

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 and mixed-use 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.

4.1 CIRCULATION PLAN

The Circulation Plan for the Rich-Haven Specific Plan will provide effective movement of automobiles 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 the requirements of the City's adopted roadway classifications as illustrated in the New Model Colony General Plan Amendment and through proposed local backbone streets to be constructed as part of the project site development. Improvements will be constructed for Haven Avenue, Edison Avenue, Milliken Avenue, Chino Avenue, and Mill Creek Avenue, which run through or border the project site. Figure 4-1A, *Master Planned Circulation Plan*, illustrates the regional roadway system and traffic control devices planned.

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 4-1B, *Conceptual Circulation Plan*, illustrates backbone on-site roadway circulation, access points, potential round-about locations, signalized intersections, and non-signalized access points. Access points are from Milliken Avenue to the east, and Haven Avenue to the west of the project site, as noted in figure 4-1B. 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, superelevation, corner sight distance, vertical and horizontal alignment and sight distance, are listed below:

❖ Edison Avenue:	50 mph
❖ Chino Avenue:	40 mph
❖ Riverside Drive:	45 mph
❖ Haven Avenue:	45 mph
❖ Mill Creek Avenue:	40 mph
❖ Milliken 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. See Figures 4-2A through 4-2E, *Street Cross Sections*. 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 maps for the project. Additionally, 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.

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

MILLIKEN AVENUE – Bounding the project at the east, Milliken Avenue is designated as a divided arterial Parkway 1A north of Edison Avenue (realignment) with eight lanes and a minimum right-of-way of 140 feet. South of Edison Avenue (realignment), Milliken Avenue is designated a Parkway 1-1, with six travel lanes (3 lanes on each side of the street) and a double row of median trees. Access to Milliken Avenue via driveways from residential units and on-street parking will be prohibited. Milliken Avenue is also designated as a scenic highway by the General Plan Amendment, which requires extensive landscaping and the use of enhanced right of way areas with parkways, sidewalks, and landscaped medians, maximizing visual continuity. The developer shall be responsible for those improvements to Milliken 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 Milliken Avenue are shown in Figure 4-1B, and road improvements are illustrated on Figure 4-2A, *Street Cross Sections*.

HAVEN AVENUE – Located on the western boundary of the project site, Haven Avenue is classified by the General Plan Amendment as a proposed Parkway 2-2, with four travel lanes and a double row of parkway trees. Haven Avenue, as it passes the project site, is proposed at a minimum right-of-way of 124 feet with a Class 1 multi-purpose trail. Right of way areas with parkways and sidewalks are also proposed. Haven Avenue will connect the project site to Riverside Drive to the north, and City of Ontario lands beyond, and Bellegrove Avenue to the south. 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 4-1B, and road improvements are illustrated on Figure 4-2D, *Street Cross Sections*.

EDISON AVENUE (REALIGNMENT) – Bounding and crossing the site to the south, Edison Avenue (realignment) is classified by the General Plan Amendment as a Parkway 1A, with eight travel lanes at build-out, and a minimum right-of-way of 160 feet west of Mill Creek Avenue, and 165 feet to the east. The right of way area is proposed with landscaped buffers/parkways and sidewalks within the Rich-Haven Specific Plan. Access to this street via driveways from residential units and on-street parking will be prohibited. Edison Avenue (realignment) connects the project site to Milliken Avenue to the east, the rest of the New Model Colony to the west and the City of Chino further to the west. To the east of the project, Riverside County and CALTRANS are coordinating the design and implementation of the Cantu-Galeano Ranch Road/I-15 Interchange. The proposed interchange is estimated to be completed by 2007/2008. The developer shall be responsible for those improvements to Edison 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 Edison Avenue are shown in Figure 4-1B and road improvements are illustrated on Figure 4-2B, *Street Cross Sections*.

Edison Avenue (realignment) is also both a designated truck route and a scenic highway. New Model Colony's designated truck routes will direct truck traffic along arterial roadways and out of residential areas, while scenic highways require extensive landscaping.

RIVERSIDE DRIVE – Bounding the site on the north, Riverside Drive is designated as an arterial with a 108-foot right-of-way with a landscape buffer along its neighborhood edge. A sidewalk and parking area is also proposed within the right of way area. 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 4-1B, and road improvements are illustrated on Figure 4-2D, *Street Cross Sections*.

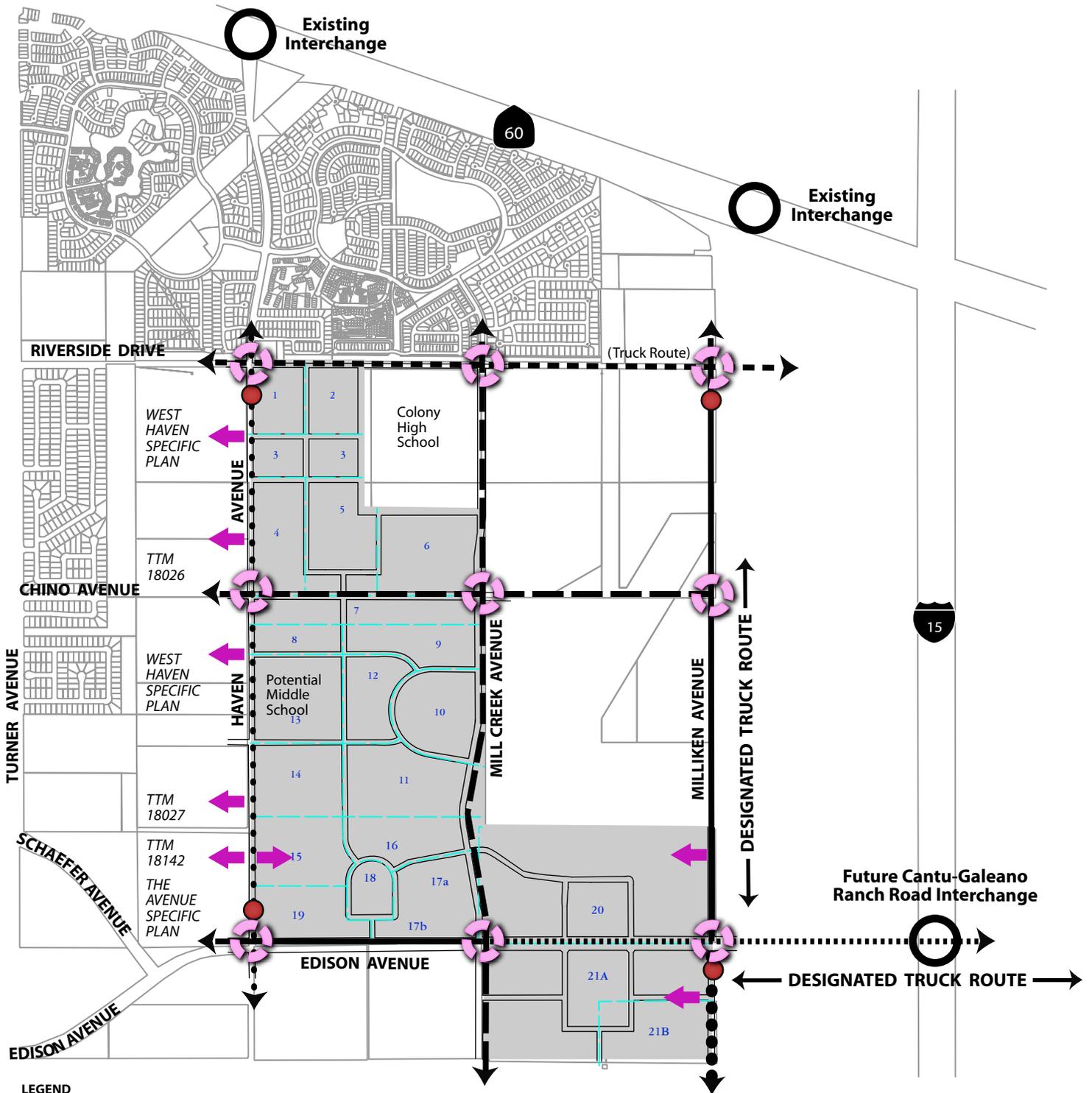
CHINO AVENUE – Crossing the site from east to west, Chino Avenue is identified as a collector in the General Plan Amendment, to be improved to two travel lanes in each direction with a minimum 88-foot right-of-way, which includes a parkway and sidewalk. Access to this street via driveways from residential 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 turnouts will be required to the satisfaction of the City of Ontario and Omnitrans. Proposed traffic Signals along Chino Avenue are shown in Figure 4-1B, and road improvements are illustrated on Figure 4-2C, *Street Cross Sections*.

MILL CREEK AVENUE – Crossing the site from north to south, Mill Creek Avenue is identified as a collector in the General Plan Amendment, to be improved to two lanes in each direction, with a minimum 88-foot right-of-way. For the portion of Mill Creek Avenue between Edison Avenue and Chino Avenue, proposed minimum right of way is 83-feet. Right of way areas are also proposed that consist of a sidewalk and an adjacent parkway. Access to this street via driveways from residential units and on-street parking will be prohibited. The roadway will be realigned to the west starting approximately 50 feet south of the existing high school and continuing south beyond the project area. 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 4-1B and road improvements are illustrated on Figure 4-2C, *Street Cross Sections*.

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 Milliken Avenue on the east side, while another access point will occur along Milliken Avenue. The internal streets within the Regional Commercial/Mixed-Use District will form a central loop off of Edison Avenue (realignment). Improvements are illustrated on Figure 4-2E, *Street Cross Sections*.

- ❖ **LOCAL NEIGHBORHOOD/PRIVATE STREETS** – Local Neighborhood/Private Streets that carry neighborhood related traffic will 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 theme street edge.

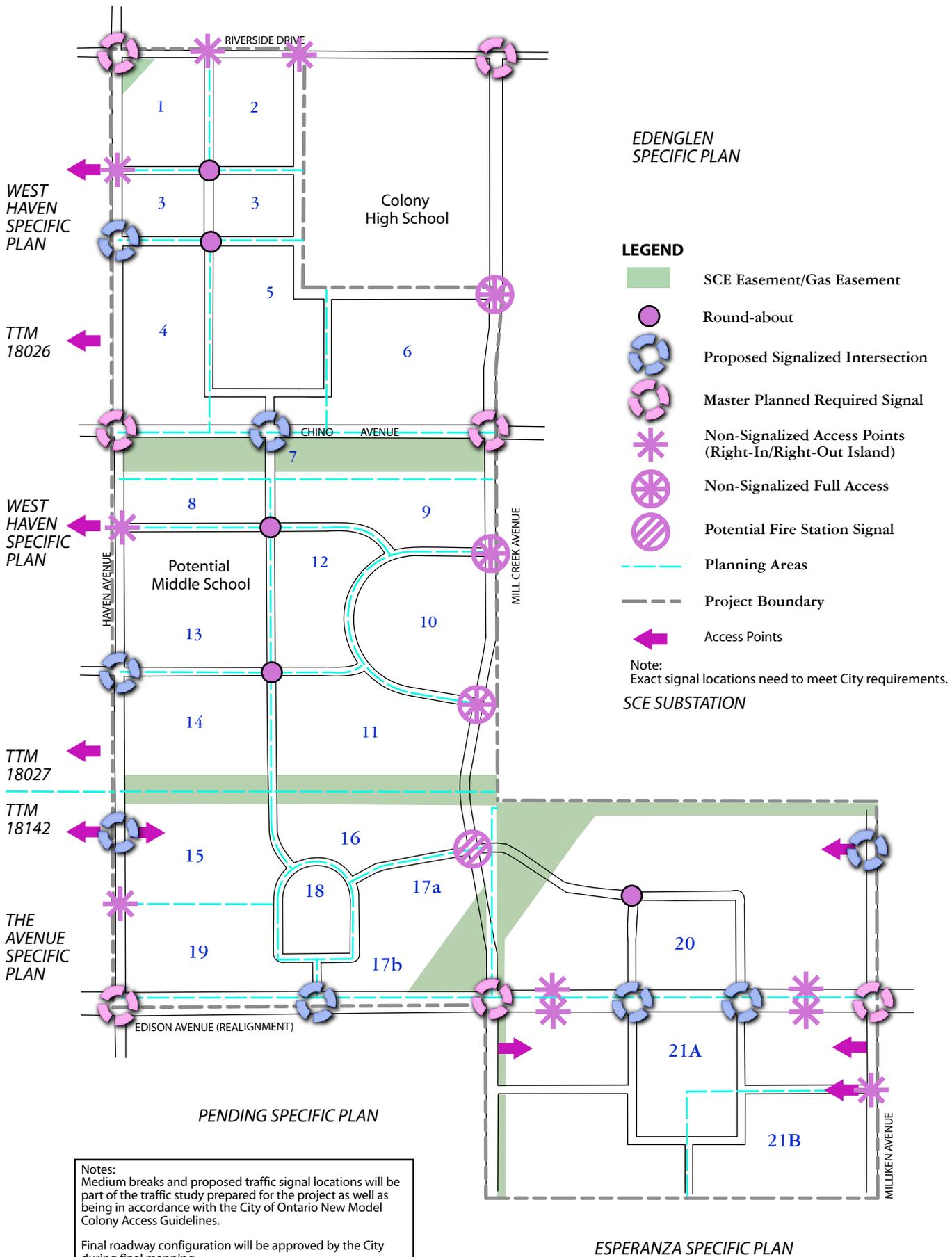


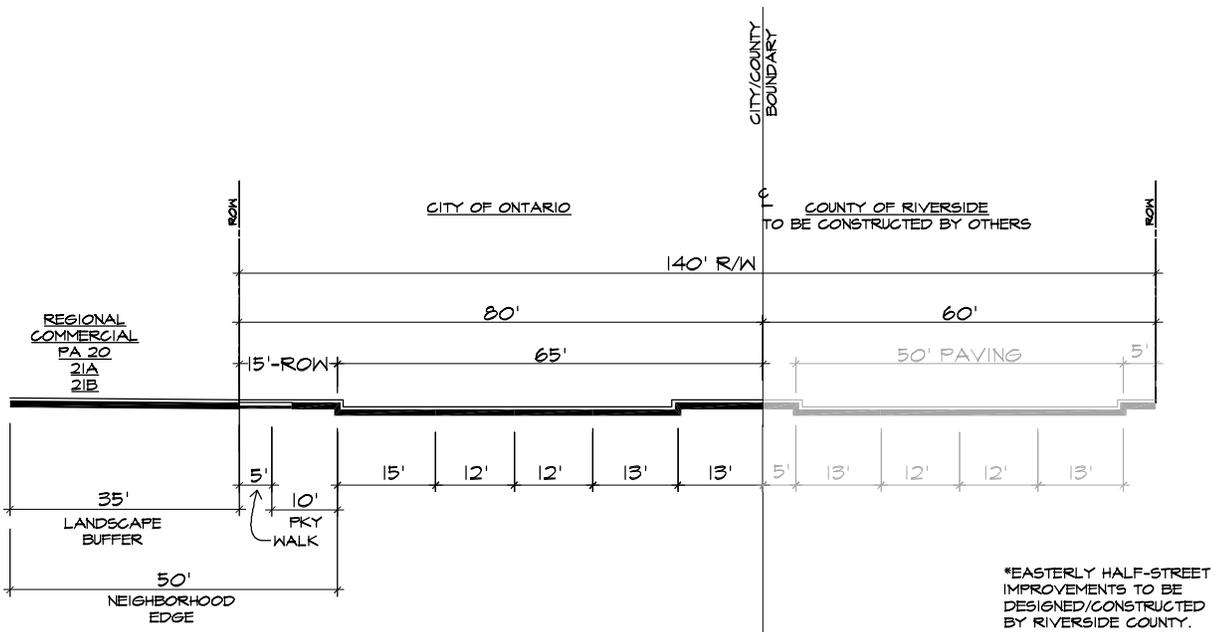
LEGEND

- Divided Arterial Parkway 1A (8 lanes) Minimum 160' ROW
- Standard Arterial Minimum 108' ROW
- Divided Arterial Parkway 1A (8 lanes) Minimum 165' ROW
- Local Neighborhood Street Minimum 60' ROW
- Divided Arterial Parkway 1-1 with Bikeway (6 lanes double rows of median trees) Minimum 148' ROW
- Divided Arterial Parkway 2-2 (4 lanes double rows of parkway trees) Minimum 124' ROW
- Collector Minimum 88' ROW
- Planning Areas
- Existing/Future Interchange
- Master Planned Required Signal
Source: City of Ontario NMC Transportation Implementation Plan, 2001, Refer to Figure 4-2a and 4-2b.
- Bus Turnout
Source: Chino-Ontario Community Board Transportation Plan, June, 2005.
- Access Points

Note: Medium breaks and proposed traffic signal locations will be part of the traffic study prepared for the project as well as being in accordance with the City of Ontario New Model Colony Access Guidelines.



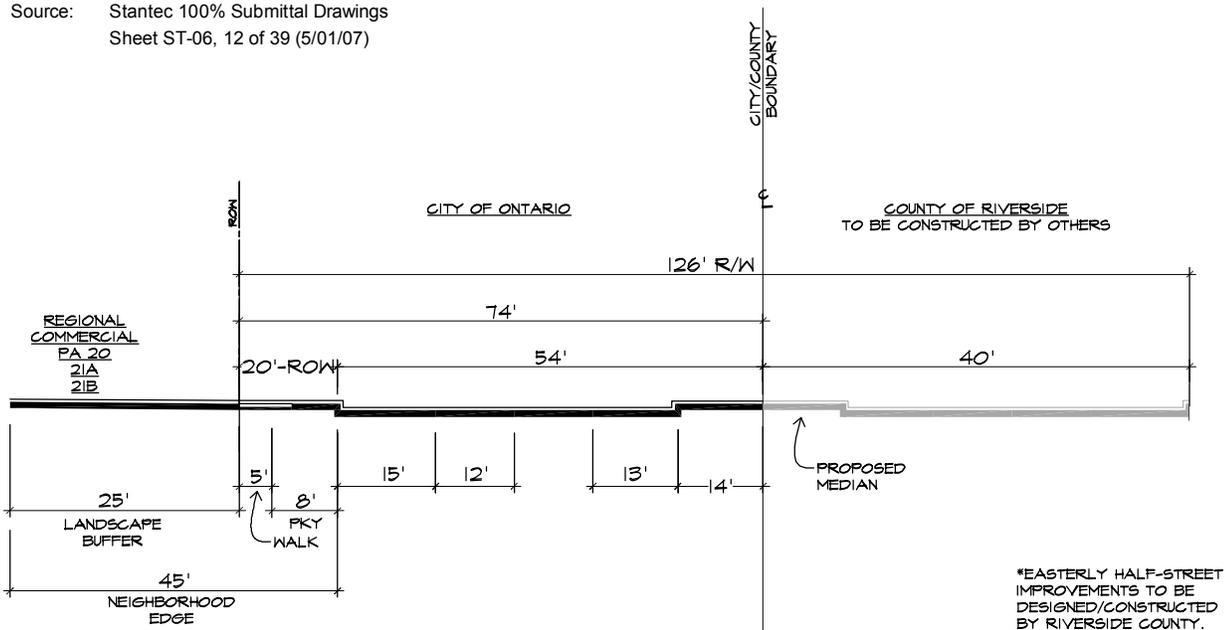




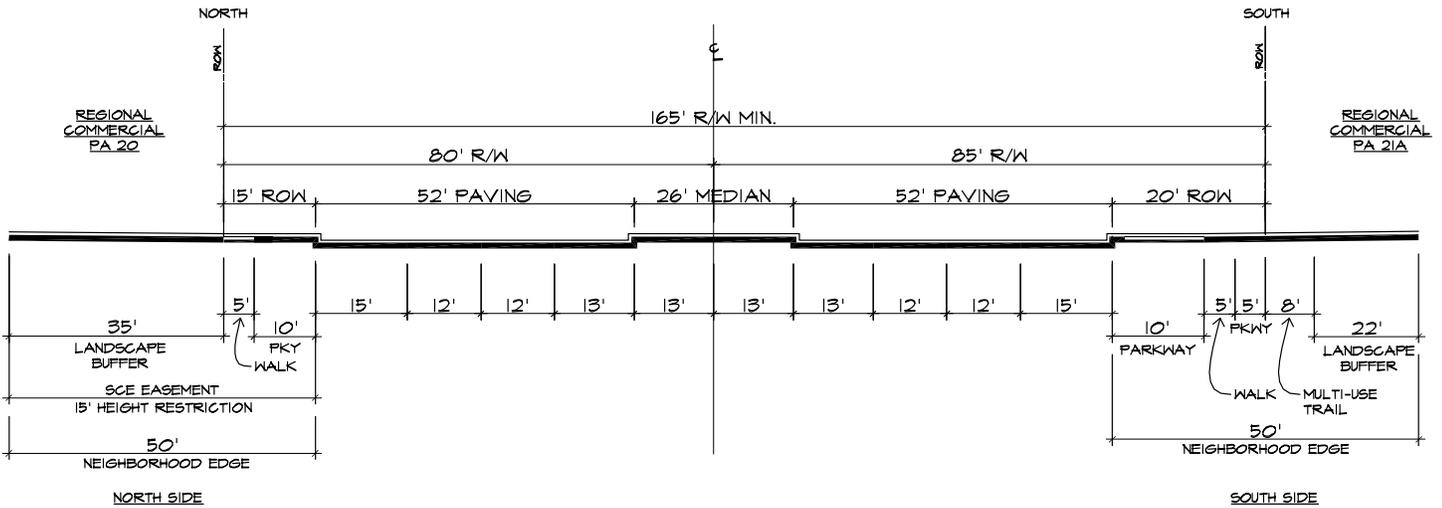
Milliken Avenue - Westside (North of Edison Avenue)
Between Riverside Drive and Edison Avenue
Divided Arterial Parkway 1A
Interim Improvements

On-Street Parking Prohibited

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

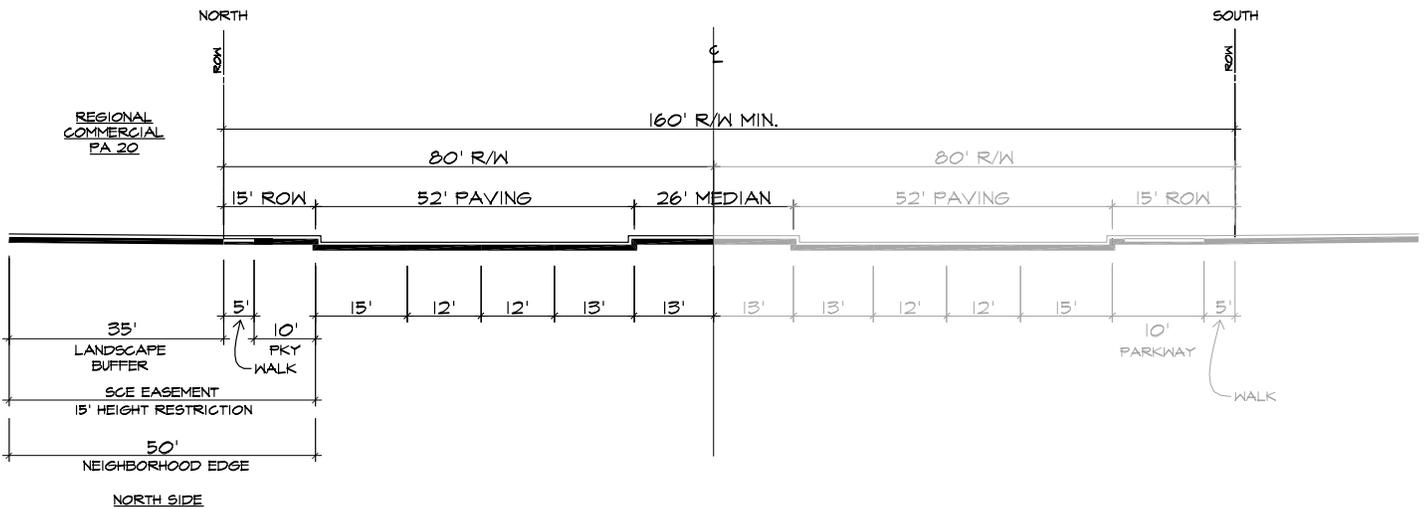


Milliken Avenue - Westside (South of Edison Avenue)
South of Edison Avenue
Divided Arterial Parkway 1-1
On-Street Parking Prohibited
(three-lanes/median)



Edison Avenue (East)
 Between Milliken Ave & Mill Creek Ave
 Divided Arterial Parkway 1A w/ Bikeway
 On-Street Parking Prohibited

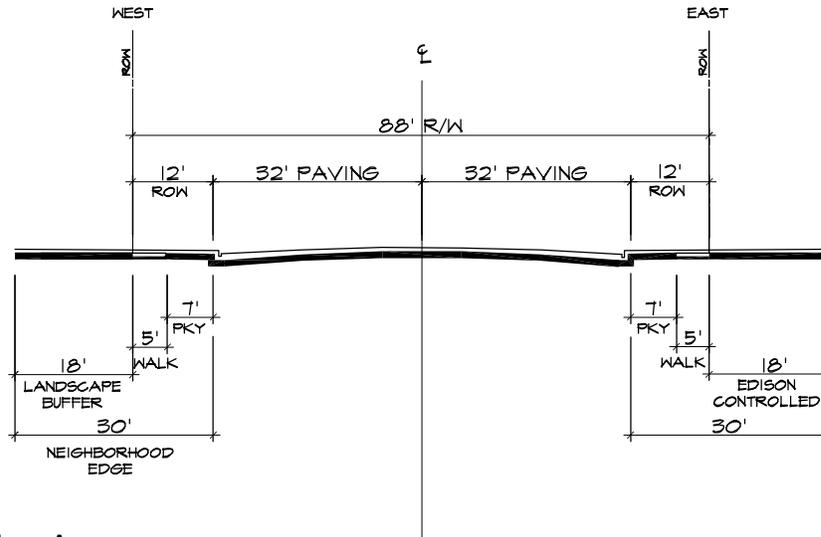
Source: Stantec 35% Submittal Drawings, Sheet DT-01



Edison Avenue (West)
 Between Haven Ave & Mill Creek Ave
 Divided Arterial Parkway 1A w/ Bikeway
 On-Street Parking Prohibited

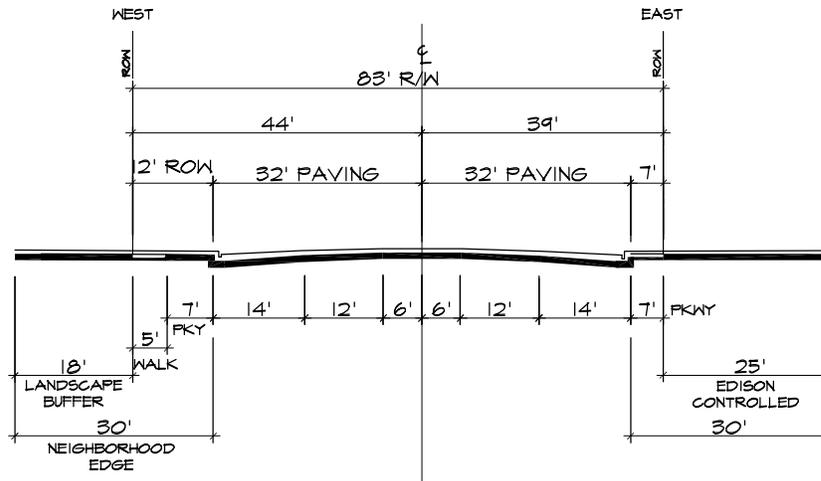
Source: Stantec 35% Submittal Drawings, Sheet DT-01

Note: Refer to Chapter 7 for Streetscape Design.



Mill Creek Avenue/Chino Avenue
Collector Street
On-Street Parking Prohibited

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



Mill Creek Avenue (Between Edison Ave & Chino Avenue)
Collector Street
On-Street Parking Prohibited

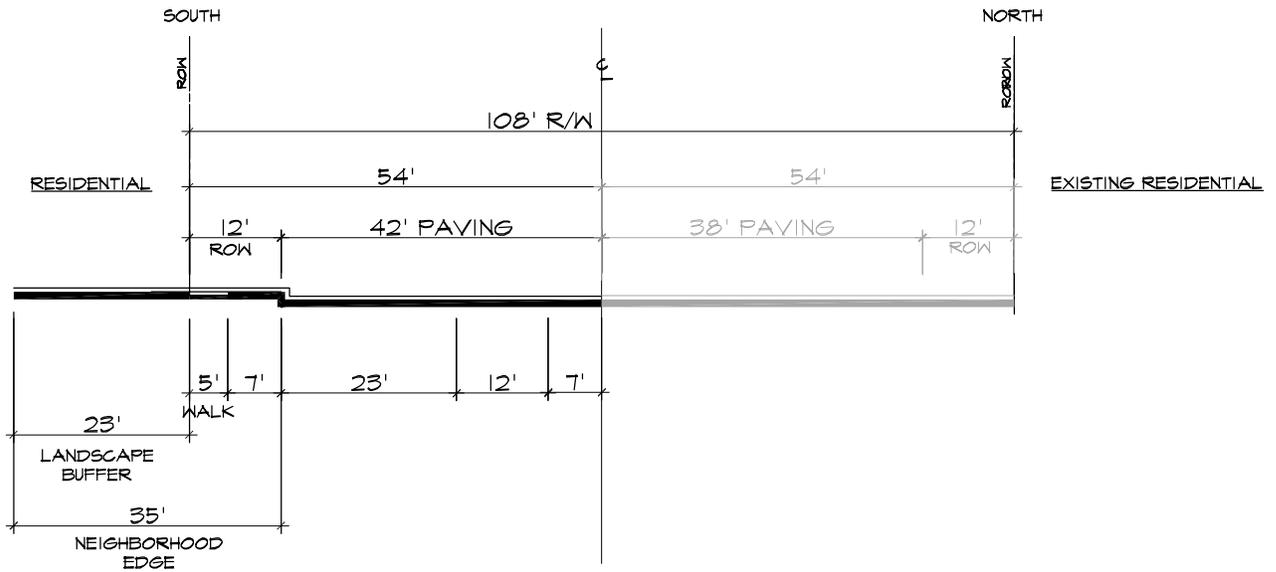
Source: Stantec 100% Submittal Drawings
 Sheet DT-06, 3 of 32

Note: Refer to Chapter 7 for Streetscape Design.

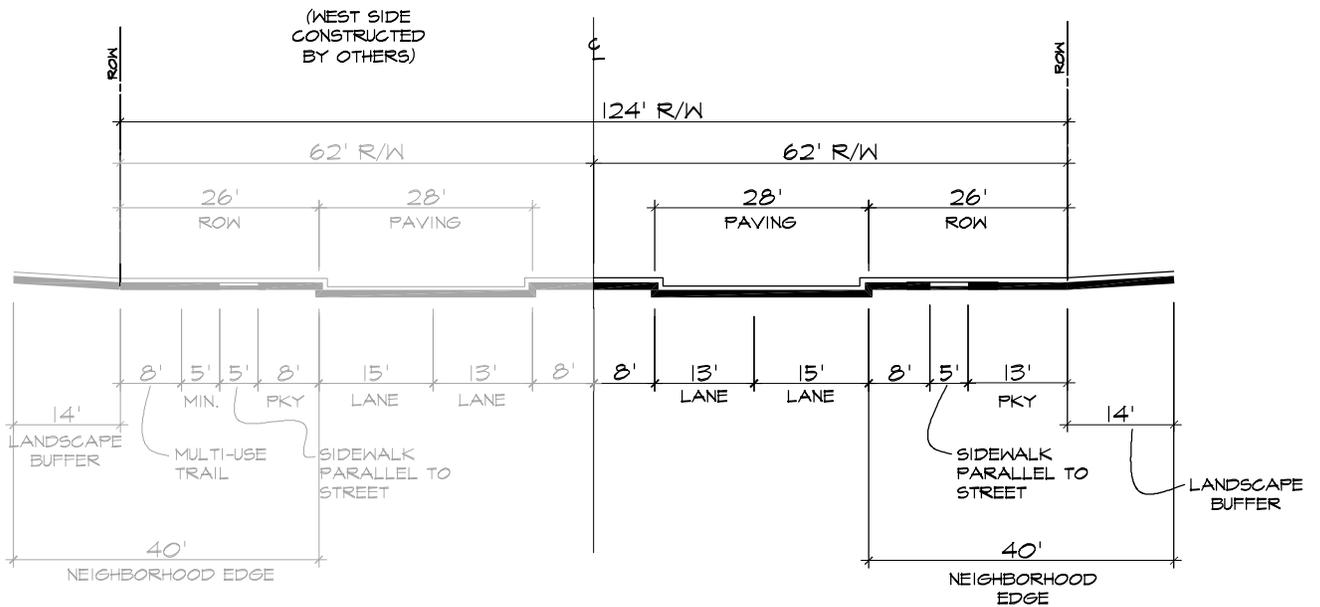


NOT TO SCALE

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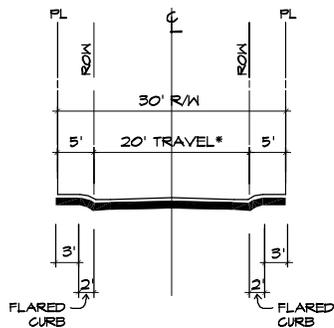


Riverside Drive
Arterial
On-Street Parking Prohibited



Haven Avenue
Divided Arterial Parkway 2-2
On-Street Parking Prohibited

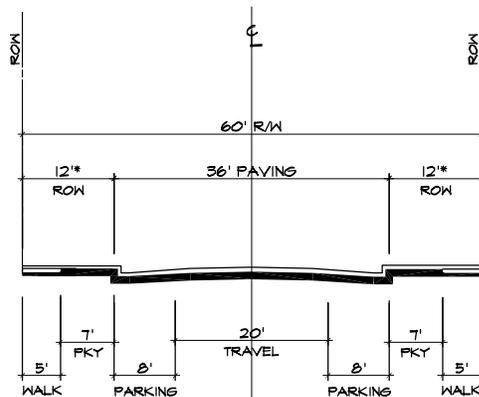
Note: Refer to Chapter 7 for Streetscape Design.



Common Drive/Alley (Private)

20' travel minimum

*24' travel for emergency access road



Residential Neighborhood Street (Public or Private)

Parking Permitted

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

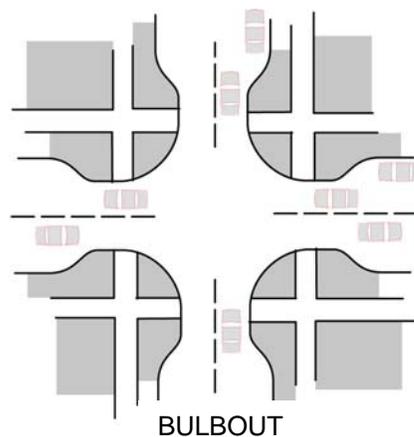
*minimum dimension

Note: Refer to Chapter 7 for Streetscape Design.

- ❖ **COMMON DRIVES** – Common Drives will be constructed with a 30-foot right-of-way. Common Drives will contain a minimum 20-foot travel lane and 24-foot travel lane for emergency access roads. Final alley design shall be subject to review and approval by the planning, engineering, and fire departments.

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 4-1B, *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.

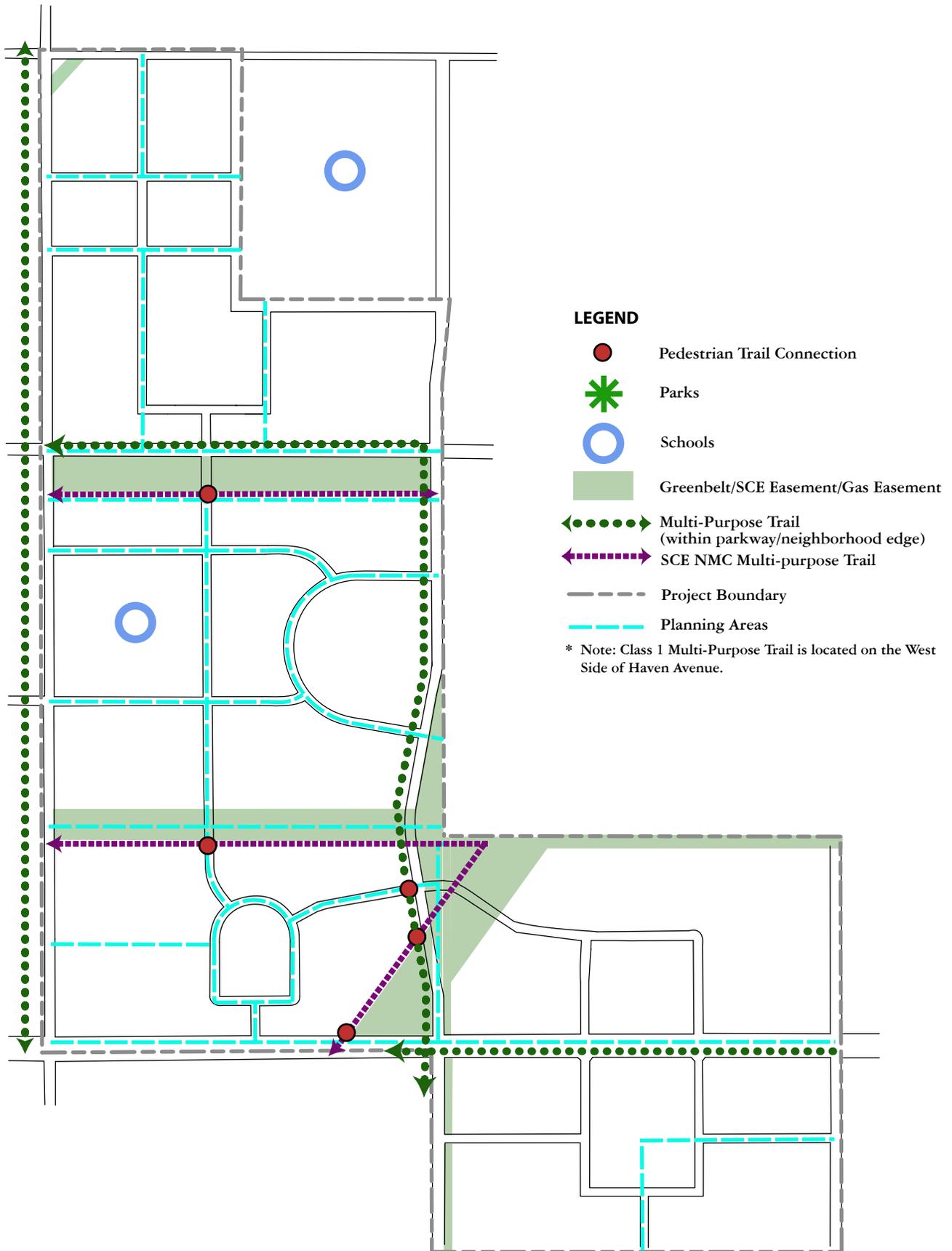
4.1.3 PEDESTRIAN AND BICYCLE CIRCULATION

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 New Model Colony 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 pedestrian-friendly 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 middle school site and several planned parks, Colony High School, and proposed elementary school sites within the West Haven Specific Plan and Esperanza Specific Plan.

Multi-use trails and sidewalks connect with a network that flows throughout the New Model Colony, 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 SCE NMC Multi-Purpose 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, New Model Colony bike trails are designated within proposed parkways along Haven Avenue, Edison Avenue (realignment), and Riverside Drive. These bikeways will be accessed from the project directly, or through the multi-use trails within the SCE easements. Bike racks will be provided as per City standards.



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 New Model Colony area. Omnitrans, in conjunction with the City of Ontario Transportation Department, is currently drafting a plan for future transit routes and infrastructure within the New Model Colony. Development of the Rich-Haven Specific Plan will be in accordance with this plan, once drafted and adopted. Bus turnouts and shelters, to serve the future residents, shall be provided as on arterial and collector roadways prescribed by Omnitrans and approved by the City. As per the Chino-Omni Community Based Transportation Plan, June 2005, bus turnouts are proposed at Haven Avenue and Milliken Avenue at the intersections with Riverside Drive and Edison Avenue. Bus turnouts will be located at the departure leg of the intersections.

In addition, the Riverside Transit Authority (RTA) service area boundaries are located to the east of Planning Sub-areas 20 and 21, along Milliken Avenue. Currently, service by RTA will not be provided within the Rich-Haven development.

4.2 WATER MASTER PLAN

Rich-Haven's Water Master Plan shall conform with the New Model Colony'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 for the New Model Colony. The NMC Water Master Plan (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 shown on Figure 4-4A 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 serving surrounding and within the Specific Plan, as identified in the 2006 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

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*.

1010 Pressure Zone Chino Loop. 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 Milliken Avenue, an 18-inch main in Riverside Drive from Milliken Avenue to Haven Avenue, an 18-inch main in Chino Avenue from Haven Avenue to Vineyard Avenue, and an 18-inch main in Vineyard Avenue from Chino Avenue to the existing 1010 Pressure Zone tie-in. In addition, the 24-inch main in Milliken 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 Chino Loop water system in Riverside Drive, Haven Avenue, and Milliken 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 Milliken Avenue from the 925 Pressure Zone reservoir to Eucalyptus Avenue, a 24-inch main in Eucalyptus Avenue from Milliken Avenue to Archibald Avenue, a 24-inch main in Archibald Avenue from Eucalyptus Avenue to Edison Avenue (realignment), and a 12-inch main in Archibald Avenue from Edison Avenue (realignment) to the Pressure Reducing Station at Schaefer Avenue.

Within the 925 Pressure Zone, 12-inch water mains will be constructed in Haven Avenue, Mill Creek Avenue, and Edison Avenue and ultimately connect to the regional NMC Builder's Loop. Additionally, a 16-inch water main will be constructed within Chino Avenue from Milliken Avenue on the east to Haven Avenue on the west. 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.

Additionally, an interconnection station will be constructed east of Edison Avenue (realignment) to connect the 925 Pressure Zone to the JCSD System.

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 Watermaster 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 11 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 through 6 or 21 to be reviewed by the City. See Figure 4-4B, *Conceptual Domestic Water Plan*. Master planned domestic water main lines serving the surrounding area and within the Specific Plan, as identified in the 2006 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.

Eleven existing wells have been identified within the Rich-Haven Specific Plan project site. Existing private on-site wells will be destroyed per the Department of Health Services once development occurs.

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. If the Developer proposes temporary use of an existing agricultural well for purposes other than agriculture, such as grading, dust control, etc., the developer shall make a formal request to the City of Ontario for such use prior to issuance of permits for any construction activity. Upon approval, the Developer shall enter into an agreement with the City of Ontario and pay any applicable fees as set forth by the agreement.

4.2.2 RECYCLED WATER

REGIONAL RECYCLED WATER PLAN

Recycled Water will be provided by Inland Empire Utility Agency (IEUA). The Specific Plan area is located within three 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 that will all ultimately connect to the RP-1 Outfall line in Carpenter Street. See Figure 4-5A, *Master Planned Recycled Water Plan*. Master Planned domestic and recycled water main lines serving the surrounding area and within the Specific Plan, as identified in the 2006 Water Master Plan Update, shall be constructed prior to issuance of first occupancy.

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 Department of Health Services 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 4-5B, *Conceptual Recycled Water Plan*.

Recycled water will be used in the Rich Haven Specific Plan area for irrigation of parks, schools, street landscaping, recreational trails, common area residential landscaping and commercial/industrial landscaping. See Figure 4-5C *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, therefore, connection to the potable water system will be initially used to overcome such conditions until recycled water service is available.

Master planned recycled water main lines serving surrounding and within the Specific Plan, as identified in the 2006 Water Master Plan Update shall be constructed prior to issuance of first occupancy.

4.3 SEWER 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 New Model Colony Sewer Master Plan, or other sewer plans adopted by the City, 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 south 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

Regional sewer improvements include a proposed 15-inch to 21-inch sewer line within Mill Creek Avenue beginning at Chino Avenue and running south to Bellegrave, and a 24-inch line in Bellegrave Avenue from Haven Avenue to the Eastern Trunk Sewer in Archibald Avenue. An additional 18-inch to 21-inch sewer line will be constructed in Haven Avenue from the Haven Pump Station north of the project site to Edison Avenue (realignment) and a 24-inch sewer line will continue in Edison Avenue (realignment) from Haven Avenue to the Eastern Trunk Sewer.

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*.

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 Regional Backbone Storm Drainage Plan proposes multiple storm drain facilities that will serve the Rich Haven project site. Within Milliken Avenue a 36-inch to 54-inch storm drain will be constructed from Riverside Drive to Bellegrave Avenue, a 48-inch to 120-inch storm drain in Mill Creek Avenue from Riverside Drive to Bellegrave Avenue, a 24-inch to 96-inch storm drain in Haven Avenue from Riverside Avenue to Bellegrave Avenue, and a 36-inch to 96-inch storm drain that runs north-south from a portion of Chino Avenue, northeasterly of Turner Avenue to the existing County Line Channel. 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*.

STORMWATER QUALITY MEASURES

The grading and drainage of the Rich Haven Specific Plan area shall be designed to detain, filter, and treat surface runoff, in a manner and combination which is practical, to comply with the most recent requirements of the San Bernardino County NPDES Stormwater Program's Water Quality Management Plan (WQMP) for significant new 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 may be minimized through the implementation of site designs that reduce runoff and pollutant transport by minimizing impervious surfaces and maximizing on-site infiltration, Source Control Best Management Practices (BMP's), and/or either on-site structural Treatment Control BMP's or participation in regional or watershed-based Treatment Control BMP's.

Prior to the issuance of a grading or construction permit, a Storm Water Pollution Prevention Plan (SWPPP) will also be prepared. The SWPPP will be prepared to comply with 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 Areawide 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.

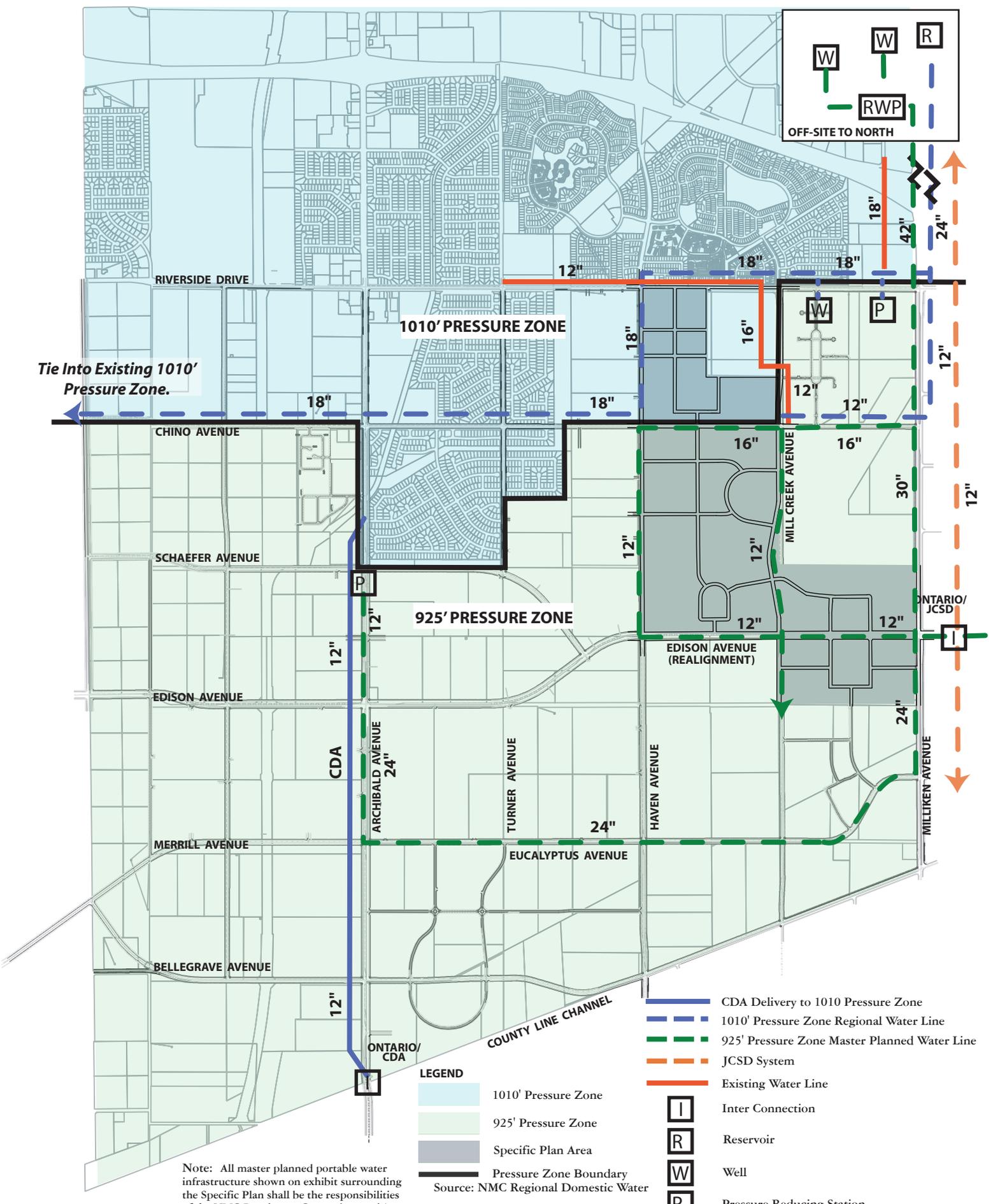
In addition to the preparation of a SWPPP for construction-related activities, and as part of the approval of any grading plans within the Specific Plan Area, the applicant will be required to submit a Water Quality Management Plan (WQMP) on the regional model form provided by the City. The WQMP shall identify and detail all Site Design BMPs, Source Control BMPs, and Treatment Control BMPs to be implemented or installed at this site in order to reduce storm water pollutants and site runoff.

A proposed regional storm water runoff treatment facility for the sub-watershed area that this project lies within is being considered for construction. This regional treatment facility would

be part of an overall solution for storm water treatment. If an approved regional storm water treatment facility is constructed, it may serve as an alternative to complete on-site treatment of all pollutants of concern. If the regional storm water treatment facility is not completed and operational prior to construction of this project, all necessary on-site treatment control BMPs and/or temporary water quality devices will be installed pursuant to the requirements of the current regional NPDES Permit and the approved Water Quality Management Plan for this project.

LOCAL BACKBONE DRAINAGE PLAN

The local stormdrain 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*.



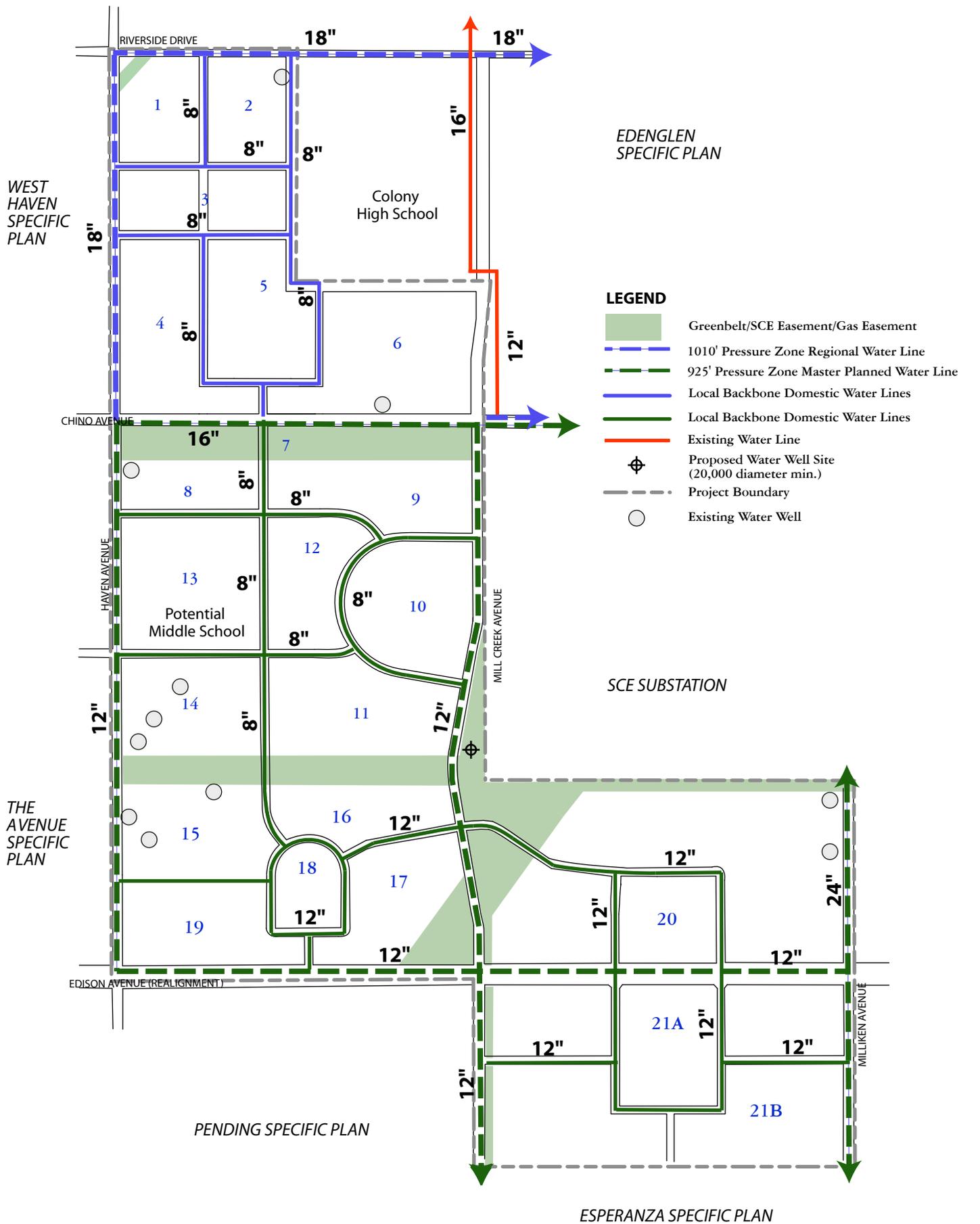
Tie Into Existing 1010' Pressure Zone.

LEGEND

- 1010' Pressure Zone
- 925' Pressure Zone
- Specific Plan Area
- Pressure Zone Boundary
- Source: NMC Regional Domestic Water

- CDA Delivery to 1010 Pressure Zone
- 1010' Pressure Zone Regional Water Line
- 925' Pressure Zone Master Planned Water Line
- JCSD System
- Existing Water Line
- I Inter Connection
- R Reservoir
- W Well
- P Pressure Reducing Station

Note: All master planned portable water infrastructure shown on exhibit surrounding the Specific Plan shall be the responsibilities of the NMC Developers Consortium and / or individual Developer.



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

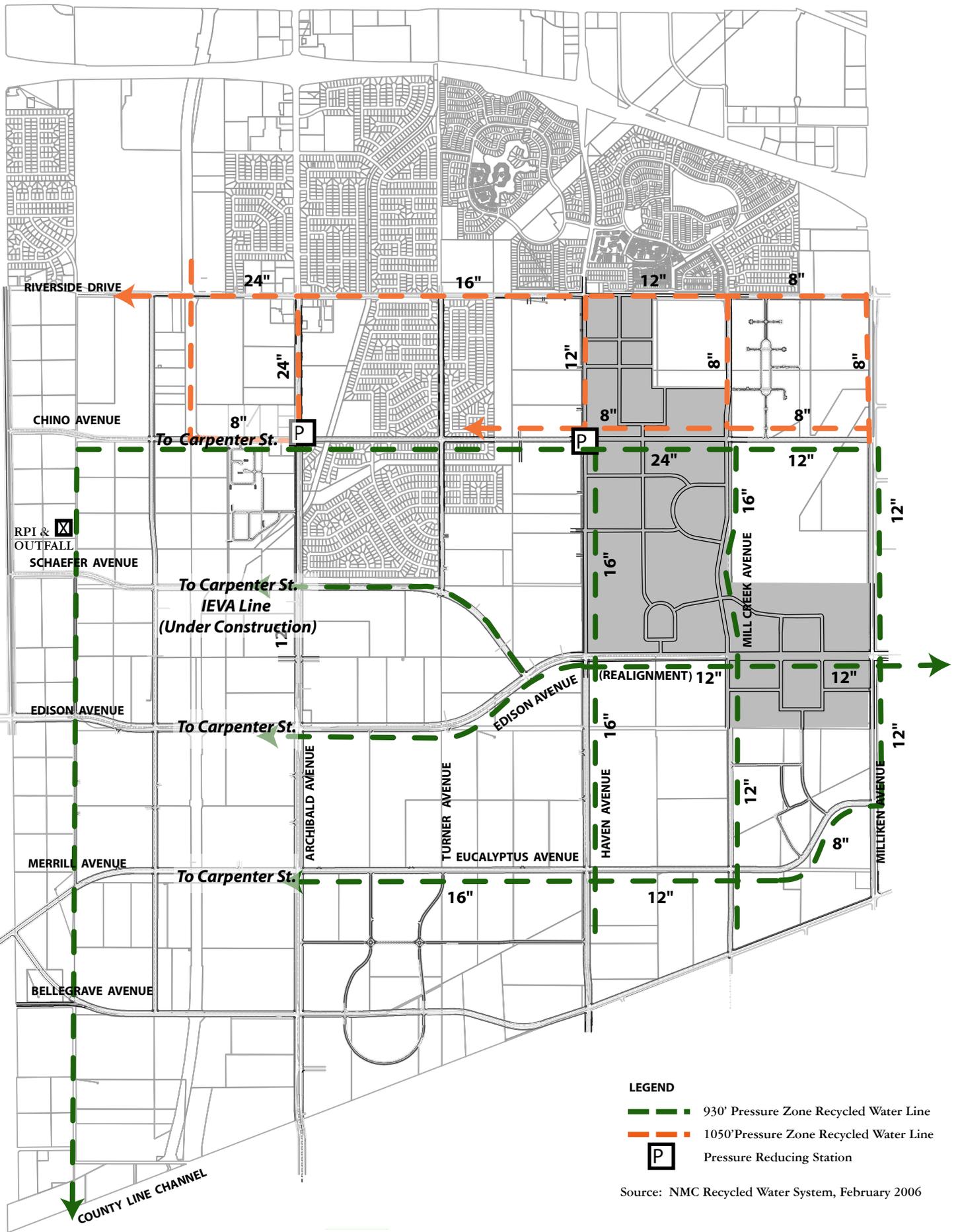
NOT TO SCALE

RICH-HAVEN SPECIFIC PLAN
CONCEPTUAL DOMESTIC WATER PLAN



65-100102.001 - 8/22/07

FIGURE 4-4B

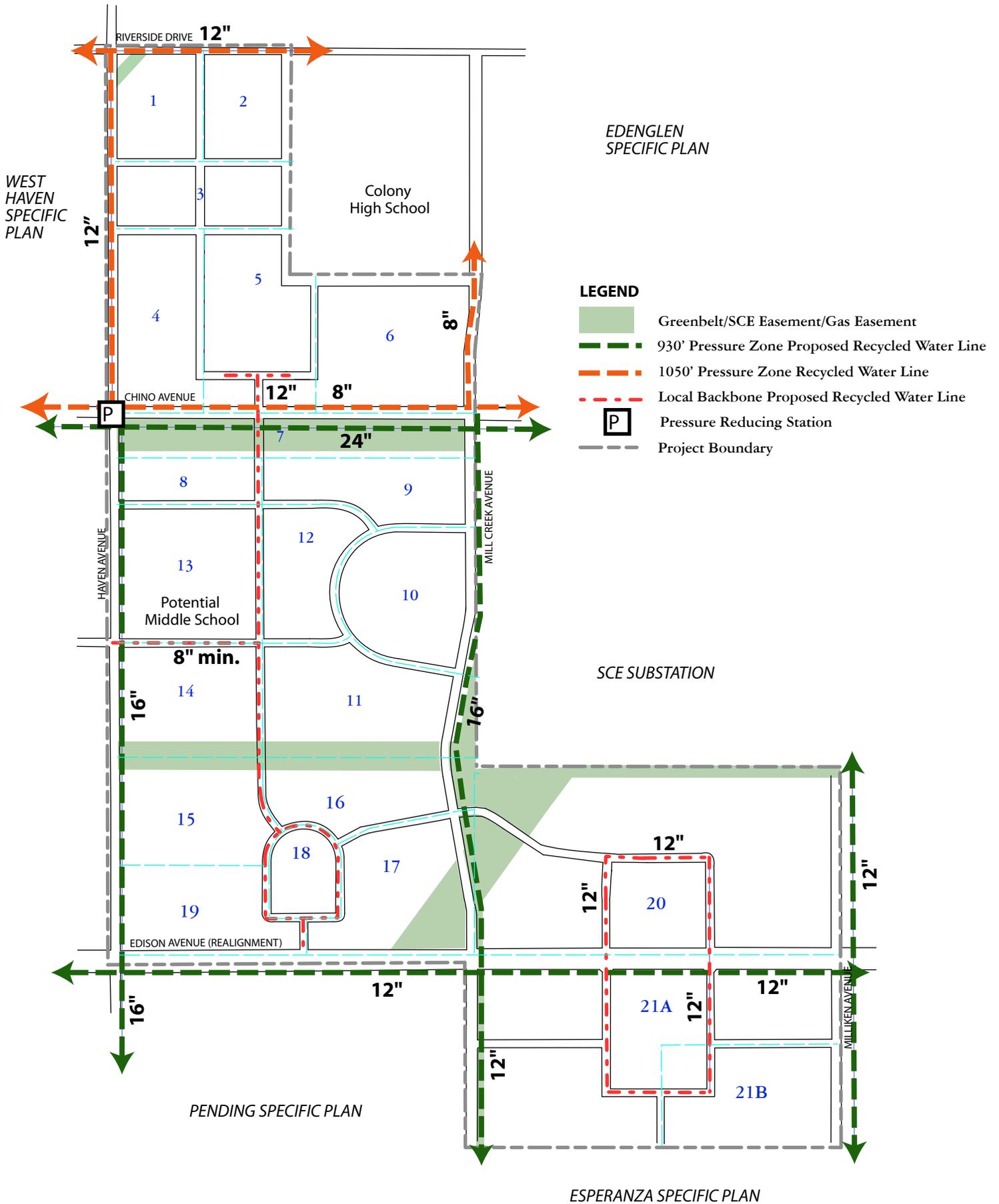


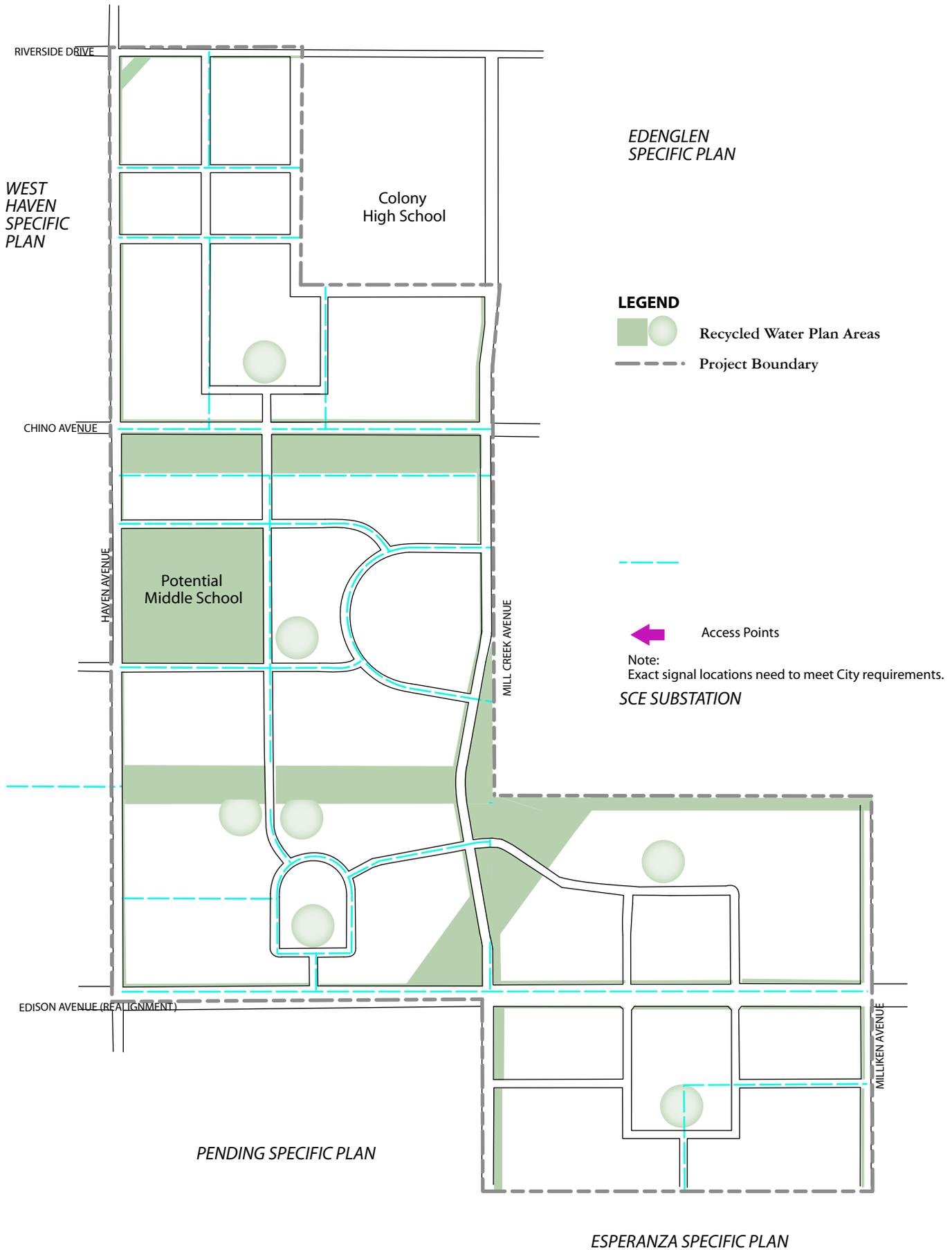
LEGEND

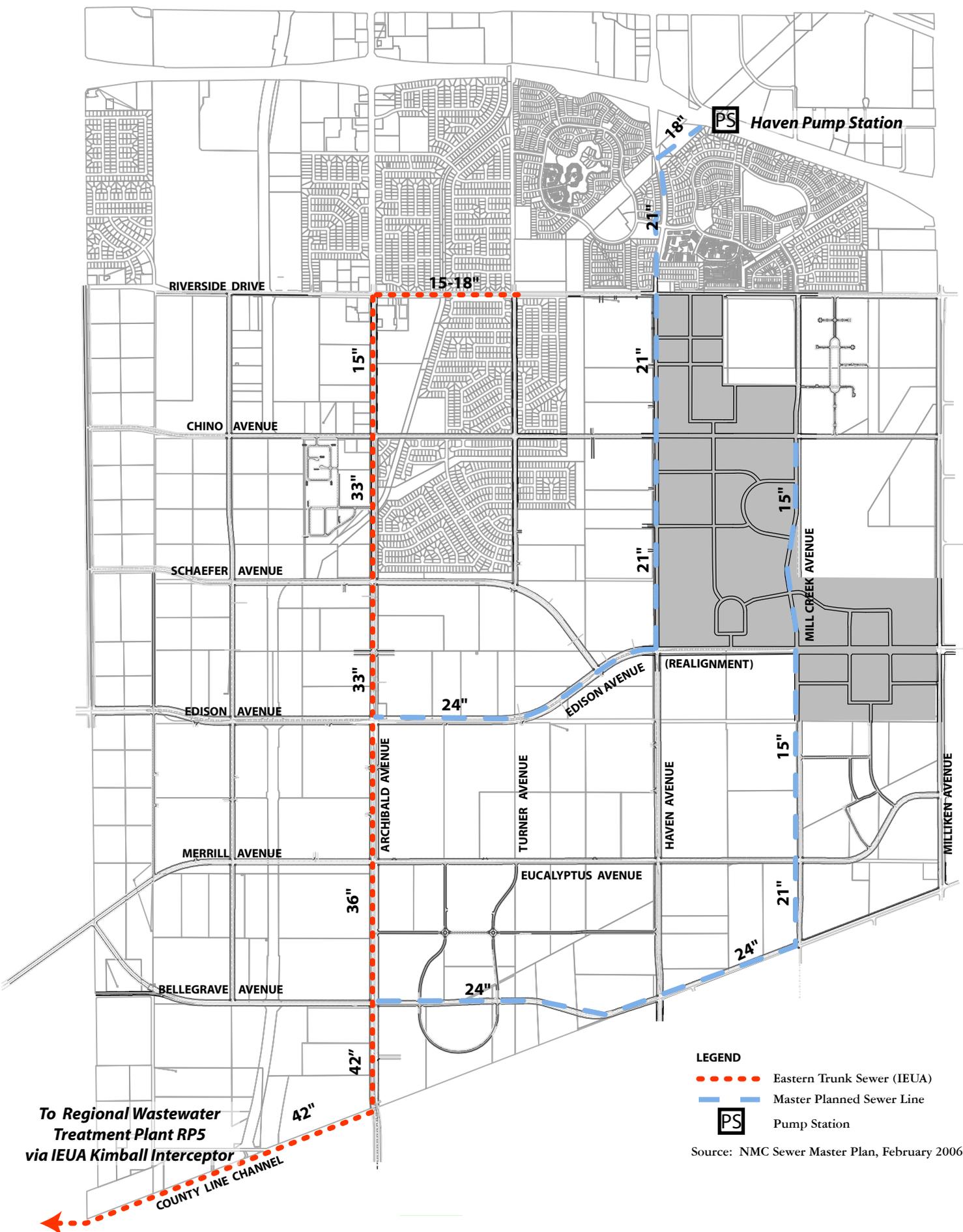
- 930' Pressure Zone Recycled Water Line
- 1050' Pressure Zone Recycled Water Line
- P Pressure Reducing Station

Source: NMC Recycled Water System, February 2006







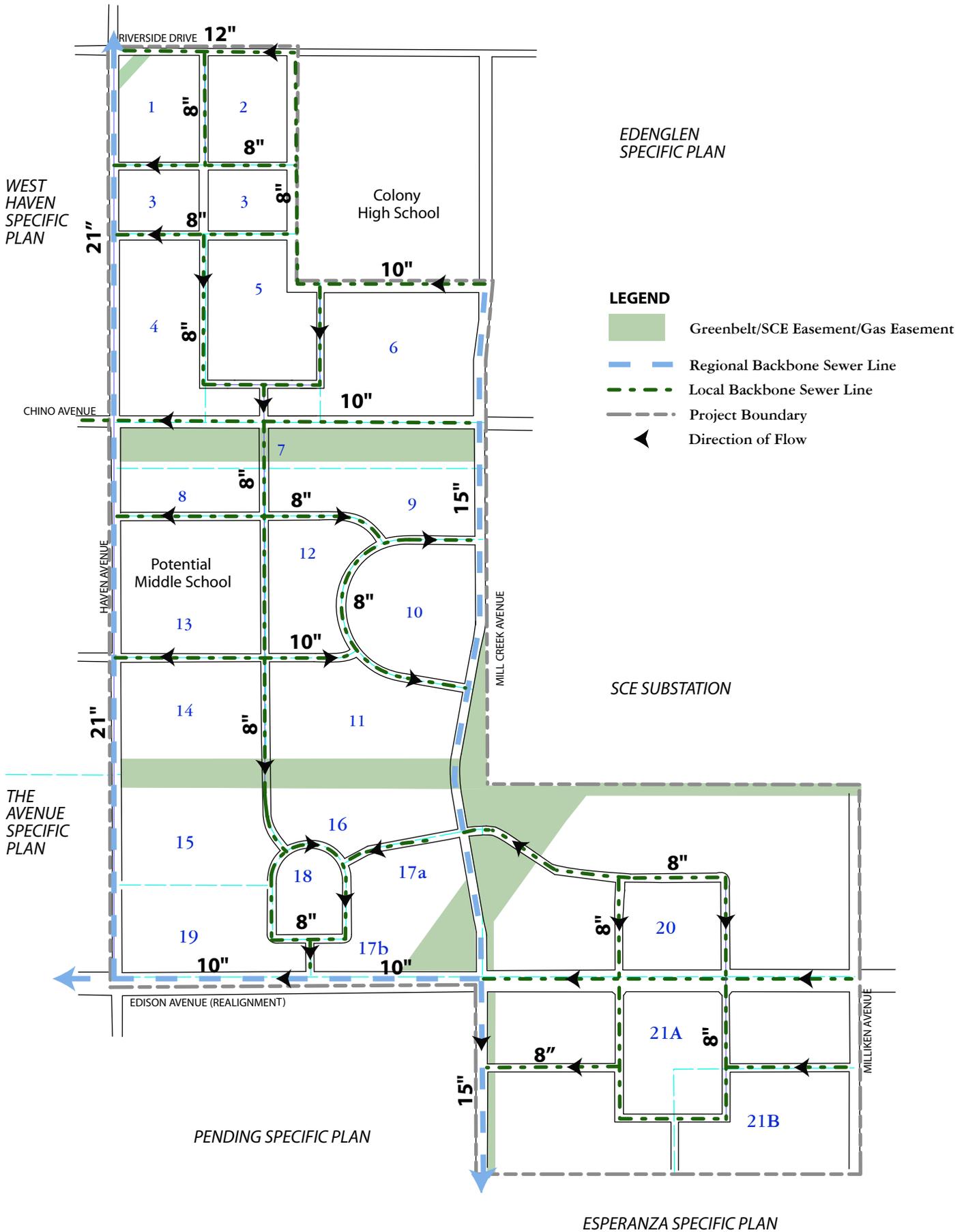


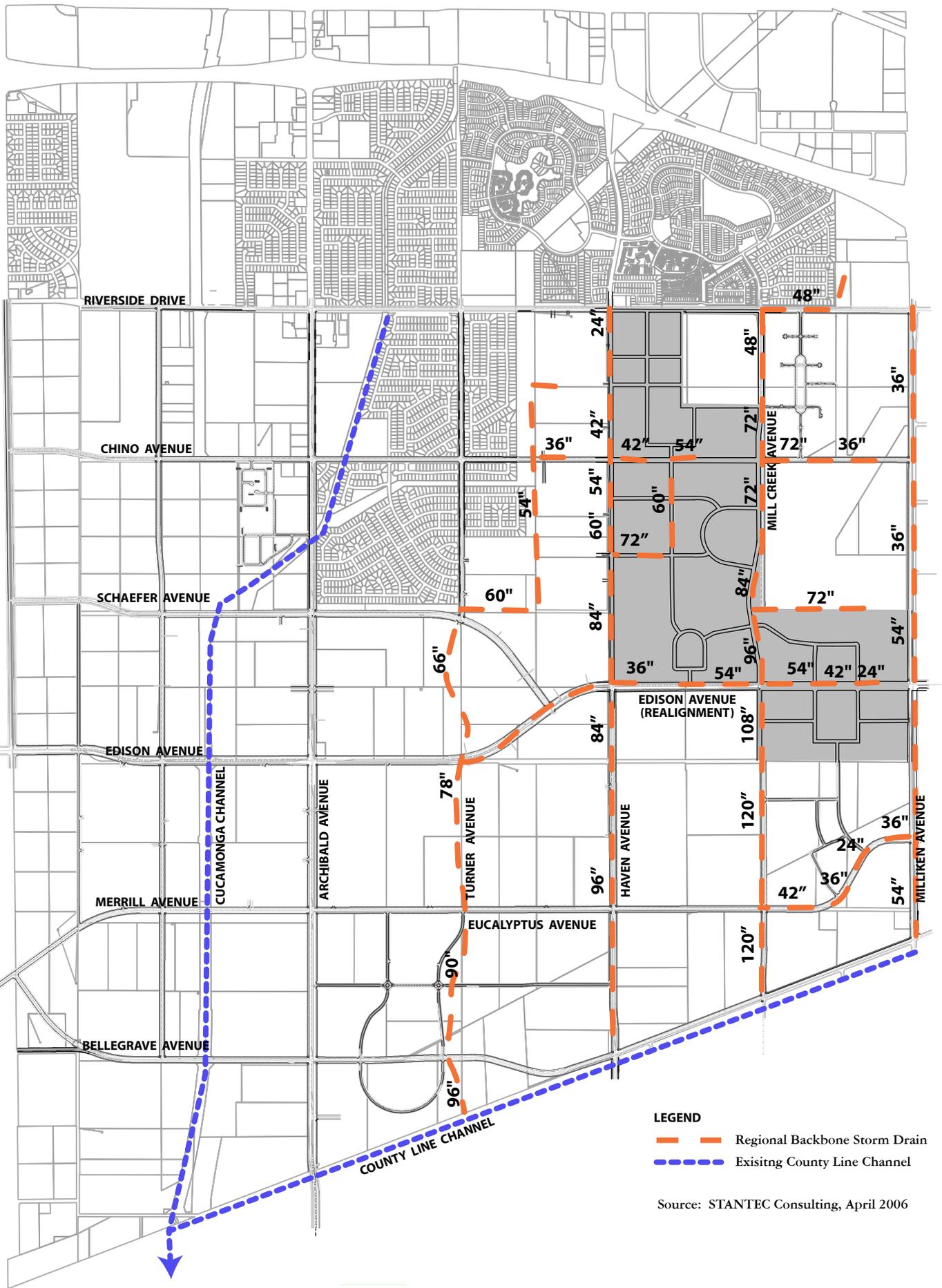
LEGEND

- - - - - Eastern Trunk Sewer (IEUA)
- Master Planned Sewer Line
- PS Pump Station

Source: NMC Sewer Master Plan, February 2006

To Regional Wastewater Treatment Plant RP5 via IEUA Kimball Interceptor
 COUNTY LINE CHANNEL



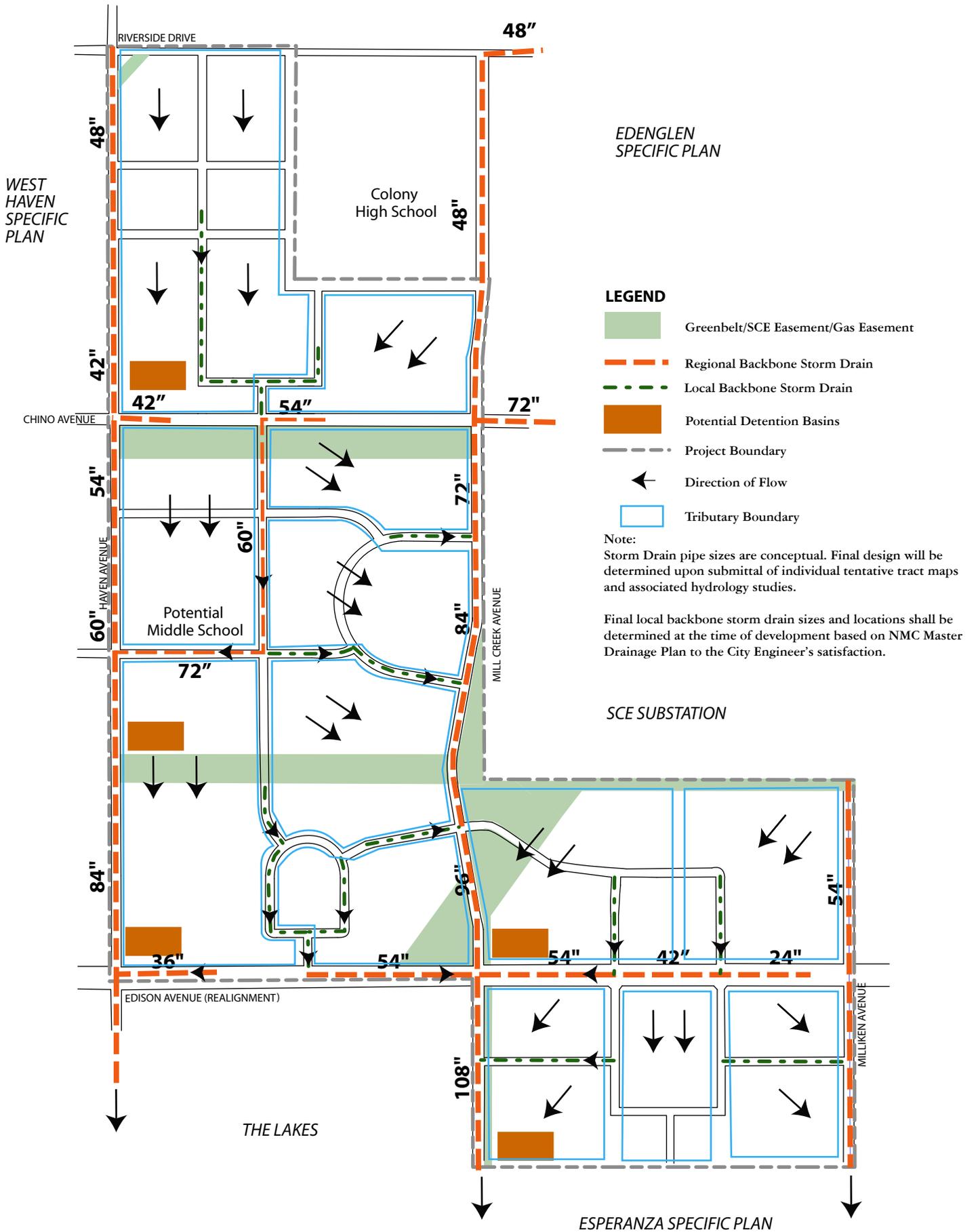


LEGEND

- - - Regional Backbone Storm Drain
- - - Existing County Line Channel

Source: STANTEC Consulting, April 2006





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. Where slope conditions are present, the property line shall be located at the top of the slope. 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.

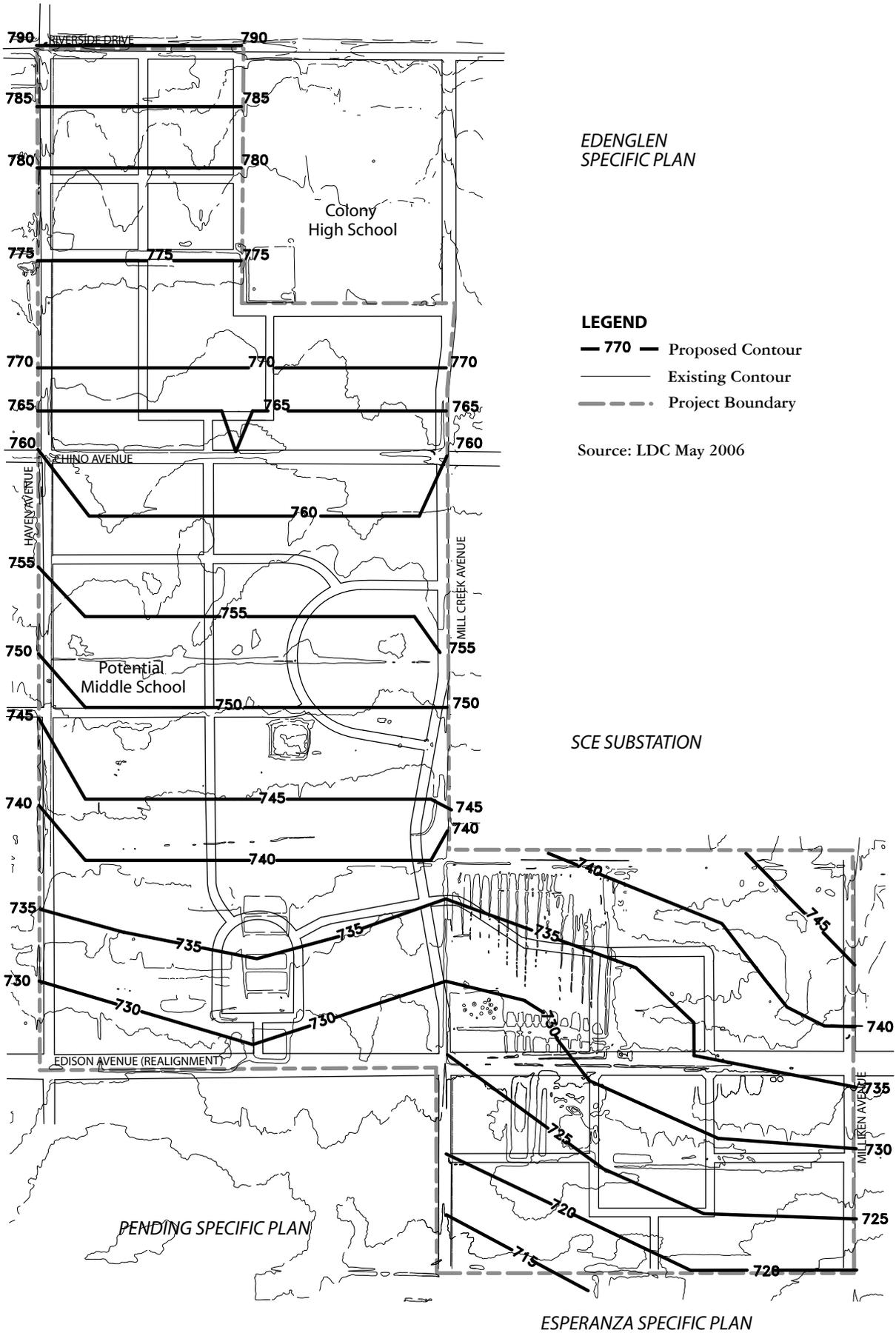
The City of Ontario is in the process of adopting a protocol to assess the potential for methane generation on proposed building sites in areas previously used for certain agricultural practices such as dairies. It is anticipated that prior to issuance of a grading permit, a methane site assessment would 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.

WEST
HAVEN
SPECIFIC
PLAN



EDENGLLEN
SPECIFIC PLAN

LEGEND

- 770 — Proposed Contour
- Existing Contour
- Project Boundary

Source: LDC May 2006

SCE SUBSTATION

PENDING SPECIFIC PLAN

ESPERANZA SPECIFIC PLAN



NOT TO SCALE

65-100102.001 - 6/14/07

RICH-HAVEN SPECIFIC PLAN
GRADING PLAN

FIGURE 4-8

The Rich-Haven Specific Plan proposes the development of a 24.8-acre middle school within the project’s Residential District, which would serve the project’s residents and those in surrounding proposed neighborhoods. 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 4,256= 1,618	.22 x 4,256= 936	.20 x 4,256= 851

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: Mini-Parks of up to one acre and serving a one-quarter mile radius; Neighborhood Parks of 10 to 20 acres and servicing a one-half mile radius; and Community Parks of twenty acres or more, servicing a two mile radius.

A network of parks and village greens are proposed within the New Model Colony, in addition to a proposed golf course and man-made lake. In all, a minimum of 509 acres of parkland will be provided within the New Model Colony, achieving the City standard of 5 acres per 1,000 residents.

Within the Rich-Haven Specific Plan area a minimum requirement for open park areas is 2 acres per 1,000 residents, which can include 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 development proposes a total of five parks within the Residential District and Regional Commercial/Mixed-Use District of the project. These parks may include picnic areas, tot lots, trails, and open play fields.

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-use trails and opportunities to utilize alternate modes of transportation between the residential and commercial uses and to the greater NMC.

4.6.3 FIRE

The Ontario Fire Department provides fire and emergency medical service (EMS) for the New Model Colony 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. 6, located northwest of the project site at 2931 E. Philadelphia. The Department's current response time from Station No. 6 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 General Plan, fire protection services planned for the NMC planning area will be subject to this goal.

A 1.5-acre fire station pad is proposed 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 New Model Colony 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 TELEPHONE, TECHNOLOGY WIRING, AND CABLE

Verizon provides telephone service in the New Model Colony areas. Verizon has proposed to build two future remote wire centers to distribute telecommunications service to customers within the New Model Colony. Ontarionet Fiber Optic Conduit will be constructed by the merchant builder to service the residential areas of the Specific Plan. Backbone extensions of the dry utilities will be necessary to service the project site.

Comcast Cablevision provides service to the City of Ontario under an existing franchise agreement.

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, Milliken Avenue, and Edison Avenue (realignment). 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 New Model Colony 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 Edison Avenue alignment 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 Edison Avenue (realignment) 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 Edison Avenue (realignment), in addition to the potential for the relocation of 115kV and 66kV lines located to the south of Edison Avenue (realignment).

4.6.9 SOLID WASTE

Solid waste and recyclables in the City of Ontario are collected by the City of Ontario Department of Public Works 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 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.

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