M E M O R A N D U M

DATE May 31, 2012

TO Tomas Duran, Washington Boulevard Coalition
Southern California Association of Governments

FROM Shannon Kimball, Project Manager

RE **Draft Design Strategies and Concepts**

This memorandum provides a list of policy and design recommendations for the areas along the Washington Boulevard Light Rail corridor. These recommendations consist of suggested General Plan policies and land use changes, overall design strategies, and key station area strategies and design concepts intended to promote an active and attractive built environment that supports future light rail investment. Development prototypes were developed for three of the proposed stations along the Washington Boulevard Light Rail corridor: Rosemead, Norwalk, and Lambert. These are described in Section C of this memo along with strategies to facilitate their implementation. The three station sites and land use concepts were developed in consultation with the Washington Boulevard Coalition. A financial feasibility and pro forma analysis that demonstrates their feasibility are provided in Appendix A and Appendix B.

The following strategies support the Compass Blueprint Growth Vision principles of **mobility**, **livability**, **prosperity**, and **sustainability** by:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable communities
- Targeting growth around existing and planned transit stations
- Preserving existing open space and stable residential areas

A. General Plan Amendment Strategies

As General Plans set the policy framework for future land uses and development design, the jurisdictions along the corridor (Monterey Park, Montebello, Pico Rivera, Whittier, and Unincorporated Los Angeles County) should amend their General Plan to revise the land use designations and land use map and include policies to foster high density, mixed-use land uses within the station area ½-mile radii. Below are suggested policies pertaining to the

Land Use, Circulation/Transportation, and Urban Design/Community Character Elements (or similar):

1. **Recommended Policies (Land Use Element):**
   - Concentrate commercial, mixed-use, and medium- to high-density residential development along transit corridors and major intersections that can be served efficiently by light rail transit and alternative transportation modes.
   - Provide for housing near jobs, transit routes, schools, shopping areas, and recreation to discourage long commutes; promote public transit, walking, and biking; and lessen traffic congestion.
   - Allow for density bonuses and other incentives to encourage mixed-use development projects in mixed-use designations.
   - Provide for a variety of housing types including, but not limited to, single-family attached and detached, condominiums, and multifamily apartments.
   - Support development and redevelopment that create jobs for all income and educational levels.
   - Promote infill development, redevelopment, rehabilitation, and reuse efforts that contribute positively to existing neighborhoods and surrounding areas.
   - Establish incentives to promote the use and development of vacant infill parcels and the intensification of land uses on underutilized parcels to realize the greatest benefit to the community.
   - Plan and direct growth to areas where the future rail transit system will support and stimulate high density development.
   - Allow and encourage the creation of studios and workspaces for artists, craftspeople, and other professions and allow for self-employment and home occupations, where compatible with the desired neighborhood character.
   - Designate land for industrial uses sufficient to meet future city needs, but only in locations that will not negatively impact residential neighborhoods.
   - Promote the design of complete neighborhoods that are structured to be family-friendly, encourage walking, biking, and the use of mass transit, foster community pride, enhance neighborhood identity, ensure public safety, improve public health, and address the needs of all ages and abilities.
   - Preserve, protect, and enhance established neighborhoods by providing sensitive transitions between those neighborhoods and adjoining areas, and require new development to respect and respond to those existing physical characteristics, buildings, streetscapes, open spaces, and urban form that contribute to the overall character and livability of the neighborhood.

- Encourage privately initiated redevelopment efforts in residential, commercial, and industrial areas and use public resources where available to stimulate and leverage private investment.

2. Recommended General Plan Policies (Circulation Element)

- Allow, encourage, and facilitate transit-oriented development, mixed-use, and infill projects in appropriate locations to reduce vehicular trips, especially near future light rail stations and along major transportation corridors.
- Require new development to provide and enhance connectivity to existing transportation facilities via the provision of key roadway connections, sidewalks, and bicycle facilities.
- Require new/infill development to provide good internal circulation facilities that meets the needs of walkers, bicyclists, children, seniors, and persons with disabilities.
- Strive to attain an automobile Level of Service (LOS) of D or better (or an equivalent standard under another analytical methodology). An automobile LOS of E or F may be acceptable under the following circumstances: 1) improvements necessary to attain a automobile LOS of D or better would decrease the effectiveness of the nonautomotive components of the multi-modal circulation system (i.e. pedestrians, bicyclists, mass/public transit, etc.), or 2) improvements necessary to increase the effectiveness of the non-automotive components of the multimodal transportation system result in a decrease in automobile LOS.

3. Recommended General Plan Policies (Urban Design Element)

- Encourage an overall high quality streetscape design, where feasible, that promotes narrow roadways; bike lanes; on-street parking; minimal curb cuts; enhanced crosswalks; appropriate sidewalk widths; landscaped medians and parkways; street trees, planters, and wells; street lighting; street furniture; wayfinding; enhanced paving; public art; and other features that contribute to the desired character of the community, where appropriate.
- Apply design standards that promote the use of high quality building materials, architectural and site designs, landscaping, signage, and amenities.
- Promote a variety of housing styles and encourage the use of front porches, stoops, and individual unit entries, where appropriate.
- Promote appropriate transitions in building height and bulk which are sensitive to the visual and physical character of adjacent neighborhoods.
- Apply right-of-way design standards that promote urban forestry and encourage urban greening throughout the streetscape.

- Encourage the preparation of specific or master plans to guide development in areas that have particular importance due to their location, characteristics, or potential for new development, such as infill sites within proximity to future light rail transit.

B. Design Strategies

The uses and built character of the eight-mile Washington Boulevard corridor varies widely from one end to the other. The following section provides land use, mobility, and design strategies for the corridor as a whole as well as specific priority strategies and design concepts for three key proposed station areas, Washington/Rosemead, Washington/Norwalk, and Washington/Lambert.

1. Land Use

The current land uses along the corridor vary widely from single-family homes and neighborhood commercial to multi-family apartment, heavier commercial, and industrial and manufacturing. There are numerous underutilized parcels within the corridor station areas, suitable for more intensive, transit-supportive uses. The careful weaving of new transit-supportive development into the fabric of the corridor, and station areas in particular, will be a major key to the success of the Washington Boulevard Light Rail Corridor.

The General Plan land uses should be exemplified by intensive and mixed-use compatible land use designations along the Washington Boulevard corridor, particularly within the station areas and key intersections, and less intensive land use designations away from the main corridor. The specific intensity and type of uses should build upon existing physical characteristics and balance preservation of existing character with introduction of uses that will enhance that character and support transit investment.

- Existing General Plan policies should be changed for all jurisdictions along the Washington Boulevard corridor. In addition to General Plan policy recommendations included in Section A above, specific land use strategies are identified in Section C below for the three station areas.
- Existing General Plan land use designations for parcels in the station areas would need to be changed (specific land use designations suggested in Section C below). The General Plan land use designations would provide the land use framework for the location, use, and intensity of new development in the station areas.

1. Site Design

Site design is the most basic component of the design process for any development project. It involves fundamental decisions about where buildings are located on a site, how they relate to their surroundings, and where space is provided for pedestrians, vehicles, and

bicyclists. Private development also shapes the public realm by defining the edges of the street. New development within the station areas should be planned so that it emphasizes the needs of pedestrians, rather than vehicles along the busy arterial streets, which has the power to reinvigorate the public realm. The following list the main categories of site design:

a. **Siting and Orientation.** The proposed station areas already include a number of everyday uses. Successful site design must coordinate a variety of activities. Buildings should be located where they can connect to the public realm, but must also be arranged within the site so that appropriate space is provided for parking, outdoor seating and open space, and pedestrian and bicycle linkages.

- Buildings should be highly visible and readily accessible from the sidewalk, encouraging people to walk from place to place.
- Front setbacks or build-to-lines should set the amount of space, if any, that lies between the building and sidewalk or street to define the transition between private development and the public realm.
- Site design must determine how each building's mass-its three-dimensional form-will fit within the site as a whole. The site design must strike a balance that provides a built edge to define the public realm, while not presenting an overwhelming face to the street.
- Buildings should be placed at the corner/intersection to give prominence. Design corner sites to acknowledge and maximize this prominence and help define the edge of the street intersection.
- Small plazas, courtyards, and other outdoor spaces should be included to create a visual connection to the public realm as well as a physical transition zone between the building and the street.
- Outdoor seating can be incorporated to encourage foot traffic and provide places where people are encouraged to stop and linger. Outdoor seating areas can be located within the interior of the site for residents and employees or closer to the public realm.

b. **Neighborhood Context.** Current development within the proposed station areas is predominately low-density. The design of infill development within station areas must be sensitive to the existing surrounding residential context and positively contribute to the public realm.

- Site design should carefully balance the need to respond to the existing context with the need to introduce new development that can improve the character and the scale of the surrounding area.
- Coordination between multiple sites should be encouraged to help develop a consistent community character. New projects should consider adjacent sites to identify potential opportunities for the coordination of building programs, site amenities, and functional operations.

c. **Site Access.** Vehicle access should not dominate a site, even where vehicle access must be accommodated for parking or loading areas. Pedestrian and bicycle access should be given equal consideration.

- Entrances to buildings should be oriented toward the public street where they are visible and inviting to people on foot to add to the visual interest of the public realm.
- Though it is important to allow vehicles to access a site, existing and new access points should be re-designed/designed to minimize conflicts with pedestrians and bicyclists.

d. **Parking**. Though the goal along the Corridor and within the station areas will be to promote use of transit and alternative modes of travel, places must be designed to accommodate all modes, including the automobile. The challenge is to provide parking supply that is slightly constrained but does not deter customers, frustrate tenant, or create problems for nearby residents. Parking needs should be met with creative designs that prioritize the pedestrian and are incorporated into sites without dominating the public realm.

- Parking lots should be visually separated from the street, as well as surrounding residential areas.
- Landscaping and pathways should be incorporated to make parking lots more attractive and functional and to help buffer from surrounding uses.
- Large surface parking areas should be divided into smaller units to decrease visual impacts of large expanses of pavement and vehicles using landscaped walkways, tree rows, or outbuildings.
- Parking garages need to be designed so they are well integrated with their surroundings, particularly those associated with the transit stations. Attention to

architectural detail can be used to conceal the massing of garages, allowing them to better fit into the context of adjacent buildings.

- Safe and secure facilities should be provided for parking bikes, similar to vehicles.
- Parking demand management programs can be implemented to allow for a reduced parking while still meeting the needs of drivers. Cities and the County should consider parking standards and policies, such as minimum and maximum requirements.

2. Mobility (Street Networks and Connectivity)

The proposed station areas are located along busy arterial streets that could benefit from an alternative to automobile traffic to support new development and to reduce congestion. Improved connectivity and complete streets-street that provide for all modes of transportation-will be important in the proposed station areas, particularly along the high-flow, congested arterials in order to accommodate the variety of transportation choices necessary to support more intensive development, while minimizing the amount of land required for automobile travel and storage.

a. **Connectivity.** Good connectivity within a site - the directness of links and density of connections in the network - allows people to easily move to and from the public realm. This ease of movement encourages use of alternative modes of transportation. Site planning should increase connectivity by implementing design solutions that maximize access and optimize pedestrian use of new development.

- Infill of the very large sites within the proposed station areas, including large shopping centers and manufacturing and industrial sites should provide short street segments and walkable block sizes to create a highly-connected network of streets.
- Reconstruction of segments of existing streets should be considered where feasible so streets are more compatible with alternative modes of travel.
- Design access points to minimize conflicts with pedestrians and bicyclists including limiting the number of access points, minimizing the width of driveways, and placing all driveways at right angles to the street.
- Connect new development to the street and public realm by designing with clear pedestrian connections to the sidewalk.
- Transit stops should be integrated into the public realm through site design that incorporates the transit facility into public spaces adjacent to compatible uses such as restaurants, retail, and other commercial services that meet the needs of residents and other transit patrons.

b. **Complete Streets.** Streets within the proposed station areas should be redesigned according to the key principles of Complete Streets so that streets are designed and operate to enable safe access for all users. These principles include balancing user needs; designing for pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities; and multimodal intersection design.

3. Pedestrian Realm/Streetscape

The visual elements of a street, including the road, adjoining buildings, street lights, street furniture, trees, landscaping and open spaces, combine to form the street's character and can contribute to the unique character of a block or entire neighborhood. Creating a safe, accessible and attractive pedestrian environment will encourage pedestrian movement through the proposed station areas and attract the diverse and concentrated mix of uses necessary to support the future light rail. Careful redesign of the pedestrian spaces within the station areas will need to consider dimensions, amenities, lighting and the design of the buildings fronting the pedestrian path.

- Sidewalk widths should be commensurate with the level of pedestrian activity desired for the specific street frontage. Sidewalk widths should provide space for pedestrian amenities, for local business activity to spill out onto the sidewalk, and for a leisurely walking pace without vehicle traffic dominating the pedestrian realm.
- Semi-public outdoor spaces, such as plazas or courtyards, should be integrated into commercial development where feasible to help support pedestrian activity and connect to the public realm.
- Outdoor areas should be visible from public streets and accessible from buildings, as well as streets and pedestrian and bicycle networks. These areas should be used to connect different uses.
- Outdoor seating should be incorporated into site design in order to encourage foot traffic and provide places where people are encouraged to stop and linger.
- Trees and other plant materials should be used a means of enriching the pedestrian experience, enhancing aesthetics, and improving the health, sustainability and ecological function of the urban environment. A coordinated selection and spacing of tree species and other plantings can establish a distinctive identity for the corridor or particular station area within a community.
- Public art should be incorporated to facilitate pedestrian use by animating pedestrian spaces and fostering community identity through the addition of visual and intellectual interest in the public streetscape.

- Pedestrian routes and building facades should be appropriately illuminated to their use and location, with light fixture design selected to best complement the architectural design of the project.
- Street furniture and other amenities such as trash receptacles, bike racks, kiosks, and newsstands, should be located in conjunction with active pedestrian areas such as intersections, key building entries, public parks and plazas, transit stops, important intersections and pedestrian streets to help animate the pedestrian realm, support public use, and establish the character and identity of an area.

4. Architecture

Quality and strategic building design would ensure that future development within the station areas contribute to the positive character of the communities, particularly the public realm. Buildings should include architectural features that respond to the local context.

a. **Building Frontage.** Well-designed and thoughtfully proportioned building frontage provides visual interest and contributes to a community's character.

- The rhythm and level of detail of building facades along the streets should be used to create visual interest and activate the pedestrian realm.
- Windows, awnings, canopies, and arcades can be used to enliven the pedestrian environment, provide ground floor commercial to be seen by passersby, and provide cover from the elements.
- Building exteriors should incorporate a limited number of complementary colors and materials and innovative new or traditional materials to create visually appealing and stimulating buildings.
- Where multiple-tenant spaces are incorporated into a building, individual tenant spaces should characterize a building's structural elements.
- The mass of large buildings should be broken into proportional components that relate to the human scale.

b. **Resource Conservation.** Design solutions should incorporate strategies to conserve resources during both construction and operation of the building.

- Numerous systems including rooftop catchment, "greywater" plumbing as well as low-water-use fixtures and appliances should be considered in all new and renovated buildings.
- Green roofs should be used as an effective tool to provide multiple environmental benefits.

- Energy conservation techniques tailored to the climate of the Los Angeles region should be incorporated to minimize energy needed for lighting, heating, cooling, and ventilation.
- Cost-efficient and sustainable construction materials and practices should be utilized in all development.
- Adaptive reuse of existing underutilized buildings and opportunity sites should be a primary strategy within the station areas. Adaptive reuse would help conserve natural resources, preserve history and reinforce neighborhood character and identity.

c. **Roof Design.** The form, color and texture of the roof should be addressed as an integral part of the overall building design.

- The design of the roof's shape should reflect the configuration of the building's mass and volume and should have a consistent character from all vantage points.

d. **Signage.** Signage should be intended to identify the occupant or occupants.

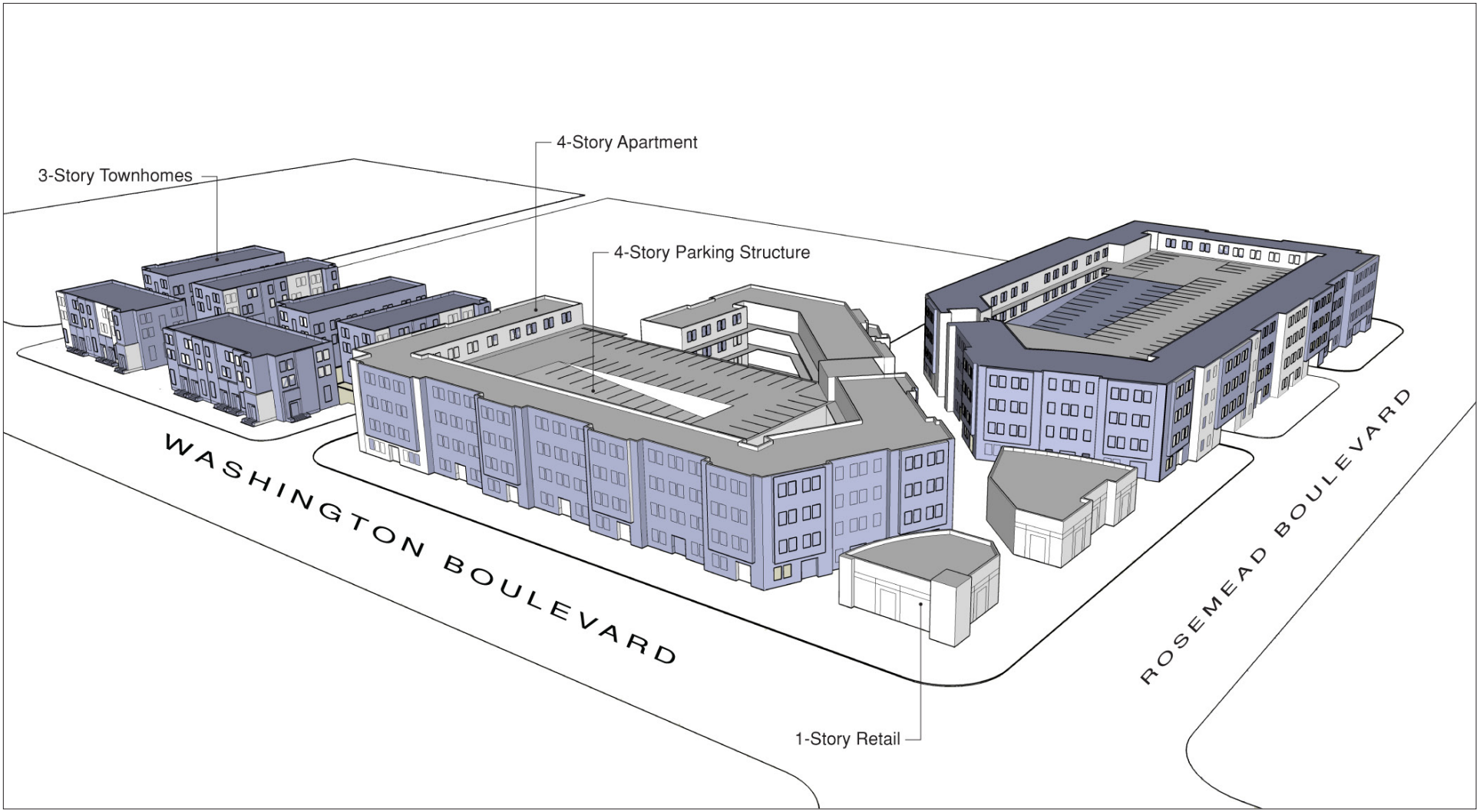
- Information should be limited to the occupants and addresses and should not be used for the purposes of advertising.
- A building's signage should conform to the architectural detailing of the associated building including building scale, design, and materials selection.
- Signs should not obscure architectural details such as recesses, structural bays or fenestration with wall-mounted signs.

C. Station-Specific Strategies (correlated to design concepts)

Development prototypes were developed for three of the proposed stations along the Washington Boulevard Light Rail corridor: Rosemead, Norwalk, and Lambert. The following strategies provide direction specific to the three stations and their respective development prototypes as illustrated in the site renderings in Figures 1-3.

1. Washington/Rosemead Station

The design concept for the Rosemead Gold Line Station includes both high density residential and retail commercial (See Figure 1). The development prototype was prepared for the blocks at the northeast corner of the Washington Blvd/Rosemead Blvd intersection. The residential component includes 241 units at 33.2 dwelling units per acre (du/ac) and 28,600 square feet (sq. ft.) of retail with a 1.7 floor area ratio (FAR). This Gold Line station



Source:The Planning Center | DC&E, 2012.

FIGURE 1

ROSEMEAD BLVD STATION AREA PROPOSED DEVELOPMENT CONCEPT

would potentially be located in an aerial structure at the intersection of Washington Blvd and Rosemead Blvd. Surrounding land uses currently include general commercial (restaurants and retail) and medium density multi-family residential.

Land Use

- Amend the City of Pico Rivera General Plan Land Use Element to add the following Mixed Use land use designation:
    - The Mixed Use land use designation is intended to provide for the integration of both residential and commercial/retail/office uses within a single project. Appropriate land uses include high density residential, allowing for a range of multi-family housing types, and a broad range of commercial, retail, service, and office uses.

      Minimum/Maximum Land Use Intensity: 14-35 units per net acre; Floor Area Ratio of ≤1.75.

- Amend the City of Pico Rivera General Plan Land Use Map to apply the Mixed Use land use designation to the parcels at the northeast corner of the Washington Blvd/Rosemead Blvd intersection.
- Amend the City of Pico Rivera Zoning Map to include a Mixed Use zoning classification with a density range of 14-35 du/ac and Retail Commercial with a maximum FAR of 1.75.
- Amend the City of Pico Rivera Zoning Map to change the General Commercial and Multiple Family Residential zones at the northeastern corner of the Washington Blvd/Rosemead Blvd intersection to Mixed Use.

Site Design

- Provide one-story retail oriented towards the street, located on the street corner so that the building meets the corner to emphasize the intersection of the streets and elevated Gold Line station. One-story buildings will also step back the height to buildings behind.
- Provide four-story apartment buildings with internal four-story structured parking to define the edge of the street immediately adjacent to the one-story retail along Washington Blvd and Rosemead Blvd.
- Provide three-story townhome buildings one block north on Washington Blvd.
- Site all buildings at the back of the sidewalk to provide a strong definition of the public realm. Buildings should be separated from the street only by the sidewalk and landscaped park strip.

- Place entrances to the buildings and walkways into the site directly from the sidewalk.

Mobility (Street Network and Connectivity)

- Provide buffered bicycle lanes or cycle tracks to provide links between proposed land uses, transit station, and Rio Hondo Bike Path to the west.
- Provide a pedestrian plaza at the land of stairs/elevator for westbound platform of the elevated station.
- Provide unique special intersection and crosswalk paving to link proposed land uses to Gold Line station.
- Place formal transit stops or shelters at all four corners of the intersection for Washington and Rosemead transit service.
- Locate bicycle racks for retail employees and customers.
- Include pedestrian-scale treatments and lighting to promote strong connections into and out of apartment and retail uses. Consider curb-type roadway treatment (closed to vehicles with bollards), to provide easy bicycle access and separation of bicycle and pedestrian flows.
- Locate a bicycle station internal to the site linked from the street by a bike access route to provide bicycle repairs, related commerce.
- Provide structured parking internal to the buildings for the apartment units and tuck-under parking for the townhome units.

Pedestrian Realm

- Site all buildings at the back of the sidewalk to provide a strong definition of the public realm.
- Maintain landscaped areas, including mature trees, along the street edge to activate building facades, soften the building mass, and provide shade.
- Integrate a public outdoor plaza internal to the site between the apartment buildings and retail. The plaza should maximize circulation opportunities between apartment buildings, retail, and the street.
- Incorporate landscaping at the edges of the internal walkways and plaza to help define the spatial organization of the site.

Architecture

- Incorporate building details such as recessed windows and entries to add depth and solidity to the apartment and townhome building facades.

- Design the façade of the apartment buildings to have a distinct base (retail), middle, and top.
- Use large window proportions and clear glass in retail buildings for visibility by both pedestrians and motorists at the street level.
- Design doors or sliding windows of one-story corner retail buildings to enable uses to expand onto the sidewalk. Particular emphasis should be given to encouraging expansion of uses onto the plaza.

2. Washington/Norwalk Station

The design concept for the Norwalk Station includes both high density residential and retail commercial (See Figure 2). The development prototype was prepared for the blocks at the southwestern and southeastern corners of the Washington Blvd/Norwalk Blvd intersection. The residential component includes 174 units at 50 du/ac and 32,700 sq. ft. of retail with a 1.0 FAR. This Gold Line station would potentially be located in an at-grade structure at the intersection of Washington Blvd and Norwalk Blvd, with immediate access to the Santa Fe Springs Marketplace and new development opportunities. Surrounding land uses include retail commercial, a church, and low-density residential.

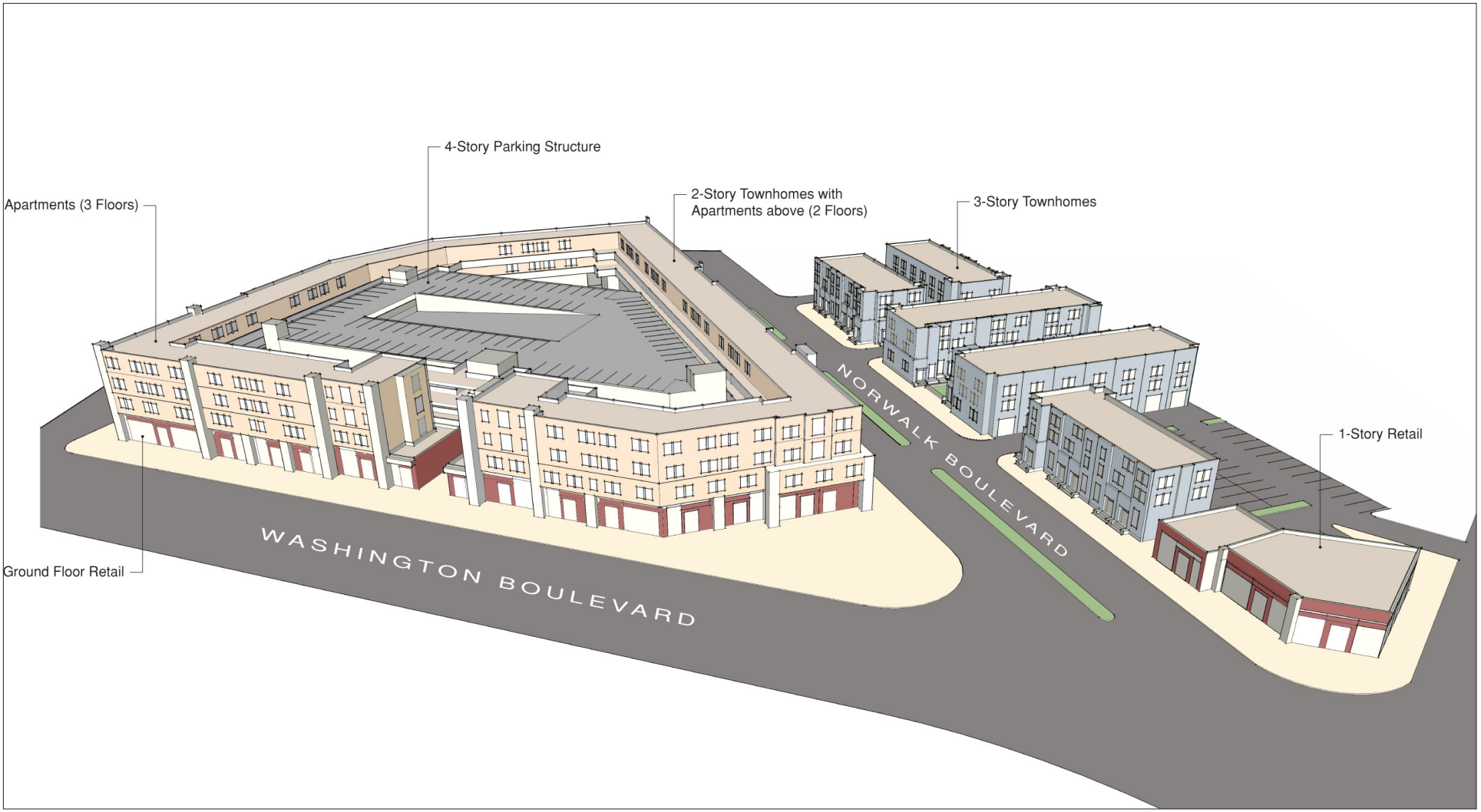
Land Use

- Amend the May 2012 Public Review Draft of the County of Los Angeles General Plan 2035 to incorporate the following land use changes:
  - Designate the area within a ½ mile radius of the proposed Norwalk Blvd Station as a TOD District.
  - Apply the Mixed Use (MU) land use designation to the blocks at the southwestern and southeastern corners of the Washington Blvd/Norwalk Blvd intersection.
- Amend the County of Los Angeles Zoning Map to apply the Mixed Use Development (MXD) land use designation to the southwest and southeast corners of the Washington Blvd/Norwalk Blvd intersection. Current allowable density/intensity is sufficient.

  Minimum/Maximum Land Use Intensity: 20-50 units per net acre;
  Floor Area Ratio: 1.0 FAR.

Site Design

- Provide one-story retail oriented towards the street, located on the street corner so that the building meets the corner to emphasize the intersection of the streets at the southwest corner of Washington Blvd and Norwalk Blvd. One-story buildings will also step back the height to buildings behind.



Source:The Planning Center | DC&E, 2012.

FIGURE 2

NORWALK BLVD STATION AREA PROPOSED DEVELOPMENT CONCEPT

- Provide four-story buildings with internal four-story structured parking to define the edge of the street along Washington Blvd and the eastern side of Norwalk Blvd.
    - Provide three floors of apartment units above ground floor retail along Washington Blvd. and two floors of apartment units above two-story townhomes along Norwalk Blvd.
- Provide three-story townhome buildings along the western side of Norwalk Blvd.
- Site all buildings at the back of the sidewalk to provide a strong definition of the public realm. Buildings should be separated from the street only by the sidewalk and landscaped park strip.
- Place entrances to the buildings and walkways into the site directly from the sidewalk.

Mobility (Street Networks and Connectivity)

- Provide a mid-block crosswalk on Washington Blvd, aligned with main entrance into the apartment building and interfacing with uses on south side of Washington Blvd.
- Provide bicycle lanes or other facilities, as planned for station improvements, to provide links between station, proposed land uses, and the San Gabriel River Bike Trail.
- Construct a pedestrian plaza, with major stops and shelters, for the Monetebello Bus Lines on Norwalk Blvd. and Metro on Washington Blvd (if stops cannot be provided adjacent to the station to the east).
- Provide unique special intersection and crosswalk paving to link proposed land uses to Gold Line station.
- Provide structured parking internal to the buildings for the apartment units and tuck-under parking for the townhome units.
- Locate bicycle racks for retail employees and customers.

Pedestrian Realm

- Site all buildings at the back of the sidewalk to provide a strong definition of the public realm.
- Maintain landscaped areas, with seating available, along the street edge to activate building facades and street.
- Place a defined main entrance to the apartment building mid-block along the south side of Washington Blvd.
- Incorporate landscaping at the edges of the internal walkways and plaza to help define the spatial organization of the site.

- Retail uses should include awnings, canopies, and arcades to provide visual interest along the street.

Architecture

- Subdivide the horizontal mass of the apartment buildings into smaller increments with vertical architectural elements to be more compatible with adjacent townhome buildings and surrounding uses.
- Incorporate different colors and materials on the upper floors of the apartment building to help differentiate between the retail uses at the buildings' base and the building body and top.
- Townhome buildings should incorporate front porches or stoops to activate the street.

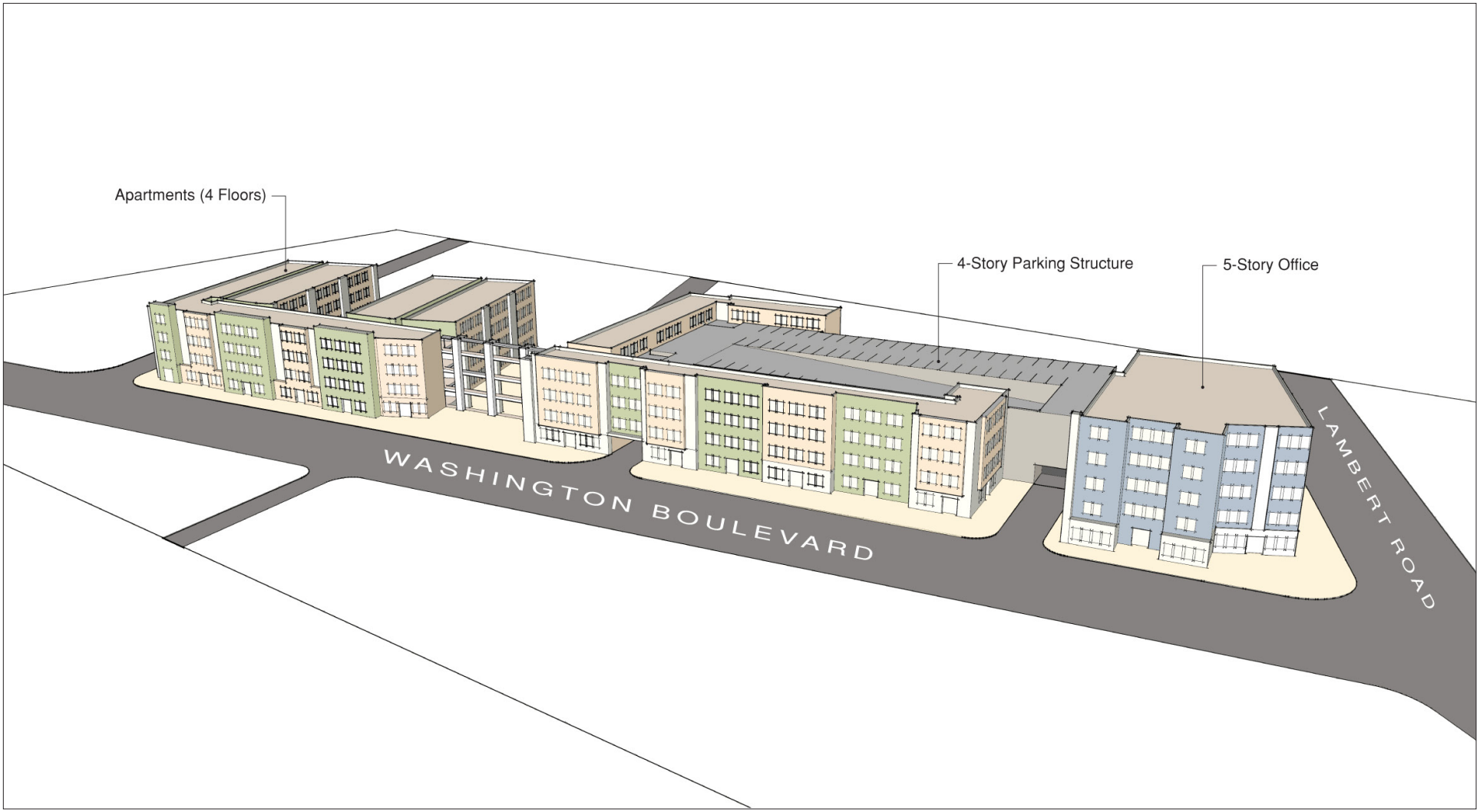
3. Washington/Lambert Station

The design concept for the Lambert Station includes both high density residential and retail commercial (See Figure 3). The development prototype was prepared for the block at the southeast corner of the Washington Blvd/Lambert Road intersection. The residential component includes 231 units at 53.7 dwelling units per acre (du/ac). The FAR for the commercial component is significantly higher than the Rosemead and Norwalk Station Areas at 3.2 FAR as the Lambert design concept includes a 78,000 sq ft medical office building with parking for the office building provided in the building structure. This Gold Line station would potentially be located in an at-grade structure at the intersection of Washington Blvd and Lambert Blvd, and centered in the staging area to maximize street front retail and commercial uses. Surrounding land uses include retail and restaurant commercial, hospital and supporting office commercial.

Land Use

- Amend the City of Whittier General Plan Land Use Element to add the following Mixed Use land use designation:
    - The Mixed Use land use designation is intended to provide for the integration of both residential and commercial/retail/office uses within a single project. Appropriate land uses include high density residential, allowing for a range of multi-family housing types, and a broad range of commercial, retail, service, and office uses.

      Minimum/Maximum Land Use Intensity: 35-55 units per net acre; Floor Area Ratio of ≤3.2.



Source: The Planning Center | DC&E, 2012.

FIGURE 3

LAMBERT RD STATION AREA PROPOSED DEVELOPMENT CONCEPT

- Amend the City of Whittier General Plan Land Use Map to apply the MU land use designation to the parcels at the southeast corner of the Washington Blvd/Lambert Road intersection.
- Amend the Title 18 – Zoning of the City of Whittier Municipal Code to include a mixed-use zoning classification (MU) with a residential density range of 35-55 du/ac and maximum FAR of 3.2.
- Amend the City of Whittier Zoning Map to change the General Commercial, Commercial Office, and Heavy Multiple Residential zones at the southeastern corner of the Washington Blvd/Lambert Rd intersection to Mixed Use (MU).

Site Design

- Provide five-story office building oriented towards the street, located on the street corner at the southeast corner of Washington Blvd and Lambert Road. Office uses are intended to support the nearby Presbyterian Intercommunity Hospital.
- Provide four-story apartment buildings with internal four-story structured parking to define the edge of the street along Washington Blvd.
- Site all buildings at the back of the sidewalk to provide a strong definition of the public realm. Buildings should be separated from the street only by the sidewalk and landscaped park strip.
- Place entrances to the buildings and walkways into the site directly from the sidewalk.

Mobility (Street Networks and Connectivity)

- Provide mid-block crosswalk on Washington Blvd, aligned with main entrance and passageway into the apartment building and the Rivera-Crowndale/Washington Blvd intersection.
- Provide a pedestrian throughway, via an open cul-de-sac with bollards, from the passageway to provide access to and from adjacent neighborhood.
- Provide buffered bicycle lanes or cycle tracks, to provide links between proposed land uses, Gold Line station, and the Whittier Blvd Bike Trail.
- Provide special intersection and crosswalk paving to link proposed land uses to Gold Line station and additional bicycle links to the south on Lambert Road.
- Provide structured parking internal to the buildings for the apartment units and tuck-under parking for the townhome units.
- Locate bicycle racks in the first level of the parking structure near an office building entrance for office employees.

- Place formal stops and shelters for Montebello Bus Lines and Sunshine Shuttle service on Washington Blvd, linked with highly visible crosswalk treatments at the Lambert Road intersection.

Pedestrian Realm

- Site all buildings at the back of the sidewalk to provide a strong definition of the public realm.
- Maintain landscaped areas, with seating available, along the street edge to activate building facades and street.
- Place a defined main entrance to the apartment building mid-block along the south side of Washington Blvd.
- Incorporate landscaping at the edges of the internal walkways and plaza to help define the spatial organization of the site.
- Retail uses should include awnings, canopies, and arcades to provide visual interest along the street.

Architecture

- Subdivide the horizontal mass of the apartment buildings into smaller increments with vertical architectural elements to be more compatible with adjacent townhome buildings and surrounding uses.
- Incorporate different colors and materials on the upper floors of the apartment building to help differentiate between the retail uses at the buildings' base and the building body and top.
- Locate entries on the front facade of apartment and office buildings and provide direct access to the sidewalk or street.
- Enhance upper story windows of apartment buildings with architectural details such as sills, molded surrounds, and lintels.
- Where possible, employ operable windows in the office building to take advantage of breezes and reduce energy costs.
- Encourage a timeless architectural style specific to Whittier that is integrated with the station.

APPENDIX A

FINANCIAL FEASIBILITY ANALYSIS

Analyzing Development Feasibility

The financial feasibility of a possible development is analyzed using a development pro forma. A pro forma calculates the costs of development and the revenue flow generated by the final development, adjusting these for the time value of money and the costs to borrow money. The pro forma determines the amount of equity investment (i.e. actual cash) required of the developer and the rate of return on that investment. The pro forma then estimates the financial feasibility of a development project, indicating whether or not the rate of return is sufficiently high to attract a developer to invest in that project.

LEASE RATES

The rents paid by office, retail, and residential tenants are the income source that repays the development costs. Business tenants are willing to pay some base level of rent just for the building space, and then some premium rent if the location will generate more revenues for their business. Similarly, residential tenants pay some base level of rent just for the building space, and then pay some amount of premium if the housing units provide amenities and location advantages.

During the recession, and even as the economy has started to recover, market conditions have continued to put downward pressure on retail and office lease rates. As the regional and national economies continue to slowly improve, it is possible that lease rates will start to rise. Construction costs, however, will also likely rise somewhat as economic growth returns and the real estate development industry recovers. Thus any benefits of rising lease rates would be offset by rising construction cost.

In contrast, market conditions have put upward pressure on residential lease rates, especially for multifamily housing, since the recession. These market conditions include the conversion of millions of households across the country from owners to renters. Equally as important though, the expected impact of the echo boom generation moving out of their parents' homes and into their first housing has and will continue to drive demand for multifamily housing construction. However, the current multifamily housing construction boom will not likely put upward pressure on residential construction costs until the single-family housing market returns to a more normal level.

RETURN ON INVESTMENT

In a typical development processes, the development firm puts up some amount of its own money, while bringing in an outside investor for the majority of the required equity investment. The developer obtains a construction loan, which might cover most of the development costs and some of the land acquisition costs (with the equity investment covering the remainder of the costs). Upon completion of the project, the developer takes out permanent financing and pays off the construction loan. Typically, the developer would then hold the property for a short period, maybe three to five years, and, with a leasing track record, sell the property. Upon the sale of the property

the developer pays off the permanent loan. What is left over after that final payment represents the developer's final return on the initial investment.

Developers and investors most often use the internal rate of return (IRR) to measure the expected return on their investments and to decide whether or not to invest in a particular project. Under current market conditions – namely the economic recession and its slow recovery, the 2008 collapse of the financial services sector and its slow recovery, the loss of wealth from the stock market crash and the 25 to 30 percent decline in real estate values, and the increased investor aversion to risk brought on by these events – there is less money available for investment in development. Conversations with developers, brokers, and investors suggest that an IRR of 20 percent will be needed to attract equity investment in development projects for the next few years, at least. The pro forma analysis assumes a financial feasibility goal of a 20 percent IRR over the short term, as the economy and financial markets continue to recover slowly. This might decline to 15 percent in three to five years, if market conditions continue to improve, but the pro forma analysis uses the more conservative 20 percent IRR so as to not oversell the potential for redevelopment.

RESIDUAL LAND VALUE

Residual land value is the amount the developer can afford to pay to acquire the land, given the IRR goal and the amount of development the site can accommodate with its size, shape, and zoning requirements. Because the equity required for a development is directly related to the cost to acquire land and because this cost occurs at the beginning of the project, the land acquisition cost is the one factor that most immediately influences the rate of return.

With an IRR target of 20 percent, the pro forma analysis calculates the remaining variable, the residual land value. A feasibility gap – the difference between the residual land value and the estimated land acquisition cost for each opportunity site – exists when the residual land value is less than the cost to acquire the site. A gap represents the level of subsidy required for redevelopment to occur under near-term market conditions. The feasibility gap percentage, the residual land value expressed as a percentage of the estimated market value, indicates how far off the proposed development is from being feasible under market conditions. In contrast, a feasibility surplus exists when the residual land value exceeds the cost to acquire the site. A surplus would represent the additional return the developer can expect, the ability to provide additional investment in the project for public benefit, or the additional payment for land acquisition that might be necessary to induce a hesitant seller to part with their property.

PRO FORMA SUMMARIES

The development pro forma is summarized for each opportunity site in the following four sections. A sample pro forma summary is presented and explained below. Full pro forma results are provided in Appendix B.

	Development Cost Summary
(1)	Total Development Cost
(2)	Amount Financed

(3) Equity Required

Financial Feasibility Summary

(4) IRR without subsidy
(5) Residual Land Value @ 20% IRR
(6) Site's Estimated Market Value
(7) Excess Value/(Feasibility Gap)

Development Cost Summary. This section describes the cost to development the project. If the project were developed for sale, then these costs reflect the total cost through the sale of units. If the project were to be developed for lease, then these costs reflect the total costs through the lease up of units. Costs of ongoing operations and maintenance until the project is sold, assumed to be five years after construction, are not included in the development cost summary but are reflected in the overall financial feasibility. All costs are detailed in the full pro forma results in Appendix B.

(1) Total Development Cost. This datum indicates the total cost to development the project. It includes land acquisition, design and engineering, site preparation, construction, and financing.

(2) Amount Financed. This datum indicates the portion of the total development cost that would likely be financed through a construction loan. Some of these data may appear to be high, but that is because the development scenario analyzed includes a partial or total write-down of land acquisition cost in order to be financially feasible.

(3) Equity Required. The difference between the total development cost and the amount financed is the equity investment required of the developer. The project's financial feasibility, measured by the internal rate of return (IRR), is based on this level of equity investment.

Financial Feasibility Summary. This section describes the project's financial feasibility. If the project were developed for sale, the analysis assumes the return from the ultimate sales price of the project, including taxes and sales commission. If the project were to be developed for lease, the analysis assumes that the project would be sold after five years of operation and the financial analysis includes the return from the project's ultimate sales price plus the profits over five years of operations.

(4) IRR without Subsidy. The development cost summary reflects the subsidy necessary to make the project financially feasible. The subsidy is usually in the form of a write-down on the land acquisition cost. In contrast, this datum reflects the IRR the project would generate without any subsidy.

(5) Residual Land Value. This datum indicates the amount that a developer could afford to pay for the land, excluding sales commission, due diligence, etc., and earn a 20% IRR. The IRR has been calculated based on the net cash flow after taxes and debt service.

(6) Site's Estimated Market Value. This datum reflects the market value at which the site might be purchased, excluding any sales commissions, due diligence, etc. The Planning Center|DC&E has estimated the market value based on an assessment of other property sales in the area. This estimate does not reflect an appraisal of the site and it should not be used for making investment and other decisions. This estimate is intended solely to illustrate the relative feasibility of a conceptual development scenario for the site.

(7) Excess Value / (Feasibility Gap). This datum is the difference between the site's estimated market value and the residual land value. In some cases, the feasibility gap is greater than the site's estimated market value, indicating that the project, to be financial feasible, would require a 100% write down of the land acquisition cost plus an additional subsidy.

OPPORTUNITY SITE: WASHINGTON AND NORWALK

This is a 3.5-acre site with about 37,000 square feet of existing commercial building space. The development scenario would demolish the existing buildings and develop the site with a 629-space parking structure and a mixed-use building with 32,700 square feet of ground-floor retail and 116 townhouse and condominium residential units. About 42,000 square feet of the site area would be landscaped open space and sidewalks. The pro forma assumes three months of site work and nine months of construction, with sales equally distributed across three months.

The parking structure would provide 209 spaces for residential uses (1.8 per unit), 65 spaces for commercial uses (2.0 spaces per 1,000 square feet), and 355 spaces for the rail station. Because 56.5 percent of the spaces are for rail station users, the pro forma assumes that Metro would provide that percentage of the parking structure construction costs.

The pro forma analysis estimates the site's current value at $9,260,000. Assuming that the site could be acquired for the estimated value, the development scenario would generate in IRR of 22.0 percent. A 20 percent IRR generates a residual land value that is $97,600 higher than the estimated value.

The pro forma models the development scenario as a for-sale product. If the project were developed for rental, held for five years, and then sold, it would generate an IRR of only 8.4 percent. Achieving an IRR of 20 percent would require a subsidy of $5.2 million, or 56 percent of the estimated site value.

Table 1: Opportunity Site: Washington and Norwalk
Development Pro Forma Summary

Development Cost Summary	
Total Development Cost	$38,770,000
Amount Financed	$27,660,000
Equity Required	$11,110,000
Financial Feasibility Summary	
IRR	22.0%
Residual Land Value @ 20% IRR	$9,360,000

Site's Estimated Market Value	$9,260,000
Excess Value/(Feasibility Gap)	$ 97,600

Source: The Planning Center|DC&E, 2011.

OPPORTUNITY SITE: WASHINGTON AND ROSEMEAD

This is a 7.1-acre site with several parcels that have stand alone commercial buildings and surface parking. The development scenario would demolish the 42,400 square feet of existing buildings, and redevelop the site with a 504-space parking structure, 210 two- and three-bedroom condominiums in vertical mixed-use and stand-alone buildings, 28,600 square feet of ground floor retail, 31 three-bedroom townhouses, and a residential clubhouse. The development scenario would also provide 2.5 acres of landscaped open space.

The parking structure would provide 378 parking spaces for the condominium units, (1.8 spaces per unit), 57 spaces for the commercial uses (2.0 spaces per 1,000 square feet), and 69 parking spaces for rail station users. Because the rail station parking would account for 13.7 percent of the parking capacity, the pro forma assumes that Metro would provide funding for 13.7 percent of the parking garage construction cost.

The pro forma analysis estimates the site's current value at $13.8 million. Assuming the site can be acquired for its estimated value, the development scenario would generate an IRR of 20.8 percent. Achieving a 20 percent IRR would create a residual land value of $13.9 million, about $58,900 more than the site's estimated value.

The pro forma models the development scenario as a for-sale product. If the ground floor commercial and condominiums were developed for rental, held for five years, and then sold, it would generate an IRR of only 10.7 percent. Achieving an IRR of 20 percent would require a subsidy of $5.7 million, or 41 percent of the estimated site value.

Table 2: Opportunity Site: Washington and Rosemead
Development Pro Forma Summary

Development Cost Summary	
Total Development Cost	$68,800,000
Amount Financed	$49,900,000
Equity Required	$18,940,000
Financial Feasibility Summary	
IRR	20.8%
Residual Land Value @ 20% IRR	$ 13.860,000
Site's Estimated Market Value	$ 13,800,000
Excess Value/(Feasibility Gap)	$ 58,900)

Source: The Planning Center|DC&E, 2011.

OPPORTUNITY SITE: WASHINGTON AND LAMBERT

This is a 4.4-acre site with 95,000 square feet of existing buildings. The development scenario would demolish the existing buildings, and redevelop the site with a 751-space parking structure, 308 one-, two- and three-bedroom condominiums in alone buildings, and 9,000 square feet of ground floor retail in a mixed use building with 78,000 square feet of medical office space. The development scenario would also provide 1.5 acres of landscaped open space.

The parking structure would provide 554 parking spaces for the condominium units, (1.8 spaces per unit), 156 spaces for the commercial uses (2.0 spaces per 1,000 square feet), and 41 parking spaces for rail station users. Because the rail station parking would account for 5.4 percent of the parking capacity, the pro forma assumes that Metro would provide funding for that portion of the parking garage construction cost.

The pro forma analysis estimates the site's current value at $14.4 million. Assuming the site can be acquired for its estimated value, the development scenario would generate an IRR of 28.8 percent. Achieving a 20 percent IRR would create a residual land value of $15.1 million, about $721,000 more than the site's estimated value.

The pro forma models the development scenario as a for-sale product. If the project were developed for rental, held for five years, and then sold, it would generate an IRR of only 7.3 percent. Achieving an IRR of 20 percent would require a subsidy of $12.6 million, or 88 percent of the estimated site value.

Table 3: Opportunity Site: Washington and Lambert
Development Pro Forma Summary

Development Cost Summary	
Total Development Cost	$100,600,000
Amount Financed	$ 74,600,000
Equity Required	$ 26,000,000
Financial Feasibility Summary	
IRR	28.8%
Residual Land Value @ 20% IRR	$ 15,090,000
Site's Estimated Market Value	$ 14,370,000
Excess Value/(Feasibility Gap)	$ 721,000

Source: The Planning Center|DC&E, 2011.

APPENDIX B

PRO FORMA ANALYSIS

Pro Forma Analyses

Table 1: General Pro Forma Assumptions

Hard Cost		
Mixed-use commercial construction cost	$85.13	per sq. ft.
Demolition cost	$5.00	per bldg. sq. ft.
Open space/landscaping cost	$2.50	per sq. ft.
Mixed-use office construction cost	$130.25	per sq. ft.
Surface parking construction cost	$10.00	per sq. ft.
Mixed-use residential construction cost	$132.87	per sq. ft.
Parking structure construction cost	$59.26	per sq. ft.
Site development cost	$5.00	per sq. ft.
Cost Factors		
Contingency	5.0%	of hard costs
Developer fee	5.0%	of hard costs
Indirect land cost	3.0%	of estimated land value
Selling costs	3.0%	of sales value
Soft cost	15.0%	of hard costs
Rental management fee	4.0%	of effective gross income
Growth rate - expenses	3.0%	
Revenue		
Retail lease rate	$27.06	per sq. ft. per year
Retail operations and vacancy allowance	12.5%	
Office lease rate	$28.50	per sq. ft. per year
Office operations and vacancy allowance	12.5%	
Residential rental operations and vacancy allowance	15.0%	
Growth rate - revenues	4.0%	
Capitalization rate	8.0%	
Financing		
Financing portion for land	50.0%	
Financing portion of improvement	80.0%	
Construction loan interest rate	8.0%	
General interest rate	10.0%	
Acceleration rate	20.0%	

Construction loan fee rate	3	basis points
Sales commission	5.0%	
Discount rate - unleveraged	12.0%	annual rate
Discount rate - leveraged	18.0%	annual rate
Commercial Loan-to-Cost ratio	75.0%	
Commercial loan DSCR	1.15	Debt service coverage ratio
Commercial permanent loan term	25	
Commercial permanent loan rate	6.5%	
Commercial permanent loan fee	1	basis points
Commercial permanent loan LTV	75.0%	
Taxes		
Depreciation - residential buildings	27.5	years
Depreciation - non-residential buildings	39.0	years
Income tax	35.0%	
Capital gains tax	15.0%	
Tax on depreciation	25.0%	
Growth rate - property value	2.0%	

Source: The Planning Center|DC&E, 2011.

Opportunity Site: Washington and Norwalk

Table 2: Residual Land Value Calculation

Site's Estimated Market Value	$9,259,644
Project IRR	22.0%
Residual land value @ 20% IRR	$9,357,226
Excess value (feasibility gap)	$97,582

Table 3: Development Costs

Land acquisition	$9,635,015
Construction cost	$27,686,054
- site development costs	$946,395
- direct construction costs	$26,739,659

Construction Interest	$744,499
Const. Loan Fee	$808,991
Total Direct Costs	$38,874,559
Loan Amount	$27,710,850
Total Equity Required	$11,163,709
Percent Financed	71.3%
Amount financed - land	$4,817,508
Amount financed - construction	$22,148,843
Total amount financed	$26,966,351
Construction loan fee	$808,991
Total Carried Interest	$744,499

Table 4: Project Cash Flow

Month	0	1	2	3	4	5	6	7	8	9	10	11	12
Inflow:													
Sales	0	0	0	0	0	0	0	0	0	0	13,427,071	13,427,071	13,427,071
Construction draw	4,768,717	252,372	252,372	252,372	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859
Total Inflow	4,768,717	252,372	252,372	252,372	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859	2,376,859	15,803,929	15,803,929	15,803,929
Outflows:													
Land acquisition	9,537,433												
Loan fees	807,527												
Loan payments	0	0	0	0	0	0	0	0	0	0	13,427,071	11,854,564	2,376,859
Direct costs	0	315,465	315,465	315,465	2,971,073	2,971,073	2,971,073	2,971,073	2,971,073	2,971,073	2,971,073	2,971,073	2,971,073
Property tax	0	0	0	0	0	0	95,596	0	0	0	0	0	184,728
Total Outflow	10,344,960	315,465	315,465	315,465	2,971,073	2,971,073	3,066,670	2,971,073	2,971,073	2,971,073	16,398,144	14,825,637	5,532,660
Net Cash	**($5,576,243)**	**($63,093)**	**($63,093)**	**($63,093)**	**($594,215)**	**($594,215)**	**($689,811)**	**($594,215)**	**($594,215)**	**($594,215)**	**($594,215)**	**$978,292**	**$10,271,269**

Opportunity Site: Washington and Rosemead

Table 5: Residual Land Value Calculation

Site's Estimated Market Value	$13,800,415
Project IRR	20.8%
Residual land value @ 20% IRR	$13,859,287
Excess value (feasibility gap)	$58,872

Table 6: Development Costs

Land acquisition	$14,273,300
Construction cost	$51,865,264
- site development costs	$1,792,414
- direct construction costs	$50,072,850
Construction Interest	$1,266,700
Const. Loan Fee	$1,458,866
Total Direct Costs	$68,864,130
Loan Amount	$49,895,562
Total Equity Required	$18,968,569
Percent Financed	72.5%
Amount financed - land	$7,136,650
Amount financed - construction	$41,492,211
Total amount financed	$48,628,861
Construction loan fee	$1,458,866
Total Carried Interest	$1,266,700

Table 7: Project Cash Flow

Month	0	1	2	3	4	5	6	7	8	9	10	11	12
Inflow:													
Sales	0	0	0	0	0	0	0	0	0	0	23,691,082	23,691,082	23,691,082
Construction draw	7,136,650	477,977	477,977	477,977	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920
Total Inflow	7,136,650	477,977	477,977	477,977	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920	4,450,920	28,142,002	28,142,002	28,142,002

Outflows:													
Land acquisition	14,273,300												
Loan fees	1,458,866												
Loan payments	0	0	0	0	0	0	0	0	0	0	23,691,082	21,753,560	4,450,920
Direct costs	0	597,471	597,471	597,471	5,563,650	5,563,650	5,563,650	5,563,650	5,563,650	5,563,650	5,563,650	5,563,650	5,563,650
Property tax	0	0	0	0	0	0	161,713	0	0	0	0	0	328,623
Total Outflow	15,732,166	597,471	597,471	597,471	5,563,650	5,563,650	5,725,363	5,563,650	5,563,650	5,563,650	29,254,732	27,317,210	10,343,193
Net Cash	**($8,595,516)**	**($119,494)**	**($119,494)**	**($119,494)**	**($1,112,730)**	**($1,112,730)**	**($1,274,443)**	**($1,112,730)**	**($1,112,730)**	**($1,112,730)**	**($1,112,730)**	**$824,792**	**$17,798,809**

Opportunity Site: Washington and Lambert

Table 8: Residual Land Value Calculation

Site's Estimated Market Value	$14,366,086
Project IRR	28.8%
Residual land value @ 20% IRR	$15,086,736
Excess value (feasibility gap)	$720,650

Table 9: Development Costs

Land acquisition	$14,797,068
Construction cost	$81,948,525
- site development costs	$1,265,685
- direct construction costs	$80,682,840
Construction Interest	$1,686,560
Const. Loan Fee	$2,188,721
Total Direct Costs	$100,620,874
Loan Amount	$74,643,914
Total Equity Required	$25,976,960
Percent Financed	74.2%
Amount financed - land	$7,398,534
Amount financed - construction	$65,558,820
Total amount financed	$72,957,354
Construction loan fee	$2,188,721

Total Carried Interest	$1,686,560

Table 10: After-Tax Cash Flow

Month	0	1	2	3	4	5	6	7	8	9	10	11	12
Inflow:													
Sales	0	0	0	0	0	0	0	0	0	0	34,690,836	34,690,836	34,690,836
Construction draw	7,398,534	337,516	337,516	337,516	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808
Total Inflow	7,398,534	337,516	337,516	337,516	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808	7,171,808	41,862,644	41,862,644	41,862,644
Outflows:													
Land acquisition	14,797,068												
Loan fees	2,188,721												
Loan payments	0	0	0	0	0	0	0	0	0	0	34,690,836	32,781,270	7,171,808
Direct costs	0	421,895	421,895	421,895	8,964,760	8,964,760	8,964,760	8,964,760	8,964,760	8,964,760	8,964,760	8,964,760	8,964,760
Property tax	0	0	0	0	0	0	212,630	0	0	0	0	0	481,573
Total Outflow	16,985,789	421,895	421,895	421,895	8,964,760	8,964,760	9,177,390	8,964,760	8,964,760	8,964,760	43,655,596	41,746,030	16,618,141
Net Cash	($9,587,255)	($84,379)	($84,379)	($84,379)	($1,792,952)	($1,792,952)	($2,005,582)	($1,792,952)	($1,792,952)	($1,792,952)	($1,792,952)	$116,615	$25,244,503