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Harriman Transit Village

Design Guidelines



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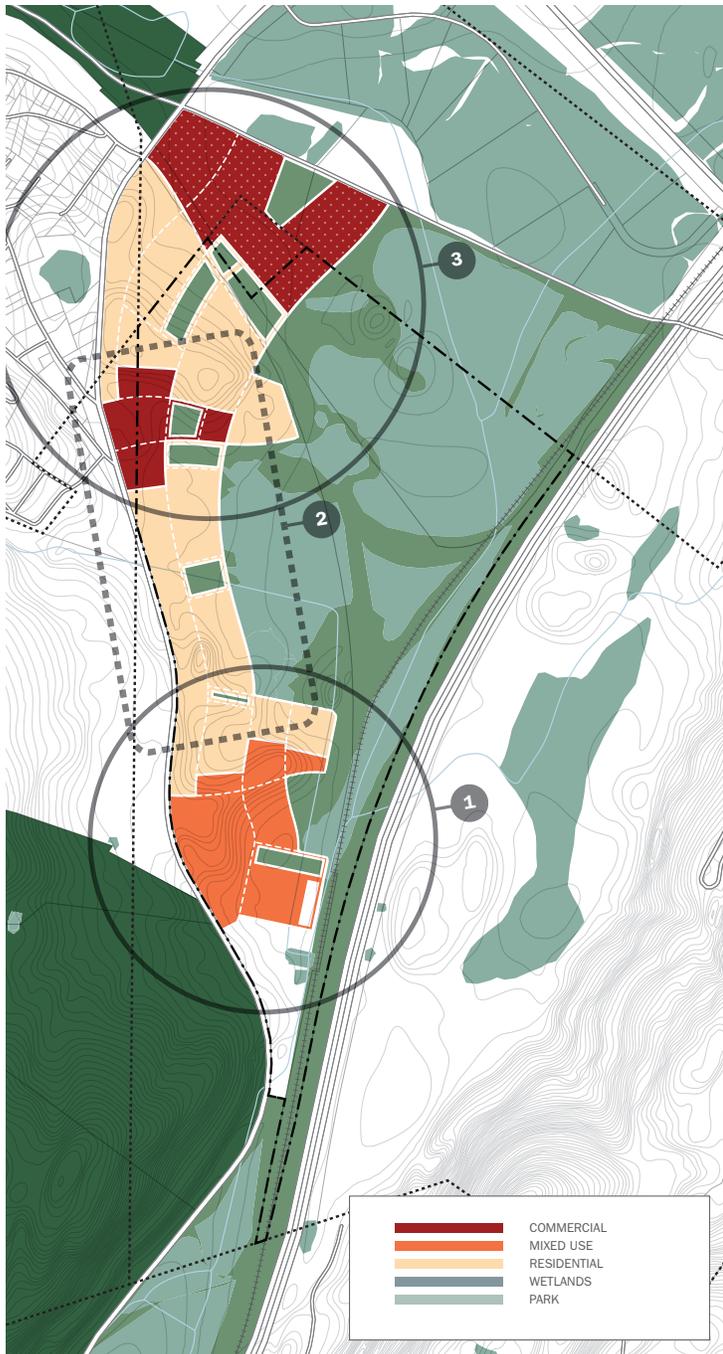


Harriman Station Planning Area

The purpose of the Harriman Station Planning Area is to create a comprehensive, multi-municipal framework for development that reinforces the long-term objectives of these communities.

The new Transit Village zone should offer a compact mix of residential units and commercial spaces. Buildings within a half-mile of the station area should be the most dense, and include a variety of functions and amenities. Mid-site, a majority of use should fill residential needs with both detached and apartment-type dwelling. Adjacent to Harriman Village, another commercial zone should establish a 'gateway' between the two neighborhoods.

- To promote compact, mixed-use development in the area immediately around the station (approximately ½ mile radius from the station).
- To promote sustainable development patterns elsewhere in the study area.
- To allow for coordinated, incremental redevelopment of the study area.
- To minimize traffic impacts, especially in the village of Harriman.
- To promote alternative forms of mobility, especially biking and walking.
- To promote development patterns that have a positive fiscal impact on all three municipalities.
- To protect and enhance the natural features and open space resources in the larger study area.
- To promote development patterns that reinforce the character of this part of SE Orange County and, in particular, that support the character and vitality of the Harriman Village Center.
- To create housing opportunities for the residents of the three municipalities especially for firemen, teachers and other employees who provide community services.



Planning Sub-Areas

The overall Planning Area is composed of three sub-areas (see Figure 2.1)

1. Transit Oriented Core Area
2. New Neighborhood
3. Harriman Gateway

1 Transit Oriented Development (TOD) Core Area

This corresponds to the area that is roughly one-quarter to one half mile radius of the train station platform. This area is within the Village of Woodbury. It is a compact, mixed-use center oriented towards the Harriman Train Station. It is characterized by the following:

- The train station will become a community destination that supports place-making uses and activities.
- This area creates strong linkages between the station and the surrounding context.
- This is a pedestrian-oriented environment that prioritizes non-auto forms of transportation while accommodating the car.
- Housing is the predominant use, consisting of small apartment buildings, condominiums, and townhouses that would be marketed to young couples without children or empty nesters. Residential densities would be tiered. The highest densities would be in the core of the station area and the lower densities towards the edges of the ¼ mile walking radius.
- Over time, the current surface parking lots would have to be replaced with structured parking.
- New development is always sited and oriented in ways that support the public open space network.
- This area also includes a variety of other uses as part of a mixed-use environment, including small-scale retail, with perhaps one or two stores of intermediate size (~40,000 sf). Some professional office space could be located here as well in mixed-use buildings. Other possible uses include a small hotel or inn, perhaps with meeting rooms.

2 New Neighborhood

This corresponds to the area between the TOD Station area to the south and the Harriman Gateway area to the north. It is primarily within the Village of Woodbury. It is a compact primarily residential neighborhood organized around a traditional neighborhood-scale street and block network and providing a variety of housing types and densities and community-amenities. It is characterized by the following:

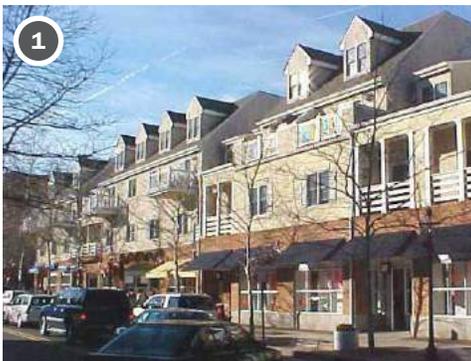
- Clustering and open space strategies create a continuous greensward and maintain the integrity of natural systems.
- Houses are oriented towards the open spaces so that they are a shared amenity, not privatized.
- A variety of housing types are provided to promote diversity and flexibility of use over time.
- Flexible controls over home occupations and live-work create mixed use and a more complete neighborhood.
- Where the overall density (suggest standard) of a group of neighborhoods can support it, neighborhood-scale retail is encouraged. Civic uses such as elementary schools or a neighborhood center help create a complete community
- Streets are treated as if they are the most important public space: the automobile-related features are minimized. The presence of the automobile is minimized to ensure a pedestrian environment; houses have a strong relationship to the street and are oriented toward the street.

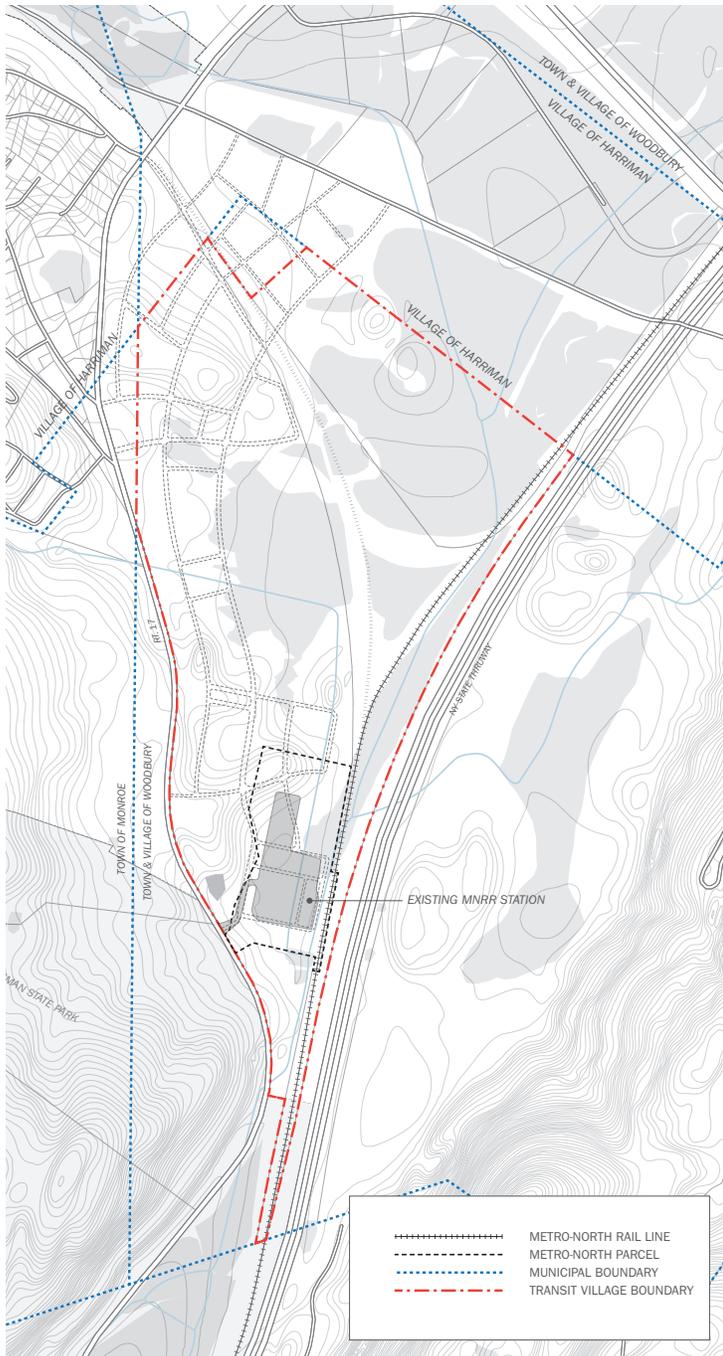
3 Harriman Gateway

This corresponds to the portion of the study area that is directly east of the Harriman Village center, Grove Street and South Main Street. This area is both within the Village of Harriman and the Village of Woodbury. A small land area is within the Town of Monroe. It is a primarily mixed commercial and industrial area that is never the less organized around a network of well-defined public open spaces and streets. It is characterized by the following:

- Accommodation of larger scale uses (light industrial, retail, indoor recreation).
- Residential uses here are primarily senior housing or age-restricted communities. Complementary uses include a chain hotel, a school or community facility, or professional offices.

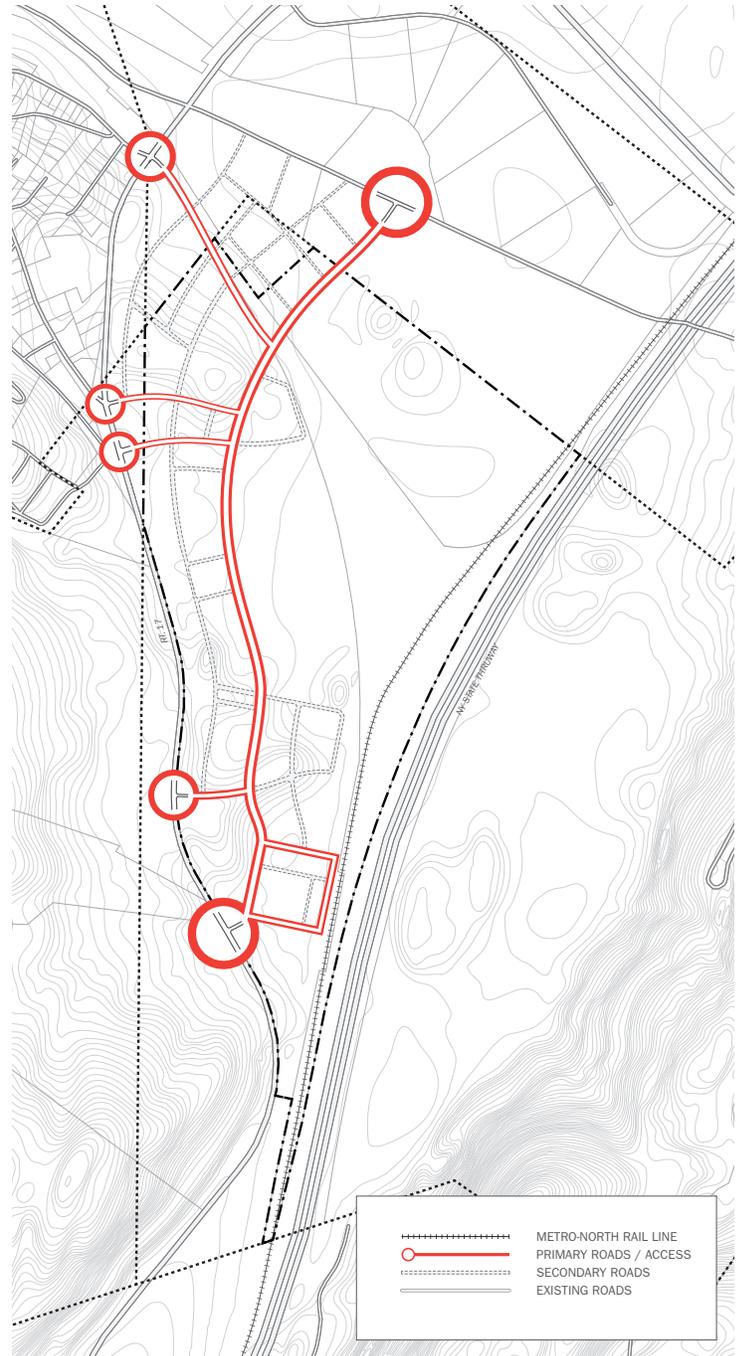
- This area links to the Harriman Village center. Intermediate scale and smaller scale retail uses should provide a transition to the village scale of Harriman. New businesses should complement, but not compete with, existing businesses in the Harriman village center.
- Although this area may contain larger format uses, place-making urban design principles apply: buildings and their entrances should be oriented towards the streets and sited so that they frame well-defined spaces; establish uniform setback standards and uniform landscape design standards for the set-back zone; the internal road network shall be designed to maximize cross-access between parcels and different businesses; link the internal street network to the surrounding street and block network and to adjacent developments; the area shall be pedestrian-friendly.
- Large, unrelieved expanses of parking are not permitted and parking lots are located along the sides of buildings and minimize frontage onto important connecting thru-streets; on-street parking opportunities are maximized; service and loading areas and service routes are separated to the greatest extent possible from car, bicycle and pedestrian access routes, and especially from important thru streets. Where possible, service areas shall be internal to the blocks. Landscape treatments should screen service and loading areas from view.
- The large roof surfaces of the bigger footprint uses are ideal for green roofs or solar collection. The large surface parking lots can capture water in bioswales.





Municipal Boundaries

The site is located at the intersection of four municipalities: the towns of Woodbury and Monroe, and the villages of Woodbury and Harriman. The new Transit Village zone traces Route 17 north from the current Metro North Harriman train station. Its northern edge is bounded by Aberdeen road, and the municipal line between the villages of Harriman and Woodbury. Its eastern edge runs along the existing railway.



Coordinated Road Infrastructure

The purpose of coordinated road infrastructure is to create a flexible and interconnected network of streets and blocks that links all of the development areas within the study area to each other, to the station, and to the surrounding road network.

The foundation for the road network strategy is to create as much connectivity as possible, both within the site, and to the site; and to facilitate other forms of mobility, especially biking and walking, as much as possible. Connectivity within the site is achieved by creating street-and-block networks of different scales, as opposed to cul-de-sacs and by maximizing cross-access between development parcels to increase connectivity and reduce pressure on the principal streets.

New north-south connecting road

- The centerpiece of the road network strategy is to create a new north-south road from the station to the north end of the site. This road's design as a "wetland parkway" will discourage high speed through-traffic by incorporating a series of traffic calming techniques: narrow travel lanes, frequent intersections (signalized or not), on-street parking, and other devices such as "bulb-outs" or raised "tables" at intersections.
- The new north-south connecting road must be able to be completed without compromising access to the Metro North parking lot. The western edge of the MNRR property is a favored alignment for this road.
- Over time, it is anticipated that the new north-south connecting road can extend to the Napera parcel and, potentially, the developments along Commerce Drive.

Multiple Points of Access to Route 17

- In keeping with the infrastructure diagram, there will be a minimum of three access points from Route 17 into the Harriman Station Planning Area.
- The existing entrance to the Metro North station and parking lot
- The transition point between the TOD Core Area and the New Neighborhood.
- The South Main Street/Rt. 17/Rt. 17M area.

- A fourth point of access may be created north of the South Main Street/17M intersection if this facilitates access and overall traffic reduction. By creating multiple points of access, traffic can be distributed to avoid creating congestion at particular points along Route 17.

These intersections shall be designed not only to accommodate traffic needs, but to facilitate pedestrian and bicycle access as well. To this end, traffic calming strategies shall be used including minimization of crossing distances, clearly marked pedestrian and bicycle ways, changes in material to signal drivers that they are approaching a pedestrianized area; and landscaping to make these intersections attractive gateways.

The intersection in the area of the South Main Street/17M area requires particular care because of the three-way nature of the existing intersection and the unusual geometry. This area must also function as the point of connection between the north end of the Station Planning Area and the Village of Harriman Center.



Comprehensive approach to storm water management and natural areas

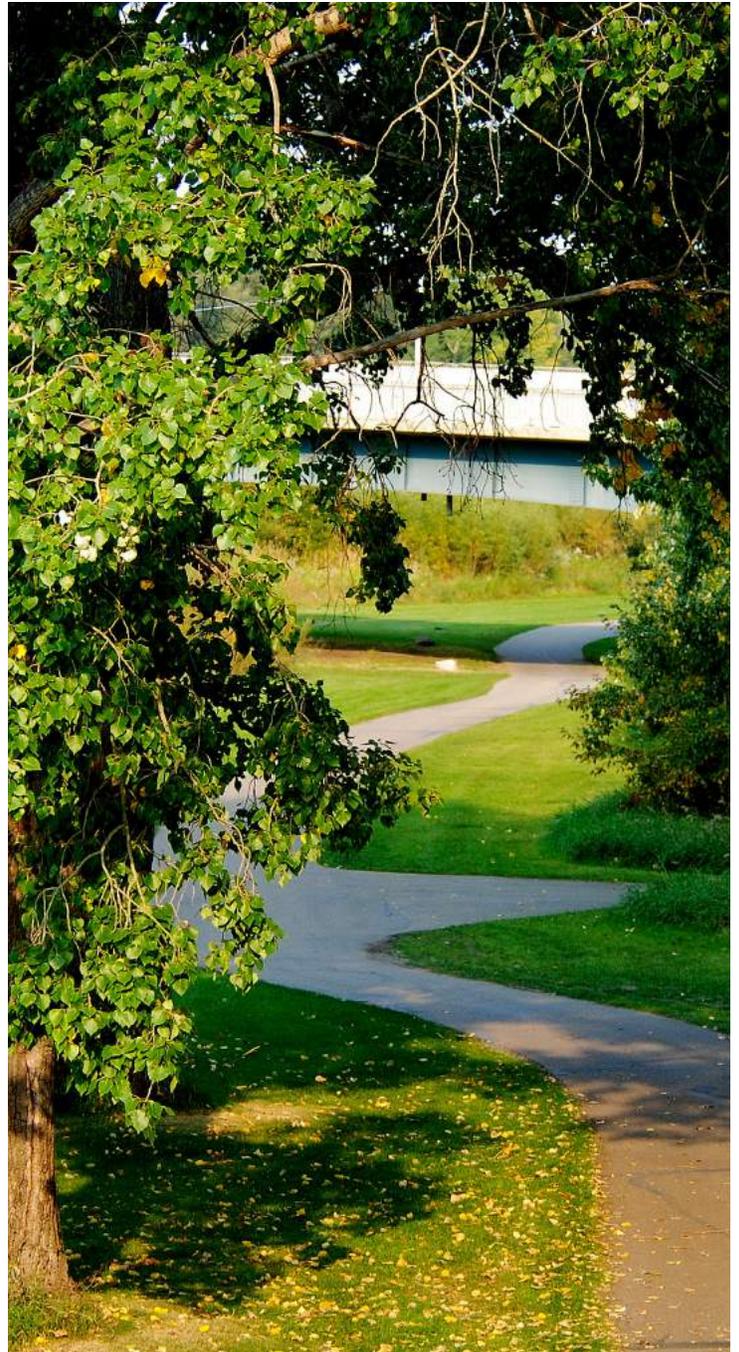
- Because of the extensive wetlands complex throughout the study area and several water courses that run between sites, there is comprehensive storm water management strategy for the entire study area and shared by all three municipalities. This includes Low Impact Design best practice. Examples include “green streets” with robust landscaping both for shade and to retain water, bioswales and rain gardens.

Access to open spaces

- A continuous network of trails and boardwalks shall be provided, designed to be an integral part of the overall landscape design, and to create linkages between destinations on the sites and between municipalities. A network of trails throughout the study area would include trails and boardwalks through the conservation area and wetlands. All developments within the Planning Area shall provide for the extension of the trail networks through and between each development. The centerpiece of the trail network will be the Heritage Trail, which is planned to run like a spine between the properties on the site and which can link the destinations beyond the site that are within biking distance to the train station. Within the planning area as many linkages as possible are created between existing and proposed open space resources. This includes connections to the two main established parks – Harriman State Park and Mary Harriman Memorial Park. In addition to the passive open spaces created within the conservation area, there are opportunities for active recreational space nested along the irregular western edge of the wetlands.

Coordinated Environmental and Open Space Strategies

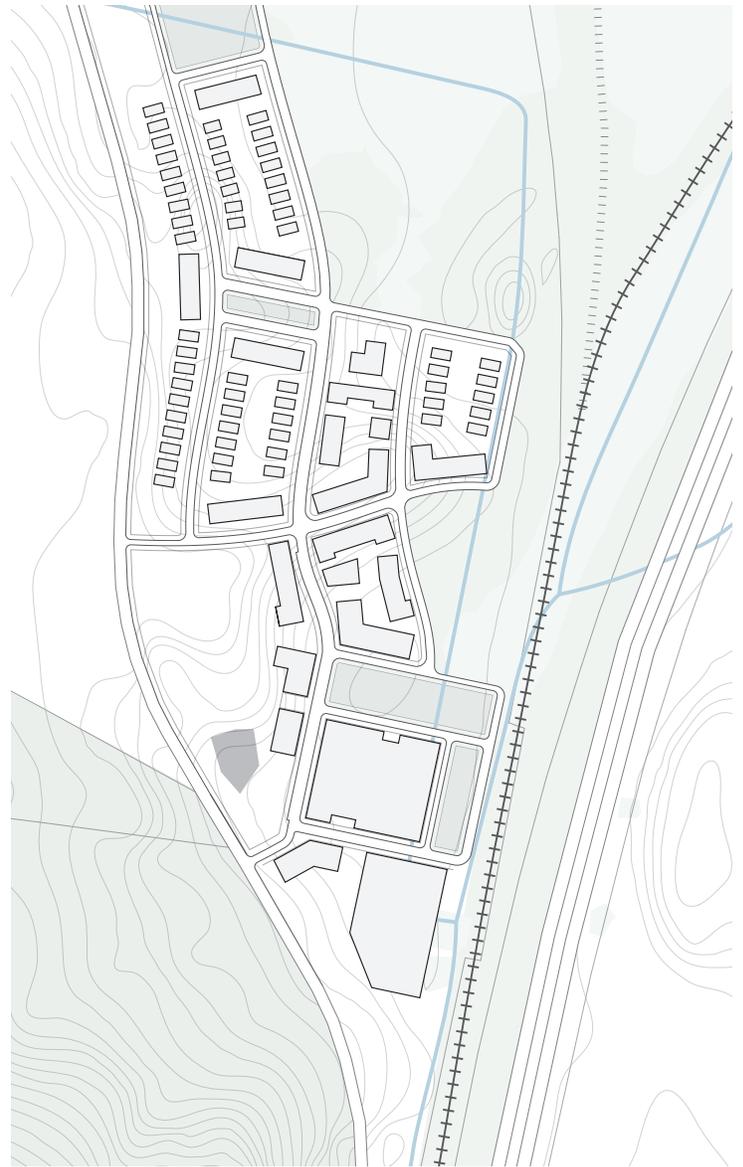
The purpose of a coordinated environmental and open space strategy is to insure the integrity and continuity of the natural systems throughout the entire planning area; to link open spaces resources among the municipalities; to provide comprehensive storm water management.





Harriman Station Area Phasing

It is anticipated that the Metro North property will not be developed at the same time as the rest of the Planning Area. The rest of the Planning Area is in single ownership, but it may also be developed in phases. Therefore, site planning must allow each property and each phase to be developed independently but in such a way that when all the properties are developed, the transitions between development phases are completely seamless.



New Neighborhood Development without Metro North Property

Currently, the Metro North property almost entirely covered with surface parking, to support the daily commute of residents throughout the neighboring towns and villages.

- The north and west edges of the MNRR parking lot is where the transition between the Core TOD Area and the rest of the TND Overlay district will take place. The site planning on either side of these properties property must anticipate the extension of a compatible street and block pattern in both directions.
- Along these same property lines, the massing and scale of the buildings should anticipate the transition between the levels anticipated for the TOD Core Area and the adjacent TND neighborhood.
- Street networks within developments must anticipate extension into adjacent developments.

Transit Village Center Development on Metro North Property

After the Metro North property is available to the Transit Village, station area development can begin.

- To support an effective Village Center, a variety of uses and services must be offered at a density that maintains commercial viability. For this to work, public spaces must be privileged above spaces accommodating automobiles.
- Despite the need for available parking, there are numerous strategies that can be employed to mitigate the effect of cars on the area. Structured parking is an ideal solution, but alternate methods may be employed as well to produce the desired outcome



Overview

- Connectivity within the site and to surrounding areas should be provided through the creation of small blocks, and the connection of new streets and sidewalks to the surrounding transportation network.
- Blocks shall not exceed an average area of 2.5 acres. When possible, blocks should not have a width greater than 330 feet or a length over 660 feet.
- Streets and blocks shall be designed in response to natural and environmental conditions. This includes solar orientation, natural drainage patterns, and passive storm water management practices.
- Streets should be designed to support incremental growth over time, and provide flexibility in the case of reorganization. Permanent cul-de-sacs shall only be permitted in cases where interconnection is deemed impractical, such as wetland areas or steep slopes.
- Streets are considered a part of public open space and should encourage interaction between resident through inclusive design. Streets should be available for pedestrian and bicycle use in addition to automotive traffic.
- Streets shall be designed to accommodate alternative forms of mobility, including bus transit along major connecting roads. Accommodations include but are not limited to multiple classes of bikeways, cross walks, curb ramps, and relevant street furniture.
- Traffic calming strategies should be used throughout the side area. This includes curb extensions or bulb-outs, minimum curb radii (15 feet recommended), and raised or textured crosswalks to reduce automobile speeds and encourage pedestrian use.

- 01. Typical Commercial Street
- 02. Parkway adjacent to existing Wetlands
- 03. Typical Residential Street

Street Network

- Roads shall be designed to create a street and block network similar in scale to the existing village centers of Orange County, and maximize connectivity across new and existing neighborhoods.
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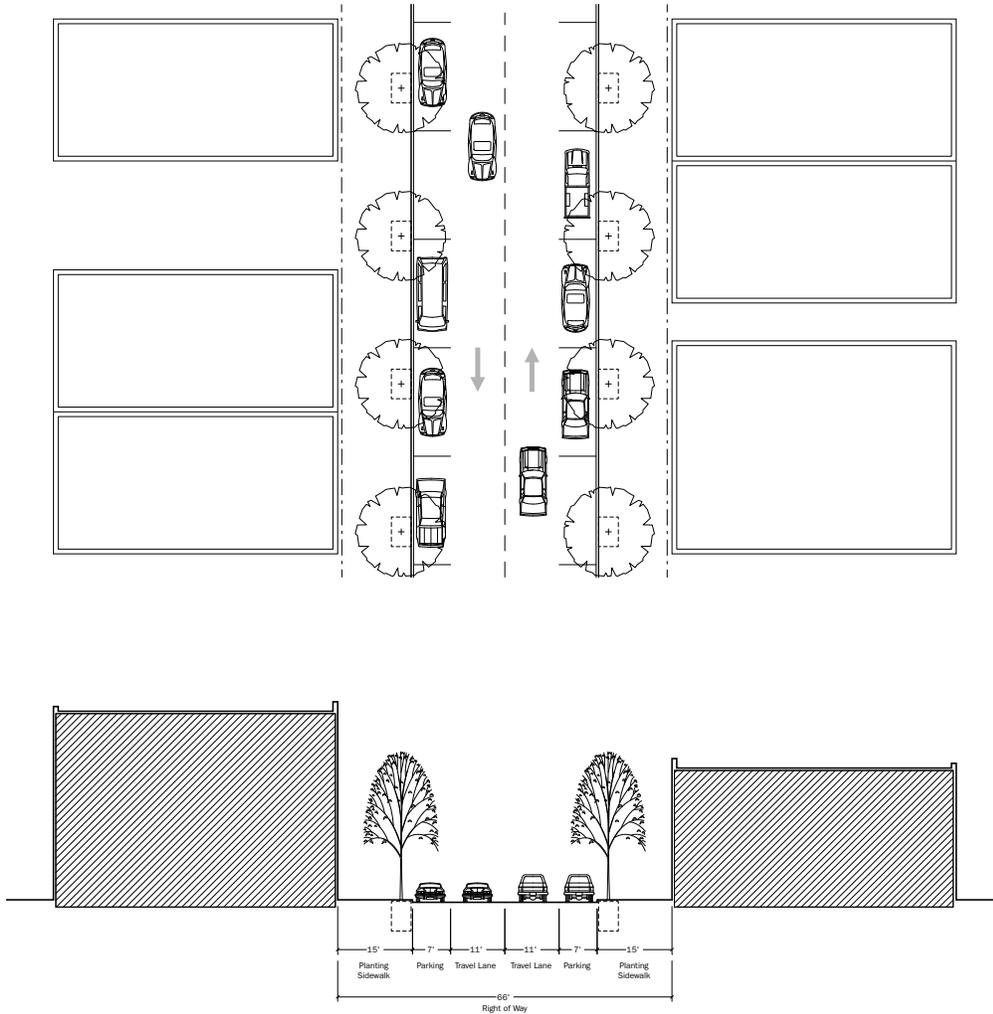
Street Connectivity

- Design of the intersection between Route 6/17 (the future I-86/Quickway) and parts of the planned road network will require additional attention to resolve. Pedestrian and bicycle access must be provided, to the greatest extent possible, within these areas.

- A 'Wetlands Parkway' should be provided from the Metro North station to Arden House Road and Commerce Drive.
- The southern portion of the site should be planned with a street and block network capable of supporting neighborhood-scale activity, in accordance with its proximity to the station area.
- Primary access to the site shall connect the station area and proposed Wetlands parkway to Route 6/17, and occur at or near the existing point of access.
- South Main Street should be extended into the site area to meet the proposed Wetlands Parkway, and connect the Village of Harriman with the new development.
- Grove Street should be extended into the site area adjacent to the Heritage Trail, and would ideally connect to the proposed Wetlands Parkway.
- An additional link from the Heritage Trail alignment to the Napera Site and Arden House road should be provided.

Sidewalk Design

- Sidewalks are required along both primary and secondary roads within the site area, and should be implemented along subsidiary routes when possible. Sidewalks shall continue across intersections, and provide a highly visible indication of their use.
- Sidewalks and public areas shall be illuminated in correspondence with their expected use. The size, design, and luminance value of lighting treatments shall reflect differences in street type.
- Street tree planting within sidewalk areas shall be placed in continuous trenches when possible. A prepared planting medium is to be used, and should be capable of permitting water and air circulation while providing support for the sidewalk above. Admixtures such as shale, or an acceptable substitute, shall be used to meet these criteria. Aeration and drainage measures should be incorporated into the planting design.
- Valet parking or drop-off locations shall not be permitted unless required by use. Acceptable functions include schools, child care centers, or hotels and passenger terminals.



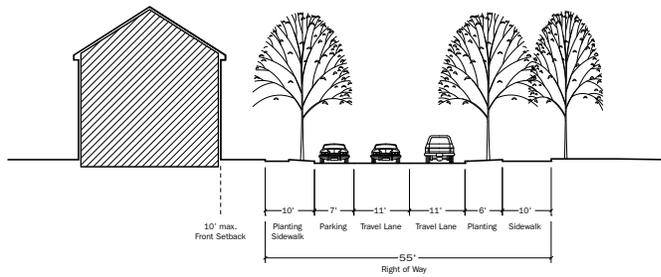
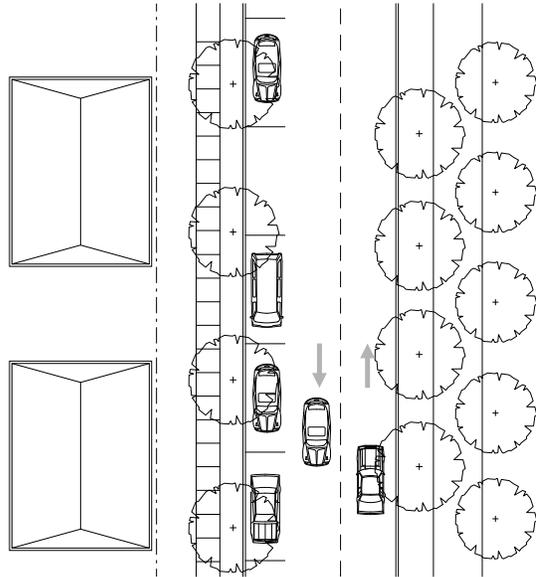
01. Commercial Street

- Right of Way Width: 66'
- Pavement Width: 30'

- Travel Lane: 16' (two way)
- Parking Lane: 7' (building side only)
- Sidewalk(s): 15' (e. both sides)

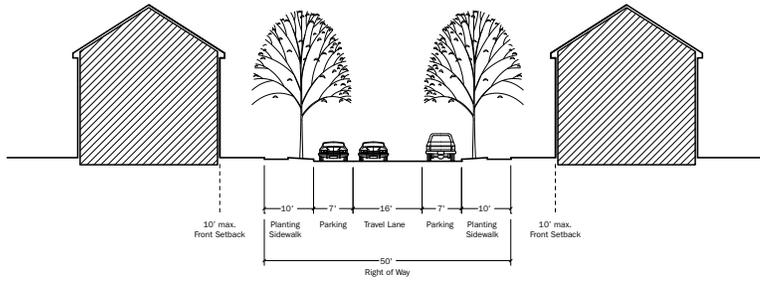
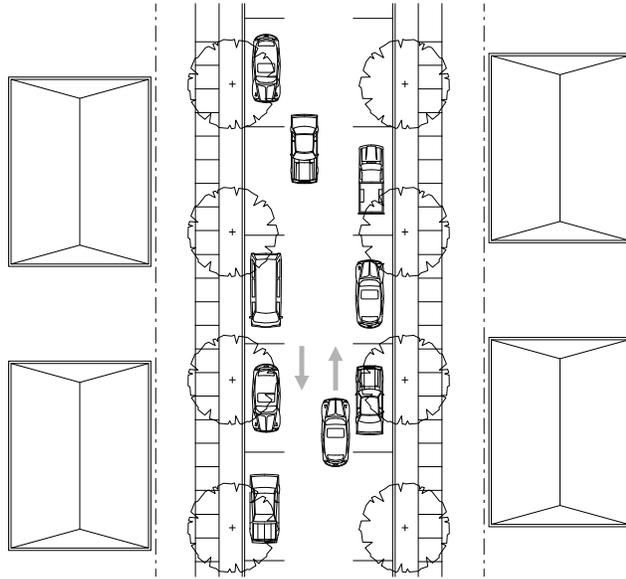
- Sidewalk Planting: Located within sidewalk
Trees @ 30' o.c. (both sides)





02. Parkway

Right of Way Width:	55'
Pavement Width:	29'
Travel Lane:	11' (ea. two way)
Parking Lane:	7' (building side only)
Sidewalk(s):	5' (building side) 10' (open side w/ add'l paths and trails)
Sidewalk Planting:	5' (building side) 6' (open side) Trees @ 30' o.c. (building side) Double role allee or similar (open side)



03. Residential Street

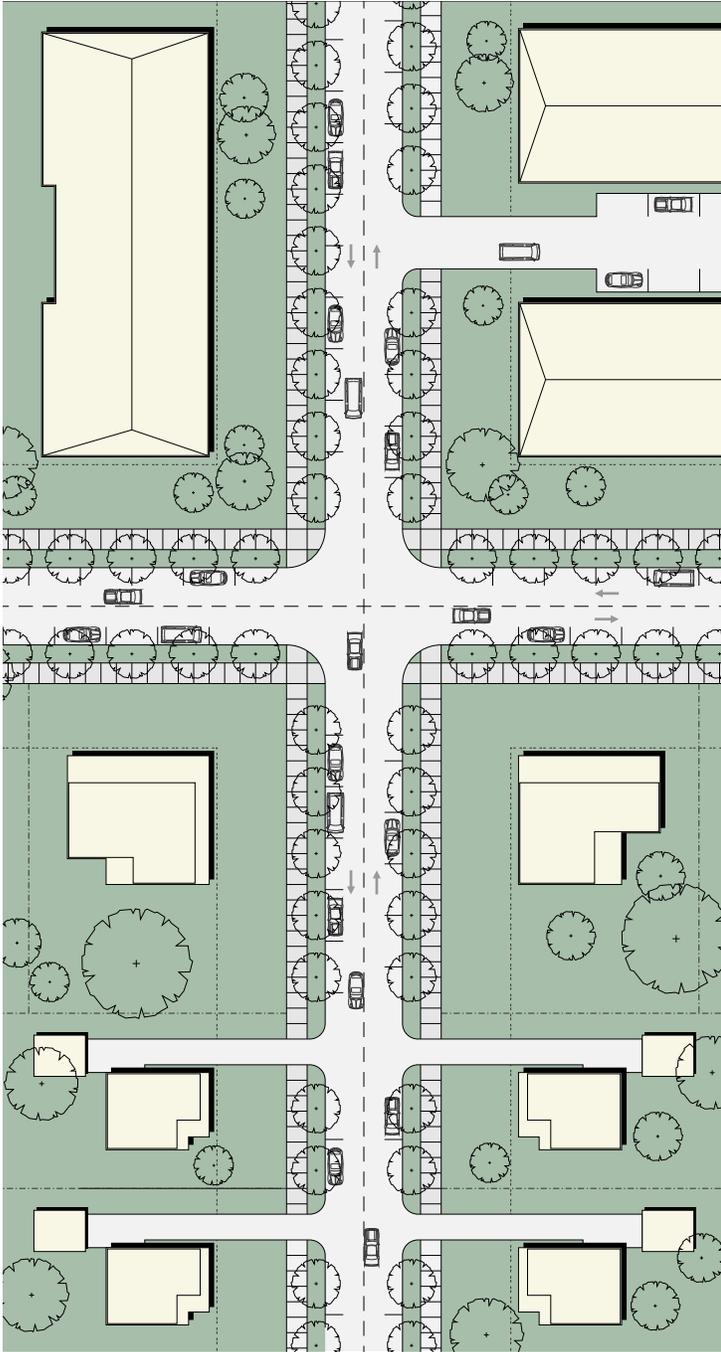
- Right of Way Width: 50'
- Pavement Width: 30'

- Travel Lane: 16' (two way)
- Parking Lane: 7' (ea. both sides)
- Sidewalk(s): 5' (ea. both sides)

- Sidewalk Planting: 5' (ea. both sides)
- Trees @ 30' o.c.







Single Family Streets

- Street trees should be provided at uniform intervals. The recommended spacing is 30' on center.
- Intersections should use traffic-calming strategies to maintain a safe and pedestrian-friendly environment.

Single Family Houses

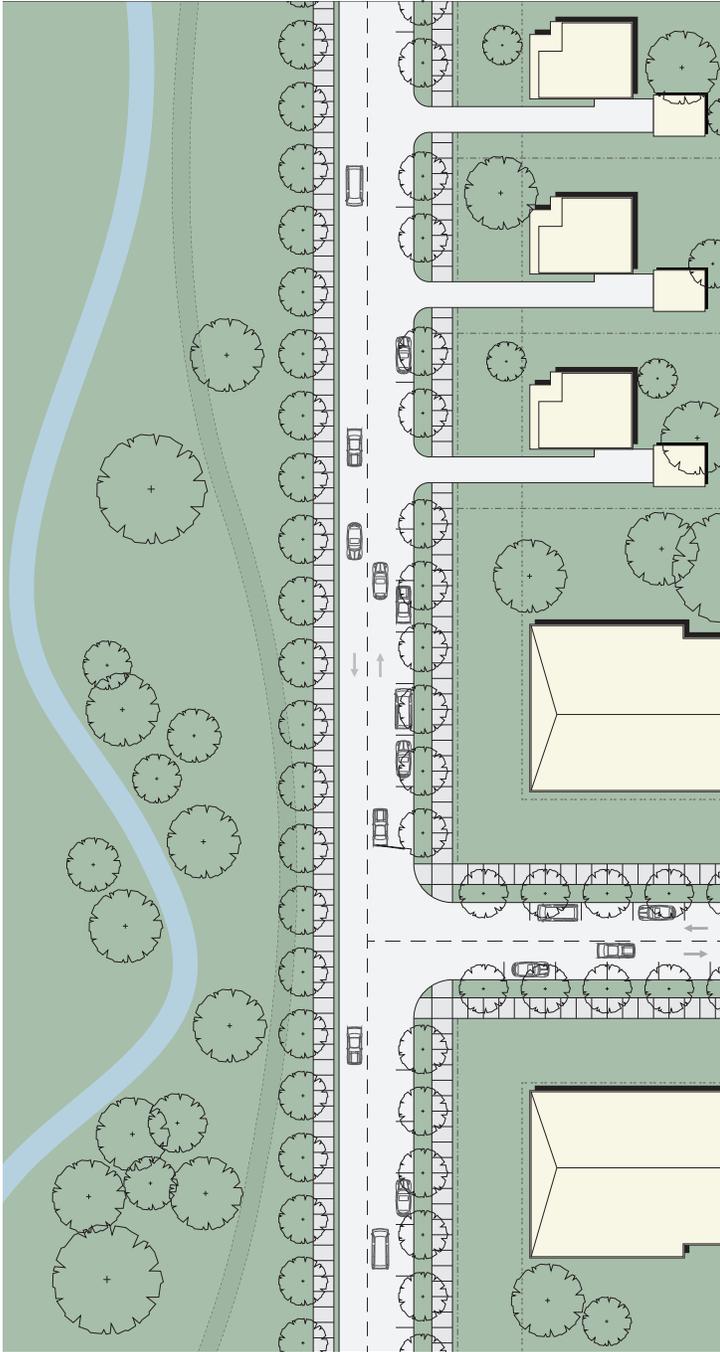
- Houses at the corner of blocks should have primary or secondary access to both streets.
- Houses should be integrated with their adjacent streets. Primary entrances should face the street. Attached garages should take a relatively small area of a house's front facade.
- The front facade of houses should be located along a set-back, or 'build-to' line; otherwise, a narrow set back zone should be established to align the front of houses to the street.

Single Family Parking

- Promote on-street parking to meet expected demand
- Provide access to garages from mid-block alleys when possible
- Where provided, garages should be set back as far as possible from the public street and, in any case, behind the front face of houses in the neighborhood.
- Driveways for garages should be no greater than 9 feet.

Multi-Family Neighborhood Form

- A diverse mix of residential building types should be encouraged in new neighborhoods.
- The massing of buildings shall be used to create gradual transitions between buildings of different scale.
- Principle facades of larger buildings and buildings at intersections should be oriented towards the most important streets.
- In no case shall parking lots front onto public streets. Parking lots shall only occupy the interior of blocks. Access to parking lots and services shall be from secondary streets or alleys.

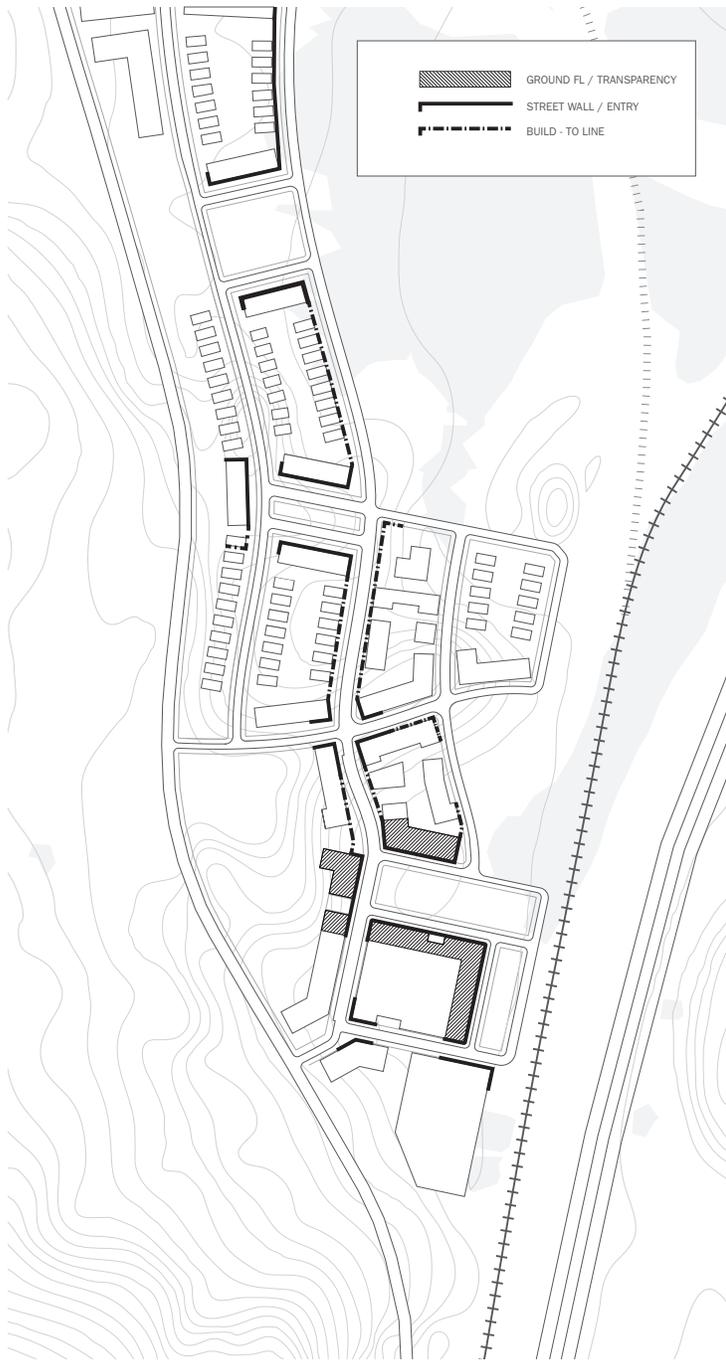


Neighborhood Edges

- Where new neighborhoods are adjacent to conserved open spaces, a single-sided road will prevent future conflicts of use, as there will be a clear separation between public and privately held space. This way, the resource of open space will be protected from becoming 'privatized' by individual back yards.
- The provision of a single-sided street also creates the opportunity for trail networks to be built in conjunction with public sidewalks. A trail network can effectively link conserved open spaces and public lands to developed areas.

Neighborhood Open Space

- Neighborhood-scale open spaces can support higher density residential building types
- Buildings facing open spaces should not necessarily be the same type, but together they should create a coherent and integrated ensemble. Differences in scale and style should be considered, and managed creatively.
- In no case shall parking lots face neighborhood open spaces. Parking lots should remain behind buildings, or otherwise completely screened from view. Landscape buffers can be used to effectively separate parking and open space.
- Neighborhood parks should be surrounded on all sides as streets, so as to allow the greatest possible access for all residents in the neighborhood.
- On-street parking is encouraged on streets adjacent to public open spaces and neighborhood parks.



Harriman Station Core Area

The future station area is characterized by compact mixed-use development. Its position as a commuter hub affords the greatest capacity to support the recommended actions. Due to the potential for delays in securing portions of this sector, design and construction should be divided into multiple phases to ensure that work is completed in a timely manner.

- The Station Core Area shall be characterized by three to four storey buildings, and include measures for bulk regulation to maintain an appropriate scale.
- Buildings meet the sidewalk line in order to clearly define and enclose the public area created by the street. An approximate 75% of any frontage shall align in this manner, with allowances made for extraneous circumstances or irregularities.
- Parking ratios should be reduced, when possible, in response to an increase in transit access. Shared parking is recommended for both individual user and daily commuter needs.
- Parking should be managed in a way that does not subordinate pedestrian use. Structured parking is most effective, although surface parking lots may be subdivided and placed behind buildings and within blocks. At most, a maximum of 25% of core area frontage may be screened parking.
- Building should primarily be mixed-use and contain both residential and commercial tenants. A typical example would be ground-level retail with a combination of offices and residential units on upper floors.
- The area immediately surrounding the station should be characterized by an abundance of ground level activity. Buildings in this area should be visible to residents and visitors, and actively define the public space enclosed.
- Materials and design should serve to designate the core area as public asset. Roads accessing the station and core areas should be designed in articulated to signify this feature, while landscape and streetscape elements can work to define the space and its boundaries.

Building Massing

The project's scale of design is intended to reflect at a level of complexity similar to urban areas constructed over a number of generations. In keeping with this requirement, architecture within the site area should be varied in character, and avoid the appearance of repetitive development.

- Buildings shall be massed in a way that reflects a scale and character in keeping with the historic village centers of Orange County.
- Buildings that are of notable civic or commercial use, or buildings that terminate important views, shall be of exceptional architectural design.
- Overall distribution of bulk within the site shall be tiered, and based on proximity to the train station and core area.
- Massing should be used to create transitions between buildings of different scale, and between any new development and existing construction.
- The massing of buildings shall reflect the use and location of streets, and serve to frame and define major open spaces.
- Unless assigned a unique use, buildings should employ a base-middle-top logic as the primary method of relating disparate heights and massing. Transitions between buildings may be achieved through continuous lines of transition such as shallow balconies, recesses, cornices, fenestration or other appropriate means. These features should be supported through transitions of materials and module size, spacing, texture, color, and/or other variables.
- Buildings should consider all vantage points in the specification of exterior treatments. Attractive cladding and fenestration should not be exclusive to street-facing surfaces.
- Buildings shall be oriented, in access and function, towards the public street. The streetscape itself should be continuous, although monotony should be avoided. Pedestrian use and movement should be encouraged through the inclusion of street furniture, landscape elements, and a variety of setbacks and material shifts in buildings and sidewalks respectively.
- Longer buildings should be subdivided at a scale to match similar buildings within that area, maintaining consistency in module size and spacing across multiple building fronts.
- Interruptions in the street wall by driveways and other curb cuts should be minimized, and generally limited to secondary streets and alleys.

- Excessive variation in the treatment of facades along a block length of street should be avoided. This variation is the result of significant differences in the ratio of transparent to solid surface area across a buildings façade. An extreme case would be the location of a typical residential structure adjacent to a fully glass-clad office building.
- Balconies may be used for both multi-family dwellings and commercial buildings. However, to avoid discontinuity and overuse, balconies should be implemented sparingly and designed with consideration for the surrounding context.

Ground Floor Frontage

- Buildings should define public space by providing a clear and consistent relationship to the street and the edges of other open areas. Buildings should be oriented towards the street, and encourage pedestrian interaction.
- The front façade of a building, the surface facing a public street or open space, should be considered the primary interface in managing pedestrian interest and activity. The front façade(s) should receive a significant allocation of time and resources in a buildings design and construction.
- Primary building entrances shall have a prominent presence on major streets, and adjacent to public spaces.
- Curb cuts to parking and service areas shall, when possible, be located on secondary streets or alleys.
- Within the station area, ground floor uses shall be primarily public and service-oriented commercial activities.
- In the case of public or commercial ground floor use, buildings shall have a minimum transparency of 75%.
- Buildings that define the edges of major public spaces shall create a continuous street wall along the area's perimeter. Buildings outside this requirement shall be located along a setback or build-to line to maintain a consistent relationship to the street and a clearly defined edge. Buildings should be used, when possible, to define the corners of blocks and intersections.
- Portions of buildings that terminate important views, demarcate thresholds or transitions, or are otherwise in significant locations, shall be articulated through changes in massing or architectural expression.

Building Entrances

- All buildings shall be designed with their primary entrance open to a public street, except for residences or markets that may front a private street or plaza. Entrances on corner sites, with the exception of those used for townhouses, should favor the higher order or more heavily used street.
- Principle entrances shall be clearly identified in design and articulation. Spaces between buildings or nondescript openings are not acceptable.
- Building entrances shall, when possible, be coordinated with the design of sidewalk planting and on-street parking.
- Alternate entrances located on public streets should be clearly articulated as secondary to primary points of access.
- Every dwelling unit and office shall have direct access to a public street without the necessity of passing through a parking facility.
- Service entrances should not occupy a building's front façade, but be limited to sides facing parking facilities or driveways.
- Security gates shall be designed to integrate with the building's façade; flush mounted security gates are not permitted. Security gates shall be at minimum 75% open throughout the top 75% of the surfaces. In no instance shall gates be solid in areas higher than 48 inches from the adjoining sidewalk.

View Shed Considerations

- This is a highly visible site, from the Thruway, from Route 17 and from the surrounding hills. This shall be a consideration in the planning of this area including, but not limited to the location, design and screening of parking and service areas; the "roof scape" of the new buildings; the overall scale and character of the entire ensemble of new structures and landscape.

Roof Design

- Roof pitch is not required to follow any standard, as climactic considerations should be predominant in design. Rooftops should be well maintained and attractively designed in respect to surround buildings of a greater height.
- In cases of a pitched roof, the ratio of rise to run shall be within the range of 6:12 to 12:12. Flat roofs, regardless of accessibility, shall be surrounded by a horizontal parapet wall at a height of no less than 3.5 feet from the outermost surface.

Mechanical Equipment

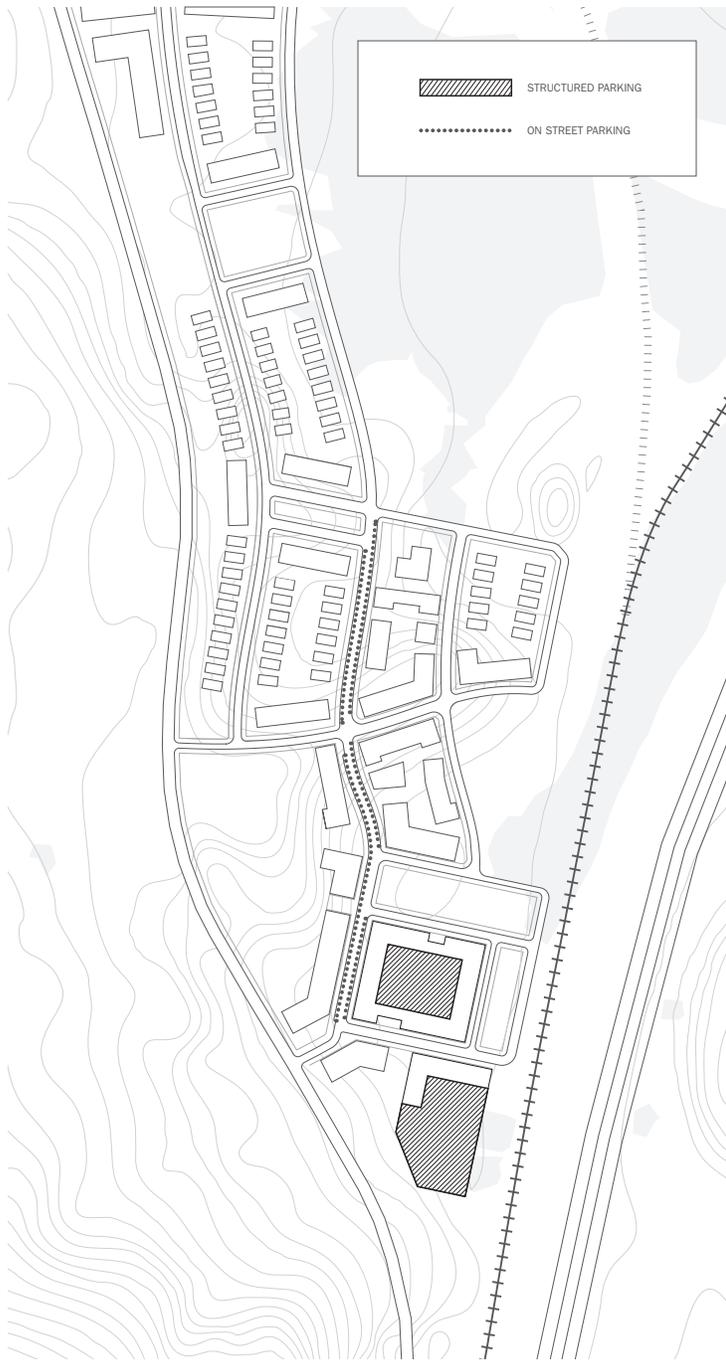
- Mechanical equipment should generally be located on building rooftops, and include measures to diminish the visual effect of equipment on its surroundings.
- The location and masking of rooftop mechanical equipment shall be fully integrated into the building's design. The use of parapets to mask equipment from street level and adjacent buildings is recommended, although alternate means may be employed.
- Mechanical equipment at ground level should be limited in use to single family attached townhouses or single-detached dwellings. Equipment should be screened from ground level view by landscaping, fencing, walls, or a combination of the same.

Solid Waste and Recycling

- Each building shall be designed to provide for adequate storage and disposal of solid waste, including provisions for recyclable materials.
- All areas designated for solid waste and recycling collection shall be located within buildings or parking facilities.
- At least one trash and recycling pick-up location shall be provided for each multi-family or non-residential building.
- All exterior trash and recycling locations shall be enclosed and located in a manner that is concealed from public view. Locations shall be screened from parking lots, streets, and adjacent use through the implementation of fences, walls, plantings, or a combination of each. Facilities shall be at the same level as the provided means of access.
- Exterior solid waste enclosures shall be constructed of masonry, and accessed through opaque metal gates. Materials shall be compatible with those of the adjoining building.

Telecommunications Equipment

- All parts and components of antennas, satellite dishes, and other telecommunication equipment shall be screened from view, excepting those components necessary for unobstructed transmission. Equipment must be concealed regardless of vantage point, or placed within an appropriate enclosure.
- Enclosures and concealment methods are to be included as part of the overall design of the building, and coincide in materials and construction.
- Personal communication service antennas may be attached to building parapets, provided they are indistinguishable in color and texture from the material in use, and do not extend beyond the top of the parapet to which they are affixed.



Coordination with Metro North Future Structured Parking

To achieve the desired character of a transit-oriented development, the commuter parking lots around the Harriman Station will have to be redeveloped. Long-term projections by Metro-North Railroad (MNRR) anticipate the need to maintain 900 spaces. For these objectives to be reconciled, parking will have to be consolidated into a parking structure at some point. Allocation of land for future parking structures shall be part of site planning in this study area.

- In earlier phases of redevelopment, close coordination with Metro North shall minimize access conflicts to the station, optimize connections between developments and the station, and explore opportunities for shared parking.

Parking Garage Design

Parking garages are to be concealed from view through the placement of buildings along their perimeter, except for instances as indicated below. Where parking garages are visible, column and spandrel size should be designed to match the proportions of neighboring buildings. Materials, landscaping, and architectural elements used in the façade should match those of adjacent buildings. The overall identity and palette of the area should remain consistent.

- Parking garages should be integrated, to the greatest extent feasible, with the buildings they are designed to serve so that access is provided on multiple levels. This can include the placement of alternate uses around or above parking structures.
- Parking garages shall be designed with internal ramps for vehicular movement between levels. In no event shall helical or exterior ramps be permitted.
- Parking garage driveways shall be placed at minimum 60 feet away from street intersections (not including curb radii), and shall not pose any hazard to pedestrian traffic. Distance shall be measured from the intersection of rights-of way and the driveway's nearest edge.

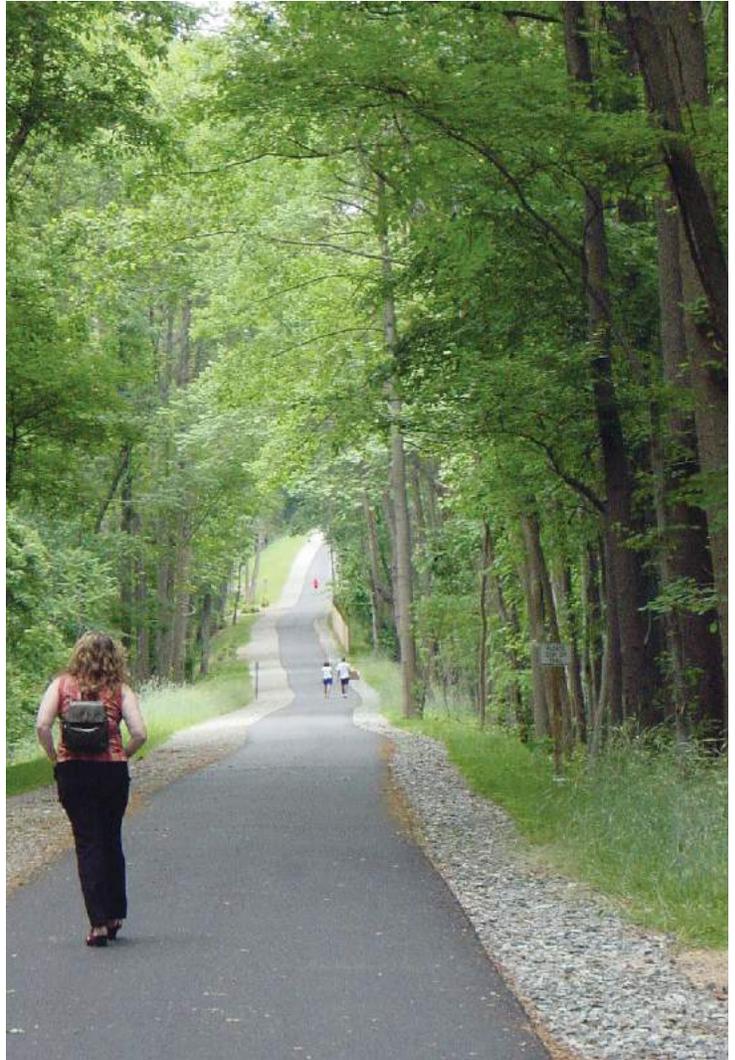
- Parking garage ventilation, in the form of shafts or chimneys, shall be located to prevent the direction of exhaust into nearby windows or air intake ducts of adjacent buildings.
- Adequate illumination, in accordance with current IESNA standards, shall be provided for every parking facility. Light fixtures should not be mounted at a height between 16 and 25 feet. All fixtures shall be shielded to prevent glare beyond the parking area.
- Access to loading spaces from public rights-of-way shall be the same as permitted for parking facilities. The minimum space allowed for off-street loading shall be design to accommodate the length of vehicle anticipated for use. Under no circumstance shall the public sidewalk be used as part of a loading area. Vertical projections in loading areas shall not extend above the top of the parapet under which they are located.
- For surface parking lots in excess of five spaces, a landscaped island shall separate every four rows of parking. The minimum width of landscape islands shall be 8 feet between rows, and to the side of parking spaces. If sidewalks are incorporated through the long axis of landscape islands, their width shall be included in addition to the required dimension. In cases where the parking lot design results in pedestrian traffic perpendicular to traffic islands, sidewalks shall be placed at regular intervals along the short axis.
- Landscape islands shall be planted with a combination of deciduous trees, evergreen and deciduous shrubs, and an appropriate ground cover. Each island shall be planted with a minimum of two trees.
- Parking and exterior loading areas shall be screened by a combination of hedges, fences, and/or walls. The minimum screening height for planting shall be 3 feet, and reach a height of 4 feet or more within three years of installation. Planting used to screen loading dock areas visible from public rights-of-way shall have a minimum height of 8 feet, with an expected height of 12 feet within five years of installation.

Coordinated Access and Parking Strategy

Access and parking should not be resolved on a site-by-site or building-by-building basis, but through a comprehensive approach to access and parking that is based on the overall needs for the planning area. This will maximize flexibility in meeting parking needs and minimize traffic by promoting cross access and shared access to developments.

Parking and Loading Area Landscaping

Parking areas shall use landscape design aide in the safe and convenient movement of vehicles, and to avoid pedestrian and vehicle conflicts. Paved areas should be limited, and landscape should be used to screen surface paving from public rights-of-way and adjacent buildings. These measures serve to reduce heat island effects, provide shade to, and generally reduce the visual impact of surface parking lots.



Landscape Design

Landscape design shall reinforce the site's public open-space network, specifically the edges and significant features of trails and active recreation zones (playgrounds, picnic areas, etc...). It should also serve to highlight the architectural character and programmatic functions of civic open spaces, and define the area's streets and sidewalks.

- Native, noninvasive species shall be used to the greatest extent possible
- All new infrastructure shall be located in respect to landscape design strategies, and to the greatest extent possible be hidden from view. Visible construction shall use materials sympathetic to the overall design. Furthermore, new infrastructure shall be located so that it does not interfere with pedestrian traffic.

Station Area

Open space within the station area will primarily consist of hard and impervious surfaces, however it remains a major component in the districts overall landscape strategy. Street planning and other green features are critical in linking the central area's outdoor environment with the surrounding neighborhoods.

- Provide supplemental irrigation for landscaping in the areas immediately surrounding the station. At minimum, 30% of street-level horizontal surface area shall be permeable.
- Provide seating at regular intervals along streets and perimeters of opens areas, in addition to trees and other miscellaneous planting. Spacing for trees shall be approximately 20' on center.
- Illuminate building facades surrounding the area and should be mounted at the level of, and integrated with, pole mounted fixtures. Up-lights should be provided along the edge of planting areas to illuminate trees.
- Ground surface materials in the station area shall employ a variety of scales, textures, and colors. Unit pavers shall be used in conjunction with a planting strip along curb side edges of sidewalks. All curbs shall be granite or an acceptable substitute, unless otherwise noted

Storm Water Management

Storm water management strategies take advantage of existing 'green infrastructure' potential within the site. It should respond, as much as possible, to existing drainage characteristics and other natural features of the area.

- Take advantage of the available innovations in passive storm water management, including (but not limited to): bio swales and bio retention basis, shallow marshes or ponds and extended detention wetlands, pocket wetlands, curb-less parking areas, street-side micro-basins, parking lot islands, and rain gardens.
- Integrate the storm water management strategy with a comprehensive open space design. Existing stream corridors, wetlands meadows, and other natural features should be incorporated into this strategy.
- Individual sites or blocks should retain and recharge as much water as possible. However, the storm water management strategy should approach the site in its entirety and relate individual components accordingly.

Trails and Boardwalks

A continuous network of trails and boardwalks should be incorporated to create links between destinations within the site. They should be designed to correspond with the overall landscape design strategy.

- Provide seating periodically along the trail and boardwalk network. Locate additional seating along areas supporting higher traffic: entry points, trail intersections, and places that offer attractive vistas.
- Surface trails are to be topped with asphalt, or an acceptable substitute, and provide a minimum width of 6 feet.
- Boardwalks shall be provided as required in wetland areas.
- Special consideration shall be given to the design of connections between the trail network and external pedestrian routes.
- Components of the trail system within a flood plane must be designed to tolerate periodic inundation.