Section 5 • Infrastructure and Services

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

5.1 Circulation

The circulation plan for Armstrong Ranch reinforces the objective of implementing the 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 to reduce 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 Armstrong Ranch community. The **"Master Vehicular Circulation Plan," Exhibit 5-1** establishes the hierarchy and general location of roadways within Armstrong Ranch.

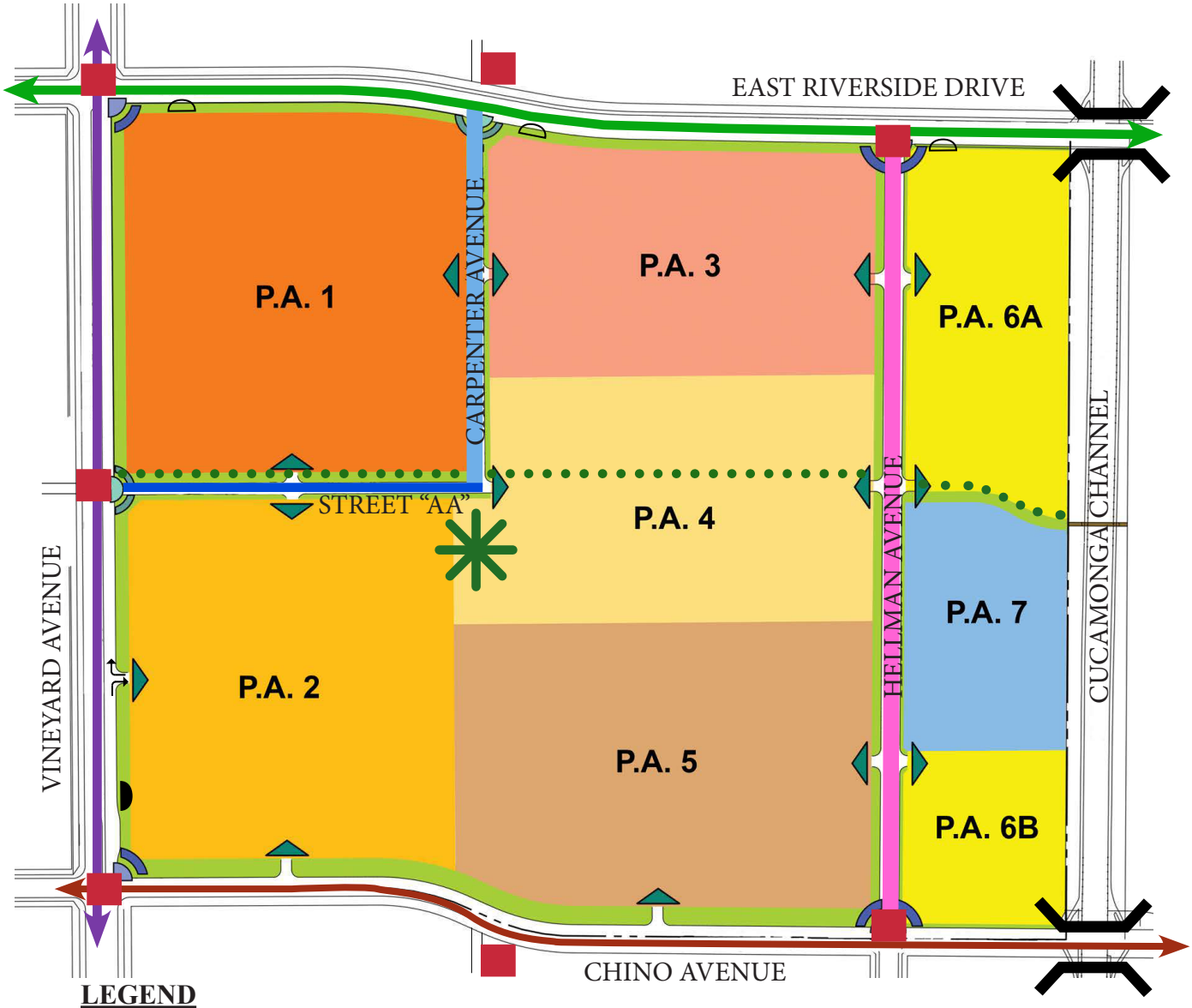
The minimum design speeds to be used for centerline curve radii, super elevation, corner and approach sight distances, vertical and horizontal alignment, and sight distances for the Master Plan Streets, are listed below:

Vineyard Ave.	50 m.p.h.
Chino Ave. & Hellman Ave.	45 m.p.h.
Riverside Ave.	50 m.p.h.
Carpenter Ave.	40 m.p.h.

5.1.1 Master Plan Roadways

The project site is bounded on the north, south, and east 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. Riverside Avenue bounds the project site on the north; Chino Avenue bounds the project site on the south; Hellman Avenue and Carpenter Avenue bi-sect the property; and Vineyard Avenue bounds the project site on the west. A traffic study prepared as part of the project EIR may identify the need for additional right-of-way at critical intersections to accommodate lanes for left and right turn movements.

The developer shall construct 1/2 width roadway improvements on project frontage streets (including full striped median on Riverside Drive and Chino Avenue, and full raised landscaped median on Vineyard Avenue), one additional 14' opposing traffic lane and a 5' paved shoulder. 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



LEGEND

- VINEYARD AVENUE: 6 - LANE OTHER PRINCIPAL ARTERIAL WITH MULTI-PURPOSE TRAIL (TRAIL ON WEST SIDE ONLY) (148' R/W)
- E. RIVERSIDE DRIVE: 4-6 - LANE MINOR ARTERIAL (108' R/W)
- CHINO AVENUE: 4 - LANE COLLECTOR STREET WITH MULTI-PURPOSE TRAIL (88' R/W)
- HELLMAN AVENUE: 2-4 - LANE COLLECTOR STREET (88' R/W)
- CARPENTER AVENUE: 2 - LANE COLLECTOR STREET (60' R/W)
- STREET "AA" 2 - LANE LOCAL STREET (60'R/W)
- PEDESTRIAN BRIDGE

NOTE: TRAFFIC SIGNALS WILL BE INTER-CONNECTED

- INTERNAL CIRCULATION - NEIGHBORHOOD ENTRY
- MASTER PLANNED TRAFFIC SIGNAL
- ARMSTRONG PARK
- CHARLOTTE ARMSTRONG TRAIL
- RIGHT IN - RIGHT OUT ONLY
- POTENTIAL FUTURE TRAFFIC SIGNALS SUBJECT TO WARRANT ANALYSIS
- PROPOSED BUS STOP TURNOUT
- PROPOSED BUS STOP
- VEHICULAR BRIDGE

EXHIBIT 5-1: Master Vehicular Circulation Plan

may be required within the project to the satisfaction of the City of Ontario and Omnitrans.

5.1.1.1 Vineyard Avenue

The Mobility Element of the Policy Plan (**Figure M-2 Functional Roadway Classification Plan)** designates Vineyard Avenue as a "6-Lane Other Principal Arterial with multipurpose trail." (148' ROW) Vineyard Avenue will provide north and south access to Armstrong Ranch at the western boundary of the project site. The proposed improvements to Vineyard Avenue are illustrated on **Exhibit 5-2, "Vineyard Avenue."** Parking is prohibited along Vineyard Avenue. Refer to Exhibit 5-2 for minimum street improvements required by the Armstrong Ranch Specific Plan.

5.1.1.2 Chino Avenue

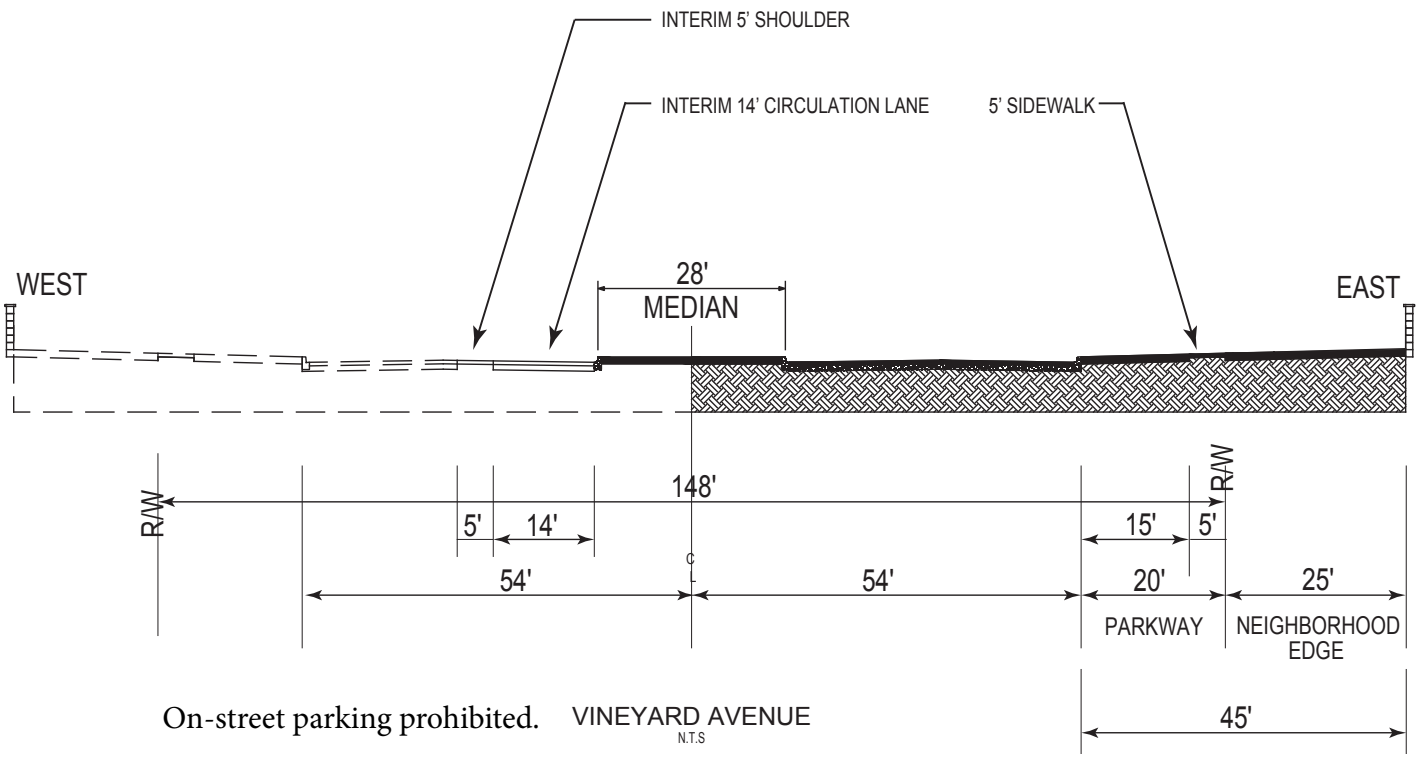
The Mobility Element of the Policy Plan **(Figure M-2 Functional Roadway Classification Plan)** designates Chino Avenue as a "4-Lane Collector Street with multipurpose trail". Chino Avenue (88' ROW), will provide east and west access to and from Armstrong Ranch at the southern boundary of the project site. **Exhibit 5-3, "Chino Avenue" illustrates the improvements to Chino Avenue. Parking is prohibited on Chino Avenue. Chino Av**enue will provide an 8' multi-purpose trail on the North side within the project boundary. The Developer will be responsible to construct the north half of the bridge for a connection across the Cucamonga Channel. Refer to Exhibit 5-3 for minimum street improvements required by the Armstrong Ranch Specific Plan.

5.1.1.3 Riverside Drive

Riverside Drive is a designated "6-Lane Minor Arterial." Riverside Drive (108' ROW) and will provide east and west access to and from Armstrong Ranch at the northern boundary of the project site. Riverside Drive will be improved as depicted on **Exhibit 5-4, "Riverside Drive."** Parking is prohibited on Riverside Drive. Riverside Drive shall provide Class II Bike lanes on both sides. Refer to Exhibit 5-4 for minimum street improvements required by the Armstrong Ranch Specific Plan. These minimum improvements apply to the portion of Riverside Drive where the Specific Plan has frontage. The Developer will be responsible to construct the south half of the bridge for a connection across the Cucamonga Channel.

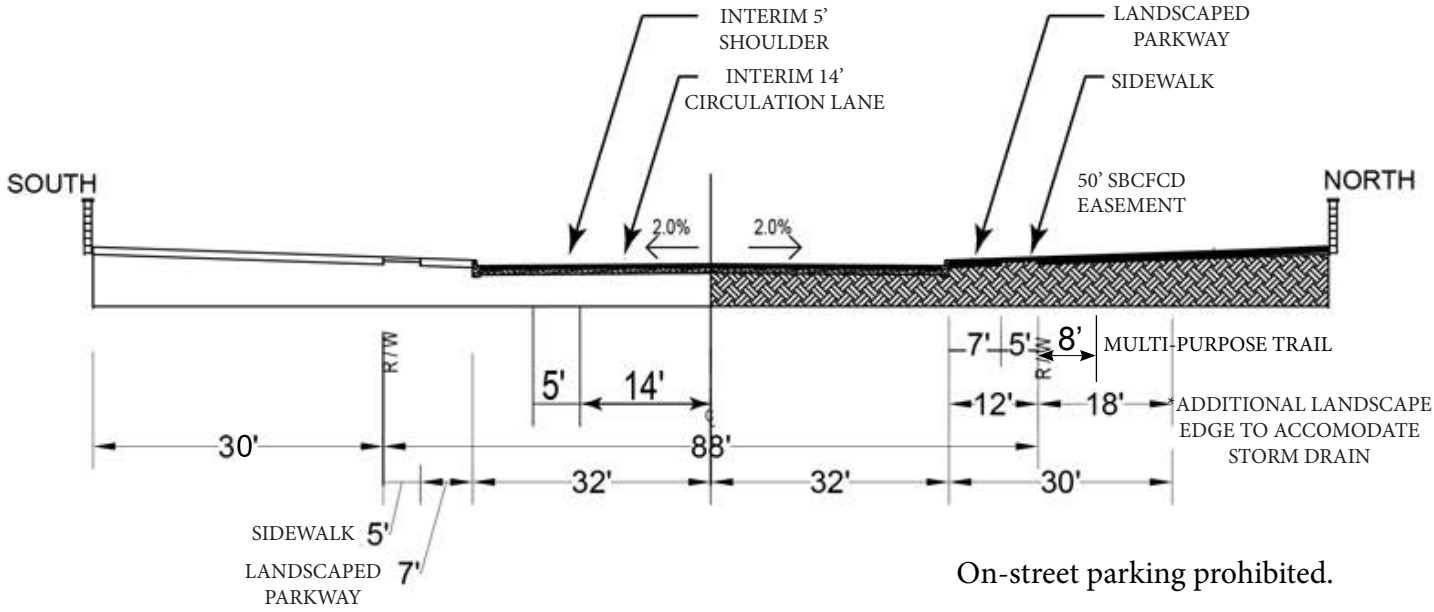
5.1.1.4 Hellman Avenue

Hellman Avenue is designated in the General Plan as a "2-Lane Collector Street." Hellman Avenue, (88' ROW), will provide north and south access to and from Armstrong Ranch located towards the eastern edge of the project site. Hellman Avenue will be improved as depicted on **Exhibit 5-5, "Hellman Avenue."** Parking is prohibited on Hellman Avenue. Refer to Exhibit 5-5 for minimum street improvements required by the Armstrong Ranch Specific Plan.



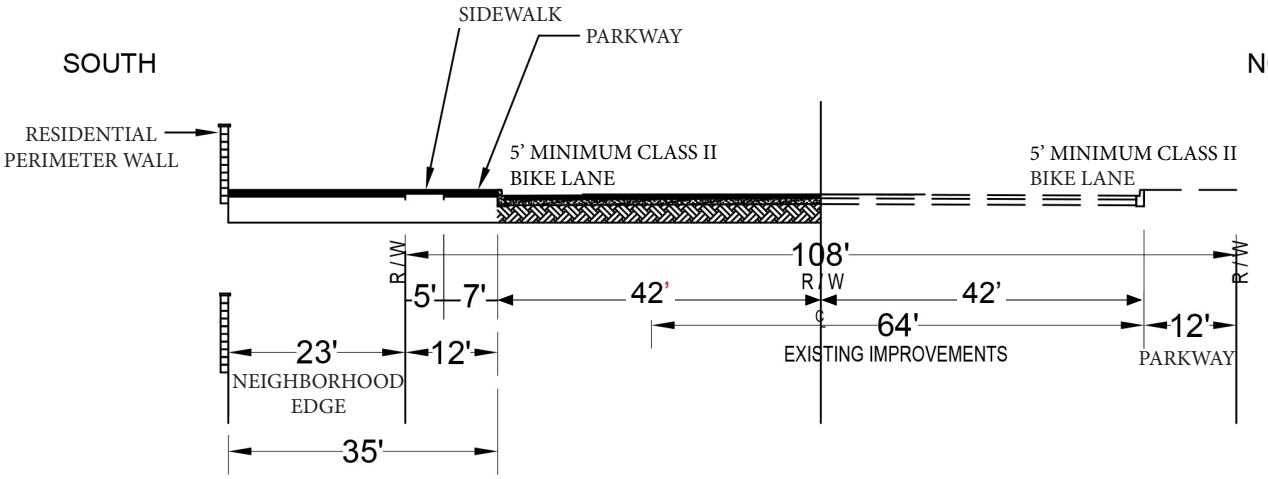
On-street parking prohibited. VINEYARD AVENUE N.T.S

EXHIBIT 5-2: Vineyard Avenue



On-street parking prohibited.

EXHIBIT 5-3: Chino Avenue



RIVERSIDE DRIVE
N.T.S

On-street parking prohibited.

EXHIBIT 5-4: Riverside Drive

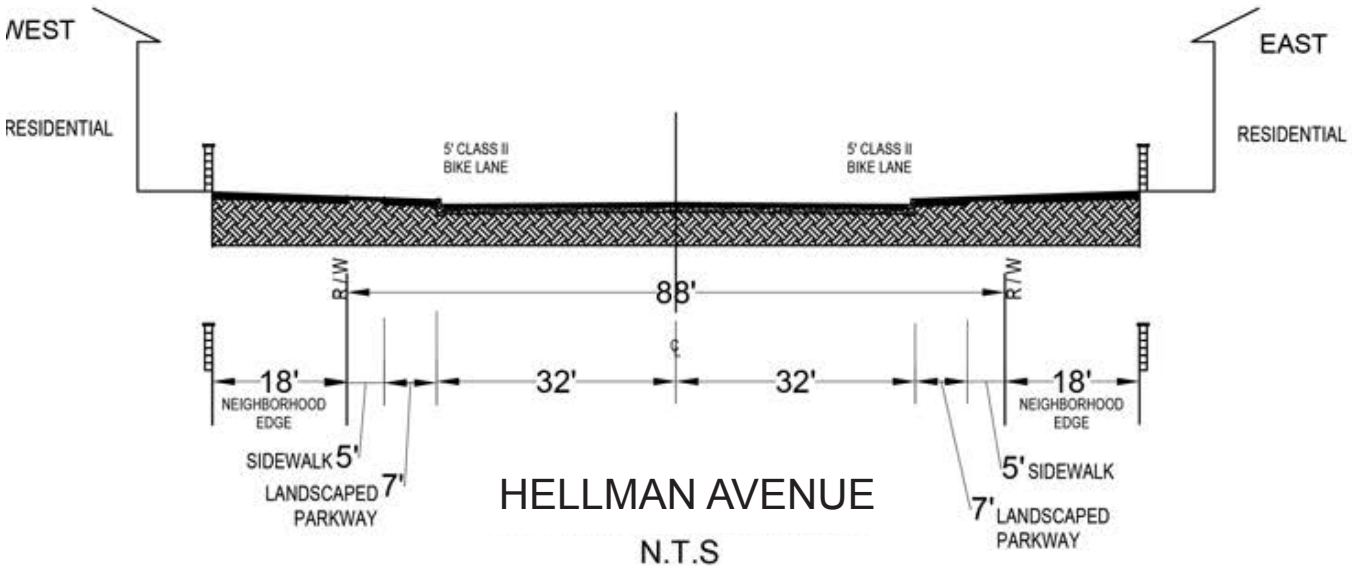


EXHIBIT 5-5: Hellman Avenue

5.1.2 Local Streets

Within the neighborhoods of Armstrong Ranch local streets will provide access and circulation through 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. If the Specific Plan proposes private streets, they should be shown on the proposed 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. Intersections of two interior local streets shall incorporate Chokers in accordance with City of Ontario Traffic & Transportation Guidelines. Any proposed gated access shall be designed with adequate stacking and turnaround facilities.

5.1.2.1 Carpenter Street

Carpenter Street is designated as a Primary Local Street. Carpenter Street will provide north and south access through the project, as well as internal access and connectivity between residential areas. Carpenter Street shall be 60' wide for right-of-way and 36' wide curb to curb. **Exhibit 5-6, "Carpenter Street,"** illustrates the improvements for the proposed Carpenter Street.

5.1.2.2 Street "AA"

Street "AA" is designated as a Primary Local Street. Street "AA" will provide east and west access through the project between Vineyard Avenue and Carpenter Avenue, as well as internal access and connectivity between residential areas. Street "AA" shall be 60' wide for right-of-way and 36' wide curb to curb. **Exhibit 5-7, "Street "AA"**, illustrates the improvements for the proposed Street "AA".

5.1.2.3 Interior Local Streets

A network of local streets will provide internal circulation throughout Armstrong Ranch for access to individual residences. All private streets shall be designed and constructed in accordance with City standards.

The proposed improvements for interior local streets are illustrated in **Exhibit 5-8, "Local Streets".**

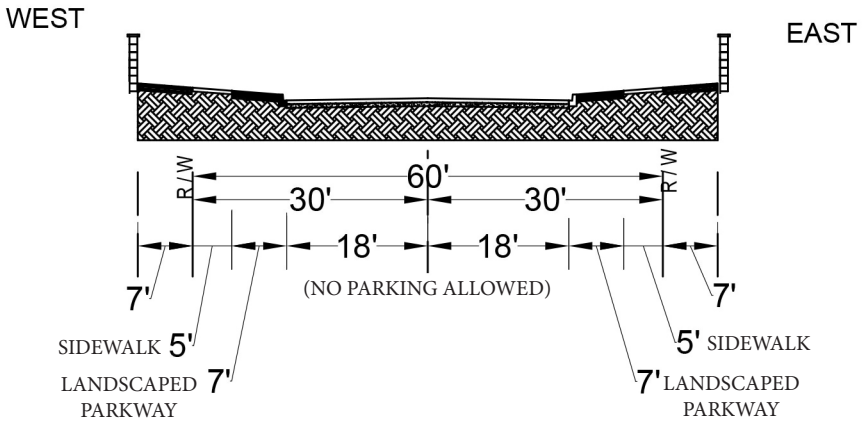


EXHIBIT 5-6: Carpenter Avenue

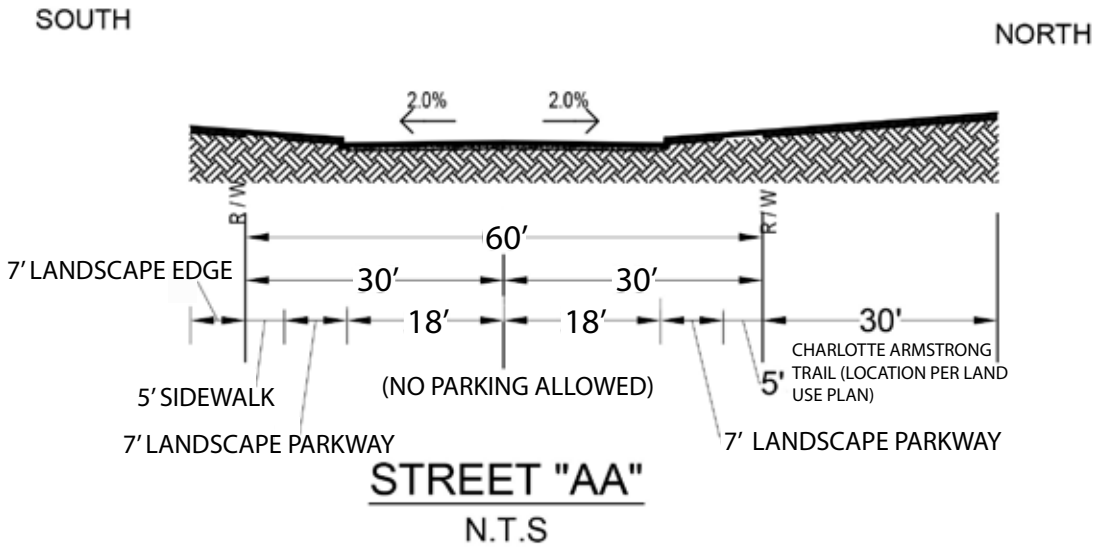
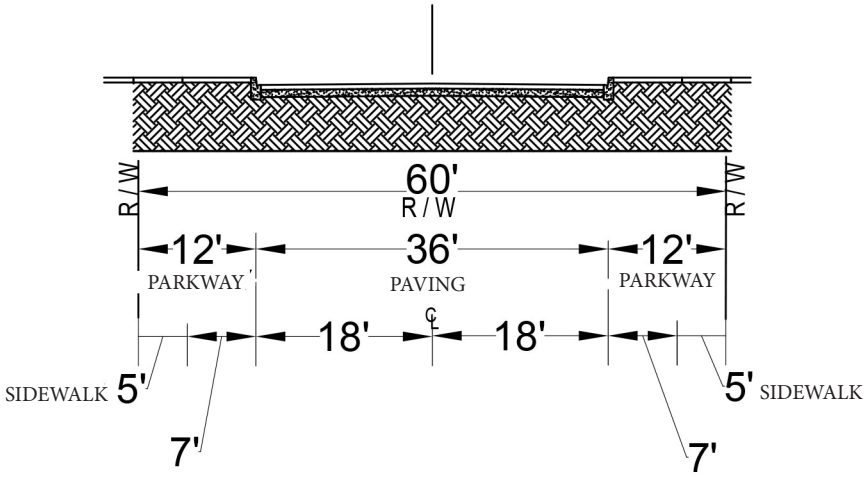


EXHIBIT 5-7: Street "AA"



LOCAL STREETS
N.T.S

EXHIBIT 5-8: Local Streets

5.1.3 Pedestrian Circulation

Off-street pedestrian circulation is available throughout Armstrong Ranch by means of the interconnected, paved sidewalk system within the roadway right-of-way, separated from vehicular travel lanes by a landscaped parkway. The Armstrong Ranch pedestrian system provides connectivity among residential neighborhoods and to all the private pocket parks within Armstrong Ranch. The plan also provides connectivity with off-site areas through a pedestrian bridge over the Cucamonga Creek Channel and the implementation of pedestrian paseos at select intersections and mid-block locations.

5.1.4 Regional Trails

Multipurpose trails are an integral element to creating accessibility and mobility within Armstrong Ranch. Multipurpose trails are planned along the west side of Vineyard Avenue, and along Chino Avenue adjacent to the project site. Class II Bike Lanes are planned along both the north and south sides of Riverside Drive. The bike trails system planned as part of Armstrong Ranch connects all residential neighborhoods to one another. The Cucamonga Creek Trail, located on the east side of the Channel connecting East Riverside Drive and Chino Avenue, will be constructed by others as part of the Countryside Specific Plan. Additionally, a pedestrian bridge over the Cucamonga Channel will provide an intermediate access pqoint across the channel. The Master Plan for pedestrian and bicycle circulation for Armstrong Ranch is illustrated on **Exhibit 5-9, "Pedestrian and Regional Trail Circulation Plan".**

5.1.5 Proposed Trails

Armstrong Ranch is bounded by existing trails implemented by the City of Ontario. The northern perimeter is considered a Class II Bikeway & Multipurpose Trail. The southern and western perimeters are designated multipurpose trails and the eastern perimeter is an existing trail system. Armstrong Ranch proposed trail as Charlotte Armstrong Trail, which will run parallel to East Riverside Drive approximately midway through the project site. Charlotte Armstrong Trail will connect Vineyard Avenue to the Cucamonga Channel and will provide accessibility to Armstrong Park, the elementary school, and nearby pocket parks and residential homes. Charlotte Armstrong Trail will be within a 30 foot wide minimum lettered lot and will be placed with thematic landscaping including a variety of plants, shrubs and trees that will be able to provide shade to the trail.

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

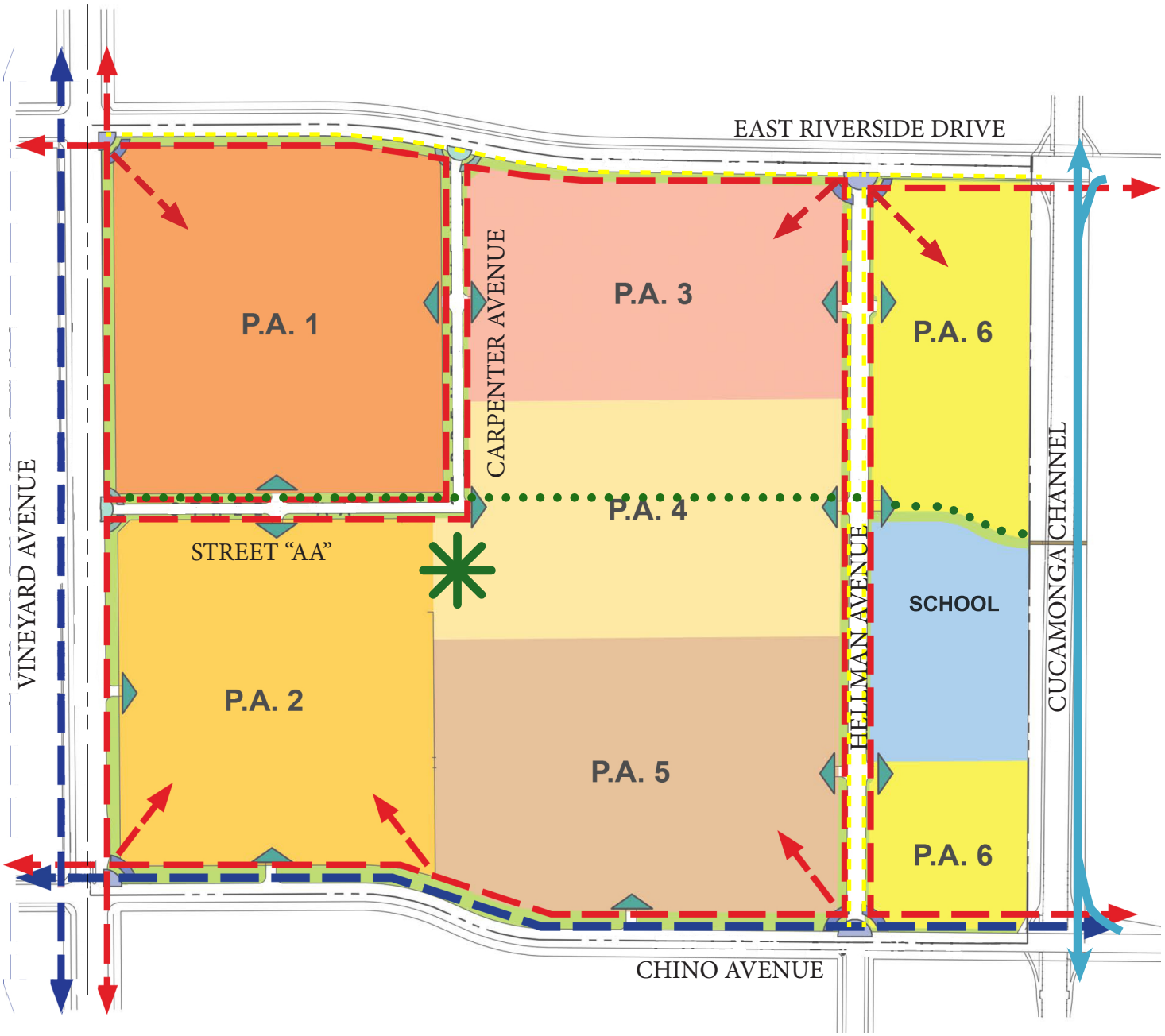


EXHIBIT 5-9: Conceptual Pedestrian and Regional Trail Circulation Plan

development, 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 Armstrong Ranch **("Landscape Plan," Exhibit 7-2)** within walking distance to any residential neighborhood.

5.2 Public Utilities

Domestic water, recycled water, sewer and storm drain utilities may be designated as "public utilities" whether located within public or private streets. All public utilities within private streets shall be designed per City Standards and contained within acceptable easements. The Armstrong Ranch 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 private 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. Master planned utilities serving and surrounding the development, as identified in the approved respective Master Plan, shall be constructed prior to issuance of first occupancy. Exhibits shall also show all frontage improvement requirements per the master plans as well. The project shall comply with the requirements as set forth in the Standard Conditions of Approval adopted by the City Council (Resolution No. 2017-027).
The ultimate sizing and alignment of utilities (water, reclycled or sewer) will follow the most current approved Master Plan and/or hydraulic analysis.

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 Ontario Ranch 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 Armstrong Ranch. The offsite improvements include extending the City's Master Planned line from the existing 1010 Zone line at Milliken and Riverside Drive westerly in Riverside Drive to Haven Avenue, south in Haven Avenue to Chino Avenue, west in Chino Avenue to Vineyard Avenue, and north in Vineyard Avenue to connect to the existing 1010 Zone at Riverside Drive. The offsite domestic water line locations are shown on **Exhibit 5-10, "Conceptual Domestic Water Master Plan".**

Master planned domestic water main lines serving the development, as identified in the approved Specific Plan, shall be constructed prior to issuance of building permits. All private agricultural

wells located within Armstrong Ranch shall be destroyed per The County of San Bernardino Health Department and standards prior to issuance of construction permit for any construction activity. A copy of the County Health Department permit shall be provided to Engineering and OMUC prior to issuance of grading permits.

In the interim scenario in Ontario Ranch, when the ultimate master planned pipeline network has not been completed, there may be instances whereby just constructing the master planned pipeline improvements to serve the project may not meet the required fire flow demands. Therefore, the proposed project may be required to construct additional pipelines whether specifically called out in the Master Plan or not; or upsize master planned pipelines in order to meet the necessary fire flow requirements per Fire Department and/or the criteria as provided for in the Water Master Plan. Developer shall submit a hydraulic analysis to the City for review/approval to demonstrate adequate fire flow protection requirements.

5.3.1 Master Planned Domestic Water System

The developer will construct new domestic lines to provide a loop system. A 12-inch water line will be installed in Hellman Avenue. Within the project site, a network of 8-inch and 12-inch water lines will be constructed to serve each neighborhood. The proposed on-site water system sizing is subject to the Hydraulic criteria in the City's Water and Sewer Design Guidelines. The conceptual domestic water system is illustrated on **Exhibit 5-11, "Conceptual Domestic Water System".**

5.3.2 Master Planned Recycled Water System

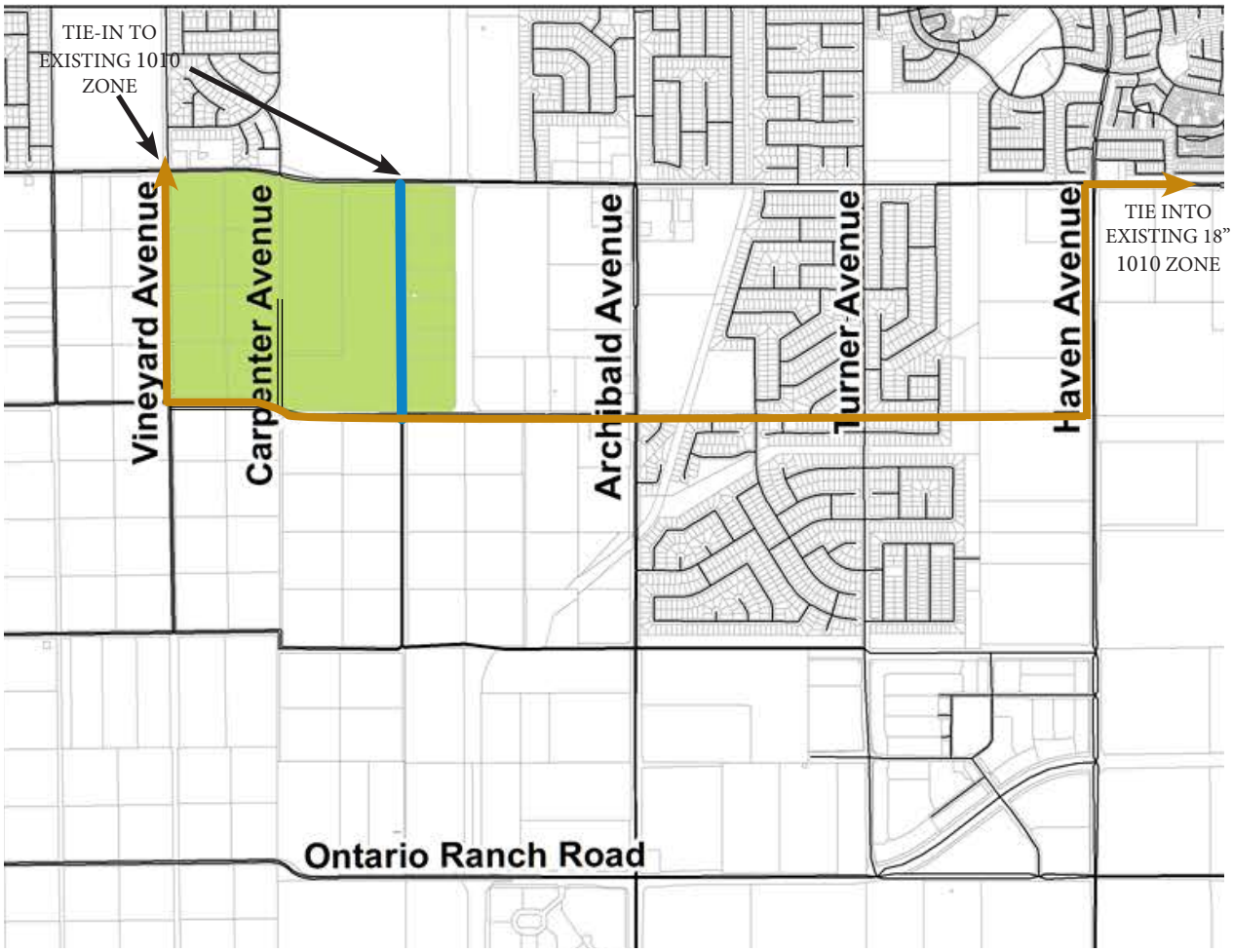
The City will ultimately provide recycled water from IEUA's RP-via City of Ontario recycled water improvements as presented in the City's Recycled Water Master Plan. The master planned 1050' Pressure Zone recycled water system shall be constructed, as part of the development of Armstrong Ranch. The developer of Armstrong Ranch will provide all recycled water lines required to serve the project. The offsite improvements include extending City's Master Planned 1050 recycled water line from Regional Plant 1 south to Riverside Drive, then westerly in Riverside Drive to Vineyard Avenue and south in Vineyard Avenue to Chino Avenue. The improvements also include the Carpenter Recycled Water Main between Riverside Drive and Chino Avenue. The 1050 recycled water line extends to the east in Chino Avenue to the Cucamonga Creek Channel. The offsite recycled water line locations are shown on **Exhibit 5-12, "Conceptual Recycled Water Master Plan".**

Within the project site, 8-inch recycled water mains are proposed to serve the site. The Armstrong Ranch 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, street parkway landscaping, recreational trails, private pocket parks, and any other HOA maintained common areas. The

developer shall prepare and secure approval of an Engineering Report from the City of Ontario and State Department of Drinking Water prior to the use of recycled water. Sizing of the on-site system is subject to the Hydraulic criteria in the City's Water and Sewer Design Guidelines.

The conceptual recycled water system is illustrated on **Exhibit 5-13, "Conceptual Recycled Water System". T**he conceptual recycled water uses are illustrated on **Exhibit 5-14, "Conceptual Recycled Water Uses".**

No interim connection allowed to potable water system for irrigation.

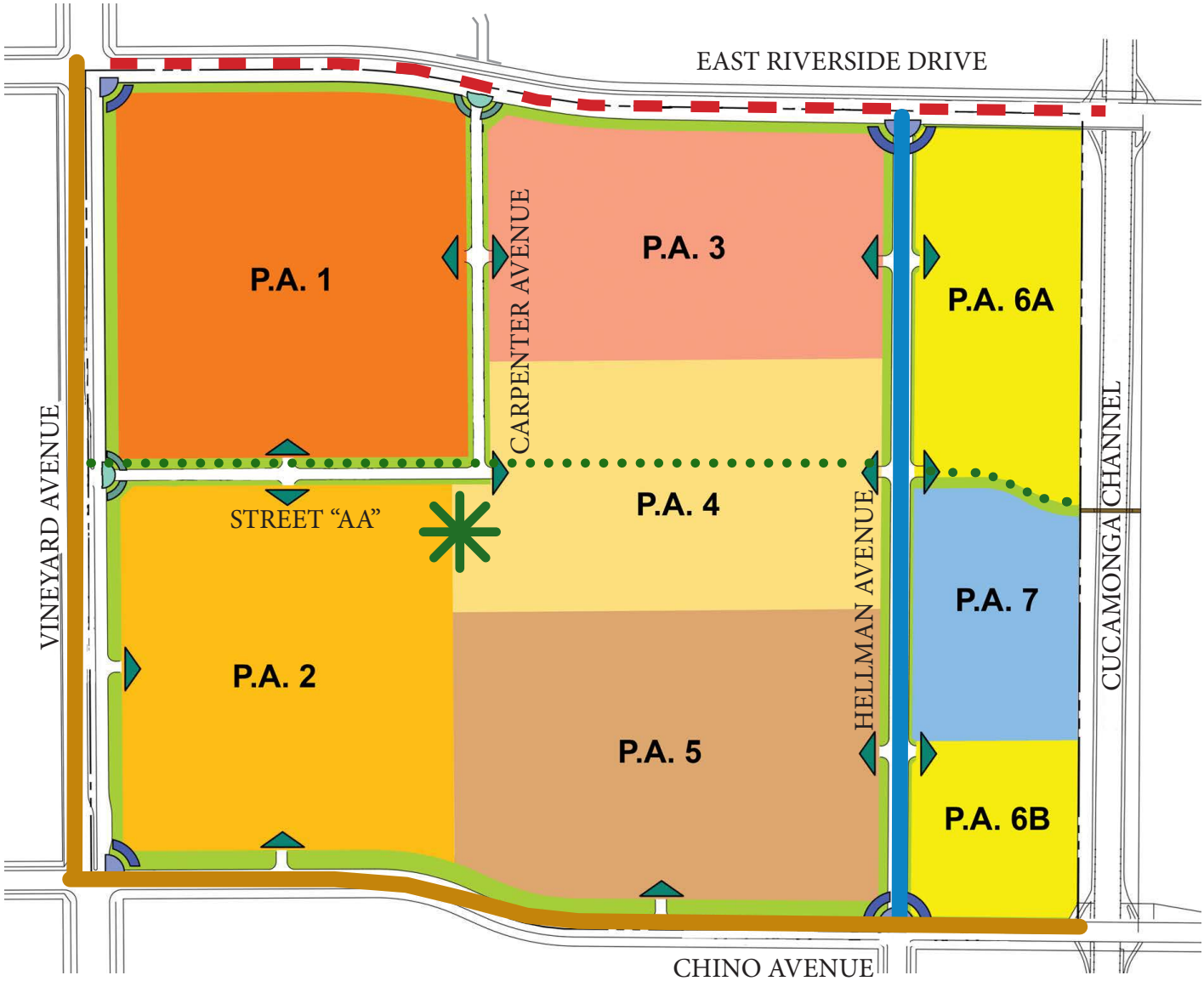


LEGEND

18" MASTER PLAN WATER 1010 ZONE

12" ON-SITE WATER MAIN MASTER PLAN

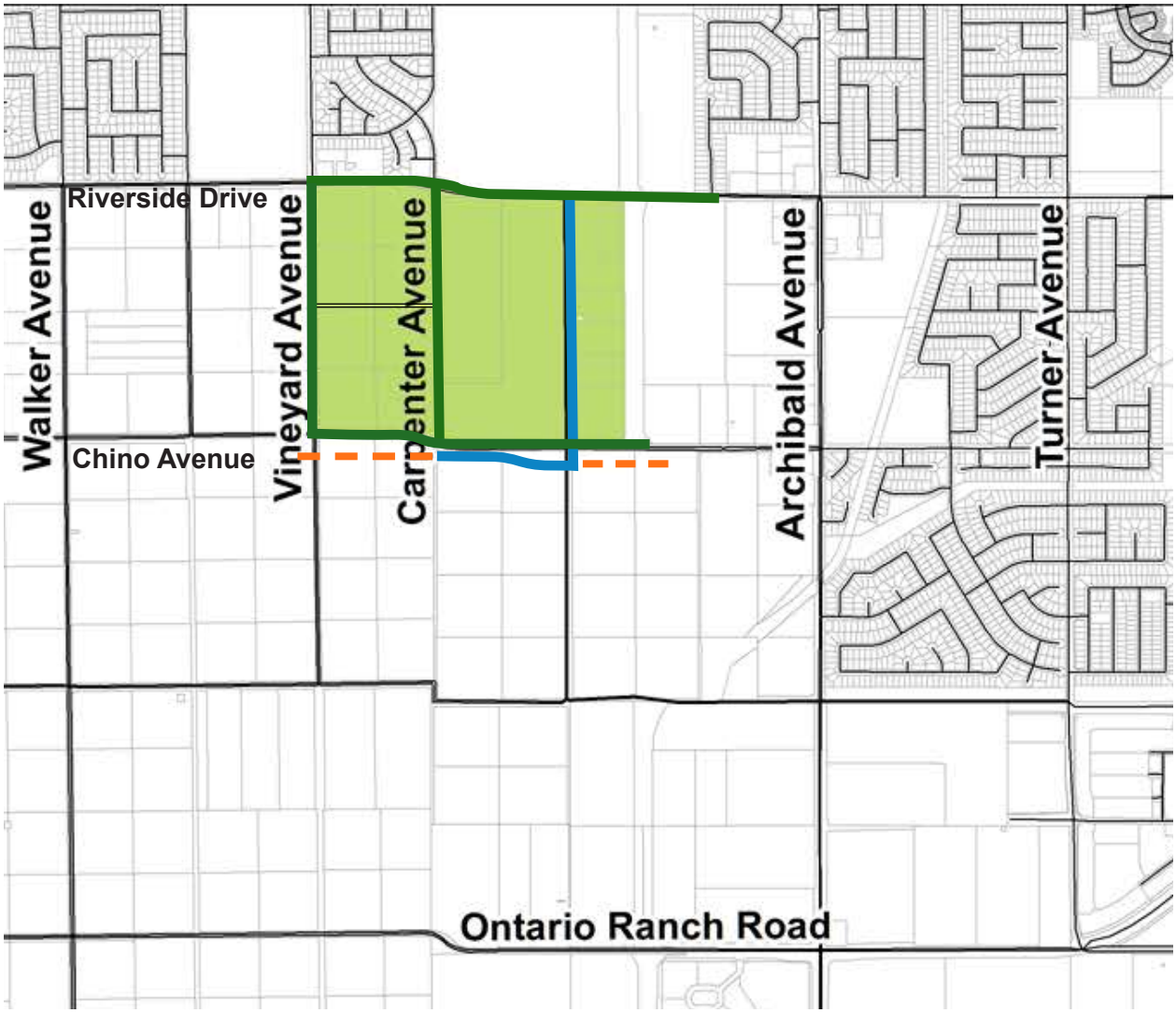
EXHIBIT 5-10: Conceptual Domestic Water Master Plan



LEGEND

- NMC MASTER PLAN WATER 1010 ZONE
- ON-SITE 12" WATER MAIN
- EXISTING 12" WATER MAIN
- ARMSTRONG PARK
- CHARLOTTE ARMSTRONG TRAIL
- PEDESTRIAN BRIDGE

EXHIBIT 5-11: Conceptual Domestic Water System



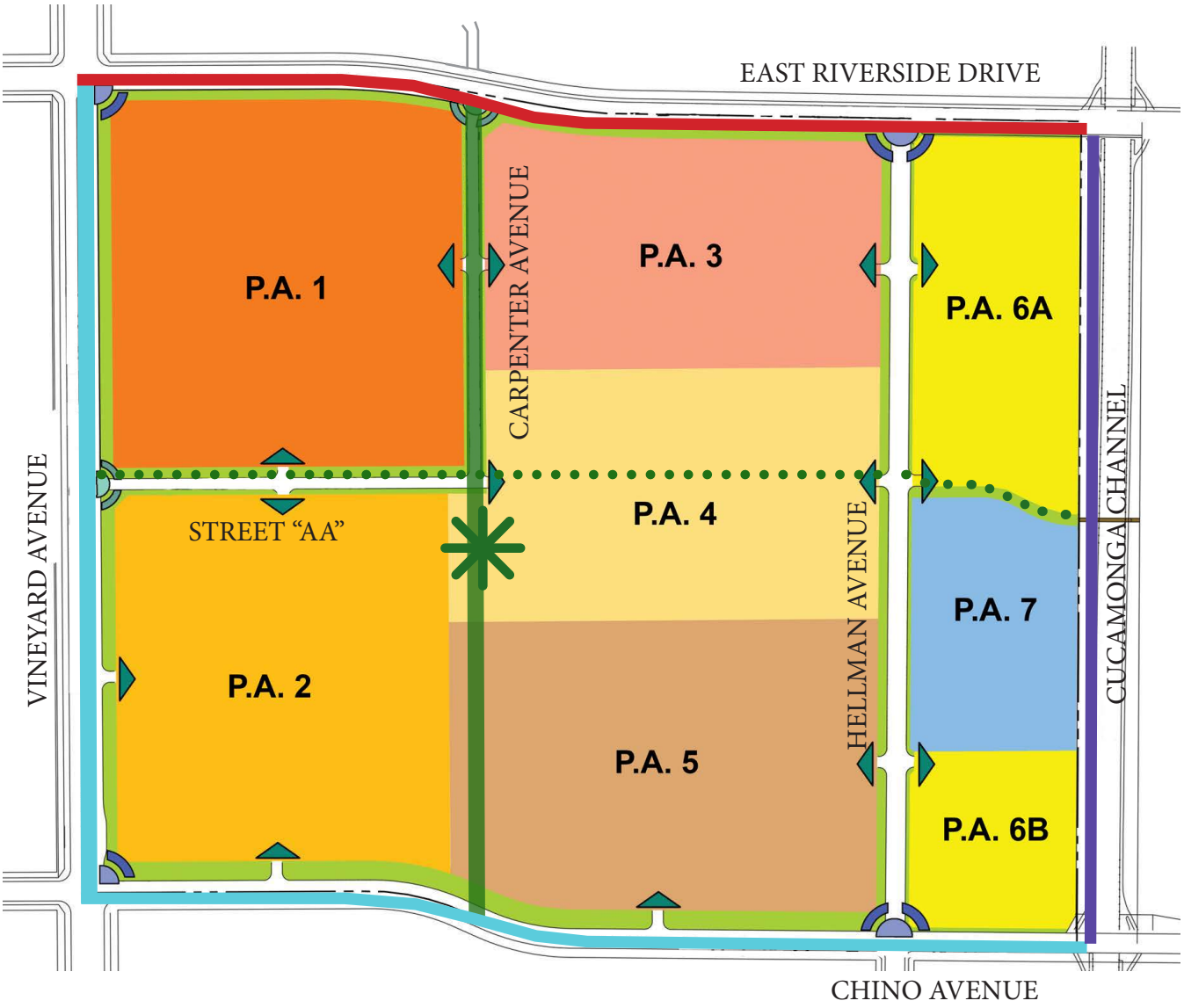
LEGEND

1050 ONTARIO MASTER PLANNED WATER MAIN

EXISTING 72" 930 IEUA PZ Line

930 ONTARIO MASTER PLANNED WATER MAIN

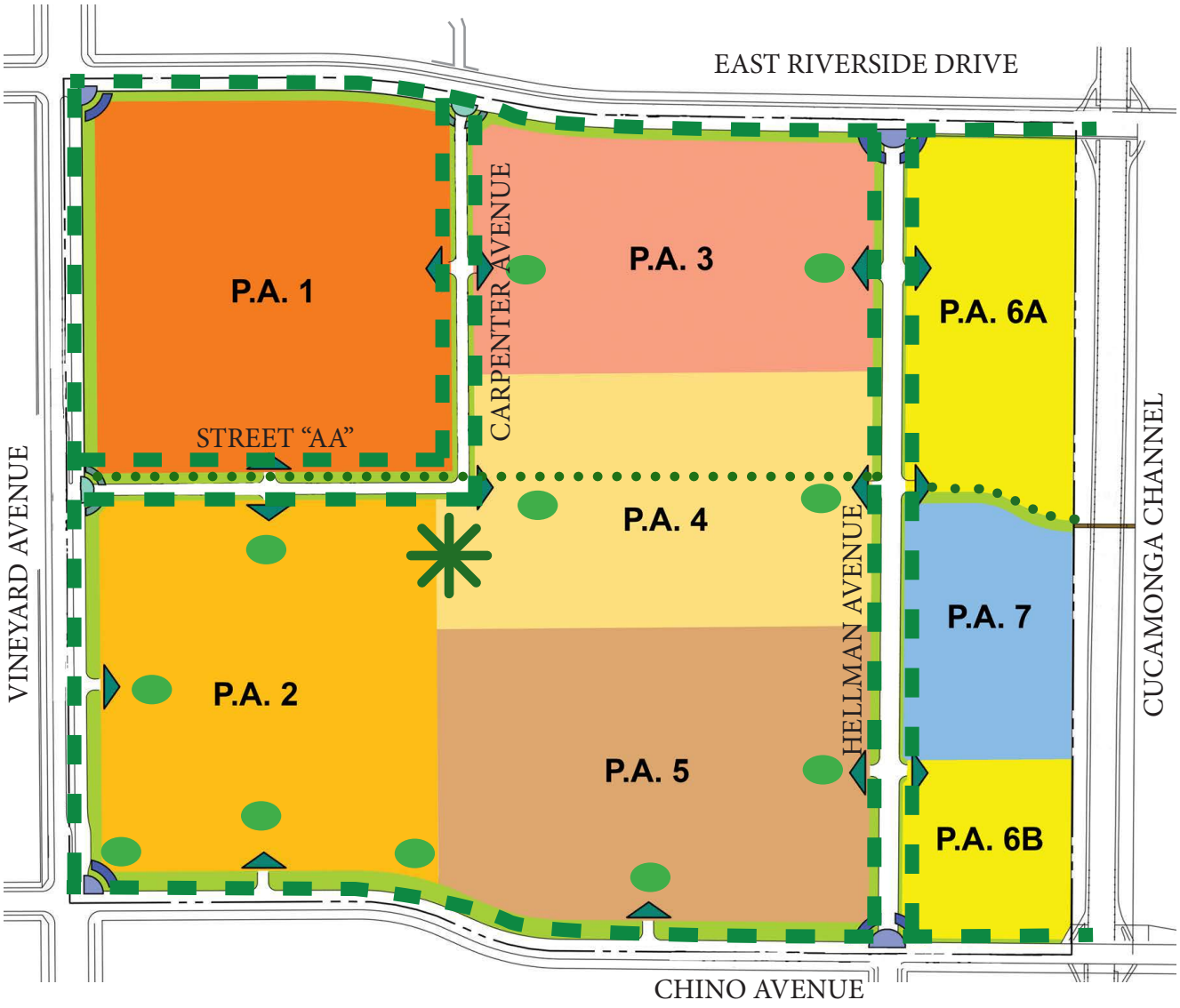
EXHIBIT 5-12: Conceptual Recycled Water Master Plan



LEGEND

- 8" RECYCLED WATER MAIN
- 12" RECYCLED WATER MAIN
- 24" RECYCLED WATER MAIN
- EXISTING 72" 930 IEUA PZ Line
- ARMSTRONG PARK
- PEDESTRIAN BRIDGE
- CHARLOTTE ARMSTRONG TRAIL

EXHIBIT 5-13: Conceptual Recycled Water System



LEGEND

NEIGHBORHOOD EDGES

PARK LOCATIONS

ARMSTRONG PARK

CHARLOTTE ARMSTRONG TRAIL

PEDESTRIAN BRIDGE

*Parkways and private parks will utilize recycled water.

EXHIBIT 5-14: Conceptual Recycled Water Uses

5.4 Sewer Master Plan

Sewer service for Armstrong Ranch will be provided by the City of Ontario. Off-site sewer improvements to serve the Specific Plan will be implemented according to the most current version of the City's Sewer Master Plan. As of approval of the Armstrong Ranch Specific Plan, the City's Sewer Master Plan identifies sewer service to be provided by the Western Trunk Sewer to construct the Western Trunk Sewer line from the intersection of Carpenter Avenue and Chino Avenue, aligning south in Carpenter Avenue, then west in Schaefer Avenue, then south in Walker Avenue, then west in Merrill Avenue, and then south in Euclid to connect with the IEUA Kimball Interceptor.

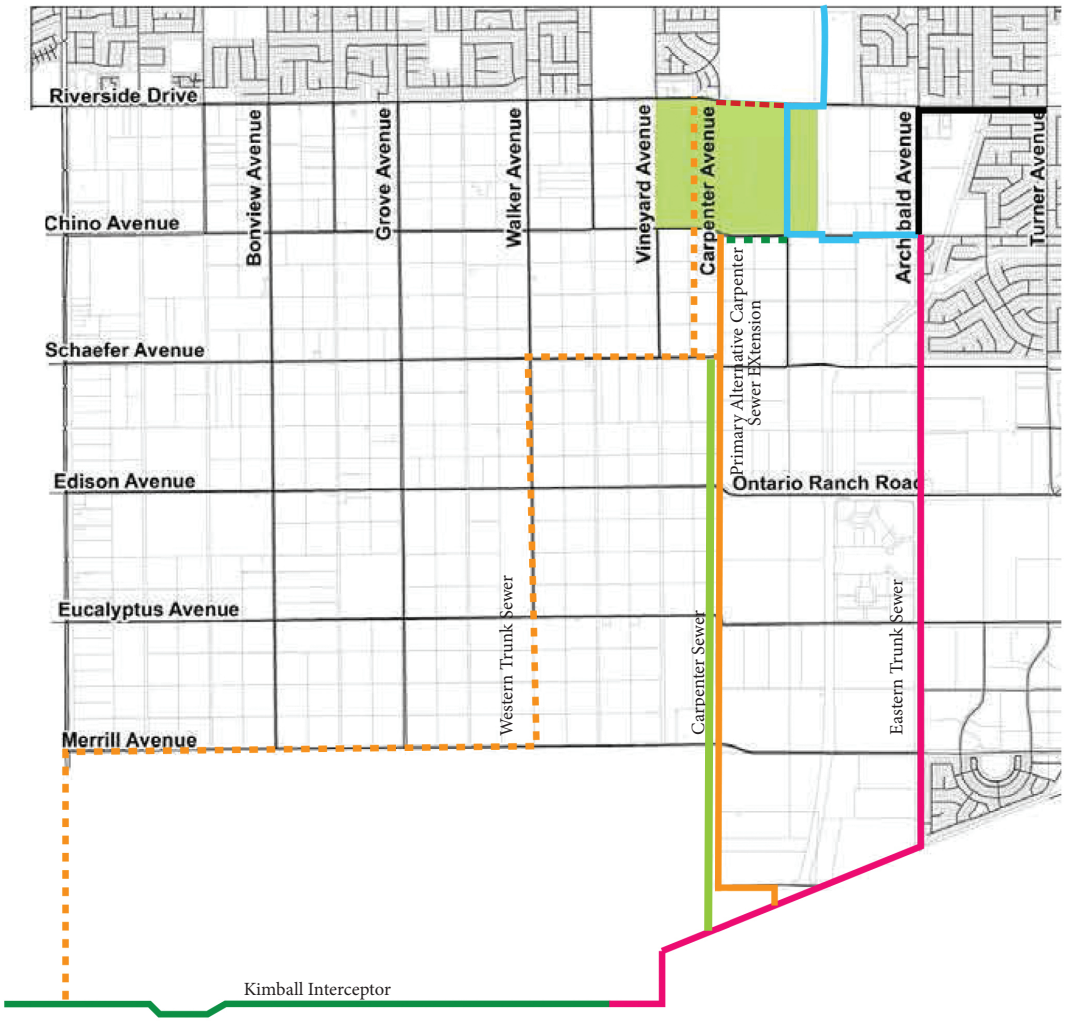
A preferred, primary alternative to the Western Trunk Sewer line begins in Carpenter Avenue at Chino Avenue and continues the alignment in Carpenter Avenue directly south and then east on Remington and south on Moon Place and connect to the Eastern Trunk Sewer in Bellegrave Avenue. This option will require approval from the City to revise the current Sewer Master Plan alignment and/or review the approved hydraulic analysis for the new alignment prior to any development entitlements.

A secondary alternative to provide sewer service for Armstrong Ranch is to sewer to the existing IEUA/City Eastern Trunk, connecting at the RP-1 line at Chino Avenue and Hellman Avenue, as the sewer system improvements and primary alternative are illustrated on Exhibit 5-15, "Conceptual Sewer Master Plan".

Within Armstrong Ranch, a series of 8-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 and is required prior to issuance of building permits for Armstrong Ranch. The proposed on-site public sewer system sizing is subject to the Hydraulic criteria in the City's Water and Sewer Design Guidelines. Master planned sewer main lines serving, surrounding and within the Specific Plan, as identified in the adopted Sewer Master Plan shall be constructed prior to issuance building permits. The conceptual sewer improvements are illustrated on **Exhibit 5-15, "Conceptual Sewer Master Plan,"** and on **Exhibit 5-16, " Conceptual Sewer System".**

5.5 Drainage

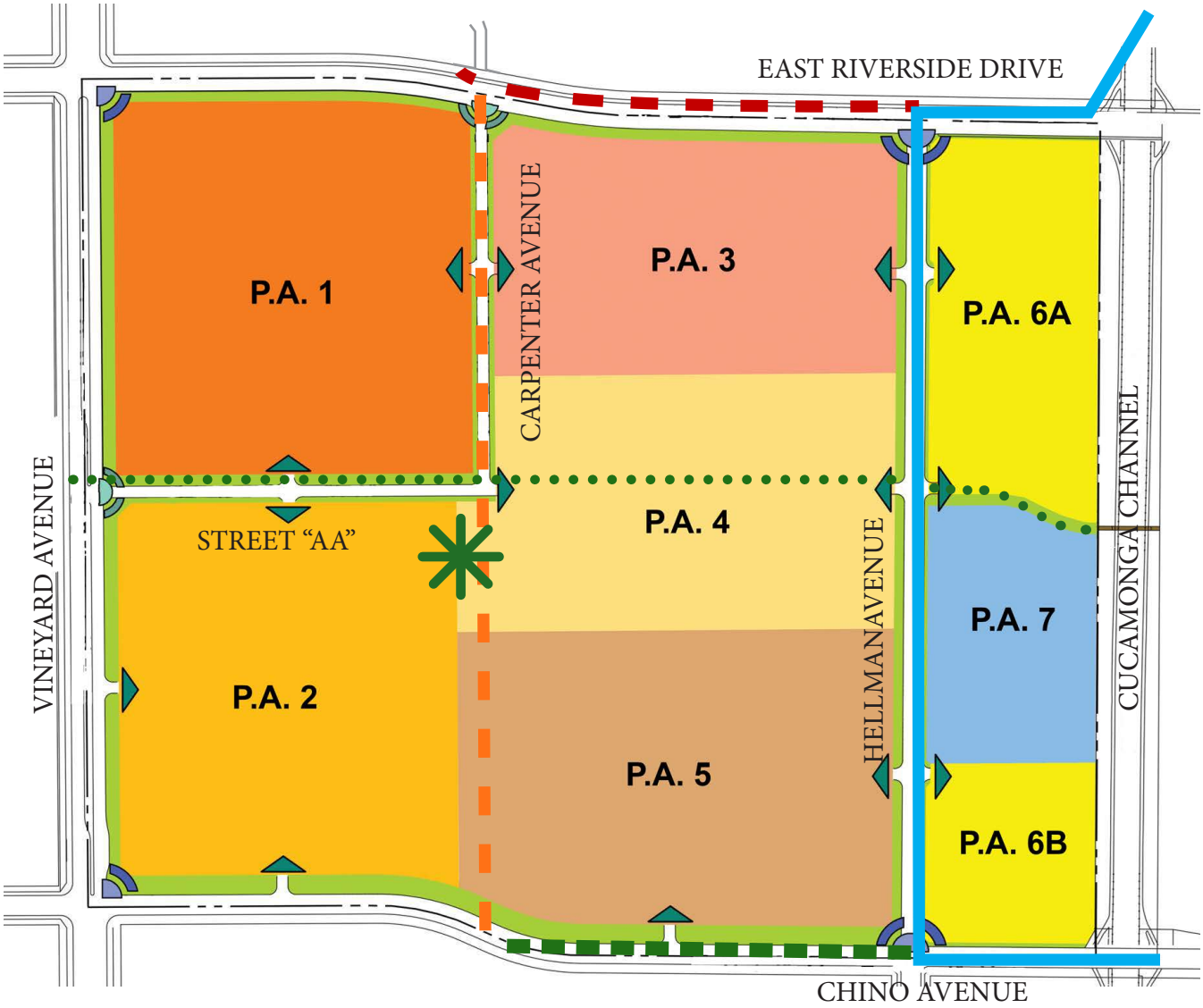
The City's Storm Drain Master Plan identifies storm drain improvements to serve the project site. Completion of these Master Plan improvements will provide permanent storm drain service to the project. That portion of the Master Plan storm drain system that lies within the project site will be constructed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



LEGEND

- ALTERNATIVE CARPENTER SEWER AND PROPOSED EXTENSION
- IEUA/CITY OF ONTARIO EASTERN TRUNK SEWER
- IEUA/CITY OF ONTARIO RP-1 BYPASS SEWER-JOINT FACILITY
- CITY OF ONTARIO SEWER
- MASTER PLANNED APPROVED ALIGNMENT WESTERN TRUNK SEWER
- INLAND EMPIRE UTILITIES AGENCY (IEUA) SEWER
- SECONDARY ALTERNATIVE - EXTENSION TO IEUA/CITY OF ONTARIO RP-1
- EXISTING CITY OF ONTARIO SEWER
- CARPENTER AVENUE TRUNK SEWER

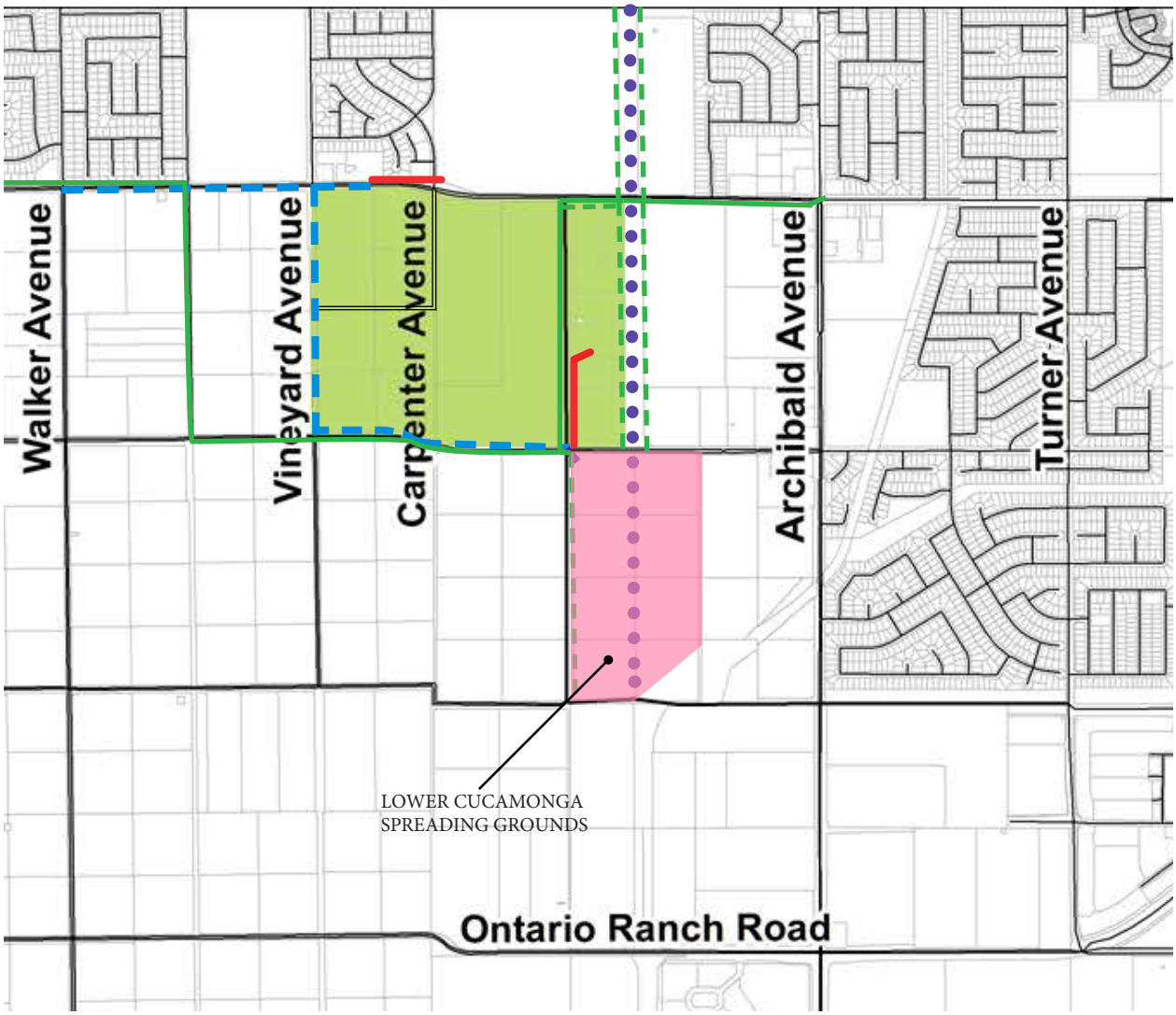
EXHIBIT 5-15: Conceptual Sewer Master Plan



LEGEND

- MASTER PLANNED APPROVED ALIGNMENT WESTERN TRUNK SEWER
- EXISTING CITY OF ONTARIO SEWER
- IEUA/CITY OF ONTARIO RP-1 SEWER-JOINT FACILITY
- ARMSTRONG PARK
- CHARLOTTE ARMSTRONG TRAIL
- SECONDARY ALTERNATIVE

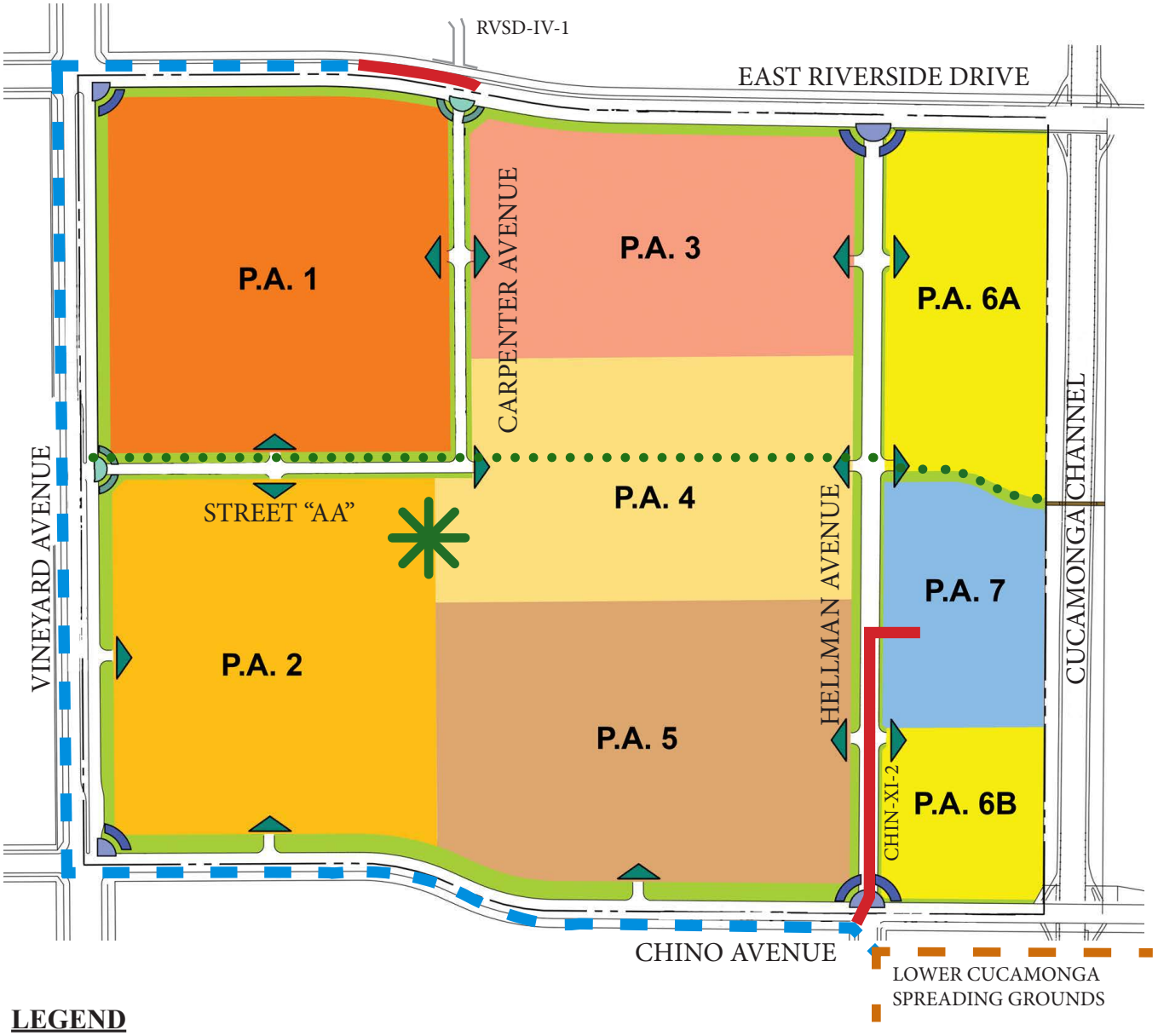
EXHIBIT 5-16: Conceptual Sewer System



LEGEND

- EXISTING COUNTY STORM DRAIN
- PLANNED STORM DRAIN,
- DRAINAGE AREA BOUNDARY
- DRAINAGE SYSTEM BOUNDARY
- EXISTING COUNTY OPEN CHANNEL

EXHIBIT 5-17: Conceptual Drainage Master Plan



LEGEND

ARMSTRONG PARK

CHARLOTTE ARMSTRONG TRAIL

EXISTING COUNTY STORM DRAIN (RIVERSIDE DRIVE STORM NO. 2)

PROPOSED MASTER PLAN STORM DRAIN LINE ID

EXHIBIT 5-18: Conceptual Storm Drain Improvements

are illustrated on **Exhibit 5-17, "Conceptual Drainage Master Plan".**
The project will construct the Chino-XI-2 master plan storm drain line in Hellman Avenue from the existing SBCFCD storm drain line in Chino Avenue northerly to the southwestern corner of the northerly PA-6. The project will construct the 72 inch RVSD-IV-1 master plan storm drain line northerly and parallel to Riverside Drive westerly of Carpenter Avenue.

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 proposed or allowed. The developer is required to construct the ultimate storm drain improvements as identified on the Master Plan of Drainage.

The Master Plan of drainage for Armstrong Ranch is illustrated in **Exhibit 5-18, "Conceptual Storm Drain Improvements".**

5.5.1 NPDES Compliance

The grading and drainage of the Specific Plan Area shall be designed to retain and infiltrate the Design Capture Volumes (DCV). These DCV's will be directed to underground storage/infiltration chambers beneath parklets and paseos for infiltration into the ground. For Pre-treatment, baffle boxes with filters will be installed upstream of each underground storage/infiltration chamber to collect sediment and pollutants. The project will comply with the requirements of the San Bernardino County NPDES Storm Water Program's current Water Quality Management Plan (WQMP) as well as the City of Ontario's Water Quality Management Plan requirements. The objective of the WQMP for the project is to minimize the detrimental effects of urbanization on the beneficial uses of receiving waters, which includes effects caused by increased pollutants and changes in hydrology. These effects shall be minimized through the implementation of on-site and off-site Low Impact Development (LID) Site Design Best Management Practices (BMPs) that retain and infiltrate the DCV. In addition, non-structural and structural Source Control Best Management Practices (BMP's), shall also be implemented and documented in the project's approved Water Quality Management Plan(s) for the project to reduce pollutant generation and transport from the project site.

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 Armstrong Ranch 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 Armstrong Ranch 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.

5.6 Grading Concept

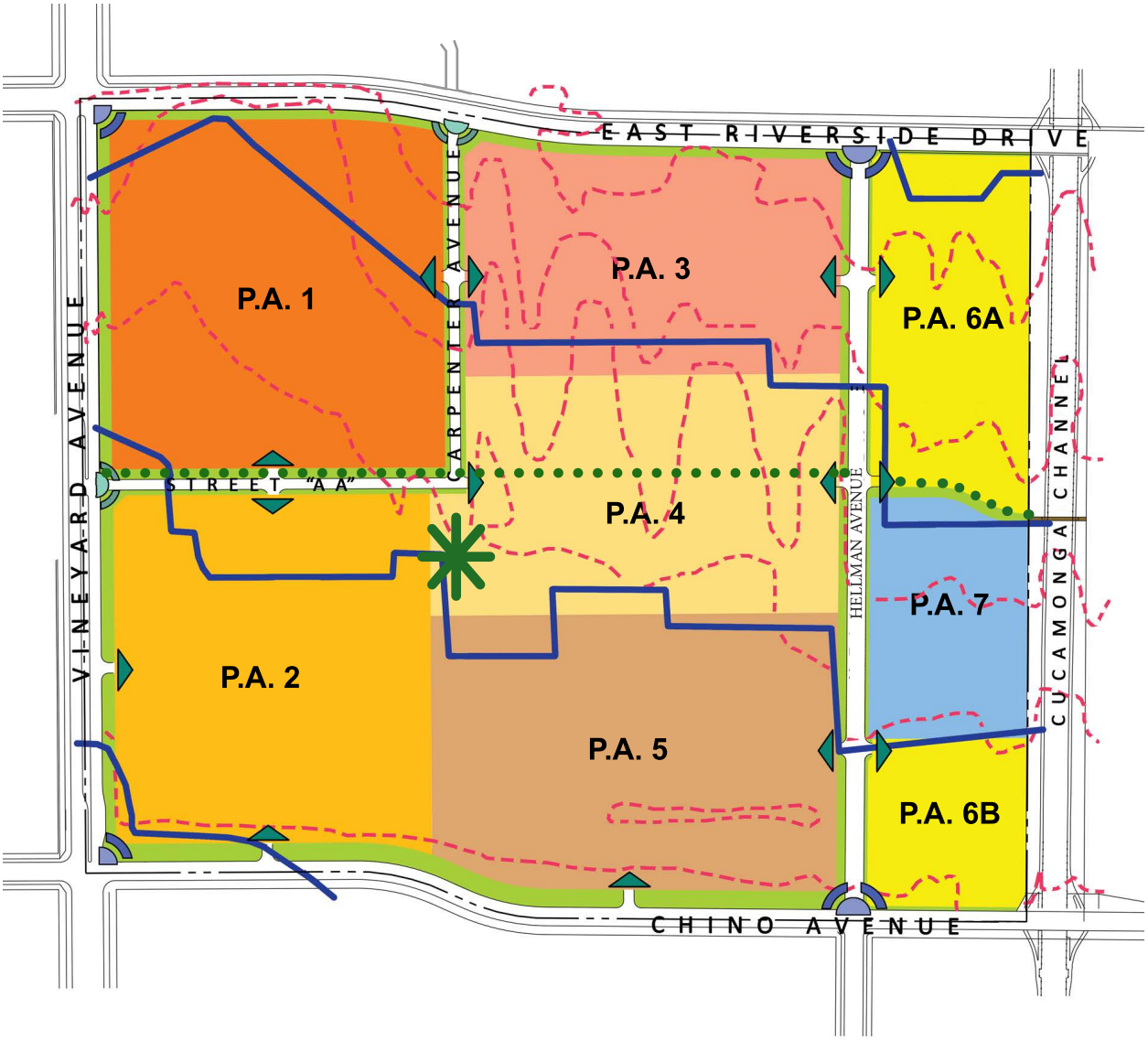
The project site generally slopes to the south at approximately 1.0% to 2.0%. The grading activities for Armstrong Ranch will generally consist of clearing and grubbing, demolition of existing structures, and moving surface soils to construct building pads and streets. Where slope conditions are present, the project lot line shall be located at the top of a slope. Dwelling units and structures adjacent to the sloped 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 5-19, "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 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. To the maximum extent practicable, all landscaped areas within the project shall be graded as swales and designed to accept runoff water from impervious surfaces.



LEGEND

(650) EXISTING CONTOURS

660 PROPOSED CONTOURS

ARMSTRONG PARK

CHARLOTTE ARMSTRONG TRAIL

EXHIBIT 5-19: Conceptual Grading Plan

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 Armstrong Ranch. Colony High School is located at 3850 East Riverside Drive.

Chino Valley Unified School District will serve the school age needs of grades K–12, for that portion of the Specific Plan area west of Carpenter Avenue. The nearest Chino Valley Unified School District elementary school location, within the vicinity of the Armstrong Ranch Specific Plan, is Dickey Elementary School, located at 2840 Parco Avenue. The nearest Chino Valley Unified School District middle school location is Woodcrest Junior High School, located at 2725 South Campus Drive. The nearest Chino Valley Unified School District high school location is Chino High School, located at 5472 Park Place, in the city of Chino.

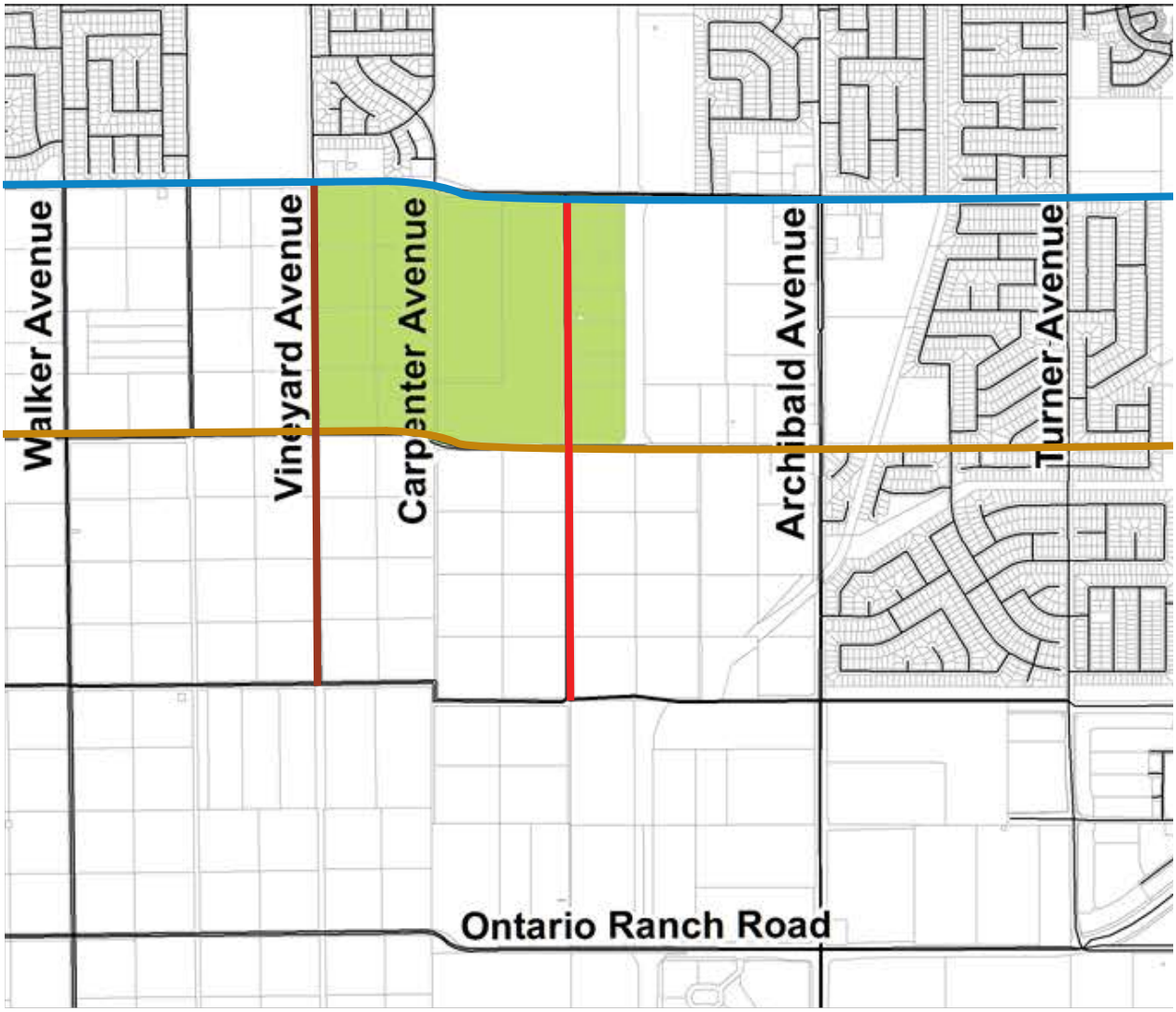
Development of the project will generate an estimated student population as described in Table 5-1 below, based on the student generation numbers supplied by the City of Ontario. The project developer shall be required to mitigate school impacts as required by the State of California.

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 891 = 339	0.22 x 891 = 196	0.20 x 891 = 178

5.8 Public Utilities

5.8.1 Fiber Optics

The proposed backbone street fiber optics (conduits, tracer wire, handholes, and fiber) will be placed underground within a duct and structure system to be installed by the Master Developer in a joint trench, as illustrated in **Exhibit 5-20, "Fiber Optic Master Plan."** In-tract fiber and conduit shall be installed by the Developers per the in-tract fiber optic design guidelines. Maintenance of the installed system will be the responsibility of the City/Special District. Development of the Project requires the installation by the Developers of all fiber optic infrastructure and peripheral equipment necessary to service the Project as a stand-alone development.



LEGEND

FIBER SIZE 432

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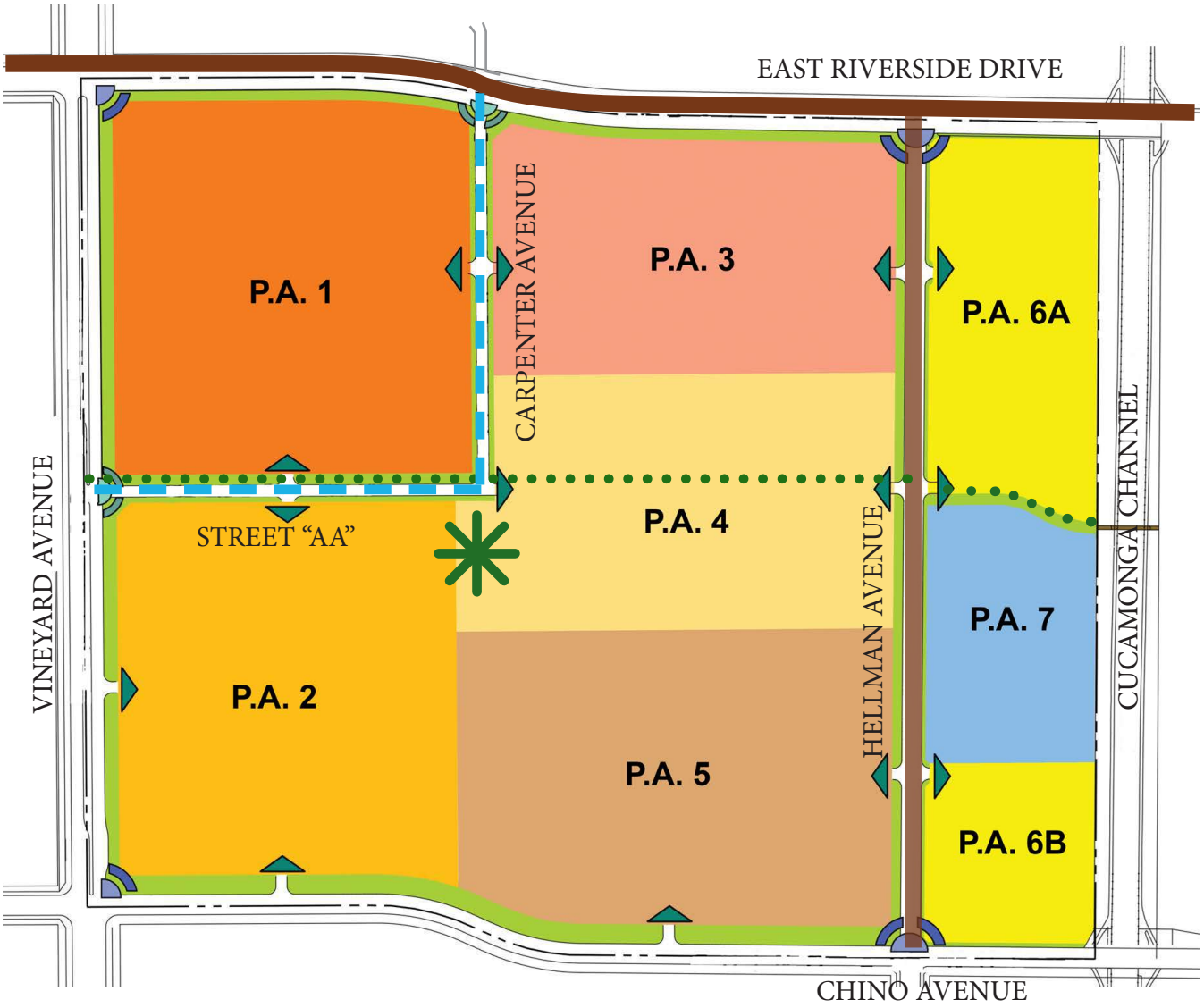
EXHIBIT 5-20: Fiber Optic Master Plan



LEGEND

DEVELOPER RESPONSIBILITY

ONSITE CONSTRUCTED BY DEVELOPER

ARMSTRONG PARK

CHARLOTTE ARMSTRONG TRAIL

EXHIBIT 5-21: Fiber Optic Plan

5.8.2 Natural Gas

The Gas Company will provide natural gas to the project site and 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

Armstrong Ranch shall follow the City of Ontario's latest "Solid Waste Department Refuse and Recycling Planning Manual". City crews, through the Ontario Municipal Utilities Company, will provide solid waste collection and disposal service for the project. 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:

- 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.
- Community trash enclosures ("dumpsters") may be utilized, dependent upon housing product types/orientation.