APPENDICES

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A

LANDSCAPE PLANT PALETTE

Table A.1 — Neighborhood Plant Palette

TREES (24" box min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Albizia julibrissin[1]	Mimosa	30x40	L	Canopy
Cinnamomum camphora	Camphor Tree	20x20	M	
Lagerstroemia indica	Crape Myrtle	25x12	M	Upright/Deciduous
Geijera parviflora	Australian Willow	20x15	L	Upright/Evergreen
Tipuana tipu	Tipu Tree	25x25	L	Canopy
Quercus agrifolia	Coast Live Oak	25x20	L	
Podocarpus gracilior	Yew Pine	20x15	M	Upright/Evergreen
Parkinsonia aculeata[1]	Palo Verde	20x20	L	Upright/Deciduous
Pistacia chinensis[1]	Chinese Pistache	40x40	M	Broadhead

SHRUBS (60% 5 gal./ 40% 5 gal.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Agave attenuata	Foxtail Agave	3x3	L	Flowering Accent
Anigozanthos flavidus	Kangaroo Paw	2x3	M	Midstory/Evergreen
Dasylirion wheeleri	Desert Spoon	3x3	L	
Cistus spp.[1]	Rockrose	4x4	L	Flowering Accent
Dietes bicolor	Fortnight Lily	3x3	L	Flowering Accent
Hesperaloe parviflora	Red Yucca	3x3	L	Midstory/Evergreen
Russelia eqquisetiformis	Firecracker Bush	4x4	L	Midstory/Evergreen
Aloe barbadensis	Aloe Vera	3x3	L	Flowering Accent
Salvia leucantha 'Midnight'	Mexican Bush Sage	3x3	L	Flowering Accent
Rhus ovata	Sugar Bush	6x6	VL	Large Background

Table A.1 — Neighborhood Plant Palette (Continued)

GROUNDCOVER (pots @ 12" o.c.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Carex pansa	California Meadow Sage	1x1	M	Parkways
Senecio mandraliscae	Blue Chalk sticks	1x3	L	Parkways

1. This plant species shall be planted at least 200 feet away from Non-Developable Open Space and MHPA areas identified on Figure 5.22 of this Specific Plan.

Table A.2 — Streetscapes and Entries Plant Palette

TREES (24" box min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Lophostemon confertus	Brisbane Box	35 x 35	M	Upright/Evergreen
Jacaranda mimosifolia	Jacaranda	25 x 30	M	
Magnolia grandiflora	Southern Magnolia	60x40	M	
Cercidium 'Desert Museum'	Desert Museum Palo Verde	20x20	L	Upright/Deciduous
Platanus racemosa	California Sycamore	60x50	M	Upright/Deciduous
Quercus agrifolia	Coast Live Oak	50x45	VL	Broadhead
Rhus lancea[1]	African Sumac	25x25	L	Multi-trunked

PALMS (only to be used as special markers of entries and not to be located within 100 feet of homes)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Chamaerops humilis	Mediterranean Fan Palm	20 x 20	M	
Trachycarpus fortunei	Windmill Palm	30X10	M	
Brahea armata	Mexican Blue Palm	30X15	L	
Phoenix dactylifera[1]	Date Palm	60X20	L	

Table A.2 — Streetscapes and Entries Plant Palette (Continued)

SHRUBS (25% 15 gal./50% 5 gal/ 25% 1 gal) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Agave attenuata	Fox Tail Agave	3x3	L	Flowering Accent
Agave SPP	Agave	3x3	L	Accent shrub
Aloe saponaria	African Aloe	3x3	L	Midstory Shrub
Anigozanthos flavidus	Kangaroo Paw	2x3	M	Flowering Shrub
Cistus spp.[1]	Rockrose	4x4	L	Flowering Shrub
Dasylirion wheeleri	Desert Spoon	5x6	VL	Midstory Shrub
Escallonia fradesii	Escallonia	4x4	M	
Leptospermum scoparium[1]	New Zealand Tea Tree	6x4	M	Large Background
Russelia equisetiformis	Firecracker Bush	4x4	L	Large Background
Phormium 'Maori Maiden'	New Zealand Flax	4x4	M	Midstory Shrub
Dietes vegeta	Fortnight lily	3x3	L	Midstory Shrub
Rosmarinus 'Prostratus'	Prostrate Rosemary	1x3	L	Low Spreading
Salvia leucantha 'Midnight'	Mexican Sage Bush	3x3	M	Flowering Accent

VINES (100% 15 gal.)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Bougainvillea spp.	Bougainvillea	4x4	L	San Diego Red
Ficus pumila	Creeping Fig	4x4	M	
Macfadyena unguis-cati	Cat's Claw	15'	L	
Passiflora alatocaerula	Passion Vine	4x4	M	

GRASSES (100% 15 gal.)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Chondropetalum tectorum	Cape Rush	3x3	L	
Festuca glauca	Blue Fescue	1x1	L	
Helictotrichon sempervirens	Blue Oat Grass	2x2	M	
Muhlenbergia rigens	Deergrass	4x5	L	

Table A.2 — Streetscapes and Entries Plant Palette (Continued)

GROUNDCOVER (1 gal. min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Convolulus mauritanicus	Ground Morning Glory	1x3	M	Groundcover
Carex pansa	California Meadow Sedge	1x1	M	Groundcover
Dymondia margaretae	Silver Carpet	3"x2	L	Groundcover
Senecio mandraliscae	Blue Chalk Sticks	1x3	L	Groundcover
Verbena peruviana	N.C.N.	2x2	M	

1. This plant species shall be planted at least 200 feet away from Non-Developable Open Space and MHPA areas identified on Figure 5.22 of this Specific Plan.

Table A.3 — Developed Parks Plant Palette

TREES (24" box min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Albizia julibrissin[1]	Mimosa	30x40	L	Broadhead/Evergreen
Lagestroemia indica	Crape Myrtle	25x12	M	Single Trunk
Prosopis velutina[1]	Velvet Mesquite	30x30	L	Upright/Evergreen
Cercidium 'Desert Museum'	Desert Museum Palo Verde	20x20	L	Upright/Deciduous
Platanus racemosa	Western Sycamore	60x50	S	Upright/Deciduous
Quercus agrifolia	Coast Live Oak	50x45	VL	Broadhead
Rhus lancea[1]	African Sumac	25x25	L	Multi-Trunked
Tipuana tipu[1]	Tipu Tree	25x25	L	Single Trunk

PALMS (only to be used as special markers of entries and not to be located within 100 feet of homes)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Phoenix dactylifera[1]	Date Palm	60x20	L	
Chamaerops humilis	Mediterranean Fan Palm	20x20	M	
Trachycarpus fortunei	Windmill Palm	30X10	M	
Brahea armata	Mexican Blue Palm	30X15	L	

Table A.3 — Developed Parks Plant Palette (Continued)

SHRUBS (25% 15 gal./50% 5 gal./ 25% 1 gal.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Agave attenuata	Fox Tail Agave	3x3	L	Flowering Accent
Aloe barbadensis	Aloe Vera	3x3	L	Flowering Accent
Aloe saponaria	African Aloe	3x3	L	Flowering Shrub
Anigozanthos flavidus	Kangaroo Paw	2x3	M	Flowering Shrub
Cistus spp.[1]	Rockrose	4x4	L	Flowering Shrub
Calliandra eriophylla	Fairy Duster	3x4	VL	Flowering Shrub
Dietes bicolor	Fortnight Lily	3x3	L	Flowering Accent
Leptospermum scoparium[1]	New Zealand Tea Tree	6x4	M	Large Background
Phormium 'Maori Maiden'	New Zealand Flax	4x4	L	Low Spreading
Rosmarinus spp.	Prostrate Rosemary	1x3	L	Low Spreading
Salvia leucantha 'Midnight'	Mexican Bush Sage	3x3	M	Flowering Accent

VINES (100% 15 gal.)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Clytostoma callistigiodes	Violet Trumpet Vine	4x4	M	Flowering
Ficus pumila	Creeping Fig	4x4	M	Flowering
Passiflora alatocaerulea	Passion Vine	4x4	M	Flowering
Bougainvillea 'San Diego Red'	San Diego Red Bougainvillea	4x4	L	Flowering

Table A.3 — Developed Parks Plant Palette (Continued)

GRASSES such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Chondropetalum tectorum	Cape Rush	3x3	L	
Festuca glauca	Blue Fescue	1x1	L	
Helictotrichon sempervirens	Blue Oat Grass	1x1	M	
Muhlenbergia rigens	Deergrass	4x5	L	

GROUNDCOVER (1 gal. min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Carex pansa	California Meadow Sedge	1x1	M	Groundcover
Dymondia margaretae	Silver Carpet	3"x 2	L	Groundcover
Senecio mandraliscae	Blue Chalk Sticks	1x3	L	Groundcover
Festuca spp.	Marathon Sod I	4"x6"	M	Turf

1. This plant species shall be planted at least 200 feet away from Non-Developable Open Space and MHPA areas identified on Figure 5.22 of this Specific Plan.

Table A.4 — Interior Slope Plant Palette

TREES (36" box min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Jacaranda mimosifolia	Jacaranda	25x30	M	Multi-trunked
Cercis occidentalis	Western Redbud	10x10	L	Multi-trunked
Platanus racemosa	Western Sycamore	60x50	M	Upright/Deciduous
Quercus agrifolia	Coast Live Oak	50x45	VL	Broadhead

SHRUBS (25% 15 gal./ 50% 5 gal./25% 1 gal). such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Cistus spp.[1]	Rockrose	4x4	L	
Escallonia fradesii	Escallonia	4x4	M	
Leptospermum scoparium[1]	New Zealand Tea Tree	6x4	M	Large Background
Salvia Clevelandii	California Blue Sage	3x3	VL	
Rosmarinus 'Prostratus'	Prostrate Rosemary	1x3	L	Low Spreading

VINES (100% 5 gal.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Calliandra eriophylla	Fairy Duster	4x4	VL	
Ficus pumila	Creeping Fig	4x4	M	
Bougainvillea spp.	Bougainvillea	4x4	L	'San Diego Red'

GROUNDCOVER (pots @ 12" o.c.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Coprosma kirkii	N.C.N.	2x4	M	
Ceanothus griseus horizontalis	Carmel Creeper	2x5	L	

1. This plant species shall be planted at least 200 feet away from Non-Developable Open Space and MHPA areas identified on Figure 5.22 of this Specific Plan.

Table A.5 — Exterior Slope Plant Palette for Manufactured Slopes

TREES (15-gal. min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Arbutus x 'marina'	Strawberry Tree	25x25	L	Upright
Parkinsonia aculeata	Palo Verde	20x20	L	Upright/Deciduous
Platanus racemosa	Western Sycamore	60x50	M	Upright/Deciduous
Populus fremontii	Fremont Cottonwood	60x25	L	Vertical/Deciduous
Quercus agrifolia	Coast Live Oak	50x45	VL	Broadhead
Rhus lancea[1]	African Sumac	25x25	L	Multi-Trunked

SHRUBS (25% 5 gal. / 75% 1 gal.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Ceanothus 'Julia Phelps'	California Lilac	5x8	L	
Cercocarpus betuloides	Mountain Mahogany	6x6	VL	
Heteromeles arbutifolia	Toyon	25x20	L	
Rhus laurina	Laurel Sumac	10x10	VL	
Rhamnus crocea	Spiny Redberry	3x5	VL	
Rhus integrifolia	Lemonade Berry	10x15	VL	
Ribes speciosum	Fuscia Flowered Gooseberry	6x6	L	
Yucca spp.	Yucca	50	L	
Iva havesiana	San Diego Marsh-Elder	1x5	VL	

GROUNDCOVER (1-gal. min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Arctostaphylos uva-ursi	Bearberry	1x10	-	
Baccharis 'Pigeon Point'	Dwarf Coyote Bush	1x6	VL	
Ceanothus griseus horizontalis	Carmel Creeper	2x5	L	

Table A.6 — Trailhead Plant Palette

TREES (36" box min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Rhus lancea[1]	African Sumac	25x25	L	Multi-trunked
Arbutus x 'marina'	Strawberry Tree	25x25	L	
Cercis occidentalis	Western Redbud	10x10	L	

SHRUBS (25% 15 gal./50% 5 gal./ 25% 1 gal.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	WUCOLS	COMMENT
Fremontadendron 'California Glory'	Flannel Bush	15x15	VL	
Rhamnus californica 'Eva Case'	Compact Coffeeberry	8x8	VL	
Artemisia californica	Artemsia	3x5	VL	
Muhlenbergia rigens	Deer Grass	3x3	VL	
Salvia clevlandii	Cleveland Sage	2x3	VL	
Salvia gregii	Autumn Sage	2x2	VL	
Mimulus aurantiacus	Coast Monkey Flower	2x2	VL	
Ribes speciosum	Fuchsia-Flowering Gooseberry	2x2	VL	
Carex tumulicolia	Foothill Sedge	1x1	L	
Juncus patens	Juncus 'Elk Blue'	3x3	L	
Achillea millofolium	Common Yarrow	3x3	L	
Heuchera maxima	Island Alum Root	1x1	L	
Arctostophylos 'Emerald Carpet'	Manzanita	1x5	VL	
Ceanothus 'Yankee Point'	Ceanothus	1x5	VL	

1. This plant species shall be planted at least 200 feet away from Non-Developable Open Space and MHPA areas identified on Figure 5.22 of this Specific Plan.

Table A.7 — MHPA Adjacent Lands and Brush Management Zone 2 Plant Palette

BOTANICAL NAME	APPLICATION RATE LBS. PLS/ACRE	NOTES
Acmispon glaber	2	Seed source should originate within coastal regions of San Diego. Substitutions to this list are acceptable as long as the seed is sourced from within 20 miles of the site.
Astragalus trichopodus lonchus	0.5	
Encelia californica	1	Restoration for any graded areas of the MHPA are required to be restored.
Guterrezia californica	0.1	
Isocoma menziesii	0.5	Provide native trees/shrubs (minimum 1 gallon container size) at a rate of one plant per 100 square feet of disturbed areas in addition to the MHPA hydroseed mix.
Malosma laurina	1	
Stipa pulchra	2	
Salvia apiana	0.5	
Yucca schidigera	1	
Sisyrinchium bellum	1	
Dichelostemma capitatum	0.2	
Ambrosia chenopodiifolia	2	
Corethrogyne filaginifolia	0.1	
Hazardia squarrosa	0.3	
Phacelia cicutaria hispida	0.5	
Peritoma arborea	2	
Adolphia californica	N/A	Should be planted from containers
Simmondsia chinensis	1	
Lycium californicum	N/A	Should be planted from containers
Stipa lepida	2	
Deinandra fasciculata	1	
Cylindropuntia prolifera	N/A	Should be planted from containers
Opuntia littoralis	N/A	Should be planted from containers
Euphorbia misera	N/A	Should be planted from containers

Table A.8 — Wildlife Overcrossing Plant Palette

SHRUBS (25% 5 gal. / 75% 1 gal.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	TYPE
Cylindropuntia prolifera	Coast cholla	10 x 4	Upright
Encelia californica	Bush sunflower	4 x 6	Flowering
Eriogonum fasciculatum	California buckwheat	5 x 5	
Malosma laurina	Laurel sumac	10 x 10	Large Background
Opuntia littoralis	Coast prickly pear	3 x 5	Succulent
Peritoma arborea	Bladderpod	6 x 6	Mounding
Rhus integrifolia	Lemonade berry	10 x 15	Large Background
Salvia mellifera	Black sage	5 x 8	Mounding
Yucca schidigera	Mojave yucca	10 x 5	Succulent

GRASSES (1 gal. min.) such as:

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	TYPE
Stipa pulchra	Purple needlegrass	3 x 1.5	Accent
Stipa lepida	Small-flowered needlegrass	3 x 2	Accent

INSECT HOST / NECTAR SPECIES (QUINO CHECKERSPOT BUTTERFLY and CROTCH'S BUMBLEBEE)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT / SPREAD	TYPE
Asclepias fascicularis	Narrow-leaf milkweed	4 x 4	Accent
Castilleja exserta	Purple owl's clover	Low	Herbaceous Annual
Clarkia delicata	Delicate clarkia	Low	Herbaceous Annual
Clarkia unguiculata	Elegant clarkia	Low	Herbaceous Annual
Eschscholzia californica	California poppy	3 x 2	Herbaceous Annual
Lupinus bicolor	Miniature lupine	Low	Herbaceous Annual
Lupinus succulentus	Arroyo lupine	5 x 5	Herbaceous Annual
Plantago erecta	Dot-seed plantain	Low	Herbaceous Annual

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B

COMMUNITY PLAN CONSISTENCY ANALYSIS

B.1 — CONSISTENCY ANALYSIS WITH OTAY MESA COMMUNITY PLAN

The Southwest Village Specific Plan must demonstrate consistency with all policies within the Otay Mesa Community Plan (OMCP). Specifically, consistency with Policies 2.1-1 and 2.1-2 are analyzed below.

B.1.1 — Policy 2.1-1

"Require Specific Plans and any required rezoning for the Southwest and Central Village Areas to be consistent with the policies of this plan."

Section 2.1, Specific Plan Areas, of the Community Plan contains policies that apply exclusively to Specific Plans within the Community Plan area. ***Table B.1, Consistency with OMCP Policy 2.1.-2*** provides in-depth consistency analysis of the Specific with each policy in Section 2.1, Specific Plan Areas, of the Community Plan.

B.1.2 — Policy 2.1-2

"Achieve sustainable and efficient land use patterns with comprehensive neighborhood and community village development through specific plans that [achieves the following]."

The Specific Plan was designed to be a grid-like network of streets that connects to the arterial roadways allowing for maximum use of the land. The Specific Plan also includes a transit mobility hub, Class II bikes lanes on public roadways, and bike sharing and car sharing programs to achieve a more sustainable community village. See ***Table B.1***, ***Consistency with OMCP Policy 2.1-2,*** for further consistency analysis with this policy.

Table B.1 — Consistency with OMCP Policy 2.1-2

Policy	Specific Plan Consistency
Policy 2.1-2(a) Respect the natural topography and sensitive habitat areas with growth patterns that balance development with preservation of natural resources.	The Southwest Village Specific Plan has been designed to locate development on mesa, and avoid landslide hazard areas, steep slopes and canyons in the Specific Plan area. Sensitive habitats identified in the MHPA and VPHCP areas do not have any areas identified for development. Implementation of the Specific Plan will require additional site-specific studies to identify sensitive natural resources. Caliente Avenue and Beyer Boulevard were designed with respect to the topography and location of conserved open space in the Specific Plan. Figure 2.1, Southwest Village Land Use Plan, and Figure 5.22, Open Space Areas, identify areas of open space that are conserved for resource conservation. As shown in Figure 2.1, most of the eastern areas identified as Open Space are included as part of the VPHCP. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(b) Provide a land use map that illustrates the detailed land use designations, including any lands set aside for resource conservation, consistent with the MSCP Subarea Plan and any future Vernal Pool Habitat Conservation Plan. The specific plan land use map will refine the Otay Mesa Community Plan Land Use Map as part of the specific plan approval process.	There are various land use types designated throughout the Southwest Village Specific Plan. Figure 2.1, Southwest Village Land Use Plan, shows the various land use designations including open space areas that have been conserved under the MSCP and VPHCP. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(c) Illustrate the complete circulation system that, where possible, follows a grid pattern, and indicate how the system will relate to the overall Otay Mesa circulation system.	Figure 4.1, Street Classifications, illustrates the circulation and mobility network of the Southwest Village Specific Plan. The backbone circulation and mobility network in Southwest Village is organized around two key arterials that access the center of the community – Caliente Avenue offers north-south access and Beyer Boulevard provides east-west access. These arterials provide separate facilities for pedestrians, bicyclists, transit users, and motorists. These arterials were designed with respect to provide linkages to the larger Otay Mesa Community. Further, a grid-like network of streets connects to the arterial roadways allowing for maximum use of the land. Moreover, as stated in Section 4.2 grid network of streets connects to the arterial roadways allowing for maximum use of the land, with consideration of ownership and lot configuration.

Policy	Specific Plan Consistency
Policy 2.1-2(d) Strive for block sizes along local and collector streets to have a maximum perimeter of 1,800 feet.	As stated in Guiding Principle No. 3, the Southwest Specific Plan shall establish a pedestrian-scaled walkable block pattern with small block sizes along multi-modal local and collector streets. Further, Section 3.2.1, Site Design, includes a design guideline to limit the perimeter of block sizes along local and collectors streets to 1,800 feet, and if block sizes are required to be larger, then pedestrian access and circulation should be provided to create connections through the middle of the block and align with other public streets, paseos, sidewalks, and pathways. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(e) Illustrate a separate system of pedestrian and bicycle facilities and pathways linking the activity centers with residential areas, public facilities, and open space systems.	Figure 4.2, Bike Facility Network, shows the bicycle facilities and their linkages to community trails, and neighborhood and community parks. Figure 4.5, Pedestrian Facility Network, illustrates pedestrian paths and various trail facilities within the Specific Plan, providing linkages throughout. As stated in Guiding Principle No. 6, the Southwest Village will provide an interconnected bicycle and pedestrian network that connects neighborhoods to each other, the Village Core, parks, public spaces and surrounding natural open space, and the surrounding communities. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(f) Distribute parks comprehensively throughout the village area. Refer to Policy 7.1-7 of the Recreation Element for further recommendations.	As indicated in Figure 5.1, Parks and Trails, parks will be provided throughout the Southwest Village Specific Plan with Central Park in the southern half of the Specific Plan Area and North Village Park in the northern half of the Specific Plan Area. Section 5.4, Park Phasing, demonstrates that parks will be developed in seven phase. More specifically, Figure 5.2 and 5.3, Neighborhood Park Concept 1 (with Joint-Use Opportunity with School) and Neighborhood Park Concept 2, illustrate conceptual design plans for the village neighborhood parks. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(f)(i) Link parks to one another with pathways to increase connectivity and enhance a sense of community.	Section 1.3, Objectives, strives for the integration of parks, paseos, trails, and other amenities that provide outdoor areas for active and passive recreation. As states in Section 5.2, Parks Overview, the concept outlined as part of the Specific Plan provides linkages between parks through a system of paseos, multi-use paths, trails, sidewalks, and bike lanes and provides connections between the Village Core and surrounding neighborhoods. Figure 5.1, Parks and Trails, illustrates parks and various trail types within the Specific Plan. Similarly, Figure 4.2, Bike Facility Network, shows the connectivity between the bike facility networks and trails and parks. Therefore, the Southwest Village Specific Plan is consistent with this policy.

Policy	Specific Plan Consistency
Policy 2.1-2(f)(ii) Locate neighborhood parks at the end of streets and adjacent to canyons when appropriate to accommodate and enhance public views and vistas.	Figure 5.1, Parks and Trails, illustrates the locations of proposed parks throughout the Specific Plan. The perimeter of the Specific Plan would feature a community trail which would provide and enhance public views and vistas of canyons and other natural/topographic features throughout the Specific Plan. Parks will be provided throughout the Southwest Village Specific Plan with two neighborhood parks on opposite ends of the Specific Plan area, located near residential development and are intended to serve the daily needs of the neighborhood. The Specific Plan will implement the City of San Diego Park Master Plan and provide recreational value-based parks and trails. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(g) Identify specific locations for schools, parks, pedestrian pathways and trails.	Section 2.9 Schools, includes the locations for schools within the Specific Plan Area. Figure 5.1, Parks and Trails, identifies the proposed location for the proposed pedestrian facilities and trails, and parks. Figure 2.1, Southwest Village Land Use Plan, shows the location of a school overlay (Planning Area 7), which would be where the option for a second school would be located. Section 1.2, Vision, states that a school will be located in Planning Area 16, adjacent to the Village Core and a neighborhood park. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(g)(i) Site schools and parks adjacent to each other to create activity centers within neighborhoods. See Policy 2.7-2.	As shown in Figure 2.1, Southwest Village Land Use Plan, the proposed school site (Planning Area 16) would be located adjacent to the neighborhood park in the Village Core (Planning Area 17). Section 2.9.2, Secondary School Site, states that Planning Area 17 should be evaluated as a potential joint-use park by the City of San Diego and the San Ysidro School District. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(g)(ii) Include pathways and trails that connect public facilities with each other and to residential areas.	Section 3.2.1, Site Design, states that proposed developments should provide an interconnected system of paths, sidewalks, paseos, and walkways that create a connected pedestrian environment and connect residential buildings and common areas. Figure 5.1, Parks and Trails, illustrates the proposed locations of parks and trails which connect the residential neighborhoods with nearby parks, opens spaces, a school, and the Village Core, within the Specific Plan. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(g)(iii) Provide pathways and connections, such as interpretive centers and trailheads, from facilities to canyon edges to take advantage of educational and recreational opportunities.	The Mobility Chapter establishes the framework for pedestrian and Bike Path networks that connect users to schools, parks, commercial centers, residential neighborhoods, open spaces, and employment, educational, and recreational opportunities. The Specific Plan shall provide an interconnected system of paths, sidewalks, paseos, and walkways that connect the residential neighborhoods with common areas. Figure 4.1, Street Classifications, and Figure 4.2, Bike Facility Network, illustrate roadway and bike facility connections within the Specific Plan and their connection to trailheads and parks. Moreover, Figure 4.5, Pedestrian Facility Network, illustrates the locations of various trail types, pedestrian paths, and trail connections in the Specific Plan. Therefore, the Southwest Village Specific Plan is consistent with this policy.

Policy	Specific Plan Consistency
Policy 2.1-2(g)(iv) Determine final trail alignments and analyze with future Specific Plans or project-specific proposals. See policies in Recreation Element Section 7.2.	Figure 4.5, Pedestrian Facility Network, illustrates the conceptual trail locations within the Specific Plan. Development of trails would be restricted to restrictions associated with the MSCP Subarea Plan and CEQA requirements.
Policy 2.1-2(h) Incorporate a diversity of housing types that includes market rate and affordable housing. Encourage inclusionary housing on-site.	Table 2.1, Development Summary, summarizes development within the Specific Plan and outlines housing types. Section 2.3, Affordable Housing, indicates that all implementing development applications must meet the City's requirements for Land Development Code (LDC). Section 2.3 also states that an implementing development application may also be eligible for the City of San Diego's Affordable, In-Fill Housing and Sustainable Buildings Expedite Program as defined in Chapter 14, Article 3, Division 9 if one of the criterion for eligibility is met. As indicated in Section 1.4, Vision, the Southwest Village Specific Plan would incorporate a variety of housing types, including detached and attached homes, as well as multi-family housing. Figure 2.1, Southwest Village Land Use Plan, illustrates the locations of the variety of housing types. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(i) Include an appropriate balance of single-family and multi-family housing consistent with the projections provided in the plan.	Southwest Village includes a diversity of single- and multi-family housing types. Figure 2.1, Southwest Village Land Use Plan, illustrates the locations of various housing types in the Specific Plan. Table 2.1, Development Summary, identifies the acreage, density range, and maximum dwelling units by housing type. The Residential Mixed Use designation in the Village Core will support a density of 20 to 44 du/ac, as well as a mobility hub with transit access. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(j) Provide development at densities that support transit as an integral component of village areas and corridors.	Subsection 2.5, Residential Mixed Use (20 to 44 du/ac), states that development will accommodate community-serving commercial and retail uses of moderate intensity and scale, and attached residential uses. The Residential Mixed Use area is planned for a future mobility hub with transit access will be located near to these uses. Section 1.4, Vision, states that high density multi-family housing will be integrated in the Village Core. As discussed in Subsection 1.8.2, Climate Action Plan, a mobility hub is planned at the heart of the Village Core, at the intersection of Caliente Avenue and Beyer Boulevard. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(k) Require a mixed-use residential/commercial component to be included within village core areas, with neighborhood-serving commercial uses such as food markets, restaurants, and other small retail shops. Encourage an anchor grocery store within each village area.	Section 3.3, Village Core, states that this Village Core will be an area, in the heart of the community, where people can live, shop, dine, work, and play. The Village Core will include local-serving retail, offices, public/semi-public uses within walking distance to higher density homes. The Village Core is comprised of the Residential Mixed Use (RMX) land use, which allows for desirable uses for ground floor non-residential establishments including grocery or convenience stores. Therefore, the Southwest Village Specific Plan is consistent with this policy.

Policy	Specific Plan Consistency
Policy 2.1-2(l) Identify centrally located mixed-use core areas within each village area adjacent to key roadways and transit stops. Require a minimum of 15 du/ac for core areas designated Neighborhood Village and 30 du/ac for core areas designated Community Village.	There are no areas designated as Community Village in the Specific Plan, however the five central Planning Areas are designated as the "Village Core." As discussed in Section 1.1, Overview, the Village Core is an urban mixed-use center, planned around future transit stop and mobility hub. Section 2.5, Residential Mixed Use (20 to 44 du/ac), allows for development of 20 du/ac to 44 du/ac in the Village Core. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(m) Locate higher density mixed residential uses within a ½ mile of a "Town Center" along Beyer Road and within a ½ mile from the community commercial center in the north portion of the Southwest Village.	As discussed in Section 3.3, Village Core, the Village Core, south of Beyer Boulevard, will include Residential Mixed Use (RMX), which will provide community-serving commercial services to those who reside in there, as well as work and visit. Immediately north of Beyer Boulevard, in Planning Area 8, will be Medium-High Density Residential which will allow 20-44 du/ac, and will be less than ½ mile from the Village Core. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(n) Locate higher density mixed residential uses within a ¼ mile of transit stops along Airway Road and near the mixed-use retail uses in the Central Village as shown on Mobility Figure 3-2.	Though Airway Road is not within the Southwest Village Specific Plan area, the Village Core is an urban mixed-use center, that locates higher density mixed residential uses immediately adjacent and within a 1/4 mile of the future transit stop and mobility hub. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(o) Include a detailed design plan for the mixed-use village core areas that identifies retail, convenience uses, and public spaces.	The Village Core would provide a complementary mix of local-serving retail, offices, and public/semi-public uses located within walking distance of higher density homes, as stated in Section 3.3, Village Core. Figure 3.3, Village Core, depicts the locations of various uses including the mixed use core, community-serving commercial, schools, parks, and residential buildings. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(p) Provide sufficient community serving commercial development within village core areas and along transit corridors that support the residents, workforce, and visitors as these areas develop.	Section 3.3, Village Core, indicates that the Village Core will include a mix of community-serving commercial development, such as retail and offices, in addition to public/semi-public uses and residents within walking distance of higher density housing. As stated in Section 2.5, Residential Mixed Use (20 to 44 du/ac), this designation, which will be included in the Village Core, is intended to accommodate a mix of community-serving commercial service and retail uses, which will be located near a future transit stop. Therefore, the Southwest Village Specific Plan is consistent with this policy.

Policy	Specific Plan Consistency
Policy 2.1-2(q) Provide refined architecture, urban design, and streetscape guidelines consistent with the policies in the Otay Mesa Community Plan and the General Plan.	Chapter 3, Design, provide design policies and standards that should be used in conjunction with the development regulations in Chapter 2, Land Use, of the Specific Plan. Chapter 3 identifies the design guidelines that promote aesthetically-pleasing and viable, site-compatible development that support the vision and objectives of the Specific Plan. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(r) Include guidelines and illustrations for height, bulk, and scale of buildings and their relation to each other.	Section 3.2.1, Site Design, Section 3.4, Residential Design Policies, and Section 3.4.1, Architectural Design Concepts, discuss development standards; block sizes; and form, massing, and articulation of buildings to ensure that the buildings are compatible in relation to one another. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(s) Provide a street tree plan that utilizes species within the Otay Mesa Street Tree Plan.	In the Specification Tables for each roadway type in Chapter 4 Mobility, roadways have designated street trees to create an attractive and cohesive community identity. The lust list of street trees is also listed in Appendix A, Plant Palette, of this Specific Plan. Therefore, the Southwest Village Specific Plan is consistent with this policy.
Policy 2.1-2(t) Require a phasing plan to ensure timely provision of necessary public facilities to serve the proposed development.	Section 7.14, Phasing, discusses the implementation of phasing within the Southwest Village Specific Plan area, and states various standards for which development within Southwest Village must adhere to. See Table 7.3 Phasing Summary, for phasing plans for proposed infrastructure within the Southwest Village. Section 5.4, Park Phasing, states that parks will be developed in seven associated with dwelling unit thresholds within each Planning Area as specified in Table 5.1, Parks Phasing. Therefore, the Southwest Village Specific Plan is consistent with this policy.

C

LIST OF REFERENCES AND TECHNICAL STUDIES

Southwest Village Specific Plan References and Technical Studies

City of San Diego Transportation & Storm Water Design Manuals. Street Design Manual. March 2017. https://www.sandiego.gov/sites/default/files/street_design_manual_march_2017-final.pdf.

Dexter Wilson Engineering, Inc. Southwest Village Specific Plan Sewer Study in the City of San Diego. March 2022.

LOS Engineering, Inc. Southwest Village VTM 1 Local Mobility Analysis. August 2024.

LOS Engineering, Inc. Southwest Village VTM 1 Vehicle Miles Traveled Analysis. August 2024.

LOS Engineering, Inc. Southwest Village Programmatic Level VTM. August 2024.

LOS Engineering, Inc. Southwest Village Transportation Phasing Plan. August 2024.

RICK Engineering. Priority Development Project (PDF) Stormwater Water Quality Management Plan (SWQMP). March 2022.

RECON. Air Quality Analysis for the Southwest Village Specific Plan. March 2022.

RECON. Biological Resources Report for the Southwest Village Specific Plan. March 2022.

RECON. Results of the Historical Resources Investigation of the Southwest Village Specific Plan. March 2022.

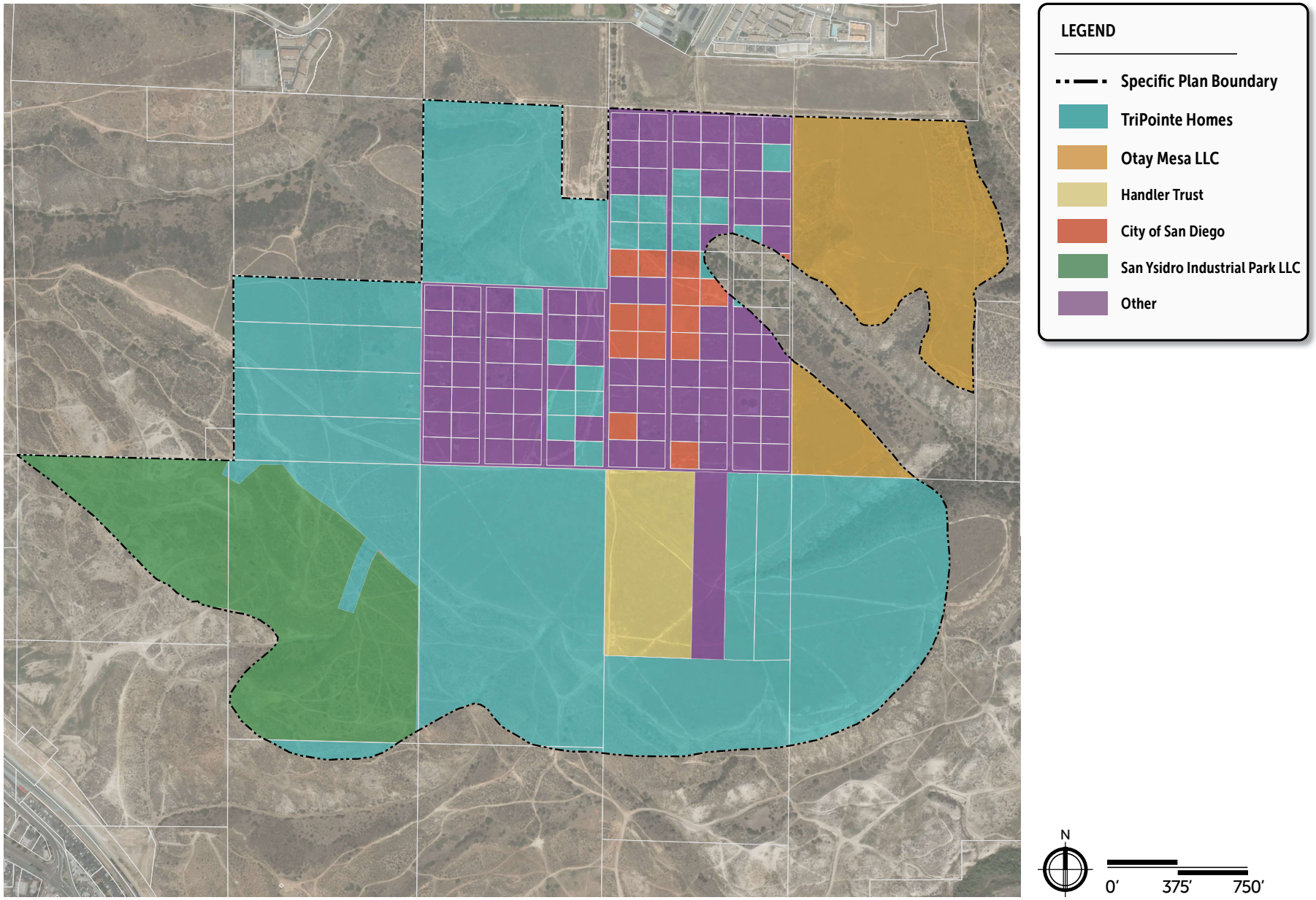
RECON. Waste Management Plan for the Southwest Village Specific Plan. March 2022.

RICK Engineering. Drainage Study for Southwest Village VTM (Preliminary Engineering). March 2022.

D

LAND OWNERSHIP MAP

Figure D-1 Property Ownership Map



E

TRANSPORTATION PHASING PLAN

LOS Engineering, Inc.
Traffic and Transportation

11622 El Camino Real, Suite #100, San Diego, CA 92130
Phone 619-890-1253, Email: Justin@LOSengineering.com

April 15, 2025

Ms. Ann Gonsalves, T.E.
City of San Diego
1222 First Avenue, MS 501
San Diego, CA 92101

Subject: Southwest Village Specific Plan Transportation Phasing Plan (PRJ-0614791)

Dear Ms. Gonsalves:

The Southwest Village Specific Plan (Specific Plan) provides a comprehensive policy framework intended to guide future development in Southwest Village, consistent with the City of San Diego - Otay Mesa Community Plan (OMCP) and City of Villages Strategy. This Phasing Plan includes the following sections:

1) Project Description and Trip Generation
2) Community Plan Circulation Changes
3) Planning Areas and Phasing
4) Community Access and On-Site Vehicular Circulation
5) Conclusion

PROJECT DESCRIPTION AND TRIP GENERATION

The Specific Plan encompasses approximately 490 acres, will allow up to 5,130 attached and detached residences, and will facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core. The Specific Plan would provide public facilities including dedication of up to two new elementary schools, approximately 17.6 acres of publicly owned developed parks in addition to approximately 18 acres of trails, and 185 acres of surrounding natural open space and habitat conservation.

Access to the Specific Plan area will be from two Mobility Element roadways, Caliente Avenue to the north and from an extension of Beyer Boulevard to the west, connecting the Specific Plan area to San Ysidro. If Beyer Blvd is not extended by the 200th unit, then an alternative secondary access is proposed south of the Specific Plan area along an existing utility road to be improved as an emergency vehicle access (EVA) road to facilitate regional fire and emergency response.

The Specific Plan contains 30 planning areas and identifies a range of allowable residential densities for each planning area to allow for flexibility in future planning and design. The following land use designations are proposed:

- Medium-Low Density Residential allowing 8 to 22 dwelling units per acre
- Medium Density Residential allowing 15 to 29 dwelling units per acre
- Medium-High Density Residential allowing 20 to 44 dwelling units per acre
- Residential Mixed-Use allowing up to 175,000 square feet of commercial and retail uses at a maximum Floor Area Ratio (FAR) of 3.0 and multi-family attached residential units at a density range of 30 to 62 dwelling units per acre.

Implementation of the Specific Plan will require a number of discretionary approvals including an amendment to the OMCP related to land use to refine the buildout of the Southwest District area as defined in the OMCP; roadway circulation classification change of Beyer Boulevard from a 4-Lane Major to a 4-Lane Modified Urban Collector and Caliente Avenue from a 6-Lane Major to a 4-lane Modified Urban Collector; a rezone to implement Specific Plan land uses; a Multi-Habitat Planning Area (MHPA) Boundary Line Adjustment (BLA); and approval of an update to the Otay Mesa Public Facilities Financing Plan to include new parks, a sewer pump station, and other public facilities to reflect the project needs.

Furthermore, since the Specific Plan is under multiple property ownerships and the timing of build-out is not known at this time, the ultimate mix of residential densities cannot be known with certainty. However, the following assumptions consistent with the Specific Plan land use framework were used in this analysis that identifies build-out of up to:

- 1,158 single family residential units
- 2,503 multi-family units under 20 dwelling units per acre
- 1,469 multi-family units over 20 dwelling unit per acre
- 175,000 SF Commercial/Retail
- 2 elementary schools

Under these land use assumptions, the Specific Plan has a calculated driveway trip generation of 57,225 ADT with 4,777 AM peak hour trips (1,569 inbound and 3,208 outbound) and 5,948 PM peak hour trips (3,695 inbound and 2,253 outbound). The City of San Diego *Otay Mesa Community Plan 2014* identified Southwest Village with 5,880 homes, 190,800 SF commercial, two elementary schools, and 40 acres of developed parks for a driveway trip generation of 64,393 ADT with 5,249 peak hour trips (1,690 inbound and 3,559 outbound) and 6,596 PM peak hour trips (4,108 inbound and 2,488 outbound). The proposed Specific Plan land use mix results in an overall reduction from the 2014 OMCPU in the amount of -7,168 ADT, -472 AM trips (-121 inbound and -351 outbound), and -648 PM trips (-413 inbound and -235 outbound) as shown in **Table 1**.

Table 1: Proposed and Adopted Specific Plan Uses and Traffic Comparison

Land Use	ADT Rate	Size & Units		ADT	%	Split	AM IN	AM OUT	AM Total	%	Split	PM IN	PM OUT	PM Total
Single-Family	10 /DU	1,158	DU	11,580	8%	0.2 0.8	185	741	926	10%	0.7 0.3	811	347	1,158
Multi-Family (< 20 du/ac)	8 /DU	2,503	DU	20,024	8%	0.2 0.8	320	1,282	1,602	10%	0.7 0.3	1402	601	2,003
Multi-Family (>20 du/ac)	6 /DU	1,469	DU	8,814	8%	0.2 0.8	141	564	705	9%	0.7 0.3	555	238	793
Community Shopping Cnt	70 /KSF	175,000	SF	12,250	3%	0.6 0.4	221	147	368	10%	0.5 0.5	613	613	1,226
Two Elem. Schools (1)	2.9 /Student	1,268	Students	3,677	31%	0.6 0.4	684	456	1,140	19%	0.4 0.6	279	419	698
Developed Park	50 /Acre	17.6	Acres	880	4%	0.5 0.5	18	18	36	8%	0.5 0.5	35	35	70
Proposed Southwest Village Driveway Totals				**57,225**			1,569	3,208	**4,777**			3,695	2,253	**5,948**
Single-Family	10 /DU	1,400	DU	14,000	8%	0.2 0.8	224	896	1,120	10%	0.7 0.3	980	420	1,400
Multi-Family (< 20 du/ac)	8 /DU	2,240	DU	17,920	8%	0.2 0.8	287	1,147	1,434	10%	0.7 0.3	1254	538	1,792
Multi-Family (>20 du/ac)	6 /DU	2,240	DU	13,440	8%	0.2 0.8	215	860	1,075	9%	0.7 0.3	847	363	1,210
Community Shopping Cnt	70 /KSF	190,800	SF	13,356	3%	0.6 0.4	240	160	400	10%	0.5 0.5	668	668	1,336
Two Elem. Schools (1)	2.9 /Student	1,268	Students	3,677	31%	0.6 0.4	684	456	1,140	19%	0.4 0.6	279	419	698
Developed Park	50 /Acre	40	Acres	2,000	4%	0.5 0.5	40	40	80	8%	0.5 0.5	80	80	160
Adopted Otay Mesa CPU Driveway Totals				**64,393**			1,690	3,559	**5,249**			4,108	2,488	**6,596**
Reduction between CPU and Southwest Village				***-7,168***			*-121*	*-351*	***-472***			*-413*	*-235*	***-648***

Source: City of San Diego *Trip Generation Manual* , May 2003. DU=Dwelling Unit. KSF=1,000 square feet. (1) Number of students based on estimated student enrollment for an elementary school of similar size per the Long Range Facilities Master Plan for San Ysidro School District 2021.

The regional location of the project site is shown in **Figure 1**. The 30 planning areas that make up Southwest Village are shown in **Figure 2**.

Figure 1: Regional Project Location

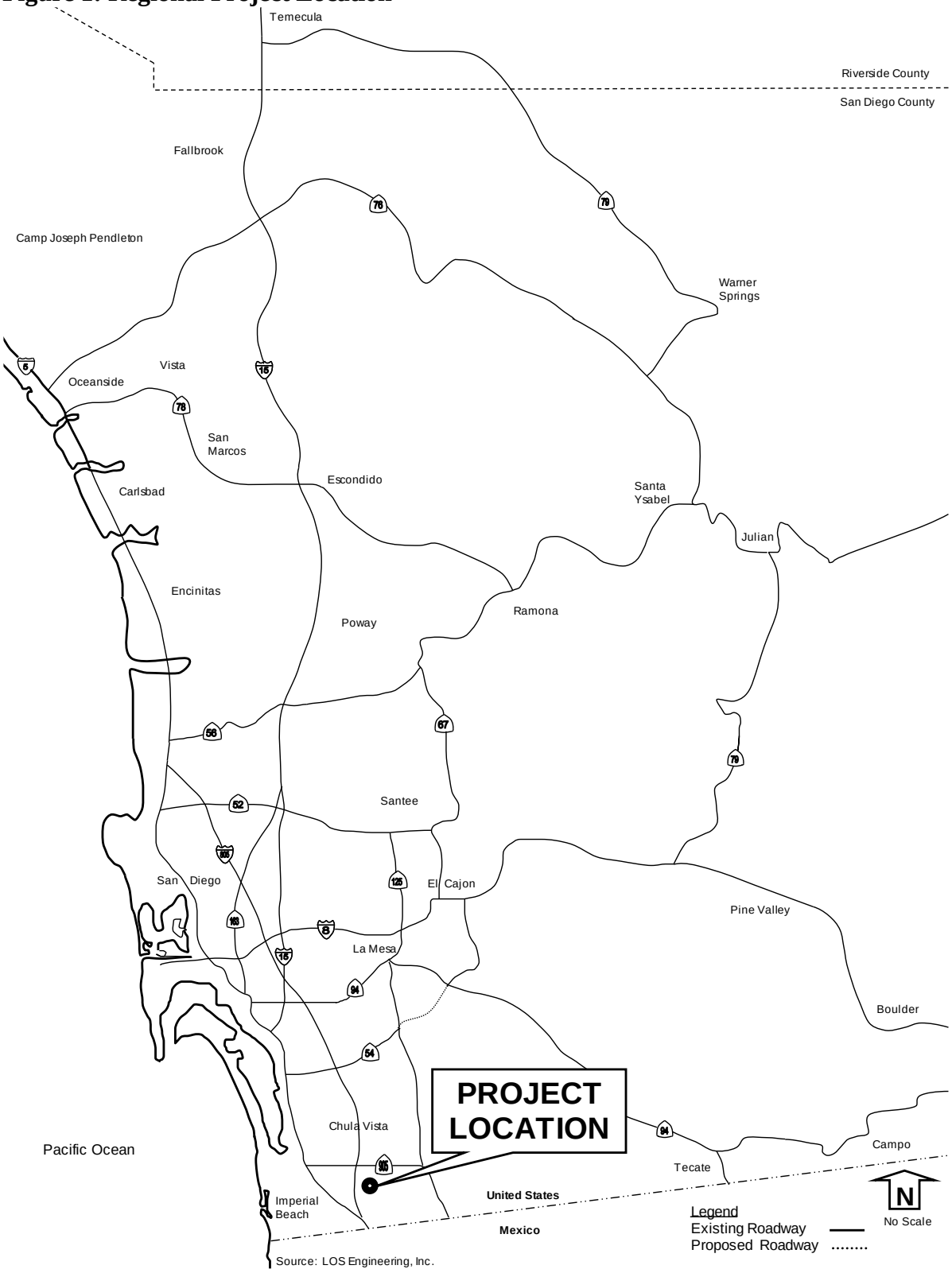
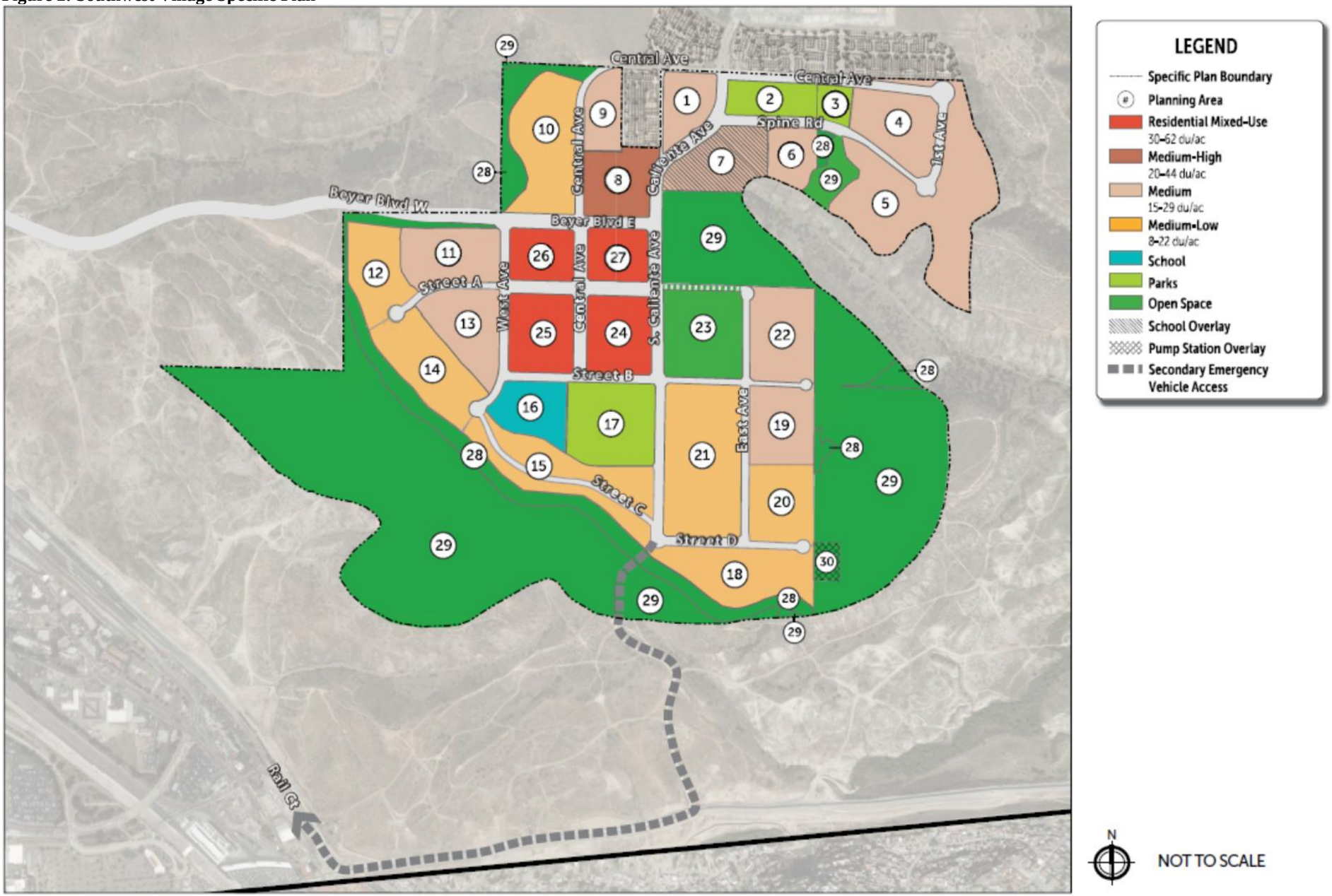


Figure 2: Southwest Village Specific Plan



Source: Rick Engineering

COMMUNITY PLAN CIRCULATION CHANGES

The Specific Plan is consistent with the Otay Mesa Community Plan Update (OMCPU) transportation assumptions from a trip generation perspective. However, the Specific Plan identifies circulation network changes that require operational analyses to ensure the network still functions at the community level. Two circulation network changes are proposed:

1) Caliente Ave downgrade from a 6 Lane Major to a 4 Lane Modified Urban Collector between Central Ave and Beyer Blvd to avoid sensitive habitat, specifically a 1-acre City of San Diego owned Vernal Pool Habitat Conservation Plan 100 percent conserved parcel. The downgrade was supported by City staff during a meeting on 3/11/20 after review of materials provided by the project team. As a 4 Lane Urban Collector, this segment would operate at LOS E under Horizon Year 2062 community buildout conditions. The OMCPU EIR identified this segment as significant and unmitigated under Horizon Year conditions. This impact is considered significant, unavoidable, and consistent with the OMCPU EIR (support materials included in **Attachment A**).

2) Beyer Blvd downgrade from a 4 Lane Major to a 4 Lane Modified Urban Collector between Enright Dr and Caliente Ave. From Enright Dr to West Ave, Beyer Blvd will be constructed with a 2 lane cross section to avoid and minimize impacts to sensitive habitat, as requested by California wildlife agencies. From West Ave to Caliente Ave, Beyer Blvd will be constructed as a 4 Lane Urban Major. An arterial analysis supporting the narrower 2 lane cross section with raised median and pedestrian and bicycle facilities and proposed Beyer Blvd alignment are included in **Attachment B**. Beyer Blvd between E. Beyer Blvd/Old Otay Mesa Rd and Enright Dr has not yet been completed to the ultimate San Ysidro Community Plan Update classification of a 4 Lane Collector (excerpt from the San Ysidro Community Plan Update is included in **Attachment C**). Sufficient right of way does not exist on Beyer Blvd between E. Beyer Blvd and Enright Dr to complete this section to the ultimate classification. The right of way constraint is on the north side of Beyer Blvd along the San Ysidro School District parcel. The requirement of a 4 Lane Collector of Beyer Blvd between E. Beyer Blvd/Old Otay Mesa Rd and Enright Dr is forecasted to occur in Phase 4 forecasted at the 3,301st dwelling unit, after accounting for traffic from a second elementary school and 7.1 acres of park based on the assignment of the SWV Specific Plan residential traffic to Beyer Blvd using a SANDAG Series 13 Select Zone Assignment (**Attachment D**). The Beyer Blvd LOS between E. Beyer Blvd and Enright Dr within San Ysidro and when the existing 2 lanes will be required to be widened to 4 lanes at Phase 4 is shown in **Table 2**.

Table 2: Four Lane Trigger for Beyer Blvd (E. Beyer to Enright) within San Ysidro

Phase		Single Family	Multi-Family < 20 du/ac	Multi-Family > 20 du/ac	Dwelling Unit (DU) Total	Running DU Total	ADT by Phase	Aggre-gate ADT	W. Beyer ADT based on SANDAG SZA 24% distribution	Beyer Blvd (E Beyer to Enright) ADT E+C	Beyer Blvd (E Beyer to Enright) ADT E+C+P		E+C+P at 2 lanes LOS E* 10k cap.	E+C+P at 4 lanes LOS E* 30k cap.
1	Units	543	490	282	1,315	1,315						V/C	0.38	0.13
	ADT	5,430	3,920	1,692			11,042	11,042	***2,650***	1,149	3,799	LOS	A	A
2	Units	615	237		852	2,167						V/C	0.57	0.19
	ADT	6,150	1,896				8,046	19,088	***4,581***	1,149	5,730	LOS	C	A
	Developed Parks											V/C	0.59	0.20
	ADT at 50 ADT/Acre for 10.5 acres						525	19,613	***4,707***	1,149	5,856	LOS	C	A
	Elementary School (PA16)											V/C	0.63	0.21
	ADT at 2.9 ADT/Student with 600 students						1,740	21,353	***5,125***	1,149	6,274	LOS	C	A
3	Units		819		819	2,986						V/C	0.78	0.26
	ADT		6,552				6,552	27,905	***6,697***	1,149	7,846	LOS	D	A
4	Developed Parks											V/C	0.79	0.26
	ADT at 50 ADT/Acre for 7.1 acres						355	28,260	***6,782***	1,149	7,931	LOS	D	A
	Elementary School (PA7 Overlay)											V/C	0.84	0.28
	ADT at 2.9 ADT/Student with 668 students						1,937	30,197	***7,247***	1,149	8,396	LOS	D	A
	Units		314		314	3,300						V/C	0.90	0.30
	ADT		2,512				2,512	32,709	***7,850***	1,149	8,999	LOS	D	A
	Units		110		110	3,410						V/C	0.92	0.31
	ADT		880				880	33,589	***8,061***	1,149	9,210	LOS	**E**	A
5	Units		266		266	3,676						V/C	0.97	0.32
	ADT		2,128				2,128	35,717	***8,572***	1,149	9,721	LOS	**E**	A
6	Units		267		267	3,943						V/C	1.02	0.34
	ADT		2,136				2,136	37,853	***9,085***	1,149	10,234	LOS	**F**	B
7	Units			1,187	1,187	5,130						V/C	1.19	0.40
	ADT			7,122			7,122	44,975	***10,794***	1,149	11,943	LOS	**F**	B
	Commercial Shopping Center											V/C	1.49	0.50
	ADT at 70 ADT/KSF for 175,000 square feet						12,250	57,225	***13,734***	1,149	14,883	LOS	**F**	C
TOTALS			**Dwelling units:**		**5,130**		**ADT:**	**57,225**						

Notes: ADT: Average Daily Trips. E+C: Existing + Cumulative. E+C+P: Existing + Cumulative + Project. KSF: 1,000 Square Feet. V/C: Volume over Capcity. Cap. = Capacity. *LOS E capacity at 10,000 ADT for 2 lanes with no fronting property and 30,000 ADT for 4 lanes with two way left turn lane from TSM Appendix F (included in Attachment E). SZA = Select Zone Assignment. Shading notes when Beyer Blvd needs to be widened to 4 lanes.

PLANNING AREAS AND PHASING

The Southwest Village Specific Plan has 30 planning areas and seven planned phases. However, the phasing is a current estimate that can change due to the unknown timing of when other planning area owners will initiate their own development process. Therefore, future planning area development will be subject to discretionary review for consistency with the current Specific Plan Phasing and will be required to complete the Specific Plan onsite and off-site improvements needed to support their development. The necessary infrastructure and public facilities required for each phase of development shall both be constructed as part of the implementing project or may be necessary to construct upfront of an implementing project consistent with Specific Plan details included in **Attachment E**. The anticipated trip generation by phase is shown in **Table 3**. The planning areas are currently anticipated to be developed over seven phases.

Table 3: Specific Plan Traffic Generation Implementation Table

Phase & Land Use	Residential Trip Rates		Non-Residential Trip Rates		Daily Trips	AM Peak Hour Trips IN	AM Peak Hour Trips OUT	AM Peak Hour Trips Total	PM Peak Hour Trips IN	PM Peak Hour Trips OUT	PM Peak Hour Trips Total
1 City SD Trip Rates:	10	/DU				20%	80%	8%	70%	30%	10%
Single Family	543	DU			5,430	87	347	434	380	163	543
City SD Trip Rates:	8	/DU				20%	80%	8%	70%	30%	10%
Multi-Family < 20 du/ac	490	DU			3,920	63	251	314	274	118	392
City SD Trip Rates:	6	/DU				20%	80%	8%	70%	30%	9%
Multi-Family > 20 du/ac	282	DU			1,692	27	108	135	106	46	152
Phase 1 Totals:	**1,315**	DU			**11,042**	177	706	**883**	761	326	**1,087**
2 City SD Trip Rates:	10	/DU				20%	80%	8%	70%	30%	10%
Single Family	615	DU			6,150	98	394	492	431	185	615
City SD Trip Rates:	8	/DU				20%	80%	8%	70%	30%	10%
Multi-Family < 20 du/ac	237	DU			1,896	30	122	152	133	57	190
City SD Trip Rates:			2.9	/Student		60%	40%	31%	40%	60%	19%
Elementary School (1)			600	Students	1,740	323	216	539	132	199	331
City SD Trip Rates:			50	/Acre		50%	50%	4%	50%	50%	8%
Developed Park			10.5	Acres	525	11	11	21	21	21	42
Phase 2 Totals:	**852**	DU			**10,311**	463	742	**1,204**	717	461	**1,178**
3 City SD Trip Rates:	8	/DU				20%	80%	8%	70%	30%	10%
Multi-Family < 20 du/ac	819	DU			6,552	105	419	524	459	197	655
Phase 3 Totals:	**819**	DU			**6,552**	105	419	**524**	459	197	**655**
4 City SD Trip Rates:			50	/Acre		50%	50%	4%	50%	50%	8%
Developed Park			7.1	Acres	355	7	7	14	14	14	28
City SD Trip Rates:			2.9	/Student		60%	40%	31%	40%	60%	19%
Elementary School (2)			668	Students	1,937	361	240	601	147	221	368
City SD Trip Rates:	8	/DU				20%	80%	8%	70%	30%	10%
Multi-Family < 20 du/ac	424	DU			3,392	54	217	271	237	102	339
Phase 4 Totals:	**424**	DU			**5,684**	422	464	**886**	399	337	**735**
5 City SD Trip Rates:	8	/DU				20%	80%	8%	70%	30%	10%
Multi-Family < 20 du/ac	266	DU			2,128	34	136	170	149	64	213
Phase 5 Totals:	**266**	DU			**2,128**	34	136	**170**	149	64	**213**
6 City SD Trip Rates:	8	/DU				20%	80%	8%	70%	30%	10%
Multi-Family < 20 du/ac	267	DU			2,136	34	137	171	150	64	214
Phase 6 Totals:	**267**	DU			**2,136**	34	137	**171**	150	64	**214**
7 City SD Trip Rates:	6	/DU				20%	80%	8%	70%	30%	9%
Multi-Family > 20 du/ac	1,187	DU			7,122	114	456	570	449	192	641
City SD Trip Rates:			70	/KSF		60%	40%	3%	50%	50%	10%
Community Shopping Cnt:			175	KSF	12,250	221	147	368	613	613	1,226
Phase 7 Totals:	**1,187**	DU			**19,372**	335	603	**938**	1,062	805	**1,867**
Overall Target Density/Intensity:	*5,130*	DU	175 KSF Comm.	Schools & Parks	*57,225*	*1,569*	*3,208*	*4,777*	*3,695*	*2,253*	*5,948*
Total Remaining	**5,130**	**DU**	175 KSF Comm.	Schools & Parks	**57,225**	1,569	3,208	**4,777**	3,695	2,253	**5,948**

Source: City of San Diego *Trip Generation Manual* , May 2003. DU: Dwelling Unit, KSF=1,000sf. Comm. = Commercial. (1) In the unlikely event a school is no longer needed on Planning Area 16, the site will default to Medium Density Residential use. Although the contingency for Planning Area 16 would result in approximately 136 additional dwelling units, the maximum dwelling unit cap of 5,130 units would still apply. (2) In the event a school is not needed on Planning Area 7, the site will default to Medium Density Residential Use.

COMMUNITY ACCESS AND ON-SITE VEHICULAR CIRCULATION

Community access and on-site circulation classifications are based on two sources:

1) Arterial roadways of Beyer Blvd and Caliente Ave as proposed in the Otay Mesa and San Ysidro Community Plan Updates, and
2) Local internal roadway network being proposed as part of the Southwest Village Specific Plan.

The arterial roadways of Beyer Blvd and Caliente Ave were analyzed using volumes from the San Ysidro Community Plan Update (August 2016). The San Ysidro CPU horizon year Average Daily Traffic (ADT) was based on a Series 12 SANDAG traffic model forecast. The Otay Mesa Community Plan Update (March 2014) was not applied because it used an older Series 11 SANDAG traffic model forecast. The San Ysidro horizon year SANDAG volumes (included in **Attachment F**) were applied to the following arterial roadways:

- Beyer Blvd from Enright Dr to Caliente Ave: 28,100 ADT
- Caliente Ave from Airway Rd to Central Ave: 36,900 ADT
- Caliente Ave from Central Ave to Beyer Blvd: 29,200 ADT

The local internal roadways were analyzed based on a manual internal distribution and assignment of individual Planning Areas. On-site roadway traffic distribution and assignment worksheets are included in **Attachment G**.

The following roadway classification were applied to support the forecasted roadway volumes:

- Six Lane Major (striped as 5 lanes)
- Four Lane Urban Major
- Four Lane Urban Collector
- Four Lane Modified Urban Collector
- Two Lane Collector with two-way left turn lane.
- Two Lane Collector
- Sub-Collector

The assignment and proposed roadway classification are shown in **Figure 3** with the segment LOS calculations shown in **Table 3**.

Figure 3: On-Site Roadway Volumes and Proposed Classifications

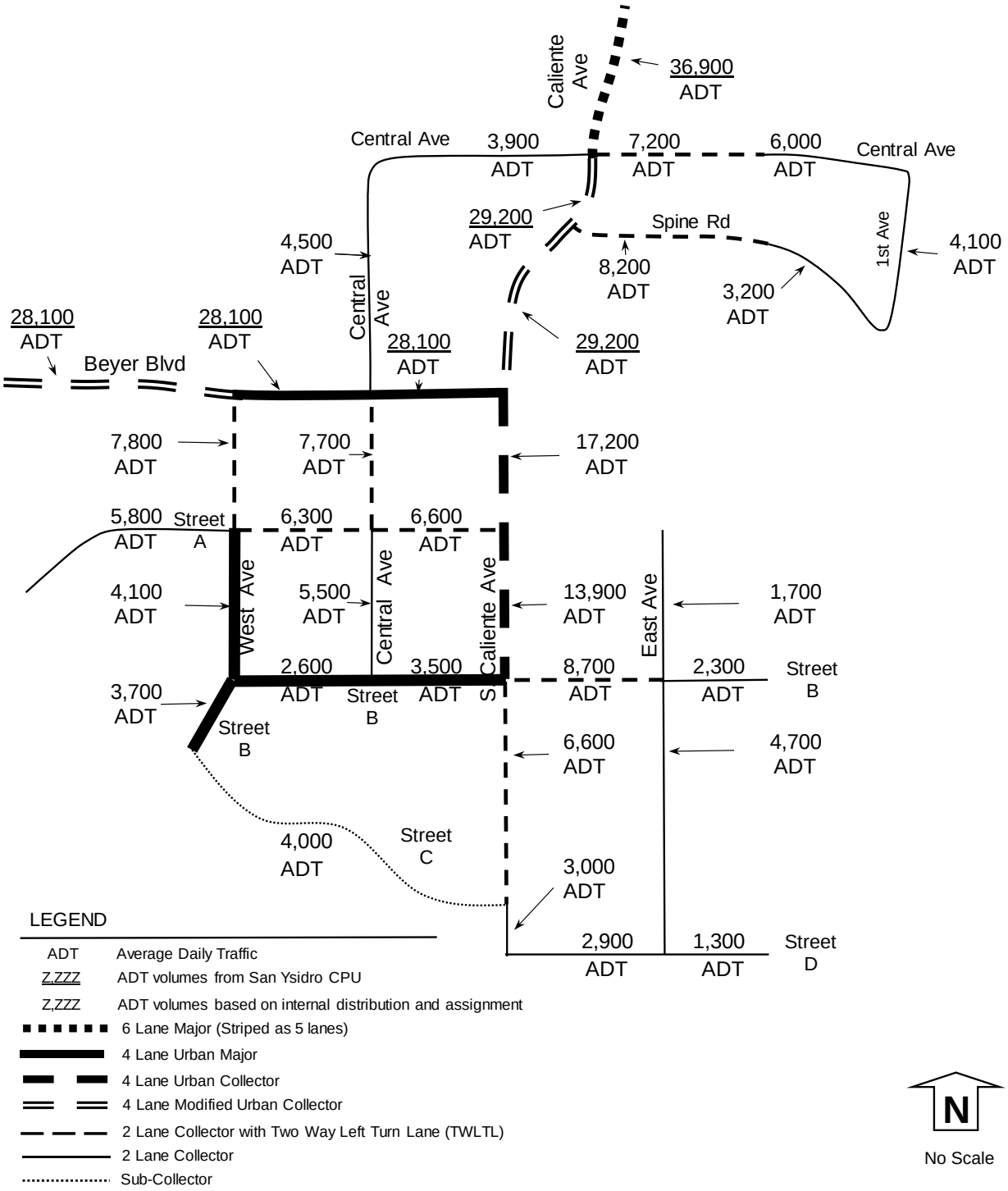


Table 3: On-Site Roadway Horizon Year Volumes and Level of Service

Segment	Functional Classification	LOS E Capacity	Horizon Year ADT	V/C Ratio	Level of Service
Beyer Blvd					
Enright Dr to West Ave	4 Lane Modified Urban Collector	30,000	28,100	0.94	**E**
West Ave to Central Ave	4 Lane Urban Major	40,000	28,100	0.70	C
Central Ave to Caliente Ave	4 Lane Urban Major	40,000	28,100	0.70	C
Caliente Ave					
Airway Rd to Central Ave	6 Ln Major (Striped as 5 Ln)	45,000	36,900	0.82	D
Central Ave to Spine Rd	4 Lane Modified Urban Collector	30,000	29,200	0.97	**E**
Spine Rd to Beyer Blvd	4 Lane Modified Urban Collector	30,000	29,200	0.97	**E**
Beyer Blvd to Street A	4 Lane Urban Collector	30,000	17,200	0.57	C
Street A to Street B	4 Lane Urban Collector	30,000	13,900	0.46	B
Street B to Street C	2 Collector + TWLTL	15,000	6,600	0.44	B
Street C to Street D	2 Lane Collector	8,000	3,000	0.38	B
Central Ave					
West of 1st Ave	2 Lane Collector	8,000	6,000	0.75	D
East of Caliente Ave	2 Collector + TWLTL	15,000	7,200	0.48	C
West of Caliente Ave	2 Lane Collector	8,000	3,900	0.49	C
North of Beyer Blvd	2 Lane Collector	8,000	4,500	0.56	C
Beyer Blvd to Street A	2 Collector + TWLTL	15,000	7,700	0.51	C
Street A to Street B	2 Lane Collector	8,000	5,500	0.69	D
East Ave					
Street A to Street B	2 Lane Collector	8,000	1,700	0.21	A
Street B to Street D	2 Lane Collector	8,000	4,700	0.59	C
Spine Rd					
West Half	2 Collector + TWLTL	15,000	8,200	0.55	C
East Half	2 Lane Collector	8,000	3,200	0.40	B
Street A					
West of West Ave	2 Lane Collector	8,000	5,800	0.73	D
West Ave to Central Ave	2 Collector + TWLTL	15,000	6,300	0.42	B
Central Ave to Caliente Ave	2 Collector + TWLTL	15,000	6,600	0.44	B
Street B					
Street C to West Ave	2 Lane Collector	8,000	3,700	0.46	C
West Ave to Central Ave	2 Lane Collector	8,000	2,600	0.33	B
Central Ave to S. Caliente Ave	2 Lane Collector	8,000	3,500	0.44	C
S. Caliente Ave to East Ave	2 Collector + TWLTL	15,000	8,700	0.58	C
East of East Ave	2 Lane Collector	8,000	2,300	0.29	A
Street C					
West Ave to S. Caliente Ave	Sub-Collector	(1)	4,000	(1)	(2)
Street D					
S. Caliente Ave to East Ave	2 Lane Collector	8,000	2,900	0.36	B
East of East Ave	2 Lane Collector	8,000	1,300	0.16	A
West Ave					
Beyer Blvd to Street A	2 Collector + TWLTL	15,000	7,800	0.52	C
Street A to Street B	2 Lane Collector	8,000	4,100	0.51	C
1st Ave					
Central Ave to Spine Rd	2 Lane Collector	8,000	4,100	0.51	C

TWLTL: Two Way Left Turn Lane. BOLD indicates unacceptable LOS, which is due to environmental constraints that requires a reduced classification with a lower minimum curve radius to avoid sensitive habitat. Underlined ADT obtained from San Ysidro Community Plan Update SANDAG model. Remaining ADTs from internal distribution and assignments included in the Appendix. V/C: Volume to Capacity. (1) Sub-Collector LOS C threshold = 2,200 ADT. (2) Under capacity.

CONCLUSION

The Southwest Village Specific Plan provides a comprehensive policy framework intended to guide future development in Southwest Village, consistent with the City of San Diego - Otay Mesa Community Plan and City of Villages Strategy. The Specific Plan encompasses approximately 490 acres, will allow up to 5,130 attached and detached residences, and will facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core. The timing along with the final number of homes and commercial space is unknown at this time; therefore, each Vesting Tentative Map will be subject to a discretionary review for consistency with the Specific Plan Subsequent EIR and will be required to prepare as needed LMA and VMT analyses.

The timing along with the final number of homes and commercial space is unknown at this time; therefore, each future Specific Plan Vesting Tentative Map will be subject to a discretionary review for consistency with the Specific Plan Subsequent EIR and will be required to prepare LMA and VMT analyses.

Sincerely,
LOS Engineering, Inc.

Justin Rasas

Justin Rasas, P.E.(TE 2135), PTOE
Principal and Officer of LOS Engineering, Inc.

Job 1733
Attachments

Attachment A

Caliente Ave Downgrade Details

Support materials for Caliente Ave downgrade from a 6 Lane Major to a 4 Lane Urban Collector between Central Ave and Beyer Blvd.

This segment of Caliente Ave can only be designed to a 4 Lane Urban Collector (with a minimum curve radius of 470 ft with 2% superelevation and design speed of 35 MPH) to avoid sensitive habitat and to be able to align with the intersection of Caliente Ave/Central Ave. Therefore, a downgrade is being proposed as part of the Southwest Village Specific Plan. A graphic of the alignment is shown on the next page.

A community buildout horizon year volume of 29,200 ADT for Caliente Ave between Central Ave and Beyer Blvd was obtained from the San Ysidro CPU EIR (SANDAG traffic model output included within the next few pages).

As a 4 Lane Urban Collector, this segment is calculated to operate at LOS E shown in **Table 1**.

Table 1: Caliente Ave Downgrade LOS

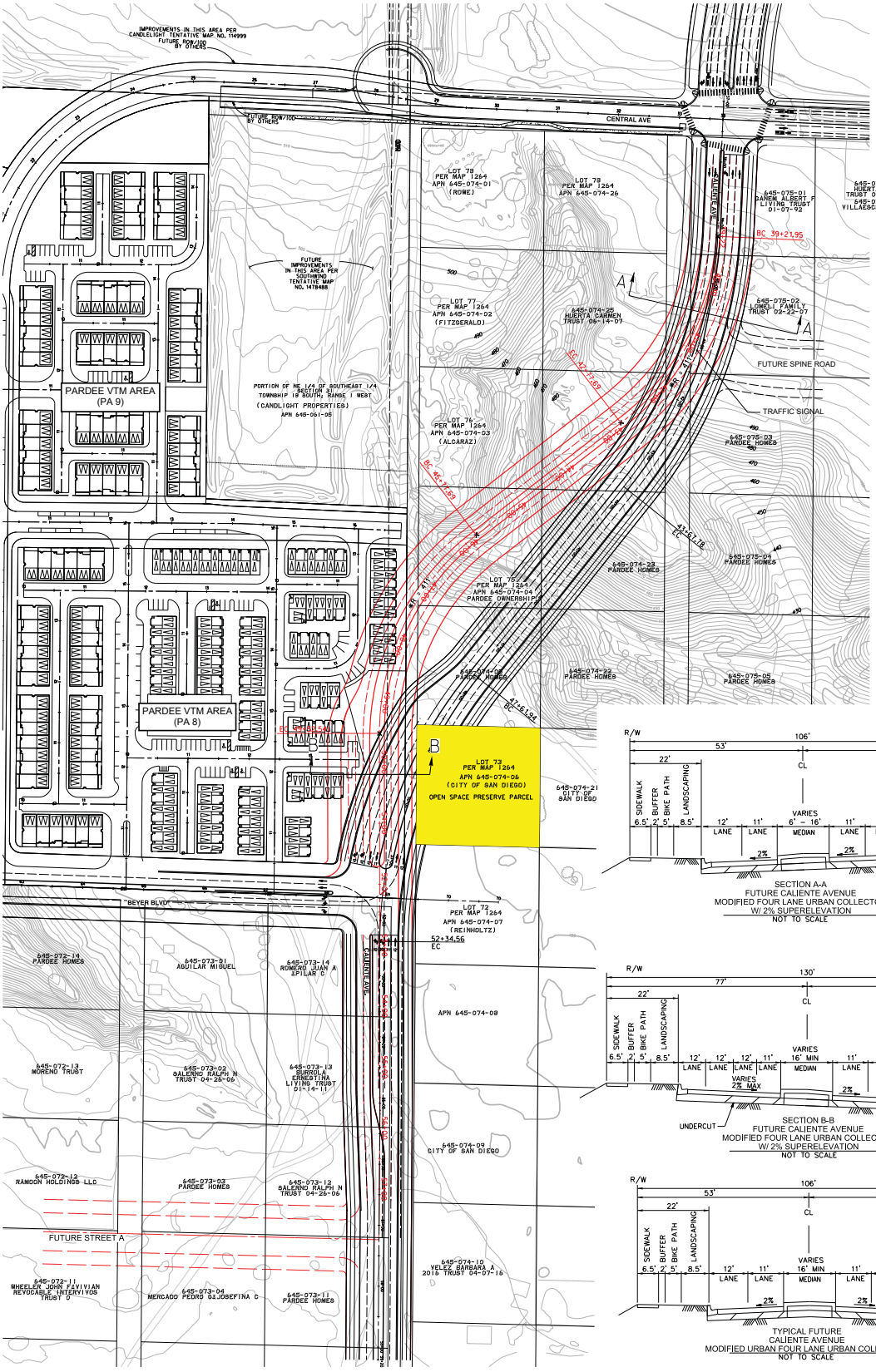
Segment	Classification & LOS E Capacity	Horizon Year ADT	V/C Ratio & LOS	CPU EIR Overrides
Caliente Ave (Central Ave to Beyer Blvd)	4 Lane Urban Collector 30,000 ADT	29,200	0.97 LOS E	Yes

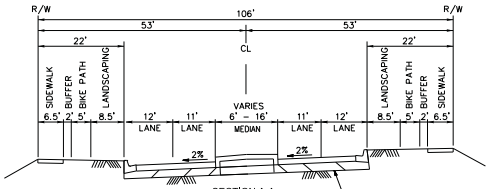
The Otay Mesa CPU EIR identifies this segment as significant and unmitigated under community buildout Horizon Year conditions. This impact is considered significant, unavoidable, and consistent with the OM CPU EIR. Historical correspondence and excerpts from the OMCPU EIR are included on the next few pages.

SOUTHWEST VILLAGE CALIENTE AVENUE ALIGNMENT ALTERNATIVE 2 -

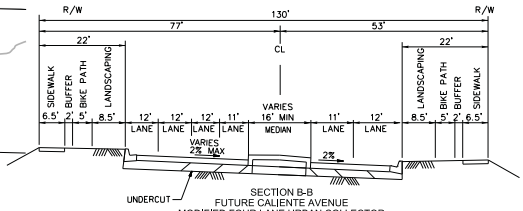
ROADWAY ALIGNMENT AS A 4 LANE URBAN COLLECTOR

DESIGN SPEED = 35 MPH W/ 2% SUPERELEVATION

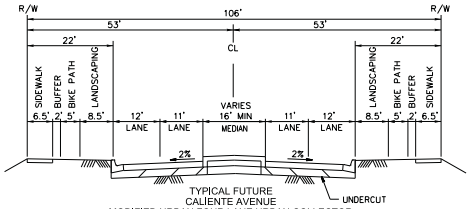




SECTION A-A
FUTURE CALIENTE AVENUE
MODIFIED FOUR LANE URBAN COLLECTOR
W/ 2% SUPERELEVATION
NOT TO SCALE



SECTION B-B
FUTURE CALIENTE AVENUE
MODIFIED FOUR LANE URBAN COLLECTOR
W/ 2% SUPERELEVATION
NOT TO SCALE



TYPICAL FUTURE
CALIENTE AVENUE
MODIFIED URBAN FOUR LANE URBAN COLLECTOR
NOT TO SCALE

EXHIBIT 2

CLIENTE AVE. DESIGN REQUIREMENTS
DESIGN SPEED - 35 mph
MAXIMUM GRADE - 8%
MINIMUM CURVE RADIUS:
610' WITH 2% CROWN CROSS SECTION
* PER CALTRANS DESIGN MANUAL FIGURE 202.2
MINIMUM RADIUS WITH 2% SUPERELEVATION
IS 411 FEET.

GRAPHIC SCALE 1" = 80'

Southwest Village SP Transportation Phasing Plan Attachments

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5620 FRIARS ROAD
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Riverside • Orange • Sacramento • San Luis Obispo • Phoenix • Tucson • Denver
J-15013CCC

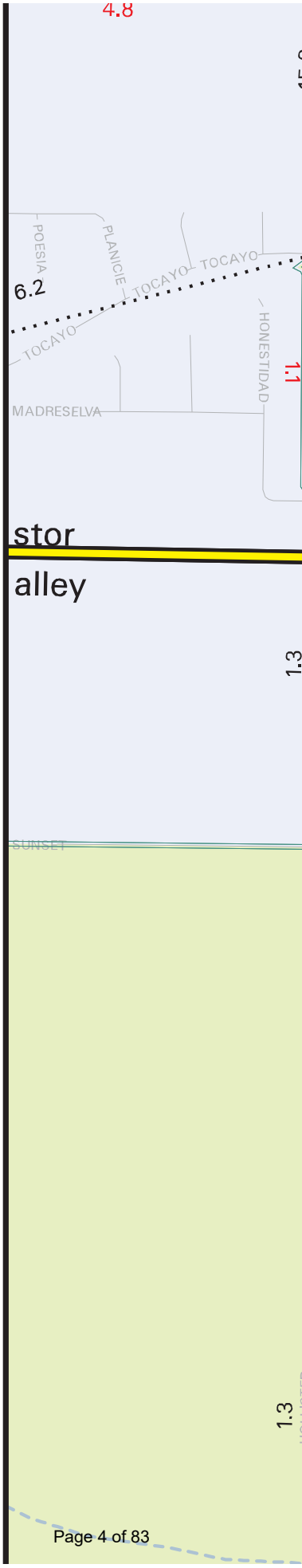
SANDAG Series 12 2035 Revenue Constrained 2011 RTP Highway Network Forecasted Daily Volumes

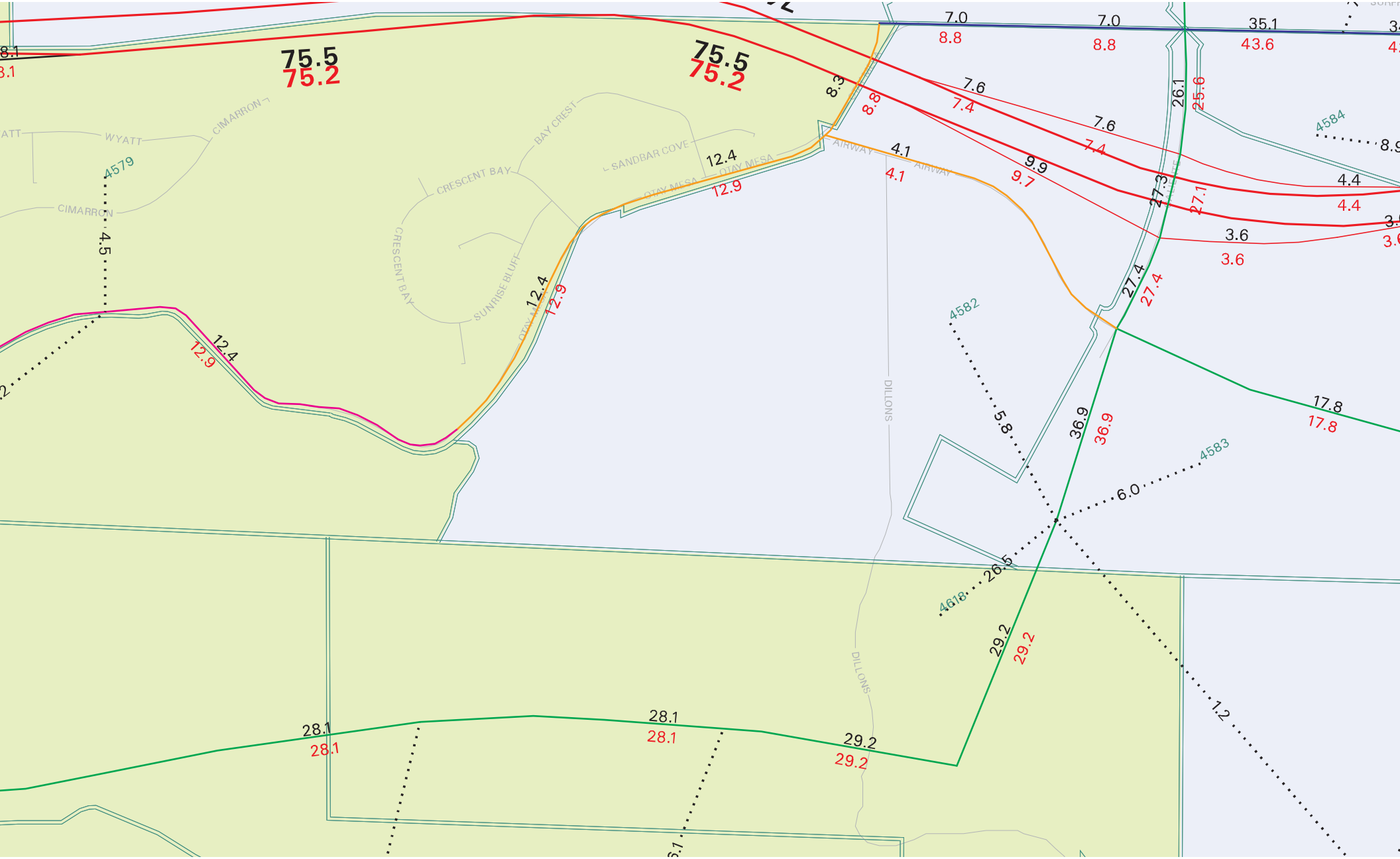
SAN YSIDRO

Model Rerun 05/14/14
San Ysidro CPU
2035 Scenario D - Proposed LU 2, Hybrid Network

Forecasted Volumes:

#	Adjusted Volume
#	Unadjusted Volume
#	Traffic Analysis Zone

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From Brooke Peterson **Date** 5/8/2020, 10:52:18 AM
To Shannon Baer
Cc
Subject FW: Caliente/Beyer Follow Up
image001.jpg (3 KB HTML)

From: Brooke Peterson
Sent: Thursday, May 7, 2020 3:14 PM
To: Ghossain, George <GGhossain@sandiego.gov>
Subject: Caliente/Beyer Follow Up

George,

I wanted to follow up on our discussion yesterday on two items.

First, thank you again for all your effort and coordination with City staff and Planning particularly, to confirm an agreed upon design for the realignment and downgrade of Caliente. Your willingness to work with us and City staff to find a solution was excellent and much appreciated. Based on your and Planning's concurrence with Alternative 3, we will proceed with redesign of the VTM and specific plan land use plan based on the down-grade of Caliente from the 6-land Urban Major identified in the Otay Mesa Community Plan to a 4-land Urban Collector with the Alternative 3 alignment and cross-section design.

Second, regarding your request for us to revise our design for Beyer Blvd. to accommodate a Class II bikeway in addition to our Class IV, I would appreciate asking yet again for some of your time to discuss. I recognize that we are working together to compromise from both the City and applicant side. I understand the political priorities and the focus and intent of the community plan – and the need to adhere and implement that intent. Understanding that however, I wanted to give you a more detailed description of the constraints I referred to and the implications of adding to the right-of-way (below) and then discuss when you are able.

- Our ROW is 90-ft. in our Beyer Blvd West of the project boundary and 106-ft. within the project boundary. Adding the Class II would add an additional 16-ft to the ROW.
- There is significant topography so 16 more feet would significantly increase the grading, cut/fill etc.
- Everything along Beyer between the project boundary to the San Ysidro boundary is MHPA, including the County of San Diego Furby Preserve. We have minimized our footprint of Beyer Rd from the very beginning in response to this to minimize MHPA and particularly conservation preserve lands.

MEMORANDUM

DATE	September 3, 2020
TO	George Ghossain, City of San Diego, Transportation Department
FROM	Brooke Peterson, Rick Engineering, Southwest Village Project Manager
SUBJECT	Beyer Boulevard and Caliente Avenue Alignment Rationale for Southwest Village
PROJECT NUMBER	PTS 614791

This memorandum is intended to document the rationale for the Beyer Boulevard and Caliente Avenue alignments and act as a baseline in which to reference in future coordination related to the transportation network of the Southwest Village. Considering the complexity and magnitude of the Southwest Village project, we believe it is worthwhile to summarize in written-form the methodologies and conclusions that have led to the currently proposed Beyer Blvd and Caliente Ave.

I. Background

The alignments of Beyer Boulevard and Caliente Avenue in the Southwest Village Specific Plan Area (SPA) were first outlined in the Otay Mesa Community Plan Update (OMCPU). These roadways are key to the SPA as they are intended to be the two main points of direct access to the SPA from the surrounding communities to the north and west. The preparation of the Southwest Village Specific Plan prompted the need to engineer and finalize the alignments of Beyer Blvd and Caliente Ave. In doing so, Beyer Blvd and Caliente Ave have been designed and engineered to minimize and address various development constraints which has led to its current design.

The development constraints for Beyer Blvd include:

- Environmental and topographic challenges within Moody Canyon;
- Cut and fill quantity limitations;
- The Furby Preserve 100% Conserved parcel that bisects the Beyer Blvd alignment;
- County Multiple Habitat Conservation Plan (MHPA) designation;
- 90-foot Right-of-Way for Beyer Blvd West;
- The OMCPU designation of a 4-Lane Major Arterial.

The development constraints for Caliente Avenue include:

- The City-owned Vernal Pool Habitat Conservation Plan (VPHCP) 100% Conserved parcel to the east of Caliente Ave;
- The City's request to make the SPA a grid-system;
- Turning and speed limit minimums for the curved alignment of Caliente Ave;
- The OMCPU designation of a 6-Lane Major Arterial.

II. Methodology

The OMCPU designated Beyer Blvd as a 4-Lane Major Arterial and Caliente Ave as a 6-Lane Major Arterial based on anticipated average daily trips (ADT), which was based on anticipated population within the SPA. With the preparation of the Southwest Village Specific Plan, development constraints and land use designations have lowered the number of anticipated residential units, thus lowering future ADT, compared to the OMCPU estimates. LOS Engineering

conducted modeling and analysis on the ADT caused by construction and buildout of the Southwest Village, and concluded that future conditions would result in 7,393 less average daily trips (ADT) than what was assumed in the OMCP. A meeting on March 11, 2020 was held with representatives from City Transportation, Mobility, and Long-Range Planning Departments to discuss and decide on a preferred method of classifying Beyer Blvd and Caliente Ave. The following conclusions were presented to the City on March 11, 2020 which support the preferred classifications of Beyer Blvd as a 4-Lane Urban Major Street and Caliente Ave as a 4-Lane Urban Collector:

- The Otay Mesa Community Plan (OMCP) has industrial land uses with an overall mix of 11% residential and 89% industrial/other. Most of the industrial uses are located in the center and eastern side of the community while residential is mostly in the west with some in the center of the community. The Otay Mesa Southwest Village is unique without industrial uses and in the far Southwest corner of the Community Plan.

- Truck routes/restriction do not appear to exist for Beyer Blvd and Caliente Ave. There are no industrial uses in the Southwest Village, thus there would be no reason for Otay Mesa commercial trips to use Beyer Blvd and Caliente Ave other than for local deliveries. Without the demand or cut-through needs for commercial traffic, Beyer Blvd and Caliente Ave would predominately be for Southwest Village retail and residential traffic, supporting a lower volume than shown in the OMCP.

- Since the OMCP, there have been multiple different projects, Central Village SPA, and the proposed Southwest Village, that have in combination reduced the number of residential units by 2,519 from the OMCP. Similarly, the more recent San Ysidro Community Plan Update (SYCPU) had a traffic model that included the Southwest Village, which included an ADT of 29.2k for Caliente Ave between Central Ave and Beyer Blvd, compared to the 46k ADT used in the OMCPU.

- Cut through traffic on Beyer Blvd and Caliente Ave would result in a more circuitous route and more traffic signals than using SR-905 and I-805. Additionally, the cut through route would have the Caliente Ave interchange at SR-905, but no equivalent at the Beyer bridge over I-805. Therefore, a cut-through trip would end up in a San Ysidro neighborhood and not on I-805.

The preferred Caliente Ave alignment discussed at the March 11, 2020 meeting curves around the VPHCP parcel. The new curved alignment requires a speed reduction around the curve, affects the ability of Caliente Ave to be classified as a 4-Lane Urban Major Street. Thus, further justifying the downgrade of Caliente Ave to a 4-Lane Urban Collector.

Beyer Blvd was designed in it's current alignment in order to best replicate the alignment identified in the OMCPU, while minimizing adverse effects on resources in the area. The OMCPU envisioned Beyer Blvd to the secondary access road to the SPA, with Caliente Ave being the primary access road. To adequately alleviate vehicle trips on Caliente Ave, Beyer Blvd would need to be a straight shot from the San Ysidro community to the west. Therefore, Beyer Blvd was designed within the slope of Mood Canyon. Although the design of Beyer Blvd requires large quantities of grading and buttressing for the roadway, and bisects the Furby Preserve, the Applicant is working with wildlife agencies to find concurrence on the alignment of Beyer Blvd.

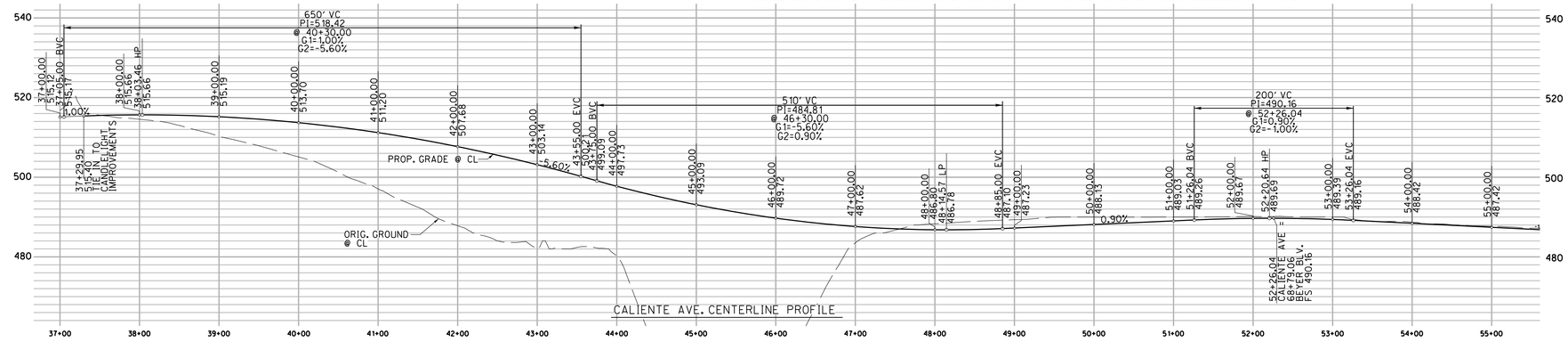
III. Conclusions

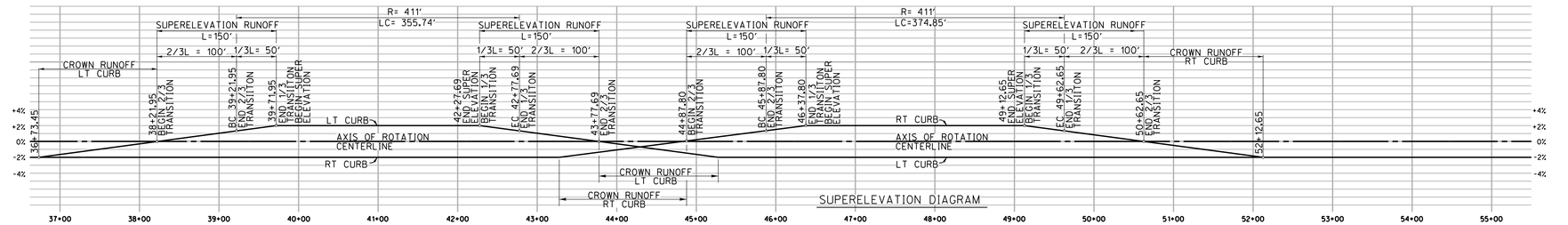
In the March 11, 2020 meeting, City staff concurred that a downgrade to Caliente Ave from 4-Lane Major Arterial to a 4-Lane Urban Collector is the preferred method to maintain the grid system south of Central Ave, avoid mobility implications, maintain lot lines to the greatest extent feasible, and avoid impacting the VPHCP parcel adjacent to Caliente Ave. Upon providing concurrence on downgrading Caliente Ave from a 6M to a 4-Lane Urban Collector, the City requested the Applicant redesign Caliente Ave to have on-street Class II bike facilities with a two-foot buffer to facilitate the downgrade and speed limit reduction. This request has been accommodated. In addition, City Long Range staff suggested a traffic circle as a traffic calming measure at the intersection of Central Ave and Caliente Ave. It was discussed that considering the environmental documentation and VTM for a project north of Specific Plan boundary, there would be design and analysis implications with incorporating a traffic circle at that location. Thus, a

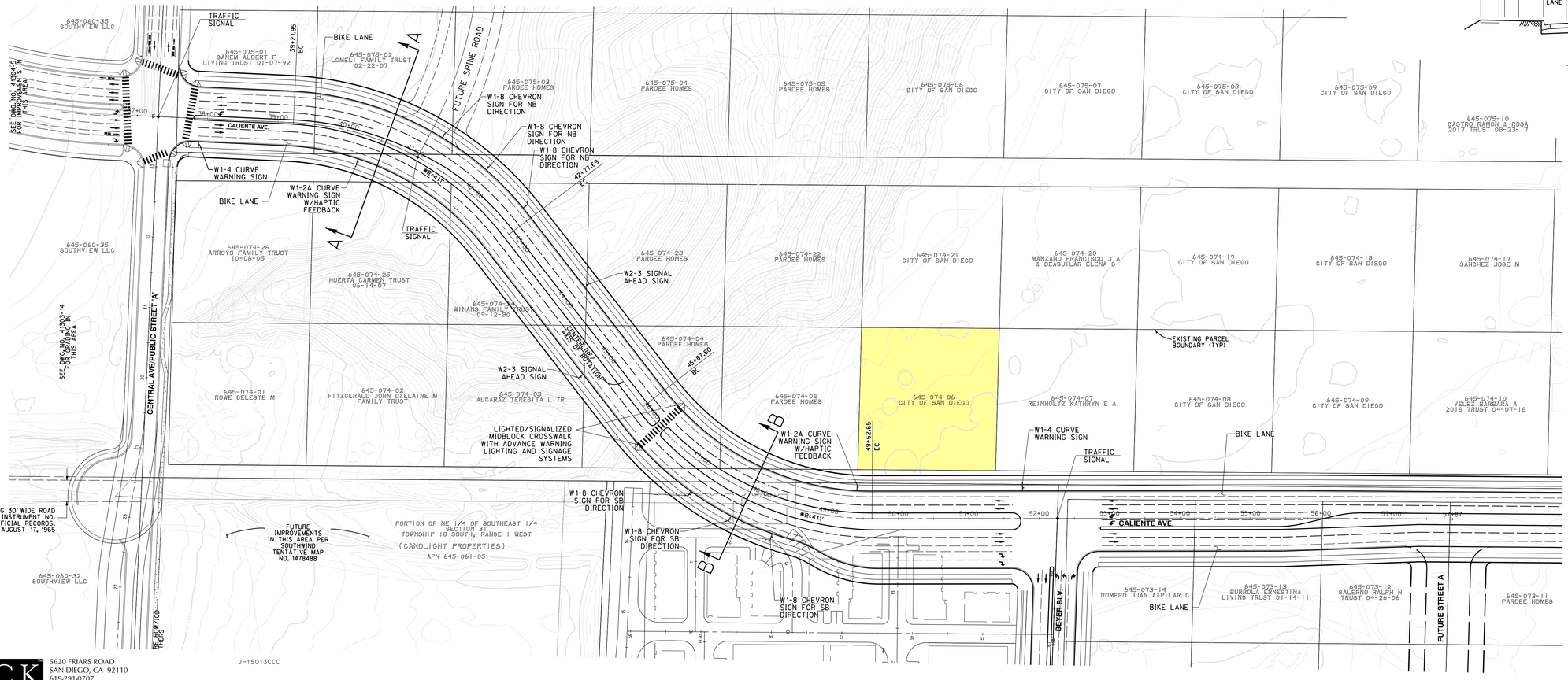
traffic circle at the intersection of Central Ave and Caliente Ave was not carried through in the current designs. See the currently proposed alignment, cross-sections, and elevations of Caliente Ave in Section IV Alignments, Elevations, and Cross-Sections.

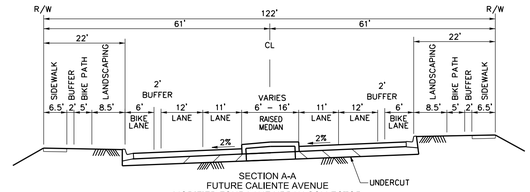
After the City's concurrence with the classification of Beyer Blvd as a 4-Lane Urban Collector, the City requested Beyer Blvd to provide on-street Class II bike facilities with a two-foot buffer to facilitate the downgrade and align with the OMCPU. This request has been accommodated in the ROW by reducing the outside travel lane from 12 feet to 11 feet and the landscape strip in the parkway down to 6.5 feet. See the currently proposed alignment, cross-sections, and elevations of Beyer Blvd in Section IV Currently Proposed Cross-Sections.

SOUTHWEST VILLAGE - CALIENTE AVENUE ALTERNATIVE 3 LINE AND GRADE STUDY
ROADWAY ALIGNMENT AS A 4 LANE URBAN COLLECTOR WITH BIKE LANE
DESIGN SPEED=35MPH WITH 2% SUPERELEVATION

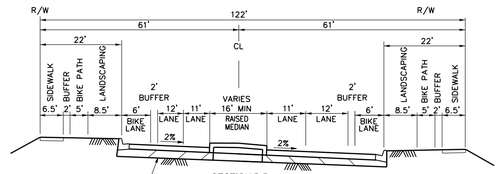




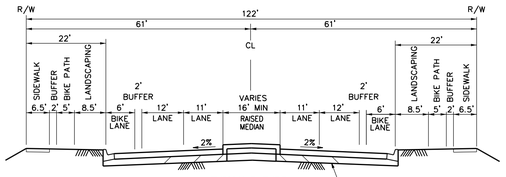




SECTION A-A
FUTURE CALIENTE AVENUE
MODIFIED FOUR LANE URBAN COLLECTOR
W/ 2% SUPERELEVATION
NOT TO SCALE



SECTION B-B
FUTURE CALIENTE AVENUE
MODIFIED FOUR LANE URBAN COLLECTOR
W/ 2% SUPERELEVATION
NOT TO SCALE



TYPICAL FUTURE
CALIENTE AVENUE
MODIFIED FOUR LANE URBAN COLLECTOR
NOT TO SCALE

CLIENTE AVE. DESIGN REQUIREMENTS
DESIGN SPEED - 35 mph
MAXIMUM GRADE - 7%
MINIMUM CURVE RADIUS:
610' WITH 2% STANDARD CROWN CROSS SECTION
• PER CALTRANS DESIGN MANUAL FIGURE 202.2
MINIMUM RADIUS WITH 2% SUPERELEVATION IS 411 FEET.

SIGNAGE LEGEND

W1-4 CURVE WARNING SIGN

W1-2A CURVE WARNING WITH HAPTIC FEEDBACK

W1-8 CHEVRON SIGN

W2-3 SIGNAL AHEAD SIGN

80 40 0 80 160 240

GRAPHIC SCALE 1" = 80'

RICK ENGINEERING COMPANY
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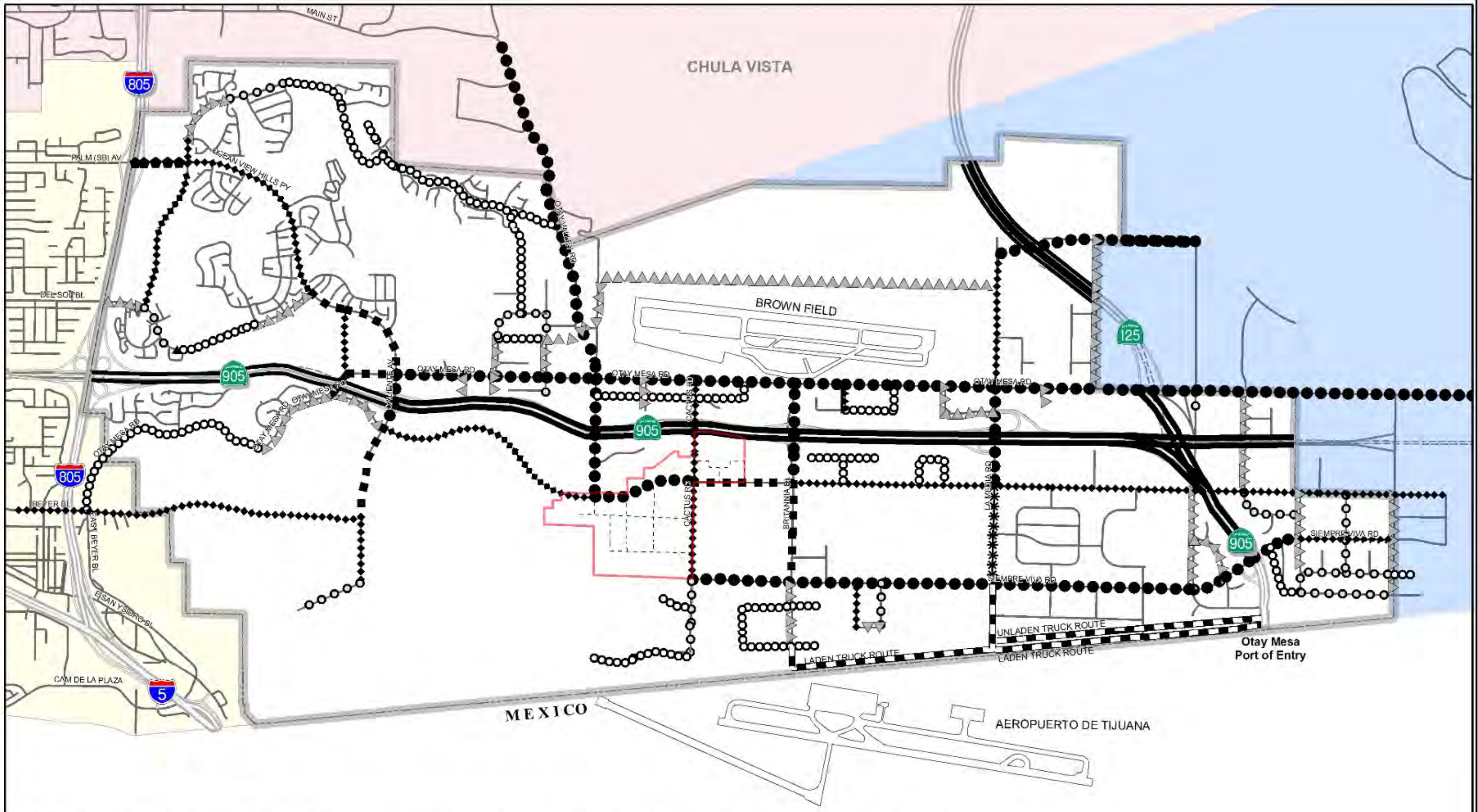
San Diego - Southwest Village SP Transportation Phasing Plan Attachments - San Luis Obispo - Phoenix - Tucson - Denver

J-15013CCC



*2-C= 2-lane Collector (without left turn lane)
2-CL= 2-lane Collector (with left turn lane)
4-C= 4-lane Collector (without left turn lane)
4-CL= 4-lane Collector (with left turn lane)
4-M = 4-lane Major Arterial
5-M = 5-lane Major Arterial
6-M = 6-lane Major Arterial
6-PA = 6-lane Primary Arterial
7-PA = 7-lane Primary Arterial
F= Freeway
TR= Truck Route

THE CITY OF SAN DIEGO

OTAY MESA ROADWAY CLASSIFICATION - Figure 3-2

Legend

2-C* 4-C* 4-M* 6-M* 7-PA* TR*

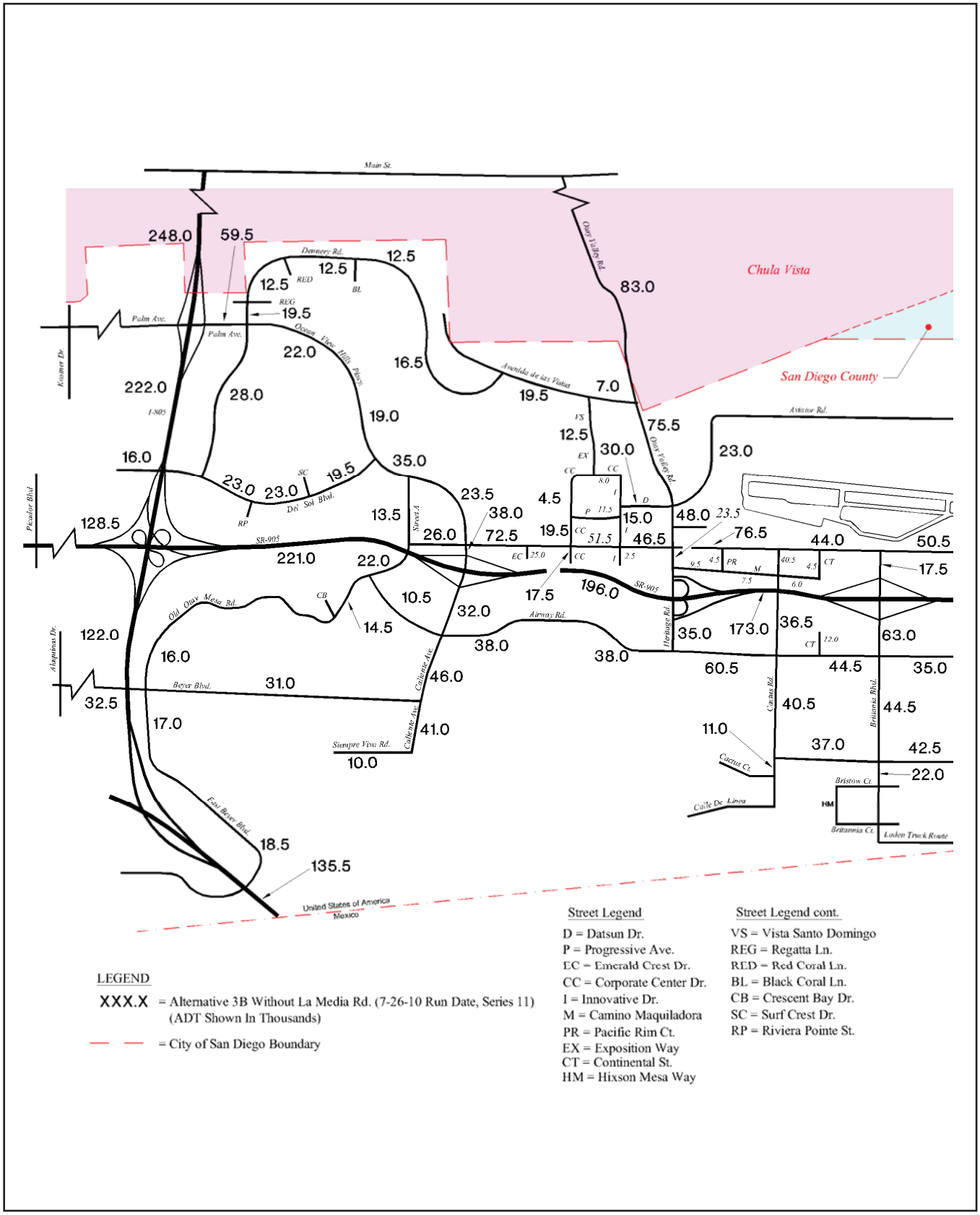
2-CL* 4-CL* 5-M* 6-PA* F*

Central Village Boundary

Refer to Central Village Specific Plan for additional detail and Roadway Classification

NOTE: For illustrative purposes only does not reflect future alignments.

SanGIS



LEGEND

XXX.X = Alternative 3B Without La Media Rd. (7-26-10 Run Date, Series 11) (ADT Shown In Thousands)

— — = City of San Diego Boundary

Street Legend

D = Datsun Dr.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
CT = Continental St.
HM = Hixson Mesa Way

Street Legend cont.

VS = Vista Santo Domingo
REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.

Not to Scale

FIGURE 5.12-3a

Horizon Year Plus CPU Condition Roadway Segment Volumes (West)

TABLE 5.12-5
CPU HORIZON YEAR ROADWAY SEGMENT LEVEL OF SERVICE
(continued)

Street	Segment	Horizon Year					Horizon Year with CPU			
		Class[1]	LOS E ADT[2]	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	Sig?
Palm Ave.	I-805 to Dennery Rd.	7-PA	65,000	59,500	0.92	D	-	-	-	N
Ocean View Hills Parkway	Dennery Rd. to Del Sol Blvd.	4-M	40,000	22,000	0.55	C	-	-	-	N
	Del Sol Blvd. to Street "A"	6-M	50,000	35,000	0.70	C	-	-	-	N
	Street "A" to Otay Mesa Rd.	6-M	50,000	23,500	0.42	B	-	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	6-M	50,000	38,000	0.76	C	6-PA	0.63	C	N
	SR-905 to Airway Rd.	6-M	50,000	32,000	0.64	C	6-PA	0.53	B	N
	Airway Rd. to Beyer Blvd.	4-M	40,000	46,000	1.15	**F**	6-M	0.92	**E**	**Y**
	Beyer Blvd. to Siempre Viva Rd.	4-M	40,000	41,000	1.03	**F**	-	-	-	**Y**
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	4-M	40,000	32,500	0.81	D	-	-	-	N
	Old Otay Mesa Rd. to Caliente Ave.[3]	4-M	40,000	31,000	0.78	D	-	-	-	N
Heritage Road/ Otay Valley Road	Main St. to Avenida de Las Vistas**	6-PA	60,000	83,000	1.38	**F**	-	-	-	**Y**
	Avenida De Las Vistas to Datsun St.	6-M	50,000	75,500	1.51	**F**	6-PA	1.26	**F**	**Y**
	Datsun St. to Otay Mesa Rd.	6-M	50,000	48,000	0.96	**E**	6-PA	0.80	C	N
	Otay Mesa Rd. to SR-905	6-M	50,000	23,500	0.47	B	6-PA	0.39	A	N
	SR-905 to Airway Rd.	6-M	50,000	35,000	0.70	C	6-PA	0.58	B	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	4-CL	30,000	40,500	1.35	**F**	4-M	1.01	**F**	**Y**
	Airway Rd. to Siempre Viva Rd.	4-CL	30,000	40,500	1.35	**F**	4-M	1.01	**F**	**Y**
	Siempre Viva Rd. to South End	2-CL	15,000	11,000	0.73	D	-	-	-	N
Britannia Boulevard	Otay Mesa Rd. to SR-905	4-M	40,000	17,500	0.44	B	6-PA	0.29	A	N
	SR-905 to Airway Rd.	4-M	40,000	63,000	1.58	**F**	6-PA	1.05	**F**	**Y**
	Airway Rd. to Siempre Viva Rd.	4-M	40,000	44,500	1.11	**F**	6-M	0.89	D	N
	Siempre Viva Rd. to South End	2-C	8,000	22,000	2.75	**F**	4-CL	0.73	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	6-PA	60,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Lone Star Rd. to Aviator Rd.	6-PA	60,000	19,500	0.33	A	4-M	0.49	B	N
	Aviator Rd. to Otay Mesa Rd.	6-PA	60,000	22,500	0.38	A	4-M	0.56	C	N
	Otay Mesa Rd. to SR-905	6-PA	60,000	37,500	0.63	C	-	-	-	N
	SR-905 to Airway Rd.	6-PA	60,000	64,000	1.06	**F**	-	-	-	**Y**
	Airway Rd. to Siempre Viva Rd.	4-M	40,000	33,000	0.83	D	5-M	0.73	C	N
Harvest Road	South of Otay Mesa Rd.	4-M	40,000	8,500	0.21	A	2-CL	0.57	C	N
	Airway Rd. to Otay Center Dr.	4-M	40,000	16,000	0.40	B	4-CL	0.53	C	N
	Otay Center Dr. to Siempre Viva Rd.	4-M	40,000	10,000	0.25	A	4-CL	0.33	A	N
Enrico Fermi Drive	SR-11 to Airway Rd.*	4-M	40,000	15,500	0.62	B	-	-	-	N
	Airway Rd. to Siempre Viva Rd.	4-M	40,000	8,000	0.20	A	4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	4-M	40,000	10,500	0.26	A	4-CL	0.35	B	N

However, due to the uncertainty associated with implementing freeway ramp improvements, and uncertainty related to implementation of TDM measures, the freeway ramp impacts associated with the CPU would remain significant and ~~unavoidable~~ unmitigated at the program-level.

5.12.3.4 Significance After Mitigation

a. Roadway Segments

Implementation of roadway segment improvements proposed as part of the CPU (see Section 5.12.3.1(a) above) would resolve several traffic impacts that would occur under the Horizon Year. However, 24 significant impacts as shown in Table 5.12-5 would remain ~~unavoidable~~unmitigated and would operate unacceptably in the Horizon Year plus CPU Condition as shown below~~.~~:

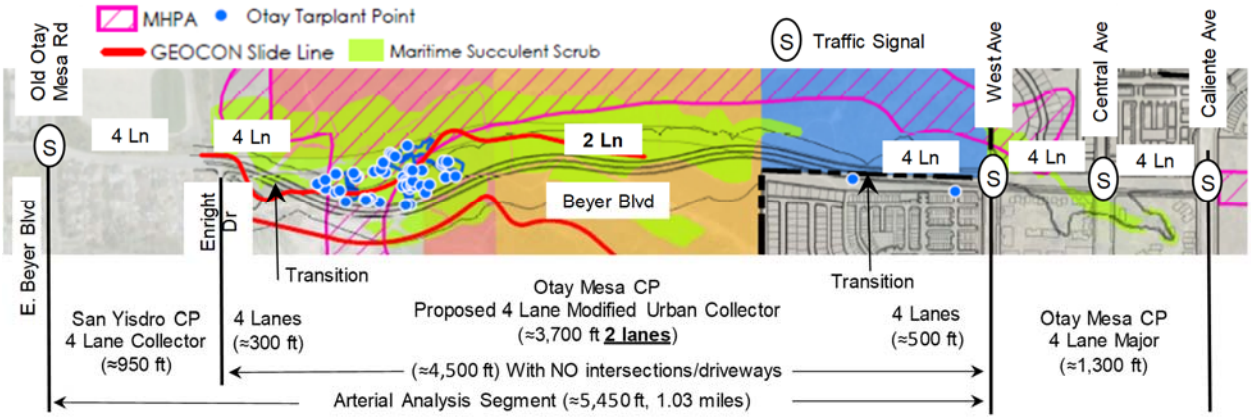
1. Otay Mesa Road, Caliente Ave. to Corporate Center Dr.
2. Otay Mesa Road, Heritage Rd. to Cactus Rd.
3. Airway Road, Caliente Ave. to Heritage Rd.
4. Airway Road, Heritage Rd. to Cactus Rd.
5. Siempre Viva Road, Otay Center Dr. to SR-905
6. Siempre Viva Road, SR-905 to Paseo de las Americas
7. Caliente Avenue, Airway Rd. to Beyer Blvd.
8. Caliente Avenue, Beyer Blvd. to Siempre Viva Rd.
9. Heritage Road/Otay Valley Road, Main St. to Avenida de Las Vistas
10. Heritage Road/Otay Valley Road, Avenida de las Vistas to Datsun St.
11. Cactus Road, Otay Mesa Rd. to Airway Rd.
12. Cactus Road, Airway Rd. to Siempre Viva Rd.
13. Britannia Boulevard, SR-905 to Airway Rd.
14. La Media Road, SR-905 to Airway Rd.
15. Dennery Road, Black Coral Ln. to East End
16. Avenida de las Vistas, Vista Santo Domingo to Dennery Rd.
17. Del Sol Boulevard, Surf Crest Dr. to Riviera Pointe
18. Del Sol Boulevard, Riviera Pointe to Dennery Rd.
19. Old Otay Mesa Road, Crescent Bay Dr. to Beyer Blvd.
20. Camino Maquiladora, Heritage Rd. to Pacific Rim Ct.
21. Camino Maquiladora, Pacific Rim Ct. to Cactus Rd.
22. Progressive Avenue, Corporate Center Dr. to Innovative Dr.
23. Datsun Street, Innovative Dr. to Heritage Rd.
24. Exposition Way/Vista Santo Domingo, Avenida de las Vistas to Corporate Center Dr.

Attachment B

Beyer Blvd Downgrade Details

Beyer Blvd Horizon Year Arterial Analysis (LOS Engineering, Inc.)

Purpose: To find a solution to support a 2-lane cross section across environmentally sensitive lands regulated by a non-City of San Diego jurisdiction. Horizon year arterial analysis from Old Otay Mesa Rd/E. Beyer Blvd to Caliente Ave as shown.



The proposed Beyer Blvd alignment and section with 2 lanes is shown on the next page.

The horizon year intersection volumes for Beyer/E. Beyer/Old Otay Mesa Rd were obtained from the San Ysidro CPU EIR. This horizon year volumes set is higher over existing volumes by 310% AM and 411% PM. Therefore, this intersection was expanded in Synchro beyond the available right-of-way to reach acceptable LOS with the horizon year volumes.

The San Ysidro CPU EIR did not expand this intersection to accommodate the volumes and listed this intersection as failing with overrides. Following this Arterial Analysis is a Supplemental Analysis that provides the percentage of horizon year volumes that can be accommodated within the existing right-of-way and within the anticipated right-of-way that is typically required for the respective roadway approach classifications.

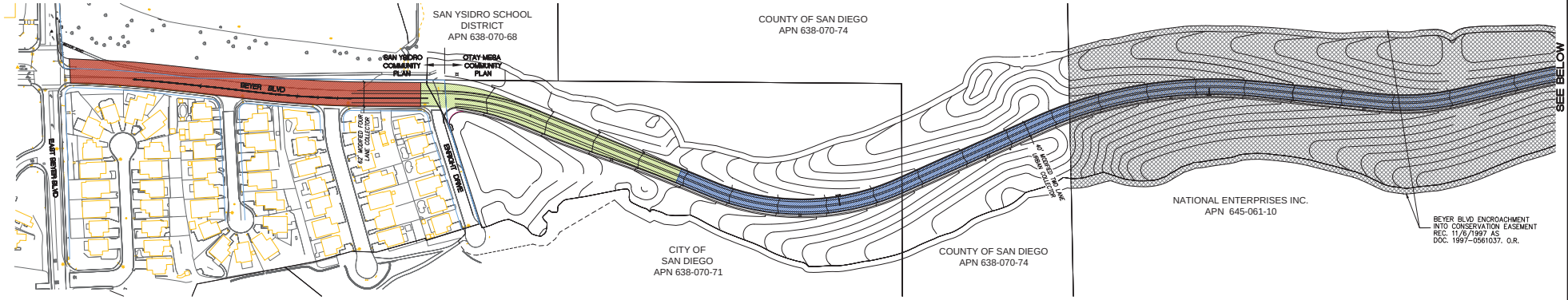
Expanding the intersection at Beyer/E. Beyer/Old Otay Mesa Rd (west end) and the proposed lane configuration along the three signalized intersection in Southwest Village (east end) to match the proposed classification along with 5,130 homes for Southwest Village (max units), the arterial speeds and the intersections at both ends of this arterial analysis are at acceptable LOS as shown below.

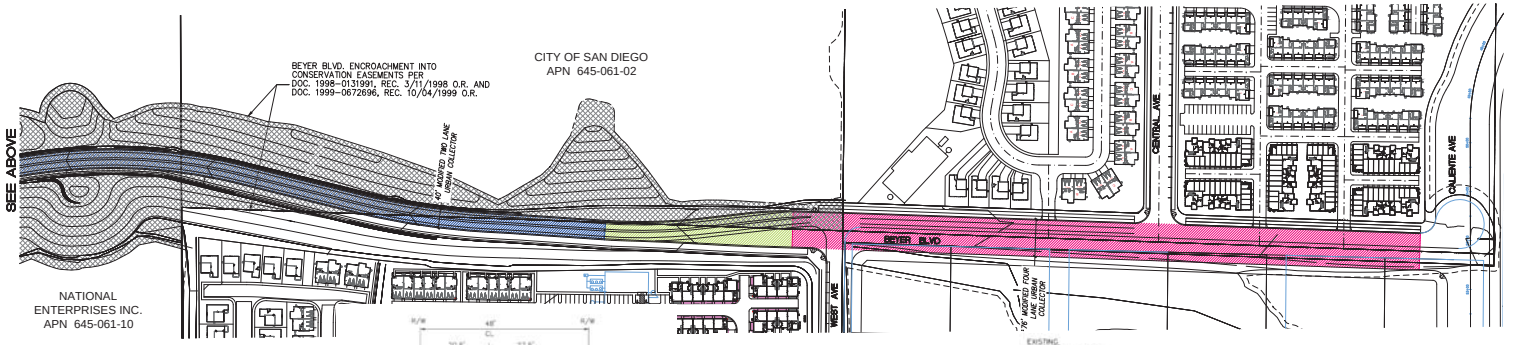
Horizon Year Beyer Blvd Arterial Analysis LOS and Speeds

Beyer Blvd 35 MPH	**2 Lanes (≈3,700 ft Enright Dr to West Ave) Overall Segment ≈6,750 ft**
AM EB	LOS A 31.1 MPH (Enright Dr to West Ave) & Overall Segment = LOS D
AM WB	LOS C 22.1 MPH (West Ave to Enright Dr) & Overall Segment = LOS C
PM EB	LOS B 27.5 MPH (Enright Dr to West Ave) & Overall Segment = LOS D
PM WB	LOS B 27.7 MPH (West Ave to Enright Dr) & Overall Segment = LOS C
West end Old Otay signal LOS D/D (AM/PM)	East end Caliente signal LOS B/B (AM/PM)

Design speed of 35 MPH from Street Design Manual for a Four Lane Urban Collector

Attachments





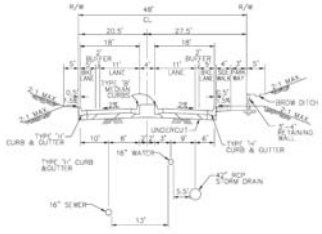
LEGEND

- FOUR LANE COLLECTOR WITHIN SAN YSIDRO COMMUNITY PLAN
- TRANSITION AREA TO FOUR LANES WHEN WARRANTED
- MODIFIED 4 LANE URBAN COLLECTOR CONSTRUCTED WITH TWO LANES DUE TO ENVIRONMENTALLY SENSITIVE HABITAT
- FOUR LANE URBAN MAJOR
- APPROXIMATE LIMITS OF CONSERVATION EASEMENT VACATION

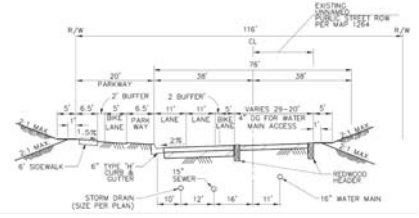
TOTAL LENGTH OF BEYER BLVD (FROM EAST BEYER BLVD TO CALIENTE AVE) = 6,800 FEET

TOTAL LENGTH OF 2 LANE SECTION (FROM END OF TRANSITION EAST OF ENRIGHT DRIVE TO START OF TRANSITION WEST OF WEST AVE) = 3,500 FEET

0 30 60 120 180



MODIFIED 4 LANE URBAN COLLECTOR
PROPOSED BEYER BLVD SECTION
(FROM ENRIGHT DRIVE TO WEST AVE)
NOT TO SCALE



4 LANE URBAN MAJOR
INTERIM BEYER BLVD EAST SECTION
(FROM WEST AVE TO CALIENTE AVE)
NOT TO SCALE

CIVIL SENSE INC
13475 Danielson Street, Suite 150 | Poway, CA 92064
Office: 858-842-4333

SOUTHWEST VILLAGE
BEYER BOULEVARD

REVISED DATE 6/12/2022

Arterial Level of Service: EB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
E Beyer Blvd	III	35	14.6	91.7	106.3	0.11	3.7	F
West Ave	III	35	106.1	13.2	119.3	1.03	31.1	A
Central Ave	III	35	17.0	26.0	43.0	0.13	11.1	E
Caliente Ave	III	35	15.4	18.4	33.8	0.11	12.1	E
Total	III		153.1	149.3	302.4	1.39	16.5	D

Arterial Level of Service: WB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Central Ave	III	35	15.4	21.7	37.1	0.11	11.1	E
West Ave	III	35	17.0	10.7	27.7	0.13	17.3	D
Otay Mesa Rd	III	35	106.1	61.9	168.0	1.03	22.1	C
Total	III		138.5	94.3	232.8	1.28	19.8	C

Arterial Level of Service: EB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
E Beyer Blvd	III	35	14.6	73.9	88.5	0.11	4.4	F
West Ave	III	35	106.1	28.9	135.0	1.03	27.5	B
Central Ave	III	35	17.0	69.9	86.9	0.13	5.5	F
Caliente Ave	III	35	15.4	24.1	39.5	0.11	10.4	E
Total	III		153.1	196.8	349.9	1.39	14.3	D

Arterial Level of Service: WB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Central Ave	III	35	15.4	26.3	41.7	0.11	9.8	F
West Ave	III	35	17.0	5.7	22.7	0.13	21.1	C
Otay Mesa Rd	III	35	106.1	28.0	134.1	1.03	27.7	B
Total	III		138.5	60.0	198.5	1.28	23.2	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Future Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.96	1.00		0.88	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
Arrive On Green	0.20	0.27	0.27	0.26	0.33	0.33	0.17	0.21	0.21	0.10	0.14	0.14
Sat Flow, veh/h	3456	3554	2562	3456	3554	1525	3456	3554	2446	1781	3554	2678
Grp Volume(v), veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Grp Sat Flow(s),veh/h/ln	1728	1777	1281	1728	1777	1525	1728	1777	1223	1781	1777	1339
Q Serve(g_s), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Cycle Q Clear(g_c), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
V/C Ratio(X)	0.89	0.92	0.32	1.05	0.85	0.36	0.85	0.54	0.71	0.80	0.57	0.30
Avail Cap(c_a), veh/h	826	952	1167	893	1174	665	718	745	1234	483	970	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	44.1	22.8	46.1	38.7	23.7	49.9	43.8	27.3	54.6	49.8	30.2
Incr Delay (d2), s/veh	10.5	14.8	0.7	45.3	6.1	0.3	9.7	1.2	2.3	13.1	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	14.5	3.5	19.2	14.9	4.6	8.2	5.5	10.4	5.0	4.2	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	58.9	23.5	91.4	44.9	24.1	59.6	45.0	29.5	67.7	51.6	30.5
LnGrp LOS	E	E	C	F	D	C	E	D	C	E	D	C
Approach Vol, veh/h		1855			2178			1789			713	
Approach Delay, s/veh		51.8			62.7			41.5			46.6	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.0	38.2	26.3	22.8	29.2	46.0	17.8	31.2
Change Period (Y+Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2
Max Green Setting (Gmax), s	32.1	33.3	25.8	33.9	29.7	36.1	33.7	* 26
Max Q Clear Time (g_c+I1), s	34.1	31.6	19.7	11.6	23.5	34.6	11.9	28.0
Green Ext Time (p_c), s	0.0	1.1	1.7	4.8	1.3	1.1	0.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

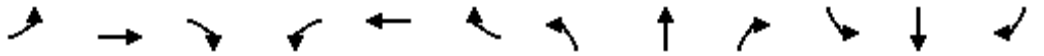
LOS Engineering, Inc.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	275	136	54	773	326	163
Future Volume (veh/h)	275	136	54	773	326	163
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	299	148	59	840	354	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	584	282	90	1559	512	456
Arrive On Green	0.25	0.25	0.05	0.44	0.29	0.29
Sat Flow, veh/h	2417	1122	1781	3647	1781	1585
Grp Volume(v), veh/h	227	220	59	840	354	177
Grp Sat Flow(s),veh/h/ln	1777	1668	1781	1777	1781	1585
Q Serve(g_s), s	3.6	3.7	1.1	5.7	5.8	2.9
Cycle Q Clear(g_c), s	3.6	3.7	1.1	5.7	5.8	2.9
Prop In Lane		0.67	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	446	419	90	1559	512	456
V/C Ratio(X)	0.51	0.52	0.65	0.54	0.69	0.39
Avail Cap(c_a), veh/h	1378	1294	569	4378	2194	1953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	10.6	15.3	6.8	10.4	9.4
Incr Delay (d2), s/veh	0.9	1.0	7.7	0.3	1.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	0.5	1.2	1.5	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.5	11.6	23.1	7.1	12.1	9.9
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	447			899	531	
Approach Delay, s/veh	11.5			8.1	11.4	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.9	6.2	12.8		18.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5	10.5	25.5		40.5
Max Q Clear Time (g_c+I1), s		7.8	3.1	5.7		7.7
Green Ext Time (p_c), s		1.6	0.1	2.5		6.6

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

LOS Engineering, Inc.

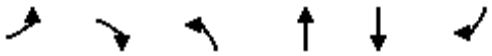


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	284	83	126	476	5	196	33	236	5	27	155
Future Volume (veh/h)	39	284	83	126	476	5	196	33	236	5	27	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	309	90	137	517	5	213	36	257	5	29	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	499	143	155	845	8	294	50	353	155	41	238
Arrive On Green	0.04	0.18	0.18	0.09	0.23	0.23	0.16	0.25	0.25	0.09	0.17	0.17
Sat Flow, veh/h	1781	2726	781	1781	3606	35	1781	198	1417	1781	239	1383
Grp Volume(v), veh/h	42	200	199	137	255	267	213	0	293	5	0	197
Grp Sat Flow(s),veh/h/ln	1781	1777	1730	1781	1777	1864	1781	0	1615	1781	0	1621
Q Serve(g_s), s	1.1	4.7	4.9	3.5	5.9	5.9	5.2	0.0	7.6	0.1	0.0	5.2
Cycle Q Clear(g_c), s	1.1	4.7	4.9	3.5	5.9	5.9	5.2	0.0	7.6	0.1	0.0	5.2
Prop In Lane	1.00		0.45	1.00		0.02	1.00		0.88	1.00		0.85
Lane Grp Cap(c), veh/h	64	325	317	155	416	437	294	0	403	155	0	279
V/C Ratio(X)	0.65	0.61	0.63	0.88	0.61	0.61	0.72	0.00	0.73	0.03	0.00	0.71
Avail Cap(c_a), veh/h	155	620	604	155	620	651	622	0	564	622	0	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	17.2	17.3	20.7	15.7	15.7	18.1	0.0	15.8	19.1	0.0	17.9
Incr Delay (d2), s/veh	10.6	1.9	2.1	40.0	1.5	1.4	3.4	0.0	2.9	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.8	1.8	3.0	2.1	2.2	2.0	0.0	2.5	0.0	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	19.1	19.3	60.6	17.1	17.1	21.5	0.0	18.6	19.2	0.0	21.2
LnGrp LOS	C	B	B	E	B	B	C	A	B	B	A	C
Approach Vol, veh/h		441			659			506			202	
Approach Delay, s/veh		20.5			26.2			19.9			21.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	15.9	8.5	12.9	12.1	12.4	6.2	15.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.0	16.0	4.0	16.0	16.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.1	9.6	5.5	6.9	7.2	7.2	3.1	7.9
Green Ext Time (p_c), s	0.0	0.8	0.0	1.5	0.4	0.6	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

LOS Engineering, Inc.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	408	112	261	792	367	340
Future Volume (veh/h)	408	112	261	792	367	340
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	443	122	284	861	399	370
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	762	349	495	1896	949	745
Arrive On Green	0.22	0.22	0.14	0.53	0.27	0.27
Sat Flow, veh/h	3456	1585	3456	3647	3647	2790
Grp Volume(v), veh/h	443	122	284	861	399	370
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1395
Q Serve(g_s), s	4.2	2.4	2.8	5.5	3.4	4.1
Cycle Q Clear(g_c), s	4.2	2.4	2.8	5.5	3.4	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	762	349	495	1896	949	745
V/C Ratio(X)	0.58	0.35	0.57	0.45	0.42	0.50
Avail Cap(c_a), veh/h	2315	1062	1654	4518	2381	1869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.0	14.6	5.3	11.1	11.3
Incr Delay (d2), s/veh	0.7	0.6	1.1	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.3	0.9	0.7	0.9	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	12.6	15.7	5.4	11.4	11.8
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	565			1145	769	
Approach Delay, s/veh	13.3			8.0	11.6	
Approach LOS	B			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.0		12.6	9.7	14.3
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		46.5		24.5	17.5	24.5
Max Q Clear Time (g_c+I1), s		7.5		6.2	4.8	6.1
Green Ext Time (p_c), s		6.4		1.9	0.7	3.7

Intersection Summary		
HCM 6th Ctrl Delay		10.3
HCM 6th LOS		B

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Future Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.86	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
Arrive On Green	0.04	0.20	0.20	0.33	0.50	0.50	0.06	0.17	0.17	0.15	0.27	0.00
Sat Flow, veh/h	3456	3554	2507	3456	3554	1539	3456	3554	2389	1781	3554	2790
Grp Volume(v), veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Grp Sat Flow(s),veh/h/ln	1728	1777	1253	1728	1777	1539	1728	1777	1194	1781	1777	1395
Q Serve(g_s), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Cycle Q Clear(g_c), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
V/C Ratio(X)	0.65	0.88	0.34	0.97	0.40	0.08	0.71	0.21	0.48	0.89	0.15	-0.17
Avail Cap(c_a), veh/h	708	719	668	1163	1781	1013	536	621	1351	406	965	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.6	57.6	44.9	48.7	23.2	9.4	68.9	52.7	24.5	61.8	41.1	0.0
Incr Delay (d2), s/veh	5.2	14.6	1.4	19.1	0.1	0.0	7.6	0.3	0.4	18.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.8	3.6	22.9	7.7	1.0	2.8	2.1	7.4	10.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	72.2	46.3	67.9	23.3	9.5	76.5	52.9	24.9	80.2	41.2	0.0
LnGrp LOS	E	E	D	E	C	A	E	D	C	F	D	A
Approach Vol, veh/h		949			1919			915			236	
Approach Delay, s/veh		66.2			48.7			36.9			106.6	
Approach LOS		E			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	54.7	35.0	13.5	45.6	10.2	79.5	27.9	31.2
Change Period (Y+Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2
Max Green Setting (Gmax), s	50.1	30.1	23.1	36.8	30.5	50.1	33.9	* 26
Max Q Clear Time (g_c+I1), s	49.5	27.7	8.0	6.5	5.7	20.7	21.7	28.0
Green Ext Time (p_c), s	0.3	1.1	0.6	1.3	0.2	4.9	1.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	912	439	187	491	273	149
Future Volume (veh/h)	912	439	187	491	273	149
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	991	477	203	534	297	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1116	526	245	2402	354	315
Arrive On Green	0.48	0.48	0.14	0.68	0.20	0.20
Sat Flow, veh/h	2437	1105	1781	3647	1781	1585
Grp Volume(v), veh/h	746	722	203	534	297	162
Grp Sat Flow(s),veh/h/ln	1777	1672	1781	1777	1781	1585
Q Serve(g_s), s	27.3	28.7	8.0	4.1	11.5	6.6
Cycle Q Clear(g_c), s	27.3	28.7	8.0	4.1	11.5	6.6
Prop In Lane		0.66	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	846	796	245	2402	354	315
V/C Ratio(X)	0.88	0.91	0.83	0.22	0.84	0.51
Avail Cap(c_a), veh/h	876	824	285	2542	483	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	17.4	30.2	4.4	27.7	25.7
Incr Delay (d2), s/veh	10.2	13.5	16.2	0.0	9.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	12.4	4.3	1.1	5.3	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.3	30.8	46.4	4.5	37.0	27.0
LnGrp LOS	C	C	D	A	D	C
Approach Vol, veh/h	1468			737	459	
Approach Delay, s/veh	29.0			16.0	33.5	
Approach LOS	C			B	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.8	14.4	38.8		53.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		19.5	11.5	35.5		51.5
Max Q Clear Time (g_c+I1), s		13.5	10.0	30.7		6.1
Green Ext Time (p_c), s		0.8	0.1	3.6		3.9

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

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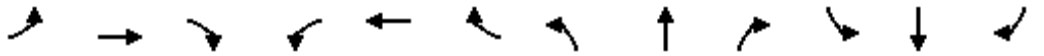

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	614	252	343	452	5	154	30	245	5	94	72
Future Volume (veh/h)	166	614	252	343	452	5	154	30	245	5	94	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	667	274	373	491	5	167	33	266	5	102	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	662	272	410	1350	14	214	38	303	94	141	108
Arrive On Green	0.13	0.27	0.27	0.23	0.37	0.37	0.12	0.21	0.21	0.05	0.14	0.14
Sat Flow, veh/h	1781	2457	1009	1781	3604	37	1781	178	1434	1781	983	752
Grp Volume(v), veh/h	180	482	459	373	242	254	167	0	299	5	0	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1689	1781	1777	1864	1781	0	1612	1781	0	1735
Q Serve(g_s), s	7.5	20.5	20.5	15.5	7.5	7.5	6.9	0.0	13.7	0.2	0.0	7.5
Cycle Q Clear(g_c), s	7.5	20.5	20.5	15.5	7.5	7.5	6.9	0.0	13.7	0.2	0.0	7.5
Prop In Lane	1.00		0.60	1.00		0.02	1.00		0.89	1.00		0.43
Lane Grp Cap(c), veh/h	223	479	455	410	665	698	214	0	340	94	0	249
V/C Ratio(X)	0.81	1.01	1.01	0.91	0.36	0.36	0.78	0.00	0.88	0.05	0.00	0.72
Avail Cap(c_a), veh/h	391	479	455	410	665	698	375	0	382	375	0	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	27.8	27.8	28.5	17.2	17.2	32.5	0.0	29.1	34.2	0.0	31.1
Incr Delay (d2), s/veh	6.8	42.9	44.0	23.9	0.3	0.3	6.1	0.0	18.9	0.2	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	13.8	13.2	8.9	2.9	3.0	3.1	0.0	6.6	0.1	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	70.7	71.8	52.4	17.6	17.5	38.5	0.0	47.9	34.5	0.0	35.1
LnGrp LOS	D	F	F	D	B	B	D	A	D	C	A	D
Approach Vol, veh/h		1121			869			466			185	
Approach Delay, s/veh		66.0			32.5			44.6			35.1	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	20.5	22.0	25.0	13.6	15.4	14.0	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.0	18.0	17.5	20.5	16.0	18.0	16.7	21.3
Max Q Clear Time (g_c+I1), s	2.2	15.7	17.5	22.5	8.9	9.5	9.5	9.5
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.2	0.5	0.3	2.2

Intersection Summary	
HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

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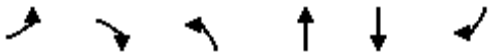


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	541	317	187	597	966	609
Future Volume (veh/h)	541	317	187	597	966	609
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	588	345	203	649	1050	662
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	908	417	311	2030	1416	1112
Arrive On Green	0.26	0.26	0.09	0.57	0.40	0.40
Sat Flow, veh/h	3456	1585	3456	3647	3647	2790
Grp Volume(v), veh/h	588	345	203	649	1050	662
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1395
Q Serve(g_s), s	8.2	11.1	3.1	5.2	13.7	10.2
Cycle Q Clear(g_c), s	8.2	11.1	3.1	5.2	13.7	10.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	908	417	311	2030	1416	1112
V/C Ratio(X)	0.65	0.83	0.65	0.32	0.74	0.60
Avail Cap(c_a), veh/h	1019	467	363	2291	1624	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	18.9	23.9	6.1	13.9	12.9
Incr Delay (d2), s/veh	1.2	10.8	3.3	0.1	1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	10.3	1.2	1.2	4.4	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	29.6	27.2	6.2	15.5	13.5
LnGrp LOS	B	C	C	A	B	B
Approach Vol, veh/h	933			852	1712	
Approach Delay, s/veh	22.9			11.2	14.7	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.5		18.8	9.4	26.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		35.0		16.0	5.7	24.8
Max Q Clear Time (g_c+I1), s		7.2		13.1	5.1	15.7
Green Ext Time (p_c), s		4.3		1.1	0.0	5.9

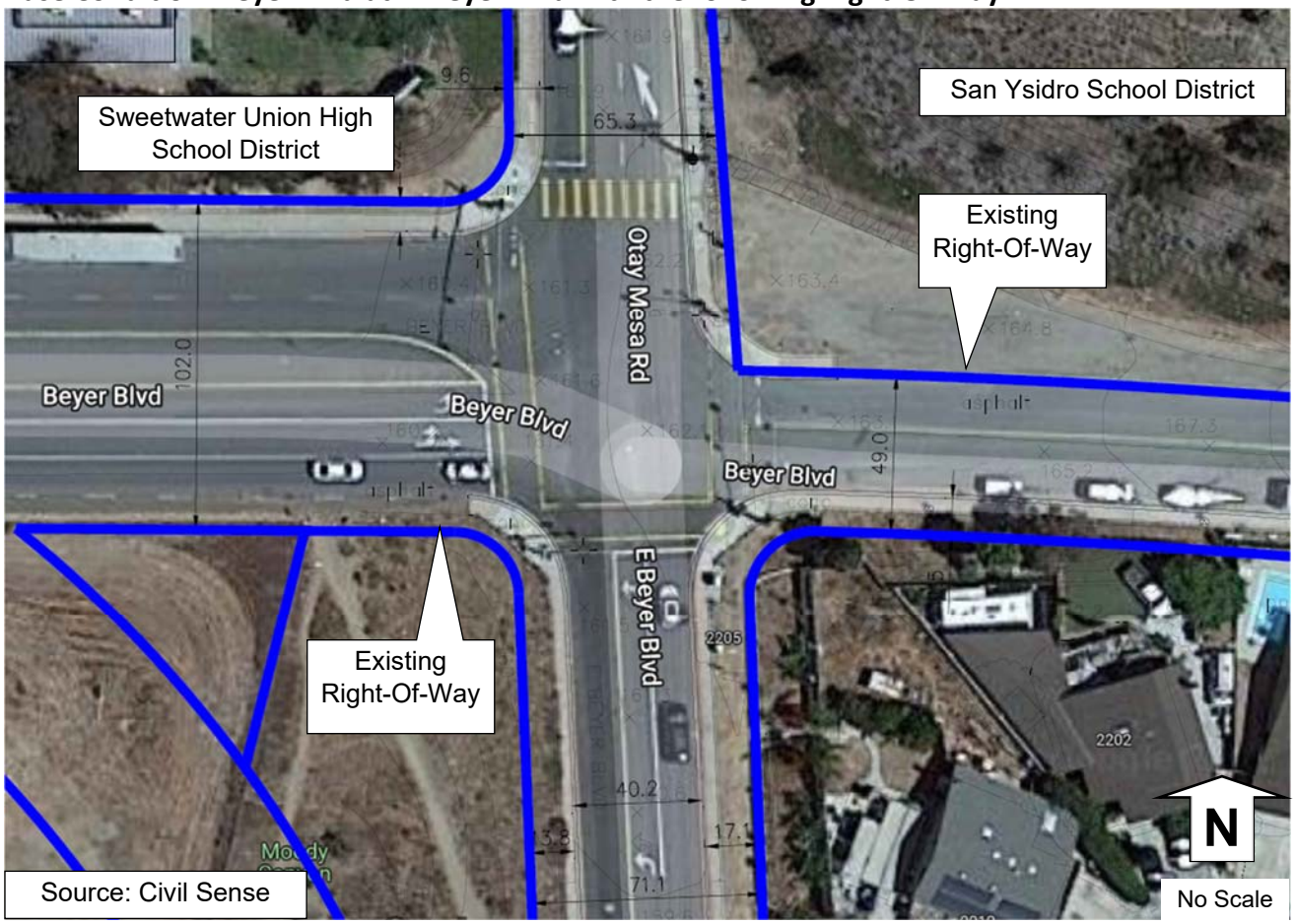
Intersection Summary		
HCM 6th Ctrl Delay		16.1
HCM 6th LOS		B

LOS Engineering, Inc.

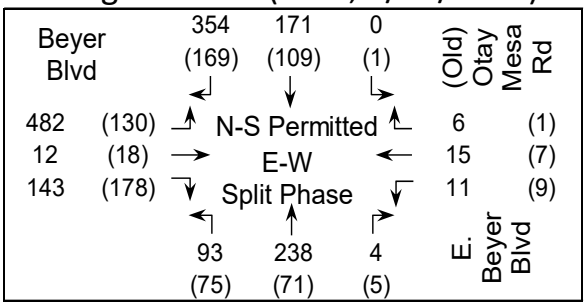
Beyer Blvd 2 Lane Supplemental Analysis (LOS Engineering, Inc.)
Beyer at E. Beyer Intersection Options for Horizon Year Operations

This planning level analysis includes widening scenarios at intersection of Beyer Blvd at E. Beyer Blvd to determine what percent of San Ysidro CPU horizon year volumes can be supported. LOS worksheets are included following the text.

Base Condition: Beyer Blvd at E. Beyer Blvd with the following Right-Of-Way

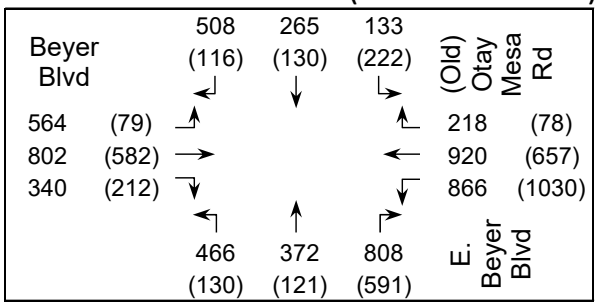


Existing Volumes (Thur, 2/10/2022)



AM LOS C 28.6 sec of delay
PM LOS C 20.1 sec of delay

Horizon Year Volumes (San Ysidro CPU)



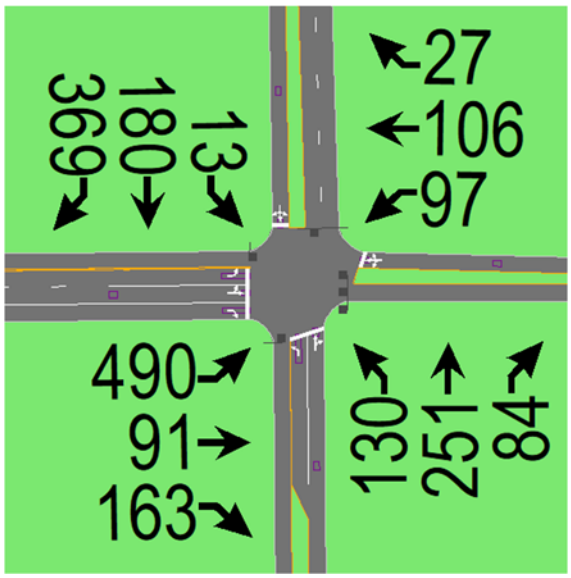
AM LOS F 195.2 sec of delay after Mitigation
PM LOS F 155.8 sec of delay after Mitigation
SYCPU: Impact considered unavoidable.

Scenario 1: Within Existing Right-Of-Way

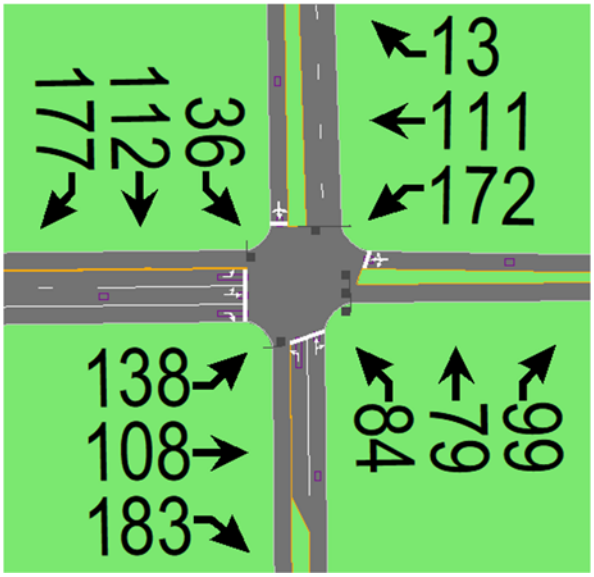
Working within available ROW (blue lines represent existing ROW).

AM LOS D (50.7 sec of delay) at 32% of SYCPU Horizon Year Volumes
PM LOS D (52.5 sec of delay) at 33% of SYCPU Horizon Year Volumes

AM (32% of horizon volume)

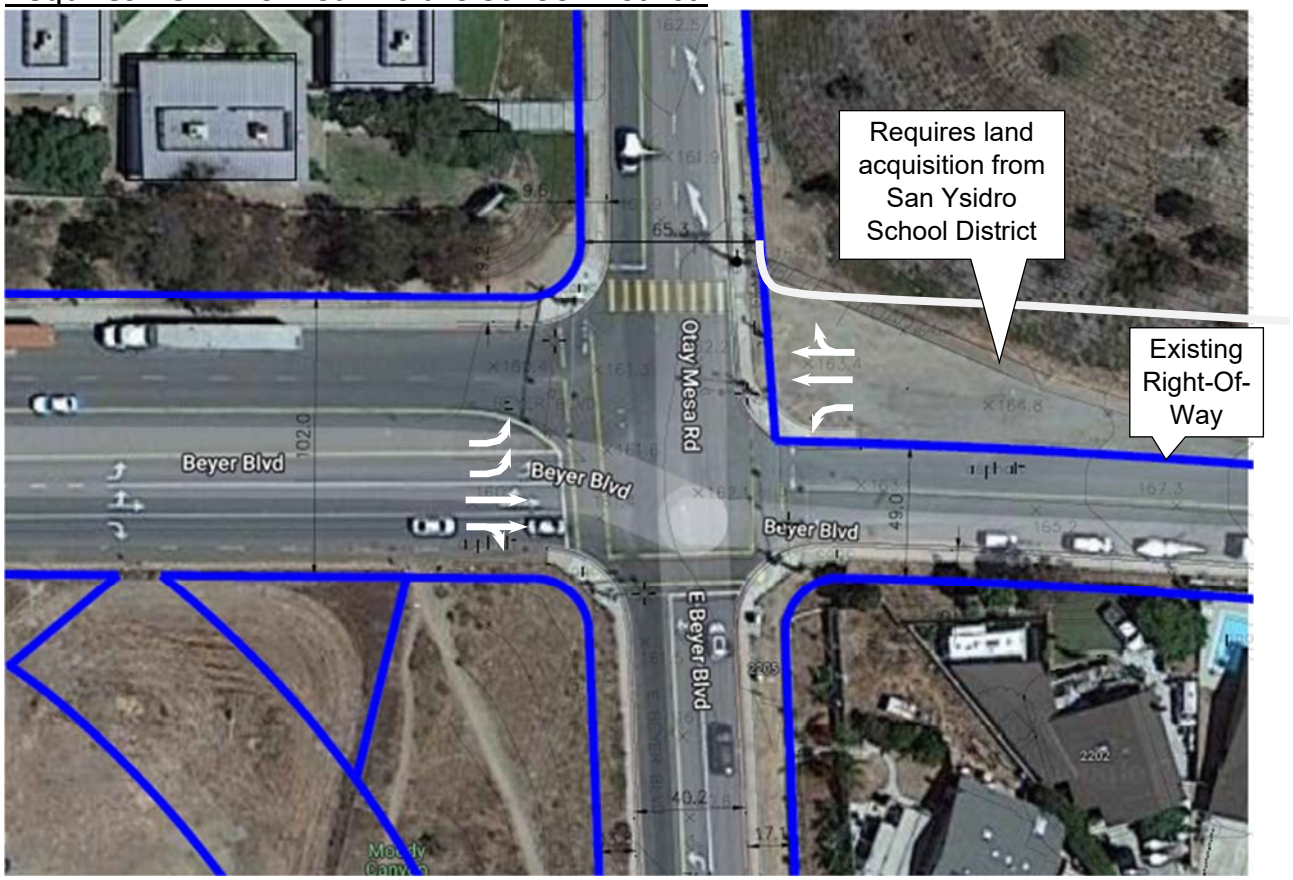


PM (33% of horizon volume)



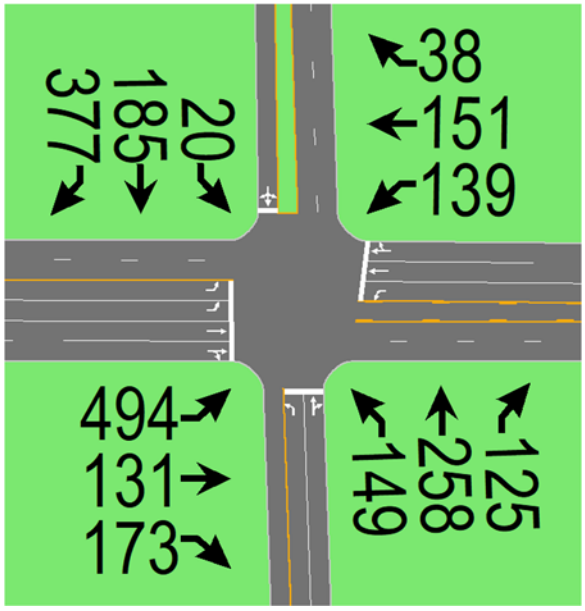
Scenario 2: Widening within San Ysidro School District with lanes as shown

Requires ROW from San Ysidro School District.

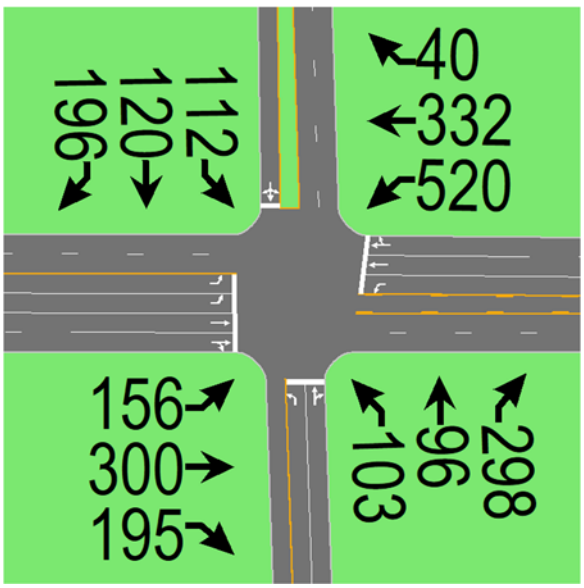


AM LOS D (54.0 sec of delay) at 36% of SYCPU Horizon Year Volumes
PM LOS D (52.7 sec of delay) at 63% of SYCPU Horizon Year Volumes

AM (36% of horizon volumes)

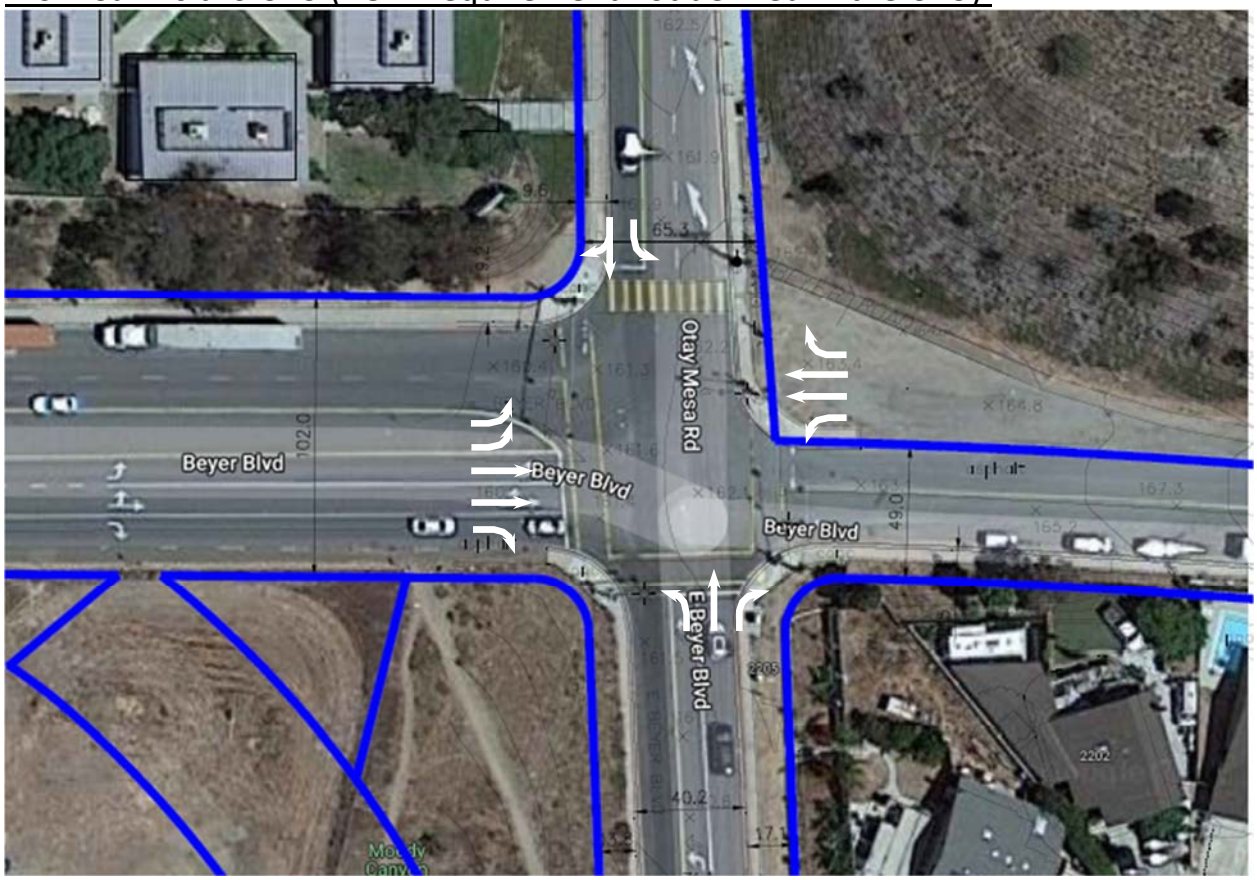


PM (63% of horizon volumes)



Scenario 3: SYCPU EIR fails to support 100% of the Horizon Year Volumes

From San Ysidro CPU (ROW requirement not defined in the CPU).



AM LOS F (195.2 sec of delay) with SYCPU Horizon Year Volumes
AM LOS Worksheet SYCPU (Kimley-Horn)

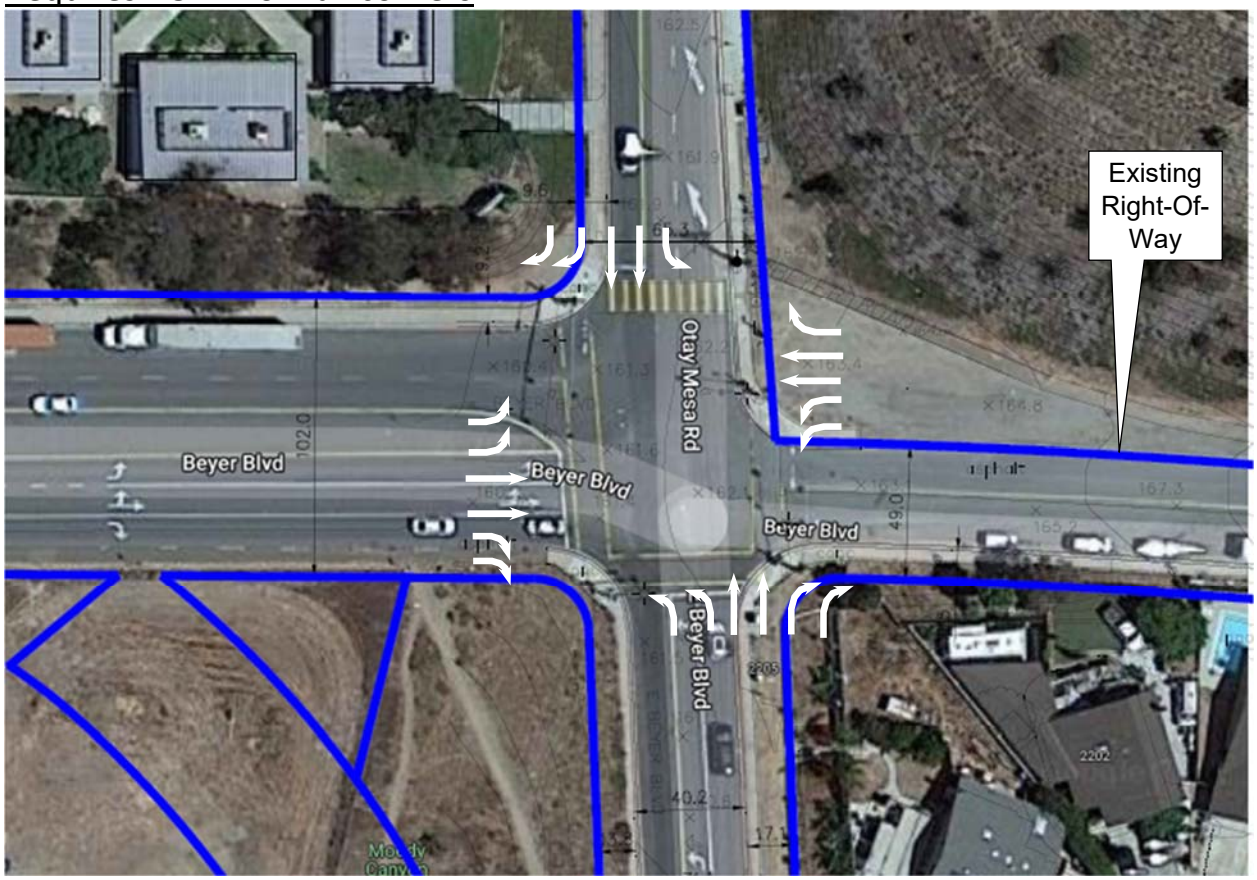
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	557	803	329	856	918	219	452	369	796	135	260	504

PM LOS F (155.8 sec of delay) with SYCPU Horizon Year Volumes
PM LOS Worksheet from SYCPU (Kimley-Horn)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	580	205	1018	657	79	123	118	586	223	126	116

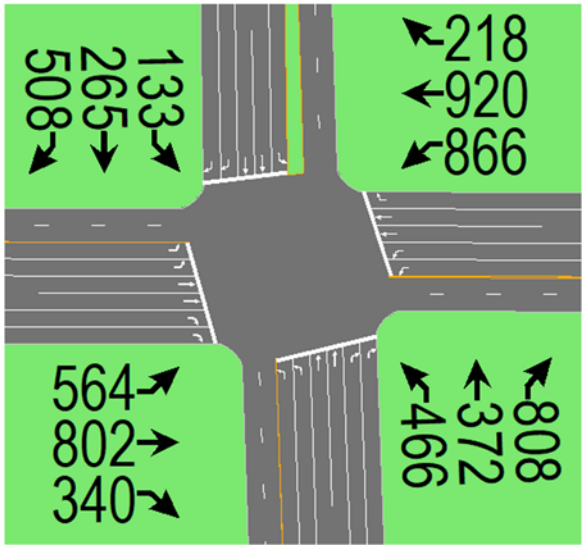
Scenario 4: Lane requirements to support 100% of the Horizon Year Volumes

Requires ROW from all corners

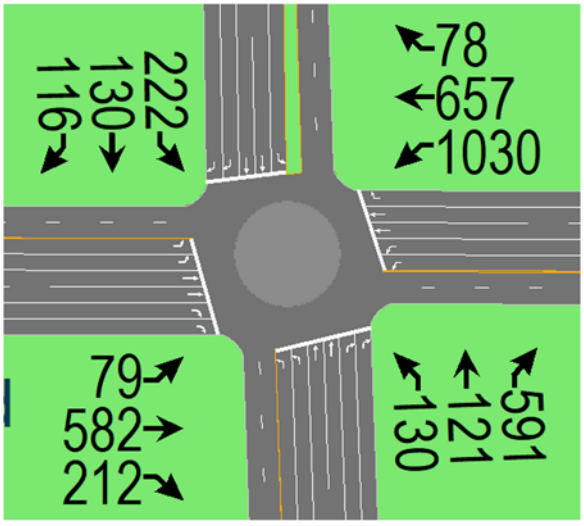


AM LOS D (54.8 sec of delay) at 100% of SYCPU Horizon Year Volumes
PM LOS D (54.9 sec of delay) at 100% of SYCPU Horizon Year Volumes

AM (100% of horizon volumes)



PM (100% of horizon volumes)



CONCLUSION

Scenario 1 shows how much of the Horizon Year volumes can be supported within the existing right-of-way, which is 32% in the AM and 33% in the PM.

Scenario 2 covers widening within San Ysidro School District that results in supporting Horizon Year volumes at 36% in the AM and 63% in the PM.

Scenario 3 shows how the SYCPU EIR fails to support 100% of the Horizon Year Volumes.

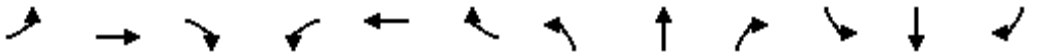
Scenario 4 covers what is required to support 100% of the San Ysidro CPU horizon year volumes at the intersection of Beyer Blvd/E. Beyer Blvd. This scenario requires expanding the intersection well beyond available ROW to incorporate multiple approach lanes that are excessive for the roadway classifications.

The findings for each option are summarized below.

Summary Table

Scenario	% Capacity of Horizon Year Volume	Notes
1	AM 32% PM 33%	Within existing ROW Adding E-W protected lefts
2	AM 36% PM 63%	Required ROW from San Ysidro School District Completes west leg of Beyer Blvd by adding left, thought, and through-right lanes.
3	AM ≈100% PM ≈100%	From San Ysidro CPU with undefined ROW needs. Continues to have LOS F AM & PM
4	AM 100% PM 100%	Requires ROW from each corner. Approach lanes exceed what is typically required for the respective approach classifications.

Scenario 1 LOS Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	91	163	97	106	27	130	251	84	13	180	369
Future Volume (veh/h)	490	91	163	97	106	27	130	251	84	13	180	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.96	1.00		0.93	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	669	0	196	121	132	34	186	359	120	15	202	415
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.70	0.70	0.70	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	898	0	368	146	159	41	164	545	182	40	222	439
Arrive On Green	0.25	0.00	0.25	0.20	0.20	0.20	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	3534	0	1448	746	814	210	800	1304	436	17	532	1050
Grp Volume(v), veh/h	669	0	196	287	0	0	186	0	479	632	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1448	1769	0	0	800	0	1740	1599	0	0
Q Serve(g_s), s	19.3	0.0	12.9	17.2	0.0	0.0	4.2	0.0	24.5	16.8	0.0	0.0
Cycle Q Clear(g_c), s	19.3	0.0	12.9	17.2	0.0	0.0	46.2	0.0	24.5	42.0	0.0	0.0
Prop In Lane	1.00		1.00	0.42		0.12	1.00		0.25	0.02		0.66
Lane Grp Cap(c), veh/h	898	0	368	346	0	0	164	0	727	701	0	0
V/C Ratio(X)	0.75	0.00	0.53	0.83	0.00	0.00	1.14	0.00	0.66	0.90	0.00	0.00
Avail Cap(c_a), veh/h	898	0	368	416	0	0	164	0	727	707	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.0	0.0	35.6	42.7	0.0	0.0	44.4	0.0	25.9	30.9	0.0	0.0
Incr Delay (d2), s/veh	5.6	0.0	5.4	11.3	0.0	0.0	111.4	0.0	2.7	14.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	4.9	8.3	0.0	0.0	9.5	0.0	10.0	17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	0.0	41.0	54.0	0.0	0.0	155.8	0.0	28.6	45.6	0.0	0.0
LnGrp LOS	D	A	D	D	A	A	F	A	C	D	A	A
Approach Vol, veh/h		865			287			665			632	
Approach Delay, s/veh		43.0			54.0			64.2			45.6	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.0	51.1	26.5	51.1
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	28.1	* 47	26.0	46.2
Max Q Clear Time (g_c+I1), s	21.3	44.0	19.2	48.2
Green Ext Time (p_c), s	1.9	1.1	0.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

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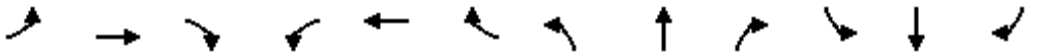


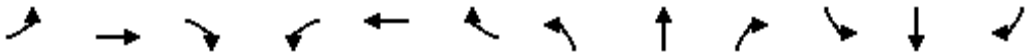
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	108	183	172	111	13	84	79	99	36	112	177
Future Volume (veh/h)	138	108	183	172	111	13	84	79	99	36	112	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.96	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	131	137	195	242	156	18	100	94	118	54	167	264
Peak Hour Factor	0.94	0.94	0.94	0.71	0.71	0.71	0.84	0.84	0.84	0.67	0.67	0.67
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	519	545	448	270	174	20	180	210	264	75	157	226
Arrive On Green	0.29	0.29	0.29	0.26	0.26	0.26	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1767	1856	1526	1040	670	77	949	730	917	110	548	786
Grp Volume(v), veh/h	131	137	195	416	0	0	100	0	212	485	0	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1526	1787	0	0	949	0	1647	1444	0	0
Q Serve(g_s), s	5.2	5.2	9.5	20.7	0.0	0.0	0.0	0.0	9.7	16.8	0.0	0.0
Cycle Q Clear(g_c), s	5.2	5.2	9.5	20.7	0.0	0.0	25.7	0.0	9.7	26.5	0.0	0.0
Prop In Lane	1.00		1.00	0.58		0.04	1.00		0.56	0.11		0.54
Lane Grp Cap(c), veh/h	519	545	448	463	0	0	180	0	473	458	0	0
V/C Ratio(X)	0.25	0.25	0.43	0.90	0.00	0.00	0.55	0.00	0.45	1.06	0.00	0.00
Avail Cap(c_a), veh/h	519	545	448	525	0	0	180	0	473	458	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.8	24.8	26.4	33.0	0.0	0.0	32.6	0.0	26.9	34.4	0.0	0.0
Incr Delay (d2), s/veh	1.2	1.1	3.1	16.7	0.0	0.0	5.3	0.0	1.1	58.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.3	3.6	10.5	0.0	0.0	2.3	0.0	3.7	17.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	25.9	29.4	49.7	0.0	0.0	37.9	0.0	28.0	92.6	0.0	0.0
LnGrp LOS	C	C	C	D	A	A	D	A	C	F	A	A
Approach Vol, veh/h		463			416			312			485	
Approach Delay, s/veh		27.4			49.7			31.2			92.6	
Approach LOS		C			D			C			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	32.0	31.4	28.8	31.4
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	27.1	* 27	27.1	26.1
Max Q Clear Time (g_c+I1), s	11.5	28.5	22.7	27.7
Green Ext Time (p_c), s	1.4	0.0	0.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.5
HCM 6th LOS	D

LOS Engineering, Inc.

Scenario 2 LOS Worksheets

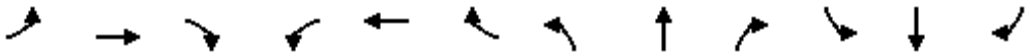


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	494	131	173	139	151	38	149	258	125	20	185	377
Future Volume (veh/h)	494	131	173	139	151	38	149	258	125	20	185	377
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.93	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	537	142	188	151	164	41	162	280	136	22	201	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	607	390	315	182	419	101	492	321	156	25	226	155
Arrive On Green	0.18	0.22	0.22	0.10	0.15	0.15	0.28	0.28	0.28	0.23	0.23	0.23
Sat Flow, veh/h	3456	1777	1435	1781	2795	672	1781	1162	565	105	964	662
Grp Volume(v), veh/h	537	142	188	151	102	103	162	0	416	361	0	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1435	1781	1777	1691	1781	0	1727	1731	0	0
Q Serve(g_s), s	18.0	8.1	14.0	9.9	6.1	6.6	8.6	0.0	27.3	24.0	0.0	0.0
Cycle Q Clear(g_c), s	18.0	8.1	14.0	9.9	6.1	6.6	8.6	0.0	27.3	24.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.33	0.06		0.38
Lane Grp Cap(c), veh/h	607	390	315	182	266	254	492	0	477	405	0	0
V/C Ratio(X)	0.89	0.36	0.60	0.83	0.38	0.41	0.33	0.00	0.87	0.89	0.00	0.00
Avail Cap(c_a), veh/h	701	390	315	390	425	404	603	0	584	478	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.8	39.3	41.6	52.3	45.5	45.7	34.2	0.0	41.0	44.0	0.0	0.0
Incr Delay (d2), s/veh	11.8	2.6	8.1	8.8	0.9	1.0	0.7	0.0	13.4	18.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	3.8	5.6	4.8	2.8	2.8	3.7	0.0	12.9	12.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	41.9	49.7	61.0	46.4	46.7	34.9	0.0	54.4	62.2	0.0	0.0
LnGrp LOS	E	D	D	E	D	D	C	A	D	E	A	A
Approach Vol, veh/h		867			356			578			361	
Approach Delay, s/veh		54.5			52.7			48.9			62.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.1	31.0		33.0	25.4	22.7		37.7				
Change Period (Y+Rc), s	4.9	4.9		5.2	4.5	4.9		4.9				
Max Green Setting (Gmax), s	26.0	26.1		32.8	24.1	28.4		40.2				
Max Q Clear Time (g_c+I1), s	11.9	16.0		26.0	20.0	8.6		29.3				
Green Ext Time (p_c), s	0.3	1.4		1.7	0.8	1.0		3.5				

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

LOS Engineering, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	300	195	520	332	40	103	96	298	112	120	196
Future Volume (veh/h)	156	300	195	520	332	40	103	96	298	112	120	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.94	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	326	212	565	361	43	112	104	324	122	130	-59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	547	344	592	1717	203	452	96	300	301	320	0
Arrive On Green	0.07	0.27	0.27	0.33	0.54	0.54	0.25	0.25	0.25	0.00	0.00	0.00
Sat Flow, veh/h	3456	2019	1268	1781	3190	377	1781	380	1183	1211	1290	-585
Grp Volume(v), veh/h	170	286	252	565	200	204	112	0	428	0	0	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1511	1781	1777	1790	1781	0	1563	0	0	0
Q Serve(g_s), s	5.0	14.4	15.0	31.9	6.0	6.1	5.2	0.0	26.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.0	14.4	15.0	31.9	6.0	6.1	5.2	0.0	26.1	0.0	0.0	0.0
Prop In Lane	1.00		0.84	1.00		0.21	1.00		0.76	0.63		-0.31
Lane Grp Cap(c), veh/h	239	482	410	592	956	963	452	0	397	0	0	0
V/C Ratio(X)	0.71	0.59	0.62	0.95	0.21	0.21	0.25	0.00	1.08	0.00	0.00	0.00
Avail Cap(c_a), veh/h	410	482	410	608	956	963	452	0	397	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	46.9	32.6	32.8	33.6	12.4	12.4	30.6	0.0	38.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.9	5.3	6.8	25.3	0.1	0.1	0.5	0.0	68.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.7	6.1	17.4	2.3	2.4	2.2	0.0	16.9	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	37.8	39.6	58.9	12.5	12.5	31.1	0.0	106.5	0.0	0.0	0.0
LnGrp LOS	D	D	D	E	B	B	C	A	F	A	A	A
Approach Vol, veh/h		708			969			540			0	
Approach Delay, s/veh		41.6			39.6			90.8			0.0	
Approach LOS		D			D			F				

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.1	32.8		0.0	11.6	60.3		31.0				
Change Period (Y+Rc), s	4.9	4.9		5.2	4.5	4.9		4.9				
Max Green Setting (Gmax), s	35.1	27.9		36.0	12.2	51.2		26.1				
Max Q Clear Time (g_c+I1), s	33.9	17.0		0.0	7.0	8.1		28.1				
Green Ext Time (p_c), s	0.3	2.4		0.0	0.2	2.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

LOS Engineering, Inc.

Scenario 3 LOS Worksheets

From SYCPU. Volumes below are slightly lower than EIR figure (AM Analysis)

San Ysidro CPU-Mobility Element Horizon Year Alternative B with Improvements I-805 Ramps
7: East Beyer Blvd/Otay Mesa Rd & Beyer Blvd 11/21/2014

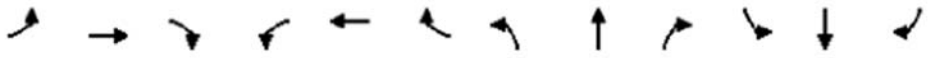
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	557	803	329	856	918	219	452	369	796	135	260	504
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9	4.0		5.2	4.9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1832	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.72	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1332	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	666	960	393	1023	1098	262	540	441	952	161	311	603
RTOR Reduction (vph)	0	0	70	0	0	55	0	0	0	0	0	45
Lane Group Flow (vph)	666	960	323	1023	1098	207	540	441	952	0	472	558
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Free	Perm	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8			4	5
Permitted Phases			2			6			Free	4		4
Actuated Green, G (s)	26.9	30.1	50.1	44.1	47.3	47.3	20.0	61.1	150.0		36.8	63.7
Effective Green, g (s)	26.9	30.1	50.1	44.1	47.3	47.3	20.0	61.1	150.0		36.8	63.7
Actuated g/C Ratio	0.18	0.20	0.33	0.29	0.32	0.32	0.13	0.41	1.00		0.25	0.42
Clearance Time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9			5.2	4.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	615	710	528	520	1115	499	236	758	1583		326	672
v/s Ratio Prot	0.19	c0.27	0.08	c0.58	0.31		c0.31	0.24				0.15
v/s Ratio Perm			0.12			0.13			0.60		c0.35	0.20
v/c Ratio	1.08	1.35	0.61	1.97	0.98	0.41	2.29	0.58	0.60		1.45	0.83
Uniform Delay, d1	61.5	59.9	41.8	53.0	51.0	40.4	65.0	34.5	0.0		56.6	38.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	60.8	167.7	2.1	442.2	23.1	0.6	592.9	1.1	1.7		218.0	8.4
Delay (s)	122.3	227.6	43.9	495.2	74.1	41.0	657.9	35.7	1.7		274.6	46.7
Level of Service	F	F	D	F	E	D	F	D	A		F	D
Approach Delay (s)		157.1			251.2			192.8			146.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	195.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.73		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	144.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

From SYCPU. Volumes below are slightly lower than EIR figure (PM Analysis)

San Ysidro CPU-Mobility Element Horizon Year Alternative B with Improvements I-805 Ramp
7: East Beyer Blvd/Otay Mesa Rd & Beyer Blvd 11/21/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	580	205	1018	657	79	123	118	586	223	126	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9	4.0		5.2	4.9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1805	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.72	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1348	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	94	693	245	1217	786	94	147	141	701	267	151	139
RTOR Reduction (vph)	0	0	134	0	0	39	0	0	0	0	0	55
Lane Group Flow (vph)	94	693	111	1217	786	55	147	141	701	0	418	84
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Free	Perm	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8			4	5
Permitted Phases			2			6			Free	4		4
Actuated Green, G (s)	9.5	26.1	34.1	61.1	77.7	77.7	8.0	48.1	150.0		35.8	45.3
Effective Green, g (s)	9.5	26.1	34.1	61.1	77.7	77.7	8.0	48.1	150.0		35.8	45.3
Actuated g/C Ratio	0.06	0.17	0.23	0.41	0.52	0.52	0.05	0.32	1.00		0.24	0.30
Clearance Time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9			5.2	4.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	217	615	359	720	1833	819	94	597	1583		321	478
v/s Ratio Prot	0.03	c0.20	0.02	c0.69	0.22		c0.08	0.08				0.01
v/s Ratio Perm			0.05			0.03			0.44		c0.31	0.04
v/c Ratio	0.43	1.13	0.31	1.69	0.43	0.07	1.56	0.24	0.44		1.30	0.18
Uniform Delay, d1	67.7	62.0	48.1	44.5	22.4	18.1	71.0	37.4	0.0		57.1	38.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.4	76.5	0.5	316.6	0.2	0.0	298.8	0.2	0.9		156.9	0.2
Delay (s)	69.0	138.4	48.6	361.1	22.6	18.1	369.8	37.7	0.9		214.0	38.8
Level of Service	E	F	D	F	C	B	F	D	A		F	D
Approach Delay (s)		110.8			218.8			61.0			170.3	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	155.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	124.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Table 6-1 Post Mitigation Summary of Intersection Analysis

	INTERSECTION	PEAK-HOUR	PREFERRED LAND USE ALTERNATIVE			WITH IMPROVEMENTS				
			TRAFFIC CONTROL	DELAY (a)	LOS (b)	TRAFFIC CONTROL	DELAY (a)	LOS (b)	Δ	SIGNIFICANT?
1	Beyer Blvd & Iris Ave/SR-905 WB Ramps	AM	Signal	32.7	C	Signal	22.1	C	-10.6	NO
		PM		117.0	F		54.9	D	-62.1	NO
2	Beyer Blvd & Dairy Mart Rd/SR-905 Ramps	AM	Signal	79.7	E	Signal	25.9	C	-53.8	NO
		PM		44.6	D		41.3	D	-3.3	NO
4	Smythe Crossing & Beyer Blvd	AM	One-Way Stop	13.8	B	Signal	10.5	B	-3.3	NO
		PM		ECL	F		6.6	A	-	NO
5	Beyer Blvd & Smythe Ave	AM	Signal	ECL	F	Signal	54.9	D	-	NO
		PM		38.5	D		17.3	B	-21.2	NO
6	W. Park Ave/Alaquinas Dr & Beyer Blvd	AM	Signal	160.6	F	Signal	51.0	D	-109.6	NO
		PM		20.7	C		15.3	B	-5.4	NO
7	East Beyer Blvd/Otay Mesa Rd & Beyer Blvd	AM	Signal	ECL	F	Signal (c)	195.2	F	-	NO
		PM		ECL	F		155.8	F	-	NO

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
Shaded cells indicate roadway segment improvements identified in the San Ysidro Impact Study Fee (ISF)
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 8
(c) With Otay Mesa Community Plan Improvements
(d) The construction of the new roundabout, new connection between Calle Primera dn Camino de la Plaza, and traffic calming measures along Willow Road will degongest the area.
The saturation flow rate at the intersection of Camino de la Plaza and I-5 Soutbound Ramps was adjusted to replicate existing conditions when the I-5 Southbound inspection lane is open entering Mexico.
\\Sndfp01\ca_snd1\SND_TPTO\095413002\Excel\[413002IN04-Alt-B.xlsm]2035 ALTB WITH IMP 805. Ramp

Intersections

Implementation of the improvements identified in Tables 5.2-13 and 5.2-15 of the Final PEIR would reduce impacts of the SYCPU on local intersections. Improvements within Tables 5.2-13 are included in the IFS, and will be implemented based on funding generated by development fees. Other improvements are identified in Tables 5.2-15. However, no identified funding sources exist because they are not included in the IFS. While implementation of the improvements identified in Tables 5.2-13 and 5.2-15 would reduce impacts on roadway segments to acceptable levels, the City cannot assure that these improvements would be implemented. Insufficient right-of-way is likely to exist to accommodate Mitigation Measure 55, and Mitigation Measure TRF-56 is not considered consistent with the mobility goals. Thus, the impact of the SYCPU with respect to intersections is considered unavoidable.

TABLE 5.2-15
INTERSECTION IMPROVEMENTS
(Not Included In Impact Fee Study)

Mitigation Measure Number	Intersection Number	Intersection	Improvement
TRF-55	7	East Beyer Blvd/Otay Mesa Road and Beyer Boulevard	Install 4-lane major arterial with exclusive left- and right-turn lanes on east leg of the intersection.

Scenario 4 LOS Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Future Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.96	1.00		0.88	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
Arrive On Green	0.20	0.27	0.27	0.26	0.33	0.33	0.17	0.21	0.21	0.10	0.14	0.14
Sat Flow, veh/h	3456	3554	2562	3456	3554	1525	3456	3554	2446	1781	3554	2678
Grp Volume(v), veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Grp Sat Flow(s),veh/h/ln	1728	1777	1281	1728	1777	1525	1728	1777	1223	1781	1777	1339
Q Serve(g_s), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Cycle Q Clear(g_c), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
V/C Ratio(X)	0.89	0.92	0.32	1.05	0.85	0.36	0.85	0.54	0.71	0.80	0.57	0.30
Avail Cap(c_a), veh/h	826	952	1167	893	1174	665	718	745	1234	483	970	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	44.1	22.8	46.1	38.7	23.7	49.9	43.8	27.3	54.6	49.8	30.2
Incr Delay (d2), s/veh	10.5	14.8	0.7	45.3	6.1	0.3	9.7	1.2	2.3	13.1	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	14.5	3.5	19.2	14.9	4.6	8.2	5.5	10.4	5.0	4.2	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	58.9	23.5	91.4	44.9	24.1	59.6	45.0	29.5	67.7	51.6	30.5
LnGrp LOS	E	E	C	F	D	C	E	D	C	E	D	C
Approach Vol, veh/h		1855			2178			1789			713	
Approach Delay, s/veh		51.8			62.7			41.5			46.6	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.0	38.2	26.3	22.8	29.2	46.0	17.8	31.2
Change Period (Y+Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2
Max Green Setting (Gmax), s	32.1	33.3	25.8	33.9	29.7	36.1	33.7	* 26
Max Q Clear Time (g_c+I1), s	34.1	31.6	19.7	11.6	23.5	34.6	11.9	28.0
Green Ext Time (p_c), s	0.0	1.1	1.7	4.8	1.3	1.1	0.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Future Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.86	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
Arrive On Green	0.04	0.20	0.20	0.33	0.50	0.50	0.06	0.17	0.17	0.15	0.27	0.00
Sat Flow, veh/h	3456	3554	2507	3456	3554	1539	3456	3554	2389	1781	3554	2790
Grp Volume(v), veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Grp Sat Flow(s),veh/h/ln	1728	1777	1253	1728	1777	1539	1728	1777	1194	1781	1777	1395
Q Serve(g_s), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Cycle Q Clear(g_c), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
V/C Ratio(X)	0.65	0.88	0.34	0.97	0.40	0.08	0.71	0.21	0.48	0.89	0.15	-0.17
Avail Cap(c_a), veh/h	708	719	668	1163	1781	1013	536	621	1351	406	965	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.6	57.6	44.9	48.7	23.2	9.4	68.9	52.7	24.5	61.8	41.1	0.0
Incr Delay (d2), s/veh	5.2	14.6	1.4	19.1	0.1	0.0	7.6	0.3	0.4	18.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.8	3.6	22.9	7.7	1.0	2.8	2.1	7.4	10.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	72.2	46.3	67.9	23.3	9.5	76.5	52.9	24.9	80.2	41.2	0.0
LnGrp LOS	E	E	D	E	C	A	E	D	C	F	D	A
Approach Vol, veh/h		949			1919			915			236	
Approach Delay, s/veh		66.2			48.7			36.9			106.6	
Approach LOS		E			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	54.7	35.0	13.5	45.6	10.2	79.5	27.9	31.2
Change Period (Y+Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2
Max Green Setting (Gmax), s	50.1	30.1	23.1	36.8	30.5	50.1	33.9	* 26
Max Q Clear Time (g_c+I1), s	49.5	27.7	8.0	6.5	5.7	20.7	21.7	28.0
Green Ext Time (p_c), s	0.3	1.1	0.6	1.3	0.2	4.9	1.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

LOS Engineering, Inc.

Attachment C

Excerpt from the San Ysidro Community Plan Update

San Ysidro

COMMUNITY PLAN AND LOCAL COASTAL PROGRAM LAND USE PLAN

Adopted: November, 2016. Amended: October, 2017

Figure 3-15: Existing 2012 Functional Street Classification

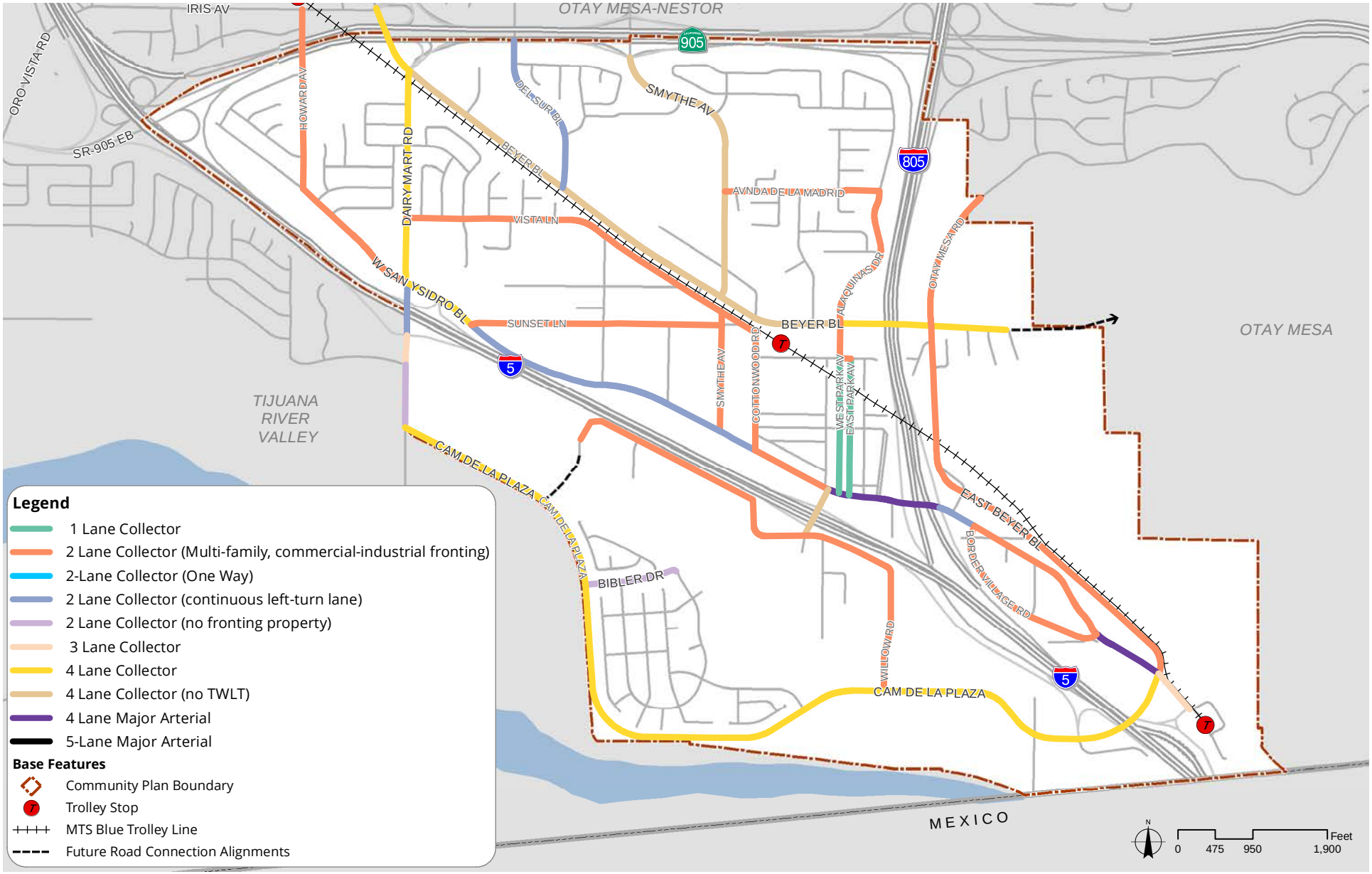
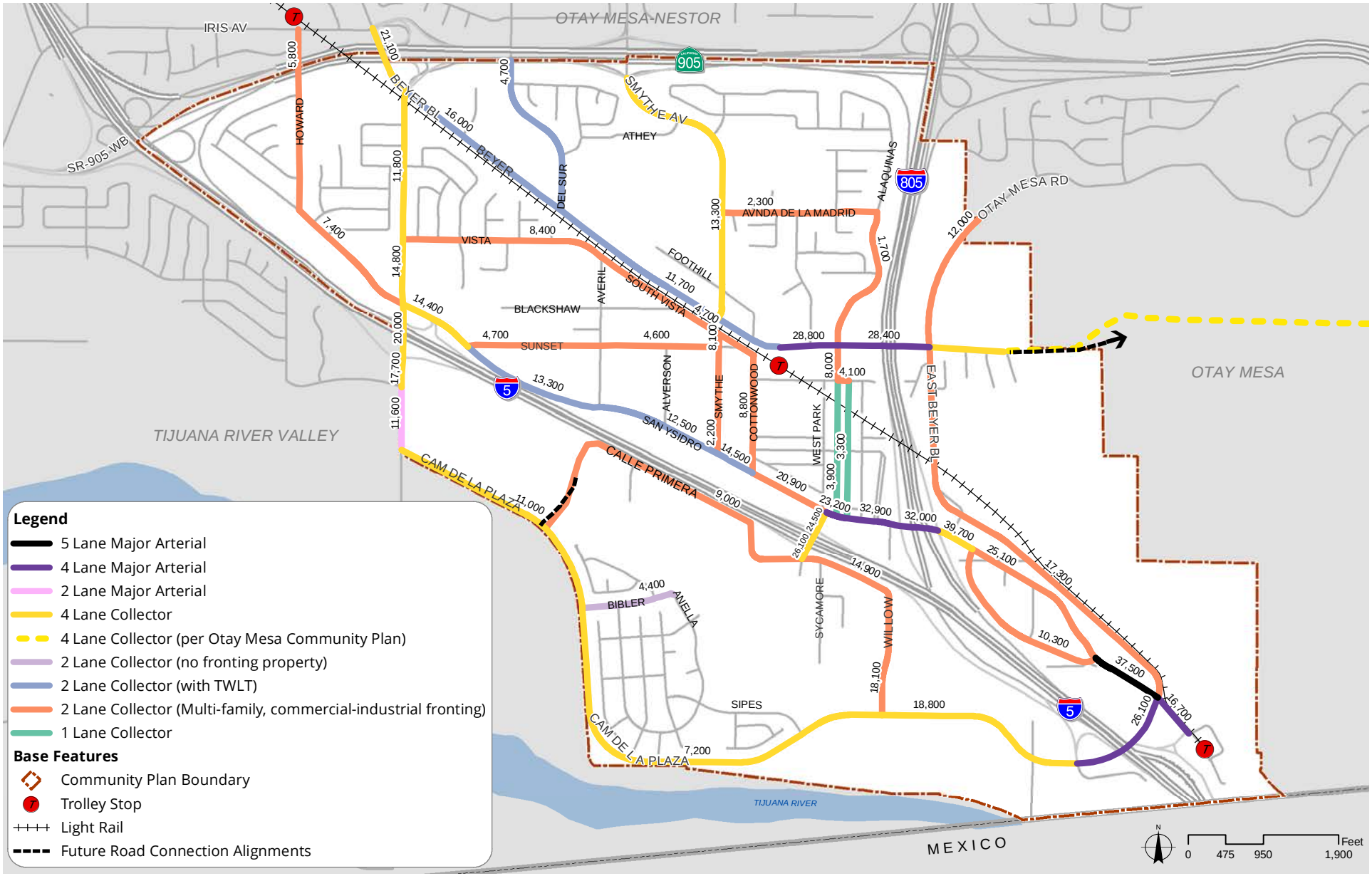


Figure 3-16: Future Planned Street Classifications and Daily Traffic



Attachment D

SANDAG Series 13 Select Zone Assignment for SWV

SANDAG
Series13

Regional Model
Year 2012

Otay Mesa

Select Zone Run
TAZ 4948

Version 13.3.3
Scenario ID1315

join

ifc

10

1; 2; 3; 4; 5; 6; 7; 8; 9

Selected Zone(s)

\# **Select Zone Vol and %**

\# **Model Estimated ADT**

SAN DIEGO ASSOCIATION OF GOVERNMENTS
401 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101 USA
(619) 699-1900
E-mail: sandag@sandag.org
Web site: www.sandag.org

N

0 0.045 0.09 0.135
Miles

SANDAG

servicebureau

Date: July 2, 2021

Attachment E

Specific Plan Planning Area Phasing Details

Table 7.2 – Phasing Summary

PHASE / TARGET LAND USE ASSUMPTIONS	ON-SITE IMPROVEMENTS	OFF-SITE IMPROVEMENTS
Phase 1		
Planning Areas • 8, 9, 10, 11, 12, 13, 14 1315 Maximum Residential Units: • 282 Multifamily Residential (20-44 du/ac) • 490 Multifamily Residential (15-29 du/ac) • 543 Single Family Residential (8-22 du/ac)	Mobility Network • Beyer Boulevard West (from West Avenue to western Specific Plan boundary) would be required to be constructed at the 700th dwelling unit or earlier in Phase 1 • Beyer Boulevard East (from Caliente Avenue to West Avenue, northern half of the street) • Central Avenue (from Caliente Avenue to Beyer Blvd) • Street A (from western cul-de sac to West Ave) • West Avenue (western half of the street from Beyer Blvd to Street B & full width south of Street B) • Beyer Blvd / Central Avenue Intersection (interim conditions per Southwest Village Specific Plan Transportation Phasing Plan (Appendix E)) • T-intersection at Caliente Ave/Central Ave • Secondary Emergency Vehicle Access Road (constructed at the 201st dwelling unit) Parks and Trails • Planning Area 8 Pocket Park: HH • Planning Area 9 Pocket Park: II • Planning Area 10 Pocket Parks: AA, BB, CC and DD • Planning Area 10 Paseos • Planning Area 11 Pocket Parks: MM and OO • Planning Area 12 Pocket Parks: SS, XX • Planning Area 12 Paseos • Planning Area 13 Pocket Parks: PP, RR • Planning Area 13 Paseos • Planning Area 14 Pocket Parks: YY • Planning Area 14 Paseos • Multi-use Perimeter Trail and trail amenities (Specific Plan area entrance at Caliente Avenue to eastern boundary of Planning Area 14) • Primitive Trails Type A that connect to PA 12 and 14 (including the closure of non-conforming trails adjacent to these trails) Other Infrastructure • Landscape infrastructure in Planning Areas 8 - 14 • 16-inch water line backbone loop along Central Avenue, Beyer Boulevard between Central Avenue and West Avenue and along West Avenue • 18-inch gravity sewer line along Beyer Boulevard and West Avenue. Eight-inch gravity sewer along Street A in Planning Areas 11-14	Mobility Network • Beyer Boulevard from project boundary to current terminus in San Ysidro at Enright Drive will be required to be constructed at the 700th dwelling unit or earlier in Phase 1 • Intersection of Caliente Avenue at SR-905 WB ramp: re-stripe the northbound single left turn lane into a dual left turn lane, upgrade traffic controller, and construct second receiving lane to the westbound on-ramp • Intersection of Caliente Avenue at SR-905 EB ramp: upgrade traffic controller • Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd: upgrade traffic controller • Intersection of Caliente Ave/Airway Rd: upgrade traffic controller • Caliente Ave from the existing southern terminus to Central Ave • Secondary Emergency Vehicle Access Road, from project boundary to Rail Court to the southwest will be required to be constructed at the 201st dwelling unit Park and Trails • Primitive Trails Type A

PHASE / TARGET LAND USE ASSUMPTIONS	ON-SITE IMPROVEMENTS	OFF-SITE IMPROVEMENTS
Phase 2		
Planning Areas • 15, 16, 17, 18, 19, 20 988 Residential Units: • 237 Multifamily Residential (15-29 du/ac) • 136[1] Contingency Multifamily Residential in PA 16 (15-29 du/ac) • 615 Single Family Residential (8-22 du/ac)	<u>Mobility Network</u> • Caliente Avenue from Central Avenue to Beyer Boulevard • Caliente Avenue / Beyer Boulevard Intersection • S. Caliente Avenue (full-width north of Beyer Boulevard & south of Street B) • S. Caliente Avenue (eastern half of the street from Beyer Boulevard to Street B) • Street B (full-width east of S. Caliente Avenue) • Street B (southern half of the street from West Avenue to S. Caliente Avenue) • Street C (all segments) • Street D (all segments) • East Avenue (all segments) <u>Parks and Trails</u> • Neighborhood Park in Planning Area 17 • Paseo along Street C (from West Avenue to East Avenue) • Multi-use Perimeter Trail (Terminus of Phase 1 to northern boundary of Planning Area 19) • Public multi-use Perimeter Trail in Planning Areas 15, 18, and 19 • Primitive Trails Type A that connect to PA 15 and 18 (including the closure of non-conforming trails adjacent to these trails) <u>Other Infrastructure</u> • Landscape infrastructure in Planning Areas 15 - 20 • Southwest Village Elementary School (1) (Planning Area 16) • Sewer Lift Station east of Street D	<u>Other Infrastructure</u> • 16-inch water line in Otay Mesa Road and Beyer Boulevard between Enright Drive and Princess Park Pump Station. • Improvements at existing Princess Park Pump Station to become operational. • Upsize existing 12" gravity sewer to 27" in E. Beyer Boulevard between Beyer Boulevard and trolley tracks. • Upsize existing 18" gravity sewer to 33" in E. Beyer Boulevard and Center Street between Hill Street and E. San Ysidro Boulevard.

1. In the unlikely event a school is no longer needed on Planning Area 16, the site will default to Medium Density Residential use. Although the contingency for Planning Area 16 would result in approximately 136 additional dwelling units, the maximum dwelling unit cap of 5,130 units would still apply.

PHASE / TARGET LAND USE ASSUMPTIONS	ON-SITE IMPROVEMENTS	OFF-SITE IMPROVEMENTS
Phase 3		
Planning Areas • 4, 5 819 Multifamily Residential (15-29 du/ac) units	Mobility Network • 1st Avenue • Spine Road • Central Avenue (Caliente Avenue to 1st Avenue) Parks and Trails • Public mini/pocket parks in Planning Area 5 • Public multi-use Pathway (internal to PA) • Public multi-use Perimeter Trail (Planning Area 5) • Paseo Other Infrastructure • Landscape infrastructure in Planning Areas 4 and 5 • 12-inch sewer force main along Spine Road • 10-inch gravity sewer line along Caliente Avenue from terminus to Beyer Boulevard • Sewer Lift Station	
Phase 4		
Planning Areas: 1, 2, 3, 6, 7 424 Multifamily Residential (15-29 du/ac) units	Parks and Trails • Public multi-use Perimeter Trail in Planning Area 6/7 • Public neighborhood park in Planning Area 2/3 Other Infrastructure • Landscape infrastructure in Planning Areas 1, 2, 3, 6, and 7 • [Water/sewer improvements TBD]	Mobility Network • Improve Beyer Blvd between E. Beyer Blvd and Enright Dr to a Modified 4-Lane Urban Collector with buffered Class II bike lanes prior to the 3,301st dwelling unit. Parks and Trails • Eastern Quadrant Trails – Segment no.(s) TBD Other Infrastructure • Upsize existing 10" gravity sewer to 15" in Beyer Boulevard between Enright Drive and E. Beyer Boulevard.

PHASE / TARGET LAND USE ASSUMPTIONS	ON-SITE IMPROVEMENTS	OFF-SITE IMPROVEMENTS
Phase 5		
Planning Areas: 21 266 Multifamily Residential (8-22 du/ac) units	Parks and Trails • Paseo (bike/pedestrian connection- S. Caliente Avenue to East Avenue) • Public mini/pocket parks in Planning Areas 19, 20, and 21 • Public multi-use Perimeter Trail in Planning Area 21 Other Infrastructure • Landscape infrastructure in Planning Area 21 • [Water/sewer improvements TBD]	
Phase 6		
Planning Areas: 22 267 Multifamily Residential (15-29 du/ac) units	Mobility Network • Emergency Vehicle Access Road from S. Caliente Avenue to East Ave Parks and Trails • Public pocket park(s) in Planning Area 22 Other Infrastructure • Landscape infrastructure in Planning Area 22 • [Water/sewer improvements TBD]	
Phase 7		
Planning Areas: 24, 25, 26, 27 1187 Multifamily Residential (30-62 du/ac) units 175,000 square feet commercial	Mobility Network • Central Ave from Beyer Boulevard E to Street B • Street A from West Avenue to S. Caliente Avenue • Beyer Boulevard (southern half of the street from West Avenue to S. Caliente Avenue) • West Avenue (eastern half of the street from Beyer Boulevard to Street B) • Street B (northern half of the street) • S. Caliente Avenue (western half of the street from Beyer Boulevard E to Street B) Parks and Trails Pocket parks and urban plazas in the Village Core (Planning Areas 24 - 27) Other Infrastructure • Landscape infrastructure in Planning Areas 24 - 27 • Mobility hub with public transit stop	Other Infrastructure • Upsize existing 15" gravity sewer to 27" in E. Beyer Boulevard between trolley tracks and Hill Street. • Perform efficiency testing at Ocean View Hills Pump Station.
Total Dwelling Units: 5,130 Commercial Square Footage: 175,000		

Figure 7.3 — Phasing

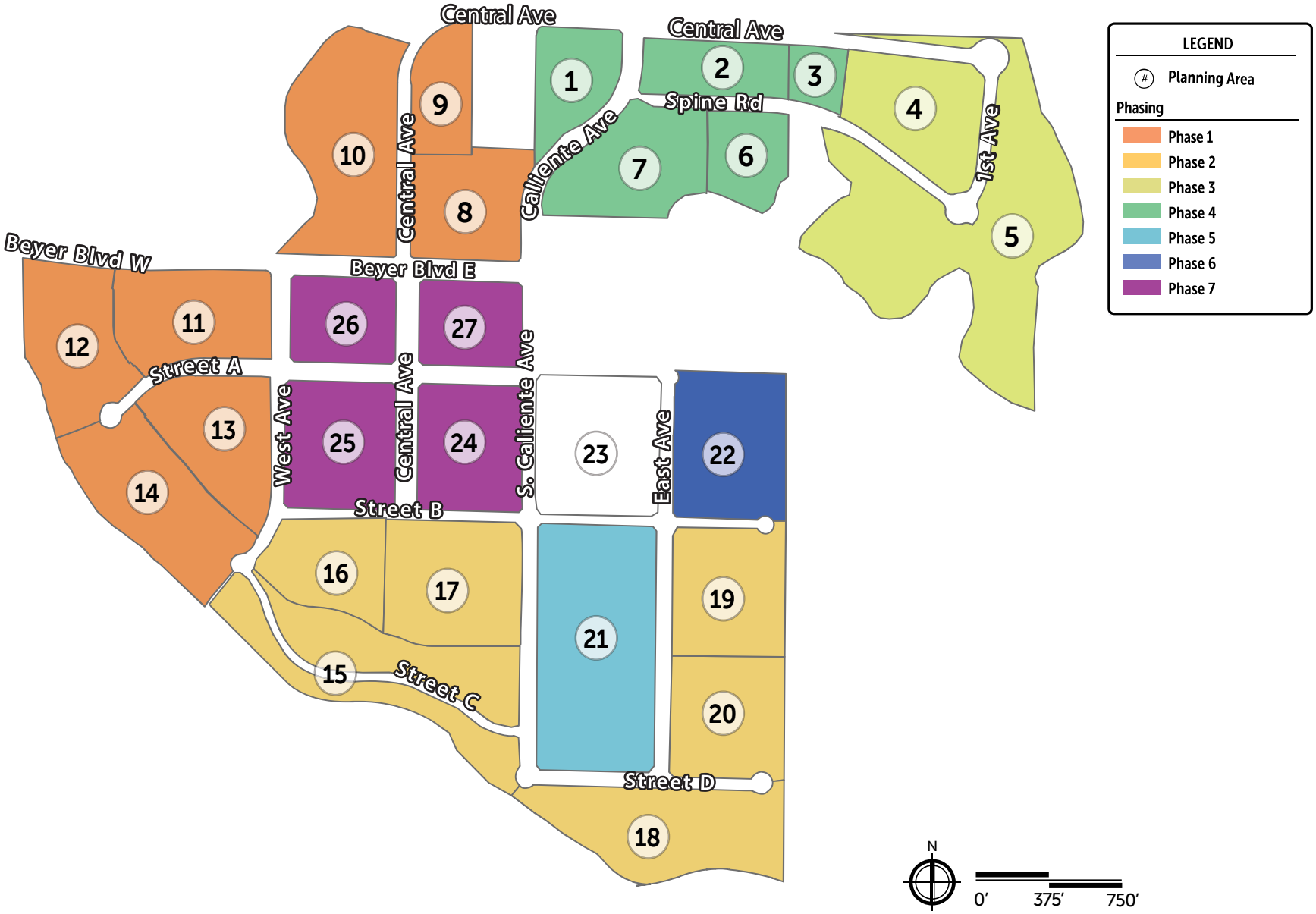
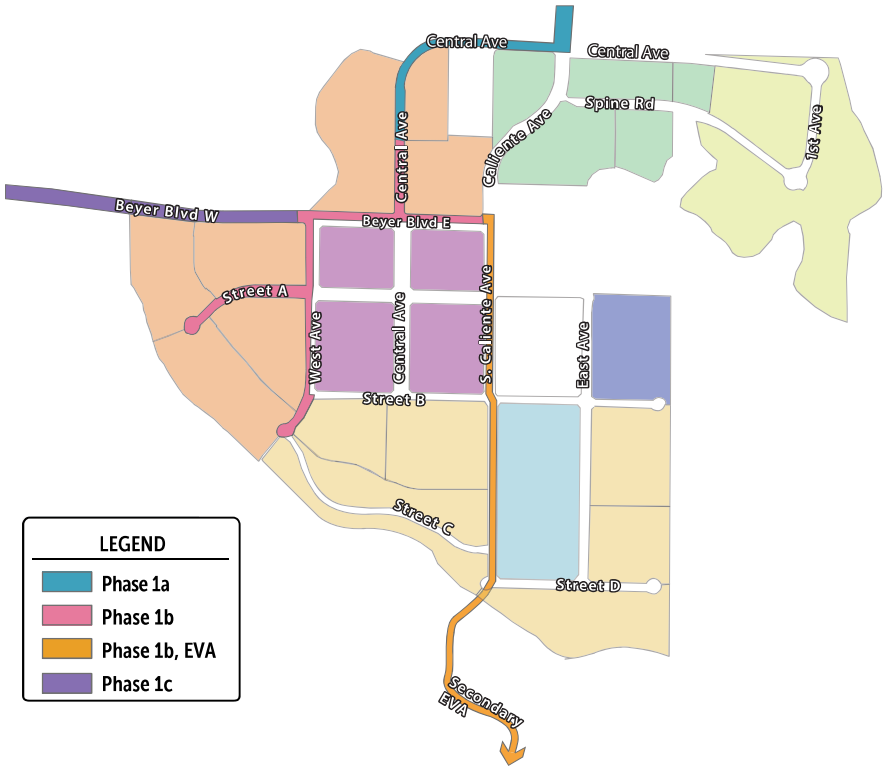


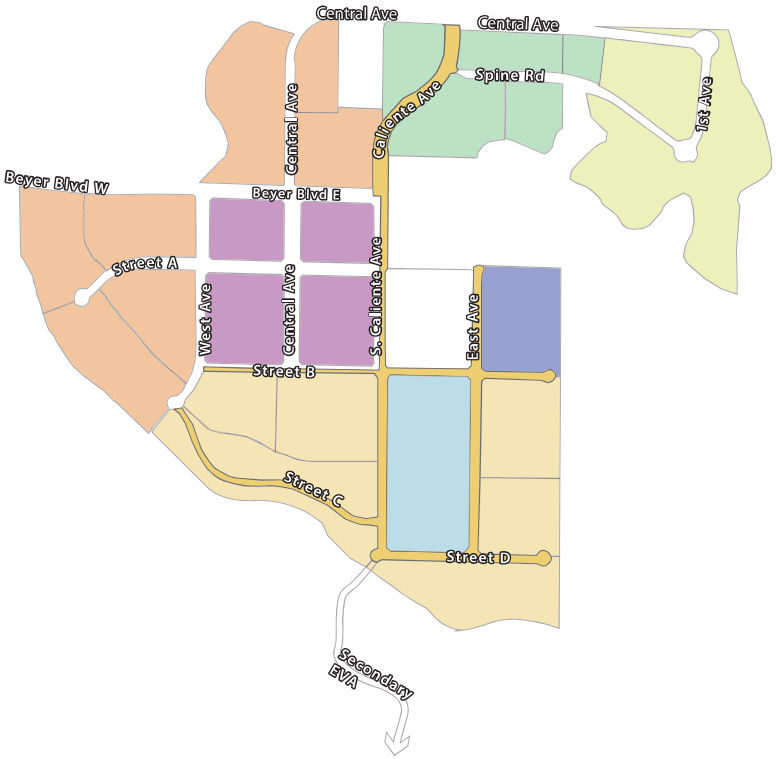
Figure 7.4 — Phase 1 Roadways



Note: Phase 1b, Secondary Emergency Vehicle Access Road at the eastern terminus of E. Beyer Blvd and the future S. Caliente Ave intersection, extending south to Rail Court, as shown, will be implemented at the 201st dwelling unit.

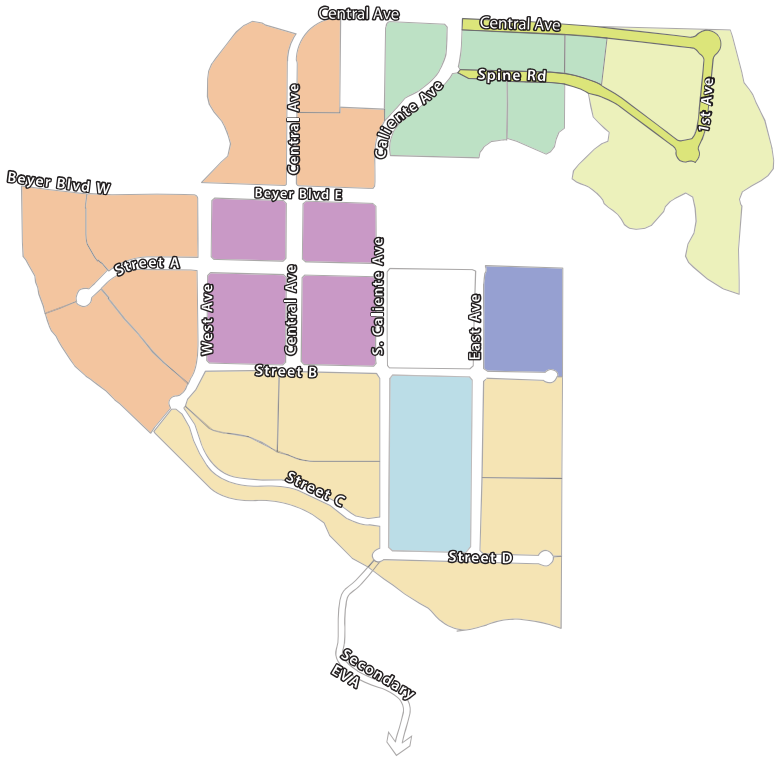
Note: Phase 1c, Beyer Blvd W. will be implemented at the 700th dwelling unit or earlier in Phase 1.

Figure 7.5 — Phase 2 Roadways



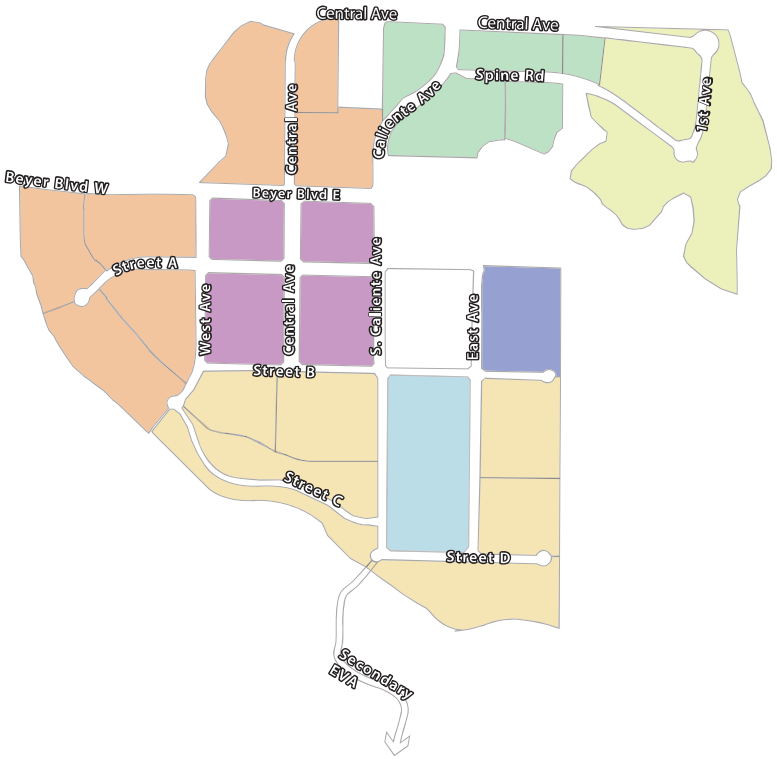
Note: Secondary EVA Road extends south to Rail Court.

Figure 7.6 — Phase 3 Roadways



Note: Secondary EVA Road extends south to Rail Court.

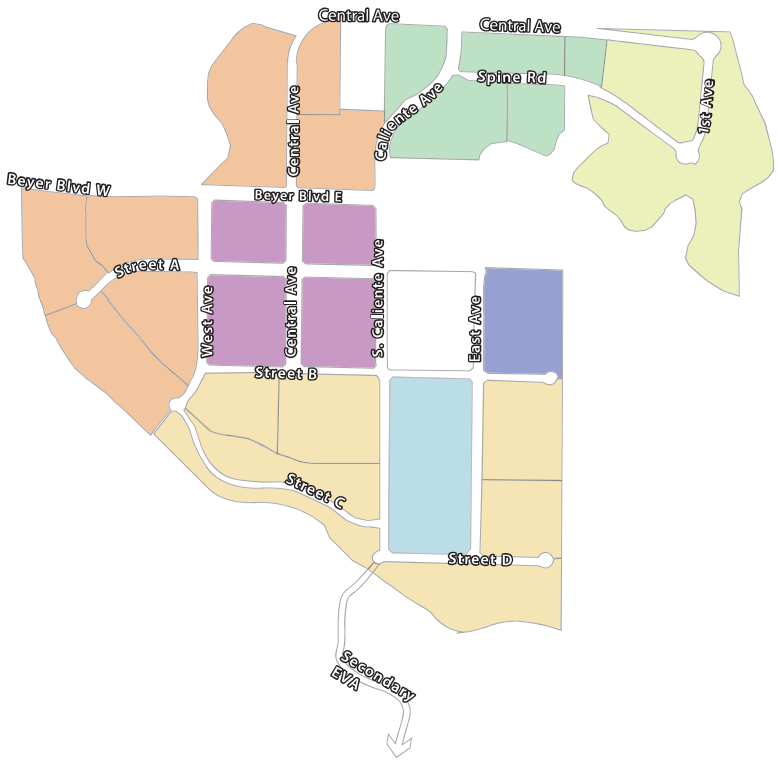
Figure 7.7 — Phase 4 Roadways



Note: Off-site improvements to occur to widen Beyer Blvd between E. Beyer Blvd/Otay Mesa Rd to Enright Dr.

Note: Secondary EVA Road extends south to Rail Court.

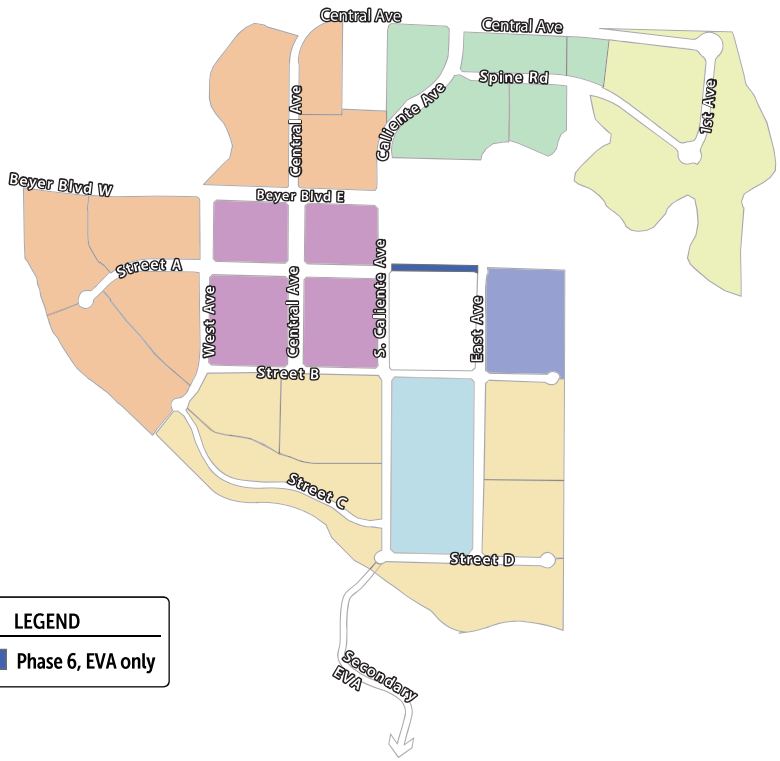
Figure 7.8 — Phase 5 Roadways



Note: No additional roadways are expected to be required in this phase.

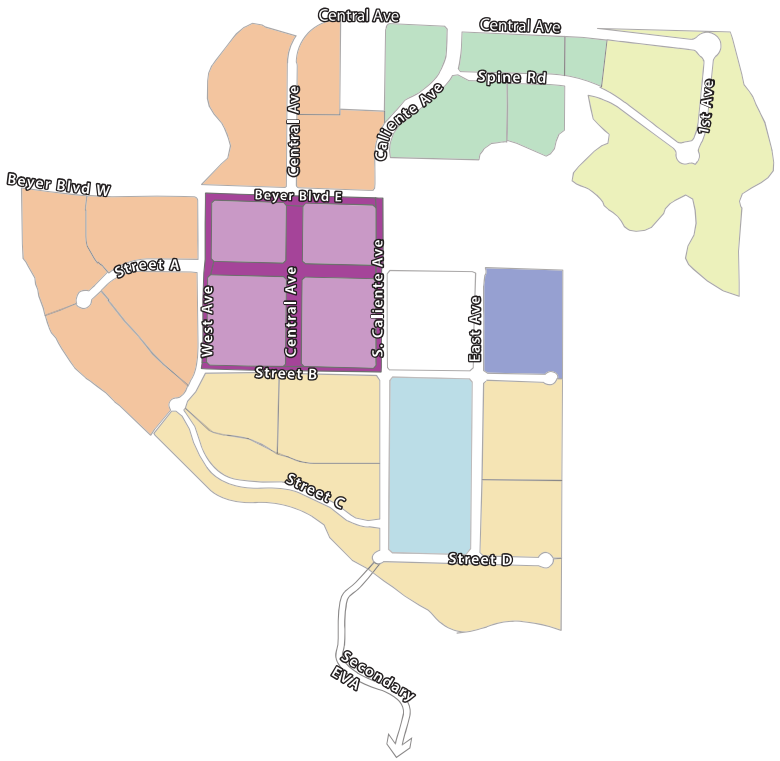
Note: Secondary EVA Road extends south to Rail Court.

Figure 7.9 — Phase 6 Roadways



Note: Secondary EVA Road extends south to Rail Court.

Figure 7.10 — Phase 7 Roadways

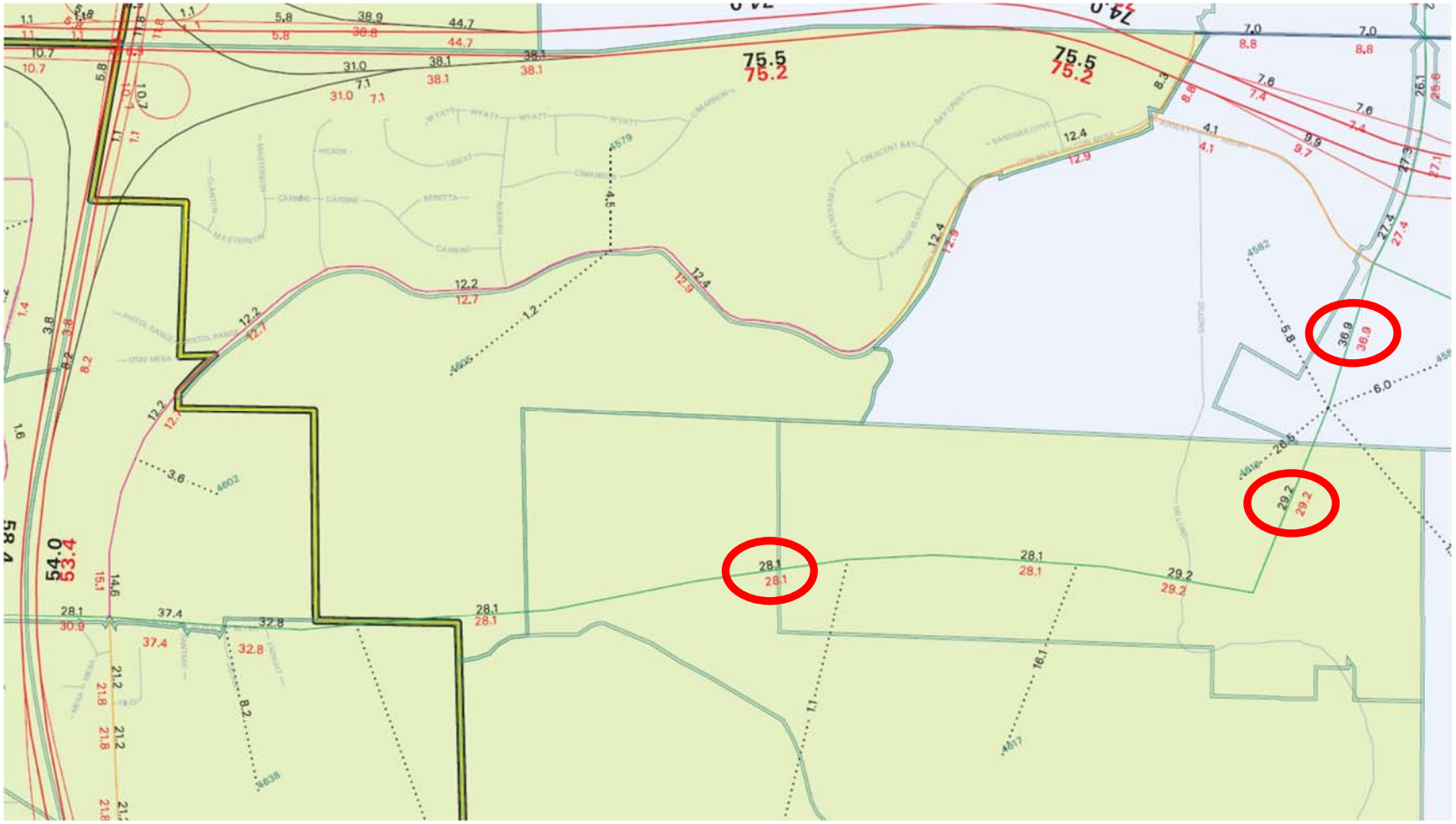


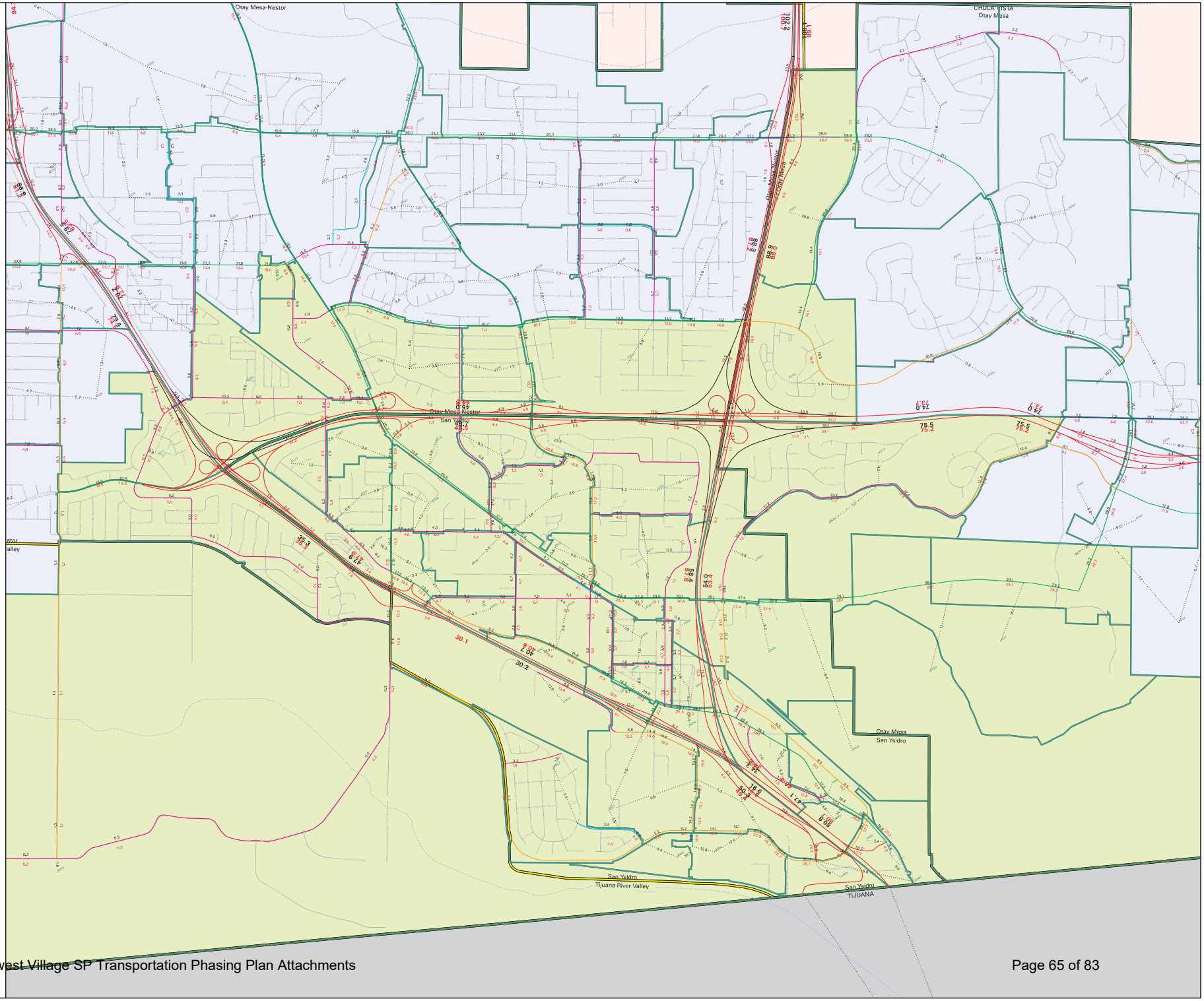
Note: Secondary EVA Road extends south to Rail Court.

Attachment F

San Ysidro Community Plan Update SANDAG Output

SANDAG Series 12 Output





SANDAG Series 12 2035
Revenue Constrained
2011 RTP Highway Network
Forecasted Daily Volumes

SAN YSIDRO

Model Rerun 05/14/14
San Ysidro CPU
2035 Scenario D - Proposed LU 2, Hybrid Network

Forecasted Volumes:
- Adjusted Volume
- Unadjusted Volume
- Traffic Analysis Zone

Feet 0 500 1,000
Meters 60 180 300

SANDAG

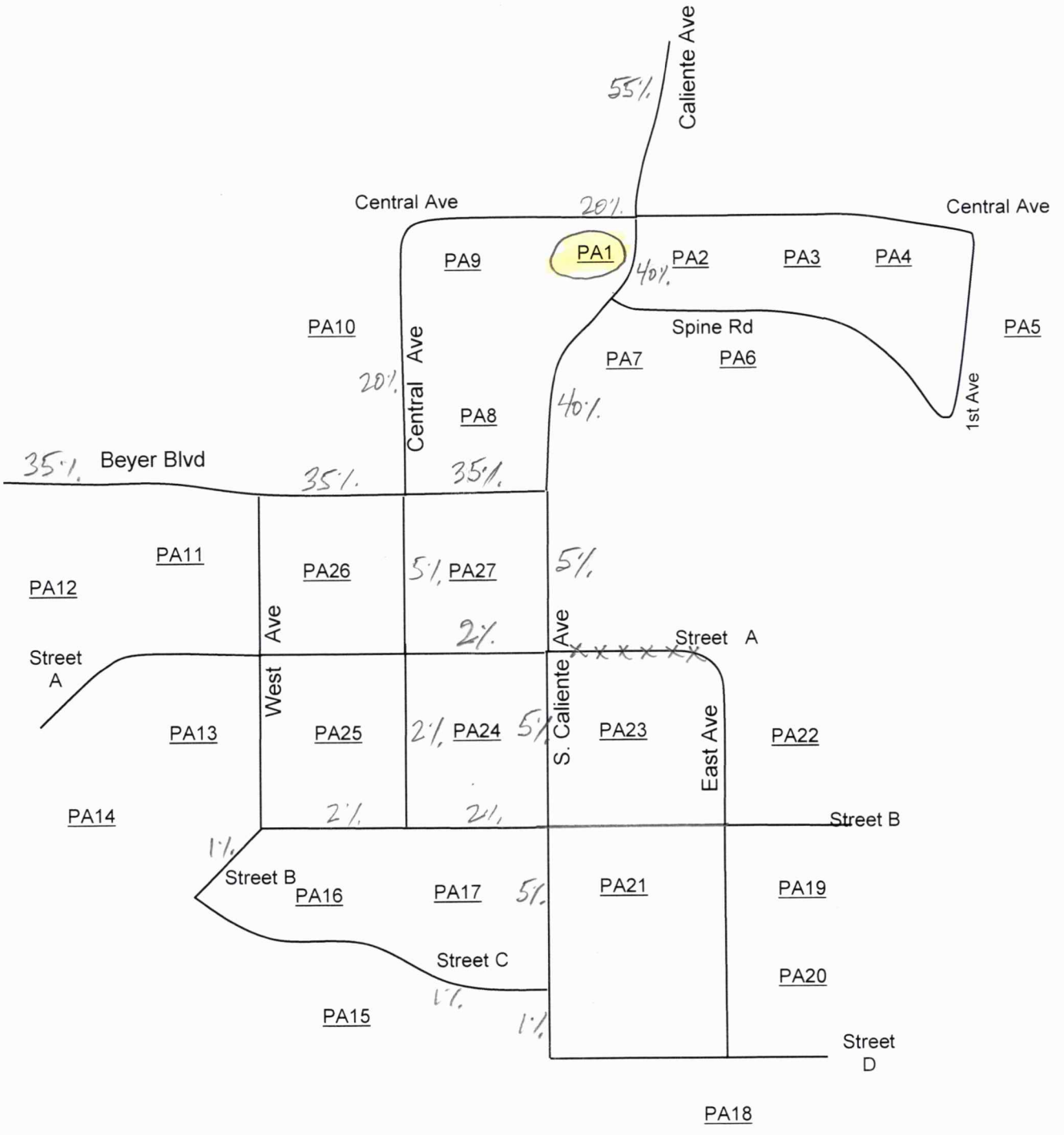
May 15, 2014

Attachment G

On-Site Roadway Trip Assignment Details

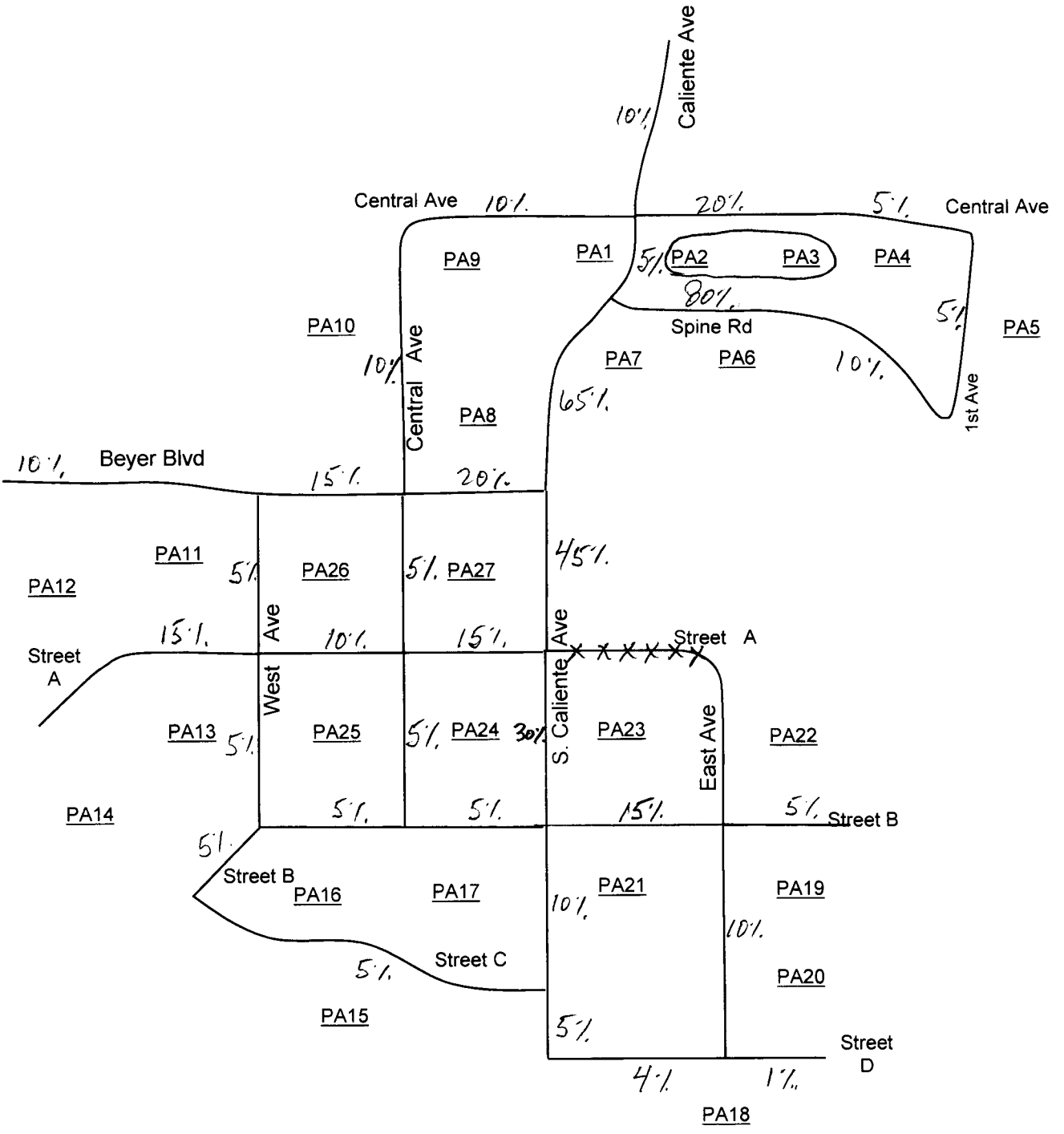
PA1

160 DU MF < 2



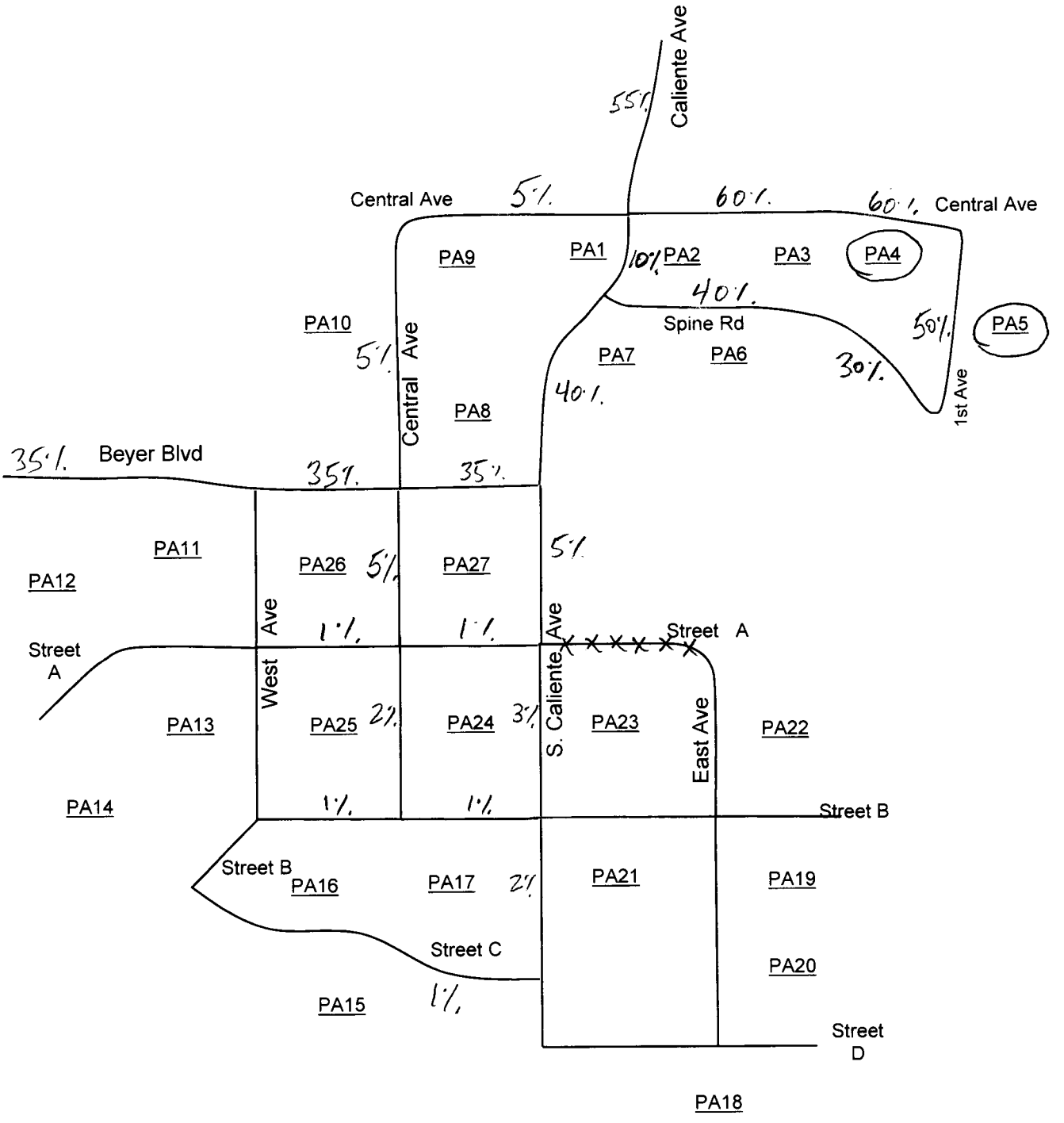
PA2 & PA3

PA2K
7.1 AC.



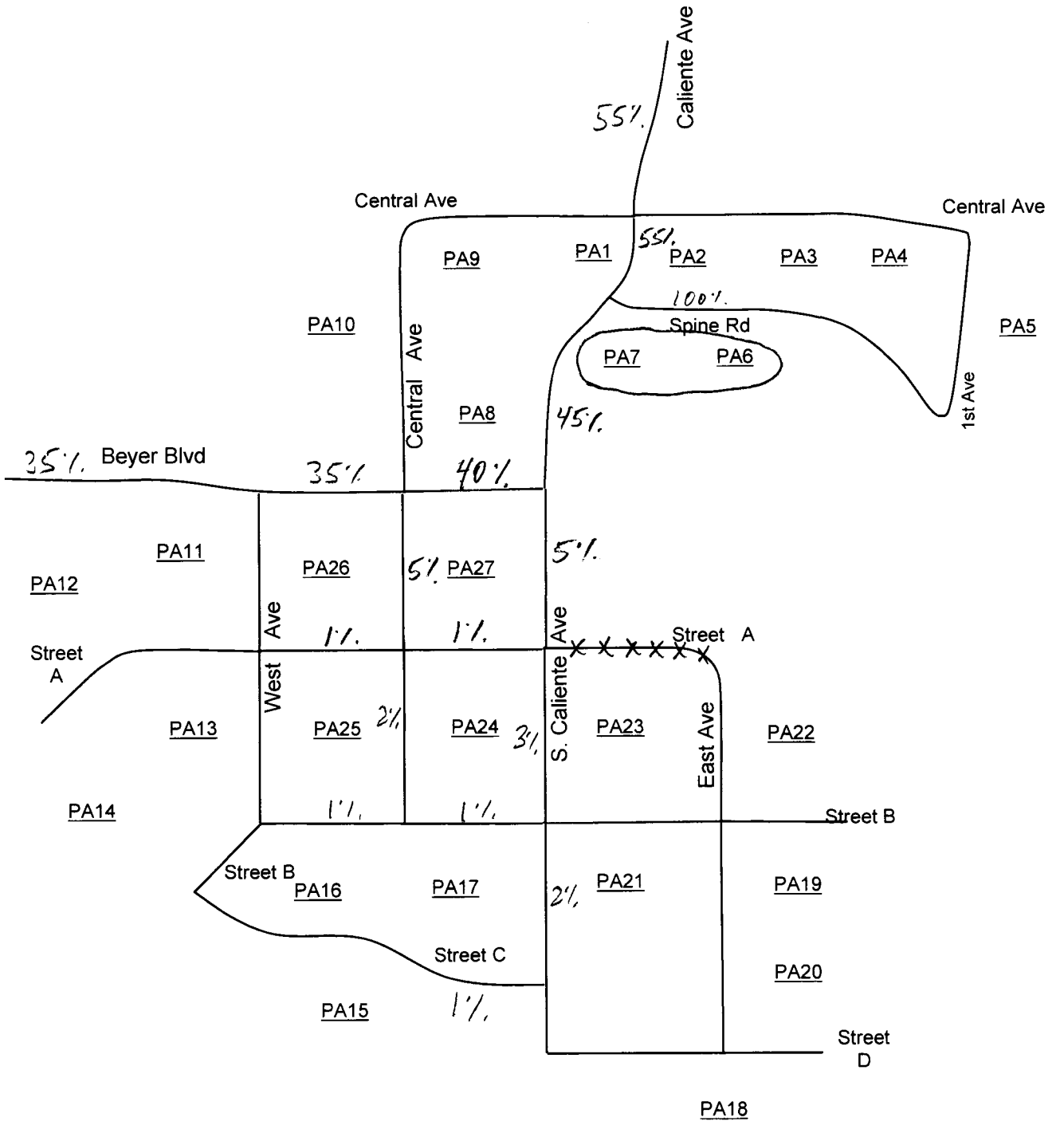
PA4 & PA5

819 DU
MF
L20



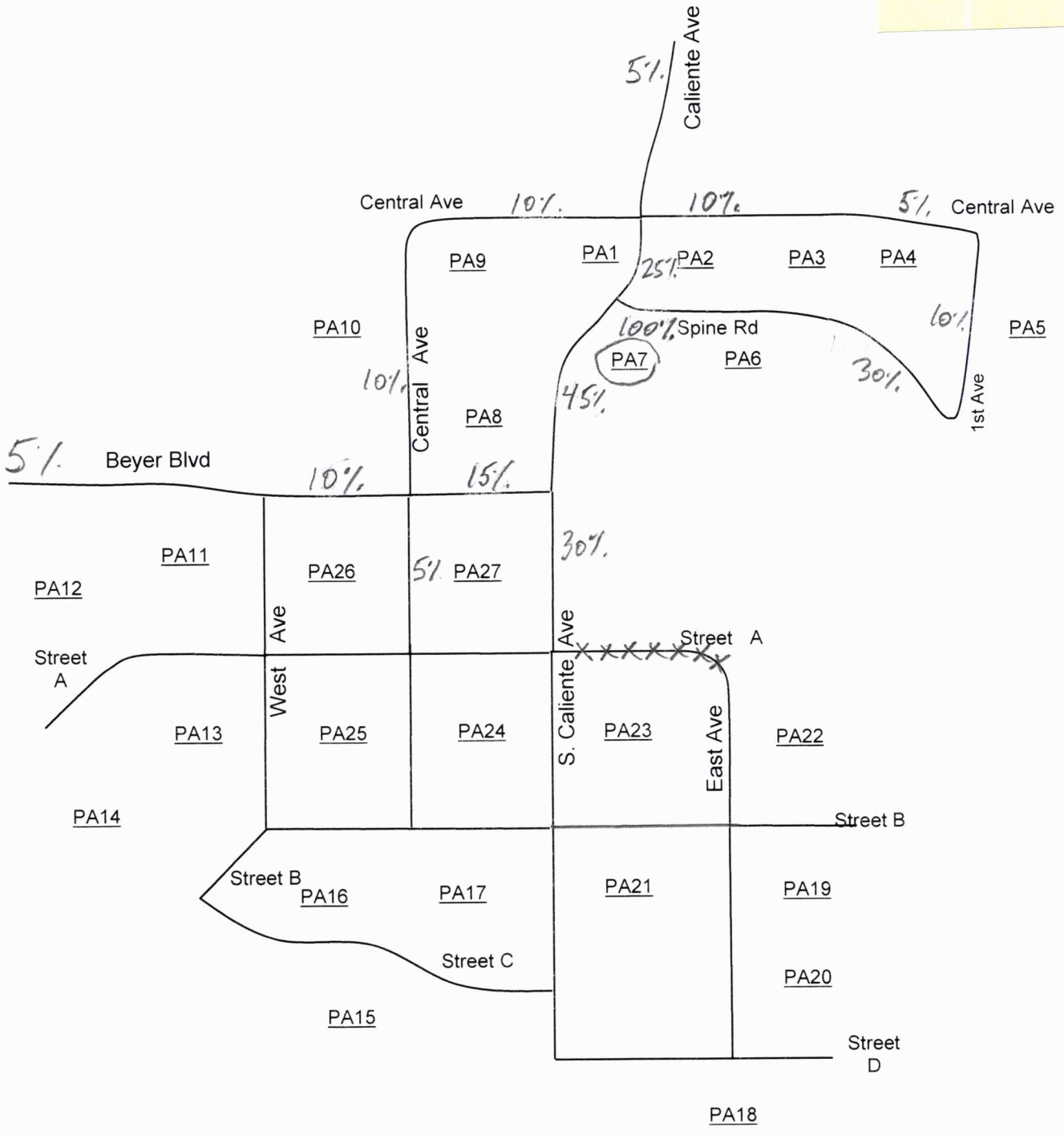
PA6 & PA7

264 DU
MF
< 20



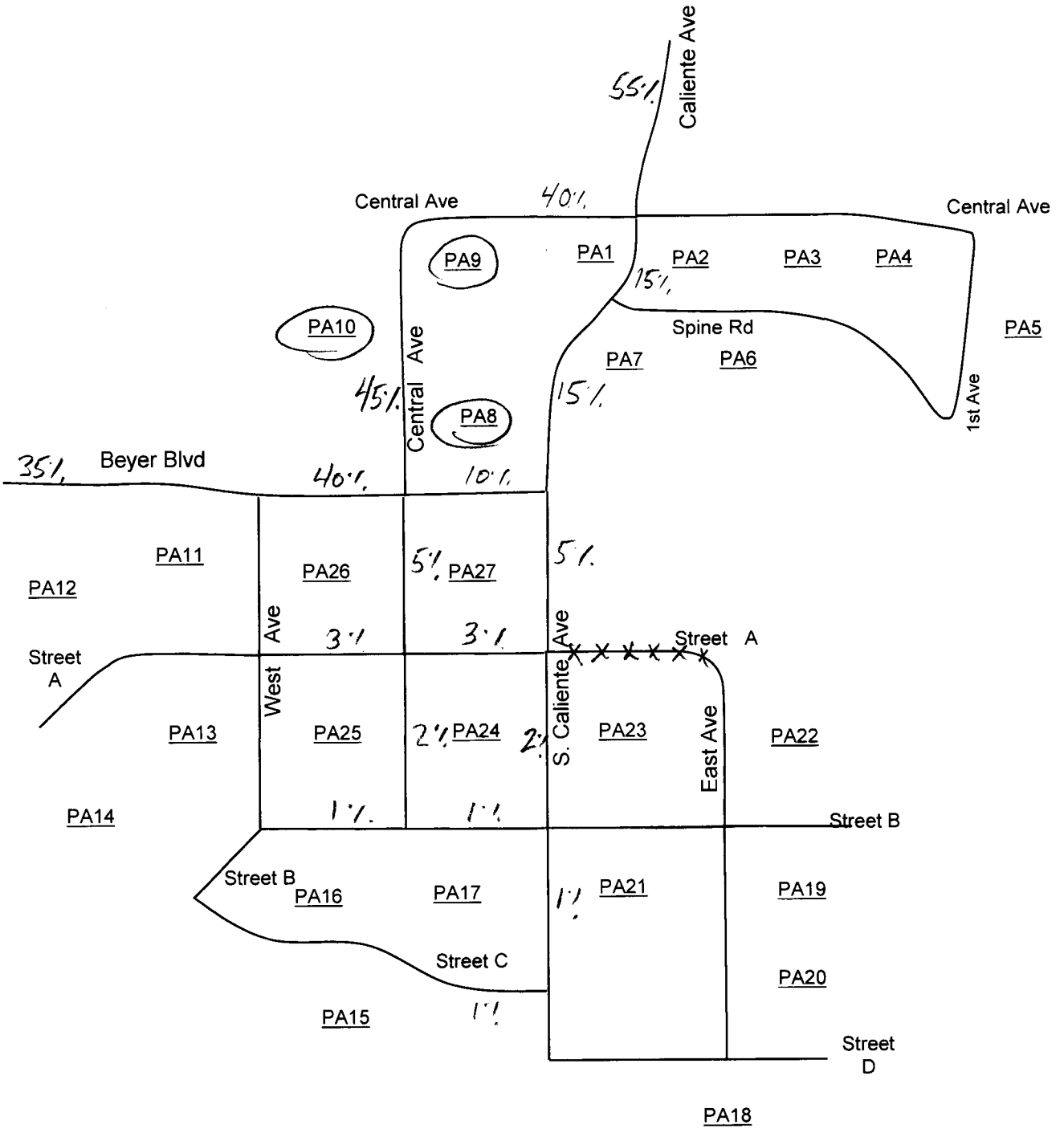
PA 7 SCHOOL OVERLAY

PA 7 6.9 AC SCH.
668 STUDENTS
1,937 ADT



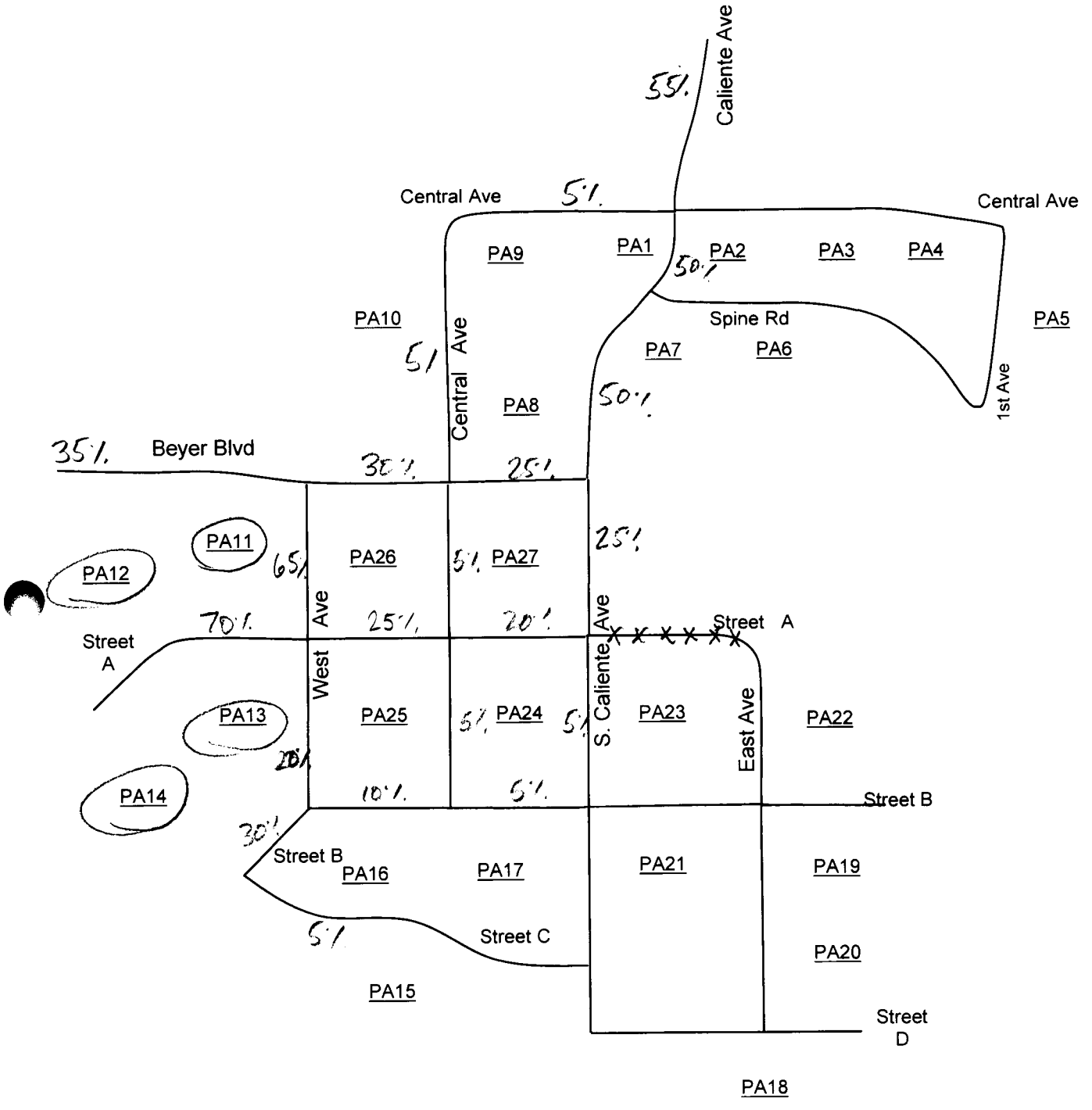
PA 8, 9, & 10

225 DU SF
107 DU MF<20
282 DU MF>20



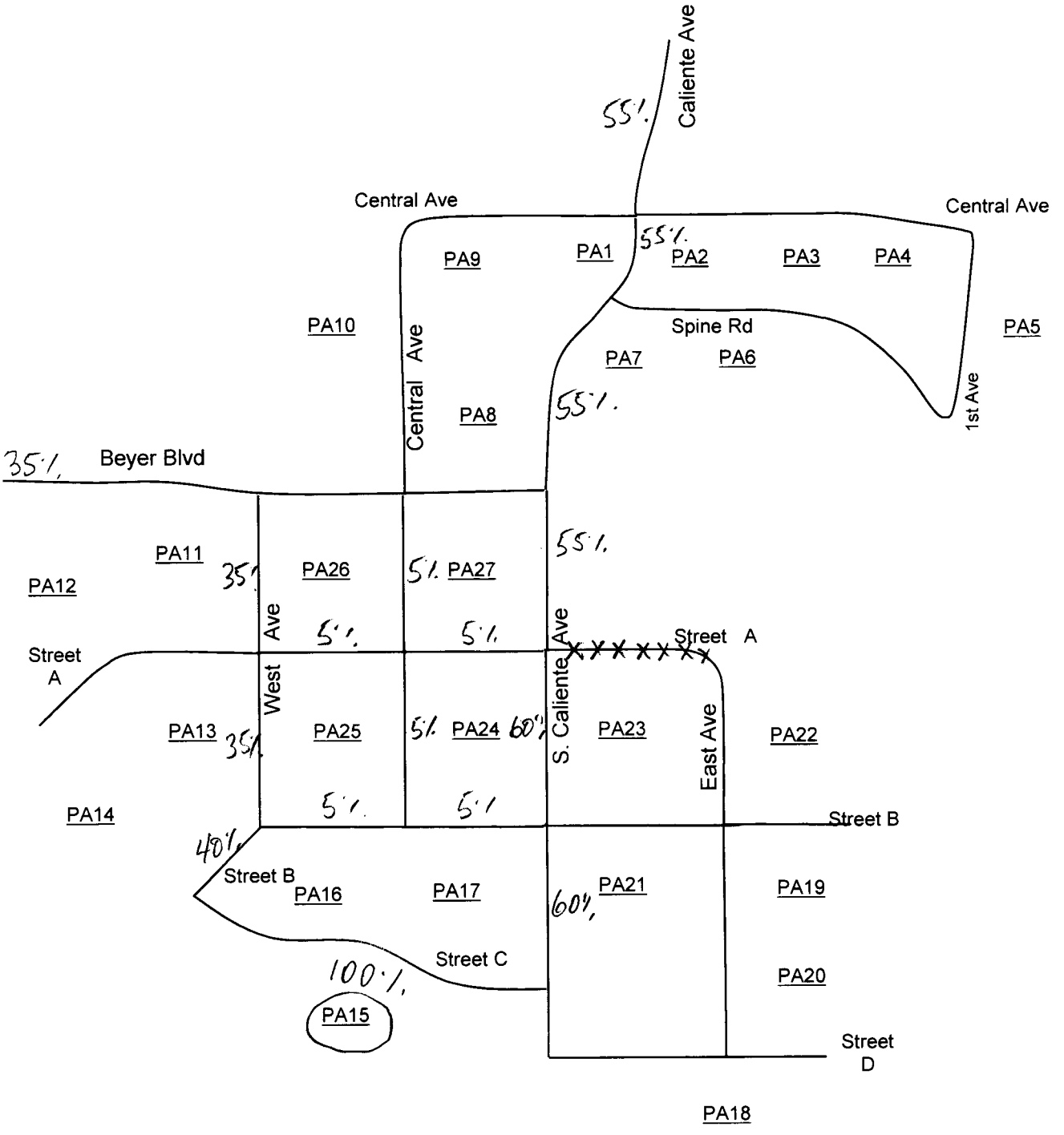
PA 11, 12, 13 & 14

318 DU SF
383 DU MF <20



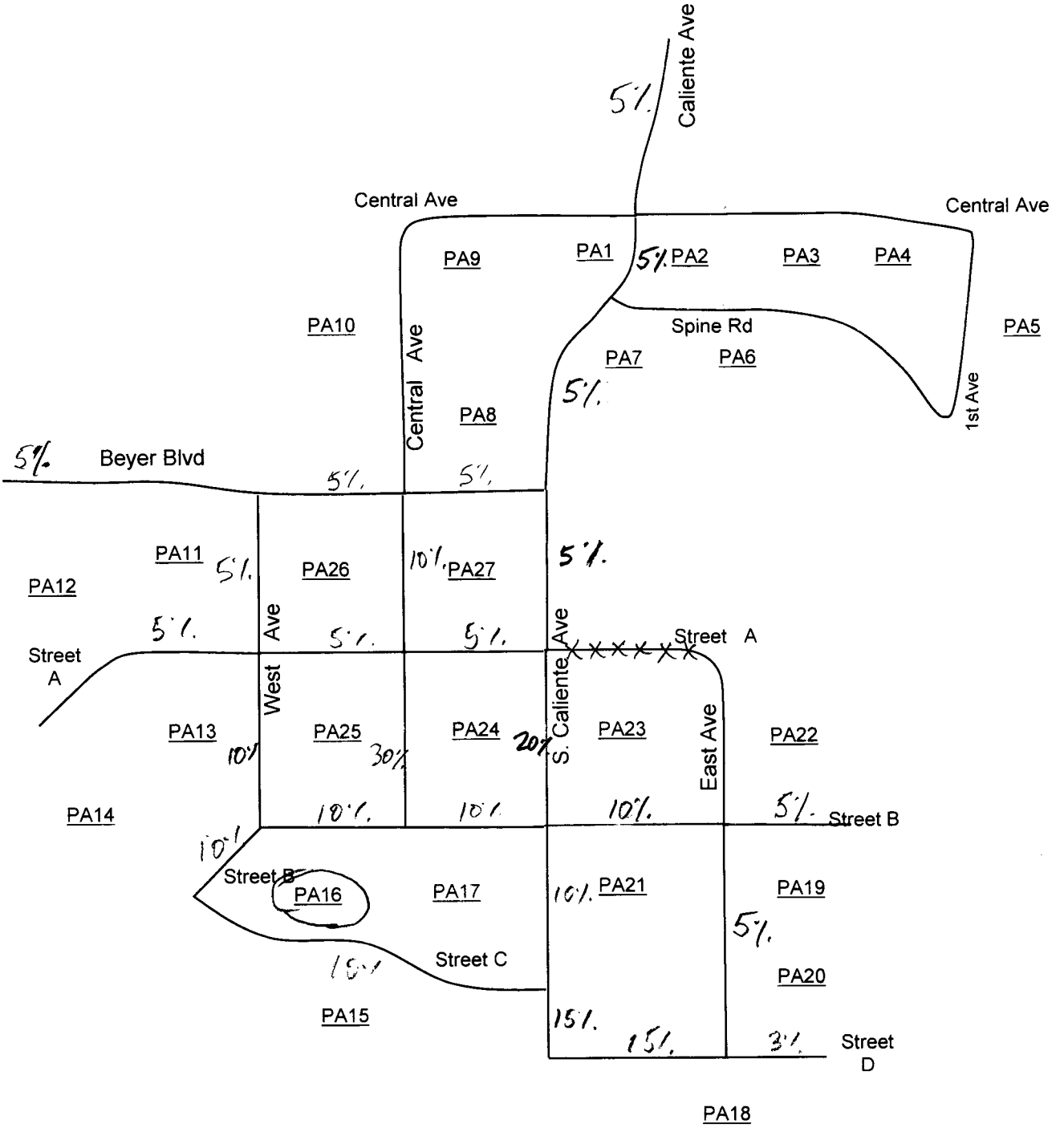
PA 15

243 DU
SF



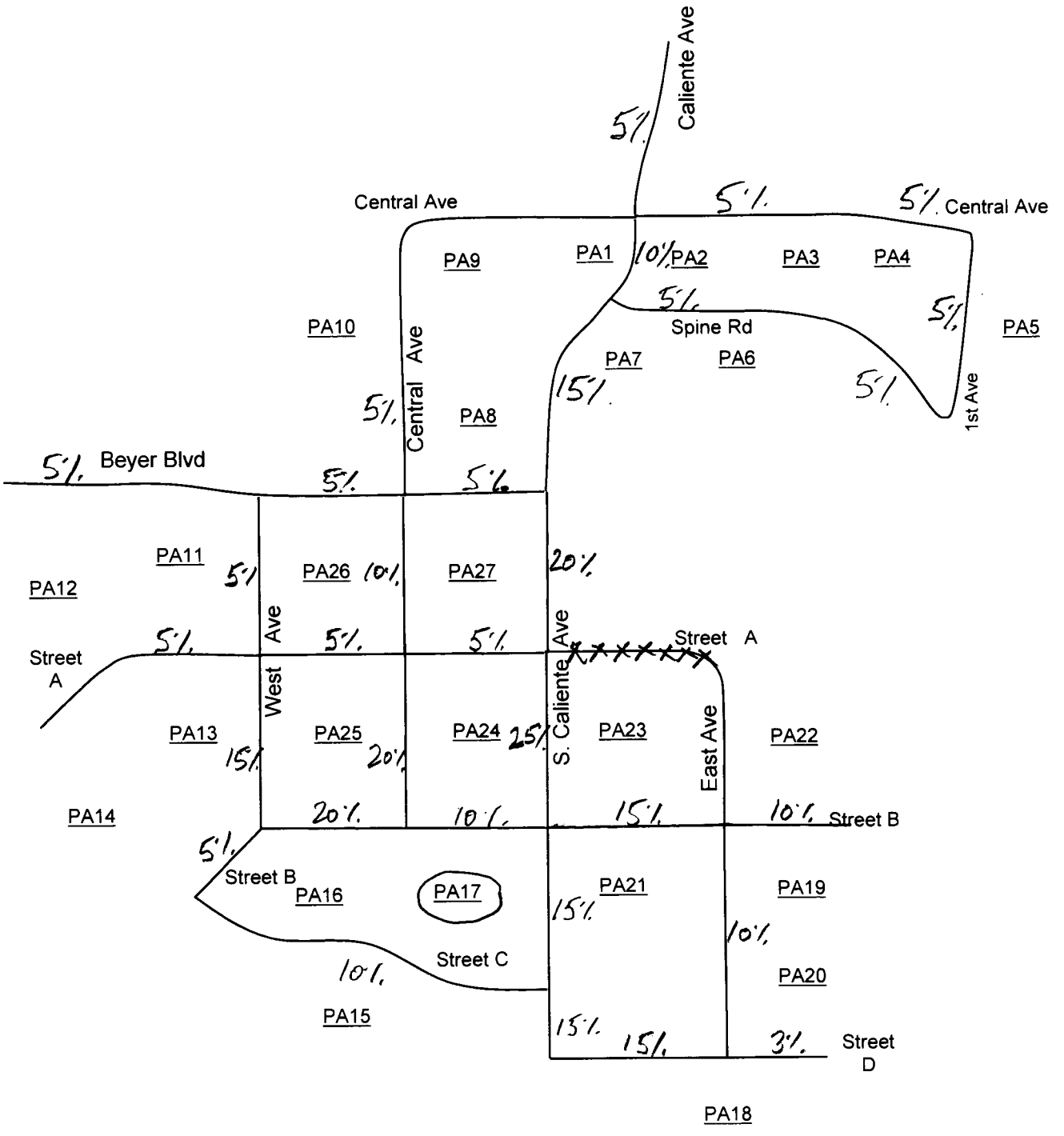
SCHOOL

PA 16


Caliente Ave
5%
Central Ave
Central Ave
PA9
PA1
5%
PA2
PA3
PA4
PA10
Central Ave
Spine Rd
PA5
PA7
PA6
5%
1st Ave
PA8
5%
Beyer Blvd
5%
5%
PA11
5%
PA26
10%
PA27
5%
PA12
5%
West Ave
5%
5%
Street A
Street A
S. Caliente Ave
PA13
10%
PA25
30%
PA24
20%
PA23
East Ave
PA22
PA14
10%
10%
10%
5%
Street B
10%
Street B
PA16
PA17
10%
PA21
PA19
5%
Street C
10%
PA20
PA15
15%
15%
3%
Street D
PA18

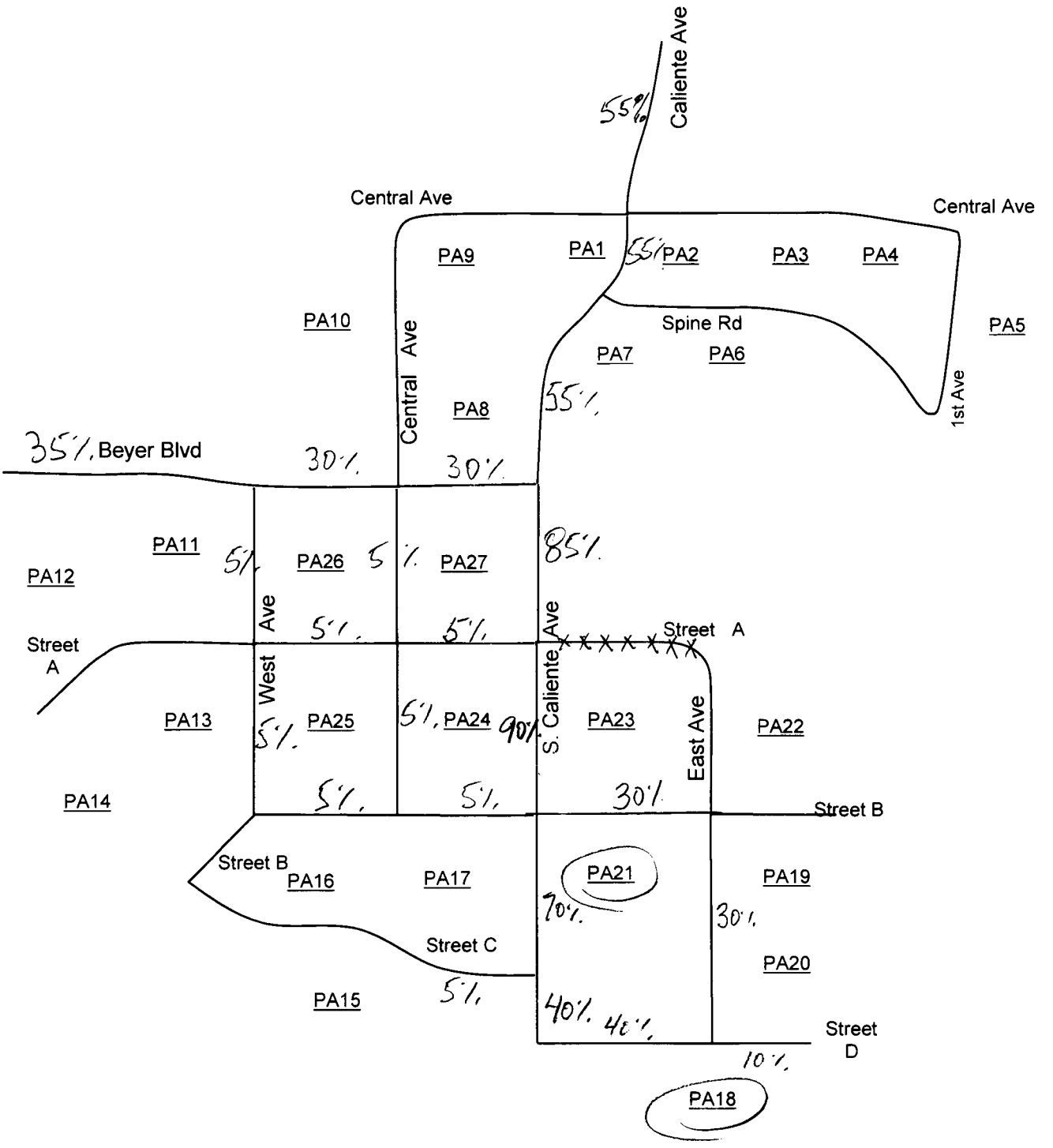
PA 17

PARK


Caliente Ave
5'
Central Ave
5'
5'
Central Ave
PA9
PA1
10'
PA2
PA3
PA4
5'
5'
PA10
Spine Rd
PA5
Central Ave
PA7
PA6
15'
5'
1st Ave
5'
PA8
5'
Beyer Blvd
5'
5'
PA11
5'
PA26
10'
PA27
20'
PA12
Ave
Street A
5'
5'
5'
Street A
West
S. Caliente Ave
East Ave
PA13
15'
PA25
20'
PA24
25'
PA23
PA22
PA14
20'
10'
15'
10'
Street B
5'
Street B
PA16
PA17
PA21
PA19
15'
10'
Street C
10'
PA20
PA15
15'
15'
3'
Street D
PA18

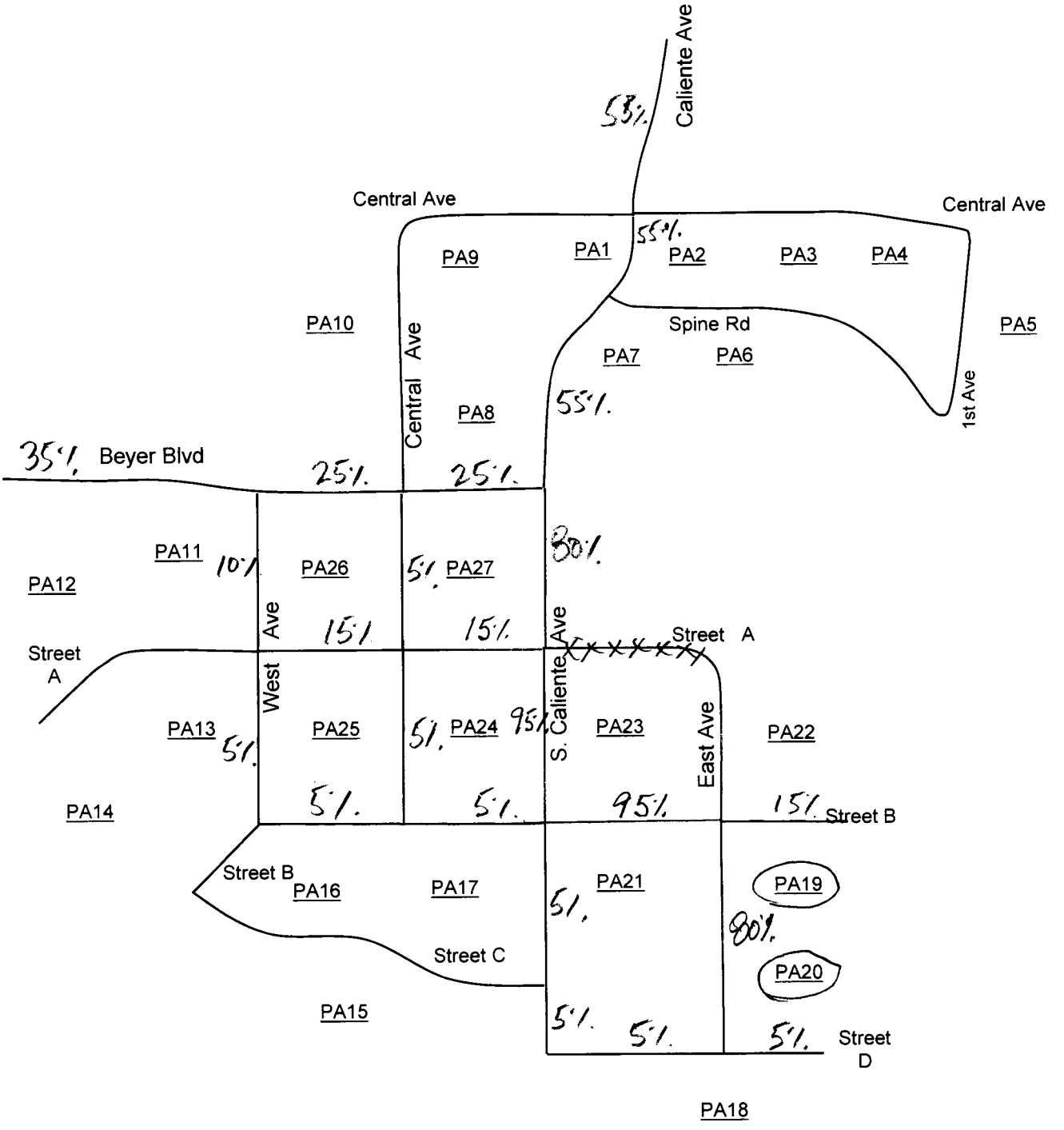
504 DU SF

PA 18 & 21



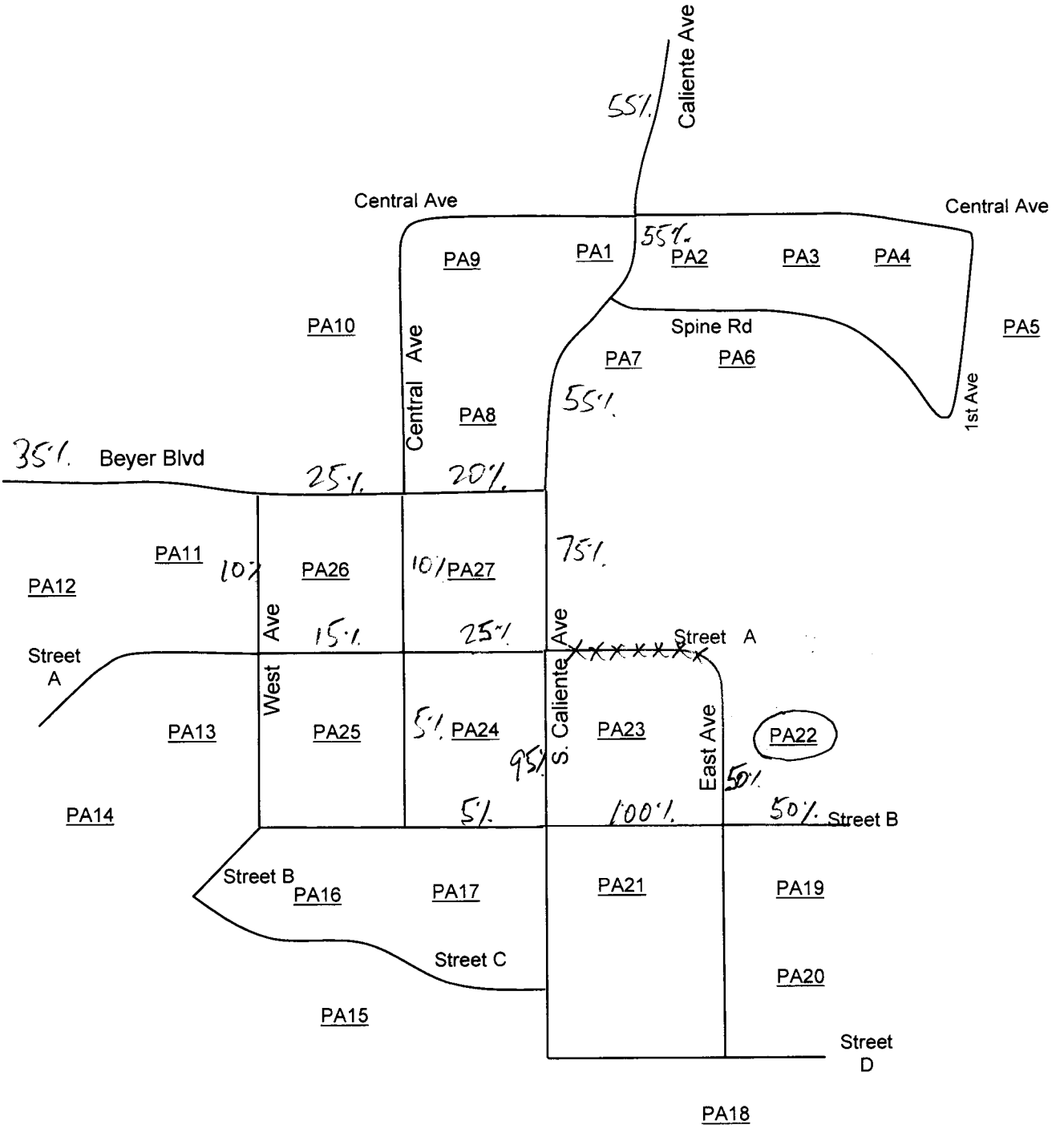
PA 19 & 20

134 DU SF
237 DU MF < 20



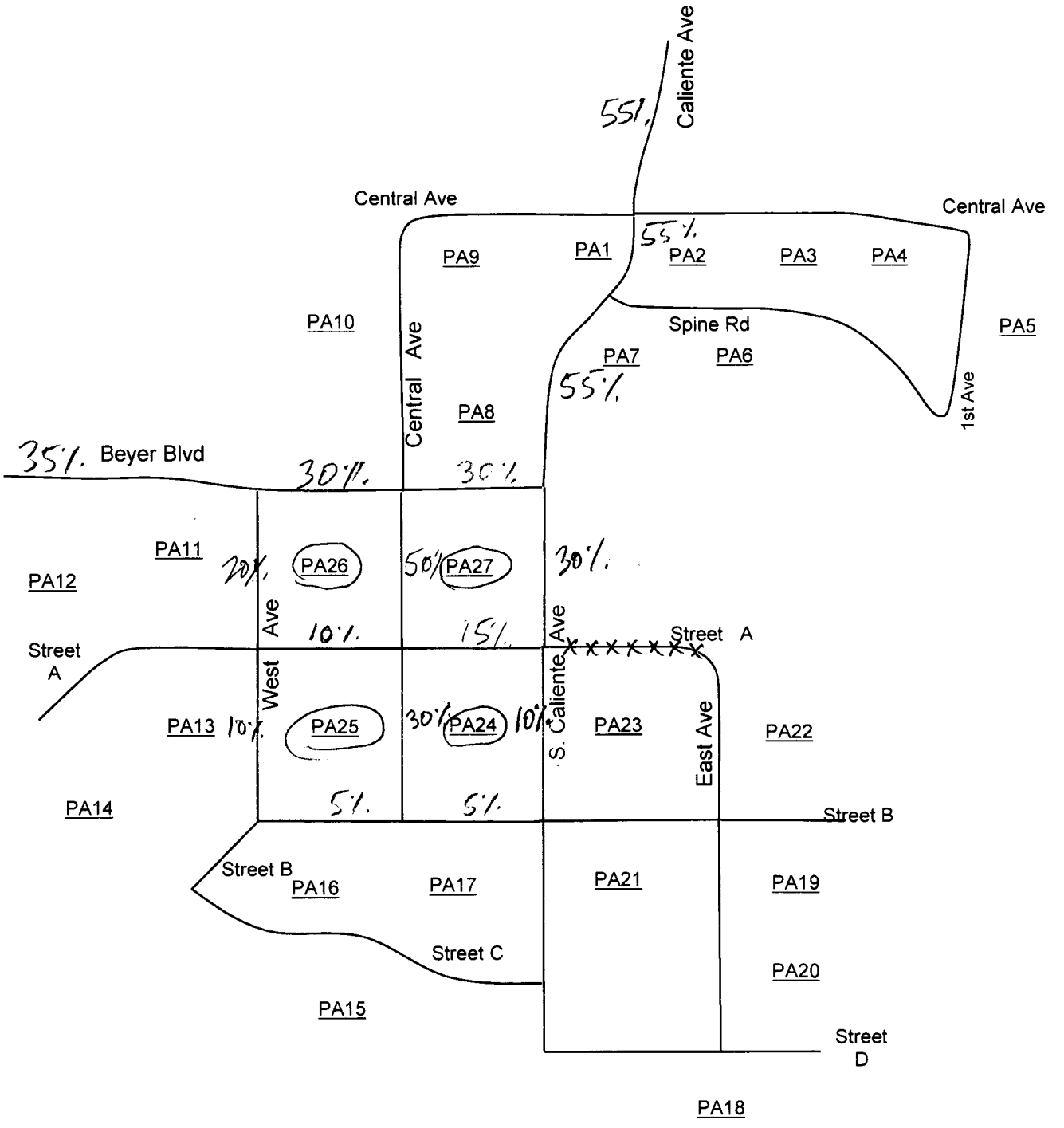
PA 22

267 DU
MF
< 20



PA 24, 25, 26, & 27
RESIDENTIAL

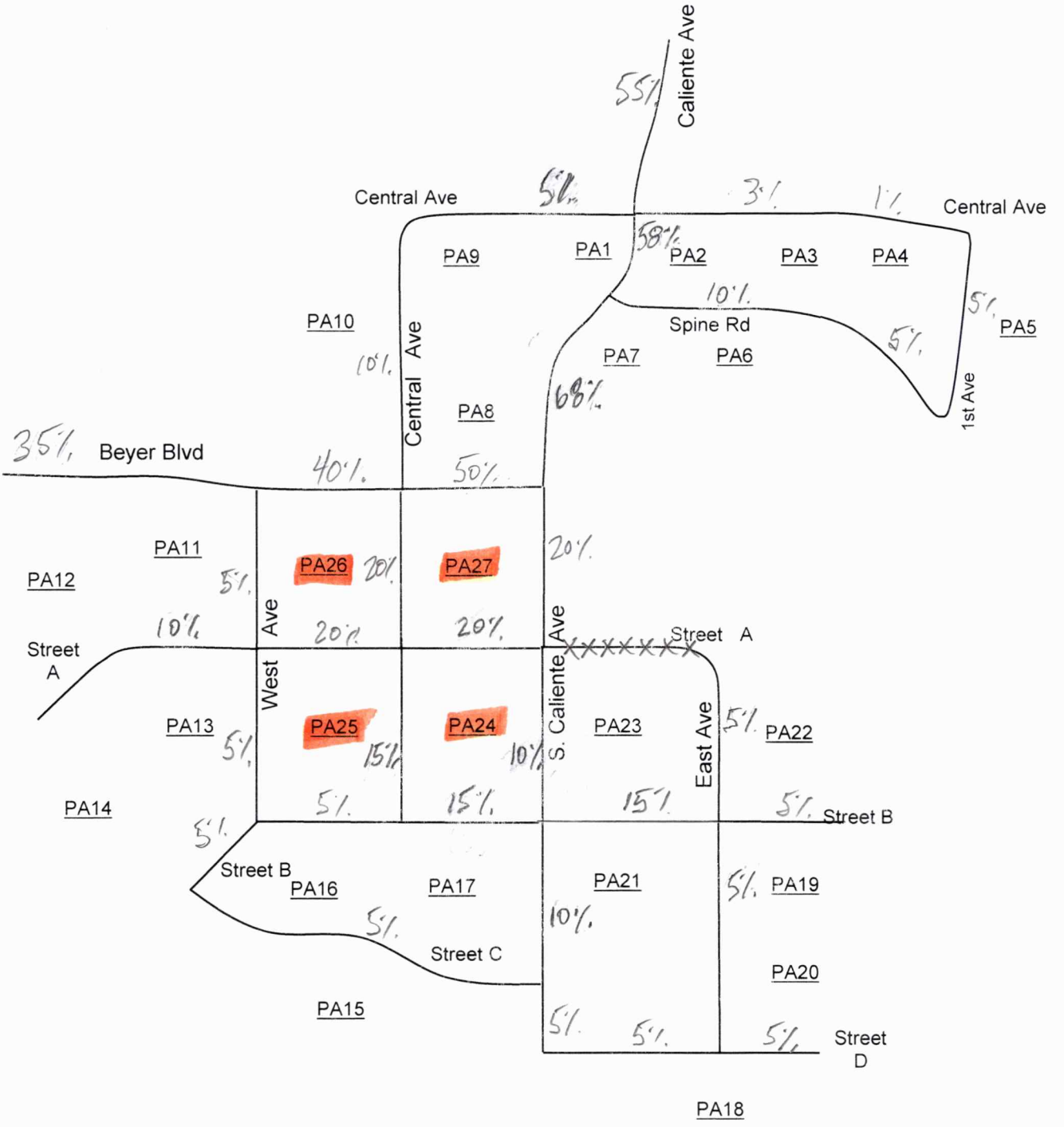
1,187 DU
MF
720



PA 24, 25, 26, & 27

COMMERCIAL ALLOWED

175,000 SF



Southwest Village

Planning Areas and Land Uses

	PA 1		PA 2&3		PA 4		PA 5		PA 6&7		PA 7		PA 8		PA 9		PA 10		PA 11		PA 12		PA 13		PA 14		PA 15	
Land Use & TG	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**
Single Family																		225				137				181		243
MultiFamily<20		160				211		608		264						107				190				193				
MultiFamily>20														282														
Park (Acers)				7.1																								
School (students)											Students	668																
TG Single Family		0		0		0		0		0		0		0		0		2,250		0		1,370		0		1,810		2,430
TG MF<20		1,280		0		1,688		4,864		2,112		0		0		856		0		1,520		0		1,544		0		0
TG MF>20		0		0		0		0		0		0		1,692		0		0		0		0		0		0		0
TG Commercial		0		0		0		0		0		0		0		0		0		0		0		0		0		0
TG Sch/Pk				355								1,937																
TG TOTAL		**1,280**		**355**		**1,688**		**4,864**		**2,112**		**1,937**		**1,692**		**856**		**2,250**		**1,520**		**1,370**		**1,544**		**1,810**		**2,430**

Beyer Blvd	**Rounded Total ADT**	**Distribution and Assignment**																											
Enright Dr to West Ave	***28,100****	35%	448	10%	36	35%	591	35%	1,702	35%	739	5%	97	35%	592	35%	300	35%	788	35%	532	35%	480	35%	540	35%	634	35%	851
West Ave to Central Ave	***28,100****	35%	448	15%	53	35%	591	35%	1,702	35%	739	10%	194	40%	677	40%	342	40%	900	30%	456	30%	411	30%	463	30%	543		0
Central Ave to Caliente Ave	***28,100****	35%	448	20%	71	35%	591	35%	1,702	40%	845	15%	291	10%	169	10%	86	10%	225	25%	380	25%	343	25%	386	25%	453		0
Caliente Ave																													
Airway Rd to Central Ave	***36,900****	55%	704	10%	36	55%	928	55%	2,675	55%	1,162	5%	97	55%	931	55%	471	55%	1,238	55%	836	55%	754	55%	849	55%	996	55%	1,337
Central Ave to Spine Rd	***29,200****	40%	512	5%	18	10%	169	10%	486	55%	1,162	25%	484	15%	254	15%	128	15%	338	50%	760	50%	685	50%	772	50%	905	55%	1,337
Spine Rd to Beyer Blvd	***29,200****	40%	512	65%	231	40%	675	40%	1,946	45%	950	45%	872	15%	254	15%	128	15%	338	50%	760	50%	685	50%	772	50%	905	55%	1,337
Beyer Blvd to Street A	**17,200**	5%	64	45%	160	5%	84	5%	243	5%	106	30%	581	5%	85	5%	43	5%	113	25%	380	25%	343	25%	386	25%	453	55%	1,337
Street A to Street B	**13,900**	5%	64	30%	107	3%	51	3%	146	3%	63		0	2%	34	2%	17	2%	45	5%	76	5%	69	5%	77	5%	91	60%	1,458
Street B to Street C	**6,600**	5%	64	10%	36	2%	34	2%	97	2%	42		0	1%	17	1%	9	1%	23		0		0		0		0	60%	1,458
Street C to Street D	**3,000**	1%	13	5%	18		0		0		0		0		0		0		0		0		0		0		0	0%	0
Central Ave																													
West of 1st Ave	**6,000**		0	5%	18	60%	1,013	60%	2,918		0	5%	97		0		0		0		0		0		0		0		0
East of Caliente Ave	**7,200**		0	20%	71	60%	1,013	60%	2,918		0	10%	194		0		0		0		0		0		0		0		0
West of Caliente Ave	**3,900**	20%	256	10%	36	5%	84	5%	243		0	10%	194	40%	677	40%	342	40%	900	5%	76	5%	69	5%	77	5%	91		0
North of Beyer Blvd	**4,500**	20%	256	10%	36	5%	84	5%	243		0	10%	194	45%	761	45%	385	45%	1,013	5%	76	5%	69	5%	77	5%	91		0
Beyer Blvd to Street A	**7,700**	5%	64	5%	18	5%	84	5%	243	5%	106	5%	97	5%	85	5%	43	5%	113	5%	76	5%	69	5%	77	5%	91	5%	122
Street A to Street B	**5,500**	2%	26	5%	18	2%	34	2%	97	2%	42		0	2%	34	2%	17	2%	45	5%	76	5%	69	5%	77	5%	91	5%	122
East Ave																													
Street A to Street B	**1,700**		0		0		0		0		0		0		0		0		0		0		0		0		0		0
Street B to Street D	**4,700**		0	10%	36		0		0		0		0		0		0		0		0		0		0		0		0
Spine Rd																													
West Half	**8,200**		0	80%	284	40%	675	40%	1,946	100%	2,112	100%	1,937		0		0		0		0		0		0		0		0
East Half	**3,200**		0	10%	36	30%	506	30%	1,459		0	30%	581		0		0		0		0		0		0		0		0
Street A																													
West of West Ave	**5,800**		0	15%	53		0		0		0		0		0		0		0	70%	1,064	70%	959	70%	1,081	70%	1,267		0
West Ave to Central Ave	**6,300**		0	10%	36	1%	17	1%	49	1%	21		0	3%	51	3%	26	3%	68	25%	380	25%	343	25%	386	25%	453	5%	122
Central Ave to Caliente Ave	**6,600**	2%	26	15%	53	1%	17	1%	49	1%	21		0	3%	51	3%	26	3%	68	20%	304	20%	274	20%	309	20%	362	5%	122
Street B																													
Street C to West Ave	**3,700**	1%	13	5%	18		0		0		0		0		0		0		0	30%	456	30%	411	30%	463	30%	543	40%	972
West Ave to Central Ave	**2,600**	2%	26	5%	18	1%	17	1%	49	1%	21		0	1%	17	1%	9	1%	23	10%	152	10%	137	10%	154	10%	181	5%	122
Central Ave to S. Caliente Ave	**3,500**	2%	26	5%	18	1%	17	1%	49	1%	21		0	1%	17	1%	9	1%	23	5%	76	5%	69	5%	77	5%	91	5%	122
S. Caliente Ave to East Ave	**8,700**		0	15%	53		0		0		0		0		0		0		0		0		0		0		0		0
East of East Ave	**2,300**		0	5%	18		0		0		0		0		0		0		0		0		0		0		0		0
Street C																													
West Ave to S. Caliente Ave	**4,000**	1%	13	5%	18	1%	17	1%	49	1%	21		0	1%	17	1%	9	1%	23	5%	76	5%	69	5%	77	5%	91	100%	2,430
Street D																													
S. Caliente Ave to East Ave	**2,900**		0	4%	14		0		0		0		0		0		0		0		0		0		0		0		0
East of East Ave	**1,300**		0	1%	4		0		0		0		0		0		0		0		0		0		0		0		0
West Ave																													
Beyer Blvd to Street A	**7,800**		0	5%	18		0		0		0		0		0		0		0	65%	988	65%	891	65%	1,004	65%	1,177	35%	851
Street A to Street B	**4,100**		0	5%	18		0		0		0		0		0		0		0	20%	304	20%	274	20%	309	20%	362	35%	851
1st Ave																													
Central Ave to Spine Rd	**4,200**		0	5%	18	50%	844	50%	2,432		0	10%	194		0		0		0		0		0		0		0		0

*** From SYCPU Horizon Year Volumes**

Southwest Village **Planning Areas and Land Uses**

	PA 16		PA 17		PA 18		PA 19		PA 20		PA 21		PA 22		PA 23		PA 24		PA 25		PA 26		PA 27		PA 24-27 Commercial		Adjacent cumulative on north edge of SWV
Land Use & TG	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	%	**ADT**	
Single Family						238				134																	
MultiFamily<20								237				266		267													
MultiFamily>20																		352		365		251		219			
Park (Acers)				10.5											Open												
School (students)	Students	600													Space												
TG Single Family		0		0		2,380		0		1,340		0		0		0		0		0		0		0		0	
TG MF<20		0		0		0		1,896		0		2,128		2,136		0		0		0		0		0		0	
TG MF>20		0		0		0		0		0		0		0		0		2,112		2,190		1,506		1,314		0	
TG Commercial		0		0		0		0		0		0		0		0		0		0		0		0		12,250	
TG Sch/Pk		1,740		525																							
TG TOTAL		**1,740**		**525**		**2,380**		**1,896**		**1,340**		**2,128**		**2,136**		**0**		**2,112**		**2,190**		**1,506**		**1,314**		**12,250**	
Beyer Blvd																											
Enright Dr to West Ave	5%	87	5%	26	35%	833	35%	664	35%	469	35%	745	35%	748		0	35%	739	35%	767	35%	527	35%	460	35%	4,288	
West Ave to Central Ave	5%	87	5%	26	30%	714	25%	474	25%	335	30%	638	25%	534		0	30%	634	30%	657	30%	452	30%	394	40%	4,900	
Central Ave to Caliente Ave	5%	87	5%	26	30%	714	25%	474	25%	335	30%	638	20%	427		0	30%	634	30%	657	30%	452	30%	394	50%	6,125	
Caliente Ave																											
Airway Rd to Central Ave	5%	87	5%	26	55%	1,309	55%	1,043	55%	737	55%	1,170	55%	1,175		0	55%	1,162	55%	1,205	55%	828	55%	723	55%	6,738	
Central Ave to Spine Rd	5%	87	10%	53	55%	1,309	55%	1,043	55%	737	55%	1,170	55%	1,175		0	55%	1,162	55%	1,205	55%	828	55%	723	58%	7,105	
Spine Rd to Beyer Blvd	5%	87	15%	79	55%	1,309	55%	1,043	55%	737	55%	1,170	55%	1,175		0	55%	1,162	55%	1,205	55%	828	55%	723	68%	8,330	
Beyer Blvd to Street A	5%	87	20%	105	85%	2,023	80%	1,517	80%	1,072	85%	1,809	75%	1,602		0	30%	634	30%	657	30%	452	30%	394	20%	2,450	
Street A to Street B	20%	348	25%	131	90%	2,142	95%	1,801	95%	1,273	90%	1,915	95%	2,029		0	10%	211	10%	219	10%	151	10%	131	10%	1,225	
Street B to Street C	10%	174	15%	79	70%	1,666	5%	95	5%	67	70%	1,490		0		0		0		0		0		0	10%	1,225	
Street C to Street D	15%	261	15%	79	40%	952	5%	95	5%	67	40%	851		0		0		0		0		0		0	5%	613	
Central Ave																											
West of 1st Ave		0	5%	26		0		0		0		0		0		0		0		0		0		0	1%	123	1,800
East of Caliente Ave		0	5%	26		0		0		0		0		0		0		0		0		0		0	3%	368	2,565
West of Caliente Ave		0		0		0		0		0		0		0		0		0		0		0		0	5%	613	285
North of Beyer Blvd		0	5%	26		0		0		0		0		0		0		0		0		0		0	10%	1,225	
Beyer Blvd to Street A	10%	174	10%	53		0	5%	95	5%	67		0		0		0	50%	1,056	50%	1,095	50%	753	50%	657	20%	2,450	
Street A to Street B	30%	522	20%	105		0	5%	95	5%	67		0		0		0	30%	634	30%	657	30%	452	30%	394	15%	1,838	
East Ave																											
Street A to Street B		0		0		0		0		0		0	50%	1,068		0		0		0		0		0	5%	613	
Street B to Street D	5%	87	10%	53	30%	714	80%	1,517	80%	1,072	30%	638		0		0		0		0		0		0	5%	613	
Spine Rd																											
West Half		0	5%	26		0		0		0		0		0		0		0		0		0		0	10%	1,225	
East Half		0	5%	26		0		0		0		0		0		0		0		0		0		0	5%	613	
Street A																											
West of West Ave	5%	87	5%	26		0		0		0		0		0		0		0		0		0		0	10%	1,225	
West Ave to Central Ave	5%	87	5%	26	5%	119	15%	284	15%	201	5%	106	15%	320		0	10%	211	10%	219	10%	151	10%	131	20%	2,450	
Central Ave to Caliente Ave	5%	87	5%	26	5%	119	15%	284	15%	201	5%	106	25%	534		0	15%	317	15%	329	15%	226	15%	197	20%	2,450	
Street B																											
Street C to West Ave	10%	174	5%	26		0		0		0		0		0		0		0		0		0		0	5%	613	
West Ave to Central Ave	10%	174	20%	105	5%	119	5%	95	5%	67	5%	106		0		0	5%	106	5%	110	5%	75	5%	66	5%	613	
Central Ave to S. Caliente Ave	10%	174	10%	53	5%	119	5%	95	5%	67	5%	106	5%	107		0	5%	106	5%	110	5%	75	5%	66	15%	1,838	
S. Caliente Ave to East Ave	10%	174	15%	79	30%	714	95%	1,801	95%	1,273	30%	638	100%	2,136		0		0		0		0		0	15%	1,838	
East of East Ave	5%	87	10%	53		0	15%	284	15%	201		0	50%	1,068		0		0		0		0		0	5%	613	
Street C																											
West Ave to S. Caliente Ave	10%	174	10%	53	5%	119		0		0	5%	106		0		0		0		0		0		0	5%	613	
Street D																											
S. Caliente Ave to East Ave	15%	261	15%	79	40%	952	5%	95	5%	67	40%	851		0		0		0		0		0		0	5%	613	
East of East Ave	3%	52	3%	16	10%	238	5%	95	5%	67	10%	213		0		0		0		0		0		0	5%	613	
West Ave																											
Beyer Blvd to Street A	5%	87	5%	26	5%	119	10%	190	10%	134	5%	106	10%	214		0	20%	422	20%	438	20%	301	20%	263	5%	613	
Street A to Street B	10%	174	15%	79	5%	119	5%	95	5%	67	5%	106		0		0	10%	211	10%	219	10%	151	10%	131	5%	613	
1st Ave																											
Central Ave to Spine Rd		0	5%	26		0		0		0		0		0		0		0		0		0		0	5%	613	

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