III. Mobility

A. Introduction

The Eastern Urban Center SPA mobility plan provides for a transportation system which extends existing routes and constructs planned facilities for a variety of transportation modes. The plan incorporates vehicular and non-vehicular modes of transportation using a range of facility types. Within the EUC, the emphasis will be on pedestrian circulation with streetscape and intersection designs, as well as building design and block layout, intended to promote a walkable environment.

The plan arranges roads into a hierarchy, organized by function, to facilitate access within the community and offsite, consistent with the Otay Ranch GDP and the City of Chula Vista General Plan Growth Management Element. The road classifications have been refined to reflect the specific opportunities and constraints of the Eastern Urban Center SPA (*i.e.,* transit location, pedestrian orientation, urban center character, *etc.*). Similarly, a variety of off-street trails and sidewalks uniquely designed for the EUC comprise the pedestrian circulation system. These pedestrian components are intended to be the primary circulation routes within the EUC and are carefully designed to promote pedestrian use (see Form Based Code). The mobility plan also includes a public transit component with specific facilities dedicated for regional transit use.

The SPA Plan Public Facilities Financing Plan (see separate Public Facilities Financing Plan) establishes a transportation phasing plan with specific improvements and timing of circulation improvements to maintain the levels of service established in the City's Threshold Standards in the City's Growth Management Element of the General Plan. Per the Otay Ranch GDP, there are no level of service threshold standards established for internal streets.

Specific project access points, signalization, transit alignments and internal circulation components will be determined by the City Engineer during the tentative tract map process, and site plan approval. Variations to the concepts herein may occur where safety or efficiency can be maintained.

B. Project Access

1. Regional Access

Regional access to the project area is currently provided by I-805 via Olympic Parkway, an east-west arterial street which is located approximately one-half mile north of the project site. SR-125, at the western boundary of the project site provides primary north-south access to the EUC via on- and off-ramps at Birch Road and in the future at Rock Mountain Road/Hunte Parkway.

The Otay Ranch GDP provides for the eventual expansion of the regional transit system into Otay Ranch, extending south from the Freeway Commercial area through the EUC and continuing south into Village Nine, and ultimately to the international border. Otay Ranch SPA applications for transit villages and Planning Area Twelve, including the EUC SPA, are required to approximately locate transit alignments and transit stations. This alignment is indicated on Exhibit I-4 (Regional Transit) and further discussed in Section G of this chapter. Future final maps within the EUC will be conditioned to dedicate right-of-way or easements for the transit system.

2. Local Access

Local access to the Eastern Urban Center SPA project vicinity is currently provided by Olympic Parkway at SR-125. The project site is accessed from EastLake Parkway, a north-south route which has been constructed adjacent to the Freeway Commercial area to the north, and continues south along the eastern edge of the EUC project site to Hunte Parkway.

Birch Road is another east-west arterial that will serve the Eastern Urban Center SPA and will form its northern boundary. This route is completed along the northern edge of the project site. Hunte Parkway, also an east-west route in the vicinity of the EUC, will provide project access to the southern boundary. Both Birch Road and Hunte Parkway are planned to have SR-125 interchanges and function as part of the regional access routes to the Eastern Urban Center.

C. Pedestrian System

Off-street trail routes for pedestrians and bicyclists which connect to the community-wide system of Otay Ranch as well as the regional system described in the Circulation Element of the Chula Vista General Plan are included as components of the perimeter arterials of the Eastern Urban Center. Internally, pedestrian routes and pedestrian oriented design features will be major components of the circulation system and urban design as extensively detailed in Chapter III of the Form Based Code. Pedestrian routes and pedestrian "corridors" are shown on Exhibit III-1(Pedestrian Corridors). The intersections of the key internal streets will be designed with "bulb-outs" to extend the pedestrian orientation across street intersections. Trails that are adjacent to or within a public park shall not reduce the park credit that would otherwise be granted for the parkland in determining compliance with Chapter 17.10 CVMC.

One pedestrian route which will receive specific design attention is the regional trail which extends from Village Seven through the EUC to Village Eleven. Construction of the EUC segment will complete the "missing link" between the major destinations of: the Community Park site in Villages Two/Four and the Wolf Canyon open space in Village Seven west of the EUC and Village Eleven and the Salt Creek Greenbelt to the east. Details are provided in the FBC.

The regional trail enters the western side of the EUC next to Bob Pletcher Parkway via an underpass under SR-125 and is identified as Exhibit III-2 (Regional Trail). As it passes through the EUC, the trail will be located adjacent to streets or within parks and will link activity areas in the EUC, including public plazas, urban parks, the Main Street District and the Civic Core. The Regional Trail exits the EUC near the southeastern corner via a pedestrian bridge to connect to the Salt Creek Greenbelt, east of the University area and Village Eleven. The regional trail will be designed with continuity of width and alignment, special paving materials, distinctive signage, banners, and lighting, and coordinated street furniture, so it will be readily recognized as a major pedestrian route connecting to destinations throughout the Otay Ranch Community and beyond. Additional design standards and guidelines for the Regional Trail, as well as the pedestrian corridor concept along EUC streets, are provided in the Form Based Code.

A jogging path will be provided in the three districts that front SR-125 to provide pedestrian linkage within these districts and serve as a recreational amenity. The routing of this facility will be established during the design review process. Details of this path are provided in the FBC, Chapter III. Street "C" provides a north-south connections from the Otay Ranch Town Center through the EUC to Village 9. It is anticipated that the internal connections will be privately maintained.

Pedestrian Corridors
Widths & Connections

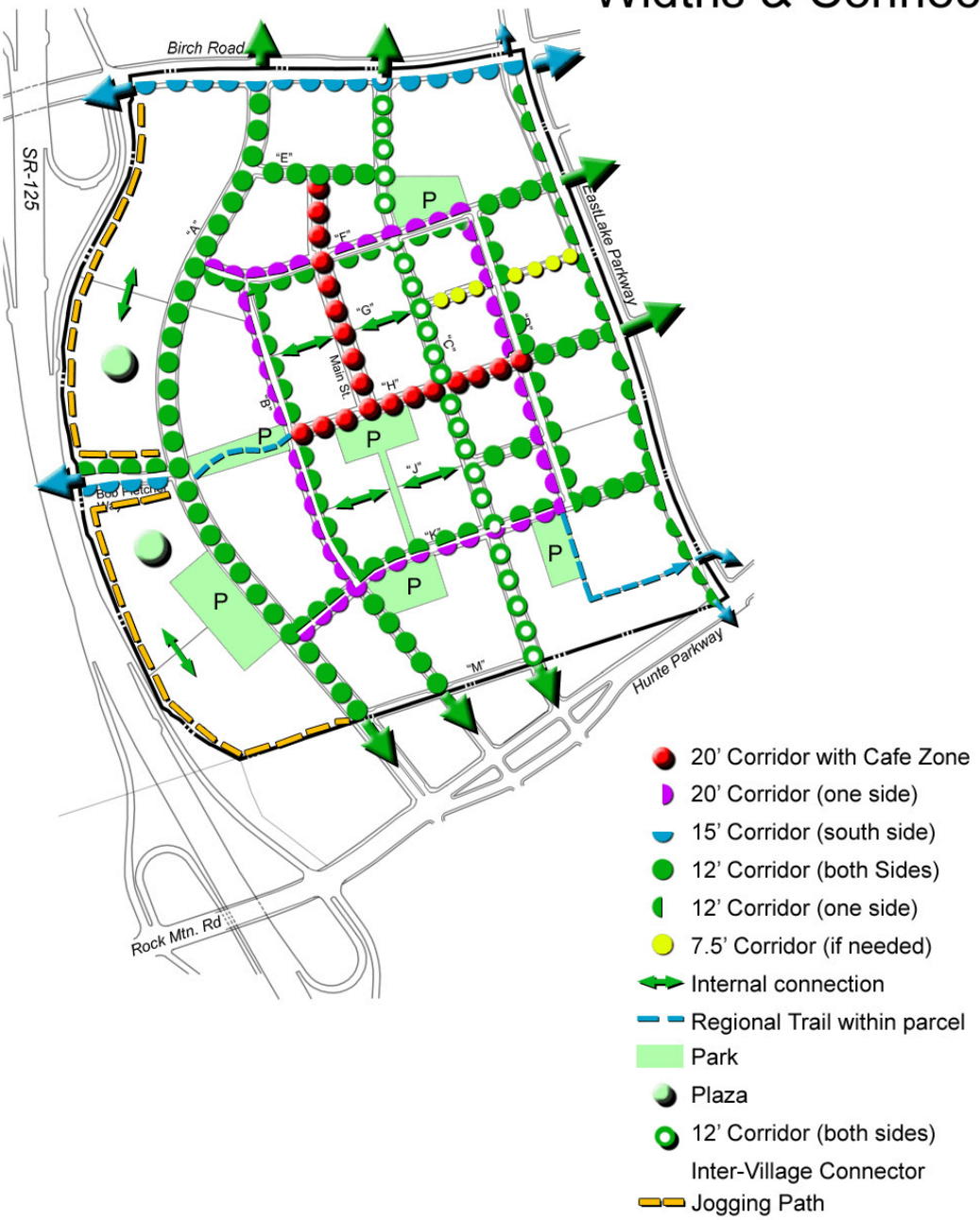

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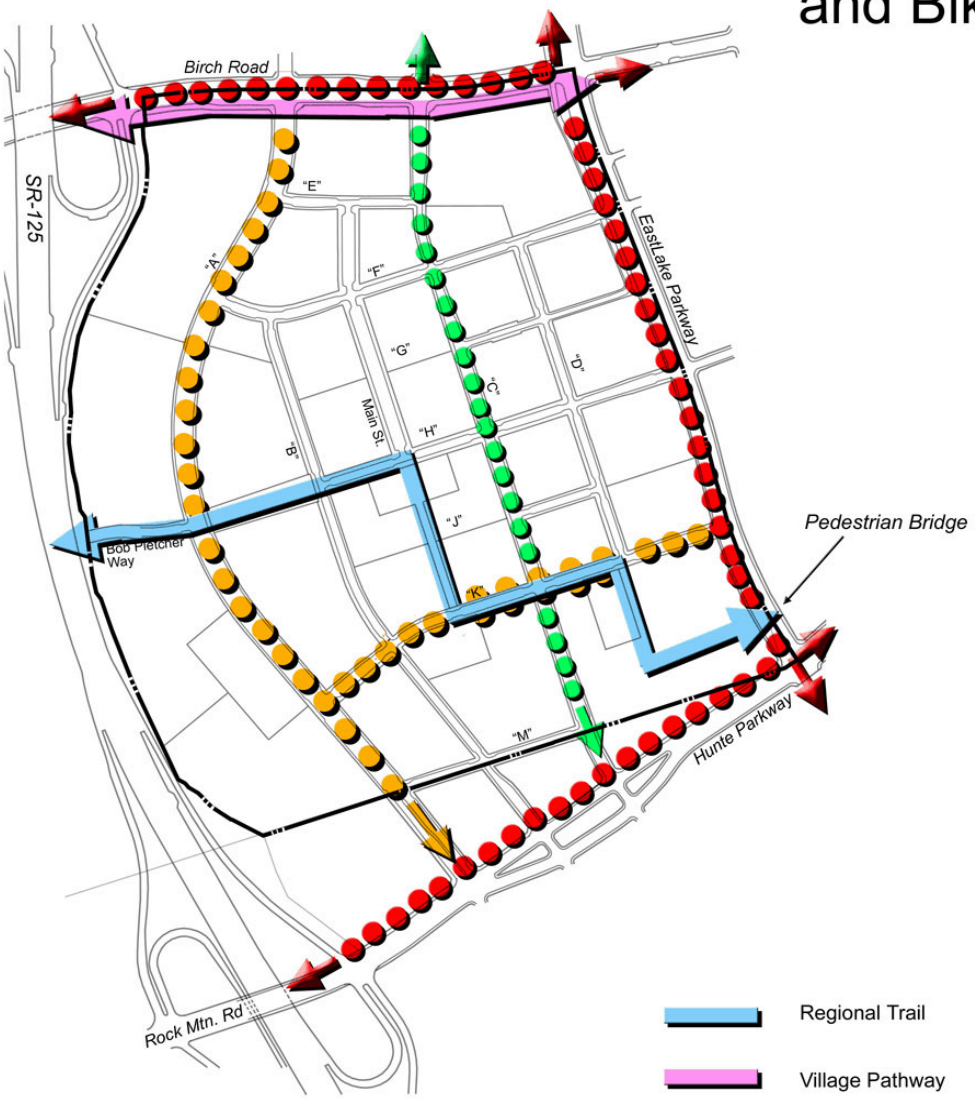
Exhibit III-1

Regional Trails
and Bike Lanes



Regional Trail

Village Pathway

Inter-Village Connection

Regional Bike Lanes
(Emergency parking/bike lanes)

Bike Route
(14' widened travel lane)

Note: Due to low traffic speeds & volumes, streets not indicated as having specific provisions for bike lanes/routes can accomodate bicycle traffic as mixed flow.

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Exhibit III-2

D. Project Circulation Network

The Otay Ranch sub-regional circulation system is based upon a hierarchy of streets and roads defined in the Otay Ranch GDP. These facilities are designed to create an integrated system of roads, pedestrian and bike trails and, pedestrian paths and ways. Carts and bicycles will share the low speed internal streets with vehicles while pedestrians will have enhanced routes paralleling the internal street system. This system, as it applies to the Eastern Urban Center SPA is described below.

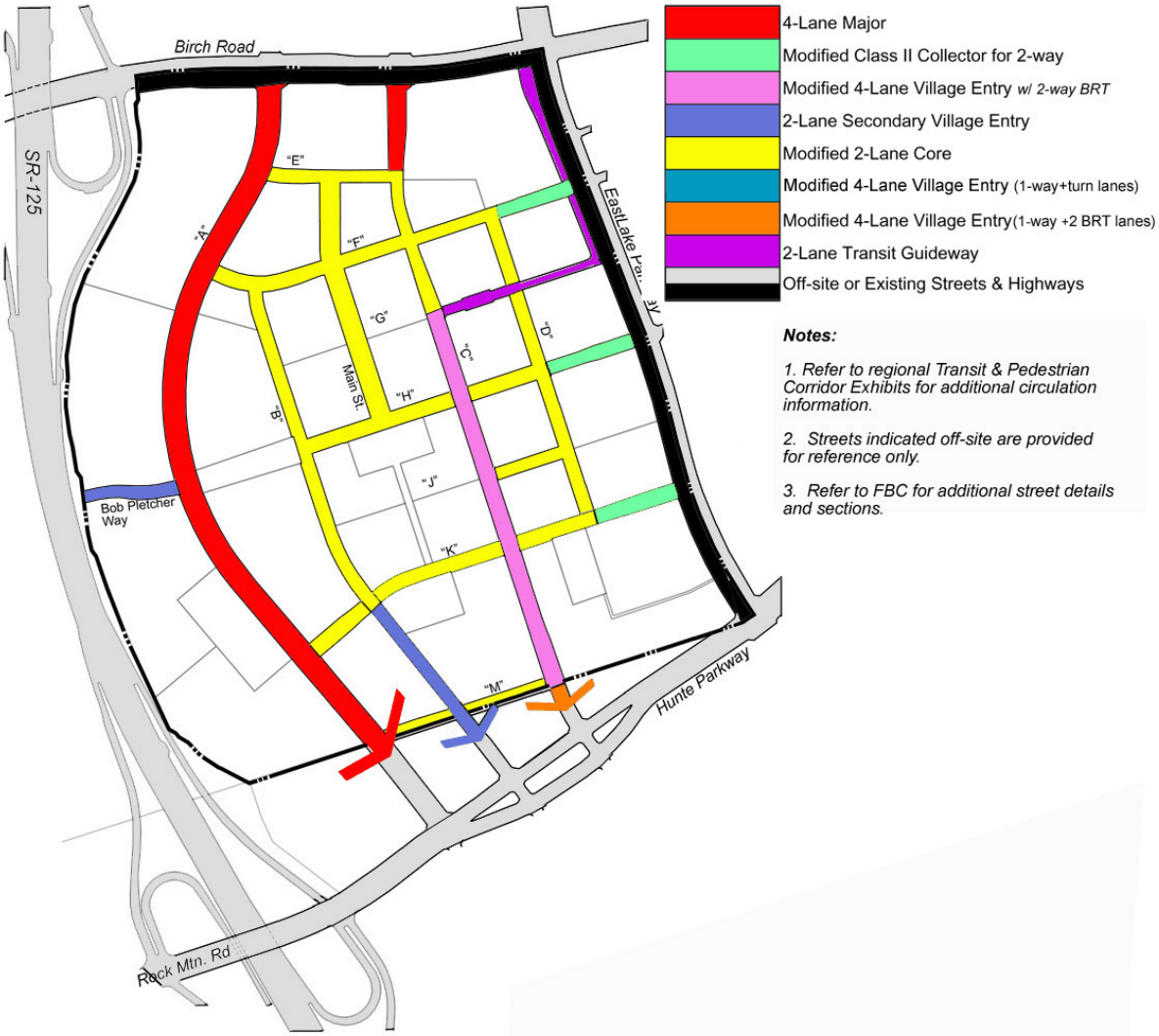
The perimeter circulation network, as well as the basic internal street system, is conceptually shown on Exhibit III-3 (Circulation Plan). On the northern, eastern, and southern SPA boundaries, Birch Road (4-6 lane prime arterial), EastLake Parkway (6-lane major), and Hunte Parkway (6-lane Town Center arterial with or without couplet) are designated as Eastern Urban Center Ranch Theme Streets (streetscape design designation defined in the Otay Ranch Overall Design Plan). The streetscape within the EUC and its perimeter will have an urban character, differing from the approach of using buffers, landform grading, and meandering walks, to reflect the suburban character of other villages. SR-125, on the western edge of the SPA, is a Tollway.

Project access is taken from each of the perimeter arterials. Entries from each arterial are identified on the Site Utilization and Circulation Plans. The largest on-site streets are four-lane streets (Modified Major and Village Entry configurations) through the western portion of the project area, serving the Gateway Commercial and Business Districts. The remaining internal streets are all generally two-lane configurations, most with on street parking. Smaller streets and on-street parking is consistent with the pedestrian orientation of the Eastern Urban Center, reducing traffic speeds and making street crossings easy. To further enhance pedestrian orientation "bulb-outs" will be provided at many locations to further reduce vehicle speeds and shorten street crossing distances.

It is anticipated that each of the full movement project entries will be signalized, as well as some "internal" intersections. However, the final determination of which intersections are to be signalized shall be consistent with the project EIR, PFFP and mitigation monitoring and reporting program. There shall be no level-of-service (LOS) requirement for the internal intersections/street segments due to the urban (and sometimes congested) nature of the project. The applicant will also provide conduit to all internal intersections should intersection volumes in the future warrant signalization.

In accordance with city standards and master plans, designated bike lanes are provided along all the perimeter arterial. Within the EUC, carts and bicycles will share the traffic lanes with motor vehicles on the internal streets due to the proposed low (25 mph) designated speed limit. Street "A" & "K" have been designed with widened outside lanes to accommodate this concept.

Circulation



Notes:

1. Refer to regional Transit & Pedestrian Corridor Exhibits for additional circulation information.

2. Streets indicated off-site are provided for reference only.

3. Refer to FBC for additional street details and sections.

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Exhibit III-3

E. Street Standards

This section describes in more detail each of the street types associated with the Eastern Urban Center SPA. The proposed right-of-way sizes and street sections are based on standards adopted in the Otay Ranch GDP, previous Otay Ranch approvals and Urban Design concepts specifically tailored for the Eastern Urban Center. The streetscapes within the EUC have been carefully designed specifically to achieve the pedestrian-oriented urban design character goals for the project. Numerous street configurations have been developed to meet the individual needs of specific locations. The range of streetscapes and standards are detailed in the Form Based Code. Generally, the streets within the EUC are narrow to encourage pedestrian use and create a sense of intimacy and enclosure along them. The street designs evolved from the urban character goals for the EUC and need to provide appropriate circulations routes which support those goals instead of adhering to a predetermined city-wide or Otay Ranch-wide street standards. The standards for all street cross-sections in the Eastern Urban Center are those adopted in the Form Based Code and Tentative Map. These standards shall take precedent in the event of conflict with other city-wide standards.

All circulation improvements shall meet the following requirements:

- No visibility obstruction (slope, tree, wall, street furniture, signs, *etc.*) greater than 3 feet in height measured from street grade, shall be placed within the sight visibility lines on corner lots unless otherwise approved by the City Engineer.

- Sight visibility lines, per City of Chula Vista Municipal Code, will be required on all plan submittals (grading, improvement and final maps). Sight visibility easements shall be granted to the City of Chula Vista to the satisfaction of the City Engineer.

- All proposed sidewalks, pedestrian ramps and handicapped parking shall be designed to meet ADA standards and California Building Code requirements.

- Adequate bicycle facilities on arterial streets and Street 'A' and Street 'K', acceptable to the City Engineer, shall be incorporated in the design of the project to encourage bicycle transportation. Interior streets and access routes shall have mixed flow. Signage will be provided on all streets to encourage bicycle use travel.

1. Arterials & Major Roads

Street standards for the arterial roads at the periphery of the SPA have been established in the Otay Ranch GDP, Circulation Element of the Chula Vista General Plan and previous project development approvals. Roadway sections for the major perimeter streets are shown in the Form Based Code Street Assemblies.

These large streets provide the regional transportation system. They are designed to operate at maximum efficiency and provide for automobile and bus access to regional destinations including freeways. Prime Arterials and major roads cross each other at intervals of three-quarter miles or greater. Intersections on to these roads are restricted to village/planning area entries, except where right turns in and out are designated in the FBC, Access Management Plan. The following routes adjacent to the Eastern Urban Center SPA project area are designated major roads or prime arterials:

- Hunte Parkway - 6-Lane Town Center Arterial
- EastLake Parkway - 6-Lane (Major) Arterial
- Birch Road - 6-Lane (Prime) Arterial

The Otay Ranch GDP recognizes two types of prime arterial/major roads:

- Scenic Corridor (road within an open space scenic corridor, such as Hunte Parkway)
- Prime Arterial or Major Road (road outside of an open space corridor)

All of the major roads adjacent to the Eastern Urban Center, with the exception of Hunte Parkway, are not scenic corridors. These are similar in appearance to the scenic corridors in that they provide identity to Otay Ranch, and are dominated by native or naturalized vegetation and land forms. However, these roadways and parkways also provide a transition from the informal ranch-wide character to the more formal character consistent with the urban character. This will include straight instead of meandering walks. It would also include retaining walls and/or angular slopes instead of grading to mimic natural landforms. Landscape treatment and design elements of these roads would be more formal as well. The landscaping of Hunte Parkway will be addressed as needed for off-site construction for the EUC SPA Plan, but other provisions for this scenic corridor will be addressed by a future SPA Plan that includes this arterial. These design concepts are addressed more fully in the Eastern Urban Center Form Based Code.

2. Four Lane Streets

Two four-lane street types are designated within the Eastern Urban Center, modified Village Entry Streets at the two northern entries off of Birch Road and the western entry from Hunte Parkway, and the connecting north-south loop in the Business District which is a modified four-lane Major. These street segments are larger to accommodate the greater traffic volumes expected in these areas.

In addition to traffic capacity, Village Entry Streets form the gateway into the Eastern Urban Center. As a gateway, a Village Entry Street may be a short street section creating a welcoming statement at the primary village entries. Village Entry Streets introduce the theme, identity and character of the Eastern Urban Center. Entry streets provide a transition from the prime arterials/major roads to the EUC. Village Entry Streets will create a urban appearance along with the formal edge of the abutting arterial streets to clearly establish the urban character of the EUC. The landscape treatment and design elements of Village Entry Streets are addressed more fully in the Eastern Urban Center Form Based Code.

The internal 4-lane Major Street connecting to the two western project entries will be modified for the EUC to include a landscaped median and pedestrian corridors on either side with an established "build to" building line. A widened outside lane will be provided to ensure bicycle access to the employment civic districts, providing a continuous N-S bicycling experience through the EUC. These features are consistent with the intended pedestrian-oriented urban character of the EUC.

3. Core Streets

A wide variety of Core Streets are designated with in the Eastern Urban Center, however all are two-lane streets and most have on-street parking consistent with the pedestrian oriented urban character of the EUC. Each Core Street variation is intended to meet a specific need or urban design goal.

Core streets have been designed with parallel parking, except the angled parking along Main Street. This use-activated street is an important element in defining the public realm. It has

wider pedestrian corridors and provides a north-south spine of activity through a major portion of the project.

Slightly smaller Core Streets are designated for short segments within the EUC in other areas of the EUC. Where parking is permitted, it is parallel parking along the curb instead of angled. Modifications have been made to accommodate transit in the center of "C" street where necessary.

A secondary village entry street is located at the western entry from Village Seven. The internal EUC streets include parallel parking and a pedestrian corridor on each side, consistent with the EUC design concept. The entry from Village Seven however, is an extension of Bob Pletcher Parkway which accommodates the regional trail/greenbelt extending from Wolf Canyon in Village Seven to the EUC. The design of Bob Pletcher Parkway, without a direct connection to an arterial roadway will discourage through traffic.

The transit route parallels EastLake Parkway until it enters the EUC and transitions to a dedicated lane design on EUC internal streets. As with most other EUC streets, the typical Core Streets include on-street parking and a pedestrian corridor designation along each side of the street.

Typical "Neckdown" Details are illustrated in the Form Based Code. These will be located throughout the EUC, where feasible, to make street intersections pedestrian friendly and extending the street-side "pedestrian corridor" across street intersections. The Form Based Code also includes a link consisting of combined pedestrian vehicular corridors and mid-block crossing details. If conflicts result during later stages of design refinement in the EUC, based on inconsistency with typical suburban standards, accommodating pedestrians shall have priority in design considerations over vehicles. However, all types of vehicles, including emergency vehicles, large trucks, moving vans, *etc.*, will need to be accommodated on the internal circulation system to make the EUC a viable project.

F. Phasing of Road Improvements

The phasing of community development concurrent with the provision of adequate road capacity and access improvements is fully described in the Public Facilities and Financing Plan (PFFP). These improvements have been phased and designed to maintain an adequate level of service in the circulation system serving the Otay Ranch Eastern Urban Center SPA throughout the development process. The provision of adequate internal circulation improvements is expected to be controlled via subdivision map conditions and may involve monitoring to identify a need for improvements and compliance with threshold triggers. The required level of improvements and phasing is fully addressed in the Eastern Urban Center SPA PFFP.

G. Public Transit System

The Eastern Urban Center SPA is designated by the Otay Ranch GDP will be served by the extension of the MTS regional transit system. As specified in the Otay Ranch GDP, the development area will be served by a regional transit line and a transit stop. Additional local bus routes will be added as needed. The location of the facilities is shown on Regional Transit Plan, Exhibit III-5.

The transit route enters the Eastern Urban Center SPA from the Freeway Commercial area, north of Birch Road. The transit route enters the EUC project area by crossing Birch Road, parallel to EastLake Parkway in a dedicated guideway. The guideway then continues along EastLake Parkway past the northern EUC street entry to its own entry, where it transitions to a dedicated transit lanes.

(Refer to Exhibit III-5). The transit stop is shown on opposite sides of the guideway near street "C". This transit stop will not require bus bays or dedicated bus rider parking. The transit shelters will be designed to be consistent with urban character of the EUC and adjacent buildings. A conceptual sketch of how a transit stop could be designed is shown on Exhibit III-4 below, Concept Sketch of Transit Stop. The Eastern Urban Center SPA Plan provides for the location of the transit way alignment and stop per the GDP. Vehicular movements for entering adjacent properties, parking, bicycle travel, and for turning movements at intersections are the only typical non-transit use of the dedicated transit lanes. However, emergency vehicles will be allowed to use the transit lanes. The tentative map will be conditioned to dedicate a ROW or easement for the transit system.

Concept Sketch of Transit Stop

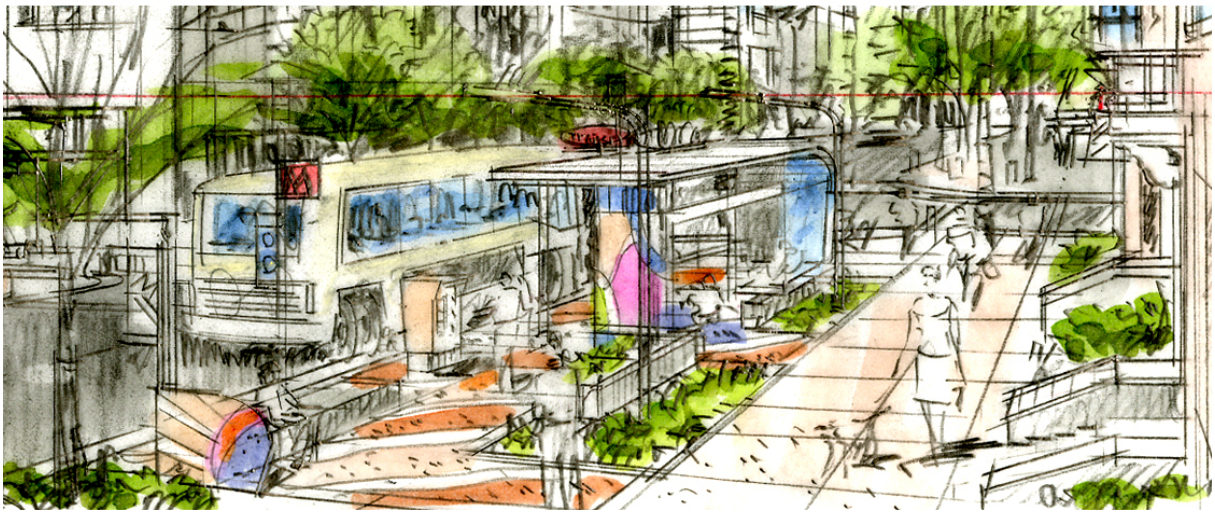


Exhibit III-4

In addition to transit way service, bus service is planned to be provided to the project area by Chula Vista Transit (CVT). Currently, CVT provides bus service through the Eastern Territories, including the developed portions of Otay Ranch to the north and east. Expansion of CVT service into the Eastern Urban Center SPA project area is anticipated utilizing the transit lanes also. Exhibit III-5, Transit Routes, conceptually shows how local bus service could be distributed to provide service to all users within one-quarter mile. The routes indicated are conceptual only.

The planned transit system within the Eastern Urban Center SPA is based on the service concepts described in the adopted *TransitWorks* Strategic Plan by MTS. The plan identifies Yellow, Green, Blue and Red Car levels of transit service. The Green Car represents local circulators using mini to mid-size buses. The Green Car would act as a collector and provide feeder access to Blue Car and/or Red Car and Yellow Car concepts. Bus stop facilities would be Low to Medium level with service provided on residential streets and major streets. The Blue Car provides short distance trips (1-5 miles) with frequent stops. This concept describes the current Chula Vista Transit service. Bus stop facilities would be at a Medium to High level. Service is provided on major streets and arterials. The Red Car is corridor-focused, and would have stops about every mile for express/transitway bus service, with a stop at the Eastern Urban Center transit station/stops described above.

Transit facilities will be developed based on demand for transit services and the following principles:

- Level of transit facilities: Low = bus stop sign/pole; Medium = bus stop sign/pole/bench; Medium-high = bus stop sign/pole/bench/shelter; and, High = bus stop/sign/pole/bench/ shelter/turnout.

- Where there are numerous major pedestrian generators, access to stops for transit vehicles moving in both directions is facilitated by locating transit stops near striped intersections.

- Transit stops should be located and walkways designed to provide access as directly as possible without impacting residential privacy and tranquility.

- At intersection points of two or more transit routes, stops should be located to minimize walking distance between transfer stops.

- Transit vehicle conflicts with automobile traffic can be mitigated by locating bus bulbouts/bus stops at the far side of intersections in order to permit right-turning vehicles to continue movement.

- Transit stops should be provided with adequate walkway lighting and well-designed shelters.

- Access to transit stops shall be designed to ensure accessibility to the handicapped.

- The location of BRT and local bus stops shall consider their impact on adjacent land uses, available parking, and other issues that need to be balanced as part of the siting process. They shall be planned to avoid streets with angled parking.

- The location for the local stops shall be determined through consultation with the local service provider prior to approval of the first final map and shall be identified on the applicable street improvement plans. The developer shall secure the transit stops in a phased manner as part of the approval of the applicable final map.

- The design of the stops shall be shown on the street improvements drawings. It is expected that each stop would include partially enclosed shelters, adequate to buffer wind and rain, with at least one bench at each transit stop within the project boundaries. Kiosk, bulletin boards, and/or signs devoted to providing local transit information, including basic schedule and route information should also be provided at each stop. The design of all stops, both regional and local, must be consistent with the urban design concepts contained in the EUC Form Based Code.

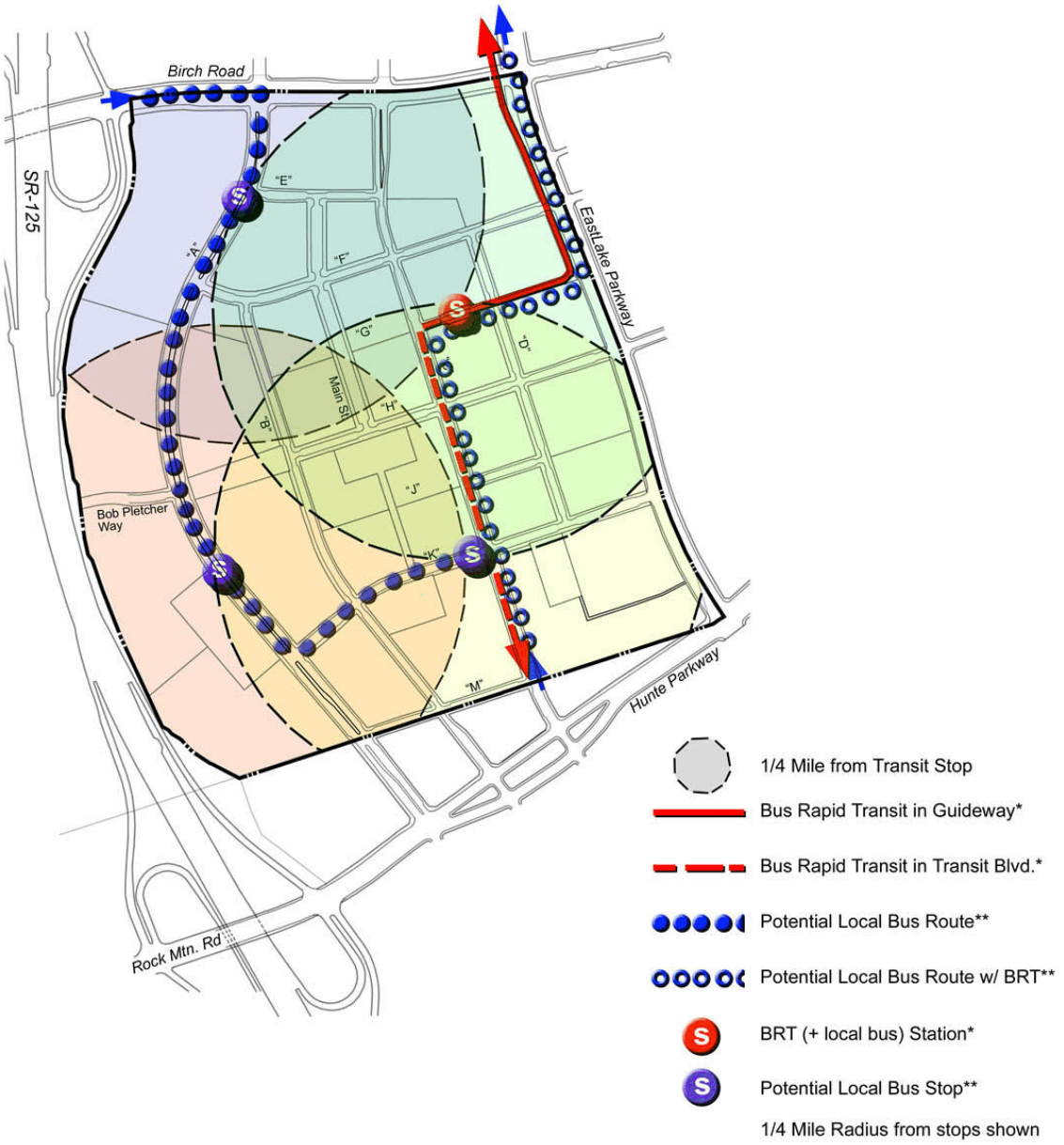
- Transit facilities shall not encroach into the sidewalk and may require the removal of on-street parking to ensure this standard is met. Therefore, it is important that close coordination occur between the developer and the transit provider to locate stops in locations which balance the goal of providing efficient transit service with the need to protect on-street parking in key locations, such as in or adjacent to the main street district.

- The EUC Transit stops, although designed and constructed by others must interface with the surrounding community. The EUC design principles will include American with Disabilities Act requirements so that the transit stops can be connected to the EUC seamlessly.

SANDAG has agreed to the following:

- The alignment of the transit in street "C";
- The location of the transit stops in the guideway between streets "C" and "D" as close as possible to street "C";
- Shared use of the BRT lanes for left turns at all intersections along street "C" be permitted;
- Utilities would be allowed in street "C" under the BRT lanes as needed, and that an effort would be made to minimize those placements to the extent possible, although efficient utility design would take precedent over placement location;
- Emergency vehicles and local bus lines, yet to be determined, would be allowed to use the BRT lanes;
- And, that even though final modeling has not been done by SANDAG on the BRT route through the EUC, there would be signal preference/priority given to the BRT. SANDAG acknowledges that the urban environment of the EUC would not be expected to allow optimal run times within the EUC, and that signal prioritization and signal length along street "C"should not compromise traffic circulation for side streets to an unacceptable degree.

Transit Routes



* *Approved by SANDAG*
** *Conceptual routes and stops that may change*

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Exhibit III-5