

Section 5 Infrastructure and Services

The infrastructure, utilities, and public services to be provided as part of the development of the Grand Park Specific Plan are discussed in this section.

5.1 Circulation

The circulation plan for Grand Park reinforces the objective of implementing a traditional neighborhood design. In addition to providing safe and efficient movement of vehicular traffic through the project, the Circulation Plan also provides a safe environment for pedestrian movement and bicycle traffic reducing the reliance on the automobile as a means of travel. Transit stops and bus turnouts shall be provided as required by the City of Ontario and Omnitrans, along the Master Plan streets, which are a part of the Grand Park community. The “*Master Circulation Plan*,” *Exhibit 5-1* establishes the hierarchy and general location of roadways within Grand Park.

The minimum design speeds to be used for centerline curve radii, super elevation, corner and approach sight distances, vertical and horizontal alignment, and sight distances for the Master Plan Streets, are listed below:

Archibald Avenue	50 m.p.h.
Haven Avenue	45 m.p.h.
Edison Avenue	50 m.p.h.
Eucalyptus Avenue	40 m.p.h.

5.1.1 Master Plan Roadways

The project site is bounded on the north, south, east and west by four City of Ontario arterial roadways, as identified in Figure M2 “Functional Roadway Classification Plan” of the Policy Plan, providing access to and from the site. Edison Avenue bounds the project site on the north; Eucalyptus Avenue bounds the project site on the south; Haven Avenue bounds the project site on the east; and Archibald

Avenue bounds the project site on the west. A traffic study prepared as part of the project EIR may identify the need for additional rights-of-way at critical intersections to accommodate lanes for left and right turn movements.

All off-site improvements for the entire project frontage or as otherwise required by the City shall be constructed as part of the project. Phasing and construction of the improvements shall be implemented as required by the City Engineer and pursuant to the mitigation measures identified in the EIR and the conditions of approval adopted with the approval of tentative maps for the project. Locations and construction of bus turnouts may be required within the project to the satisfaction of the City of Ontario and Omnitrans.

5.1.1.1 Archibald Avenue

The Mobility Element of the Policy Plan (Figure M-2 Functional Roadway Classification Plan) designates Archibald Avenue as a “6-Lane Other Principal Arterial with multipurpose trail.” Archibald Avenue will provide north/south access to Grand Park at the western boundary of the project site. The proposed improvements to Archibald Avenue are illustrated on *Exhibit 5-2, “Archibald Avenue.”* Parking is prohibited along Archibald Avenue. Refer to Exhibit 5-2 for minimum street improvements required by the Grand Park Specific Plan.

5.1.1.2 Haven Avenue

The Mobility Element of the Policy Plan (Figure M-2 Functional Roadway Classification Plan) designates Haven Avenue as a “4-Lane Other Principal Arterial.” Haven Avenue will provide north/south access to and from Grand Park at the eastern boundary of the project site. *Exhibit 5-3, “Haven Avenue”* illustrates the improvements to Haven Avenue. Parking is prohibited on Haven Avenue. Refer to Exhibit 5-3 for minimum street improvements required by the Grand Park Specific Plan.

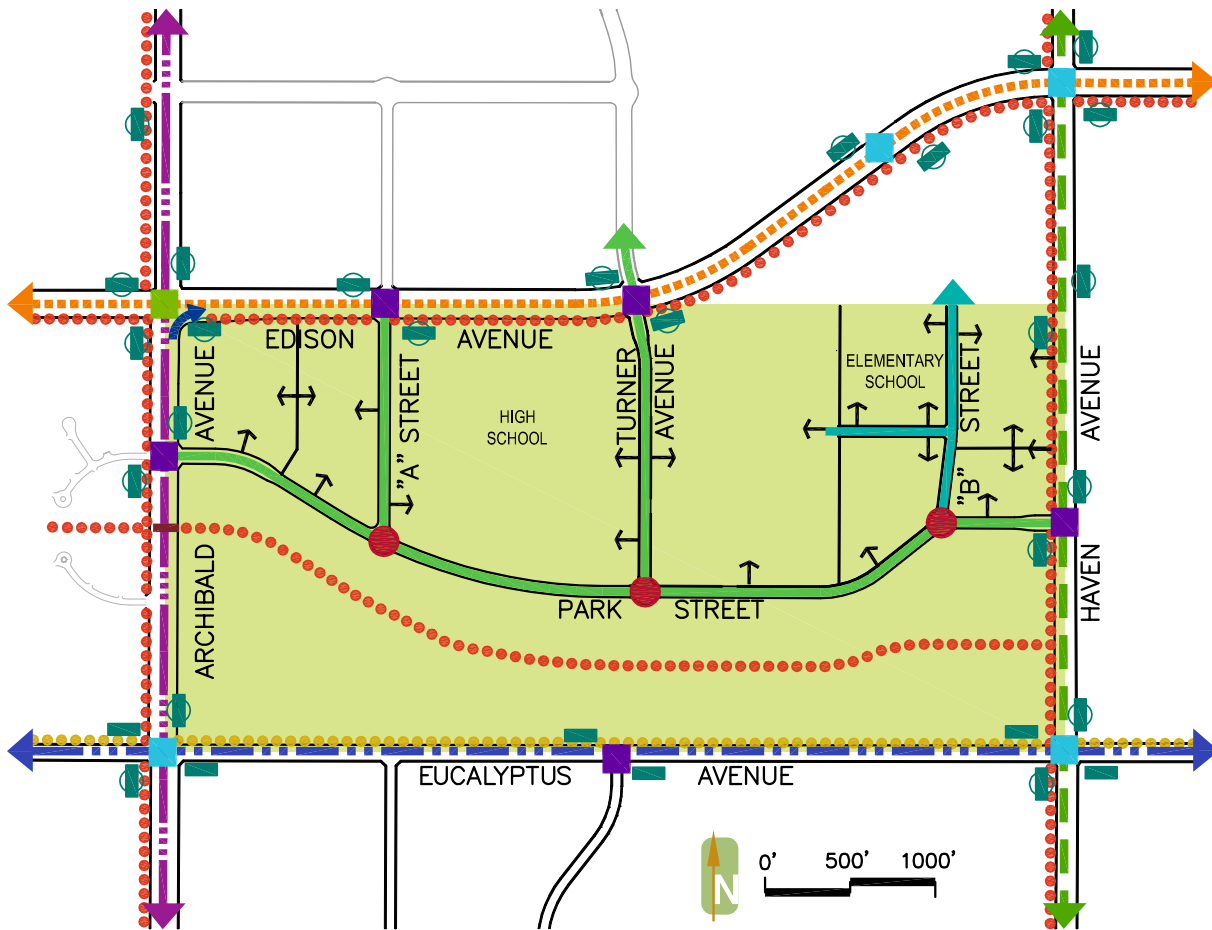
5.1.1.3 Edison Avenue

Edison Avenue is a designated “8-Lane Other Principal Arterial with multipurpose trail.” Edison Avenue will provide east/west access to and from Grand Park at the northern boundary of the project site. Edison

Avenue will be improved as depicted on *Exhibit 5-4, “Edison Avenue.”* Parking is prohibited on Edison Avenue. Refer to Exhibit 5-4 for minimum street improvements required by the Grand Park Specific Plan. These minimum improvements apply to the portion of Edison Avenue where the Specific Plan has frontage.

5.1.1.4 Eucalyptus Avenue

Eucalyptus Avenue is a General Plan designated “4-Lane Collector Street.” Eucalyptus Avenue will provide east/west access to and from Grand Park at the southern boundary of the project site. Eucalyptus Avenue will be improved as depicted on *Exhibit 5-5, “Eucalyptus Avenue.”* Parking is

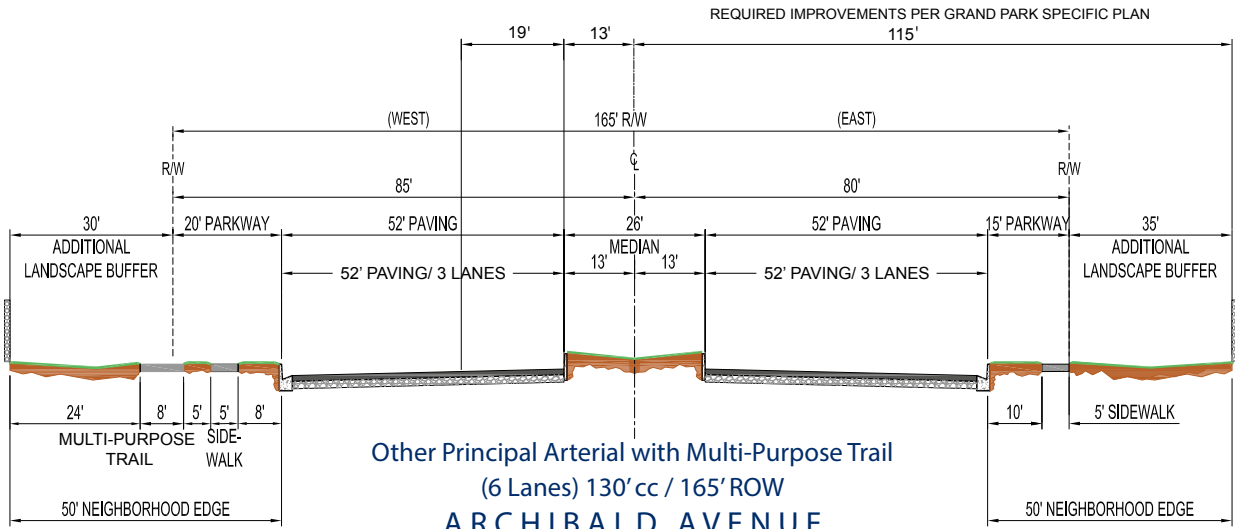


Notes: Final circulation access points shall be approved by the City engineer.

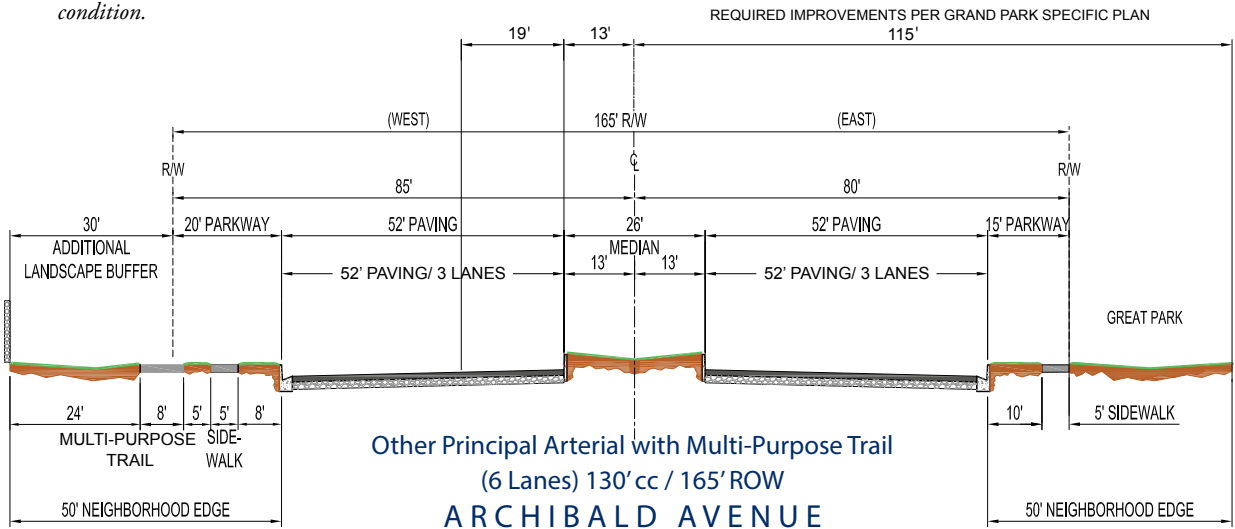
LEGEND

- SPECIFIC PLAN AREA
- ARCHIBALD AVENUE: 6 - LANE OTHER PRINCIPAL ARTERIAL WITH MULTI-PURPOSE TRAIL (165' R/W)
- EDISON AVENUE: 8 - LANE OTHER PRINCIPAL ARTERIAL WITH MULTI-PURPOSE TRAIL (160' R/W)
- HAVEN AVENUE: 4 - LANE OTHER PRINCIPAL ARTERIAL (124' R/W)
- EUCALYPTUS AVENUE: 4 - LANE COLLECTOR (108' R/W)
- PRIMARY LOCAL STREET (66' R/W - ADDITIONAL R/W AND PAVEMENT WIDTHS MAY BE REQUIRED TO ACCOMMODATE ROUNDABOUTS OR AT SIGNALIZED INTERSECTIONS)
- INTERIOR LOCAL STREET (60' R/W) - CONCEPTUAL LOCATIONS
- INTERNAL CIRCULATION - CONCEPTUAL LOCATIONS
- MULTI-PURPOSE TRAIL - LOCATION WITHIN THE "GREAT PARK" IS CONCEPTUAL
- CLASS II BIKE LANE AND MULTI-PURPOSE TRAIL
- REGIONAL PEDESTRIAN BRIDGE
- EXISTING TRAFFIC SIGNAL WITH MODIFICATIONS
- MASTER PLANNED TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL
- ROUNDABOUT - POTENTIAL LOCATIONS
- FREE RIGHT-TURN
- BUS TURNOUT - PLANNED LOCATIONS
- BUS PAD - PLANNED LOCATIONS

Exhibit 5-1
CIRCULATION PLAN



Notes: A min. 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition.



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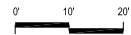


Exhibit 5-2
ARCHIBALD AVENUE

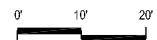
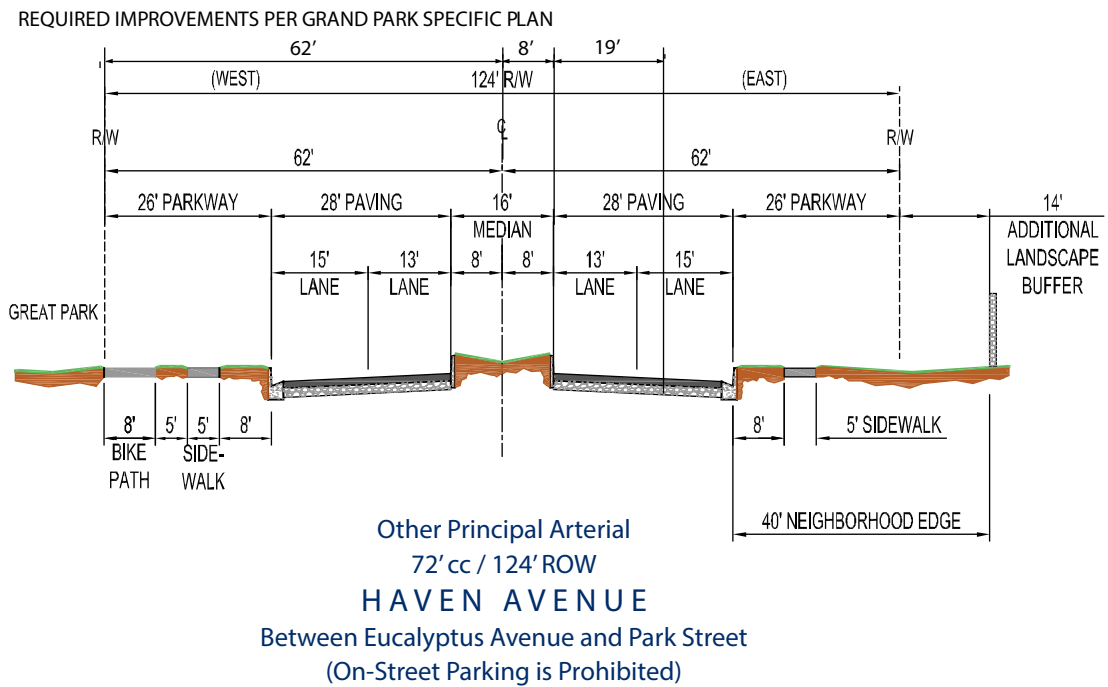
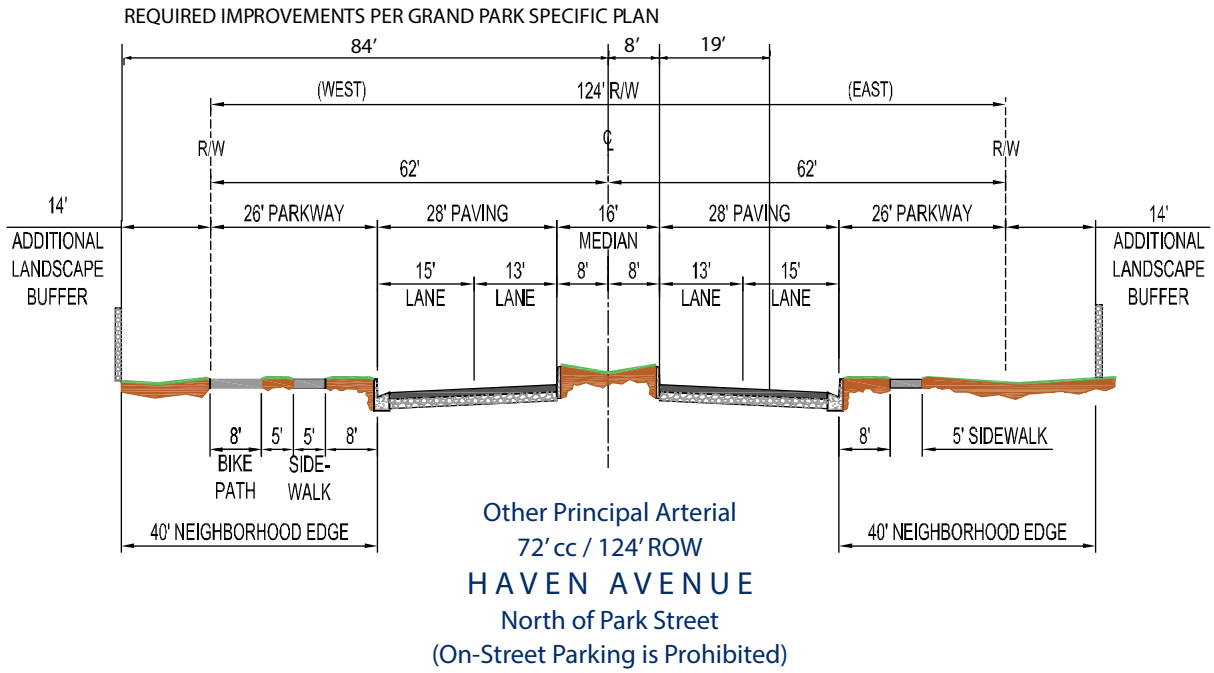
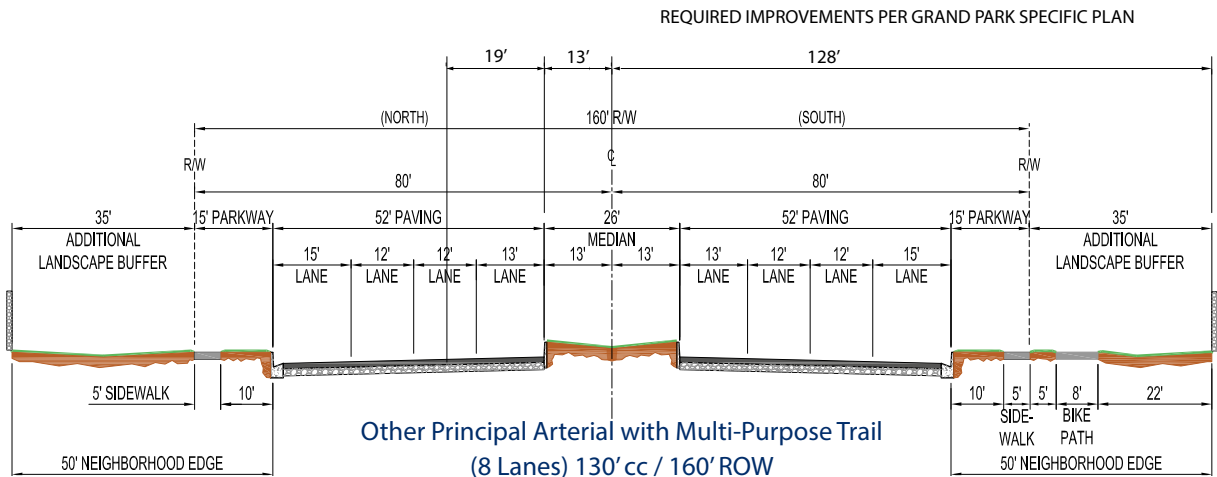


Exhibit 5-3
HAVEN AVENUE

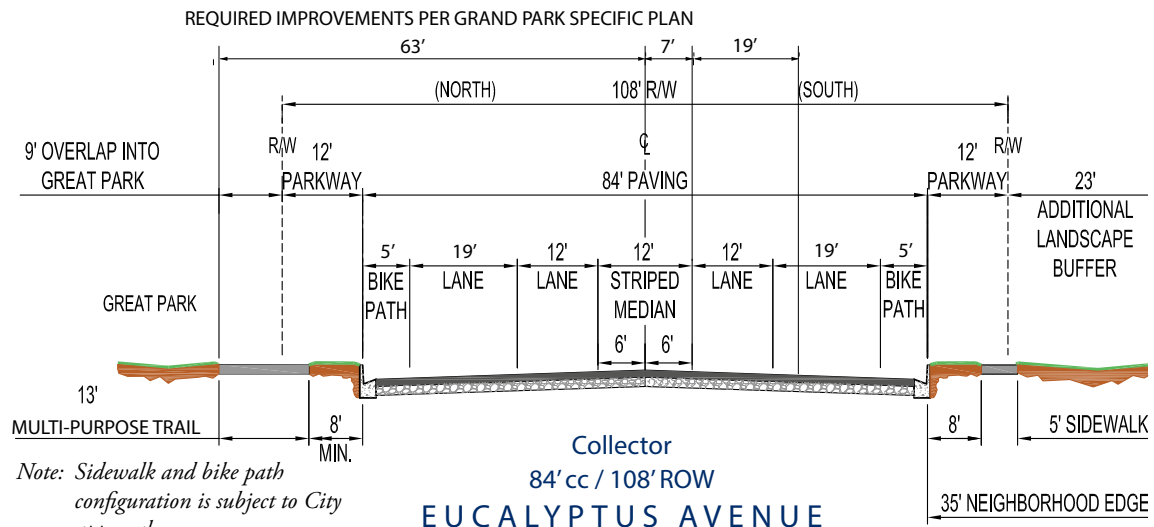
Grand Park Specific Plan



Other Principal Arterial with Multi-Purpose Trail
 (8 Lanes) 130' cc / 160' ROW
EDISON AVENUE
 (On-Street Parking is Prohibited)

Notes: A min. 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition.

Exhibit 5-4
EDISON AVENUE



Collector
 84' cc / 108' ROW
EUCALYPTUS AVENUE
 (On-Street Parking is Prohibited)

Note: Sidewalk and bike path configuration is subject to City approval.
 A 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition.

Exhibit 5-5
EUCALYPTUS AVENUE

prohibited on Eucalyptus Avenue. Refer to Exhibit 5-5 for minimum street improvements required by the Grand Park Specific Plan.

5.1.2 Local Streets and Alleys

Within the neighborhoods of Grand Park streets of varying design will provide access and circulation through the community. Many of the neighborhoods will be served by private alleys, which are located to the rear of residences, in order to maintain a traditional, “architecture forward” streetscape for the community. Public local streets within residential areas are designed to distribute vehicular traffic from the Master Plan streets adjacent to the project site into and through residential neighborhoods. Local streets and private alleys proposed for Grand Park are discussed below. If the Specific Plan proposes private streets, they should be shown on the specific plan document and should be labeled “*Private Streets*”, otherwise all local streets will be considered public and should be labeled accordingly. All private streets shall be designed and constructed in accordance with public street standards. Any proposed gated access shall be designed with adequate stacking and turnaround facilities.

5.1.2.1 Park Street

Park Street is designated as a Primary Local Street. Park Street will provide access along the proposed City of Ontario Great Park as well as internal access and connectivity between residential areas and the proposed high school site. *Exhibit 5-6, “Park Street,”* illustrates the improvements for the proposed Park Street.

5.1.2.2 Turner Avenue

Turner Avenue is designated as a Primary Local Street. Turner Avenue will provide north/south access through Grand Park. *Exhibit 5-7, “Turner Avenue”* illustrates the proposed improvements to Turner Avenue. Parking is permitted on Turner Avenue.

5.1.2.3 “A” Street

“A” Street is designated as a Primary Local Street. “A” Street will provide north/south access within Grand Park adjacent to residential areas and the proposed high school. *Exhibit 5-8, “A” Street,”* illustrates the proposed improvements to “A” Street.

5.1.2.4 “B” Street

“B” Street is designated as a Local Street. “B” Street will provide north/south access within Grand Park adjacent to residential areas and the proposed elementary school. *Exhibit 5-9, “B” Street,”* illustrates the proposed improvements to “B” Street.

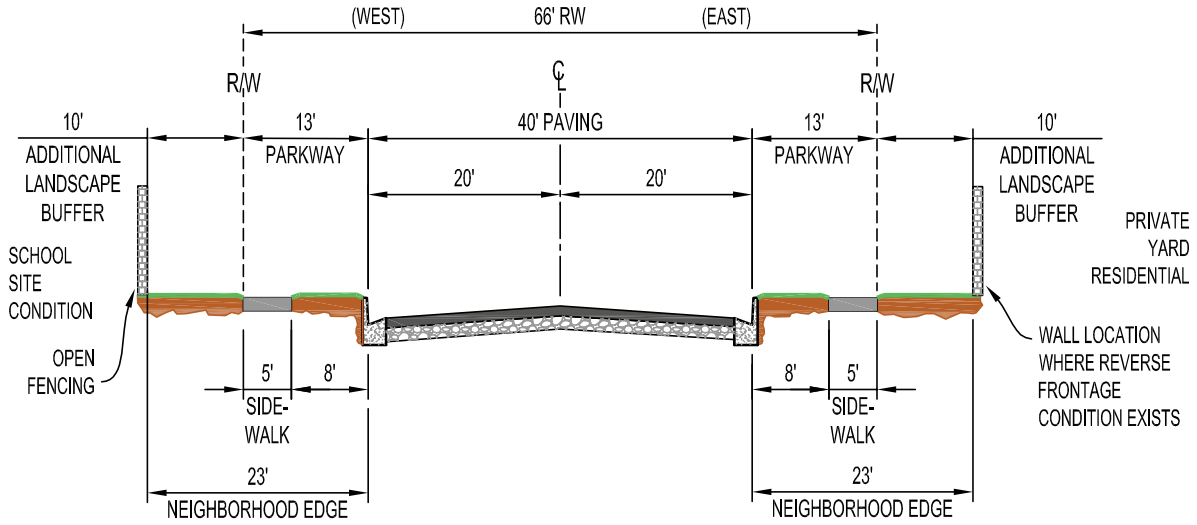
5.1.2.5 Interior Local Streets and Cul De-Sac Streets

A network of local streets and cul-de-sac streets will provide internal circulation throughout Grand Park for residents. All private streets shall be designed and constructed in accordance with City standards.

The proposed improvements for interior local streets and cul-de-sac streets are illustrated in *Exhibit 5-10, “Local Streets and Cul-De-Sac Streets.”*

5.1.2.6 Private Lanes (Alleys)

Private Lanes (Alleys) within the residential development will have a minimum of 20 feet of paved area with 5 feet of landscaping on each side providing a minimum distance of 30 feet between the rears of buildings. Building overhangs of up to 18 inches are permitted. In areas where emergency access is required, the minimum paved area will be 24 feet with 3 feet of landscaping on each side. Lanes with “dead end” conditions will be a maximum length of 150 feet. Parking is prohibited along alleys. *Exhibit 5-11, “Private Lanes (Alleys),”* illustrates the proposed alley sections.



*Notes: A min. 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition.
Additional right-of-way and pavement widths may be required to accommodate roundabouts or at signalized intersections.
On-street parking may be permitted or prohibited. The City reserves the right to restrict parking as necessary.*

Primary Local Street
40' cc / 66' ROW
TURNER AVENUE
(On-Street Parking is Permitted)

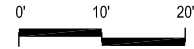
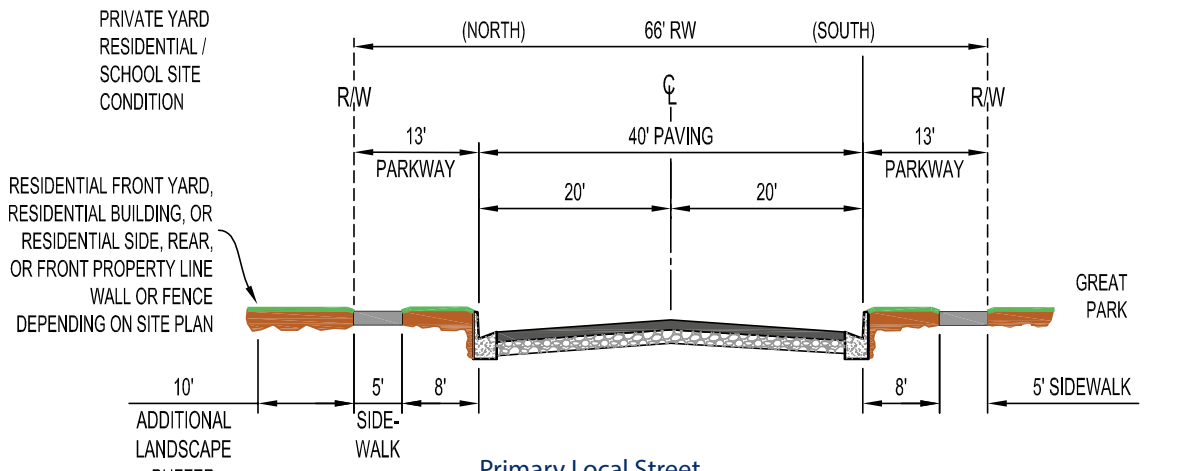


Exhibit 5-6
TURNER AVENUE



*Notes: A 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition.
Additional right-of-way and pavement widths may be required to accommodate roundabouts or at signalized intersections.
On-street parking may be permitted or prohibited. The City reserves the right to restrict parking as necessary.*

Primary Local Street
40' cc / 66' ROW
PARK STREET
(On-Street Parking is Permitted)

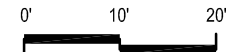
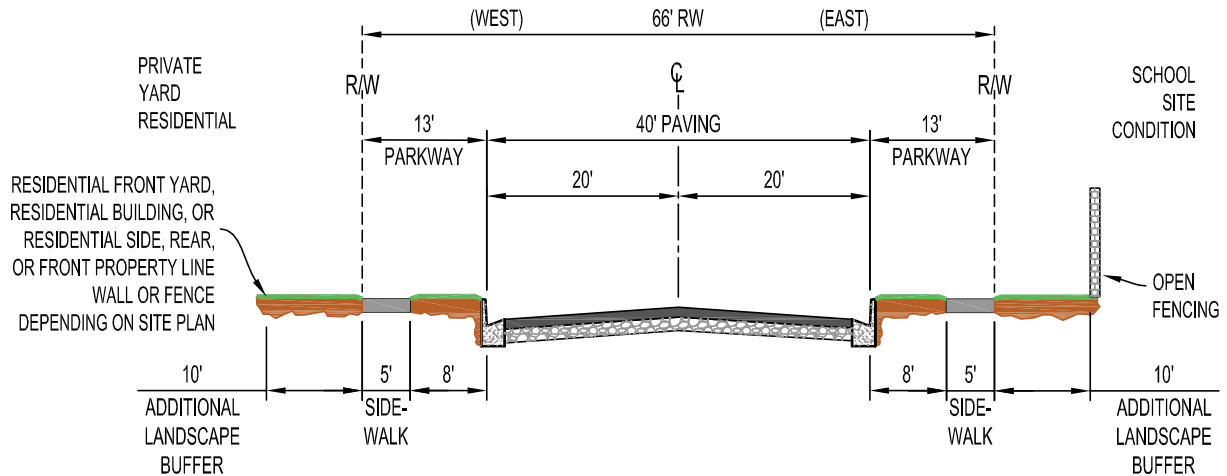


Exhibit 5-7
PARK STREET

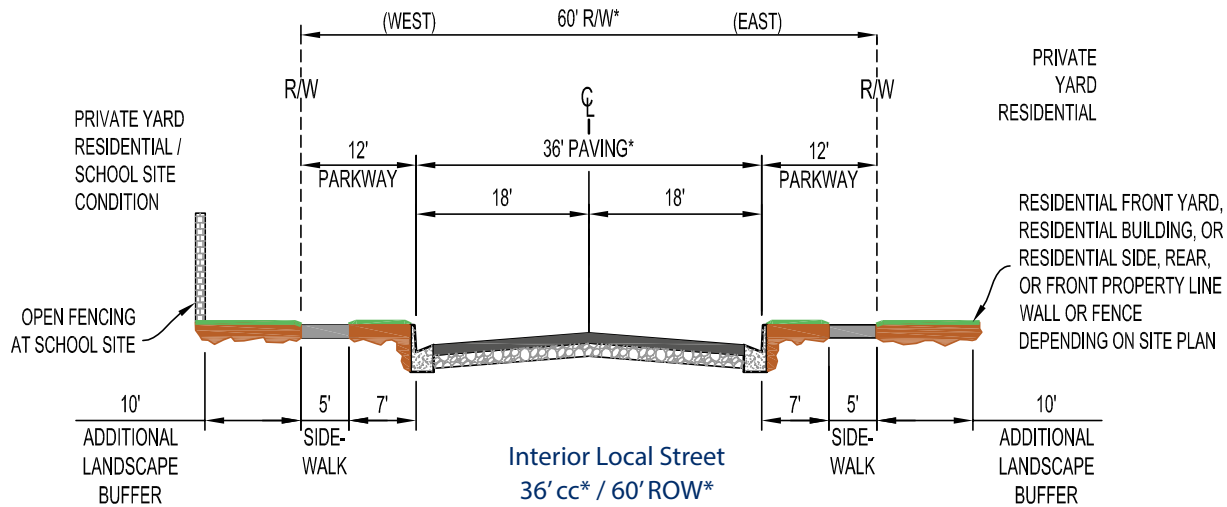
Grand Park Specific Plan



Notes: A min. 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition. Additional right-of-way and pavement widths may be required to accommodate roundabouts or at signalized intersections. On-street parking may be permitted or prohibited. The City reserves the right to restrict parking as necessary.

Primary Local Street
40' cc / 66' ROW
"A" STREET
(On-Street Parking is Permitted)

Exhibit 5-8
"A" STREET



Notes: A min. 10-foot landscape buffer is required between the sidewalk and any perimeter wall for any private rear yard residential/school site condition. Additional right-of-way and pavement widths may be required to accommodate roundabouts or at signalized intersections.

* Unless otherwise required by traffic study

On-street parking may be permitted or prohibited. The City reserves the right to restrict parking as necessary.

Interior Local Street
36' cc* / 60' ROW*
"B" STREET
(On-Street Parking is Permitted)

Exhibit 5-9
"B" STREET

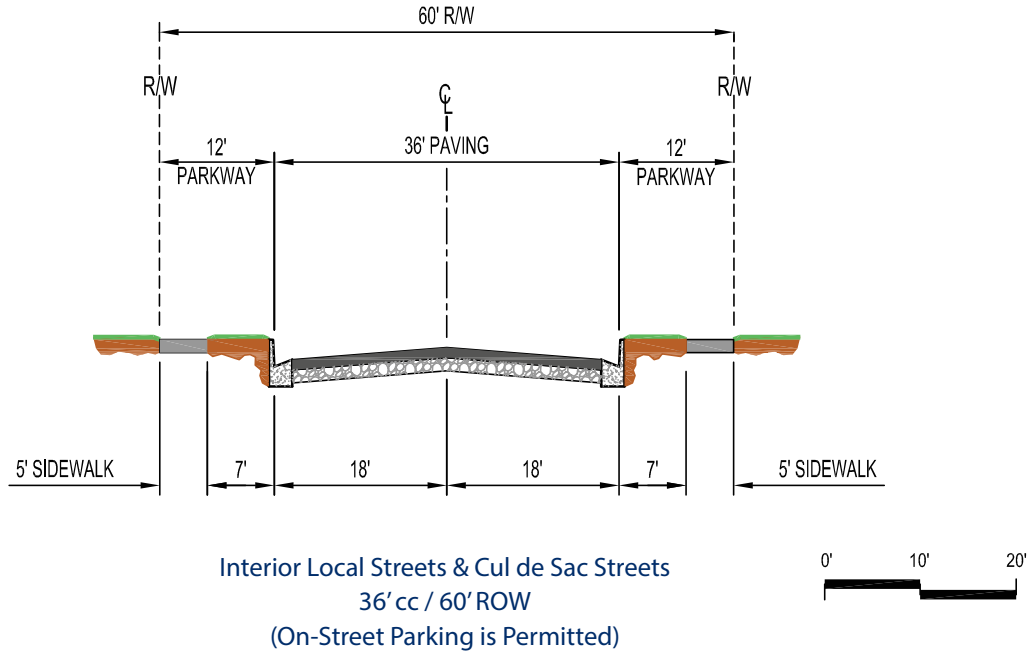


Exhibit 5-10

LOCAL STREETS & CUL-DE-SAC STREETS

Notes: 24' paved surface with 3' of landscaping and a 30' building setback shall be required in emergency access conditions.

In certain conditions a "Public Utility Easement" (PUE) will be established across those alleys where public water and sewer facilities have been accepted.

Final alley design is subject to approval by the City Engineer, Fire Department and Planning Department.

** Measurement taken 6" from back of curb.*

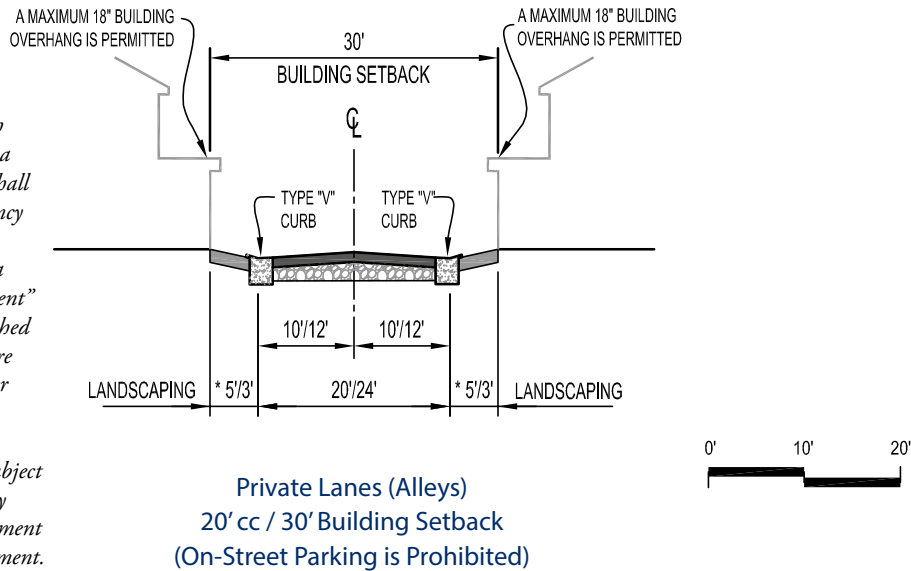


Exhibit 5-11

PRIVATE LANES (ALLEYS)

5.1.3 Traffic Calming

Traffic calming within Grand Park is designed to address the following goals:

- Reduction in traffic speeds,
- Reduction in traffic related noise,
- A safe and pedestrian friendly circulation system that encourages walking.

The following design features will be implemented in the roadways within Grand Park. The City may limit or prohibit parking along public streets that are wide enough to allow parking at the discretion of the City Traffic Engineer.

5.1.3.1 Neighborhood Street Design

Neighborhood streets within Grand Park are designed in a traditional grid pattern with sidewalks separated by landscaping on either side. Intersection chokers for local streets and roundabouts, as illustrated in *Exhibit 5-12, "Traffic Calming Measures,"* will be utilized when appropriate.

5.1.3.2 Landscaping

Landscaping adjacent to streets within Grand Park combines the use of shade trees, shrubs, and groundcover adjacent to sidewalks to create a more intimate streetscape. The landscape concept for Grand Park is designed to contribute to creating a sense of a pedestrian oriented environment for the street system. The proposed landscaping adjacent to the major Master Plan streets is in accordance with the streetscape master plan.

5.1.3.3 Roundabouts

Roundabouts are incorporated into the roadway network wherever feasible as a traffic calming device to conform to the City's Standards for roundabout design, as illustrated on *Exhibit 5-12, "Traffic Calming Measures."*

5.1.4 Pedestrian Circulation

Off-street pedestrian circulation is available throughout Grand Park by means of the interconnected, paved sidewalk system within the roadway right-of-way, separated from vehicular travel lanes by a landscaped parkway. The Grand Park pedestrian system provides connectivity among residential neighborhoods and to the Great Park, pocket parks, the high school, and the elementary school within Grand Park.

5.1.5 Regional Trails

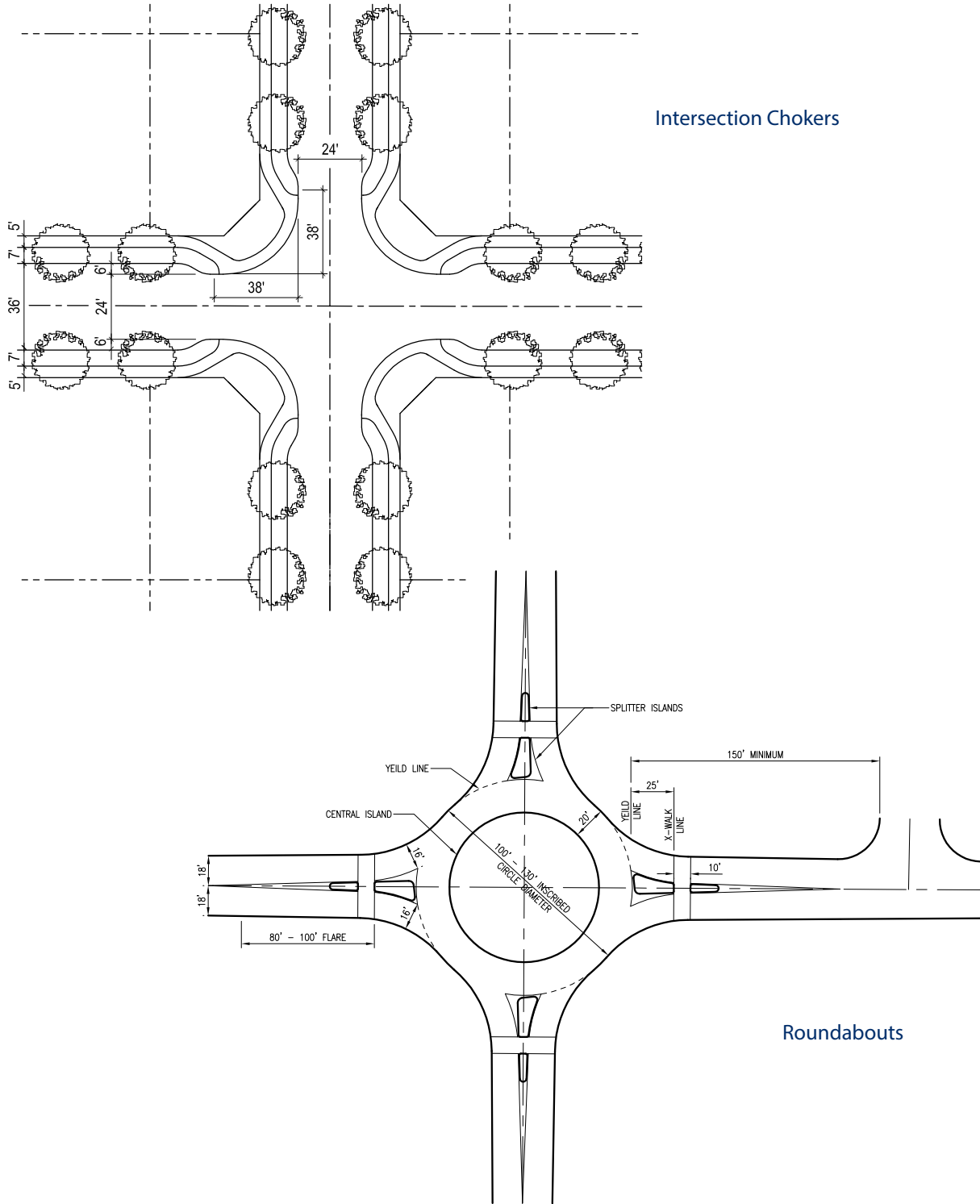
Multi-use trails are an integral element to creating accessibility and mobility within Grand Park. Multi-use trails are planned along Edison Avenue, Archibald Avenue and Haven Avenue adjacent to the project site and within the City's Great Park. A regional pedestrian bridge is proposed at the western end of the Great Park. The bridge will cross over Archibald Avenue to provide safe connectivity from areas to the west to the Great Park Class 1 bikeway/trail that extends to Haven Avenue. The bridge will be constructed with the construction of the Great Park improvements. A Class II Bike Lane is planned along the north side of Eucalyptus Avenue. On-street bike paths will be provided within the right-of-way of Eucalyptus Avenue on both sides of the street. The bike trails system planned as part of Grand Park connects all residential neighborhoods to one another, with the City's Great Park, the elementary school, and the high school. The Master Plan for pedestrian and bicycle circulation for Grand Park is illustrated on *Exhibit 5- 13, "Pedestrian and Regional Trail Circulation Plan."*

5.1.6 Parks

The Policy Plan (Policy PR1-5) has established a standard of 5 acres of parkland (public and private) per 1,000 residents, with a minimum of 2 acres of developed private park space per 1,000 residents (Policy PR1-6). Private parks are required to be within a quarter mile walking/biking distance from each residence. This private park requirement

may be met within any residential development, attached or detached, or by satisfying the in-lieu park development impact fee as approved by the City. Fees will be paid to fulfill the balance of the City's park requirement (the remaining 3 acres per 1, 000 residents).

As discussed in the previous Section 4.2 "Parks and Recreational Facilities", parks will be provided throughout Grand Park ("Community Plan," Exhibit 4-1) within walking distance to any residential Neighborhood. In addition, the Great Park will provide active recreational facilities for the residents of Ontario and will be within walking and biking distance to the residential neighborhoods of Grand Park.



Note: No utilities are allowed in/under proposed roundabouts. Align City's utilities appropriately. All dimensions are conceptual and subject to change as a part of the final street design.

Exhibit 5-12
TRAFFIC CALMING MEASURES



Exhibit 5-13
 PEDESTRIAN AND REGIONAL TRAIL CIRCULATION PLAN
 Grand Park Specific Plan

5.2 Public Utilities

Domestic 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 Grand Park Covenants, Codes, and Restrictions (CC&Rs) shall contain language that requires all proposed work by the Homeowner Association (HOA) within said easements to be plan checked and inspected by the City, including all applicable fees. Generally, utilities will not be accepted as public within alleys, parking areas, or driveways. The extent to which said utilities will be accepted as public utilities shall be determined, at the full discretion of the City, during final design plan review. Project shall comply with the requirements as set forth in the Standard Conditions of Approval adopted by the City Council (Resolution No. 2010-021) on March 16, 2010.

5.3 Water Master Plan

Domestic water will be provided by the City of Ontario. The City’s Water Master Plan identifies new water facilities to serve the New Model Colony area which will need to be constructed prior to or concurrent with onsite water improvements. Construction of the on-site and off-site Master Plan water service improvements shall be the responsibility of the developer and is required prior to issuance of certificates of occupancy for any residential dwelling unit within Grand Park. The off-site improvements for 925 Zone include 24” and 30” lines in Milliken Avenue from Riverside Drive to Eucalyptus Avenue, 24” line in Eucalyptus Avenue from Milliken to Archibald Avenue and 24” line in Archibald Avenue from Eucalyptus to Schaefer Avenue. The conceptual off-site domestic water system improvements are illustrated on *Exhibit 5-14, “Conceptual Domestic Water Master Plan.”*

Master planned domestic and recycle water main lines serving and surrounding the development, as identified in the approved Specific Plan, shall be

constructed prior to issuance of first occupancy. At a minimum, construct the 925 PZ loop from Riverside & Miliken to Miliken & Eucalyptus to Eucalyptus & Archibald and to Archibald & Shaefer. All private agricultural wells located within each Tract shall be destroyed per Cal Department of Water Resources prior to issuance of construction permit for any construction activity. Well destruction requires a permit from County Health Department. A copy of such permit shall be provided to Engineering and OMUC prior to issuance of grading permits.

5.3.1 Master Planned Domestic Water System

The project site lies within the 925’ Pressure Zone. The improvements identified in the NMC LLC construction agreement for domestic water will be constructed by the developer, including a 12-inch Master Plan water main in Edison Avenue, from Archibald Avenue to Turner Avenue, and a 12-inch water main in Haven Avenue, from the Specific Plan Boundary to Eucalyptus Avenue. The developer will construct new domestic lines to provide a loop system. Within the project site, a network of 8-inch and 12-inch water lines will be installed. The on-site water system includes connections to two different transmission lines. The proposed on-site water system sizing is subject to the recommendations of the City approved Grand Park Domestic and Recycled Water Hydraulic Analyses. The conceptual on-site domestic water system is illustrated on *Exhibit 5-15, “Conceptual On-Site Domestic Water System.”*

5.3.2 Master Planned Recycled Water System

The Inland Empire Utilities Agency (IEUA) will ultimately provide recycled water from IEUA’s RP-1 and RP-1 outfall parallel located in Carpenter Avenue and via City of Ontario recycled water improvements as presented in the City’s Recycled Water Master Plan. The master planned

930' Pressure Zone recycled water system to be constructed, as part of the development of Grand Park, include the following:

- A 12-inch recycled water line in Edison Avenue, from Archibald Avenue to Turner Avenue;
- A 16-inch recycled water line in Eucalyptus Avenue, from Archibald Avenue to Haven Avenue;
- A 16-inch recycled water line in Haven Avenue, from Edison Avenue to Eucalyptus Avenue (Existing);
- A 16-inch recycled water line in Archibald Avenue, from Eucalyptus Avenue to Edison Avenue;
- A 20-inch recycled water line in Archibald Avenue, from Edison Avenue to Schaefer Avenue;
- A 24-inch recycled water line, in Archibald Avenue, from Schaefer Avenue to Chino Avenue.
- A 20-inch recycle water line in Archibald from Chino Avenue to Riverside Avenue.
- A 20-inch recycle water line in Riverside Avenue and connect to the Pressure Reducing Station No.1 (PR1)

The developer of Grand Park will provide all recycled water lines required to serve the project. Within the project site, 8-inch recycled water mains are proposed to serve the site. The Grand Park Specific Plan shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to the irrigation of parks, schools, street landscaping, recreational trails, and HOA maintained common areas. The developer shall prepare and secure approval of an Engineering Report from the City of Ontario and Department of Health Services prior to the use of recycled water. Sizing of the on-site system is subject to the City approved hydraulic analysis and minimum requirements of the City. 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. In this instance, the recycled water system will connect to the potable system until such time that recycled water service is available.

This development shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but limited to the irrigation of parks, schools, street landscaping, recreational trails, HOA maintained common areas and commercial/industrial landscaping. An Engineering Report approved by the City and the CA Department of Public Health is required prior to the use of recycle water. The Engineering Report shall be submitted for review and approval prior to the issuance of Building Permits. Interim connection to potable water is not allowed.

The conceptual off-site recycle water system is illustrated on *Exhibit 5-16 , Conceptual Recycle Water Master Plan.* The conceptual on-site recycled water system is illustrated on *Exhibit 5-17, "Conceptual On-Site Recycled Water System."* The conceptual recycled water uses are illustrated on *Exhibit 5-18, "Conceptual Recycled Water Uses."*

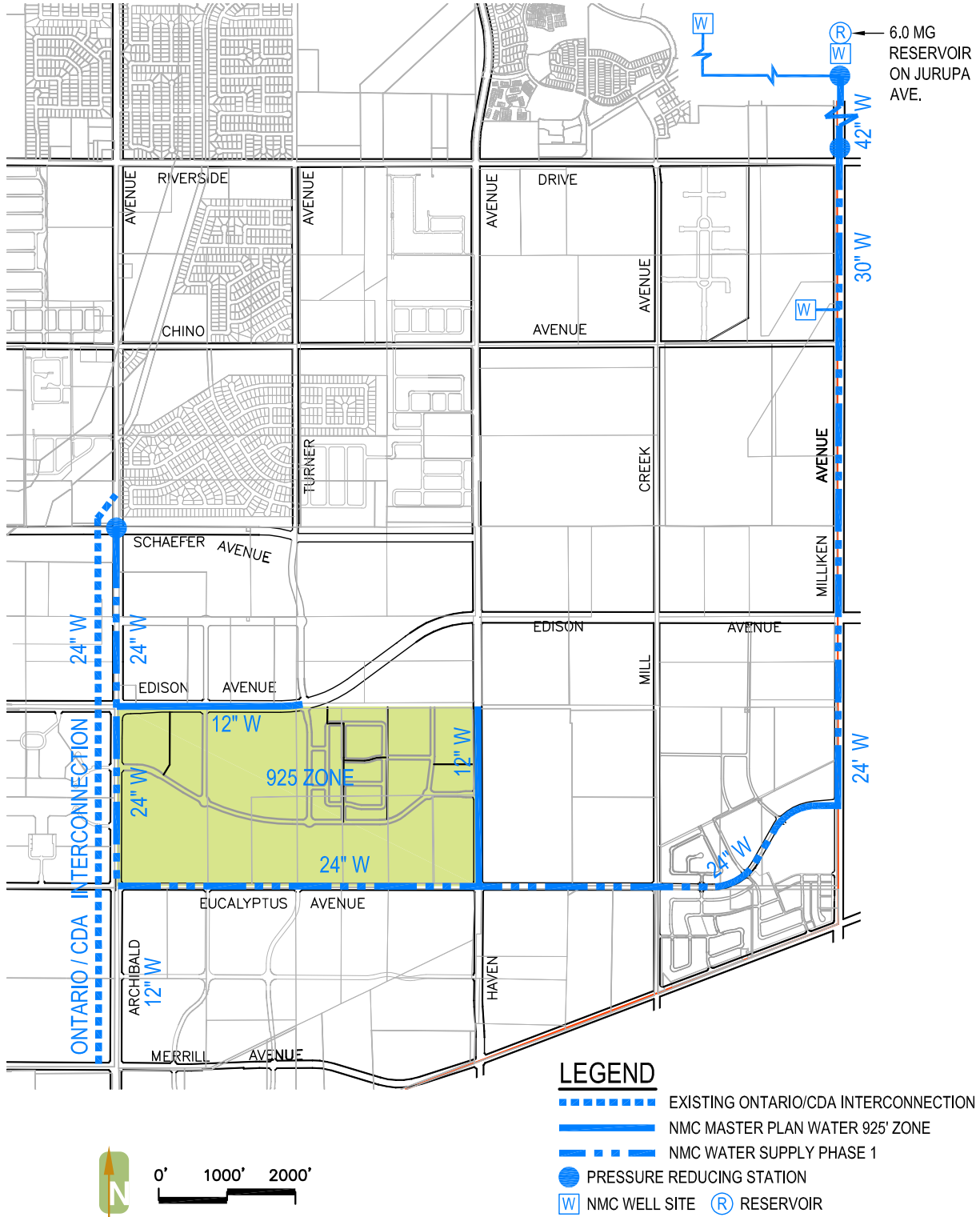
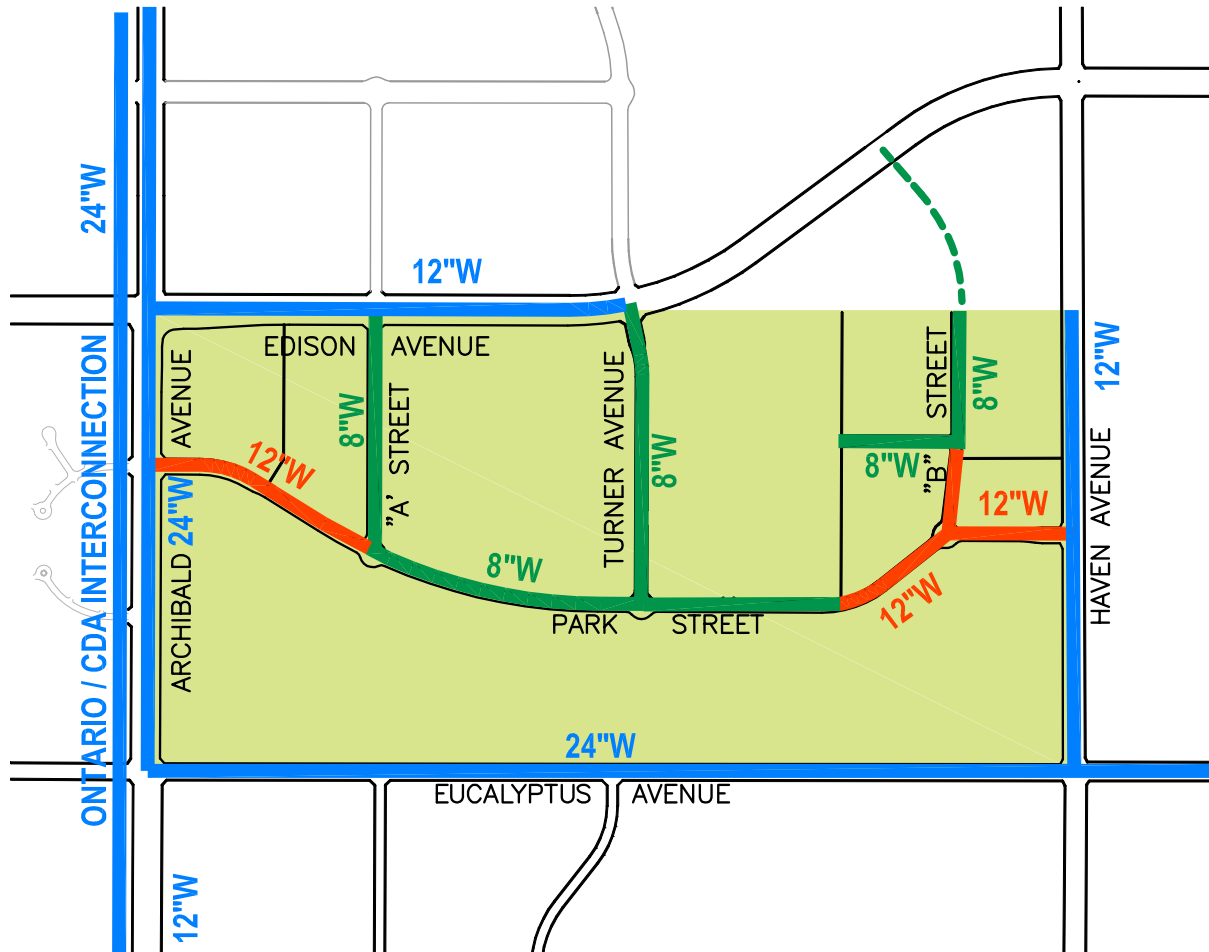


Exhibit 5-14

CONCEPTUAL DOMESTIC WATER MASTER PLAN

Grand Park Specific Plan



LEGEND

- SPECIFIC PLAN AREA
- NMC MASTER PLAN WATER 925' ZONE
- ON-SITE 12" WATER MAIN
- ON-SITE 8" WATER MAIN
- FUTURE CONNECTION BY OTHERS

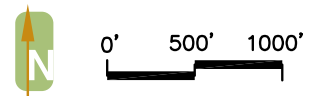


Exhibit 5-15

CONCEPTUAL ON-SITE DOMESTIC WATER SYSTEM

Grand Park Specific Plan

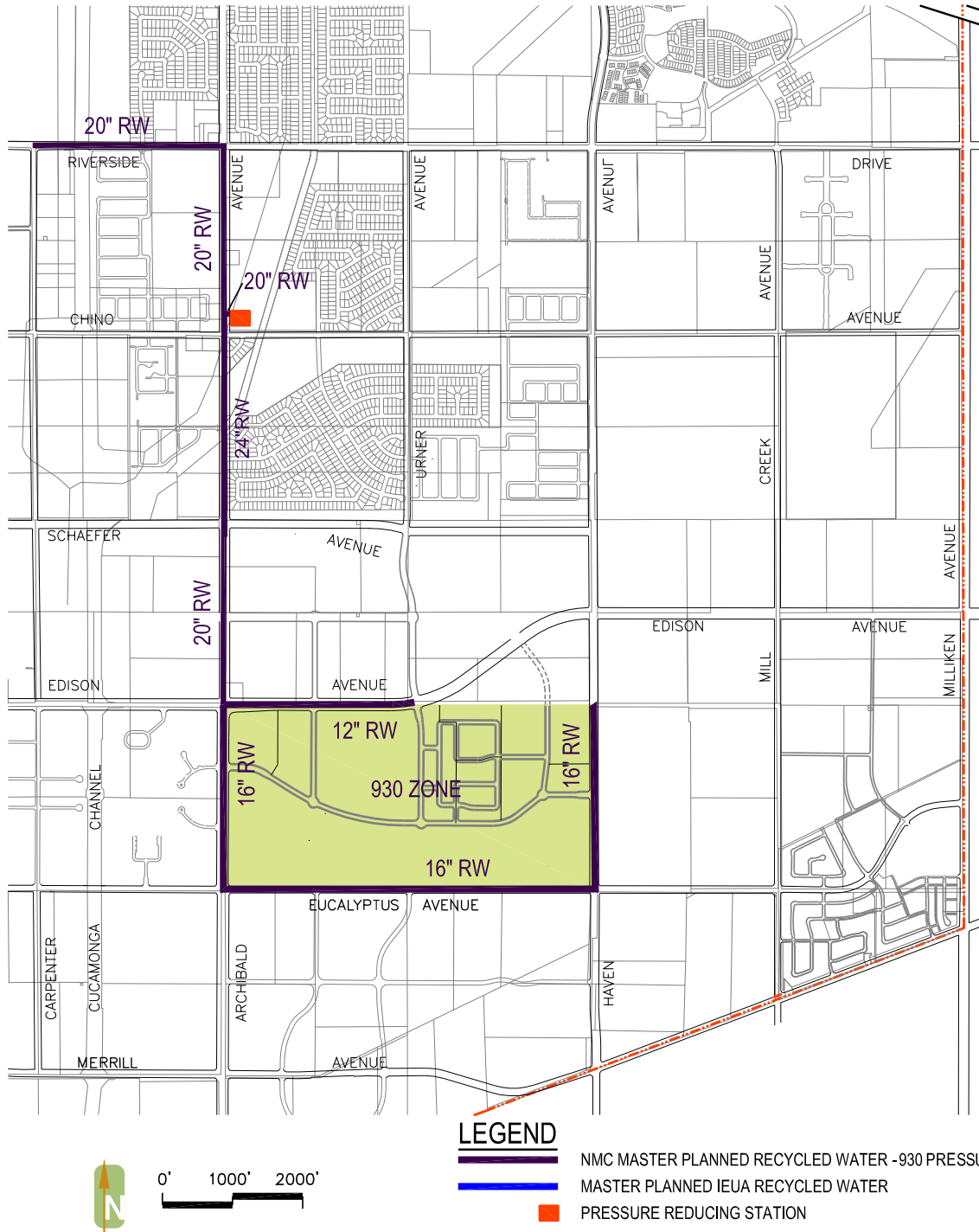
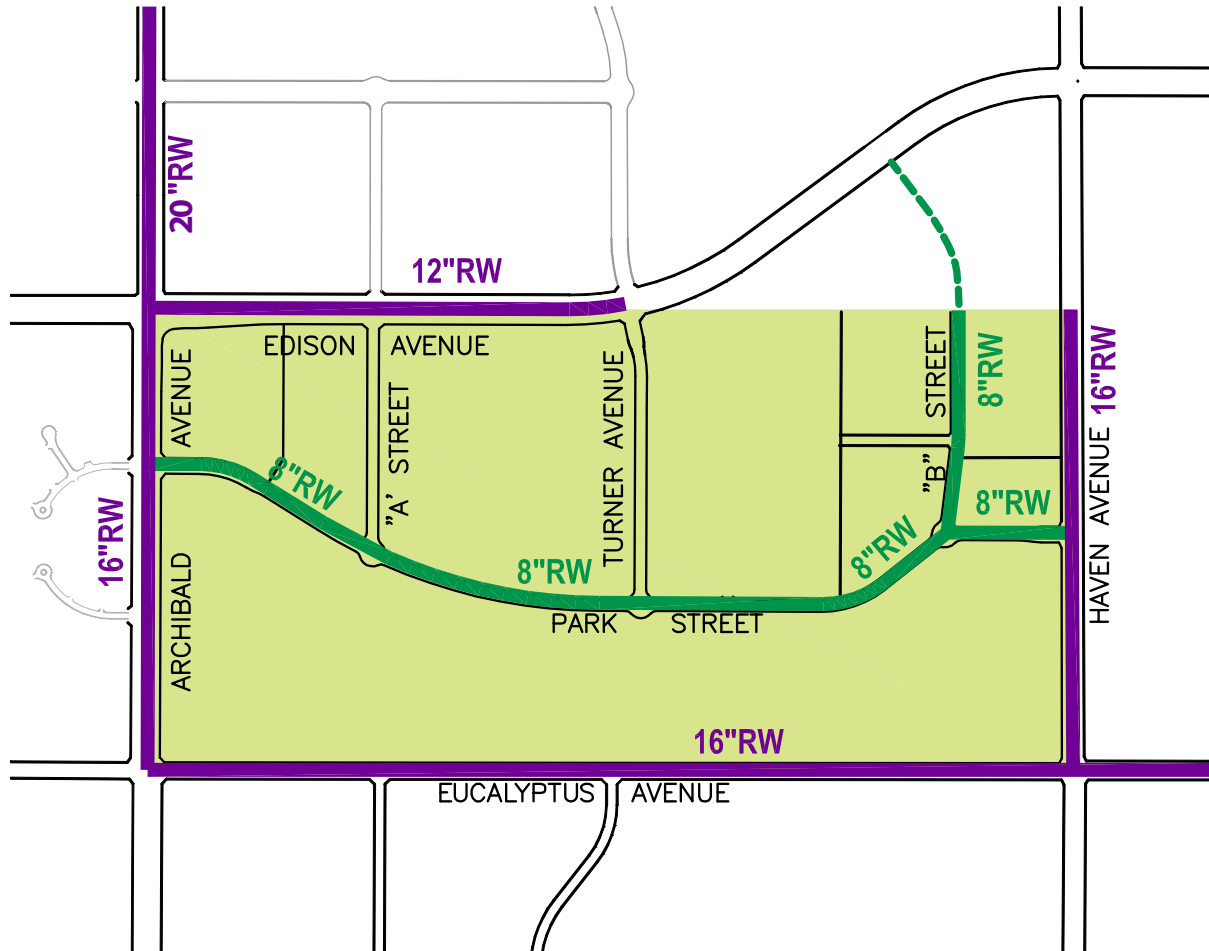


Exhibit 5-16

CONCEPTUAL RECYCLED WATER MASTER PLAN

Grand Park Specific Plan



LEGEND

- SPECIFIC PLAN AREA
- NMC MASTER PLAN RECYCLED WATER 930' ZONE
- ON-SITE RECYCLED WATER MAIN
- FUTURE CONNECTION BY OTHERS

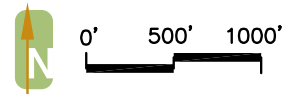
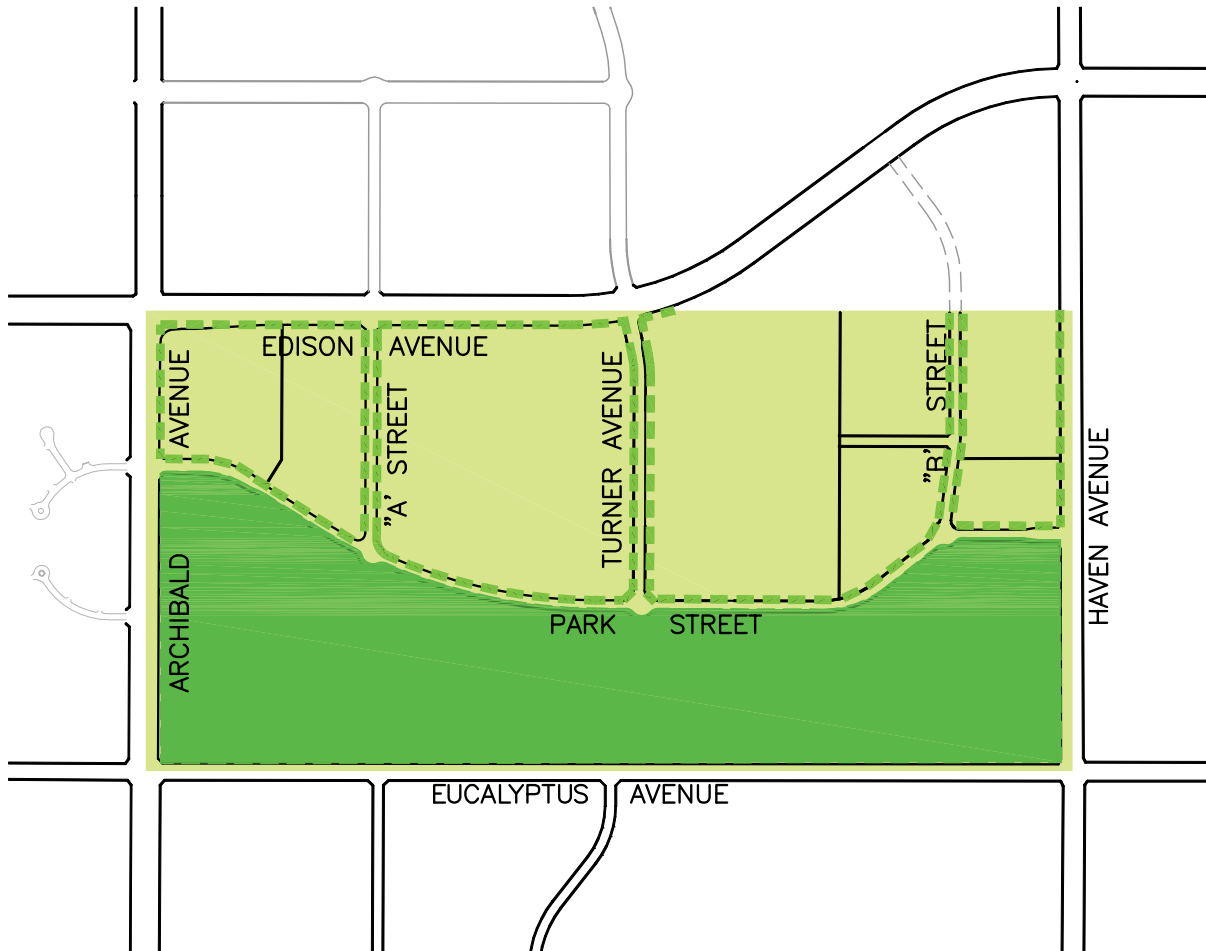


Exhibit 5-17

CONCEPTUAL ON-SITE RECYCLED WATER SYSTEM

Grand Park Specific Plan



LEGEND




-  DEVELOPMENT AREA
-  PARKS / TRAILS/ RECREATION AREAS
-  NEIGHBORHOOD EDGES

Exhibit 5-18
CONCEPTUAL RECYCLED WATER USES

Grand Park Specific Plan

5.4 Sewer Master Plan

Sewer service for Grand Park will be provided by the City of Ontario. The City's Sewer Master Plan identifies sewer service to the project site by the Eastern Trunk Sewer. The Eastern Trunk Sewer is a joint use sewer shared by the City of Ontario and the IEUA. Within Grand Park, a series of 8-inch, 10-inch and 12-inch sewer mains are proposed to serve the residential development.

Construction of the on-site and off-site Master Plan sewer improvements shall be the responsibility of the developer(s) and is required prior to issuance of building permits for Grand Park. Construction of the 12" sewer main line in Haven Avenue south of the Grand Park Specific Plan to Merrill Avenue and the 24" sewer main line west in Merrill Avenue to Archibald Avenue will be the responsibility of the developer of the Specific Plan to the south. The proposed on-site public sewer system sizing is subject to the recommendation of the approved Grand Park Sewer Study. Master planned sewer main lines serving, surrounding and within the Specific Plan, as identified in the adopted/updated Sewer Master Plan, shall be constructed prior to issuance of first occupancy.

The conceptual sewer Master Plan for Grand Park is illustrated in *Exhibit 5-19, "Conceptual Sewer Improvements."* The conceptual on-site sewer mains are illustrated on *Exhibit 5-20, "Conceptual On-Site Sewer System."*

5.5 Drainage

The City's Storm Drain Master Plan identifies storm drain improvements to serve the project site. Completion of these Master Plan improvements will provide permanent storm drain service to the project. That portion of the Master Plan storm drain system that lies within the project site will be constructed as part of the development of the project. The size and location will be based on the Approved Master Plan of Drainage.

On-site storm drains will be constructed to convey the on-site flows to the proposed Master Plan system. The size and location of proposed on-site storm drains may change based on final design. No interim detention basin is allowed. The developer is required to construct the ultimate storm Drain improvements as identified on the Master Plan of Drainage, including the connection to the County Line Channel.

The proposed improvements to the Master Plan of Drainage for Archibald Avenue include a 78" pipe between Edison and Eucalyptus Avenues, and a 96" pipe South of Eucalyptus Avenue. In Turner Avenue there is proposed an 84" pipe between Eucalyptus and Edison Avenues, and a 66" pipe North of Edison Avenue. In Haven Avenue there is proposed an 96" pipe South of Eucalyptus Avenue, and a 96" pipe which shrinks to an 84" pipe between Eucalyptus and Edison Avenues. In Eucalyptus Avenue there is proposed a 66" pipe which shrinks to 60" East of Archibald Avenue, and a 54" pipe East of Turner Avenue.

The approved Master Plan of drainage for the city of Ontario is illustrated in *Exhibit 5-23, "Conceptual Off-Site Storm Drain Improvements."* The Master Plan of drainage for Grand Park is illustrated in *Exhibit 5-22, "Conceptual On-Site Storm Drain Improvements."*

5.5.1 NPDES Compliance

The grading and drainage of the 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 requirements of the San Bernardino County NPDES Storm Water Program's current Water Quality Management Plan(WQMP) for significant new development projects. The objective of the WQMP for the 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 either on-site Structural Treatment Control BMP's or participation in regional or watershed-based Treatment Control BMP's.

Prior to the issuance of grading or construction permits for any tract map or area that disturbs 1 acre or more of land, within the Grand Park Specific Plan area, Erosion/Sediment Control Plans and Storm Water Pollution Prevention Plans (SWPPP) shall be prepared. The SWPPP shall be prepared to comply with California State Water Resources Control Board's (State Water Board) current "General Permit to Discharge Storm Water Associated with Construction Activity" and current "Area Wide Urban Storm Water Runoff (Regional NPDES) Permit. The SWPPP shall identify and detail all appropriate Best Management Practices (BMP's) to be implemented or installed during construction of the project. In addition to the preparation of a construction SWPPP, any tract map or project that disturbs 1 acre or more of land area, within the Grand Park Specific Plan area, shall be required to obtain coverage under the State Water Board's General Permit to Discharge Storm Water Associated with Construction Activity and show evidence of permit coverage to the City of Ontario, prior to the issuance of any grading or construction permits.

In addition to the requirements above for construction-related activities and as part of the approval of any grading plans for each tract map, the developer shall be required to submit a Water Quality Management Plan (WQMP) on the current regional model template form, provided by the City. The WQMP shall identify and detail all Low Impact Site Design BMP's, Source Control BMP's and Treatment Control BMP's to be implemented or installed as part of the project, in order to reduce stormwater pollutants and site runoff. An off-site, regional stormwater runoff treatment facility with capacity to accept and treat drainage from portions of the Specific Plan Area has been constructed and will be online in June, 2014. This regional treatment facility will be part of an overall solution for storm water treatment within this planned

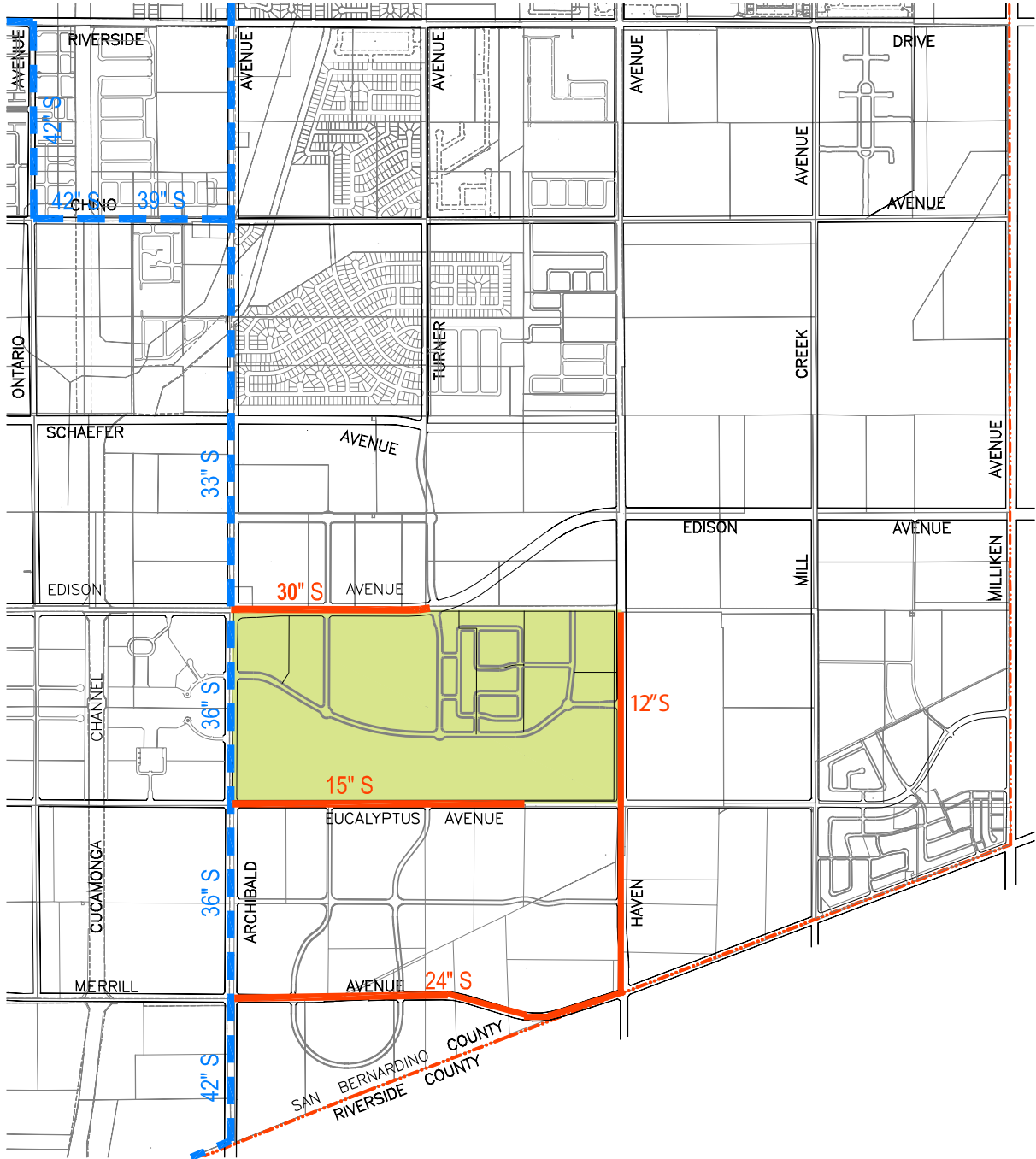
development area. Following the completion of the regional storm water treatment facility projects with reserved treatment capacity allocations in the regional facility will utilize this off-site facility as their primary BMP for addressing urban runoff water quality and hydromodification impacts, in their respective WQMPs. If a project cannot obtain treatment capacity in the regional stormwater treatment facility, alternative on-site or off-site Low Impact Design BMPs will be required based on the most current MS4 Permit requirement.

5.6 Grading Concept

The project site generally slopes to the south at approximately 1.0% to 2.0%. The grading activities for Grand Park will generally consist of clearing and grubbing, demolition of existing structures, and moving surface soils to construct building pads and streets. Where slope conditions are present, the project lot line shall be located at the top of a slope. Dwelling units and structures adjacent to the slopes areas should be sited to:

- Use the natural ridge as a backdrop for structures;
- Use landscape plant materials as a backdrop; and
- Use structures to maximize concealment of cut slope. If retaining walls are required, the following criteria shall be used:
 - Exposed walls and fences facing roadways shall be no greater than 3-feet retaining in height (9-foot total wall), except as necessary for acoustical purposes as identified by the EIR or as required as a condition of approval.
 - Where retaining walls or fences face roadways, they shall be built of decorative materials consistent with the wall theme of the neighborhood.

The Conceptual Grading Plan, as illustrated in *Exhibit 5-23, "Conceptual Grading Plan,"* provides a balance of cut/fills for the project. Grading plans for each tract within the project shall be reviewed and approved by the City of Ontario Building, Planning, and Engineering Departments prior to the issuance of grading permits. All grading



LEGEND

- CITY OF ONTARIO, NMC MASTER PLANNED SEWER MAIN
- - - - EXISTING EASTERN TRUNK SEWER JOINTLY OWNED BY THE CITY OF ONTARIO AND THE INLAND EMPIRE UTILITIES AGENCY

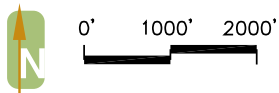
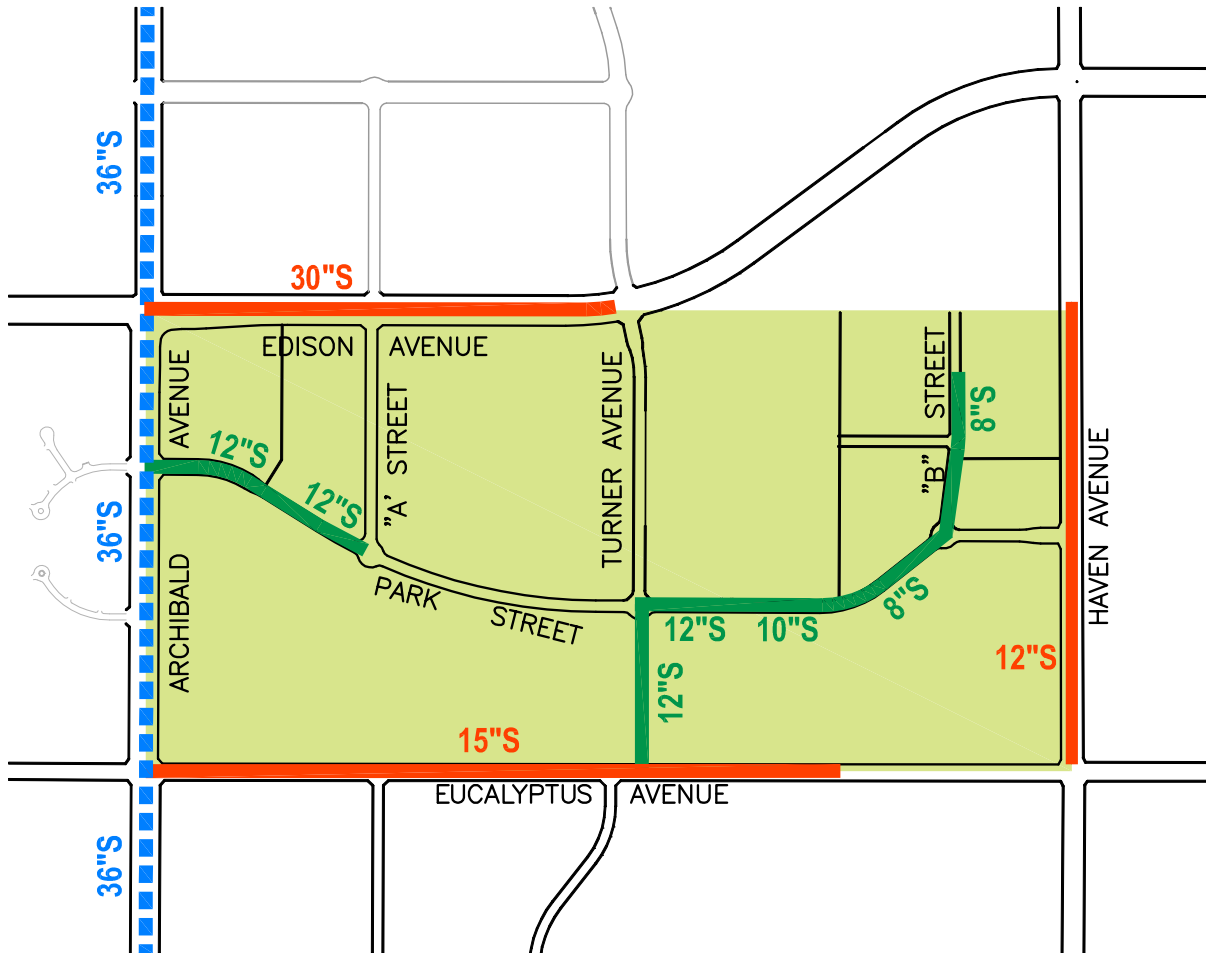


Exhibit 5-19
CONCEPTUAL SEWER IMPROVEMENTS

Grand Park Specific Plan



LEGEND

- SPECIFIC PLAN AREA
- EXISTING EASTERN TRUNK SEWER
- MASTER PLANNED SEWER MAIN
- ON-SITE SEWER MAIN

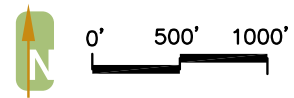


Exhibit 5-20
CONCEPTUAL ON-SITE SEWER SYSTEM

Grand Park Specific Plan

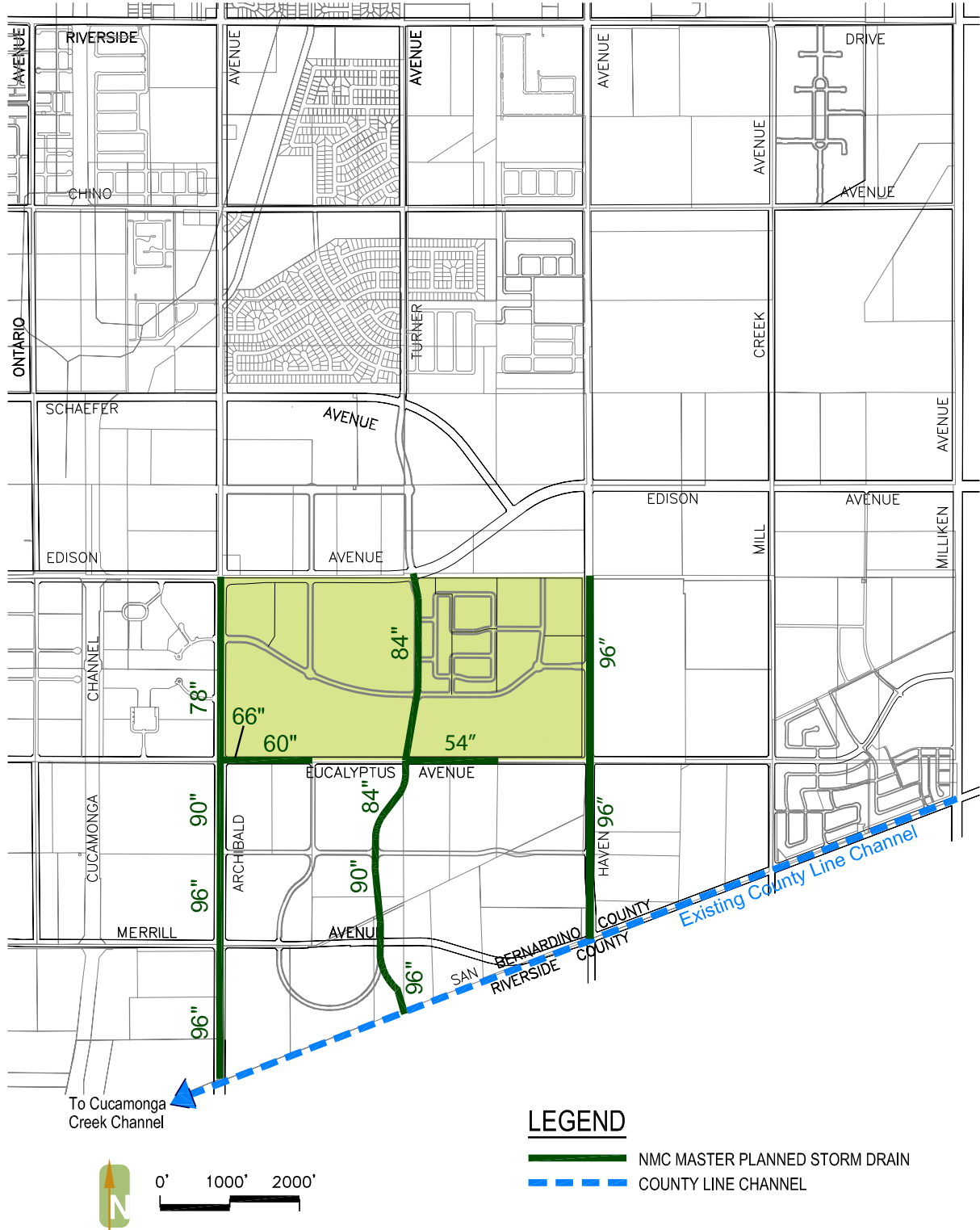


Exhibit 5-21
 CONCEPTUAL OFF-SITE STORM DRAIN IMPROVEMENTS
 Grand Park Specific Plan



Exhibit 5-22
CONCEPTUAL ON-SITE STORM DRAIN IMPROVEMENTS
Grand Park Specific Plan

plans and activities shall conform to the City’s grading ordinance and dust and erosion control requirements.

All landscape areas, adjacent to streets, including medians, parkways and neighborhood edges, in the Specific Plan Area, shall be finish graded, at a minimum of 1”-2” below top-of-curb or sidewalk finish surface, for conservation of irrigation water and increased retention of rainwater runoff.

5.7 Schools

The project site is located within the Mountain View School District and the Chaffey Joint Union High School District. Mountain View School District will serve the school age needs of grades K – 8 and the Chaffey Joint Union High School District will serve the school age needs of grades 9 – 12. Mountain View School District currently operates the Ranch View Elementary School located at 3300 Old Archibald Road, serving grades K – 5, and the Grace Yokley Middle School located at 2947 South Turner Avenue, serving grades 6 – 8. Both of these school facilities are in the vicinity of the project site. Chaffey Joint Union High School District operates one high school within the vicinity of Grand Park. Colony High School is located at 3850 East Riverside Drive. The Grand Park Specific Plan also provides sites for development of an elementary school and a high school.

Development of the project will generate an estimated student population as described in Table 5-1 below, based on the student generation numbers supplied by the City of Ontario. The project developer shall be required to mitigate school impacts as required by the State of California.

Grades K- 5	Grades 6-8	Grades 9-12
Generation Factor 0.38/D.U.	Generation Factor 0.22/D.U.	Generation Factor 0.20/D.U.
0.38 x 1,327 = 505	0.22 x 1,327 = 292	0.20 x 1,327 = 266

5.8 Public Utilities

5.8.1 Communication Systems

Proposed on-site facilities will be placed underground within a duct and structure system to be installed by the developer, as illustrated in *Exhibit 5-24, “Communications Plan.”* Maintenance of the installed system will be the responsibility of the City and/or Special District fiber optic entity and not that of the developer, private homeowners association or private homeowners. Development of the project requires the installation by the developer of all fiber optic infrastructure necessary to service the project as a standalone development.

5.8.2 Natural Gas

The Gas Company will provide natural gas to the project site. The Gas Company will install gas mains to the project site as necessary.

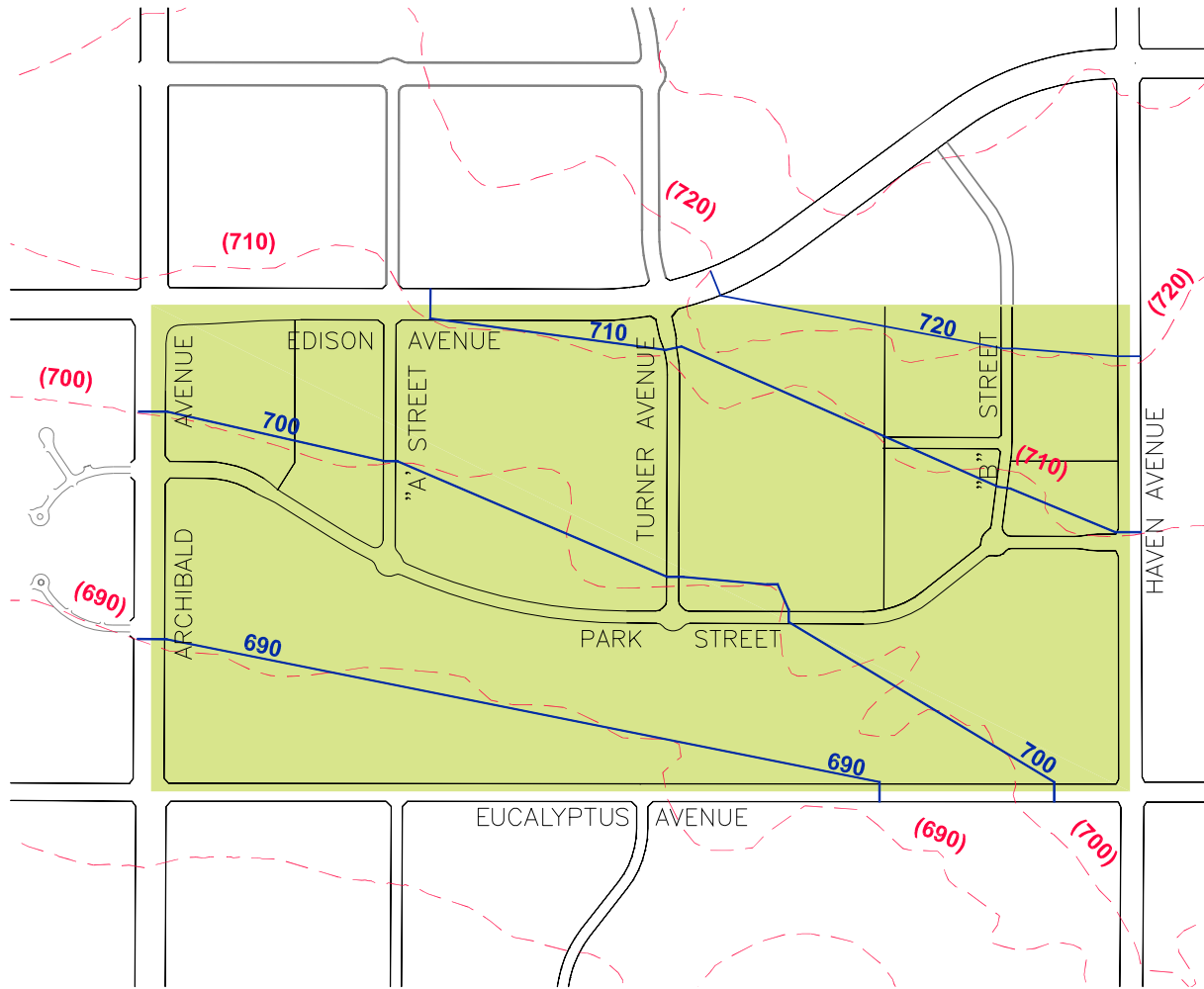
5.8.3 Electricity

Southern California Edison Company (SCE) currently provides electrical service in the area. All new lines and all existing lines within the project less than 34.5 kV, shall be placed underground by the developer according to City of Ontario requirements and in accordance to City of Ontario undergrounding Ordinance. The developer is required to relocate all SCE transmission lines fronting the specific plan area.

5.8.4 Solid Waste

City crews, through the City of Ontario Public Works Agency, will provide solid waste collection and disposal service for the project. Use of a 3-bin system is anticipated to accommodate recyclables and green waste. The project will participate in City sponsored recycle programs and diversion of special wastes such as tires and construction materials. Provisions for solid waste and recycling for the project are as follows:

- Apartment – For apartments using commercial bin service, the developer shall comply with Municipal Code Section 6-3.314 Commercial Storage Standards and Section 6-3.601 Business Recycling Plan.
- Residential – For curbside automated container service, developer shall comply with Municipal Code Section 6-3.308.9(a) and (d), Residential Receptacles, Placement.
- Recycling Requirements – The developer shall comply with Municipal Code Article 6 Recycling Requirements for Special Business Activity, Section 6-3.601 Business Recycling Plan, and Section 6-602 Construction and Demolition Recycling Plan.
- Site Improvement Plans shall follow the City of Ontario refuse collection standards.



LEGEND

- SPECIFIC PLAN AREA
- (720) EXISTING CONTOURS
- 720 PROPOSED CONTOURS

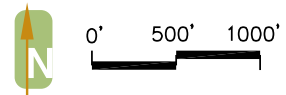
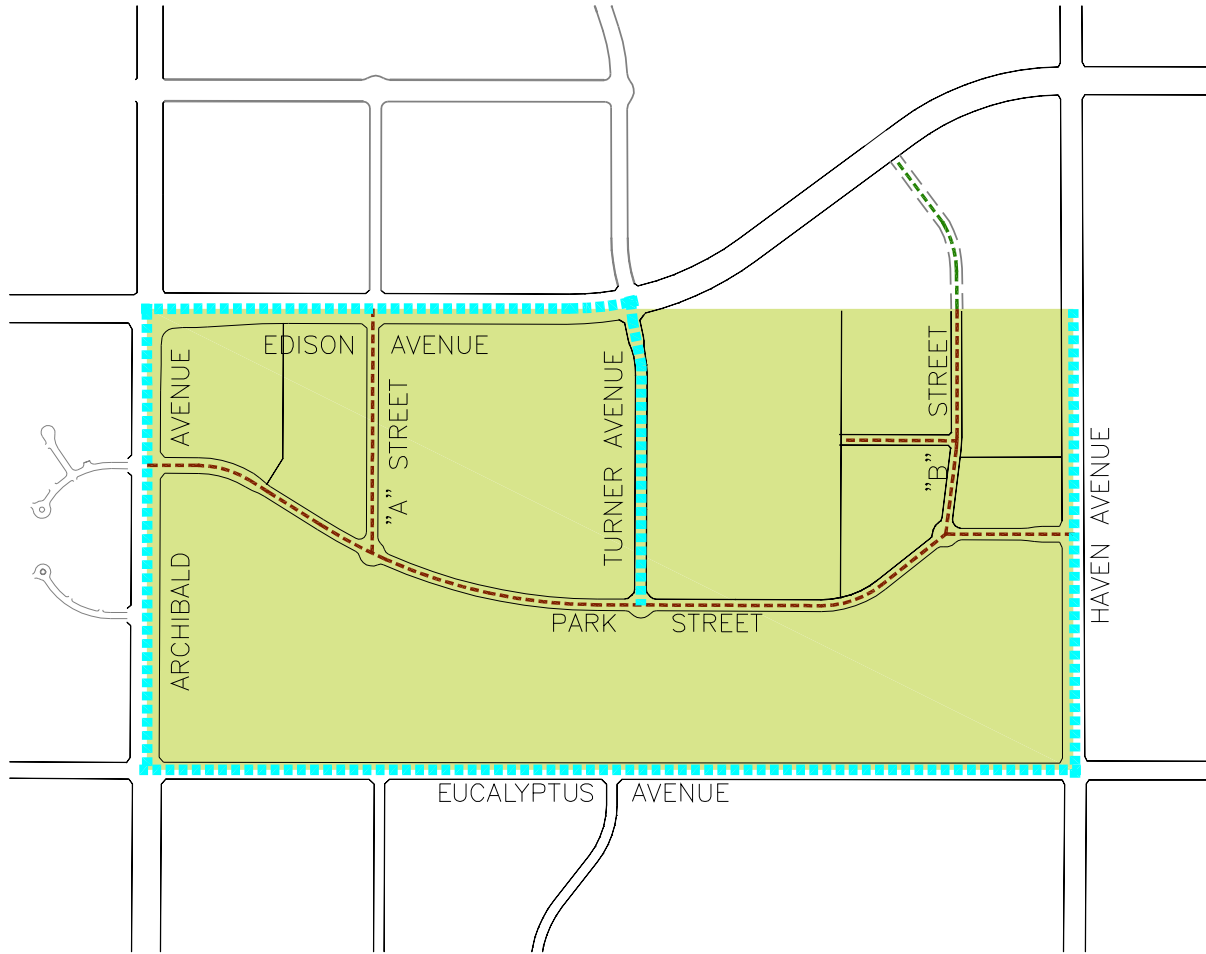


Exhibit 5-23
CONCEPTUAL GRADING PLAN

Grand Park Specific Plan



LEGEND

- - - - - DEVELOPER'S RESPONSIBILITY
- - - - - CONSTRUCTED BY THE DEVELOPER(S)
- - - - - FUTURE CONNECTION BY OTHERS

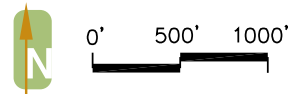


Exhibit 5-24
COMMUNICATIONS PLAN

Grand Park Specific Plan