DUMBARTON TOD SPECIFIC PLAN

CITY OF NEWARK
SEPT. 8, 2010

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ACKNOWLEDGEMENTS

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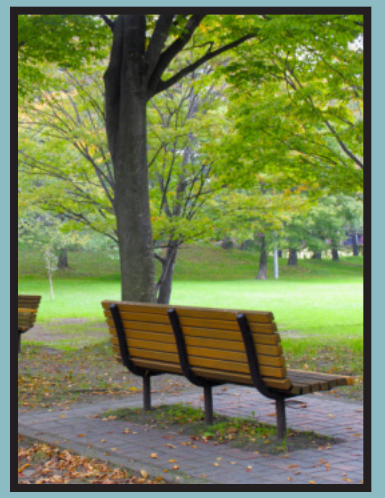

THE SPECIFIC PLAN WILL STEER THE DEVELOPMENT OF THE APPROXIMATELY 200-ACRE PLAN AREA TOWARDS A TRULY MEMORABLE COMMUNITY; A LIVABLE PLACE WHERE HOUSING, RECREATION, A NEIGHBORHOOD RETAIL CENTER AND EMPLOYMENT OPPORTUNITIES ARE INTEGRATED.

THIS COMMUNITY IS ENVISIONED AS A CONTEMPORARY VERSION OF A SMALL WALKABLE TOWN, WHERE THE AUTOMOBILE CAN BE REPLACED BY WALKING AND BIKING FOR ACCESS TO RECREATION AND EVERYDAY TRIPS.

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1.1 EXECUTIVE SUMMARY

1.2 SPECIFIC PLAN PURPOSE

1.3 CONTEXT DESCRIPTION

1.4 PROJECT SETTING

1.5 RELATIONSHIP OF THE SPECIFIC PLAN TO GOVERNING DOCUMENTS

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1.0 INTRODUCTION

1.1 EXECUTIVE SUMMARY

This Specific Plan is a comprehensive planning document that will enable the Specific Plan ("Plan") area to be developed according to the objectives and goals described in this Specific Plan. Specific areas regulated by the Specific Plan include land use, streets, parks and infrastructure.

The purpose of the Specific Plan for the Dumbarton TOD Project (Specific Plan) is to provide the City of Newark with a mechanism to support and control development within the Specific Plan area, ensuring that a comprehensive development is adopted to encourage creation of a livable community designed for compatible neighborhoods with connectivity to parks, open space, the future Transit Station and commercial services. The Specific Plan also provides the City of Newark with a mechanism to manage growth, ensuring the installation of adequate infrastructure and public services for the new neighborhoods created within the Specific Plan area.

This document specifically establishes an infrastructure plan, development regulations, and illustrative design guidelines to govern development of a planned community which offers a variety of residential housing types within an open space setting. A network of open space and pedestrian corridors that link the community to the future Transit Station and commercial areas will be provided. Bicycle and pedestrian accessibility is also provided between the residential development and the Transit Station and commercial areas of the Specific Plan.

The City of Newark's development objectives for the Specific Plan are derived from the City of Newark's General Plan, previous work prepared for the Plan area, demographic and market research, as well as the physical characteristics of the land. These factors have guided the development of the Plan to allow the City of Newark to expand as a community in a desired direction with a strong sense of place.

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To accomplish the vision and intent of this Specific Plan, amendments to the current City of Newark General Plan are necessary. A description of these amendments is included as Appendix B. Development of the property in accordance with this Specific Plan reinforces the City of Newark's image as a town with it's own unique character.

This Specific Plan includes the following elements:

1. Accommodation for a future Transit Station that will serve the greater region as well as neighboring residents.

2. A Neighborhood Center consisting of neighborhood-serving retail, grocery store, visitor-serving uses and residential uses organized in a traditional layout.

3. Up to 2,500 new residential units with a wide range of types and affordability.

4. Necessary infrastructure to support the development including potable water, wastewater, dry utilities, and storm drainage systems and roadways.

5. Contribution towards the construction of an overpass on Central Avenue over the Union Pacific Railroad right-of-way east of the Plan area; and,

5. More than 16-acres of parks including a community park and a Bayside Trail.

6. A project that is fiscally beneficial to the City of Newark.

This Specific Plan provides land uses, development regulations, design guidelines, infrastructure improvements and implementation plan for the creation of a cohesive community.

1.2 SPECIFIC PLAN PURPOSE

Specific Plans are developed to provide a greater level of specificity in planning uses, density and layout of sites of special interest and value to a community. The City of Newark has identified the need for a specific plan for the Plan area in order to provide for appropriate growth management and comprehensive planning of new residential, commercial, open space, and recreational land uses accompanied by adequate infrastructure and public facilities that are compatible with the growth needs of the City and with existing residences and land uses. This Specific Plan contains text and diagrams that call out the following in detail:

1. The distribution, location, and extent of the uses of land within the area covered by the Plan.

2. The proposed distribution, location, extent and intensity of major components of the public and private transportation, sewage, water, drainage, solid waste disposal, dry utilities, and other essential facilities located within the area covered by the Plan and needed to support the land uses described in the Plan.

3. Standards and criteria by which development will proceed, including development standards, design guidelines, and a conceptual phasing program.

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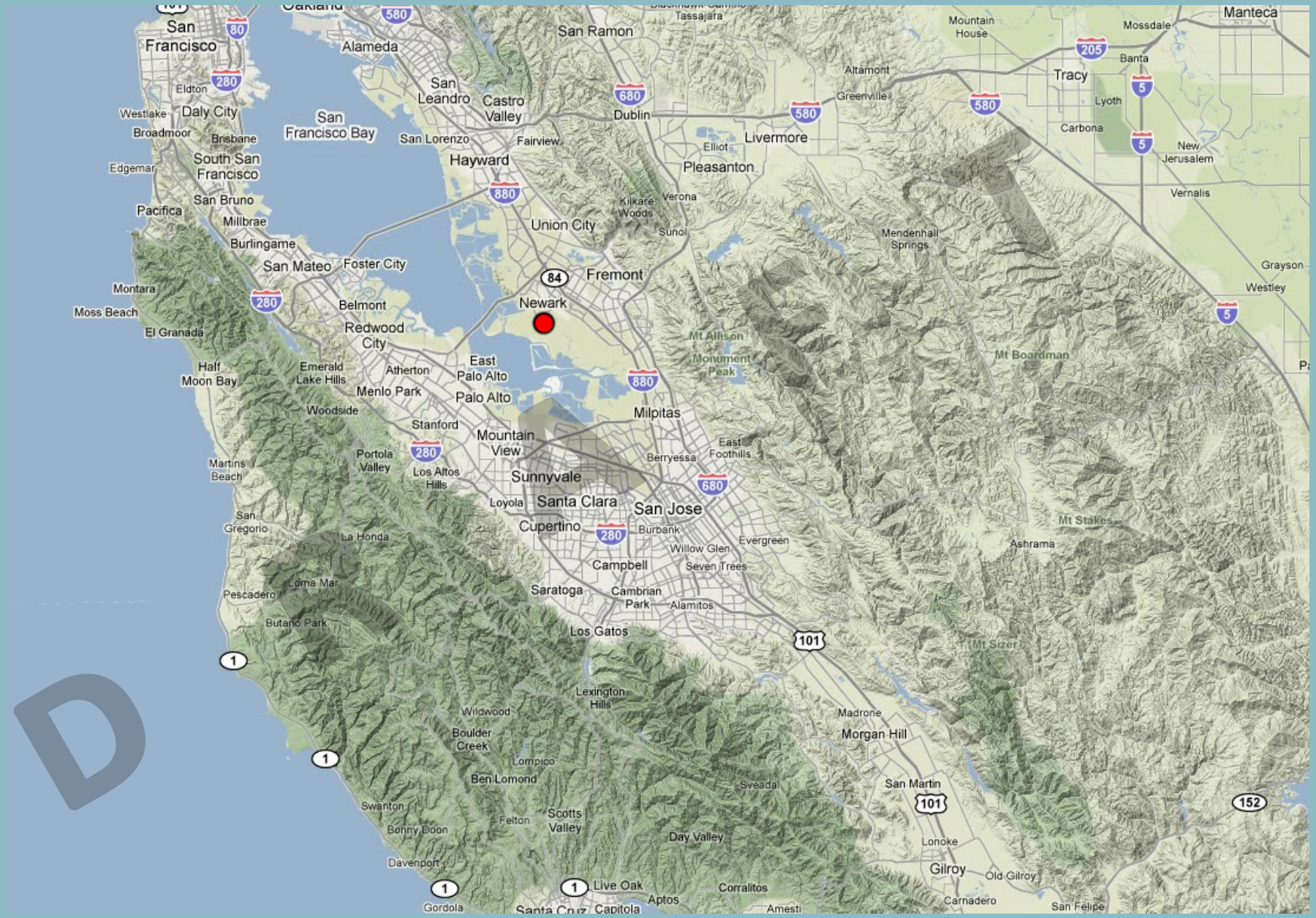

Above: *Figure 1.1: Regional Context; Map provided by Google*

4. A program of implementation measures including regulations, programs, public works projects and financing alternatives necessary to carry out numbers 1, 2 and 3 above.

The purpose of the Specific Plan is to provide a comprehensive program for the Plan areas' approximately 200 acres of industrial land. This will result in a unique and appealing new community that integrates with the existing community and provides the area with a variety of new amenities, such as a grocery store and a pedestrian trail, all the while providing the infrastructure improvements necessary to implement the development.

The Specific Plan establishes the regulations and guidelines that will implement the development concept. All development projects and related activities for which approvals are sought after its adoption by the City Council are required to be consistent with the Specific Plan. Concurrent entitlements to implement the Specific Plan shall include a General Plan Amendment, Zoning Amendment, an Affordable Housing Program, and Design Guidelines and Landscape Guidelines.

1.3 CONTEXT DESCRIPTION

The City of Newark is approximately 15 miles north of San Jose, California, 10 miles east of downtown Palo Alto, and 30 miles southeast of San Francisco, California within Alameda County.

Please see Figure 1.1 on the previous page for a graphic illustration of the regional context.

1.4 PROJECT SETTING

Site Location

Bounded by salt production facilities to the west and the City of Fremont to the east, the project is approximately 1.6 miles from Newark's Historic Center. The location of the site is ideal for a Transit Oriented Development as its proximity to a major transportation route (Highway 84), location adjacent to an existing rail line, and general location within the East Bay and Silicon Valley will serve a larger area for transit ridership.

Please see Figure 1.2 on the following page for a graphic illustration of the local context.

The project is approximately 200-acres in size and generally bordered by the Southern Pacific railroad tracks to the north, Willow Street and existing industrial and residential uses to the east, A.C.F.C. Canal to the south and existing, on-going salt production facilities to the west. There are various manufacturing and light industrial businesses in and around the project site, as well as established single-family residences to the northeast.

Site Characteristics

For almost a century, the Plan area has been a site for industrial production. During World War II, Newark experienced great expansion. At that time, several new companies located

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Above: Figure 1.2: Local Context with site shown outlined in red; Map provided by Google

here while other companies already operating within the area expanded. Industrial operations were largely phased out by the 1990's, leaving the Plan area mostly vacant and underutilized.

The primary landowners within the Plan area include Torian, FMC Corporation, Ashland Inc., SHH LLC, Newark Enterprise Joint Venture, Enterprise Drive LLC, Cargill, and Gallade Enterprise LLC. In addition, several rights-of-way and easements overlay the Plan area.

Wind Patterns and Air Quality
Newark is within the San Francisco Air Basin, a broad, shallow air basin ringed by hills with several sheltered valleys along the perimeter. Prevailing winds on the site are from the northwest,west and southwest.

Geology and Soils
The Plan area is relatively flat, low-lying alluvial fan. Average topographical elevations on the site range from roughly 4-15 feet above Mean Sea Level Datum (MSL). There are two bedrock outcroppings located on the western portion of the site. The Plan area is not located within an Earthquake Safety Zone for active earthquake faults, so there is little likelihood of actual ground rupture on the site during a seismic event.

Biological Resources
The Plan area may contain habitats that are home to numerous different species of plants and animals. The majority of the land in the Plan area is composed of developed or highly altered terrain. The Environmental Impact Report (EIR) which accompanies and analyzes this Specific Plan describes biological resources within the Plan area and potential impacts to such resources in further detail as required by the California Environmental Quality Act (CEQA).

Environmentally Impacted Sites
Soil and groundwater within the Plan area has been impacted by hazardous substances and must be factored into the land use planning of this area. One form of contamination is a ground water plume that exists in shallow groundwater beneath portions of the Plan area. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is directing mitigation of this groundwater plume in collaboration with the Alameda County Water District (ACWD). Some properties within the Specific Plan area also contain soils impacted hazardous substances. Wither the RWQCB or the Department of Toxic Substances Control (DTSC) is directing the remediation of impacted soils at these properties. The EIR for this Specific Plan analyzes the areas of the plan which have been impacted by hazardous substances in greater detail as required under CEQA.

Given these environmental constraints, this Specific Plan proposes land uses for the Plan area which would create enough value to absorb remediation costs or be compatible with existing site conditions. Engineering and institutional controls (such as deed restrictions) may be necessary for certain areas of the Plan area to adequately protect human health and the environment from any residual hazardous substances as determined by the RWQCG or DTSC as responsible agencies and as discussed further in the EIR.

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Rights-of-Way and Easements
Several rights-of-way and easements for transportation infrastructure and utilities exist within the Plan area that will affect the type and arrangement of development that can occur. These include the following:

- The Hetch-Hetchy Pipeline

The Hetch-Hetchy Pipeline is within a 110-foot right-of-way owned by the San Francisco Public Utilities Commission (SFPUC), which runs east/west through the northern portion of the Plan area controlled by the SFPUC. All crossings or other uses are tightly controlled by the San Francisco Public Utilities Commission and land owner contract rights that run with the land. The pipeline runs underground through the east half of the Plan area, transitioning to the surface after crossing to the north side of the rail right-of-way.

- The Dumbarton Rail Corridor (DRC)

The DRC also runs in an east/west direction through the northern portion of the Plan area, almost parallel to the Hetch-Hetchy Pipeline. The DRC is a 100-foot wide right-of-way owned by San Mateo County Transit. The DRC is a proposed commuter rail.

- The East Bay Dischargers Authority (EBDA)

The EBDA owns and operates two 36-inch sanitary sewer force mains serving the City of Newark that run through the Plan area within an easement under the Hickory Street right-of-way. Special conditions on construction within this easement may need to be imposed to preserve the integrity of the mains.

- The Alameda County Flood Control F-1 Canal

The F-1 Canal flows from east to west along the Plan area's southerly boundary, providing the main drainage outlet to San Francisco Bay for a large part of the City of Newark. A tributary to this canal, the F-6 ditch, runs north along the west side of Willow Street for a distance of about 1,300 feet.

- PG&E Transmission Lines

PG&E lines traverse the Plan area from north to south. PG&E maintains strict control regarding use of a 25-foot wide easement underneath the lines and surrounding the towers that the support the high-voltage lines. Buildings may not be constructed within the right-of-way, and the ground may not be filled if it reduces the existing line's clearance to less than 32-feet. A representative of PG&E reports that it should be possible to either relocate or raise the existing transmission lines and towers. It is not anticipated that they would be relocated or raised at this time.

Wastewater
The Union Sanitary District (USD) provides wastewater services for the cities of Newark, Fremont and Union City. USD's Alvarado Treatment Plant is located in Union City. Because the Plan area is mostly located within the existing service area, and because it was already zoned for

Above:
Site Photo

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development in 1989, the treatment and disposal impacts resulting from development of the Plan area based on the 1999 Area 2 Specific Plan have been incorporated into long-term expansion plans for the District. More detail on Wastewater solutions for the Specific Plan are in Chapter 7-Infrastructure.

Two existing gravity sanitary collection lines, within Enterprise Drive and Willow Street, currently serve the Plan area. It is unknown how much excess capacity for future development is available in either the Willow or the Enterprise sewer lines.

Water Service
The Alameda County Water District (ACWD) provides potable water service for the cities of Newark, Fremont, and Union City. The entire Plan area is located within the District's boundaries, so all properties are eligible for service. The water district has three basic water sources: the State Water Project, local groundwater aquifers, and the San Francisco Public Utilities Commission, which operates the Hetch-Hetchy Water System. ACWD has prepared a Water Supply Assessment which concludes that these water sources are adequate to serve the new uses proposed by the Specific Plan, which are discussed in more detail in the EIR.

Stormwater Drainage
The 100-year flood elevation throughout the project vicinity is 8-feet National Geodetic Vertical Datum (NGVD). According to the Federal Emergency Management Agency Flood Insurance Rate Map for the City of Newark, some of the Plan area located west of the Hickory alignment currently lies within a Flood Hazard Zone, which indicates ground elevations are lower than 8 NGVD. The Newark General Plan and Municipal Code require that the finished floor of all new residential buildings in the Plan area vicinity must have a minimum elevation of 11.75 NGVD. For commercial buildings, finished floors must only be higher than the designated flood elevation of 8 NGVD.

Power and Communications
Existing power lines extend throughout the Plan area. These lines have been installed to serve the mix of industrial uses that first located in this area of Newark. As a result, the existing power grid consist of 21 kilovolt lines that have sufficient capacity to serve all likely development scenarios.

For natural gas supply, it is likely that new development within the Plan area will be served by an existing low-pressure two-inch line that runs along Willow Street from Central Avenue to just south of Enterprise Drive.

Communications within the Plan area are currently served by overhead AT&T lines on Enterprise Drive and underground lines on Central Avenue and part of Perrin Avenue. In addition, fiber-optic cable now exists along part of Willow Avenue. It can be anticipated that full "high-end" phone, communications, and data services should be available to meet the needs of future development within the Plan area.

According to company representatives, Comcast and other data and communication service providers are very

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interested in serving this area.

Immediate Context

To the northeast of the Plan area, existing residential development predominates. Recent residential development, including medium density and single-family residential units, has occurred on the southeast corner of Thornton Avenue and Willow Street and in areas located farther from the eastern boundary of the Plan area. These newer residential developments tend to be more traditional garage-forward homes and are located on streets that typically end in cul-de-sacs. Older residential neighborhoods are found on the blocks surrounding Enterprise Drive and its extension to Wells Avenue due east of the Plan area. These houses primarily consist of one- to two-story single-family homes located on well connected residential streets.

To the east and southeast of the Plan area, industrial and light-industrial uses predominate. The blocks surrounding Central Avenue are built at a much larger scale than the residential neighborhoods previously described. Blocks are much longer between cross streets and buildings are set back from the sidewalk. These characteristics make for a less pedestrian-friendly environment than the nearby residential neighborhoods. The existing light industrial buildings are generally simple single-story buildings of tilt-up concrete construction. Many of these buildings are currently vacant.

To the west of the Plan area there are, and will continue to be, salt production facilities. This salt is harvested and then refined at a plant that is located in Newark.

To the north of the Plan area are industrial buildings and across the SamTrans DRC right-of-way, is the Don Edwards San Francisco Bay National Wildlife Refuge. The Refuge consists of roughly 30,000-acres. The Refuge is managed by the U.S. Fish and Wildlife Service and has an interpretive center located one mile northwest of the Plan area.

Additionally, the San Francisco Bay Trail (Bay Trail), a 240-mile network of bicycle and pedestrian trails, currently runs adjacent to the Plan area. Though the trail currently has a number of gaps, is it ultimately envisioned as a continuous and fully interconnected 400-mile trail network that will encircle San Francisco Bay and San Pablo Bay. The Specific Plan includes construction of an internal trail that would connect to the existing Bay Trail along Willow Avenue, at both the Enterprise/Willow intersection and the Central Avenue/Willow intersection.

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1.5 RELATIONSHIP OF THE SPECIFIC PLAN TO GOVERNING DOCUMENTS

The Specific Plan is consistent with the California Government Code and is subject to the conditions noted below.

California Government Code

The Specific Plan has been prepared in accordance with the requirements of the California Government Code, Sections 65450-65457. These sections establish the Specific Plan as a legal mechanism; to allow the City of Newark to separately establish development regulations for a defined subarea and to supersede previous development regulations.

City of Newark General Plan

The City of Newark General Plan "encourages development of remaining vacant land for its highest and best use." This Specific Plan is consistent with this and other General Plan policies and objectives as discussed in more detail in Chapter 8. The Specific Plan will also concurrently process all amendments necessary to make the Specific Plan consistent with the City of Newark's General Plan, including General Plan Amendments and amendments to the Zoning Ordinance.

City of Newark Zoning Ordinance

The Specific Plan and Plan area will have new, unique, zoning designations, standards and zoning districts. These new zoning designations, while different from the City's existing zoning, will be added to and become part of Newark's Zoning Ordinance.

1999 Area 2 Specific Plan

A prior Specific Plan, the "1999 Area 2 Specific Plan" was adopted for this Plan area. This adopted 1999 Plan includes various types of development land-use approval such as a Community College (Ohlone), and light industrial uses such as R&D (research and development). This Specific Plan will replace the 1999 Area 2 Specific Plan.

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2.1 SMART GROWTH

2.2 SUSTAINABLE COMMUNITY DESIGN

2.3 GREEN BUILDING

2.4 SUSTAINABLE LANDSCAPE PRINCIPLES

2.0 PLANNING PRINCIPLES

2.1 SMART GROWTH

As defined by the American Planning Association (APA) "smart growth means using comprehensive planning to guide, design, develop, revitalize and build communities for all that:

- Have a unique sense of community and place;
- Preserve and enhance valuable natural and cultural resources;
- Equitably distribute the costs and benefits of development;
- Expand the range of transportation, employment and housing choices in a fiscally responsible manner;
- Value long-range, regional considerations of sustainability over short term incremental geographically isolated actions; and
- Promotes public health and healthy communities.
- Compact, transit accessible, pedestrian-oriented, mixed use development patterns and land reuse epitomize the application of the principles of smart growth.

In contrast to prevalent development practices, Smart Growth refocuses a larger share of regional growth within central cities, urbanized areas, inner suburbs, and areas that are already served by infrastructure. Smart Growth reduces the share of growth that occurs on newly urbanizing land, existing farmlands, and in environmentally sensitive areas. In areas with intense growth pressure, development in newly urbanizing areas should be planned and developed according to Smart Growth principles."

The development of the site into a walkable community embraces the principles in this widely accepted definition of smart growth. The Community Design Strategy chapter provides an overview of the development vision that utilizes these principles.

***Smart growth** is an urban planning and transportation theory that concentrates growth in the center of a city to avoid urban sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.*

***Smart growth** values long-range, regional considerations of sustainability over a short-term focus. Its goals are to achieve a unique sense of community and place; expand the range of transportation, employment, and housing choices; equitably distribute the costs and benefits of development; preserve and enhance natural and cultural resources; and promote public health.*

www.wikipedia.org

2.2 SUSTAINABLE COMMUNITY DESIGN

Sustainable communities that also incorporate the principles of smart growth and green building technologies better serve the needs and desires of today's residents and the needs of future residents. The Dumbarton TOD recognizes the importance of an economically viable community, which provides for the means to implement and maintain sustainability and fosters opportunities for residents to establish, maintain and advance themselves financially. It its Policy Guide on Planning for Sustainability, the American Planning Association identifies four objectives for sustainability: Planning for sustainability requires a systematic, integrated approach that brings together environmental, economic and social goals and actions directed toward the following four objectives:

Objective 1
Reduce dependence upon fossil fuels, extracted underground metals and minerals. Reason: Unchecked, increases of such substances in natural systems will eventually cause concentrations to reach limits — as yet unknown — at which irreversible changes for human health and the environment will occur and life as we know it may not be possible.

The Dumbarton TOD can meet this objective by:

- Creation of a walkable community, minimizing the need to drive to neighborhood serving retail, recreational uses, and public services;
- Provision of a variety of community uses within walking biking and walking distance of each other;
- A pedestrian/bikeway system that encourages the use of non-motorized modes of transportation;
- Creation of human-scaled and pedestrian friendly development;
- Landscape and park elements that utilize drought tolerant vegetation; and,
- The use of energy efficient light fixtures throughout the site design.

Objective 2
Reduce dependence on chemicals and other manufactured substances that can accumulate in Nature. Reason: Same as before.

The Dumbarton TOD can meet this objective by:

- Creation of landscape and park elements that minimize the use of pesticides and herbicides;
- Provision of proper disposal and recycling facilities for demolition and construction waste; and,
- Utilization of alternative and innovative construction techniques and materials that are environmentally friendly.

Objective 3
Reduce dependence on activities that harm life-sustaining ecosystems. Reason: The health and prosperity of humans, communities, and the Earth depend upon the capacity of Nature and its ecosystems to reconcentrate and restructure wastes into new resources.

The Dumbarton TOD can meet this objective by:

- Redevelopment of previously disturbed land;
- Provision of low-flow water fixtures and water conserving irrigation systems;
- Management of retention of storm water in a way that restores the quality of on-site runoff;
- Minimization of impervious paving surfaces through narrow streets and paseos;
- Creation of a greenspace network within the community;
- Incorporation of native and drought tolerant landscaping;
- Provision of sewage infrastructure; and.
- A sensitive approach to site grading design that respects the existing land form.

Objective 4
Meet the hierarchy of present and future human needs fairly and efficiently. Reason: Fair and efficient use of resources in meeting human needs is necessary to achieve social stability and achieve cooperation for achieving the goals of the first three guiding policies.

The Dumbarton TOD can meet this objective by:

- Provision of a range of housing options including affordable housing; and,
- Location of housing near services and recreational opportunities.

While sustainability is defined by the American Planning Association as "the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs by preserving and protecting the area's ecosystems and natural resources," its ecological and energy conscious objectives can be implemented in such a way as to foster a more livable community.

Creative implementation of the sustainable principles listed above will create a community at the Dumbarton TOD where the mix of land uses are amenities for each other, as well as for the overall community of Newark.

These livability design aspects include:

- A unique sense of community and place;
- Land uses where services are provided near residents;
- Utilizing narrow pedestrian oriented streets and traffic calming elements such as roundabouts, making the circulation experience pleasant and non-intrusive to residents and visitors;
- Linking a compact community with greenbelts and bicycle connections to promote walkability;
- Providing linkages to the surrounding community wherever possible;
- Providing shopping and recreational opportunities within a 5-10 minute walk can reduce dependence on the automobile;
- Clustering of retail, service and high-density

Low VOC Paint

Blue Jean Insulation

Bamboo Flooring

Solar Panels

Energy Efficient Lighting

Fly Ash

FSC Certified Wood

Recycled Glass Countertops

housing uses within easy walking distance of each other; and,

- Providing a range of housing opportunities to fairly meet the needs of different lifestyles.

2.3 GREEN BUILDING

Green building techniques can enhance the success of a community. They can influence the design and construction of high-profile public spaces. Emphasis placed on public space planning and design that maximizes solar exposure, while minimizing the effects of frequent winds, can enhance the experience of the space. Materials and energy systems that are earth friendly can be incorporated, as well as recycled materials.

The technology exists to create buildings that are smarter, more energy efficient and healthier than those of the past. Homes and commercial buildings built within the Dumbarton TOD should incorporate some of the finest building and energy saving techniques available. All new homes will be constructed to meet Energy Star requirements for energy efficiency.

Green building techniques for the Dumbarton TOD project area can include items such as:

- Recirculating hot water systems that can reduce water consumption;
- High Efficiency Clothes Washers: Known as High Efficiency, Front Loading, or Horizontal Axis, these clothes wasters all produce dramatic water conservation as well as energy savings. "Front loaded washers can easily save $100 per year on energy costs and use half as much water. Because they use less water, they also require up to 68% less electricity to heat the water, resulting in more energy savings." (www.eartheasy.com)
- High Efficiency Dishwashers: "As of August 11, 2009, ENERGY STAR qualified dishwashers are required to use 5.8 gallons of water per cycle or less. Older dishwashers use much more water than newer models. A dishwasher purchased before 1994 uses about 8 additional gallons of water in each cycle compared to a new ENERGY STAR qualified model." (www.energystar.com) This Green Building feature could save a substantial amount of water over the course of a year. If the average household runs the dishwasher every other day, it could save over 400 gallons of water per year.

Additional green building techniques may include the following:

- Fly ash in Concrete: Fly ash is a by-product of coal burning power plants and can be an environmentally friendly substitute for a portion of the Portland cement used in concrete. Some manufacturer's proprietary fly ash cement is considered a non-shrink material with advantages in workability, water retention, and strength.

Because fly ash mixes with less water, it is less likely to crack. An industrial by-product that is otherwise waste, fly ash is environmentally friendly because it is recycled and has low embodied energy. (www.toolbase.org)

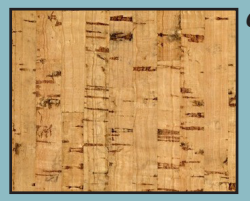
Use of fly ash as a partial replacement for Portland cement is generally limited to Class F fly ashes. It can replace up to 30% by mass of Portland cement, and can add to the concrete's final strength and increase its chemical resistance and durability. Recently concrete mix design for partial cement replacement with High Volume Fly Ash (50 % cement replacement) has been developed. For Roller Compacted Concrete (RCC) [used in dam construction] replacement values of 70% have been achieved with POZZOCRETE (processed fly ash) at the Ghatghar Dam project in Maharashtra, India. Due to the spherical shape of fly ash particles, it can also increase workability of cement while reducing water demand.[16] The replacement of Portland cement with fly ash is considered by its promoters to reduce the greenhouse gas "footprint" of concrete, as the production of one ton of Portland cement produces approximately one ton of CO2 as compared to zero CO2 being produced using existing fly ash. New fly ash production, i.e., the burning of coal, produces approximately twenty to thirty tons of CO2 per ton of fly ash. Since the worldwide production of Portland cement is expected to reach nearly 2 billion tons by 2010, replacement of any large portion of this cement by fly ash could significantly reduce carbon emissions associated with construction, as long as the comparison takes the production of fly ash as a given. (www.wikipedia.org)

- Formaldehyde-Free Insulation: There are two options; cellulose insulation made of recycled newspapers which contain no formaldehyde and can be blown into wall cavities wet or dry, and fiberglass insulation free of formaldehyde that can contain up to 25% recycled glass. Cellulose is made from waste newspaper, cardboard and other waste paper. Cellulose has several advantages from the environmental perspective over other insulation materials. Cellulose has the lowest embodied energy of any insulation product because it contains upward of 90% post-consumer recycled newspaper and cellulose offers an "itch free" installation. (www.greenerbuilding.org). Both types meet stringent fireproofing standards.

Additional commitment to green building should involve a series of options provided to the home buyer. These options can include environmentally preferable upgrades that promote the use of recycled content materials, more energy efficient heating systems and renewable energy systems. Other items, such as the ones listed below, are also good options to include:

- Countertops of recycled glass, concrete, or bio-based products, etc.;

Low Flow Fixtures



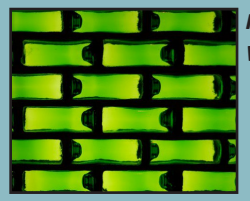
Cork Flooring

Wind Power

Recycled Carpet

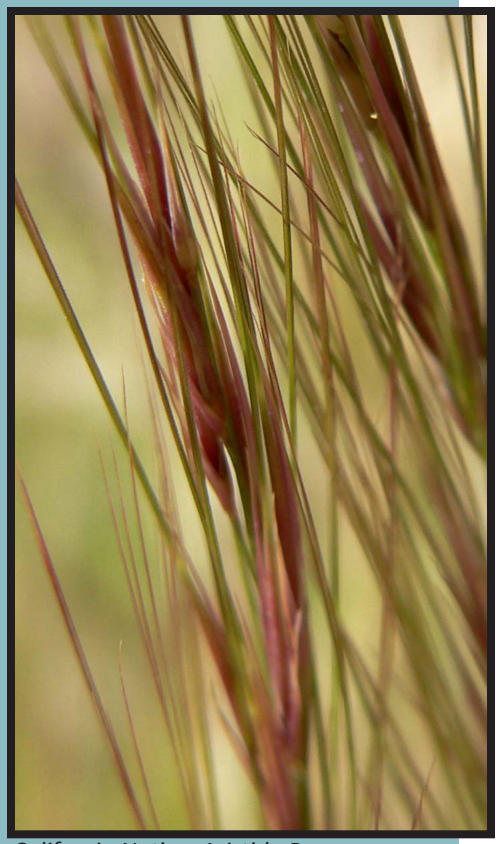
Green Roofs

Geothermal



Recycled Glass Walls

High Efficiency Appliances



California Native, Aristida Purpurea

- Floors of bamboo, natural linoleum, salvaged wood, recycled content carpets, etc.;
- LED Light fixtures of dimmable compact fluorescent lamps and occupancy controls;
- Dual flush toilets;
- HVAC options for higher efficiency equipment, and;
- Low voltage exterior lighting.

2.4 SUSTAINABLE LANDSCAPING PRINCIPLES

The desire to create community in accordance with green building principles, influences decisions regarding the landscape design, recreational programming, and physical layout of each development area. The selection of construction materials, planting, and irrigation design are inspired by the need to design in response to the climate and environmental conditions present in the City of Newark. This constraint also create an opportunity to create an aesthetic that reflects the unique beauty and sense of place that is one of the main attraction to living next to the San Francisco Bay.

The example plant materials identified in the Design Guidelines chapter have been selected to have low water requirements and that thrive in the conditions present on the site. Extensive use of native and naturalizing species is encouraged, which will reduce water demands and adapt well to the soil, wind and salt conditions. This plant palette will quickly establish the community as an integral part of the City of Newark, yielding benefits in terms of visual quality and biological integration.

Outdoor areas should be landscaped using predominantly native and drought tolerant plants, with a minimal use of turf. Irrigation controls will be utilized to minimize water usage. Significant amounts of water are conserved by irrigating at the rate and schedule required to meet a plant's needs rather than the typical clock schedules now in common use. Efficient controllers are available from a variety of suppliers and can be installed in residential, commercial and municipal applications.

Park Design Concepts

The parks should be designed to provide a variety of recreation opportunities in close proximity to residential uses to encourage walking to those sites. The active parks can use turf for active sports and playfields. This reflects the commitment to provide high quality recreation facilities to meet the use requirements of the community while minimizing the use of limited water and maintenance resources. Portions of the parks should include native vegetation to blend with the environment and create shelter for passive uses. The intent is to have irrigation systems help establish these plantings, that would later be established enough to grow and thrive without supplemental watering.

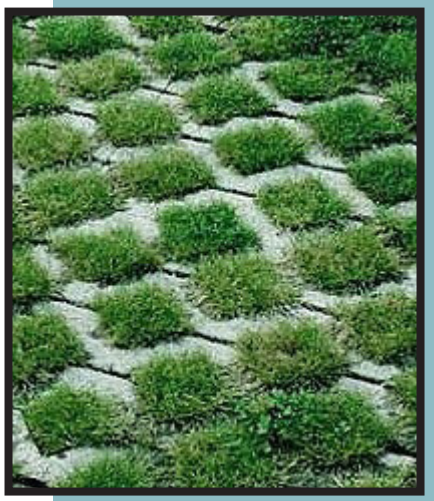
The design guidelines for site furnishing should incorporate recycled materials wherever possible. Innovative green materials, such as permeable reinforced crushed stone paving, is one of the encouraged materials for the parking lots and pathways within the park system.

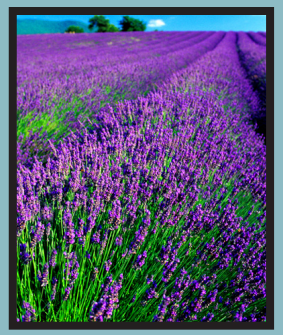
Landscape Drainage
The landscape design intent endeavors to incorporate the site drainage and infiltration as an integral part of the site development. The goal is to improve the water quality as storm water is filtered through planted areas wherever possible. The project may use permeable pavements, bioswales and water retention areas to reduce the need for conventional storm drainage piping systems. They also provide extensive use of progressive methods to improve environmental quality and reduce the impact of site development on the existing infrastructure.

Recycled Materials
Developers are encouraged to utilize the resources of the Alameda County Greenbuilding Program at www.stopwaste.org.

Lighting Design
The goal for the lighting design for the project is to provide a comfortable level of illumination that meets the communities need for use and safety. High efficiency fixtures and sophisticated optics can be used to direct light where it is needed without creating excessive glare. Energy efficient lamps can also be used to minimize energy use and lamp replacement.

Lights should be placed where they are needed for specific uses, rather than to a continuous foot-candle requirement across the site, allowing for the appreciation of the dark sky in the residential neighborhoods. The result is that the quantity of fixtures and the total energy required is reduced over conventional communities. This has a benefit of creating a better quality of life, an improved aesthetic, all the while preserving precious energy and maintenance resources.





Examples of Drought Tolerant Landscapes and Permeable Surfaces

3.1 COMMUNITY VISION

3.2 PARKS & LANDSCAPING CONCEPTS

3.3 REQUIRED PLAN ELEMENTS

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3.0 COMMUNITY FORM

3.1 COMMUNITY VISION

The Specific Plan will steer the development of the approximately 200-acre Plan area towards a truly memorable community; a livable place where housing, recreation, neighborhood retail center and employment opportunities are integrated. This community is envisioned as a contemporary version of a small walkable town, where the automobile can be replaced by walking and biking for access to recreation and everyday trips.

Key components of this vision include pedestrian and bicycle friendly streets, public and private recreational open space opportunities and vistas to important community focal points like the Transit Station, and an integration of land uses that give the feeling of development over time. With the Plan as a backdrop, distinctive architecture and landscape elements establish a unique identity.

The following artist's Conceptual Illustrative Plan (Exhibit 3.1) presents the Specific Plan vision within the site context. Precise street alignments, lot locations, lot dimensions, and building type and locations shall be determined at the time of development proposals to implement the Specific Plan. Such alignments and locations will be substantially consistent with the goals and policies of this Specific Plan.

Plan Elements

The Specific Plan creates a unique and memorable community by integrating key elements of community design into the Plan. This Specific Plan creates a vibrant community through the integration of community common areas, housing, recreation, employment and transit.

The following outlines each of those elements and describes how the Plan will achieve those goals.

Neighborhood Center

The entrance to the Plan area, from Enterprise Drive, is designed to create a high level of activity that established the core of the Plan. This core area, or Neighborhood Center, includes the Transit Station, which serves as the focal point for the Plan area and sets the tone for the community.

The Neighborhood Center envisions an open area in front of

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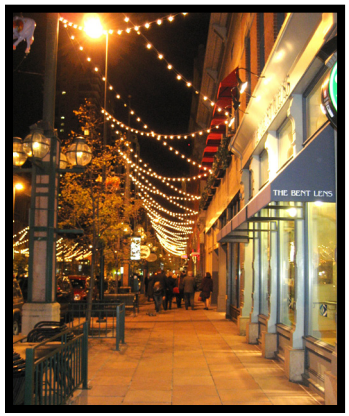
Exhibit 3.1 Conceptual Illustrative Plan Only (subject to change based on actual development plans)



String Lights

the Transit Station that will accommodate a wide range of community uses and activities.

This gathering area is the urban living room for the community. Not as large as a traditional town square, it is intended to create a more intimate setting for items such as kiosks, tables, benches; and for functions such as holiday celebrations, a farmer's market, public events and other public gatherings. It is simply a wonderful place to "hang out" and people watch with a great cup of coffee.

Retail

The eastern side of the Neighborhood Center is targeted for a variety of uses, including but not limited to grocery, personal services, neighborhood services, retail, entertainment, sports and recreation. Restaurants and cafe's could provide outdoor seating, helping to further activate the public space and give it a sense of enclosure.

Also east of the Neighborhood Center is an area designated for a grocery store. Ancillary buildings located adjacent to the grocery store could house retail services such as a coffee shop, wine bar, flower shop, dry cleaners or similar types of uses.

A variety of building heights, facades, and signature detailing throughout this core district will add character and architectural interest to the community.

Transit Station

Access to regional transit is of utmost importance. The Transit Station will provide a fixed platform for transit access with parking for transit riders located in designated parking areas adjacent to and the west of the Platform. An example how the Transit Station could conceptually be designed is shown in Exhibit 3.2.

Outdoor Dining

Commercial

An area west of the Neighborhood Center is designed for future office and retail uses. This site will accommodate up to 195,000 square-feet of office and retail uses. Depending on market demand, this site could house office, a sports center, or a "clean tech" manufacturing or development business. As development of these use types is highly dependant on the market conditions, the phasing and allowable uses for this area must remain flexible.

Residential Opportunities inside the Neighborhood Center

Building adjacent to the Neighborhood Center may be mixed-use to energize the area. It is important and appropriate to bring higher density residential opportunities into the core area to create a vibrant district and to support the merchants. Decks and balconies would engage the residents with the outdoor activities along the street and Neighborhood Center.

Residential Opportunities Outside the Neighborhood Center

A wide variety of residential opportunities will

Outdoor Seating

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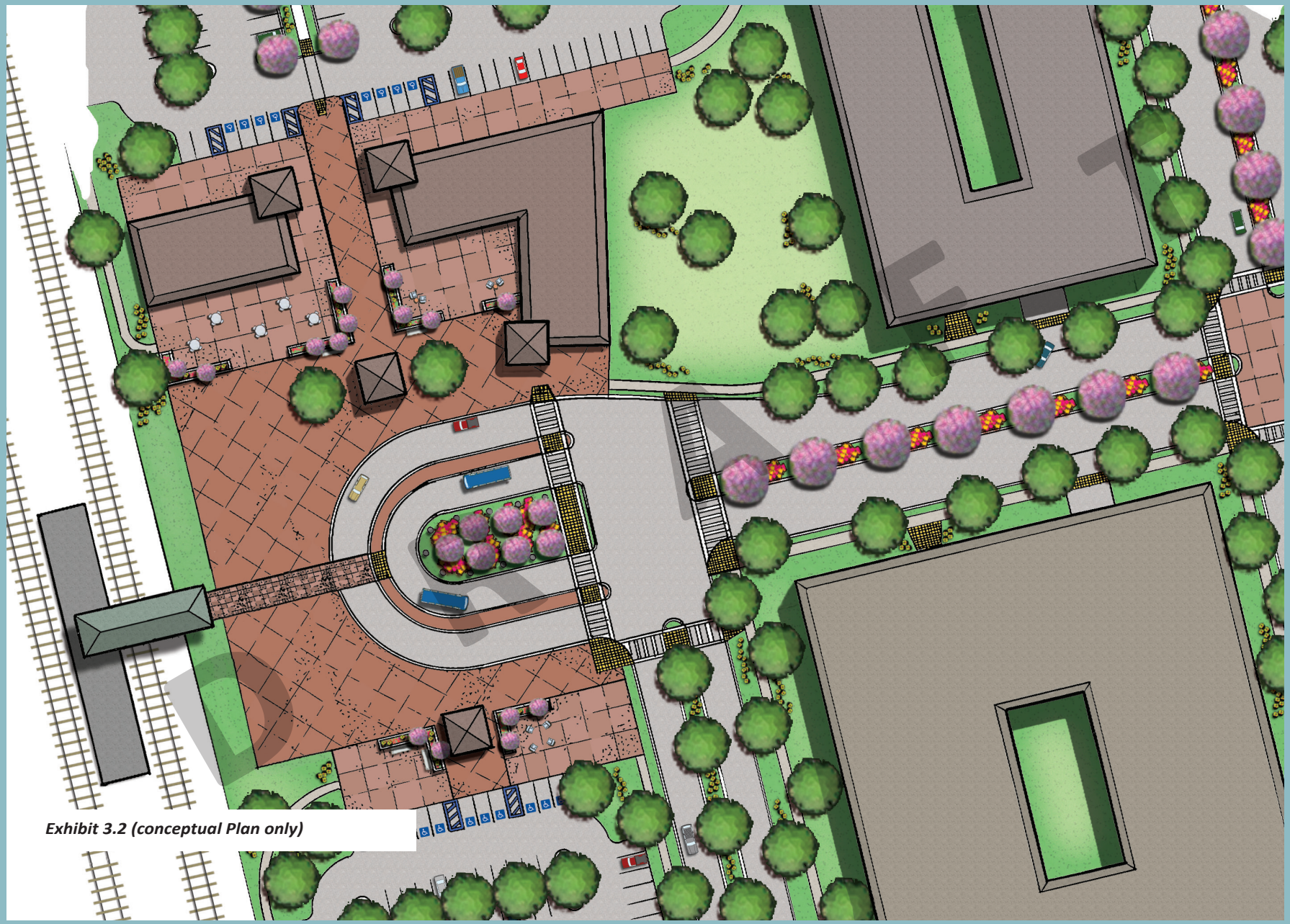

Exhibit 3.2 (conceptual Plan only)

be provided within the Specific Plan. Residents will be able to choose from a range of product types such as high medium density units, townhomes, apartments, flats, condominiums and single family detached. This mixing of densities and lifestyles creates a vibrant and engaged community.

Design of residential neighborhoods, or districts, will emphasize pedestrian and bicycle connectivity while facilitating dispersed automobile traffic. A modified-grid, street network creates shorter block lengths. The result of this block scaling is that the various home types are woven together within the neighborhood fabric, almost on a block by block basis, rather than separated housing tracts of the same lot configuration.

Bicycle Rack

Depending upon final building design, some homes may face onto pedestrian-oriented streets, community serving parks, and garden courts. This design would eliminate many driveways from the streetscape and create less interruption for walkers utilizing the sidewalk system. These homes would have garages served by carriageways or alleys behind. Combined with traditional street loaded homes, this would provide a variety of choices for future builders and residents.

In keeping with the design philosophy of an integrated community, sound and privacy walls are eliminated where feasible. Appropriate land uses, orientation of structures and appropriate landscaped setbacks are some of the methods the Specific Plan utilizes to mitigate noise without building walls.

3.2 PARKS & LANDSCAPING CONCEPTS

Park Acreage Requirement

The park requirement derived by the City of Newark for the Specific Plan is that the project shall provide 16.3-acres of parkland for approximately 2,500 housing units. This requirement is based on a requirement for this Specific Plan area, based on 2 acres of park per 1,000 people. Using 2,500 units and the Housing Elements' 3.26 persons per household, this generates 16.3-acres of parkland.

Each of the parks within the Specific Plan should have their own unique character. Detailed designs shall be required as part of the site specific development process.

The Specific Plan community is designed to be a fully integrated, walkable mixed-use community. The Plan area utilizes various types of pedestrian links to connect the neighborhood Parks and Transit Station. These pedestrian connections serve to create a cohesive community.

The parks, trail and other public and private recreational areas, within the Specific Plan form an integrated system with a wide variety of options for residents to enjoy. As a mixed-use community, this system is intended to provide more variety than a typical suburban type park dominated by organized play fields. One of the main components within the community will include a neighborhood park directly west of the Transit Station. This park might include trees, open turf and hardscape areas to accommodate events.

Other amenities throughout the parks in the community might include picnic areas, seating, tables, and shaded

Outdoor Seating

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gathering places. In addition, this pedestrian system includes a perimeter trail within the Plan area that will connect to the existing Bay Trail at it's existing location along Willow Street.

The parks and other public and private recreational open space areas (as defined by the City's General Plan, Chapter 7-Recreation) shall serve both to enhance the general character and feeling of the neighborhoods while providing the residents with green space environments. Because the majority of housing will be medium and high densities with limited private yard space, these community spaces represent the resident's outdoor activity areas. The goal is to create comfortable, accessible, and socially interactive public areas for residents yet maintain an adequate buffer to adjacent homes within the community as well as existing homes at the northwest corner of the site.

A major criteria for all aspects of landscape design is selecting and using materials in a thoughtful and sustainable manner. The land plan establishes a vibrant community that is truly integrated with respect to living and working environments, recreation opportunities, circulation and infrastructure. The arrangement of the uses on the land are a direct response to the existing land uses and circulation, site topography and land form, and site environmental factors.

The desire to create community in accordance with sustainable principles along with sustainable practices, influences the decisions regarding the landscape design, recreational programming and physical layout of the Plan area.

Some of the sustainable practices would include provisions for use of recycled or non-potable water for irrigation if available, the use of water efficient irrigation systems, automatic irrigation controllers, limiting turf to areas where it is functional, selecting native or low water use plant species. The community should be encouraged to also utilize permeable pavements where appropriate and decorative fountains and water features should utilize recycled or non-potable water.

3.3 REQUIRED PLAN ELEMENTS

While the artist's conceptual plan is intended to provide an example of how the plan might lay out, some variations of this layout are expected. There are a number of elements, however, which will be required by this Specific Plan, including:

1. Road improvements, such as Enterprise Drive, Hickory Street and the extension of Central Avenue;

2. A retail center with a grocery store;

3. A linear park/trail that runs interior to the perimeter of the Specific Plan area and connects to the existing Bay Trail at it's current location along Willow Street;

4. An overpass on Central Avenue over the Union Pacific Railroad right-of-way east of the project area;

5. Parks of varying sizes throughout the Plan area. The Plan designates three "park" areas; a) the Gallade site, b) the linear park/trail, and c) the park west of the Transit Station. Additional project park

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requirements, pursuant to City and State regulations, will be satisfied through the construction of parks or payment of in-lieu fees to the City of Newark. One of these parks is to contain a Dog Park that would be used by residents in the City of Newark. Another park is to contain an outdoor amphitheater, or similar design, within the park;

6. In order to gain further economic development benefits from the Specific Plan, it is suggested that developers attempt to: (1) provide career opportunities for area youth in the construction industry by employing local apprentices enrolled in a California State Certified apprenticeship program; (2) to pay area standard wages to construction workers employed on projects enabled by the Specific Plan; and 3) strive toward a goal of a minimum of 30% of the construction work force from the local Tri- City Region. Developers will offer to meet with representatives of the Construction Trade Unions, prior to submitting a Project Specific Plan to the City of Newark, to discuss how best to meet these objectives.

7. Developers shall offer solar electrical installations as an option on all homes.

8. The speed limit will be a maximum of 25 miles per hour in the development. Traffic calming measure, such as roundabouts and "bulb-outs" (see Chapter 6 Circulation, for details) will be integrated in to the development to help keep traffic speeds to a level appropriate for a residential area.

9. Fiscal beneficial to the City of Newark, the general fund revenue must exceed the cost of providing City services, if existing revenue sources are not sufficient, a Community Facilities District or other mechanism would be required.; and,

10. Compliance with any mitigation measures as identified in the Environmental Impact Report.

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4.1 OVERVIEW

4.2 LAND USE PRINCIPLES

4.3 GENERAL PROVISIONS

4.4 LAND USE DESIGNATIONS

4.5 ADJUSTMENTS/TRANSFERS REGULATIONS

4.6 PERMITTED USES

4.7 DEVELOPMENT STANDARDS & STREETSCAPE SETBACKS

4.7.1 TRANSIT STATION ENTRANCE ROAD
4.7.2 ENTERPRISE DRIVE (WEST) - NORTH SIDE
4.7.3 ENTERPRISE DRIVE (WEST) - SOUTH SIDE
4.7.4 HICKORY STREET
4.7.5 WILLOW STREET
4.7.6 CENTRAL AVENUE
4.7.7 ENTERPRISE DRIVE (EAST)
4.7.8 NEIGHBORHOOD STREETS
4.7.9 LOT SIZE DIMENSIONS & BUILDING SIZE

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4.0 FORM BASED CODE

4.1 OVERVIEW

The Specific Plan includes a blend of residential, neighborhood serving retail services, employment, open space and a transit station. To create a vibrant, thriving and special community, this Specific Plan utilizes the concept of Form Based code to set guidelines for development. Form Based code creates a predictable public realm by establishing guidelines and regulations that focus primarily on the physical form of the environment, with a lesser focus on specific land-use requirements.

Form-based codes address the relationships between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. The guidelines and standards in Form Based codes are presented in diagrams and words, to describe the character of the development. This is in contrast to conventional zoning's focus on the management and segregation of land uses.

The Land Use Plan is a graphic representation of policies contained in the Specific Plan. Land use classifications - shown as color/graphic patterns on the plan - allow for a range of uses within each classification. The Specific Plan Land Uses are reflected on Exhibit 4-1 and are summarized on Table 4-1.

4.2 LAND USE PRINCIPLES

The following principles were used to guide the layout of the land use plan:

- Provide a mix of uses that supports transit ridership;
- Integrate new development with existing uses and neighborhoods;
- Limit sensitive receptors' exposure to noise and air quality emissions; and,
- Reduce total vehicle miles traveled and regional greenhouse gas emissions.

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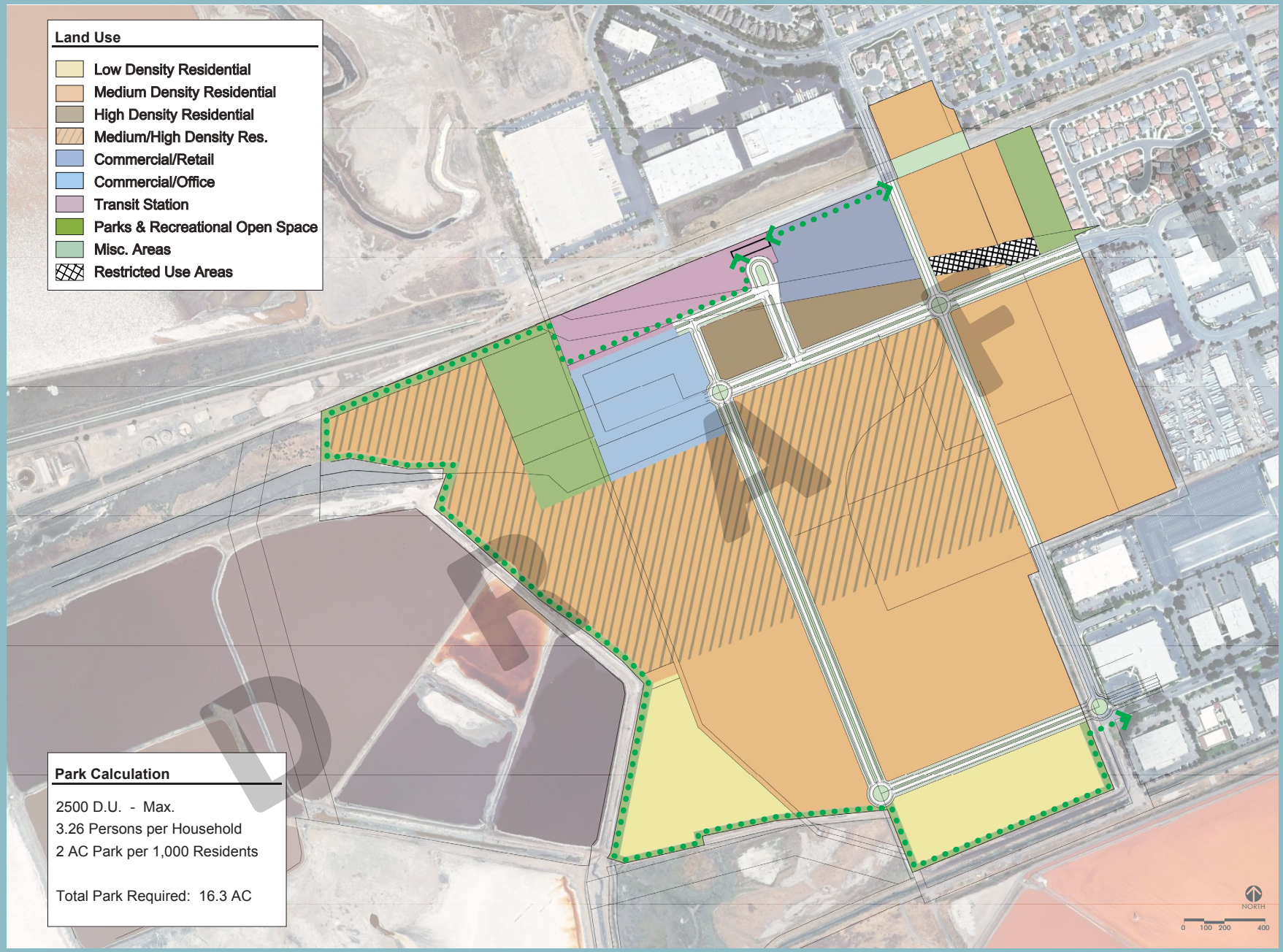

Exhibit 4.1 Land-Use Plan

Adopting a mix of uses around the proposed Transit Station will generate great benefits for the City of Newark and the overall community. Limited neighborhood serving retail uses will serve both the established and the new residents of the area while also providing sales tax revenue for the City of Newark. Residential units within walking distance to the Transit Station provides the riders necessary to support the Station. Studies have shown that residential units within walking distance of transit stations provides the greatest number of riders.

4.3 GENERAL PROVISIONS

Purpose & Intent

The Land Use and Form-Based Regulations chapter set forth in this Specific Plan provide a comprehensive set of regulations governing the use of the land. This chapter, adds to the City of Newark Zoning Code and specifies regulations for the Plan area. Should there be a conflict between this Form Based Code and the Specific Plan for the Plan area and the City of Newark Zoning Ordinance, the provisions of this Form Based Code and the Specific Plan shall govern. Any issue not directly or specifically covered by this Form Based Code or the Specific Plan shall be subject to non-conflicting regulations and procedures of the City of Newark Planning and Zoning Code.

Consistency with Adopted Plans and Codes

As required by Government Code Section 65454, the Specific Plan and Form Based Code are consistent with and implement the City of Newark General Plan as the General Plan is being amended concurrently with this Specific Plan. Chapter 9, Implementation, discusses the consistency in detail. All land use entitlements and permits approved within the Specific Plan area shall be consistent with the General Plan.

Severability Clause

If any term or provision of this Specific Plan, or the application of any provision of this Specific Plan to a particular situation, shall for any reason be found to be void, invalid, illegal, or unenforceable by a court of competent jurisdiction, such term or provision shall remain in force and affect to the extent allowed by such ruling and all other terms and provisions of this Specific Plan or the application of this Specific Plan to other situation shall remain in full force or effect.

Existing Users

Any lawfully existing land use occurring at the time of the effective date of this Specific Plan may be continued, if they have been in continuous operation, notwithstanding any omission of a particular use in the Permitted Uses Section 4.6.

4.4 LAND USE DESIGNATIONS

The land use designations identified in the Plan area are defined below. They are meant to be broad enough to provide flexibility in implementation, but clear enough to provide sufficient direction to carry out the Specific Plan. Conceptual Land Use acreages (based on APN maps) are shown in Table 4.1 (estimates only). The permitted uses for each land use are set forth in Section 4.6. Also addressed in this section are regulations concerning the adjustment, transfer and conversion of land use designations.

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Specific Land Uses Defined
The following are the Specific Plan Land Use designations established by the Specific Plan:

Low Density Residential (LDR)
The LDR district is intended for single-family neighborhoods and the allowable density in this district is between 0 and a maximum of 14 dwelling units per gross developable acre.

Medium Density Residential (MDR)
The MDR district is intended for areas of medium-density detached and attached housing such as duets, duplexes, triplexes, and four-plex units, townhomes and condominiums. The allowable density range is 14-25 dwelling units per gross developable acre.

Medium-High Density Residential (MHDR)
The MHDR district is intended primarily for areas of medium density residential with some pockets of high-density residential units. See description below for the definition of High-Density Residential (HDR). This allowable density range is 16-60 dwelling units per gross developable acre.

High Density Residential (HDR)
The HDR district is intended for higher density multifamily development such as apartments, townhomes, condominiums and live/work units. HDR allocated areas are located along collector roads, adjacent to neighborhood serving land uses such as retail services, and near transit stations. The allowable density range is 25-60 dwelling units per gross developable acres.

Retail (R)
The R designation provides a variety of uses including, but not limited to, grocery, personal services, neighborhood serving retail, and entertainment. Parcels may include multiple land uses as individual buildings or within each building. The allowable square footage for this area is up to 35,000 square feet.

Commercial (C)
The Commercial designation provides a variety of uses including, but not limited to, office, medical, financial, real estate, general business and personal services, food related services and recreation. Parcels may include multiple land-uses as individuals buildings or within each building. The allowable square footage for this area is up to 195,000 square feet.

Transit Station (TS)
The TS designation indicates the location for the Dumbarton Transit Station and associated parking areas.

Parks & Open Space (POS)
The Parks & Open Space designation allows for a variety of recreational uses and open space, including the perimeter trail and various water quality features and associated structures.

Miscellaneous (M)
The M designation is designed to accommodate Parcels that occur within Rights-of-Way (ROW) where uses are limited, or areas that are too small for a specific land use designation. This designation also accommodates the rail station train tracks.

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Below is a summary of the proposed land uses and their corresponding acreages based on APN maps.

TABLE 4.1 - PROPOSED LAND USE TABLE

LAND USE	ACRES*
Low Density Residential (LDR)	16.84
Medium Density Residential (MDR)	67.86
High Density Residential (HDR)	5.03
Medium/High Density Residential (MHDR)	59.34
Retail (R)	6.56
Office (O)	5.87
Transit Station (TS)	6.11
Parks & Open Space (POS)	16.26
Miscellaneous (M)	22.95
TOTALS	206.7 ACRES

**Acres are estimates only, based on APN maps. Final acreage amounts may vary once surveys are conducted. The maximum unit count shall not exceed 2,500 units.*

4.5 ADJUSTMENTS/TRANSFERS REGULATIONS

In order to create the most desirable community possible, a certain amount of flexibility needs to be provided for in this Specific Plan. This flexibility allows for shifts in market demand. The parameters for this flexibility within the Specific Plan are detailed in this section. Submittals for these adjustments shall be made to the City of Newark .

Planning Area Adjustments

While a Conceptual Land Use Plan (Exhibit 4.1) is contained in this Specific Plan, precise development boundaries and acreages shall be determined through the recordation of Final Maps and with final engineering.

Planning Area Adjustment Policies

FB-1: Adjustments to the boundaries and acreages of a land use area, or areas (as set forth in the Land Use Plan - Exhibit 4.1 and proposed Land Use Table - Table 4.1), may be processed by those property owners owning land within the effected area as of right and without necessitating a Specific Plan Amendment, provided the total gross acreage of a land use planning area does not change by more than 20% from the original gross acreage approved under the Specific Plan.

FB-2: A revised Land Use Plan (Exhibit 4.1) and Proposed Land Use Table (Table 4.1) must be submitted to the City of Newark for each proposed revision or set of revisions to the development area boundaries.

Allocation of Dwelling Units

The Specific Plan shall be limited to a total of 2,500 residential units. To ensure that development within the Specific Plan occurs in a manner consistent with the policies and objectives of this Specific Plan without exceeding this unit cap, Table 4.2 (Unit Allocation Table) below summarizes the maximum number of residential units each Assessor's Parcel Number ("Parcel") listed therein is entitled to construct under this Specific Plan.

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If the existing boundaries of two or more Parcels set forth in Table 4.2 are revised by lot line adjustment, the number of units assigned to each Parcel shall remain the same unless accompanied by a unit transfer as permitted by this Section 4.5. If a Parcel set forth in Table 4.2 is legally subdivided into four or fewer Parcels, as evidenced by a recorded Parcel map of final map approved by the City of Newark pursuant to the Newark Municipal Code and California Subdivision Map Act ("Map Act") or, the Parcel already consists of two or more legal Parcels under the Map Act as evidenced by a certificate of compliance or recorded subdivision map, the dwelling units allocated to such Parcel may be reallocated among the newly created or existing legal Parcels by the property owner in any manner which is consistent with this Specific Plan and the applicable zoning requirements. Such reallocation shall be accomplished by the property owner's submission of a revised Table 4.2 to the Community Development Director of the City of Newark in compliance with this Specific Plan.

Transfer of Dwelling Units

The transfer of dwelling units between owners of legal Parcels is permitted as of right provided that there is no net increase to the total dwelling units, 2,500, permitted in this Specific Plan and provided that such transfer complies with the applicable zoning requirements for each land use designation involved, including density requirements (i.e. units may not be transferred to a Parcel to the extent that the applicable maximum density would be exceeded).

Transfer of Dwelling Units Policies

FB-3: A revised Land Use Table (4.1) must be submitted to the Community Development Director for the City of Newark for a proposed transfer of dwelling units between Parcels only if the acreages for one or more land use planning areas are being revised as part of such unit transfer. Otherwise, no revised Land Use Table shall be required.

FB-4: A revised Unit Allocation Table (Table 4.2) shall be submitted to the Community Development Director for each proposed transfer of dwelling units as provided in this Section 4.5. Provided such proposed transfer complies with this Specific Plan and applicable zoning requirements, no further submittals or approvals shall be required.

Automatic Transfer of Dwelling Units

Upon the earlier of the rezoning or dedication of a Parcel to a non-residential use, including for park use or open space, a building permit for the construction of dwelling units or approval of a tentative map, vesting tentative map, Parcel map or tentative Parcel map which subdivides a Parcel into five or more Parcels or five or more condominiums as defined in the Map Act (a "Developed Parcel"), any unused dwelling units from such Parcel's allocation in Table 4.2 shall be automatically reallocated to those Parcels in Table 4.2 which are not Developed Parcels (a "Recipient Parcel"). The number of unused dwelling units for a Developed Parcel shall be equal to the number of units allocated to such Parcel in Table 4.2 minus zero, in the case of a Parcel which is rezoned or dedicated to a non-residential use, the number of dwelling units authorized to be constructed pursuant to a

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building permit to the number of Parcels or condominiums created by the subdivision ("Unused Units"). The formula for such reallocation shall be:

X = (Y/(Y+Z)

X = Number of Unused Units to be reallocated from a Developed Parcel to a Recipient Parcel

Y = Number of units allocated to Recipient Parcel to date

Z = Total number of units allocated to Parcels within Specific Plan which are not Developed Parcels.

Any applicant seeking to utilize reallocated units for a Recipient Parcel shall submit a revised Table 4.2 setting forth the revised allocation of units to the Community Development Director, which will then become a part of this Specific Plan without the need for amendment or further action by and party.

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TABLE 4.2 - UNIT ALLOCATION TABLE

PROPERTY OWNER	ASSESSOR'S PARCEL NUMBER	PARCEL AREA ZONED FOR RESIDENTIAL USE	LAND USE DESIGNATION/ ZONING	MAXIMUM NUMBER OF UNITS	PERCENTAGE OF TOTAL
Ashland Inc.	092-0115-005	10.29 ACRES	MHDR	243	9.72%
Cargill	PARCEL 1 OF PARCEL MAP 9837[2]	54.53 ACRES	LDR/MDR/MHDR	652	26.08%
Enterprise Drive, LLC	092-0140-008	2.14 ACRES	MDR	35	1.40%
FMC Corporation	092-0100-004-02	3.59 ACRES	MHDR	50	1.98%
FMC Corporation	092-0100-005	0 ACRES	TRAINSIT STATION/ RETAIL	0	0%
FMC Corporation	092-0101-001	2.22 ACRES	MDR	31	1.23%
FMC Corporation	092-0115-011	1.98 ACRES	MHDR	47	1.89%
FMC Corporation	537-0852-001-02	5.8 ACRES	PARK/COMMERCIAL/ HDR	246	9.85%
FMC Corporation	537-0852-002-07	0 ACRES	PARK/COMMERCIAL	0	0%
FMC Corporation	537-0852-002-008	9.6 ACRES	MHDR/PARK	173	6.93%
Gallade Enterprises, LLC	092-0140-005	0 ACRES	PARK	0	0%
Jones Hamilton Company	092-0116-058	6.23 ACRES	MDR	86	3.44%
Jones Hamilton Company	092-0116-059	5.92 ACRES	MDR	82	3.27%
Jones Hamilton Company	092-0116-060	9.12 ACRES	MDR	126	5.04%
SHH, LLC	092-0115-012	2.0 ACRES	MHDR	48	1.91%
SHH, LLC	092-0115-013	4.11 ACRES	MHDR	98	3.92%
Torian	092-0115-008	10.0 ACRES	MDR/MHDR	138	5.53%
Torian	092-0115-010	32.22 ACRES	LDR/MDR/MHDR	445	17.81%
Total		**159.76 ACRES**		**2,500**	**100%**

1. Acreages listed are estimates
2. On May 25,2010, Cargill recorded Parcel Map 9837 with the Alameda County, California Recorder's Office, creating three new legal parcels. The County Assessor has not yet updated its Assessors Parcel Numbers assigned to the land which was the subject of the Parcel Map, so the allocation of units in Table 4.2 Refers to Parcel 1 of Parcel Map 9837 rather than by APN.

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4.6 PERMITTED USES

Land uses within the Specific Plan will be regulated by the application of permitted and/or administratively verified permitted uses designated by the zoning district applied to each parcel. Except as otherwise provided in the Specific Plan, permitted uses, development standards, processing requirements and other regulations are as specified by the City of Newark Zoning Ordinance.

LAND USE TYPE	USES
LDR, MDR, HDR & MHDR	AS DEFINED IN THE CITY OF NEWARK ZONING ORDINANCE FOR RESIDENTIAL USES
COMMERCIAL RETAIL	USES THAT ARE PRIMARILY FOR BUYING AND SELLING OF GOODS ARE ALLOWED (I.E. RESTAURANTS, GROCERS, FLORISTS, ETC.), ALL OTHER USES REQUIRE A CONDITIONAL USE PERMIT
COMMERCIAL OFFICE	USES THAT ARE PRIMARILY SERVICE BASED (I.E. PROFESSIONAL AND ADMINISTRATIVE OFFICES). ALL OTHERS USES REQUIRE A CONDITIONAL USE PERMIT.

LAND USE TYPE	USES
TRANSIT STATION	USES THAT PROVIDE A TRANSPORTATION MODE (I.E., BUS, BRT, TRAIN, LIGHT RAIL, ETC.), OR ARE AN ANCILLARY USE (I.E., COFFEE STAND, FLORIST, DRY CLEANER, PARKING LOT, ETC.) THAT WOULD BENEFIT TRANSIT PATRONS. ALL OTHER USES REQUIRE A CONDITIONAL USE PERMIT.
PARKS & OPEN SPACE	AS DEFINED IN THE CITY OF NEWARK ZONING ORDINANCE FOR PARKS & OPEN SPACE USES

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4.7 DEVELOPMENT STANDARDS & STREETSCAPE SETBACKS

Oftentimes, the places that stand out the most from our memories all have something in common; the way the streets feel as you move through them. There is something special about gracious tree-lined streets and wrap-around porches that make neighborhoods that have these characteristics so unique. You want to spend time there. You want to revisit them. One of the ways to enhance neighborhood feel is through offering regulations and guidelines for streetscape design (setbacks and character from property line to building).

The following section of the Form-Based Code chapter illustrates just how the Plan area addresses the pedestrian and vehicular relationship to the streets to create memorable neighborhoods. While the plan itself has not been formalized and is still at a predominately conceptual stage, there are also guidelines and recommendations for street cross section (Please see street cross sections in Chapter 7 - Circulation that will set the stage and climate of the Plan area).

Exhibit 4.2 on the following page highlights the streetscape (or setbacks from property line) that are regulated within the Form-Based Code. The cross sections shown in this Chapter (4.7.1-4.7.8) illustrate building placement and setbacks only. Street cross section are addressed in Chapter 7 - Circulation. It is important to note that the buildings on the plan are purely conceptual. Final designs of neighborhoods will occur at a later date and will go through the tentative map process. This Chapter will serve as a guide for those future developments.

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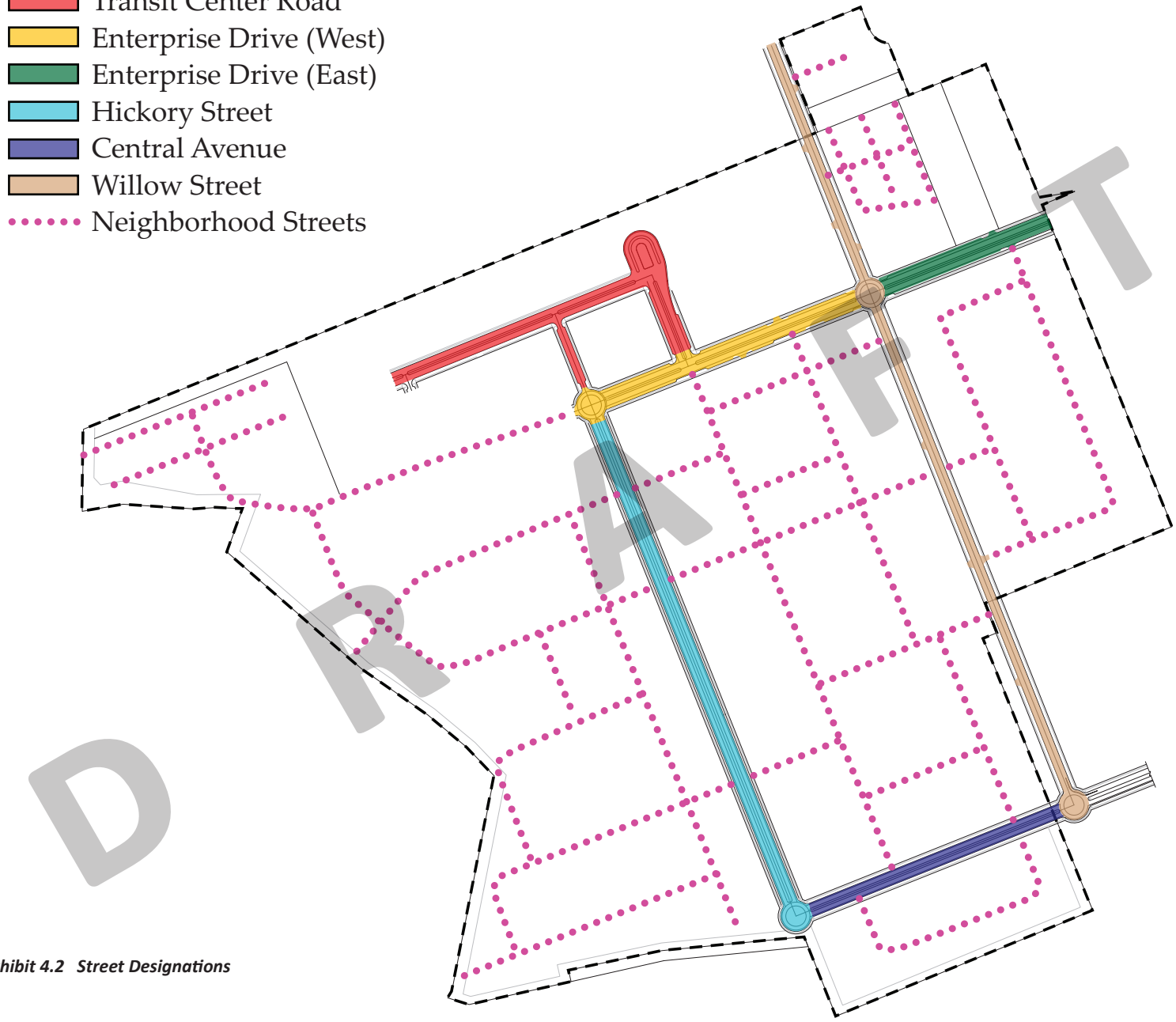
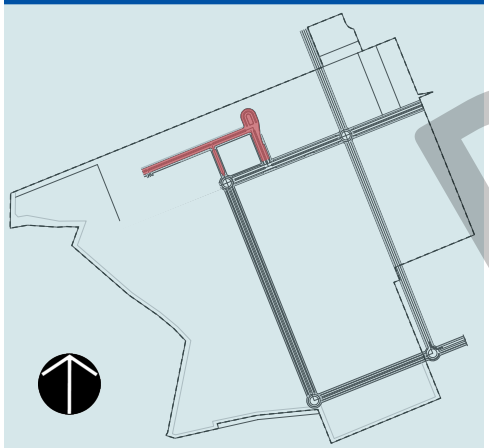
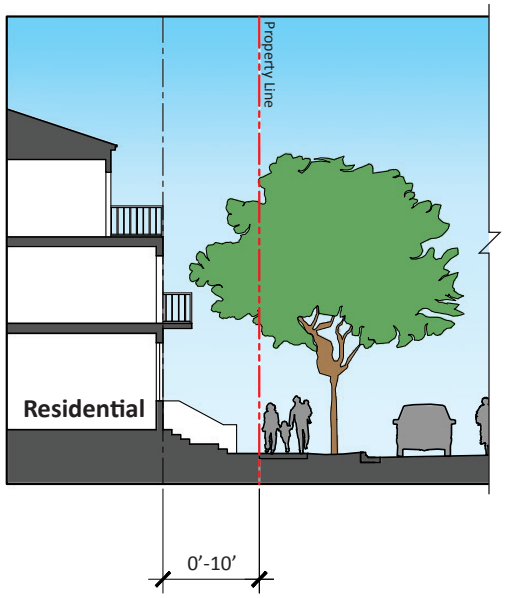
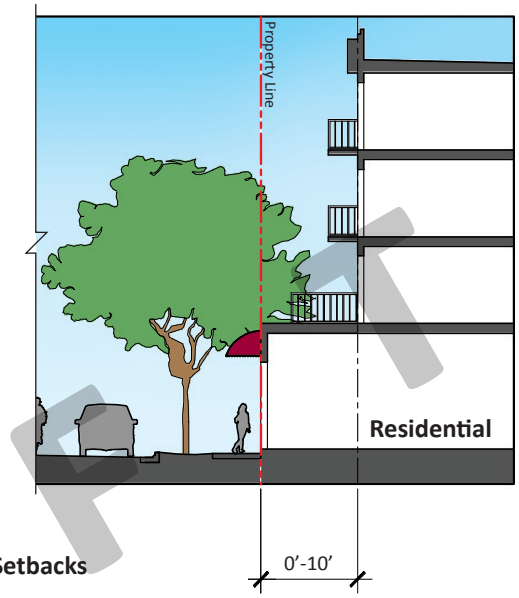


Exhibit 4.2 Street Designations







Transit Station Entrance Road - Setbacks

4.7.1 Transit Station Entrance Road

The location of the Specific Plan Transit Station, just off of Enterprise Drive West, has the opportunity to provide an enhanced statement as the entry to the Station. Intended to be a vibrant area, the setbacks and building placement will be more urban in nature with sidewalks that can provide for cafe style seating, setting the tone for this important street.

Building Placement	
Setbacks (from Property Line)	
Front	0' - 10'
Side Street	0' - 10'
Building Form	
Primary Street Facade built to Setback Lines	50% min.
Side Street Facade built to Setback Lines	30% min.

Height	
Building Max.	6 stories or 75' max

* Building height measured from finished grade at entry to the top of the ridge/parapet.

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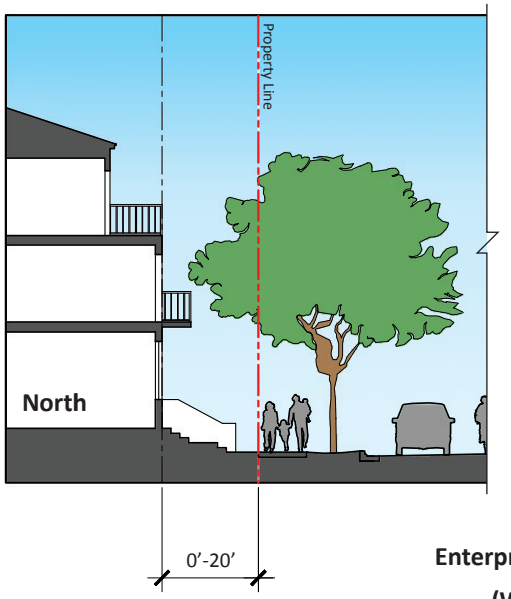


Enterprise Drive West - Setbacks (North Side)

(Willow to Hickory - North Side Only)

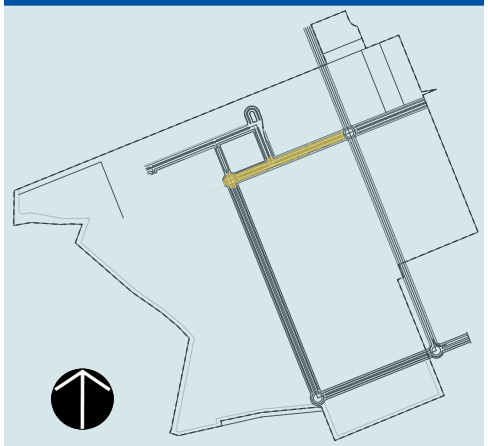
4.7.2 Enterprise Drive West (North Side)

Enterprise Drive West will be a main street many of the residents and visitors will use to enter the Plan area. Not only does this street need to feel special, it needs to accommodate the need for various types of residential building forms as well as commercial/retail/office uses.

Building Placement	
Setbacks (from Property Line)	
Front	0' - 20'
Side Street	5' - 10'
Building Form	
Primary Street Facade built to Setback Lines	50% min.
Side Street Facade built to Setback Lines	30% min.

Height	
Building Max.	6 stories or 75' max

* Building height measured from finished grade at entry to the top of the ridge/parapet.



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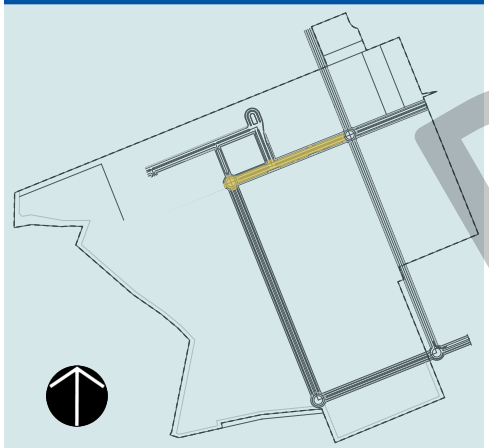

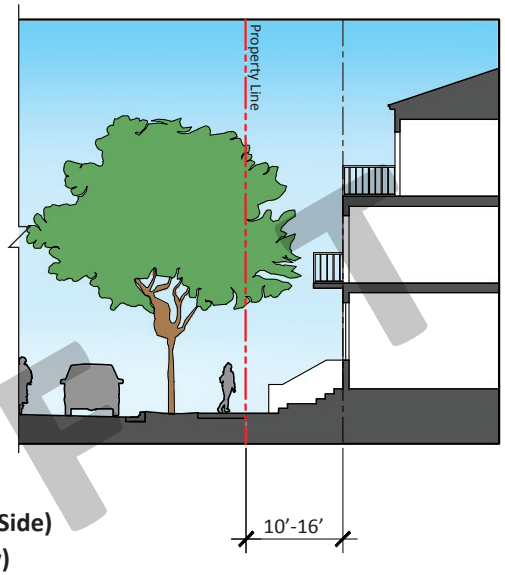

Enterprise Drive West - Setbacks (South Side)
(Willow to Hickory - South Side Only)

4.7.3 Enterprise Drive West (South Side)

Enterprise Drive West will be a main street many of the residents and visitors will use to enter the Plan area. Not only does this street need to feel special, it needs to accommodate the need for various types of residential building forms as well as commercial/retail/office uses.

Building Placement	
Setbacks (from Property Line)	
Front	10’ - 16’
Side Street	5’ min.
Block Form	
Max. Block Length	600’
Min. Block Width	450’
Max % of Buildings at Min. Setback Lines	80% min.

Height	
Building Max.	6 stories or 75’ max

* Building height measured from finished grade at entry to the top of the ridge/parapet.

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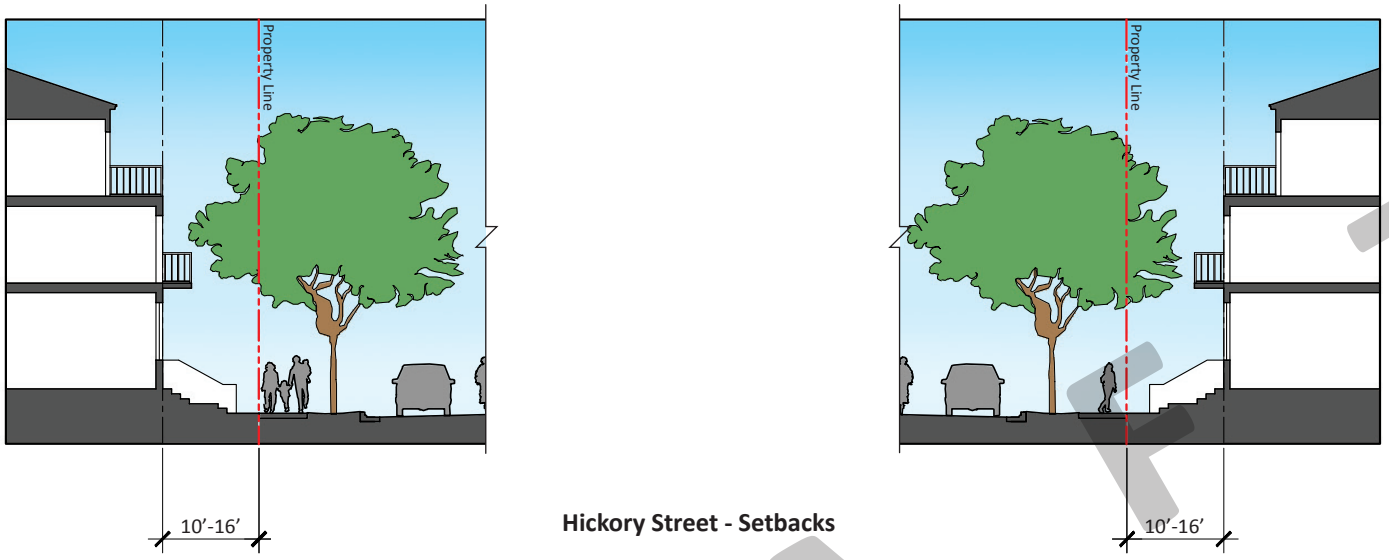
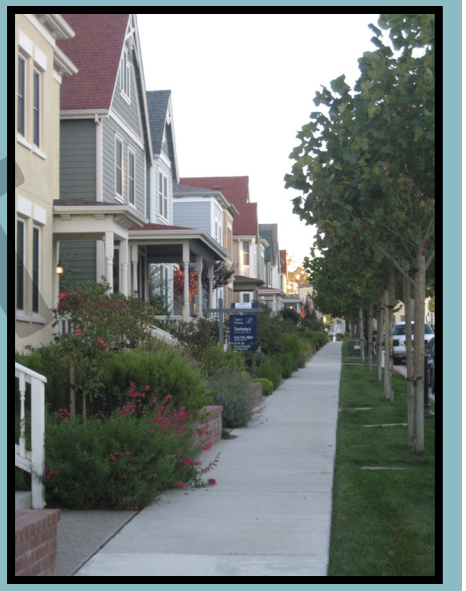


Hickory Street - Setbacks



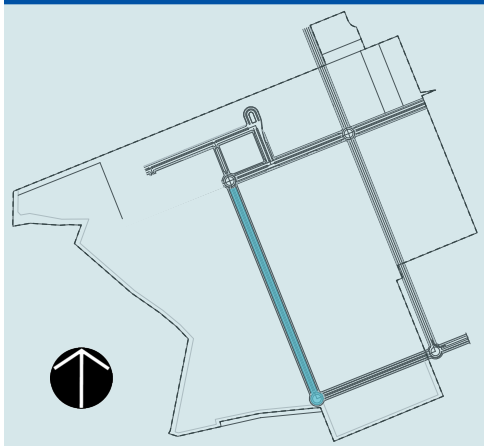
4.7.4 Hickory Street

Hickory Street is designed to create a very pleasant residential/pedestrian environment, as Hickory Street & Central Avenue are the main Collector Roads through the Plan area.

Building Placement	
Setbacks (from Property Line)	
Front	10' - 16'
Side Street	5' min.
Block Form	
Max. Block Length	600'
Min. Block Width	450'
Max % of Buildings at Min. Setback Lines	80% min.

Height	
Building Max.	4 stories or 50' max
Ancillary Building Max.	2 stories or 25' max

* Building height measured from finished grade at entry to the top of the ridge/parapet.



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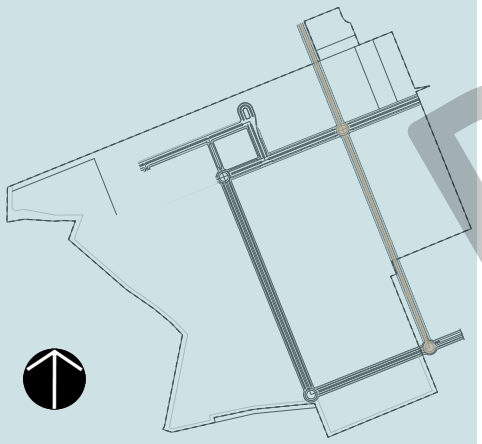

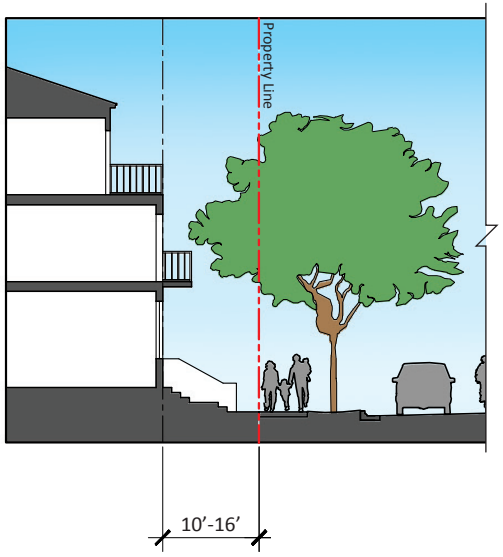

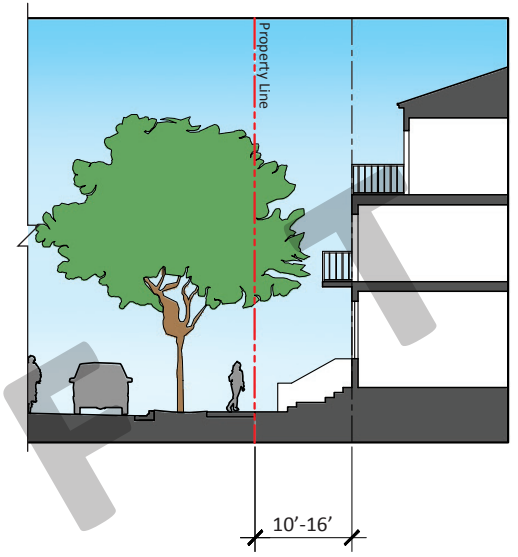

Willow Street - Setbacks

4.7.5 Willow Street

Willow Street is designed to create a very pleasant residential/pedestrian environment, as Hickory Street & Willow Street are the main north-south connectors through the Plan area.

Building Placement	
Setbacks (from Property Line)	
Front	10’ - 16’
Side Street	8’3” min.
Block Form	
Max. Block Length	450’
Min. Block Width	450’
Max % of Buildings at Min. Setback Lines	80% min.

Height	
Building Max.	4 stories or 50’ max
Ancillary Building Max.	2 stories or 25’ max

* Building height measured from finished grade at entry to the top of the ridge/parapet.

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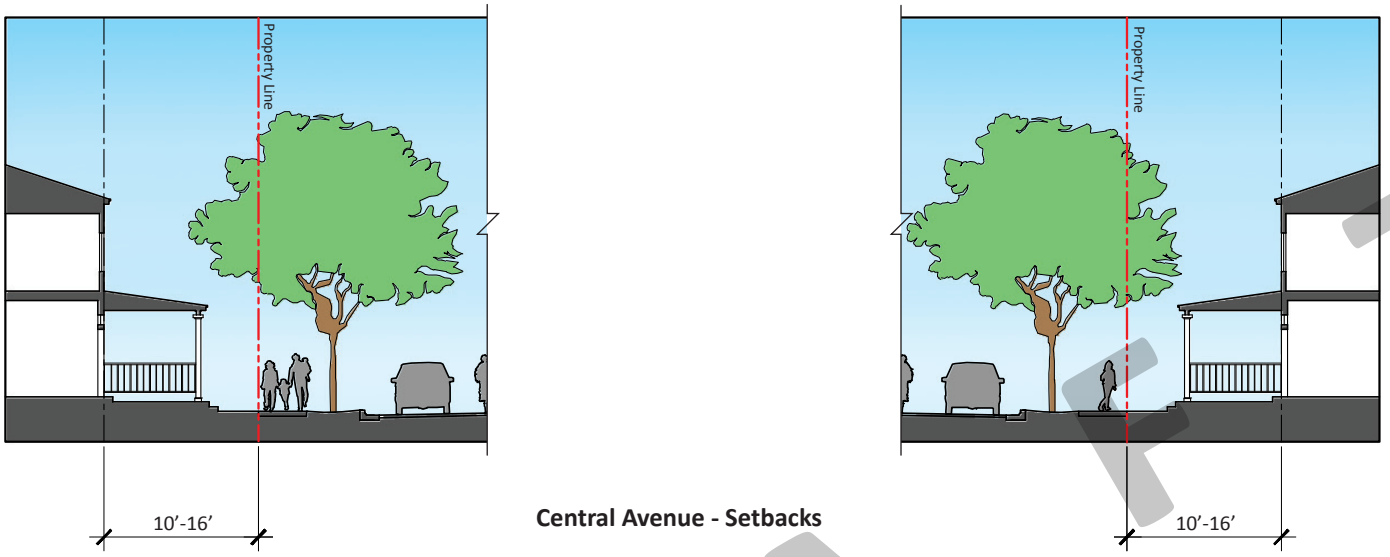


Central Avenue - Setbacks

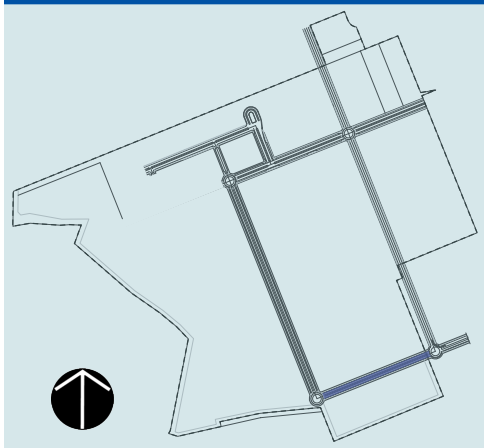
4.7.6 Central Avenue

Central Avenue is designed to create a very pleasant residential/pedestrian environment. Similar in scale to Hickory Street, both Hickory and Central will serve as collector roads through the Plan area.

Building Placement	
Setbacks (from Property Line)	
Front	10' - 16'
Side Street	5' min.
Block Form	
Max. Block Length	600'
Min. Block Width	450'
Max % of Buildings at Min. Setback Lines	80% min.

Height	
Building Max.	4 stories or 50' max
Ancillary Building Max.	2 stories or 25' max

* Building height measured from finished grade at entry to the top of the ridge/parapet.



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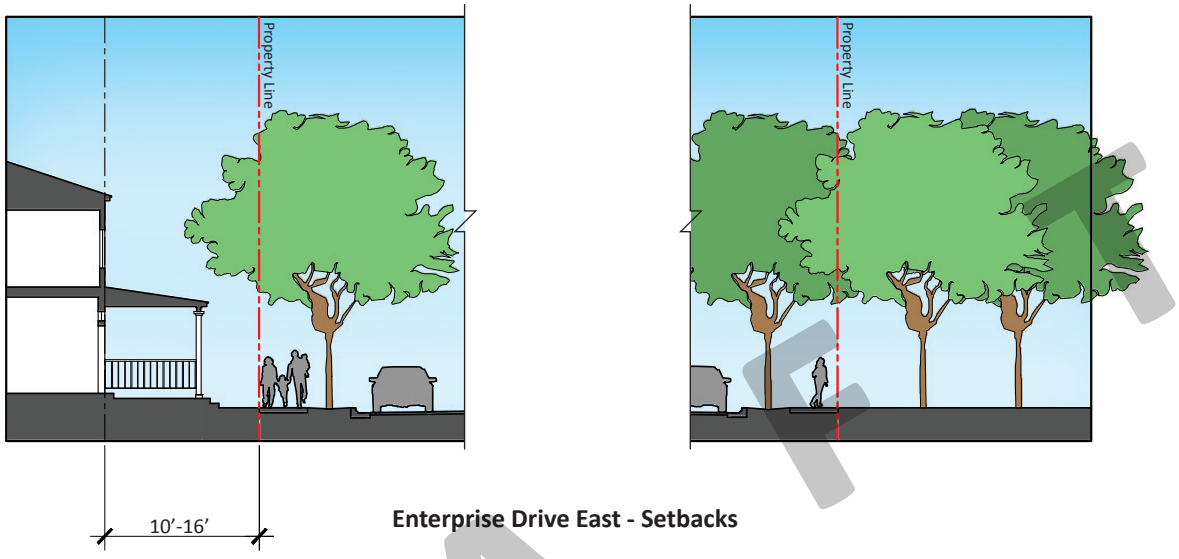
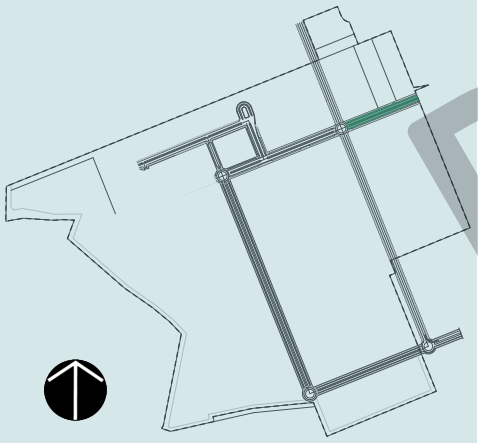


Enterprise Drive East - Setbacks

4.7.7 Enterprise Drive East

The Eastern portion of Enterprise Drive should be similar in character to Enterprise Drive - West. While similar in character, the Eastern portion would be reduced in scale and modified to reflect the traffic patterns and land use categories for this location.



Building Placement	
Setbacks (from Property Line)	
Front	10' - 16'
Side Street	5' min.
Block Form	
Max. Block Length	600'
Min. Block Width	450'
Max % of Buildings at Min. Setback Lines	80% min.

Height	
Building Max.	2.5 stories or 30' max
Ancillary Building Max.	2 stories or 25' max

* Building height measured from finished grade at entry to the top of the ridge/parapet.

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Neighborhood Streets - Setbacks

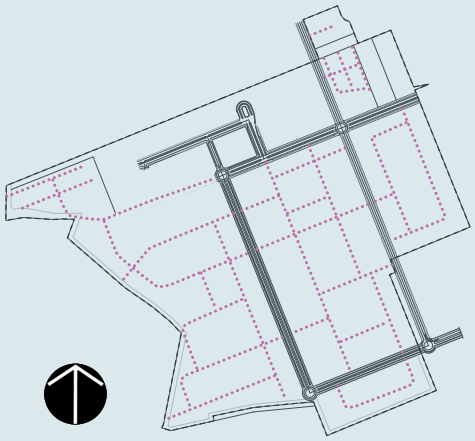
4.7.8 Neighborhood Streets

While Neighborhood streets shall have consistent quality throughout, the streetscape, building placement, and landscaping will vary depending on the specific product type and location.

Building Placement	
Setbacks (from Property Line)	
Front	10' - 16'
Side Street	5' min.
Block Form	
Max. Block Length	600'
Min. Block Width	450'
Max % of Buildings at Min. Setback Lines	80% min.

Height	
Building Max.	4 stories or 50' max
Ancillary Building Max.	2 stories or 25' max

* Building height measured from finished grade at entry to the top of the ridge/parapet.



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4.8 General Development Setbacks

Table 4.3 dictates the general development standards for residential product types, as well as mixed-use development and multi-family development in Table 4.3.

TABLE 4.3 GENERAL DEVELOPMENT SETBACKS

	Single Family Detached (front loaded)	Single Family Detached (alley loaded)	Single Family Attached (front loaded)
Lot Size			
Width (min)	40’	35’	15’
Width (max)	60’	60’	35’
Depth (min)	70’	50’	50’
Depth (max)	150’	150’	90’
Setbacks			
Front			
Porch/Stoops (min)	6’	6’	6’
Building Face (min)	10’	10’	10’
Building Face (max)	16’	16’	16’
Rear			
Main Building	15’	14’	14’
Ancillary Building	5’	14’ or 28’	5’ or 28’
Side			
Main Building (min)	3’3”	3’3”	3’3”
Main Building @ corners (min)	8’3”	8’3”	8’3”
Porch/Stoops @ corners (min)	6’	6’	6’
Ancillary Building/Garage (min)	3’3”	3’3”	3’3”
Ancillary Building/Garage @ corners (min)	8’3”	8’3”	8’3”
Max Site Coverage			
	50%	50%	75%
Notes			
Setbacks are minimum unless noted otherwise.			
Lot Depth for alley loaded homes measured from back of walk/centerline of paseo to the centerline of the alley.			
Minimum width may be reduced to 35’ for homes with garages at the rear of the lot or for homes with single car/ tandem car garages.			
Building height measured from the finished grade at the front entry to the top of the ridge line.			
Front setback measured from back of sidewalk or centerline of paseo.			

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TABLE 4.4 SETBACKS		
	Commercial & Office	**Multifamily**
Building Size		
Maximum Building Width	300’	300’
Maximum Building Depth	300’	300’
Setbacks		
From Public R.O.W.		
Porches/Stoops/Balconies	n/a	9’
Building Face	n/a	15’
Ground Floor	0’-10’	n/a
Upper Floors		
when ground floor @ 0’-5’	10’	n/a
when ground floor @ 5’-10’	5’	n/a
From other buildings on Site		
Residential Units	20’	25’
Community or Service Buildings	n/a	25’
Non-Residential Buildings	20’	n/a
Carports	15’	15’
From non-street Property Line		
of single family attached or multifamily lot	20’	25’
of single family detached lot	25’	30’
Non-Residential Buildings	25’	n/a
From on-site parking, drive aisle or lane	15’	15’
Building Height Max.		
	75’	75’
Notes		
Setbacks are minimum unless noted otherwise.		
0’ setback only permissible for ground floor commercial use.		
Building height measured from the finished grade at the front entry to the top of the ridge line.		

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4.7.10 Garages

An important element affecting the streetscape and character of residential communities is the location and design of garages, parking, and driveways. To create a pleasant pedestrian-oriented community, the Specific Plan recommends the following guidelines:

Garage Guidelines and Recommendations

• Non street-loaded garages are encouraged.

• Site and building design shall be utilized to minimize the impact of parking aprons and garages on the streetscape.

• For street facing garages, the maximum garage width shall be that which accommodates two conventional cars and an area for guest parking.

A street loaded garage may not occupy fifty percent (50%) or more of a lot's maximum allowable building frontage.

• Garages layout and design should minimize the visual impact of the garage door and parking apron on the streetscape.

• A garage should not occur directly at the end of a parking court
as viewed from the street.

• To discourage obstruction of the driveway, garage aprons shall be either seven (7) feet deep or eighteen (18) feet deep as measured from property line. The deeper parking aprons should be limited to the rear units, however they can be visible from the street.

• Dwelling unit driveways that serve as parking areas shall be a maximum of twenty (20) feet wide. If such parking areas are included, a pedestrian walkway connecting parking to the units is recommended.

TABLE 4.5 MINIMUM PARKING SPACE/ INTERIOR GARAGE DIMENSIONS

Type	Space/Garage Dimensions
Parallel Striped Parking	
	9' x 20'
One-Car Garage	
Without Appliances	12' x 20'
With Appliance at Side	15' x 20'
With Appliances at Front/Rear	12' x 24'
Two-Car Garage (side by side)	
Without Appliances	22' x 20'
With Appliance at Side	25' x 20'
With Appliances at Front/Rear	22' x 24'
Two-Car Garage (tandem)	
Without Appliances	12' x 40'
With Appliance at Side	15' x 40'
With Appliances at Front/Rear	12' x 44'

5.1 DESIGN GUIDELINES OVERVIEW

5.2 ARCHITECTURAL DESIGN GUIDELINES

- 5.2.1 AGRARIAN RURAL
- 5.2.2 AGRARIAN CONTEMPORARY
- 5.2.3 FARMHOUSE
- 5.2.4 ARTS & CRAFTS - PRAIRIE SCHOOL
- 5.2.5 ARTS & CRAFTS - CRAFTSMAN
- 5.2.6 FRENCH COUNTRY

5.3 NEIGHBORHOOD CENTER & TRANSIT AREA GUIDELINES

5.4 RESIDENTIAL DESIGN GUIDELINES

5.5 CIRCULATION GUIDELINES

5.6 OFFICE GUIDELINES

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5.0 DESIGN GUIDELINES

5.1 DESIGN GUIDELINES OVERVIEW

The Design Guidelines illustrate the desired character of the built environment through site, building, and landscape design. They are intended to help the City of Newark and future builders create a mixed-use community with a consistent quality and distinctive sense of place while encouraging flexibility and innovation, diversity, and individual neighborhood character.

The Design Guidelines are provided as a way to achieve that blend of architectural styles in combination with thoughtfully designed public spaces that will distinguish the Plan area. The Guidelines are suggestions intended to be applied as applicable, based on the specific product, location, and site conditions.

5.2 ARCHITECTURAL DESIGN GUIDELINES

Architectural Character

Several building styles are recommended to be used throughout the Plan area:

- Agrarian Rural
- Agrarian Contemporary
- Farmhouse
- Arts & Crafts - Prairie
- Arts & Crafts - Craftsman
- French Country

The elements of each architectural style are outlined below as guidelines intended for application to the residential buildings, where feasible and appropriate, and as a context for other product types, including retail and commercial. In many instances, this may be achieved through extrapolation rather than direct application.

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5.2.1 Agrarian Rural

Drawing from homes of the late nineteenth and early twentieth centuries, Agrarian Rural style homes typically have a roof form to the front and a partial or full-width front porch. These homes will have appropriate detailing that adds to the overall refinement of the architecture without detracting from it. Agrarian Rural style homes should be familiar, welcoming residences.

Typical Elements of this Style

Form & Roof:

- Cross-gabled, front gabled or front-to-back main gabled roof forms
- 5:12 to 12:12 roof pitches
- Pitch breaks permitted at porches, minimum slope of 3-1/2 : 12
- Minimum 12 inch eaves and minimum 8 in gable ends
- Flat concrete tile or composition shingle roofing

Walls & Windows:

- Horizontal siding, board and batten siding, stucco or a combination of these
- Square or a minimum 2:1 proportioned vertical rectangular windows
- Grid patterns typically: 1, 2, 4 or 6/1; 2/2; 4/4; 6/6
- Window grids facing all public streets and other locations in clear public view

Details:

- Porches with simple columns, preferably wood, with bracket and corbel detailing
- Decorative porch railings
- Appropriately proportioned window and door trims, simple in nature
- Wood detailing on siding surfaces, and stucco over foam detailing permitted on stucco surfaces

Colors:

- Body: whites, light-tinted colors, and rich earth tones
- Trim: whites and lighter tinted colors that compliment the body color
- Accent: light or dark shades that contrast to the body color

Enhancement Opportunities for this Style:

- Appropriately scaled dormers, preferably active
- Roof ornamentations such as cupolas and dovecotes
- Lambs legs at gable ends
- Decorative shutters
- Siding at gable end elevations
- Smoother texture on stucco elevations

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5.2.2 Agrarian Contemporary

Influenced strongly by the homes of pre-railroad America, the Agrarian Contemporary style should rely on simple form based architecture with strong roof lines and inviting front porches. These homes should not be overly adorned with decoration and attention should be paid to appropriately proportioned fenestration patterns that provide a specific rhythm to the façade of the building. Agrarian Contemporary style homes should be clean, crisp, more contemporary interpretations of the Agrarian Rural style.

Typical Elements of this Style

Form & Roof:

- Simpler plan and form
- Simple roof design; front-to-back gable or side-to-side gable
- 5 : 12 to 12 : 12 roof pitch
- Minimum 8 inch eaves and zero gable ends permitted
- Flat concrete tile or composition shingle roofing

Walls & Windows:

- Horizontal siding, board and batten siding, stucco or a combination of these
- Symmetrical placement and careful attention to developing distinct fenestration rhythms
- Square, circular or minimum 2:1 vertically proportioned rectangular windows
- Grid patterns typically: 1, 2, 4 or 6/1; 2/2; 4/4; 6/6
- Window grids facing all public streets and other locations in clear public view

Details:

- Porches with simple columns with simple trim detailing
- Porch railings should be simple in design when provided
- Minimal door and window trim detailing
- Wood detailing on siding surfaces and stucco over foam detailing permitted on stucco surfaces

Colors:

- Body: whites, light-tinted colors and rich earth tones
- Trim: whites, or light shades complementary to the body color
- Accent: light or dark shades in contrast to the body color

Enhancement Opportunities for this Style:

- Decorative shutters
- Appropriately proportioned dormers, preferably active
- Cupolas
- Exposed rafter tails
- Smooth trowel detailing on stucco elevations

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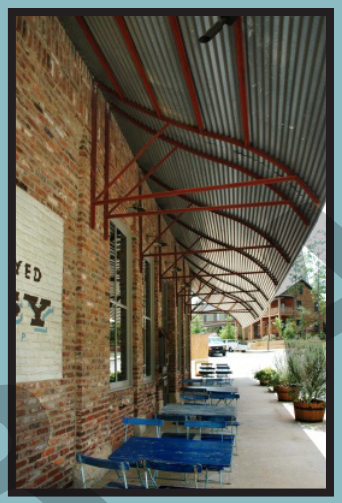

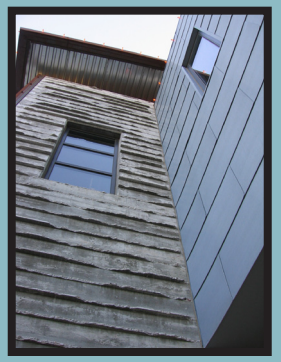

5.2.3 Farmhouse

The American Farmhouse architecture style is a hybrid of varying elements brought together by the regional craftsmen and the building traditions of the early 20th century. Covered porches, dormer windows and white paint are universal Farmhouse features. This architecture embodied the need for basic comfort and is both practical and pleasant in design.

Typical Elements of this Style

Form & Roof:

- Typically two-story
- Asymmetrical, angular design with tall proportions
- Gable roof
- 8 : 12 or greater roof pitch
- Overhanging eaves
- Wood shingled roof
- Composite shingled roof

Walls & Windows:

- Wood cladding
- Horizontal, diagonal or vertical boards give the appearance of sticks
- Vertically hung 1/1 or 2/2 windows
- Tall, rectangular windows with large panes

Details:

- Emphasis on patterns and lines
- Decorative braces and brackets
- Plain trim boards, soffits, aprons, and other similar decorative features
- Crown detailing along roof peaks
- Radiating spindle detailing at gable peaks
- Decorative half-timbering

Colors:

- Multi-colored
- Contrasting paint colors

Enhancement Opportunities for this Style:

- Corbels and gable trusses
- Wrap porches
- Geometric patterns
- Porch railing with embellishment

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Madeleine
Memories of
Riviera
OPEN
FlowerPot

5.2.4 Arts & Crafts - The Prairie School

Built in the 1920's, the Prairie School style is one that is truly indigenous to America. Derived by an unusually creative group of Chicago architects, notables such as Frank Lloyd Wright and Louis Sullivan helped to pioneer this new and modern architectural style, and in turn form the "Prairie School." Prairie School was also one of the first attempts to design an architectural style that did not share any design elements or aesthetic vocabulary with European classical architecture. Prairie School was also heavily influenced by the Idealistic Romantics, such as Ralph Waldo Emerson, who believed better homes would create better people.

Typical Elements of this Style

Form & Roof:

- Low-pitched roof with widely overhanging eaves
- Massive square porch supports
- Two-stories with one-story porches or wings
- Gable roof edges flattened
- Swept back gable, peak projecting farther than lower edges
- 3-1/2 : 12 or greater roof pitch
- Hipped roof

Walls & Windows:

- Horizontal rows of windows, sometimes wrapping around corners
- Tall casement windows
- Geometric patterns of small-pane window glazing

Details:

- Detail emphasizing horizontal lines
- Contrasting wood trim
- Top half of upper story emphasized

Colors:

- • Body: whites, light-tinted colors, and rich earth tones
- Trim: whites and lighter tinted colors that compliment the body color
- Accent: light or dark shades that contrast to the body color
- Contrasting cap on porches, piers and balconies

Enhancement Opportunities for this Style:

- Horizontal patterns in wall materials
- Window boxes
- Sullivan-esque ornament at door or cornice line
- Flattened pedestal urns

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5.2.5 Arts & Crafts - Craftsman

Inspired by two California brothers - Charles Sumner Greene and Henry Mather Greene - these homes were the dominant style for smaller houses built throughout the country during the period from about 1905 to the early 1920's. This style originated in Southern California and quickly spread throughout the country by pattern books and magazines. This style is still popular and has continued with numerous architectural renovations and revival projects.

Typical Elements of this Style

Form & Roof:

- Low-pitched gables roof (occasionally hipped) with wide, unenclosed eave overhang
- Roof-rafters usually exposed
- Multiple roof planes
- 4 : 12 or greater roof pitch

Walls & Windows:

- Shed or gable dormers
- Window boxes and balconies
- Multi-pane sash over sash with one large glass pane
- Line of three or more windows
- Transome windows

Details:

- Porches are either full, or partial-width, with roof supported by square columns
- Decorative (false) beams or braces under gables
- Columns, or column bases, frequently continue to ground level without breaks at porch level

Colors:

- Body: whites, light-tinted colors, and rich earth tones
- Trim: whites and lighter tinted colors that compliment the body color
- Accent: light or dark shades that contrast to the body color

Enhancement Opportunities for this Style:

- Triangular knee braces
- Extra stickwork in gables or porch
- Extended and/or elaborated rafter ends
- Sloped, battered foundation
- Oriental (peaked or flared) roof line

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5.2.6 French Country

The French Country style has its roots in the sunny hillsides of rural France and includes picturesque examples based on French farmhouses. This style shows many examples of basic French architecture and detailing, but is united by the characteristic roof. This style was found throughout the country in the 1920's and 30's, but has gained more popularity after the 1960's.

Typical Elements of this Style

Form & Roof:

- Tall, steeply-pitched, hipped roof (occasionally gabled)
- Eaves flared upward at wall connection
- Symmetrical or Towered building form

Walls & Windows:

- Brick, stone or stucco wall finish
- Arched windows or dormers
- Casement windows

Details:

- Formal facade detailing
- Decorative (false) beams or braces under gables
- Doors set in arched openings

Colors:

- Body: light-tinted colors
- Trim: warm light tones and colors that compliment the body color
- Accent: high contrast colors and textures that contrast to the body color

Enhancement Opportunities for this Style:

- Round tower with conical roof
- Use of curves to accentuate details

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JOB
GRANDE BRASSERIE

5.3 NEIGHBORHOOD CENTER & TRANSIT AREA GUIDELINES

Site Design

The goal of the Specific Plan is to create a vibrant mixed-use commercial area for residents within the specific Plan area as well as the greater City of Newark. The Neighborhood Center and Transit area creates a true urban gathering place where retail shops and restaurants can open their doors to the sidewalks and invite people inside. The street leading directly to the Transit Station connects to Enterprise Drive and is intended to intrigue and invite a passerby along Enterprise Drive to turn in and spend some time in this area. Goals for this area are:

- Create a vibrant Neighborhood Center and Transit Area framed by storefronts, awnings and landscaping.

- Provide for a mix of uses within the Plan area that creates a pedestrian friendly atmosphere.

Architecture

The goal of the Specific Plan architecture is to create a character that is distinctive and memorable. Public street facing facades of all buildings should have the same level of articulation and quality of details and materials.

- Loading and service areas should be integrated into the overall building composition and screened from the sidewalk views.

- Architectural enclosures should be designed as integral elements of the building architecture.

- Trellises, pergolas, or permanent awnings should be incorporated where appropriate to serve as shade and weather protection. Arcades, wide overhangs, deep reveals, permanent awnings, etc., should be used.

- Materials should be appropriate to the building's architectural style and character and suited to commercial construction.

- Any changes in materials should occur at the inside corners where the building plane changes direction.

- Mirror glazing should not be used.

Street Furnishings

The sidewalks are an important feature of the Specific Plan. The Neighborhood Center should be furnished with enriched materials and furnishings that create a comfortable and convenient experience, and should be in a similar family of style, color, and finish to create a refined and uncluttered appearance. All street furnishings should be constructed of durable, non-weathering materials. Use recycled and eco-friendly materials when feasible.

- Create sidewalks that are scaled to accommodate pedestrians and cafe style seating where appropriate.

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• Newspaper racks, trash receptacles and ash urns should be of one cohesive design and integrated into the landscape design.

• Bicycle parking and utilities should be integrated into the landscape design to place these elements where they area needed in a discrete manner.

• Bollards may be used selectively to provide separation between auto and pedestrian crossings.

Landscaping

The general landscape concept is to provide basic planting direction along streets and other public spaces, while allowing for individual styles. The following information describes suggested landscaping within the Neighborhood Center:

• Select appropriate plant species based on climate and architectural style.

• Use a mix of shrubs and ground cover, as appropriate.

• Use minimal turf.

• Plant shrubs at the base of the building and walls as appropriate.

• Use larger shrubs adjacent to fences, walls and facades.

• Plant vines on walls, enclosures, fences, trellis/arbor and structures if appropriate.

• Provide access walks to entries.

• Plant accent shrubs to highlight entries.

• Install an automatic irrigation system.

• Plant shrubs and/or ground cover from back of walkways to face of wall or fence.

• Tree planting should shade and mitigate the effects of paving, reflected heat and light, direct and protect pedestrians interacting with parking areas, and visually screen parking areas from peripheral views.

• Tree grates should be used primarily in commercial, retail, and other high-use pedestrian areas that contain large amounts of paving. The tree grates should remain consistent in size and design throughout the Plan area. Tree grates should be a minimum of 5′ x 5′ to allow for proper root growth, nutrient and water absorption.

Lighting

Landscape lighting within the Neighborhood Center should be designed to contribute to the daily use of commercial, retail, residential and public spaces. Lighting helps to create welcoming visible spaces and accentuate designs.

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Landscape lighting can be utilized for:

- Pole mounted area lighting for gathering and active use areas.
- Ambient lighting for built features such as building entries, stairways and specimen plantings.

General landscape lighting elements for the Neighborhood Center include:

- All pole heights, spacing requirements and installation should comply with Newark Public Works Standard Specifications and Details.
- Lighting placement to maximize extended daily use of vehicular, pedestrian, and bicycle circulation.
- Use of low intensity and shielded lighting design to prevent light spillage.
- Selection of functional, durable materials that follow theme and aesthetics of adjacent architecture in color and detailing.
- Application of multi-use light features where possible, allowing for seasonal and event signage and banners.
- Adequate lighting for commercial, parking and other public areas to enable their use after daylight hours and ensure public safety of property and pedestrians.

5.4 RESIDENTIAL DESIGN GUIDELINES

Site Design

The site planning and layout of the Specific Plan area is encouraged to have a strong pedestrian orientation. Building locations can frame prominent corners and highly visible portions of a site. Parking areas can become less prominent through building enclosures, and creative landscaping can be implemented.

- Reduce private driveway pavement to the minimum functional width.

Relationship Between Buildings

- Use signature detailing to establish the community's architectural character in form, color, and materials.
- Avoid abruptly disharmonious and monolithic architectural style, color, and material.

Building Form

- Where appropriate, front porches sufficiently sized to be usable for sitting when intended to provide outdoor private space for residents.

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• Avoid style "appliqué" on inappropriate building forms (i.e. English half-timbering on 4:12 pitch roof of a Tuscan home).

• Articulate the building massing appropriately to minimize boxiness along the front and rear elevations as well as the street, or public/private facing side elevations, and to open space for corner lot units.

• Provide a variety of both single and multi-story elements within multi-story home designs.

• For other homes, porches and/or entries are strongly encouraged on select floor plans and elevations, to be the primary element of each home on the street façade.

Entries

• Entry enhancements that are minimal and subtle, that enhance the community character as a whole rather than encourage discrete, individual walled neighborhoods, are encouraged.

• Entry enhancements may include identification signs, lighting, and enhanced hardscape and plantings which would draw from the palette of adjoining streets.

• Provide entry enhancements that are small in scale and can be incorporated into the entry points of each project as a form of identification.

• If included, porches, stairs, and decks should be designed to reflect the appropriate scale and detail for the architectural style.

• Exterior stairs, railings, short walls, trellises and roof forms all contribute architectural detail and character of the porch and provide visual interest to homes.

• Porch and entry features should primarily be one-story elements. However, in limited quantities porches may also be incorporated into two-story vertical elements to break up the building mass facing the street or to provide visual interest to the streetscape.

• Where topography allows and where feasible, porches should be elevated above the street level.

Roofs

A variety of roof plans and pitches is desired, dependant on architectural style, as roof forms and materials have a significant impact on the impression of variety within a neighborhood.

• Roof extensions over windows for shading and associated brackets are strongly encouraged to add character and interest to the roof forms as appropriate for the architectural style.

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• Roofs over one-story elements, such as those over porches or bays, provide additional articulation of the massing of larger two-story residences and are strongly encouraged.

• Unarticulated roof forms should not be set on a constant wall plate height.

• Variation in ridge line heights and alignments should be incorporated in order to create visual interest.

• A flat or very sloped roof should be appropriate to the architectural style and be screened from view by a parapet that is appropriate to the architectural style.

• Built-up or roll roofing and similar appearing materials that are predominantly used on flat roofs are only permitted if they are not visible from the street or other public area.

• Roof penetrations for vents should be consolidated and located on the rear side of roof ridges whenever possible. All vents should be painted to match the roof color.

• Skylights that are visible from the street are strongly discouraged.

• Where sloping roofs are used, each building should have a variety of roof forms to the extent possible within the architectural style being applied. Roof lines should be broken up and varied within the overall horizontal plane. For instance, a gable or hip configuration should be used with complimentary sheds, dormers, and other minor architectural elements as appropriate to the architectural style.

• Roof forms should be designed to correspond and accentuate building elements and functions such as entrances.

Materials, Finishes & Details

• Integrate gutters, downspouts, and rainwater leader heads into the roof/wall detailing and designed as part of the facade where feasible.

• Select roofing materials to be appropriate to their related style and pitch.

• Change materials at inside corners where the building plane changes direction.

• Provide for homes with a color palette that at a minimum includes a body color, trim color and accent color.

• Provide for window placement that respects the privacy of a neighbor's outdoor area.

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Landscaping
The general landscape concept is to provide a basic planting direction along the neighborhood streets, in multi-family residential areas, and other public spaces, while allowing future homeowners to individualize their landscaping.

- Select appropriate plant species based on climate and neighborhood style.

- For each lot use a mix of shrubs, ground cover and minimal turf, as appropriate.

- Plant shrubs at the base of the building and walls where appropriate.

- Use larger shrubs adjacent to fences, walls and facades where appropriate.

- Provide access walks to entries.

- Plant accent shrubs to highlight entries where appropriate.

- Install an automatic irrigation system in the front yard of each residential home site.

- Provide a minimum of one backdrop tree per residential corner side yard home site.

- Plant shrubs and/or ground cover from back of walkways to face of wall or fence if feasible and appropriate.

- Standard 6-foot high privacy fencing of a "good neighbor" type should be used on all fence locations between private lots.

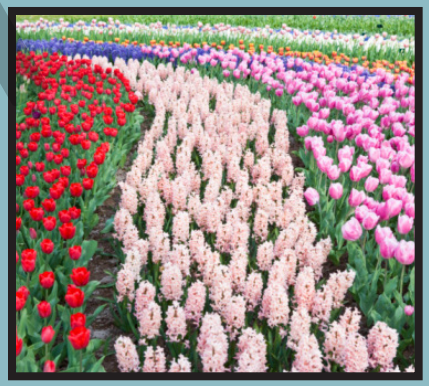
- Fencing should be constructed of weather-resistant wood products and should have a continuous wood cap covering the ends of all posts and fence boards.

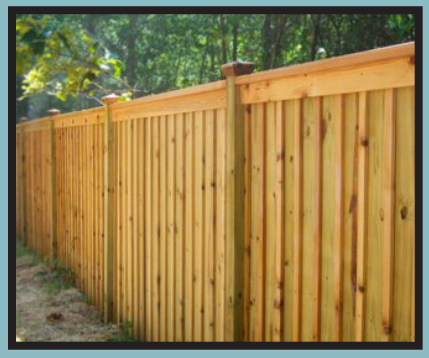
Residential Landscape Irrigation
The Specific Plan is committed to water conservation and efficiency through innovative and accepted irrigation practices. Irrigation designers should use current water use guidelines and tables, state-of-the-art irrigation equipment, and automatic controllers capable of multiple programming.

General criteria for residential landscape irrigation are as follows:

- Drip irrigation and/or other effective irrigation systems should be used in planting areas. Overspray onto paving, fences, or walls should be avoided and soil erosion should be minimized.

- Turf areas should be minimized. If used, turf areas should be served by efficient watering systems. Overspray onto paving, fences, or walls should be avoided and soil erosion should be minimized.





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- All valves and equipment should be located adjacent to buildings where feasible and visually screened from public view. No irrigation equipment should be located in such a way as to create a safety hazard to persons or property.

- Operating manuals and scheduling charts should be provided to all Homeowners, Maintenance Companies, Associations, or Agencies. In addition, as-built plans should be prepared and provided for any Common Area Systems, such as may be used in HOA or LLD jurisdictions.

5.5 CIRCULATION DESIGN GUIDELINES

The Circulation Design Guidelines provide recommendations for the streets and other circulation areas throughout the Plan area. The street hierarchy is intended to create a pedestrian network through and around the Plan area and into the adjacent community. Walking and biking are encouraged by providing shade trees, minimizing the number of driveway curb cuts, and incorporating traffic calming measures.

Circulation – Vehicular

Streets are not only functional systems that allow vehicles to flow smoothly and safely to and from parking, they are an important building block in creating a rich and vital pedestrian environment. Streetscape design is one of the major components in the creation of connectivity through a new community, linking the public and private realms and tying them to the fabric of the surrounding neighborhood. Streetscape design improvements can provide scale, separation from traffic, identity, and create a more pedestrian friendly environment for residents and visitors. The following Circulation Guidelines are offered as suggestions for streetscapes in the Plan area:

- Enhance neighborhood quality and bike and pedestrian safety by slowing/calming traffic.

- Provide minimal vehicular lanes where appropriate. Minimal lane sizes will increase the streetscape area for street trees and planting areas and decrease the amount of impervious surface.

- Minimize impervious surfaces and maximize drought tolerant planted areas, which require less water.

- In areas of high vehicle traffic and potential high use by pedestrians, separate pedestrians on the sidewalk from car lanes with a landscape strip and/or street trees where appropriate.

- Street trees can be one of the most important elements of a quality streetscape. A unique way to define residential neighborhoods is to differentiate the type of street trees in each neighborhood.

- Site plans and building designs are encouraged

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to be oriented to maximize visibility to and from interior building uses and residences, providing views into the streetscape.

• Connecting the Plan area to the surrounding neighborhoods is important to retaining a clear sense of public access. Access and circulation are intended to be relatively seamless within the Plan area. The project will be an extension of the community.

• Handicap accessible ramps and crosswalks should be installed as required.

• If utilized, traffic circles can be special intersection treatments that form transitional nodes and focal points that calm traffic. Because stop signs may not be required at a traffic circle, crosswalk design becomes very important.

• Enhance neighborhood quality, bike and pedestrian safety by slowing/calming traffic.

Circulation - Pedestrian & Bicycle

This Specific Plan is envisioned to be a mixed-use pedestrian-oriented community. Various elements can provide access and circulation for pedestrians. Likewise, safe and well-planned bicycle routes and facilities can provide connections throughout the site and to the surrounding neighborhoods. The following Circulation Guidelines are suggested:

• Create a system of pedestrian elements that will provide access to key public areas.

• Reduce and combine street crossings.

• Coordinate pedestrian circulation systems with bus and car circulation to minimize potential conflicts.

• Separate traffic lanes from sidewalks and walkways.

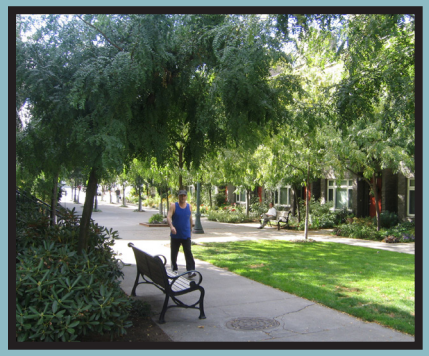
• Use CPTED (Crime Prevention Through Environmental Design) principles for pedestrian areas.

• Create accessible walkways that are lit and without any visual obstructions and hiding places.

• Locate crosswalks and stop signs at main roadways to control traffic for pedestrians to safely cross.

• Ensure clear lines of sight at proposed access points by locating utility poles, private signs, and other equipment/fixtures so as not to obstruct sight lines, and by selecting appropriate vegetation.

• Improve and provide safe pedestrian and bicycle connections throughout the Plan area.



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• Design all pedestrian facilities to meet Federal, State, and local standards and regulations.

• In the Plan area, sidewalks are encouraged to be constructed of concrete with a rectilinear grid working within 12-foot expansion joint spacing. Between the trowel lines, a textured finish such as light broom is suggested.

• Pedestrian walkways between public buildings, if utilized, are suggested to be at least 10-feet wide. If vehicular access for service vehicles is required, 20-feet wide is the suggested minimum.

• Secure bike parking facilities are encouraged to be provided at key active and passive park facilities. Facilities are intended to be safe, secure, convenient to use, be well lit, and be integrated into the architectural design.

Enterprise Drive, Central Avenue, Willow Street & Hickory Street

This Specific Plan has the opportunity to upgrade landscape, lighting, and other improvements located within certain existing rights-of-way. Landscaping can be enhanced along each side of the road, if and where there is existing right-of-way, to signal one's arrival to the Plan area.

Trees, shrubs, and plants can be clustered and/or used to create a visual rhythm that reinforces a "sense of place." Plant color, height, density, and variety are all ingredients that be used to create the appropriate effect. Continuation of the lighting and landscape theme within the Plan area or the blending of it with a compatible theme inside the Plan area will further enhance the overall image of the Project.

Parking

Off-Street Parking Guidelines

Off-street parking, including parking lots, can often have an undesirable effect on a community when it disconnects people from public spaces, creates visual and physical barriers, or provides unsafe conditions. The demand for off-street parking is reduced by encouraging the use of non-motorized transportation and bicycle facilities.

• Use appropriate lighting to eliminate dark places, clearly marking any unobstructed access ways for users of parking areas, and increase visibility for users and other security systems that monitor activity.

• Locate parking areas close to facilities to reduce the distance and time it takes to go from parking lots to the facility.

• Provide on-street parking next to active areas, where called for by this Specific Plan in Chapter 7.
• Provide clear visibility, unobstructed by signs, landscape, or buildings from street to parking lots.
• Locate parking areas behind landscaping and out of view.

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• Plant parking lots with drought tolerant trees and shrubs to reduce the parking lot's visual impact.
• Pedestrian connections are encouraged to be integrated into the parking lot layout to provide safe, clear, and unobstructed access.

• For pedestrian access areas, special emphasis can be provided through distinctive materials, colors, and patterns.

• Parking stall dimensions, aisle widths, loading areas, and layout should conform with this Specific Plan and City of Newark Regulations.

5.6 OFFICE DESIGN GUIDELINES

Building Architecture

•Buildings should incorporate contextual architectural design that considers the surrounding building, design and material patterns, such as reflecting local conditions and history.

•All sides of a building should be coherently designed and treated. A consistent level of detailing and finish should be provided for all sides of a building ("four-sided" architecture).

•Buildings should utilize natural building materials, particularly on front facades and facades visible from a public right-of-way or residential structure.

•Building design should incorporate patterns and materials that provide visual interest. This should be accomplished through changes in color, materials or relief, such as the inclusion of beltlines, pilasters, recesses, and pop outs. Flat, plain building walls should be discouraged.

•Building designs should incorporate a base tying the building into the ground, a midsection, and a top that terminates the building.

•Building surfaces over 20 feet high or 50 feet in length should be relieved with a change of wall plane or by other means that provide strong shadow and visual interest.

•Buildings should be appropriately scaled relative to existing or proposed street widths.

•Front elevations should be designed to reinforce pedestrian access and scale, such as, consist of 50% or more glass windows at the street level and utilize a variety of treatments and human scale details.

Building and Site Orientation

•Parking should be hidden to the greatest extent possible (located to the rear or side of a building).

•Predominant exterior building materials should be of high quality. These include brick, wood, limestone, other native stone, and tinted/textured concrete masonry units appropriate to the building location. Smooth-faced concrete block, tilt-up concrete panels, or pre-fabricated steel panels

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are not recommended as exterior building materials except on rear and side elevations that do not face a residential use, residential zoning district, or public street or right-of-way. In cases where these materials are used they should be painted to be complimentary to the primary elevations.

•Building facades should include a repeating pattern that includes no less than three of the following elements: color change, texture change, material module change, or expression of architectural or structural bay through a change in plane no less than 12 inches in width, such as an offset, reveal, or projecting rib. At least one of these elements should repeat horizontally. All elements should repeat at intervals of no more than 30 feet, either horizontally or vertically.

•All sides of a principal building that face an abutting public street should feature at least one customer entrance. Where a principal building directly faces more than two abutting public streets, this requirement should apply only to two sides of the building, including the side of the building facing the primary street, and another side of the building facing a secondary street.

•Roof lines should provide variations to reduce the massive scale of these structures and to add visual interest. Roof lines should have a change in height every 100 linear feet in the building length. Parapets, mansard roofs, gable roofs, hip roofs, or dormers should be used to conceal flat roofs and rooftop mechanical equipment from public view. Alternating lengths and designs may be appropriate.

Pedestrian Access

•Sidewalks should be provided along the full length of the building along any facade featuring a customer entrance and along any facade abutting public parking areas. Such sidewalks should be located at least six feet from the facade of the building to provide planting beds for foundation landscaping.

•Pedestrian connections between commercial uses and adjacent residential development should be considered in cases where there is no sidewalk system or it is incomplete.

Landscaping

•On-site landscaping should be provided in clusters that breakup the building façade of larger buildings.

6.1 OVERVIEW

6.2 PARKS & OPEN SPACE GOALS

6.3 PARKS & OPEN SPACE PRINCIPALS

6.4 PARKS & OPEN SPACE DESIGN CONCEPTS

6.5 PARKS & OPEN SPACE POLICIES

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6.0 PARKS & OPEN SPACE

6.1 OVERVIEW

Parks and recreational open spaces are critical features in pedestrian-oriented areas and other high-density areas. They provide greenery and breathing room between buildings and contribute to the overall character of the Specific Plan. Streetscape improvements and landscaping also help to identify major activity centers and primary walking routes. Serving as visual and recreational amenities, these places add to the overall well being of residents and visitors. Landscaped areas can also help manage stormwater by providing some storage and filtering before leaving the Plan area.

Typically, parks in compact, pedestrian-oriented districts are small, ranging from smaller, pocket-sized parks to neighborhood parks of about two acres. The Specific Plan will include a variety of public and private parks and recreational open spaces, distributed throughout the area to ensure that all properties benefit from the amenities (See Exhibit 6.1; Conceptual Plan). Parks and other recreational open spaces within the Plan area may include a multi-use trail, public and private recreational facilities such as tot lots or picnic areas, passive recreation areas, public parks and gathering places for community events. The ease of pedestrian movement around the Plan area will help to encourage residents to leave their car at home and enjoy the outdoor environment.

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PARK CALCULATION

2500 D.U.

3.26 PERSONS PER HOUSEHOLD

2 AC PARK PER 1,000 RESIDENTS

TOTAL PARK REQUIRED: 16.3 AC

Exhibit 6.1 Parks and Trail Conceptual Plan

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6.2 PARKS & OPEN SPACE GOALS

The public areas within the Specific Plan include pedestrian and bicycle facilities, public streets, public and private recreational open space, gathering places, a perimeter trail, and various types of sizes of park space.

The vision for parks and recreational open space comes from the inherent beauty of the Northern California region and scenic vistas around the Bay. The vision for the Specific Plan is described in the following Goals below and is to be used as a guide in the design of parks and recreational open space, where feasible and appropriate.

Goal #1: Enhance the Natural Qualities of the Area

- Plant new trees that can continue to build on the quality of the community and region.

Goal #2: Draw from the Regions Climate and Native Plants

- Integrate native plants where feasible. Design for low maintenance or no maintenance areas. Native plants will have a natural tolerance to local climate conditions and require less maintenance then non-native species.

Goal #3: Convey the Identity of the Community and Neighborhoods

- Explore design opportunities to create natural, yet unique outdoor spaces.

- Use indigenous materials where feasible.

Goal #4: Create Flexibility for Community Needs

- Provide parks and recreational open space areas with high quality materials and design that will withstand the test of time.

- Create pedestrian connections where feasible, to integrate the community. This will encourage the use of walking and biking and create a stronger sense of community.

- Provide parks, recreational open space and other areas for impromptu pick- up games, casual unstructured recreation, gathering spaces, picnicking, and a diversity of other activities.
- Use materials that are durable, low maintenance and sustainable.

- Create a palette of materials and colors that provide a cohesive identity for the project.

- Use different materials, colors, and plants in certain areas to create unique places within the community.

- Design for future flexibility so future changes in recreation or special events can be accommodated.

- Use simple architectural structures to embrace the landscape and to create a strong connection between inside and outside. These simple structures can provide transitional areas offering shelter and/or shade.

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Goal #5: Landscaping Safety and Security

- Use design to create a safe and secure environment.
- Maintain visibility throughout all public areas, including parking lots.
- Consolidate, define, and clearly mark pedestrian crossing zones.

6.3 PARKS & OPEN SPACE PRINCIPLES

1. Provide park space to meet the recreational needs of the Specific Plan area residents and visitors.

2. Provide attractive, unique public spaces that define the community.

6.4 PARKS & OPEN SPACE DESIGN CONCEPTS

Pocket Parks, Public and Private Recreational Open Space
Additional open space areas may be provided as an element of specific development proposals to serve the recreation needs of residents and employees. These smaller, residential serving landscaped areas (or "pocket parks") may be provided throughout the Plan area. These smaller park areas should be professionally managed by a homeowners association.

Community Park (mid-size)
A Community Park should be located to best serve the active and/or passive recreational needs of the Community. This park may be multi-functional with minimal hardscape. Visitors and guests should have easy access to parking and/or off-loading areas. The Specific Plan will establish a park area developed directly west of the Transit Station for a Community Park. Flexibility is key. This park must be able to adapt to current community needs and the needs of future generations to come.

Public Gathering Spaces
Urban gathering spaces should be designed to allow for, and encourage interaction among community members. Success full gathering places are comprised of various seating options (natural and built), protection from the environment (shelter and shade), easy means of ingress and egress, and areas large enough to accommodate food service or entertainment, all within a defined area that maintains the human scale of design.

It is anticipated that the area around the Transit Station will take the form of a Public Gathering space for the Community.

Perimeter Trail / Linear Park
This perimeter trail/linear park provides a natural off-street setting for residents and visitors to walk, stroll, run and bike. This trail should have various access points where feasible, and should provide users with more solitude than the other types of parks within the Plan area. This multi-use trail/

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linear park should also consider the inclusion of quiet areas or resting places where residents and visitors can "get away" and simply relax.

6.5 PARKS & OPEN SPACE POLICIES

Parks

P-1: The following policies apply to t he provision form and location of public parks and private recreational open space areas within the Specific Plan area:

- An integrated network of public and private recreational open spaces, parks, and gathering places should be created within the Plan area.

- Recreational open space types and locations should be generally consistent with those described in this chapter and Figure 6.1.

- All residents and visitors should be within a reasonable walk of a park or recreational open space area.

- For all new public parks, the design, program, and facilities must be approved by the City and consistent with this Specific Plan.

- 16.3 acres of park and recreational open space have been designated as part of the Specific Plan, as set forth in Exhibit 6.1. Development proposals to implement the Specific Plan shall comply with the dedication requirements set forth in Chapter 16.30 of the Newark Municipal Code (the "Parks Ordinance") and may satisfy such requirements through the following:
  1) construct and dedicate a park to the City within those areas designated for parks within this Specific Plan and as provided by the Parks Ordinance;
  2) construct and dedicate a park to the City outside those areas designated for parks within the Specific Plan if accepted by the City and pursuant to the Parks Ordinance;
  3) pay an in-lieu fee to the City at building permit time as provided in the Parks Ordinance; and/or,
  4) construct and maintain private recreational open space qualifying as credit for park space as provided by the Newark Municipal Code.

- Three areas within the Plan that are designated for parks planned are:
  1) the Gallade site;
  2) the area west of the Transit Station; and,
  3) the trail/linear park.

- An outdoor amphitheater and restroom facilities shall be provided in one of the parks, preferably close to the neighborhood and/or transit center.

- A dog park shall be provided in one of the parks.

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The dog park shall include two separate areas, one for small dogs and one for larger dogs, to create a safer environment. The dog parks should also use bark or other similar ground cover types and avoid the use of turf.

• Provide a comprehensive maintenance program for all private recreational open spaces. Alternatives for maintenance could include options such as; maintenance by private property owners, mechanisms such as Homeowners' Associations (HOAs) or Street Lighting and Landscaping Maintenance Districts (LLMDs).

• Encourage the use of drought-tolerant and/or native plant materials and trees in all landscaped spaces.

Trail / Linear Park

P-2: Provide a trail/linear park in the Plan area that will connect to the existing Bay Trail along Willow Street as set forth in Exhibit 6.1.

P-3: Public streets, public parks and public spaces should connect, to the greatest extent feasible.

Gathering Spaces

P-4: Incorporate public gathering spaces in commercial and retail areas within the Plan area. Public gathering spaces should be designed with the following criteria:

• The size of public spaces should be in scale with the size of the surrounding uses and should take into account the height and scale of nearby buildings and/or other features.

• Public spaces should be located close to public access.

• Public spaces should be open to the public during all daylight hours.

• Public spaces should be located generally adjacent to retail and restaurant uses.

• Public gathering spaces should be designed to allow for, and encourage, interaction among community members. The public spaces should include various seating options (natural, built or furniture), and should provide some protection from the environment (shade, shelter). In addition, certain public spaces might provide areas to accommodate food service and entertainment.

Landscaping

P-5: The proposed parks and public spaces in the Specific Plan have the potential to become successful and well-used gathering spots available for any combination of pick-up games, play, passive recreation, relaxation, or community gatherings. All landscape materials should be of a type that is both drought tolerant and durable.

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Entry Monuments and Features

P-6: Entry monuments are the gateway features that create a community. Functionally, they serve as signs for the Community and they demarcate it as a special place. Aesthetically, their design should reflect the character and high quality of the community. They should be incorporated into the landscape with a rich palette of plantings. These monuments should define the main entry locations. Carefully placed, low level lighting in the landscape would provide nighttime visibility.

P-7: Entry features serve as formalized spaces that define the community. These are encouraged to be dramatic focal points for the community through the use of gentle land sculpting, landscape materials and plantings.

Shelters/Arbors

P-8: Simple structures might be used to provide shade and shelter for residents and visitors to the Plan area.

Active Play / Recreation Areas

P-9: The active recreation areas should be carefully sited to provide good views in and out of the play area. Safety is the most important consideration, but wear and tear and maintenance are also a concern. Structures that meet all applicable safety and durability standards are advised.

Recreational Open Space Typologies

P-10: Every public space should have its own unique character. Public spaces will vary in size and level of activity based on location and use. Locations for public spaces should ensure that all members of the community are in close proximity to some type of public area.

Seating

P-11: Seating can be a welcomed amenity in public places. The design of seating is encouraged to create a variety of social and semi-private areas that allow people to linger and aesthetically enhance the space.

Parks & Recreational Open Space Materials

P-12: Quality materials will create exceptional public spaces with unique and timeless character. Products and materials in the public realm are improved when they are durable and easy to maintain, resistant to the bay's variable weather extremes such as wind, heat and rain. They should also be resistant to vandalism through the use of non-breakable parts, and scratch resistant and washable surfaces.

Examples of durable materials and finishes include:

a. Stainless Steel
b. Galvanized Steel
c. Powder coated Steel or Aluminum
d. Vinyl coated Steel or Aluminum
e. Painted Steel (multiple coats)
f. Masonry

Plants & Plantings

P-13: Plants within the Specific Plan area can be a major design element for enhancing character and the quality of

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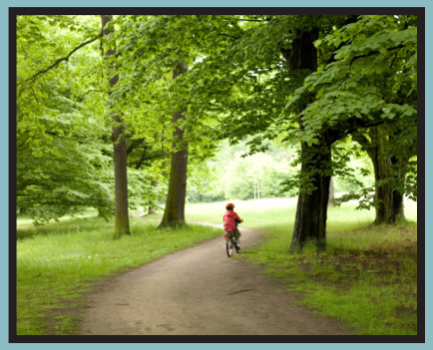

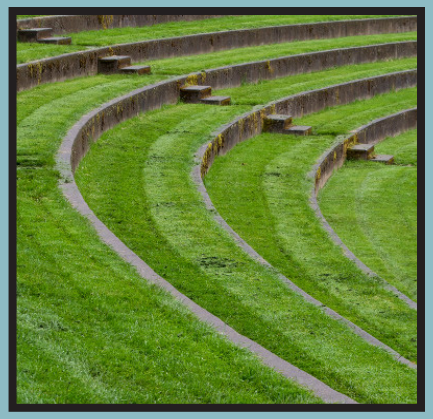

place. Plants can define the street edge, Transit Station, public space areas, gathering spaces, and add scale, visual interest, and seasonal change. Layout and plant palette selection is encouraged to reinforce and define the public character of the community. Plants emphasize the unique qualities of their context. Planting can be selected and placed in such a way as to enhance rather then obstruct views. Using plants and materials in interesting ways will create exceptional public spaces with a unique and timeless character and quality.

Water Efficient Planting

P-14: The State of California has guidelines for water efficient landscaping. Conservation and efficiency in water use can be achieved with both water efficient planting and irrigation. For example:

- Use low water use plants on the majority of the landscape area.
- Plant turf only in "Practical Turf Areas" of active play and recreation.
- Use only drought tolerant varieties of turf.

Recommended Trees

P-15: There are a wide variety of deciduous and non-conifer evergreen trees that are encouraged to be planted in areas to reinforce pedestrian connections, define edges and views, provide shade for seating areas, and add seasonal change and visual quality. Along streets, they can be used between the curb and sidewalk or along a walkway. Trees also play a major role in establishing identity and anchoring the corners of special nodes and intersections. All trees are encouraged to be selected for climatic hardiness, longevity, low water use, visual appeal, and desired design intent.

Recommended Understory Planting

P-16: Shrubs, groundcover, grasses and perennials can be used in planting strips, planters, borders, and other special areas of emphasis that can be enhanced with plants. Plants along the street edge can provide a buffer between pedestrians and vehicles and enhance the streetscape by reflecting the character of the area. Understory plants are encouraged to be selected not just for their form, texture, fragrance, and color, but also for their hardiness, water efficiency, and longevity. Planting of shrubs, groundcovers, grasses and perennials are encouraged to be multi layered to provide 4-season interest

Illumination

P-17: Exterior lighting can provide safe and effective evening illumination for the pedestrian and vehicular areas of roads, sidewalks, and walkways throughout the Specific Plan community. Design can reflect the concept and character of the community through illumination level, light fixture type, finish, color, and location. There can be streetlights for roads and sidewalks, pedestrian lighting for sidewalks and walkways, building illumination, and accent lighting on special architectural and landscaping features. Specialty lighting, such as seasonal tree lights, is also encouraged.

Types of Exterior Illumination

P-18: Streetlights and Fixtures are encouraged to be of two types:

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1) On Enterprise Drive and the entrance to the Community: pole mounted with twin arms that match the architectural style for the community. The roadside arm might hold an extended lamp to illuminate the road. On the sidewalk side, the arm could hold flower baskets, art, or banner arms.

2) On secondary streets: single armed on poles that reduce glare and the impact of lighting on residences. Light is also encouraged to be focused downward and shielded from the night sky.

Path and Stair Lights

P-19: In less traveled areas, footpath lights can be acceptable as a means to illuminate a path. On stairways, inset stairway and stair step lights are encouraged to ensure pedestrian safety.

Building Mounted Lights

P-20: Building mounted lights can be used to light walkways, public spaces, and planted areas where appropriate. Because building lights may be turned off, building lighting can't be depended upon exclusively for walkways and other areas where safety is a concern. Fixtures are encouraged to be selected and located to cast downward and be shielded to minimize glare. Lighting from buildings can be balanced with street lighting to ensure areas are not over lit.

Accent Lighting

P-21: Accent lighting can be used to emphasize special features for decorative effects and can be inconspicuous and durable. Small scale accent lights such as LED based fixtures can be used for way finding or as special design elements.

Special Event Lighting

P-22: Lighting used for special events could include decorative lighting for holiday seasons or other community park event lighting. Special event lighting can be designed for use during event and non event times. Seasonal decorative lighting during holidays and holiday events is encouraged.

Furnishings

P-23: Exterior furnishings provide public amenities that establish a high quality and consistent urban design in the streetscape, reflecting the context of the area and helping to establish the unique qualities of places within the Plan area. These elements are encouraged to be integrated into the overall site design where appropriate. The amount of exterior furnishings should be appropriate to the level of use rather than creating too much clutter.

Bollards

P-24: Bollards can be used selectively, in high traffic areas, to protect pedestrians from vehicles. Bollards can be permanent but placed to allow for emergency vehicles to be able to travel around. Bollards are encouraged to be limited to locations that do not interfere with parking, deliveries, and other functions.

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Bicycle Amenities

P-25: Bike racks are encouraged to be placed in areas where bikers might need to park. Although they are primarily utilitarian, the chosen style is encouraged to relate to the aesthetic of the neighborhood.

Fences, Gates, Railings & Walls

P-26: Fences, gates, railings, and walls can provide safety, security, screening and privacy. Their design is encouraged to be compatible with each other through form, materials, and finishes. Their design can be influenced by the use and neighborhood context to reflect the architectural character of the Plan area.

Gates

P-27: Gates create focal points within a fence. Their design is encouraged to be differentiated from the fence and create an area of emphasis and demarcation.

Hand Railings & Guardrails

P-28: Hand railings are used for stairways, steep ramps, and other areas where a rail will help assist in self-balancing as one transitions along grade changes. Guardrails are also encouraged where there might be a steep grade drop-off or other potential safety hazard.

Tree Grates

P-29: Tree grates are encouraged for all street trees placed along sidewalks that are not part of a planting strip area. ADA compliance is recommended as is a minimum size of 5-feet x 5-feet. Tree guards protect trees in active areas that are vulnerable to damage from vehicle bumpers or door swings.

Planters, Pots, and Boxes

P-30: Planters are encouraged in public spaces. Pots and planter boxes can be used at commercial and retail building entries where building maintenance personnel would care for them.

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7.1 OVERVIEW

7.2 CITY & REGIONAL ROADWAY IMPROVEMENTS

7.3 PARKING

7.4 TRANSIT

7.5 PEDESTRIAN & BICYCLE CIRCULATION

7.6 TRUCK ACCESS

7.7 STREET CROSS SECTIONS

- WILLOW STREET
- ENTERPRISE DR. - WEST
- CENTRAL AVE.
- TRANSIT STATION ENTRANCE ROAD
- ENTERPRISE DRIVE - EAST
- HICKORY STREET
- NEIGHBORHOOD STREETS
- CARRIAGEWAYS
- ROUNDABOUTS
- TRAFFIC CIRCLES
- CUL DE SACS - HAMMERHEADS
- CUL DE SACS - TRADITIONAL

7.8 STREET STANDARDS CHART

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7.0 CIRCULATION

7.1 OVERVIEW

The Specific Plan provides a hierarchy of streets, walkways and pedestrian links throughout the Plan area. Streetscape design and street layouts organize the community and slow the traffic. A block pattern will disperse traffic and create local streets that are pleasant to live on and walk or bike along. This street pattern, with its various pedestrian connections, will provide a seamless network of connectivity for pedestrians throughout the Plan area. By providing street trees in the parkways, removing many of the driveway curb cuts, and incorporating traffic calming measures such as narrowing at intersections and roundabouts, the street design encourages walking and biking through the community and to the outlying region.

The streets within the Plan area have been designed as "Complete Streets." Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, and motorists of all ages and abilities are able to safely move along and across a Complete Street. Complete Streets play an important role in livable communities, where all people – regardless of age, ability or mode of transportation – feel safe and welcome on the roadways. A safe walking and bicycling environment is an essential part of creating friendly, walkable, healthier and more sustainable communities. In order to create a network of pedestrian and bicycle friendly streets, the Specific Plan establishes street design standards for the Specific Plan area.

The Backbone Circulation Plan (Exhibit 7.2) and Street Standards Table (Table 7.1) near the end of this chapter, illustrate the locations of the various street classifications provided for in this Specific Plan. Residential street alignments are approximated based on the optimal street network to maximize walkability. Final street layouts shall be determined at time of final maps.

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7.2 CITY & REGIONAL ROADWAY IMPROVEMENTS

There are several ongoing and proposed regional improvements in Alameda County that are intended to address existing and future traffic congestion within or near the City of Newark and which are illustrated on Exhibit 7.1 - Regional Circulation Improvements.

Regional Improvements Outside the Planning Area (including Regional Transit Improvements)

- Per the Alameda County Transportation Commission (Alameda CTC), improvements are planned to the Regional Express Bus Improvements (SR 84 Lane Expansion/HOV, Ardenwood Express Bus Park).
- Altamont Commuter Express Rail.
- Dumbarton Rail Project.

No other improvements to increase transit capacity are identified by the Alameda CTC.

The above improvements are part of the Congestion Management Program administered by the Alameda CTC. If applicable, these improvements would be funded in part by the payment of regional transportation impact fees from applicants of Specific Plan uses as specific development proposals are brought forth.

City Road Improvements Outside the Planning Area

While not a requirement of the Specific Plan project, per the City of Newark's General Plan Circulation Element (1989, updated 2007), the following improvements are planned for the City:

– Roadway Improvements:

- Widen Thornton Avenue, from SR 84/ Dumbarton Freeway to Jarvis Avenue and from Jarvis Avenue to the Union Pacific railroad tracks.
- Complete the Cedar Boulevard extension from Haley Street to Thornton Avenue (including railroad underpass).
- Construct railroad overpass at Union Pacific railroad tracks on Central Avenue.
- Widen and improve Mowry Avenue from Cherry Street to the Union Pacific railroad tracks (including a railroad overpass).
- Widen the Central Avenue overpass of I-880/ Nimitz Freeway.

-Intersection Improvements:

- Cherry/Mowry: Re-stripe westbound for shared through and dual left turn; Construct northbound free right; Widen Mowry for eastbound/westbound dual left and two through lanes.
- Mowry/Cedar: Widen Mowry for eastbound dual left.
- Mowry/New Park: Re-stripe southbound for exclusive left-turn lane; Install northbound right-turn arrow; Widen northbound for exclusive left-turn lane, re-stripe for dual right-turn shared with through lane.
- Thornton/Cedar: Lengthen northbound right-turn lane with right-turn overlap.
- Cherry/Central: Widen Cherry for northbound dual left-turn.

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Specific Plan Circulation Improvements
The Backbone Circulation Plan for the Specific Plan is shown in Exhibit 7.2.

The Specific Plan will need a connected internal street network with connections to the greater City of Newark. In addition to the street network itself, streetscape design will play an important role in transforming the Plan area into a livable community. As the most pervasive, visual and physical component of the public realm, the design of the street network is an integral part of the image and experience of the area. This chapter details what the street experience will feel like, the street design typologies and character to guide future projects.

The following are General Plan Policies applicable to general circulation policies in the Specific Plan.

Street Network Policy Goals
Street Network Design
C-1 Create a street network that connects with existing local and regional roadways, such as Enterprise Drive, Willow Street, and Central Avenue, and provides for efficient and safe circulation throughout the Plan area. Speed limit shall be 25 miles per hour throughout the development.

C-2 Create a street network that is appropriate for a mixed-use, pedestrian-oriented environment that extends to the Transit Station area. This network should establish:

- Blocks that are pedestrian in size, i.e. blocks that around 450-feet have a more pedestrian scale than blocks that are larger, except along major arterials;
- Mid-block pedestrian connections where appropriate, i.e. blocks that are larger than 450-feet should have pedestrian paths to break up the walking plane, except along major arterials; and,
- Where mid-block pedestrian crossings are needed, mid-block crosswalks should be provided per the City's "Bicycle and Pedestrian Master Plan/ Crosswalk Guidelines" (upcoming, 2010-2011).

C-3 Medians should occur on streets which comprise the Backbone Circulation Plan where provided in Chapter 7. All streets should be designed with sidewalks buffered from vehicle traffic by a landscape strip, landscaping, travel lanes, bike lanes, and parking, where appropriate.

C-4 Streets should meet the needs of all users including drivers, bicyclists, pedestrians, persons with disabilities, and transit users.

C-5 Street improvements should be built consistent with the street design standards in this chapter.

C-6 Traffic into existing residential communities should be minimized to the greatest extent possible.

C-7 Culs-de-sac should be minimized to the greatest extent possible.

C-8 The use of permeable paving for parking isles, parking lots, and vehicular entries to residential areas should be used

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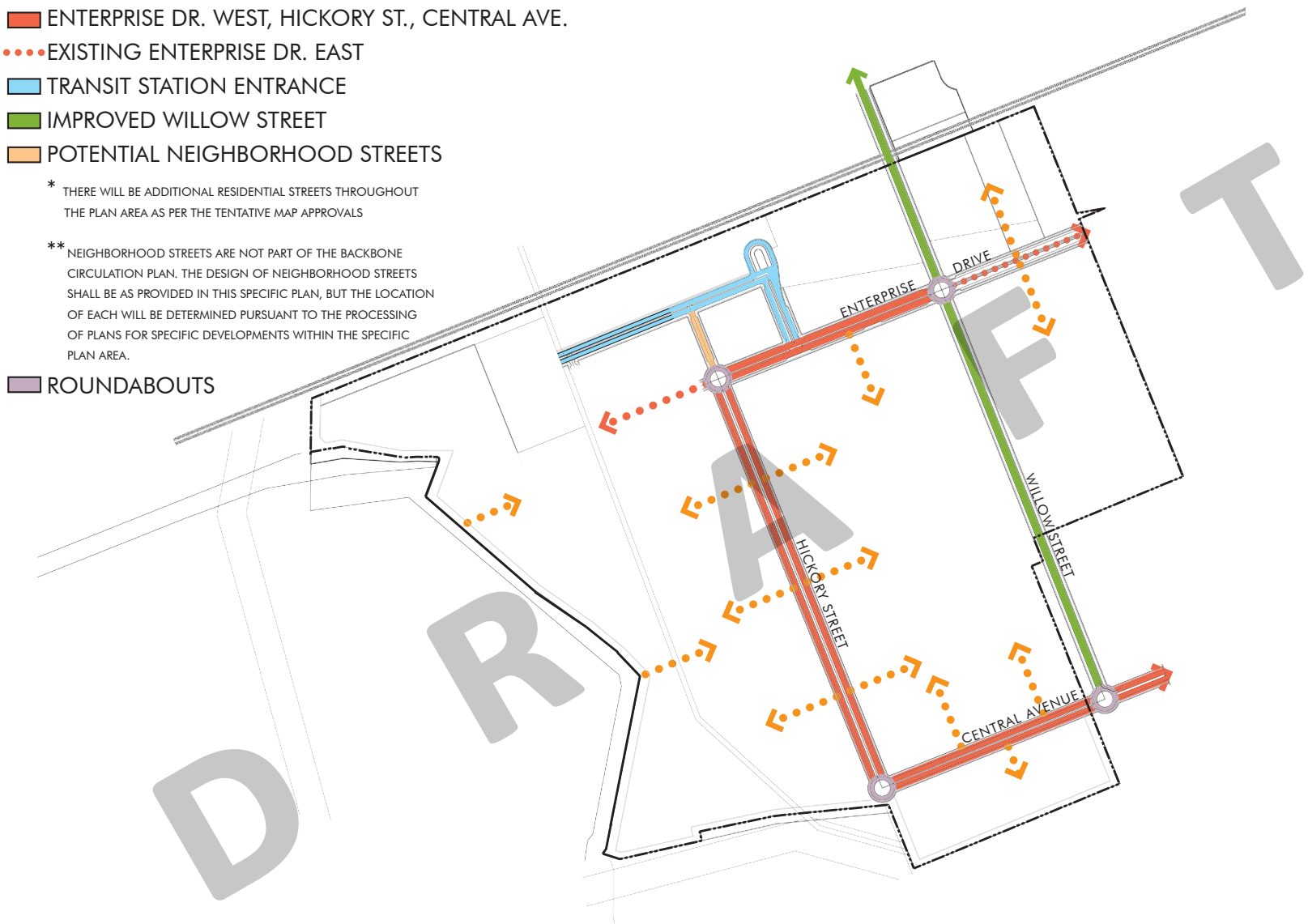

Exhibit 7.2 - Backbone Circulation Plan

in the greatest extent possible.

C-9 Where applicable, applications for projects shall indicate how streets are connected to existing local and regional roadways, and , if adjacent to the Station Area, how they are connected to the Station Area street network.

C-10 Arterials and collectors should generally be located as shown in Exhibit 7.2 – Backbone Circulation Plan. Exact locations of arterials and collectors may be modified based upon additional engineering. Streets shall be located consistent with the following criteria:

- Enterprise Drive, Hickory Street, Willow Street and Central Avenue are to be located generally as shown on Exhibit 7.2; and,
- Street alignments may vary to accommodate site conditions and specific project needs.

C-11 A street shall connect directly from Enterprise Drive to the Transit Station. This street shall be consistent with the street standard in this chapter for the "Transit Station Entrance Road."

C-12 Enterprise Drive, Hickory Street, Central Avenue, Willow Street, neighborhood streets and carriageways shall be constructed according to the design standards set forth in this chapter.

Transportation Demand Management

C-13 Provide for a Transportation Demand Management (TDM) program that aims to reduce single-occupant vehicular trips. Components of a TDM program may include:

– *Urban Design Projects:*

- Short and long-term bicycle parking in highly visible, well lit locations that are convenient to front building entrances; and,
- Direct routes to the Transit Station and other key destinations that are well lit and designed for pedestrian comfort.

– *Additional Concepts:*

- Free or preferential parking designed for carpool, van pool, low emission vehicles, and car share vehicles; and,
- Passenger loading zones and/or kiss-n-ride areas, and Bicycle and pedestrian friendly site planning and building design.

Employer Based TDM is not large enough and will not have enough employers to implement and manage an employer TDM.

Construction Traffic Management

C-14: Development proposals shall contain the following at a minimum:

- A set of comprehensive traffic control measures, including limiting major truck trip and deliveries that avoid peak traffic hours, detour plans, if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated

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construction access routes;

- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours and lane closures will occur;
- Notification of construction staging areas for materials, equipment, and vehicles (must be located on the project site);
- Identification of haul routes for movement of construction vehicles that minimize impacts on vehicular, bike, or pedestrian traffic, circulation, and safety;
- Temporary construction fences to contain debris and material, and to secure the site;
- Provisions for removal of trash generated by project construction activity;
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint manager; and,
- Provisions for monitoring surface streets for truck routes so that any damage and debris attributable to the tracks can be identified and corrected.

7.3 SPECIFIC PLAN PARKING

Transit Oriented Developments require substantial amounts of parking near transit to make them feasible and to accommodate passengers as not everyone will walk to the Transit Station. Therefore, parking becomes one of the most critical land use elements of a TOD. If too much parking is provided, the benefits of reducing traffic and congestion with a TOD are negated. If not enough parking is provided, the TOD may suffer as people struggle to find places to park. Parking is also very expensive to build, especially structured parking, and can be an incentive as well as a deterrent for certain types of development.

National studies show that within transit oriented developments, some reductions in off-street parking can be appropriate. The factors influencing reduced parking ratios are primarily based upon (1) the mix of complimentary uses; (2) the availability of pedestrian, bicycle, transit and other non-motorized modes of travel; and (3) the availability of smaller unit sizes near the Transit Station. These factors can also be combined with other parking reduction techniques, such as "shared-use" parking which can reduce the overall amount of parking needed for a development. Reducing parking directly affects cost and saves valuable land.

With mixed-use and residential areas close to the Transit Station (Exhibit 7.3), and the proximity of the Transit Station to adjacent retail and commercial uses, many opportunities to reduce the amount of parking by shared parking arrangements are available. Factors such as: final Transit Station design and access, surrounding land uses, and cooperation between property owners will determine the final parking strategy. These factors will lead the decision on shared parking arrangements, and the phasing and implementation of projects. Parking studies might be needed where a project proposes a shared parking arrangement and/or to reduce or increase the amount of parking otherwise required for the Specific Plan area. These studies will be reviewed by the

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Community Development Director for the City of Newark. Exhibit 7.4 - Station Parking Potential and Station Circulation illustrates a possible scenario addressing parking needs for the station area.

The Transit Station is expected to serve potential riders beyond residents of the proposed Plan area. To provide regional access to the Station, providing adequate vehicle parking is needed to encourage ridership and provide connections to the regional and citywide transportation networks. Parking design and placement is another critical element to TOD's success. It can strongly affect how drivers accessing that station use the amenities on site.

Parking Policies

Parking Location

C-15: Within the Transit Station area, locate parking behind buildings, to the maximum extent feasible.

General Parking Standards & Guidelines

C-16 Maintain flexible parking standards that balance the need for parking with the broader Transit Station goals of encouraging transit ridership, ridesharing, and enhancing the area's pedestrian appeal.

C-17 Include on-street parking on most streets, consistent with the detailed street design standards in this chapter.

C-18 Adopt parking standards for the Plan area. Consider some or all of the following strategies to prevent oversupply and to encourage the use of alternate modes of transportation:

- Allow shared parking between the various uses with different peak periods of parking demand;
- Reduce minimum off-street parking requirements for multi-family and commercial developments;
- Adopt maximum off-street parking requirements;
- Allow credits for availability of adjacent on-street spaces;
- Allow exemptions for small retail and dining establishments (e.g. less than 2,500 square feet) in pedestrian centers;
- Tandem parking can be utilized for up to 25% of the units in a given area; and,
- Allow permeable pavement use in overflow parking lots.

C-19 Work with property owners to encourage adoption of shared parking arrangements where appropriate to maximize efficient use of parking resources.

C-20 Incentivize parking structures, rooftop parking, and underground parking through flexibility in conditions of approval and in opportunities for any City, State of Federal financial participation in the development.

C-21 Work with the Transit Station operator to identify phasing of parking fields for a total of 500 spaces at full build out of the Station.

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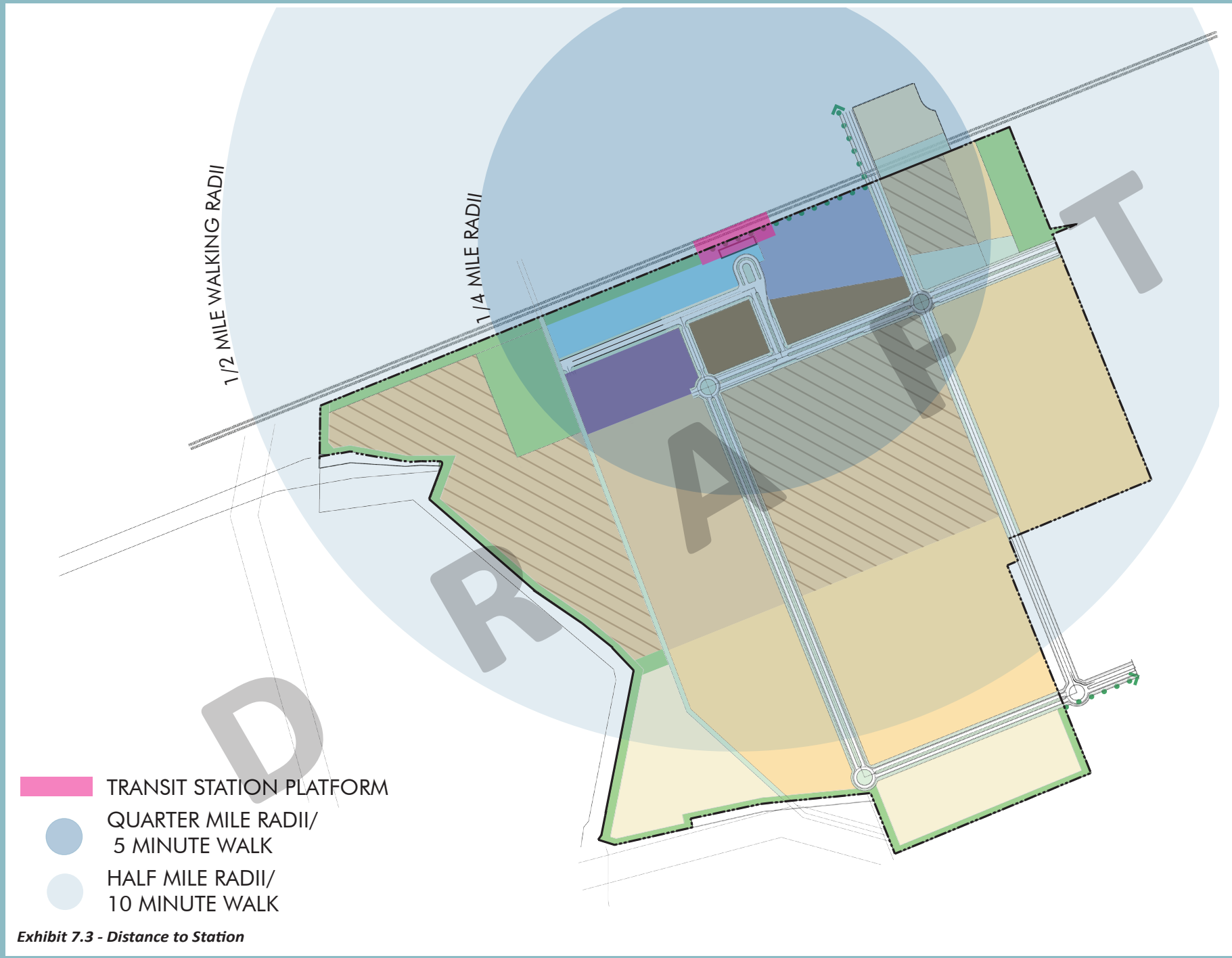

Exhibit 7.3 - Distance to Station

7.4 TRANSIT

The Dumbarton Rail Line runs parallel to the Dumbarton Bridge and connects the eastern side of the Bay to the Peninsula. Because the rail line is already in place and rights-of-way are intact, the most feasible Transit Station to serve the City of Newark is within the Specific Plan area along the rail line as depicted in Exhibit 7.3. This is both an advantage and a disadvantage for planning purposes. With the rail line already in place, it eliminates the costs associated with acquiring rights-of-way, but limits where the station can be placed. However, the Specific Plan has been designed to take advantage of the Transit Station's location by placing a large number of new residential units in the Specific Plan area within a 1/2-mile (10 minute) walking distance from the station as shown in Exhibit 7.3.

In addition, regional bus service may be established at this location to further enhance the TOD experience of the neighborhood. For this reason, a bus station hub will be included in the overall planning of the Station.

The following policies are recommended to enhance transit opportunities throughout the Plan area and maximize their use by Plan area residents, and visitors.

Transit Policies

C-22 The City shall continue working with the regional transit agencies to study design, funding and construction options for the Transit Station. The design and location should achieve the following goals:

- Provide direct pedestrian and bicycle route from Enterprise;
- Encourage a shared parking agreement between the Station and the future adjacent uses to minimize the amount of overall parking in the Plan area;
- Maximize developable land within the Plan area; and,
- Provide direct line of sight from Transit Station to Enterprise Drive/Willow Street.

C-23 Develop a Transit Station that provides access to the various modes of transit. Design the Station to include:

- Bus pick-up and drop-off bays;
- An area for limited short-term waiting;
- Disabled parking areas;
- Shuttle pick-up and drop-off areas; and,
- Safe and attractive pedestrian and bicycle crossings to and from the Station.

C-24 Where necessary, design streets to accommodate transit services, including bus stops and shelters (Table 7.1).

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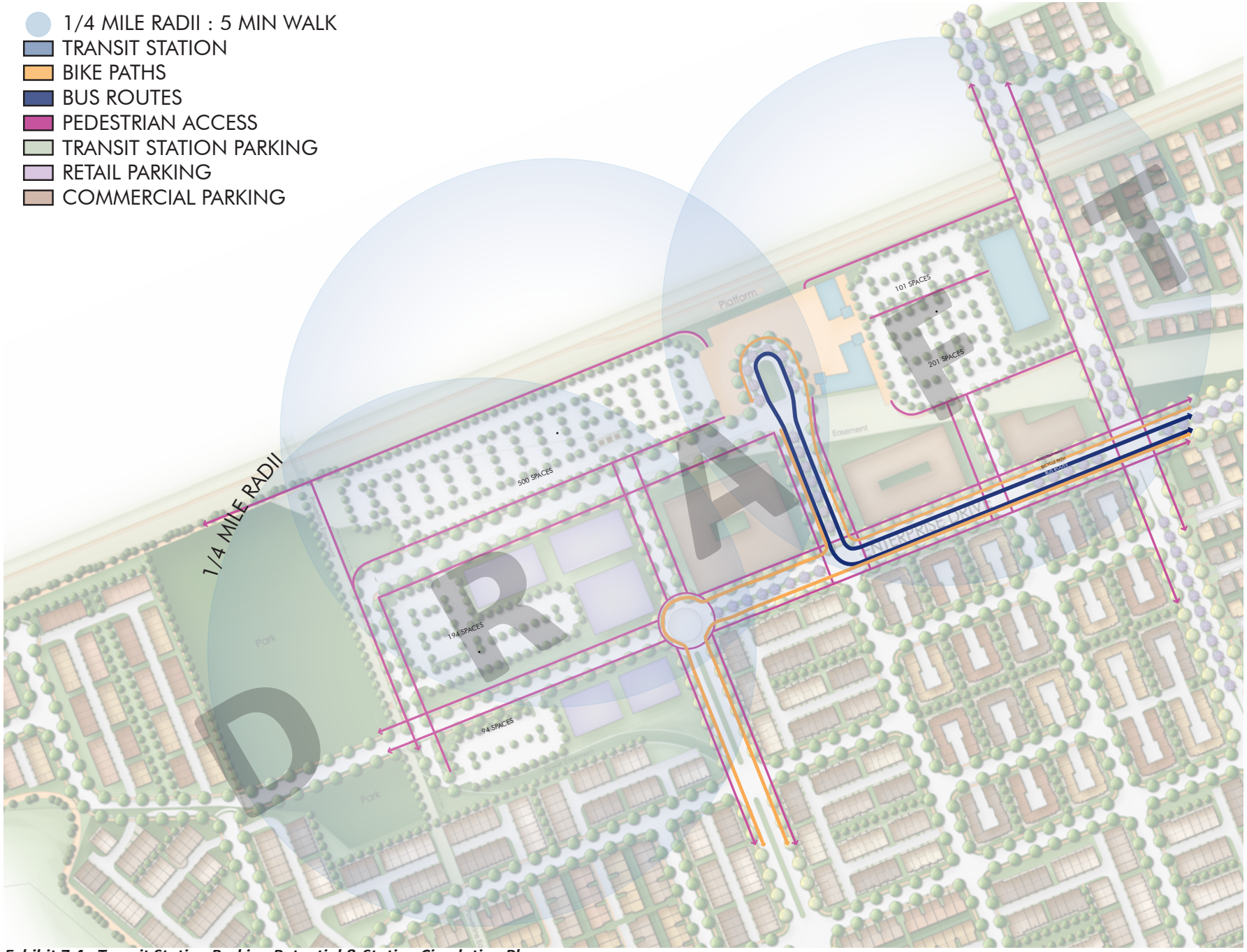

Exhibit 7.4 - Transit Station Parking Potential & Station Circulation Plan

7.5 PEDESTRIAN & BICYCLE CIRCULATION

The goal of the Specific Plan is to create attractive, safe, inviting and efficient pedestrian and bicycle circulations throughout the Plan area. These connections form an important link for residents, and visitors to the Plan area.

The primary backbone of the pedestrian and bicycle networks will be the internal street network of the community. Designated bicycle lanes will be provided on key internal roadways.

Under the Plan, all new streets shall have sidewalks or other adjacent pedestrian facilities as illustrated in the street cross-sections described in greater detail later in this chapter. The Specific Plan policies seek to ensure that pedestrian and bicycle networks are linked to the Transit Station to the greater City of Newark and to the neighboring communities.

Exhibit 7.5 – Pedestrian and Bicycle Circulation shows key bicycle routes that should be established and maintained. Exhibit 7.6 illustrates Class I, Class II and Class III bicycle paths.

Pedestrian & Bicycle Circulation Policies

C-25 Prioritize pedestrian and bicycle safety at intersections and street crossings of Backbone streets with measures such as:

- Contrasting and/or textured paving crosswalks; and
- In-ground, blinking crosswalk lights where feasible.

C-26 Incorporate signage to indicate pedestrian and bicycle areas where feasible.

C-27 Projects should provide access to direct pedestrian and bicycle routes to the Transit Station as feasible and where appropriate.

C-28 Adopt minimum bicycle parking requirements for residential and commercial projects.

C-29 In the Transit Station Area, design streets and sidewalks consistent with this chapter, including:

- Tree wells or planter strips with trees between the sidewalk and the parking areas;
- Pedestrian scale street lights;
- Limited curb cuts that cross the pedestrian path of travel;
- Outdoor seating for restaurants and cafes where applicable;
- Projections into the right-of-way for awnings, canopies, pedestrian oriented signs, bay windows, and other elements that enhance the pedestrian realm; and,
- Sidewalks should have a minimum five-foot wide path of travel.

C-30 Mid-block crosswalks should be provided per the City's Bicycle and Pedestrian Master Plan/Crosswalk Guidelines (upcoming, 2010-2011).

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Pedestrian and Bicycle Circulation Improvements

C-31 Provide bicycle routes throughout the Transit Station area, as illustrated in Exhibit 7.4.

C-32 Allow bicycle circulation on all local streets in the greatest extent feasible.

C-33 Design and implement a trail interior to the Plan area, around the perimeter of the Specific Plan, as feasible.

C-34 To the greatest extent possible, link internal neighborhood to parks and public spaces.

7.6 TRUCK ACCESS

Because of the transit-oriented nature of the Specific Plan, truck routes and loading areas should be carefully considered. Access to garbage and recycling areas should also be considered early in the project design process. Access should be provided in a way that facilitates truck service without detracting from the pedestrian realm.

Truck Access Policies

C-35 Where truck routes are necessary, do not locate them in areas where there are no commercial establishments.

C-36 Service and loading areas should be strategically located and screened so as not to impact the attractiveness and safety of the pedestrian realm. Therefore, they should be located to the side or rear of buildings, away from pedestrian area.

C-37 Loading requirements for smaller businesses may be met through curbside loading zones. For larger developments that required loading docks, the docks should be located in the interior or rear of the building or parking garage, to the greatest extent feasible.

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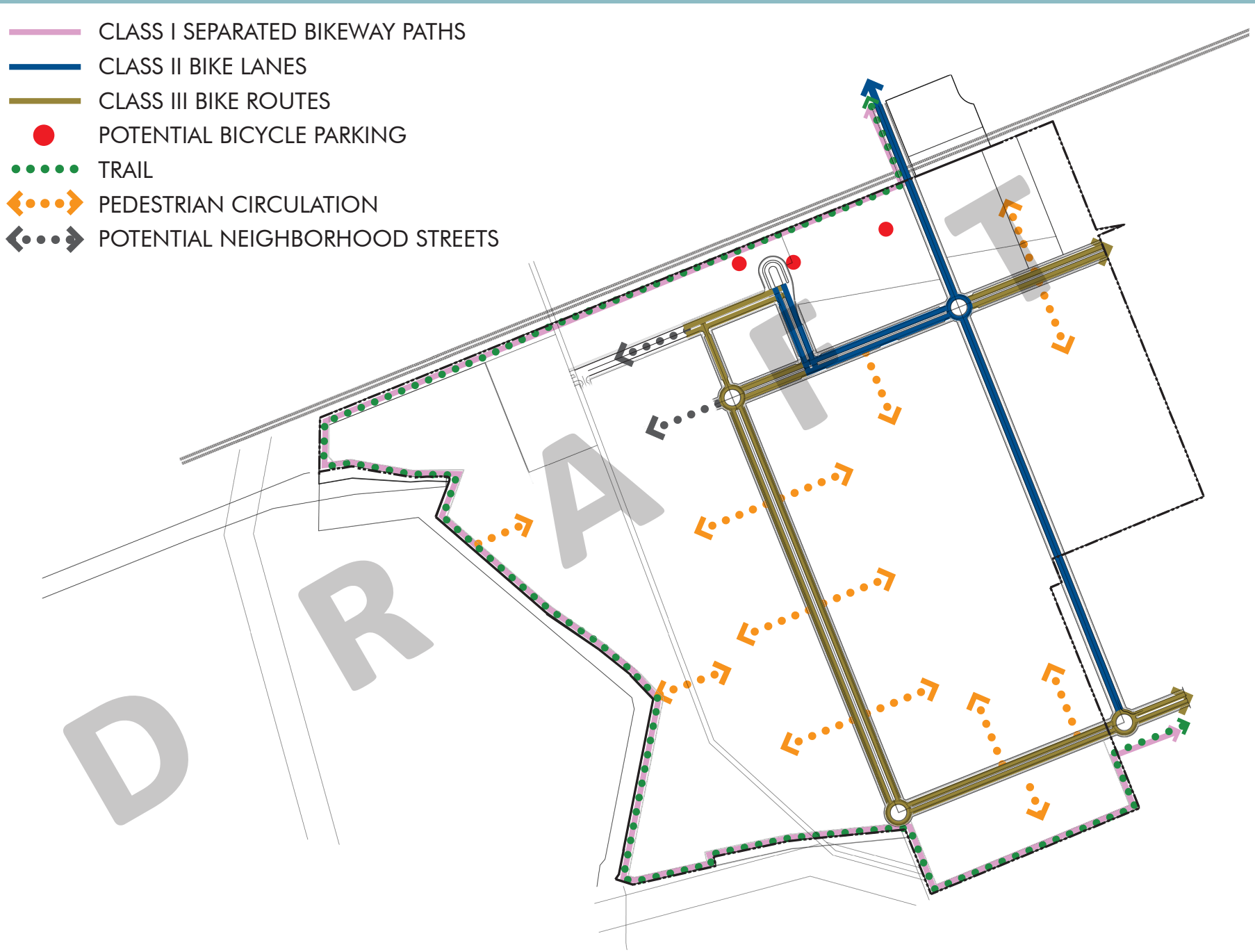
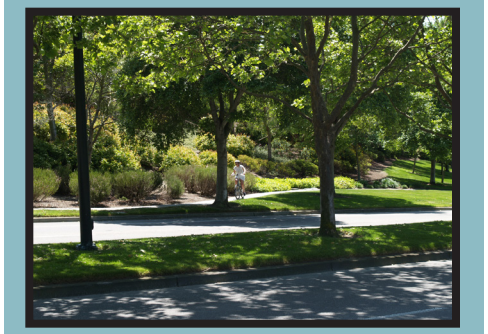
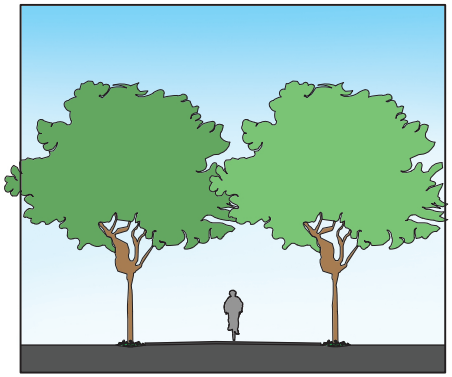
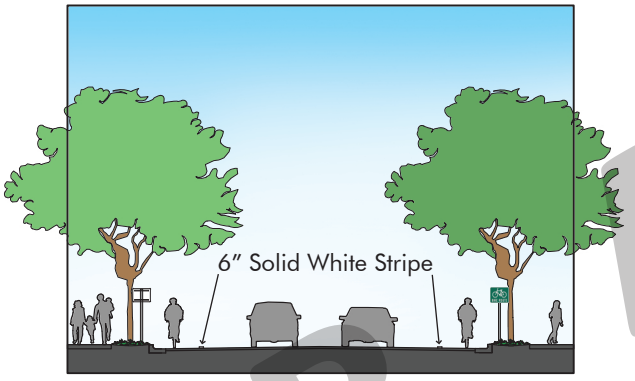


Exhibit 7.5 - Pedestrian & Bicycle Circulation

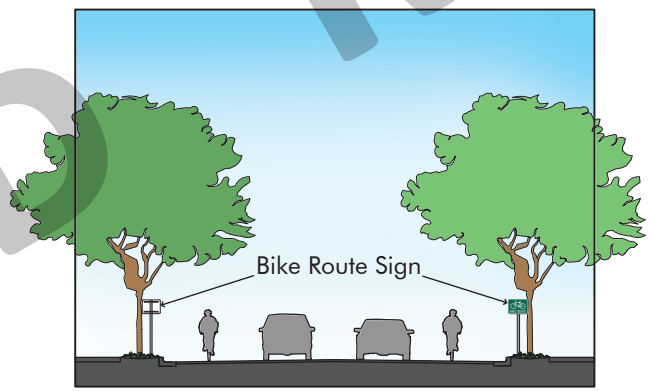




CLASS I BIKEWAY (Bike Path)
Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow minimized.



CLASS II BIKEWAY (Bike Lane)
Provides a striped lane for one-way bike travel on a street or highway.



CLASS III BIKEWAY (Bike Route)
Provides for shared use with pedestrian or motor vehicle traffic.

Exhibit 7.6 - Bicycle Paths

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7.7 STREET CROSS SECTIONS

One of the most visible character-defining elements of a community are the streets; people use them on a daily basis to conduct the business of their lives. This section illustrates the design intent of the street network for the Specific Plan. Each exhibit shows the entire right-of-way required, street dimensions, sidewalks, and landscape strip. The number of travel lanes on all streets have been designed to accommodate the ultimate build-out of the Specific Plan through the use of street cross section graphics. All projects and subdivisions should be consistent with the Plan. Minor modifications are anticipated and final design will be made during the mapping process.

Although the following street cross-sections incorporate portions of the current City of Newark standards, these new street cross-sections are more specific than the City's general standards as they address the overall character of each street.

The following pages detail each street section.

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Willow Street (Exhibit 7.7 (a), (b), and (c))
This street's primary purpose is to move and disperse traffic into the Plan area. These are higher volume streets with a design speed of 35 miles per hour. Traffic calming measures such as roundabouts, chicanes, pavers, etc., are required at every intersection within the Plan Area along this roadway.

Existing Willow street consists of a 64-foot wide paved road section within an 80-88-foot wide right-of-way. The proposed Willow Street section consists of two 15-foot vehicular travel lanes, two 5-foot bicycle lanes, and two 8-foot parking bays on either side of a median.

The roadway has a vertical curb and gutter, and curb returns have a 20-foot radius.

A 5-foot sidewalk is provided along with a 3-8-foot wide landscape strip. Direct lot access from single-family lots is not allowed along Willow Street however, curb cuts and all means of ingress and egress are allowed along Willow Street for all other uses.

Landscaping along Willow Street should include continuous street tree planting. Consistent street trees should be utilized in order to provide continuity and orientation along this collector road. Trees should be planted at even intervals and selected for characteristics that include proven durability in street environments, branching at heights greater than 15-feet, and ease of maintenance. The landscaped strip should be planted with a combination of shrubs and groundcovers.

Enterprise Drive West (Exhibit 7.8 (a) and (b))
The primary purpose of these streets is to move and disperse traffic into the Plan area. These are higher volume streets with a design speed of 35 miles per hour. On Enterprise Drive West, specifically between Willow Street and Hickory Street, direct lot access for single-family detached homes is not allowed however, curb cuts and all means of ingress and egress are allowed for all other land uses.

Enterprise Drive West consists of a 90-foot wide right-of-way. This is intended to be a divided road with a median in the center that can accommodate trees and landscaping. The paved sections of Enterprise, from Willow to the Transit Station entrance, consists of two 12-foot vehicular travel lanes on either side of the median. The roadway has a vertical curb and gutter.

A 5-foot sidewalk is provided on both sides and separated from the roadway by a 6-foot wide landscape strip.

The sidewalks located along Enterprise Drive West are planned to be 5-feet in width, however, when located adjacent to commercial or retail uses, it is encouraged that the sidewalk width be a minimum of 8-feet and a maximum of 16-feet. This will ensure adequate space for outdoor activities, such as cafe style restaurant seating and an increased pedestrian traffic.

Enterprise Drive West serves as the main entry into the site and should have distinctive landscaping.

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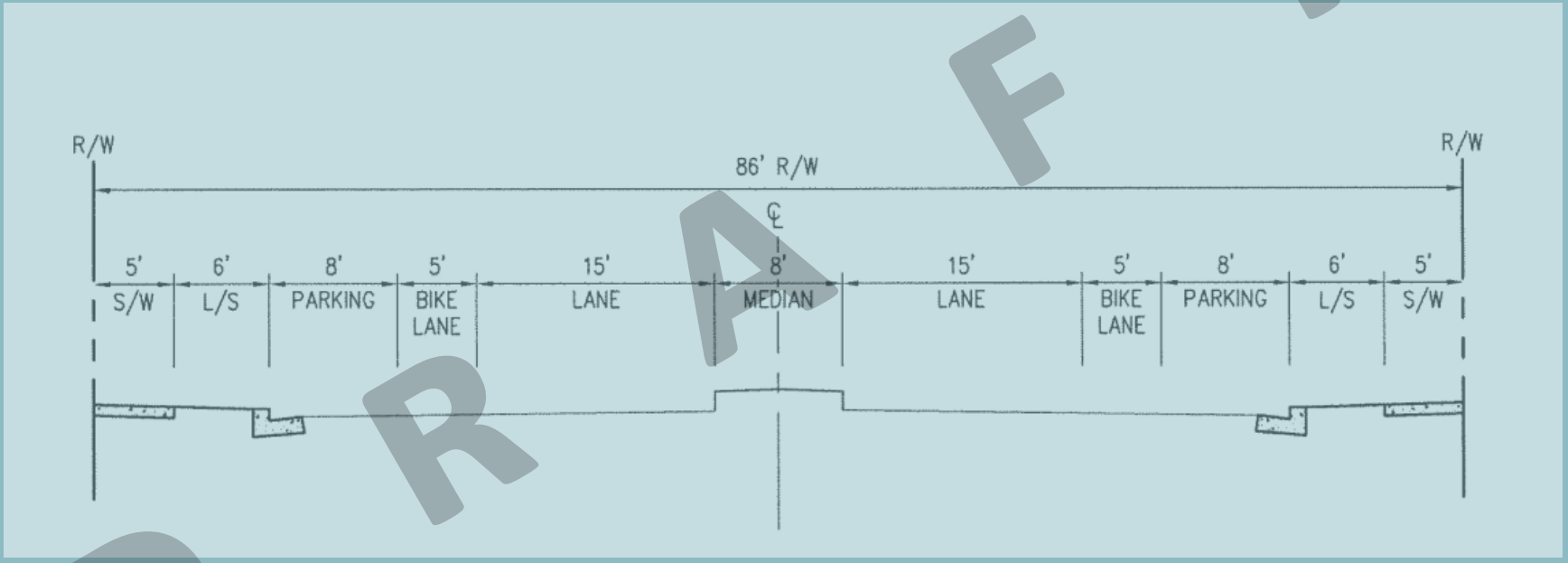

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Exhibit 7.7 (a) - Willow Street (North of Enterprise Drive)

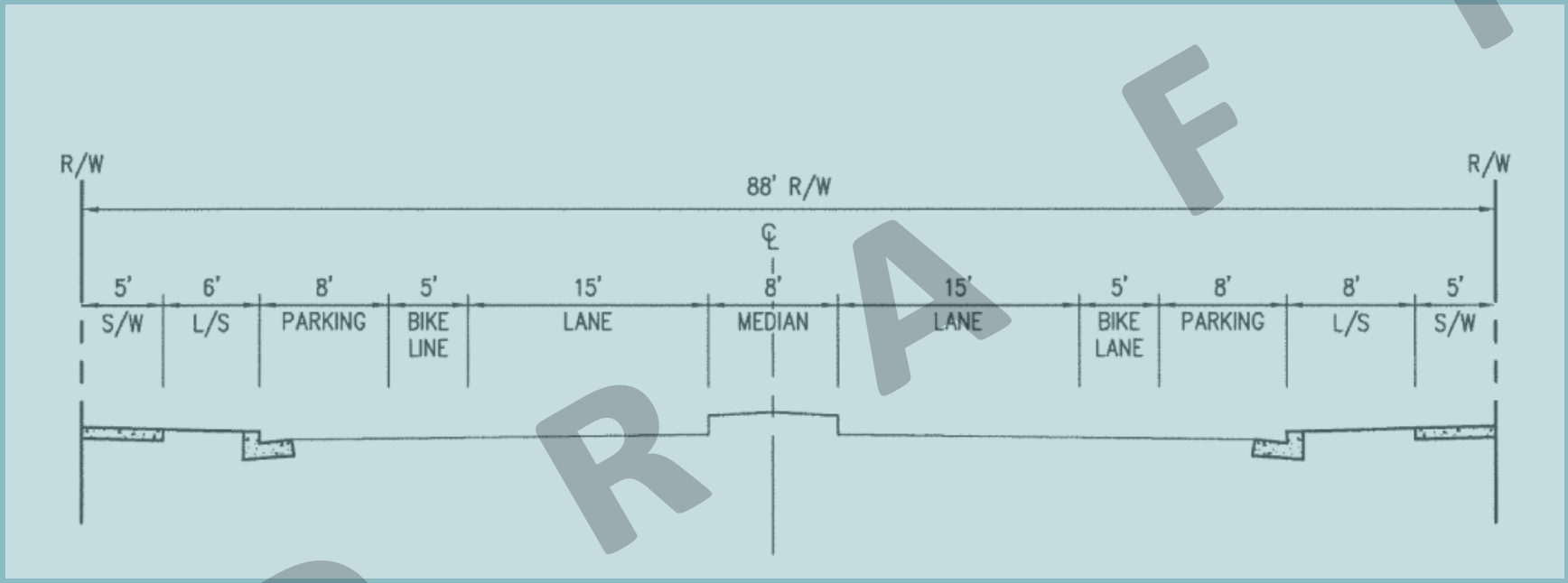

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Exhibit 7.7 (b) - Willow Street (North of F-6 Ditch)

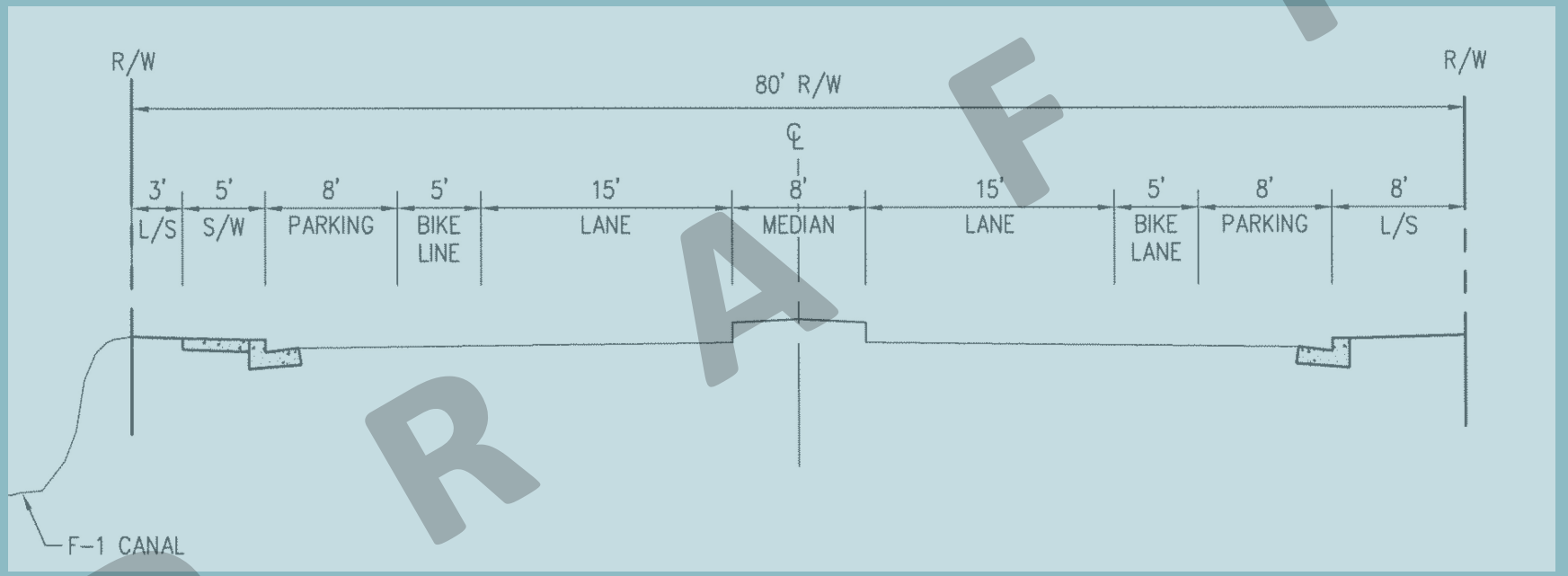

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Exhibit 7.7 (c) - Willow Street (South of F-6 Ditch)

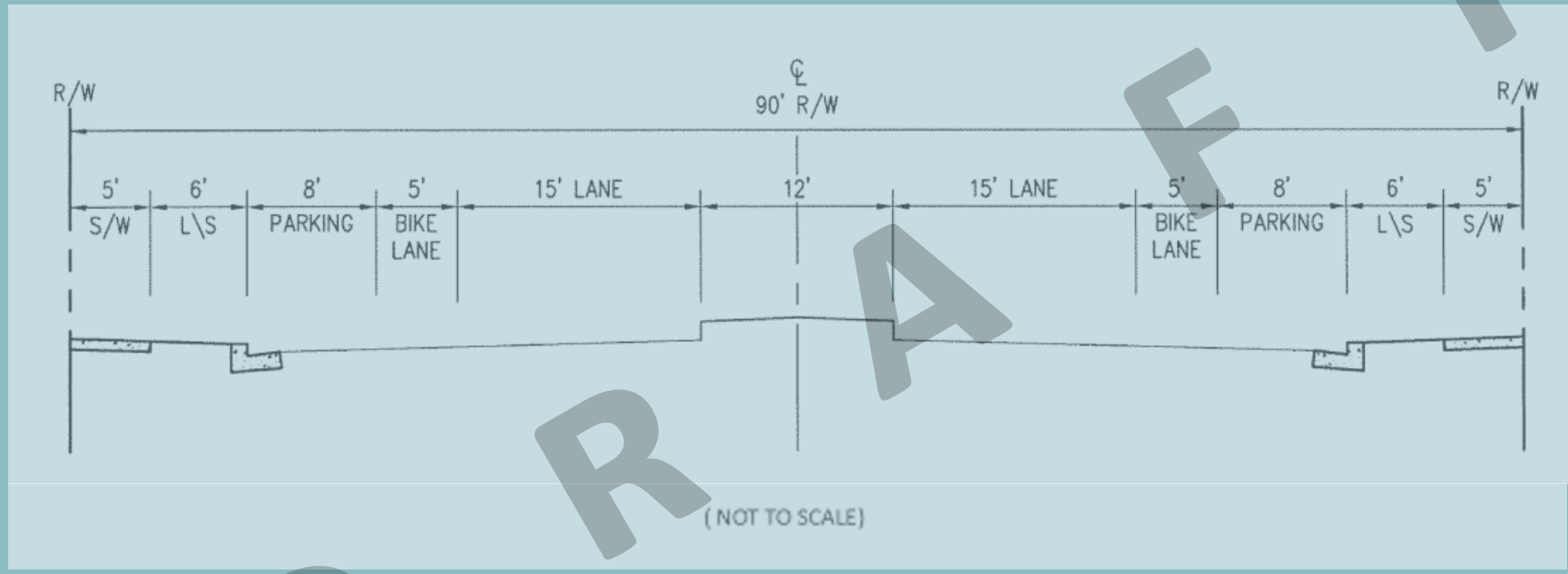

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Exhibit 7.8 (a) - Enterprise Drive West (West of Transit Station Entrance)

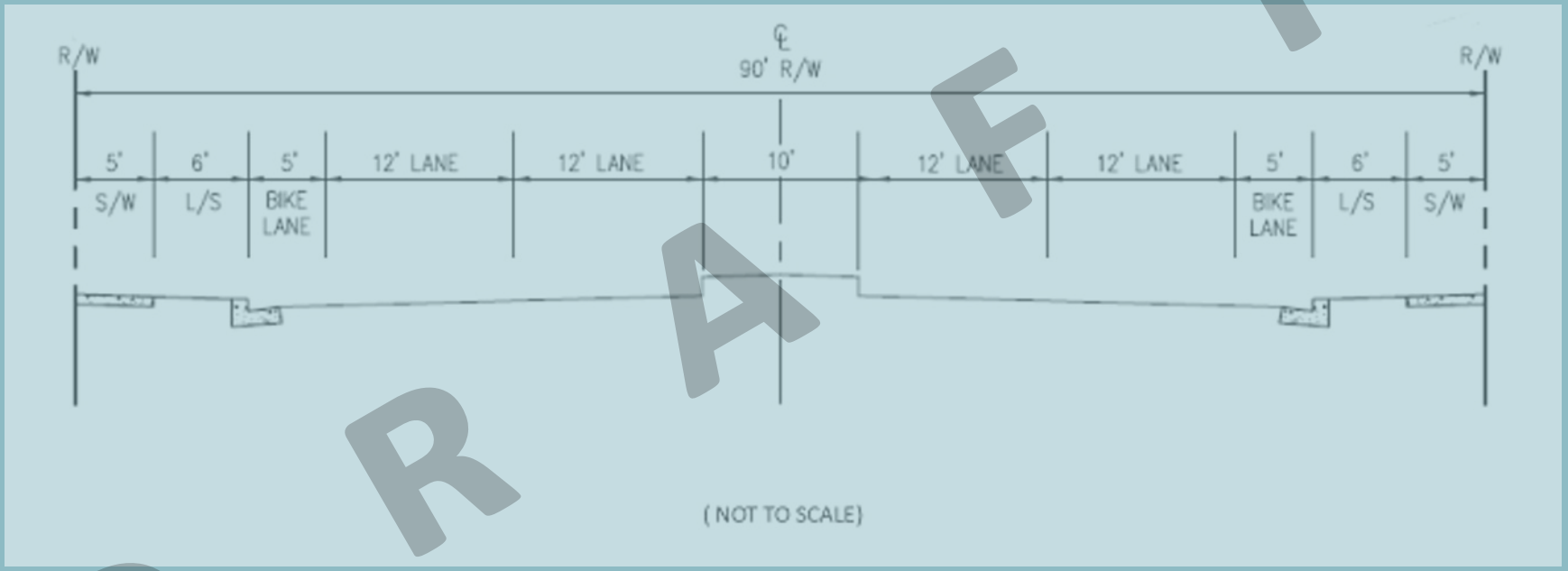

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Exhibit 7.8 (b) - Enterprise Drive West (Transit Station Entrance to Willow Street)

Central Avenue (Exhibit 7.9)
The street consists of a 40-foot paved road within an 60-foot wide right-of-way. The paved section of the right-of-way consists of two 12-foot vehicular travel lanes, and 8-foot parking bays. The roadway has a vertical curb and gutter, and curb returns at a 20-foot radius. Direct lot access is permitted on Central Avenue from residential lots to the street. A 5-foot sidewalk is provided on both sides and separated from the parking areas and roadway by a 5-foot wide landscape strip.

Transit Station Entrance Road and Transit Station Road (Exhibits 7.10 (a) and (b))
The street that leads to the Transit Station from Enterprise Drive needs to be distinctive to give this area a sense of place and to draw people to transit and retail opportunities. This street's purpose is to provide access to the station for cars and buses, plus access to parking and drop-off, and to allow bicycle and pedestrian access to the station. This is a higher volume street with a lower design speed of 25 miles per hour, for safety.

The Transit Station Entrance Road consists of a 90-foot wide right-of-way. This is a divided road with a 10-foot median in the center that can accommodate trees and landscaping. The paved section of the right-of-way consists of four 12-foot vehicular travel lanes, and two 5-foot bicycle lanes as depicted in Exhibit 7.10(a). The roadway has a vertical curb and gutter, and curb returns have a 20-foot radius. The Transit Station Road runs perpendicular to the Transit Station Entrance run as set forth in Figure 7.2 and consists of an 80-foot right-of-way, two 12-foot vehicular travel lanes, two 5-foot bicycle lanes, an 8-foot parking bay on either side and a 14-foot median as depicted in Exhibit 7.10(b). Direct lot access is permitted on the Transit Station Entrance Road and the Transit Station Road. Two 5-foot sidewalks are provided on both sides and separated from the roadway by two 6-foot wide landscape strips for both the Transit Station Entrance Road and Transit Station Road.

To help accentuate the Station, strong simple vertical massing of trees along with low-growing evergreen shrubs and grasses are encouraged. Flowering ground cover and accent trees at corners and intersection should delineate entrances. Visibility of the Transit Station is imperative so trees with branching at heights greater than 15-feet should be utilized. Where adjacent parking lots are planned, a planting screen should be designed through the use of shrubbery, landscape berming, low walls, or a combination of these elements.

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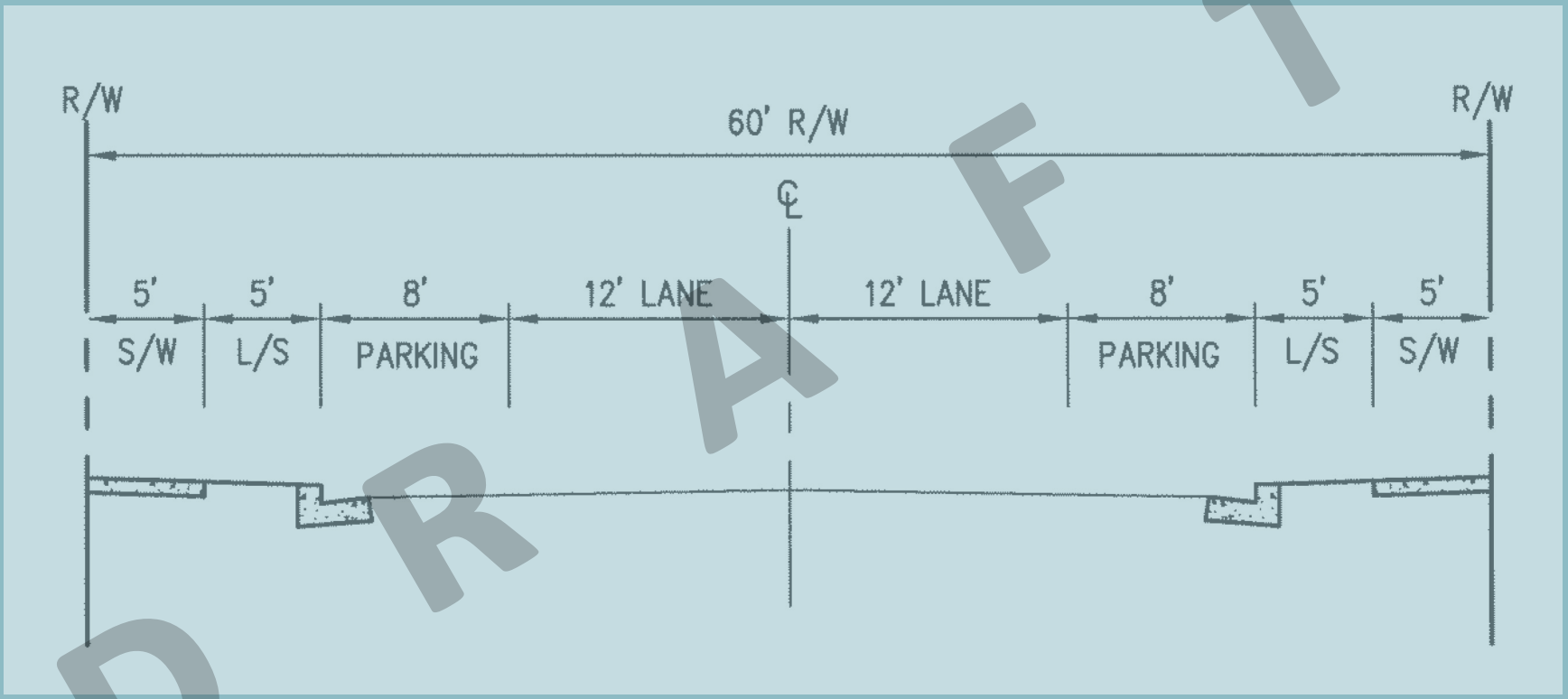

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Exhibit 7.9 - Central Avenue

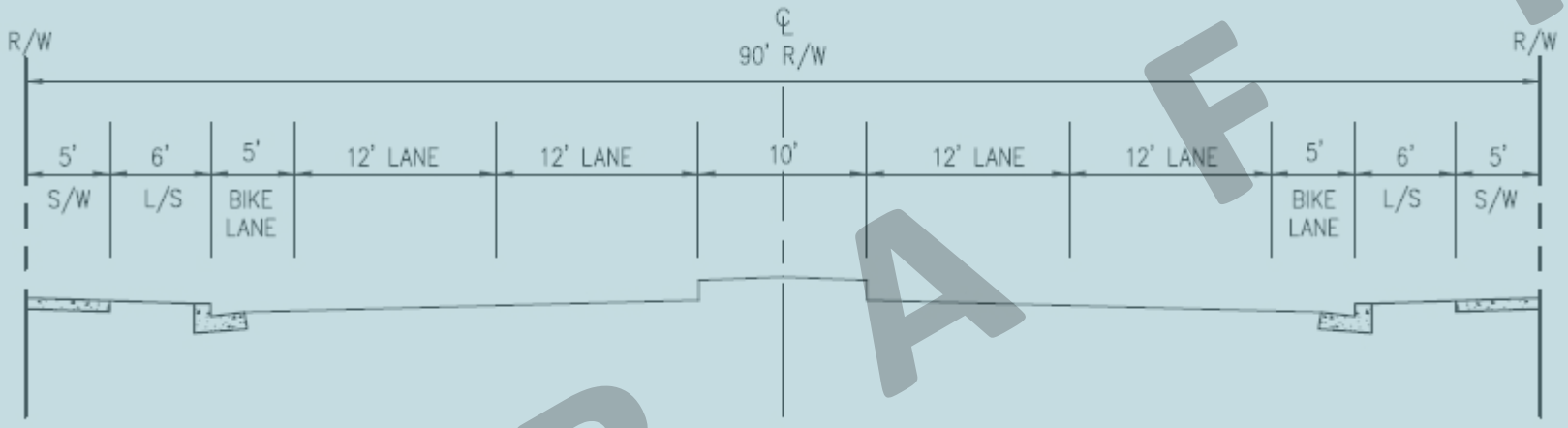

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Exhibit 7.10 (a) - Transit Station Entrance Road

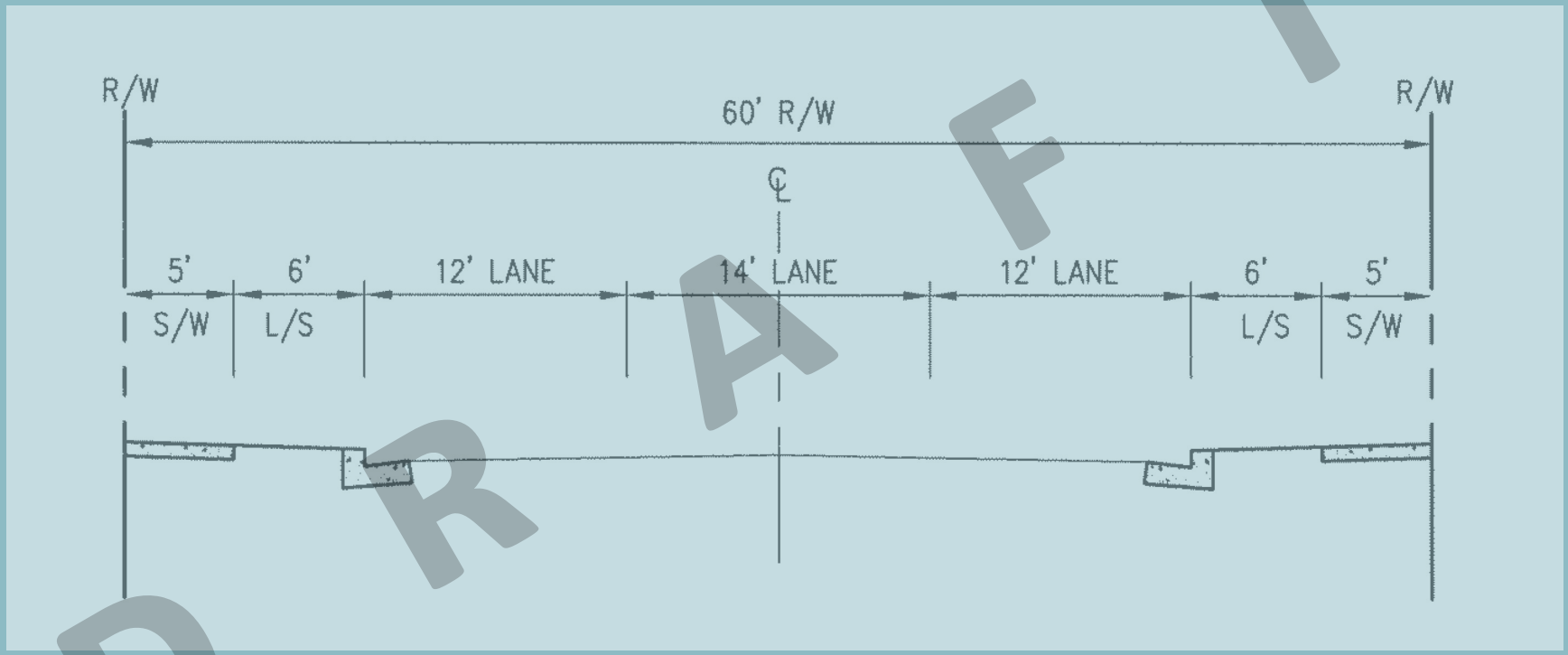

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Exhibit 7.10 (b) - Transit Station Road

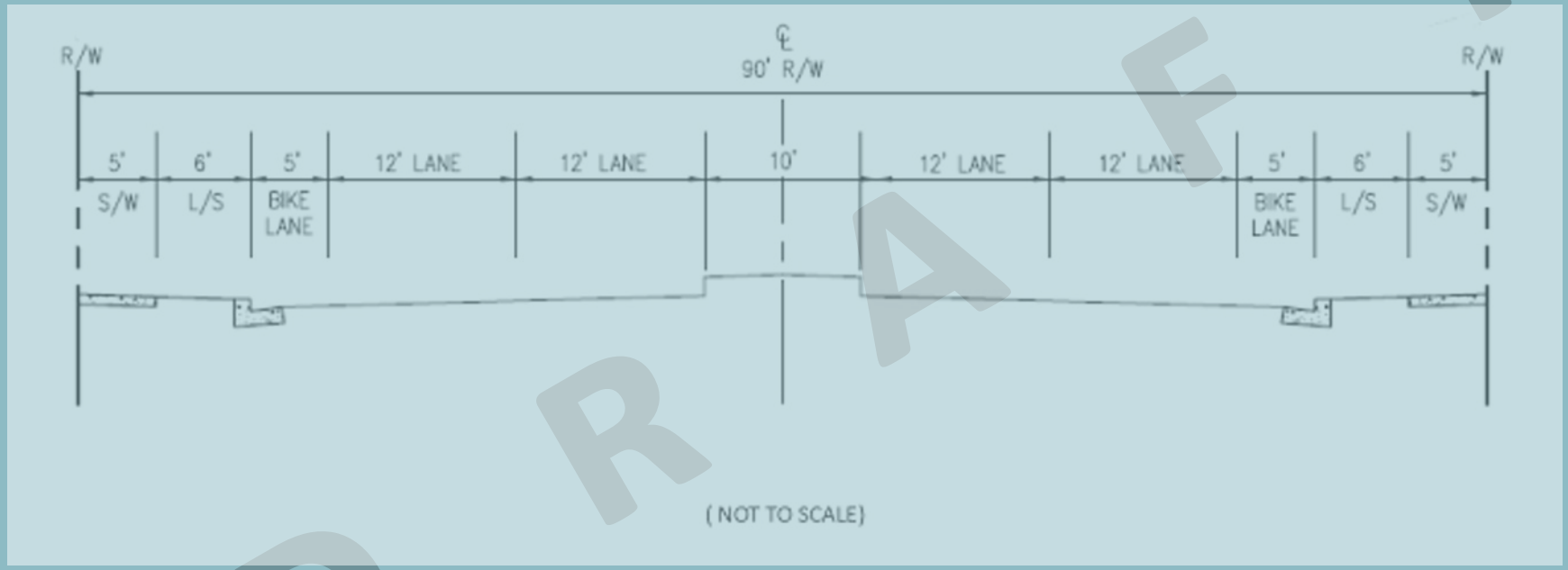

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Exhibit 7.11 - Enterprise Drive East (East of Willow Street)

Enterprise Drive East (Exhibit 7.11)
The primary purpose of this street is to move traffic into the Plan area. Enterprise Drive East consists of a 90-foot wide right-of-way. The paved section of the right-of-way consists of a 14-foot vehicular travel lane, a 5-foot bicycle lane and an 8-foot parking bay on either side of the median. The roadway has a vertical curb and gutter, and curb returns have a 20-foot radius.

A 5-foot sidewalk is provided on both sides and separated from the parking areas and roadway by a 6-foot wide landscape strip.

Hickory Street (Exhibit 7.12)
The street will consist of one lane in each direction with parking, landscaping and sidewalks on each side – similar to other streets in this Specific Plan. Direct vehicular lot access on Hickory Street is permitted from residential lots to the street. The roadbed must not lie on top of the easement for the sewer forcemain. The easement for the sewer forcemain may lie within the R.O.W. for Hickory street as either a median, or additional landscape on either side of the roadway.

Exhibit 7.12 shows a possible cross-section, depending on final site conditions.

This street's primary purpose is to move and disperse traffic in the Plan area. This is a higher volume street with a design speed of 35 miles per hour.

Neighborhood Streets (Exhibit 7.13)
Neighborhood streets are not part of the Backbone Circulation Plan. The design of Neighborhood streets shall be as provided in this Specific Plan but the location of each will be determined pursuant to the processing of plans for specific developments within the Specific Plan area.

Neighborhood streets are internal residential streets, the primary purpose of which is to provide access between individual residences and collector streets. These are low-volume streets with a design speed of 25 miles per hour.

Neighborhood streets should consist of a 36-foot wide road section within a 56-foot wide right-of-way. The paved section can accommodate two 10-foot wide travel lanes and on-street parking on both sides in designated parking bays. The roadway had vertical curb and gutter, and curb returns have a 20-foot radius.

A 5-foot sidewalk should be provided on both sides and separated from the parking areas by a 5-foot wide landscaping strip. Direct vehicular lot access is permitted on all neighborhood street from residential lots to the streets.

Tree planting along neighborhood streets shall be designed to encourage pedestrian use, shorten the perception of walking distances and provide shade and seasonal interest.

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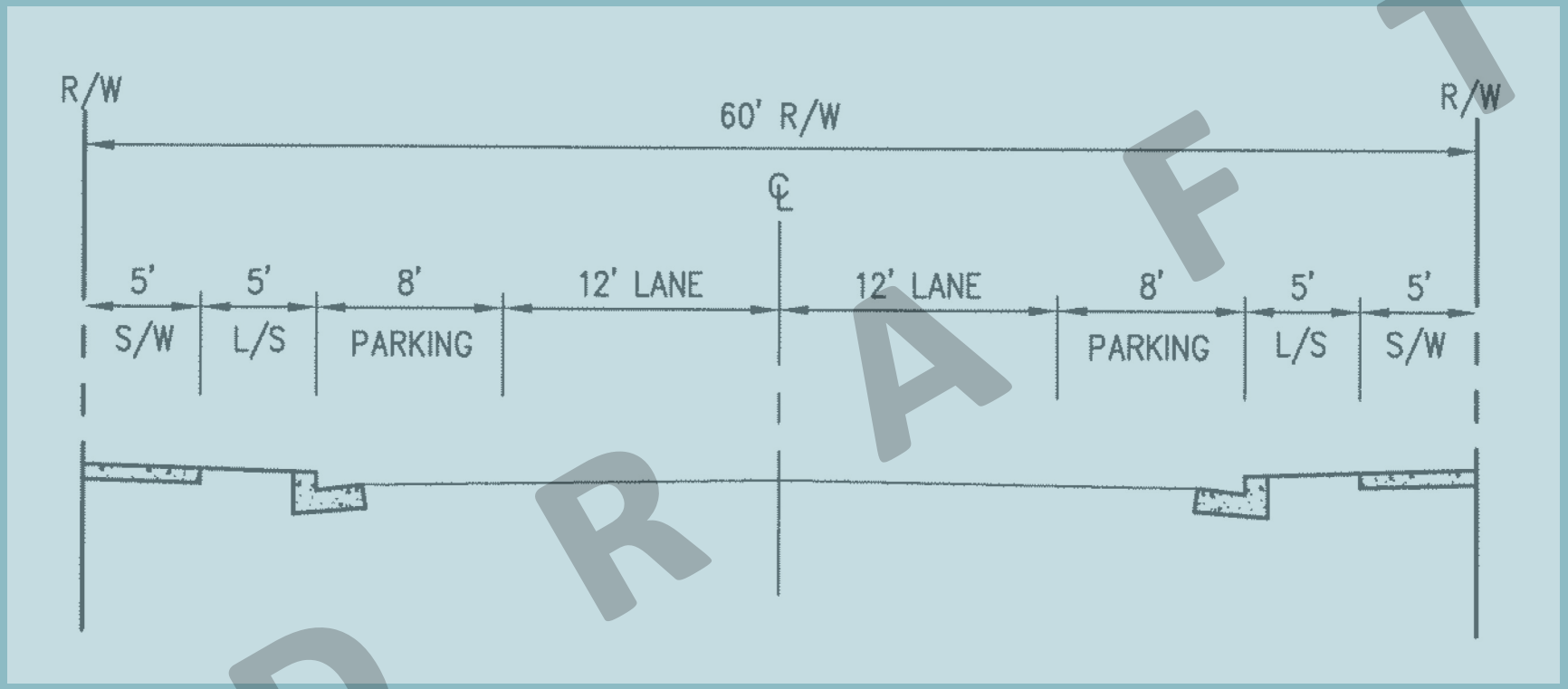

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Exhibit 7.12 - Hickory Street

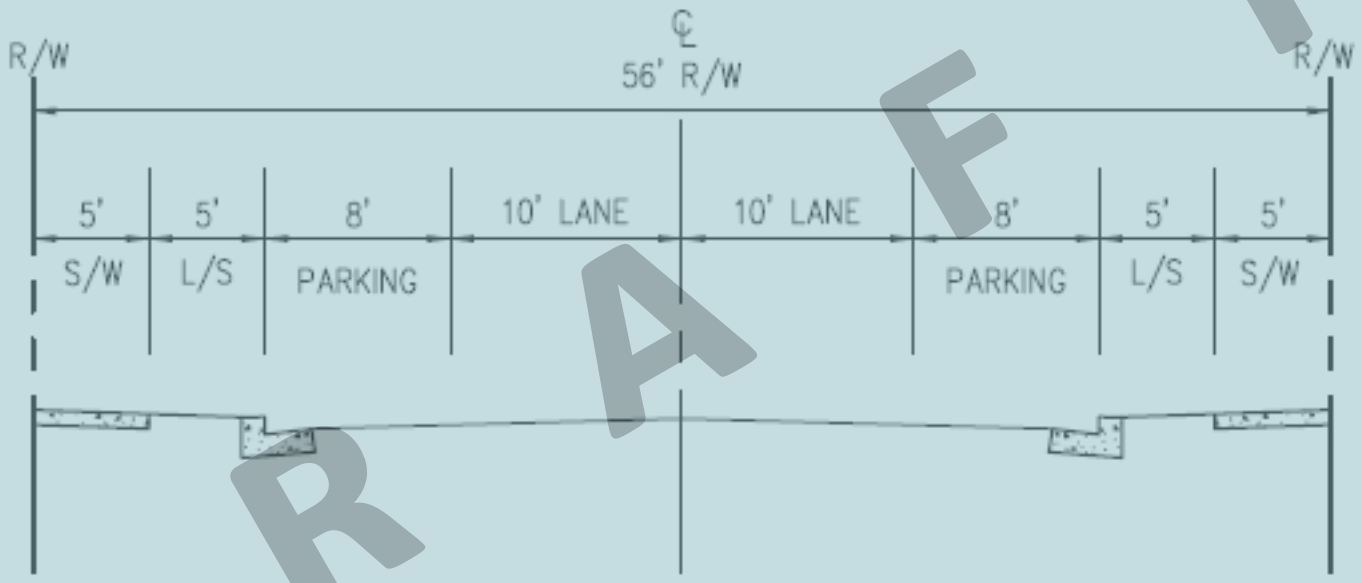

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Exhibit 7.13 - Neighborhood Streets Typical - Minor

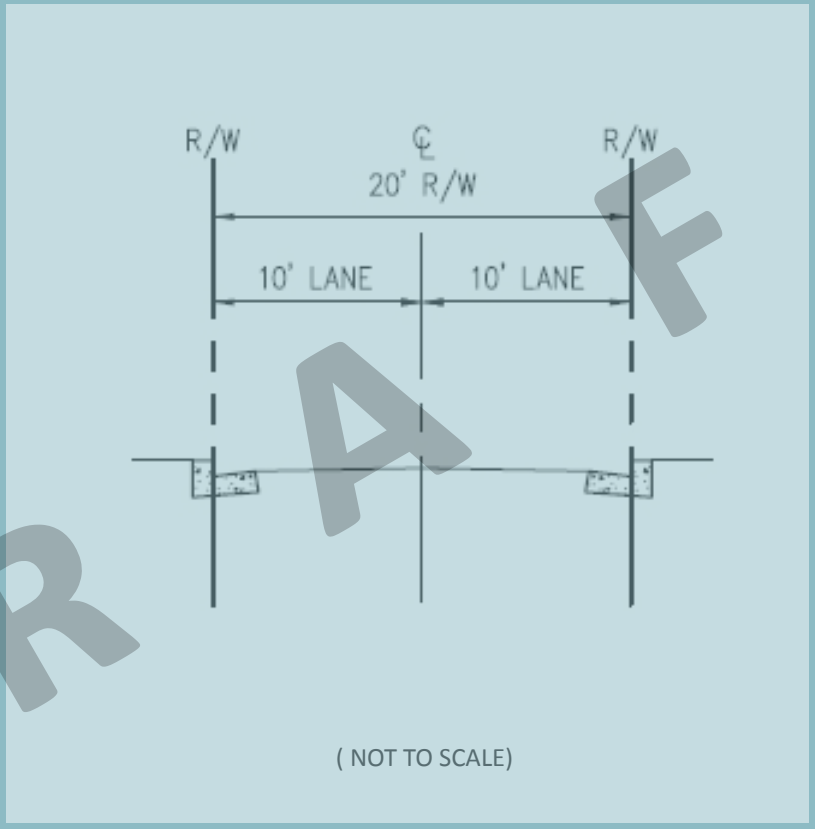

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Exhibit 7.14 - Carriageway / Alley

Carriageways (Exhibit 7.14)
Carriageways are generally privately maintained roads associated with residential units where garages are located in the rear of the home and not off the main residential street.

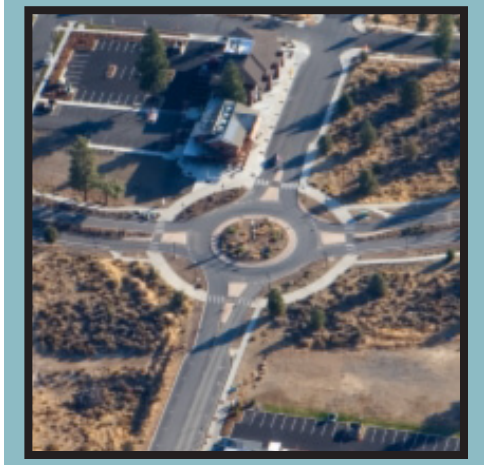
The purpose of the carriage way is to provide service access for garbage trucks and to provide residents vehicular access to their garages. They typically have a paved surface of 20-feet within a 20-foot access easement or right-of-way with the garage doors setback from the street. Direct lot access is permitted on all carriageways/alleys from residential lots to the street. Resident or guest parking is allowed within the carriage way only in designated spaces.

Small accent trees and shrubs are encouraged to be planted in small planting areas within the carriageways. These are typically located between garage doors and building, and soften the edge of the pavement.

Roundabouts (Exhibit 7.15)
A roundabout is a circular intersection with yield control for entering traffic, channelized approaches, and reduced travel speeds in the circular roadway as vehicles must follow a travel path around the center island. Roundabouts have several safety advantages, as they reduce the number of conflict points between vehicles, and between vehicles and bicyclists and pedestrians. A study of US roundabout sites showed a 39% reduction in total crashes and a 76% reduction in injury crashes. The slower travel speeds compared to traditional signalized intersections also reduce the occurrence and severity of collisions. They also have lower average delays than stop-or signal-controlled intersections when serving less than 20,000 vehicles per day. The reduction in delay and idling time also results in less fuel consumption, lowers air pollution and reduces greenhouse gas emissions.

Roundabouts can sometimes present challenges to bicyclists and pedestrian access, especially for those pedestrians with sight impairments. To improve access for all pedestrians, crosswalks may be raised or, for multi-lane roundabouts, signal-controlled.

Enterprise Drive, Hickory Street and Central Avenue may have roundabouts. Actual road sections and right-of-way radius will reflect final engineering plans in the context of specific development projects. One example is shown on Exhibit 7.15. Roundabouts should be enhanced with various materials or plants to soften the hard surfaces, however, clear line of sight is required for both pedestrian and vehicular access.



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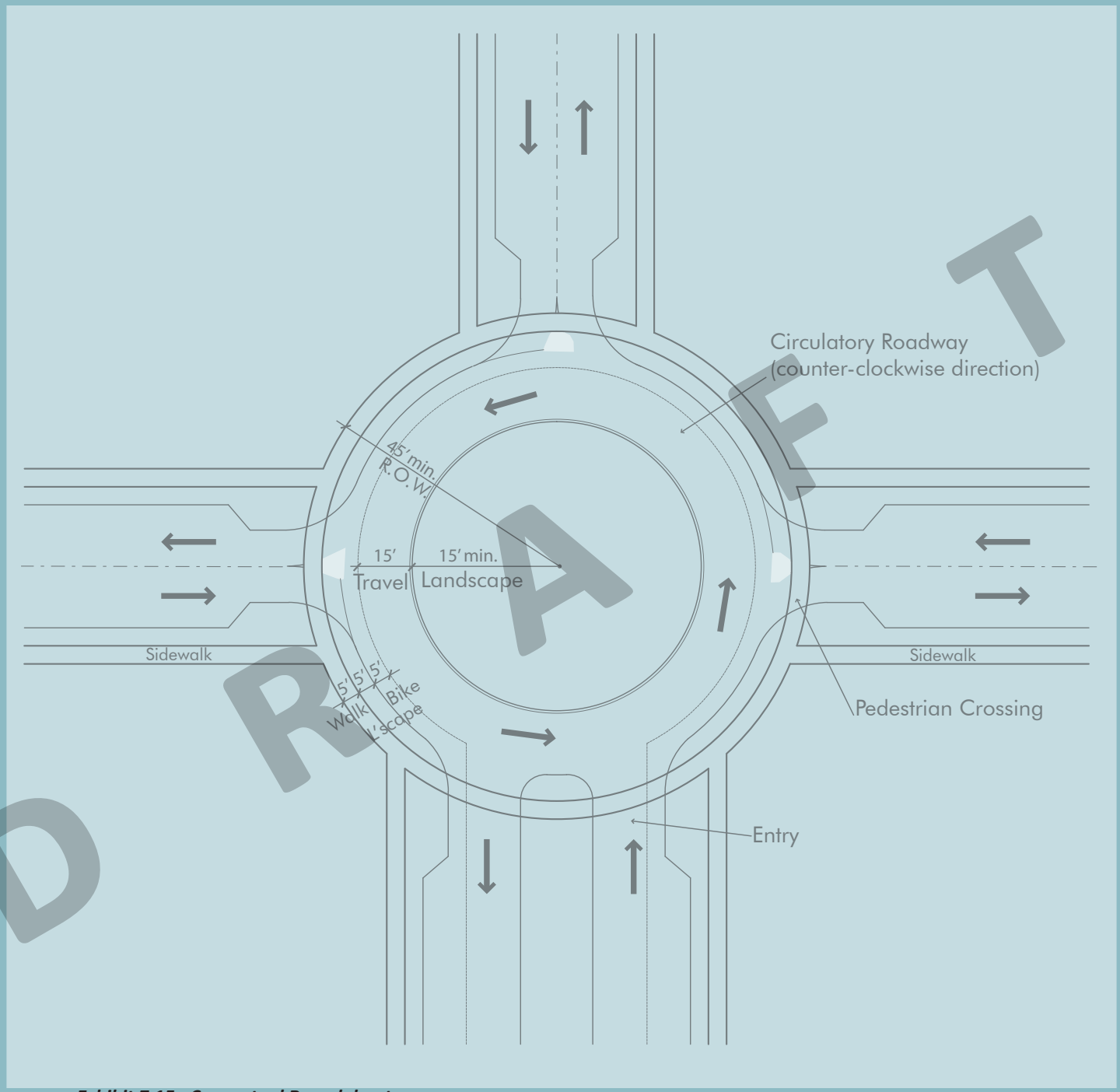

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Exhibit 7.15 - Conceptual Roundabout

Cul-de-sac – Hammerhead (Exhibit 7.16)
This type of street is utilized with a private neighborhood street that is no more than 300-feet in length. It is primarily intended to serve as a turn around that uses less land than standard cul-de-sac. The hammerhead has a paved driving surface of 75-feet long by 20-feet wide. The curb radius is 20-feet and no parking is permitted, signs will be posted. No sidewalks are required. Direct lot access is permitted on cul-de-sacs from residential lots to the street.

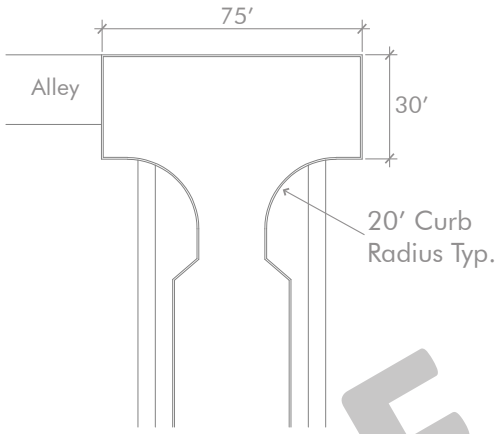

Exhibit 7.16- Cul de Sac - Hammerhead (Private Road)

Cul-de-sac – Traditional (Exhibit 7.17)
This type of cul-de-sac is utilized with a neighborhood street that is no more than 450-feet in length. The bulb of the cul-de-sac is 95-feet in diameter. The paved driving surface is 75-feet in diameter. The curb radius to the connecting neighborhood street is 20-feet. A 5-foot wide sidewalk that is separated by a 5-foot wide planting strip is provided. Direct lot access is permitted on cul-de-sacs from residential lots to the street

This cul-de-sac may be designed with the sidewalks eliminated if used in conjunction with a specific park design.

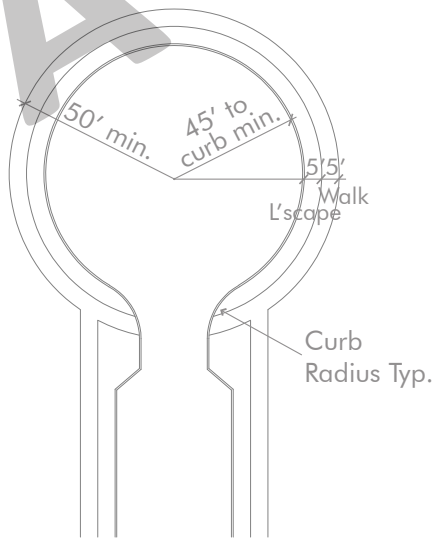

Exhibit 7.17 - Cul de Sac - Traditional

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7.8 STREET STANDARDS CHART

On this page is Table 7.1 - a summation of the street design standards presented earlier in this chapter.

Table 7.1 Street Standards

Street Names	R.O.W	Pavement Width	No. of Lanes	Median	Sidewalk Within R.O.W.	Landscape Strip within R.O.W.	On-Street Parking Allowance	On-Street Bike Lanes	Direct Lot Access
Willow Street	80'-88'	64'	2	8'	5' both sides for two conditions, 5' one side for third condition	6'-8' both sides for two conditions, 3'-8' both sides for third condition	8' both sides, all conditions	5' both sides, all conditions	Direct lot access from single family detached lots is not allowed along Willow, however, curb cuts and all means of ingress and egress is allowed for all other uses
Enterprise Dr., (West)	90'	68'	2 for one condition, 4 on second condition	10' and 12'	5' both sides, all conditions	6'-8' both sides	8' both sides one condition, none on second condition	5' both sides, all conditions	On Enterprise, specifically between Willow Street and Hickory Street, direct lot access from single family detached lots is not allowed, however, curb cut and all means of ingress and egress are allowed for all other cases
Central Avenue	80'	60'	2	n/a	5' both sides	5' both sides	8' both sides	n/a	Yes
Transit Station Entrance Road	90'	68'	4	10'	5' both sides	6' both sides	n/a	5' both sides	Yes
Transit Station Road	86'	64'	2	14' striped only	5' both sides	6' both sides	8' both sides	5' both sides	Yes
Enterprise Dr., (East)	90'	68'	2	12'	5' both sides	6' both sides	8' both sides	5' both sides	Yes
Hickory Street	80'	36'-60'	2	N/A	5' both sides, all conditions	5' both sides, all conditions	8' both sides, all conditions	n/a	Yes
Neighborhood Streets - typical will vary depending on site conditions	56'	36'	2	n/a	5' both sides	5' both sides	8' both sides	n/a	Yes
Carriageways	20'	20'	2	n/a	n/a	n/a	n/a	n/a	Yes

Note: Landscape strips may be substituted with tree wells and the sidewalk widened adjacent to mixed-use, commercial, retail and podium buildings.

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8.1 OVERVIEW

8.2 STUDY AREA

8.3 PUBLIC UTILITIES

8.4 NON-MUNICIPAL UTILITIES

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8.0 INFRASTRUCTURE

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8.1 OVERVIEW

Public utilities and community services will need to be expanded to support the development in the Specific Plan area. A strong framework of infrastructure, utilities, and amenities is critical to the development of the area. This chapter describes the infrastructure needed to efficiently integrate the new development with the services already provided by the City of Newark. It establishes the policies and describes the improvement projects necessary for upgrading and expanding public facilities.

This chapter also includes General Plan policies to reduce the demand placed on utility systems, thereby promoting environmental and economic sustainability. Private utilities, such as electrical transmission and distribution, are also discussed.

This Specific Plan will be used by preparers of development applications to understand the basic infrastructure and utility elements of the plan, as well as aid the property owners in basic preliminary design decisions. This conceptual report is intended only to provide an initial overview of the conceptual project layout and the construction of basic infrastructure. It is not intended to be used for final design or construction.

Limitations of Study

This study is limited to brief discussions of existing conditions and identification of "backbone" utility infrastructure needed to support the proposed development of the project site. The initial calculations are estimates only based on APN maps and preliminary land use assumptions provided by the property owners and their consultants. All calculations used to determine sizes of the backbone infrastructure are for preliminary study purposes only. Final design calculations will be required as part of the design process leading to City approval for construction of the project's infrastructure.

The following polices will be included as a part of the General Plan Amendment for the Specific Plan project.

Utilities and Public Service Principles

I-1: Meet or exceed City standards by providing high-quality, efficient public utilities, services, and facilities to serve the Specific Plan area.

I-2: Encourage sustainable building practices, operations, and maintenance.

I-3: Partner with private utility providers to limit disruptions to existing systems, and ensure comprehensive utility service for all future development.

I-4: Ensure that adequate emergency service facilities and staffing are in place to serve new residents and employees.

I-5: Design new development and public spaces with consideration for public safety.

8.2 STUDY AREA

Topography

The area is a generally flat, low-lying alluvial plain. Elevations in the area vary from approximately 4 to 15 feet above mean sea level (MSL), based on the National Geodetic Vertical Datum of 1927 (NGVD); There are two bedrock outcroppings located on the western portion of the site

Easements

Several rights-of-way and easements for transportation infrastructure and utilities exist within the Plan area that will affect the type and arrangement of development that can occur. (See Exhibit 8.1, Conceptual Utility Plan) These include the following:

- The Hetch-Hetchy Pipeline

The Hetch-Hetchy Pipeline is within a 110-foot right-of-way owned by the San Francisco Public Utilities Commission (SFPUC), which runs east/west through the northern portion of the Plan area controlled by the SFPUC. All crossing or other uses are tightly controlled by the San Francisco Public Utilities Commission (SFPUC) and land owner contract rights that run with the land. The Pipeline runs underground through the east half of the Plan area, transitioning to the surface after crossing to the north side of the rail right-of-way.

- The Dumbarton Rail Corridor (DRC)

The DRC also runs in an east/west direction through the northern portion of the Plan area, almost parallel to the Hetch-Hetchy Pipeline. The DRC is a 100-foot wide right-of-way owned by San Mateo County Transit. The DRC is a proposed commuter rail line.

- The East Bay Dischargers Authority (EBDA)

The EBDA owns and operates two 33-inch sanitary sewer force mains, serving the City of Newark, that run through the Plan area within an easement under the Hickory Street right-of-way. Special conditions

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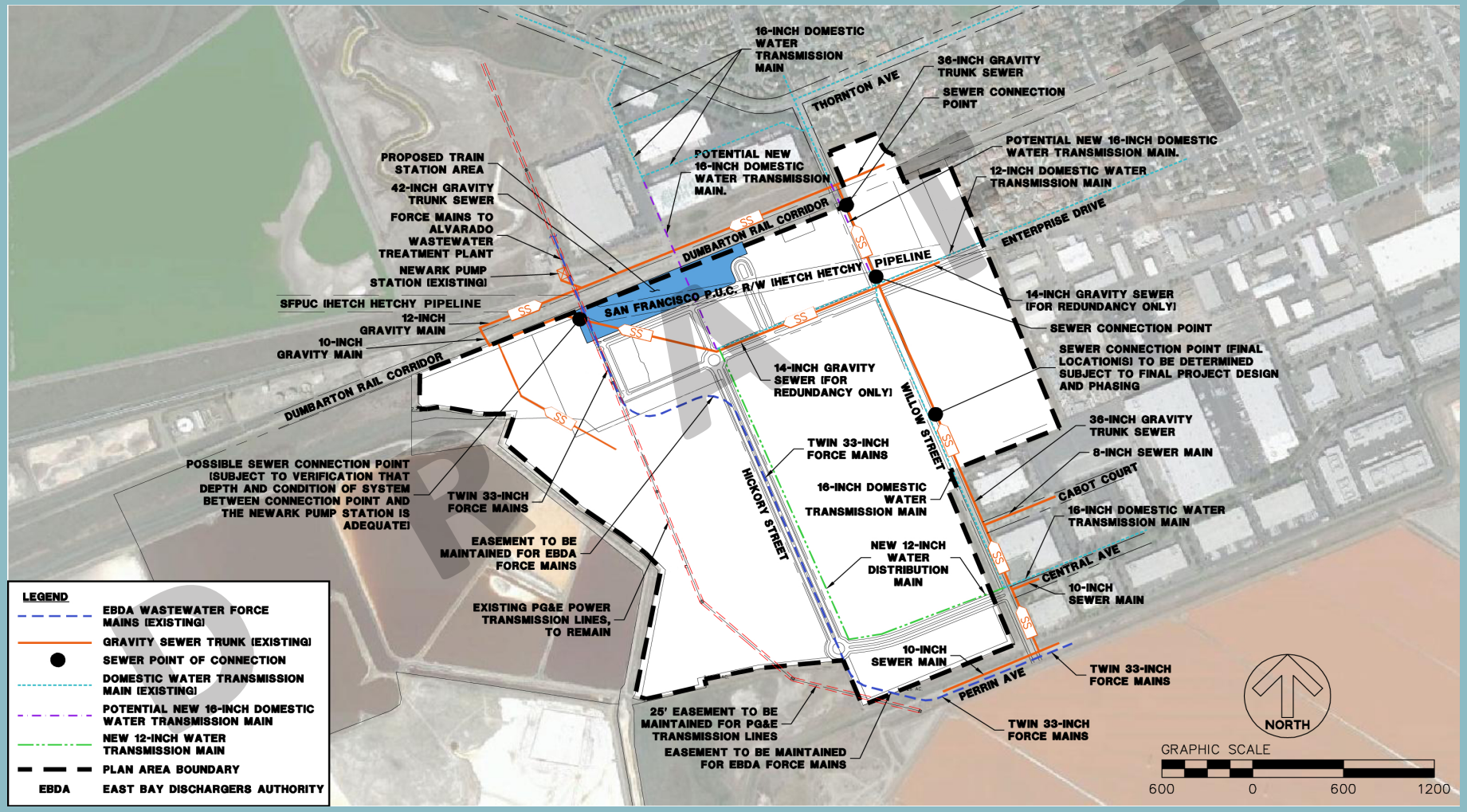

Exhibit 8.1 - Conceptual Utility Plan

on construction within this easement may need to be imposed to preserve the integrity of the mains.

- The Alameda County Flood Control F-1 Canal

The F-1 Canal flows from east to west along the Plan area's southerly boundary, providing the main drainage outlet to the San Francisco Bay for a large part of the City of Newark. A tributary to this canal, the F-6 ditch, runs north along the west side of Willow Street for a distance of about 1,300 feet.

- PG&E Transmission Lines

PG&E lines traverse the Plan area from north to south. PG&E maintains strict control regarding use of a 25-foot wide easement underneath the lines and surrounding the towers that support high-voltage lines. Buildings may not be constructed within the right-of-way, and the ground may not be filled if it reduces the existing line's clearance to less than 32-feet. A representative of PG&E reports that it should be possible to either relocate or raise the existing transmission lines and towers. It is not anticipated that they would be relocated or raised at this time.

Land Use Assumptions

Estimated (based on APN maps) proposed land uses are the following:

- 16.84-Acres Low Density Residential
- 67.86-Acres Medium Density Residential
- 59.34-Acres Medium High Density Residential
- 5.03-Acres High Density Residential
- 18.32-Acres Commercial (Retail, Office and Train Station)
- 16.26-Acres Parks and Open Space
- 23.06-Acres Miscellaneous Roads, Easements, etc.

8.3 PUBLIC UTILITIES

Storm Drainage

Existing Conditions

The Plan area contains various topographic and land use conditions that define existing drainage patterns:

- Willow Street and Enterprise Drive Area

These streets contain city-owned storm drainage lines that convey run-off from fronting developed parcels to the southern limit of the Plan area where they enter the Alameda County Flood Control and Water Conservation District (ACFC) Line F-1. These lines extend to the west in Enterprise Drive to receive runoff from an area outside the limits of ACFC's planned tributary drainage shed to Line F-1. Because the overall area is not built-out to the density that ACFC had planned for, this additional area is accommodated in the regional drainage system. However, as the area develops, designers must provide hydrologic and hydraulic calculations to the City of Newark that demonstrate that runoff to the F-1 channel does not exceed ACFC's design parameters or the capacity of the channel.

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- Undeveloped Areas

The undeveloped areas are mostly low-lying and do not freely drain to the bay, but in large storm events, release to channels in the northwestern and southwestern corners of the Plan area. Areas in the west discharge predominantly to a ditch that flows south to an existing channel at the southwestern corner of the Specific Plan area. The northern portion of the undeveloped area discharges to a channel in the northwestern corner of the Specific Plan area.

The portion of this Plan area that sits north of the Dumbarton Rail Corridor is low lying and does not freely drain. During large storm events, it currently releases to the northwest into Willow Street, where it eventually enters the City's storm drainage system that serves the adjacent residential development area to the north. This system has been sized to accommodate drainage from the tributary Plan area in its developed condition.

Flood Zone

Federal Emergency Management Agency (FEMA) defines Zone AE as areas below the base flood elevation which is elevation 11 (NAVD 88) for this area which is equivalent to an elevation of 8.24 above MSL (NGVD29). Portions of the area west of the existing Hickory Street right-of-way reservation are below the base flood elevation and have been mapped as such by FEMA's National Flood Insurance Program (NFIP).

The City of Newark has adopted flood elevation standards for lands within special flood hazard areas as defined by FEMA (Section 15.40.51 Newark Municipal Code). Among other things, these standards require building pads of all occupied structures to be a minimum of 11.25-feet above MSL (NGVD29) with the finished floor being a minimum of 6-inches above the building pad. In addition, the City of Newark requires that the top of curb grades for residential streets must be no less than 10-feet above MSL throughout the City (Section 16.08.06 Newark Municipal Code). Existing Willow Street and Enterprise Drive would be exempt from this requirement as well as new streets that must be less than an elevation of 10-feet to conform to existing streets.

Proposed Drainage

The Plan area will be graded to conform with the parameters set forth by the City of Newark and in the Alameda County Flood Control and Conservation District's Hydrology and Hydraulics Summary for Western Alameda County. The grading design should minimize the distance between any particular area and its outfall location. This will in turn serve to allow for the lowest possible elevations and minimize fill requirements at the northern and northeast portions of the Plan area. It is expected that approximately 500k - 1 million cubic yards of fill material will need to be imported to the site to comply with City requirements.

The Conceptual Grading and Drainage Plan presented in Exhibit 8.2 and described in the following sections illustrate one potential grading scheme that meets these criteria. Final grading and drainage patterns may vary from the concepts

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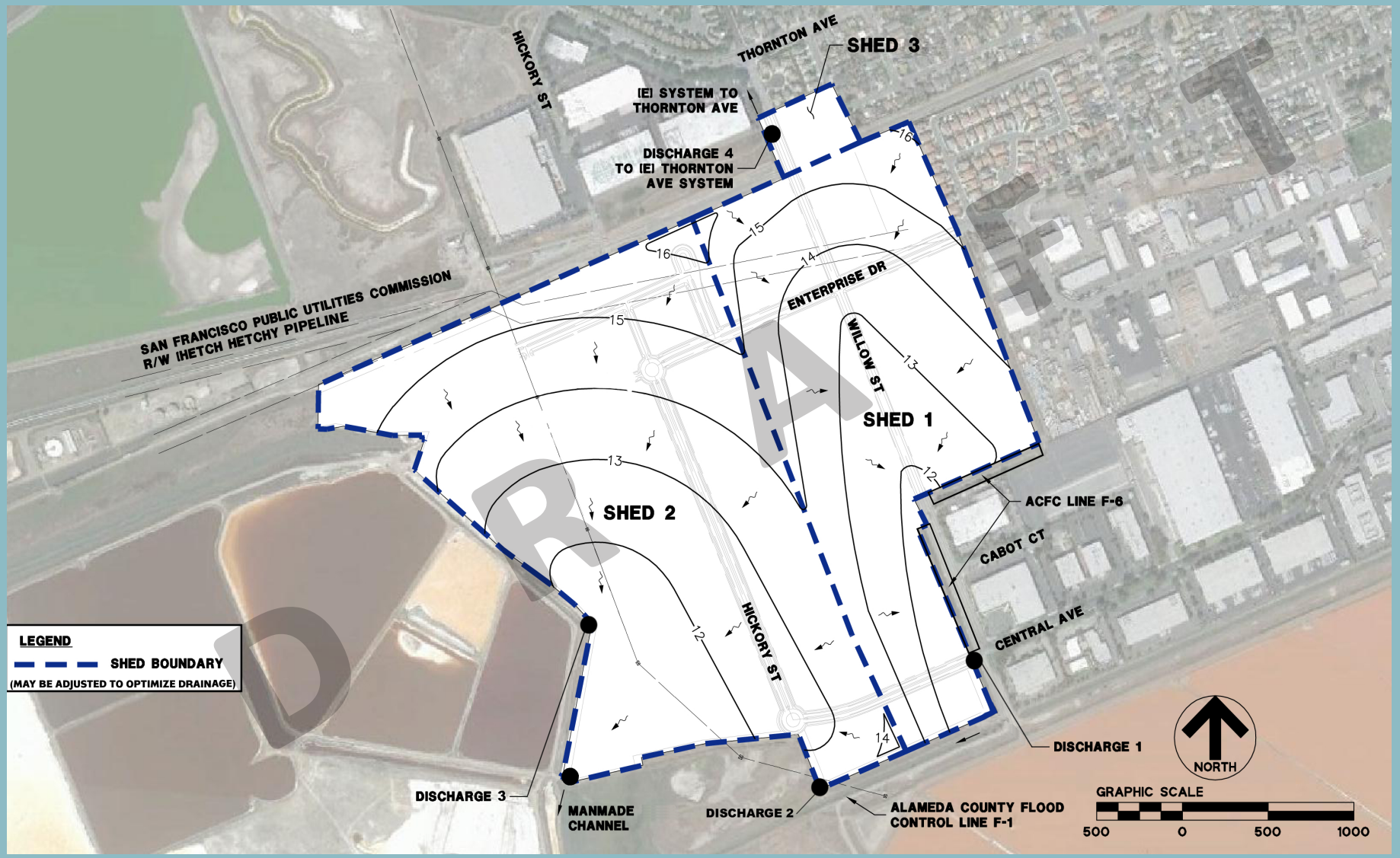

Exhibit 8.2 - Conceptual Grading / Drainage Plan
NOTE: Nothing in this Plan is intended to suggest that the Grades/Elevations of existing Willow Street and Enterprise Drive would change

presented here. Nothing in this plan is intended to suggest that the grades/elevations of existing Willow Street and Enterprise Drive would change.

Proposed Drainage Sheds

The Conceptual Grading and Drainage Plan would create three distinct drainage shed areas within the Plan area as follows (see Exhibit 8.3, Conceptual Drainage/Shed Plan):

Shed 1:

- F-1 East Drainage Area (South of DRC)

The conceptual grading plan anticipates that the drainage patterns in the eastern portion of the Plan area, south of the DRC, will generally match those planned for in ACFC's drainage map for Line F-1. The area is currently largely undeveloped and ACFC's planning anticipated a composite run-off coefficient of 0.64, so there may be available capacity within the Line F-1 channel. Actual available capacity within the channel should be confirmed during development of the final plans, and the existing outfall into Line F-1 should be assessed to verify that it is adequately sized and in adequate condition to serve the area at buildout. The exact location of the watershed boundary between the east and west drainage areas will be adjusted and designed to utilize all available capacity within the F-1 channel and to accommodate phasing within the Plan area. Areas that would produce storm water runoff that extends the capacity of the F-1 line will be included in Shed 2.

Lands north of the San Francisco Public Utilities Commission (SFPUC) right-of-way will likely require crossings of the Hetch-Hetchy Pipeline. Prior to final design, the pipeline must be potholed at any proposed crossings to verify that they are at a sufficient depth to allow the storm drainage lines to pass over them. If they are not at sufficient depth, additional fill material may be required to raise the area.

Shed 2:

- West Drainage Area

The conceptual grading plan intends that the westerly portion of the Plan area drain to an existing man-made channel.

As in Shed 1, a portion of this shed lies north of the SFPUC right-of-way and any proposed crossings would have to be similarly investigated and potentially mitigated with fill material.

Shed 3:

- Willow Street Drainage Area

The portion of the Plan area that is north of the DRC will be tied into the existing City-owned lines in Willow Street. When the final plan is prepared, the City-owned lines will need to be analyzed to ensure that they can accommodate the increased run-off. Detention may be needed so that post-project peak flow rates to not exceed pre-project peak flow rates if the system is not capable of accommodating additional flows.

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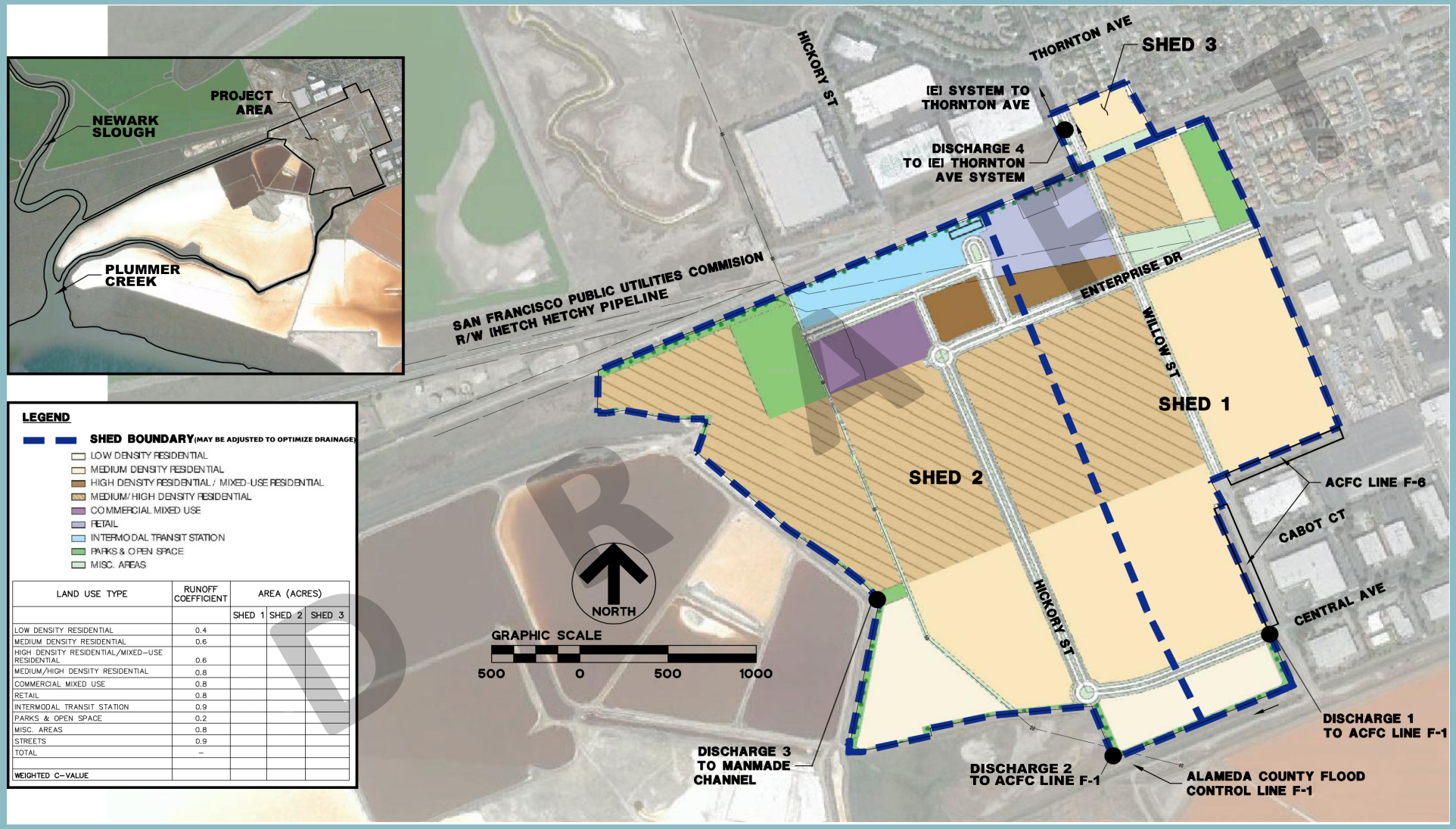

LAND USE TYPE	RUNOFF COEFFICIENT	AREA (ACRES)		
		SHED 1	SHED 2	SHED 3
LOW DENSITY RESIDENTIAL	0.4			
MEDIUM DENSITY RESIDENTIAL	0.6			
HIGH DENSITY RESIDENTIAL/MIXED-USE RESIDENTIAL	0.6			
MEDIUM/HIGH DENSITY RESIDENTIAL	0.8			
COMMERCIAL MIXED USE	0.8			
RETAIL	0.8			
INTERMODAL TRANSIT STATION	0.9			
PARKS & OPEN SPACE	0.2			
MISC. AREAS	0.8			
STREETS	0.9			
TOTAL	–			
WEIGHTED C-VALUE				

Exhibit 8.3 - Conceptual Drainage / Shed Plan

Outfalls and Detention Requirements

Shed 1 - F-1 East Drainage Area (South of DRC)

The F-1 East Drainage Area will generally connect to existing City of Newark facilities. One or two new outfalls may be required. An assessment will need to be done to determine if regulatory permitting would be required. Detention will not be needed within this area as long as peak discharge rates do not exceed those assumed by ACFC and the City of Newark when planning the receiving facilities.

Shed 2 - West Drainage Area

The Western Drainage Area will require an assessment be done to determine if regulatory permitting would be required.

ACFC requires that primary drainage systems (those serving a drainage area between 50-acres and 10-square miles) convey the 15-year storm, and secondary systems (those serving a drainage area less then 50-acres) convey the 10-year storm event. In addition, a number of different hydraulic conditions must be checked.

Shed 3 - Willow Street Drainage Area

The Willow Street Drainage Area will connect to existing City of Newark facilities and require no new outfalls. Detention will not be needed within this area as long as peak discharge rates do not exceed those assumed by ACFC and the City of Newark when planning the receiving facilities.

Grading

The drainage systems within the Plan area will be designed so that lots, streets and parks will be graded to convey surface runoff to new inlets within the development, which will then transport the storm water through underground piping networks to discharge outlets. All new public and private streets are to be designed to comply with the requirements of the City of Newark. The proposed grading must conform to FEMA and City of Newark requirements where applicable. Final grading plans will reflect final sizing and routing of primary and secondary drainage conveyance lines, which will in turn be a function of the final land plans. Parks or other open areas that are incorporated into the final plan may not need to be filled to the elevations depicted in the conceptual plan, but any depressed area may be subject to inundation during storm events. Final grading plans will be subject to review and approval by the City.

Due to the significant quantity of fill material required to raise elevations across the site, a long-term staged import fill operation may be needed, which may include the need for interim rough grading and stockpiling plans. The rough grading and stockpiling plans should be flexible enough to respond to changing conditions related to individual project identification and phasing, different property ownerships, access and material availability. The plan will thus need to be prepared in conjunction with geotechnical and environmental investigations and recommendations for fill materials, import sources, earthwork guidelines, settlement monitoring, on-site soil remediation and other criteria.

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The following polices related to Stormwater Management Practices will be included as a part of the General Plan Amendment for the Specific Plan project.

Stormwater Management Policies

Prior to approval of Final Maps or development projects within the Specific Plan, a Drainage and Flood Management Master Plan shall be prepared for the Plan area or portions thereof if implementation is to be phased. The Master Plan shall be prepared in collaboration with Alameda County Flood Control and Water Conservation District, the City of Newark Public Works Department, the City of Newark Planning Department, and the City of Newark Parks and Recreation Department. The Plan shall:

I-6: Document the overall drainage and flood control concept to be employed within the Plan area to ensure adequate and safe storm flows and to minimize flooding.

I-7: Address funding and responsibility for long-term maintenance of the flood control improvements.

I-8: Demonstrate how the natural hydrologic functions of the site are integrated with the storm drainage system and the overall site design, to the maximum extent feasible.

I-9: Identify how improvements can be phased for each development area.

I-10: Continue the Alameda County Flood Control and Water Conservation District Drainage Area Fee Program to fund flood control improvements in the Plan area.

I-11: Ensure that the new development provides needed drainage and flood protection improvements in proportion to a project's impacts, to assure an equitable distribution of costs to construct and maintain drainage infrastructure.

I-12: Minimize total impervious areas by allowing narrow road sections and shared driveways, and using pervious materials on driveways, gutters, and off-street parking areas, where appropriate to reduce runoff.

I-13: All new public facilities shall conform to the Plan area details.

I-14: The design of storm water collection and conveyance systems will minimize erosion and other potential problems for on-site and adjacent properties.

I-15: The residential design includes active and passive open spaces, thereby helping to minimize increases in impervious surfaces and associated site runoff.

I-16: Educational flyers and other materials will be supplied to the residential users to increase their understanding of water quality and best management practices.

I-17: The project will include storm drain system signs or stenciling with language to discourage illegal dumping of unwanted materials into the catch basins and field inlets.

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I-18: The commercial uses will include on-site sediment and oil filtering devices for the pretreatment of the major paved areas.

Storm Water Quality

During Construction

The project will implement Best Management Practices (BMPs) to ensure that stormwater quality is protected during the construction period and to satisfy all requirements under Provision C.6 (Construction Site Control) of the City of Newark Municipal Regional Stormwater NPDES Permit (MRP) issued by the California Regional Water Quality Control Board – San Francisco Bay Region. Construction BMPs include the erosion control measures, sediment transfer reduction measures and dust control measures. Training protocols for the site contractor(s) and personnel will help ensure proper construction Best Management Practices prior to construction activity. In addition, the site developer will retain a construction manager familiar with National Pollutant Discharge Elimination System (NPDES) permit requirements to monitor construction activities. These measures would reduce potential construction impacts to water quality.

Post Construction Water Quality

Each development are within the Plan are will responsible to meet the requirements of Provision C.3 (New Development and Redevelopment) of the MRP, Alameda Countywide Clean Water Program and City of Newark design criteria, and other applicable local, state and federal requirements. Under Provision C.3, Low Impact Development (LID) standards require infiltration, storage, reuse, detainment, and biotreatment of up to 100% of the project's stormwater runoff. LID practices to accomplish these requirements include the use green roofs, permeable pavement systems and other pervious surface treatments, rain barrels and cisterns, preservation of open space, and biotreatment through rain gardens, bioswales, and bioretention units. LID requirements apply to private property and public streets within the Plan area. Site design for each development area will be highly dependent on the treatment measures utilized

Implementing storm water treatment measures for run-off from backbone streets will be the responsibility of the project that installs the backbone street. In the event that phasing of projects within the Plan area requires some projects to install backbone improvements beyond their particular project frontage, additional right-of-way may be needed along those backbone streets to accommodate necessary storm water treatment measures. Additional right-of-way needs will be addressed with final phasing and backbone street designs.

The project will meet all requirements of the State of California Model Water Efficient Landscape Ordinance and be consistent with local Bay-Friendly Landscaping Practices and Principles. The project will need to use drought-tolerant landscaping wherever possible. The project will also install efficient irrigation systems, such as drip irrigation and automatic irrigation systems to minimize excess runoff.

The project developer shall provide information and instructions to future residents before moving into their new homes regarding water quality, Best Management

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Practices, and pollution prevention. Each project should include requirements for the Homeowners Association and Commercial users to implement the following measures within any common landscaping and open space areas:

- Material Use Controls, which include good housekeeping practices (storage, use and cleanup) when handling potentially harmful materials, such as cleaning materials, fertilizers, paint, and where possible using safer alternative products.

- Material Exposure Controls, which prevent and reduce pollutant discharge to storm water by minimizing the storage of hazardous materials (such as pesticides) on site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

- Material Disposal and Recycling, which includes storm drain system signs and stenciling with language to discourage illegal dumping of unwanted materials.

The project shall include a prohibition on the dumping of waste (solid waste, liquid, and yard waste) into storm drain systems, open space areas, and creeks.

The project shall include provisions for private street, parking lot and storm drain maintenance activities. These activities control the movement of pollutants and removal of them from the pavement through catch basin cleaning, storm drain flushing, street sweeping, and by regularly removing illegally dumped material from the project site.

The commercial operators shall be responsible for the inspection, maintenance and repair of sediment and oil filtering devices for the pretreatment of the major paved areas.

Potable Water

Water Supply and Demand

Water to the Plan area is supplied by the Alameda County Water District (ACWD), which also serves water to the Cities of Fremont and Union City. ACWD's three primary sources of water supply are: 1) the State Water Project (SWP); 2) San Francisco's Regional Water System; and 3) local supplies. The SWP and San Francisco Regional Water Supplies are imported into the District service area through the South Bay Aqueduct and Hetch-Hetchy Water System, respectively. Local supplies include fresh groundwater from the Niles Cone Groundwater Basin (underlying the District service area), desalinated brackish groundwater from portions of the groundwater basin previously impacted by seawater intrusion, and surface water from the Del Valle Reservoir south of Livermore. The primary source of recharge for the Niles Cone Groundwater Basin is percolation of runoff from the Alameda Creek watershed. To a lesser degree, a portion of ACWD's SWP supplies are also used for local groundwater percolation. Infiltration of rainfall and applied water within the ACWD service area also contribute to local groundwater recharge.

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Fifteen million gallons of storage is provided by an existing potable water reservoir located in the Coyote Hills at approximately elevation 200 for the City of Newark and Union City portions of the District's lower pressure zone ("Zone 1"). The District expects that this volume, together with other existing and planned Zone 1 water storage will be sufficient to accommodate all projected growth within Zone 1.

To comply with the provisions of Senate Bills 610 and 221, which both passed the California State Senate in 2001, ACWD has prepared a Water Service Assessment that verifies that the project is consistent with their planning assumptions and is included in ACWD's forecast and water supply planning.

Water Treatment and Distribution System

ACWD operates two treatment facilities with a capacity totaling nearly thirty (30) million gallons per day (MGD), a Blending Facility with a capacity of fifty (50) MGD, and a Desalination Plant with a capacity of five (5) MGD. The water received directly from the State Water Project, which comes from the Sacramento/San Joaquin River Delta via the South Bay Aqueduct, is treated at these plants before being delivered to customers, primarily in Central and Eastern Fremont. Most of the water purchased from the San Francisco Water Department that is taken directly out of the Hetch-Hetchy System is blended at the District's Blending Facility with water from local groundwater aquifers, though some customers receive San Francisco Regional water directly. San Francisco Regional Water and water recovered from local groundwater aquifers requires no treatment.

Water for the Specific Plan is delivered through a 16-inch transmission main in Central Avenue at the south end of the site that creates a loop by extending up Willow Street and connecting to an existing 12-inch main in Enterprise Drive. There are also 16-inch transmission mains stubbed at the south end of Hickory Street and at Willow Street, just north of the DRC tracks. The existing looped system in Central Avenue and Enterprise Drive will be extended westerly to include Hickory Street. In order to serve the planning area, a 16-inch connection between the transmission mains south and north of the tracks may be required to maintain adequate pressure and redundancy in the system.

Within the Specific Plan, new projects will be required to install distribution mains within the street network to serve fire and domestic water needs. Final sizing of any particular line will be subject to modeling of the system that must rely on water use parameters of any particular project or group of projects. It is expected that new distribution mains in backbone streets will be 10-inch or 12-inch in diameter and distribution mains in local streets will be 8-inch or 10-inch in diameter. A water model will need to be performed based on final land plans, building types, water demands, fire flow requirement, and phasing, to establish final, actual line sizes in each street and to determine whether the 16-inch connection between mains south and north of the railroad tracks describe above will be required.

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The following polices related to Potable Water will be included as a part of the General Plan Amendment for the Specific Plan project.

Potable Water Policies

I-19: Expand the water distribution system such that it is adequate to serve new development in the Plan area.

I-20: Work with the Alameda County Fire Protection District to determine required fire flow.

Water Conservation Policies

To reduce water consumption, require the installation of:

I-21: Low-flow showerheads, faucets, and toilets.

I-22: Low-flow irrigation systems in public rights-of-way, public parks, and recreation areas.

I-23: Drought-tolerant plant palettes in all new streetscape areas.

To reduce water consumption, recommend the installation of:

I-24: Low-flow irrigation systems in private landscaped areas.

I-25: Drought-tolerant plant palettes in private landscaped areas.

Recycled Water

Although ACWD does not currently have a recycled water supply, the District's long-term supply strategy includes a recycled water program to be implemented by 2020, which will serve non-potable demands (e.g. landscape irrigation and industrial process water). A potential source of recycled water is from a joint project with Union Sanitary District (USD), which currently discharges the majority of wastewater it treats to the San Francisco Bay via the East Bay Dischargers Authority pipeline facilities. Potentially, recycled wastewater would originate at either the Alvarado Wastewater Treatment Plant, approximately 5-miles north of the Specific Plan, or at a newly constructed satellite recycled water treatment facility in southern Fremont at USD's Irvington Pump Station. Given the lack of any difinitive plans to bring recycled water mains to the area, the high density nature of the project, and the lack of large, concentrated open space areas, it is uncertain if recycled water will be available for the project. However, landscape irrigation systems should be designed and installed to purple-pipe standards, and initially connected to the potable system so that they may be switched over if recycled water becomes available.

Sanitary Sewer and Wastewater Management

Wastewater Collection System

The City of Newark is within the service boundaries of the Union Sanitary District (USD), which also serves the Cities of Fremont and Union City. The District owns and maintains a system that consists of gravity and pressure pipes, pumping facilities, detention facilities and the Alvarado Treatment Plant, which is located at the west end of Benson Road in

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Union City, north of the Plan area.

The Specific Plan area is primarily served by a 36-inch trunk gravity main in Willow Street (Willow Street 36-inch), which carries wastewater flows from the southwest portion of Newark, north through the Plan area, across (beneath) the Hetch-Hetchy Pipeline and SPRR and into parallel 36-inch and 42-inch trunk gravity main that flows to the west in the Southern Pacific Railroad right-of-way (SPRR Mains). The SPRR Mains combine into a single 48-inch gravity sewer main that continues to the Newark Pump Station near the northwest corner of the Plan area. Wastewater is pumped from the station through twin 33-inch force mains to the Alvarado Treatment Plant, approximately 5-miles to the north. USD last updated their Master Plan in 2000 and it indicated capacity deficiency in the 42-inch trunk main in the Plan area, just east and west of Willow Street for build-out conditions.

The Newark Pump Station recently underwent an $11-Million expansion and upgrade project and consists of six submersible pumps. The station is expected to be able to accommodate any increases in flow rates that might occur within the District for the foreseeable future. USD owns land adjacent to the station that it can utilize to construct a wastewater detention facility, in the event that wastewater flows ever exceed the capacity of the pump station. The long term plan is to add a third force main between the Newark Pump Station and the Alvarado Treatment Plant.

In addition to the Willow Street 36-inch, there is a 14-inch gravity line in Enterprise Drive (Enterprise Drive 14-inch) that flows from east to west before turning to the northwest to run diagonally across the FMC property. It then continues to the west adjacent to the south edge of the Hetch-Hetchy easement before turning north to cross under the Hetch-Hetchy Pipeline and enter the Newark Pump Station. This line is in disrepair, is shallow and only serves as a redundant line to the Willow Street 36-inch and the SPRR 42-inch, in the event of excessive surcharging in those lines . The Enterprise Drive 14-inch and the Willow Street 36-inch are the only two sewer lines near the Plan Area to cross the Hetch-Hetchy Pipeline.

Dual 33-inch force mains, owned and operated by the East Bay Dischargers Authority (EBDA), traverse the site generally from south to north. They are at a depth of approximately 5-feet of cover and are located within the existing right-of-way for Hickory Street between the Torian and Ashland holdings to the east and the Cargill property to the west, then follow FMC's property southern boundary before heading northerly again. The force mains do not serve the Plan area but rather carry wastewater from the Irvington Pump Station, near the Fremont Boulevard Interchange at Interstate 880 to the Newark Pump Station. These pipes are sensitive to movement and its joints are subject to failure should heavy construction occur over or in the vicinity of the pipeline. Because they are a critical backbone infrastructure element serving areas upstream (notably the City of Fremont) and due to their condition, care must be taken so that the implementation of the Specific Plan does not compromise their structural integrity, both in the long term and in the short term during construction. In general, additional structural

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mitigation measures may need to be installed at selected locations to accommodate any crossings of the pipes by heavy equipment that might be needed during construction, or traffic crossings in the long term. Roadways should be planned to run parallel with an offset that would protect the pipes or designed to mitigate the effects of traffic loads. Pipes should be field surveyed to verify their exact location before final alignments of streets are established. It is anticipated that an average of 5-feet of fill material will need to be placed over the pipes to raise adjacent development areas out of the flood plain and to comply with City of Newark Flood Elevation and minimum street elevation standards.

The City of Newark may consider reducing their standards in this area to lessen impacts to the pipes. For planning purposes, this amount of fill is not expected to be a problem, but no fill should be placed over the pipes without detailed study and recommendations from a qualified geotechnical engineer. Similarly parking lots should be installed directly over the pipes only with recommendations from a qualified geotechnical engineer.

Alternately, the project proponents can explore the option of replacing the EBDA lines in a new alignment within Hickory Street. This option would require detailed study and proponents would need to demonstrate to the Union Sanitary District and EBDA that the risks inherent in making new connections to active, non-redundant, major wastewater force mains will be adequately mitigated.

The Specific Plan proposes to rezone the area to allow for the development of up to 2,500 residential units, 20 gross acres of commercial space (including the Transit Station area) and approximately 16-gross acres of parks and open space. USD must plan for approximately a 50% increase in wastewater flows from the planning area under the new zoning than they had been planning for with the land as zoned in the City of Newark General Plan. Coupled with the line deficiencies identified in the 2000 USD Master Plan, it is anticipated that improvements may be required to both the 36-inch gravity trunk sewer in Willow Street and possibly the 42-inch gravity trunk sewer in the SPRR.

The redundancy that is provided by the Enterprise Drive 14-inch sewer should be maintained after development of the Specific Plan. This could be done either by saving the Enterprise 14-inch sewer or providing for an auxiliary redundant line that might better fit the proposed Specific Plan street network. The Enterprise 14-inch crossing of the Hetch-Hetchy Pipeline should be utilized in any case. Furthermore, any new or upgraded crossing of the Hetch-Hetchy Pipeline will require a permit from the San Francisco Public Utilities Commission.

The Newark Pump Station recently underwent an $11 Million upgrade and it is anticipated that no further upgrades will be needed to serve the proposed Plan. The force mains that convey flow from the station to the Alvarado Treatment Plant may be undersized for the built-out plan. An additional line may be needed or, alternatively, an equalization basin near the pump station may be constructed and utilized to detain wastewater during peak times. The District has land

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near the Newark Pump Station for this purpose, but has not constructed a basin. Required improvements, schedules for their implementation, and funding options will be addressed in the Union Sanitary Master Plan, which is scheduled for publication in June, 2011.

In general most new connections to the existing wastewater collection system are anticipated to be made to the Willow Street 36-inch gravity main. A new 12-inch gravity sewer main may be required to provide service to the areas located west of the FDBA mains to avoid potential conflict. There will be at least one connection made north of the Hetch-Hetchy Pipeline before the line crosses the Dumbarton Rail Corridor. Connection points south of the Pipeline will be a function of final project designs and phasing. There is no particular limit to the number of connections that can be made, but because of inherent expense associated with connecting to trunk sewer mains, project proponents will want to plan projects so as to minimize the total number of connections.

The 10-inch line that crosses both the DRC and the Hetch-Hetchy Pipeline at the northwest corner of the Planning Area, as mentioned above, will need to be maintained for redundancy. Direct connections to this line or a new trunk sewer in this location may be necessary to service the Western most portions of the Plan area to avoid potential crossing conflicts with the existing EBDA lines and to minimize the elevation of the finished grades. Project proponents considering direct connections to this line will need to verify its depth and its condition with a video survey.

Treatment and Discharge

The treatment plant is rated to treat and discharge 30 Million Gallons per Day (MGD) and is currently treating an average peak flow of 25.3 MGD in dry weather. Infiltration and inflow is not a significant issue within the District. The District has a National Pollutants Discharge Elimination System (NPDES) permit with the California State Water Board that allows discharges of up to 33 MGD.

The following polices related to Wastewater Management Practices will be included as a part of the General Plan Amendment for the Specific Plan project.

Wastewater Management Policies

I-26: Expand the wastewater collection system such that it is adequate to serve the new development in the Plan area.

I-27: The Union Sanitary District is scheduled to begin updating their Sewer Master Plan in the Fall of 2010, with a document available by June of 2011. As part of the updating process, USD will gather information on planning activities at each City within its District (Fremont, Newark and Union City) to help guide the Master Plan. It is important that the City of Newark continues to engage in this process and is forthright with respect to the Specific Plan, so that the Sewer Master Plan can provide concrete documentation of the upgrades required to implement the Specific Plan.

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The following polices related to Solid Waste Management Practices will be included as a part of the General Plan Amendment for the Specific Plan project.

Solid Waste Management Policies

I-28: All new developments shall participate in all solid waste source reduction and diversion programs in effect at the time of the issuance of building permits.

I-29: All projects in the Plan area shall comply with the City's Construction and Demolition Debris recycling regulations by preparing a Waste Management Plan and diverting at least 50 percent of all construction and demolition debris.

I-30: Restaurants should use on-site composting systems if a food waste recycling program is not available.

I-31: Trees, stumps, vegetation, and soils associated with excavation and land clearing shall be composted, recycled, or reused, except when soils may be contaminated with hazardous materials, or where other conditions make this infeasible as determined by the City.

8.4 NON-MUNICIPAL UTILITIES

Natural Gas and Electricity

Existing power lines extend throughout the Plan area. These lines have been installed to serve the mix of industrial uses that first located in this area of Newark. As a result, the existing power grid consists of 21 kilovolt lines that have sufficient capacity to serve all likely development scenarios.

For natural gas supply, it is likely that new development within the Plan area will be served by an existing low-pressure two-inch line that runs along Willow Street from Central Avenue to just south of Enterprise Drive.

Telecommunications

Communications within the Plan area are currently served by overhead AT&T lines on Enterprise Drive and underground lines on Central Avenue. In addition, fiber-optic cable exists along part of Willow Street. AT&T anticipates that it will continue to expand its fiber-optic network on an as-needed basis, so it can be anticipated that full "high-end" phone and data services should be available to meet the needs of future development within the Plan area.

There are no existing Comcast facilities within or immediately adjacent to the Plan area. However, according to a company representative, Comcast is very interested in providing new development in this part of Newark with a full range of entertainment and communications services.

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The following polices related to Non-Municipal Utilities will be included as a part of the General Plan Amendment for the Specific Plan project.

Non-municipal Utilities Policies

I-32: Construction/Improvement Plans should show all existing service corridor and utility easements to ensure proper inter-agency coordination prior to issuing any grading permits. Plans should show the location and dimensions of each pipeline within the easement or right-of-way. Coordinate with:

- Chevron to map all active and abandoned petroleum product pipelines.
- PG&E to map all active natural gas pipelines.
- City of Newark Public Works Department to map all stormwater pipelines.
- Union Sanitation District to map all sewer pipelines.
- Alameda County Water District to map all water pipelines.
- Work with Alameda County Water District to provide appropriate levels of environmental review, if the U.S. Bureau of Reclamation water laterals will be impacted by proposed development.
- Coordinate with PG&E to minimize impacts on the natural gas pipelines, electrical transmission towers and power lines in and near the Plan area.

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9.1 OVERVIEW

9.2 CONSISTENCY WITH CITY GOALS & POLICIES

9.3 IMPLEMENTATION POLICIES

9.4 IMPLEMENTATION METHODS AND PROGRAMS

- PLAN AREA PROJECTS - PROCESSING & APPROVAL
- PLAN MODIFICATIONS
- ALLOCATIONS & TRANSFERS
- DEVELOPMENT PHASING
- ALLOCATION OF SPECIFIC PLAN AREA COSTS
- DEVELOPMENT & INFRASTRUCTURE FINANCING

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9.0 IMPLEMENTATION

9.1 OVERVIEW

The Specific Plan is a State approved document that establishes regulations and guidelines that will implement the vision of the Plan. The Specific Plan is also a tool utilized by the City to further its major community goals and objectives. All development projects in the Plan area are required to be consistent with the Specific Plan.

9.2 CONSISTENCY WITH CITY POLICIES & PROGRAMS

This Specific Plan furthers two of Newark's Major Community Goals, pursuant to the City's General Plan.

Goal #1 Maintain a desirable quality of life in the community through preservation of the small town neighborhood atmosphere and the promotion of balanced land use that takes into account the need for economic diversity and future financial well being of the city.

This Specific Plan will enhance the community by adding amenities available to the community, including parks and open space, and by creating a gathering spot for residents in a walkable scale environment (Program 4). The Specific Plan will also provide for the development of land which is currently vacant and under utilized in line with the General Plan's Community Goals (Program 7). Finally, the Plan will provide for a mix of uses, including retail, commercial, and residential opportunities, in close proximity to transit (Policy A). At the same time, the Plan area will not result in undue burdens upon the City as the Plan makes provisions for any Plan area increases in services, utilities and traffic through the environmental review process (Goal 1, Program 5).

Goal #2 Promote high-quality development that establishes the City's character as unique from other cities in the Greater Bay Area.

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The Specific Plan process offers the City of Newark the opportunity to lay out a vision for its community and to establish specific guidelines to ensure that the intent is correctly implemented. Through this process, the Specific Plan will integrate with and compliment existing neighborhoods while creating a new community with a distinctive character offering enhanced opportunities to live, work and play.

9.3 IMPLEMENTATION POLICIES

Implementation Policies

IM-1: The City of Newark will adopt the Specific Plan by Resolution. Concurrent entitlements to implement the Specific Plan shall include a Specific Plan Environmental Impact Report (EIR), a General Plan Amendment, a Zoning Amendment, an Affordable Housing Program, and all other governing documents necessary for consistency with the City's General Plan.

IM-2: The Specific Plan, the Plan's "Environmental Impact Report", plus associated documents, identify specific policies, regulations, guidelines and mitigation-measure alternatives, available and applicable to the physical development of the Plan area.

IM-3: Illustrative examples and written descriptions are utilized to convey intent. Details and graphic examples throughout the Plan cover topics such as; design guidelines, landscaping, street layout and streetscape design, building setbacks and size, common area pedestrian links, parks, trails, and public gathering places.

IM-4: The Specific Plan will encourage career opportunities for area youth in the construction industry by requesting developers employ local apprentices who are enrolled in California State certified apprenticeship programs.

IM-5: The Specific Plan will encourage contractors to pay area standard wages to construction workers on projects enabled by the plan. Developers will be encouraged to submit a plan on ow they will meet a goal of having at least 30% of the construction work force from the Tri-City region.

Affordable Housing Implementation Strategy

The Specific Plan will comply with the Affordable Housing elements required by the City of Newark. Implementation of the Plan area will require adoption of an Affordable Housing Program that provided for the funding, and/or development of "affordable units" - totaling 15% of the total number of dwelling units.

The Specific Plan Affordable Housing Program alternatives will likely include a combination of the City's existing requirements, plus new alternatives that better address the City's housing needs.

The following are possible elements of the Affordable Housing Program:

Inclusionary units;

- Affordable units provided by the development within the Plan area.

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In-Lieu Fees;

- In-Lieu fees paid to the City to be utilized for the delivery of Affordable Housing Units.

- In-lieu fees are not an option as of right for meeting the requirements of the Affordable Housing Program.

Off-Site provision for Affordable Housing;

- Off-site alternatives might include the rehabilitation of existing off-site structures, and/or the new construction of off-site units.

9.4 IMPLEMENTATION METHODS AND PROGRAMS

Plan Area Projects - Processing and Approval

The California Environmental Quality Act (CEQA), requires a process of thorough review and study of the environmental impact of a project, project alternatives and feasible measures to mitigate the impacts of a project prior to its approval by a public agency. This Specific Plan and its Environmental Impact Report (EIR), complies with that process. After public review, approval and adoption of the Specific Plan and its EIR, the Plan is deemed to have complied with CEQA. An Applicant for a specific project within the Specific Plan area will then process the proposed project according to the requirements of the State and City's Subdivision Map Act and/or the City's Zoning Ordinance, as amended. The Map Act process (which applies to specific types of land uses) involves the processing of both Tentative and Final Maps for landowners wishing to subdivide legal parcels. The Zoning Ordinance governs the permissible uses within a given zoning area and certain building controls.

As Projects are submitted to the City and processed accordingly depending on the specific for each land use category, which can be through the Subdivision Map Act and/or Zoning Ordinance. Proposed projects within the Specific Plan area will be processed subject to, and consistent with, the concepts set forth in this Specific Plan. If a project is consistent with the EIR certified Specific Plan and Zoning Ordinance, as amended, no further review under CEQA will be necessary.

In the case of this Specific Plan, all Tentative and Final Maps will be processed as set forth in Title 16 of the City of Newark Municipal Code and determinations made thereunder will be consistent with the standards and guidelines enumerated in this Specific Plan document. Any permits needed under the Zoning Ordinance shall be processed as set forth in Title 17 of the City of Newark Municipal Code.

Plan Modifications

All actions or decisions or Plan modifications which are necessary solely to implement the intent and character of this Specific Plan are considered minor in nature. The Planning Commission will have authority to approve all such minor actions or decisions or modifications to the Specific Plan within the context and guidelines contained within this Specific Plan document. Any major modifications proposed that go above and beyond implementing the intent and character of this Specific Plan, would require a subsequent EIR or supplement to the Specific Plan EIR, such as an increase

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in density above or beyond that studied in the EIR. Minor modifications do not require a formal Plan amendment, e.g alterations to the boundaries of planning areas which do not result in a greater than 20% changes in the acreage assigned to an area.

Allocations and Transfers
Provisions for density and residential unit allocation, and provision for future density and unit transfers, have been anticipated, addressed and approved by this Specific Plan in Chapter 4. Such transfers are subject to the specific terms and conditions outlined in this Plan and its associated documents.

Development Phasing
The Specific Plan in intended to be built over time and in various phases. Phasing is a decision that involves many considerations, some of which are: a) timing of available land, b) market demand for various product types, and, c) availability of financing and funds for the installation of infrastructure. There are no requirements within this Specific Plan for parcels to be developed in any particular order so long as supporting infrastructure is available, or made available, to accommodate new development. The intent of the Specific Plan is to allow each owner to develop their Parcel or Parcels independent of other owners and independent of any regulations imposed upon a particular owner or owners.

This Specific Plan has been created to allow for various alternative methods of phasing. Studies have been completed that identify both existing and future capacity for services and utilities necessary to develop the Plan area. At the time of individual project consideration, during the mapping and permitting process, the project applicant will utilize the studies and other background information in its proposal for development. The applicant will then work in conjunction with the City and other responsible parties, to ensure that the utilities and backbone infrastructure necessary to serve the proposed development will be in place, consistent with this Specific Plan.

Allocation of Specific Plan area Costs
Costs associated with certain common area improvements, certain common area amenities, and other specific items to be constructed as part of the Plan, will be proportionately allocated by the property owners within the Specific Plan area among themselves, in a multi-party cost sharing agreement and based upon a method of cost allocation agreeable to the property owners.

Development of Infrastructure Financing
Implementation of the Specific Plan and ongoing maintenance will involve various financing and funding mechanisms. The EIR for the Specific Plan will identify specific funding mechanisms available for Plan Implementation. Some of the many options available are:

Private Financing for Plan Improvements:

- Private Funds and Private Loans
- Cash
- Reimbursement Agreements
- Private Utility Installation and Reimbursement

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Agreements

Public Financing Mechanisms created for the Plan are:

- Infrastructure Assessment Districts (to provide Plan area services);
- Lighting and Landscape Maintenance Districts (to provide Plan area maintenance); and,
- Area-wide Benefit Districts (to provide improvements) and Mello Roos Community Facilities Districts.

Financing Mechanisms for Plan area and Beyond

- Regional Benefit Districts; and,
- Area-Wide Impact Fee for contribution to construction of the two lane Central Ave. overpass.

Fee Based Programs

- Development Impact Fees; and,
- Capitol Improvement Programs.

Federal and State Programs

- Transportation Grants - e.g, MTC;
- Housing Grants; and,
- Environmental Clean-Up Program Grants.

Redevelopment Area Benefits

- Tax Incremental Revenue;
- Land Acquisition and remediation provisions; and,
- Property environmental remediation and clean-up provisions.

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A.1 FORM BASED CODE POLICIES

A.2 PARKS & OPEN SPACE POLICIES

A.3 CIRCULATION POLICIES

A.4 INFRASTRUCTURE POLICIES

A.5 IMPLEMENTATION POLICIES

A.0 APPENDIX A

A.1 FORM BASED CODE POLICIES

Planning Area Adjustment Policies

FB-1: Adjustments to the boundaries and acreages of a land use area, or areas (as set forth in the Land Use Plan - Exhibit 4.1 and proposed Land Use Table - Table 4.1), may be processed by those property owners owning land within the effected area as of right and without necessitating a Specific Plan Amendment, provided the total gross acreage of a land use planning area does not change by more than 20% from the original gross acreage approved under the Specific Plan.

FB-2: A revised Land Use Plan (Exhibit 4.1) and Proposed Land Use Table (Table 4.1) must be submitted to the City of Newark for each proposed revision or set of revisions to the development area boundaries.

Transfer of Dwelling Units Policies

FB-3: A revised Land Use Table (4.1) must be submitted to the Community Development Director for the City of Newark for a proposed transfer of dwelling units only if the acreages for one or more land use planning areas are being revised as part of such unit transfer. Otherwise, no revised Land Use Table shall be required.

FB-4: A revised Unit Allocation Table (Table 4.2) shall be submitted to the Community Development Director for each proposed transfer of dwelling units as provided in this Section 4.5. Provided such proposed transfer complies with this Specific Plan and applicable zoning requirements, no further submittals or approvals shall be required.

A.2 PARKS & RECREATIONAL OPEN SPACE POLICIES

Parks

P-1: Prepare a project specific park plan as part of the specific project development application. The parks components of the Specific Plans should fulfill the following criteria:

• An integrated network of public and private recreational open spaces, parks, and gathering places should be created within the Plan area.

• Recreational open space types and locations should be generally consistent with those described in this chapter and Figure 6.1.

• All residents and visitors should be within a reasonable walk of a park or recreational open space area.

• For all new public parks, the design, program, and facilities must be approved by the City and consistent with this Specific Plan.

• 16.3 acres of park and recreational open space must be provided as part of the Specific Plan, with these requirements provided by the developer/ builder/applicant via the following options:

1) construct and dedicate a park to the City, or;
2) pay an in-lieu fee to the City at building permit time.

• Three areas within the Plan that are designated for parks planned are:

1) the Gallade site.
2) the area west of the Transit Station, and;
3) the trail/linear park. (See Figure 5.1)

• An outdoor amphitheatre and restroom facilities shall be provided in one of the parks, preferably close to the neighborhood and/or transit center.

• A dog park shall be provided in one of the parks. The dog park shall include two separate areas, one for small dogs and one for larger dogs, to create a safer environment. The dog parks should also use bark or other similar ground cover types and avoid the use of turf.

• Provide a comprehensive maintenance program for all recreational open spaces and parks. Alternatives for maintenance could include options such as; maintenance by private property owners, mechanisms such as Homeowners' Associations (HOAs) or Street Lighting and Landscaping Maintenance Districts (LLMDs).

• Encourage the use of drought-tolerant and/or native plant materials and trees in all landscaped spaces.

Trail / Linear Park

P-2: Provide a trail/linear park in the Plan area that will connect to the existing Bay Trail along Willow Street.

P-3: Public streets, public parks and public spaces should connect, to the greatest extent feasible.

Gathering Spaces

P-4: Incorporate public gathering spaces in commercial and retail areas within the Plan area. Public gathering spaces

should be designed with the following criteria:

- The size of public spaces should be in scale with the size of the surrounding uses and should take into account the height and scale of nearby buildings and/or other features.

- Public spaces should be located close to public access.

- Public spaces should be open to the public during all daylight hours.
- Public spaces should be located generally adjacent to retail and restaurant uses.

- Public gathering spaces should be designed to allow for, and encourage, interaction among community members. The public spaces should include various seating options (natural, built or furniture), and should provide some protection from the environment (shade, shelter). In addition, certain public spaces might provide areas to accommodate food service and entertainment.

Landscaping
P-5: The proposed parks and public spaces in the Specific Plan have the potential to become successful and well-used gathering spots available for any combination of pick-up games, play, passive recreation, relaxation, or community gatherings. All landscape materials should be of a type that is both drought tolerant and durable.

Entry Monuments and Features
P-6: Entry monuments are the gateway features that create a community. Functionally, they serve as signs for the Community and they demarcate it as a special place. Aesthetically, their design should reflect the character and high quality of the community. They should be incorporated into the landscape with a rich palette of plantings. These monuments should define the main entry locations. Carefully placed, low level lighting in the landscape would provide nighttime visibility.

P-7: Entry features serve as formalized spaces that define the community. These are encouraged to be dramatic focal points for the community through the use of gentle land sculpting, landscape materials and plantings.

Shelters/Arbors
P-8: Simple structures might be used to provide shade and shelter for residents and visitors to the Plan area.

Active Play / Recreation Areas
P-9: The active recreation areas should be carefully sited to provide good views in and out of the play area. Safety is the most important consideration, but wear and tear and maintenance are also a concern. Structures that meet all applicable safety and durability standards are advised.

Recreational Open Space Typologies
P-10: Every public space should have its own unique character. Public spaces will vary in size and level of activity based on location and use. Locations for public

spaces should ensure that all members of the community are in close proximity to some type of public area.

Seating

P-11: Seating can be a welcomed amenity in public places. The design of seating is encouraged to create a variety of social and semi-private areas that allow people to linger and aesthetically enhance the space.

Parks & Recreational Open Space Materials

P-12: Quality materials will create exceptional public spaces with unique and timeless character. Products and materials in the public realm are improved when they are durable and easy to maintain, resistant to the bay's variable weather extremes such as wind, heat and rain. They should also be resistant to vandalism through the use of non-breakable parts, and scratch resistant and washable surfaces.

Examples of durable materials and finishes include:

a. Stainless Steel
b. Galvanized Steel
c. Powder coated Steel or Aluminum
d. Vinyl coated Steel or Aluminum
e. Painted Steel (multiple coats)
f. Masonry

Plants & Plantings

P-13: Plants within the Specific Plan area can be a major design element for enhancing character and the quality of place. Plants can define the street edge, Transit Station, public space areas, gathering spaces, and add scale, visual interest, and seasonal change. Layout and plant palette selection is encouraged to reinforce and define the public character of the community. Plants emphasize the unique qualities of their context. Planting can be selected and placed in such a way as to enhance rather then obstruct views. Using plants and materials in interesting ways will create exceptional public spaces with a unique and timeless character and quality.

Water Efficient Planting

P-14: The State of California has guidelines for water efficient landscaping. Conservation and efficiency in water use can be achieved with both water efficient planting and irrigation. For example:

- Use low water use plants on the majority of the landscape area.
- Plant turf only in "Practical Turf Areas" of active play and recreation.
- Use only drought tolerant varieties of turf.

Recommended Trees

P-15: There are a wide variety of deciduous and non-conifer evergreen trees that are encouraged to be planted in areas to reinforce pedestrian connections, define edges and views, provide shade for seating areas, and add seasonal change and visual quality. Along streets, they can be used between the curb and sidewalk or along a walkway. Trees also play a major role in establishing identity and anchoring

the corners of special nodes and intersections. All trees are encouraged to be selected for climatic hardiness, longevity, low water use, visual appeal, and desired design intent.

Recommended Understory Planting

P-16: Shrubs, groundcover, grasses and perennials can be used in planting strips, planters, borders, and other special areas of emphasis that can be enhanced with plants. Plants along the street edge can provide a buffer between pedestrians and vehicles and enhance the streetscape by reflecting the character of the area. Understory plants are encouraged to be selected not just for their form, texture, fragrance, and color, but also for their hardiness, water efficiency, and longevity. Planting of shrubs, groundcovers, grasses and perennials are encouraged to be multi-layered to provide 4-season interest.

Illumination

P-17: Exterior lighting can provide safe and effective evening illumination for the pedestrian and vehicular areas of roads, sidewalks, and walkways throughout the Specific Plan community. Design can reflect the concept and character of the community through illumination level, light fixture type, finish, color, and location. There can be streetlights for roads and sidewalks, pedestrian lighting for sidewalks and walkways, building illumination, and accent lighting on special architectural and landscaping features. Specialty lighting, such as seasonal tree lights, is also encouraged.

Types of Exterior Illumination

P-18: Streetlights and Fixtures are encouraged to be of two types:

1) On Enterprise Drive and the entrance to the Community: pole mounted with twin arms that match the architectural style for the community. The roadside arm might hold an extended lamp to illuminate the road. On the sidewalk side, the arm could hold flower baskets, art, or banner arms.

2) On secondary streets: single armed on poles that reduce glare and the impact of lighting on residences. Light is also encouraged to be focused downward and shielded from the night sky.

Path and Stair Lights

P-19: In less traveled areas, footpath lights can be acceptable as a means to illuminate a path. On stairways, inset stairway and stair step lights are encouraged to ensure pedestrian safety.

Building Mounted Lights

P-20: Building mounted lights can be used to light walkways, public spaces, and planted areas where appropriate. Because building lights may be turned off, building lighting can't be depended upon exclusively for walkways and other areas where safety is a concern. Fixtures are encouraged to be selected and located to cast downward and be shielded to minimize glare. Lighting from buildings can be balanced with street lighting to ensure areas are not over lit.

Accent Lighting
P-21: Accent lighting can be used to emphasize special features for decorative effects and can be inconspicuous and durable. Small scale accent lights such as LED based fixtures can be used for way finding or as special design elements.

Special Event Lighting
P-22: Lighting used for special events could include decorative lighting for holiday seasons or other community park event lighting. Special event lighting can be designed for use during event and non event times. Seasonal decorative lighting during holidays and holiday events is encouraged.

Furnishings
P-23: Exterior furnishings provide public amenities that establish a high quality and consistent urban design in the streetscape, reflecting the context of the area and helping to establish the unique qualities of places within the Plan area. These elements are encouraged to be integrated into the overall site design where appropriate. The amount of exterior furnishings should be appropriate to the level of use rather then creating too much clutter.

Bollards
P-24: Bollards can be used selectively, in high traffic areas, to protect pedestrians from vehicles. Bollards can be permanent but placed to allow for emergency vehicles to be able to travel around. Bollards are encouraged to be limited to locations that do not interfere with parking, deliveries, and other functions.

Bicycle Amenities
P-25: Bike racks are encouraged to be placed in areas where bikers might need to park. Although they are primarily utilitarian, the chosen style is encouraged to relate to the aesthetic of the neighborhood.

Fences, Gates, Railings & Walls
P-26: Fences, gates, railings, and walls can provide safety, security, screening and privacy. Their design is encouraged to be compatible with each other through form, materials, and finishes. Their design can be influenced by the use and neighborhood context to reflect the architectural character of the Plan area.

Gates
P-27: Gates create focal points within a fence. Their design is encouraged to be differentiated from the fence and create an area of emphasis and demarcation.

Hand Railings & Guardrails
P-28: Hand railings are used for stairways, steep ramps, and other areas where a rail will help assist in self-balancing as one transitions along grade changes. Guardrails are also encouraged where there might be a steep grade drop-off or other potential safety hazard.

Tree Grates
P-29: Tree grates are encouraged for all street trees placed along sidewalks that are not part of a planting strip area.

ADA compliance is recommended as is a minimum size of 5-feet x 5-feet. Tree guards protect trees in active areas that are vulnerable to damage from vehicle bumpers or door swings.

Planters, Pots, and Boxes

P-30: Planters are encouraged in public spaces. Pots and planter boxes can be used at commercial and retail building entries where building maintenance personnel would care for them.

A.3 CIRCULATION POLICIES

Street Network Policy Goals

Street Network Design

C-1 Create a street network that connects with existing local and regional roadways, such as Enterprise Drive, Willow Street, and Central Avenue, and provides for efficient and safe circulation throughout the Plan area. Speed limit shall be 25 miles per hour throughout the development.

C-2 Create a street network that is appropriate for a mixed-use, pedestrian-oriented environment that extends to the Transit Station area. This network should establish:

- Blocks that are pedestrian in size, i.e. blocks that around 450-feet have a more pedestrian scale than blocks that are larger, except along major arterials;
- Mid-block pedestrian connections where appropriate, i.e. blocks that are larger than 450-feet should have pedestrian paths to break up the walking plane, except along major arterials; and,
- Where mid-block pedestrian crossings are needed, mid-block crosswalks should be provided per the City's "Bicycle and Pedestrian Master Plan/ Crosswalk Guidelines" (upcoming, 2010-2011).

C-3 Medians should occur on streets which comprise the Backbone Circulation Plan where provided in Chapter 7. All streets should be designed with sidewalks buffered from vehicle traffic by a landscape strip, landscaping, travel lanes, bike lanes, and parking, where appropriate.

C-4 Streets should meet the needs of all users including drivers, bicyclists, pedestrians, persons with disabilities, and transit users.

C-5 Street improvements should be built consistent with the street design standards in this chapter.

C-6 Traffic into existing residential communities should be minimized to the greatest extent possible.

C-7 Culs-de-sac should be minimized to the greatest extent possible.

C-8 The use of permeable paving for parking isles, parking lots, and vehicular entries to residential areas should be used in the greatest extent possible.

C-9 Where applicable, applications for projects shall indicate how streets are connected to existing local and regional roadways, and, if adjacent to the Station Area, how they are connected to the Station Area street network.

C-10 Arterials and collectors should generally be located as shown in Exhibit 7.2 – Circulation Plan. Exact locations of arterials and collectors may be modified based upon additional engineering. Streets shall be located consistent with the following criteria:

- Arterials, namely Enterprise Drive, Hickory Street, Willow Street and Central Avenue are to be located generally as shown on Exhibit 7.2; and,
- Street alignments may vary to accommodate site conditions and specific project needs.

C-11 A street shall connect directly from Enterprise Drive to the Transit Station. This street shall be consistent with the street standard in Chapter 7 for the "Transit Station Entrance Road."

C-12 Enterprise Drive, Hickory Street, Central Avenue, Willow Street, neighborhood streets and carriageways shall be constructed according to the design standards set forth in this chapter.

Transportation Demand Management

C-13 Provide for a Transportation Demand Management (TDM) program that aims to reduce single-occupant vehicular trips. Components of a TDM program may include:

– Urban Design Projects:

- Short and long-term bicycle parking in highly visible, will lit locations that are convenient to front building entrances; and,
- Direct routes to the Transit Station and other key destinations that are well lit and designed for pedestrian comfort.

– Additional Concepts:

- Free or preferential parking designed for carpool, van pool, low emission vehicles, and car share vehicles; and,
- Passenger loading zones and/or kiss-n-ride areas; and Bicycle and pedestrian friendly site planning and building design.

Note: Employer Based TDM was deleted - not large enough employers to implement and manage an employer TDM.

Construction Traffic Management

C-14: Development proposals shall contain the following at a minimum:

- A set of comprehensive traffic control measures, including limiting major truck trip and deliveries that avoid peak traffic hours, detour plans, if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes;
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours and lane closures will occur;
- Notification of construction staging areas for materials, equipment, and vehicles (must be located

on the project site);
- Identification of haul routes for movement of construction vehicles that minimize impacts on vehicular, bike, or pedestrian traffic, circulation, and safety;
- Temporary construction fences to contain debris and material, and to secure the site;
- Provisions for removal of trash generated by project construction activity;
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint manager; and,
- Provisions for monitoring surface streets for truck routes so that any damage and debris attributable to the tracks can be identified and corrected.

Parking Policies

Parking Location

C-15: Within the Transit Station area, locate parking behind buildings, to the maximum extent feasible.

General Parking Standards & Guidelines

C-16 Maintain flexible parking standards that balance the need for parking with the broader Transit Station goals of encouraging transit ridership, ridesharing, and enhancing the area's pedestrian appeal.

C-17 Include on-street parking on most streets, consistent with the detailed street design standards in Chapter 7.

C-18 Adopt parking standards for the Plan area. Consider some or all of the following strategies to prevent oversupply and to encourage the use of alternate modes of transportation:

- Allow shared parking between the various uses with different peak periods of parking demand;
- Reduce minimum off-street parking requirements for multi-family and commercial developments;
- Adopt maximum off-street parking requirements;
- Allow credits for availability of adjacent on-street spaces;
- Allow exemptions for small retail and dining establishments (e.g. less than 2,500 square feet) in pedestrian centers;
- Allow tandem parking in residential developments; and,
- Allow permeable pavement use in overflow parking lots.

C-19 Work with property owners to encourage adoption of shared parking arrangements where appropriate to maximize efficient use of parking resources.

C-20 Incentivize parking structures, rooftop parking, and underground parking through flexibility in conditions of approval and in opportunities for any City, State of Federal financial participation in the development.

C-21 Work with the Transit Station operator to identify phasing of parking fields for a total of 500 spaces at full build out of the Station.

Transit Policies

C-22 The City shall continue working with the regional transit agencies to study design, funding and construction options for the Transit Station. The design and location should achieve the following goals:

- Provide direct pedestrian and bicycle route from Enterprise;
- Encourage a shared parking agreement between the Station and the future adjacent uses to minimize the amount of overall parking in the Plan area;
- Maximize developable land within the Plan area; and,
- Provide direct line of sight from Transit Station to Enterprise Drive/Willow Street.

C-23 Develop a Transit Station that provides access to the various modes of transit. Design the Station to include:

- Bus pick-up and drop-off bays;
- An area for limited short-term waiting;
- Disabled parking areas;
- Shuttle pick-up and drop-off areas; and,
- Safe and attractive pedestrian and bicycle crossings to and from the Station.

C-24 Where necessary, design streets to accommodate transit services, including bus stops and shelters (Table 7.1).

Pedestrian & Bicycle Circulation Policies

C-25 Prioritize pedestrian and bicycle safety at intersections and street crossings with measures such as:

- Contrasting and/or textured paving crosswalks; and,
- In-ground, blinking crosswalk lights where feasible.

C-26 Incorporate signage to indicate pedestrian and bicycle areas where feasible.

C-27 Projects should provide access to direct pedestrian and bicycle routes to the Transit Station as feasible and where appropriate.

C-28 Adopt minimum bicycle parking requirements for residential and commercial projects.

C-29 In the Transit Station Area, design streets and sidewalks consistent with Chapter 7, including:

- Tree wells or planter strips with trees between the sidewalk and the parking areas;
- Pedestrian scale street lights;
- Limited curb cuts that cross the pedestrian path of travel;
- Outdoor seating for restaurants and cafes where applicable;
- Projections into the right-of-way for awnings, canopies, pedestrian oriented signs, bay windows, and other elements that enhance the pedestrian realm; and,
- Sidewalks should have a minimum five-foot wide path of travel.

C-30 Mid-block crosswalks should be provided per the City's Bicycle and Pedestrian Master Plan/Crosswalk Guidelines (upcoming, 2010-2011).

Pedestrian and Bicycle Circulation Improvements
C-31 Provide bicycle routes throughout the Transit Station area, as illustrated in Exhibit 7.4.

C-32 Allow bicycle circulation on all local streets in the greatest extent feasible.

C-33 Design and implement a trail interior to the Plan area, around the perimeter of the Specific Plan, as feasible..

C-34 To the greatest extent possible, link internal neighborhood to parks and public spaces.

Truck Access Policies
C-35 Where truck routes are necessary, do not locate them in areas where there are no commercial establishments.

C-36 Service and loading areas should be strategically located and screened so as not to impact the attractiveness and safety of the pedestrian realm. Therefore, they should be located to the side or rear of buildings, away from pedestrian area.

C-37 Loading requirements for smaller businesses may be met through curbside loading zones. For larger developments that required loading docks, the docks should be located in the interior or rear of the building or parking garage, to the greatest extent feasible.

A.4 INFRASTRUCTURE POLICIES

The following polices will be included as a part of the General Plan Amendment for the Specific Plan project.

Utilities and Public Service Principles
I-1: Meet or exceed City standards by providing high-quality, efficient public utilities, services, and facilities to serve the Specific Plan area.

I-2: Encourage sustainable building practices, operations, and maintenance.

I-3: Partner with private utility providers to limit disruptions to existing systems, and ensure comprehensive utility service for all future development.

I-4: Ensure that adequate emergency service facilities and staffing are in place to serve new residents and employees.

I-5: Design new development and public spaces with consideration for public safety.

Stormwater Management Policies
Prior to approval of Final Maps or development projects within the Specific Plan, a Drainage and Flood Management Master Plan shall be prepared for the Plan area or portions thereof if implementation is to be phased. The Master Plan shall be prepared in collaboration with Alameda County Flood Control and Water Conservation District, the City of Newark Public Works Department, the City of Newark

Planning Department, and the City of Newark Parks and Recreation Department. The Plan shall:

I-6: Document the overall drainage and flood control concept to be employed within the Plan area to ensure adequate and safe storm flows and to minimize flooding.

I-7: Address funding and responsibility for long-term maintenance of the flood control improvements.

I-8: Demonstrate how the natural hydrologic functions of the site are integrated with the storm drainage system and the overall site design, to the maximum extent feasible.

I-9: Identify how improvements can be phased for each development area.

I-10: Continue the Alameda County Flood Control and Water Conservation District Drainage Area Fee Program to fund flood control improvements in the Plan area.

I-11: Ensure that the new development provides needed drainage and flood protection improvements in proportion to a project's impacts, to assure an equitable distribution of costs to construct and maintain drainage infrastructure.

I-12: Minimize total impervious areas by allowing narrow road sections and shared driveways, and using pervious materials on driveways, gutters, and off-street parking areas, where appropriate to reduce runoff.

I-13: All new public facilities shall conform to the Plan area details.

I-14: The design of storm water collection and conveyance systems will minimize erosion and other potential problems for on-site and adjacent properties.

I-15: The residential design includes active and passive open spaces, thereby helping to minimize increases in impervious surfaces and associated site runoff.

I-16: Educational flyers and other materials will be supplied to the residential users to increase their understanding of water quality and best management practices.

I-17: The project will include storm drain system signs or stenciling with language to discourage illegal dumping of unwanted materials into the catch basins and field inlets.

I-18: The commercial uses will include on-site sediment and oil filtering devices for the pretreatment of the major paved areas.

Potable Water Policies

I-19: Expand the water distribution system such that it is adequate to serve new development in the Plan area.

I-20: Work with the Alameda County Fire Protection District to determine required fire flow.

Water Conservation Policies

To reduce water consumption, require the installation of:

I-21: Low-flow showerheads, faucets, and toilets.

I-22: Low-flow irrigation systems in public rights-of-way, public parks, and recreation areas.

I-23: Drought-tolerant plant palettes in all new streetscape areas.

To reduce water consumption, recommend the installation of:

I-24: Low-flow irrigation systems in private landscaped areas.

I-25: Drought-tolerant plant palettes in private landscaped areas.

Wastewater Management Policies

I-26: Expand the wastewater collection system such that it is adequate to serve the new development in the Plan area.

I-27: The Union Sanitary District is scheduled to begin updating their Sewer Master Plan in the Fall of 2010, with a document available by June of 2011. As part of the updating process, USD will gather information on planning activities at each City within its District (Fremont, Newark and Union City) to help guide the Master Plan. It is important that the City of Newark continues to engage in this process and is forthright with respect to the Specific Plan, so that the Sewer Master Plan can provide concrete documentation of the upgrades required to implement the Specific Plan.

Solid Waste Management Policies

I-28: All new developments shall participate in all solid waste source reduction and diversion programs in effect at the time of the issuance of building permits.

I-29: All projects in the Plan area shall comply with the City's Construction and Demolition Debris recycling regulations by preparing a Waste Management Plan and diverting at least 50 percent of all construction and demolition debris.

I-30: Restaurants should use on-site composting systems if a food waste recycling program is not available.

I-31: Trees, stumps, vegetation, and soils associated with excavation and land clearing shall be composted, recycled, or reused, except when soils may be contaminated with hazardous materials, or where other conditions make this infeasible as determined by the City.

Non-municipal Utilities Policies

I-32: Construction/Improvement Plans should show all existing service corridor and utility easements to ensure proper inter-agency coordination prior to issuing any grading permits. Plans should show the location and dimensions of each pipeline within the easement or right-of-way. Coordinate with:

- Chevron to map all active and abandoned

petroleum product pipelines.
- PG&E to map all active natural gas pipelines.
- City of Newark Public Works Department to map all stormwater pipelines.
- Union Sanitation District to map all sewer pipelines.
- Alameda County Water District to map all water pipelines.
- Work with Alameda County Water District to provide appropriate levels of environmental review, if the U.S. Bureau of Reclamation water laterals will be impacted by proposed development.
- Coordinate with PG&E to minimize impacts on the natural gas pipelines, electrical transmission towers and power lines in and near the Plan area.

A.5 IMPLEMENTATION POLICIES

IM-1: The City of Newark will adopt the Specific Plan by Resolution. Concurrent entitlements to implement the Specific Plan shall include a Specific Plan Environmental Impact Report (EIR), a General Plan Amendment, a Zoning Amendment, an Affordable Housing Program, and all other governing documents necessary for consistency with the City's General Plan.

IM-2: The Specific Plan, the Plan's "Environmental Impact Report", plus associated documents, identify specific policies, regulations, guidelines and mitigation-measure alternatives, available and applicable to the physical development of the Plan area.

IM-3: Illustrative examples and written descriptions are utilized to convey intent. Details and graphic examples throughout the Plan cover topics such as; design guidelines, landscaping, street layout and streetscape design, building setbacks and size, common area pedestrian links, parks, trails, and public gathering places.

IM-4: The Specific Plan will encourage career opportunities for area youth in the construction industry by requesting developers employ local apprentices who are enrolled in California State certified apprenticeship programs.

IM-5: The Specific Plan will encourage contractors to pay area standard wages to construction workers on projects enabled by the plan. Developers will be encouraged to submit a plan on ow they will meet a goal of having at least 30% of the construction work force from the Tri-City region.

B.3 LAND USE AMENDMENTS

B.4 TRANSPORTATION AMENDMENTS

B.5 HOUSING ELEMENT AMENDMENTS

B.6 OPEN SPACE & CONSERVATION AMENDMENTS

B.7 RECREATION AMENDMENTS

B.8 COMMUNITY SERVICES & FACILITIES AMENDMENTS

B.9 ENVIRONMENTAL SAFETY AMENDMENTS

B.10 NOISE AMENDMENTS

B.0 APPENDIX B - GENERAL PLAN AMENDMENTS

B.3 LAND USE AMENDMENTS

Land Use Map - Land uses need to change to Dumbarton TOD Specific Plan uses.

Area 2 - Dumbarton TOD Specific Plan Area

This complex shaped area is generally located south of Thornton Avenue and west of Willow Street. The existing uses include some vacant and open space lands as well as heavy industrial operations (e.g., FMC chemical plant and a 375,000 square foot warehouse/research and development complex), a railroad line, the Hetch Hetchy water line, and the Newark pump station for the Union Sanitary District. ~~Limited and general industrial~~ Residential, retail, office, park and open spaces uses are designated for this area. ~~as follows:~~

~~• Limited Industrial uses are shown for a portion of the FMC property immediately west of Willow Street and for lands immediately southwest of the intersection of the Willow Street and Thornton Avenue (i.e., generally the area of the King and Lyons development). The limited designation provides for a transition between residential uses to the northeast and more intense industrial uses to the south and southwest.~~

~~• General Industrial uses including the majority of the FMC facility and lands west of Willow Street.~~

~~• Open Space uses are designated for the northwesternmost portion of the area.~~

B.4 TRANSPORTATION AMENDMENTS

Central Avenue

An additional 10′ of right-of-way is proposed for Central Avenue between Cherry Street and Filbert Street to allow for incorporation of the new four-lane, undivided arterial with a two-way left turn lane (Street Standard A3). Revisions for that portion of Central Avenue between Filbert and Willow Street reflect existing geometrics. That portion of Central Avenue between Willow Street and the West Side Arterial are proposed new street sections. As a part of the Dumbarton TOD Specific Plan, an overpass will be created to move traffic over the rail lines between Filbert Street and Sycamore Street.

Willow Street

It is proposed to increase the right-of-way width from 80′ to 84′ for that portion of Willow Street between Thornton Avenue and Enterprise Drive to conform to standard geometrics and allow for the addition of a two-way left-turn lane for safer property access. For the portion of Willow Street south of Enterprise Drive to Central Avenue, the road section will conform to the street section designed in the Dumbarton TOD Specific Plan.

Rail Services

The north-south and east-west Southern Pacific rail lines provide service to industries within the City and also carry Amtrak passenger traffic. Passenger service is on the north-south line, but there is not a passenger station in the City. The existing east-west rail line that connects to the north-south line in the Historic Newark area is linked to the San Francisco Penninsula by the Dumbarton rail bridge. While it is not currently used for passenger service, studies are continuing to determine the feasibility of establishing commuter service on this line. The Dumbarton TOD Specific Plan establishes a location for future rail station along the rail line and the guidelines to implement the development of the area around the station.

Goal 1, Policy a, Program 2

Develop a new west side arterial street running generally along the Thornton Avenue corridor and connecting to Cetnral Avenue within the plan period, with the intent of ultimately completing the street to Stevenson Boulevard. This facility will serve proposed new development west of Cherry Street and will direct the movement of industrial truck traffic around residential neighborhoods. Roadways between Enterprise Drive and Central Avenue shall conform to the Dumbarton TOD Specific Plan.

Figure 4-12, Roadway Improvements

Chart should be updated to include overpass improvements for Central Avenue.

4.5 Description of Major Transportation Proposals

New arterial overcrossings at railroad tracks.

In order to reduce the pressure for ultimately installing n underpass at Cedar Boulevard and the railroad tracks, the plan also provides for a grade separation crossing, i.e., an overpass, at Central Avenue where it intersects the Southern Pacific Railroad tracks. The Dumbarton TOD Specific

Plan will implement this project. In addition, the plan provides for an overcrossing at Stevenson Boulevard. The Stevenson Avenue overcrossing will serve Area 4 residential development.

Appendix T-A

Central Avenue - Willow Street to Hickory Street
~~4 Lane Divided, 104, 84~~. 2 Lane Undivided, 80, 44

Enterprise Drive - ~~Hickory~~ Willow Street to Filbert Street

Hickory Street - Central Avenue to Enterprise Drive
2 Lane ~~Un~~Divided, ~~64~~,80 ~~44~~ 36-60

Willow Street - Enterprise Drive to Central Avenue
~~4 Lane Undivided, 90, 64~~. 2 Lane Undivided, 80, 64

B.5 HOUSING ELEMENT AMENDMENTS

Amendments to 5.8 - Program & Quantified Objectives

Program 1. Facilitate the preparation of specific plans for Areas 2, 3, and 4, and encourage development in those areas. Status & Timing.

Area Two is located adjacent to the proposed location of the Newark station on the Dumbarton Rail Line, and therefore is envisioned as a transit-oriented development (TOD). The city worked with landowners and the community to develop a Concept Plan, which was approved by the City Council in March 2007. In August, Newark issued a Request for Proposals for a consultant to prepare the Specific Plan and Environmental Impact Report. A consultant has been selected for the project, and the project timeline anticipates Planning Commission and City Council action in mid-~~2010~~ 2011.

Some of the high density housing in Area Two will be needed to meet the city's state-mandated share of the regional housing need for lower income households. Therefore, when these parcels are zoned, the zoning will meet the requirements of Government Code Section 65583(a)(3) and 65583.2, including allowing multifamily uses by right at densities ~~no less than~~ averaging a net of 20 units per acre over the entire Plan area.

Expected Results.

In Area Two, a total of ~~1,953~~ 2,500 new housing units are planned. ~~Of~~ These~~, 100 high-density units, 337 medium-density units, and 162 low-density~~ units are expected to ~~be built~~ begin construction by 2014.

B.6 OPEN SPACE & CONSERVATION AMENDMENTS

After review of the Open Space & Conservation Element, it has been determined that no amendments are necessary for inclusion of the Specific Plan.

B.7 RECREATION AMENDMENTS

Figure 7-1, City of Newark Parks
Add two Parks from the Dumbarton TOD Specific Plan.

Neighborhood Parks
Add description of parks from the Dumbarton TOD Specific Plan. Change "*existing*" to "*existing and proposed.*"

B.8 COMMUNITY SERVICES & FACILITIES AMENDMENTS

After review of the Community Services & Facilities Element, it has been determined that no amendments are necessary for inclusion of the Specific Plan.

B.8 ENVIRONMENTAL SAFETY AMENDMENTS

After review of the Environmental Safety Element, it has been determined that no amendments are necessary for inclusion of the Specific Plan.

B.8 NOISE AMENDMENTS

Industrial Land Uses
Two heavy industrial plants, Pacbo Corporation and FMC, create the greatest noise impacts in their respective vicinities. Pacbo Corporation operates on a 24 hour basis, whereas Cargill Salt Company and FMC produce noise making operations occasionally. This, significant noise impacts from Cargill Salt and FMC are not created on a consistent, yearly basis. However, a noise survey performed for the industrial land uses indicates there are several areas where industrial noise sources slightly impact more sensitive surrounding land uses. The areas include industrial noise sources in the vicinity of: Enterprise Drive and Willow Street; west of Cherry Street between Central Avenue and Smith Avenue; and north of Central Avenue west of Cedar Boulevard. Industrial noise sources in the area east of Cedar Boulevard between Mowry and Central Avenues are not significant in relation to I-880 traffic noise sources, but may add slightly to the noise environment in this general area. With the adoption of the Dumbaton TOD Specific Plan in the areas where FMC operates, near Enterprise Drive and Willow Street, noise is anticipated to be greatly reduced. FMC will no longer conduct industrial operations in the area.

Future Land Use Changes

- ~~A combination of limited and high intensity industrial development land uses and open space/conservation land uses in the area west of Willow Street.~~ A mix of residential, retail, office, park and open spaces uses in the vicinity of Enterprise Drive and Willow Street.

- ~~Industrial uses in the area west of Willow could create~~

~~traffic noise increases and industrial noise increases in this area. Traffic noise exposure increases may or may not be significant, depending on the increase in traffic volumes generated by industrial workers. Residential areas between Thornton and Central Avenues north of this area would be the most impacted areas. Industrial noise is not likely to create a problem, as the alternatives show a buffer zone of "limited" industrial uses between residential and heavy industrial areas.~~

C.1 GLOSSARY

C.0 GLOSSARY

C.1 GLOSSARY

A-Grid: cumulatively, those Thoroughfares that by virtue of their preexisting pedestrian-supportive qualities, or their future importance to pedestrian connectivity, are held to the highest standards prescribed by this Code. See B-Grid. (Syn: primary grid.)

Alcoholic Beverage Sales - Off-Premise: The retail sale of beer, wine, and/or spirits in sealed containers for off-site consumption, either as part of another retail use, or as a primary business activity.

Allee: a regularly spaced and aligned row of trees usually planted along a Thoroughfare or Path.

Ancillary Building: A building customarily incidental to, related and clearly subordinate to the primary building on the same parcel, which does not alter the primary use nor serve property other than the parcel where the primary building is located.

Apartment: A dwelling unit sharing a building and a lot with other dwellings and/or uses. Apartments may be for rent or for sale as condominiums.

Arcade: a Private Frontage conventional for Retail use wherein the Facade is a colonnade supporting habitable space that overlaps the Sidewalk, while the Facade at Sidewalk level remains at the Frontage Line.

Artisan Shop: Premises available for the creation, assemblage, and/or repair of artifacts, using hand-powered and table-mounted electrical machinery, and including their retail sale.

ATM or Bank: An automated teller machine (computerized, self-service machine used by banking customers for financial transactions, including deposits, withdrawals and fund transfers, without face-to-face contact with financial institution personnel), located outdoors at a bank, or in another location. Does not include drive-up ATMs. Includes banks. See also

"Financial Institutions" for other financial organizations. Does not include check-cashing stores.

Attic: the interior part of a building contained within a pitched roof structure.

Avenue (AV): a Thoroughfare of high vehicular capacity and low to moderate speed, acting as a short distance connector between urban centers, and usually equipped with a landscaped median.

B-Grid: cumulatively, those Thoroughfares that by virtue of their use, location, or absence of pre-existing pedestrian-supportive qualities, may meet a standard lower than that of the A-Grid. See A-Grid. (Syn: secondary grid.)

Bar, Tavern, Night Club:

Bar, Tavern: A business where alcoholic beverages are sold for on-site consumption, which are not part of a larger restaurant. Includes bars, taverns, pubs, and similar establishments where any food service is subordinate to the sale of alcoholic beverages. May also include beer brewing as part of a microbrewery ("brew-pub"), and other beverage tasting facilities.

Night Club: A facility serving alcoholic beverages for on-site consumption, and providing entertainment, examples of which include live music and/or dancing, comedy, etc. Does not include adult oriented businesses.

Base Density: the number of dwelling units per acre before adjustment for other Functions and/or TDR. See Density.

Bed & Breakfast Inn: A residential structure with one or more bedrooms rented for overnight lodging, where meals may be provided subject to applicable Environmental Health Department regulations.

Bicycle Lane (BL): a dedicated lane for cycling within a moderate-speed vehicular Thoroughfare, demarcated by striping.

Bicycle Route (BR): a Thoroughfare suitable for the shared use of bicycles and automobiles moving at low speeds.

Bicycle Trail (BT): a bicycle way running independently of a vehicular Thoroughfare.

Block: the aggregate of private Lots, Passages, Rear Alleys and Rear Lanes, circumscribed by Thoroughfares.

Block Face: the aggregate of all the building Facades on one side of a Block.

Boulevard (BV): a Thoroughfare designed for high vehicular capacity and moderate speed, traversing an Urbanized area. Boulevards are usually equipped with Slip Roads buffering Sidewalks and buildings.

Brownfield: an area previously used primarily as an industrial site.

Building Type: The structure defined by the combination of configuration, disposition and function.

Build-to Line (BTL): A line appearing graphically on the regulating plan or stated as a setback dimension, along which a building façade must be placed.

Bus Rapid Transit: a rubber tire system with its own right-of-way or dedicated lane along at least 70% of its route, providing transit service that is faster than a regular bus.

Business Support Service: An establishment within a building that provides services to other businesses. Examples of these services include:

> computer-related services (rental, repair) (see also "Maintenance Service - Client Site Services"), copying, quick printing, and blueprinting services, film processing and photofinishing (retail), mailing and mail box services.

Carriage Unit: A Carriage unit is an auxiliary housing unit located above or adjacent to the garage of the primary housing unit on the lot, with the front door and access directed towards an alley. A carriage unit constitutes a residential second unit in compliance with the Government Code Section 65852.2 and, as provided by the Government Code, is not included in the maximum density limitations.

Child Day Care: See "Day Care Center."

Civic: A term defining not-for-profit organizations, dedicated to arts, culture, education, religious activities, government, transit, municipal parking facilities and clubs.

Civic Building: a building operated by not-for-profit organizations dedicated to arts, culture, education, recreation, government, transit, and municipal parking, or for use approved by the legislative body.

Civic Parking Reserve: Parking Structure or parking lot within a quarter mile of the site that it serves.

Civic Space: an outdoor area dedicated for public use. Civic Space types are defined by the combination of certain physical constants including the relationships among their intended use, their size, their landscaping and their Enfronting buildings.

Civic Zone: designation for public sites dedicated for Civic Buildings and Civic Space.

Commercial: A term defining workplace, office and retail use collectively.

Commercial Recreation Facility - Indoor: An establishment providing indoor amusement and entertainment services for a fee or admission charge, including:

> bowling alleys,- coin-operated amusement arcades, electronic game arcades (video games, pinball, etc.), ice skating and roller skating, pool and billiard rooms as primary uses.

This use does not include sex oriented businesses. Four or more electronic games or amusement devices (e.g., pool or billiard tables, pinball machines, etc.) in any establishment, or a premises where 50 percent or more of the floor area is occupied by electronic games or amusement devices, are considered a commercial recreation facility; three or fewer machines or devices are not considered a land use separate from the primary use of the site.

Common Destination: An area of focused community activity, usually defining the approximate center of a Pedestrian Shed. It may include without limitation one or more of the following: a Civic Space, a Civic Building, a Commercial center, or a transit station, and may act as the social center of a neighborhood.

Common Yard: a planted Private Frontage wherein the Facade is set back from the Frontage line. It is visually continuous with adjacent yards.

Configuration: the form of a building, based on its massing, Private Frontage, and height.

Corridor: a lineal geographic system incorporating transportation and/or Greenway trajectories. A transportation Corridor may be a lineal Transect Zone.

Cottage: an Edgeyard building type. A single-family dwelling, on a regular Lot, often shared with an Accessory Building in the back yard.

Courtyard Building: a building that occupies the boundaries of its Lot while internally defining one or more private patios.

Curb: the edge of the vehicular pavement that may be raised or flush to a Swale. It usually incorporates the drainage system.

Day Care Center, Child or Adult: A state-licensed facility that provides non-medical care and supervision for adult clients or minor children for periods of less than 24 hours for any client. These facilities include the following, all of which are required to be licensed by the California State Department of Social Services.

1. Large Family Day Care Home: As defined by Health and Safety Code Section 1596.78, a day care facility in a single dwelling where an occupant of the residence provides family day care for seven to 14 children, inclusive, including children under the age of 10 years who reside in the home.

2. Small Family Day Care Home: As defined by Health and Safety Code Section 1596.78, a day care facility in a single residence where an occupant of the residence provides family day care for eight or fewer children, including children under the age of 10 years who reside in the home.

DDC: Development and Design Center.

Density: the number of dwelling units within a standard measure of land area.

Design Speed: is the velocity at which a Thoroughfare tends to be driven without the constraints of signage or enforcement. There are four ranges of speed: Very Low: (below 20 MPH); Low: (20-25 MPH); Moderate: (25-35 MPH); High: (above 35 MPH). Lane width is determined by desired Design Speed.

Development and Design Center (DDC): A component of the Planning Office assigned to advise on the use of this Code and to aid in the design of the Communities and buildings based on it.

Director: The Community Development Director of the City of Newark, or his duly appointed representative.

Disposition: the placement of a building on its Lot.

Dooryard: a Private Frontage type with a shallow Setback and front garden or patio, usually with a low wall at the Frontage Line.

Drive: a Thoroughfare along the boundary between an Urbanized and a natural condition, usually along a waterfront, Park, or promontory. One side has the urban character of a Thoroughfare, with Sidewalk and building, while the other has the qualities of a Road or parkway, with naturalistic planting and rural details.

Driveway: a vehicular lane within a Lot, often leading to a garage.

Dwelling, Dwelling Unit, or Housing Unit: A room or group of internally connected rooms that have sleeping, cooking, eating, and sanitation facilities, but not more than one kitchen, which constitute an independent housekeeping unit, occupied by or intended for one household on a long-term basis.

Dwelling, Multi-Family: A residential structure containing two or more dwelling units.

1. *Duplex:* A building with two separate dwellings located either side by side or one on top of the other.

2. *Fourplex:* A building with four separate dwellings.

3. *Triplex:* A building with three separate dwellings.

4. *Rowhouse:* A building with two or more single-family dwellings located side by side, with common walls on the side lot lines, the façades reading in a continuous plan.

Edgeyard Building: a building that occupies the center of its Lot with Setbacks on all sides.

Effective Parking: the amount of parking required for Mixed Use after adjustment by the Shared Parking Factor.

Effective Turning Radius: the measurement of the inside Turning Radius taking parked cars into account.

Elevation: an exterior wall of a building not along a Frontage Line.

Encroach: to break the plane of a vertical or horizontal regulatory limit with a structural element, so that it extends into a Setback, into the Public Frontage, or above a height limit.

Encroachment: any structural element that breaks the plane of a vertical or horizontal regulatory limit, extending into a Setback, into the Public Frontage, or above a height limit.

Enfront: to place an element along a Frontage, as in "porches Enfront the street."

Estate House: an Edgeyard building type. A single-family dwelling on a very large Lot of rural character, often shared by one or more Accessory Buildings. (Syn: country house, villa)

Expression Line: a line prescribed at a certain level of a building for the major part of the width of a Facade, expressed by a variation in material or by a limited projection such as a molding or balcony.

Extension Line: a line prescribed at a certain level of a building for the major part of the width of a Facade, regulating the maximum height for an Encroachment by an Arcade Frontage.

Façade: The vertical surface of a building, generally set facing a street ("front façade").

Financial Services: Includes banks and trust companies, credit agencies, holding (but not primarily operating) companies, lending and thrift institutions, other investment companies, securities/commodity contract brokers and dealers, security and commodity exchanges, vehicle finance (equity) leasing agencies. Does not include check-cashing stores.

Forecourt: a Private Frontage wherein a portion of the Facade is close to the Frontage Line and the central portion is set back.

Frontage Line: The property lines of a lot fronting a street or other public way, or a park, green or paseo.

Front Porch: A roofed structure, that is not enclosed, attached to the façade of a building.

Frontage Type: See Frontage Type Standards.

Function: the use or uses accommodated by a building and its Lot, categorized as Restricted, Limited, or Open, according to the intensity of the use.

Financial Services: Includes banks and trust companies, credit agencies, holding (but not primarily operating) companies, lending and thrift institutions, other investment companies, securities/commodity contract brokers and dealers, security and commodity exchanges, vehicle finance (equity) leasing agencies. Does not include check-cashing stores.

Gallery: As a building frontage type, a roofed promenade extending along the façade of a building and supported by columns on the outer side.

General Retail: Stores and shops intended to serve the City as destination retail, rather than convenience shopping. Examples of these stores and lines of merchandise include:

> art galleries, retail, art supplies, including framing services, books, magazines, and newspapers, cameras and photographic supplies, clothing, shoes, and accessories, collectibles (cards, coins, comics, stamps, etc.), drug stores and pharmacies, dry goods, fabrics and sewing supplies, furniture and appliance stores, hobby materials, home and office electronics, jewelry, luggage and leather goods, musical instruments and-carried), parts, accessories, small wares, specialty grocery store, specialty shops, sporting goods and equipment, stationery, toys and games, variety stores, videos, DVD's, records, CD's, including rental stores.

GIS (Geographic Information System): a computerized program in widespread municipal use that organizes data on maps. The protocol for preparing a Regional Plan should be based on GIS information.

Green: a Civic Space type for unstructured recreation, spatially defined by landscaping rather than building Frontages.

Greenfield: an area that consists of open or wooded land or farmland that has not been previously developed.

Greenway: an Open Space Corridor in largely natural conditions which may include trails for bicycles and pedestrians.

Greyfield: an area previously used primarily as a parking lot. Shopping centers and shopping malls are typical Greyfield sites. (Variant: Grayfield.)

Health/Fitness Facility: A fitness center, gymnasium, health and athletic club, which may include any of the following: exercise machines, weight facilities, group exercise rooms, sauna, spa or hot tub facilities; indoor tennis, handball, racquetball, archery and shooting ranges and other indoor sports activities, indoor or outdoor pools.

Height: A limit to the vertical extent of a building that is measured in number of stories. Height limits do not apply to masts, belfries, clock towers, chimney flues, water tanks, elevator bulkheads, and similar structures, which may be of any height approved by the Director.

Highway: a rural and suburban Thoroughfare of high vehicular speed and capacity. This type is allocated to the more rural Transect Zones.

House: an Edgeyard building type, usually a single-family dwelling on a large Lot, often shared with an Accessory Building in the back yard. (Syn: single.)

Home Occupation: Residential premises used for the transaction of business or the supply of professional services. Home occupation shall be limited to the following: agent, architect, artist, broker, consultant, draftsman, dressmaker, engineer, interior decorator, lawyer, notary public, teacher, and other similar occupations, as determined by the Director. Such use shall not simultaneously employ more than 1 person in addition to residents of the dwelling. The total gross area of the home occupation use shall not exceed 25 percent of the gross square footage of the residential unit. The home occupation use shall not disrupt the generally residential character of the neighborhood. The Director shall review the nature of a proposed home occupation use at the time of review of a business license for such use, and may approve, approve with conditions, continue or deny the application.

Infill: noun - new development on land that had been previously developed, including most Greyfield and Brownfield sites and cleared land within Urbanized areas. verb- to develop such areas.

Layer: a range of depth of a Lot within which certain elements are permitted.

Library, Museum: Public or quasi-public facilities, examples of which include: aquariums, arboretums, art galleries and exhibitions, botanical gardens, historic sites and exhibits, libraries, museums, planetariums, and zoos. May also include accessory retail uses such as a gift/book shop, restaurant, etc.

Lightwell: A Private Frontage type that is a below-grade entrance or recess designed to allow light into basements.

Linear Pedestrian Shed: A Pedestrian Shed that is elongated along an important Mixed Use Corridor such as a main street. A Linear Pedestrian Shed extends approximately 1/4 mile from each side of the Corridor for the length of its Mixed Use portion. The resulting area is shaped like a lozenge.

Linear Building: a building specifically designed to mask a parking lot or a Parking Structure from a Frontage.

Live-Work Unit: An integrated housing unit and working space, occupied and utilized by a single household in a structure that has been designed or structurally modified to accommodate joint residential occupancy and work activity, and which includes:

1. Complete kitchen space and sanitary facilities in compliance with the Building Code; and

2. Working space reserved for and regularly used by one or more occupants of the unit.

Lodging: A facility (typically a hotel or motel) with guest rooms or suites, with or without kitchen facilities, rented to the general public for transient lodging. Hotels typically include a variety of services in addition to lodging; for example, restaurants, meeting facilities, personal services, etc. Also includes accessory guest facilities such as swimming pools, tennis courts, indoor athletic facilities, accessory retail uses, etc.

Lot: a parcel of land accommodating a building or buildings of unified design. The size of a Lot is controlled by its width in order to determine the grain (i.e., fine grain or coarse grain) of the urban fabric.

Lot Line: the boundary that legally and geometrically demarcates a Lot.

Lot Width: the length of the Principal Frontage Line of a Lot.

Main Civic Space: the primary outdoor gathering place for a community. The Main Civic Space is often, but not always, associated with an important Civic Building.

Manufacturing: premises available for the creation, assemblage and/or repair of artifacts, using table-mounted electrical machinery or artisanal equipment, and including their Retail sale.

Medical Services - Clinic, Urgent Care: A facility other than a hospital where medical, mental health, surgical and other personal health services are provided on an outpatient basis. Examples of these uses include:

> medical offices with five or more licensed practitioners and/or medical specialties, out-patient care facilities, urgent care facilities, other allied health services

These facilities may also include incidental medical laboratories. Counseling services by other than medical doctors or psychiatrists are included under "Offices - Professional/Administrative."

Medical Services - Doctor Office: A facility other than a hospital where medical, dental, mental health, surgical, and/or other personal health care services are provided on an outpatient basis, and that accommodates no more than four licensed primary practitioners (for example, chiropractors, medical doctors, psychiatrists, etc., other than nursing staff) within an individual office suite. A facility with five or more licensed practitioners is instead classified under "Medical Services - Clinic, Urgent Care." Counseling services by other than medical doctors or psychiatrists are included under "Offices - Professional/Administrative."

Medical Services - Extended Care: Residential facilities providing nursing and health-related care as a primary use with in-patient beds. Examples of these uses include: board and care homes; convalescent and rest homes; extended care facilities; and skilled nursing facilities. Long-term personal care facilities that do not emphasize medical treatment are included under "Residential Care."

Meeting Facility, Public or Private: A facility for public or private meetings, including:

> community centers, religious assembly facilities (e.g., churches, mosques, synagogues, etc.), civic and private auditoriums, Grange halls, union halls, meeting halls for clubs and other membership organizations, etc.

Also includes functionally related internal facilities such as kitchens, multi-purpose rooms, and storage. Does not include conference and meeting rooms accessory and incidental to another primary use, and which are typically used only by on-site employees and clients, and occupy less floor area on the site than the offices they support. Does not include:

> cinemas, performing arts theaters, indoor commercial sports assembly or other commercial entertainment facilities.

Related on-site facilities such as day care centers and schools are separately defined, and separately regulated by this Development Code.

Mixed-use: Multiple functions within the same building or the same general area through superimposition or within the same area through adjacency.

Museum: See "Library, Museum."

Neighborhood Market: A neighborhood serving retail store of 3,500 square feet or less in gross floor area, primarily offering food products, which may also carry a range of merchandise oriented to daily convenience shopping needs, and may be combined with food service (e.g., delicatessen).

Net Site Area: all developable land within a site including Thoroughfares but excluding land allocated as Civic Zones.

Network Pedestrian Shed: a Pedestrian Shed adjusted for average walk times along Thoroughfares. This type may be used to structure Infill Community Plans.

Office: Business, Service, Administrative, and Professional.

> *Business, Service:* Establishments providing direct services to consumers. Examples of these uses include employment agencies, insurance agent offices, real estate offices, travel agencies, utility company offices, elected official satellite offices, etc. This use does not include "Bank, Financial Services," which are separately defined.
>
> *Professional, Administrative:* Office-type facilities occupied by businesses that provide professional services, or are engaged in the production of intellectual property. Examples of these uses include:

accounting, auditing and bookkeeping services, advertising agencies, attorneys, business associations, chambers of

commerce, commercial art and design services, construction contractors (office facilities only), counseling services, court reporting services, design services including; architecture, engineering, landscape architecture, urban planning, detective agencies and similar services, doctors, educational, scientific and research organizations, financial management and investment counseling, literary and talent agencies, management and public relations services, media postproduction services, news services, photographers and photography studios, political campaign headquarters, psychologists, secretarial, stenographic, word processing, and temporary clerical employee services , security and commodity brokers, writers and artists offices.

Open Space: land intended to remain undeveloped; it may be for Civic Space.

Outbuilding: an Accessory Building, usually located toward the rear of the same Lot as a Principal Building, and sometimes connected to the Principal Building by a Backbuilding.

Park, Playground: An outdoor recreation facility that may provide a variety of recreational opportunities including playground equipment, open space areas for passive recreation and picnicking, and sport and active recreation facilities.

Parking Facility, Public or Private: Parking lots or structures operated by the City, or a private entity providing parking for a fee. Does not include towing impound and storage facilities.

Passage (PS): a pedestrian connector, open or roofed, that passes between buildings to provide shortcuts through long Blocks and connect rear parking areas to Frontages.

Path (PT): a pedestrian way traversing a Park or rural area, with landscape matching the contiguous Open Space, ideally connecting directly with the urban Sidewalk network.

Pedestrian Shed: An area that is centered on a Common Destination. Its size is related to average walking distances for the applicable Community Unit type. Pedestrian Sheds are applied to structure Communities. See Standard, Long, Linear or Network Pedestrian Shed. (Syn: walkshed, walkable catchment.)

Personal Services: Establishments that provide non-medical services to individuals as a primary use. Examples of these uses include:

> barber and beauty shops, clothing rental, dry cleaning pick-up stores with limited equipment, home electronics and small appliance repair, laundromats (self-service laundries), locksmiths, massage (licensed, therapeutic, non-sexual), nail salons, pet grooming with no boarding, shoe repair shops, tailors, tanning salons.

These uses may also include accessory retail sales of products related to the services provided.

Planter: the element of the Public Frontage which accommodates street trees, whether continuous or individual.

Plaza: a Civic Space type designed for Civic purposes and Commercial activities in the more urban Transect Zones, generally paved and spatially defined by building Frontages.

Principal Building: the main building on a Lot, usually located toward the Frontage.

Principal Entrance: the main point of access for pedestrians into a building.

Principal Frontage: On corner Lots, the Private Frontage designated to bear the address and Principal Entrance to the building, and the measure of minimum Lot width. Prescriptions for the parking Layers pertain only to the Principal Frontage. Prescriptions for the first Layer pertain to both Frontages of a corner Lot. See Frontage.

Private Frontage: the privately held Layer between the Frontage Line and the Principal Building Facade.

Prohibited Uses: The following are examples of uses not permitted anywhere within the Dumbarton TOD Specific Plan area:

> animal hatcheries; boarding houses; chemical manufacturing, storage, or distribution; any commercial use in where patrons remain in their automobiles while receiving goods or services, except service stations; enameling, painting, or plating of materials, except artist's studios; kennels; the manufacture, storage, or disposal of hazardous waste materials; mini-storage warehouses; outdoor advertising or billboards; packing houses; prisons or detention centers, except as accessory to a police station; drug and alcohol treatment and rehab centers; thrift stores; soup kitchens and charitable food distribution centers; sand, gravel, or other mineral extraction; scrap yards; tire vulcanizing and retreading; vending machines, except within a commercial building; uses providing goods or services of a predominantly adult-only or sexual nature, such as adult book or video stores or sex shops; and other similar uses as determined by the Director.

Public Frontage: the area between the Curb of the vehicular lanes and the Frontage Line.

Rear Alley (RA): a vehicular way located to the rear of Lots providing access to service areas, parking, and Outbuildings and containing utility easements. Rear Alleys should be paved from building face to building face, with drainage by inverted crown at the center or with roll Curbs at the edges.

Rear Lane (RL): a vehicular way located to the rear of Lots providing access to service areas, parking, and Outbuildings and containing utility easements. Rear Lanes may be paved

lightly to Driveway standards. The streetscape consists of gravel or landscaped edges, has no raised Curb, and is drained by percolation.

Rearyard Building: a building that occupies the full Frontage Line, leaving the rear of the Lot as the sole yard.

Recess Line: a line prescribed for the full width of a Facade, above which there is a Stepback of a minimum distance, such that the height to this line (not the overall building height) effectively defines the enclosure of the Enfronting public space. Var: Extension Line.

Regional Center: Regional Center Development or RCD.

Regional Center Development (RCD): a Community Unit type structured by a Long Pedestrian Shed or Linear Pedestrian Shed, which may be adjoined without buffers by one or several Standard Pedestrian Sheds, each with the individual Transect Zone requirements of a TND. RCD takes the form of a high-Density Mixed Use center connected to other centers by transit.

Regulating Plan: a Zoning Map or set of maps that shows the Transect Zones, Civic Zones, Special Districts if any, and Special Requirements if any of areas subject to, or potentially subject to, regulation by the SmartCode.

Residential: Premises used primarily for human habitation. Units shall not be less than 375 square feet in net area.

Residential Care, 6 or Fewer Clients: A single dwelling or multi-unit facility with six or fewer clients, licensed or supervised by a Federal, State, or local health/welfare agency that provides 24-hour nonmedical care of unrelated persons who are handicapped and in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual in a family-like environment. Does not include day care facilities, which are separately defined.

Residential Care, 7 or more Clients: A single dwelling or multi-unit facility with seven or more clients, licensed or supervised by a Federal, State, or local health/welfare agency that provides 24-hour nonmedical care of unrelated persons who are handicapped and in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual in a family-like environment. Does not include day care facilities, which are separately defined.

Restaurant, Cafe, Coffee Shop: A retail business selling ready-to-eat food and/or beverages for on- or off-premise consumption. These include eating establishments where customers are served from a walk-up ordering counter for either on- or off-premise consumption (“counter service”); and establishments where customers are served food at their tables for on-premise consumption (“table service”), that may also provide food for take-out, but does not include drive-through services.

Retail: characterizing premises available for the sale of merchandise and food service.

Retail Frontage: Frontage designated on a Regulating Plan that requires or recommends the provision of a Shopfront, encouraging the ground level to be available for Retail use.

Road (RD): a local, rural and suburban Thoroughfare of low-to-moderate vehicular speed and capacity. This type is allocated to the more rural Transect Zones.

Rowhouse: a single-family dwelling that shares a party wall with another of the same type and occupies the full Frontage Line. See Rearyard Building. (Syn: Townhouse)

Rural Boundary Line: the extent of potential urban growth as determined by existing geographical determinants. The Rural Boundary Line is permanent.

School, Public or Private: Includes the following facilities:

> *Elementary, Middle, Secondary:* A public or private academic educational institution, including elementary (kindergarten through 6th grade), middle and junior high schools (7th and 8th grades), secondary and high schools (9th through 12th grades), and facilities that provide any combination of those levels. May also include any of these schools that also provide room and board.
>
> *Specialized Education/Training:* A school that provides education and/or training, including tutoring, or vocational training, in limited subjects. Examples of these schools include:
>
> art school, ballet and other dance school, business, secretarial, and vocational school, computers and electronics school, drama school, driver education school, establishments providing courses by mail, language school, martial arts, music school, professional school (law, medicine, etc.), seminaries/ religious ministry training facility

Does not include pre-schools and child day care facilities (see "Day Care"). See also the definition of "Studio - Art, Dance, Martial Arts, Music, etc." for smaller-scale facilities offering specialized instruction.

Secondary Frontage: on corner Lots, the Private Frontage that is not the Principal Frontage. As it affects the public realm, its First Layer is regulated.

Secondary Building: A building that accommodates the secondary use of the site.

Secondary Frontage: on corner Lots, the Private Frontage that is not the Principal Frontage. As it affects the public realm, its First Layer is regulated.

Setback: The mandatory distance between a property line and a building or appurtenance. This area must be left free of

structures that are higher than 3 feet excluding Streetwalls, except as noted in the Urban Regulations.

Shared Parking: Any parking spaces assigned to more than one use, where persons utilizing the spaces are unlikely to need the spaces at the same time of day.

Shopfront: The portion of a building at the ground floor that is made available for retail or other commercial use. Shopfronts shall be directly accessible from the sidewalk.

Sidewalk: the paved section of the Public Frontage dedicated exclusively to pedestrian activity.

Sideyard Building: a building that occupies one side of the Lot with a Setback on the other side. This type can be a Single or Twin depending on whether it abuts the neighboring house.

Single Family Dwelling: A residential structure containing a single dwelling unit. Includes for the purposes of this Development Code Rowhouses.

Slip Road: an outer vehicular lane or lanes of a Thoroughfare, designed for slow speeds while inner lanes carry higher speed traffic, and separated from them by a planted median. (Syn: access lane, service lane)

Specialized Building: a building that is not subject to Residential, Commercial, or Lodging classification.

Special District (SD): an area that, by its intrinsic Function, Disposition, or Configuration, cannot or should not conform to one or more of the normative Community Unit types or Transect Zones specified by the SmartCode. Special Districts may be mapped and regulated at the regional scale or the community scale.

Special Flood Hazard Area: a designation by the Federal Emergency Management Agency (FEMA) that may include the V (Velocity) Zones and Coastal A Zones where building construction is forbidden, restricted, or contingent upon raising to the Base Flood Elevation.

Square: a Civic Space type designed for unstructured recreation and Civic purposes, spatially defined by building Frontages and consisting of Paths, lawns and trees, formally disposed.

Standard Pedestrian Shed: a Pedestrian Shed that is an average 1/4 mile radius or 1320 feet, about the distance of a five-minute walk at a leisurely pace. See Pedestrian Shed.

Stepback: a building Setback of a specified distance that occurs at a prescribed number of Stories above the ground.

Stoop: a Private Frontage wherein the Facade is aligned close to the Frontage Line with the first Story elevated from the Sidewalk for privacy, with an exterior stair and landing at the entrance.

Street (ST): a local urban Thoroughfare of low speed and capacity.

Streetscreen: a freestanding wall built along the Frontage Line, or coplanar with the Facade. It may mask a parking lot from the Thoroughfare, provide privacy to a side yard, and/or strengthen the spatial definition of the public realm.

Story: A habitable floor level within a building, typically 8′ to 12′ high from floor to ceiling. Individual spaces, such as lobbies and foyers may exceed one story in height. In Shopfront spaces, the ceiling height of the first story may be as high as 16′.

Studio: Art, Dance, Martial Arts, Music, etc: Small scale facilities, typically accommodating no more than two groups of students at a time, in no more than two instructional spaces. Examples of these facilities include: individual and group instruction and training in the arts; production rehearsal; photography, and the processing of photographs produced only by users of the studio facilities; martial arts training studios; gymnastics instruction, and aerobics and gymnastics studios with no other fitness facilities or equipment.

Also includes production studios for individual musicians, painters, sculptors, photographers, and other artists.

Substantial Compliance: It occurs when physical improvements to the existing development site are completed which constitute the greatest degree of compliance with current development provisions.

Substantial Modification: alteration to a building that is valued at more than 50% of the replacement cost of the entire building, if new.

Swale: a low or slightly depressed natural area for drainage.

T-zone: Transect Zone.

TDR: Transfer of Development Rights, a method of relocating existing zoning rights from areas to be preserved as Open Space to areas to be more densely urbanized.

TDR Receiving Area: an area intended for development that may be made more dense by the purchase of development rights from TDR Sending Areas.

TDR Sending Area: an area previously zoned for development within a designated Reserved Open Sector (O-2), from which development rights may be transferred to a Growth Sector.

Terminated Vista: a location at the axial conclusion of a Thoroughfare. A building located at a Terminated Vista designated on a Regulating Plan is required or recommended to be designed in response to the axis.

Theater, Cinema or Performing Arts: An indoor facility for group entertainment, other than sporting events. Examples of these facilities include:

civic theaters, facilities for “live” theater and concerts, and movie theaters

Thoroughfare: a way for use by vehicular and pedestrian traffic and to provide access to Lots and Open Spaces, consisting of Vehicular Lanes and the Public Frontage.

TND: Traditional Neighborhood Development, a Community Unit type structured by a Standard Pedestrian Shed oriented toward a Common Destination consisting of a Mixed Use center or Corridor, and in the form of a medium-sized settlement near a transportation route.

TOD: Transit Oriented Development. TOD is created by an overlay on all or part of a TND or RCD, or by designation on a Regional Plan, permitting increased Density to support rail or Bus Rapid Transit (BRT).

Townhouse: See Rearyard Building. (Syn: Rowhouse)

Transect: a cross-section of the environment showing a range of different habitats. The rural-urban Transect of the human environment used in the SmartCode template is divided into six Transect Zones. These zones describe the physical form and character of a place, according to the Density and intensity of its land use and Urbanism.

Transect Zone (T-zone): One of several areas on a Zoning Map regulated by the SmartCode. Transect Zones are administratively similar to the land use zones in conventional codes, except that in addition to the usual building use, Density, height, and Setback requirements, other elements of the intended habitat are integrated, including those of the private Lot and building and Public Frontage

Turning Radius: the curved edge of a Thoroughfare at an intersection, measured at the inside edge of the vehicular tracking. The smaller the Turning Radius, the smaller the pedestrian crossing distance and the more slowly the vehicle is forced to make the turn. .

Urban Boundary Line: the extent of potential urban growth as determined by the projected demographic needs of a region. The Urban Boundary Line may be adjusted from time to time.

Urbanism: collective term for the condition of a compact, Mixed Use settlement, including the physical form of its development and its environmental, functional, economic, and sociocultural aspects.

Urbanized: generally, developed. Specific to the SmartCode, developed at Sub-Urban Density or higher.

Variance: a ruling that would permit a practice that is not consistent with either a specific provision or the Intent of this Code. Variances are usually granted by the Board of Appeals in a public hearing.

Warrant: a ruling that would permit a practice that is not consistent with a specific provision of this Code, but that is justified by its Intent. Warrants are usually granted administratively by the CRC.

Work-Live: a Mixed Use unit consisting of a Commercial and Residential Function. It typically has a substantial Commercial component that may accommodate employees and walk-in trade. The unit is intended to function predominantly as work space with incidental Residential accommodations that meet basic habitability requirements. See Live-Work. (Syn: Live-With.)

Yield: characterizing a Thoroughfare that has two-way traffic but only one effective travel lane because of parked cars, necessitating slow movement and driver negotiation. Also, characterizing parking on such a Thoroughfare.

Zoning Map: the official map or maps that are part of the zoning ordinance and delineate the boundaries of individual zones and districts. See Regulating Plan.