they received the issued for construction drawings with all addendums and correction and that the sworn statement amounts have been adjusted accordingly to reflect those changes must be submitted prior to closing.
- Once a sub-contract line item has been let, a copy of the subcontract agreement must be submitted detailing all work in the scope, amount of contract, and that line item must not be adjusted, removed or scope subdivided.
- Contracts for general construction must be an AIA A102 Guaranteed Maximum Price Contract. The final sum and language of the contract must be reviewed and meet all program guidelines.
- DOH Construction Services ATS manual must be an exhibit in the general contractor's contract.
- Work started prior to a DOH Construction Services executed Notice to Proceed (NTP), will not be paid out from the project budget and may put proposed funding at risk.

- City of Chicago will not be responsible for payment, compensation, loss of funding due to unauthorized work or activity.
- Line items and or amounts must not be adjusted, removed or scope subdivided without DOH Construction Services review and written authorization.
- Use of any project cost savings without DOH Construction Services approval is strictly prohibited.

When a contractor is acting in the capacity as a general contractor, they must provide all the functions typically associated with the position. General contractors are responsible for the overall construction management and tasks involved from the project's commencement through completion.

Functions include, but are not limited to:

- Scheduling
- Coordination of the trades
- Supervision
- Safety
- Program compliance
- Monitoring
- Other means and methods required to complete the construction of the project.

DOH, Construction Services will not allow for a straw general contractors or firms reaping the benefits and fees associated with the general contractor's title. Subcontracting functions must not be given to another general contractor or separately contracted individuals to perform these duties in place of a primary employee of the general contractor. General contractors are expected to be on site during construction at least daily, and maintain a daily log documenting the progress of the work to be available for review by DOH. Any side agreements or kickbacks will result in forfeiture of any future work with the City of Chicago.

DOH encourages general contractor joint ventures (JV) that include a minority owned general contractor firm. The minority owned firm must be certified by a reputable certifying entity acceptable to DOH. The minority owned firm must hold a minimum of a 33% ownership interest in the JV. All joint venture members must play an active role on the project site and representatives from all parties must document their project activities. Joint ventures created for the project must have formal joint venture contract and must be reflected on the permit.

Construction related costs required to complete the project must be decided and approved prior to the project receiving a DOH Construction Services Notice to Proceed (NTP). The following documentation to be submitted for review and approval:

- General Contractor's Sworn Statement including all permit review corrections, requirements, addendums, value engineering and proper wages. It is the responsibility of the general contractor to familiarize themselves with the project site including but not limited to the site conditions, soil reports, utility locations and services, logistics and material deliveries and staging.
- General contractor's statement on company letterhead, prior to closing, all subcontractor pricing includes all permit review changes, corrections and addendums. All subcontractors have reviewed the issued for construction documents and have adjusted the contracts accordingly.
- All deletions of DOH Construction Services required work items, such as from DOH ATM or design review comments, from the scope due to costs will not be approved, nor will the utilization of the contingency to pay for these items. Contingency will be used for these items after the Notice to Proceed is issued.

- Additional funding for increased construction budget costs shall be the responsibility of the developer or general contractor and not the City of Chicago.
- Winter Conditions must be carried on the owner's sworn statement. This will be treated as a contingency item and will follow all change order procedures. Unused winter condition amounts will be returned to the City of Chicago.
- Construction performance surety: payment and performance bond must be obtained by a company acceptable to the City equal to 100% of the cost of construction of the development.
- Construction performance surety options when a GC or a GC JV partner is a minority owned firm or other firm pursuant to Municipal Code Section 2-92-670.
 - Construction performance surety in the form of either a) Payment and Performance Bond by a company approved by the City equal to 100% of the cost of construction of the development or b) Unconditional, irrevocable commercial letter of credit, issued by a financial institution approved by the City of Chicago, in an amount equal to 25% of the cost of construction of the development.
- In all instances where any subcontract agreements result in cost savings to the project or there is a construction contingency balance, the disposition of any savings and or balance must be in the sole discretion of DOH.
- Material suppliers for construction related products shall be identified on the contractors sworn accordingly.
- Payment for any shop drawings will be limited to 5% of the total cost for that line item.
- The maximum payment for elevators allowed prior to installation is 50% of the contract amount with progressive payments following percentage complete.
- Stored materials can only be paid out to a maximum of 50% of the corresponding line item for that trade. All requirements for the stored material draw shall be followed and is included in the exhibits section of this document.

A 10% retention on all line items shall be held for all line items on the general contractor's sworn statement. (Including General Conditions/Requirements, Overhead, and Profit) until 90% completion of the project. A reduction to 5% can be made at the 90% completion point in the project where it shall stay until 100% project completion. A retention reduction form must be filled out and submitted to DOH Construction Services.

4.2 Construction Contingency

Construction Contingency must be carried on the owner's sworn statement and be 5% for new construction and 10% for renovation projects and must be based on the total construction contract amount. The construction contingency will only be used to fund unforeseen conditions. Soft costs, developer fees, up-grades and betterments, reserves, or other costs DOH Construction Services deems ineligible will not be eligible for contingency. The general contractor must include all permit review corrections, requirements, addendums, value engineering and proper wages in their pricing and not in the contingency. Costs associated with the general contractor, such as, but not limited to project site analysis, site conditions, soil reports, utility locations and services, logistics and material deliveries and staging will not receive contingency funds. Extra contingency must not be carried in the subcontractor line items.

The general contractor and subcontractors are limited to profit, overhead, and general conditions of 6/2/6%. Change orders submitted by the general contractor for self-performed work or a related entity can only include actual material and labor costs with no profit, overhead, or general conditions. All change orders must be submitted to DOH for review. Once the review is completed a written response will be generated by DOH and provided to the general contractor either authorizing the use of contingency funds or the request is a developer fee or if more information is required for change order authorization. Change orders not submitted timely, fully, or accurately will likely result in delayed responses as well as DOH draw authorizations being delayed.

When a change order is requested for use of contingency funds the following must be submitted to DOH Construction Services prior to any work taking place or material ordered for that change order:

- AIA G701 Change Order form needs to be executed by the developer, owner and architect of record and be submitted to DOH Construction Services prior to work taking place or material ordered for the subject change order.
- The owner and developer must include a detailed letter from the architect of record rationalizing all change order requests, all documentation supporting the subject change order, which may include plans, sketches, photographs, subcontractors, and general contractors' proposals.
- DOH Construction Services will verify pre-existing conditions as well as the change order's final product.
- The architect and general contractor must ensure items requested on change orders are not included in the plans, specifications, or other contract documents.
- The General Contractor must document conditions before implementing the change order and provide DOH Construction Services with subsequent documentation and photographs.

DOH Construction Services will review all submitted change orders and issue written determinations either authorizing the usage of contingency funds or if the change order request will be funded with the developer fee.

All change orders cannot appear on payout authorization requests until the development team has received DOH written confirmation authorizing the change order.

4.3 Change Orders

Owners and or developers assume all risk in construction cost increases (excluding those due to extraordinary circumstances approved by DOH) for materials or labor and in completing change order work without DOH Construction Services written authorization and are responsible for obtaining sufficient insurance and site security to cover losses due to theft, damage, or contractor negligence. Large deductibles or premium increases are not eligible for use of contingency funds. Contingency funds will not cover costs associated with work performed outside the general contract and scope of work, let by the developer and or owner.

All changes orders regardless of funding source, amount, or scope of work are to be submitted to the City of Chicago DOH Construction Services for review and approval and or rejection. All change orders are to be submitted according to policies and procedures of Construction Services. Acceptable uses of contingency include unforeseen but required changes to the scope of work and cannot be used for items such as material changes, labor, overtime, upgrades, and pricing increases (excluding those due to extraordinary circumstances approved by DOH). Work and disbursements of funds are to be made only after DOH Construction Services approval of the change orders to the construction contract. Any unused contingency will be retained by DOH.

The following will not be approved for the use of contingency funds:

1. Errors
2. Omissions
3. Overtime costs, scheduling delays or the delivery of material
4. Architectural, engineering, or other services or fees outside the authorized scope of work
5. Damage or theft at the job site
6. Separate contracts outside of the General Contract
7. Construction costs increases
8. Change orders for work in place prior to notifying DOH, Construction Services
9. Any work in conflict with codes, regulations, or standards
10. Contractor negligence

Contingency cannot be utilized for off-site improvements, soft costs, vehicles, developer fees, resident services, management and operations, items not related to the project, or other non-construction items and upgrades or betterments will be reviewed on a case-by-case basis.

If an item classified as an error or omission, it is the DOH Construction Services position the developer should review the change order and reconsider if it is worthy of an increase in the contract value. We encourage the developer review their contract as well as the general conditions to the contract and take proper action under these documents prior to agreeing to funding the change order through Contingency funds.

DOH retains the right to penalize the project team for poor performance which will impact future awards.

5.0 CODES, REGULATIONS AND POLICY

The following standards are supplemental to basic standards established by applicable building codes, local zoning, and other applicable regulations. In addition, these standards are supplemental to other applicable design standards promulgated by DOH. Where two standards govern the same condition conformance to the most restrictive standard is required. All improvements must follow the most current adopted Chicago Building Code.

- DOH ATS manual – applies to DOH multifamily developments.
- Chicago Building Code - applies to all buildings/projects.
- Americans with Disabilities Act – applies to the common areas open to the public use, such as a property management office or rental office.
- Fair Housing Act - applies to all new multi-family housing consisting of four or more dwelling units.
- Illinois Accessibility Code- applies to all multi-story housing units as defined and governed by the Environmental Barriers Act (EBA).
- Section 504 of the Rehabilitation Act 1973 – applies to recipients of federal financial assistance.
- Minimum Property Standards for Housing (MPS) US Department of Housing and Urban Development (HUD)
- Title 89 Illinois Administrative Code. Subpart B: Supportive Living Facilities
- Multifamily Accelerated Processing (MAP) Guide
- Lead Based Paint- The project shall comply with the applicable lead-based paint regulations. All federally assisted projects having units constructed before 1978 must comply with Title X of the Housing and Community Redevelopment Act of 1992. In addition, all properties and/or units must comply with the Environmental Protection Agency (EPA).
- Asbestos Containing Material- All federally assisted projects must comply with EPA 40 CFR 61.145 and all other HUD, EPA, IEPA, Illinois Department of Public Health (IDPH), and local/municipal regulations.
- Radon- All federally assisted projects must comply with the Illinois Emergency Management Agency Radon program and the EPA's radon guidelines. When radon mitigation is required at minimum a passive-future active system shall be installed.
- Mold Considerations- All codes to inspection and removal need to be followed.
- All Compliance Regulations for Wages, Hiring, MBE/WBE must be followed as applicable.

6.0 MULTI FAMILY RENTAL NEW CONSTRUCTION AND EXTENSIVE REHABILITATION

DOH's multifamily new construction and extensive rehabilitation goals include the creation of high-quality affordable housing that is safe, energy efficient, functional, accessible, visitable, sustainable and effective in reducing long-term maintenance costs. Good design is essential and must embody social and community objectives

exceeding basic code requirements such as incorporating components of the seven principles of universal design. We encourage all new construction units to be constructed to be visitable and adaptable.

DOH New Construction projects receiving DOH financing must conform to the following standards.

6.1 Residential Buildings and Unit Requirements

The following are minimum heated area requirements. Final design and incorporation of all required program (delineated in sections below) should be the final determinant of the final square footage of the dwelling unit:

Unit Size	Bathrooms	# of Residents	Attached Units
SRO	1	1	350 sq. ft.
Efficiency	1	1	420 sq. ft.
1 Bedroom	1	1 – 2	600 sq. ft.
2 Bedroom	1 – 1.5	2 – 4	875 sq. ft.
3 Bedroom	1 ¾ - 2	3 – 6	1,100 sq. ft.
4 Bedroom	2	5 – 8	1,250 sq. ft.

6.2 Living Room

Minimum largest wall dimension must be 11’ – 6” and sized for the anticipated household size.

6.3 Entry Closet

Unit Size	LF*
Efficiency	2.5
1 Bedroom	3
2 Bedroom	3
3 Bedroom	4
4 Bedroom	4
*Standard 24-inch depth	

6.4 General Storage

General storage space must be included for all DOH funded projects for so future residents can safely store cleaning supplies, vacuum, children’s bikes, toys, seasonal items, etc. The total square feet required is cumulative and may be a garage, closet, dedicated storage area outside of unit. Total of all storage areas must meet the following requirements:

Unit Size	SF
Single Room Occupancy (SRO)	5
Efficiency	6
1 Bedroom	10
2 Bedroom	25
3 Bedroom	30
4 Bedroom	33

6.5 Kitchen/Dining Area

- An eat-in kitchen may be substituted for dining room/area if kitchen and dining area are appropriately sized for the intended household size plus two (2) guests. A 4' long island or peninsula may be used in lieu of designated dining room area in 2-bedroom and smaller dwelling units.
- A dining room or separate eating area is required in 3-bedroom and larger dwelling units.
- Island, peninsula, or eat-in kitchen area is required in three bedroom and larger dwelling units. Island or peninsula must be 4'-0" long (minimum).
- The dining room area must be appropriately sized and accommodate the following:
 - 2-bedroom dwelling units: Table w/ four (4) chairs
 - 3-bedroom dwelling units: Table w/ six (6) chairs
 - ≥4-bedroom dwelling units: Table w/ seven (7) chairs
- Must have window to exterior or opening to living room with window.
- The surface of countertops shall be made of new, durable, easily cleaned materials.
- The dining room must have hard surface flooring.
- GFCI outlet or breaker.

Cabinets:

All units must have kitchen cabinet or other storage areas, such as a pantry, proportionate to the unit's size meeting the following:

Unit Size	Lineal Feet of Base Cabinets	Lineal Feet of Upper Cabinets
SRO	3	2
Efficiency	4	3
1 Bedroom	5	4
2 Bedroom	6	5
3 Bedroom	7	6
4 Bedroom	7	6

- Reduction of base cabinet LF requirement if providing pantry cabinet (Example: if pantry cabinet is 100% storage and is 2 LF then 2 LF can be eliminated from the base cabinet requirement). No reduction allowed if pantry cabinet is broom closet.
- Additional cabinetry may be substituted for no more than 25% of the cabinetry elsewhere. For example, if ten feet of base and uppers each are required, and 15 feet of base cabinets are provided; only 2.5 feet credit may be applied to the uppers leaving 7.5 feet of uppers required. Cabinet requirements do not include the sink base cabinet.

Cabinet specifications:

- All new kitchen cabinets shall have solid wood face-frames or a high-pressure laminate (HPL), doors, and drawer fronts.
- Drawer-box construction shall have dovetail or reinforced joint construction.

- All new kitchen cabinets shall have solid plywood box construction. No MDF or laminate boxes, cabinet drawers or door fronts allowed.
- All cabinet drawers and doors shall have accessible hardware.

Kitchens must include countertop work areas for food preparation. The minimum length must be as follows:

Unit Size	LF*
SRO**	3
Efficiency	4
1 Bedroom	6
2 Bedroom	7
3 Bedroom	7
4 Bedroom	8
*Excluding sink, appliances **Includes sink	

However, all units must have counter tops that meet the following criteria:

- Counter space on both sides of range
- Minimum of 15” counter space on at least one (1) side of refrigerator
- Minimum of 18“of counter space on at least one (1) side of sink

Appliances:

The following appliances must be provided:

- All units with two or more bedrooms must be equipped with 30” wide range/self- cleaning oven.
- Appliances must be UL (Underwriters Laboratories) listed and approved appliances.
- All other units shall be equipped with 24” (min.) range/self-cleaning oven.
- One-year minimum warranties must be issued for all range or stove and ovens. All major appliances used for surface cooking must have a ventilation system and range exhaust.
- Refrigerator: one-year minimum warranty on the appliance.
- Dishwasher with a 1-year minimum warranty on the appliance.
- Garbage Disposal with a 1-year minimum warranty on the appliance.
- A protective shield must be provided for the section of wall directly behind all ranges and on any abutting partition. Protective shields must be high-pressure plastic laminate, ceramic tile, enameled steel, stainless steel.
- Frost Free refrigerator and freezer minimum of 14 cu. ft. for one bedroom and smaller dwelling units.
- All kitchen sinks shall be double compartment (33”x 22” min.), 7” deep minimum. Exception: Efficiency dwelling unit/Single Room Occupancy (SRO), accessible unit, or when unit equipped with dishwasher.
- Kitchens must have luxury vinyl tile (LVT) that is no less than 6 millimeters thick, wood, ceramic tile or equal on the floors.
- Task lighting above kitchen range and kitchen sink.

6.6 Bathrooms

Full bathrooms must include a vanity, water closet and at least one bathroom must have a bathtub with showerhead. Half bathrooms must include vanities and water closets. $\frac{3}{4}$ bathrooms must include a vanity, water closet and shower. The following are required for each bathroom type:

- A minimum of half (1/2) bathroom required at entry level of any two-level, dwelling unit.
- A minimum of one full bathroom required at 2-bedroom and smaller dwelling units.
- A minimum of (1 $\frac{3}{4}$) bathrooms required at 3-bedroom and larger dwelling units.
- Any “split” bedroom design (bedrooms on opposite sides of living room): At least a $\frac{3}{4}$ bathroom adjacent to any bedroom.

In 3-bedroom or larger dwelling units, DOH encourages main bathroom to be compartmentalized for simultaneous, multiple use.

The following are required for all bathroom types:

- GFCI outlet and breaker.
- Recessed medicine cabinet with mirror.
- Towel bar(s.)
- Toilet paper holder.
- Shower curtain rod (if applicable).
- Linen closet or 30-inch-wide vanity cabinet.
- Bathrooms must have LVT (at least 6 mm thick), ceramic tile or equal on the floors.

Cabinet specification:

- All new bathroom cabinets shall have solid wood face-frames or a high-pressure laminate (HPL), doors, and drawer fronts.
- Drawer-box construction shall have dovetail or reinforced joint construction.
- All new bathroom cabinets shall have solid plywood box construction. No MDF or laminate boxes, cabinet drawers or door fronts allowed.
- All cabinet drawers and doors shall have accessible hardware.

6.7 Bedrooms

Primary or master bedrooms must comply with the following:

- Least Dimension shall be 10'-0”.
- Least square footage shall be 120 sq. ft.
- Window to exterior for natural lighting.
- Closet (5 lineal ft. of net rod/shelf length).
- Door and walls to ceiling for privacy.
- Ceiling or wall mounted light fixture in all bedrooms.
- Arc Fault outlets.
- Exception: Efficiency Dwelling Unit/Single Room Occupancy (SRO).

Secondary bedrooms must comply with the following:

- Least dimension 9'-0".
- Least square footage shall be 110 sq. ft.
- Window to exterior for natural lighting.
- Closet (4 lineal ft. of net rod/shelf length).
- Door and walls to ceiling for privacy.
- Ceiling or wall mounted light fixture in all bedrooms.
- Arc Fault outlets.

6.8 Security

One or more of the following is required:

- Security staff
- Cameras
- Alarm systems

Hallways and entrances must have access control such as keyed or fobbed door hardware.

6.9 Broadband

Installation of broadband infrastructure must be provided in each unit.

6.10 Refuse and Recycling Rooms

Chutes and or rooms must be accessible.

6.11 Laundry Facilities

Either in unit laundry or common laundry must be provided in all buildings.

In unit laundry facilities:

- Side by side or stackable washer and dryer are acceptable.
- Accessible units must have front load side by side washer and dryer.

Common laundry facilities:

- Common laundry facilities are required unless laundry equipment is provided in each dwelling unit.
- One washer and one dryer per 12 units.

6.12 Elevators

- All multifamily and senior buildings must have at least two accessible elevators. One of the two elevators must function as a freight elevator to accommodate stretchers and wheelchairs.

6.13 Entrance Porches

- Wood front porches or entrances are not allowed unless required as a Landmark feature.

6.14 Heating and Cooling Systems

- All units must be heated and air-conditioned. No seasonal window A/C units are allowed.

7.0 MULTI FAMILY RENTAL REHABILITATION

Rehabilitating Chicago buildings from an equity perspective includes ensuring DOH funded projects are energy efficient, functionable, sustainable, effective in reducing long term maintenance costs and the final product is decent, accessible, safe and visitable. Gut rehabilitation or adaptive reuse DOH funded housing projects must comply with the ATS manual new construction section to the greatest extent feasible, as determined by DOH Construction Services. All housing undergoing rehabilitation must meet the requirements associated with a Physical Needs Assessment (PNA), accessibility assessment, environmental review, capital needs assessment, other inspections, and preliminary scope of work/cost estimate and contract documents.

A Physical Needs Assessment (PNA) is required and must be prepared by a third-party architect or engineer entity that is unaffiliated with the ownership and property management entities. The PNA must include a life expectancy analysis including estimated age, Expected Useful Life (EUL), and Effective Remaining Life (ERL). The PNA must include the minimum of the following elements:

- Structure
- Exterior
- Interior
- Stairs, Exterior and Interior
- Mechanical Systems
- Electrical Systems
- Plumbing and Sanitation Systems
- Life Safety Protection Systems
- Kitchen and Laundry Appliances
- Cabinetry, Counters
- Flooring ((common and individual units)
- Interior Finishes (common and individual units)
- Common Area Laundry Facilities
- Common Area Trash Facilities
- Site Conditions/Improvements

Rehabilitation and adaptive reuse projects must provide a written request to DOH, Construction Services Division to replace materials and or features at 50% expected useful life (EUL) or more. Any elements that do not meet or exceed 15 years EUL must be included in the rehabilitation scope of work. Items with 75% EUL or more remaining are ineligible for replacement and use of DOH funds. DOH Construction will review on a case-by-case basis for replacement of items with 75% EUL or more when required to obtain a green certification or other justifications as deemed acceptable to the DOH Construction Services Division.

8.0 SENIOR RENTAL HOUSING

All housing constructed with senior units must include the following:

- Sprinkler system, fire alarm system with annunciator panel, hard wired smoke and heat detectors with strobe warning light and hardwired carbon monoxide detectors in all units and common spaces, emergency call devices in all bedrooms and bathrooms.
- Lever type door handles on all doors.
- Grab bars blocking and grab bars in all units and common bathrooms.
- Single lever faucets on all plumbing fixtures.
- Air conditioning in all units and all common area. Window AC units are not allowed.
- Common area emergency lighting system (Type 3).
- Sound Transmission Coefficient (STC) sound rated glass for all windows.
- Active indoor and outdoor space.
- Building security system
- Emergency backup generator, which must include the following areas of service:
 - Common areas, (corridors, stair, halls, elevators, administration area, mechanical rooms)
 - One large gathering area (Community Room)
 - Emergency lights
 - Emergency exit signs
 - Emergency HVAC system in common area, and one large gathering area for at least a duration of three hours
 - Emergency call /pull cord in each apartment bathroom
 - Fire alarm system

7.1 Supportive Living Facilities

All supportive Living facilities must be approved by the State of Illinois Department of Healthcare and Family Services.

9.0 ACCESSIBILITY

All units should be designed to be adaptable, visitable and should incorporate elements of universal design principles. The utilization of universal design enhances the City's goals for allowing seniors to age in place and providing more accessible options for people with disabilities. Moreover, universal design is among the Department of Housing's (DOH) housing principles and aligns with ATS dwelling unit square footage requirements.

However, all DOH funded projects must meet MOPD and DOH accessibility requirements. The current Chicago Building Code allows for MOPD and DOH to mandate stricter accessibility requirements than Code minimums.

10.0. DESIGN AND CONSTRUCTION REVIEW AND SUBMISSION REQUIREMENTS

DOH Construction services directs development teams, designers, and project reviewers to look closely at local conditions and produce new buildings enhancing their surroundings. Good design must be in the context of the surrounding neighborhood. Projects on streets with consistent and distinctive architectural characteristics and how they fit into the neighborhood. Projects must promote the use of durable materials that reduce long term maintenance

costs, create a healthy living environment for residents, enhance energy efficiency and balance high quality design and materials with cost containment.

10.1 Preliminary Design Review

Development teams must review the **ATS manual** and the **Department of Planning and Development's Design Excellence: Neighborhood Design Guidelines** and incorporate these standards to the building and site design as a minimum. Development teams are required to submit a color PowerPoint presentation and Project Assessment Matrix, as part of the Stage I DOH Multi-Family Financial Assistance application, highlighting the following:

1. Project Narrative
 - a. The Project narrative must summarize in one page the development objectives, site, building construction systems (identify wall, floor, and roof construction) and building design concepts.
2. Massing Study
 - a. Provide two distinct massing studies that speak to either end of the spectrum: mid-density and unit count to high-density unit count. Showcase the visual process/reasoning of getting to these two options.
 - b. Select a preferred alternative
3. Project Context
 - a. Color rendering of the preferred alternative plan within proposed project site(s), include adjacent buildings. For scattered site developments illustrate the proximity of each proposed site.
 - b. Photographs of the site(s), including adjacent buildings.
4. Site Plan
 - a. The conceptual site plan must identify location of structures, easements, landscaping, parking, and outdoor space.
5. Floor Plans
 - a. In lieu of full, detailed floor plans for Stage 1, provide schematic general floor plans, with larger fully dimensioned layouts for each unit type.
 - b. Each unit type must include overall unit and room dimensions, furniture layout for the following rooms: living room, dining room, primary bedroom, secondary bedroom(s), kitchen, and bathroom.
 - c. For bathrooms and kitchen provide: cabinet linear feet, type of appliances, flooring, and fixtures.
 - d. General storage, bedroom, entry, and linen closets must be identified and dimensioned.
 - e. Schematic general floor plans must include, identification of general circulation, delineation of location of elevators, stairs, offices, common amenities, refuse and recycling disposal location(s), and common laundry facilities (include number of washers and dryers) with overall dimensions where applicable.
 - f. Conformity to accessibility standards (refer to MOPD requirements).
6. Front, Side and Rear Elevations
 - a. Elevation drawings must list type of materials. Drawing must illustrate location of doors, fenestration, and detail roof configuration, and vertical heights.
 - b. Elevations must be shown in the context of the surrounding buildings massing and fenestration treatments.
7. Project Assessment Matrix
 - a. Project assessment matrix indicates where design exceeds, meets, and misses the ATS manual requirements.

10.2 Construction Document Review

- Construction document review must occur prior to construction approval. The following documentation is must be submitted digitally in an -ebinder organized format, preferably via Outlook 365 One Drive.
 1. Issued for permit construction drawings.
 2. Draft general contractor contract with all exhibits.
 3. Owners sworn statement.
 4. General contractors sworn statement.
 5. General contractors bid book in e-binder format, that aligns with contractor sworn statement.

10.3 Construction Cost Analysis

1. A minimum of three Guaranteed Maximum Price (GMP) competitive and qualified bidders for a general contractor are required.
2. General Contractor's cost estimate and narrative of the description of work. (separate costs for residential, non-residential space, and off-site parking space).
3. General Contractor's Sworn Statement. (Upon selection of a General Contractor submission of all bid documents for all bidders and analysis of section/comparison of contractor's bids is required).
4. 5% construction contingency is required for new construction. The percentages are a factor of the total of these line items: site improvements, demolition, rehabilitation and other hard costs. Any change in these percentage is subject to the approval of the Deputy Commissioner for Construction & Compliance.
5. 10% construction contingency is required for rehabilitation construction. The percentages are a factor of the total of these line items: site improvements, demolition, rehabilitation and other hard costs. Any change in these percentage is subject to the approval of the Deputy Commissioner for Construction & Compliance.
6. All changes orders regardless of funding source, amount, or scope of work are to be submitted to the DOH, Construction Services for review and approval/rejection. All change orders are to be submitted according to policies and procedures of the Construction and Compliance Division.
7. Memos identifying if a change order has been authorized to access contingency or is a developer fee must be included in payout requests.
8. Increases in construction costs that exceed the contingency or not approved change orders will be the responsibility of the developer or general contractor.
9. "Winter conditions" line item is to be carried, without exception, on the Owner's Sworn Statement. At the time this line item is to be utilized a change order must be executed in order to transfer the funds to the construction contract.
10. All permit addendums are incorporated into the final set of permitted construction documents and are forwarded to the general contractor for price adjustments if warranted prior to receiving a Notice to Proceed.
11. Permit corrections that were made during the permit review process cannot be used as a change order.

10.4 Pre-Construction Approval

The following documents must be submitted to Construction Services in a timely manner for review and approval to proceed sequentially with closing. No early construction starts are allowed without written approval from Construction Services Deputy Commissioner. Notice to proceed is not issued until all due diligent and executed documents delineated below are submitted and approved by Construction Services.

1. General Contractors sub-contractor bid book
2. Owner's Sworn Statement

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| 3. General Contractor's Sworn Statement | 13. Environmental Clearance |
| 4. GC Contract with all exhibits | 14. Mayor's Office for People with Disabilities (MOPD) Data Sheet |
| 5. GC Insurance | 15. Owner/architect agreement |
| 6. Pre-permit drawings | 16. Compliance meeting letter |
| 7. Specification book | 17. Performance bond |
| 8. Ordinance | 18. RDA |
| 9. Permit | 19. All architect corrections and addendums |
| 10. Issued for construction drawings | 20. Value engineered list |
| 11. Escrow Agreement | 21. Construction Schedule |
| 12. Risk Management approval | |

11.0 RESOURCES AND ACKNOWLEDGEMENTS

- 2019 Rental Design and Construction Standards – Minnesota Housing Dept.
- Illinois Housing Development Authority Standards for Architectural Planning and Construction – Illinois Housing and Development Authority
- HPD Design Guidelines - NYC Department of Housing Preservation & Development
- Municipal Code of Chicago (Building & Zoning) – City of Chicago
- Americans with Disabilities Act (ADA) 2010
- Fair Housing Act
- Illinois Accessibility Code
- Section 504 of the Rehabilitation Act 1973
- Minimum Property Standards for Housing (MPS) -US Department of Housing and Urban Development (HUD)
- Title 89 Illinois Administrative Code. Subpart B: Supportive Living Facilities
- Affordable housing Incentives Guidelines – City of Los Angeles
- Covington, George and Hannah, Bruce Access By Design. New York, Van Nostrand Reinhold 1997.
- Preiser, Wolfgang and Ostroff, Elaine editors. Universal Design Handbook, New York, McGraw Hill 2003.
- Goldsmith, Selwyn Universal Design, A Manual of Practical Guidance for Architects. Oxford, Architectural Press. 2000
- Leibrock, Cynthia Beautiful Barrier Free, A Visual Guide to Accessibility. New York, Van Nostrand Reinhold 1993.
- Steven Winter Associates, Accessible Housing By Design, Universal Design Principles in Practice. New York, McGraw-Hill 1997.
- Affordable Housing Design Guidelines Booklet – City of Springfield Missouri
- Housing Authority of the City of Milwaukee (HACM)
- Residential Construction Performance Guidelines for Professional Builders & Remodelers, Fourth Edition – BuilderBooks NAHB
- NASCLA Residential Construction Standards- NASCLA
- Residential Construction Performance Guidelines, Fifth Edition – NAHB
- Best Practices Guide to Residential Construction: Materials, Finishes, and Details by Steven Bliss, published by Wiley
- ANSI/ASHRAE/IES Standard 90.2-2018 Energy-Efficient Design of Low-Rise Residential Buildings
- Active Design: Affordable Designs for Affordable Housing - The Center for Active Design

12.0 DEFINITIONS

Unless otherwise expressly stated, the following terms shall, for the purposes of the Standards, have the meaning shown in this Section. Where terms are not defined in this Section, they shall have ordinarily accepted meanings such as the context implies.

Accessible Route: A continuous unobstructed path connecting all accessible elements and spaces of a building, unit or facility. Interior accessible routes may include corridors, doorways, floors, ramps, elevators, lifts, skywalks and tunnels. Exterior accessible routes may include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

Accessibility Standards: Accessibility standards mean the Federal Fair Housing Act, Illinois Accessibility Code, Americans with Disabilities Act, local building codes, and Section 504 of the 1973 Rehabilitation Act.

Adaptability or Adaptable: The ability of certain building spaces and elements, such as: kitchen counters, sinks, and grab bars, to be added or altered so as to accommodate the needs of individuals with or without disabilities or to accommodate the needs of persons with different types or degrees of disability.

Adaptive Reuse: The process of converting or adapting structures for purposes or uses other than those initially intended.

Architect of Record: An architect or structural engineer as defined by the Illinois Architecture Practice Act or the Illinois Structural Engineering Licensing Act who has the contract responsibility for the project, who prepares the construction documents from which the building is constructed, and who signs the required documents.

Area of Rescue Assistance: An area, which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

Building Code, Applicable: The building code and applicable amendments, adopted by the administrative authority under whose jurisdiction the work involved with the construction, addition, alteration, or change of occupancy will be carried out.

Change Order (CO): A written request prepared on A.I.A. Form G701 that changes the scope of work from the Department's approved drawings and specifications. The change order must be signed by the owner/developer, Architect of Record, and the contractor and presented to the Department's field representative for review. A written determination will be provided to the Developer from the Department before requesting the payment on a draw.

Clear Floor Space: The minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

Common Use or Common Areas: Areas (including interior and exterior rooms, spaces, or elements) which are held out for use by all tenants, their guests, and owners in public facilities and multi-story housing units.

Construction Contingency or Contingency: Amount of money allocated to the project by the Department to the project Developer to pay for construction related cost approved by the Department. The value should be equal to 5% of new construction hard costs, and 10% of rehabilitation hard costs. Allocation of these funds shall follow the policies and procedures outlined in the Change Order Section of this manual.

Dwelling Unit: A single residential unit which provides a kitchen or food preparation area, in addition to rooms and spaces for living, bathing, sleeping, and the like.

Efficiency or Studio Unit: A unit used or intended to be used as a residential unit by not more than one occupant for living, sleeping, bathing, and cooking facilities. The unit shall contain not less than the area indicated in the manual.

Entrance: Any access point to a building or portion of a building used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform itself, vestibules, if provided, and the entry door or doors or gate or gates.

Exit: That portion of a means of egress which is separated from all other spaces of a building or structure by construction or equipment as required by the applicable building code to provide a protected way of travel to the exit discharge. The walls ceiling, and openings therein, of the protected way of travel shall provide a fire resistance rating required by the applicable building code.

Facility: All or any portion of buildings, structures, site improvements, complexes, equipment, roads, walks, passageways, parking lots, or other real or personal property located on a site (see Public Facility).

Floor: Any level within a building that may be occupied by the public. Mezzanines and seating tiers are not included in the definition of "Floor" in the Illinois Accessibility Code.

Functional Spaces: The rooms or spaces in a building or facility that house the primary functions for which the building or facility is intended, and the secondary or supporting functions that relate to the support, maintenance, or performance of the primary functions, including connective or ancillary space such as parking and storage. Unfinished or undeveloped space is included as a "Functional Space".

General Contractor: A general contractor (GC) is responsible for providing all of the material, labor, equipment and services necessary for the construction of a project. The GC is responsible for the day-to-day oversight of a construction site, management of vendors and trades and communication of information to involved parties throughout the course of construction.

Governmental Unit: The City or any political subdivision thereof, including but not limited to any state, county, town, township, city, village, municipality, municipal corporation, school district, park district, sanitary district, local housing authority, public commission, public authority, or other special purpose district.

Historic Building: All buildings, parts of buildings, facilities or sites individually listed in or eligible for listing in the National Register of Historic Places, a "contributing" building or site in a National Register Historic District as determined by the Illinois Department of Natural Resources (IDNR) State Historic Preservation Officer or as determined by a "Certified Local Government" designated by the IDNR, a building or site designated as a historic or architectural landmark by a local Landmarks Commission or local Historic Preservation Commission, and buildings which undergo historic reconstruction.

Historic Preservation: The act or process of accurately preserving and/or recovering the form and details of a historic building and its setting as it appeared at a particular period of time by means of repair, stabilization, or restoration as defined herein. Historic Preservation also includes "Historic Reconstruction and Historic Restoration".

Multi-Story Building: Any building of any type two or more stories above the grade level containing any number of units.



Point of Arrival: A location within the site where an accessible route must be provided. Acceptable locations shall include an accessible parking space, accessible passenger unloading/loading zone, public street or sidewalk, or each public transportation stop.

Ramp: A walking surface which has a running slope greater than 1:20 (5%) and a cross slope no greater than 1:50 (2%).

Service Entrance: An entrance intended primarily for delivery of goods or services. A service entrance may not be the principal entrance unless it is the only entrance to the building/facility.

Single Room Occupancy Unit or SRO: A unit used or intended to be used as a residential housekeeping unit by not more than one occupant for living, sleeping, with or without cooking facilities.

Storage, Bulk: A clear volume space provided for storage of personal items such as luggage, boxes of seasonal items or any bulk items. The space is located in the dwelling unit.

Structural Change: Changes to or rearrangement of the structural elements, plumbing fixture changes, or changes to or rearrangement of the plan configuration of walls and full height partitions.

Visitability: The requirement that all single-family homes, townhouses, multi-story housing units, and multi-family apartment units provide accessible features that permit people with mobility impairments to visit (enter and stay, but not live in) a residence.