

TCAAP Redevelopment Code

May 2015



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Introduction

In 2013, the City of Arden Hills hired the consultant team to create a Master Plan for the Twin Cities Army Ammunition Plant (TCAAP) site, to conduct an Alternative Urban Area Wide Review (AUAR), and to draft local regulations and policies to implement the Master Plan. The Master Plan will amend the City of Arden Hills 2030 Comprehensive Plan in an effort to successfully integrate the TCAAP site into the rest of the City. This plan will also help ensure that appropriate development and economic growth occurs and is in line with the vision set forth by the City of Arden Hills and the owner of the property, Ramsey County.

It is the goal of this project to “Develop TCAAP in a way that accommodates a mix of land uses that is sensitive to the natural environment, economically sustainable, and a benefit to the community” (Arden Hills 2030 Comprehensive Plan, 4). This initiative will be economically and environmentally sustainable and provide for a range of uses and development types.

A comprehensive community process resulted in a long-term vision for the redevelopment of this brownfield ammunitions plant site into a true mixed-use development area that incorporates regional employment, shopping and dining and a variety of housing options. This document provides the regulatory tools for redevelopment consistent with the TCAAP Master Plan for this area.

1.1 Purpose and Intent

The purpose of the TCAAP Redevelopment Code (TRC) is to implement the vision for a walkable, mixed-use, resilient, and vibrant TCAAP development (hereinafter, “Plan Area”) by:

- (a) Creating regulations that realize market potential and promote the creation of jobs and economic development;
- (b) Developing a regulatory process that encourages quality growth and saves time in development process;
- (c) Focusing on predictability for both developers and the community; and
- (d) Providing a Natural Resources Corridor that offers active and passive recreational features and is an amenity to the site.

Therefore, the goals of the TRC are to promote and to provide a more functional and attractive community through the use of recognized community design principles and to allow property owners, applicants or developers flexibility in land use, while prescribing a higher level of detail in building design and form than in the current standards of the Arden Hills City Code (AHC). The standards in this code are not intended to stifle creativity nor over-regulate building design but rather encourage better functional building patterns and to create higher quality pedestrian environments along most streets.

1.2 Relationship to Adopted Plans

- (a) **Arden Hills Comprehensive Plan:** In addition to implementing several goals of the Arden Hills Comprehensive Plan, the TRC specifically implements the following goals:
 1. Develop and maintain a land use pattern that strengthens the vitality, quality, and character of the residential neighborhoods, commercial districts and industrial areas, while protecting the community’s natural resources to develop a sustainable pattern for future development.

2. Develop TCAAP in a way that accommodates a mix of land uses that is sensitive to the natural environment, economically sustainable and a benefit to the community.
3. Promote the development, redevelopment and maintenance of a viable, innovative and diverse business environment that serves Arden Hills and the metropolitan area.
4. Develop and maintain a strong, vital, diverse and stable housing supply for all members of the community.
5. Enhance the health, safety and well-being of all who live, work and play in the City.
6. Create a comprehensive, maintained and interconnected system of parks, pathways and open spaces, as well as a balanced program of recreational activities for residents of all ages, incomes and abilities.
7. Preserve, protect and restore the community's natural resources, including open spaces, lakes, wetlands other significant natural features, and historic resources.

2.0 Components of the Code

2.1 The Regulating Plan

The TCAAP Redevelopment Regulating Plan map (herein known as the Regulating Plan) (Attachment 1) is hereby adopted as the official zoning map for the Plan Area. Within any area subject to the approved Regulating Plan, this TRC becomes the exclusive and mandatory regulation unless specified in Section 3.2. It shall establish the following development standards for all properties within the Plan Area:

- (a) **Establishment of TCAAP Zoning Districts** – The Plan Area is distinguished into different specialized zoning districts. Each zoning district is intended to create a distinct development pattern based on the TCAAP Master Plan for different sections within the Plan Area. Each zoning district shall establish use and building development standards including standards for building height, bulk, location, functional design and parking. The Regulating Plan classifies all lots within the Plan Area into one of the following seven (7) zoning districts:
- 1) Campus Commercial (CC) – The Campus Commercial Zoning District facilitates a building format that allows multiple, single tenant buildings or campuses within the northern “Thumb” site of the Plan Area. The goal is to allow for an individual plan approach for each campus or building, based on user preferences within a range of requirements.
 - 2) Town Center (TC) – The Town Center Zoning District creates a vibrant commercial and residential environment that maximizes the potential for an outdoor experience. This district promotes walkability through allowing for housing, office, retail, restaurant, and civic uses all within close proximity of each other.
 - 3) Office Mixed-Use (OMU) – The Office Mixed-Use Zoning District creates a flexible zone that allows and promotes a seamless transition from Retail Mixed-Use but focuses on employment and other compatible uses. This district promotes employment as a primary use, but allows for other commercial uses to be incorporated as vertical mixed-use buildings.
 - 4) Retail Mixed Use (RMU) – The Retail Mixed-Use Zoning District creates a flexible zone that allows and promotes a seamless transition from Office Mixed-Use but focuses on retail and compatible uses. This district promotes retail as a primary use and allows for other commercial uses to be incorporated as vertical mixed-use buildings.
 - 5) Flex Office (FO) – The Flex Office Zoning District creates an opportunity for large scale development for employment and manufacturing uses that take advantage of the highway frontage and automobile access.
 - 6) Neighborhood Transition (NT) – The Neighborhood Transition Zoning District provides for a range of residential (live-work, single family, and small and medium multi-family) transitions between the active retail and employment mixed-use districts and adjoining single-family neighborhoods. Development standards in this district emphasize smaller scale residential uses and establish building transition standards to adjoining neighborhoods.
 - 7) Neighborhood (NB) – The Neighborhood Zoning District provides for a range of attached and detached single-family residential uses.
- (b) **Street Designations** – The Streets within TRC shall be classified in two different ways.
- 1) *Street Cross Sections* shall address vehicular lane widths, number of lanes, pedestrian accommodation, street tree requirements, on-street parking, snow

storage and parkway and median standards. These standards are laid out in Section 8.0 and Attachment 4.

- 2) *Street Priority* shall establish the phasing significance (Required or Recommended) of different street segments within the Plan Area. Refer to Section 8.0: Street Design Standards and Attachment 5 for the detailed regulations.
- (c) **Building Frontage Standards** – Building Frontage designations shall classify different block frontages based on the pedestrian priority goals of the TCAAP Master Plan on the Regulating Plan (Attachment 1). They shall be classified into one of three frontage designations: (i) Pedestrian Priority Frontage with the highest quality standards for pedestrian-oriented building design; (ii) Pedestrian-Friendly Frontage that balances pedestrian-oriented building design standards while accommodating some service and parking functions; and (iii) General Frontage which mainly accommodates service, utilities and parking functions.
 - (d) **Open Space Designation** – Open Space within the TRC shall be categorized as Required Open Space. The detailed Open Space Standards for different open space types are included in Section 9.0 and Attachment 2 of this Code. These standards include general character, typical size, frontage requirements and typical uses.
 - (e) **Gateway Overlay Designation** – The Gateway Overlay District indicates where additional aesthetic treatments are required to create a welcoming environment that establishes the character of the TCAAP Redevelopment Area. The specific standards are included in Section 7.6 of this Code.

2.2 Development Standards: The TRC text portion of this Code enumerates the development standards with text and graphics for Zoning Districts, Frontage Types, building form, landscape, building design, signage and lighting.

2.3 Using This Code

The following basic steps should be followed to determine the uses and development standards applicable on property within the Plan Area:

- (a) Review Table 3-1 to evaluate the applicability of the TRC based on scope of the proposed development.
- (b) Locate the subject property on the Regulating Plan (Attachment 1).
- (c) Identify the Zoning District in which the property is located.
- (d) Review the Schedule of Uses by Zoning District as listed in Table 5-1 to determine allowed uses.
- (e) Examine the corresponding zone standards in the Building and Site Development Standards in Section 6 to determine the applicable development standards and any Frontage standards.
- (f) Refer to Section 7.0 for Building Design Standards

The information listed in these graphics explain where the building will sit on the lot, the limits on its physical form, the range of uses and the palette of materials that will cover it.

3.0 Administration

3.1 Applicability

- (a) The uses and buildings on all properties within the Plan Area shall conform exclusively to the requirements of the TRC unless specifically referenced as otherwise in this TRC.
- (b) Table 3-1 (Applicability Matrix) shall determine the extent to which different sections of the TRC apply to any proposed development.
- (c) In addition, Table 3-2 shall determine which sections of the TRC apply at which time in the development review process such as Subdivision Review, Site Plan Review or Building Permit Review.
- (d) Provisions of the TRC are activated by “shall” when required; “should” or “may” when recommended or optional.
- (e) Terms used throughout the TRC are defined in Section 4.0: Definitions. For those terms not defined in Section 4.0, definitions in various sections of the AHC shall apply. For terms not defined in either section, they shall be accorded commonly accepted meanings. In the event of conflict, the definitions of the TRC shall take precedence.
- (f) Where in conflict, numerical metrics shall take precedence over graphic metrics.

3.2 Relationship to other City Ordinances

- (a) For all properties within the Plan Area, the standards in this Code shall supersede standards under:
 - i. Commercial and Multi-Family Design Standards under Chapter 13, of the AHC, as amended, except as specifically referenced herein.
 - ii. Sign Standards under Chapter 12, as amended, except as specifically referenced herein.
 - iii. Landscaping Standards under Chapter 13, as amended, except as specifically referenced herein.
 - iv. Subdivision Ordinance under Chapter 11, as amended, except as specifically referenced herein.
- (b) Development standards not addressed in this TRC shall be governed by the AHC, to the extent the AHC standards are not in conflict with the TRC.

Table 3-1: Applicability Matrix

Legend



= Section of the Code Applies

Blank denotes Standards in this Section of the Code does not apply

Code Section	Section 5.0: Schedule of Uses		Section 6.0: Building and Site Development Standards				Section 7.0: Building Design Standards	Section 8.0: Street Design Standards	Section 9.0: Open Space Standards	Section 10.0: Streetscape and Landscape Standards				Section 11.0: Sign Standards
	Build-to zones and setbacks	Building Frontage	Building Height	Parking and Service Access	Sidewalk, Street Trees and Streetscape	Parking Lot Landscaping				Street Lighting and Furniture	Utilities			
Type of Development														
1) Commercial (retail, office, restaurant), lodging, mixed use building, apartment/multi-family building (3 or more units per lot), and live-work units (more than one of the following may apply to one application based on the scope of the application)														
a. New Construction		All Sections of the TRC apply												
b. Existing Building Remodel: Existing non-complying structures or sites may be repaired, maintained or altered provided that such repair, maintenance, or alteration shall <u>not create any new non-compliance</u> of all or any part of such structure or site.														
i. Change of Use/Expansion of Existing Use (without expansion of conditioned building area) (to a permitted or conditional use in the designated Zoning District)		●				●						●		●
ii. Expansion of Existing Buildings (regardless of size of expansion): Structures or sites may be enlarged or expanded provided that such enlargement shall <u>not create any new non-compliance</u> of all or any part of such structure or site. The TRC applicable sections shall apply only to proposed building expansions.		●	●	●	●	●	●	●	●	●	●	●	●	●
c. Expansion of parking area only (with or without a building or use expansion) (includes off-site or accessory parking)														
i. Up to 10 spaces			●		●									
ii. 11 or more additional spaces			●		●					●				
d. Existing Signage														
i. Refacing or changing a panel on an existing sign														

Legend ● = Section of the Code Applies

Blank denotes Standards in this Section of the Code does not apply

Code Section	Section 5.0: Schedule of Uses					Section 6.0: Building and Site Development Standards					Section 7.0: Building Design Standards	Section 8.0: Street Design Standards	Section 9.0: Open Space Standards	Section 10.0: Streetscape and Landscape Standards				Section 11.0: Sign Standards
	Build-to zones and setbacks	Building Frontage	Building Height	Parking and Service Access						Sidewalk, Street Trees and Streetscape				Street Screen and Parking Lot Landscaping	Street Lighting and Furniture	Utilities		
Type of Development																		
<i>Table 3-1 Continued</i>																		
ii. Signs may be repaired, maintained, altered, or replaced as allowed by state law (M.S. 462.357, Subd. 1e) provided that such repair, maintenance, alteration, or replacement shall <u>not create any new non-compliance, or expansion of any existing nonconformity</u> , of all or any part of such a sign. (applies during sign permit review only)																		
f. New sign or expansion of an existing sign (applies during sign permit review only)																		
2. Residential Buildings (single family detached, single-family attached, twin home buildings; (1 – 2 units)																		
a. New construction																		
b. Change of Use (to a permitted or conditional use in the designated Zoning District)																		
c. Existing Building Remodels: Structures or sites may be repaired, maintained or altered provided that such repair, maintenance, or alteration shall <u>not create any new non-compliance</u> of all or any part of such structure or site.																		

Legend  = Section of the Code Applies

Blank denotes Standards in this Section of the Code does not apply

Code Section	Section 5.0: Schedule of Uses					Section 6.0: Building and Site Development Standards					Section 7.0: Building Design Standards	Section 8.0: Street Design Standards	Section 9.0: Open Space Standards	Section 10.0: Streetscape and Landscape Standards			Section 11.0: Sign Standards
	Build-to zones and setbacks	Building Frontage	Building Height	Parking and Service Access	Section 9.0: Open Space Standards			Sidewalk, Street Trees and Streetscape	Street Screen and Parking Lot Landscaping	Street Lighting and Furniture				Utilities			
Type of Development																	
Table 3-1 Continued																	
<p>d. Expansion of existing use/structure (building additions and new accessory building/structure on the lot): Structures or sites may be enlarged provided that such enlargement shall <u>not create any new non-compliance</u> of all or any part of such structure or site. Standards in the TRC applicable sections shall apply only to the building expansions. It shall allow addition of non-conditioned space such as patios, porches, arcades, canopies, private open space, recreational amenities and courtyards/forecourts.</p>																	
																	

Table 3.2 Application Review Specific Matrix

Legend  = Standards in this Section of the Code applies NA = Standards in this Section of the Code does not apply

Code Section	Section 5.0: Schedule of Uses						Section 6.0: Building and Site Development Standards						Section 7.0: Building Design Standards	Section 8.0: Street Design Standards	Section 9.0: Open Space Standards	Section 10.0: Streetscape and Landscape Standards			Section 11.0: Sign Standards
	Build-to zones and setbacks	Building Frontage	Building Height	Lot Standards	Parking and Service Access							Street Trees and Streetscape	Street Screen and Parking Lot Landscaping	Street Lighting and Furniture	Utilities				
Type Application Review																			
1. Subdivision Plan Review (includes revised plats)																			
2. Site Plan Review																			
3. Building Permit Review																			 *

 = Applies for residential development only

* = Applies during Sign Permit review only

3.3 JDA Development Review Process

- (a) **Pre-submittal Meeting Required:** All projects shall have a pre-submittal meeting with the JDA Development staff prior to submitting the approved application form for development in the Plan Area. At the pre-submittal meeting, the staff shall provide information on the requirements for development and submittal within the Plan Area, including related necessary City building permit and related final construction approvals.
- (b) **Site Plan Required:** A Site Plan shall be required for all proposed developments within the Plan Area. Requirements for Site Plans are listed per Section 1355.03 of the AHC. A site plan is reviewed by staff prior to preliminary plat submittal.
- (c) **JDA Review Generally:** Projects that comply with all standards of the TRC and projects that require Permitted Adjustments shall be processed by the Joint Development Authority (JDA). The JDA shall review and consider projects which meet all TRC standards as recommended by staff, with approval of such projects subject to a majority vote of all the members of the JDA. Please refer to Attachment 4 Development Review flow chart for information on the development review process. The JDA may amend its development review process at any time, subject to any applicable requirements of the Joint Powers Agreement (the "JPA").
- (d) **JDA Permitted Adjustments:** The JDA may approve Permitted Adjustments per the criteria set in Table 3-3 below, subject to a 3/5 vote of the JDA. The Permitted Adjustment process may be used only to authorize a less restrictive standard and may not be used to impose a higher standard than is established under the TRC on the subject property. A JDA Development staff report and recommendation is required for the JDA to make a determination on a Permitted Adjustment. Public notices shall be issued for all Permitted Adjustment hearings; however, such hearings may be combined with any other JDA hearing process, such as for consideration of approval of a project and its related transactional documents.
- (e) In reviewing any Permitted Adjustment request, the JDA shall use the following criteria:
 - i. The goals, intent and vision of the adopted Regulating Plan Map and TCAAP Master Plan;
 - ii. The extent to which the proposal fits the adjoining design context by providing appropriate building scale and use transitions;
 - iii. The extent to which the proposal provides public benefits such as usable civic and open spaces, livable streets, affordable housing, living wage jobs, structured and/or shared parking and linkages to transit;
 - iv. The extent to which the proposal does not hinder future opportunities for higher intensity development;
 - v. The extent to which the proposal provides a demonstration of advanced energy resilience which may have an educational value; and
 - vi. Considerations of health and welfare to the general public.
- (f) In reviewing any Permitted Adjustment, the JDA shall not grant flexibility for the following:
 - i. Deviation from requirements of Section 5.0 (Schedule of Uses);
 - ii. Building height;
 - iii. Definitions included in Section 4.0;
 - iv. Density parameters for residential land uses; and
 - v. Clear height.

Table 3-3: Permitted Adjustments Table

Code Standard	Extent of Adjustment Permitted	Criteria
1. Regulating Plan Map		
<p>a. Location of any Required Street (Town Center, Retail Mixed-Use, Office Mixed-Use, and Neighborhood Transition Districts)</p>	<p>Streets shall be on a grid system with blockfaces (measured right-of-way to right-of-way) no less than 200 feet and no more than 500 feet. Block faces may be adjusted no more than 50%. Block faces longer than 500 feet shall include mid-block pedestrian connections. Pedestrian connections to adjacent park and open space areas shall be no further apart than 750 feet. Pedestrian connections to parks and open space areas shall be at least 50 feet wide.</p>	<ul style="list-style-type: none"> i. Shall maintain the connectivity intended by the Regulating Plan ii. Shall maintain the continuation and/or connectivity with any existing streets where possible iii. Pedestrian connectivity must be maintained iv. JDA staff, City Community Development and Public Works staff approval
<p>b. Location of any Required Street (Neighborhood District)</p>	<p>Streets shall be on a modified grid pattern. Public views and access to open space areas are required. The use of cul-de-sacs should be minimized and must include pedestrian connections from the cul-de-sac to streets or open space located behind private lots. Block faces longer than 500 feet shall include mid-block pedestrian connections. Pedestrian connections to adjacent park and open space areas shall be no further apart than 750 feet. Pedestrian connections to parks and open space areas shall be at least 50 feet wide.</p>	<ul style="list-style-type: none"> i. Shall maintain the connectivity intended by the Regulating Plan ii. Shall maintain the continuation and/or connectivity with any existing streets where possible iii. JDA staff, City Community Development and Public Works staff approval
<p>c. Area and Location of any Required Open Space</p>	<p>Area may be reduced by no more than 10%. The location of parks in the Hill Neighborhood may be moved within that neighborhood.</p>	<ul style="list-style-type: none"> i. Shall include required amenities identified by the City's TCAAP Master Parks and Open Space Plan ii. JDA staff, City Community Development and Public Works staff approval
2. Building Form and Development Standards		
<p>a. Build to zones/setbacks</p>	<p>No more than a 20% change in the maximum or minimum setback applicable or 6 feet whichever is greater.</p>	<ul style="list-style-type: none"> 1) Changes to the build-to-zones and setbacks may only occur when there is cause by one or more of the following: <ul style="list-style-type: none"> i. A change to the street cross sections established in Attachment 4; or ii. Need to accommodate existing buildings and structures on the lot that meet the overall intent and vision for redevelopment in the Plan Area; or iii. Need to accommodate other required modes of transportation (transit, bike, pedestrian), storm water drainage, water quality, or low impact development (LID) elements on the site; or iv. Need to accommodate overhead or underground utilities and/or easements; or v. Need to preserve existing heritage trees on the property. 2) In no case shall the sidewalk be less than 8 feet in width along the "Spine Road" and 6 feet in width along all other streets when sidewalks will be publicly maintained.

b. Building Frontage	No more than a 15% reduction in the required building frontage (applicable in the designated zoning district) along each block or subject lot with Pedestrian Priority Frontage designation or no more than a 25% reduction in the required building frontage (applicable in the designated zoning district) along each block or subject lot of a Pedestrian-Friendly Frontage designation.	Any reduction in the required building frontage shall be to address one or more of the following: <ul style="list-style-type: none"> i. To accommodate porte-cocheres for drop-off and pick-up; or ii. To accommodate existing buildings and site elements; or iii. To accommodate other required transit, bike and pedestrian related, storm water drainage, water quality, or low impact development (LID) elements on the site.
	Parking garages and porte-cocheres are allowed along Pedestrian Priority Frontage and Pedestrian-Friendly streets per authorization from the JDA.	Allowed when necessary for building design.
c. Corner Lot Building Frontage	Reduction of building frontage requirements for lots with two or more Pedestrian Priority frontages (applicable Frontage Standard for the zoning district of the subject corner lot)	Frontage requirement along <u>one</u> Pedestrian Priority designated frontage may be replaced with the corresponding standard for Pedestrian-Friendly frontage designation instead. In determining which Pedestrian Priority frontage may be changed to a Pedestrian-Friendly frontage, precedence shall be given to matching any existing building Pedestrian Priority frontages of adjoining blocks or lots on either side of the street.
	Reduction of building frontage requirements for lots with two or more Pedestrian-Friendly frontages (applicable Frontage Standards for the designated zoning district of the subject corner lot)	Frontage requirement along <u>one</u> Pedestrian-Friendly designated frontage may be replaced with the corresponding standard for General frontage designation instead. In determining which Pedestrian-Friendly frontage may be changed to a General frontage, precedence shall be given to matching any existing building Pedestrian-Friendly frontages of adjoining blocks or lots on either side of the street.
d. Sidewalk and Streetscape standards	Sidewalks, street tree planting, street lighting, and other streetscape standards may be adjusted based on the development context and street cross section.	Any changes to the streetscape standards shall be based on specific development context such as existing vegetation, natural features, drainage, and fire access and is subject to approval by the JDA.
e. Required Parking Spaces	Reduction in the number of required parking spaces up to 10% of total spaces	Reduction in the number of parking spaces shall be based on one or more of the following: <ul style="list-style-type: none"> i. A shared parking plan for parking within 1,000 feet of the subject property; or ii. A parking study for the uses proposed on the site; or iii. A combination of the above
3. Other		
a. Any other numerical standard in the code	A modification up to 10% (increase or decrease)	<ul style="list-style-type: none"> i. A modification of a numerical standard is needed to accommodate existing conditions. ii. The proposed development still meets the intent of the TRC.
b. Phased Developments	Deferment of building frontage standards	<ul style="list-style-type: none"> i. Phased developments may defer building frontage requirements as long as they meet the build-to-zone and parking setback requirements

3.4 Special Development Plan (SDP): The JDA may approve an SDP for projects comprising of 25 acres or more in the Neighborhood (NB) District and 10 acres or more in all other Zoning Districts, which require additional flexibility in the application of the TRC not otherwise available under Table 3-3 above. JDA approval of an SDP is subject to a 4/5 vote of the JDA. The SDP process may be used only to authorize a less restrictive standard and may not be used to impose a higher standard than is established under the TRC on the subject property. Public notices shall be issued for all SDP hearings; however, such hearings may be

combined with any other JDA hearing process, such as for consideration of approval of a project and its related transactional documents.

(a) In reviewing any SDP, the JDA shall use the following criteria:

- i. The goals, intent and vision of the adopted Regulating Plan Map and TCAAP Master Plan;
- ii. The extent to which the proposal fits the adjoining design context by providing appropriate building scale and use transitions;
- iii. The extent to which the proposal provides public benefits such as usable civic and open spaces, livable streets, affordable housing, living wage jobs, structured and/or shared parking and linkages to transit;
- iv. The extent to which the proposal does not hinder future opportunities for higher quality development;
- v. The extent to which the proposal provides a demonstration of advanced energy resilience which may have an educational value; and
- vi. Considerations of health and welfare to the general public.

(b) In reviewing any SDP, the JDA shall not grant flexibility for the following:

- i. Deviation from requirements of Section 5.0 (Schedule of Uses);
- ii. Building height;
- iii. Definitions included in Section 4.0;
- iv. Density parameters for residential land uses; and
- v. Clear height.

(c) Special Development Plan Submittal:

- i. Applicant shall meet with JDA Development staff to clarify and determine SDP requirements and discuss applicant's development concept.
- ii. Applicant shall submit SDP Concept Plan to JDA Development staff.
- iii. Applicant is encouraged to have community meetings where appropriate (Optional).
- iv. Applicant shall submit SDP Master Plan to JDA Development staff.
- v. JDA conducts public hearing(s) on the SDP Master Plan and takes action on the SDP Master Plan.
- vi. The SDP Master Plan, as approved, including all applicable documents, is adopted as the governing development plan for the SDP property.
- vii. Applicant submits Final SDP Plan for elements that are to be developed imminently. A Final SDP Plan will be submitted for each stage of development and construction.
- viii. JDA reviews Final SDP Plan and takes action on the Final SDP Plan.
- ix. Applicant applies for all necessary permits to begin construction.

3.5. TCAAP Regulating Plan Map and TCAAP Master Plan Modifications: Upon denial by the JDA of an application which requires an amendment to the TCAAP Regulating Plan Map (the "Map") and/or the TCAAP Master Plan (individually or collectively a "Plan Amendment"), or a modification of the text of the TRC ("Text Change"), or where the applicant has requested such a change, the application shall be referred by the JDA to the City Council for its consideration. A Community Development staff report and recommendation is required for a Plan Amendment or Text Change request to be heard by the City Council. Public notices shall be issued for all Plan Amendment or Text Change hearings. The City Council shall consult with the County in the Council's consideration, approval or denial of a Plan Amendment or Text Change as required by § 3.0 of JPA.

- i. If the City Council approves the Plan Amendment or Text Change, the JDA shall consider the application, as amended pursuant to such approval.

- ii. A proposed denial of a Plan Amendment or Text Change by City Council shall not be delivered to the JDA and such decision shall constitute final denial of the application.
- iii. Upon such final denial of a Plan Modification or Text Change, the applicant may reapply to the JDA to seek JDA approval of a revised project meeting the requirements of the TRC, or a revised project requiring a Permitted Adjustment consistent with Table 3-3.

3.6 Plat Approval: The TRC incorporates by reference Chapter 11 of the AHC for plat approval for the purpose of design review, subject to the requirements for public infrastructure per the TRC. This process includes City approval of grading/erosion control plans and utilities plans. Fees or charges for public infrastructure or facilities established by or applicable to subdivisions processed under the AHC shall be applied to subdivisions processed under the TRC.

3.7 Hearing Requirements: The JDA shall conduct public hearings for consideration of all development applications for the Plan Area. A notice of the time, place and purpose of the hearing shall be published in the official newspaper of the City at least ten days prior to the day of the hearing. In addition, JDA action on subdivision requests in the Plan Area shall be governed by Minnesota Statutes 462.358.

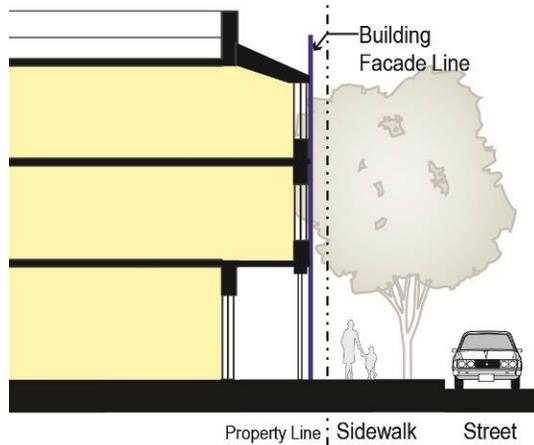
4.0 Definitions

Many terms used in this document are defined in the AHC, Chapters 1 and 13. Definitions are only included here if not defined in the AHC, or if the definition for this document differs from the AHC. In case of a conflict between the definitions under this Section and the AHC, Chapters 1 and 13, the definitions in this section shall supersede.

A

Arcade

A portion of the main façade of the building that is at or near the property line and a colonnade supports the upper floors of the building. Arcades are intended for buildings with ground floor commercial or retail uses and the arcade may be one or two stories. The ground floor area within the arcade may be conditioned or non-conditioned space.



Images of Arcade Buildings

B

Build-to Zone (BTZ)

The area between the minimum and maximum front setbacks from the property line. The principal building façade line shall be located within this area.

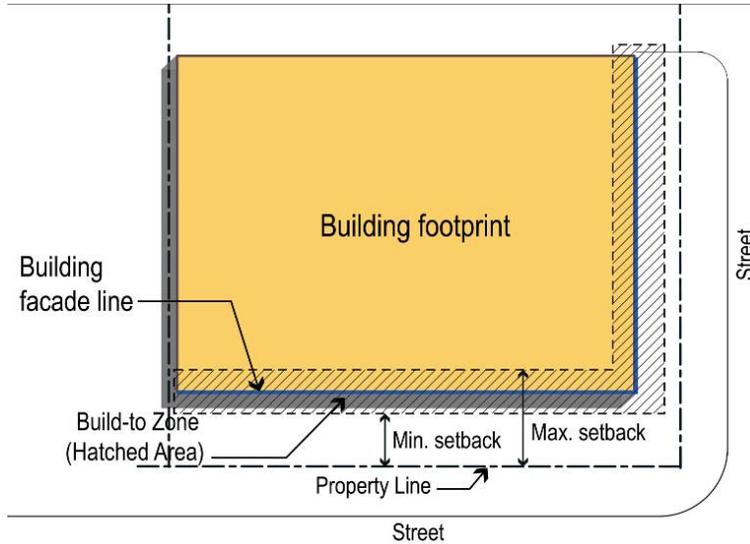


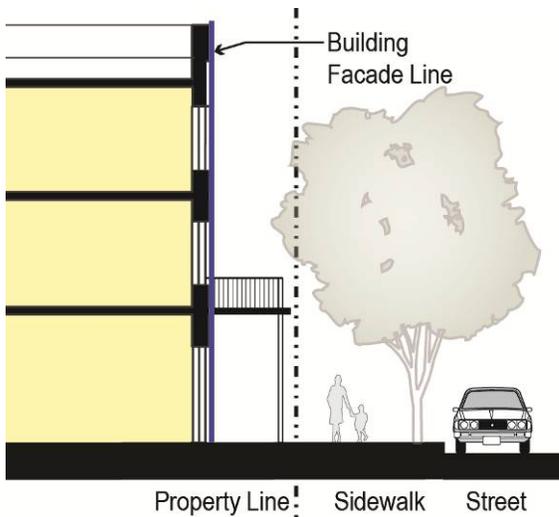
Illustration indicating the location of the build-to zone relative to the minimum and maximum setbacks and the building façade line

Building and Site Development Standards

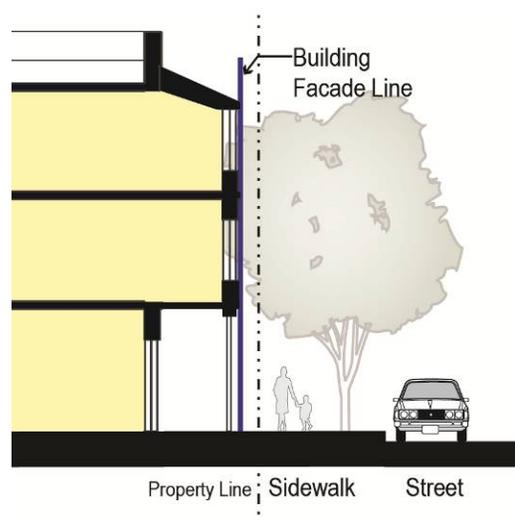
The standards established for each Zoning District including but not limited to building placement, building height, parking, service access, and other functional design standards.

Building Façade Line

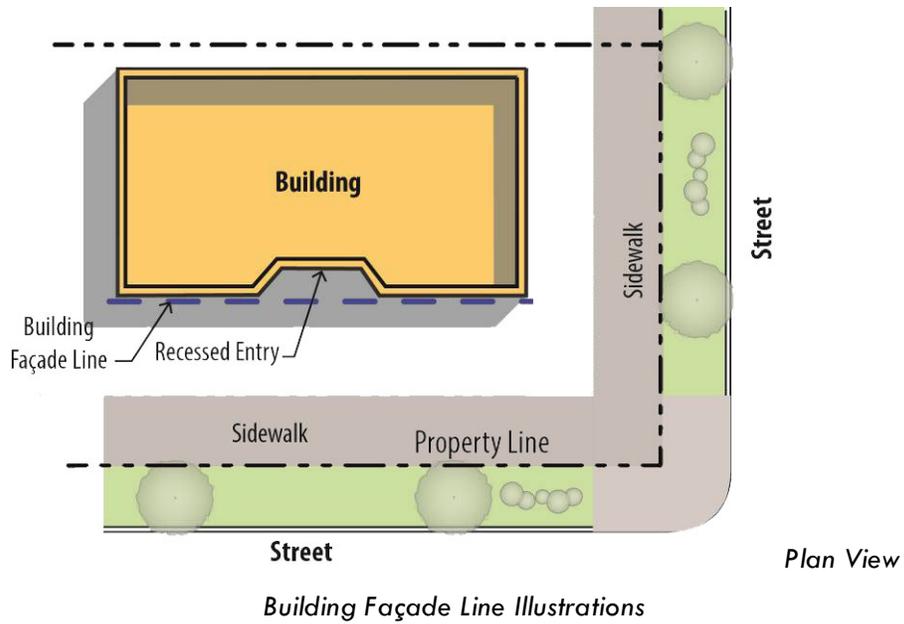
The location of the vertical plane of a building along a street frontage.



Section View – Gallery Building



Section View – Arcade Building



Building Frontage

The percentage of a building’s façade line that is required to be located within the Build-to Zone (BTZ) as a proportion of the lot’s width along the fronting public street. Required stairs to access entrances, parks, plazas, squares, improved forecourts, and pedestrian breezeway frontages shall count towards the required building frontage.

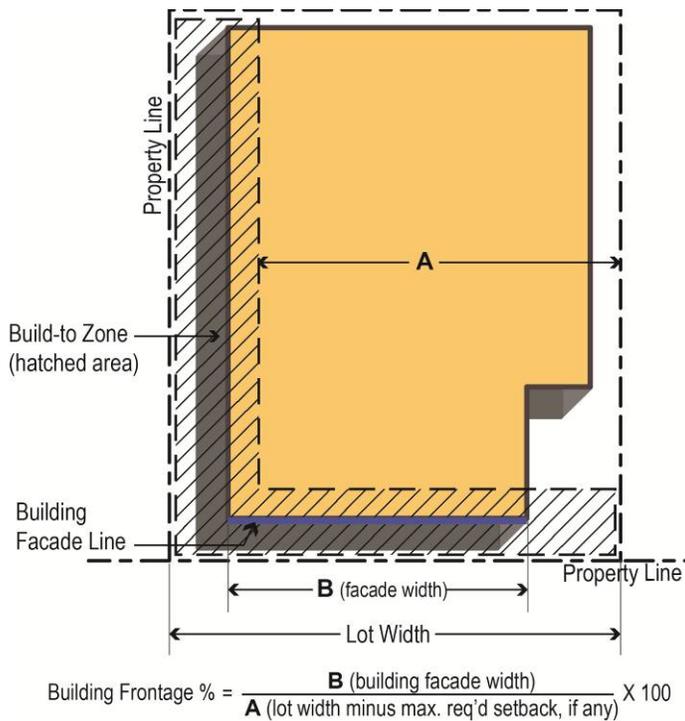


Image showing Building Frontage calculation

Building Height

The vertical distance from the average elevation of the grade along a face of a building to the highest point of the roof surface of flat roofs, the deck line of mansard roofs, or the average height between the eaves and the highest ridge of gable, hip, or gambrel roofs. The height of a stepped or terraced building shall be the height of the tallest segment of the building.

Building Step-Back

Building step-back is the setting back of the building façade line away from the street at a specific floor or height.

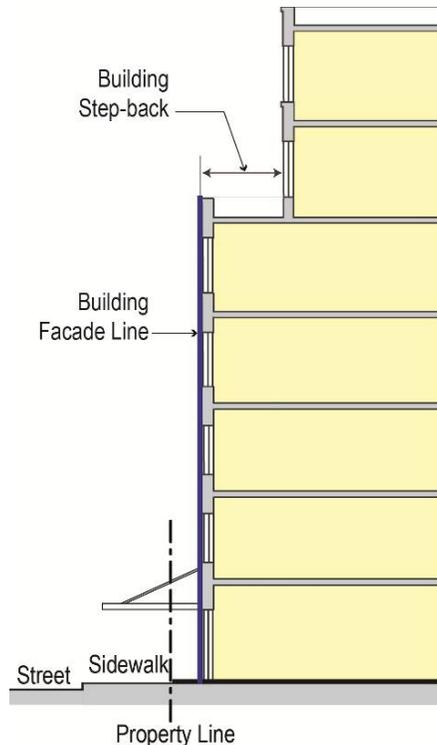


Illustration of a Building Step-Back

C D

Clear Height

The distance from the top of the finished floor to the bottom of the finished ceiling in portions of commercial buildings used for warehousing or manufacturing.

Complete Street

A complete street is a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation.

Cottage/Patio Home

The Cottage or Patio Home building type consists of small, one and two-story single-family detached residential units that are built close to the street and each other. They are typically sideyard/zero lot line homes with a small yard or patio space. This type of building enables appropriate infill residential within existing neighborhoods and is important for providing a broad choice of housing types and promoting walkability.



Image of a Cottage or Patio Home

Cottage Court

The Cottage Court building type consists of a series of small, detached structures, providing multiple units arranged to define a shared court that is typically perpendicular to the street. The shared court takes the place of a private rear yard and becomes an important community-enhancing element. This residential building type is appropriately-scaled to fit as transitions between single-family neighborhoods and commercial corridors. It enables appropriately-scaled, well-designed infill residential and is important for providing a broad choice of housing types and promoting walkability.



Image of a Cottage Court

E

Encroachment

Any structural or non-structural element such as a sign, awning, canopy, terrace or balcony that breaks the plane of a vertical or horizontal regulatory limit, extending into a setback, into the public right-of-way, or above a height limit.

F

Façade Area

The surface area of a building's elevation (including all floors) not counting minor indentations fronting a particular street. Ground floor façade area is the surface area of a building's ground floor elevation not counting minor indentations fronting a particular street. Upper floor façade area is the surface area of a building's upper floor elevations not counting minor indentations fronting a particular street.

G H I

Gallery

A roofed promenade or canopy, especially one extending along the wall of a building and supported by arches or columns on the outer side. The gallery space is unenclosed (non-conditioned) space and may be two (2) or more stories tall.

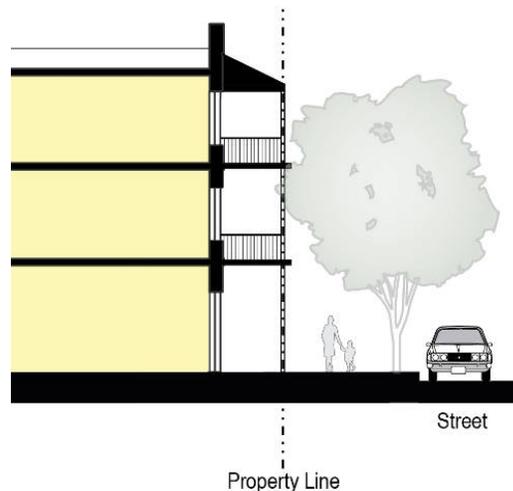


Illustration of a Gallery

Gross Density

The number of residential dwelling units per acre of a given land area, including public rights-of-way for Town and Collector Streets but excluding publicly-owned recreation areas or open space and public right-of-way for arterial roads.

J K

J-Swing Garage

A home with a driveway that loads from the primary street and swings into the side of the home to enter the garage. Two of these homes side-by-side should share a driveway or a curb-cut to driveways and have garages facing each other.



Images of a home with a J-Swing Garage from the front and side of home.

L

Large Multi-Family

A building containing more than fifty residential units which may include apartments or condominiums.

Live-Work Unit

A dwelling unit that is also used for work purposes, provided that the 'work' component is restricted to the uses of professional office, artist's workshop, studio or other similar use as allowed as a home occupation under the AHC and is located on the street level and constructed as a separate unit under a condominium regime or as a single unit. The 'live' component may be located on the street level (behind the work component) or any other level of the building. Live-work unit is further distinguished from a home occupation otherwise defined by the AHC in that the work use is not required to be incidental to the dwelling unit; non-resident employees may be present on the premises and customers may be served on site.

M

Manor Home/Multi-Unit House

A multi-unit building (3 to 8 units) that is designed to appear as a large home from the exterior, but functions as a multi-unit building on the interior. Manor Homes have one main front door for the building, but may also have side and rear entries. Parking is accessed from an alley or a driveway to the rear of the lot. Parking does not face a public right-of-way.



Image of Manor Home

Medium Multi-Family Use

A building containing nine to fifty multi-family units which may include stacked flats, apartments, or condominiums.

Mixed-Use Building

A building that includes a combination of commercial, cultural, institutional, or light industrial uses inside a single structure. Residential uses are not permitted within mixed-use buildings.

N O

Numerical Standard

Any standard that has a numerical limit (minimums and maximums) or value as established within both the text and graphic standards of the TRC.

P Q

Parking Setback Line

The distance that any surface parking lot is to be set back from either the principal building façade line or property line along any street frontage (depending on the specific standard in the Zoning District). Surface parking may be located anywhere behind the parking setback line on the property.

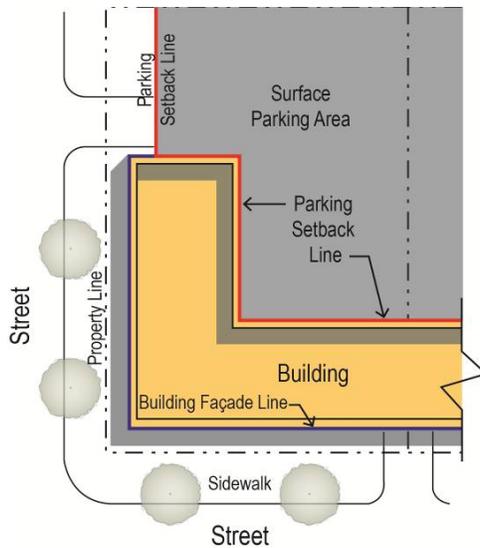


Illustration of a parking setback line

Perimeter Frontage

The measurement of the proportion of public street frontage of the total exterior perimeter of a park or open space area.

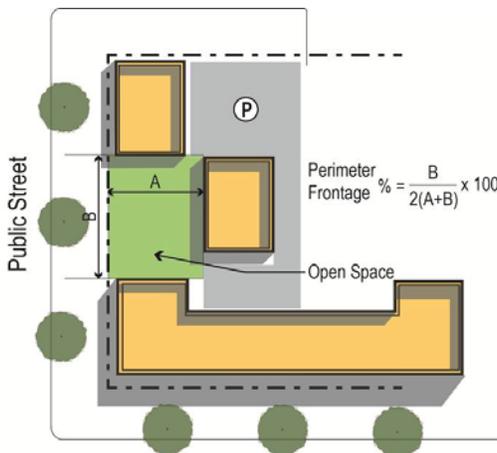


Illustration showing how Perimeter Frontage is calculated for Open Space along a Public Street

Permitted Adjustment

A requested modification to TRC zoning district standards per the Permitted Adjustment provision of Section 3.0. The JDA shall have the authority to approve a request for a Permitted Adjustment.

Primary Entrance

The public entrance located along the front of a building facing a street or sidewalk that provides access from the public sidewalk to the building. It is different from a secondary entrance which may be located at the side or rear of a building providing private controlled access into the building from a sidewalk, parking or service area.

Private Common Open Space

A privately owned outdoor or unenclosed area, located on the ground or on a terrace, deck, porch, or roof, designed and accessible for outdoor gathering, recreation, and landscaping

and intended for use by the residents, employees, and/or visitors to the development. This may or may not be accessible to the public, but shall be maintained privately.

Property Line

A line dividing one lot or property from another or from a right-of-way.

Public Open Space

A publicly accessible open space in the form of parks, courtyards, forecourts, plazas, greens, playgrounds, squares, etc. provided to meet the standards in Section 9.0 of this Code. Open Space may be privately or publicly owned and/or maintained.

R

Residential Use Building

A building that is built to accommodate only residential uses on all floors of the building such as a detached single-family home, attached single-family home (i.e., townhome), two family home (i.e. twin home), Manor Home (3 to 8 units), or apartment building (under single ownership or under multiple owners within a condominium regime).

Right-of-Way

An area dedicated to public use for vehicular and bicycle movement. Pedestrian facilities, public utilities, and private utilities may be accommodated within the right-of-way or outside of the right-of-way within public easements on private property.

Right-of-Way Line

The lines that form the boundary of a publicly-owned right-of-way.

S

Service-Related Uses

All uses that support the principal use on the lot including parking access, garbage/trash collection, utility meters and equipment, loading/unloading areas and similar uses.

Setback

The minimum distance by which any building or structure must be separated from a right-of-way or property line.

Single Family Use

A building containing one or two primary living units and which may include twin homes, detached townhomes and cottage/patio homes.

Small Lot Single Family

A single-family residential lot that measures less than fifty (50) feet wide.



Image of a Small Lot Single Family

Small Multi-Family Use

A building containing three to eight residential units and which may include townhomes, row homes, manor homes/multi-unit houses, stacked flats, or triplexes/quadplexes.

Small Retail or Office Building

The Small Retail/Office Building is a commercial building that is generally located at street intersections or as transitions between higher intensity commercial uses and lower intensity residential uses. The ground floor space can be used for office, personal service or retail uses. It is especially appropriate for incubating neighborhood-serving retail and service uses and allowing some adjoining streets and multi-modal corridors to expand as the market demands.

Stacked Flats

Stacked flats building type is a medium-sized structure that consists of less than 12 side-by-side and/or stacked dwelling units, typically with one shared entry. This type of building can include a courtyard apartment. This residential building type is appropriately-scaled to fit within medium-density neighborhoods or as transitions between neighborhoods and commercial corridors. It enables appropriately-scaled, well-designed infill residential and is important for providing a broad choice of housing types and promoting walkability.



Image of a Stacked Flat

Street Frontage Designation

As identified on the Regulating Plan, existing and recommended streets in the TRC area are designated as Pedestrian Priority, Pedestrian-Friendly or General Streets. Each frontage designation establishes a certain development context in order to improve walkability and pedestrian orientation within the TRC Plan Area.

Street Screen

A freestanding wall or living fence or combination fence built along the frontage line or in line with the building façade along the street. It may screen a parking lot or a loading/service area from view or provide privacy to a side yard and/or strengthen the spatial definition of the public realm.



Image of a combination masonry and living street screen

Street Wall

Indicates the creation of a “wall” or a sense of enclosure along the street with buildings placed immediately adjacent to the street/sidewalk. A street wall has a “void” if there is a surface parking lot or service area adjacent to the sidewalk/street.

T U V W X Y Z**TCAAP Natural Resources Corridor**

The Natural Resources Corridor within the TCAAP Site Redevelopment will be designed with the goal of maximizing compatibility and functionality of regional storm water, wetland mitigation, the Rice Creek re-meander, floodplain restoration, and groundwater requirements. An additional goal is to provide visual features and active and passive recreational amenities to support adjacent land uses.

TCAAP Redevelopment Regulating Plan (Regulating Plan)

The official Zoning Map for the TRC Plan Area. The Regulating Plan graphically depicts development standards including Zoning Districts, Street Designations and Special Requirement(s) applicable to properties within the TRC Plan Area.

Townhouse/Rowhouse

The Townhouse or Rowhouse is a small- to medium-sized typically attached structure that consists of 3–8 houses attached horizontally, not stacked vertically. This type of residential building is typically located in a location that transitions from a single-family neighborhood into a commercial corridor. This type of building enables appropriately-scaled, well-designed residential infill and is important for providing a broad choice of housing types and promoting walkability. A townhouse/rowhouse is a single structure and does not require adjacent townhomes/rowhomes to maintain stability.

Triplex/Quadplex

A Triplex/Quadplex building is a medium-sized attached structure that consists of 3–4 houses placed side-by-side and/or stacked dwelling units. This residential building type is typically located in a location that transitions from a primarily single-family neighborhood into a commercial corridor. This building type enables appropriately-scaled, well-designed residential infill and is important for providing a broad choice of housing types and promoting walkability.



Image of a Triplex/Quadplex

Twin Home

The Twin Home, also known as a duplex, is a small- to medium-sized structure that consists of two side-by-side or stacked dwelling units, both facing the street, and within a single building structure. This residential building type has the appearance of a medium to large single-family home and is appropriately-scaled to fit within primarily single-family neighborhoods or medium-density neighborhoods. It enables appropriately-scaled, well-designed residential infill and is important for providing a broad choice of housing types and promoting walkability.



Image of a Twin Home

5.0 Schedule of Permitted Uses

5.1 Applicability: General use categories have been identified by Zoning District (Table 5-1). Uses that are not listed are prohibited. Uses that are allowed as accessory uses may only remain in conjunction with an active principal use.

Table 5-1: TRC Zoning District Land Use Table											
P = Permitted -- = Prohibited P/C = Permitted with Criteria in Table 5.2 A = Accessory A/C = Accessory with Criteria in Table 5.2											
Zoning District	Campus Commercial	Town Center	Office Mixed-Use	Retail Mixed-Use	Flex Office	Neighborhood Transition	Neighborhood 1	Neighborhood 2	Neighborhood 3	Neighborhood 4	Additional Requirements
Uses											
Sub-District							NB-1	NB-2	NB-3	NB-4	
Residential Uses											
Bed & Breakfast	--	P	--	--	--	P	P/C	P/C	P/C	P/C	See Table 5-2
Home Occupation: Class I	--	A	--	--	--	A	A	A	A	A	
Large Multi-Family	--	P	--	--	--	--	--	--	--	--	
Live/Work	--	P	--	--	--	P	--	--	--	--	
Medium Multi-Family	--	P	--	--	--	P	--	--	--	--	
Nursing Home and Assisted Living	--	P	--	--	--	P/C	--	--	--	P/C	See Table 5-2
Residential Facility	--	P/C	--	--	--	P/C	P/C	P/C	P/C	P/C	See Table 5-2
Senior Independent Living	--	P	--	--	--	P/C	--	P/C	P/C	P/C	See Table 5-2
Single Family	--	--	--	--	--	--	P	P	P	--	
Small Lot SF Residential	--	--	--	--	--	--	--	P	P	--	
Small Multi-Family	--	--	--	--	--	P	--	--	--	P/C	See Table 5-2
Commercial Uses											
Automotive Washing	--	--	P/C	P/C	P/C	--			--		See Table 5-2
Brewpub	--	P	P	P	P	--			--		
Business service	P	P	P	P	P	--			--		
Clinic, medical office	P	P	P	P	P	--			--		
Club, sports & fitness	A	P	P	P	P	--			--		
Cocktail Lounge	--	P	--	P	--	--			--		
Commercial Off-Street Parking	P/C*	P/C*	P/C*	P/C*	P/C*	P/C*			--		* Permitted as an accessory use with a primary building only
Commercial recreation - indoor	--	--	--	--	P	--			--		
Daycare Facility	A	P	P	P	P	P*			--		* Less than 5,000 sq. ft. in Neighborhood Transition District
Daycare, family - 10 or less		P	P	P	P	P			--		

Table 5-1: TRC Zoning District Land Use Table

**P = Permitted | -- = Prohibited | P/C = Permitted with Criteria in Table 5.2
A = Accessory | A/C = Accessory with Criteria in Table 5.2**

Zoning District	Campus Commercial	Town Center	Office Mixed-Use	Retail Mixed-Use	Flex Office	Neighborhood Transition	Neighborhood 1	Neighborhood 2	Neighborhood 3	Neighborhood 4	Additional Requirements
Uses											
Sub-District							NB-1	NB-2	NB-3	NB-4	
Dog kennel	--	--	--	--	p*	--		--			* Completely enclosed; no outside runs
Drive-Up Windows	A	--	P/C	P/C	P/C	--		--			See Table 5-2
Dry cleaning & laundry, pick-up station	--	P	--	P	--	--		--			
Dry cleaning & laundry, self-service laundry	--	P	--	P	--	--		--			
Financial Institution & service	P	P	P	P	P	p*		--			* Less than 5,000 sq. ft. in Neighborhood Transition District
Food Preparation	P	P	P	P	P	P		--			
Hotel/ motel	P	P	P	P	P	--		--			
Microbrewery	--	P	--	P	P	--		--			
Microdistillery	--	P	--	P	P	--		--			
Mortuary, funeral home	--	--	--	--	P/C	--		--			See Table 5-2
Office	P	P	P	p*	P	p**		--			* As part of a mixed-use building that includes retail on the ground floor ** Less than 5,000 sq. ft. in Neighborhood Transition District
Personal services	A	P	P	P	P	p*		--			* Less than 5,000 sq. ft. in Neighborhood Transition District
Pet Services	P	--	P	P	P	--		--			
Research and development facility	P	--	P	--	P	--		--			
Restaurant and restaurant fast-food	A*	P	P	P	P	p**		--			*May be integrated within a buildings that has another permitted primary use in the Campus Commercial Zone ** Less than 5,000 sq. ft. in the Neighborhood Transition Zone
Retail sales & service	--	P	P	P	P	p*		--			* Less than 5,000 sq. ft. in Neighborhood Transition District

Table 5-1: TRC Zoning District Land Use Table

**P = Permitted | -- = Prohibited | P/C = Permitted with Criteria in Table 5.2
A = Accessory | A/C = Accessory with Criteria in Table 5.2**

Zoning District	Campus Commercial	Town Center	Office Mixed-Use	Retail Mixed-Use	Flex Office	Neighborhood Transition	Neighborhood 1	Neighborhood 2	Neighborhood 3	Neighborhood 4	Additional Requirements
Uses											
Sub-District							NB-1	NB-2	NB-3	NB-4	
Service station	--	--	--	P/C	P/C	--		--			See Table 5-2
Storage, exterior	--	--	--	--	--	--		--			
Studio	--	P	--	P	P	P*		--			* Less than 5,000 sq. ft. in the Neighborhood Transition Zone
Theater, indoor	--	A	P	P	P	--		--			
Vehicle – motorized, leasing and rentals	--	--	P/C	--	P/C	--		--			See Table 5-2
Vehicle –motorized, service	--	--	P/C	P/C	P/C	--		--			See Table 5-2
Civic Uses											
Antenna or Tower	P/C	P/C	P/C	P/C	P/C	P/C		--			See Table 5-2
Club or lodge (non-profit)	--	P	P	P	P	--		--			
House of worship	--	P	P	P	P	P*		--			* Less than 5,000 sq. ft. in the Neighborhood Transition Zone
Park Facilities (Public)	P	P	P	P	P	P		P			
Public use	P	P	P	P	P	P		--			
School, general education	--	P	--	--	--	P		P			
School, specialized education	--	P	P	P	--	P*		--			* Less than 5,000 sq. ft. in the Neighborhood Transition Zone
Industrial Uses											
Garage, Truck	--	--	--	--	--	--		--			
Manufacturing & processing: Class I	P/C	--	--	--	P/C	--		--			Warehousing permitted as an accessory use
Manufacturing & processing: Class II	--	--	--	--	--	--		--			
Utility Substation	P*	--	--	--	P*	--		--			*Equipment shall be screened to not be seen from any public right of way and shall not be placed in the front of any parcel
Warehousing	A/C	--	--	--	A/C	--		--			
Other Uses											
Adult-Oriented Businesses	--	--	--	--	--	--		--			

5.2 Additional Use Criteria: All uses listed as P/C in Table 5-1 shall also meet the following standards in Table 5-2.

Table 5-2 Additional Use Criteria Table		
Use	Zoning District	Location & Design Criteria
Residential Uses		
Bed & Breakfast	Neighborhood	i. No more than 6 rentable rooms permitted. Shall be owner-occupied. Parking shall be placed behind the building, or screened from view of the public right-of-way.
Nursing Home and Assisted Living Senior Independent Living	Neighborhood Transition Neighborhood	i. Homes shall be designed as either a collective of single-family or duplex homes to fit the scale of the surrounding development. ii. These homes may also be mixed with mixed-generational housing.
Residential Facility	Town Center Neighborhood Transition	i. Residential Facility shall be licensed by the State of Minnesota; and ii. Residential Facility shall serve no more than sixteen (16) residents at any given time.
	Neighborhood	i. Residential Facility shall be licensed by the State of Minnesota; ii. Residential Facility shall serve no more than six (6) residents at any given time.
Small Multi-Family	Neighborhood	i. Parking shall be placed against an alley or in the rear of the lot and be screened from the public right-of-way. ii. Entrances to units that are not accessible from the front entries may have access from the rear or the side of the building.
Commercial Uses		
Automotive Washing Vehicle – motorized, leasing and rentals Vehicle- motorized, service	Office Mixed-Use Flex Office Retail Mixed-Use	i. Automotive drive through lanes, service bays, and/or gas station canopies shall meet the design standards in Section 7, Building Design Standards of this code. ii. Outdoor storage of vehicles or other products sold shall NOT have direct frontage along Pedestrian Priority Streets. Outdoor storage of vehicles and/or other products sold shall be screened with a required street screen along Pedestrian-Friendly Streets and General Streets (see Section 10 for standards).
Service Station	Retail Mixed-Use Flex Office	
Commercial Off-Street Parking	Campus Commercial Town Center Office Mixed-Use Retail Mixed-Use Flex Office Neighborhood Transition	i. New surface parking lots shall be permitted as an interim use only in the case of phasing. ii. Applications for new surface lots shall include in-fill building concepts on the lot with a site plan that meets the build-to-zone and building frontage standards of the specific character zone. iii. New surface parking shall be set back a minimum of 30' from the edge of the right-of-way of Pedestrian Priority Streets. iv. New surface parking shall not be located at a street intersection (of any Pedestrian Priority and Pedestrian-Friendly Streets only) for minimum of 30' from the intersection along each street.
Mortuary, funeral home	Flex Office	i. Pick-up and drop-off lanes, storage of vehicles, service areas, and drive through facilities shall NOT have direct frontage along Pedestrian Priority Streets. ii. All such areas along other streets shall be screened with a required street screen (see Section 10 for standards).
Drive-Up Windows	Retail Mixed-Use Flex Office Office Mixed-Use	Drive through or drive-up facilities shall meet the design standards in Section 7, Building Design Standards of this code.
Civic Uses		
Antenna or Tower	Campus Commercial Town Center Office Mixed-Use Retail Mixed-Use Flex Office Neighborhood Transition	i. Located on top of a building or architectural component only. ii. Shall conform to additional design and location requirements for antennas and towers included in Section 1325 of the AHC.
Industrial Uses		
Manufacturing and Processing: Class I	Campus Commercial Flex Office	For buildings where manufacturing and processing are a principal or accessory use, a minimum of 30 percent of the gross building square footage must be in office use.
Warehousing	Campus Commercial Flex Office	Warehousing is only allowed as an accessory use to Manufacturing and Processing. For buildings where warehousing is an accessory use, a minimum of 30 percent of the gross building square footage must be in office use.

6.0 Building and Site Development Standards

All parcels within the TRC are assigned to one of seven (7) Zoning Districts:

1. Campus Commercial
2. Town Center
3. Office Mixed-Use
4. Retail Mixed-Use
5. Flex Office
6. Neighborhood Transition
7. Neighborhood

In addition to standards that apply to all Zoning Districts, Building and Site Development standards applicable to each Zoning District are described in Sections 6.2 – 6.8.

The images and graphics in the first subsection of each zoning district standards are provided as illustrative of intent and are advisory only without the power of law. Refer to the standards on the following pages for the specific Building and Site Development Standards.

In addition, the graphics used to illustrate the building and development standards in each Zoning District are NOT intended to indicate exact conditions within each Zoning District. Rather illustrations are conceptual and standards are to be applied based on the specific frontage types designated along the subject property or site. For example, a specific site may not have frontages along all streets as indicated in the illustrations and only the standards applicable to designated building frontages on the property should be used. In addition, the illustrations may depict other site elements to establish context and only the standards regulated by the specific subsection shall apply. For example, the Building Placement graphics may depict sidewalks for context purposes only and the graphic should only be used to establish standards for building placement on the site. Building form graphics in these sections are NOT TO SCALE.

6.1 General to All Zoning Districts

(a) **Building Frontage Designations:** The Building Frontage designations are established on the Regulating Plan (Attachment 1) to specify certain building and site development standards along each street based on the priority placed on pedestrian-orientation. The Regulating Plan illustrates the Building Frontage designations within the TRC. For the purposes of this code, all Building Frontages are classified into one of the following three categories:

- i. **Pedestrian Priority Frontages –** Pedestrian Priority Frontages are intended to provide the most pedestrian-friendly and contiguous development context. Buildings and sites along Pedestrian Priority Frontages shall be held to the highest standard of pedestrian-oriented design and few, if any, gaps shall be permitted in the ‘Street Wall’. Breaks in the street wall may be permitted for courtyards, forecourts, sidewalk cafes and pedestrian connections between the individual sites and the public sidewalk. These street frontages are the main retail, restaurant, entertainment streets, or are important neighborhood connectors, as identified in the Regulating Plan.
 1. **Specific to Pedestrian Priority Frontages:** The area between the building facade and property line or edge of any existing sidewalk along any street with Pedestrian Priority Frontage shall be designed such that the sidewalk width shall be a minimum as determined by the street type (see Attachment 4) and the remainder of any setback area shall be paved flush with the public sidewalk. Sidewalk cafes, public art, landscaping within tree-wells or planters may be incorporated within this area.

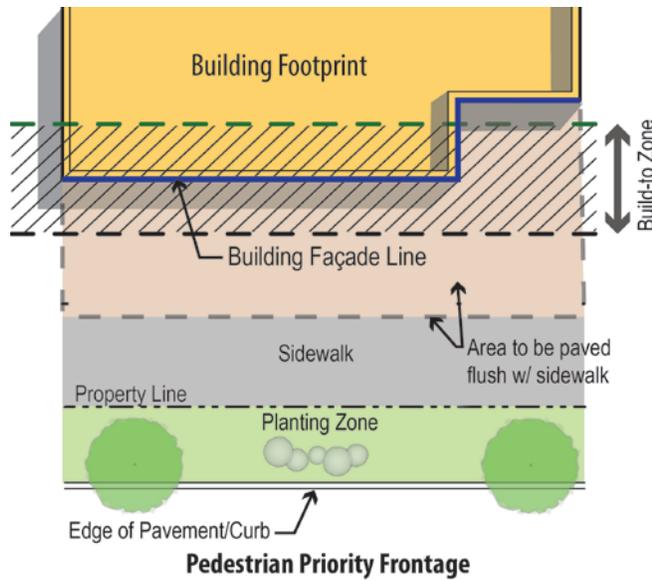
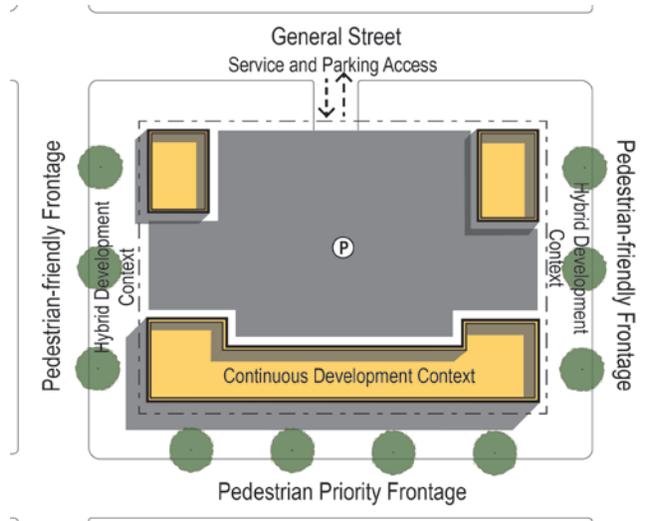


Illustration showing requirements along Pedestrian Priority Frontages only

- ii. **Pedestrian-Friendly Frontages** – Pedestrian-Friendly Frontages are also intended to be pedestrian-oriented with a mostly contiguous development context. However, in some locations, where access to a General Frontage street or Alley is not available, Pedestrian-Friendly Frontages may need to accommodate driveways, parking, service/utility functions, and loading and unloading. In such cases, Pedestrian-Friendly Frontages may balance pedestrian orientation with automobile accommodation. Typically, they shall establish a hybrid development context that has a more pedestrian-supportive development context at street intersections and accommodates auto-related functions and surface parking in the middle of the block. Surface parking shall be screened from the roadway following the Street Screen Standards in Section 10.4. Pedestrian-Friendly Frontages are designated on the Regulating Plan.
- iii. **General Frontages** – General Frontages are intended to accommodate more auto-oriented uses, surface parking and service functions on a site with a more suburban/automobile orientation. The General Frontages shall be building frontages not designated as either a Pedestrian Priority or Pedestrian-Friendly Frontage on the Regulating Plan. Surface parking shall be screened following the Street Screen Standards in Section 10.4.



Graphic Illustrating the Application of Street Type Designation Based on the Development Context

(b) Treatment of Street Intersections:

- i. Corner building street facades along intersections of Pedestrian Priority Frontages and Pedestrian-Friendly Frontages shall be built to the BTZ for a minimum of 20' from the intersection along each street or the width of the corner lot, whichever is less regardless of the building frontage percentage required along that street. This requirement shall not prohibit incorporation of curved, chamfered building corners or recessed entries or civic/open spaces at such intersections. In addition, this standard shall apply regardless of the frontage requirement along the intersecting street even if it is a General Street.

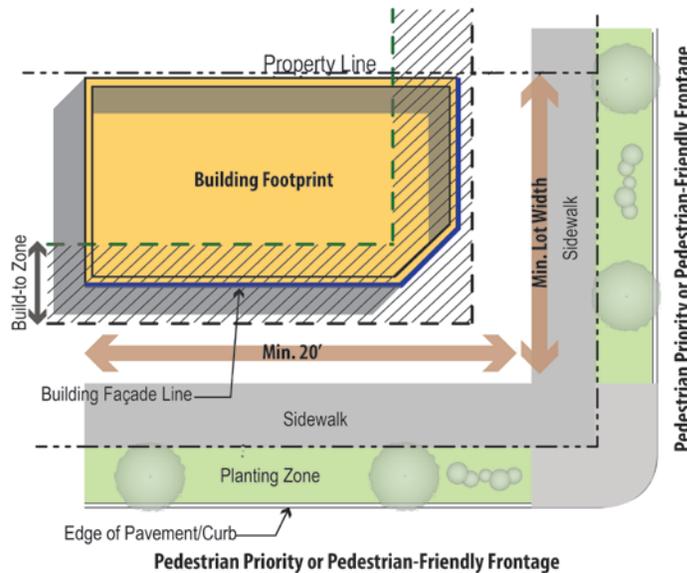


Illustration showing minimum frontage requirements at street intersections

- ii. **Corner Building Height Allowance:** Corner buildings may exceed the maximum building height by 25% along no more than 20% of the building's frontage along each corresponding street façade. The purpose of the allowance is to encourage inclusion of architectural features and no mechanical equipment shall be located on top of a roof area that takes advantage of this allowance. Corner Building Height Allowances are not permitted in the Neighborhood Zone.

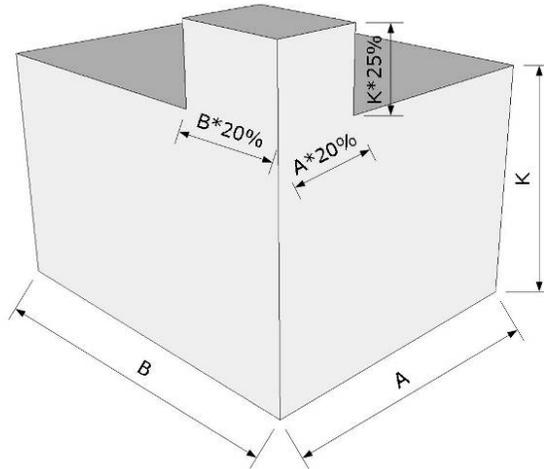


Illustration showing Corner Building Height Allowance

(c) Parking and Service Access:

- i. Location of parking (both structured and surface) shall be per the Zoning District specific building standards (Section 6.2 – 6.8).
- ii. Required off-street parking spaces shall be provided per Table 6-1 below.

Table 6-1 Parking Ratios

Zoning District	TC/OMU/RMU	CC/FO	NT/NB	Additional Criteria
Min. Off-Street Vehicular Parking Requirement				
Retail	1 space/200 sq. ft. of gross retail sales floor area	1 space/200 sq. ft. of gross retail sales floor area.	1 space/400 sq. ft. of gross retail sales floor area.	1. Plans that include shared parking or a reduction in the required number of parking spaces may be approved by the JDA as a Permitted Adjustment with the provision of a parking demand study (See Section 3.0). 2. On-street parking located along any public street shall count towards the required off-street parking. 3. Landscaping within surface parking lots shall meet standards in Section 10.0 of this Code.
Office Uses	1 space/250 sq. ft. of gross floor area	1 space/250 sq. ft. of gross floor area.	1 space/400 sq. ft. of gross floor area.	
Industrial Uses	N/A	1 space/500 sq. ft. of gross floor area for general manufacturing/ industrial; 1 space/1,000 sq. ft. of gross floor area for warehousing/storage	N/A	
All other Non-Residential Uses	1 space/300 sq. ft. of gross floor area.	1 space/300 sq. ft. of gross floor area	1 space/400 sq. ft. of gross floor area.	
Residential – Single Family and Two-Family Uses	N/A	N/A	2.0 spaces/dwelling unit	--
Residential – Multi-Family Uses	1.0 space/efficiency and one-bedroom units; 1.5 spaces/two-bedroom+ units	N/A	1.0 space/efficiency and one-bedroom units; 2.0 spaces/two-bedroom+ units	1. See Section 1325.045 of the Arden Hills Code for additional criteria for multi-family uses. 2. Plans that include shared parking or a reduction in the required number of parking spaces may be approved by the JDA as a Permitted Adjustment with the provision of a parking demand study (See Section 3.0). 3. Landscaping within surface
Residential – Senior Independent Living, Nursing Home, and Assisted Living Uses	1.0 space/unit for Senior Independent Living units; 0.75 space/unit for Nursing Home and Assisted Living units.	N/A	1.0 space/unit for Senior Independent Living units; 0.75 spaces/unit for Nursing Home and Assisted Living units.	

Lodging Uses (Hotels and Motels)	0.5 spaces per guest room; all other areas shall be parked at the non-residential rate above	0.75 spaces per guest room; all other areas shall be parked at the non-residential rate above	N/A	parking lots shall meet standards in Section 10.0 of this Code.
Min. Bicycle Parking Requirement (# of Bicycles)				
All Uses	10% of all provided off-street automobile spaces	5% of all provided off-street automobile spaces	N/A	<ol style="list-style-type: none"> 1. Location of Bicycle Parking: For retail buildings, 25% of all provided bicycle parking shall be located within 50 feet of a primary building entrance. 2. See Section 1325.045 of the Arden Hills Code for additional criteria for multi-family uses.

iii. Driveways and Service Access:

1. Unless otherwise specified in the specific Zoning District standards in Sections 6.2 through 6.8, driveway access and off-street loading and unloading may be along General Frontages only.
2. Unless otherwise specified in the specific Zoning District standards in Sections 6.2 through 6.8 or through permitted adjustments, driveway and off-street loading and unloading may be located with access along a Pedestrian-Friendly Frontage street only if the property has no access to either a General Frontage street or joint use easement to an adjoining property with direct driveway access to any other street.
3. Unless otherwise specified in the specific Zoning District standards in Sections 6.2 through 6.8 or through permitted adjustments, driveways and off-street loading and unloading may be located with access along a Pedestrian Priority Frontage street only if the property has no access to either a Pedestrian-Friendly or General Frontage Street or joint use easement to an adjoining property with direct access to any other street.
4. Along Pedestrian Priority and Pedestrian-Friendly Frontages, driveway spacing shall be limited to one driveway per each block face or per 200 feet of block face for blocks greater than 400 feet in length.
5. Shared driveways, joint use easements or joint access easements shall be required to adjoining properties when driveway and service access is off a Pedestrian Priority Frontage or Pedestrian-Friendly Frontage.
6. Service and loading/unloading areas shall be screened per standards in Section 10.0.
7. Unless required to meet minimum fire access or service access standards all commercial, mixed-use and multi-family residential driveways shall be a maximum of 20 feet in width. Driveways used for service access (trash, fire, deliveries, etc.) shall be a maximum of 30 feet in width. Driveways wider than 24 feet in width shall only be located off of General Frontage Streets. Driveways along County controlled roadways shall meet Ramsey County Standards or the City's adopted standards.
8. Additional easements may be required if shared driveways or access agreements are established.
9. Residential Driveways and Garages:

- a. Unless required to meet minimum fire access or service access standards, driveways for Single-Family Residential Use Buildings shall be a maximum of 12 feet in width at the curb cut.
- b. Garages for Residential Buildings shall be located on streets with General Frontage or at the rear of residential buildings.
- c. If front-loaded garages are utilized on residential uses, each bay of the garage shall be no greater than 24 feet wide and set back at least 3 feet behind the front façade line, unless a front porch meets the requirements of Section 6.1(c)(iii)(9)(d) below. Lots less than 75 feet in width shall not have more than 24 feet of garage facing the street. Front-loaded garages on residential lots less than 50 feet wide shall not be allowed. Townhomes and courtyard apartments shall utilize garages at the rear of the lot with access from streets with General Frontage or from Alleys.
- d. If garage is flush with the main façade, a porch shall be added to the main façade measuring 50 percent of the façade length and a minimum of seven (7) feet in depth.
- e. Front driveways shall be a minimum of 20 feet long and designed to fit at least 2 parked vehicles and ensure that vehicles are parked outside of the public right-of-way.

(d) Street Screen Required:

- i. Any non-residential parking lot frontage along a public right-of-way with surface parking shall be defined by a Street Screen. This required Street Screen shall be located at the right-of-way edge. Refer to the Section 10.0: Streetscape and Landscape Standards of this Code for more specifications.

(e) Loading Dock Standards:

- i. Facilities that include a loading dock shall have a maximum clear height of 24 feet as measured from the surface of the ground floor to the lowest point on the ceiling.
- ii. No more than one loading dock shall be allowed per 10,000 square feet of building area.
- iii. Cross docks, where loading docks are situated along two (2) walls of the same building, shall not be permitted.
- iv. Loading docks shall be located in the side or rear yard and shall be screened from view of the public right-of-way.

(f) Fire Separation Requirement: Side and rear setbacks shall be based on minimum fire separation required between buildings, if applicable.

(g) Recessed Entry Setbacks: Building façade lines on recessed entries and arcade buildings shall be measured from the front of façade with the recessed entry or arcade (see Section 4.0 Definitions for illustration).

(h) Measuring Heights:

- i. Elevator and stair enclosures; public flagpoles and monuments; and chimneys are exempt from the height limit.
- ii. Spires, belfries, cupolas, and domes of churches shall not exceed a height of 65 feet as measured from the ground level.
- iii. Vents, tanks, solar energy systems, HVAC equipment, and other mechanical enclosures shall be exempted from the height limits so long as they do not extend more than 12 feet above the roof upon which they are located.

- iv. Internal building height shall be measured from finished floor to bottom of the structural members of the ceiling.
- v. Floor to ceiling heights shall not apply to parking structures or civic buildings.

(i) Encroachments:

- i. Encroachments into the public right of way shall not be permitted
- ii. Encroachments over Required Setbacks: Canopies, awnings, galleries, and balconies may encroach over any required setback areas per standards established in each zoning district as long as the vertical clearance is a minimum of 10 feet from the finished sidewalk elevation.
 - 1. Maximum of 50% of the depth of the sidewalk or 10 feet (whichever is less) (except blade signs which shall encroach no more than 6 feet from the building façade line).
 - 2. In no case shall an encroachment be located over an on-street parking or travel lane.
 - 3. Additional license agreements are required for all encroachments over public right-of-way.

(j) Phased Developments: Due to the long-term development vision within the TRC, certain building form and site development standards may be deferred for phased development projects meeting the following criteria:

- i. Submission of a site plan that illustrates how development and any related private improvements will be phased over time. Each phase of the site plan shall independently comply with all applicable standards of the TRC unless a Permitted Adjustment is granted.
- ii. Required private landscaping and open space amenities may also be phased with the building.
- iii. If a full block is being phased in development, design and development standards may be measured at the full block level in order to accommodate the various phases of the development.

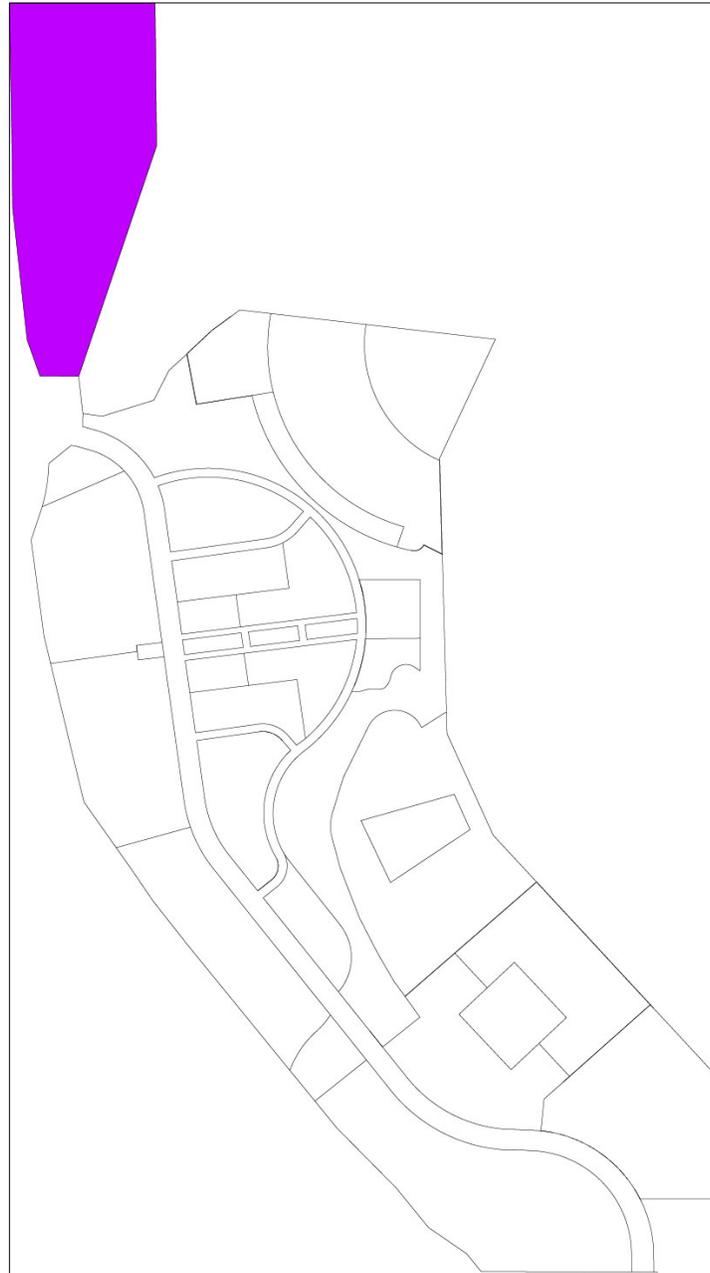
(k) Required Public Improvements: All site plans that require public improvements such as sidewalk and streetscape improvements may be deferred through the payment of a proportional fee-in-lieu when the entire length of that block is not within the site plan.

6.2 Campus Commercial (CC)

(a) Illustrations and Intent

The Campus Commercial Zoning District facilitates a building format that allows multiple, single tenant buildings or campuses within the northern “Thumb” site of the Plan Area. The goal is to allow for an individual plan approach for each campus or building, based on user preferences within a range of requirements.

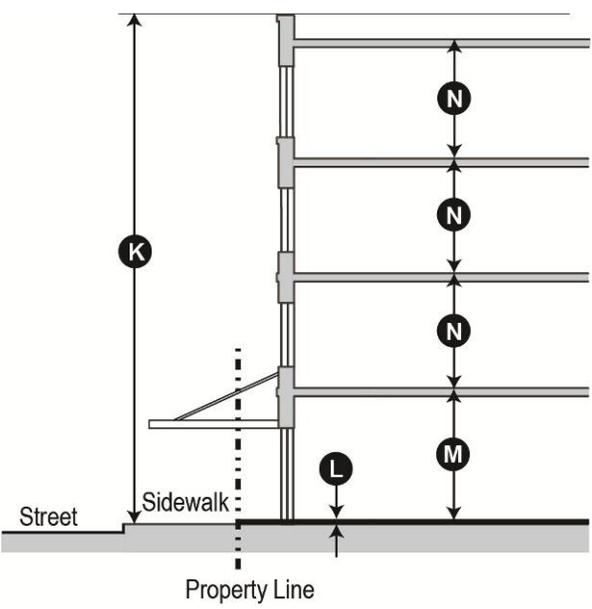
TCAAP Master Plan Vision for Campus Commercial Zone



(b) Building Placement

Public Open Space	<ul style="list-style-type: none"> • 50' min. setback • Setback must be screened with vegetation and landscaping. • If loading or service is oriented towards Rice Creek Regional Park or public trails, appropriate screening shall be required
General Frontage	10' min. setback; no max. setback
Side	No min.; no max.
Rear	No min.; no max.

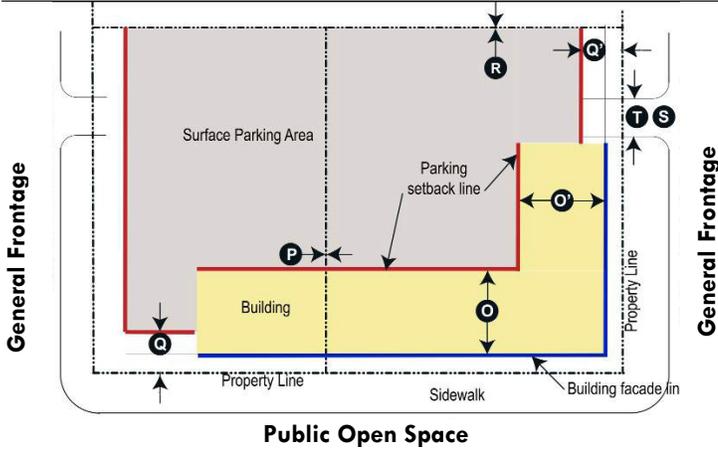
(c) Building Height



(i) Principal Building Standards		
Building maximum	▪ 65' max.	K
First floor to ceiling height (fin. floor to ceiling structure)	▪ 10' min. for all frontages	M
Ground floor finish level	<ul style="list-style-type: none"> ▪ 12" max. above sidewalk for all buildings with Pedestrian Priority designation ▪ ADA Code applies 	L
Upper floor(s) height (fin. floor to ceiling structure)	▪ 9' min.	N
(ii) Accessory Building Standards		
Accessory buildings shall meet the standards for Principal Building standards in the CC Zone.		

(d) Parking & Service Access

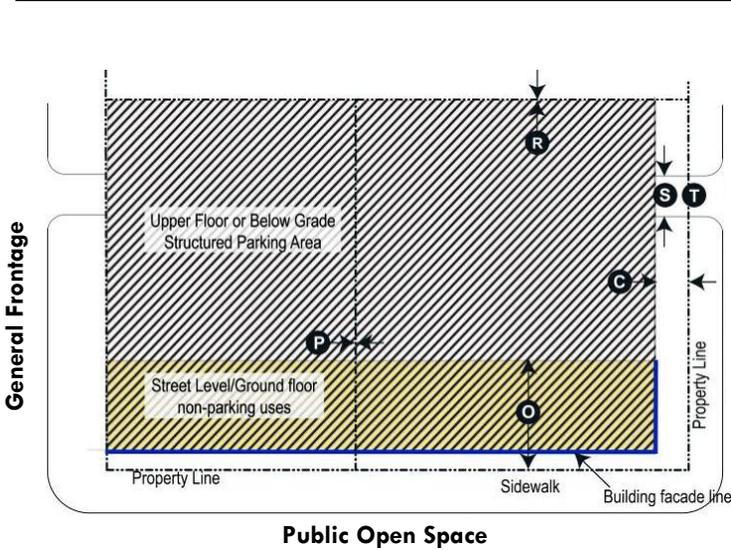
(i) Surface Parking Setbacks (with new building)



Standards for S and T in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Public Open Space	<ul style="list-style-type: none"> 50' min. setback Setback must be screened with vegetation and landscaping If loading or service is oriented towards Public Open Space or public trails, appropriate screening shall be required 	Q
General Frontages	<ul style="list-style-type: none"> 10' min. 	Q'
Side	<ul style="list-style-type: none"> 0' min. 	P
Rear	<ul style="list-style-type: none"> 0' min. 	R

(ii) Structured Parking or Below Grade Parking Setbacks



Standards for S and T in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Public Open Space	<ul style="list-style-type: none"> 50' min. setback Setback must be screened with vegetation and landscaping If loading or service is oriented towards Public Open Space or public trails, appropriate screening shall be required 	O
General Frontages	<ul style="list-style-type: none"> 10' min. 	C
Side	<ul style="list-style-type: none"> 0' min. 	P
Rear	<ul style="list-style-type: none"> 0' min. 	R

(iii) Below Grade Parking

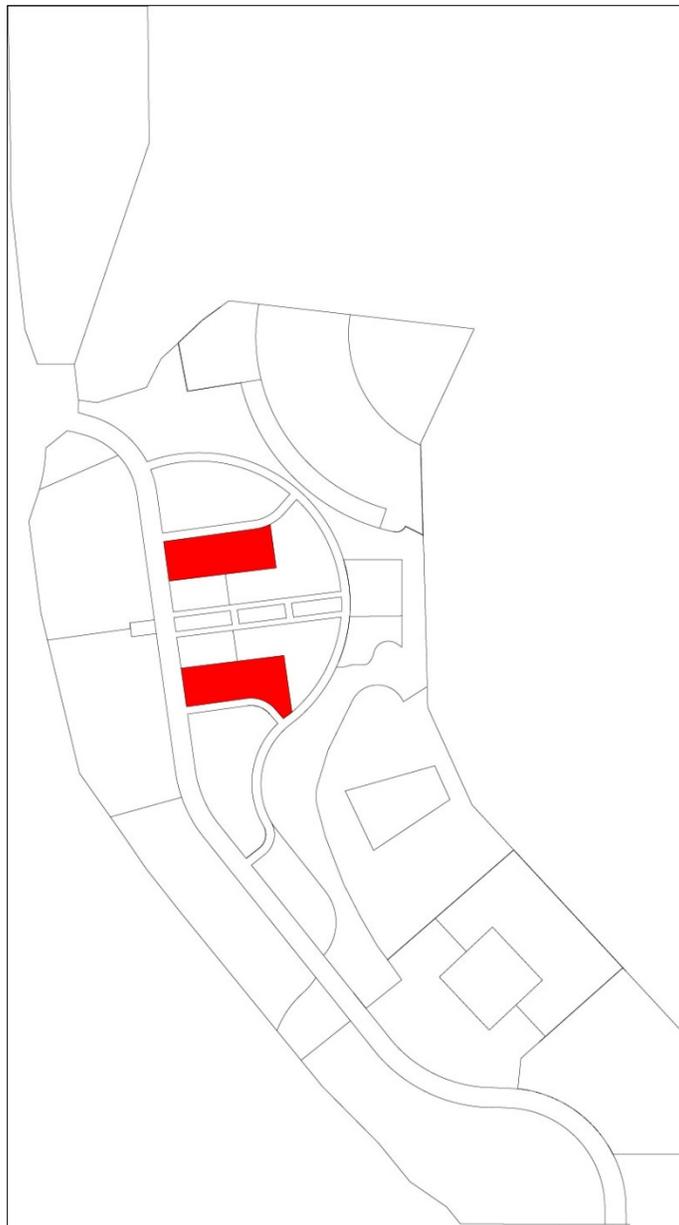
May be built up to the property line.

6.3 Town Center (TC) Zone

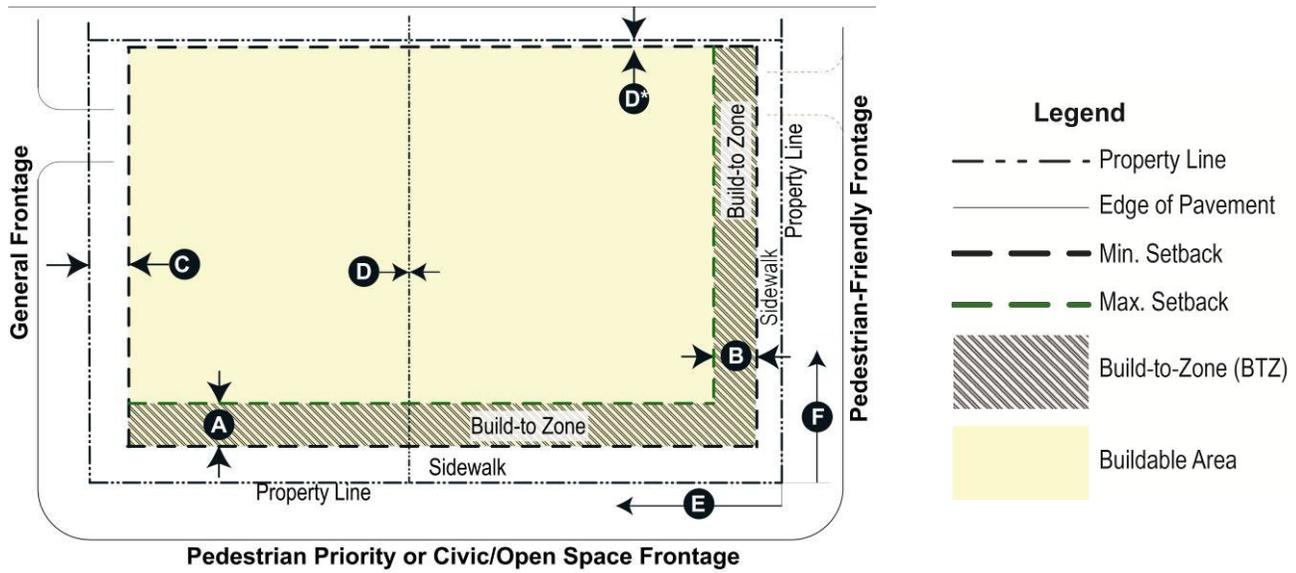
(a) Illustrations and Intent

The Town Center Zoning District creates a vibrant commercial and residential environment that maximizes the potential for an outdoor experience. This district promotes walkability through allowing for housing, office, retail, restaurant and civic use, all within close proximity of each other.

TCAAP Master Plan Vision for Town Center Zone

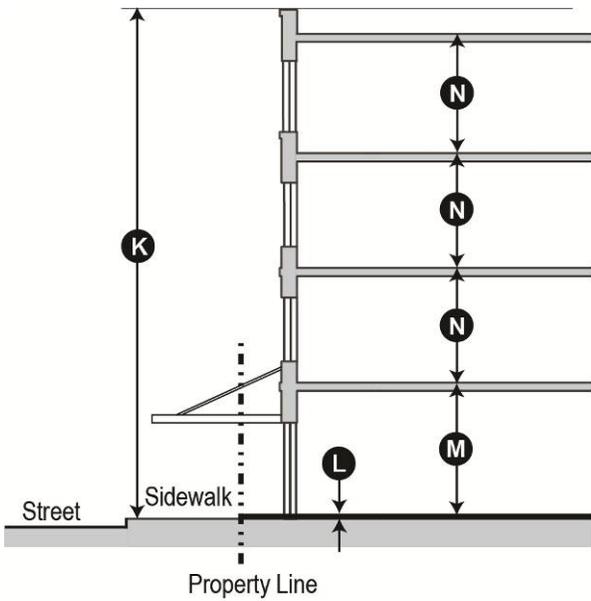


(b) Building Placement



(i) Build-to Zones (BTZs) and Setbacks (Distance from property line to edge of the zone)		
Pedestrian Priority/Open Space Frontage BTZ	10' min. setback – 15' max. setback	A
Pedestrian-Friendly Frontage BTZ	10' min. setback – 25' max. setback	B
General Frontage BTZ	10' min. setback; no max. setback	C
Side – Adjacent to Neighborhood Transition or Neighborhood District	10' min.; no max. setback	D
Side – All other adjacencies	0' min.; no max. setback	
Rear – Adjacent to Neighborhood Transition or Neighborhood District	10' min.; no max. setback	D*
Rear – All other adjacencies	0' min.; no max. setback	
(ii) Building Frontage (Percentage of building façade built within the BTZ)		
Pedestrian Priority Frontage	60% min.	E
Pedestrian-Friendly Frontage	50% min.	F
General Frontage	None Required	
(iii) Gross Density		
Residential	Maximum of 45 dwelling units/acre	
Non-Residential	No maximum	

(c) Building Height



(i) Principal Building Standards

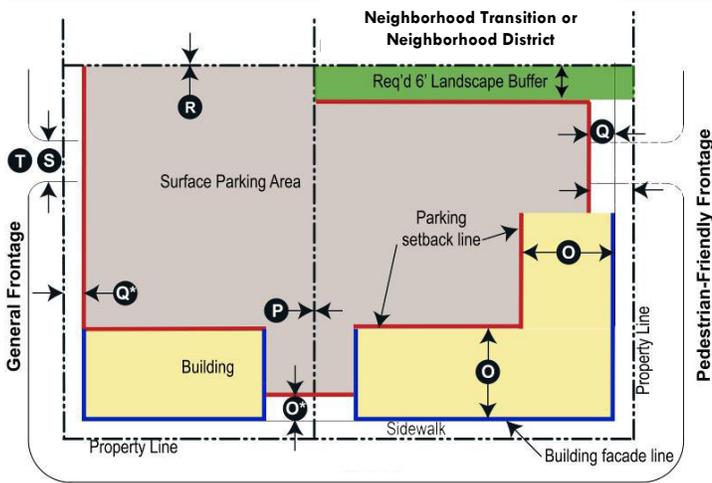
Building maximum	▪ 55' max.	K
First floor to ceiling height (fin. floor to ceiling structure)	▪ 10' min. for all frontages	M
Ground floor finish level	▪ 12" max. above sidewalk for all buildings with Pedestrian Priority Frontage ▪ ADA Code applies	L
Upper floor(s) height (fin. floor to ceiling structure)	▪ 9' min.	N

(ii) Accessory Building Standards

Accessory buildings shall meet the standards for Principal Building standards in the TC Zone.

(d) Parking & Service Access

(i) Surface Parking Setbacks

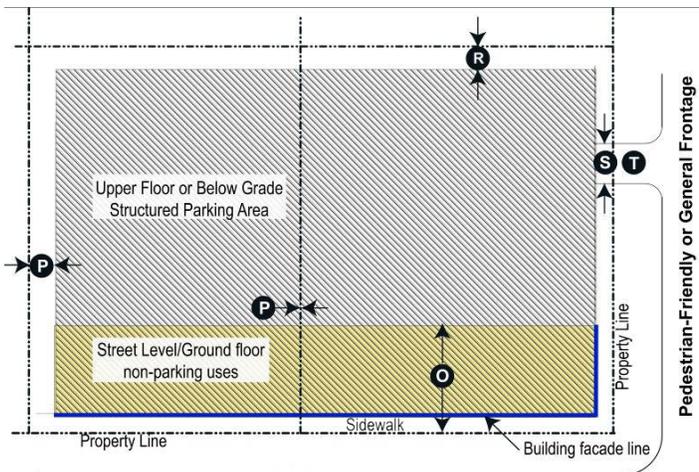


Pedestrian Priority or Open Space Frontage

Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Pedestrian Priority or Open Space Frontage	<ul style="list-style-type: none"> Shall be located behind the principal building along that street frontage; or Min. 3' behind the building façade line along that street 	<p>O</p> <p>O*</p>
Pedestrian-Friendly Frontage	<ul style="list-style-type: none"> Min. 3' behind the building façade line along that street 	Q
General Frontage	<ul style="list-style-type: none"> Min. 3' behind the property line along that street 	Q*
Side	<ul style="list-style-type: none"> 6' (min) only if adjacent to Neighborhood Transition or Neighborhood District; 0' min. for all other adjacencies 	P
Rear	<ul style="list-style-type: none"> 6' (min) only if adjacent to Neighborhood Transition or Neighborhood District; 0' min. for all other adjacencies 	R

(ii) Structured Parking



Pedestrian Priority or Open Space Frontage

Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Pedestrian Priority or Open Space Frontage	<ul style="list-style-type: none"> Ground floor - Shall be min. of 30' from the property line Upper Floors – may be built to the façade line along that street 	O
Pedestrian-Friendly Frontage or General Frontage	<ul style="list-style-type: none"> May be built up to the building façade line along a that street; or If no building is located along the street frontage; then the structured parking shall meet the setback standards along that specific frontage. 	
Side	<ul style="list-style-type: none"> 10' (min) only if adjacent to Neighborhood Transition or Neighborhood District; 0' for all other adjacencies 	P
Rear	<ul style="list-style-type: none"> 10' (min) only if adjacent to Neighborhood Transition or Neighborhood District; 0' min. for all other adjacencies 	R

(iii) Below Grade Parking

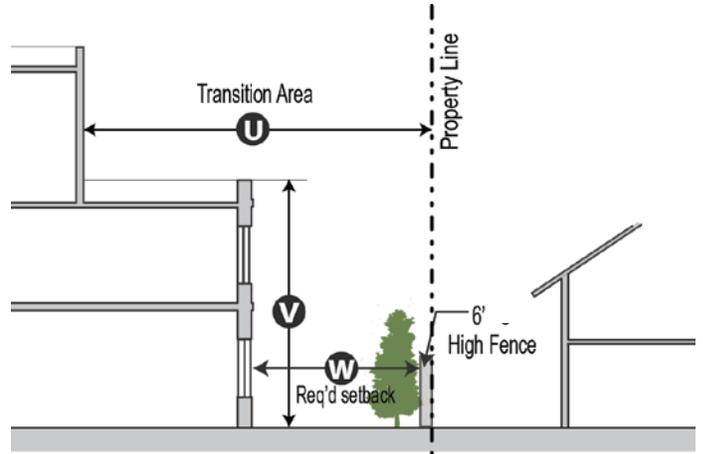
May be built up to the property lines along all streets

(e) Residential Transition Standards

The following transition standards shall apply to all new building construction and all upper story additions to existing buildings located adjacent to the Neighborhood Transition or Neighborhood District. This requirement shall NOT apply if an alley or other similar right-of-way separates the subject lot and the Neighborhood Transition or Neighborhood district.

i.	Transition Area	25' min.	U
ii.	Max. Building Height within Transition Area	2 stories or 30'	V
iii.	Required setback	Min. 10'	W

A Residential Transition Area fence (6 feet high) shall be required when adjacent to Neighborhood Transition or Neighborhood Districts and shall be optional for all other adjacencies. The required fence shall NOT be chain link or vinyl. A 6-foot wide landscape buffer with evergreen shrubs planted at 3' on center and 6' min. in height at maturity shall also be required to be planted within the landscape buffer parallel to the Neighborhood Transition or Neighborhood District border. (see surface parking setbacks illustration).



6.4 Office Mixed-Use (OMU)

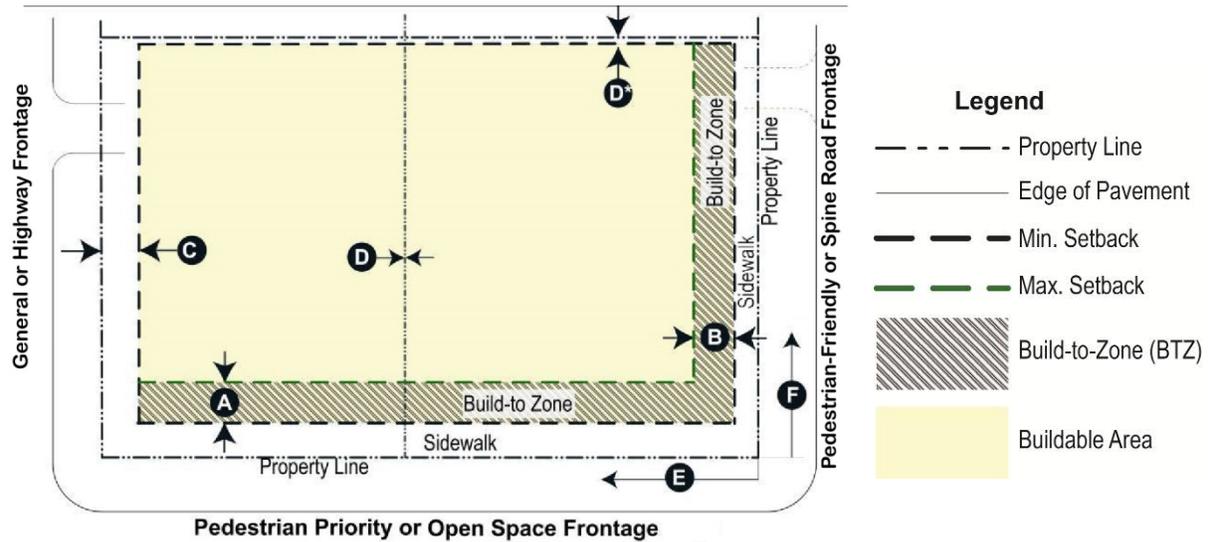
(a) Illustrations and Intent

The Office Mixed-Use Zoning District creates a flexible zone that allows and promotes a seamless transition from Retail Mixed-Use but focuses on employment and compatible uses. This district promotes employment as a primary use, but allows for other commercial uses to be incorporated as vertical mixed-use buildings.

TCAAP Master Plan Vision for Office Mixed-Use Zone

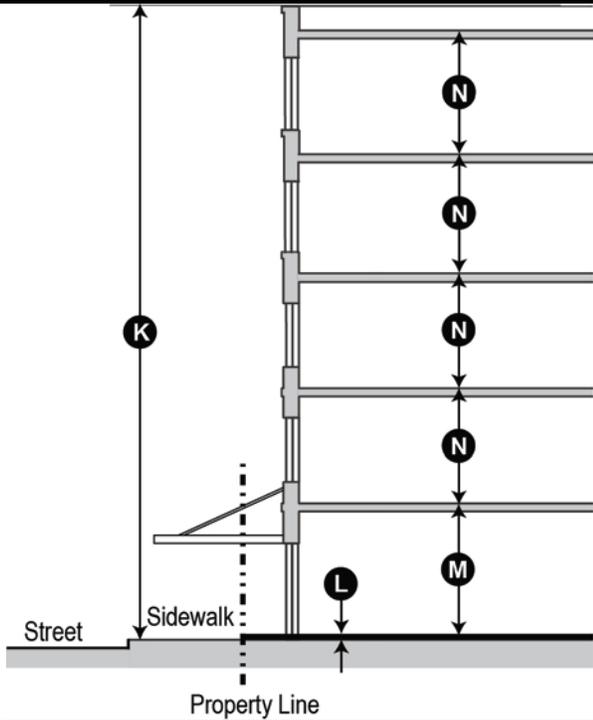


(b) Building Placement



(i) Build-to Zones (BTZs) and Setbacks (Distance from property line to edge of the zone)		
Pedestrian-Priority/Open Space Frontage (BTZ)	10' min. setback – 25' max. setback	A
Pedestrian-Friendly/Spine Road Frontage (BTZ)	10' min. setback – 75' max. setback	B
General or Highway Frontage	10' min. setback; no max. setback	C
Side	0' min.; no max. setback	D
Rear	0' min.; no max. setback	D*
(ii) Building Frontage (Percentage of building façade built within the BTZ)		
Pedestrian-Priority/Open Space Frontage	50% min.	E
Pedestrian-Friendly	40% min.	F
General Frontage	None Required	

(c) Building Height



(i) Principal Building Standards

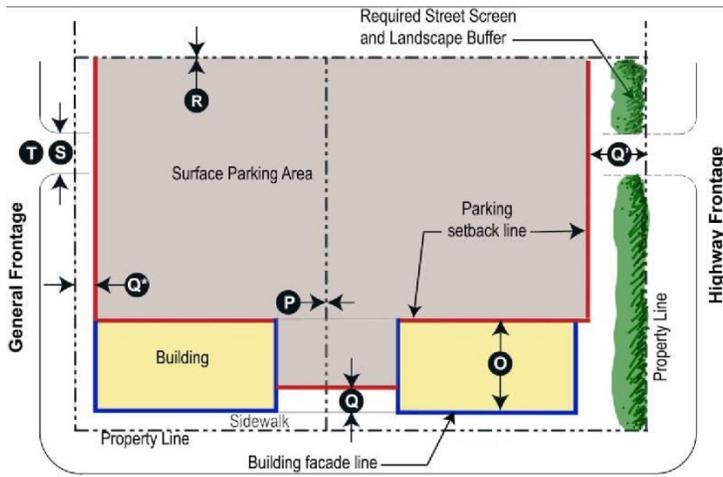
Building maximum	▪ 65' max.	K
First floor to ceiling height (fin. floor to ceiling structure)	▪ 10' min. for all frontages	M
Ground floor finish level	▪ 12" max. above sidewalk for all buildings with Pedestrian Priority Frontage ▪ ADA code applies.	L
Upper floor(s) height (fin. floor to ceiling structure)	▪ 9' min.	N

(ii) Accessory Building Standards

Accessory buildings shall meet the standards for Principal Building standards in the OMU Zone.

(d) Parking & Service Access

(i) Surface Parking Setbacks



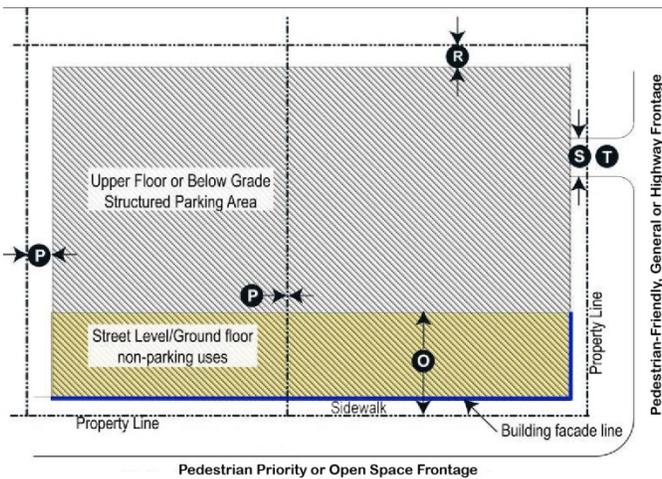
Pedestrian-Friendly or Civic/Open Space Frontage

Pedestrian Priority, Pedestrian-Friendly, Open Space or Spine Road Frontage

Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Pedestrian-Priority, Pedestrian-Friendly, Open Space or Spine Road Frontage	<ul style="list-style-type: none"> Shall be located behind the principal building along that street frontage; or Min. 3' behind the building façade line along that street; If no building is located along the street frontage; then surface parking shall be setback a minimum of 6' from the property line. 	<p>O</p> <p>Q</p>
Highway Frontage	<ul style="list-style-type: none"> Min. 15' from the property line and include a street screen and landscape buffer 	Q'
General Frontage	<ul style="list-style-type: none"> Min. 10' behind the property line 	Q*
Side	<ul style="list-style-type: none"> 0' 	P
Rear	<ul style="list-style-type: none"> 0' 	R

(ii) Structured Parking or Below Grade Parking Setbacks



Pedestrian Priority or Open Space Frontage

Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Pedestrian-Priority or Open Space Frontage	<ul style="list-style-type: none"> Ground floor - Shall be min. of 30' from the property line Upper Floors – may be built to the façade line along that street 	O
Pedestrian Friendly, General or Highway Frontage	<ul style="list-style-type: none"> May be built up to the building façade line along that street frontage; or If no building is located along the street frontage; then the structured parking shall meet the setback standards along that street. 	
Side	<ul style="list-style-type: none"> 0' 	P
Rear	<ul style="list-style-type: none"> 0' 	R

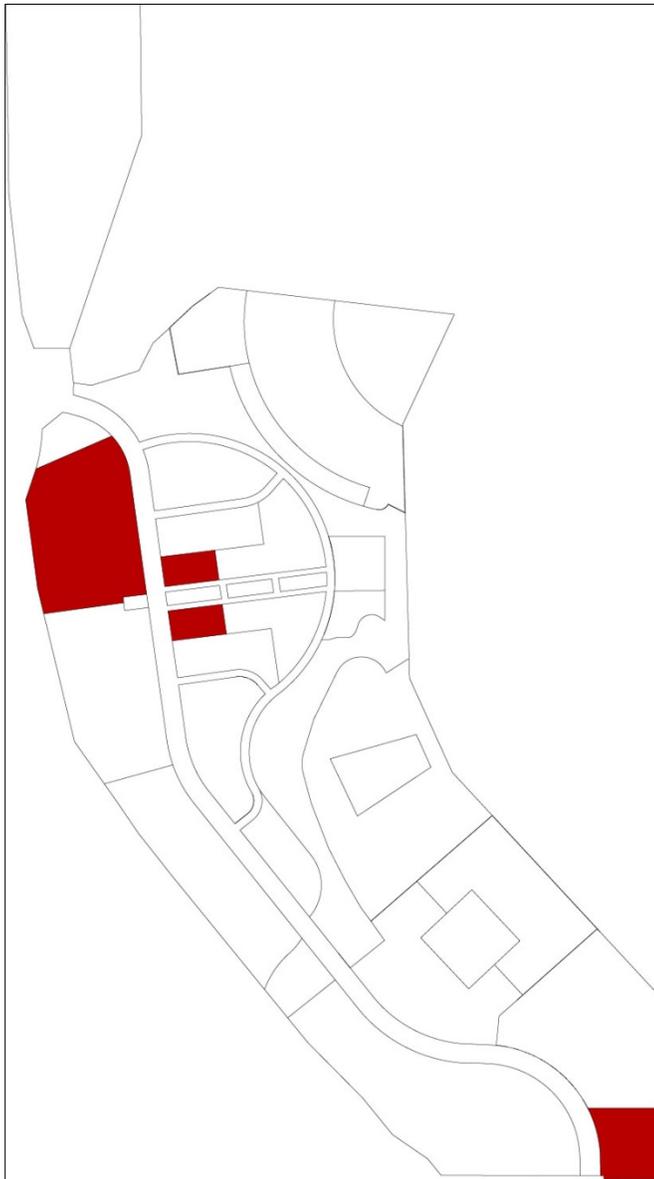
(iii) Below Grade Parking

May be built up to the property line along all streets.

6.5 Retail Mixed Use (RMU)

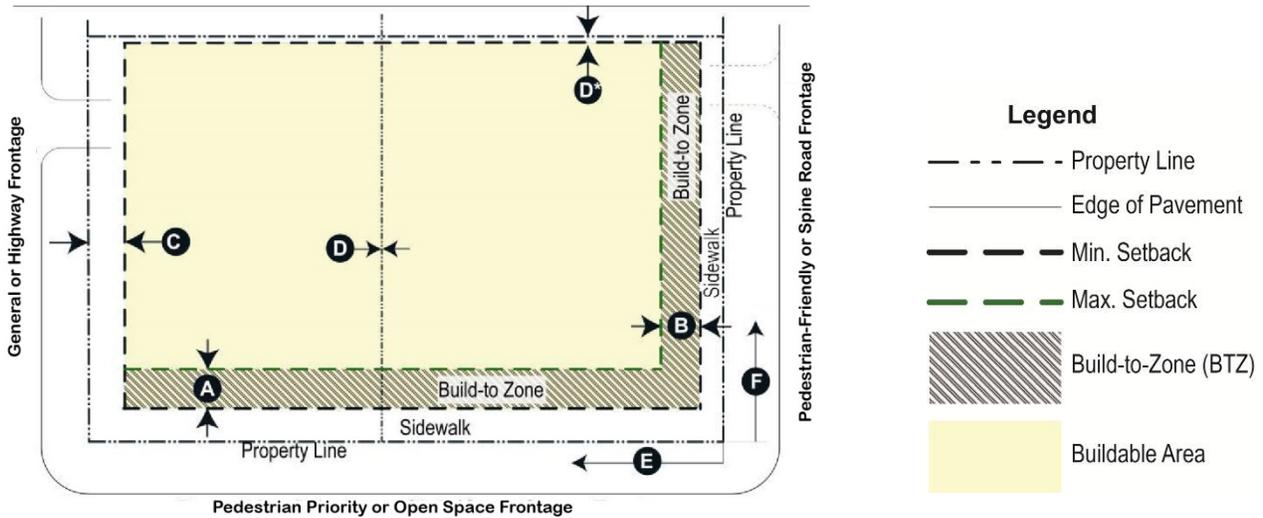
(a) Illustrations and Intent

TCAAP Master Plan Vision for Retail Mixed Use Zone



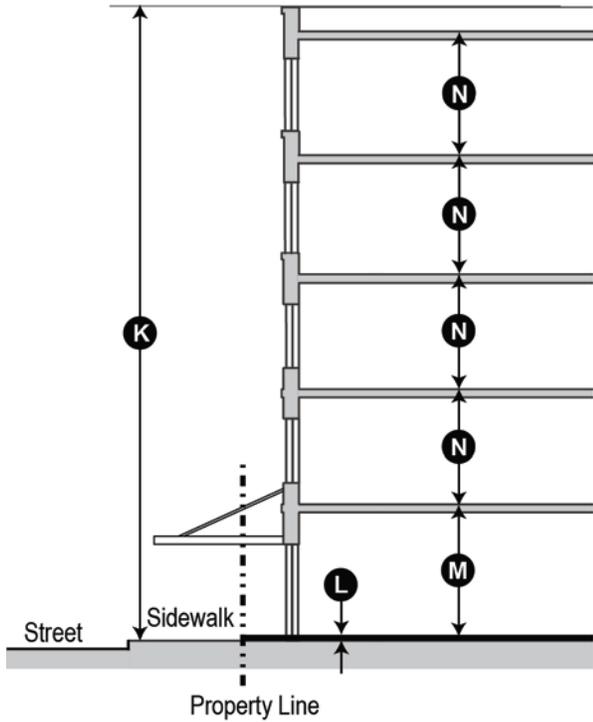
The Retail Mixed-Use Zoning District creates a flexible zone that allows and promotes a seamless transition from Office Mixed-Use, but focuses on retail and compatible uses. This district promotes retail as a primary use, but allows for other commercial uses to be incorporated as vertical mixed-use buildings.

(b) Building Placement



(i) Build-to Zones (BTZs) and Setbacks (Distance from property line to edge of the zone)		
Pedestrian Priority /Open Space Frontage (BTZ)	10' min. setback – 25' max. setback	A
Pedestrian-Friendly /Spine Road Frontage (BTZ)	10' min. setback – 75' max. setback	B
General or Highway Frontage	10' min. setback; no max. setback	C
Side – Adjacent to Neighborhood Transition or Neighborhood District Side – All other adjacencies	<ul style="list-style-type: none"> ▪ 10' (min); no max setback; ▪ 0' min; no max setback 	D
Rear – Adjacent to Neighborhood Transition or Neighborhood District Rear – All other adjacencies	<ul style="list-style-type: none"> ▪ 10' (min); no max setback ▪ 0' min; no max setback 	D*
(ii) Building Frontage (Percentage of building façade built within the BTZ)		
Pedestrian Priority /Open Space Frontage	60% min.	E
Pedestrian-Friendly Frontage	50% min.	F
General Frontage	None Required	

(c) Building Height



(i) Principal Building Standards

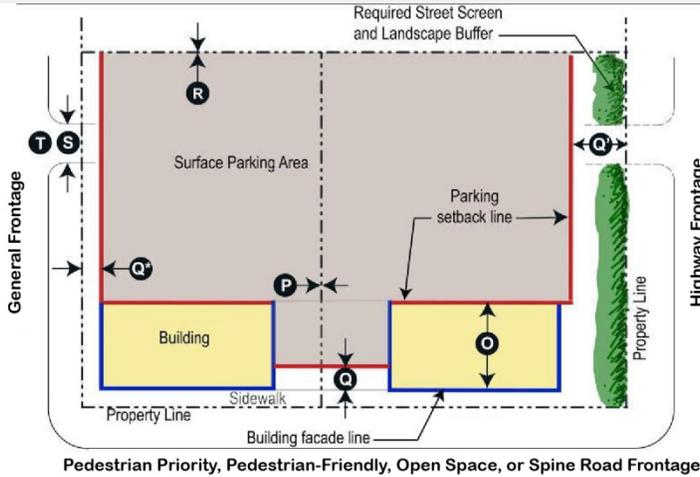
Building maximum	▪ 65' max.	K
First floor to floor height (fin. floor to ceiling structure)	▪ 10' min. for all frontages.	M
Ground floor finish level	▪ 12" max. above sidewalk for all buildings with Pedestrian Priority Frontage ▪ ADA Code Applies	L
Upper floor(s) height (fin. floor to ceiling structure)	▪ 9' min.	N

(ii) Accessory Building Standards

Accessory buildings shall meet the standards for Principal Building standards in the Retail Mixed-Use Zone.

(d) Parking & Service Access

(i) Surface Parking Setbacks

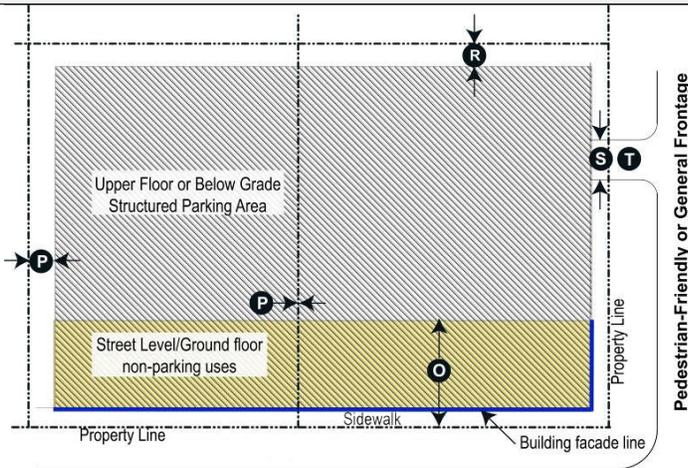


Pedestrian Priority, Pedestrian-Friendly, Open Space, or Spine Road Frontage

Standards for S and T in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

Pedestrian Priority, Pedestrian Friendly, Open Space or Spine Road Frontage	<ul style="list-style-type: none"> Shall be located behind the principal building along that street frontage; or Min. 3' behind the building façade line along that street 	<p>O</p> <p>Q</p>
Highway Frontage	<ul style="list-style-type: none"> Min. 15' from the property line and include Street Screen and landscape buffer 	<p>Q'</p>
General Frontage	<ul style="list-style-type: none"> Min. 3' behind the property line along that street 	<p>Q+</p>
Side	<ul style="list-style-type: none"> 6' (min) only if adjacent to Neighborhood Transition or Neighborhood District; 0' min. for all other adjacencies 	<p>P</p>
Rear	<ul style="list-style-type: none"> 6' (min) only if adjacent to Neighborhood Transition or Neighborhood District 0' min. for all other adjacencies. 	<p>R</p>

(ii) Structured Parking or Below Grade Parking Setbacks



Pedestrian Priority or Open Space Frontage

Standards for S and T in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

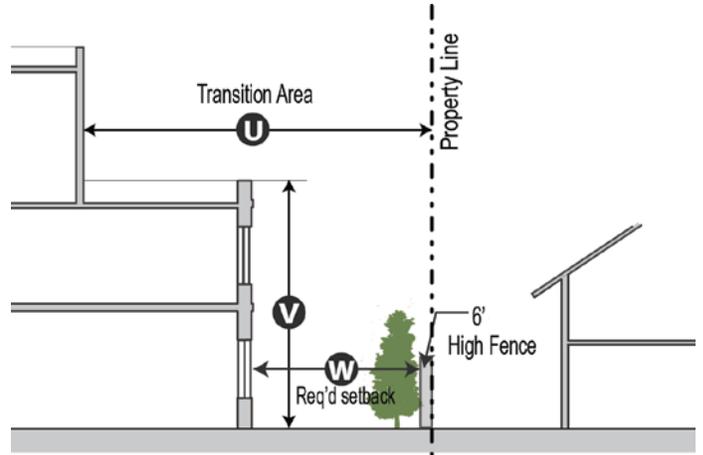
Pedestrian Priority or Open Space Frontage	<ul style="list-style-type: none"> Ground floor - Shall be min. of 30' from the property line Upper Floors – may be built to the façade line along that street 	<p>O</p>
Pedestrian-Friendly, General or Highway Frontage	<ul style="list-style-type: none"> May be built up to the building façade line along a that street; or If no building is located along the street frontage; then the structured parking shall meet the setback standards along that specific frontage. 	
Side	<ul style="list-style-type: none"> 10' min. (adjacent to Neighborhood Transition or Neighborhood District) 0' min. (all other adjacencies) 	<p>P</p>
Rear	<ul style="list-style-type: none"> 10' min. (adjacent to Neighborhood Transition or Neighborhood District) 0' min. (all other adjacencies) 	<p>R</p>
(iii) Below Grade Parking		
May be built up to the property line along all streets.		

(f) Residential Transition Standards

The following transition standards shall apply to all new building construction and all upper story additions to existing buildings located adjacent to the Neighborhood Transition or Neighborhood District. This requirement shall NOT apply if an alley or other similar right-of-way separates the subject lot and the Neighborhood Transition or Neighborhood District.

iv. Transition Area	25' min.	U
v. Max. Building Height within Transition Area	2 stories or 30'	V
vi. Required setback	Min. 10'	W

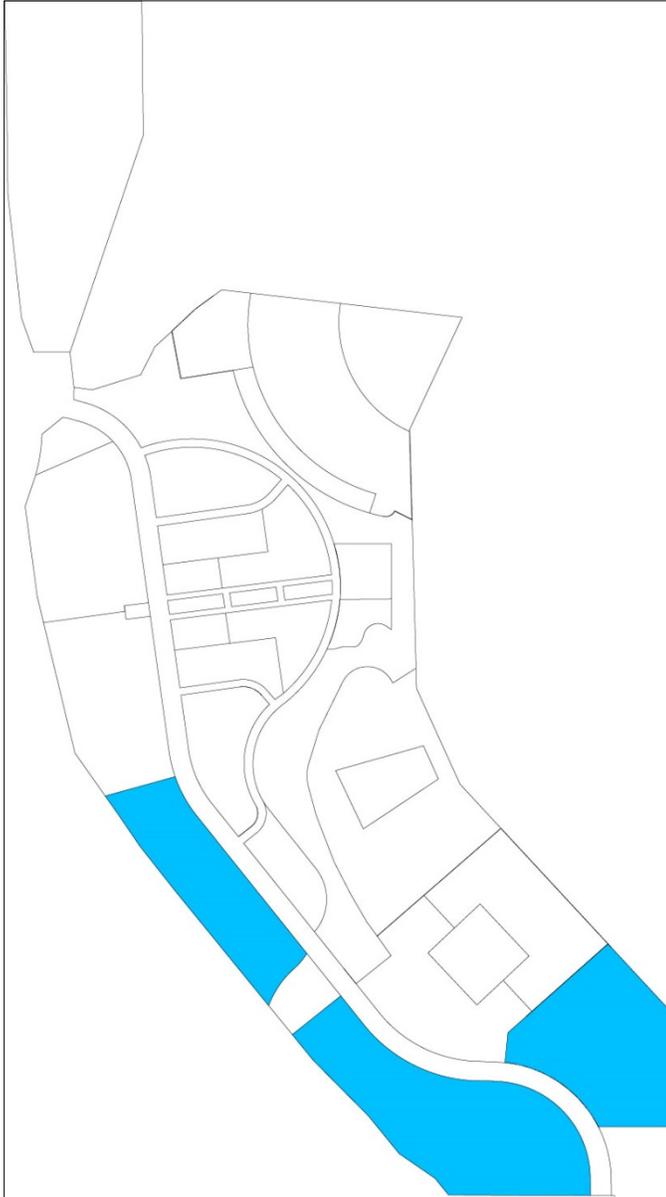
A Residential Transition Area fence (6 feet high) shall be required when adjacent to the Neighborhood Transition or Neighborhood District and shall be optional for all other adjacencies. The required fence shall NOT be chain link or vinyl. A 6-foot wide landscape buffer with evergreen shrubs planted at 3' on center and 6' min. in height at maturity shall also be required to be planted within the landscape buffer parallel to the Neighborhood Transition or Neighborhood District border. (see surface parking setbacks illustration).



6.6 Flex Office (FO) Zone

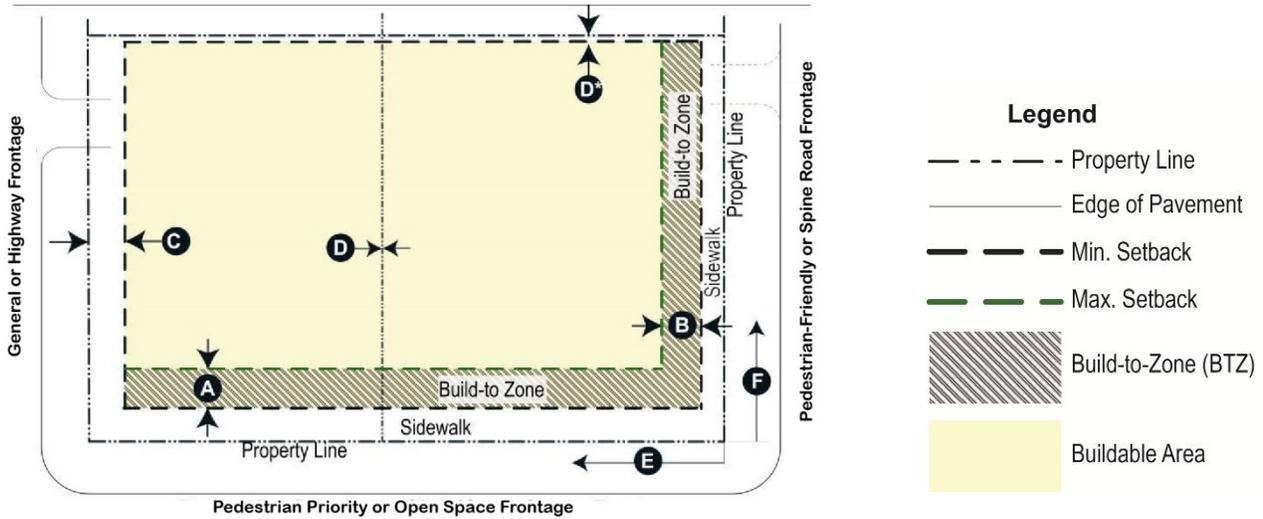
(a) Illustrations and Intent

TCAAP Master Plan Vision for Flex Office Zone



The Flex Office Zoning District creates an opportunity for large scale development for employment, and manufacturing uses that take advantage of the highway frontage and automobile access.

(b) Building Placement



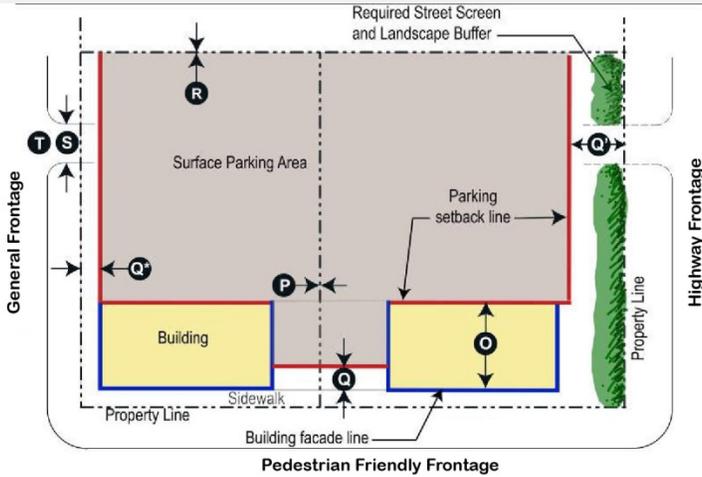
Legend

- Property Line
- Edge of Pavement
- Min. Setback
- Max. Setback
- ▨ Build-to-Zone (BTZ)
- Buildable Area

(i) Build-to Zones (BTZs) and Setbacks (Distance from property line to edge of the zone)		
Pedestrian Priority / Open Space Frontage (BTZ)	10' min. setback – 25' max. setback	A
Pedestrian-Friendly /Spine Road Frontage (BTZ)	10' min. setback – 95' max. setback	B
General or Highway Frontage	10' min. setback; no max. setback	C
Side – Adjacent to Neighborhood Transition or Neighborhood District Side – All other adjacencies	<ul style="list-style-type: none"> ▪ 30' min setback; no max setback ▪ 0' min setback; no max setback 	D
Rear – Adjacent to Neighborhood Transition or Neighborhood District Rear – All other adjacencies	<ul style="list-style-type: none"> ▪ 30' min setback; no max setback ▪ 15' min setback; no max. setback 	D*
(ii) Building Frontage (Percentage of building façade built within the BTZ)		
Pedestrian Priority or Open Space Frontage	50% min.	E
Pedestrian-Friendly Frontage	40% min.	F
General Frontage	None Required	

(d) Parking & Service Access

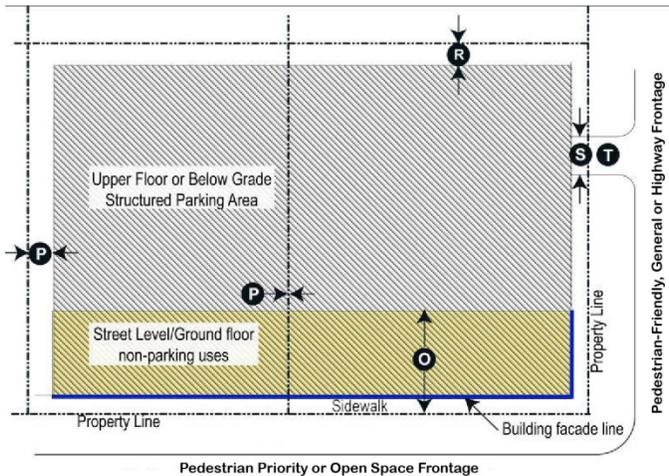
(i) Surface Parking Setbacks



Highway Frontage	<ul style="list-style-type: none"> 15' min. from the property line and include a street screen and landscape buffer 	Q'
Pedestrian-Friendly	<ul style="list-style-type: none"> 3' min. behind the building façade line along that street 	O
General Frontage	<ul style="list-style-type: none"> 10' min. behind the property line along that street 	Q*
Side	<ul style="list-style-type: none"> 30' min - adjacent to Neighborhood Transition or Neighborhood District; 0' min. - all other adjacencies 	P
Rear	<ul style="list-style-type: none"> 30' min - adjacent to Neighborhood Transition or Neighborhood District; 0' min - all other adjacencies 	R

Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section below.

(ii) Structured Parking or Below Grade Parking Setbacks



Pedestrian Priority / Open Space Frontage	<ul style="list-style-type: none"> Ground floor - Shall be min. of 30' from the property line Upper Floors – may be built to the façade line along that street 	O
Pedestrian-Friendly, General or Highway Frontage	<ul style="list-style-type: none"> Shall be min. of 10' from the property line; If no building is located along the street frontage; then the structured parking shall meet the setback standards along that specific frontage. 	
Side	<ul style="list-style-type: none"> 30' min -adjacent to Neighborhood Transition or Neighborhood District 0' min - all other adjacencies 	P
Rear	<ul style="list-style-type: none"> 30' min - adjacent to residential uses or Neighborhood Transition or Neighborhood District 0' min - all other adjacencies 	R

(iii) Below Grade Parking

May be built up to the property line along all streets.

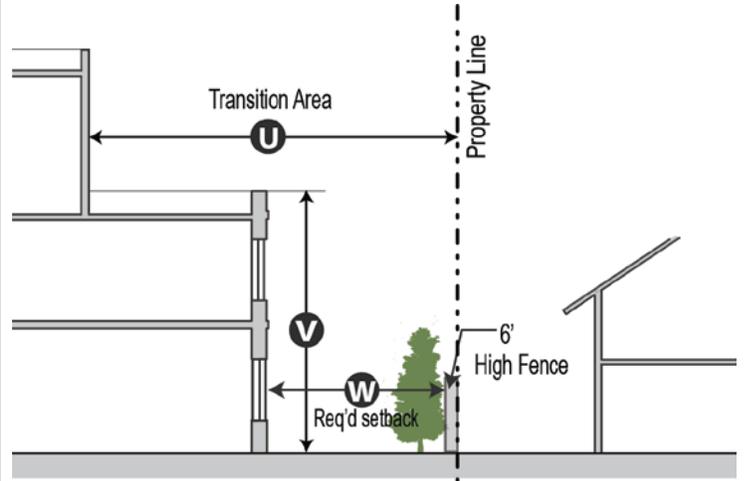
Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

(e) Residential Transition Standards

The following transition standards shall apply to all new building construction and all upper story additions to existing buildings located adjacent to the Neighborhood Transition or Neighborhood District. This requirement shall NOT apply if an alley or other similar right-of-way separates the subject lot and the Neighborhood Transition or Neighborhood District.

i.	Transition Area	40' min.	U
ii.	Max. Building Height at within Transition Area	2 stories or 25'	V
iii.	Required setback	Min. 30'	W

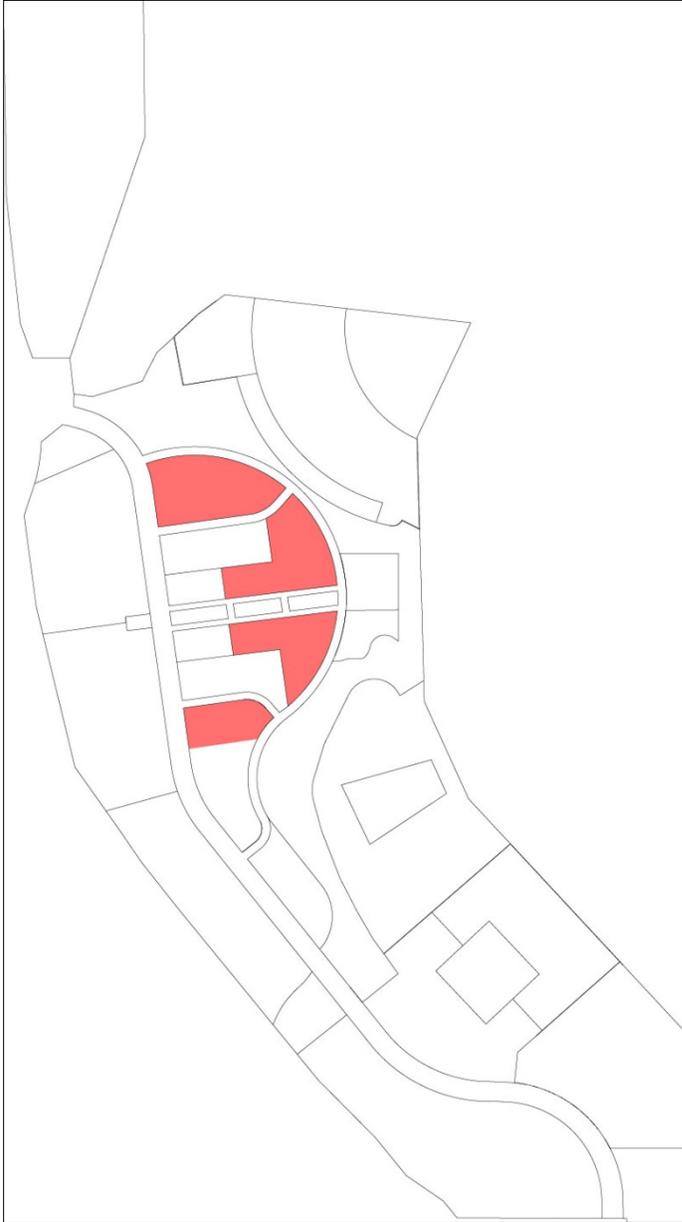
A Residential Transition Area fence (6 feet high) shall be required when adjacent to the Neighborhood Transition or Neighborhood District and shall be recommended for all other adjacencies. The required fence shall NOT be chain link or vinyl. A 6-foot wide landscape buffer with evergreen shrubs planted at 3' on center and 6' min. in height at maturity shall also be required to be planted within the landscape buffer parallel to the Neighborhood Transition or Neighborhood District border. (see surface parking setbacks illustration)



6.7 Neighborhood Transition (NT) Zone

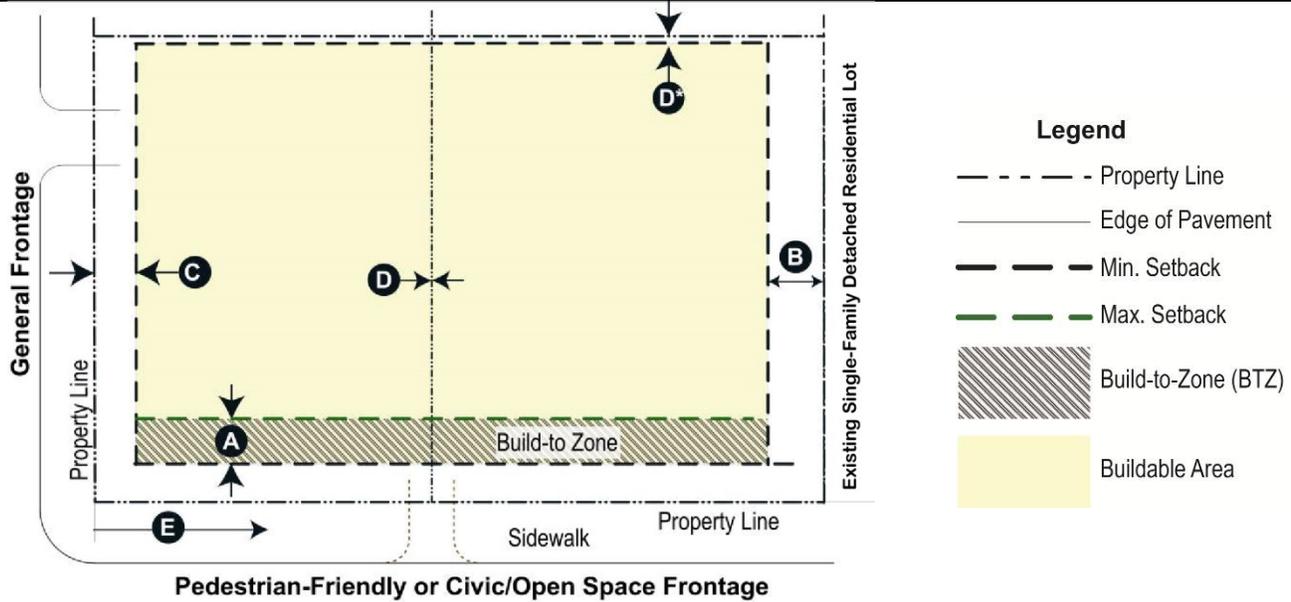
(a) Illustrations and Intent

TCAAP Master Plan Vision of the Neighborhood Transition Zone



The Neighborhood Transition Zoning District provides for a range of residential (live-work, townhomes, duplexes, patio homes, manor homes, etc.) transitions between the active retail and employment mixed-use districts and adjoining single-family neighborhoods. Design standards in this district emphasize smaller scale residential uses and establish building transition standards to adjoining neighborhoods.

(b) Building Placement



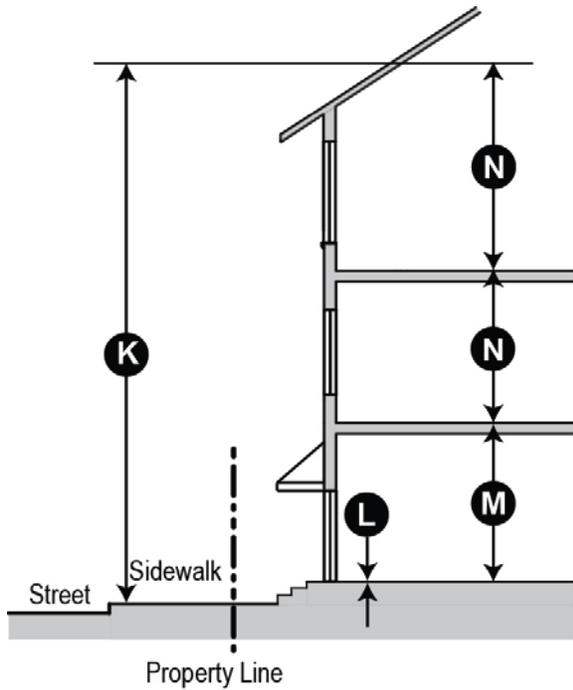
Pedestrian-Friendly or Civic/Open Space Frontage

(i) Build-to Zones (BTZs) and Setbacks		
Pedestrian-Friendly or Civic/Open Space Frontage (BTZ)	10' min. setback – 20' max. setback	A
General Frontage	10' min. setback; no max. setback	C
Side – Adjacent to SF-detached Residential lot	5' min. setback; no max. setback	B
Side – All other adjacencies	0' min. setback; no max. setback	D
Rear – Adjacent to SF-detached Residential lot	10' min. setback; no max. setback	D*
Rear – All other adjacencies	0' min. setback; no max. setback	
(ii) Building Frontage (Percentage of building façade built within the BTZ)		
Pedestrian-Friendly Frontage	50% min.	E
General Frontage	None Required	
(iii) Gross Density		
Neighborhood Transition (NT)	Minimum density of 8 dwelling units/acre Maximum density of 15 dwelling units/acre	

(c) Lot Standards

Lot Width	<ul style="list-style-type: none"> ▪ Min. 20' for single-family attached/duplex/townhome buildings ▪ Min. 40' for single-family detached buildings ▪ Min. 50' for front-loaded or J-swing units. See Section 6.1 (c) iii 9. For driveway and garage size requirements ▪ Less than 50' wide lots shall be alley-loaded lots ▪ No lot size requirement for multi-family
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(d) Building Height



(i) Principal Building Standards

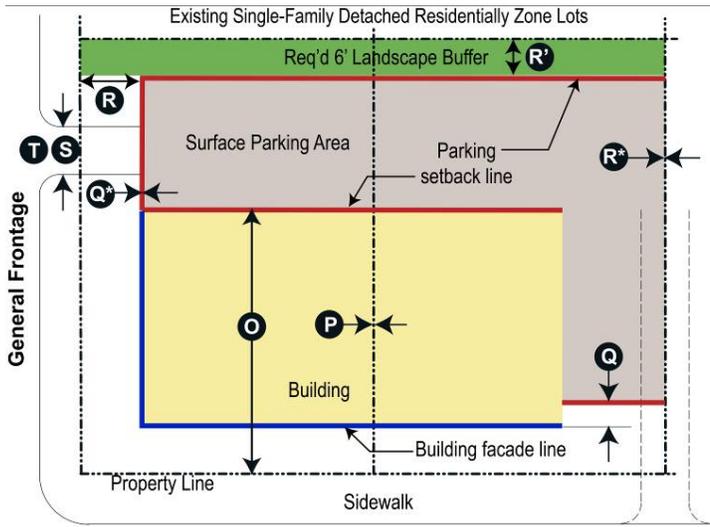
Building maximum	▪ 40' max.	K
First floor to floor height (fin. floor to fin. floor)	▪ 8' min. for single-family uses (all frontages) ▪ 9' min. for all other uses (all frontages)	M
Ground floor finish level	▪ 18" min. above sidewalk for ground floor residential uses along Pedestrian-Friendly Frontages that are also setback less than 10' from the front property line ▪ ADA Code applies on buildings with public access	L
Upper floor(s) height (fin. floor to fin. floor)	▪ 8' min.	N

(ii) Accessory Building Standards

Building Height	15' maximum
BTZ/Setbacks	Shall be placed behind the front façade of the principal building along all frontages.
Building Footprint	Shall be limited to no more than 50% of the principal building footprint or 728 square feet, whichever is less.

(e) Parking & Service Access

i. Surface Parking Setbacks



Pedestrian-Friendly or Civic/Open Space Frontage	<ul style="list-style-type: none"> Shall be located behind the principal building along that street frontage; or Min. 3' behind the building façade line along that frontage 	O Q
General Frontage	<ul style="list-style-type: none"> At or behind the building façade line along that frontage; or Min. 6' behind the property line along that street 	Q* R
Side	<ul style="list-style-type: none"> 6' min - Adjacent to SF-detached residential lot 0' min - all other adjacencies 	P R*
Rear	<ul style="list-style-type: none"> 6' min - Adjacent to SF-detached residential lot 0' min - all other adjacencies 	R'

Pedestrian-Friendly or Civic/Open Space Frontage

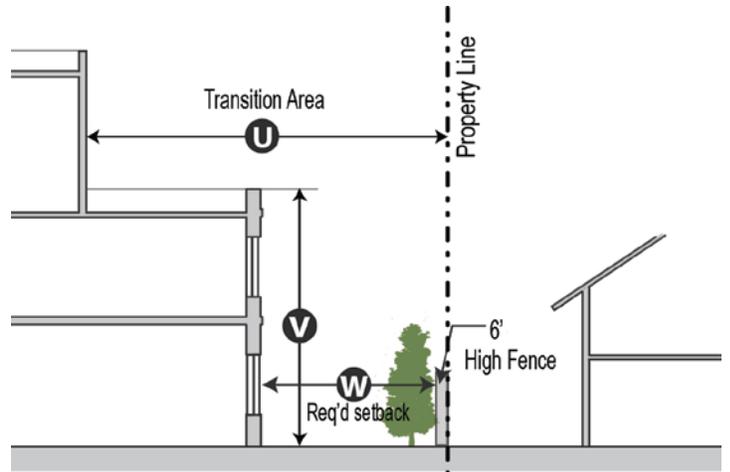
Standards for **S** and **T** in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

(f) Residential Transition Standards

The following transition standards shall apply to all new multi-family, mixed-use and non-residential building construction and all upper story additions to existing buildings located adjacent to existing single-family detached lot(s). This requirement shall NOT apply if an alley or other similar right-of-way separates the subject lot and the existing single-family detached residential lot(s).

i. Transition Area	20' min.	U
ii. Max. Building Height at within Transition Area	2 stories or 25'	V
iii. Required setback	Min. 10'	W

A Residential Transition Area fence (6 feet high) shall be required when adjacent to an existing single-family detached residential lot and shall be optional for all other adjacencies. The required fence shall NOT be chain link or vinyl. A 6-foot wide landscape buffer with evergreen shrubs planted at 3' on center and 6' min. in height at maturity shall also be required to be planted within the landscape buffer parallel to the SF-residential lot line. (see surface parking setbacks illustration)



6.8 Neighborhood (NB) Zone

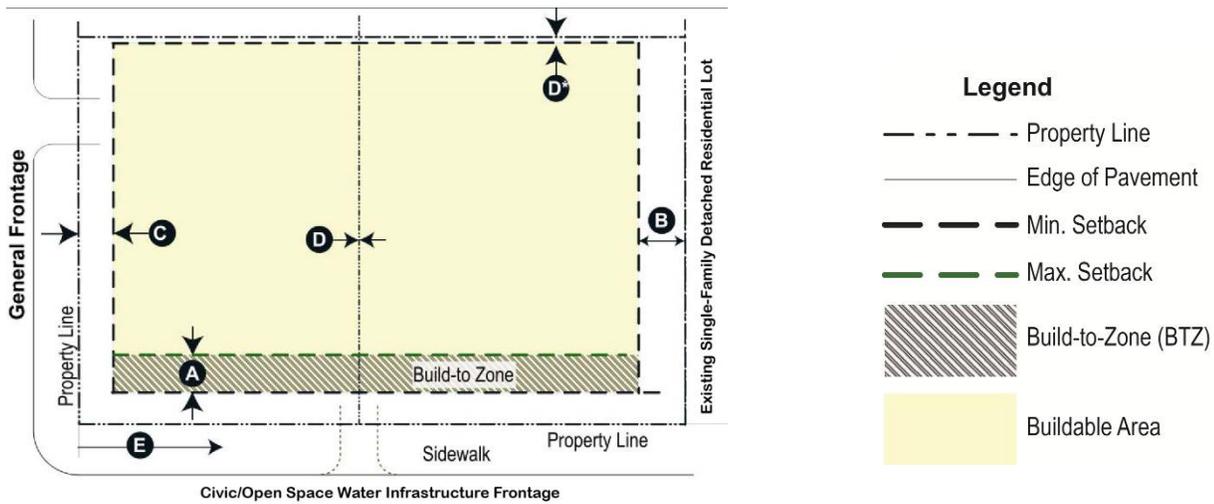
(a) Illustrations and Intent

TCAAP Master Plan Vision of the Neighborhood Zone



The Neighborhood Zoning District provides for a range of attached and detached single-family residential.

(b) Building Placement



Legend

- - - - - Property Line
- Edge of Pavement
- Min. Setback
- Max. Setback
- ▨ Build-to-Zone (BTZ)
- Buildable Area

(i) Build-to Zones (BTZs) and Setbacks

Civic/Open Space/Water Infrastructure Frontage (BTZ)	10' min. setback – 20' max. setback	A
General Frontage	10' min. setback; no max. setback	C
Side – Adjacent to SF-detached residential lot	5' min. setback; no max. setback	B
Side – All other adjacencies	0' min. setback; no max. setback	D
Rear – Adjacent to SF-detached residential lot	10' min. setback; no max. setback	D*
Rear – All other adjacencies	0' min. setback; no max. setback	

(ii) Building Frontage (Percentage of building façade built within the BTZ)

Pedestrian-Friendly Frontage	50% min.	E
General Frontage	None Required	

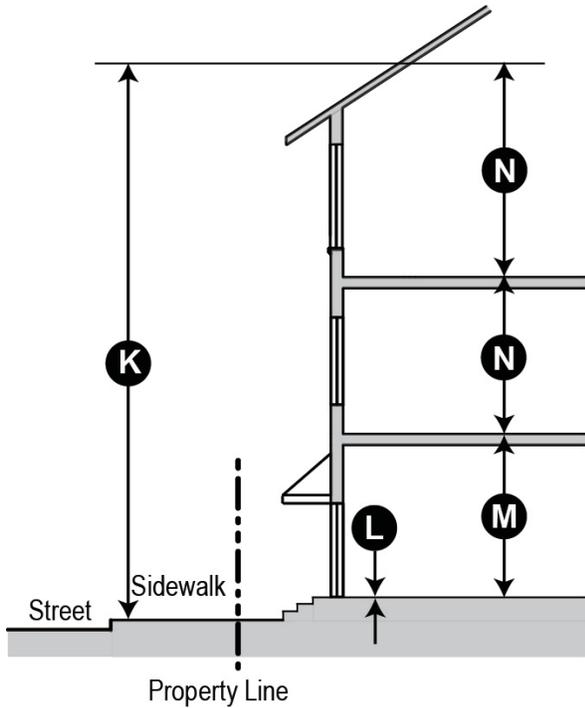
(iii) Gross Density

Neighborhood Sub-District 1 (NB-1)	Maximum density of 2.5 dwelling units/acre
Neighborhood Sub-District 2 (NB-2)	Minimum density of 2.5 dwelling units/acre Maximum density of 4 dwelling units/acre
Neighborhood Sub-District 3 (NB-3)	Minimum density of 4 dwelling units/acre Maximum density of 6.75 dwelling units/acre
Neighborhood Sub-District 4 (NB-4)	Minimum density of 4 dwelling units/acre Maximum density of 8 dwelling units/acre

(c) Lot Standards

Lot Width	<ul style="list-style-type: none"> ▪ Min. 20' for single-family attached/duplex/townhome buildings ▪ Min. 40' for single-family detached buildings ▪ Min. 50' for front-loaded or J-swing units. See Section 6.1 (c) iii 9. For driveway and garage size requirements ▪ Less than 50' wide lots shall be alley-loaded lots.
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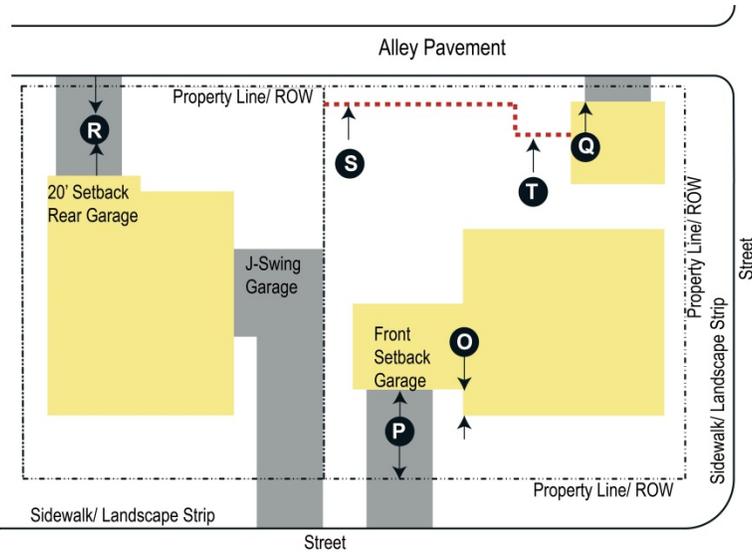
(d) Building Height



(i) Principal Building Standards		
Building maximum	▪ 30' max.	K
First floor to floor height (fin. floor to fin. floor)	▪ 8' min for single-family uses (all frontages) ▪ 9' min. for all other uses (all frontages)	M
Ground floor finish level	▪ 18" min. above sidewalk for ground floor residential uses along Pedestrian-Friendly Frontages that are also setback less than 10' from the front property line ▪ ADA Code applies on buildings with public access	L
Upper floor(s) height (fin. floor to fin. floor)	▪ 8' min.	N
(ii) Accessory Building Standards		
Building Height	15' maximum	
BTZ/Setbacks	Shall be placed behind the front façade of the principal building along all frontages.	
Building Footprint	Shall be limited to no more than 50% of the principal building footprint or 728 square feet, whichever is less.	

(e) Parking & Service Access

i. Residential Parking Setbacks



Standards for S and T in the illustrations above are referenced in standards for Driveways and Service Access section 6.1(c) iii.

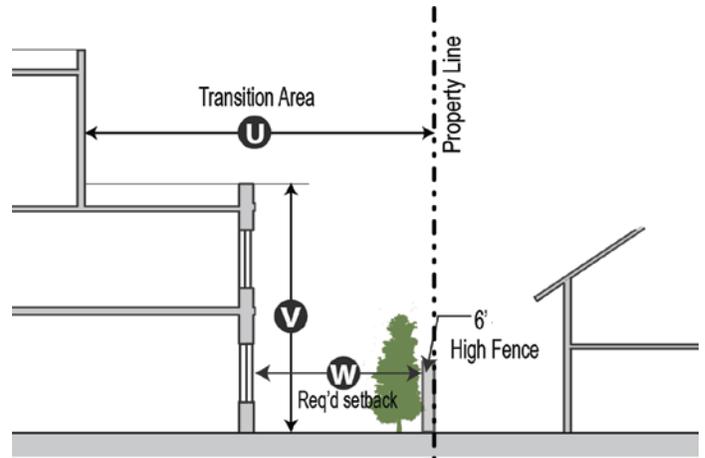
Civic/Open Space Frontage	<ul style="list-style-type: none"> Min. 3' behind the building façade line along that frontage; or Shall be located behind the principal building along that street frontage 	<p>O</p> <p>P</p>
General Frontage	<ul style="list-style-type: none"> Min. 6' behind the property line along that street; or At or behind the building façade line along that frontage 	<p>O</p> <p>P</p>
Side / Rear	<ul style="list-style-type: none"> 4' min; no parking permitted on driveway, OR 20' min; parking permitted on driveway 	<p>Q</p> <p>R</p>
Alley Fence	<ul style="list-style-type: none"> 4' min from edge of typical pavement or 8' min from edge of typical paving where above ground franchise equipment exists 	<p>S</p> <p>T</p>

(f) Residential Transition Standards

The following transition standards shall apply to all new multi-family, mixed-use and non-residential building construction and all upper story additions to existing buildings located adjacent to existing single-family detached lot(s). This requirement shall NOT apply if an alley or other similar right-of-way separates the subject lot and the existing single-family detached residential lot(s).

i. Transition Area	20' min.	U
ii. Max. Building Height at within Transition Area	2 stories or 25'	V
iii. Required setback	Min. 10'	W

A Residential Transition Area fence (6 feet high) shall be required when adjacent to an existing single-family detached residential lot and shall be optional for all other adjacencies. The required fence shall NOT be chain link or vinyl. A 6-foot wide landscape buffer with evergreen shrubs planted at 3' on center and 6' min. in height at maturity shall also be required to be planted within the landscape buffer parallel to the SF-residential lot line. (see surface parking setbacks illustration)



7.0 Building Design Standards

7.1 Purpose and Intent

The Building Design Standards for the TRC shall establish a coherent character and encourage enduring and attractive development. Site and/or building plans shall be reviewed by the JDA for compliance with the standards below (see Table 7-1 for more detail).

The key design principles establish essential goals for the redevelopment within the Plan Area to be consistent with the vision for a vibrant mixed-use development with a range of commercial, employment and residential uses serving the neighborhoods and the region. Buildings shall be located and designed so that they provide visual interest and create enjoyable, human-scaled spaces. The key design principles include:

- (a) New and redeveloped buildings and sites shall utilize building and site elements and details to achieve a pedestrian-oriented public realm with glazing, shading and shelter;
- (b) Design compatibility is not meant to be achieved through uniformity, but through the use of variations in building elements to achieve individual building identity;
- (c) Building facades shall include appropriate architectural details and ornament to create variety and interest;
- (d) Open space(s) shall be incorporated to provide usable public areas integral to the environment; and
- (e) Increase the quality, adaptability, energy efficiency, sustainability, and resilience in Arden Hills' building stock.

Table 7-1: Review Process for Building Design Standards

Applicable Subsection	7.2 Building Orientation & Entrances	7.3 Façade Composition	7.4 Building Materials	7.5 Shading Requirements	7.6 Gateway Overlay District	7.7 Design of Auto-Oriented Site Elements	7.8 Design of Parking Structures
Site Plan Review	●		●		●	●	●
Building Permit Review	●	●	●	●		●	●

7.2 Building Orientation and Entrances

- (a) Buildings shall be oriented towards Pedestrian Priority Frontages, where the lot has frontage along Pedestrian Priority Frontages. If a building has no frontage along a Pedestrian Priority Frontage, then it shall front a Pedestrian-Friendly Frontage. All other buildings may be oriented towards General Streets or Civic/Open Spaces.
- (b) Primary entrances to buildings shall be located on the street along which the building is oriented (See Figure 7-1). At intersections, corner buildings may have their primary entrances oriented at an angle to the intersection. Building entrances shall be provided for all separate ground floor commercial use tenant spaces that are located along a Pedestrian Priority or Pedestrian-Friendly frontage.
- (c) All primary entrances shall be oriented to the public sidewalk for ease of pedestrian access and entrances may be placed on the corner of the building in order to serve

both the sidewalk and the parking lot. Secondary and service entrances may be oriented to parking areas or alleys.

- (d) Primary Entrance Design: Primary building entrances along Pedestrian Priority Frontages and Pedestrian-Friendly Frontages shall consist of at least two (2) of following design elements so that the main entrance is architecturally prominent and clearly visible from that street (see Figures 7-2):
 - i. Architectural details such as arches, friezes, awnings, canopies, arcades, tile work, murals, or moldings; or
 - ii. Integral planters or wing walls that incorporate landscape or seating elements; or
 - iii. Prominent three-dimensional, vertical features such as belfries, chimneys, clock towers, domes, spires, steeples, towers, or turrets.

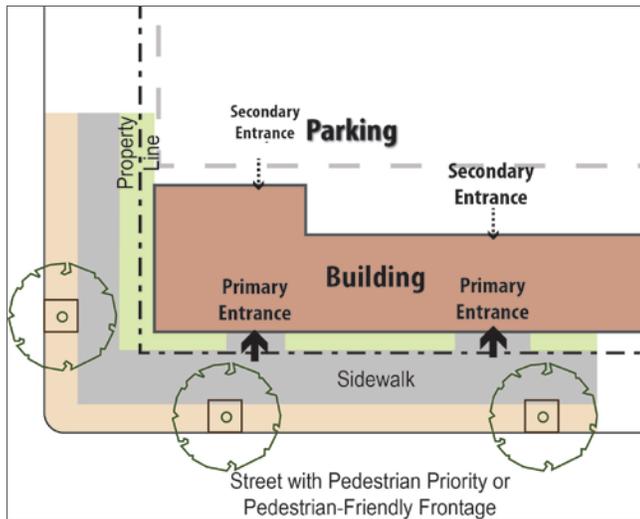


Figure 7-1 Figure showing required building orientation and location of primary entrances





Figures 7-2 Examples of Primary Entrance Designs

7.3 Façade Composition

(a) Commercial Use, Mixed-Use and Large and Medium Multi-Family Buildings:

(i) Facades greater than 60' in length along all Pedestrian Priority Frontage, Pedestrian-Friendly Frontages and Civic/Open Spaces shall meet the following façade articulation standards:

1. Include facade modulation such that a portion of the facade steps back or extends forward with a depth of at least 24 inches (see Figure 7-3).
2. The distance from the inside edge of a building projection to the nearest inside edge of an adjacent projection shall not be less than 20 feet and not greater than 60 feet (see Figure 7-3).

(ii) All other facades shall be articulated by at least one discernable architectural element every 20 feet. Such architectural elements include, but are not limited to:

1. Changes in material, color, and/or texture either horizontally or vertically at intervals not less than 20 feet and not more than 60 feet (see Figure 7-3); or
2. The construction of building entrances, bay windows, display windows, storefronts, arcades, façade relief, panels, balconies, cornices, bases, pilasters, or columns (see Figures 7-4).

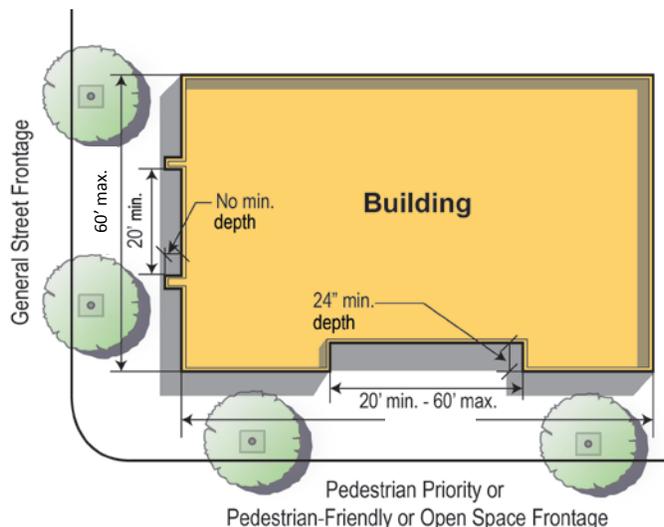


Figure 7-3 Illustration showing building articulation requirement



Figures 7-4 Images showing examples of appropriate building articulation

(iii) Façade Transparency Required:

1. All facades shall meet the minimum requirement for façade transparency (percentage of doors and windows) as established in Table 7-2 below.
2. In order to reduce building heat loss, a maximum of 40 percent transparency coverage is recommended for the upper floors of northern facing facades.

Table 7-2 Required Minimum Façade Transparency by Façade Frontage Type

Façade Frontage Type →	Pedestrian Priority or Pedestrian-Friendly Frontage	General Frontage	All other facades
Commercial Use or Mixed-Use Buildings			
Ground Floor	50% (min.)	None	None
Upper Floor(s)	25% (min)	None	None
Residential Use Buildings			
Ground Floor	25% (min.)	None	None
Upper Floor(s)	20% (min.)	None	None



Images showing appropriate transparency required along Pedestrian Priority and Pedestrian-Friendly Frontages

(b) Single-Family and Small Multi-Family Use Buildings

- (i) At least one of the following shall be added along single-family building facades to add pedestrian interest along the street:
 - porches,

- stoops,
 - eaves, or
 - balconies
- (ii) Attached townhome facades shall have variation in architectural features and paint/siding between adjacent units. Variations of architectural features may include one of the following:
- porches,
 - stoops,
 - eaves,
 - windows or doorway treatments or framing, or
 - other architectural features acceptable as variation by community development staff.
- (iii) Windows and Doors: All building facades of single-family use buildings shall meet the transparency requirements established in Table 7-2.
- (iv) In a detached single-family development, along each block face a minimum of five (5) façade designs or styles shall be required. No home shall have the same design, style, or paint/siding as the homes immediately adjacent or across the street. The following design standards shall be met:
1. Roofing materials visible from any public right-of-way shall vary materials in each design.
 2. Variation to façade designs or styles shall be required through changes to size and location of windows, doorways, or changes in eave lines and massing.
 3. In an effort to decrease monotony of design, changing the paint color or material type will not be considered a different design or style.
- (v) Single Family and Small Multi-Family buildings shall not have more than three materials used on the exterior of the structure. Of the three materials a primary material shall be used for a minimum of 60 percent of facades facing a public street. Primary materials shall be one of the following:
1. Masonry (brick, stone, cast stone, or other durable masonry material; any masonry product shall be mortared in place)
 2. Cementitious fiber clapboard with a minimum 50-year warranty
 3. Wood, or
 4. Other durable material approved by the JDA
- (vi) Secondary materials may be used up to 40 percent of facades facing a public street. Secondary materials shall be one of the following:
1. A primary building material, or
 2. Architectural metal with matte finish, or
 3. Stucco utilizing a 3-step process of application.
- (c) A recommended palette for exterior building colors is included in Attachment 6. Fluorescent colors are prohibited. The colors of roofs, trim and siding, and accents shall work together to create a unified whole.
- (i) Accent colors shall be used on no more than 10% of any façade. No large expanses such as panels shall be painted in accent colors.

- (ii) A darker value than façade colors is recommended for roofing materials. White roofs are prohibited on pitched roof buildings.
- (d) Best practices for bird safety are recommended as described in Attachment 7.



Residential buildings with porches, fencing, balconies and stoops to add interest along the street.

7.4 Non-Residential, Mixed-Use, and Large and Medium Multi-Family Residential Building Materials

- (a) On Pedestrian Priority and Pedestrian Friendly Frontages, primary building structures shall have a minimum of 60 percent of the following primary building materials:
 - (i) Masonry (brick, stone, cast stone, etc. that is mortared in place)
- (b) On General Frontages, primary building structures shall have a minimum of 40 percent of the following primary building materials:
 - (i) Masonry (brick, stone, cast stone, etc. that is mortared in place)
- (c) Secondary materials shall only be used for up to 40 percent of the primary building façade for Pedestrian Priority and Pedestrian Friendly frontages. On General Frontages, secondary materials may be used for up to 60 percent of the primary building façade.
 - (i) Secondary materials include:
 1. Architectural metal with matte finish
 2. Cementitious fiber clapboard with a minimum 50-year warranty

- 3. Exterior Insulation Finish System (EIFS), on all frontages shall not be used on the ground floor level. Use of EIFS is limited to 10% per total façade area.
- 4. Stucco utilizing a 3-step process of application.
- (d) Accessory buildings shall maintain the same building materials as the primary building.
- (e) For tilt-up wall construction, a veneer system of materials shall be used to come into conformance with the above listed materials.
- (f) Canvas awnings are not permitted.

7.5 Shading Requirement: Shading of public and publicly accessible sidewalks, especially sidewalks located along Pedestrian Priority and Pedestrian-Friendly frontages shall be important to implementing the vision for walkable mixed-use in the Plan Area. Shading may be achieved through any combination of canopies, awnings, street trees and other similar devices. To this end, the following standards shall apply (see Figure 7-5):

- (a) Shaded sidewalks shall be provided alongside at least:
 - (i) 50 percent of all building facades with Pedestrian Priority Frontage designation per the Regulating Plan (Attachment 1).
 - (ii) 50 percent of all building facades with frontage along an off-street surface parking lot
- (b) When adjacent to a surface parking lot, the shaded sidewalk shall be raised above the level of the parking lot by way of a defined edge, such as a curb. ADA ramps along the building must also be shaded.
- (c) A shaded sidewalk must meet the following requirements:
 - (i) Along a street, a shaded sidewalk shall comply with the applicable sidewalk standards for its designated street type. If not otherwise required, the shaded sidewalk shall provide trees planted no more than 50 feet on center.
 - (ii) Along any surface parking adjacent to the building (both off-street or on street), the shaded sidewalk shall consist of a minimum 5 foot clear zone and 5 foot planting zone, planted with trees no more than 50 feet on center, or a 5 foot clear zone with a minimum 5 foot wide over- head weather protection.
 - (iii) Building entrances along Pedestrian Priority and Pedestrian-Friendly frontages shall be located under a shade device, such as an awning or portico.



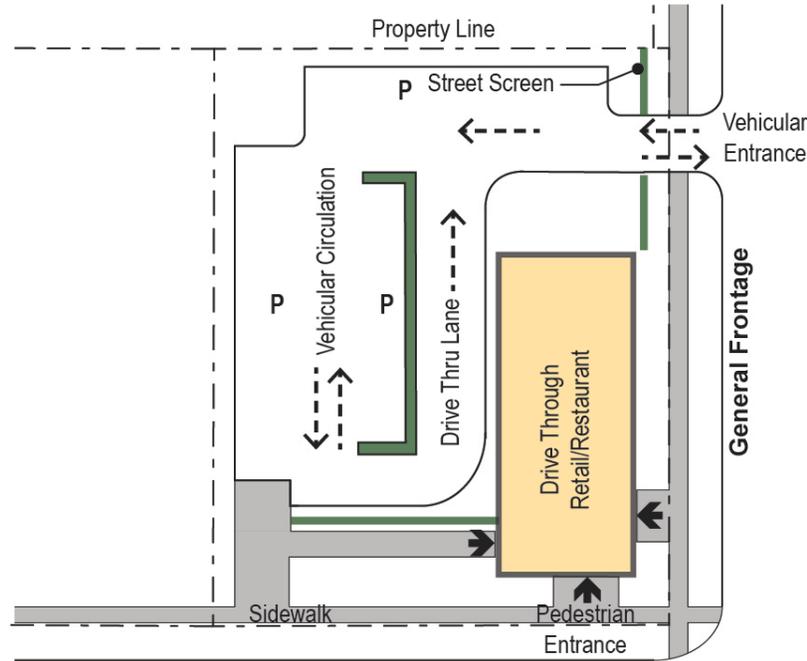
Figure 7-5 Images showing examples of shading along sidewalks

7.6 Gateway Overlay District: Given the visual importance of certain entrances and gateways to the site, advanced architectural elements or landscaping features are required to be provided for properties within the Gateway Overlay District as identified on the Regulating Plan (Attachment 1).

- (a) Properties within the Town Center, Retail Mixed-Use, or Office Mixed-Use Districts shall meet the following standards for the Gateway Overlay District:
 - (i) Corner buildings located at a street intersection must incorporate a distinctive architectural feature as part of the building, such as a tower, cupola, turret, or rotunda (see Section 6.1(b)(ii) for specifications and restrictions).
 - (ii) Principal building structures shall have a minimum of 75 percent of the required primary building materials listed in Section 7.4(a)(i).
 - (iii) Commercial developments greater than 10 acres in size shall provide a prominent gateway monument at the entrance to the development with integrated landscaping.
- (b) Properties within the Flex Office or Neighborhood Transition Districts shall meet the following standards for the Gateway Overlay District:
 - (i) A landscaped buffer with a minimum width of 20' shall be provided along all frontages on public streets.
 - (ii) Landscaped buffers shall include a diversity of landscaping materials, including shade, evergreen, and/or ornamental trees, shrubs, and annual and perennial plants. Landscaping shall be a minimum of 50 percent opaque at maturity.

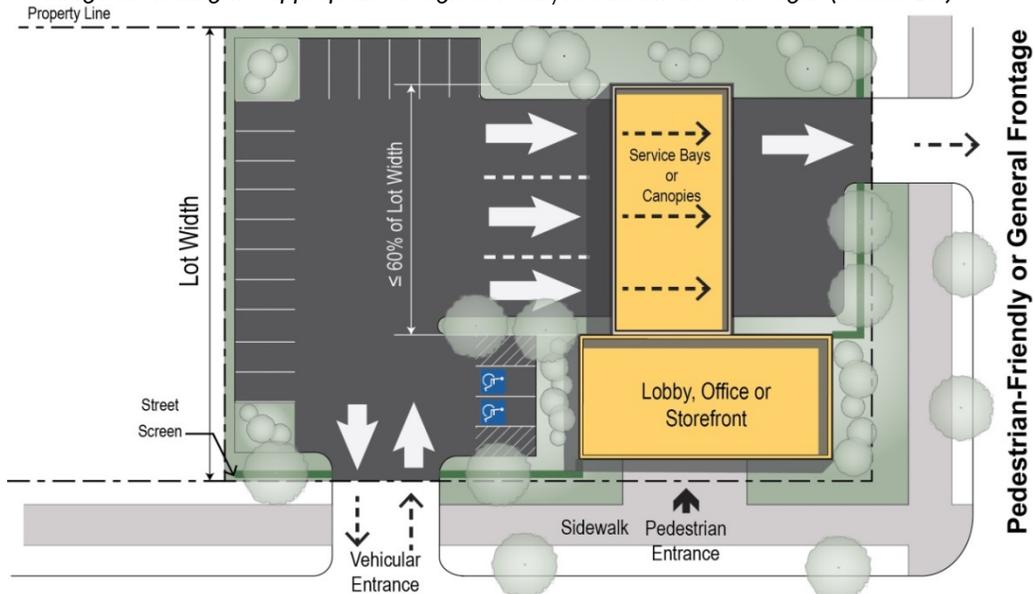
7.7 Design of Automobile Related Building and Site Elements

- (a) Where permitted under Section 5 of this Code, drive-through lanes, auto service bays, and gas station canopies for commercial uses shall not be located with frontage along any Pedestrian Priority Frontage. Drive-through lanes may be permitted along Pedestrian-Friendly or Spine Road frontages only if the property has no General or Alley frontage. Drive-through lanes, auto service bays, and gas station canopies shall be hidden behind a 3 feet high Street Screen along both Pedestrian-Friendly and General frontages (see illustrations below). The Street Screen shall be made up of (i) a living screen or (ii) a combination living and primary building material screen (See Section 10.4 for details).
- (b) No more than 60% of a lot's frontage along a Pedestrian-Friendly or Spine Road frontage may be dedicated to drive through lanes, canopies, service bays, and other auto-related site elements. There shall be no such limitation along General or Alley frontages and along highway frontage roads.



Pedestrian Priority or Pedestrian-Friendly Frontage

Image illustrating the appropriate design of retail/restaurant drive-throughs (Corner Lot)



Pedestrian Priority or Pedestrian-Friendly Frontage

Image illustrating the appropriate design of auto-related site elements (Gas stations, auto-service uses, and bank drive-throughs)

- (c) Any automobile related retail sales or service use of a site or property with Pedestrian Priority, Pedestrian-Friendly, or Spine Road frontage designation shall have a primary building entrance along its Pedestrian Priority Frontage. A primary building entrance may be along a building's Pedestrian-Friendly or Spine Road Frontage only if the site has no Pedestrian Priority frontage designation.
- (d) Drive through access (driveways only) may be from a Pedestrian Priority Frontage only if the lot has no access to any Pedestrian Friendly or General Frontage. Drive

through access may be from a Pedestrian-Friendly or Spine Road Frontage only if the lot has no access to any General Frontage. In cases where drive through access is provided from a Pedestrian Priority Frontage, a joint access easement shall be required to adjoining properties providing alternative access to a Pedestrian-Friendly or General Frontage.

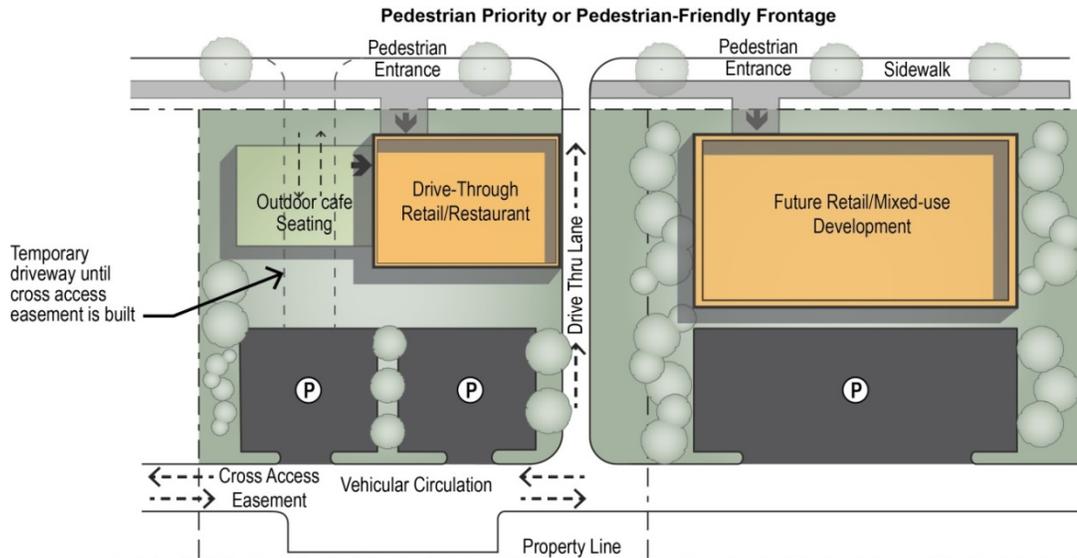
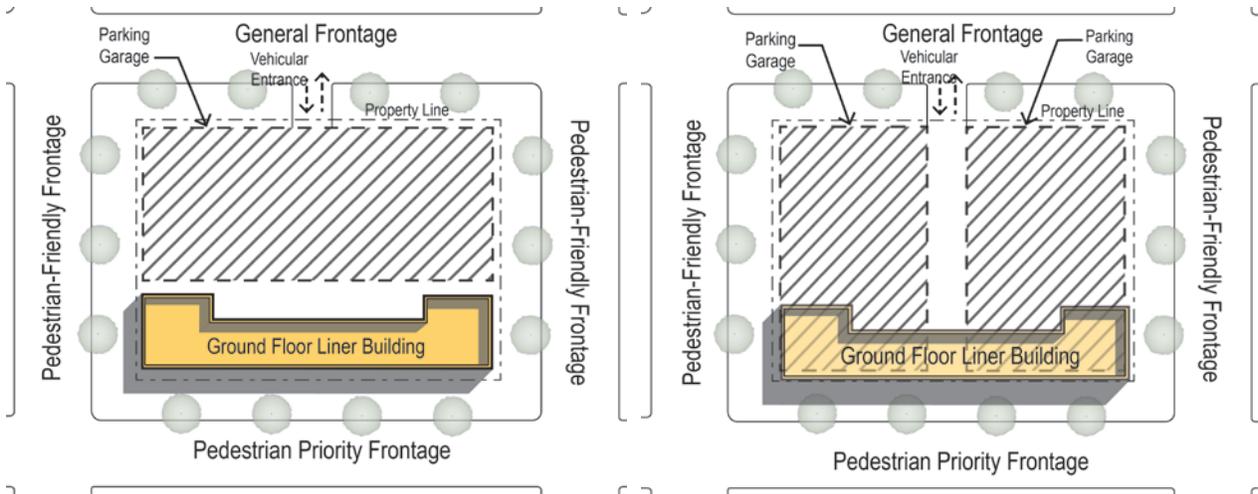


Image illustrating the appropriate design of retail/restaurant drive throughs (Interior Lot)

- (e) All off-street loading, unloading, and trash pick-up areas shall be located along alleys or General Frontages only unless permitted in the specific building form and development standards in Section 6 of this Code. If a site has no General Frontage or Alley access, off-street loading, unloading, and trash pick-up areas may be permitted along a Pedestrian-Friendly or Spine Road Frontage.
- (f) All off-street loading, unloading, or trash pick-up areas shall be screened using a Street Screen that is at least as tall as the trash containers and/or service equipment. The Street Screen shall be made up of (i) a living screen or (ii) a combination living and primary building material screen.

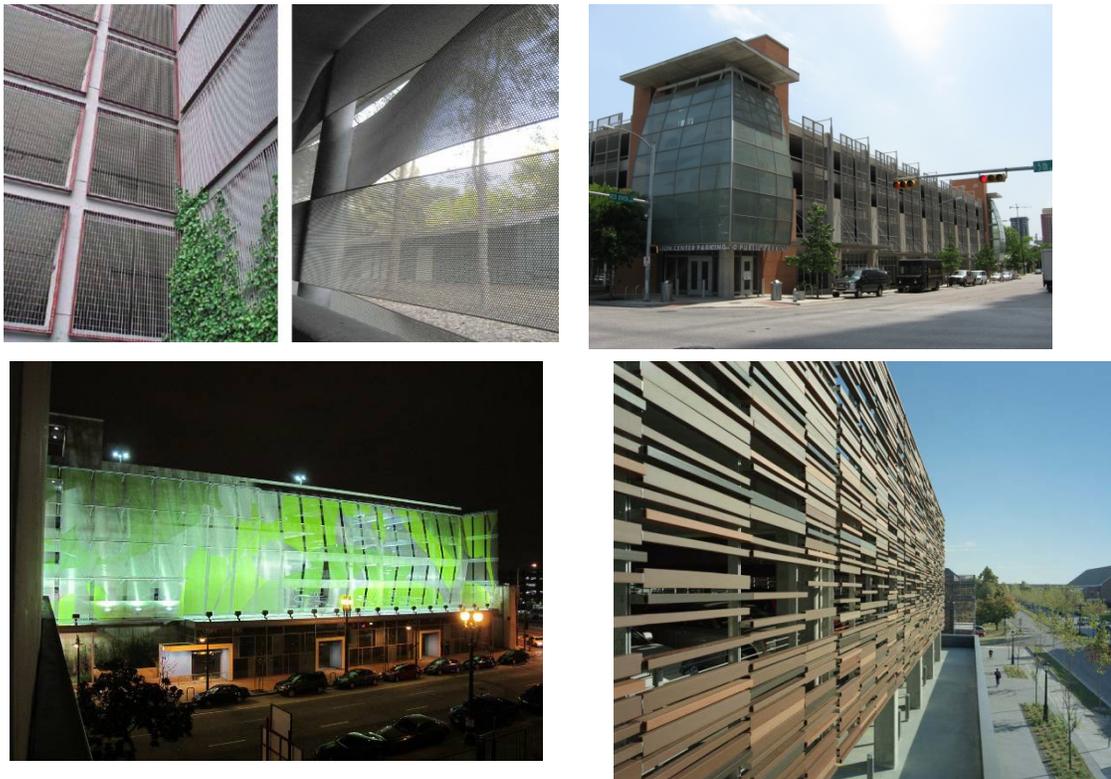
7.8 Design of Parking Structures

- (a) All ground floors of parking structures located on Pedestrian Priority frontages shall be constructed in order to accommodate ground floor retail/commercial uses to a minimum depth of 24 feet.
- (b) To the extent possible, the amount of Pedestrian Priority frontage devoted to a parking structure shall be minimized by placing the shortest dimension(s) of the parking structure along the Pedestrian Priority frontage edge(s) (see Figures 7-8 for illustrations below).



Figures 7-8 Allowed Parking Garage Configurations

- (c) Where above ground structured parking is located at the perimeter of a building with Pedestrian Priority Frontage, it shall be screened in such a way that cars on all parking levels are completely screened from view (see Figures 7-9 for illustrative images). Architectural screens shall be used to articulate the façade, hide parked vehicles, and shield lighting. Ramps within parking garages shall not be visible from any Pedestrian Priority Frontages. Ramps shall not be located along the exterior perimeter of the parking structure.



Figures 7-9 Illustrative Examples of Parking Garage Screening

- (d) Ground floor façade treatment (building materials, windows, and architectural detailing) shall be continued to the second floor of a parking structure along all Pedestrian Priority Frontages (see Figures 7-10).



Figures 7-10 Images showing required façade treatment of parking garages along Pedestrian Priority Frontages

- (e) When parking structures are located at street intersections, corner emphasizing elements (such as towers, pedestrian entrances, signage, glazing, etc.) shall be incorporated.
- (f) Parking structures and adjacent sidewalks shall be designed so pedestrians and bicyclists are clearly visible (through sight distance clearance, signage, and other warning signs) to entering and exiting automobiles.

8.0 Street Design Standards

- 8.1 Purpose and Intent:** The Master Plan Vision for the TRC recognizes the importance of providing adequate public infrastructure, which includes an ultimate Street Network that maximizes connectivity, and other needed infrastructure to serve the vision for redevelopment within the Plan Area.

Street design and connectivity is envisioned to support and balance automobile, bicycle, and walking trips in addition to becoming the “living” space for development. The “living” nature of streets will not only serve private redevelopment, but the community at large and the people who live in and use it. This section establishes context sensitive standards for Street Design and Connectivity.

- 8.2 Street Designation Categories:** In order to service multiple modes of transportation within an appropriate redevelopment context, streets within the TRC are designated under two (2) major categories:

- (a) **Street Classification:** The Street Classification designation establishes standards for the actual cross-section of the street itself. The Street Classification includes information on automobile, bicycle, pedestrian, and parking accommodation. It typically addresses the space allocation within the public right-of-way and its emphasis towards different modes of transportation. The TCAAP Street Type Plan (Attachment 5) identifies the Street Classification designations within the Plan Area and Attachment 4 provides cross sections for the different Street Classifications.
- (b) **Street Network:** In addition to Street Classification designations, streets in plan are identified as Required streets to implement the ultimate street network in the Master Plan Vision. The TCAAP Street Type Plan (Attachment 5) illustrates the Street Network within the TRC.
1. Required Streets – these are mainly existing, improved or new streets that are needed to implement the ultimate street network envisioned in the Vision for the TRC. They shall be mandatory at the time of redevelopment including the requirement to dedicate right-of-way as identified in the Regulating Plan. The alignment of new Required Streets may be modified per Permitted Adjustments in Section 3.3 of this Code.

- 8.3 Project Circulation Plan:** A Project Circulation Plan must be submitted with a site plan or subdivision application (whichever comes first) for an area of four (4) acres or larger that is subject to the requirements of this section. The Project Circulation Plan shall be developed and reviewed for its consistency with this section and the Regulating Plan, which illustrates proposed locations for new and improved streets within the Plan Area. Required streets on the Regulating Plan shall be mandatory and their alignments may be adjusted per Section 3.3 Permitted Adjustments.

- (a) A Project Circulation Plan must demonstrate:
1. How the proposed circulation meets the intent of the Master Plan Vision for redevelopment of TCAAP;
 2. How the on-site circulation system integrates with existing and planned streets, bicycle and pedestrian facilities, and trails in the surrounding area;
 3. How new street alignments conform with the Regulating Plan or how modifications from the Regulating Plan, in terms of street placement, alignment, and design are consistent with the intent of this Code;
 4. How new street design conforms with the street cross section standards in Attachment 4;

5. How the plan considers all modes of transportation including walking, biking, and automobiles; and
 6. How the plan provides adequate linkages between different destinations within the Plan Area.
- (b) For a subdivision, a private restrictive covenant depicting the Project Circulation Plan shall be recorded and referenced on the plat. The covenant may be amended if the JDA approves a revision to the Project Circulation Plan as authorized under this section.
- (c) **Approvals:** A Project Circulation Plan may only be approved by the JDA.
1. The Project Circulation Plan shall create interconnected blocks bounded by streets to the extent feasible. The JDA may approve a Project Circulation Plan containing blocks bounded by Highway right-of-way, subdivision boundary lines, or natural and infrastructure features if no reasonable alternatives are available.
 2. When required, revisions to the Project Circulation Plan may be approved by the JDA after considering the circulation characteristics of a proposed development plan, the need for access to adjoining properties, phasing of a larger-scaled project, and the context of surrounding development.
 3. The JDA, with the recommendation of the Arden Hills Public Works and Community Development Departments, may waive the requirement for a Project Circulation Plan through the Permitted Adjustment process. This is permitted if the JDA finds that a plan is not necessary due to the nature of the proposed development on the site, the existence of surrounding incompatible development, or other factors unique to the property which make strict compliance unfeasible.
 4. A subdivision or site plan may not be approved if the Project Circulation Plan is not approved.
 5. **Joint Access and Public Cross-Access Easements:** If necessary to ensure access management goals along the Spine Road and to meet the intent of the recommended alley/public cross-access easements as indicated on the Regulating Plan, the JDA may require joint use driveways or public cross-access easements within the site to adjacent properties and/or easements.

8.4 Street Standards: Attachment 4 shall establish standards for all elements within the public right-of-way including travel lane(s), on-street parking, bicycle accommodation, streetscape/parkway standards, and sidewalk standards. The process and standards in the Arden Hills Public Works Design Manual shall apply to the extent that they do not conflict with the design and context standards in Attachment 4 and the Master Plan Vision for streets in TCAAP. Landscaping within the public right-of-way shall be per standards in Section 10 in the TRC. Attachment 4 provides recommended cross sections for public streets within the TRC based on available right-of-way and intended development context per the Master Plan Vision.

9.0 Open Space Standards

9.1 Open Space Approach: The Master Plan Vision for TCAAP recognizes the importance of providing a network of open spaces with a multitude of passive and active recreational opportunities. These opportunities are to be accommodated in a variety of spaces ranging from large scale open spaces to small scale pocket parks located within the Plan Area. The open space network will be serviced by an interconnected network of trails and paths for pedestrians and bicyclists alike, providing desired amenities for future residents and visitors alike.

The approach to Open Space facilitates the implementation of the Master Plan Vision for the TRC. This vision for redevelopment is based on the City of Arden Hills’ goal to create a comprehensive, maintained and interconnected system of parks, pathways and open spaces, as well as a balanced program of recreational activities for residents of all ages, incomes and abilities. The Open Space approach recognizes that the development context, with varying density and building types, is required to ensure quality open spaces that serve both recreational and placemaking goals of the Master Plan.

9.2 Required Open Space Designations: This section establishes standards for Open Space within the TRC. The TRC Regulating Plan (Attachment 1) designates areas for required Open Spaces within the TRC. The detailed Open Space Standards for each type are included in Attachment 2. These standards include general character, design, typical size, frontage requirements, and typical uses.

(a) Required Open Spaces are the areas shown on the Regulating Plan with specific locations of future Open Spaces (including parks, plazas, greens, and squares). These spaces have been identified on the Regulating Plan due to the certainty of their location within the context of the overall Plan Area. Such required spaces shall be publicly accessible open spaces. The specific location of parks, particularly in the Hill and Creek neighborhoods, are likely to change based on developer input, but will need to include the amenities identified in the TCAAP Master Parks Plan.

9.3 Water Infrastructure Designation: The Natural Resources Corridor within the TCAAP Site Redevelopment will be designed with the goal of maximizing compatibility and functionality of regional storm water, wetland mitigation, the Rice Creek re-meander, floodplain restoration, and groundwater requirements. An additional goal is to provide visual and active and passive recreational features to support adjacent land uses. The Natural Resources Corridor is intended to be an amenity to the site’s uses and users.

9.4 Permeable Area Requirement:

(a) All development is required to maintain a permeable ground area per Table 9-1. In limited areas, the JDA may grant flexibility on these requirements in accordance with MPCA guidelines.

Table 9-1 Permeable Area Requirements

<i>District</i>	<i>Min Pervious Lot Area</i>
Neighborhood	40%
Transition	20%
TC, Retail, Office	10%
Flex Office, CC	25%

(b) Permeable ground area shall be on-site within the parcel limits of the development.

(c) Up to 100% of Private Common Open Space may count towards the permeable ground area requirements if the materials and ground cover for the Private Common Open Space meets the standards of permeability.

- (d) Street screening for parking lots that utilize vegetative screening may count towards the permeable ground area requirements.
- (e) Permeable materials include:
 - i. Any natural vegetation or landscaping that allows direct water infiltration
 - ii. Permeable paving materials designed and engineered to allow direct water infiltration. Any new material not listed in any best practice guides for permeable paving will be evaluated and considered by Community Development Staff and may be approved by the JDA. Permeable paving materials shall not count towards more than 20 percent of the total permeable area requirements.
 - iii. Any material that requires a sheet flow and collection system for water infiltration shall not be considered permeable cover.
- (f) Design and placement:
 - i. In Town Center, Retail Mixed-Use and Office Mixed-Use Zones, permeable area that is adjacent to or visible from the public right-of-way shall be designed in context with the public realm and not interrupt the walkable form of the public realm. An interruption may be considered any design that blocks pedestrian walkability and clear zones, blocks views of entryways and windows, or blocks access to any ingress/egress of a building.
 - ii. In the Neighborhood Transition, Neighborhood, Flex Office or Campus Commercial Zones, any yard or buffer space on site shall be designed in context with the primary building(s) and shall not block views or ingress/egress access to the buildings.

9.5 Open Space Classification: For the purposes of this Code, all open space shall fall into one of the following 3 major classes:

- (a) **Public Open Space:** Open air or unenclosed to semi-unenclosed areas intended for public access and use and located per the Regulating Plan (Attachment 1). These areas range in size and development and serve to compliment and connect surrounding land uses and Code requirements.
- (b) **Private Common Open Space:** A privately owned outdoor or unenclosed area, located on the ground or on a terrace, deck, porch, or roof, designed and accessible for outdoor gathering, recreation, and/or landscaping and intended for use by the residents, employees, and/or visitors to the development. This may or may not be accessible to the public, but shall be maintained privately.
- (c) **Private Personal Open Space:** A privately owned outdoor or unenclosed area, located on the ground or on a balcony, deck, porch, or terrace and intended solely for use by the individual residents of a condominium or multi-family dwelling unit.

9.6 Open Space Requirements

- (a) All non-residential development shall provide 4.0 sq.ft. of Private Common Open Space for every 100 sq. ft. of non-residential building space or fraction thereof. This standard shall only apply to site plans two (2) acres in size or larger.
- (b) All residential development of five (5) attached dwelling units or more, on a single parcel, shall meet the Private Common Open Space standards established in this Section. Table 9-2 establishes the Private Common Open Space requirement based on the proposed intensity of residential development.

Table 9-2 Private Common Open Space Requirements

Residential Density (dwelling units per acre)	Private Common Open Space Standard Proposed (area of private common space per dwelling unit)
0 – 4 DU / acre	Not required
5 – 19 DU / acre	Provide minimum of 160 sf per dwelling unit
20 – 29 DU / acre	Provide minimum of 120 sf per dwelling unit
30 DU / acre or greater	Provide minimum of 80 sf per dwelling unit

- (c) All residential development with seven (7) or more attached units within the TRC shall also meet the Private Personal Open Space standards established in this Section. Table 9-3 establishes the Private Personal Open Space requirement based on the proposed intensity and type of residential development. Nursing Home and Assisted Living residential uses and Live-work units are exempted from Private Personal Open Space requirements.

Table 9-3 Private Personal Open Space Requirements

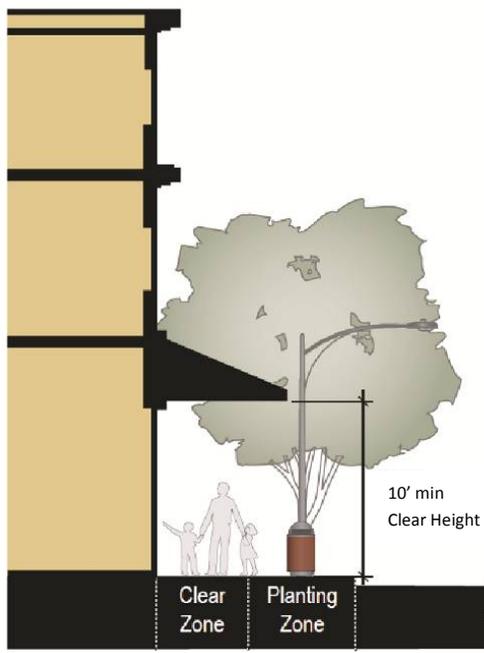
Residential Density (dwellings per acre)	Private Personal Open Space Standard Proposed
7 - 19 DU / acre	Ground floor units located on a Pedestrian Friendly or Pedestrian Priority Frontage: all dwelling units shall have private personal open space including one of the following: Porch, Stoop, Patio, or Deck or combination Upper floor units: 60% of all dwelling units shall have a balcony.
20 – 29 DU / acre	Ground floor units located on a Pedestrian Friendly or Pedestrian Priority Frontage: all dwelling units shall have one of the following: Porch, Stoop, Patio, or Deck Upper floor units: 60% of all dwelling units shall have a Balcony.
30 or greater DU / acre	Ground floor dwelling units located on a Pedestrian Friendly or Pedestrian Priority Frontage: All units shall include one of the following: Porch, Stoop, Patio, or Deck Upper floor dwelling units: 50% of all upper dwelling units shall have a Balcony.

- (d) Attachment 2 shall provide the palette of open space types.

10.0 Streetscape and Landscape Standards

10.1 Sidewalks. Publicly accessible sidewalks are required for all development under this Code and shall meet the standards of Table 10-1 and shall be based on the Street Classification per Attachment 4. The minimum sidewalk width requirement shall apply regardless of the available right-of-way. If necessary to meet the required sidewalk width, the sidewalk shall extend onto private property to fulfill the minimum requirement, with a permanent public access easement provided. Sidewalks shall consist of two zones: a planting zone located adjacent to the curb, and a clear zone (see Figures 10-1).

- (a) **Planting Zone:** The planting zone is intended for the placement of street trees, if required, and street furniture including seating, street lights, waste receptacles, fire hydrants, traffic signs, newspaper vending boxes, bus shelters, bicycle racks, public utility equipment such as electric transformers and water meters, and similar elements in a manner that does not obstruct pedestrian access or motorist visibility (see Figure 10-1). This zone may be planted with vegetation along the street or paved to match the grade of the clear zone. Landscaping and streetscaping shall follow the City of Arden Hills Street Design Manual for details and process.
- (b) **Clear Zone:** The clear zone shall be hardscaped, shall be located adjacent to the planting zone, shall comply with ADA and Minnesota Accessibility Code and shall be unobstructed by any permanent or nonpermanent element for the required minimum width and a minimum height of ten (10) feet (see Figure 10-1). Accessibility is required to connect sidewalk clear zones on adjacent sites.
- (c) **Fee In-Lieu Option:** An applicant may opt to pay a proportional fee in-lieu for the required sidewalk if the development project is phased or the sidewalk improvements need to match the timing of a programmed City capital project affecting that street frontage.



Figures 10-1 Illustrations delineating the Streetscape Zone elements

Table 10-1 Required Public and Publicly Accessible Sidewalk Standards

Street Classification	Spine Road (Various)	Town Street	Collector Road (Various)	Neighborhood (Various)
Standard				
Min. Streetscape Zone width (includes planting zone and clear zone) (feet)	Varies	11' (two-sides)	11' (two-sides)	11' (two-sides) 6' (one-sided sidewalk; planting zone on side without sidewalk)
Min. Planting Zone width (feet)	Varies	6'	6'	6'
Min. Clear Zone (feet)	Varies	5' (within public access easement)	5' (within public access easement)	5' (one-side min.)
Street Trees Required (see Section 10.2 for standards)	Yes	Yes	Yes	Varies

10.2 Street Trees and Streetscape:

- (a) Street trees shall be required per Attachment 4 within the Planting/Furnishings Zone.
- (b) Street trees shall be centered within the Planting Zone and be planted a minimum of 3 feet from the back of curb.
- (c) Spacing shall be an average of 40 feet on center (measured per block face) along all Streets as required by Attachment 4.
- (d) Requirements for minimum caliper size and height are included in the Public Works Design Manual. Each tree shall be planted in a planting area no less than 36 square feet.
- (e) Preferred street tree species are identified in the Arden Hills Public Works Design Manual. Arrangement of species shall be interspersed in order to prevent wholesale loss of street trees in the case of disease.
- (f) Area between the building facade and property line or edge of existing sidewalk along Pedestrian Priority Frontages shall be such that the sidewalk width shall be a minimum of 10' (with public access easement if necessary) with the remainder of the setback area paved flush with the public sidewalk. Sidewalk cafes, landscaping within tree-wells or planters may be incorporated within this area. (see Illustration in Section 6.1)
- (g) Placement of trees shall not impede the clear vision area as required in Section 1325.05, Subsection 1 of the AHC.

10.3 Single-Family Landscaping and Tree Requirements

- (a) The following table sets the required trees and landscaping requirements for single-family residential uses per lot size:

Table 10-2 Single-Family Landscaping and Tree Requirements

Lot Size	Requirement
Less than 40 feet wide	40 percent of permeable area requirement shall be shrubbery or perennial; no on-site trees required.
40 feet wide to 75 feet wide	20 percent of permeable area requirement shall be shrubbery or perennial; 2 trees required on-site.
Over 75 feet wide	10 percent of permeable area requirement shall be shrubbery or perennial; 3 trees required on-site.

10.4 Screening Standards

- (a) **Street Screen Required:** Any surface parking lot with frontage along a public right of way shall be defined by a 3-foot high Street Screen (see Figure 10-2). Furthermore, along all streets (except alleys), service areas and ground-mounted utility equipment shall be screened in such a manner that the service area shall not be visible to a person standing on the property line on the far side of the adjoining street (see Figure 10-3). Required Street Screens shall be of one of the following:
- The same building material as the principal structure on the lot or
 - A vegetative screen composed of shrubs planted to be a minimum of 75 percent opaque at maturity, or
 - A combination of the two.
- i. Street Screens cannot block any required sight triangles along a cross street or driveway.
- ii. Street Screens may include breaks to provide pedestrian access from any surface parking or service area to the public sidewalk.

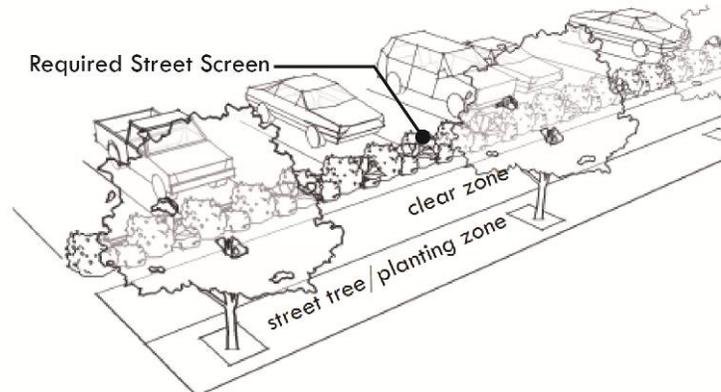


Figure 10-2 Illustration showing required Street Screen along all frontages without a Building within the BTZ

- (b) **Screening of Roof Mounted Equipment:** All roof mounted mechanical equipment (except solar panels) shall be screened from view of a person standing on the property line on the far side of the adjoining street (see Figure 10-3). The screening material used shall be the same as the primary exterior building material used.

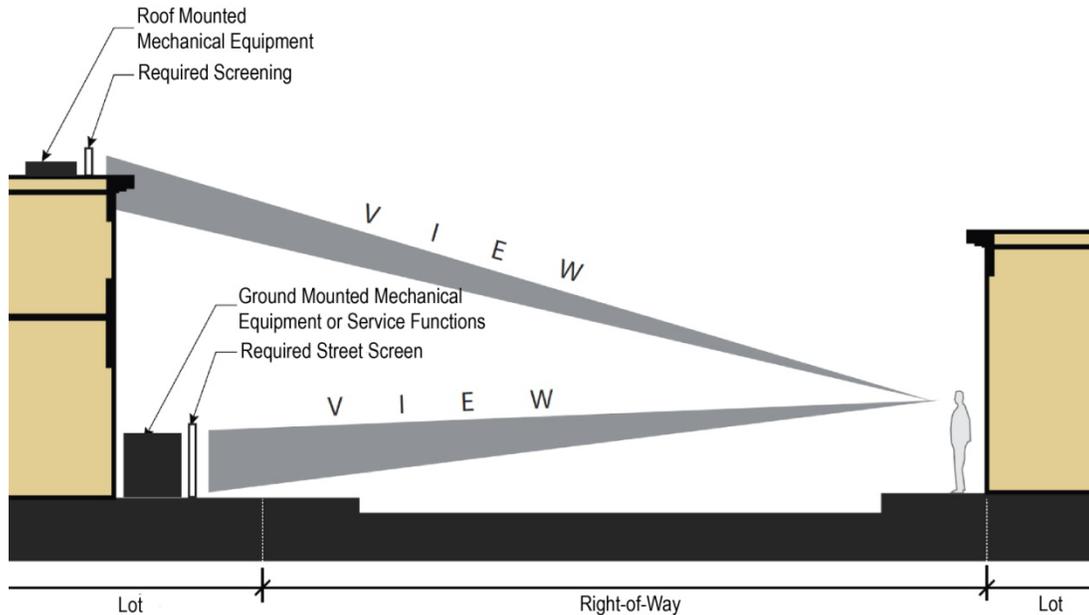


Figure 10-3 Illustration showing required screening of roof and ground mounted equipment

10.5 Street Lighting: Street lighting should be provided on Spine, Town, Collector and Collector with Trail roads. Refer to Arden Hills Public Works Design Manual for lighting palette. The following standards shall apply for pedestrian scale lighting:

- (a) Vehicular lighting shall be a maximum of 30 feet in height and pedestrian-oriented lighting a maximum of 18 feet in height.
- (b) Street lights shall be placed at an average of 40 feet on center, approximately three (3) feet behind the back of curb, aligned with street trees, and where street trees are planted.
- (c) The light standard selected shall be compatible with the design of the street and buildings.
- (d) All other standards for street lighting shall direct light downward or properly shielded with $\frac{3}{4}$ or fully shielded fixtures to prevent glare.
- (e) High efficiency lighting, such as LED lamps, is required.

10.6 Exterior Lighting: All development in the TRC (including surface parking lots) with the exception of Single-Family Attached, Single-Family detached, Townhouse, and Two-Family Residential Uses shall comply with the Exterior Lighting regulations in AHC Section 1325.

10.7 Street Furniture

- (a) Street Furniture shall be placed within the Plantings/Furnishings Zone or within the front setback area only. Benches and bike racks are recommended along all Pedestrian Priority Frontages and will be placed in alignment with light poles and street trees.
- (b) Trash receptacles shall be required for all development along Pedestrian Priority Frontages. Trash receptacles should be placed at street corners. If development is located mid-block, place the trash can near front entry.
- (c) All street furniture shall be located in such a manner as to allow a Clear Zone of a minimum of six (6) feet in width. Placement of street furniture and fixtures shall be

coordinated with organization of sidewalks, landscaping, street trees, building entries, curb cuts, signage, and other street fixtures.

- (d) Materials selected for paving and street furniture shall be of durable quality and require minimal maintenance.

10.8 Utilities

- (a) All utility lines shall be underground.
- (b) Locations on private property must be found for switchgear and transformer pads needed to serve that property. Such locations shall be either along General Frontages or at the side or rear of the property and screened from view of a person standing on the property line on the far side of any adjoining street (see Figure 10-3).

10.9 Parking Lot Landscaping: All surface parking shall meet the standards for parking lot landscaping in the AHC Section 1325.

11.0 Sign Standards

11.1 Applicability: Except for sign types, sign dimensional standards, and as specifically listed below, all other signage and sign standards shall comply with the AHC Chapter 12.

11.2 Prohibited Signs: The following types of Signs shall be prohibited in the TRC:

- (a) Any sign that flashes, blinks, revolves, or is put into motion will not be permitted except as allowed in TRC Section 11.16;
- (b) Streaming or video signs or screens;
- (c) Non-shielded LED or flood lights;
- (d) Streamers and inflatable mascots;
- (e) Portable or wheeled signs and advertising devices on the site other than sandwich board signs and mounted menu signs permitted in Table 11-1; and
- (f) Any additional prohibited signage in AHC Section 1230.02.

11.3 Sign Types Permitted: All development to which this Section is applicable shall comply with the Sign Regulations in Table 11-1 below.

Table 11-1 Permitted Sign Types by Character Zone

LEGEND



Campus Commercial



Town Center



Retail Mixed Use



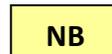
Office Mixed Use



Flex Office



Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
Permanent Signs				
HIGHWAY MONUMENT SIGN	   	<p>A sign not attached to a building, but permanently supported by a structure extending from the ground and permanently attached to the ground.</p>		11.4
CORRIDOR MONUMENT SIGNS	   	<p>A sign not attached to a building, but permanently supported by a structure extending from the ground and permanently attached to the ground. A Corridor Monument sign shall be smaller than a Highway Monument Sign.</p>		11.5

LEGEND



Campus Commercial



Town Center



Retail Mixed Use



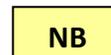
Office Mixed Use



Flex Office



Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
BUILDING IDENTITY SIGN	 	A Wall Sign attached to the upper floor of a multiple story building or parapet of single tenant one-story building that provides identification of the entire building. (May be used instead of the Building Projecting Sign)		11.6
STOREFRONT/ TENANT WALL SIGNS	 	Wall Sign attached to a retail storefront or sign band area directly adjacent to the retail storefront within a multi-tenant building. (May be used instead of a Tenant Canopy Sign)		11.7
BUILDING PROJECTING SIGNS	 	Wall Sign that extends a distance of more than 18" perpendicular from the building façade. Sign is placed on the upper floors of a multiple story building. (May be used instead of the Building Identity Sign)		11.8

LEGEND



Campus Commercial



Town Center



Retail Mixed Use



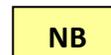
Office Mixed Use



Flex Office



Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
ROOF SIGNS	Not permitted	A sign installed over or on the roof of a building.		
TENANT CANOPY SIGNS	     	A sign mounted to a canopy or awning that is within or directly adjacent to a retail storefront. (May be used instead of a Storefront/Tenant Wall Sign)		11.9
TENANT BLADE SIGNS	   	Wall Sign that extends a distance more than 18" perpendicular from the building façade and is oriented towards the sidewalk. Sign is mounted to a retail storefront or may be mounted under a canopy.		11.10

LEGEND



Campus Commercial



Town Center



Retail Mixed Use



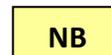
Office Mixed Use



Flex Office



Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
WINDOW SIGNS	 	A sign mounted to or intended to be seen through a window.		11.11
DIRECTIONAL SIGNS	 	A vehicular sign with directional information intended to direct visitors to various destinations within a larger development with multiple buildings.		11.12
DIRECTORY SIGNS	 	A pedestrian oriented sign containing a listing and or map of the tenants and destinations within an area, block, building or development.	 	11.13

LEGEND



Campus Commercial



Town Center



Retail Mixed Use



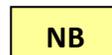
Office Mixed Use



Flex Office



Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
<p>SANDWICH BOARD AND MOUNTED MENU SIGNS</p>	<p>      </p>	<p>A temporary sign with two connected faces usually arranged back to back.</p> <p>A temporary pole or wall mounted sign that displays a restaurant menu.</p>	 	<p>11.14</p>
<p>ADDRESS SIGNS</p>	<p>All</p>	<p>A sign containing only the lot, building or retail tenant address.</p>		<p>11.15</p>

LEGEND



Campus Commercial



Town Center



Retail Mixed Use



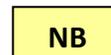
Office Mixed Use



Flex Office



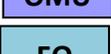
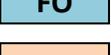
Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
<p>MARQUEE SIGN</p>	<p>   </p>	<p>A sign placed over the entrance to a theatre or other public gathering venue. It has signage stating either the name of the establishment or, in the case of theatres or other public venues, the name of the event, artist, and other details of the event appearing at that venue. The marquee is often identifiable by a surrounding cache of light bulbs, usually yellow or white, that flash intermittently or as chasing lights. Marquee signs may often be combined with Building Projecting signs.</p>		<p>11.16</p>

Temporary Signs

<p>BANNERS</p>	<p>       </p>	<p>A temporary fabric or vinyl sign hung from a building façade.</p>		<p>11.17</p>
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LEGEND



Campus Commercial



Town Center



Retail Mixed Use



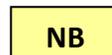
Office Mixed Use



Flex Office



Neighborhood Transition



Neighborhood

Sign Type	Zoning District Allowed	Description	Image	Standard
<p>TEMPORARY CONSTRUCTION SIGNS</p>	<p>All</p>	<p>A temporary sign mounted to a construction fence that announces a new business or construction project.</p>		<p>11.18</p>

11.4 Highway Monument Sign

	Location	Standards
(a)	I-35W and Hwy 10 Frontages only	<ul style="list-style-type: none"> a. Located within 60 ft. of the edge of I-35W or Hwy 10. b. Maximum height of 30 ft. above the street pavement grade of the elevated portion of the highway. c. Maximum total sign face area of 400 sq. ft (cumulative of all surfaces). Sign face may be divided into multiple segments. Area between segments does not count toward sign face area. d. One sign allowed for lots with at least 1,000 ft. of highway frontage. Two signs permitted for frontages greater than 1,000 ft. Signs to be a minimum of 1,000 ft. apart.

11.5 Corridor Monument Sign

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Maximum area of 0.7 sq. ft. for each linear foot of street frontage with a maximum of 150 sq. ft. for multi-tenant signs. ii. Corridor Monument Sign not permitted for single-tenant buildings, instead multiple single tenants should be combined onto one (1) Corridor Monument Sign. iii. One per lot. For lots with a total street frontage greater than 500 ft., two (2) signs are permitted. Signs must be a minimum of 400 ft. apart. iv. For lots fronting two streets, one sign is permitted on each street. v. Maximum height of 12 ft. above frontage street pavement grade. vi. Monument structure shall include a base, frame, and cap around the sign area. Material shall be the same as the principal structure on the lot. vii. Maximum total area shall not exceed 1.5 times the permitted sign copy area of a sign.

11.6 Building Identity Sign

	Location	Standards
(a)	I-35W, Hwy 10 and MN-96 Frontages only	<ul style="list-style-type: none"> i. May be used for single tenant commercial, office or institutional buildings only (multiple tenant building shall be subject to 11.7 below). ii. May be used instead of a Building Projecting Sign iii. Maximum area of 200 sq. ft. or 15% of the façade area, whichever is less. iv. Mount in upper third of the facade.
(b)	All frontages other than I-35W, Hwy 10 and MN-96	<ul style="list-style-type: none"> i. May be used for single tenant commercial, office or institutional buildings only (multiple tenant building shall be subject to 11.7 below). ii. May be used instead of a Building Projecting Sign iii. Maximum area of 150 sq. ft. or 10% of the façade area, whichever is less. iv. Mount in the upper third of the facade

11.7 Storefront/Tenant Wall Sign

	Location	Standards
(a)	IH-35W, Hwy 10 and MN-96 Frontages only	<ul style="list-style-type: none"> i. May be used for multiple tenant commercial, office or institutional buildings only (single tenant building shall be subject to 11.6 above). ii. May be used instead of a Tenant Canopy Sign iii. May be located on the ground floor façade only (sign to be mounted below 25 feet as measured from finished grade outside the facade). iv. One sign per tenant space; area to be calculated at 2 sq.ft. per linear foot of tenant space façade along the building's frontage up to a maximum of 150 sq.ft. v. Sign to be located between demising walls of leased storefront. vi. Sign shall not overlap architectural features like window lintels, canopy support points, coping, etc. vii. Wall sign may encroach, a maximum of 12", on to a sidewalk while maintaining a vertical clearance of 8 ft. from the finished sidewalk if it is non-illuminated and 11 ft. from the finished sidewalk if it is illuminated. viii. Building signs may be internally or externally lit.
(b)	All frontages other than IH-35W, Hwy 10 and MN-96	<ul style="list-style-type: none"> i. May be used for multiple tenant commercial, office or institutional buildings only (single tenant building shall be subject to 11.6 above). ii. May be used instead of a Tenant Canopy Sign iii. May be located on the ground floor façade only (sign to be mounted below 25 feet as measured from finished grade outside the facade). iv. One sign per tenant space; area to be calculated at 1.5 sq.ft. per linear foot of tenant space façade along the building's frontage up to a maximum of 100 sq.ft. v. Sign to be located between demising walls of leased storefront. ix. Sign shall not overlap architectural features like window lintels, canopy support points, coping, etc. vi. Wall sign may encroach, a maximum of 12", on to a sidewalk while maintaining a vertical clearance of 8 ft. from the finished sidewalk if it is non-illuminated and 11 ft. from the finished sidewalk if it is illuminated. vii. Building signs may be internally or externally lit. viii. Live-Work and Home occupations: One sign limited to an area of 30 sq. ft. max.

11.8 Building Projecting Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Building Projecting sign may be permitted in place of a Building Identity Sign. ii. Maximum area of 200 sq. ft. or 15% of the façade area, whichever is less iii. Will not obstruct any pedestrian or vehicular way (vertical clearance of 10 ft. from the finished sidewalk if it is non-illuminated and 11 ft. from the finished sidewalk if it is illuminated).

		<ul style="list-style-type: none"> iv. Sign may project no more than 50% of the width of the sidewalk or six (6) ft. from building façade line (whichever is less). v. Sign may not extend above building parapet line or eaves line. vi. Maximum of one per façade vii. Signs must be constructed of durable materials. Impermanent materials, such as canvas or flexible vinyl, are not allowed.
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11.9 Tenant Canopy Sign

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. May only be used instead of a Storefront/Tenant Wall Sign. ii. One sign per tenant space; area to be calculated at 1.5 sq.ft. per linear foot of tenant space façade along the building's frontage up to a maximum of 100 sq.ft. iii. Sign to be located between demising walls of leased storefront. iv. Sign shall not extend beyond outermost edges of canopy. v. Signs are to be mounted over the canopy, on the face of a canopy or over any awnings

11.10 Tenant Blade Sign

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. One Blade sign per tenant space ii. May be located on the ground floor façade only (sign to be mounted below 15 feet as measured from finished grade outside the facade) iii. Maximum area of 15 sq. ft. iv. Will not obstruct any pedestrian or vehicular way. Minimum vertical clearance of ten (10) ft. from the finished sidewalk if it is non-illuminated and eleven (11) ft. from the finished sidewalk if it is illuminated. v. Sign may project no more than three (3) ft. from building wall or a distance equal to 50% of the width of the abutting sidewalk (whichever is less).

11.11 Window Sign

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. No permit is required for small-scale (under 1.0 sq. ft. in total area) signs placed at the pedestrian eye level. These exempted signs include: tenant logo and name, website or other social media address store hours and address, and public safety decals as required by applicable codes or government regulations. ii. Window signs include any signage attached to the storefront glazing or located on storefront interior within three (3) ft. of the storefront and intended to be viewed from the storefront exterior. iii. Maximum area of 25% of overall glazed storefront, including doors.

11.12 Directional Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Permitted only for multi-tenant commercial and mixed-use developments with multiple building within one development. ii. Applies only to signs located at lot entrances accessible from public streets. iii. Maximum size of 60 sq. ft. iv. Maximum height of eight (8) ft. above frontage street pavement grade. v. One sign permitted per development entrance. Maximum of two (2) signs per street frontage. vi. Signs located on interior of site and not intended to be viewed or utilized by traffic on public streets do not require a permit.

11.13 Directory Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Signs located on interior of lot and not intended to be viewed or utilized by traffic on public streets do not require a permit. In such cases, any sign lettering or logos used must be less than 2” (max.).

11.14 Sandwich Board and Mounted Menu Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Permitted only for retail, service, or restaurant tenants. ii. Maximum area of 8 sq. ft. per sign face iii. Maximum height of 4 ft. iv. One per storefront. v. Sign shall not interfere with any pedestrian way and a minimum of 5 ft. of sidewalk shall remain clear. vi. Chalkboards may be used for daily changing of messages. Reader boards (electronic and non-electronic) shall be prohibited. vii. Sandwich Board Signs and Pole-Mounted Menu Signs shall be removed every day after the business is closed.

11.15 Address Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Allowed per AHC Section 1230.01 – Subsection 3.

11.16 Marquee Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Permitted for theatres, auditoriums, and other public gathering venues of 100 persons or more; ii. Marquee signs shall be attached to the building or located above or below a canopy only;

		<ul style="list-style-type: none"> iii. Area = 100 sq ft. maximum; iv. Message board may be changeable copy (non-electronic). v. Electronic message boards may be permitted with a Permitted Adjustment.
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11.17 Banners

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Maximum area of 150 square feet or 10% of the façade area, whichever is less. ii. For multi-tenant buildings, individual tenant banners shall not exceed the width of the tenant bay. iii. Banners shall only be permitted on a temporary basis for a maximum period of 30 days per calendar year. Upon review of need by Community Development Department, an extension or additional time may be granted with submittal of a new application.

11.18 Temporary Construction Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Must be attached to a part of a temporary construction fence.

11.19 For Sale/Lease Signs

	Location	Standards
(a)	All per zoning district permitted	<ul style="list-style-type: none"> i. Allowed per AHC Section 1250.02 – Subsection 5.

11.20 Additional Standards

- a. Signs located on interior of a lot and not intended to be viewed or utilized by traffic on public streets do not require a permit.
- b. Retail, service, and restaurant business that wrap a building corner creating two or more storefronts will be permitted to place signs on each storefront.
- c. Encroachments into public right-of-way shall not be permitted. See section 6.1(i) for standards for encroachments over required setback areas.

TCAAP Redevelopment Code

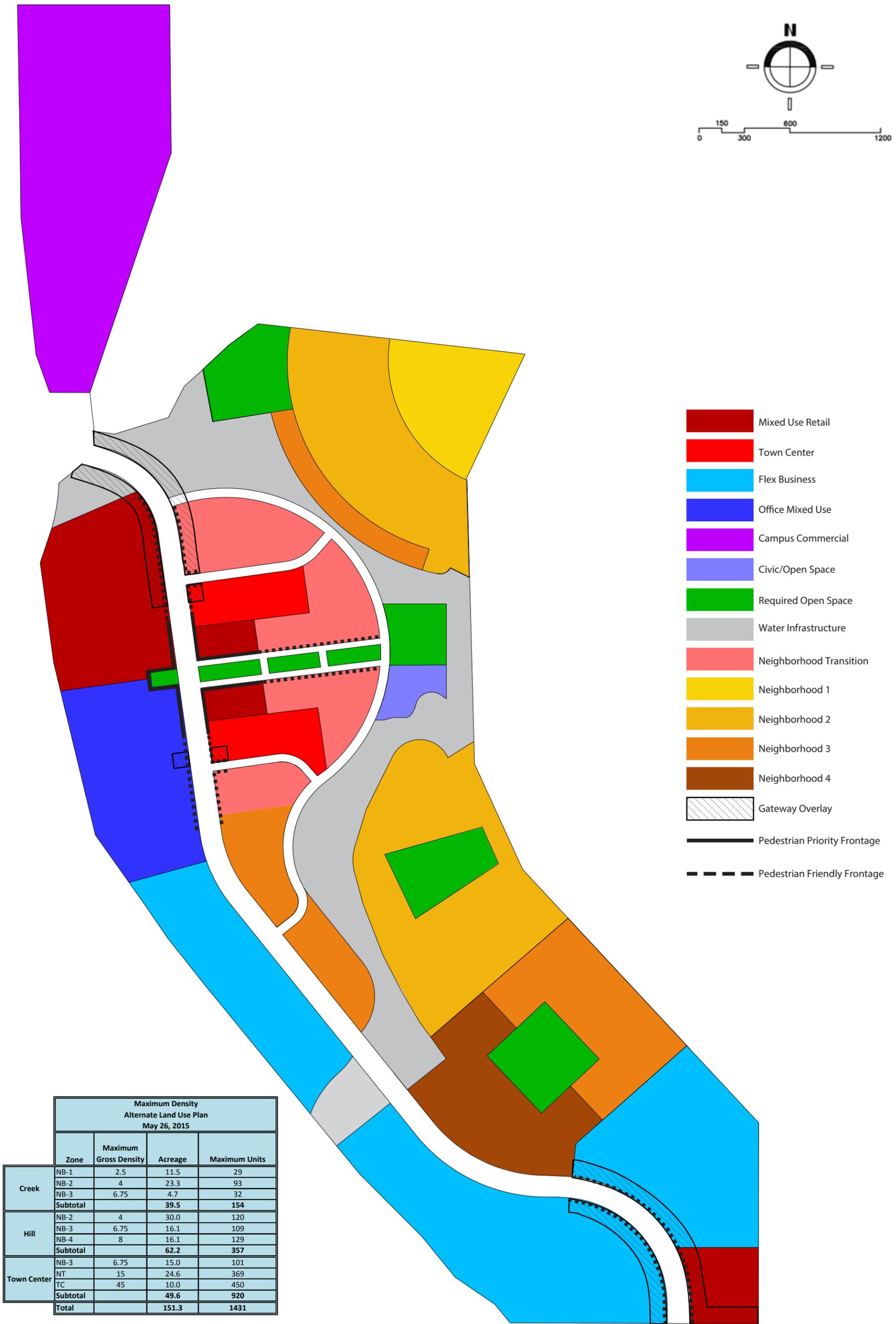
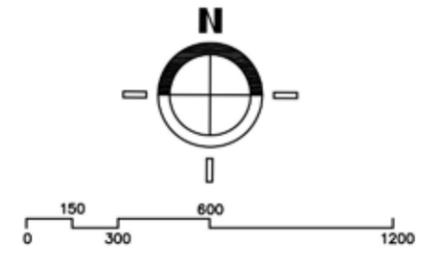
ATTACHMENTS

May 2015

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- 1: Regulating Plan
- 2: Palette of Open Space Types
- 3: Development Review Chart
- 4: Street Cross Sections
- 5: Street Type Plan
- 6: Recommended Color Palette
- 7: Audubon Minnesota Bird-Safe Building Guidelines

Attachment 1



- Mixed Use Retail
- Town Center
- Flex Business
- Office Mixed Use
- Campus Commercial
- Civic/Open Space
- Required Open Space
- Water Infrastructure
- Neighborhood Transition
- Neighborhood 1
- Neighborhood 2
- Neighborhood 3
- Neighborhood 4
- Gateway Overlay
- Pedestrian Priority Frontage
- Pedestrian Friendly Frontage

Maximum Density Alternate Land Use Plan May 26, 2015				
	Zone	Maximum Gross Density	Acreage	Maximum Units
Creek	NB-1	2.5	11.5	29
	NB-2	4	23.3	93
	NB-3	6.75	4.7	32
	Subtotal		39.5	154
Hill	NB-2	4	30.0	120
	NB-3	6.75	16.1	109
	NB-4	8	16.1	129
	Subtotal		62.2	357
Town Center	NB-3	6.75	15.0	101
	NT	15	24.6	369
	TC	45	10.0	450
	Subtotal		49.6	920
Total		151.3	1431	

TCAAP REGULATING PLAN

May 27, 2015

Attachment 2

Palette of Open Space Types

The Open Space Types and Standards contained herein shall be used as a guide to fulfill the required and recommended Open Space requirements of Section 9 of the TRC. These open space types may be Public or Private Common Open Spaces. The following section provides a description of these open space types including the design context and criteria consistent with the Vision for TRC Neighborhoods.

1. Public Open Space Types

(a) Pocket Park Standards



Pocket Parks are small scale public open spaces intended to provide recreational opportunities where (publicly accessible/park) space is limited. They are often located between buildings and developments; on single vacant lots; and on small irregular pieces of land. Low maintenance landscaping and facilities is recommended in order to support multiple pocket parks in a park system.

Development may include pavilions, picnic tables, small performance stage, seating areas, gathering areas, family play areas, gazebos, small game areas, small community gardens, dog parks, and interactive art. Shade and lighting is desired.

Typical Characteristics

General Character

Small open space responding to specific user groups and space available.

Range of character can be for intense use or aesthetic enjoyment. Low maintenance is essential.

Location and Size

0.25 – 1.99 acres
Within walking distance of either a few blocks or up to a 1/4 mile of residences

Typical Uses

Varies per user group

(b) **Green Standards**



A Green is a public open space available for civic purposes, commercial activity, unstructured recreation and other passive uses. Greens shall primarily be naturally landscaped with many shaded places to sit. Open lawn areas shall encourage civic gathering. Appropriate paths, civic elements, fountains or open shelters may be included and shall be formally placed within the Green.

A Green shall be adjacent to a public right of way and be spatially defined by buildings which shall front onto and activate this space.

Typical Characteristics

General Character

- Open space
- Spatially defined by street and building frontages and landscaping
- Lawns, trees and shrubs naturally disposed
- Open shelters and paths formally disposed

Location and Size

- 0.25 – 4 acres
- Minimum width – 25'
- Minimum pervious cover – 80%
- Minimum perimeter frontage on public right of way – 50%

Typical Uses

- Unstructured recreation
- Casual seating
- Commercial and civic uses
- No organized sports

(c) **Square Standards**



A square is a public open space available for civic purposes, commercial activity, unstructured recreation and other passive uses. The square should have an formal character and be defined by the surrounding building frontages and adjacent tree-lined streets. All buildings adjacent to the square shall front onto the square. Adjacent streets shall be lined with appropriately scaled trees that help to define the square.

The landscape shall consist of lawns, trees, and shrubs planted in formal patterns and furnished with paths and benches. Shaded areas for seating should be provided. A civic element or small structure such as an open shelter, pergola, or fountain may be provided within the square.

Typical Characteristics

General Character

- Formal open space
- Spatially defined by buildings and tree-lined streets.
- Open shelters, paths, lawns, and trees formally arranged
- Walkways and plantings at all edges
- Abundant seating opportunities

Location and Size

- 0.25 – 4 acres
- Minimum width – 25'
- Minimum pervious cover – 60%
- Minimum perimeter frontage on public right of way – 60%
- Located at important intersections

Typical Uses

- Unstructured and passive recreation – no organized sports.
- Community gathering
- Occasional commercial and civic uses

(d) Plaza Standards



A plaza is a public open space that offers abundant opportunities for civic gathering. Plazas add to the vibrancy of streets within the higher density zones and create formal open spaces available for civic purposes and commercial activity. Building frontages shall define these spaces.

The landscape should have a balance of hardscape and planting. Various types of seating should be provided from planter seat walls, to steps, to benches, to tables, and chairs. Trees should be provided for shade. They should be formally arranged and of appropriate scale. Plazas typically should be located at the intersection of important streets. A minimum of one public street frontage shall be required for plazas.

Typical Characteristics

General Character

- Formal open space
- A balance of hardscape and planting
- Trees important for shade
- Spatially defined by building frontages

Location and Size

- 0.1 – 1 acre
- Minimum width – 30'
- Minimum pervious cover – 20%
- Minimum perimeter frontage on public right of way – 25%
- Located at important intersections, at vista termini, or at entrances to public/civic buildings

Typical Uses

- Commercial and civic uses
- Formal and casual seating
- Tables and chairs for outdoor dining
- Retail and food kiosks

(e) **Pocket Plaza Standards**



A pocket plaza is a small scale public open space that serves as an impromptu gathering place for civic, social, and commercial purposes. The pocket plaza is designed as a well-defined area of refuge separate from the public sidewalk. It is frequently located in a building supplemental zone next to the streetscape.

These areas contain a lesser amount of pervious surface than other open space types. Outdoor dining with café tables and chairs, water features, public art and other shaded amenities are appropriate uses.

Typical Characteristics

General Character

- Formal open space for gathering
- Defined seating areas
- Refuge from the public sidewalk
- Spatially defined by the building configuration

Location and Size

- Min. 300 s.f.
- Min. width – 15' / Max. width 20'
- Minimum pervious cover – 10 %
- Minimum perimeter frontage on public right of way – 25%
- Located at important intersections, at vista termini, or at entrances to public/civic buildings

Typical Uses

- Civic and commercial uses
- Formal and casual seating

(f) **Pedestrian Passage (Paseo) Standards**



Pedestrian passages or paseos are linear public open spaces that connect one street to another at through-block locations. Pedestrian passages create intimate linkages through buildings at designated locations. These wide pathways provide direct pedestrian access to residential or other commercial addresses and create unique spaces for frontages to engage and enter off of. Pedestrian passages allow for social and commercial activity to spill into the public realm.

Pedestrian passages should consist of a hardscape pathway with pervious pavers activated by frequent entries and exterior stairways. The edges may simply be landscaped with minimal planting and potted plants. Shade is required for the success of the paseo.

Typical Characteristics

General Character

Hardscape pathway with pervious pavers

Defined by building frontages

Frequent side entries and frontages

Shade Required

Minimal planting and potted plants

Maintain the character of surrounding buildings

Standards

Min. Width 15 feet

Typical Uses

Pedestrian connection and access

Casual seating

(g) **Multi-Use Trail Standards**



A multi-use trail is a linear public open space that accommodates two or more users on the same, undivided trail. Trail users could include pedestrians, bicyclists, skaters, etc. A trail frequently provides an important place for active recreation and creates a connection to regional paths and biking trails.

Pedestrian amenities add to recreational opportunities. These include drinking fountains, scenic view posts, fitness stations, and directional signs, and may be spread along the trail or grouped in a trailhead area.

Typical Characteristics

General Character

Multi-use trail in Neighborhood Park:

Naturally disposed landscape

Trees lining trail for shade

Appropriately lit for safety

Formally disposed pedestrian furniture, landscaping and lighting

Multi-use trail along Spine Road or through neighborhoods.:

Paved trail with frequent gathering spaces and regular landscaping.

Standards

Min. Width 12 feet

Typical Uses

Active and passive recreation

(h) **Family-friendly Play Area Standards**



Family-friendly play areas are areas within open spaces that are conducive to the recreational needs of families with children. Family-friendly play areas range in style from pocket parks within mixed use developments to playscapes within neighborhood parks.

These play areas should serve as quiet, safe places -- protected from the street and typically located where children do not have to cross major streets to access. An open shelter, play structures or interactive art and fountains may be included with landscaping between. Shaded areas and seating shall be provided for ease of supervision.

Playscape equipment and design must be reviewed and approved by the City prior to installation. The need for fencing depends on the surrounding environment.

A larger playground may be incorporated into a neighborhood park, whereas a more intimate family oriented design may be incorporated into a pocket park.

Typical Characteristics

General Character

Focused toward family-friendly needs

Fencing depends on surroundings

Open shelter

Shade and seating provided

Play structure, interactive art or fountains

Standards

Min. Size 300 sq.ft.

Max. Size N/A

As described by open space type in which playground is located

Protected from traffic

No service or mechanical equipment

Typical Uses

Active and passive recreation

Unstructured recreation

Casual seating

2. Private Common Open Space Types

(a) Forecourt Standards



Forecourt is a small scale private common open space surrounded on at least two sides by buildings. A forecourt is typically a building entry providing a transition space from the sidewalk to the building. The character serves as a visual announcement of the building to visitors with additional amenities such as signage, water features, seating, planting, etc.

Forecourts should be laid out proportionate to building height with a 1:4 (min.) ratio. In order to offset the impact of taller buildings, the detail of the forecourt level should seek to bring down the relative scale of the space with shade elements, trees, etc.

The hardscape should primarily accommodate circulation. Seating and shade are important for visitors. Trees and plantings are critical to create a minimum of 30% pervious cover and offset the effect of the urban heat island.

Typical Characteristics

General Character

Small scale private common open space
Defined by buildings on at least 2 sides with connection to public sidewalk

Size of court should be proportionate to building height

Hardscape should accommodate entry circulation

Trees and plants are critical

Enhance the character of surrounding buildings

Standards

Min. Width 25'

Minimum Size Depth: Based on building height ratio;
Width: Max. of 50% of the building's frontage along that street

Minimum pervious cover – 30%

Typical Uses

Building Entry Circulation

Visual building announcement

(b) Courtyard Standards



Courtyards are small scale private common open spaces surrounded on at least three sides by buildings with a pedestrian connection to a public sidewalk. Courtyards maintain the character and style of the surrounding buildings.

Courtyards should be laid out proportionate to building height between 1:1 and 2:1 ratio (width to height of building). In order to offset the impact of taller buildings, the detail of the courtyard level should seek to bring down the relative scale of the space with shade elements, trees, etc. Transition areas should be set up between the building face and the center of the court.

The hardscape should accommodate circulation, gathering, seating, and shade. Trees and plantings are critical to create a minimum of 30% pervious cover and offset the effect of the urban heat island.

Typical Characteristics

General Character

- Small scale private common open space
- Defined by buildings on at least 3 sides with connection to public sidewalk
- Size of court should be proportionate to building height
- Hardscape should accommodate circulation, gathering, and seating.
- Trees and plants are critical
- Maintain the character of surrounding buildings

Standards

Min. Width	25'
Minimum Area	650 s.f.
Minimum pervious cover	30%

Typical Uses

- Gathering
- Casual seating

(c) Roof Terrace Standards



A Roof Terrace is a private common open space serving as a gathering space for tenants and residents that might not be at grade.

Up to 50% of the required private common open space may be located on a roof if at least 30 % of the roof terrace is designed as a Vegetated or Green Roof. A Vegetated or Green roof is defined as an assembly or system over occupied space that supports an area of planted beds, built up on a waterproofed surface.

Private common open space on a roof must be screened from the view of the adjacent property. The hardscape should accommodate circulation, gathering, seating, and shade.

Typical Characteristics

General Character

Small scale private common open space on roof top

Screened from view of adjacent property

Vegetated portion critical

Hardscape should accommodate gathering, seating, shade

Provides common open space that might not be available at grade

Standards

Min. Area 50% of the roof top

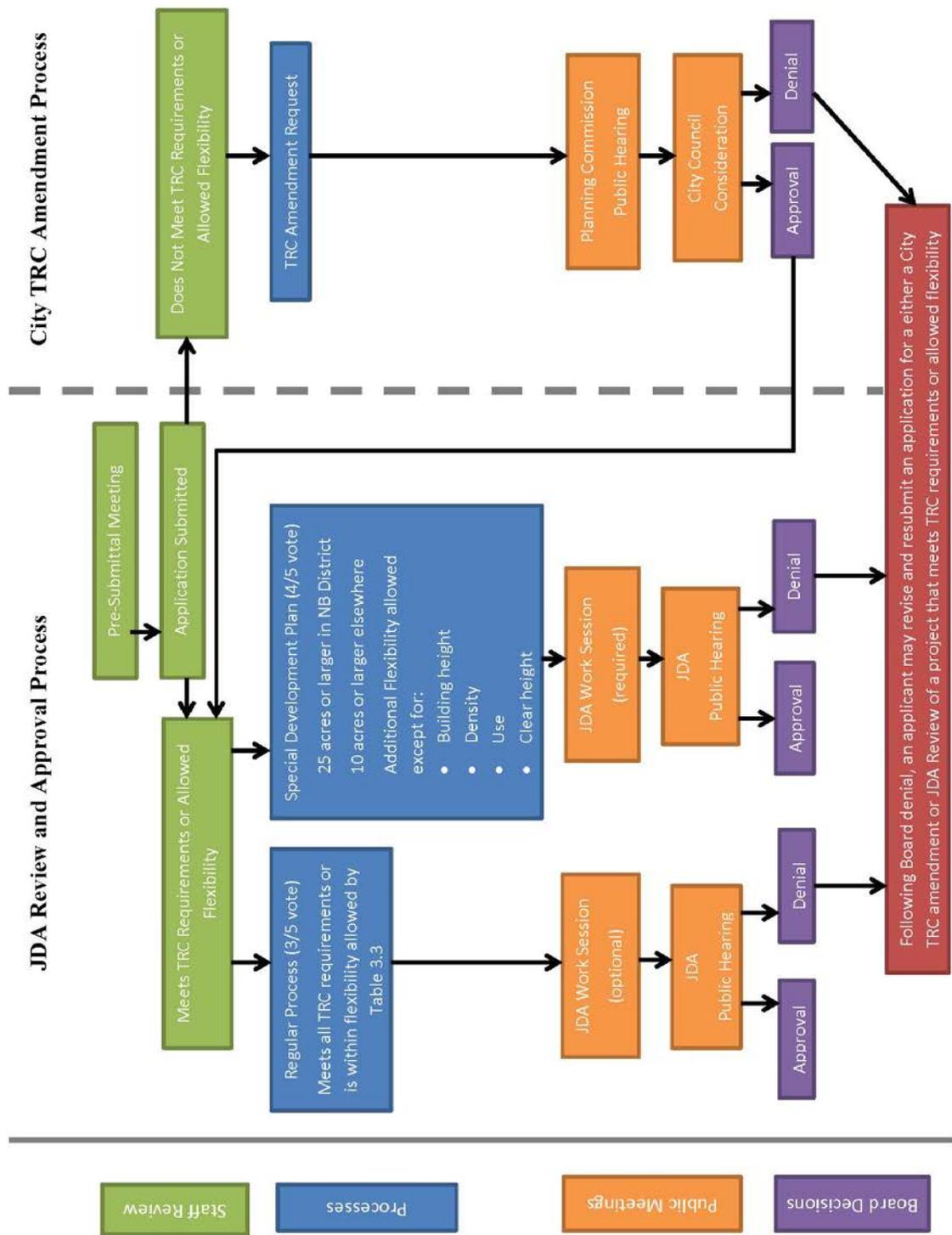
Planted area – 30% min.

Typical Uses

Gathering for tenants and residents

Green Roof

Attachment 3

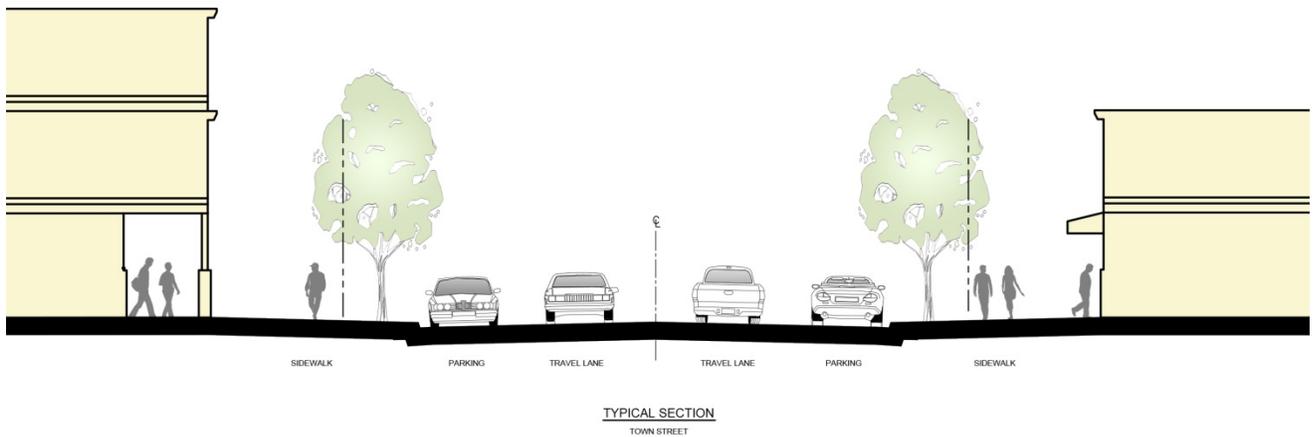
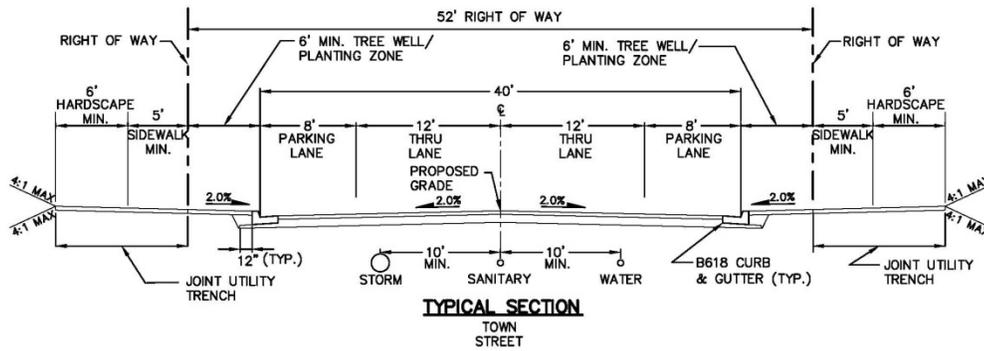


Attachment 4

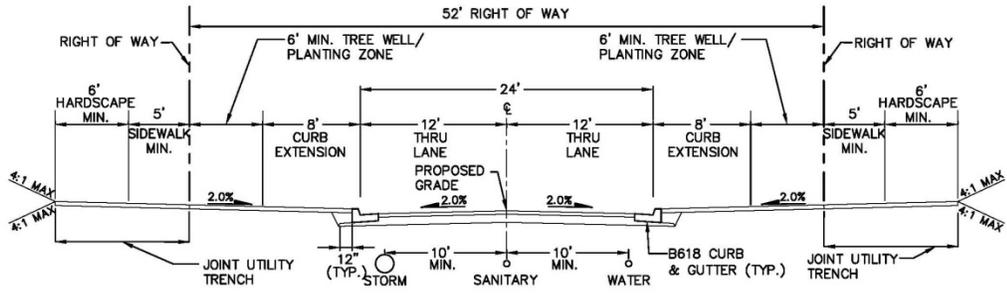
Street Cross Sections

The following street cross sections are established for the Street Types as established in Regulating Plan for TRC. The cross sections (including vehicular lane and on-street parking configurations, street tree placement, etc.) may be adjusted to fit existing contexts or other development contexts consistent with the vision for the Neighborhood with the approval of the City Engineer. In addition, the proposed cross sections may be adjusted to meet the needs of the Uniform Fire Code as adopted by the City.

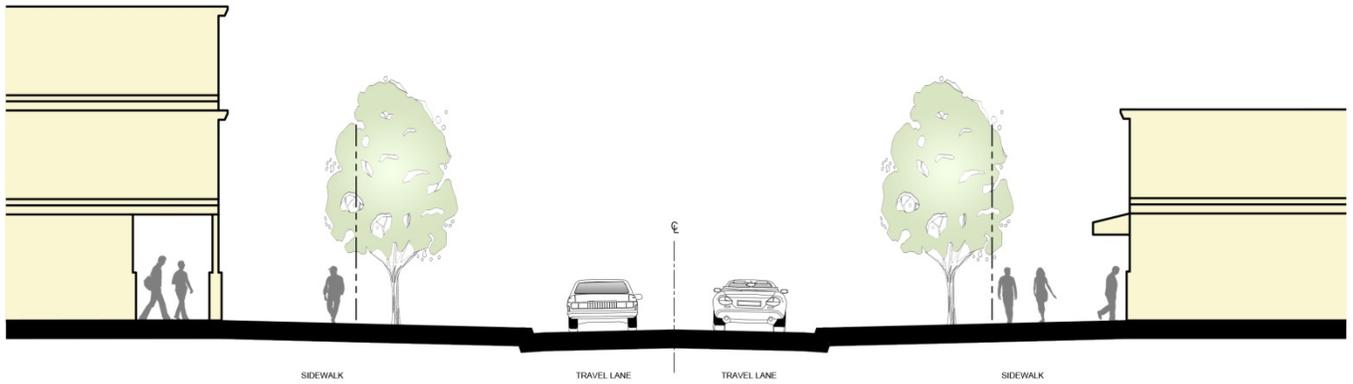
TOWN STREET



TOWN STREET AT INTERSECTIONS

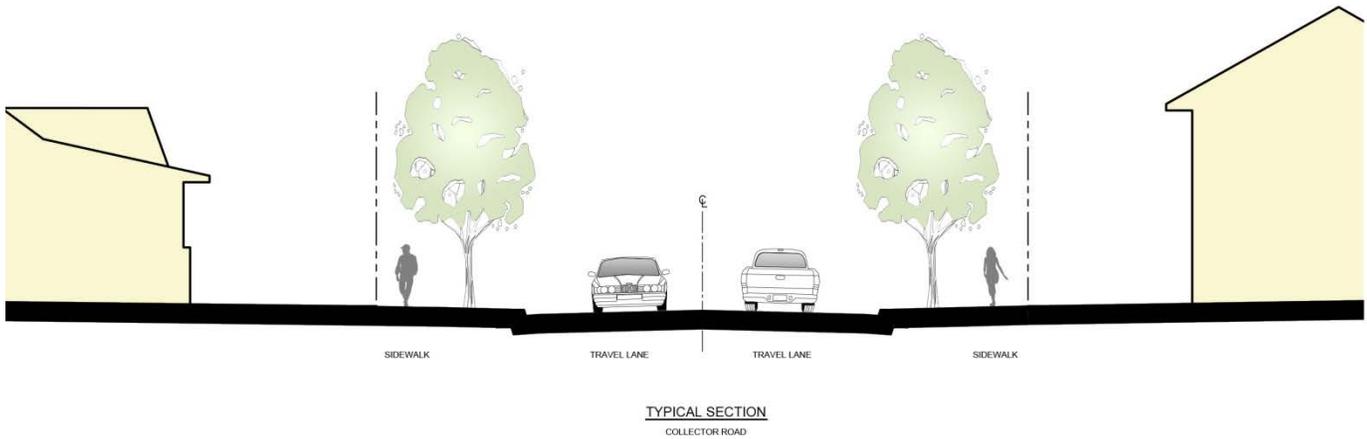
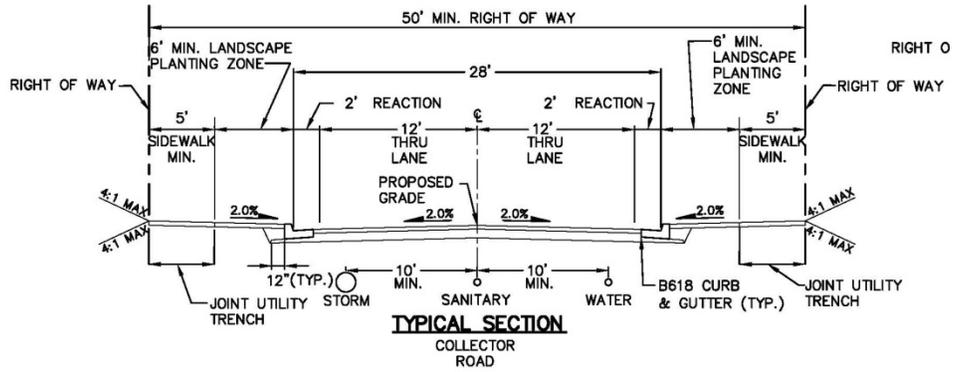


TYPICAL SECTION
TOWN STREET AT INTERSECTIONS

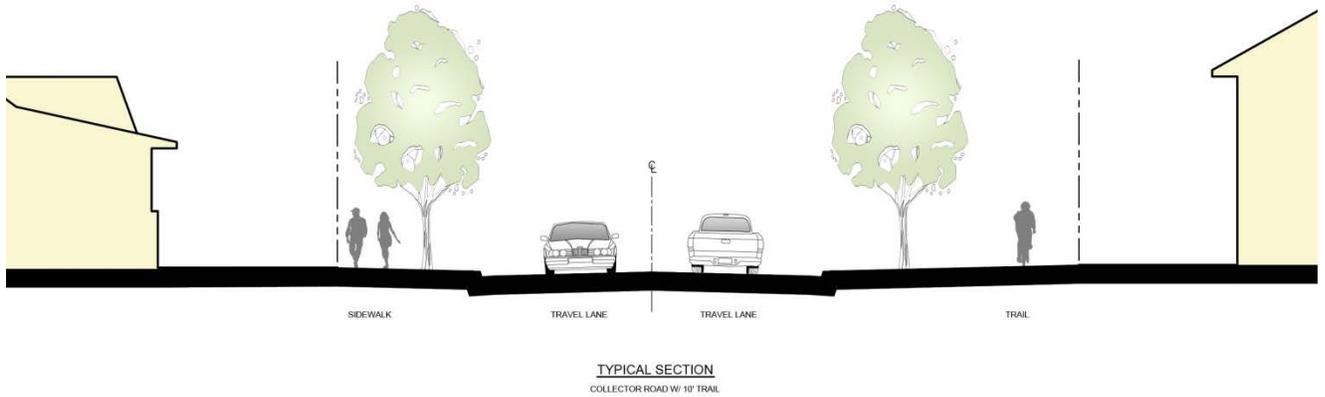
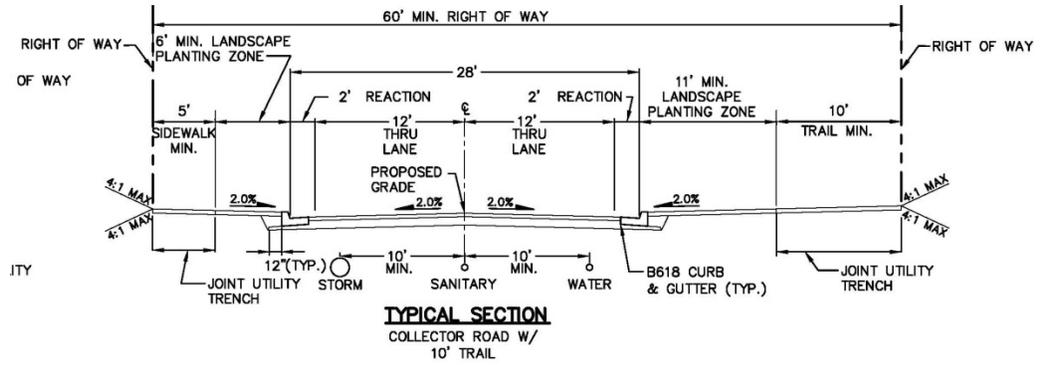


TYPICAL SECTION
TOWN STREET AT INTERSECTIONS

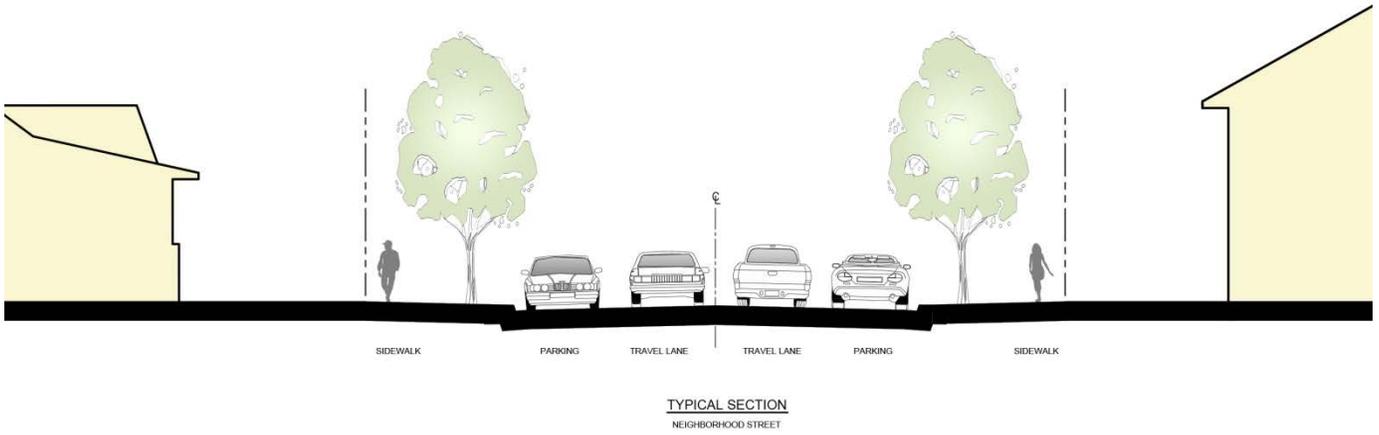
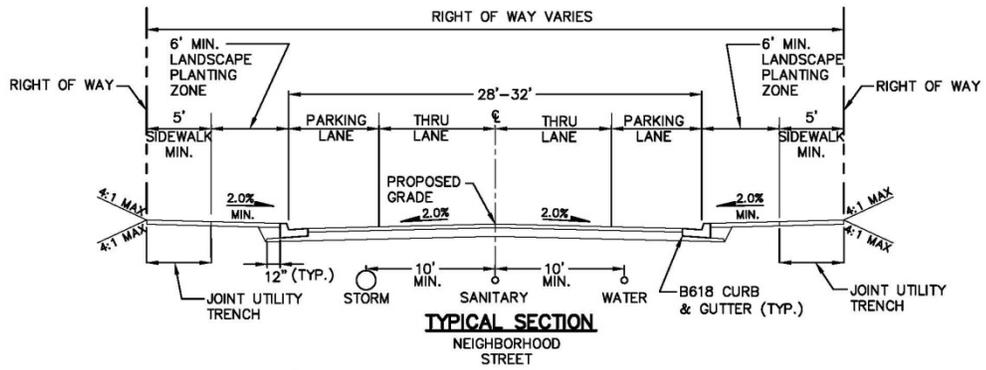
COLLECTOR ROAD



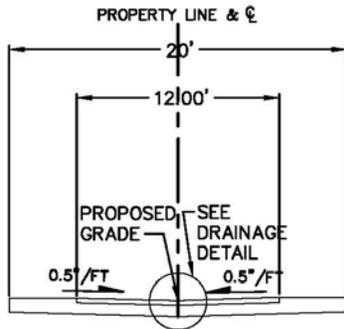
COLLECTOR ROAD WITH TRAIL



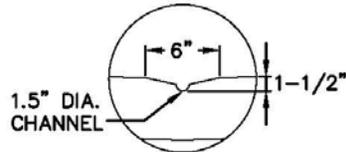
NEIGHBORHOOD STREET



RESIDENTIAL ALLEY

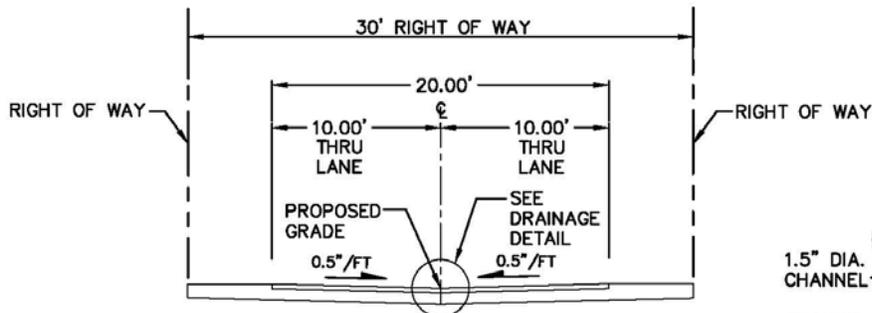


TYPICAL SECTION
RESIDENTIAL ALLEY
(PRIVATE)

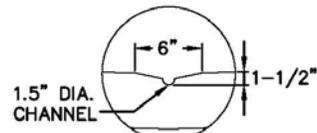


ALLEY DRAINAGE DETAIL

COMMERCIAL ALLEY

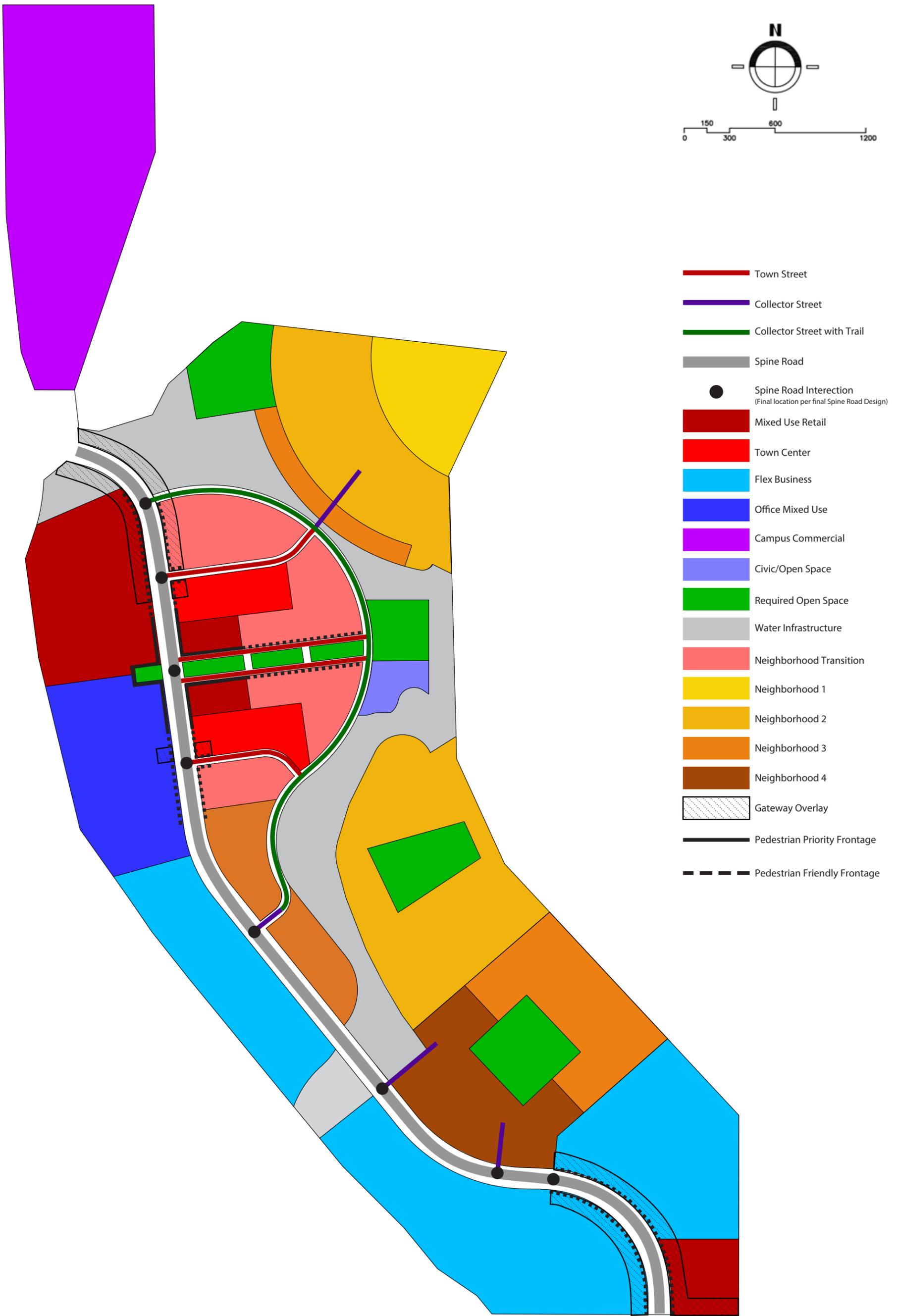


TYPICAL SECTION
INDUSTRIAL OR
COMMERCIAL ALLEY
(PRIVATE)



ALLEY DRAINAGE DETAIL

Attachment 5



TCCAP STREET TYPE PLAN

May 27, 2015

Attachment 6

Recommended Color Palette

Attachment 6

TCAAP Recommended Color Palette

The following recommended color palette is established for exterior building colors within TCAAP. This color palette is based on the Sherwin William paint palette. Other manufacturers may be used provided that the colors are similar in tone, shade, and intensity to the ones listed below.

Body/Wall	Trim/Accent
Renwick Rose Beige 2804	Renwick Beige 2805 Pewter Tankard 0023 Polished Mahogany 2838
Renwick Golden Oak 2824	Downing Straw 2813 Roycroft Vellum 2833 Deepest Mauve 0005
Downing Sand 2822	Rookwood Clay 2823 Rookwood Sash Green 2810 Rookwood Blue Green 2811
Sheraton Sage 0014	Downing Sand 2822 Rookwood Antique Gold 2814 Fairfax Brown 2856
Eastlake Gold 0009	Classical White 2829 Curio Gray 0024 Downing Slate 2819
Pearl Gray 0052	Classic Light Buff 0050 Colonial Revival Stone 2827 Mulberry Silk 0001
Downing Slate 2819	Downing Straw 2813 Rookwood Antique Gold 2814 Rookwood Medium Brown 2807
Downing Earth 2820	Renwick Beige 2805 Rookwood Terra Cotta 2803 Rookwood Dark Brown 2808
Renwick Olive 2815	Downing Sand 2822 Rookwood Dark Green 2816 Rookwood Amber 2817
Craftsman Brown 2835	Roycroft Vellum 2833 Rookwood Brown 2806 Naval 6244
Birdseye Maple 2834	Roycroft Brass 2843 Roycroft Bronze Green 2846 Aurora Brown 2837
Roycroft Pewter 2848	Weathered Shingle 2841 Roycroft Vellum 2833 Roycroft Copper Red 2839
Downing Stone 2821	Sage Green Light 2851 Roycroft Bronze Green 2846 Classic Light Buff 0050

Body/Wall	Trim/Accent
Rookwood Clay 2823	Pure White 7005 Downing Sand 2822 Teal Stencil 0018
Downing Straw 2813	Roycroft Vellum 2833 Roycroft Pewter 2848 Classic French Gray 0077
Antique White 6119	Roycroft Suede 2842 Creamy 7012 Bunglehouse Blue 0048
Peace Yellow 2857	Rookwood Antique Gold 2814 Classical White 2829 Roycroft Bottle Green 2847
Roycroft Mist Gray 2844	Downing Stone 2821 Extra White 7006 Rookwood Dark Red 2801
Needlepoint Navy 0032	Classic Light Buff 0050 New Colonial Yellow 2853 Antiquarian Brown 0045
Chelsea Gray 2850	Westchester Gray 2849 Decorous Amber 0007 Roycroft Pewter 2848
Downing Sand 2822	Classical White 2829 Toile Red 0006 Rookwood Dark Brown 2808
Colonial Revival Stone 2827	Classical White 2829 Tricorn Black 6258 Rookwood Red 2802
Colonial Revival Gray 2832	Pure White 7005 Downing Slate 2819 Harvester 6373
Colonial Revival Green Stone 2826	Classic Light Buff 0050 Polished Mahogany 2838 Roycroft Bronze Green 2846
Cardboard 6124	Believable Buff 6120 Urbane Bronze 7048
Wool Skein 6148	Hardware 6172 Fired Brick 6335
Universal Khaki 6150	Moderate White 6140 Naval 6244
Summit Gray 7669	Extra White 7006 Greenblack 6994
Restrained Gold 6129	Polar Bear 7564 Forestwood 7330
Virtual Taupe 7039	Accessible Beige 7036 Rustic Red 7593
Poolhouse 7603	City Loft 7631 Peppercorn 7674

Body/Wall	Trim/Accent
Whole Wheat 6121	Antique White 6119 Raisin 7630
Knitting Needles 7672	Pearly White 7009 Seaworthy 7620
Humble Gold 6380	Wool Skein 6148 Griffin 7026
Jubilee 6248	Extra White 7006 Salute 7582
Green Earth 7748	Nacre 6154 Fiery Brown 6055
Red Barn 7591	Alabaster 7008 Domino 6989
Dormer Brown 7521	Patience 7555 Cordovan 6027
Slate Tile 7624	Grecian Ivory 7541 Manor House 7505
Softer Tan 6141	Foothills 7514 Darkroom 7083
Maison Blanche 7526	Alabaster 7008 Dried Thyme 6186
Carriage Door 7594	Windsor Greige 7528 Thunder Gray 7645
Khaki Shade 7533	Tiki Hut 7509 Brandywine 7710
Burlap 6137	Rice Grain 6155 Bitter Chocolate 6013
Tree Branch 7525	Divine White 6105 Rustic Red 7593
Rare Gray 6199	Casa Blanca 7571 Pewter Green 6208
Dover White 6385	Gateway Gray 7644 Mediterranean 7617
Concord Buff 7684	Pure White 7005 Porpoise 7047
Wool Skein 6148	Artisan Tan 7540 Status Bronze 7034
Bamboo Shoot 7733	Alabaster 7008 Roycroft Pewter 2848
Breezy 7616	Extra White 7006 Rookwood Amber 2817
Tatami Tan 6116	Colony Buff 7723 Homburg Gray 7622
Fresco Cream 7719	Pottery Urn 7715 Carnelian 7580
Dry Dock 7502	Hot Cocoa 6047 Chateau Brown 7510

Body/Wall	Trim/Accent
Muslin 6133	Straw Harvest 7698 Rural Green 6418
Homestead Brown 7515	Keystone Gray 7504 Moderne White 6168
Outerbanks 7534	Rice Grain 6155 Rookwood Terra Cotta 2803
Extra White 7006	Rushing River 7746 Spiced Cider 7702
Uncertain Gray 6234	Evening Shadow 7662 Peppercorn 7674
Birdseye Maple 2834	Cocoon 6173 Olde Worlde Gold 7700
Retreat 6207	Netsuke 6134 Edgy Gold 6409
Perfect Greige 6073	Popular Gray 6071 Garret Gray 6075
Artifact 6138	Creamy 7012 Ramie 6156
Jogging Path 7638	Intellectual Gray 7045 Thunder Gray 7645
Shoji White 7042	Relaxed Khaki 6149 Hopsack 6109
Restrained Gold 6129	Burlap 6137 Pier 7545
Anjou Pear 6381	Jersey Cream 6379 Warm Stone 7032
Techno Gray 6170	Connected Gray 6165 Alchemy 6395
Rustic City 7699	Dover White 6385 Raisin 7630
Cork Wedge 7539	Smokehouse 7040 Rustic Red 7593
Silvermist 7621	Pure White 7005 Chamois 6131
Stone Lion 7507	Quiver Tan 6151 Incredible White 7028

Attachment 7
Audubon Minnesota Bird-Safe Building Guidelines

BIRD-SAFE BUILDING GUIDELINES



Bird-Safe Building Guidelines



Over 100 bird species have been recovered from building collisions in Minnesota including Lincoln's Sparrow, Black-capped Chickadee, Indigo Bunting, Common Yellowthroat, and Nashville Warbler

Published by Audubon Minnesota, May 2010

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Design Manager: Bonita Jenné (Audubon Minnesota)

Cover Cityscape Artwork: Edward Heinen

Printing made possible by TogetherGreen

Citation: Audubon Minnesota. (2010). Bird-Safe Building Guidelines

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The mission of Audubon Minnesota is to conserve and restore natural ecosystems, focusing on birds and their habitats, for the benefit of humanity and the earth's biological diversity.

AUDUBON MINNESOTA

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Thank you to New York City Audubon and their original working group for permission to revise their Bird-Safe Building Guidelines (May 2007).

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Original publication of these guidelines was made possible with the support of US Department of the Interior, Fish and Wildlife Service through the Neotropical Migratory Bird Conservation Act, Joseph & Mary Fiore and the support of NYC Audubon members and patrons.



Site and Landscape Design

OBJECTIVE:

Minimize the potential for bird collisions when siting buildings near existing landscape features and when planning new landscapes in close proximity to buildings.

A WELL-INTEGRATED SUSTAINABLE DESIGN enhances open space and protects and restores habitat while enhancing the overall architectural and operational quality of a built facility. Efforts to integrate nature and attract wildlife should be balanced with specific considerations of a site’s impact on birds. Birds attracted to on-site habitat are vulnerable to collisions with glass. These guidelines encourage bird-safe design strategies early in the collaborative design process through consideration of site, existing habitat, and bird-safe landscaping.

CONSIDER SITE ANALYSIS



Urban parks attract birds

Analyze the site to determine potential attractions for bird populations.

- Consult with an ecologist or bird specialist to inventory the site.
- Document the location of nearby vegetated streetscapes and urban parks.
- Identify all sources of food and shelter for migratory and resident bird populations, including plants, water and other natural features.
- Identify human-made features that attract birds, including water sources, nesting and perching sites, and shelter from adverse weather.¹⁵

LEED Coordinate with LEED Credits
 SS 5.1 Site Development: Protect or Restore Habitat

CONSIDER EXISTING HABITAT



Treat windows near habitat

Site building(s) to reduce conflicts with existing and planned landscape features that may attract birds.

- Where buildings cannot be located away from bird sensitive areas, take special care in treating windows. See “Exterior Glass” pages 20-21.
- Where strategic reductions to building footprint have been made in order to enhance vegetated open space and habitat, assess site conflicts and include bird safe treatments.
- Use soil berms, furniture, landscaping, or architectural features to prevent reflection in glazed building facades.

LEED Coordinate with LEED Credits
 SS 5.2 Site Development: Maximize Open Space

WHILE BIRDS COLLIDE WITH BUILDINGS AT ALL LEVELS, ground-level stories are considered the most dangerous because this is where habitat reflections, glazing and internal planting are often all quite prominent. Analysis of bird collision data over 10 years in New York City showed that “most collisions were documented to occur during the day at the lower levels of buildings where large glass exteriors reflected abundant vegetation, or where transparent windows exposed indoor vegetation.”¹⁶

CONSIDER LANDSCAPE PLACEMENT



Dangerous reflections

Birds are vulnerable to collisions nearly anywhere glass occurs. Habitat in proximity to glass exacerbates this threat unless reflections are avoided or eliminated or visual cues are incorporated in glazing.

- When planning new landscapes be aware of reflections and see-through effects created by habitat in relation to building features. Place plantings to minimize these effects.
- Alternatively, situate trees and shrubs immediately adjacent to the exterior glass walls, at a distance of less than three feet from the glass.¹⁷ Close proximity will minimize habitat reflections. In addition, if a bird does try to fly to a reflection at this range, flight momentum will be minimal, thereby reducing fatal collisions. This planting strategy also provides beneficial summertime shading and reduces cooling loads.
- If any bird-attracting features (food, water, shelter) are in reflective range of the building(s), use fritting, shading devices or other techniques to make glass visible. See “Exterior Glass” pages 20-21.

CONSIDER INTERIOR LANDSCAPING



Confusing interior plants

Birds will mistakenly seek shelter in landscaping located behind glass.

- Mask views of interior plantings from outside the building.
- Use screening, window films or treatments to make glass visible.

CONSIDER ROOFTOP LANDSCAPING

With the increased use of green roof technology, impacts on birds must be considered.

- Treat glass to minimize the reflection of rooftop landscaping in adjacent building features.
- Consider foregoing green roof installation or eliminating access to birds if reflection in adjacent buildings will occur.

CANOPY HEIGHT

Glass treatments should be applied to the height of the top of the surrounding tree canopy or the anticipated height of surrounding vegetation at maturity.¹³

LEED

Coordinate with LEED Credits
SS 7.1 Heat Island Effect: Non-Roof
SS 7.2 Heat Island Effect: Roof

Building Layout and Massing

OBJECTIVE:

Include bird-safe strategies as part of an integrated design approach before construction rather than retrofitting a building that proves problematic.

BIRD-SAFE STRATEGIES do not restrict the ability to design creatively. These guidelines encourage an integrated design approach, challenging building designers to include bird-safe strategies to enhance aesthetic, functional, and building performance goals. The layout of individual buildings and their relationship to other structures on the site can affect the number of bird collisions that occur. Building layout and massing can be planned along with landscaping to minimize the likelihood of bird collisions.

CONSIDER SPECIFIC SITE FEATURES



These two birds were fooled by habitat reflections

Ground level stories are the most hazardous areas of all buildings and should be designed to minimize bird collisions.

- Minimize those hazards that bring birds close to buildings such as vegetation, water and other features.
- Provide uniform covering with bird-safe materials, especially adjacent to landscapes. See “Exterior Glass” pages 20-21.
- Use angled glass, between 20 and 40 degrees from vertical, to reflect the ground instead of adjacent habitat or sky.¹⁸



Clear barriers create a deadly hazard for birds

Clear barriers such as transparent bus-shelters, skyways, linkways, railings, windscreens and noise barriers create a serious hazard for birds because they are invisible, causing a deadly fly-through hazard.

- Avoid use of transparent materials in these structures in any location where birds may be present. Use translucent or decorative glazing as an alternative.
- If clear panels of any kind are in use, incorporate surface treatments to make glass visible. See “Exterior Glass” pages 20-21.



Confusing corners with multiple reflections

Courtyards may contain landscaping and confusing internal corners that limit bird escape routes. These areas often allow sudden access by people that flush birds into glass.

- Control access to enclosed areas so birds flush away from glass into open areas.
- Treat glass with bird-safe materials so birds see and avoid glass.

Rooftop obstacles such as antennas and media equipment can injure or kill birds and should be minimized. In poor weather and bright lighting conditions birds may congregate on and around rooftops.

- Co-locate antennas and tall rooftop media equipment to minimize conflicts with birds.
- Utilize self-supporting structures that do not require guy wire supports.
- Avoid up-lighting rooftop antennas and tall equipment, as well as decorative architectural spires. See “Lighting Design” pages 24-25.



Birds can fall through grates after hitting windows

Site ventilation grates also present a unexpected danger for birds. An injured bird that falls onto a ventilation grate with large pores can become trapped.

- Specify ventilation grates with a porosity no larger than 0.8 inches.¹³ Cover larger grates with netting.
- Never up-light ventilation grates.

Driveways can also cause birds to flush from landscaping into reflective glazing as vehicles approach.

- Ensure routes of escape for birds that are using landscaping along driveways and access roads.
- Take care in routing driveways adjacent to landscaping and reflective glazing.

“BIRD SAFETY IS EASIER TO SELL WHEN IT OVERLAPS WITH OTHER GREEN STRATEGIES. SLANTED GLASS REDUCES SOLAR HEAT GAIN BUT ALSO WORKS TO EFFECTIVELY REDUCE BIRD INJURIES. FRITTED GLASS REDUCES HEAT GAIN, AND IF IT’S 50% YOU CAN STILL SEE THROUGH IT.”

Jeanne Gang, Studio Gang Architects, Chicago

Exterior Glass

OBJECTIVE:

Prevent bird collisions with glazed surfaces, while maintaining transparency for views, daylighting and passive environmental control.

MOST BIRD COLLISIONS OCCUR at the glazed surfaces of buildings. While circumstances such as lighting and other obstacles do contribute, glass areas are the primary focus of bird-safe design and retrofit strategies regardless of the overall site, landscape, layout and massing features. Bird-friendly glass products can contribute to aesthetics, energy efficiency, and effective daylighting. For bird safety, efforts focus on creating visual markers to make glass visible to birds and minimize reflection of habitat and sky.

CONSIDER VISUAL MARKERS



Interior shades and exterior film at the Minneapolis Central Library



White fritted pattern on glass facade at IAC Offices in New York City

NYC-AUDUBON

“Visual noise” is what allows us to see glass. It is created by varying materials, textures, colors, opacity, or other features and helps to break up glass reflections and reduce overall transparency.¹⁹ Creating these visual markers can alert birds to the presence of glass as an obstacle. This is the most effective way to mitigate the danger that glass poses to birds.

- Utilize etching, fritting, translucent and opaque patterned glass to reduce transparency and reflection, while achieving solar shading. (Note: Although fritting is useful for creating visual noise, it is less effective at reducing reflectance since it is generally applied on the interior face of the glass.)
- Incorporate windows with real or applied divided lights to break up large window expanses into smaller subdivisions.
- Consider applying acid-etched or sandblasted patterns to glass on the outside surface to “read” in both transparent and reflective conditions.
- Create patterns that follow the “hand-print” rule (below).
- Use window films featuring artwork or custom patterns permanently or on a rotating basis.
- Low-reflectivity glass has not been sufficiently tested for bird safety but may prove beneficial in certain installations.



DID YOU KNOW?

Studies show that small birds will attempt to fly through any opening larger than 4 inches wide or 2 inches tall or about the size of a child’s handprint oriented horizontally. When creating “visual noise” on or around a window, optimal openings are no larger than a small handprint.¹⁹

CONSIDER INTERIOR AND EXTERIOR TREATMENT



An exterior ceramic framework provides shading and daylighting (New York Times)

Exterior shading or other architectural devices enhance bird safety.

- Utilize shading devices, screens, and other physical barriers to reduce reflectivity and birds' access to glass.
- Incorporate louvers, awnings, sunshades, light shelves or other exterior shading/shielding devices to reduce reflection and give birds a visual indication of a barrier.
- Consider other highly patterned shading/shielding devices that will provide visual cues and encourage bird safety.

Interior window treatments can provide visual cues for birds and reduce both transparency and reflections. They also help reduce light trespass from buildings. See "Building Operations" page 26.

- Design interior window treatments using light-colored solar reflective blinds or curtains. Partially open blinds during the day.
- Close curtains and blinds if evening lighting is utilized.
- For best results, consider photo-sensors, timers and other automatic controls to regulate shading devices, lighting and daylighting.

CONSIDER INTEGRATED DAYLIGHTING



Translucent glass can help balance daylighting and prevent bird collisions

Large expanses of clear exterior glazing do not equate to effective daylighting for buildings. In fact, over-glazing can contribute to glare, veiling reflections, unwanted heat gain, and also bird collisions. Many strategies used to achieve effective daylighting are compatible with bird safety.

- Where appropriate, daylighting strategies such as exterior shading devices, fritted glass, and diffuse and translucent glass can also help to prevent bird collisions.
- In general, the more untreated glass you have, the greater the risk to birds, especially on sites that are in predictable migratory and resident bird areas.

WINDOW AREA

Windows constitute about 25-40 percent of the wall area of effectively designed daylit buildings, an area very similar to the windowed area in non-daylit buildings.²⁰

LEED

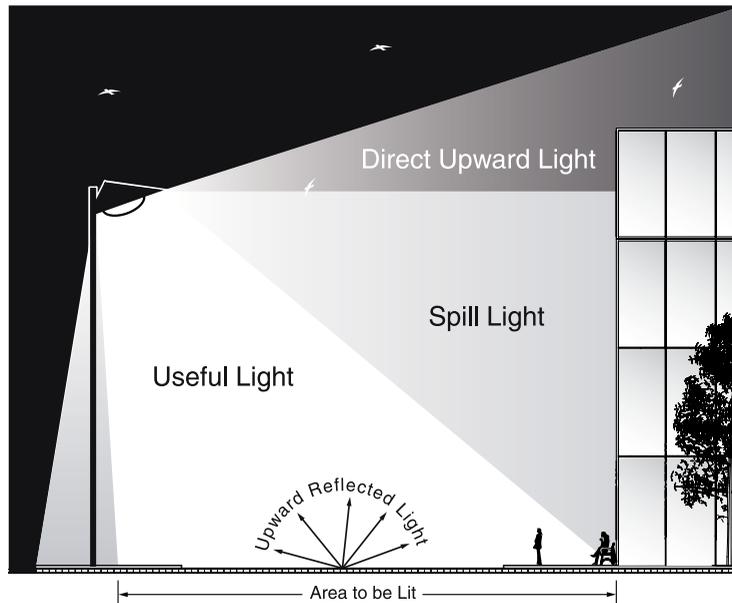
Coordinate with LEED Credits
EQ 8.1 and 8.2 Daylight & Views
EA 1 Optimize Energy Performance

Lighting Design

OBJECTIVE:
Undertake strategies to reduce light trespass from buildings, particularly during migration seasons.

REDUCING EXTERIOR BUILDING AND SITE LIGHTING has been proven effective at reducing nighttime migratory bird collisions and mortality. At the same time, such measures reduce building energy costs and decrease air and light pollution. These guidelines encourage efficient design of lighting systems as well as operational strategies to reduce light trespass from buildings, particularly during migration seasons.

CONSIDER EXTERIOR LIGHT TRESPASS

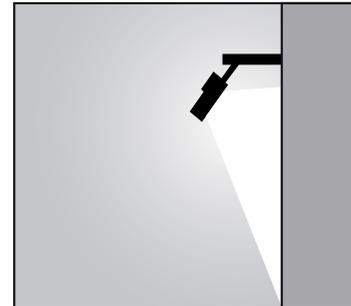


Lighting diagrams courtesy of the City of Toronto

Light pollution is largely a result of inefficient exterior lighting.

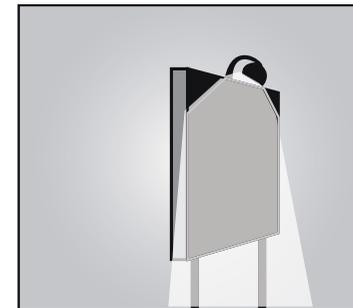
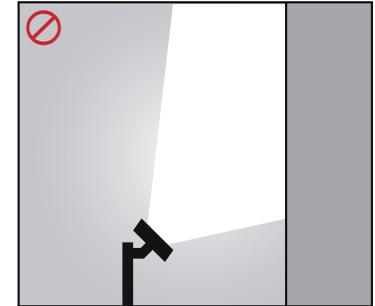
- Eliminate light directed upwards by attaching cutoff shields to streetlights and external lights.
- Highlight building features without up-lighting.
- Reduce the amount of light that spills outside areas where it is needed for safety and security.
- Maximize the useful light directed to targeted areas.
- Eliminate the use of spotlights and searchlights during bird migration.

PREFERRED

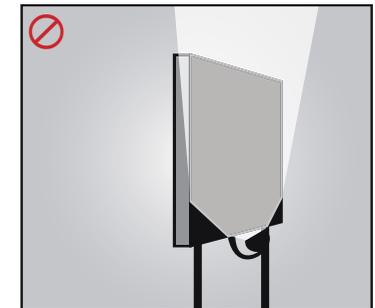


Direct exterior lighting downwards and adhere to Lights Out Guidelines

DISCOURAGED



Light advertising from above to reduce the light projected skyward

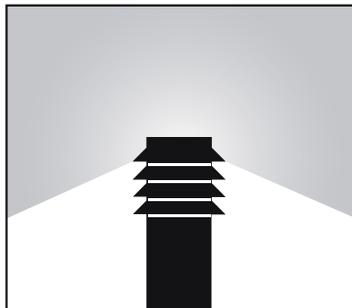
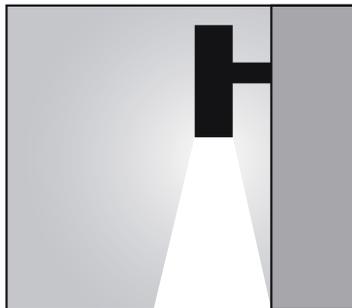
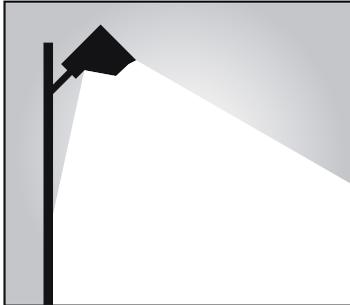


DID YOU KNOW?

Red lights that don't flash are most attractive (and therefore deadly) to birds. Instead, use flashing white or non-flashing blue or green lights.²⁴

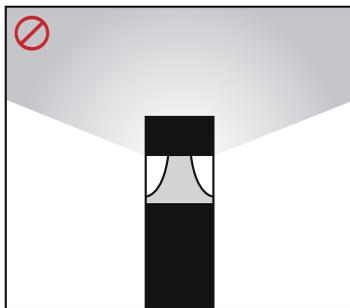
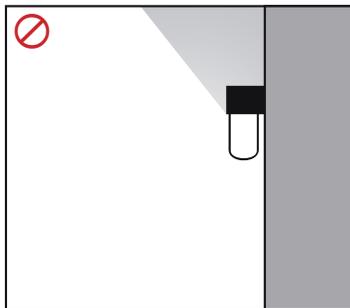
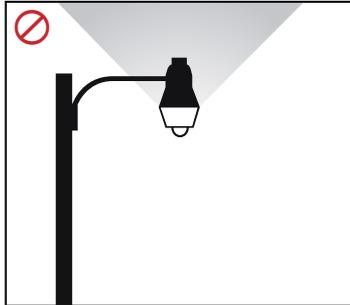


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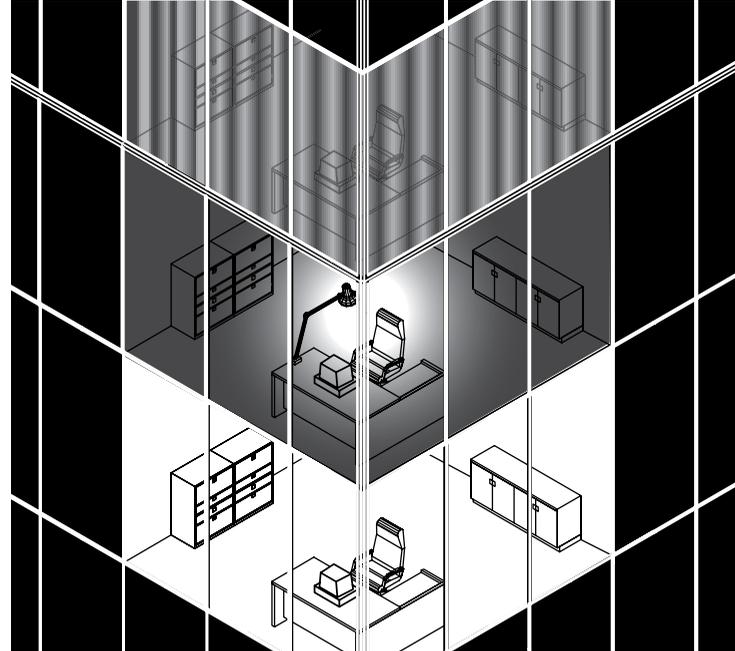
Preferred lighting designs project light downward, reducing waste and light pollution.

DISCOURAGED



Discouraged lighting designs cause spill light to be directed into the sky where it is not needed.

CONSIDER INTERIOR LIGHT TRESPASS



Light trespass from within buildings can be reduced through design and operational changes.

- Design lights to shut off using automatic controls, including photo-sensors, infrared and motion detectors. These devices generally pay for themselves in energy savings within one year.
- Reduce the need for extensive overhead lighting.
- Encourage the use of localized task lighting and shades.
- Reduce perimeter lighting and/or draw shades wherever possible.

LEED

Coordinate with LEED Credits
SS 8.0 Light Pollution Reduction
EQ 6.1 Controllability of Systems: Lighting
EA 1 Optimize Energy Performance

WASTED LIGHT

Light pollution is largely the result of bad lighting design, which allows artificial light to shine outward and upward into the sky, where it's not wanted, instead of focusing it downward, where it is.
National Geographic, November 2008

Products and Innovations

While product innovations continue to emerge, many currently available products have potential bird-safety features even if they were developed for other purposes such as balanced daylighting, innovative aesthetics, building safety and security, and energy efficiency.

The following material sources may contribute to bird safety for new or existing buildings. Products and manufacturers listed below are for information only, and are neither recommended nor endorsed by Audubon Minnesota and its Project BirdSafe partners.

Translucent and Decorative Glazing:

3Form (3-form.com)
 Bendheim (bendheim.com)
 Cabont Nanogel/Aerogel (cabot-corp.com)
 Goldray Industries (goldrayindustries.com)
 Kalwall (kalwall.com)
 Major Industries (majorskylights.com)
 Schott (us.schott.com)
 TG P/Pilkington Profilit (tgpamerica.com)
 Viracon (viracon.com)

Decorative Ceramic Fritting:

Goldray Industries (goldrayindustries.com)
 Oldcastle Glass (oldcastleglass.com)
 Viracon (www.viracon.com)
 PPG Industries (ppg.com)

Applied Window Films and Spectrally Selective Glass:

Arnold Glas, Ornilux (glaswerke-arnold.de)
 Collidescape (fetchgraphics.com)
 Solutia / CPFilms Inc. (cpfilms.com)
 SurfaceCare USA (surfacecareusa.com)
 The Convenience Group (conveniencegroup.com)
 U.S. Dept. of Energy (eere.energy.gov)

Electrochromic Glass:

Sage Electrochromics Inc. (sage-ec.com)
 Smart Glass International (smartglassinternational.com)

Architectural Metal Mesh:

Cambridge Architectural (cambridgearchitectural.com)
 GKD Metal Fabrics (gkdmetailfabrics.com)
 Johnson Screens (johnsonscreens.com)

Building-Integrated Photovoltaics:

PowerFilm (powerfilmsolar.com)
 Uni-Solar (www.uni-solar.com)
 ARCH Aluminum and Glass (archaluminum.net)

Exterior Louvers and Sunscreens:

Hunter Douglas Contract (hunterdouglascontract.com)
 Industrial Louvers Inc. (www.industriallouvers.com)
 Nysan Shading Systems (nysan.com)
 Savannah Trims (suncontrolers.com)

Façade-Integrated LEDs:

Cambridge Architectural (cambridgearchitectural.com)
 GKD Metal Fabrics (gkdmetailfabrics.com)
 Schott (us.schott.com)

Window Treatments and Banners:

Banner Creations (bannercreations.com)
 Biographix (rainierdisplays.com/biographix.html)

Exterior Coverings, Nettings, Screening:

Bird-B-Gone (birdbgone.com)
 Nixalite bird exclusion netting (nixalite.com)
 StealthNet (birdbarrier.com)
 TopRite Netting (cutlersupply.com)



Tennessee Warbler

JIM WILLIAMS