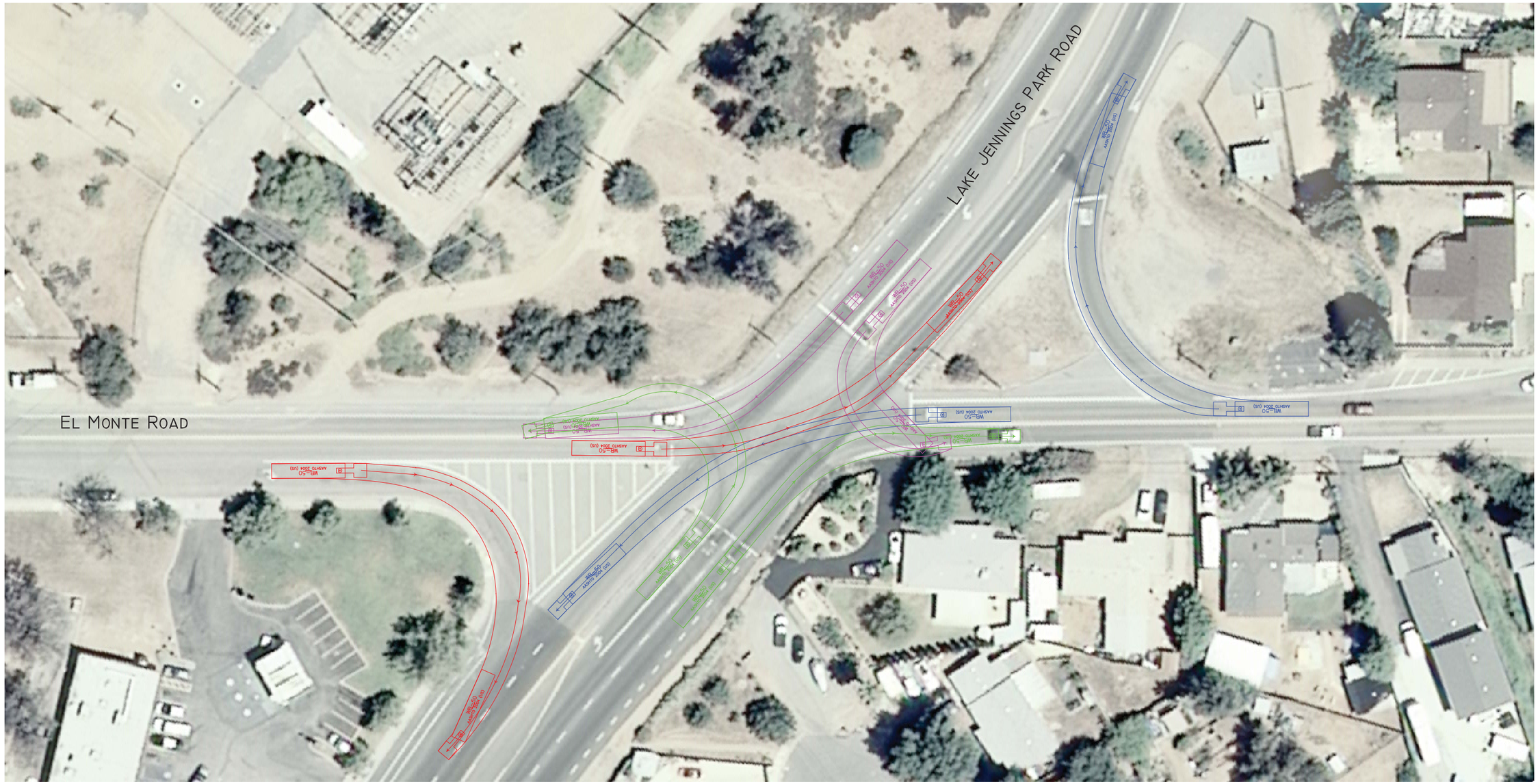
APPENDIX I

CONCEPTUAL INTERSECTION DESIGN AND TRUCK TURNING TEMPLATES



NORTH

SCALE: 1"=60'

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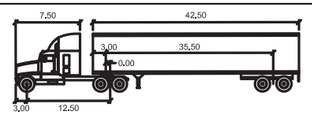
LINSCOTT LAW & GREENSPAN engineers



WB-50 feet

Tractor Width	: 8,00	Lock to Lock Time	: 6,0
Trailer Width	: 8,50	Steering Angle	: 17,7
Tractor Track	: 8,00	Articulating Angle	: 70,0
Trailer Track	: 8,50		

Figure 1

Existing - Truck Turning Templates

EL MONTE SAND MINING PROJECT

Notes:

1 – Raised Pedestrian Island (Concrete)

2 – Raised Median (Concrete with potential landscaping)

3 – New Sidewalk and connect to existing sidewalks as applicable

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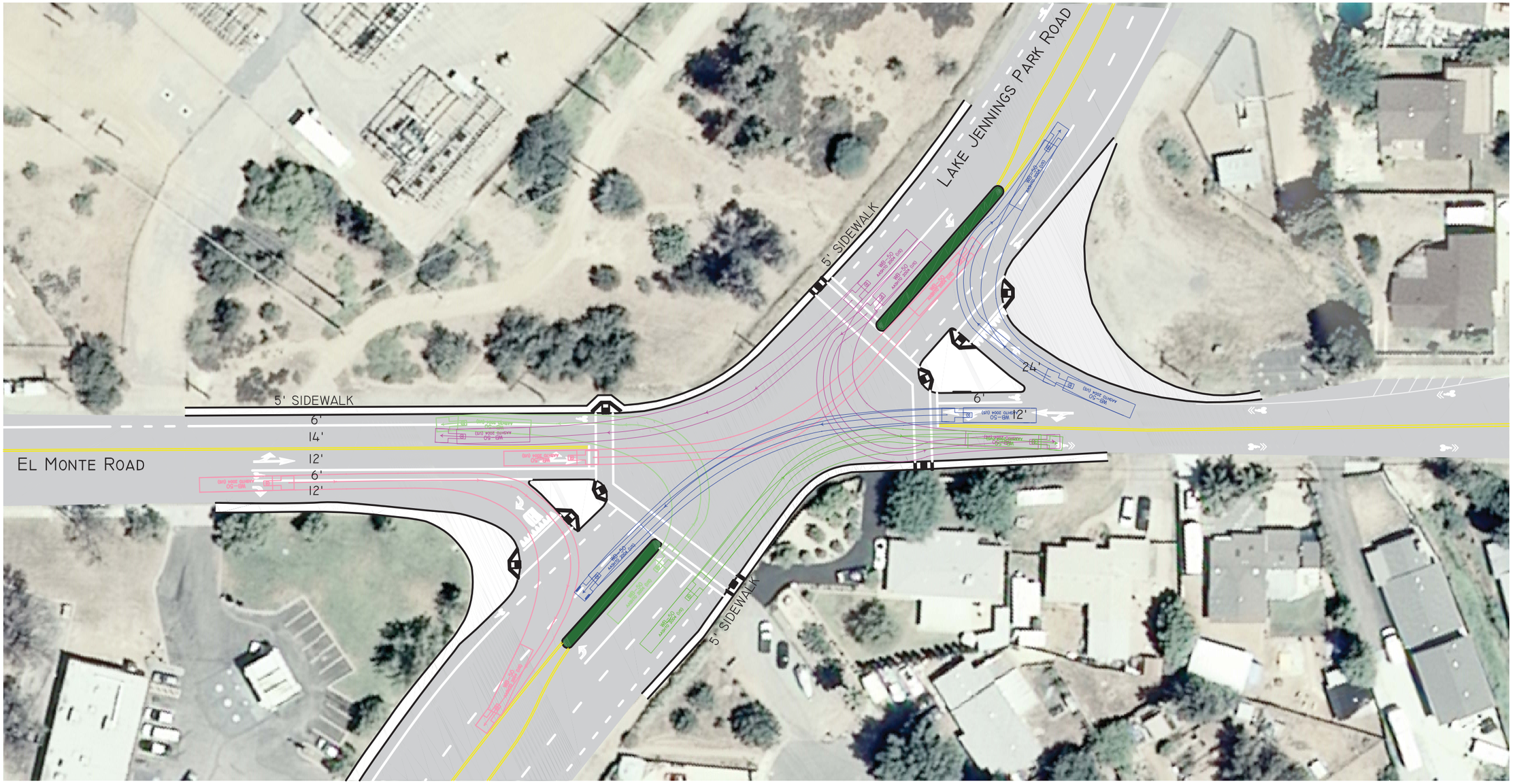
Figure 2

Proposed Intersection Design

EL MONTE SAND MINING PROJECT



CONCEPTUAL ONLY

NORTH

SCALE: 1"=60'

REV. 5/4/2016
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Figure 3

Proposed Intersection - Truck Turning Figures

EL MONTE SAND MINING PROJECT

APPENDIX J

COUNTY OF SAN DIEGO TIF TRANSPORTATION NEEDS ASSESSMENT REPORT (SEPTEMBER 2012 EXCERPTS)

TABLE 2.3
TIF ELIGIBLE FACILITIES (STATE)

CPA	Name	Segment		Non-TIF[1] Required Class	ME Class
		To	From		
South					
Jamul-Dulzura	SR-94	CPA Boundary	Jefferson Rd	4.1B	4.1A
North					
Fallbrook	SR-76	Granit Quarry Entrance	Couser Canyon Rd	4.1B	4.1A
	SR-76	Pankey Rd	Granit Quarry Entrance	4.1B	4.1A
North County Metro	SR-78	Bear Valley Rd	Old San Pasqual Rd	2.2C	4.1A
East					
Mountain Empire	SR-188	SR-94	International Boarder	2.2E	4.1A
Ramona	SR-67	Dye Rd	Archie Moore Rd	4.1B	4.1A

Source: Fehr & Peers, August 2012

Notes:

[1] Non-TIF: Non-TIF Eligible Improvements required due to existing deficiencies, external through trips, outside growth and/or improvements required to mitigate direct impacts associated with future county development projects.

2.5 TIF program Costs (Step 4)

The total program improvement costs were first estimated for the roadway improvements necessary to buildout the County ME, consistent with the minimum acceptable LOS set forth by General Plan (Step 1). Improvement costs were also estimated for the identified improvements that are not eligible for TIF funding, i.e. deficiencies associated with existing traffic, external regional growth and direct impacts associated with future County development (Step 2). TIF eligible program improvement costs were established by subtracting the improvement costs associated with Non-TIF Eligible Improvements (Step 2) from the overall ME improvement costs (Step 1). A more detailed description of the costing methodology as well as the estimated individual facility and total program improvement costs are provided in Chapter 3.0.

2.6 Interchange Improvements

Future County development is also projected to have a cumulative impact on a number of freeway ramp interchanges. As part of the TIF program, County new development would be responsible for a fair-share contribution to the improvement of these interchanges in the future. **Table 2.4** displays the location of the freeway interchanges, identified by the County, which would be impacted by future County development and the associated fair-share contribution. The fair-share contribution was determined by comparing daily ramp volume outputs from the forecast utilized to determine outside growth to the SANDAG Series 10 Year 2030 transportation forecast.

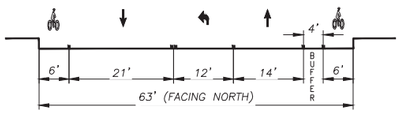
TABLE 2.4
TIF ELIGIBLE INTERCHANGE IMPROVEMENTS

Interchange	Future County Development Fair-Share Contribution
I-8 EB/Lake Jennings Park Rd	15.7%
I-8 WB/Lake Jennings Park Rd	20.4%
I-8 EB/Dunbar Ln	55.5%
I-8 WB/Dunbar Ln	46.7%
I-8 EB/Tavern Rd	24.8%
I-8 WB/Tavern Rd	35.8%
I-8 EB/W.Willows Rd	13.3%
I-8 WB/W.Willows Rd	12.1%
SR-67 NB/Bradley Ave	2.0%
SR-67 SB/Bradley Ave	2.2%
SR-67 NB/Winter Gardens Blvd	5.3%
SR-67 SB/Winter Gardens Blvd	4.8%
SR-67 NB/Riverford Rd	32.4%
SR-67 SB/Riverford Rd	29.1%
SR-67 NB/Mapleview St	4.0%
SR-67 SB/Mapleview St	3.9%
SR-94 EB/Sweetwater Springs Blvd	9.2%
SR-94 WB/Sweetwater Springs Blvd	9.9%
I-15 NB/E. Mission Rd	19.0%
I-15 SB/E. Mission Rd	13.0%
I-15 NB/Gopher Canyon Rd	32.6%
I-15 SB/Gopher Canyon Rd	24.2%
I-15 NB/Deer Springs Rd	22.4%
I-15 SB/Deer Springs Rd	21.8%
I-15 NB/SR-76	12.3%
I-15 SB/ SR-76	17.2%

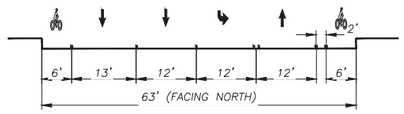
Source: County of San Diego / Fehr & Peers, March 2012

APPENDIX K

CALTRANS PROPOSED IMPROVEMENTS



CROSS SECTION "A"



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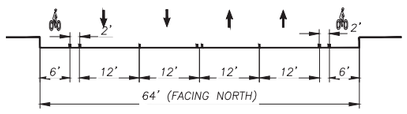

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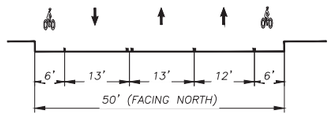
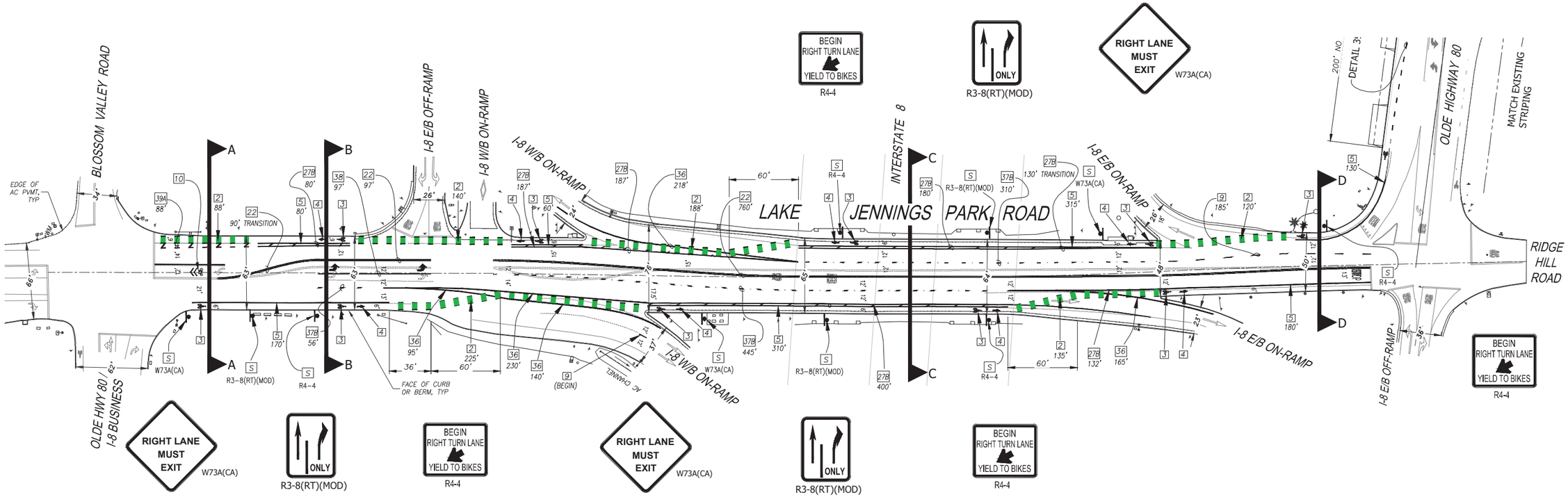


CROSS SECTION "D"



SIGNING AND STRIPING NOTES

[2] –SIX (6") FOOT WIDE (TYPICAL) DASHED BIKE LANE PAINTED GREEN WITH SIX (6") INCH WIDE WHITE PAINTED DETAIL 39A DASHED EDGELINE STRIPING

[3] –WHITE PAINTED BIKE LANE SYMBOL WITH PERSON (REF: CALTRANS STD DRAWING A24C)

[4] –WHITE PAINTED BIKE LANE ARROW (REF: CALTRANS STD DRAWING A24A)

[5] –SIX (6") FOOT WIDE (TYPICAL) BIKE LANE WITH SIX (6") INCH WIDE WHITE PAINTED DETAIL 39 BIKE LANE STRIPING (REF: CALTRANS STD DETAIL 39, DRAWING A20D)

[9] –WHITE PAINTED DETAIL 9 DASHED STRIPING (REF: CALTRANS STD DETAIL 9, DRAWING A20A)

[10] – WHITE PAINTED "SHARED ROADWAY BICYCLE MARKING". (REF: CALTRANS STD DRAWING A24C)

[22] –DETAIL 22 DOUBLE YELLOW PAINTED CENTERLINE STRIPING (REF: CALTRANS STD DETAIL 22, DRAWING A20A)

SIGNING AND STRIPING NOTES (CONTINUED)

[27B] –DETAIL 27B WHITE PAINTED RIGHT EDGELINE STRIPING PAINTED TWO (2') FOOT OFF OF THE BIKE LANE STRIPING WITH DIAGONAL STRIPES TWENTY FOUR (24') FEET ON CENTER THROUGHOUT. (REF: CALTRANS STD DETAIL 27B, DRAWING A20B)

[36] –DETAIL 36 WHITE PAINTED ENTRANCE RAMP STRIPING (REF: CALTRANS STD DETAIL 36, DRAWING RSPA20C)

[37B] –DETAIL 37B WHITE PAINTED LANE DROP AT ENTRANCE RAMP STRIPING (REF: CALTRANS STD DETAIL 37B, DRAWING RSPA20C)

[38] –DETAIL 38 WHITE PAINTED CHANNELIZING STRIPING (REF: CALTRANS STD DETAIL 38, DRAWING A20D)

[39A] –DETAIL 39A WHITE DASHED BIKE LANE STRIPING (REF: CALTRANS STD DETAIL 39A, DRAWING A20D)

[S] –SIGN. INSTALL SIGN AT THIS LOCATION (MUTCD CALLOUT–SEE SIGN LEGEND THIS SHEET)

SCALE: 1"=40'

0 8 40 80
16 32 48 64

REGISTERED PROFESSIONAL ENGINEER
BILL E. DARNELL
No. 22338
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE SUPERVISION OF:

BILL E. DARNELL DATE
DESIGN ENGINEER R.C.E. No. 22338
LICENSE EXPIRES 9-30-15

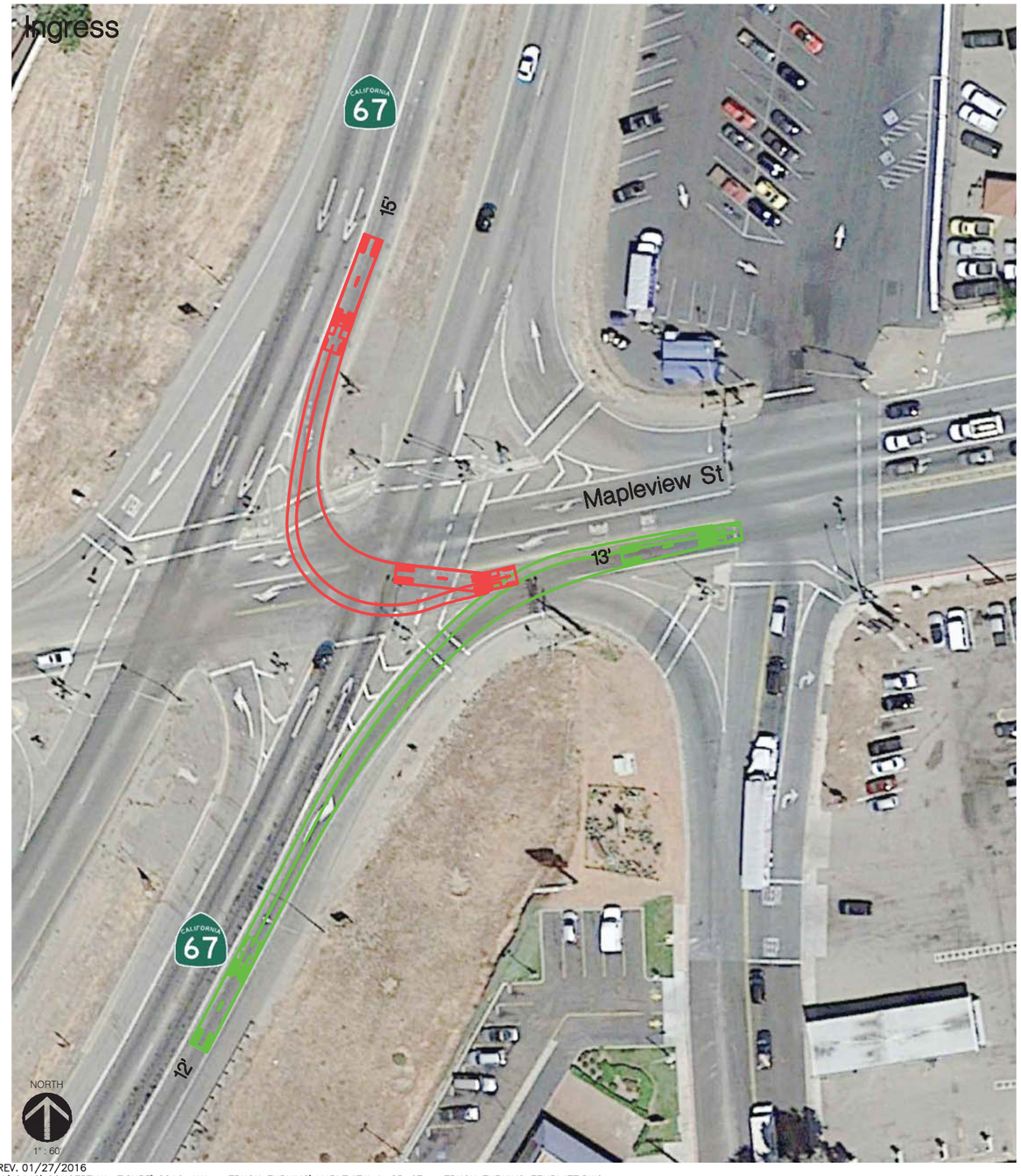
Darnell & ASSOCIATES, INC.
2870 4TH AVE
SAN DIEGO, CA 92103
(619) 233-9373

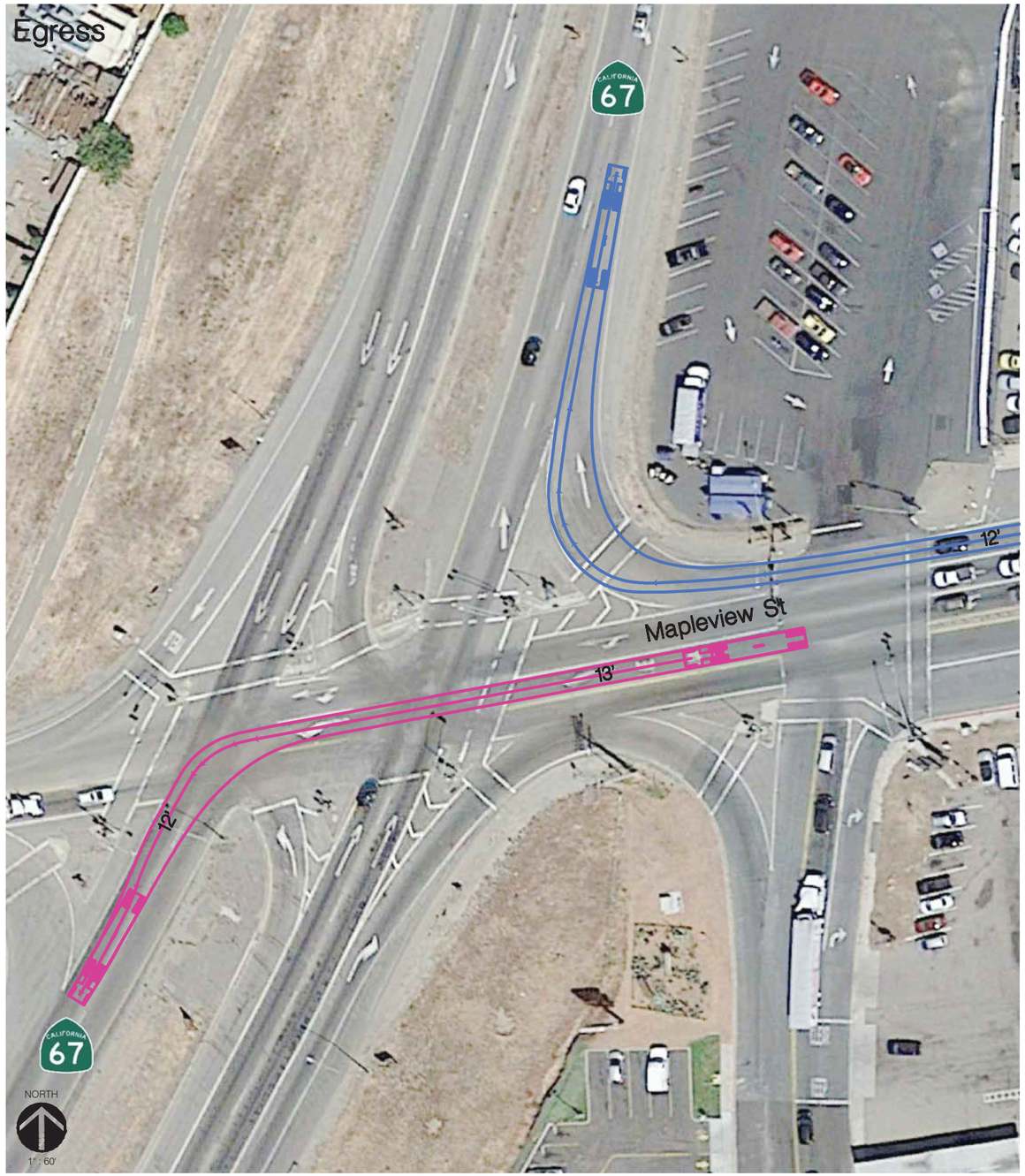
DWG NAME:LK JNNGS S/S | DATE: 02/20/2015 | BY: DAB

FIGURE 8
CHANNELIZATION CONCEPT
LAKE JENNINGS PARK ROAD
BLOSSOM VALLEY RD. TO OLDE HIGHWAY 80

APPENDIX L

TRUCK TURNING TEMPLATES





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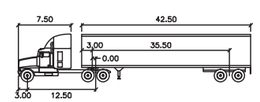
engineers



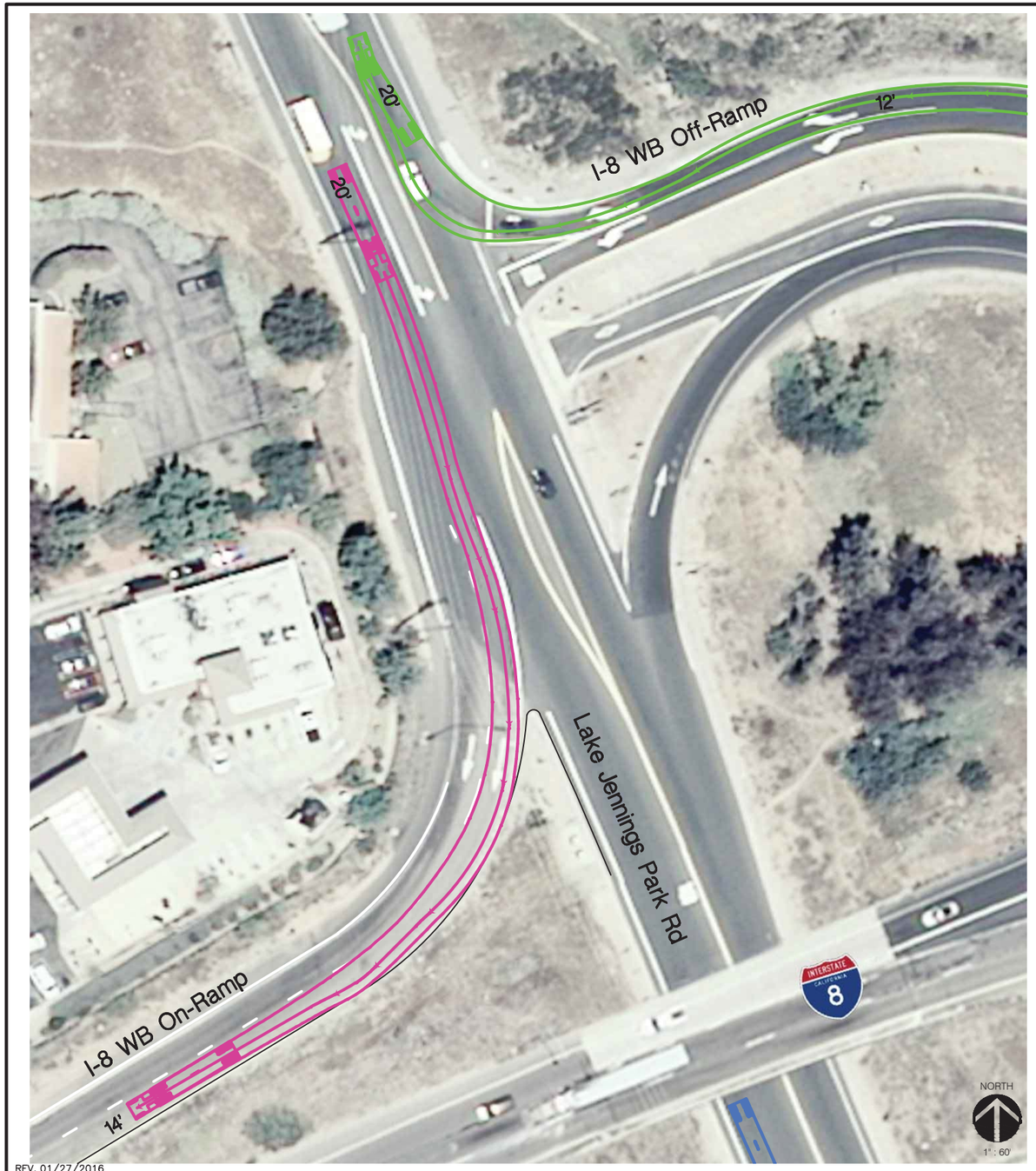
WB–50 feet

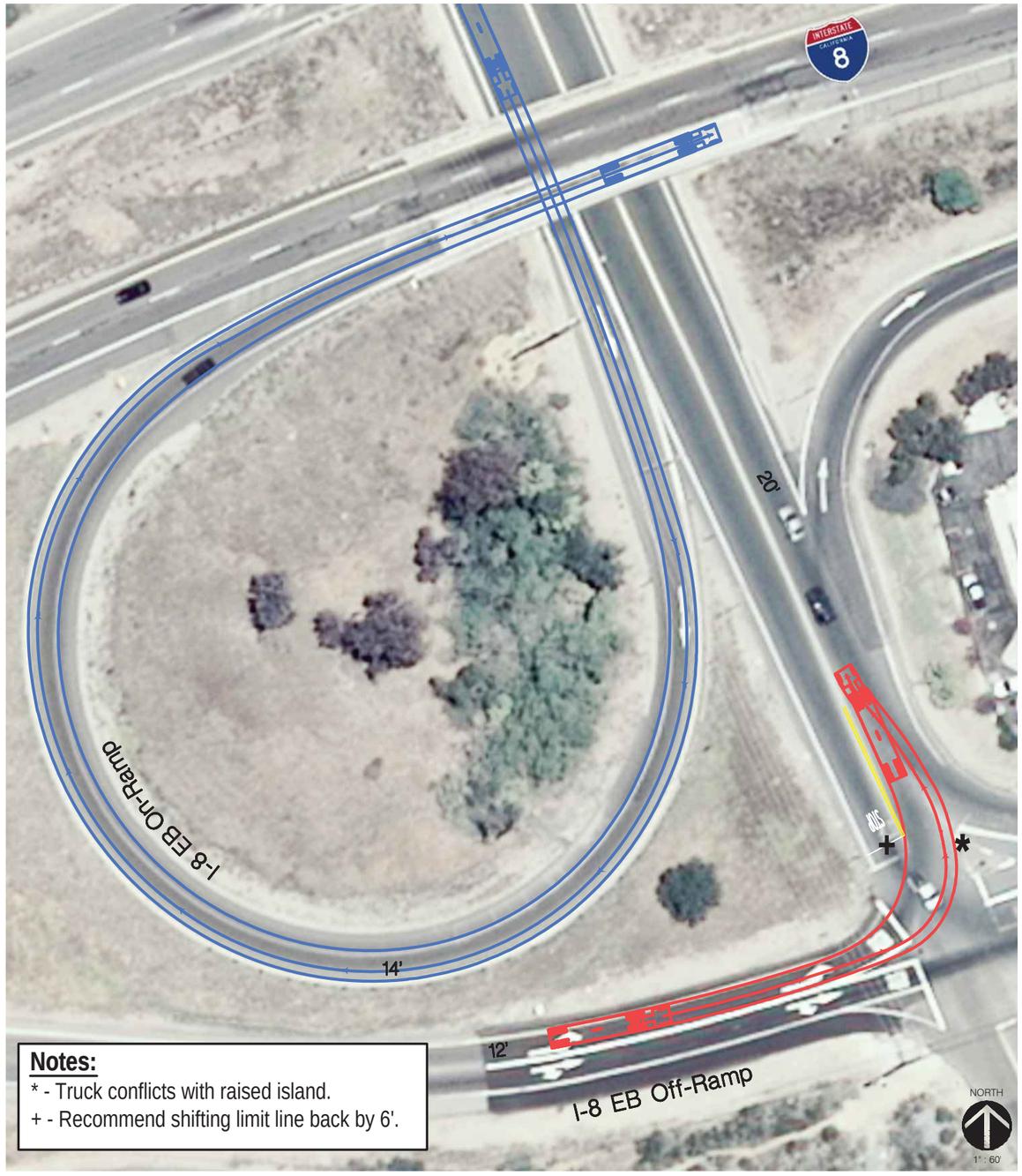
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

Figure 4

SR 67 / Mapleview St - Truck Turning Templates

EL MONTE SAND MINING PROJECT





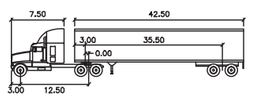
Notes:

* - Truck conflicts with raised island.

\+ - Recommend shifting limit line back by 6'.

REV. 01/27/2016
N:\2448\CONCEPTUAL FIGURE\2016 JAN – TRUCK TURNING\I-8 & LAKE JENNINGS RD – TRUCK TURNING TEMPLATE.DWG

LINSCOTT LAW & GREENSPAN
engineers



WB–50 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

Figure 5

I-8 / Lake Jennings Park Rd - Truck Turning Templates

ChangConsultants
Civil Engineering◦Hydrology◦Hydraulics◦Sedimentation

P.O. Box 9496
Rancho Santa Fe, CA 92067-4496
T: 858.692.0760
F: 858.832.1402
wayne@changconsultants.com

November 14, 2016

Heather Steven
County of San Diego
Planning and Development Services
5510 Overland Ave, Suite 310
San Diego, CA 92123

Subject: El Monte Sand Mining and Nature Preserve Sight Distance

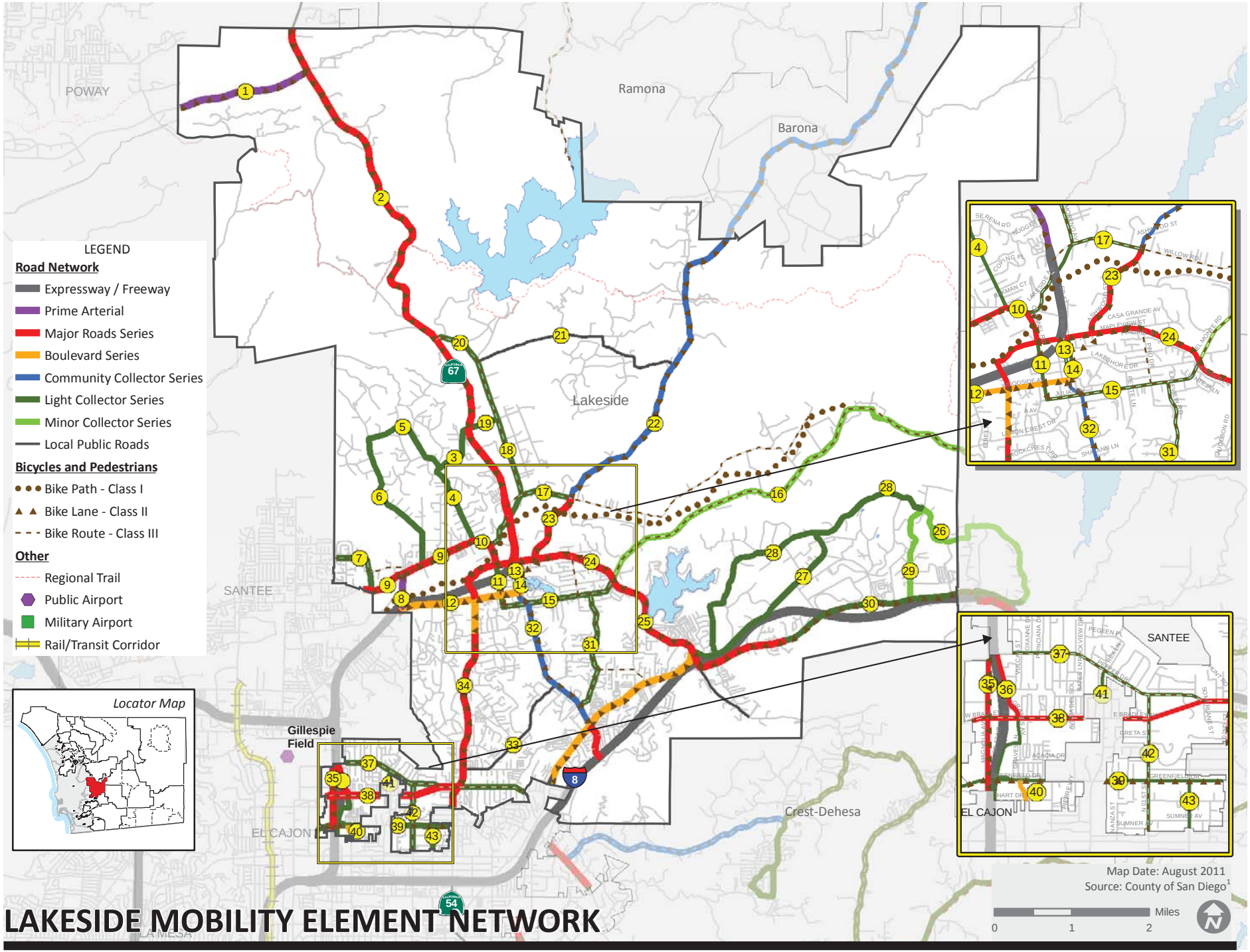
Dear Ms. Steven:

I have reviewed the sight distance for the subject project's proposed outbound access location onto El Monte Road, which is a two-lane public road. The proposed access location is identified on sheet 2 and 3 of the Reclamation Plan drawings. According to the Lakeside Mobility Element Network section (excerpts attached) of the County of San Diego (County) *General Plan*, El Monte Road is classified as a 2.3C Minor Collector. Table 2A from the County's March 2012, *Public Road Standards* (Standards), indicates that the minimum design speed for a 2.3C Minor Collector is 35 miles per hour. Nick Ortiz from the County Advanced Planning Division confirmed that the minimum design speed is 35 mph.

Table 5 from the Standards states that the design speed used to determine sight distance is based on the "greater of the current prevailing speed (if known) and the minimum design speed. . . ." The prevailing speed is not known and the speed limit is not posted on El Monte Road. Table 5 indicates that the minimum sight distance for a 35 mph design speed is 350 feet. The attached exhibit shows 350 feet of sight distance from the proposed outbound access location. The exhibit indicates that the sight distance to the left (east) is approximately 500 feet, while to the right (west) exceeds 500 feet. Therefore, sight distance is provided for a prevailing speed of at least 50 mph. In order to provide sight distance in the future, vegetation must be maintained along the sight lines.

Sincerely,

Wayne W. Chang, M.S., P.E.



LAKESIDE MOBILITY ELEMENT NETWORK

Mobility Element Network—Lakeside Community Planning Area Matrix			
ID[a]	Road Segment	Designation/Improvement #.#X = [# of lanes].[roadway classification][improvement]	Special Circumstances
16	**El Monte Road (SC 1920)** Segment: Lake Jennings Park Road to Alpine community boundary	**2.3C Minor Collector**	None
17	**Willow Road (SA 820)** Segment: SR-67 to Wildcat Canyon Road	**2.2E Light Collector**	**Recommended Improvement** Align Willow Road with Lakeside Avenue and provide underpass at SR- 67
18	**Moreno Avenue (SC 1772)** Segment: Vigilante Road to Willow Road	**2.2E Light Collector**	None
19	**San Vicente Avenue (SC 1790)** Segment: SR-67 to Moreno Avenue	**2.2E Light Collector**	None
20	**Vigilante Road (SC 1772)** Segment: SR-67 to Moreno Avenue	**2.2B Light Collector** Continuous Turn Lane	**Recommended Improvement** Align Slaughterhouse Canyon Road with Vigilante Road to form a four-way signalized intersection at SR-67
21	**(Unnamed) Muth Valley Connection** Segment: Moreno Avenue to Wildcat Canyon Road	**Local Public Road**	**Public Road on Mobility Element** Provide emergency access and connectivity for future development
22	**Wildcat Canyon Road (SA 340.2)** Segment: Willow Road to Ramona CPA boundary	**2.1D Community Collector** Improvement Options [Passing Lanes]	**Accepted at LOS F** Segment: Willow Road to Ramona CPA boundary
23	**Ashwood Street (SA 340)** Segment: Willow Road to Mapleview Street	**4.1A Major Road** Raised Median	None
24	**Mapleview Street (SC 1805)** Segment: Winter Gardens Boulevard to Lake Jennings Park Road	**4.1A Major Road** Raised Median	**Accepted at LOS F** Maine Avenue to Ashwood Street **Recommended Improvement** Underpass at SR-67
25	**Lake Jennings Park Road (SA 810)** Segment: Mapleview Street to Old Highway 80	**4.1B Major Road** Intermittent Turn Lanes	**Accepted at LOS F** Segment: I-8 Business Route to I-8 westbound ramp

TABLE 2A: COUNTY OF SAN DIEGO - PUBLIC ROAD STANDARDS

MOBILITY ELEMENT ROAD CLASSIFICATIONS

ROAD CLASSIFICATION	# LANES / LANE WIDTH	MEDIAN WIDTH	ROAD SURFACING WIDTH	R.O.W. WIDTH	PAVED SHOULDERS (# / WIDTH)	PARKWAY WIDTH	MIN. CURVE RADIUS	MAX. DESIRABLE GRADE	MIN. DESIGN SPEED (MPH)
Expressway (6.1)	6 / 12'	34'	126'	146'	2 / 10'	10'	1,700'	6%	65
Prime Arterial (6.2)	6 / 12'	14'	102'	122'	2 / 8'	10'	1,700'	6%	65
Major Road									
With Raised Median (4.1A)	4 / 12'	14'	78'	98'	2 / 8'	10'	1,200'	7%	55
With Intermittent Turn Lanes (4.1B)	4 / 12'	-	64' - 78'	84' - 98'	2 / 8'	10'	1,200'	7%	55
Boulevard									
With Raised Median (4.2A)	4 / 12'	14'	78'	106'	2 / 8'	14'	500'	9%	40
With Intermittent Turn Lanes (4.2B)	4 / 12'	-	64' - 78'	92' - 106'	2 / 8'	14'	500'	9%	40
Community Collector									
With Raised Median (2.1A)	2 / 12'	14'	54'	74'	2 / 8'	10'	700'	9%	45
With Continuous Left Turn Lane (2.1B)	2 / 12'	14'	54'	74'	2 / 8'	10'	700'	9%	45
With Intermittent Turn Lanes (2.1C)	2 / 12'	-	40' - 54'	60' - 74'	2 / 8'	10'	700'	9%	45
With Improvement Options (2.1D)	2 / 12'	-	40' - 54'	84'	2 / 8'	15' - 22'	700'	9%	45
No Median (2.1E)	2 / 12'	-	40'	60'	2 / 8'	10'	700'	9%	45
Light Collector									
With Raised Median (2.2A)	2 / 12'	14'	54'	78'	2 / 8'	12'	500'	9%	40
With Continuous Left Turn Lane (2.2B)	2 / 12'	14'	54'	78'	2 / 8'	12'	500'	9%	40
With Intermittent Turn Lanes (2.2C)	2 / 12'	-	40' - 54'	64' - 78'	2 / 8'	12'	500'	9%	40
With Improvement Options (2.2D)	2 / 12'	-	40' - 54'	88'	2 / 8'	17' - 24'	500'	9%	40
No Median (2.2E)	2 / 12'	-	40'	64'	2 / 8'	12'	500'	9%	40
With Reduced Shoulder (2.2F)	2 / 12'	-	28'	52'	2 / 2'	12'	500'	9%	40
Minor Collector									
With Raised Median (2.3A)	2 / 12'	14'	54'	82'	2 / 8'	14'	350'	12%	35
With Intermittent Turn Lanes (2.3B)	2 / 12'	-	40' - 54'	68' - 82'	2 / 8'	14'	350'	12%	35
No Median (2.3C)	2 / 12'	-	40'	68'	2 / 8'	14'	350'	12%	35

NOTES:

1 Minimum longitudinal gradient shall be 1.0 percent for all road classificationis shown above.

2 The maximum grade for a permanent cul-de-sac street turning area shall be 6 percent.

3 The maximum grade for a temporary cul-de-sac street turning area shall be that of the classification of the road being constructed.

4 For standards, see County Design Standard Drawing DS-2, DS-3, DS-4, and Section 4.5N of these Standards.

5 Additional pavement and ROW may be required for ME Boulevards / Community Collectors (4 feet) and Light Collectors (12 feet) in Industrial/Commercial Zones.

6 ME roads needing additional turn or passing lanes will require an additional 12 to 14 feet of pavement and ROW for each lane.

7 The maximum superelevation allowed on ME roads is 6%. Superelevation is not normally required on Non-ME roads.

8 ME roads designated with Bike Lanes will require an additional 10 feet of pavement and ROW. This may be increased to 12' for four-lane roads and above based upon the provisions in Section 7.3 of these standards.

9 The minimum curve radii, shown in the table above, are based on the design speed with 6% superelevation.

10 Interim roads are to be a minimum of 28 feet A.C. within a 40 feet graded roadbed. They may be larger if traffic volumes require more travel lanes.

11 Road surfacing widths include median width.

D. The angle between centerlines of intersecting roads shall be as nearly a right angle as possible, but in no case less than 70 degrees or greater than 110 degrees. Where the angle between the centerlines is between 70 and 80 degrees or between 100 and 110 degrees, there shall be required on the acute angle corner of the intersection a taper to accommodate right-hand turning movements. Said taper shall be set back 5 feet at the exiting point of the curb return and extend 40 feet in such a manner as to safely allow completion of the right-hand turning movement.

E. Sight distance requirements at all intersections shall conform to the intersectional sight distance criteria as provided in Table 5:

TABLE 5

STANDARD CORNER SIGHT DISTANCE AT INTERSECTIONS

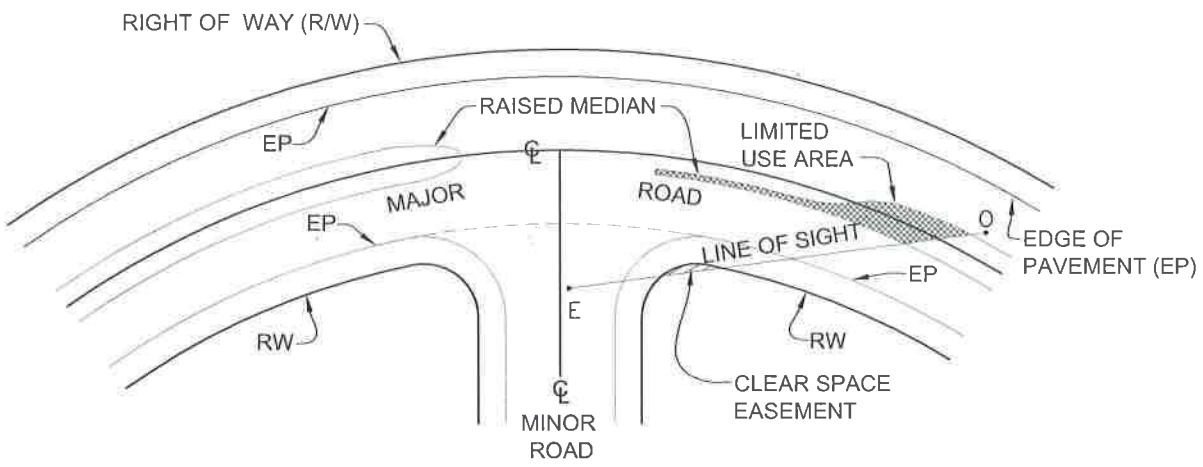
Design Speed, MPH	Minimum Corner Intersection Sight Distance in Feet*
60	600
50	500
40	400
30	300
20	200

*Corner sight distance measured along the direction of travel from a point on the minor road at least 10 feet from the edge of the major road pavement and measured from a height of eye of 3.5 feet on the minor road to a height of object of 4.25 feet on the major road (see County Road Standard Drawings DS-20A and DS-20B). The design speed used to determine the minimum sight distance requirement shall be the greater of the current prevailing speed (if known) and the minimum design speed of the respective road classification shown in Tables 2A and 2B. Additional corner intersection sight distance may be required for left turns at divided highways, left turns onto two-way highways with more than two lanes, or grades which exceed 3 percent, as per "AASHTO A Policy on Design of Highways and Streets".

F. The maximum grade at any intersection of two streets shall be 6 percent within the intersection and for at least 20 feet beyond the right-of-way of the intersecting street.

G. Where two road centerlines intersect, the lower classified road is not to intersect the primary road with a curve. Instead, the alignment of the lower classified road must intersect the primary road in a straight line for a length not less than the full width of the primary road's right-of-way.

H. Prior to the installation of a new traffic signal, traffic signal warrant analysis must be performed. The Californian Manual for Uniform Traffic Control Devices (CA MUTCD) should be consulted for procedures of conducting signal warrant analysis. The design and installation of the traffic signal and pavement markings should also conform to the CA MUTCD.



LIMITED USE AREA. NO SIGHT OBSTRUCTIONS OR VEGETATION WITHIN THIS AREA.

CLEAR SPACE EASEMENT. NO SIGHT OBSTRUCTIONS WITHIN THIS AREA. REFER TO DS-16 , DS-20A AND DS-20B OF THESE DESIGN STANDARDS.

E = OBSERVATION POINT OF MOTORIST ON MINOR ROAD. THE OBSERVATION POINT IS LOCATED 10 FEET BACK FROM THE PROLONGATION OF THE EDGE OF PAVEMENT OR CURB LINE OF THE MAJOR ROAD AND 2 FEET RIGHT OF THE MINOR ROAD CENTERLINE. SIGHT DISTANCE IS MEASURED FROM AN EYE HEIGHT OF 3.5 FEET ABOVE THE ROAD SURFACE AT THE OBSERVATION POINT.

O = LOCATION OF THE OBJECT VEHICLE ON THE MAJOR ROAD. THE OBJECT VEHICLE HEIGHT IS 4.25 FEET ABOVE THE ROAD SURFACE AND THE VEHICLE LOCATION IS THE MOST CRITICAL OF EITHER 2 FEET FROM THE MEDIAN OR 8 FEET FROM THE RIGHT EDGE OF TRAVELED WAY DEPENDING ON THE NUMBER OF LANES AND ROAD ALIGNMENT.

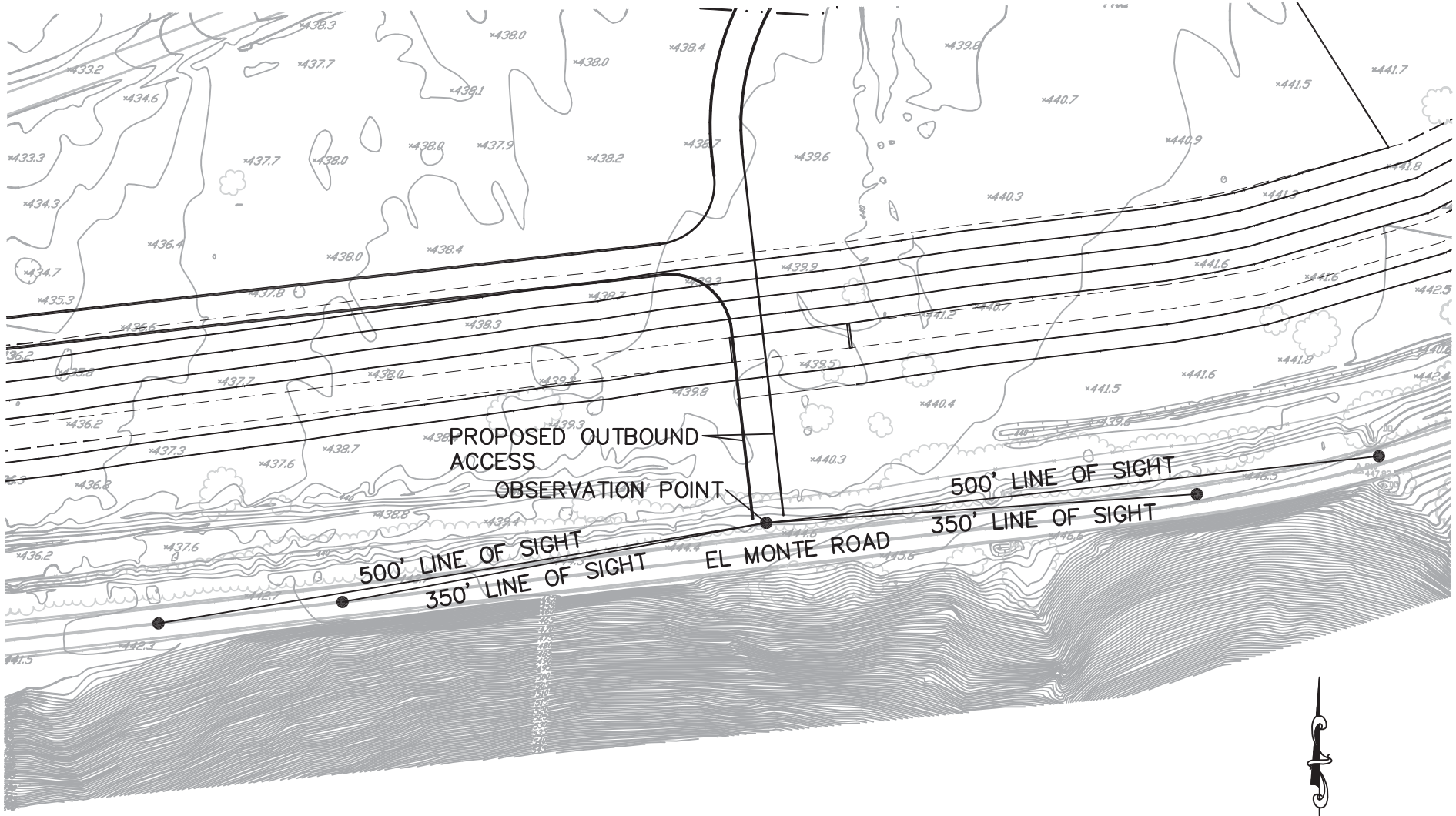
LINE OF SIGHT= LINE ALONG WHICH SIGHT DISTANCE IS MEASURED. THE REQUIRED MINIMUM SIGHT DISTANCE IS SPECIFIED IN THE COUNTY OF SAN DIEGO PUBLIC ROAD STANDARDS. ALSO REFER TO DETAILS DS-20A AND DS-20B OF THESE DESIGN STANDARDS.

CLEAR SPACE EASEMENT = AREA OUTSIDE THE ROAD RIGHT OF WAY REQUIRING RESTRICTIONS ON SIGHT DISTANCE OBSTRUCTIONS. CLEAR SPACE EASEMENTS SHALL BE MONUMENTED AND RECORDED IN ACCORDANCE WITH DETAILS DS-16, DS-20A AND DS-20B OF THESE DESIGN STANDARDS.

LIMITED USE AREA = AREA WITHIN RAISED MEDIANS WHERE SIGHT OBSTRUCTIONS AND VEGETATION ARE PROHIBITED.

NOTE: ALL LIMITED USE AREAS SHALL BE NOTED ON THE ROAD IMPROVEMENT AND LANDSCAPING PLANS WITH CONSPICUOUS TEXT STATING NO SIGHT OBSTRUCTIONS OR VEGETATION IN THIS AREA.

DRAWN BY: KVS / CHECKED BY: MLK	SAN DIEGO COUNTY DESIGN STANDARD	REVISIONS	APPROVED / DATE
RECOMMENDED BY: JEFF S. MOODY, P.E.		NEW	MLK / 10/2012
APPROVED BY COUNTY ENGINEER DATE: 10/23/12 MOHAMAD FAKHRIDDINE, P.E. R.C.E. NO. 44520, EXP 3/31/2014	LIMITED USE AREA TYPE A	DRAWING NUMBER	DS-20C



NOTES:
THE OBSERVATION POINT AND OBJECT VEHICLE LOCATIONS ARE BASED ON COUNTY DESIGN STANDARD DRAWING NO. DS-20C. THE 350' LINE OF SIGHT IS FOR THE MINIMUM DESIGN SPEED OF 35 MPH. THE LINE OF SIGHT TO THE EAST IS APPROXIMATELY 500' AND TO THE WEST EXCEEDS 500'.

1" = 120'

0 120

SIGHT DISTANCE EXHIBIT