

SECTION 4 - INFRASTRUCTURE AND SERVICES

This section of the Rich-Haven Specific Plan discusses the proposed infrastructure and public services that will support Rich-Haven's residential, commercial, mixed use and light industrial districts. Infrastructure discussed herein includes the construction of master planned facilities. Public services include schools, parks, fire, law enforcement, library, telephone and technology wiring, natural gas, electricity, and solid waste disposal. A discussion of project grading is also provided.

General Notes

1. Master planned utilities serving and surrounding each project site development, as identified in the approved respective Master Plan, shall be constructed prior to issuance of first occupancy.
2. All development and corresponding utilities shall be constructed and be consistent with the NMC Construction Agreement.
3. Public Utilities construction shall be avoided within private alleys; where city has limited access.
4. Public Utilities construction (especially water lines) shall be avoided beneath roundabouts/traffic circles.
5. All signalized intersections and approaches on designated truck routes shall be concrete.

4.1 CIRCULATION PLAN

The Circulation Plan for the Rich-Haven Specific Plan will provide effective movement of automobiles and trucks as well as pedestrians, bicyclists, and transit. The Rich-Haven Specific Plan will be served by a system of new and varied parkway, arterial, and collector roadways to be improved per City's The Ontario Plan(TOP) and current Master Plan of Streets and Highways, and, through proposed local backbone streets to be constructed as part of the project site development. Improvements will be constructed for Haven Avenue, Ontario Ranch Road, Hamner Avenue, Chino Avenue, and Mill Creek Avenue, which run through or border the project site.

Within the Specific Plan area, local backbone streets will provide efficient movement of vehicles and pedestrians. Roadways will be designed to meet current and approved design standards. Figure 4-1, *Conceptual Circulation Plan*, illustrates backbone on-site roadway circulation, access points, potential roundabout locations, signalized intersections, and non-signalized access points. Access points are from Hamner Avenue to the east, and Haven Avenue to the west of the project site, as noted in figure 4-1. The location of final access points and round-about locations will be determined at time of the tentative tract mapping in the residential areas and site plan review in commercial areas. The traffic study will verify the need for additional right-of-way at critical intersections to accommodate left and right turn lanes.

The minimum design speeds to be used for centerline curve radii, super-elevation, corner sight distance, vertical and horizontal alignment and sight distance, are listed below:- Ontario

Ranch Road: 50 mph	- Haven Avenue: 45 mph
- Chino Avenue: 40 mph	- Mill Creek Avenue: 40 mph
- Riverside Drive: 45 mph	- Hamner Avenue: 50 mph

4.1.1 STREET NETWORK

The proposed Rich-Haven street network is based on the existing underlying grid system of improved and unimproved streets, adjacent to and within the project site, and will be consistent with the City's Master Plan of Streets and Highways. See *Street Cross Sections, Figure 4-2A through 4-2E*. The developer(s) of the Rich-Haven Specific Plan area will be responsible for all off-site improvements for the entire project frontage or as otherwise indicated. Phasing of the improvements will be implemented as required by the City Engineer and pursuant to the mitigation measures identified in the Environmental Impact Report (EIR) and/or the Conditions of Approval established on the approved tentative tract maps for the project. Additionally, bus turnouts and shelters, to serve the future residents, shall be provided on arterial and collector roadways prescribed by the City.

The following is a description of the streets to be improved within the Rich-Haven Specific Plan and NMC L.L.C. associated improvements:

HAMNER AVENUE – Bounding the project at the east, Hamner Avenue is designated as a divided Other Principal Arterial with eight lanes and a minimum right-of-way of 140 feet. Access to Hamner Avenue via driveways from residential units and on-street parking will be prohibited. Vehicular access locations to the proposed development from Hamner Avenue will be allowed at controlled locations identified on the Land Use Plan. Additional access locations may be approved by the City Engineer to provide for safe and efficient traffic distribution for the intended mix of land uses. The developer shall be responsible for those improvements to Hamner Avenue as determined by the City Engineer and pursuant to the mitigation measures identified in the EIR and/or to the Conditions of Approval established on the approved tentative tract maps for the project. Bus turnouts will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic signals along Hamner Avenue are shown in Figure 4-1.

Hamner Avenue is a designated truck route. Ontario Ranch designated truck routes will direct truck traffic along arterial roadways and out of residential areas.

HAVEN AVENUE – Located on the western boundary of the project site, Haven Avenue is classified by the Mobility Element of Policy Plan (Figure M-2 Functional Roadway Classification Plan) as a proposed Other Principal Arterial, with four travel lanes and a double row of parkway trees. Haven Avenue, as it borders the project site, is proposed at a minimum right-of-way of 124 feet with multi-purpose trail. Right of way areas with parkways and sidewalks are also proposed. Access to this street via driveways from residential units and on-street parking will be prohibited. The developer shall be responsible for those improvements to Haven Avenue as determined by the City Engineer

and pursuant to the mitigation measures identified in the EIR and/or to the Conditions of Approval established on the approved tentative tract maps for the project. Bus turnouts will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic signals along Haven Avenue are shown in Figure 4-1.

ONTARIO RANCH ROAD – Bounding and crossing the site along the south, Ontario Ranch Road is classified the Mobility Element of Policy Plan (Figure M-2 Functional Roadway Classification Plan) as an Other Principal Arterial, with eight travel lanes at build-out, and a minimum right-of-way of 160 feet. The right of way area is proposed with landscaped buffers/parkways, sidewalks and an 8-foot multipurpose trail on the south side between Mill Creek Avenue and Hamner Avenue within the Rich-Haven Specific Plan. Access to this street via driveways from residential units and on-street parking will be prohibited. Ontario Ranch Road connects the project site to Hamner Avenue to the east, the rest of the Ontario Ranch to the west and the City of Chino further to the west. To the east of the project is the Cantu-Galeano Ranch Road/I-15 Interchange. The developer shall be responsible for those improvements to Ontario Ranch Road as determined by the City Engineer and pursuant to the mitigation measures identified in the EIR and/or to the Conditions of Approval established on the approved tentative tract maps for the project. Bus turnouts will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic signals along Ontario Ranch Road are shown in Figure 4-1.

Ontario Ranch Road is a designated truck route. Ontario Ranch designated truck routes will direct truck traffic along arterial roadways and out of residential areas.

RIVERSIDE DRIVE – Bounding the site on the north, Riverside Drive is designated as a Minor Arterial with a 108-foot right-of-way with a landscape buffer along its neighborhood edge. A sidewalk and parkway is also proposed within the right of way area, as well as an 8-foot multipurpose trail on the north side between Haven Avenue and Mill Creek Avenue and curb adjacent 5-foot bike lanes on both sides of the street. Access to this street via driveways from residential units and on-street parking will be prohibited. The developer shall be responsible for those improvements to Riverside Drive as determined by the City Engineer and pursuant to the mitigation measures identified in the EIR and/or to the Conditions of Approval established on the approved tentative tract maps for the project. Bus turnouts will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic signals along Riverside Drive are shown in Figure 4-1.

CHINO AVENUE – Crossing the site from east to west, Chino Avenue is identified as a modified Collector Street the Mobility Element of Policy Plan (Figure M-2 Functional Roadway Classification Plan), to be improved to one travel lane in each direction with a minimum 88-foot right-of-way, which includes raised median between Haven Avenue and Mill Creek Avenue and two roundabouts, parkway, sidewalk on the south side, 8 foot multipurpose trail on the north side between Haven Avenue and Mill Creek Avenue and curb adjacent 5-foot bike lanes on both sides of the street. Access to this street via driveways from residential units and on-street parking will be prohibited. The developer shall be responsible for those improvements to Chino Avenue as determined by the City Engineer and pursuant to the mitigation measures identified in the EIR and/or to the

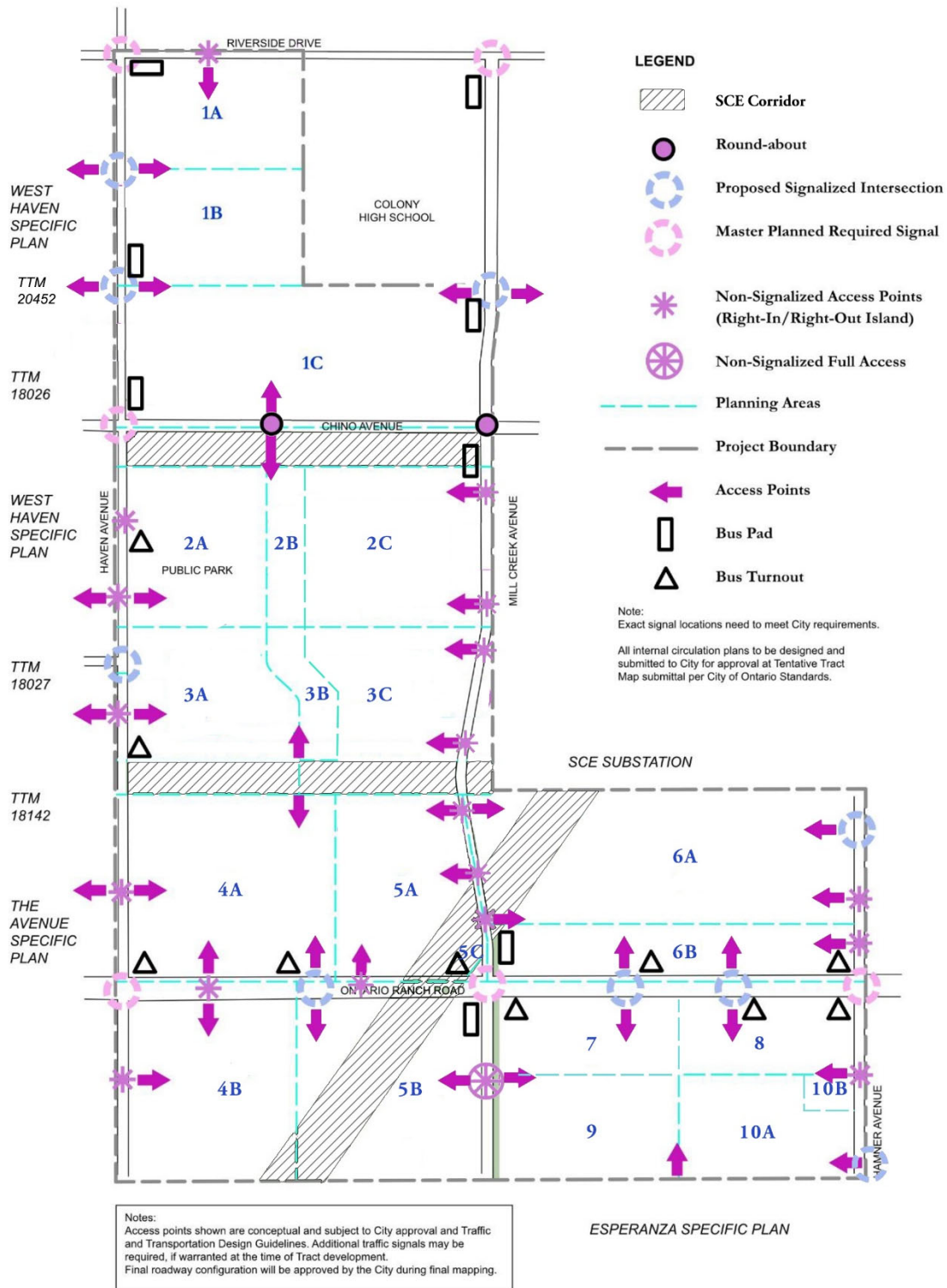
Conditions of Approval established on the approved tentative tract maps for the project. Bus pads will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic Signals along Chino Avenue are shown in Figure 4-1.

MILL CREEK AVENUE – Bisecting the site from north to south, Mill Creek Avenue is identified as a Collector Street the Mobility Element of Policy Plan (Figure M-2 Functional Roadway Classification Plan), to be improved to four lanes, with a minimum 88-foot right-of-way. For the portion of Mill Creek Avenue between Ontario Ranch Road and Chino Avenue, proposed minimum right of way is 83-feet. Right of way areas are also proposed that consist of raised median in select locations to provide traffic directing measures at industrial project driveways, a sidewalk, an adjacent parkway, an 8 foot multipurpose trail on the west side between Chino Avenue, and Ontario Ranch Road . Access to this street via driveways from residential units and on-street parking will be prohibited. The roadway will be realigned along the frontage of the Mira Loma Substation. The ultimate alignment of Mill Creek Avenue will be determined as part of the Master Infrastructure Improvements to be determined by the City and NMC, LLC. The developer shall be responsible for those improvements to Mill Creek Avenue as determined by the City Engineer and pursuant to the mitigation measures identified in the EIR and/or to the Conditions of Approval established on the approved tentative tract maps for the project. Bus turnouts will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic signals for Mill Creek Avenue are shown in Figure 4-1.

LOCAL BACKBONE STREETS – Connecting the above regional backbone roadways, the project’s local backbone streets will connect the project’s various components and provide for safe and efficient vehicular circulation. Internal project access points will be taken from Haven Avenue on the west side of the project, Mill Creek Avenue and Hamner Avenue on the east side, while another access point will occur along Hamner Avenue. Alternative internal street connections may be allowed subject to the approval of the City Engineer. See Figure 4-2E, Street Cross Sections.

LOCAL NEIGHBORHOOD/PRIVATE STREETS – Local Neighborhood/Private Streets that carry neighborhood related traffic and be constructed with a 60-foot right-of-way, which includes a minimum 12-foot landscaped parkway with sidewalk. Themed Streets will have an additional 5-foot wide lettered lot along the theme street edge, located adjacent to ROW. To be maintained by HOA. See Figure 4-2E, Street Cross Sections.

COMMON DRIVES – Common Drives will be constructed with a 20-foot minimum right-of-way. Common Drives will contain a minimum 20-foot travel lane and 24-foot travel lane for emergency access roads. A 30-foot minimum distance is required between buildings on each side of the common drive. Final alley design shall be subject to review and approval by the planning, engineering, and fire departments. See Figure 4-2E, Street Cross Sections.

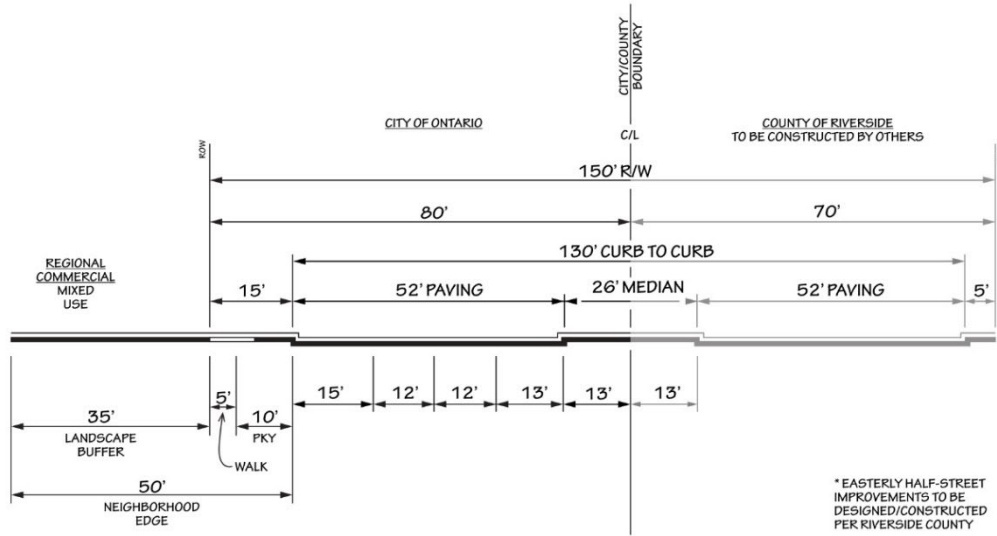


ESPERANZA SPECIFIC PLAN



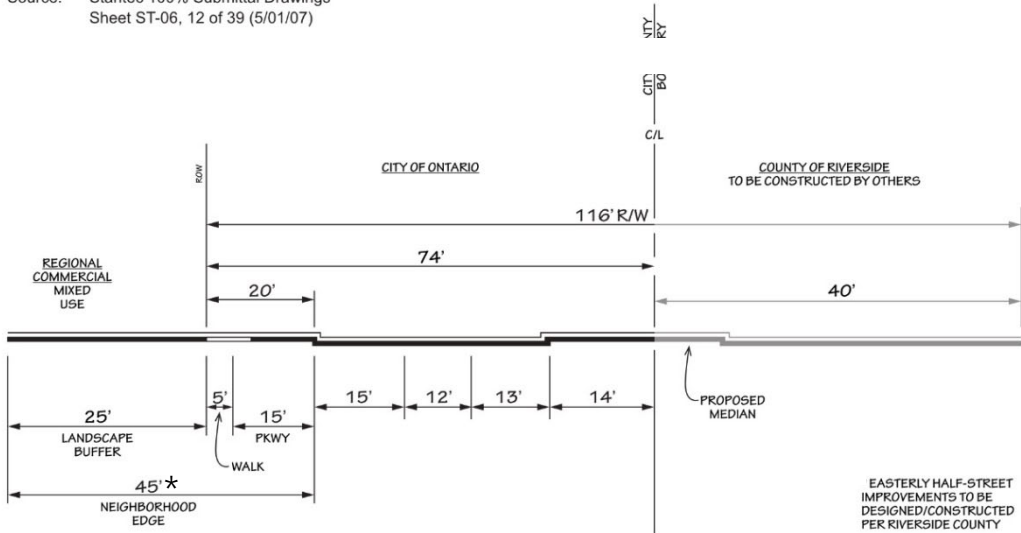
RICH-HAVEN SPECIFIC PLAN
CONCEPTUAL CIRCULATION PLAN

FIGURE 4-1



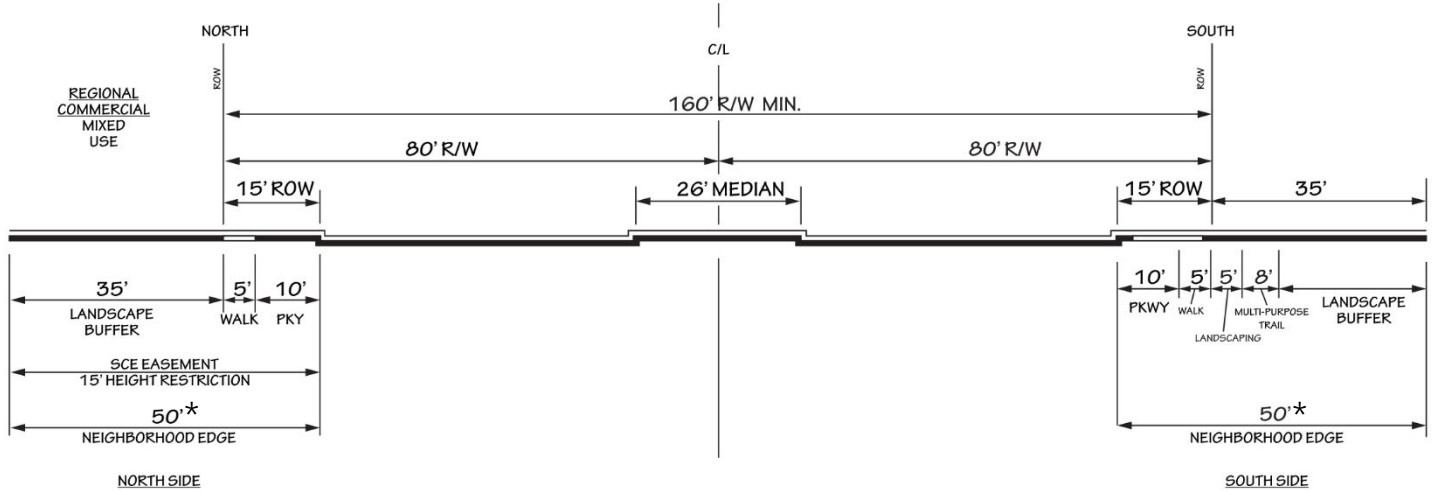
Hamner Avenue - Westside
 Between Riverside Drive and Ontario Ranch Road
 Divided Other Principal Arterial
 Interim Improvements

On-Street Parking Prohibited
 Source: Stantec 100% Submittal Drawings
 Sheet ST-06, 12 of 39 (5/01/07)



*Note: Encroachments permitted into neighborhood edge, refer to Section 5.5.8 Regional Commercial, and Mixed Use Development Standards

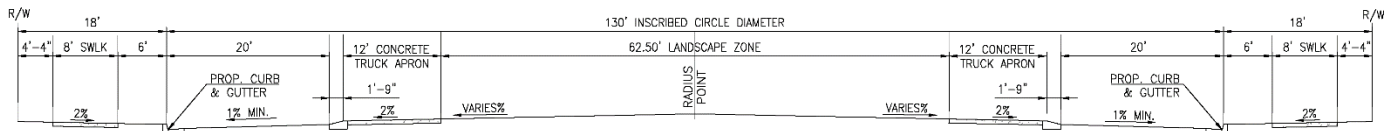
Hamner Avenue - Westside
 South of Ontario Ranch Road
 Divided Other Principal Arterial
 On-Street Parking Prohibited
 (three-lanes/median)



Ontario Ranch Road
 Between Haven Avenue and Hamner Avenue
 Divided Other Principal Arterial w/ Bikeway
 On-Street Parking Prohibited

Source: Stantec 35% Submittal Drawings, Sheet DT-01

*Note: Encroachments permitted into neighborhood edge, refer to Section 5.5.8 Regional Commercial, and Mixed Use Development Standards



Roundabout Section (Chino Avenue)
 On-Street Parking Prohibited

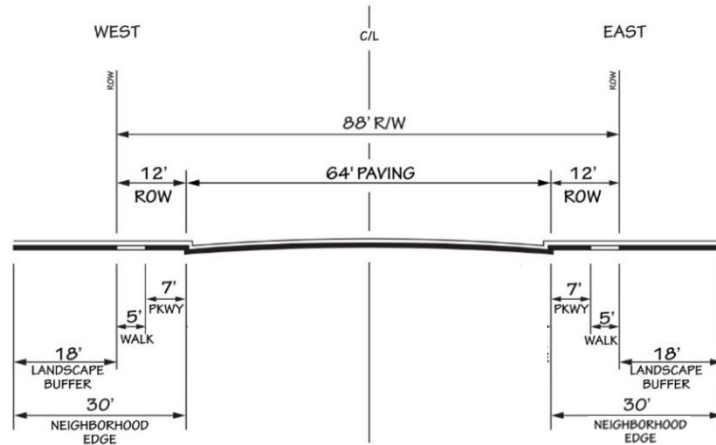
Source: X Engineering & Consulting

Note: Refer to Chapter 7 for Streetscape Design.



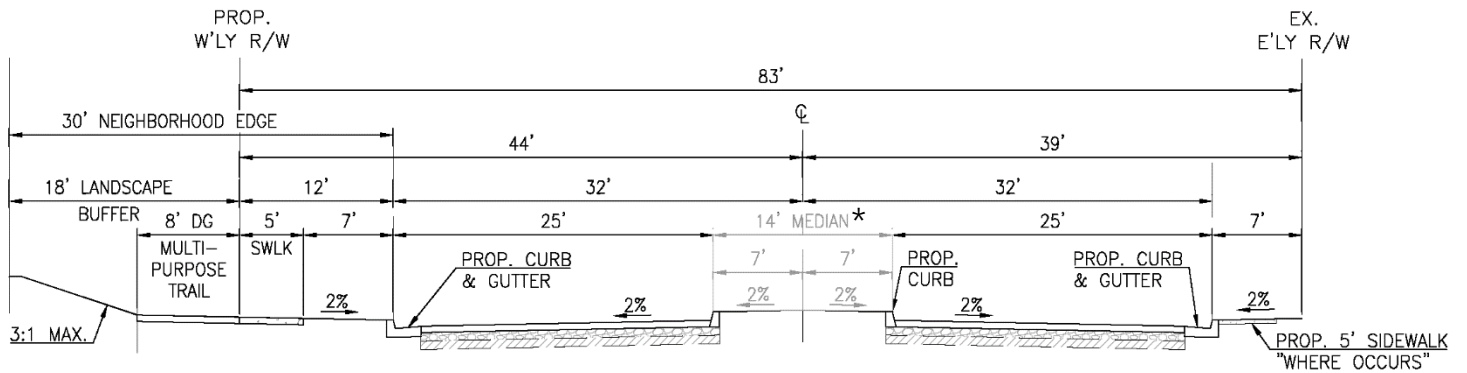
RICH-HAVEN SPECIFIC PLAN
STREETCROSS SECTIONS

FIGURE 4-2B



Mill Creek Avenue
 Collector Street
 On-Street Parking Prohibited

Source: Stantec 100% Submittal Drawings
 Sheet ST-06, 3 of 32



*Raised median at select locations to provide traffic directing measures at Industrial project driveways.

Mill Creek Avenue (Between Ontario Ranch Road and Chino Avenue)
 Collector Street
 On-Street Parking Prohibited

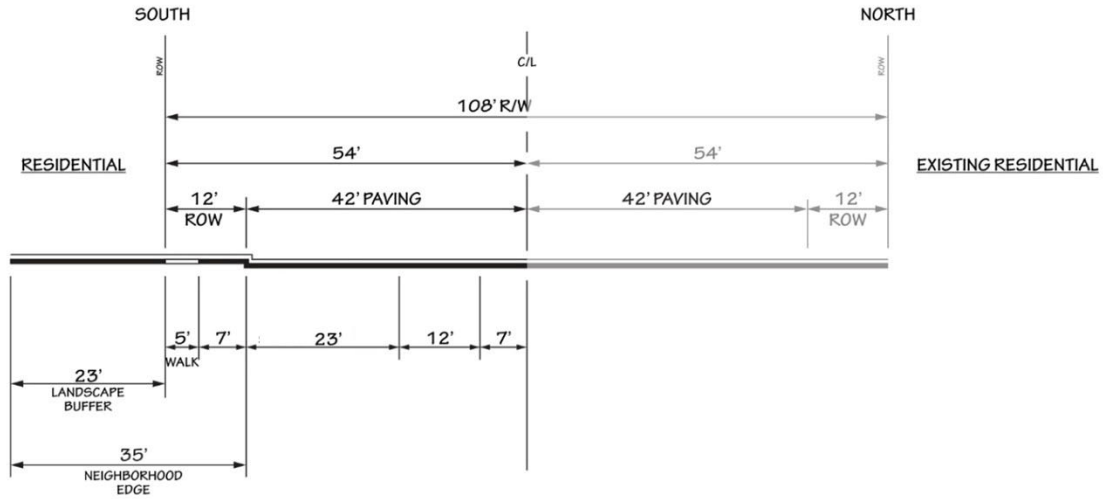
Source: X Engineering & Consulting

Note: Refer to Chapter 7 for Streetscape Design.

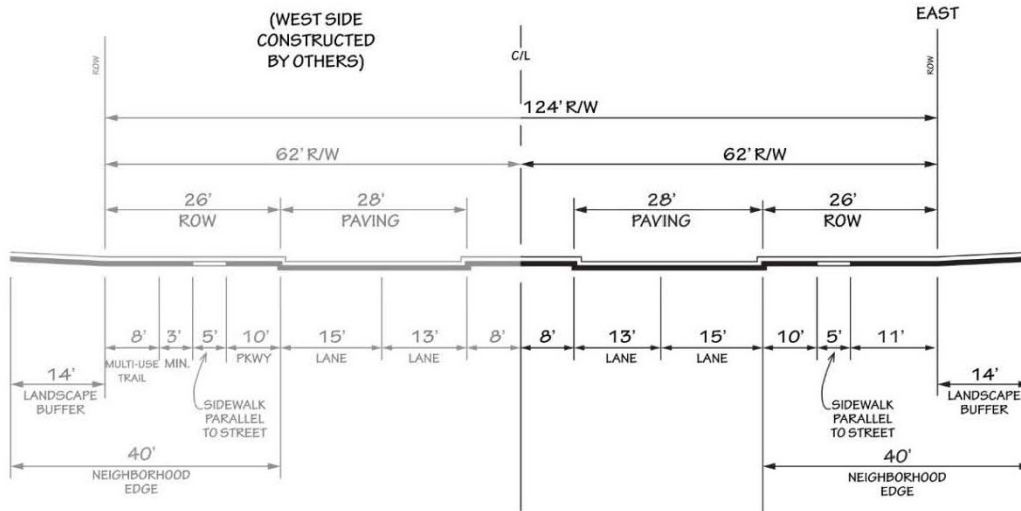


RICH-HAVEN SPECIFIC PLAN
STREET CROSS SECTIONS

FIGURE 4-2C



Riverside Drive
 Arterial
 On-Street Parking Prohibited



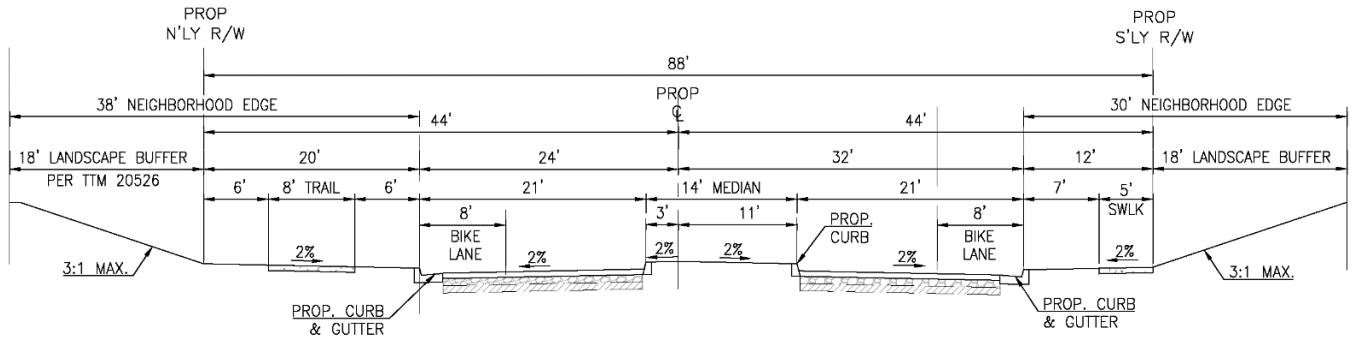
Haven Avenue
 Divided Other Principal Arterial
 On-Street Parking Prohibited

Note: Refer to Chapter 7 for Streetscape Design.



RICH-HAVEN SPECIFIC PLAN
STREET CROSS SECTIONS

FIGURE 4-2D

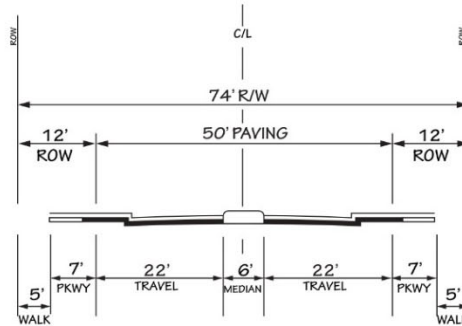


Chino Avenue

Collector Street

On-Street Parking Prohibited

Source: X Engineering & Consulting

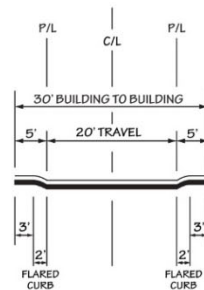
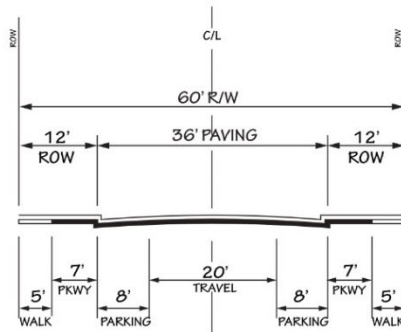


ENTRY STREETS ADJACENT TO COMMERCIAL AREAS SHALL BE DESIGNED TO ACCOMMODATE A WB-50 VEHICLE, WHICH MAY RESULT IN DIMENSIONS THAT EXCEED THIS CROSS-SECTION.

FINAL ROADWAY SECTION WIDTHS WILL BE DETERMINED BY THE CITY ENGINEER BASED ON THE NEED FOR INTERSECTION LEFT AND/OR RIGHT TURNS.

Residential Entry Street (Public or Private)

No Parking Permitted



Residential Neighborhood Street (Public or Private)

Parking Permitted

Sidewalk and Parkway widths may increase along "Theme Edges", and near the school

Common Drive/Alley (Private)

20' travel minimum

*24' travel for emergency access road.

** 5' minimum setback from curb or sidewalk to porch or living area.

Note: Refer to Chapter 7 for Streetscape Design.

*minimum dimension

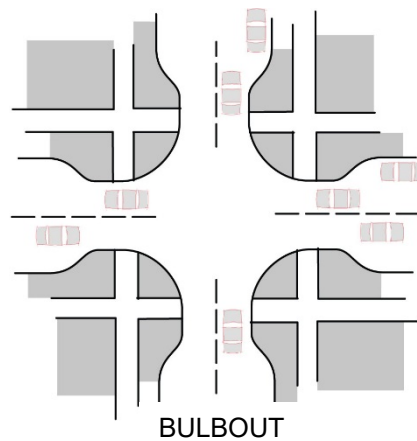


RICH-HAVEN SPECIFIC PLAN
STREETCROSS SECTIONS

FIGURE 4-2E

4.1.2 TRAFFIC CALMING

The Rich-Haven Land Use Plan is designed on a traditional grid and with a hierarchy of streets, offering a variety of routes for pedestrians and vehicles. Traditional street networks can result in a visually favorable and comfortable environment for pedestrians, bicyclists, and Rich-Haven’s residents at large. Traffic calming measures incorporated within the Rich-Haven Specific Plan development will include roundabouts and curb-bulbouts. See Figure 4-1, *Conceptual Circulation Plan* for locations of proposed roundabouts. Additional traffic calming measures include the incorporation of landscaped parkways and medians to add interest in the street, encouraging drivers to slow their travel speed and observe the surroundings.



Additionally, within the Regional Commercial/Mixed-Use District, on-street parallel parking will be used to control the speed of traffic in and near pedestrian zones. Angled parking may also be used at the discretion of the City Engineer.

4.1.3 PEDESTRIAN AND BICYCLE CIRCULATION

The Rich-Haven Specific Plan is consistent with and implements the Multipurpose Trails and Bikeway Corridor within the Mobility Element of the Policy Plan (Figure M-3).

In addition to the hierarchical street grid, which can increase available routes, the Rich-Haven Specific Plan proposed pedestrian trails and bikeways plan will be interconnected with the Ontario Ranch multi-purpose trail system, which includes a comprehensive network of greenways, pedestrian paths, and bike trails. See Figure 4-3, *Trails and Bikeway Plan*.

Internal project streets will be constructed with sidewalks, providing pedestrian access and inter-connectivity between the project’s Residential and Regional Commercial/Mixed-Use Districts. The pedestrian system will also allow for easy pedestrian access to Rich-Haven’s proposed approximately 27.0-acre public park site and

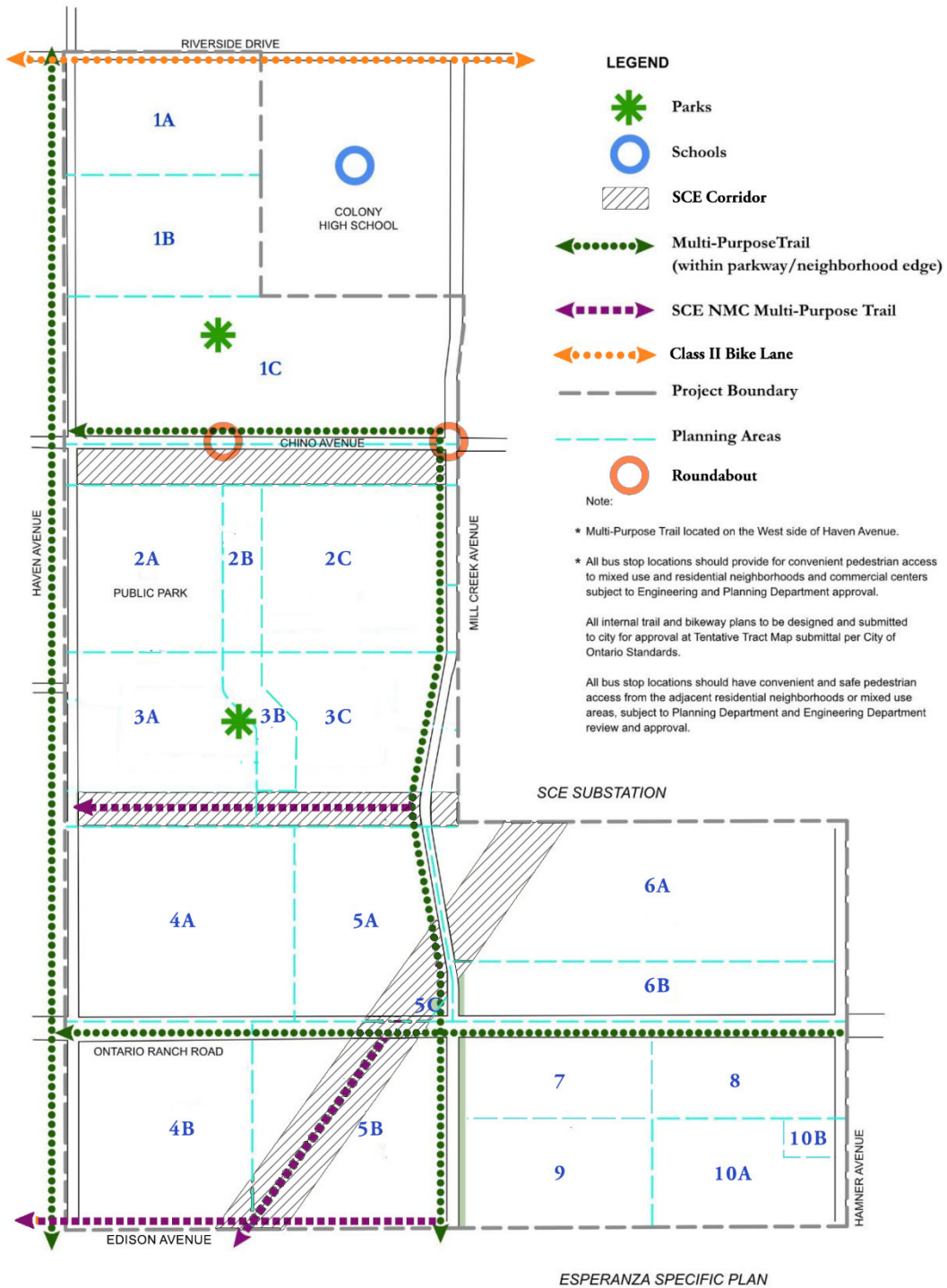
several smaller private parks, Colony High School, and proposed elementary school sites within the West Haven Specific Plan and Esperanza Specific Plan.

Multi-purpose trails and sidewalks connect with a network that flows throughout the Ontario Ranch, connecting Rich-Haven with schools and other proposed residential areas in the region. Directional signage will be provided to facilitate movement to and from crosswalks and trail connections. Within the Residential District, the pedestrian sidewalks on cul-de-sac streets will connect to the Multi-purpose trails and Bikeway Corridor Plan trails within the linear parks. Internal paseos, sidewalks, and pathway connections will be incorporated into the Regional Commercial/Mixed-Use District to connect with residential areas and multi-purpose trails.

Additionally, Ontario Ranch multi-purpose trails are designated within proposed parkways along Haven Avenue, Ontario Ranch Road, Chino Avenue, Mill Creek Avenue and Riverside Drive. These multi-purpose will be accessed from the project directly, or through the multi-purpose trails within the SCE parcel/easements. Bike racks will be provided as per City standards.

As part of the City's Master Plan of Trails, the SCE Corridor Trail will be extended within the linear park areas located within the SCE easements, as shown within Figure 4-3, *Trails and Bikeway Plan*. Access to the SCE Corridor Trail will be provided throughout the Specific Plan area at key points to provide safe accessibility to the multi-purpose trails and opportunities to utilize alternate modes of transportation between the residential and commercial uses and to the greater NMC.

On-street curb adjacent 5-foot bike lanes will be provided on both sides on Riverside Drive, and Chino Avenue.



NOT TO SCALE
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RICH-HAVEN SPECIFIC PLAN
TRAILS AND BIKEWAY PLAN

FIGURE 4-3

4.1.4 TRANSIT

Public transit in the City of Ontario is currently provided by Omnitrans, which does not presently provide regular fixed route transit services inside the Ontario Ranch area. Bus turnouts and shelters, to serve the future residents, shall be provided on arterial and collector roadways prescribed by Omnitrans and approved by the City, as per Figure-3 found in Ontario Ranch East Proposed Bus Facilities plan.

In addition, the Riverside Transit Authority (RTA) service area boundaries are located to the east of Planning Areas 7 and 8, along Hamner Avenue. Currently, service by RTA will not be provided within the Rich-Haven Specific Plan Area.

4.2 WATER MASTER PLAN

Rich-Haven's Water Master Plan shall conform to the City of Ontario's Water Master Plan and will include both domestic (potable) and recycled water infrastructure. Water service will be provided by the City of Ontario as identified within the Water Master Plan. The NMC Construction Agreement (Phases 1a-1e) water facilities are proposed to include two reservoirs, four wells, a treatment plant, and potable and recycled water lines. All Master Planned potable water infrastructure surrounding the Specific Plan shall be the responsibility of the NMC Developers' consortium and/or the Rich Haven Developer(s). In addition, the Master Planned domestic and recycled water main lines surrounding and within the Specific Plan, as identified in the most currently approved Water Master Plan Update shall be constructed prior to issuance of the first certificate of occupancy.

Water, recycled water, and sewer utilities may be designated as "public utilities" if located within public or private streets. All public utilities within private streets shall be designed per City standards and contained within acceptable easements. The CC&Rs shall contain language that requires all proposed work by the HOA within said easements to be plan checked and inspected by the City, including applicable fees. Generally, utilities will not be accepted as public within alleys, parking areas, or driveways. Utilities within commercial and industrial parking lots and loading areas will be designated as private. The extent to which said utilities would be accepted, as public utilities shall be determined, at the full discretion of the City, during final design plan review.

4.2.1 DOMESTIC WATER

The ultimate utility sizing and alignment shall follow the most currently approved Master Plan.

In the interim scenario in Ontario Ranch, when the ultimate master planned pipeline network has not been completed, there may be instances whereby just constructing the master planned pipeline improvements to serve the project may not meet the required fire flow demands. Therefore, the proposed project may be required to construct additional pipelines whether specifically called out in the Master Plan or not; or upsize

master planned pipelines in order to meet the necessary fire flow requirements per Fire Department and/or the criteria as provided for in the Water Master Plan. Developer shall submit a hydraulic analysis to the City for review/approval to demonstrate adequate fire flow protection requirements.

REGIONAL DOMESTIC WATER PLAN

The Rich Haven Specific Plan falls into two pressure zones, with the portion of the project north of Chino Avenue falling within the 1010 Pressure Zone, and the portion of the project south of Chino Avenue falling within the 925 Pressure Zone. See Figure 4-4A *Master Planned Domestic Water Plan*, please refer to *The City's Master Plan for specific sizing and alignment*.

1010 Pressure Zone. New domestic water mains to be constructed as part of the development of Rich-Haven include a 24-inch main from the 1010 Pressure Zone reservoir north of the project site to Riverside Drive and Hamner Avenue, a 24-inch domestic main in Archibald between Ontario Ranch Road and the Pressure Reducing Station at Schaefer Avenue, an 18-inch main in Riverside Drive from Hamner Avenue to Haven Avenue, an 18-inch main in Chino Avenue from Haven Avenue to Vineyard Avenue, the designated Master Plan domestic water line along Haven Avenue between Riverside and Chino Avenues. In addition, the 24-inch main in Hamner Avenue and Riverside Drive reduces down to a 12-inch main to Chino Avenue and heads west along Chino Avenue to Mill Creek Avenue ultimately connecting to the existing 12-inch water main within Mill Creek Avenue.

Smaller 12-inch water mains will be constructed adjacent to the project site that ultimately connects to the regional water system in Riverside Drive, Haven Avenue, and Hamner Avenue.

925 Pressure Zone NMC Builder's Loop. New domestic water mains to be constructed as part of the NMC Builder's Loop include a 24-inch to 42-inch main in Hamner Avenue from the 925 Pressure Zone reservoir to Eucalyptus Avenue, a 24-inch main in Eucalyptus Avenue from Hamner Avenue to Archibald Avenue, a 24-inch main in Archibald Avenue from Eucalyptus Avenue to Ontario Ranch Road, and a 24-inch main in Archibald Avenue from Ontario Ranch Road to the Pressure Reducing Station #17 at Schaefer Avenue.

Within the 925 Pressure Zone, 12-inch water mains will be constructed in Haven Avenue, Mill Creek Avenue, and Ontario Ranch Road and ultimately connect to the regional NMC Builder's Loop. Additionally, a 12-inch water main will be constructed within Chino Avenue from Haven Avenue to Mill Creek, and an 18-inch water main from Mill Creek to Hamner Avenue. Within the project site, a network of minimum 8-inch water lines will be installed. The proposed on-site public water system sizing is subject to the recommendations and approval of the required hydraulic analysis.

NMC Builders is currently constructing the first series of master planned domestic water main lines per the construction agreement with the City. The 925 PZ alignment is from

Riverside Drive PRS #18, then easterly in Riverside, southerly in Milliken, westerly in Eucalyptus, and northerly in Archibald to Schaefer PRS #17. Proposed Rich Haven Specific Plan development shall connect to the above mentioned series of domestic water lines via 2 separate points of connection. The above mentioned alignment shall be fully operational prior to first occupancy.

CONCEPTUAL DOMESTIC WATER PLAN

Local backbone domestic water mains to be constructed as part of the Rich-Haven Specific Plan project will include 8-inch to 12-inch water mains throughout the local backbone street system. Additionally, the Chino Basin Water master Water Quality Map identifies the Rich Haven area within an optimum water quality zone and requires that the owner/developer dedicate a total of two wells within the Specific Plan area to the City of Ontario for production of potable water. The owner/developer of Planning Area 5 has identified a well location site within the greenbelt in the area east of Mill Creek Avenue. A second well location site within the Specific Plan area shall be located within Planning Areas 1 or 8 as approved by the City. Master planned domestic water main lines serving the surrounding area and within the Specific Plan, as identified in the most currently approved Water Master Plan Update, shall be constructed prior to issuance of first occupancy.

Within the project site, a network of minimum 8-inch water lines will be installed. The proposed on-site public water system sizing is subject to the recommendations and approval of the required hydraulic analysis. All water mains and wells internal to the Rich-Haven Specific Plan project, will be provided by the merchant builder. In-tract water system design will be provided at the time of subdivision. Offsite water improvements to serve the Specific Plan will be implemented according the most current version of the City's Water Master Plan. See Figure 4-4B, Conceptual Domestic Water Plan.

Eleven existing wells have been identified within the Rich-Haven Specific Plan project site.

In compliance with the Chino Basin Water Master's Well Procedure for Developers, a well use/destruction plan and schedule for all existing private/agricultural wells shall be submitted to the City of Ontario for approval prior to the issuance of permits for any construction activity. If a private well is actively used for water supply, the Developer shall submit a plan to abandon such well and connect users to the City's water system (residential to the domestic water system and agricultural to the recycled water system) when available. Wells shall be destroyed/abandoned per the California Water Resource Guidelines and require permitting from the County Health Department. A copy of such permit shall be provided to the Engineering and Public Works Agency prior to issuance of grading and/or building permits.

4.2.2 RECYCLED WATER

The ultimate utility sizing and alignment shall follow the most currently approved Master Plan.

REGIONAL RECYCLED WATER PLAN

Recycled Water will be provided by City of Ontario. The Rich Haven SP development shall connect to the forthcoming NMC Builders' first phase of recycled water pipeline, generally described as follows: (#1) From IEUA's RP-1, southerly to Riverside Drive, easterly to Archibald, southerly in Archibald to Merrill (including the Pressure Reducing Station at Archibald & Chino Avenue); and (#2) Ontario Ranch Road, between Archibald and Hamner. The above mentioned NMC Builders recycled water pipeline shall be fully operational prior to first occupancy. The Specific Plan area is located within two pressure zones. The portion of the project north of Chino Avenue will be served by the 1050 Pressure Zone and the area south of Chino Avenue will be served by the 930 Pressure Zone. A range of recycled water lines will be constructed both on-site and off-site to service the project. There will be 8-inch to 24-inch lines constructed within the 1050 Pressure Zone, and 8-inch to 24-inch lines within the 930 Pressure Zone. Master Planned domestic and recycled water main lines serving the surrounding area and within the Specific Plan, as identified in the most currently approved Water Master Plan Update, shall be constructed prior to issuance of first occupancy. Offsite recycled water improvements to serve the Specific Plan will be implemented according the most current version of the City's Recycled Water Master Plan.

LOCAL BACKBONE RECYCLED WATER PLAN

The Rich Haven Specific Plan shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to irrigation of parks, schools, street landscaping, recreational trails, HOA maintained on-site common areas and commercial/industrial landscaping. An engineering report approved by the City and the California Department of Public Health is required prior to the use of recycled water.

The local backbone recycled water system will be built with 8-inch to 12-inch lines throughout the backbone street system. In-tract recycled water system design will be provided at the time of subdivision. See Figure 4-5A, *Master Planned Recycled Water Plan*, please refer to *The City's Master Plan* for specific sizing and alignment.

Recycled water will be used in the Rich Haven Specific Plan area for irrigation of parks, schools, street landscaping, recreational trails, parkways, common area residential landscaping and commercial/industrial landscaping. See Figure 4-5B *Conceptual Recycled Water Plan Areas* for locations of recycled water use. Locations of common residential landscaping areas will be determined at the time of the Tentative Tract Map.

An Engineer's Report approved by the City and the Department of Health is required prior to the use of recycled water in the Rich-Haven development. There may be an interim period where recycled water supply does not have adequate pressure depending on the timing of development and construction of a regional booster station.

Master planned recycled water main lines serving surrounding and within the Specific Plan, as identified in the most currently approved Water Master Plan Update shall be constructed prior to issuance of first occupancy.

Additional backbone recycled water improvements shall include:

- In-tract system of recycled water lines;
- Haven Ave. pipeline, between southerly property limits to Chino Ave.;
- Pressure Reducing Station @ Haven Ave. and Chino Ave.;
- Riverside Drive pipeline between Haven Ave. and Cucamonga Creek; and
- Pipeline between Riverside Drive and IEUA's RP-1 facility
- Haven Avenue pipeline between Chino Avenue and Riverside Drive.

Please note that the recycled water system, in Rich Haven, is in two separate pressure zones (1050 pressure zone = north of Chino Ave. and, 930 pressure zone = south of Chino Ave.)

It should be noted that NO recycled water can be used on single family single lot ownership properties. And there shall be a clear physical separation between potable and recycled water systems such as a wall, fence, sidewalk, or mow strip. Common areas are to use recycled water and either maintained by HOA or CFD, and shall be In a ROW or within a lettered lot.

4.3 SEWER MASTER PLAN

The ultimate utility sizing and alignment shall follow the most currently approved Master Plan. Sewer service for the Rich-Haven Specific Plan will be provided by the City of Ontario. Rich-Haven's Sewer Master Plan shall comply with the Sewer Master Plan, which is designed as a gravity sewer system that generally drains to the west and east from the central spine road. The areas located between Haven Avenue and Mill Creek Avenue should flow into Haven Avenue trunk sewer, while flows generally east of the spine road will flow to the Mill Creek Avenue trunk sewer. Within the project site a network of minimum 8-inch sewer lines will be installed. The proposed on-site public sewer system sizing is subject to the recommendations and approval of the required sewer analysis.

REGIONAL SEWER PLAN

The Specific Plan area is within three separate Master Plan Trunk Sewer Tributary Areas and six Master Plan Trunk Sewers. Regional sewer improvements include:

- a. The Mill Creek Avenue Trunk Sewer with a proposed 12-inch line within Mill Creek north of Chino Avenue transitioning to 15-inch sewer line from Ontario Ranch Road south to Eucalyptus Avenue and then a 21-inch lines south to Bellegrave Avenue;
- b. The Merrill/Bellegrave Trunk Sewer with a 24-inch line in Bellegrave/Merrill Avenue from Mill Creek Avenue to Celebration Avenue transitioning to a 27-inch line to Archibald Avenue to connect to the Eastern Trunk Sewer;
- c. The South Haven Trunk Sewer with a 15-inch line in Haven Avenue from south of Ontario Ranch Road to Merrill/Bellegrave Avenue;
- d. The North Haven Trunk Sewer with a 21-inch line in Haven Avenue from Riverside Drive to Ontario Ranch Road; and,
- e. The Ontario Ranch Road trunk Sewer with a 27-inch line in Ontario Ranch Road from Haven Avenue to Turner Avenue transitioning to a 30-inch line to Archibald to connect to the Eastern Trunk Sewer.
- f. An additional 21-inch sewer line will be constructed in Haven Avenue from the Haven Pump Station north of the project site to Riverside Drive.

Wastewater in these facilities will be conveyed from the Eastern Trunk Sewer south to the Inland Empire utility Agency's Kimball Interceptor in Kimball Avenue, which will then convey waste water west to Regional Plant 5. See figure 4-6A, Master Planned Sewer Plan, please refer to The City's Master Plan for specific sizing and alignment. Offsite sewer improvements to serve the Specific Plan, and/or capacity improvements such as the potential purchase of additional capacity in the Eastern Trunk Sewer, will be implemented according to the most current version of the City's Sewer Master Plan and required sewer analysis.

LOCAL BACKBONE SEWER PLAN

In order to serve residential and commercial uses, the merchant builder will install 8-inch to 10-inch sewer mains within the local backbone street system. In-tract sewer system design will be provided at the time of subdivision processing. See Figure 4-6B, *Conceptual Sewer Plan*. Within the project site, a network of a minimum of 8-inch sewer lines will be installed. The proposed on-site public sewer system sizing is subject to the recommendations and approval of the required sewer analysis.

4.4 DRAINAGE MASTER PLAN

REGIONAL BACKBONE DRAINAGE PLAN

The Master Plan of Drainage proposes multiple storm drain facilities that will serve the Rich Haven project site. Within Hamner Avenue a 36-inch to 54-inch storm drain will be constructed from north of Ontario Ranch Road to Bellegrave Avenue, a 72-inch to a 10' x 8' box storm drain in Mill Creek Avenue from Chino Avenue to Bellegrave Avenue, a 48-inch to 96-inch storm drain in Haven Avenue from Riverside Avenue to Bellegrave Avenue, and a 48-inch to 72-inch storm drain that generally runs north-south Colony High School and connects to the proposed Haven Avenue storm drain. Additionally, there will be a 48" storm drain in Ontario Ranch Road starting at Haven Avenue and running approximately 1/3 of the way towards Mill Creek and a 54" storm drain in Ontario Ranch Road running from halfway between Haven Avenue and Mill Creek Avenue through until it connects with a 48" drain East of Mill Creek. All storm drains serving the project site will drain

south to the County Line Channel and ultimately to the Cucamonga Creek Channel. See Figure 4-7A, Master Planned Drainage Plan, please refer to the City's Master Plan for specific sizing and alignment. Offsite drainage improvements to serve the Specific Plan will be implemented according to the most current version of the City's Drainage Master Plan.

STORMWATER QUALITY MEASURES

The grading and drainage of the Rich Haven Specific Plan area shall be designed to retain, infiltrate, and/or biotreat surface runoff to the maximum extent practicable, in order to comply with the requirements of the current San Bernardino County NPDES Stormwater Program's MS4 Permit and Water Quality Management Plan (WQMP) for priority development projects. The objective of the WQMP for this project is to minimize the detrimental effects of urbanization on the beneficial uses of receiving waters, including effects caused by increased pollutants and changes in hydrology. These effects shall be minimized through the implementation of on-site and off-site Low Impact Development (LID) Site Design Best Management Practices (BMPs) that reduce runoff and pollutant transport by minimizing impervious surfaces, maximizing on-site infiltration, and specifically retain/in-filter or biotreat the 85th percentile storm event. In addition, non-structural and structural Source Control Best Management Practices (BMPs), shall also be implemented and documented in the project's approved Water Quality Management Plan(s) to reduce pollutant generation and transport from the project site.

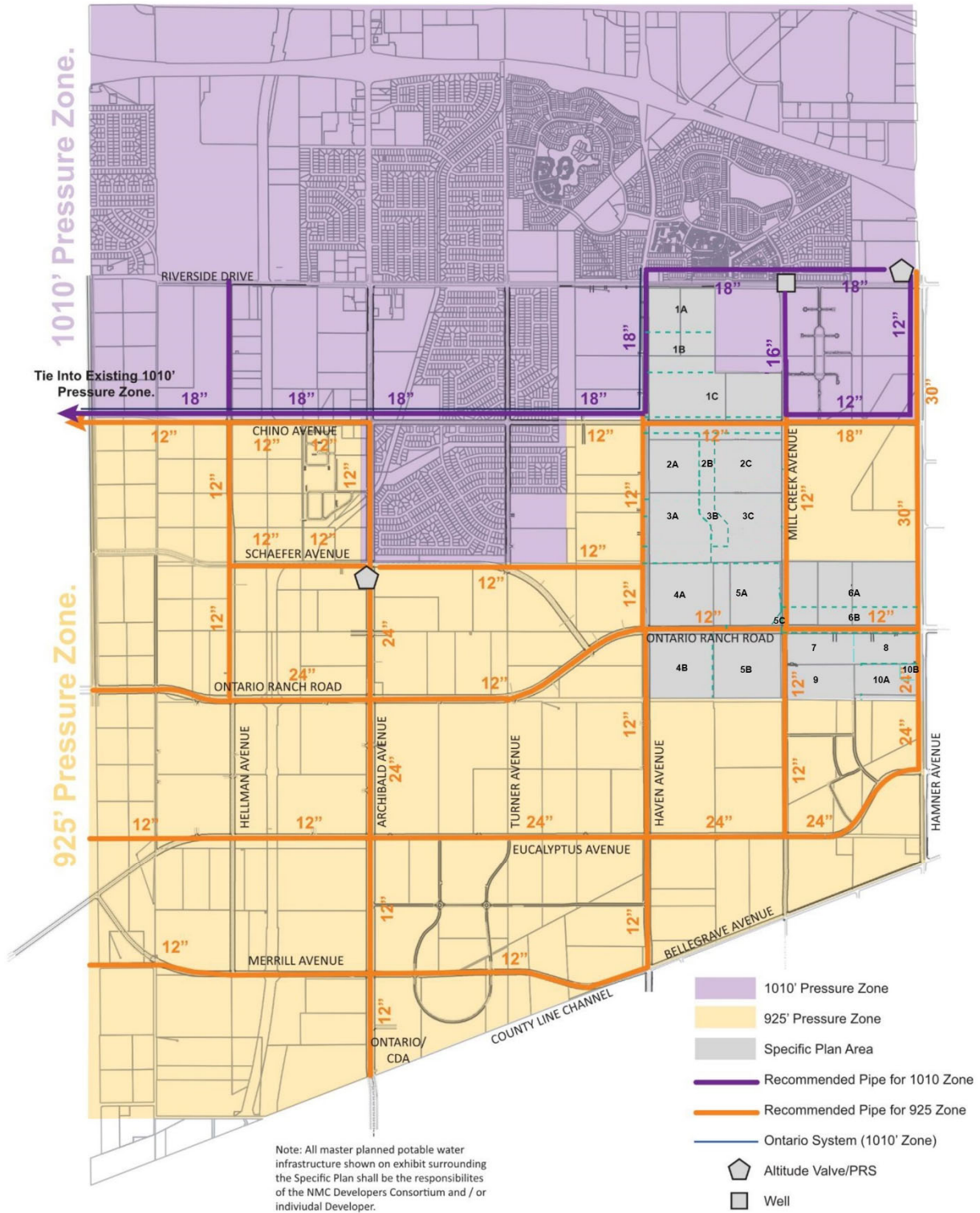
Prior to the issuance of a grading or construction permit, each development project within this Specific Plan area which disturbs >1 acre of land shall prepare a Storm Water Pollution Prevention Plan (SWPPP) and shall obtain coverage under the California State Water Resources Control Board's (State Water Board) current "General Permit to Discharge Storm Water Associated with Construction Activity" and the current Area-wide Urban Storm Water Runoff (Regional NPDES) Permit. The SWPPP will identify and detail all appropriate Best Management Practices (BMPs) to be implemented or installed during construction of the project and permit coverage shall be evidenced by the issuance of a Waste Discharger's Identification number.

In addition to the preparation of a SWPPP for construction-related activities, and as part of the approval of any grading plans within the Specific Plan Area, project applicants will be required to submit a Water Quality Management Plan (WQMP) on the current SB County model template form, available at: <http://www.sbcounty.gov/dpw/land/npdes.asp>. The WQMP shall identify and detail all on-site and off-site Low Impact Development Site Design BMPs, Source Control BMPs, and Treatment Control BMPs to be implemented or installed within the project, in order to reduce storm water pollutants and site runoff.

All Priority Land Use (PLU) areas within the Specific Plan Area shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit.

LOCAL BACKBONE DRAINAGE PLAN

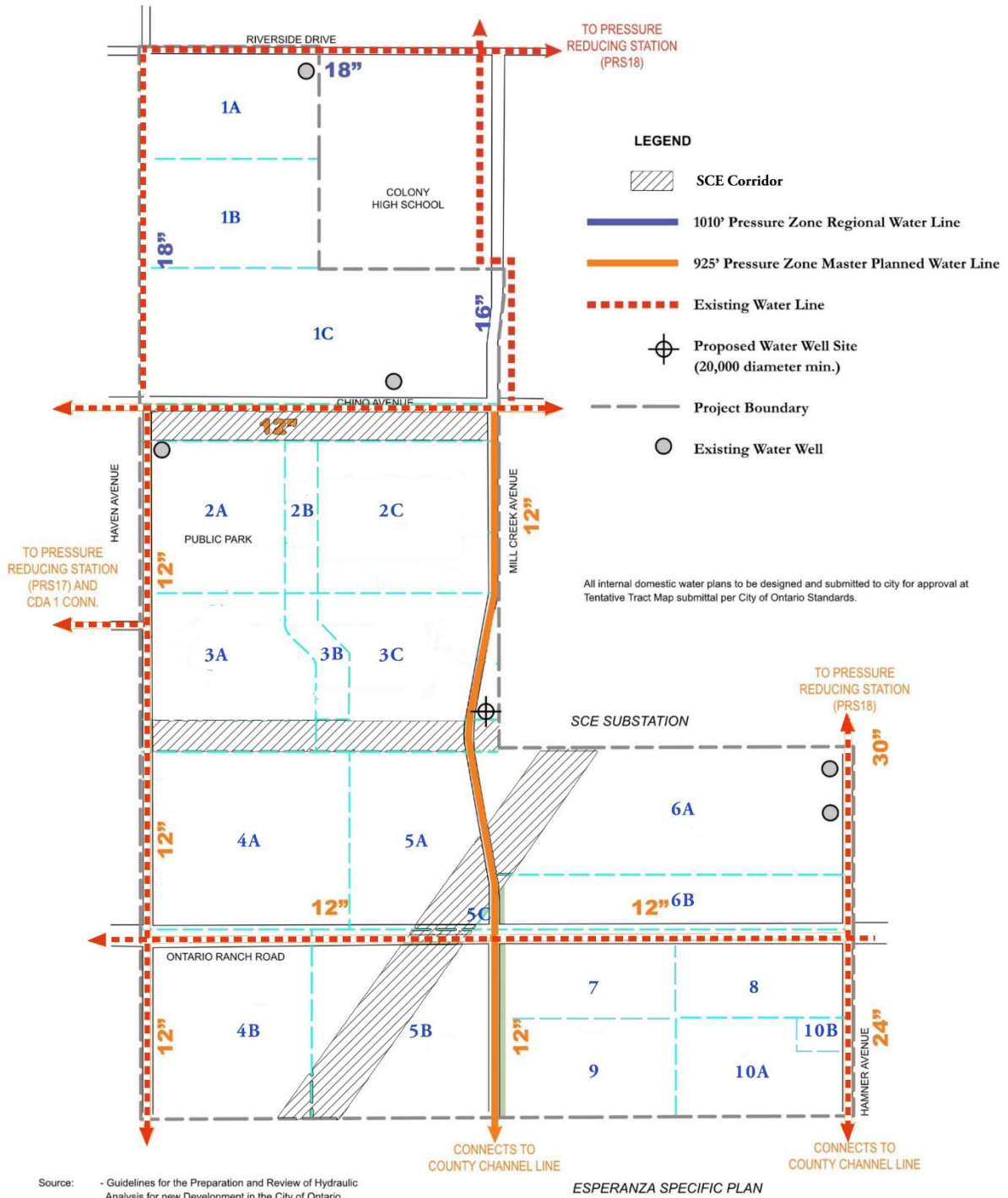
The local storm drain system will convey flows within the project streets to a series of culverts, with pipe sizes ranging from 24-inches to 108-inches. It should be noted that storm drain pipe sizes are conceptual. Final design will be determined upon submittal of individual tentative tract maps and associated hydrology studies. See Figure 4-7B, *Conceptual Drainage Plan*.



NOT TO SCALE

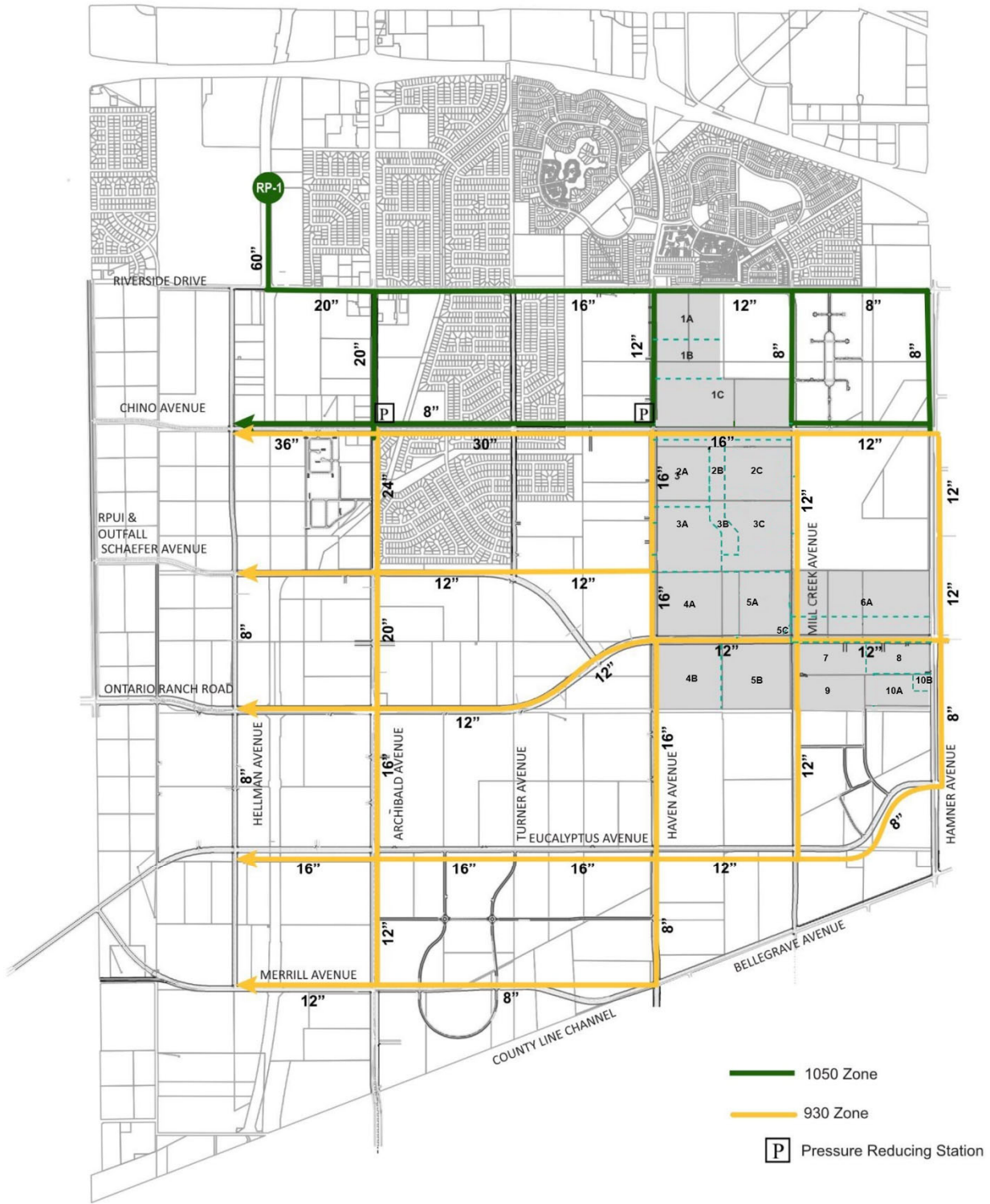
RICH-HAVEN SPECIFIC PLAN
MASTER PLANNED DOMESTIC WATER PLAN

FIGURE 4-4A



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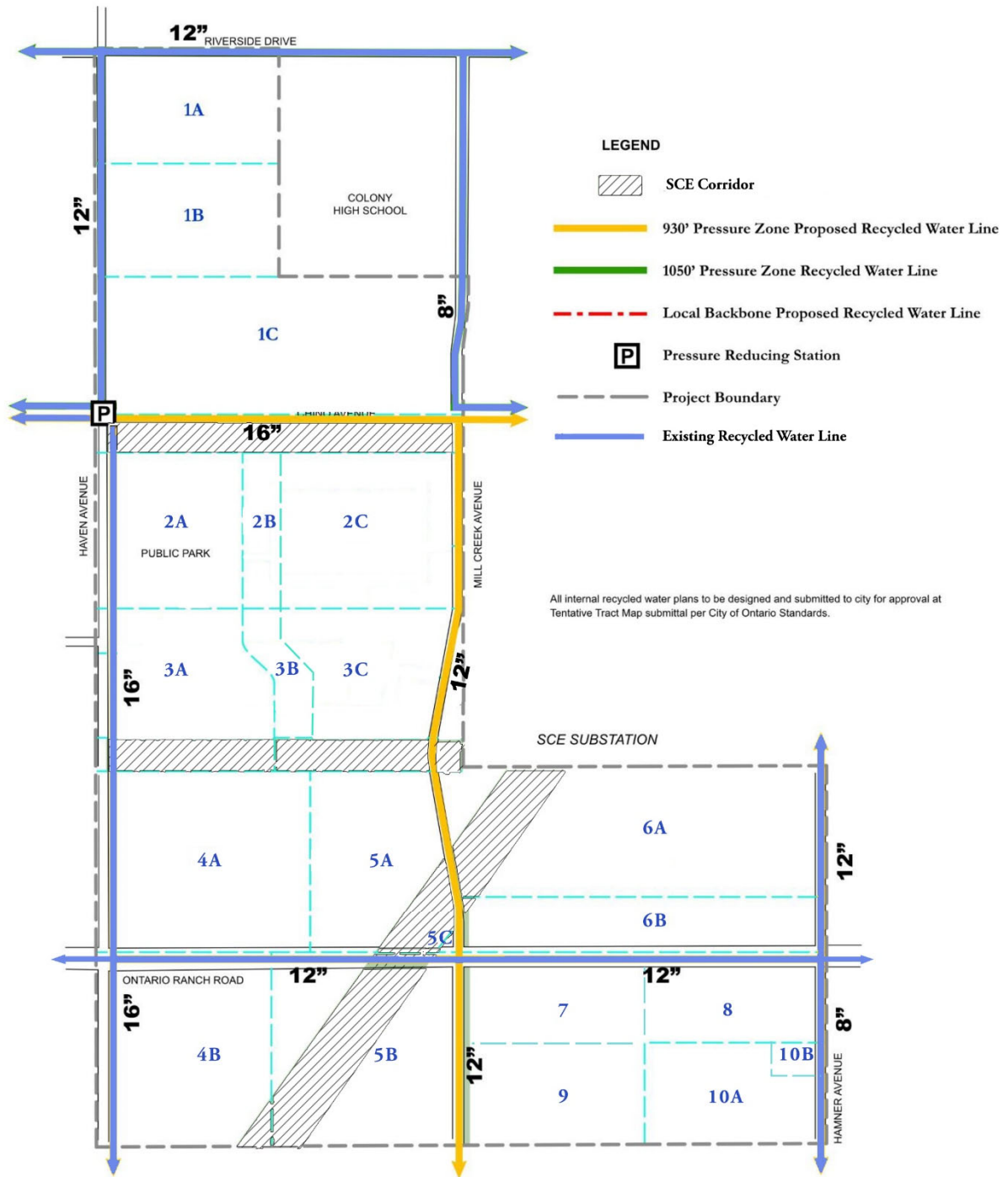
RICH-HAVEN SPECIFIC PLAN
 CONCEPTUAL DOMESTIC WATER PLAN
 FIGURE 4-4B



NOT TO SCALE

Rich-Haven Specific Plan
MASTER PLANNED Recycled Water Plan

FIGURE 4-5A



All internal recycled water plans to be designed and submitted to city for approval at Tentative Tract Map submittal per City of Ontario Standards.

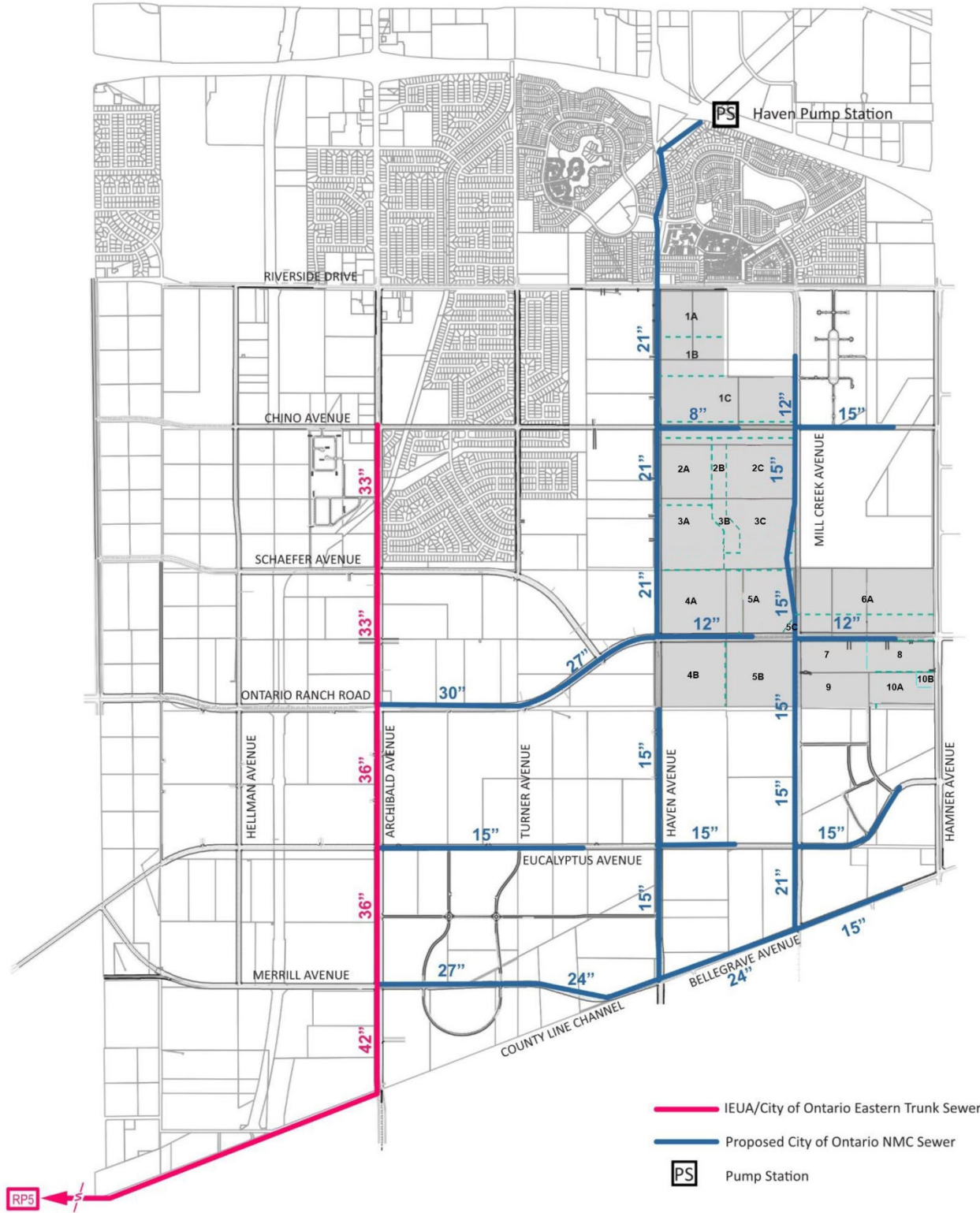
Source: - Guidelines for the Preparation and Review of Hydraulic Analysis for new Development in the City of Ontario.
 - City Existing Agricultural Wells Map 2/7/06.

ESPERANZA SPECIFIC PLAN

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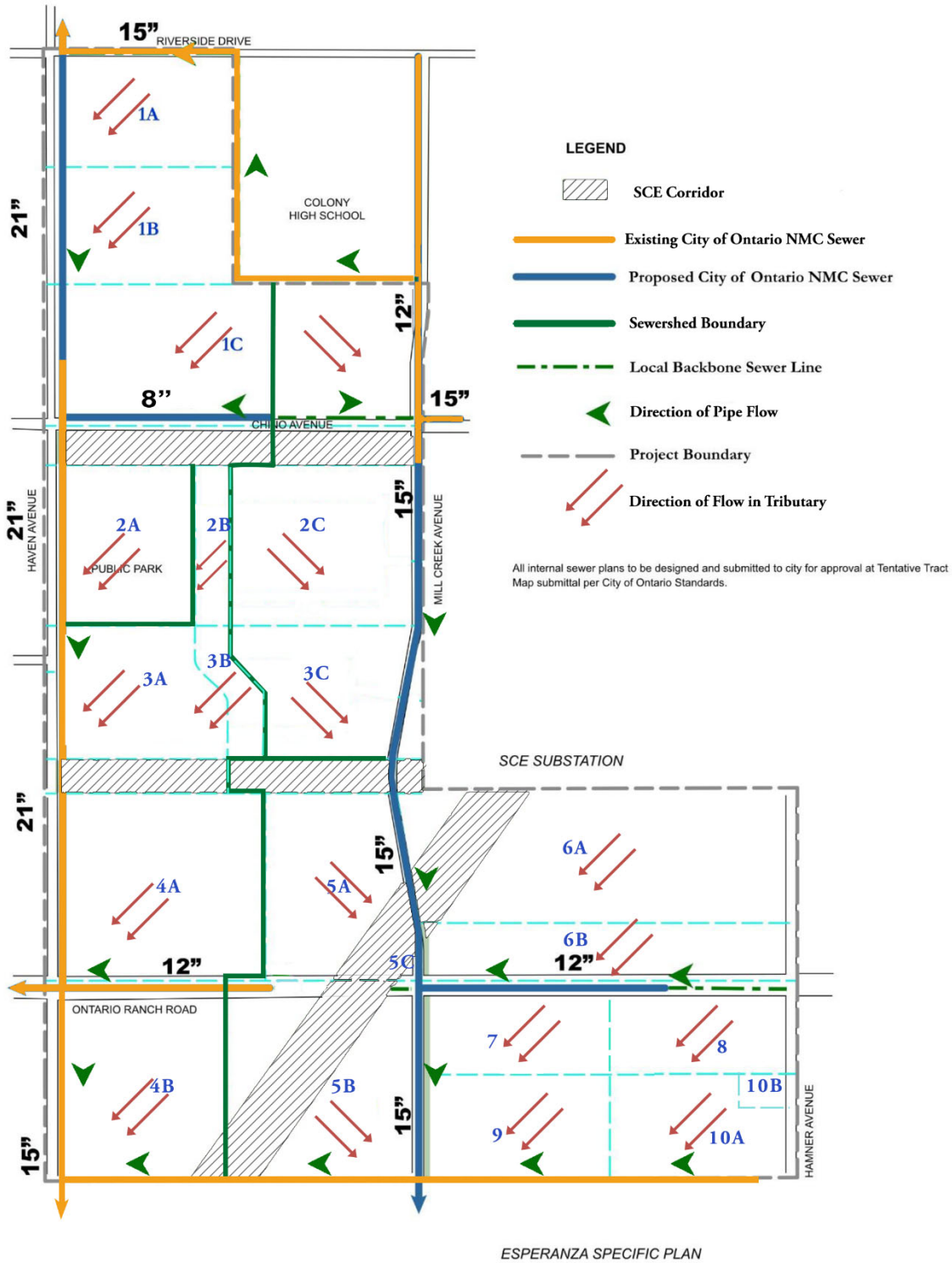
RICH-HAVEN SPECIFIC PLAN
 CONCEPTUAL RECYCLED WATER PLAN

FIGURE 4-5B



Rich-Haven Specific Plan
MASTER PLANNED Sewer Plan

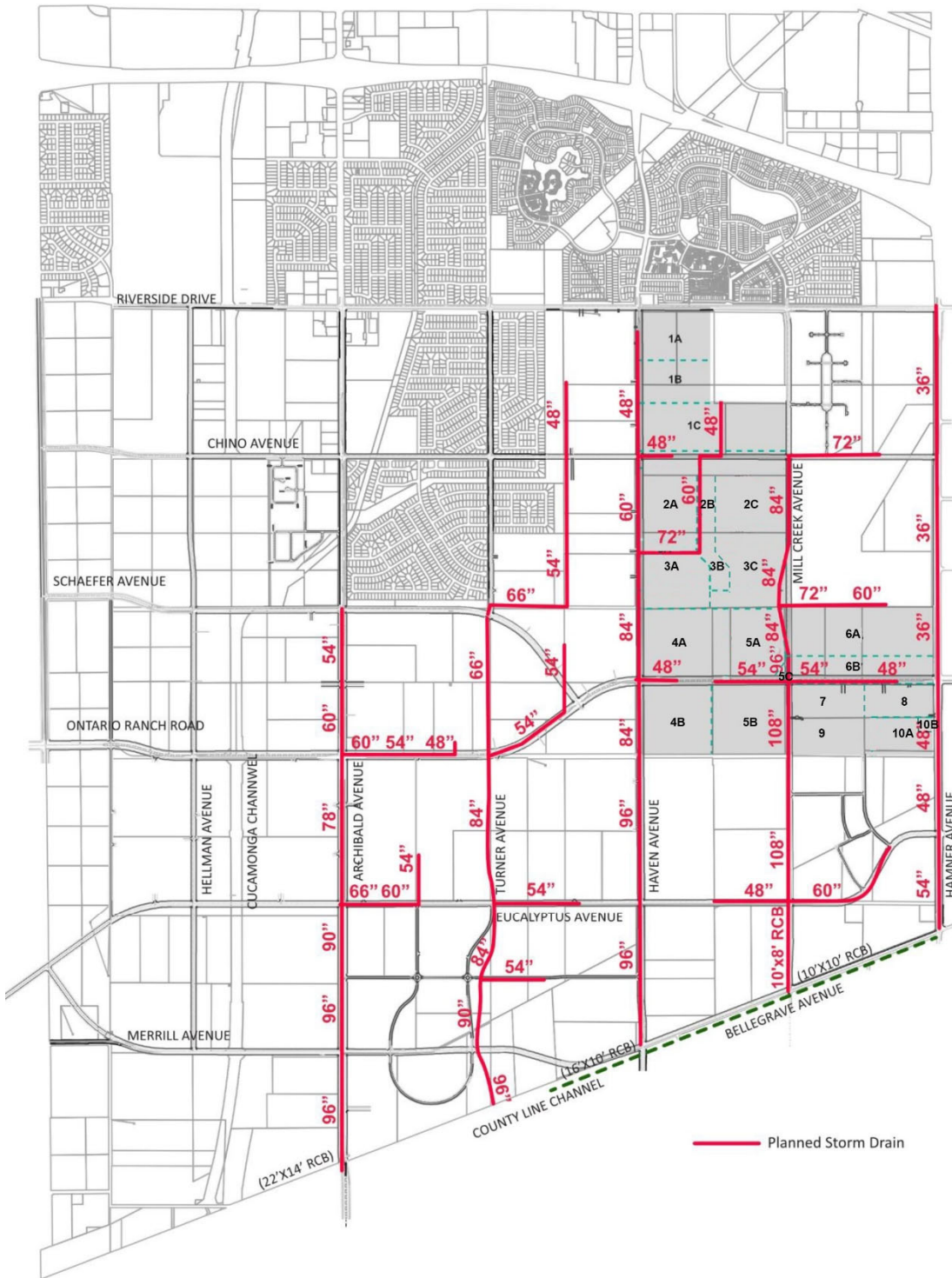
FIGURE 4-6A



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RICH-HAVEN SPECIFIC PLAN
CONCEPTUAL SEWER PLAN

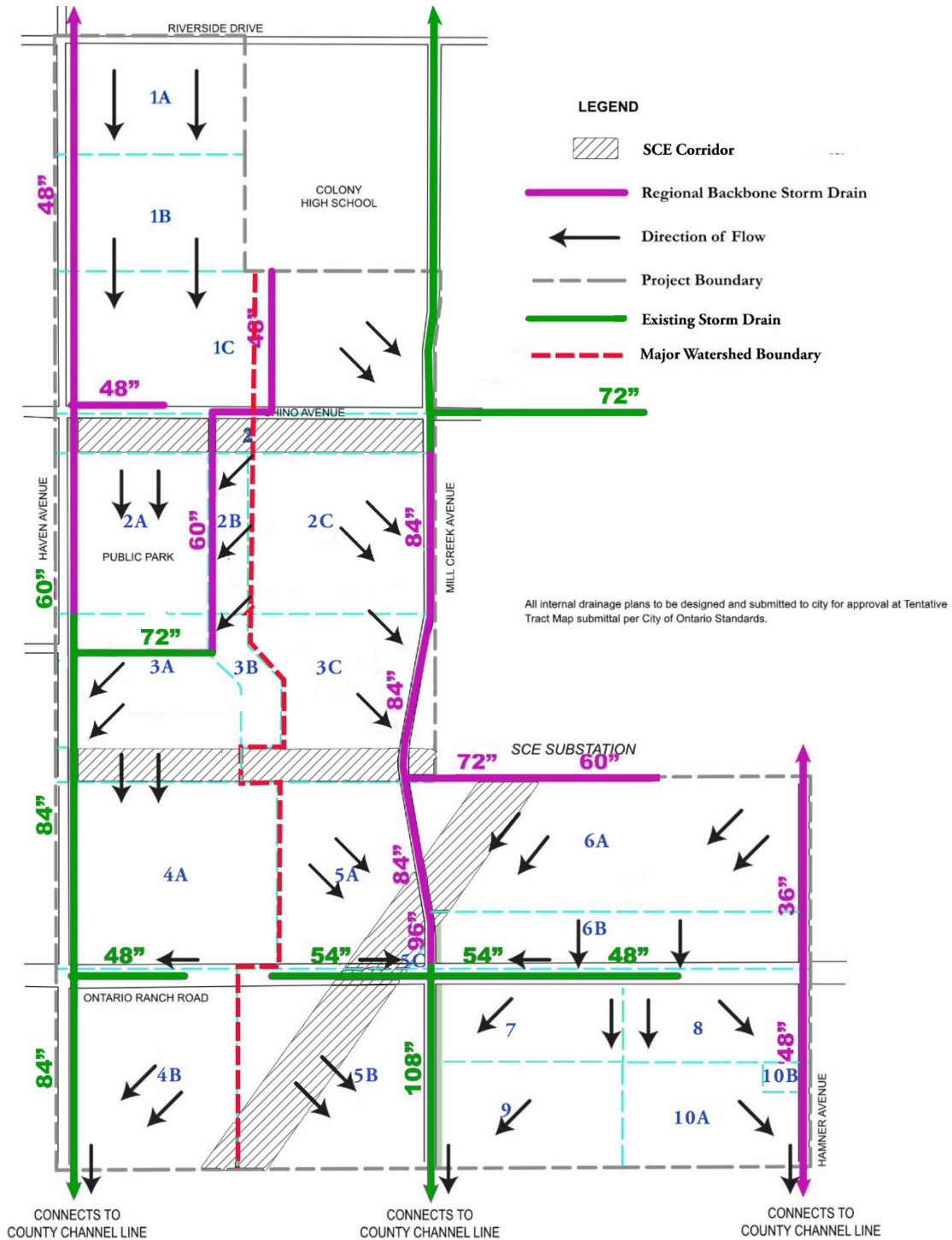
FIGURE 4-6B



 NOT TO SCALE

Rich-Haven Specific Plan
MASTER PLANNED Drainage Plan

FIGURE 4-7A



ESPERANZA SPECIFIC PLAN



RICH-HAVEN SPECIFIC PLAN
CONCEPTUAL DRAINAGE PLAN

FIGURE 4-7B

4.5 GRADING PLAN

The existing topography of the project site is relatively flat, and the Rich-Haven grading plan will use the existing grade and elevations wherever possible. The grading plan will include the excavation of any remaining agricultural soils unsuitable for development, clearing of any existing vegetation, demolition of existing structures, and the creation of building pads.. Exposed retaining walls facing roadways shall be no greater than six-feet in height, and where feasible, be built of decorative materials consistent with the theme of the neighborhood. See Figure 4-8, *Grading Plan*.

Grading plans will be reviewed and approved by the City of Ontario prior to the issuance of grading permits. All grading plans and activities will comply with the City grading ordinance, dust and erosion control requirements, and NPDES requirements.

The City of Ontario is in the process of adopting a protocol to assess the potential for methane generation on proposed building sites in areas previously used for certain agricultural practices such as dairies. It is anticipated that prior to issuance of a grading permit, a methane site assessment would be conducted and submitted to the City, with additional testing required during grading if required by the assessment. If testing indicates that mitigation is required, designs would be submitted to the City as part of building permit review and approval. Section 8, *Administration and Implementation*, of this Specific Plan includes more detail of the anticipated protocol.

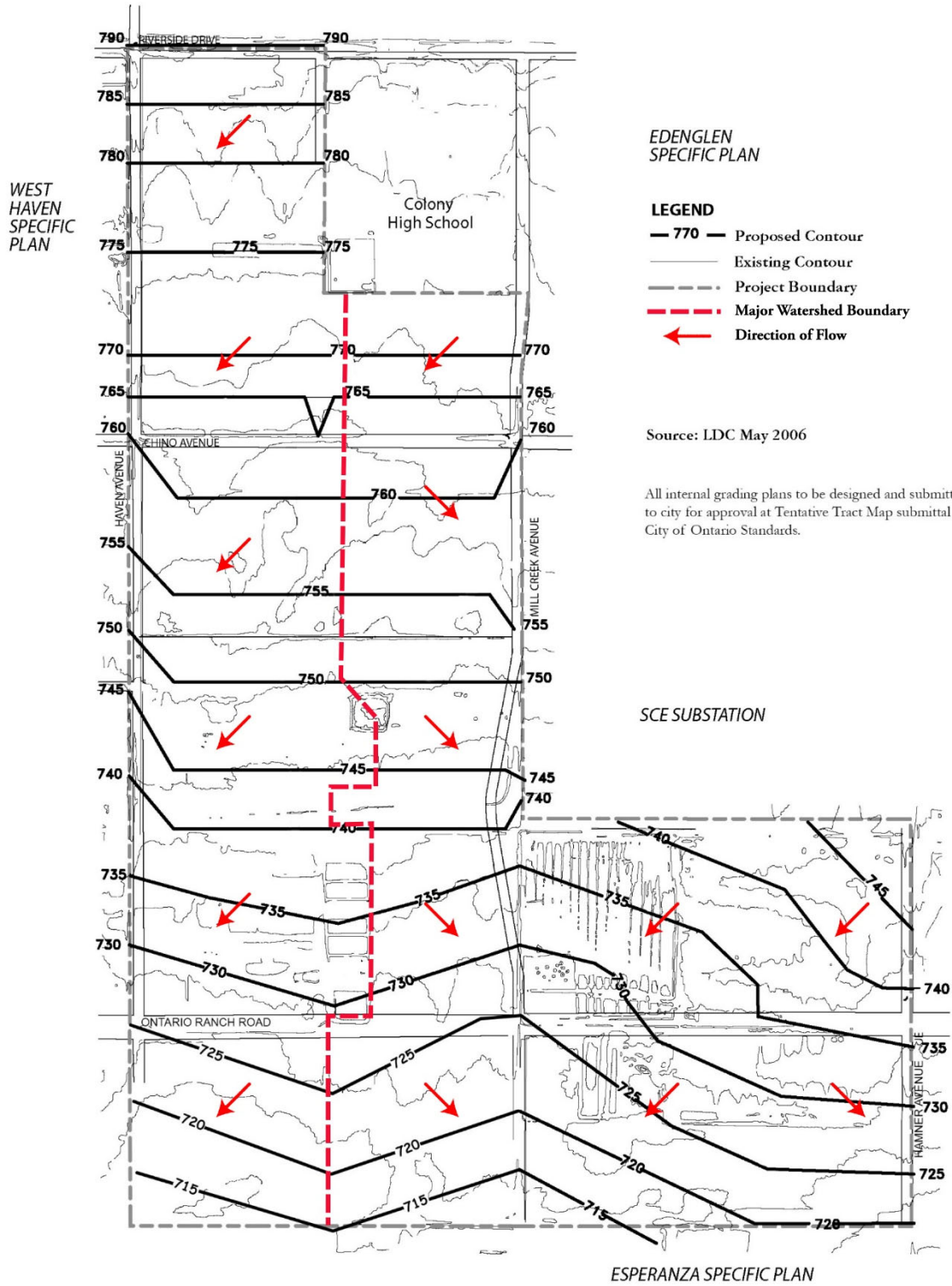
4.6 SERVICES

4.6.1 SCHOOLS

The Rich-Haven project site is within the jurisdiction of the Mountain View School District, serving grades K-8, and the Chaffey Joint Union School District, serving grades 9 through 12. Nearby Mountain View District grade schools include Creek View Elementary to the north, Ranch View School to the west, and Grace Yokley School to the northwest. Chaffey Joint Union’s Colony High School is located adjacent to the project on the northeast. Surrounding proposed school facilities include an elementary school to the west within the West Haven Specific Plan area and south within the Esperanza Specific Plan area and to the west in The Avenue Specific Plan area.

The following are the estimated student population for the Rich-Haven Specific Plan area (based on student generation numbers, City of Ontario) under the Specific Plan:

<u>Grades K-5</u>	<u>Grades 6-8</u>	<u>Grades 9-12</u>
Generation factor .38/DU	Generation factor .22/DU	Generation factor .20/DU
.38 x 7,194 = 2,734	.22 x 7,194 = 1,583	.20 x 7,194 = 1,439

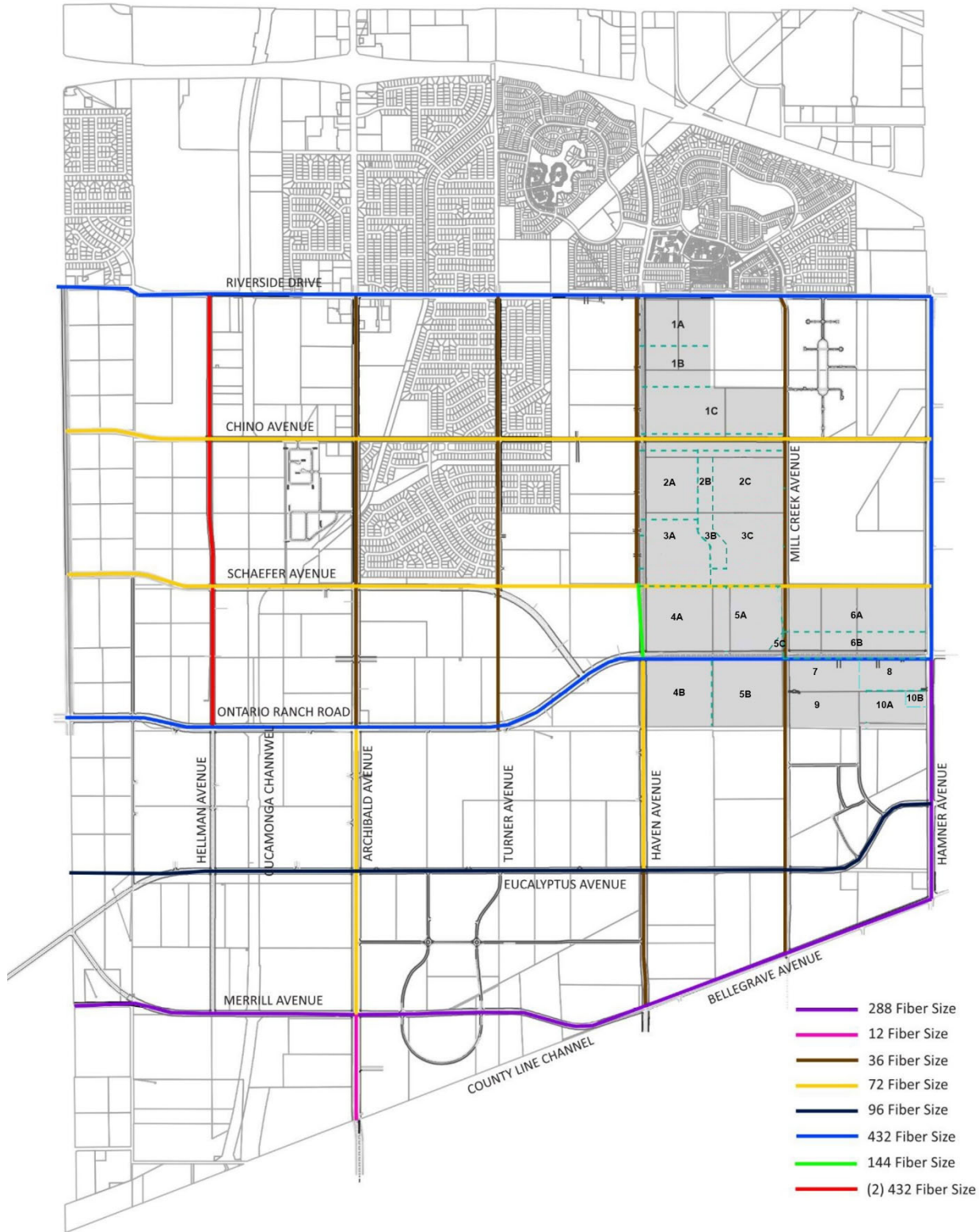


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RICH-HAVEN SPECIFIC PLAN
GRADING PLAN

FIGURE 4-8



 NOT TO SCALE

Rich-Haven Specific Plan
MASTER PLANNED Fiber Optic Plan

FIGURE 4-9

4.6.2 PARKS

The City of Ontario has an established standard of 5 acres of park and recreation area for every 1,000 residents for regional parks, with a minimum of 2 acres of open park areas per 1,000 residents. The City has also established three standard park sizes: Private Parks of a minimum of 0.25-acres and serving a one-quarter mile radius; Public Neighborhood Parks of 10 to 20 acres and servicing a one-half mile radius; and Public Community Parks of twenty acres or more, servicing a two mile radius.

Within the Rich-Haven Specific Plan area a minimum requirement for open park areas is 2 acres per 1,000 residents, which can include hardscape urban plazas within the Regional Commercial/Mixed-Use District and SCE easements. Portions of the SCE easements may be allocated towards local park credit in the event they are improved and maintained to the appropriate standards. Refer to Section 5, Development Standards. Parks in excess of 2 acres per 1,000 residents may be eligible for “regional” classification under the City’s 5 acre/1,000 residents.

The Rich-Haven Specific Plan Land Use Plan identifies three conceptual locations for private parks within the Residential District and four within the Regional Commercial/Mixed-Use District of the project. These parks may include picnic areas, tot lots, trails, and open play fields. The private park requirement may be met within any residential development, attached or detached. Fees will be paid to fulfill the balance of the City’s park requirements (the remaining 3-acres per 1,000 residents).

The Rich Haven Specific Plan includes a 27 acre public park identified as Planning Area 2A. It is located along Haven Avenue south of Chino Drive and the SCE Easement that parallels Chino Drive.

4.6.3 FIRE

The Ontario Fire Department provides fire and emergency medical service (EMS) for the Ontario Ranch from existing fire stations. The response capability consists of eight paramedic engine companies, and two truck (ladder) companies and 2 Battalion Supervisors, totaling 42 emergency personnel on duty 24 hours per day, 7 days a week.

The closest fire station to the proposed project site is Ontario Fire Station No. 9, located southwest of the project site at 2661 E Grand Pk St. The Department’s current response time from Station No. 9 to the proposed site exceeds current emergency response goals. The department has a goal to achieve an average response time to all emergency calls within 8 minutes. To be consistent with the City’s TOP Policy Plan, fire protection services planned for the NMC planning area will be subject to this goal.

A potential 1.5-acre fire station pad is proposed in the Regional Commercial / Mixed-Use District as part of the Rich-Haven Specific Plan, which will serve Rich-Haven and adjacent

neighborhoods. Final location will be reviewed and approved by the Ontario Fire Department.

4.6.4 LAW ENFORCEMENT

The Rich Haven Specific Plan will be within the jurisdiction of the City of Ontario Police Department, which currently operates one main and three satellite stations. The nearest police station to the Rich-Haven project site is at Archibald Avenue and Walnut Avenue.

4.6.5 LIBRARY

The City of Ontario Library is part of the Inland Library System, a public library cooperative of library branches in San Bernardino, Riverside, and Inyo Counties. The City currently has a main library and a branch library at Colony High School.

4.6.6 FIBER OPTICS

The proposed backbone street fiber optics (conduits, tracer wire, and fiber) will be placed underground within a duct and structure system to be installed by the Master Developer in a joint trench, as Illustrated in Figure 4-9. . In-tract fiber and conduit shall be installed by the Developers per the in-tract fiber optic design guidelines. Maintenance of the installed system will be the responsibility of the City/Special District. Development of the Project requires the installation by the Developers of all fiber optic infrastructure and peripheral equipment necessary to service the Project as a stand-alone development. See Figure 4-9.

4.6.7 NATURAL GAS

The Gas Company will provide natural gas service to the project site. The Gas Company as necessary will install natural gas mains within the Rich-Haven site, with possible integration with existing 3-inch and 6-inch mains within Riverside Drive, Hamner Avenue, and Ontario Ranch Road. The 36-inch High Pressure main located within the northwestern corner will remain.

4.6.8 ELECTRICITY

SCE will provide electrical service to the project site from existing facilities in the Ontario Ranch area; any new facilities will be located underground and be owned and operated by the City of Ontario.

SCE facilities located within and adjacent to the project area consist of 115kV, 66kV, 12kV, and communications. Facilities less than 34.5kV will be located underground in the event that they are located adjacent to any streets proposed to be improved in conjunction with site improvements. See Figure 2-5, *Existing On-Site Facilities*.

SCE has a number of easements within and adjacent to the project area. The easement extending along the north side of the existing Ontario Ranch Road will be vacated as part of the project concurrently with removal of the existing 12kV lines. The existing 66kV lines will be relocated along the Ontario Ranch Road to the north. The SCE existing 66kV lines located along Haven Avenue will be relocated outside the project area and within the Haven Avenue right-of-way.

As part of the project, Mill Creek Avenue will be realigned to the west. With the realignment of Mill Creek Avenue, existing 115kV SCE towers located along Mill Creek Avenue may require to be relocated to the north of Ontario Ranch Road, in addition to the potential for the relocation of 115kV and 66kV lines located to the south of Ontario Ranch Road.

4.6.9 SOLID WASTE

Solid waste and recyclables in the City of Ontario are collected by the Ontario Municipal Utilities Company (OMUC) and transported to the Burtec West Valley Materials Recovery Facility in the City of Fontana. Refuse is ultimately landfilled at the El Sobrante Landfill in Riverside County. The development shall follow the Solid Waste Department Refuse and Recycling Planning Manual for the City of Ontario. The community trash enclosures may be utilized within the Specific Plan development depending on the types of architectural layouts.

The following shall apply:

- i) Commercial – Developer shall comply with Municipal Code Sec. 6-3.314 Commercial Storage Standards, and Sec. 6-3.601 Business Recycling Plan.
- ii) Apartment – For apartments using commercial bin service developer shall comply with Municipal Code Sec. 6-3.314 Commercial Storage Standards and Sec 6-3.601 Business Recycling Plan.
- iii) Residential – For curbside automated container service developer shall comply with Municipal Code Sec. 6-3.308.9(a) and (d), Residential Receptacles, Placement.
- iv) Recycling Requirements – Developer shall comply with Municipal Code, Article 6. Recycling Requirements for Specified Business Activity, Sec. 6-3.601 Business Recycling Plan, and Sec. 6-3.602 Construction and Demolition Recycling Plan.
- v) Site Improvement Plans shall follow the City of Ontario refuse collections standards. All project sites shall be designed to meet all the Integrated Waste Department’s requirements, including the requirements for Sizing of Storage, Location of Collection Area, Accessibility for Collection Vehicles, and Collection of Sorted/Diverted Waste Types.

The City of Ontario will assess development fees to new developments to pay for the necessary expansion of solid waste collection services.