

Appendix A

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Transportation Projects, Costs, and Phasing

This appendix includes information for both the Revenue Constrained Plan and Unconstrained (i.e., illustrative) list of projects. Detailed transit, managed lanes and highway, goods movement, and active transportation project listings, cost estimates, and phasing are included for the Revenue Constrained Plan. For the Unconstrained Transportation scenario, detailed descriptions and cost estimates are provided for the same types of projects.

Revenue Constrained Projects

Table A.1 lists the capital improvements in the 2050 Revenue Constrained Plan in 2014 and year of expenditure (YOE) dollars. Table A.2 lists these revenue constrained projects by phase and Table A.3 includes the phased Revenue Constrained arterial projects. Table A.4 shows Revenue Constrained Freight and Goods Movement projects. Figures A.1 through A.9 depict the Revenue Constrained 2020, 2035, and 2050 transit, highway, and active transportation improvements (Regional Bike Network), respectively. Figure A.10 shows the Planned California High-Speed Train Overview. Figure A.11 shows the high frequency local bus routes by 2020 and 2035. Figures A.12, A.13, and A.14 show the 2012 Transit System, Managed Lanes and Highway Network, and Bike Network, respectively. Figure A.15 shows the Regional Arterial System. The California Coastal Trail and County of San Diego Community Trails are shown in Figure A.16.

Unconstrained Projects

Table A.5 lists the major capital improvements included in the Revenue Constrained and the Unconstrained Network which also are shown in Figures A.17, A.18, and A.19. Additionally, Figure A.20 illustrates the Unconstrained Goods Movement Strategy.

No Build Projects

Table A.6 lists the projects included in the No Build Scenario.

Table A.1
Revenue Constrained Projects

Transit Facilities

<i>TransNet</i>	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
<i>TransNet</i>	COASTER	398	Double tracking (includes grade separations at Leucadia Blvd and two other locations, stations/platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, Del Mar Tunnel, and extensions to the Convention Center/Gaslamp Quarter and Camp Pendleton)	\$2,710	\$5,174
<i>TransNet</i>	SPRINTER	399	SPRINTER efficiency improvements and double tracking (Oceanside to Escondido and six rail grade separations at El Camino Real, Melrose Dr, Vista Village Dr/Main St, North Dr, Civic Center, Auto Parkway and Mission Ave)	\$946	\$1,339
	SPRINTER	399	Branch Extension to Westfield North County	\$176	\$437
	SPRINTER	588	SPRINTER Express	\$244	\$492
<i>TransNet</i>	Trolley	510	Mid-Coast Trolley Extension	\$1,753	\$1,753
	Trolley	510	Blue Line/Mid-Coast Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St, Palomar St, at Taylor St and Ash St, and Blue/Orange Track Connection at 12th/Imperial	\$431	\$741
	Trolley	520	Orange Line Frequency Enhancements and four rail grade separations at Euclid Ave, Broadway/ Lemon Grove Ave, Allison Ave/University Ave, Severin Dr	\$267	\$402
	Trolley	530	Green Line Frequency Enhancements	\$0	\$0
	Trolley	560	SDSU to Downtown San Diego via El Cajon Blvd/Mid-City (transition of Mid-City <i>Rapid</i> to Trolley)	\$2,390	\$5,005
	Trolley	561	UTC to COASTER Connection (extension of Route 510)	\$343	\$602
	Trolley	562	San Ysidro to Carmel Valley via National City/ Chula Vista via Highland Ave/ 4th Ave, Southeast San Diego, Mid-City, Mission Valley, and Kearny Mesa	\$2,967	\$5,471
	Trolley	563	Pacific Beach to El Cajon Transit Center via Balboa and Kearny Mesa	\$1,299	\$2,938
	<i>Rapid</i>	2	North Park to Downtown San Diego via 30th St, Golden Hill	\$39	\$52
	<i>Rapid</i>	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	\$87	\$117
	<i>Rapid</i>	11	Spring Valley to SDSU via Southeast San Diego, Downtown, Hillcrest, Mid-City	\$113	\$173
	<i>Rapid</i>	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	\$49	\$76
	<i>Rapid</i>	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	\$105	\$161

Table A.1 (continued)
Revenue Constrained Projects

Transit Facilities (continued)

<i>TransNet</i>	<i>Service</i>	<i>Route</i>	<i>Description</i>	<i>Capital Cost (\$2014); millions</i>	<i>Capital Cost (\$YOE); millions</i>
	<i>Rapid</i>	41	Fashion Valley to UTC/UC San Diego via Linda Vista and Clairemont	\$55	\$96
	<i>Rapid</i>	90	El Cajon Transit Center to San Diego International Airport ITC via SR 94, City College (peak only)	\$20	\$27
	<i>Rapid</i>	103	Solana Beach to Sabre Springs <i>Rapid</i> station via Carmel Valley	\$67	\$135
	<i>Rapid</i>	120	Kearny Mesa to Downtown San Diego via Mission Valley	\$78	\$104
<i>TransNet</i>	<i>Rapid</i>	225	South Bay <i>Rapid</i> (Otay Mesa to Downtown San Diego) and Otay Mesa ITC (formerly Route 628)	\$206	\$206
	<i>Rapid</i>	235	Temecula (peak only) Extension of Escondido to Downtown San Diego <i>Rapid</i> (formerly Route 610)	\$98	\$198
	<i>Rapid</i>	440	Carlsbad to Escondido Transit Center via Palomar Airport Rd	\$51	\$104
	<i>Rapid</i>	471	Downtown Escondido to East Escondido	\$32	\$80
	<i>Rapid</i>	473	UTC/UC San Diego to Oceanside via Hwy 101 Coastal Communities, Carmel Valley	\$130	\$242
	<i>Rapid</i>	474	Oceanside to Vista via Mission Ave/Santa Fe Rd Corridor	\$50	\$127
	<i>Rapid</i>	477	Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real	\$80	\$161
	<i>Rapid</i>	550	SDSU to Palomar Station via East San Diego, Southeast San Diego, National City	\$59	\$78
	<i>Rapid</i>	635	Eastlake to Palomar Trolley via Main St Corridor	\$56	\$98
	<i>Rapid</i>	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	\$39	\$79
	<i>Rapid</i>	637	North Park to 32nd St Trolley via Golden Hill	\$33	\$66
	<i>Rapid</i>	638	Iris Trolley to Otay Mesa via Otay, Airway Dr, SR 905 Corridor	\$38	\$67
	<i>Rapid</i>	640A/ 640B	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College Route 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	\$153	\$206
	<i>Rapid</i>	650	Chula Vista to Palomar Airport Rd Business Park via I-805/I-5 (peak only)	\$82	\$166
	<i>Rapid</i>	653	Mid-City to Palomar Airport Rd via Kearny Mesa/ I-805/I-5	\$10	\$21

Table A.1 (continued)
Revenue Constrained Projects

Transit Facilities (continued)

<i>TransNet</i>	<i>Service</i>	<i>Route</i>	<i>Description</i>	<i>Capital Cost (\$2014); millions</i>	<i>Capital Cost (\$YOE); millions</i>
<i>TransNet</i>	<i>Rapid</i>	688/ 689/ 690	Route 688: San Ysidro to Sorrento Mesa via I-805/ I-15/SR 52 Corridors (peak only); Route 689: Otay Mesa Port of Entry (POE) to UTC/Torrey Pines via Otay Ranch/ Corridor (Peak Only); Route 690: Mid-City to Sorrento Mesa via I-805 Corridor (Peak Only)	\$458	\$653
	<i>Rapid</i>	709	H St Trolley to Millennium via H St Corridor, Southwestern College	\$37	\$49
	<i>Rapid</i>	870	El Cajon to UTC via Santee, SR 52, I-805	\$7	\$17
	<i>Rapid</i>	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	\$12	\$29
	<i>Rapid</i>	905	Extension of Iris Trolley Station to Otay Mesa Port of Entry (POE) route with new service to Otay Mesa East POE and Imperial Beach	\$2	\$2
	<i>Rapid</i>	910	Coronado to Downtown via Coronado Bridge	\$26	\$39
	<i>Rapid</i>	SR163 DARs	Kearny Mesa to Downtown San Diego via SR 163. Stations at Sharp/Children's Hospital, University Ave, and Fashion Valley Transit Center	\$150	\$196
	Shuttle	448/449	San Marcos Shuttle ¹	\$0	\$0
	Streetcar	553	Downtown San Diego: Little Italy to East Village ²	\$14	\$21
	Streetcar	554	Hillcrest/Balboa Park/Downtown San Diego Loop ²	\$29	\$38
	Streetcar	555	30th St to Downtown San Diego via North Park/ Golden Hill ²	\$26	\$45
	Streetcar	565	Mission Beach to La Jolla via Pacific Beach ²	\$25	\$50
	Airport Express	--	Airport Express Routes ³	\$52	\$62
	Intermodal Transit Center (ITC)	--	San Diego International Airport ITC and I-5 Direct Connector Ramps	\$170	\$223
	ITC	--	San Ysidro ITC	\$118	\$189
	Transit Lanes	SR 15 from I-805 to I-8	Addition of two transit lanes for routes 235, 280/ 290, 653, and Airport Express Route to the cross- border facility in Otay Mesa	\$56	\$56
	Other	--	Vehicles	\$3,646	\$6,608
	Other	--	Transit System Rehabilitation	\$1,250	\$2,810
	Other	--	Maintenance Facilities, Park and Ride, Transit Center Expansions	\$1,220	\$1,842
	Other	--	ITS, Regulatory Compliance	\$300	\$502
Subtotal				\$22,854	\$40,625

Table A.1 (continued)
Revenue Constrained Projects

Managed Lanes/Toll Lanes Projects

<i>TransNet</i>	Freeway	From	To	Existing	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
<i>TransNet</i>	I-5	SR 905	SR 54	8F	8F+2ML	640	\$308	\$416
<i>TransNet</i>	I-5	SR 54	SR 15	8F	10F+2ML	640	\$343	\$464
<i>TransNet</i>	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML		\$556	\$1,378
<i>TransNet</i>	I-5	La Jolla Village Dr	I-5/805 Merge	8F/14F	8F/14F+2ML		\$206	\$249
<i>TransNet</i>	I-5	I-5/I-805 Merge	SR 56	8F/14F+2ML	8F/14F+4ML	650, 653	\$91	\$137
<i>TransNet</i>	I-5	SR 56	Manchester Ave	8F+2ML	8F+4ML	650, 653	\$455	\$686
<i>TransNet</i>	I-5	Manchester Ave	Vandegrift Blvd	8F	8F+4ML	650, 653	\$2,458	\$3,957
	I-5	Vandegrift Blvd	Orange County	8F	8F+4T		\$1,813	\$4,497
	SR 11/ Otay Mesa East POE	SR 125	Mexico	--	4T+POE	905	\$832	\$876
	SR 15	I-5	SR 94	6F	8F+2ML		\$136	\$338
<i>TransNet</i>	SR 15	SR 94	I-805	6F	6F+2ML	235, 610	\$30	\$52
<i>TransNet</i>	I-15	Viaduct	--	8F	8F+2ML	235, 610, 653, 690	\$843	\$2,092
<i>TransNet</i>	I-15	I-8	SR 163	8F	8F+2ML	235, 610, 653, 690	\$56	\$73
	I-15	SR 78	Riverside County	8F	8F+4T	610	\$1,029	\$2,555
<i>TransNet</i>	SR 52	I-805	I-15	6F	6F+2ML	653, 870, 890	\$91	\$181
<i>TransNet</i>	SR 52	I-15	SR 125	4F/6F	4F/6F+2ML(R)	870, 890	\$298	\$662
<i>TransNet</i>	SR 54	I-5	SR 125	6F	6F+2ML		\$111	\$276
<i>TransNet</i>	SR 78	I-5	I-15	6F	6F+2ML		\$1,192	\$1,720
<i>TransNet</i>	SR 94	I-5	SR 125	8F	8F+2ML	90, 225, 235, 610	\$903	\$1,478
<i>TransNet</i>	SR 125	SR 54	SR 94	6F	6F+2ML		\$76	\$188
<i>TransNet</i>	SR 125	SR 94	I-8	8F	10F+2ML	90	\$293	\$694
	SR 241	Orange County	I-5	--	6T		\$479	\$598
<i>TransNet</i>	I-805	SR 905	Palomar St	8F	8F+2ML	688	\$343	\$595

Table A.1 (continued)
Revenue Constrained Projects

Managed Lanes/Toll Lanes Projects (continued)

<i>TransNet</i>	Freeway	From	To	Existing	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
<i>TransNet</i>	I-805	SR 54	SR 94	8F+2ML	8F+4ML	225, 650, 688, 689	\$704	\$1,096
<i>TransNet</i>	I-805	SR 94	Carroll Canyon Rd	8F	8F+4ML	30, 225, 650, 653, 688, 689, 690, 870, 890	\$2,585	\$4,441
Subtotal							\$16,231	\$29,699

Highway Projects

<i>TransNet</i>	Freeway	From	To	Existing	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions	
<i>TransNet</i>	I-8	2nd St	Los Coches	4F/6F	6F	\$35	\$88	
	SR 52	I-5	I-805	4F	6F	\$111	\$276	
	SR 52	Mast Blvd	SR 125	4F	6F	\$76	\$131	
<i>TransNet</i>	SR 56	I-5	I-15	4F	6F	\$141	\$351	
<i>TransNet</i>	SR 67	Mapleview St	Dye Rd	2C/4C	4C	\$636	\$1,418	
<i>TransNet</i>	SR 76	Mission	I-15	2C	4C	\$305	\$305	
<i>TransNet</i>	SR 94	SR 125	Avocado Blvd	4F	6F	\$111	\$221	
<i>TransNet</i>	SR 94	Avocado Blvd	Jamacha	4C	6C	\$91	\$225	
<i>TransNet</i>	SR 94	Jamacha	Steele Canyon Rd	2C/4C	4C	\$40	\$100	
	SR 125	SR 905	San Miguel Rd	4T	8F	\$323	\$661	
	SR 125	San Miguel Rd	SR 54	4F	8F	\$177	\$438	
Subtotal							\$2,046	\$4,214

Operational Improvements

<i>TransNet</i>	Freeway	From	To	Existing	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
<i>TransNet</i>	I-5	SR 15	I-8	8F	8F+Operational	\$1,177	\$2,919
	I-8	I-5	SR 125	8F/10F	8F/10F+Operational	\$667	\$1,654
	I-8	SR 125	2nd St	6F/8F	6F/8F+Operational	\$167	\$413

Table A.1 (continued)
Revenue Constrained Projects

Operational Improvements

<i>TransNet</i>	Freeway	From	To	Existing	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
	SR 76	I-15	Couser Canyon	2C/4C	4C/6C+Operational	\$131	\$261
Subtotal						\$2,142	\$5,247

Managed Lanes Connectors

<i>TransNet</i>	Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
<i>TransNet</i>	I-5	I-805	North to North and South to South	\$51	\$66
	I-5	SR 78	South to East and West to North, North to East and West to South	\$253	\$332
<i>TransNet</i>	SR 15	SR 94	South to West and East to North	\$71	\$122
	SR 15	I-805	North to North and South to South	\$81	\$106
	I-15	SR 52	West to North and South to East	\$130	\$326
<i>TransNet</i>	I-15	SR 78	East to South and North to West	\$106	\$139
	I-805	SR 94	North to West and East to South	\$101	\$133
	I-805	SR 52	West to North and South to East	\$91	\$181
Subtotal				\$884	\$1,405

Freeway Connectors

<i>TransNet</i>	Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
<i>TransNet</i>	I-5	SR 56	West to North and South to East	\$273	\$411
<i>TransNet</i>	I-5	SR 78	South to East and West to South	\$273	\$358
	SR 11/ SR 905	SR 125	EB SR 905 and WB SR 11 to NB SR 125 and NB SR 905 to NB SR 125	\$26	\$28
	SR 11/ SR 905	SR 125	SB 125 to WB SR 905, SB SR 125 to EB SR 11, SB SR 125 to SB SR 905	\$74	\$90
	I-15	SR 56	North to West	\$101	\$265
<i>TransNet</i>	SR 94	SR 125	South to East	\$69	\$88
<i>TransNet</i>	SR 94	SR 125	West to North	\$81	\$122
Subtotal				\$897	\$1,362

Table A.1 (continued)
Revenue Constrained Projects

Active Transportation Projects⁴

Project	Jurisdiction(s)	Capital Cost (\$2014) millions	Capital Cost (\$YOE) millions
Uptown - Fashion Valley to Downtown San Diego	San Diego	\$23.0	\$27.2
Uptown - Old Town to Hillcrest	San Diego	\$18.0	\$21.3
Uptown - Hillcrest to Balboa Park	San Diego	\$3.0	\$3.5
North Park - Mid-City - Hillcrest to Kensington	San Diego	\$6.0	\$7.1
North Park - Mid-City - Hillcrest to City Heights (Hillcrest-El Cajon Corridor)	San Diego	\$6.0	\$7.1
North Park - Mid-City - City Heights	San Diego	\$3.0	\$3.5
North Park - Mid-City - Hillcrest to City Heights (City Heights - Old Town Corridor)	San Diego	\$5.0	\$5.9
North Park - Mid-City - City Heights to Rolando	San Diego	\$4.0	\$4.7
San Diego River Trail - Qualcomm Stadium	San Diego	\$0.8	\$0.9
Coastal Rail Trail San Diego - Rose Creek	San Diego	\$21.0	\$24.8
Bayshore Bikeway - Main St to Palomar	Chula Vista/Imperial Beach	\$3.0	\$3.5
Coastal Rail Trail Encinitas - Chesterfield to G St	Encinitas	\$7.0	\$8.3
Coastal Rail Trail Encinitas - Chesterfield to Solana Beach	Encinitas	\$0.2	\$0.3
Inland Rail Trail (combination of four projects)	San Marcos, Vista, Co. of San Diego	\$33.0	\$39.0
Coastal Rail Trail Oceanside - Wisconsin to Oceanside Blvd	Oceanside	\$0.2	\$0.2
Plaza Bonita Bike Path	National City	\$0.4	\$0.5
Plaza Bonita Bike Path	National City	\$0.4	\$0.5
Plaza Bonita Bike Path	National City	\$0.4	\$0.5
Bayshore Bikeway - National City Marina to 32nd St	San Diego/ National City	\$2.0	\$2.4
I-15 Mid-City - Adams Ave to Camino Del Rio S	San Diego	\$9.0	\$10.6
Pershing and El Prado - North Park to Downtown San Diego	San Diego	\$7.0	\$8.3
Pershing and El Prado - North Park to Downtown San Diego	San Diego	\$7.0	\$8.3
Pershing and El Prado - Cross-Park	San Diego	\$0.6	\$0.7
San Ysidro to Imperial Beach - Bayshore Bikeway Connection	Imperial Beach/San Diego	\$8.9	\$10.6
San Diego River Trail – I-805 to Fenton	San Diego	\$2.0	\$2.4
Terrace Dr/Central Ave - Adams to Wightman	San Diego	\$1.0	\$1.2
San Diego River Trail - Short gap connections	San Diego	\$1.0	\$1.2
Coastal Rail Trail Encinitas - Leucadia to G St	Encinitas	\$5.0	\$5.9
Bayshore Bikeway - Barrio Logan	San Diego	\$19.0	\$34.0

Table A.1 (continued)
Revenue Constrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Capital Cost (\$2014) millions	Capital Cost (\$YOE) millions
San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	\$10.0	\$17.9
Downtown to Southeast connections	San Diego	\$23.8	\$42.6
Coastal Rail Trail San Diego - UTC	San Diego	\$3.8	\$6.8
Coastal Rail Trail San Diego - Rose Canyon	San Diego	\$12.0	\$21.5
Coastal Rail Trail San Diego - Pac Hwy (W Washington St to Laurel St)	San Diego	\$4.0	\$7.2
Coastal Rail Trail San Diego - Pac Hwy (Laurel St to Santa Fe Depot)	San Diego	\$8.0	\$14.3
Coastal Rail Trail San Diego – Pac Hwy (Taylor St to W Washington St)	San Diego	\$4.0	\$7.2
Coastal Rail Trail San Diego- Pac Hwy (Fiesta Island Rd to Taylor St)	San Diego	\$7.0	\$12.5
City Heights /Encanto/Lemon Grove	Lemon Grove/San Diego	\$7.0	\$12.5
City Heights/Fairmount Corridor	San Diego	\$12.0	\$21.5
Rolando to Grossmont/La Mesa	La Mesa/El Cajon/San Diego	\$2.0	\$3.6
La Mesa/Lemon Grove/El Cajon connections	Lemon Grove/La Mesa	\$6.0	\$10.7
San Diego River Trail - Qualcomm Stadium to Ward Rd	San Diego	\$2.0	\$3.6
San Diego River Trail - Rancho Mission Rd to Camino Del Rio North	San Diego	\$0.3	\$0.5
Coastal Rail Trail San Diego - Rose Creek Mission Bay Connection	San Diego	\$4.0	\$7.2
Coastal Rail Trail Carlsbad - Reach 4 Cannon to Palomar Airport Rd	Carlsbad	\$5.0	\$8.9
Coastal Rail Trail Carlsbad - Reach 5 Palomar Airport Rd to Poinsettia Station	Carlsbad	\$3.0	\$5.4
Coastal Rail Trail Encinitas - Carlsbad to Leucadia	Encinitas	\$7.0	\$12.5
Coastal Rail Trail Del Mar	Del Mar	\$0.4	\$0.7
Coastal Rail Trail Carlsbad - Reach 4 Cannon to Palomar Airport Rd	Carlsbad	\$5.0	\$8.9
Coastal Rail Trail San Diego - Del Mar to Sorrento via Carmel Valley	Del Mar/San Diego	\$0.4	\$0.7
Coastal Rail Trail San Diego - Carmel Valley to Roselle via Sorrento	San Diego	\$0.9	\$1.6
Coastal Rail Trail San Diego - Roselle Canyon	San Diego	\$5.0	\$8.9
Chula Vista/National City connections	Chula Vista/ National City	\$11.0	\$19.7
Pacific Beach to Mission Beach	San Diego	\$10.0	\$17.9

Table A.1 (continued)
Revenue Constrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Capital Cost (\$2014) millions	Capital Cost (\$YOE) millions
Ocean Beach to Mission Bay	San Diego	\$24.0	\$43.0
San Diego River Trail - Bridge connection (Sefton Field to Mission Valley YMCA)	San Diego	\$7.0	\$12.5
San Diego River Trail - Mast Park to Lakeside baseball park	Santee	\$10.0	\$17.9
I-8 Flyover - Camino del Rio S to Camino del Rio N	San Diego	\$10.0	\$17.9
Coastal Rail Trail Oceanside - Broadway to Eaton	Oceanside	\$0.4	\$0.7
El Cajon - Santee connections	El Cajon/La Mesa/Santee	\$12.0	\$21.5
San Diego River Trail - Father Junipero Serra Trail to West Hills Pkwy	San Diego	\$3.0	\$5.4
Inland Rail Trail Oceanside	Oceanside	\$19.0	\$34.0
Coastal Rail Trail Carlsbad - Reach 3 Tamarack to Cannon	Carlsbad	\$5.0	\$8.9
Clairemont Dr (Mission Bay to Burgener)	San Diego	\$8.0	\$14.3
Harbor Dr (Downtown to Ocean Beach)	San Diego	\$7.0	\$12.5
Mira Mesa Bike Blvd	San Diego	\$4.0	\$7.2
Sweetwater River Bikeway Ramps	National City	\$9.0	\$16.1
Coastal Rail Trail Oceanside - Alta Loma Marsh bridge	Oceanside	\$5.0	\$8.9
Coastal Rail Trail San Diego - Mission Bay (Clairemont to Tecolote)	San Diego	\$3.0	\$5.4
Bayshore Bikeway Coronado - Golf course adjacent	Coronado	\$3.0	\$5.4
San Luis Rey River Trail	Oceanside, Unincorporated	\$37.0	\$100.2
Encinitas-San Marcos Corridor – Double Peak Dr to San Marcos Blvd	San Marcos	\$12.0	\$32.5
Escondido Creek Bikeway – Quince St to Broadway	Escondido	\$2.0	\$5.4
Escondido Creek Bikeway – Escondido Creek to Washington Ave	Escondido	\$1.0	\$2.7
Escondido Creek Bikeway – 9th Ave to Escondido Creek	Escondido	\$1.0	\$2.7
Escondido Creek Bikeway – El Norte Pkwy to northern bikeway terminus	Escondido	\$6.0	\$16.2
Encinitas to San Marcos Corridor – Leucadia Blvd to El Camino Real	Carlsbad, Encinitas	\$2.0	\$5.4
I-15 Bikeway – Via Rancho Pkwy to Lost Oak Ln	Escondido	\$4.0	\$10.8
I-15 Bikeway – Rancho Bernardo Community Park to Lake Hodges Bridge	San Diego	\$3.0	\$8.1
I-15 Bikeway – Camino del Norte to Aguamiel Rd	San Diego	\$13.0	\$35.2

Table A.1 (continued)

Revenue Constrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Capital Cost (\$2014) millions	Capital Cost (\$YOE) millions
I-15 Bikeway – Poway Rd interchange to Carmel Mountain Rd	San Diego	\$17.0	\$46.0
SR 56 Bikeway – Azuaga St to Rancho Penasquitos Blvd	San Diego	\$2.0	\$5.4
I-15 Bikeway – Murphy Canyon Rd to Affinity Ct	San Diego	\$40.0	\$108.3
SR 56 Bikeway – El Camino Real to Caminito Pointe	San Diego	\$2.0	\$5.4
SR 52 Bikeway – I-5 to Santo Rd	San Diego	\$30.0	\$81.2
SR 52 Bikeway – SR 52/Mast Dr to San Diego River Trail	San Diego	\$2.0	\$5.4
I-8 Corridor – San Diego River Trail to Riverside Dr	Unincorporated	\$2.0	\$5.4
I-805 Connector – Bonita Rd to Floyd Ave	Chula Vista, Unincorporated	\$6.0	\$16.2
SR 125 Connector – Bonita Rd to U.S.-Mexico Border	Chula Vista, San Diego	\$39.0	\$105.6
SR 905 Connector – E Beyer Blvd to U.S.-Mexico Border	San Diego, Unincorporated	\$34.0	\$92.1
El Camino Real Bike Lanes – Douglas Dr to Mesa Dr	Oceanside	\$1.0	\$2.7
Vista Way Connector from Arcadia	Vista, Unincorporated	\$2.1	\$5.4
I-15 Bikeway – W Country Club Ln to Nutmeg St	Escondido	\$0.6	\$1.4
El Camino Real Bike Lanes – Marron Rd to SR 78 offramp	Carlsbad	\$0.3	\$0.5
Carlsbad to San Marcos Corridor – Paseo del Norte to Avenida Encinas	Carlsbad	\$0.4	\$0.8
Encinitas to San Marcos Corridor – Kristen Ct to Ecker Ranch Rd	Encinitas	\$0.4	\$0.8
Encinitas to San Marcos Corridor – Encinitas Blvd/I-5 Interchange	Encinitas	\$0.2	\$0.3
Mira Mesa Corridor – Reagan Rd to Parkdale Ave	San Diego	\$0.4	\$0.8
Mira Mesa Corridor – Scranton Rd to I-805	San Diego	\$0.4	\$0.8
Mira Mesa Corridor – Sorrento Valley Rd to Sorrento Valley Blvd	San Diego	\$0.8	\$1.9
Mid-County Bikeway – I-5/Via de la Valle Interchange	San Diego	\$0.3	\$0.5
Mid-County Bikeway – Rancho Santa Fe segment	San Diego, Unincorporated	\$3.0	\$8.1
El Camino Real Bike Lanes – Manchester Ave to Tennis Club Dr	Encinitas	\$0.5	\$1.1
Mid-County Bikeway – Manchester Ave/I-5 Interchange to San Elijo Ave	Encinitas	\$0.8	\$1.9
Central Coast Corridor – Van Nuys St to San Rafael Pl	San Diego	\$1.0	\$2.7
Clairemont – Centre-City Corridor – Coastal Rail Trail to Genesee Ave	San Diego	\$2.0	\$5.4
SR 125 Corridor – Mission Gorge Rd to Glen Vista Way	Santee	\$0.3	\$0.5
SR 125 Corridor – Prospect Ave to Weld Blvd	Santee, El Cajon	\$0.8	\$1.9
I-8 Corridor – Lakeside Ave to SR 67	Unincorporated	\$0.5	\$1.1
I-8 Corridor – Willows Rd to SR 79	Unincorporated	\$5.0	\$13.5
E County Northern Loop – N. Marshall Ave to El Cajon Blvd	El Cajon	\$0.3	\$0.8

Table A.1 (continued)

Revenue Constrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Capital Cost (\$2014) millions	Capital Cost (\$YOE) millions
E County Northern Loop – Washington Ave to Dewitt Ct	El Cajon	\$1.0	\$2.7
E County Northern Loop – SR 94 onramp to Del Rio Rd	Unincorporated	\$0.2	\$0.3
E County Southern Loop – Pointe Pkwy to Omega St	Unincorporated	\$0.8	\$2.2
SR 125 Corridor – SR 94 to S of Avocado St	Unincorporated	\$1.1	\$2.7
Centre City – La Mesa Corridor – Gateside Rd to Campo Rd	La Mesa, Unincorporated	\$0.4	\$0.8
Bay to Ranch Bikeway – River Ash Dr to Paseo Ranchero	Chula Vista	\$0.5	\$1.4
Mid-County Bikeway – San Elijo Ave to 101 Terminus	Encinitas	\$1.0	\$2.7
Central Coast Corridor – Van Nuys St	San Diego	\$0.2	\$0.3
E County Northern Loop – El Cajon Blvd to Washington Ave	El Cajon	\$1.0	\$2.7
E County Northern Loop – Calavo Dr to Sweetwater Springs Blvd	Unincorporated	\$0.7	\$1.9
Central Coast Corridor – Torrey Pines Rd to Nautilus St	San Diego	\$6.0	\$16.2
Central Coast Corridor – Via Del Norte to Van Nuys St	San Diego	\$5.0	\$13.5
Kearny Mesa to Beaches Corridor – Ingraham St from Garnet Ave to Pacific Beach Dr	San Diego	\$2.0	\$5.4
Kearny Mesa to Beaches Corridor – Clairemont Dr to Genesee Ave	San Diego	\$10.0	\$27.1
Kearny Mesa to Beaches Corridor – Genesee Ave to Linda Vista Dr	San Diego	\$6.0	\$16.2
Bay to Ranch Bikeway – E J St from 2nd Ave to Paseo Del Rey	Chula Vista	\$12.0	\$32.5
Chula Vista Greenbelt – Bay Blvd to Oleander Ave	Chula Vista	\$17.0	\$46.0
Safe Routes to Transit at new transit stations	Various	\$1,025.0	\$1,632.2
Local Bike Projects	Various	\$728.4	\$1,160.1
Local pedestrian/safety/traffic calming projects	Various	\$180.4	\$287
Regional Bicycle and Pedestrian Programs	Various	\$30.4	\$49
Regional Safe Routes to School Implementation	Various	\$76.7	\$122
	Subtotal	\$2,849	\$4,901
	TOTAL	\$47,903	\$87,453

¹ Capital cost to be funded by the City of San Marcos.

² Streetcar cost is representative of 10 percent of the total capital cost.

³ Implementation of these services is dependent upon funding from aviation and other private sources.

⁴ Figure A.9 includes Regional Bicycle Network segments built by others; such segments are not included in Table A.1.

Table A.2
Phased Revenue Constrained Projects

Transit Facilities

Year Built By	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	COASTER	398	Double tracking (20-minute peak frequencies and 120-minute off-peak frequencies)	\$445	\$445
2020	Trolley	510	Mid-Coast Trolley Extension	\$1,753	\$1,753
2020	<i>Rapid</i>	225	South Bay <i>Rapid</i> (Otay Mesa to Downtown) and Otay Mesa ITC (formerly Route 628)	\$206	\$206
2020	<i>Rapid</i>	905	Extension of Iris Trolley Station to Otay Mesa Port of Entry (POE) route with new service to Otay Mesa East POE and Imperial Beach	\$2	\$2
2020	Shuttle	448/449	San Marcos Shuttle ¹	\$0	\$0
2020	Airport Express	--	Airport Express Routes ²	\$52	\$62
2020	Transit Lanes	SR 15 from I-805 to I-8	Addition of two Transit Lanes for routes 235, 280/290, 653, and Airport Express Route to the cross border facility in Otay Mesa	\$56	\$56
2020	Other	--	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions)	\$632	\$680
2020	--	--	Local Bus Routes - 15 minutes in key corridors	--	--
2035	COASTER	398	Double tracking (20-minute peak frequencies and 60-minute off-peak frequencies, grade separations at Leucadia Blvd, stations/platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, and extension to Camp Pendleton)	\$900	\$1,357
2035	SPRINTER	399	SPRINTER efficiency improvements (20-minute frequencies by 2025); double tracking Oceanside to Escondido for 10-minute frequencies and six rail grade separations at El Camino Real, Melrose Dr, Vista Village Dr/Main St, North Dr, Civic Center, Auto Pkwy and Mission Ave	\$946	\$1,339
2035	Trolley	510	Phase I - Blue Line Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St, Palomar St, and Blue/Orange Track Connection at 12th/Imperial	\$205	\$292
2035	Trolley	520	Orange Line Frequency Enhancements and four rail grade separations at Euclid Ave, Broadway/Lemon Grove Ave, Allison Ave/University Ave, Severin Dr	\$267	\$402
2035	Trolley	561	UTC to COASTER Connection (extension of Route 510)	\$343	\$602
2035	Trolley	562	Phase I - San Ysidro to Kearny Mesa via Chula Vista via Highland Ave/4th Ave, National City, Southeast San Diego, Mid-City, and Mission Valley	\$2,333	\$4,028
2035	<i>Rapid</i>	2	North Park to Downtown San Diego via 30th St, Golden Hill	\$39	\$52
2035	<i>Rapid</i>	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	\$87	\$117
2035	<i>Rapid</i>	11	Spring Valley to SDSU via Southeast San Diego, Downtown, Hillcrest, Mid-City	\$113	\$173

Table A.2 (continued)
Phased Revenue Constrained Projects

Transit Facilities (continued)

Year Built By	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	\$49	\$76
2035	Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	\$105	\$161
2035	Rapid	41	Fashion Valley to UTC/UC San Diego via Linda Vista and Clairemont	\$55	\$96
2035	Rapid	90	El Cajon Transit Center to San Diego International Airport ITC via SR 94, City College (peak only)	\$20	\$27
2035	Rapid	120	Kearny Mesa to Downtown via Mission Valley	\$78	\$104
2035	Rapid	473	Phase I - Solana Beach to UTC/UC San Diego via Hwy 101 Coastal Communities, Carmel Valley	\$43	\$66
2035	Rapid	550	SDSU to Palomar Station via East San Diego, Southeast San Diego, National City	\$59	\$78
2035	Rapid	635	Eastlake to Palomar Trolley via Main St Corridor	\$56	\$98
2035	Rapid	638	Iris Trolley Station to Otay Mesa via Otay, Airway Dr, SR 905 Corridor	\$38	\$67
2035	Rapid	640A/ 640B	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College; 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	\$153	\$206
2035	Rapid	688/ 689/ 690	Route 688: San Ysidro to Sorrento Mesa via I-805/I-15/SR 52 Corridors (Peak Only); Route 689: Otay Mesa Port of Entry (POE) to UTC/Torrey Pines via Otay Ranch/Millennia, I-805 Corridor (Peak Only); Route 690: Mid-City to Sorrento Mesa via I-805 Corridor (Peak Only)	\$458	\$653
2035	Rapid	709	H St Trolley Station to Millennia via H St Corridor, Southwestern College	\$37	\$49
2035	Rapid	910	Coronado to Downtown via Coronado Bridge	\$26	\$39
2035	Rapid	SR 163 DARs	Kearny Mesa to Downtown via SR 163. Stations at Sharp/Children's Hospital, University Ave, and Fashion Valley Transit Center	\$150	\$196
2035	Streetcar	553	Downtown San Diego: Little Italy to East Village ³	\$14	\$21
2035	Streetcar	554	Hillcrest/Balboa Park/Downtown San Diego Loop ³	\$29	\$38
2035	Streetcar	555	30th St to Downtown San Diego via North Park/ Golden Hill ³	\$26	\$45
2035	ITC	--	San Diego International Airport ITC and I-5 Direct Connector Ramps	\$170	\$223
2035	ITC	--	Phase I - San Ysidro ITC	\$95	\$143
2035	Other	--	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions)	\$2,519	\$3,742

Table A.2 (continued)
Phased Revenue Constrained Projects

Transit Facilities (continued)

Year Built By	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	--	--	Local Bus Routes - 10 minutes in key corridors	--	--
2050	COASTER	398	Double tracking (completes double tracking; includes Del Mar Tunnel) plus 2 grade separations	\$1,365	\$3,372
2050	SPRINTER	399	Branch Extension to Westfield North County	\$176	\$437
2050	SPRINTER	588	SPRINTER Express	\$244	\$492
2050	Trolley	510	Phase II - Blue Line rail grade separations at Taylor St and Ash St	\$226	\$449
2050	Trolley	520	Orange Line Frequency Enhancements	\$0	\$0
2050	Trolley	530	Green Line Frequency Enhancements	\$0	\$0
2050	Trolley	560	SDSU to Downtown via El Cajon Blvd/Mid-City (transition of Mid-City <i>Rapid</i> to Trolley)	\$2,390	\$5,005
2050	Trolley	562	Phase II - Kearny Mesa to Carmel Valley	\$633	\$1,443
2050	Trolley	563	Pacific Beach to El Cajon Transit Center	\$1,299	\$2,937
2050	<i>Rapid</i>	103	Solana Beach to Sabre Springs <i>Rapid</i> station via Carmel Valley	\$67	\$135
2050	<i>Rapid</i>	440	Carlsbad to Escondido Transit Center via Palomar Airport Rd	\$51	\$104
2050	<i>Rapid</i>	471	Downtown Escondido to East Escondido	\$32	\$80
2050	<i>Rapid</i>	473	Phase II - Oceanside to Solana Beach via Hwy 101 Coastal Communities	\$87	\$176
2050	<i>Rapid</i>	474	Oceanside to Vista via Mission Ave/Santa Fe Rd Corridor	\$50	\$127
2050	<i>Rapid</i>	477	Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real	\$80	\$161
2050	<i>Rapid</i>	235	Temecula (peak only) Extension of Escondido to Downtown <i>Rapid</i> (formerly Route 610)	\$98	\$198
2050	<i>Rapid</i>	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	\$39	\$79
2050	<i>Rapid</i>	637	North Park to 32nd St Trolley Station via Golden Hill	\$33	\$66
2050	<i>Rapid</i>	650	Chula Vista to Palomar Airport Rd Business Park via I-805/I-5 (peak only)	\$82	\$166
2050	<i>Rapid</i>	653	Mid-City to Palomar Airport Rd via Kearny Mesa/I-805/I-5	\$10	\$21
2050	<i>Rapid</i>	870	El Cajon to UTC via Santee, SR 52, I-805	\$7	\$17
2050	<i>Rapid</i>	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	\$12	\$29
2050	Streetcar	565	Mission Beach to La Jolla via Pacific Beach ³	\$25	\$50
2050	ITC	--	Phase II - San Ysidro ITC	\$23	\$46
2050	Other	--	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions)	\$3,266	\$7,341
Subtotal				\$22,854	\$40,625

Table A.2 (continued)
Phased Revenue Constrained Projects

Managed Lanes/Toll Lanes

Year Built By	Freeway	From	To	Existing*	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	I-5	Manchester Ave	SR 78	8F	8F+2ML	650, 653	\$701	\$789
2020	SR 11/ Otay Mesa East Port of Entry (POE)	SR 125	Mexico	--	4T+POE	905	\$832	\$876
2020	I-805	SR 52	Carroll Canyon Rd	8F	8F+2ML	650, 653, 688, 689, 690, 870, 890	\$255	\$255
2035	I-5	SR 905	SR 54	8F	8F+2ML	640	\$308	\$416
2035	I-5	SR 54	SR 15	8F	10F+2ML	640	\$343	\$464
2035	I-5	La Jolla Village Dr	I-5/805 Merge	8F/14F	8F/14F+2ML		\$206	\$249
2035	I-5	I-5/I-805 Merge	SR 56	8F/14F+ 2ML	8F/14F+4ML	650, 653	\$91	\$137
2035	I-5	SR 56	Manchester Ave	8F+2ML	8F+4ML	650, 653	\$455	\$686
2035	I-5	Manchester Ave	SR 78	8F+2ML	8F+4ML	650, 653	\$1,076	\$1,863
2035	I-5	SR 78	Vandegrift Blvd	8F	8F+2ML		\$76	\$100
2035	SR 15	SR 94	I-805	6F	6F+2ML	235, 610	\$30	\$52
2035	I-15	I-8	SR 163	8F	8F+2ML	235, 610, 653, 690	\$56	\$73
2035	SR 78	I-5	I-15	6F	6F+2ML		\$1,192	\$1,720
2035	SR 94	I-5	I-805	8F	8F+2ML	90, 225, 235, 610,	\$535	\$703
2035	SR 241	Orange County	I-5	--	6T		\$479	\$598
2035	I-805	SR 905	Palomar St	8F	8F+2ML	688	\$343	\$595
2035	I-805	SR 54	SR 94	8F+2ML	8F+4ML	225, 650, 688, 689	\$704	\$1,096
2035	I-805	SR 94	SR 15	8F	8F+2ML	225, 650, 688, 689	\$172	\$226
2035	I-805	SR 163	SR 52	8F	8F+2ML	650, 688, 689, 690	\$229	\$346
2035	I-805	SR 52	Carroll Canyon Rd	8F+2ML	8F+4ML	30, 650, 653, 688, 689, 690, 870, 890	\$394	\$562
2050	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML		\$556	\$1,378

Table A.2 (continued)
Phased Revenue Constrained Projects

Managed Lanes/Toll Lanes (continued)

Year Built By	Freeway	From	To	Existing*	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	I-5	SR 78	Vandegrift Blvd	8F+2ML	8F+4ML		\$606	\$1,205
2050	I-5	Vandegrift Blvd	Orange County	8F	8F+4T		\$1,812	\$4,496
2050	SR 15	I-5	SR 94	6F	8F+2ML		\$136	\$338
2050	I-15	Viaduct	--	8F	8F+2ML	235, 610, 653, 690	\$842	\$2,092
2050	I-15	SR 78	Riverside County	8F	8F+4T	610	\$1,029	\$2,554
2050	SR 52	I-805	I-15	6F	6F+2ML	653, 870, 890	\$91	\$181
2050	SR 52	I-15	SR 125	4F/6F	4F/6F+2ML(R)	870, 890	\$298	\$662
2050	SR 54	I-5	SR 125	6F	6F+2ML		\$111	\$276
2050	SR 94	I-805	SR 125	8F	8F+2ML	90	\$369	\$775
2050	SR 125	SR 54	SR 94	6F	6F+2ML		\$76	\$188
2050	SR 125	SR 94	I-8	8F	10F+2ML	90	\$293	\$695
2050	I-805	SR 94	SR 15	8F+2ML	8F+4ML	225, 650, 688, 690	\$61	\$121
2050	I-805	SR 15	SR 163	8F/10F	8F/10F+4ML	650, 688, 689, 690	\$1,152	\$2,292
2050	I-805	SR 163	SR 52	8F+2ML	8F+4ML	650, 688, 689, 690	\$322	\$640
Subtotal							\$16,231	\$29,699

Highway Projects

Year Built By	Freeway	From	To	Existing*	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	SR 76	Mission	I-15	2C	4C	\$305	\$305
2035	SR 52	Mast Blvd	SR 125	4F	6F	\$76	\$131
2035	SR 67	Mapleview St	Gold Bar Ln	2C	4C	\$60	\$79
2050	I-8	2nd St	Los Coches	4F/6F	6F	\$35	\$88
2050	SR 52	I-5	I-805	4F	6F	\$111	\$276
2050	SR 56	I-5	I-15	4F	6F	\$141	\$351
2050	SR 67	Gold Bar Ln	Dye Rd	2C/4C	4C	\$576	\$1,339
2050	SR 94	SR 125	Avocado Blvd	4F	6F	\$111	\$221
2050	SR 94	Jamacha	Steele Canyon Rd	2C/4C	4C	\$40	\$100

Table A.2 (continued)

Phased Revenue Constrained Projects

Highway Projects (continued)

Year Built By	Freeway	From	To	Existing*	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	SR 94	Avocado Blvd	Jamacha	4C	6C	\$91	\$225
2050	SR 125	SR 905	San Miguel Rd	4T	8F	\$323	\$661
2050	SR 125	San Miguel Rd	SR 54	4F	8F	\$177	\$438
Subtotal						\$2,046	\$4,214

Operational Improvements

Year Built By	Freeway	From	To	Existing*	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	I-5	I-15	I-8	8F	8F+Operational	\$1,177	\$2,919
2050	I-8	I-5	SR 125	8F/10F	8F/10F+Operational	\$667	\$1,654
2050	I-8	SR 125	2nd St	6F/8F	6F/8F+Operational	\$167	\$413
2050	SR 76	I-15	Couser Canyon	2C/4C	4C/6C+Operational	\$131	\$261
Subtotal						\$2,142	\$5,247

Managed Lanes Connectors

Year Built By	Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	I-5	SR 78	South to East and West to North, North to East and West to South	\$253	\$332
2035	I-5	I-805	North to North and South to South	\$51	\$66
2035	I-15	SR 78	East to South and North to West	\$106	\$139
2035	SR 15	SR 94	South to West and East to North	\$71	\$122
2035	SR 15	I-805	North to North and South to South	\$81	\$106
2035	I-805	SR 94	North to West and East to South	\$101	\$133
2050	I-15	SR 52	West to North and South to East	\$130	\$326
2050	I-805	SR 52	West to North and South to East	\$91	\$181
Subtotal				\$884	\$1,405

Table A.2 (continued)

Phased Revenue Constrained Projects

Freeway Connectors

Year Built By	Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	SR 11/ SR 905	SR 125	EB SR 905 and WB SR 11 to NB SR 125, NB SR 905 to NB SR 125	\$26	\$28
2035	I-5	SR 56	West to North and South to East	\$273	\$411
2035	I-5	SR 78	South to East and West to South	\$273	\$358
2035	SR 94	SR 125	South to East	\$69	\$88
2035	SR 94	SR 125	West to North	\$81	\$122
2035	SR 11/ SR 905	SR 125	SB 125 to WB SR 905, SB SR 125 to EB SR 11, SB SR 125 to SB SR 905	\$74	\$90
2050	I-15	SR 56	North to West	\$101	\$265
Subtotal				\$897	\$1,362

Active Transportation Projects⁴

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	Uptown - Fashion Valley to Downtown San Diego	San Diego	Const.	\$23.0	\$27.2
2020	Uptown - Old Town to Hillcrest	San Diego	Const.	\$18.0	\$21.3
2020	Uptown - Hillcrest to Balboa Park	San Diego	Const.	\$3.0	\$3.5
2020	North Park - Mid-City - Hillcrest to Kensington	San Diego	Const.	\$6.0	\$7.1
2020	North Park - Mid-City - Hillcrest to City Heights (Hillcrest-El Cajon Corridor)	San Diego	Const.	\$6.0	\$7.1
2020	North Park - Mid-City - City Heights	San Diego	Const.	\$3.0	\$3.5
2020	North Park - Mid-City - Hillcrest to City Heights (City Heights - Old Town Corridor)	San Diego	Const.	\$5.0	\$5.9
2020	North Park - Mid-City - City Heights to Rolando	San Diego	Const.	\$4.0	\$4.7
2020	San Diego River Trail - Qualcomm Stadium	San Diego	Const.	\$0.8	\$0.9
2020	Coastal Rail Trail San Diego - Rose Creek	San Diego	Const.	\$21.0	\$24.8
2020	Bayshore Bikeway - Main St to Palomar	Chula Vista/ Imperial Beach	Const.	\$3.0	\$3.5
2020	Coastal Rail Trail Encinitas - Chesterfield to G St	Encinitas	Const.	\$7.0	\$8.3
2020	Coastal Rail Trail Encinitas - Chesterfield to Solana Beach	Encinitas	Eng.	\$0.1	\$0.1
2020	Inland Rail Trail (combination of four projects)	San Marcos, Vista, Co. of San Diego	Const.	\$33.0	\$39.0
2020	Coastal Rail Trail Oceanside - Wisconsin to Oceanside Blvd	Oceanside	Const.	\$0.2	\$0.2
2020	Plaza Bonita Bike Path	National City	Const.	\$0.4	\$0.5

Table A.2 (continued)

Phased Revenue Constrained Projects

Active Transportation Projects (continued)

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	Bayshore Bikeway - National City Marina to 32nd St	San Diego/ National City	Const.	\$2.0	\$2.4
2020	I-15 Mid-City - Adams Ave to Camino Del Rio S	San Diego	Const.	\$9.0	\$10.6
2020	Pershing and El Prado - North Park to Downtown San Diego	San Diego	Const.	\$7.0	\$8.3
2020	Pershing and El Prado - Cross-Park	San Diego	Const.	\$0.6	\$0.7
2020	San Ysidro to Imperial Beach - Bayshore Bikeway Connection (Border Access)	Imperial Beach/ San Diego	ROW	\$2.0	\$2.4
2020	San Ysidro to Imperial Beach - Bayshore Bikeway Connection (Imperial Beach Connector)	Imperial Beach/ San Diego	ROW	\$0.9	\$1.1
2020	Terrace Dr/Central Ave - Adams to Wightman	San Diego	Const.	\$1.0	\$1.2
2020	San Diego River Trail – I-805 to Fenton	San Diego	Const.	\$2.0	\$2.4
2020	San Diego River Trail - Short gap connections	San Diego	Const.	\$1.0	\$1.2
2020	Coastal Rail Trail Encinitas - Leucadia to G St	Encinitas	Const.	\$5.0	\$5.9
2020	San Ysidro to Imperial Beach - Bayshore Bikeway Connection	Imperial Beach/ San Diego	Const.	\$6.0	\$7.1
2020	Other Active Transportation Programs and Projects ⁵	Various	Various	\$368.3	\$387.5
2035	Bayshore Bikeway - Barrio Logan	San Diego	ROW	\$5.0	\$8.9
2035	San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	ROW	\$3.0	\$5.4
2035	Downtown to Southeast connections - East Village	San Diego	ROW	\$0.8	\$1.4
2035	Downtown to Southeast connections - Downtown San Diego to Encanto	San Diego	ROW	\$3.0	\$5.4
2035	Downtown to Southeast connections - Downtown San Diego to Golden Hill	San Diego	ROW	\$3.0	\$5.4
2035	Coastal Rail Trail San Diego - UTC	San Diego	ROW	\$0.8	\$1.4
2035	Coastal Rail Trail San Diego - Rose Canyon	San Diego	ROW	\$3.0	\$5.4
2035	Coastal Rail Trail San Diego - Pac Hwy (W Washington St to Laurel St)	San Diego	Const.	\$4.0	\$7.2
2035	Coastal Rail Trail San Diego - Pac Hwy (Laurel St to Santa Fe Depot)	San Diego	Const.	\$8.0	\$14.3
2035	Coastal Rail Trail San Diego - Encinitas Chesterfield to Solana Beach	Encinitas	Const.	\$0.1	\$0.2
2035	Coastal Rail Trail San Diego – Pac Hwy (Taylor St to W Washington St)	San Diego	Const.	\$4.0	\$7.2
2035	Coastal Rail Trail San Diego- Pac Hwy (Fiesta Island Rd to Taylor St)	San Diego	Const.	\$7.0	\$12.5
2035	San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	Const.	\$7.0	\$12.5

Table A.2 (continued)

Phased Revenue Constrained Projects

Active Transportation Projects (continued)

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	Bayshore Bikeway - Barrio Logan	San Diego	Const.	\$14.0	\$25.1
2035	Downtown to Southeast connections	San Diego	Const.	\$17.0	\$30.4
2035	Coastal Rail Trail San Diego - UTC	San Diego	Const.	\$3.0	\$5.4
2035	City Heights /Encanto/Lemon Grove	Lemon Grove/ San Diego	Const.	\$7.0	\$12.5
2035	City Heights/Fairmount Corridor	San Diego	Const.	\$12.0	\$21.5
2035	Rolando to Grossmont/La Mesa	La Mesa/ El Cajon/ San Diego	Const.	\$2.0	\$3.6
2035	La Mesa/Lemon Grove/El Cajon connections	Lemon Grove/ La Mesa	Const.	\$6.0	\$10.7
2035	Coastal Rail Trail - Rose Canyon	San Diego	Const.	\$9.0	\$16.1
2035	San Diego River Trail - Qualcomm Stadium to Ward Rd	San Diego	Const.	\$2.0	\$3.6
2035	San Diego River Trail - Rancho Mission Rd to Camino Del Rio North	San Diego	Const.	\$0.3	\$0.5
2035	Coastal Rail Trail San Diego - Rose Creek Mission Bay Connection	San Diego	Const.	\$4.0	\$7.2
2035	Coastal Rail Trail Carlsbad - Reach 4 Cannon to Palomar Airport Rd	Carlsbad	Const.	\$5.0	\$8.9
2035	Coastal Rail Trail Carlsbad - Reach 5 Palomar Airport Rd to Poinsettia Station	Carlsbad	Const.	\$3.0	\$5.4
2035	Coastal Rail Trail Encinitas - Carlsbad to Leucadia	Encinitas	Const.	\$7.0	\$12.5
2035	Coastal Rail Trail Del Mar	Del Mar	Const.	\$0.4	\$0.7
2035	Coastal Rail Trail San Diego - Del Mar to Sorrento via Carmel Valley	Del Mar/ San Diego	Const.	\$0.4	\$0.7
2035	Coastal Rail Trail San Diego - Carmel Valley to Roselle via Sorrento	San Diego	Const.	\$0.9	\$1.6
2035	Coastal Rail Trail San Diego - Roselle Canyon	San Diego	Const.	\$5.0	\$8.9
2035	Chula Vista/National City connections	Chula Vista/ National City	Const.	\$11.0	\$19.7
2035	Pacific Beach to Mission Beach	San Diego	Const.	\$10.0	\$17.9
2035	Ocean Beach to Mission Bay	San Diego	Const.	\$24.0	\$43.0
2035	San Diego River Trail - Bridge connection (Sefton Field to Mission Valley YMCA)	San Diego	Const.	\$7.0	\$12.5
2035	San Diego River Trail - Mast Park to Lakeside baseball park	Santee	Const.	\$10.0	\$17.9
2035	I-8 Flyover - Camino del Rio S to Camino del Rio N	San Diego	Const.	\$10.0	\$17.9
2035	Coastal Rail Trail Oceanside - Broadway to Eaton	Oceanside	Const.	\$0.4	\$0.7
2035	El Cajon - Santee connections	El Cajon/ La Mesa/ Santee	Const.	\$12.0	\$21.5

Table A.2 (continued)

Phased Revenue Constrained Projects

Active Transportation Projects (continued)

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	San Diego River Trail - Father Junipero Serra Trail to West Hills Pkwy	San Diego	Const.	\$3.0	\$5.4
2035	Inland Rail Trail Oceanside	Oceanside	Const.	\$19.0	\$34.0
2035	Coastal Rail Trail Carlsbad - Reach 3 Tamarack to Cannon	Carlsbad	Const.	\$5.0	\$8.9
2035	Clairemont Dr (Mission Bay to Burgener)	San Diego	Const.	\$8.0	\$14.3
2035	Harbor Dr (Downtown to Ocean Beach)	San Diego	Const.	\$7.0	\$12.5
2035	Mira Mesa Bike Blvd	San Diego	Const.	\$4.0	\$7.2
2035	Sweetwater River Bikeway Ramps	National City	Const.	\$9.0	\$16.1
2035	Coastal Rail Trail Oceanside - Alta Loma Marsh bridge	Oceanside	Const.	\$5.0	\$8.9
2035	Coastal Rail Trail San Diego - Mission Bay (Clairemont to Tecolote)	San Diego	Const.	\$3.0	\$5.4
2035	Bayshore Bikeway Coronado - Golf course adjacent	Coronado	Const.	\$3.0	\$5.4
2035	Other Active Transportation Programs and Projects ⁵	Various	Various	\$857.3	\$1,184.4
2050	San Luis Rey River Trail	Oceanside, Unincorporated	Const.	\$37.0	\$100.2
2050	Encinitas-San Marcos Corridor – Double Peak Dr to San Marcos Blvd	San Marcos	Const.	\$12.0	\$32.5
2050	Escondido Creek Bikeway – Quince St to Broadway	Escondido	Const.	\$2.0	\$5.4
2050	Escondido Creek Bikeway – Escondido Creek to Washington Ave	Escondido	Const.	\$1.0	\$2.7
2050	Escondido Creek Bikeway – 9th Ave to Escondido Creek	Escondido	Const.	\$1.0	\$2.7
2050	Escondido Creek Bikeway – El Norte Pkwy to northern bikeway terminus	Escondido	Const.	\$6.0	\$16.2
2050	Encinitas to San Marcos Corridor – Leucadia Blvd to El Camino Real	Carlsbad, Encinitas	Const.	\$2.0	\$5.4
2050	I-15 Bikeway – Via Rancho Pkwy to Lost Oak Ln	Escondido	Const.	\$4.0	\$10.8
2050	I-15 Bikeway – Rancho Bernardo Community Park to Lake Hodges Bridge	San Diego	Const.	\$3.0	\$8.1
2050	I-15 Bikeway – Camino del Norte to Aguamiel Rd	San Diego	Const.	\$13.0	\$35.2
2050	I-15 Bikeway – Poway Rd interchange to Carmel Mountain Rd	San Diego	Const.	\$17.0	\$46.0
2050	SR 56 Bikeway – Azuaga St to Rancho Penasquitos Blvd	San Diego	Const.	\$2.0	\$5.4
2050	I-15 Bikeway – Murphy Canyon Rd to Affinity Ct	San Diego	Const.	\$40.0	\$108.3
2050	SR 56 Bikeway – El Camino Real to Caminito Pointe	San Diego	Const.	\$2.0	\$5.4
2050	SR 52 Bikeway – I-5 to Santo Rd	San Diego	Const.	\$30.0	\$81.2
2050	SR 52 Bikeway – SR 52/Mast Dr to San Diego River Trail	San Diego	Const.	\$2.0	\$5.4
2050	I-8 Corridor – San Diego River Trail to Riverside Dr	Unincorporated	Const.	\$2.0	\$5.4

Table A.2 (continued)**Phased Revenue Constrained Projects***Active Transportation Projects (continued)*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	I-805 Connector – Bonita Rd to Floyd Ave	Chula Vista, Unincorporated	Const.	\$6.0	\$16.2
2050	SR 125 Connector – Bonita Rd to U.S.-Mexico Border	Chula Vista, San Diego	Const.	\$39.0	\$105.6
2050	SR 905 Connector – E Beyer Blvd to U.S.-Mexico Border	San Diego, Unincorporated	Const.	\$34.0	\$92.1
2050	El Camino Real Bike Lanes – Douglas Dr to Mesa Dr	Oceanside	Const.	\$1.0	\$2.7
2050	Vista Way Connector from Arcadia	Vista, Unincorporated	Const.	\$2.1	\$5.4
2050	I-15 Bikeway – W Country Club Ln to Nutmeg St	Escondido	Const.	\$0.6	\$1.4
2050	El Camino Real Bike Lanes – Marron Rd to SR 78 off ramp	Carlsbad	Const.	\$0.3	\$0.5
2050	Carlsbad to San Marcos Corridor – Paseo del Norte to Avenida Encinas	Carlsbad	Const.	\$0.4	\$0.8
2050	Encinitas to San Marcos Corridor – Kristen Ct to Ecker Ranch Rd	Encinitas	Const.	\$0.4	\$0.8
2050	Encinitas to San Marcos Corridor – Encinitas Blvd/ I-5 Interchange	Encinitas	Const.	\$0.2	\$0.3
2050	Mira Mesa Corridor – Reagan Rd to Parkdale Ave	San Diego	Const.	\$0.4	\$0.8
2050	Mira Mesa Corridor – Scranton Rd to I-805	San Diego	Const.	\$0.4	\$0.8
2050	Mira Mesa Corridor – Sorrento Valley Rd to Sorrento Valley Blvd	San Diego	Const.	\$0.8	\$1.9
2050	Mid-County Bikeway – I-5/Via de la Valle Interchange	San Diego	Const.	\$0.3	\$0.5
2050	Mid-County Bikeway – Rancho Santa Fe segment	San Diego, Unincorporated	Const.	\$3.0	\$8.1
2050	El Camino Real Bike Lanes – Manchester Ave to Tennis Club Dr	Encinitas	Const.	\$0.5	\$1.1
2050	Mid-County Bikeway – Manchester Ave/I-5 Interchange to San Elijo Ave	Encinitas	Const.	\$0.8	\$1.9
2050	Central Coast Corridor – Van Nuys St to San Rafael Pl	San Diego	Const.	\$1.0	\$2.7
2050	Clairemont – Centre-City Corridor – Coastal Rail Trail to Genesee Ave	San Diego	Const.	\$2.0	\$5.4
2050	SR 125 Corridor – Mission Gorge Rd to Glen Vista Way	Santee	Const.	\$0.3	\$0.5
2050	SR 125 Corridor – Prospect Ave to Weld Blvd	Santee, El Cajon	Const.	\$0.8	\$1.9
2050	I-8 Corridor – Lakeside Ave to SR 67	Unincorporated	Const.	\$0.5	\$1.1
2050	I-8 Corridor – Willows Rd to SR 79	Unincorporated	Const.	\$5.0	\$13.5
2050	E County Northern Loop – N Marshall Ave to El Cajon Blvd	El Cajon	Const.	\$0.3	\$0.8
2050	E County Northern Loop – Washington Ave to Dewitt Ct	El Cajon	Const.	\$1.0	\$2.7
2050	E County Northern Loop – SR 94 onramp to Del Rio Rd	Unincorporated	Const.	\$0.2	\$0.3

Table A.2 (continued)

Phased Revenue Constrained Projects

Active Transportation Projects (continued)

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	E County Southern Loop – Pointe Pkwy to Omega St	Unincorporated	Const.	\$0.8	\$2.2
2050	SR 125 Corridor – SR 94 to S of Avocado St	Unincorporated	Const.	\$1.1	\$2.7
2050	Centre City – La Mesa Corridor – Gateside Rd to Campo Rd	La Mesa, Unincorporated	Const.	\$0.4	\$0.8
2050	Bay to Ranch Bikeway – River Ash Dr to Paseo Ranchero	Chula Vista	Const.	\$0.5	\$1.4
2050	Mid-County Bikeway – San Elijo Ave to 101 Terminus	Encinitas	Const.	\$1.0	\$2.7
2050	Central Coast Corridor – Van Nuys St	San Diego	Const.	\$0.2	\$0.3
2050	E County Northern Loop – El Cajon Blvd to Washington Ave	El Cajon	Const.	\$1.0	\$2.7
2050	E County Northern Loop – Calavo Dr to Sweetwater Springs Blvd	Unincorporated	Const.	\$0.7	\$1.9
2050	Central Coast Corridor – Torrey Pines Rd to Nautilus St	San Diego	Const.	\$6.0	\$16.2
2050	Central Coast Corridor – Via Del Norte to Van Nuys St	San Diego	Const.	\$5.0	\$13.5
2050	Kearny Mesa to Beaches Corridor – Ingraham St from Garnet Ave to Pacific Beach Dr	San Diego	Const.	\$2.0	\$5.4
2050	Kearny Mesa to Beaches Corridor – Clairemont Dr to Genesee Ave	San Diego	Const.	\$10.0	\$27.1
2050	Kearny Mesa to Beaches Corridor – Genesee Ave to Linda Vista Dr	San Diego	Const.	\$6.0	\$16.2
2050	Bay to Ranch Bikeway – E J St from 2nd Ave to Paseo Del Rey	Chula Vista	Const.	\$12.0	\$32.5
2050	Chula Vista Greenbelt – Bay Blvd to Oleander Ave	Chula Vista	Const.	\$17.0	\$46.0
2050	Other Active Transportation Programs and Projects ⁵	Various	Various	\$815.3	\$1,678.4
Subtotal				\$2,849	\$4,901
TOTAL				\$47,903	\$87,453

* Based on facility configuration at time of project construction.

¹ Capital cost to be funded by the City of San Marcos.

² Implementation of these services is dependent upon funding from aviation and other private sources.

³ Streetcar cost is representative of 10 percent of the total capital cost.

⁴ Figure A.9 includes Regional Bicycle Network segments built by others; such segments are not included in Table A.2.

⁵ Includes Safe Routes to Transit projects at new transit station areas, local bike projects, local pedestrian/safety/traffic calming projects, regional bicycle and pedestrian programs and Regional Safe Routes to School implementation.

Table A.3
Phased Revenue Constrained Arterial Projects¹

Year Built By	SANDAG ID	Lead Agency	Project Title	Project Description
2020	CB04A	Carlsbad	El Camino Real Widening - Tamarack Ave to Chestnut Ave	Widen El Camino Real to prime arterial standards with three travel lanes, bike lanes, and sidewalks in each direction including intersection improvements at Tamarack Ave and Chestnut Ave
2020	CB04B	Carlsbad	El Camino Real and Cannon Rd	Along the eastside of El Camino Real just south of Cannon Rd, widen to prime arterial standards with three through lanes, a right turn lane, and a sidewalk approaching the intersection
2020	CB04C	Carlsbad	El Camino Real - Lisa St to Crestview Dr	Along the west side of El Camino Real, roadway widening to provide three southbound through lanes, curb, gutter, and sidewalk per prime arterial standards
2020	CB12	Carlsbad	College Blvd Reach A - Badger Ln to Cannon Rd	From Badger Ln to Cannon Rd, construct a new segment of College Blvd to provide 4-lane roadway with raised median, bike lanes, and sidewalks/trails in accordance with major arterial standards
2020	CB13	Carlsbad	Poinsettia Ln Reach E - Cassia Dr to Skimmer Ct	From Cassia Dr to Skimmer Ct, construct a new 4-lane roadway with median, bike lanes, and sidewalks/trails to major arterial standards
2020	CB22	Carlsbad	Avenida Encinas, widen from Palomar Airport Rd to Encinas Water Pollution Control Facility	Avenida Encinas from Palomar Airport Rd southerly to existing improvements adjacent to the Embarcadero Lane, roadway widening to secondary arterial standards
2020	CB30	Carlsbad	El Camino Real – El Camino Real to Tamarack Ave	At the intersection of El Camino Real and Tamarack Ave, construct a second left turn lane from El Camino Real to westbound Tamarack
2020	CB31	Carlsbad	El Camino Real – La Costa Ave to Arenal Rd	Along El Camino Real from 700 feet north of La Costa Ave to Arenal Rd, widening along the southbound side of the roadway to provide three travel lanes and a bike lane in accordance with prime arterial standards
2020	CB32	Carlsbad	El Camino Real Widening - Cassia to Camino Vida Roble	Widen El Camino Real from 900 feet north of Cassia Rd to Camino Vida Roble, along the northbound side of the roadway to provide three travel lanes and a bike lane in accordance with prime arterial standards
2020	CB35	Carlsbad	Palomar Airport Rd - Palomar Airport Rd to Paseo Del Norte	Lengthen the left turn pocket along eastbound Palomar Airport Rd to northbound Paseo Del Norte
2020	CB38	Carlsbad	El Camino Real – Cannon Rd to Tamarack Ave	El Camino Real from Cannon Rd to Tamarack, widen along both sides of El Camino Real from Cannon Rd to Tamarack Ave excluding the limits of project CB04C, to provide a raised median, three travel lanes, bike lane, curb, gutter, and walkway along both sides per prime arterial standards, and a new traffic signal at Lisa St
2020	CHV08	Chula Vista	Willow St Bridge Project - Bonita Rd to Sweetwater Rd	Replace 2-lane bridge with 4-lane bridge (Phase I and II)

Table A.3 (continued)

Phased Revenue Constrained Arterial Projects

Year Built By	SANDAG ID	Lead Agency	Project Title	Project Description
2020	CHV69	Chula Vista	Heritage Rd Bridge	Heritage Rd from Main St/Nirvana Ave to Entertainment Circle, widen and lengthen bridge over Otay River from 4-lane to 6-lane bridge that accommodates shoulders, sidewalk, and medial; project is on Heritage Rd from the intersection of Main St and Nirvana Ave to Entertainment Circle
2020	CNTY14	San Diego County	South Santa Fe Ave North - Montgomery Dr to South of Woodland Dr	Vista City limits to 700 feet south of Woodland, reconstruct and widen from 2 to 4 lanes including bicycle lane; more detail in 2014 RTIP Project List
2020	CNTY14A	San Diego County	South Santa Fe Ave South	South Santa Fe from 700 feet south of Woodland Dr to Smilax Rd, widening of South Santa Fe Ave to a 5-lane major road with a center left turn lane, curb, gutter, sidewalk, bike lanes, and drainage improvements.
2020	CNTY21	San Diego County	Bradley Ave Overpass at SR 67	Widen Bradley Ave from Magnolia Ave to Mollison Ave; widen from 2 lanes to 4 lanes plus sidewalks. Replace 2-lane bridge over SR 67 with a 6-lane bridge, which accommodates turn pockets.
2020	CNTY24	San Diego County	Cole Grade Rd	Cole Grade Rd from north of Horse Creek Trail to south of Pauma Heights Rd, widen to accommodate 14-foot traffic lane in both directions, 12-foot center 2-way left turn, 6-foot bike lane and 10-foot pathway
2020	CNTY36	San Diego County	San Vicente Rd Improvements	From Warnock Dr to Wildcat Canyon Rd - in Ramona, design and reconstruct road improvements, including 2-lane community collector road with intermittent turn lanes, bike lanes, asphalt concrete dike, and pathway/walkway
2020	CNTY39	San Diego County	Bear Valley Pkwy North	From San Pasqual Valley Rd to Boyle Ave - widen from 2 to 4 lanes, with a center median, a bike lane and shoulder in each direction of travel
2020	CNTY82	San Diego County	Alpine Blvd Streetscape Improvements	From Tavern Rd to South Grade Rd – in unincorporated community of Alpine, widen from 2-lane to 3-lane roadway including a median turn-lane with bicycle, parking, and pedestrian improvements
2020	CNTY83	San Diego County	SR 67/ Highland/Dye Intersection	From SR 67 to 1,000 feet SE of SR 67 – in Ramona, intersection widening (double left turn lanes on Dye/Highland and double through lanes with dedicated right turn lanes on SR 67), signal modification with bicycle and pedestrian improvements, and associated improvements
2020	ESC02A	Escondido	East Valley/Valley Center	Widen roadway from 4 to 6 lanes with raised medians and left turn pockets; modify signal at Lake Wohlford and Valley Center Rd; widen bridge over Escondido Creek
2020	ESC04	Escondido	Citracado Parkway II	West Valley to Harmony Grove, widen from 2 to 4 lanes with raised medians; construct bridge over Escondido Creek

Table A.3 (continued)

Phased Revenue Constrained Arterial Projects

Year Built By	SANDAG ID	Lead Agency	Project Title	Project Description
2020	ESC06	Escondido	El Norte Pkwy Bridge at Escondido Creek - Kaile Ln to Key Lime Way	Construct missing 2-lane bridge at Escondido Creek
2020	ESC08	Escondido	Felicita Ave/Juniper St - from Escondido Blvd to Juniper St and from Juniper St to Chestnut St	Widen from 2 to 4 lanes with left turn pockets, raised medians on Felicita; new traffic signals at Juniper and Chestnut, Juniper and 13th Ave, Juniper and 15th Ave; modify traffic signal at Juniper and Felicita
2020	ESC09	Escondido	Ninth Ave – La Terraza Blvd to Spruce St	Widen from 2 to 4 lanes with raised median and modify traffic signals at Ninth Ave and Tulip St - design phase
2020	ESC24	Escondido	Centre City Pkwy	Mission Rd to SR 78, widen 4 lanes to 6 lanes with intersection improvements
2020	LG13	Lemon Grove	Lemon Grove Ave Realignment Project	Lemon Grove Ave at SR 94 - a key project in the redevelopment of the city's downtown Village Specific Plan, this project will realign Lemon Grove Ave at SR 94 adding traffic lanes and improving access to and from SR 94, reducing motorist delays and emissions
2020	NC01	National City	Plaza Blvd Widening	Plaza Blvd from Highland Ave to Euclid Ave, widen from 2 to 3 lanes including a new traffic lane in each direction, new sidewalks, sidewalk widening, traffic signal upgrades, and interconnection at Plaza Blvd
2020	O06	Oceanside	Melrose Dr Extension	Melrose Dr from North Santa Fe Ave to Spur Ave - in Oceanside, future construction of Melrose Dr; 4-lane arterial highway with medians, sidewalks, and bike lanes between North Santa Fe Ave and Spur Ave
2020	O22	Oceanside	College Blvd - Vista Way to Old Grove Rd	Widen from the existing 4 lanes to 6 lanes with bike lanes and raised median
2020	SD32	San Diego	Carroll Canyon Rd	Carroll Canyon Rd from Scranton Rd to I-805: extend Carroll Canyon under I-805 including improvements to on/off ramps
2020	SD34	San Diego	El Camino Real	In San Diego on El Camino Real from San Dieguito Rd to Via de la Valle, reconstruct and widen from 2 to 4 lanes and extend transition lane and additional grading to avoid biological impacts (CIP 52-479.0)
2020	SD70	San Diego	West Mission Bay Dr Bridge	In San Diego, replace bridge and increase from 4- to 6-lane bridge including Class II bike lane (CIP 52-643.0/S00871)

Table A.3 (continued)
Phased Revenue Constrained Arterial Projects

Year Built By	SANDAG ID	Lead Agency	Project Title	Project Description
2020	SD83	San Diego	SR 163/Friars Rd Interchange Modification	Friars Rd from Avenida de las Tiendas to Mission Center Rd, widen and improve Friars Rd and overcrossing; reconstruct interchange including improvements to ramp intersections (Phase I). Construct new connector roadways and structures (Phase II). Construct auxiliary lanes along northbound and southbound SR 163 (Phase III).
2020	SD90	San Diego	SR 163/Clairemont Mesa Blvd Interchange	From Kearny Villa Rd to Kearny Mesa - in San Diego, widen from 4- to 6-lane prime arterial; Phase II of the project - west ramps
2020	SD102A	San Diego	Otay Truck Route Widening	On Otay Truck Route in San Diego from Drucker Ln to La Media, add one lane (total 3 lanes) for trucks; from Britannia to La Media, add one lane for trucks and one lane for emergency vehicles (border patrol/fire department access); along Britannia from Britannia Court to the Otay Truck Route - add one lane for trucks
2020	SD103	San Diego	I-5/Genesee Ave Interchange	Replace Genesee Ave over-crossing from 4-lane bridge with 6-lane bridge; construct auxiliary lanes and replace Voigt Dr bridge; add additional lane at on/off ramp to Sorrento Valley Rd; add one carpool lane and one general purpose lane to on-ramp from Sorrento Valley Rd to southbound I-5; install ramp meters at on-ramp and construct a southbound auxiliary lane between Sorrento Valley Rd and Genesee Ave
2020	SD189	San Diego	Sea World Dr Widening and I-5 Interchange Improvements	Replace existing 4-lane bridge with an 8-lane bridge with new on/off ramps; widen approaches to add right turn lanes to improve access to I-5 (CIP 52-706.0)
2020	SD190	San Diego	Palm Ave/I-805 Interchange	Improvements to the Palm Avenue Bridge over I-805; repairs to the bridge approaches; a new Project Study Report (PSR) and Preliminary Environmental Assessment Report (PEAR). Phase II will include widening of the bridge, realignment of existing ramps, possible addition of northbound looping entrance ramp, restriping of traffic lanes, and signal modifications.
2020	SM19	San Marcos	Grand Ave Bridge and Street Improvements	From Discovery St to San Marcos Blvd, construct 4-lane arterial bridge and a 6-lane arterial street from Craven to Grand Ave
2020	SM22	San Marcos	South Santa Fe - Bosstick to Smilax	From Bosstick to Smilax, realign and signalize the South Santa Fe/Smilax intersection (Phase I)
2020	SM24	San Marcos	Woodland Pkwy Interchange Improvements	From La Moree Rd to Rancheros Dr, modify existing ramps at Woodland Pkwy and Barham Dr; widen and realign SR 78 undercrossing and associated work

Table A.3 (continued)
Phased Revenue Constrained Arterial Projects

Year Built By	SANDAG ID	Lead Agency	Project Title	Project Description
2020	SM31	San Marcos	Discovery St Improvements	From Via Vera Cruz to Bent Ave/Craven Rd, widen roadway to 4-lane secondary arterial
2020	SM32	San Marcos	Via Vera Cruz Bridge and Street Improvements	From San Marcos Blvd to Discovery St, widen to 4-lane secondary arterial and construct a bridge at San Marcos Creek
2020	SM42	San Marcos	Street Improvements: Discovery St - Craven Rd to West of Twin Oaks Valley Rd	In the City of San Marcos, on Discovery St from Craven Rd to west of Twin Oaks Valley Rd, construct approximately 5,100 lineal feet of a new 6-lane roadway
2020	SM43	San Marcos	Street Improvements and Widening on Barham Dr	Twin Oaks Valley Rd to La Moree Rd in the City of San Marcos, on Barham Dr between Twin Oaks Valley Rd and La Moree Rd, widen and reconstruct the north side of Barham Dr to a 6-lane prime arterial and associated work
2020	SM48	San Marcos	Creekside Dr	Construct approximately 3,000 feet of a 2-lane collector road from Via Vera Cruz to Grand Ave in the City of San Marcos. The road will include two 12-foot lanes, diagonal parking on the north side, and parallel parking on the south side. In addition, the project also will include a 10-foot bike trail meandering along the south side.
2020	SM55	San Marcos	Borden Rd Widening and Improvements	Borden Rd from Vineyard to Richland, widening of Borden Rd will add an additional roadway capacity to accommodate increase in traffic volumes
2035	CB34	Carlsbad	Palomar Airport Rd - Palomar Airport Rd to Paseo Del Norte	Widening along eastbound Palomar Airport Rd to provide a dedicated right turn lane to southbound Paseo Del Norte
2035	CNTY34	San Diego County	Dye Rd Extension	Dye Rd to San Vicente Rd - in Ramona, study, design, and construct a 2-lane community collector road with intermittent turn lanes, bike lanes, curb, gutter, and pathway/walkway
2035	CNTY35	San Diego County	Ramona St Extension	From Boundary Ave to Warnock Dr - in the community of Ramona, construct new road extension, 2 lanes with intermittent turn lanes, bike lanes, and walkway/pathway
2035	CNTY88		Ashwood Street Corridor Improvements – Mapleview to Willow	Ashwood Street/Wildcat Canyon Road from Mapleview Street to 1100 feet north of Willow Road in Lakeside- traffic signal improvements at Mapleview and Ashwood; traffic signal installation at Willow and Ashwood/Wildcat Canyon; and the addition of turn lanes, addition of a passing lane in a non-urbanized area, bike lanes, and pedestrian facilities.

Table A.3 (continued)
Phased Revenue Constrained Arterial Projects

Year Built By	SANDAG ID	Lead Agency	Project Title	Project Description
2035	SD81	San Diego	Genesee Ave - Nobel Dr to SR 52	In San Diego, future widening to 6-lane major street north of Decoro St and to a 6-lane primary arterial south of Decoro St and included Class II bicycle lanes (CIP 52-458.0)
2035	SD190	San Diego	Palm Avenue/I-805 Interchange	Phase III will provide the ultimate build-out of the project which will incorporate improvements of Phase II plus the northbound and southbound entrance ramps (CIP 52-640.0)
2035	SM10	San Marcos	SR 78/Smilax	Construct new interchange at Smilax Rd interchange and SR 78 improvements

¹ The arterials listed in this table reflect locally initiated projects that were submitted by local jurisdictions in the 2014 Regional Transportation Improvement Program.

Table A.4
Revenue Constrained Freight and Goods Movement Projects

Rail Facilities (Shared Use Freight and Passengers)

Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
COASTER/ BNSF	398	Double tracking (includes grade separations at Leucadia Blvd and two other locations, stations/platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, Del Mar Tunnel, and extensions to the Convention Center and Camp Pendleton)	\$2,710	\$5,174
SPRINTER/ BNSF	399	SPRINTER efficiency improvements and double tracking (Oceanside to Escondido and six rail grade separations at El Camino Real, Melrose Dr, Vista Village Dr/Main St, North Dr, Civic Center, Auto Parkway and Mission Ave)	\$946	\$1,339
SPRINTER/ BNSF	588	SPRINTER Express	\$244	\$492
Trolley/ BNSF	510	Blue Line/Mid-Coast Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St, Palomar St, at Taylor St and Ash St, and Blue/Orange Track Connection at 12th/Imperial	\$431	\$741
Trolley/ BNSF	520	Orange Line Frequency Enhancements and four rail grade separations at Euclid Ave, Broadway/Lemon Grove Ave, Allison Ave/University Ave, Severin Dr	\$267	\$402
Subtotal			\$4,598	\$8,148

Managed Lanes / Toll Lanes

Freeway	From	To	Existing	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
I-5	SR 905	SR 54	8F	8F+2ML	640	\$308	\$416
I-5	SR 54	SR 15	8F	10F+2ML	640	\$343	\$464
I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML		\$556	\$1,378
I-5	La Jolla Village Dr	I-5/I-805 Merge	8F/14F	8F/14F+2ML		\$206	\$249
I-5	I-5/I-805 Merge	SR 56	8F/14F+2ML	8F/14F+4ML	650, 653	\$91	\$137
I-5	SR 56	Manchester Ave	8F+2ML	8F+4ML	650, 653	\$455	\$686
I-5	Manchester Ave	Vandegrift Blvd	8F	8F+4ML	650, 653	\$2,458	\$3,957
I-5	Vandegrift Blvd	Orange County	8F	8F+4T		\$1,813	\$4,497
SR 11/ Otay Mesa East POE	SR 125	Mexico	--	4T+POE	905	\$832	\$876
SR 15	I-5	SR 94	6F	8F+2ML		\$136	\$338
SR 15	SR 94	I-805	6F	6F+2ML	235, 610	\$30	\$52
I-15	Viaduct		8F	8F+2ML	235, 610, 653, 690	\$843	\$2,092
I-15	I-8	SR 163	8F	8F+2ML	235, 610, 653, 690	\$56	\$73

Table A.4 (continued)

Revenue Constrained Freight and Goods Movement Projects

Managed Lanes / Toll Lanes (continued)

Freeway	From	To	Existing	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
I-15	SR 78	Riverside County	8F	8F+4T	610	\$1,029	\$2,555
SR 52	I-805	I-15	6F	6F+2ML	653, 870, 890	\$91	\$181
SR 52	I-15	SR 125	4F/6F	4F/6F+2ML(R)	870, 890	\$298	\$662
SR 54	I-5	SR 125	6F	6F+2ML		\$111	\$276
SR 78	I-5	I-15	6F	6F+2ML		\$1,192	\$1,720
SR 94	I-5	SR 125	8F	8F+2ML	90, 225, 235, 610,	\$903	\$1,478
SR 125	SR 54	SR 94	6F	6F+2ML		\$76	\$188
SR 125	SR 94	I-8	8F	10F+2ML	90	\$293	\$694
I-805	SR 905	Palomar St	8F	8F+2ML	688	\$343	\$595
I-805	SR 54	SR 94	8F+2ML	8F+4ML	225, 650, 688, 689	\$704	\$1,096
I-805	SR 94	Carroll Canyon Rd	8F	8F+4ML	30, 225, 650, 653, 688, 689, 690, 870, 890	\$2,585	\$4,441
Subtotal						\$15,752	\$29,101

Highway Projects

Freeway	From	To	Existing	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions	
I-8	2nd St	Los Coches	4F/6F	6F	\$35	\$88	
SR 52	Mast Blvd	SR 125	4F	6F	\$76	\$131	
SR 56	I-5	I-15	4F	6F	\$141	\$351	
SR 94	SR 125	Avocado Blvd	4F	6F	\$111	\$221	
SR 94	Avocado Blvd	Jamacha	4C	6C	\$91	\$225	
SR 94	Jamacha	Steele Canyon Rd	2C/4C	4C	\$40	\$100	
SR 125	SR 905	San Miguel Rd	4T	8F	\$323	\$661	
SR 125	San Miguel Rd	SR 54	4F	8F	\$177	\$438	
Subtotal						\$994	\$2,215

Table A.4 (continued)

Revenue Constrained Freight and Goods Movement Projects

Operational Improvements

Freeway	From	To	Existing	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
I-5	SR 15	I-8	8F	8F+Operational	\$1,177	\$2,919
I-8	I-5	SR 125	8F/10F	8F/10F+Operational	\$667	\$1,654
I-8	SR 125	2nd St	6F/8F	6F/8F+Operational	\$167	\$413
Subtotal					\$2,011	\$4,986

Freeway Connectors

Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
I-5	SR 56	West to North and South to East	\$273	\$411
I-5	SR 78	South to East and West to South	\$273	\$358
SR 11/ SR 905	SR 125	EB SR 905 and WB SR 11 to NB SR 125 and NB SR 905 to NB SR 125	\$26	\$28
SR 11/ SR 905	SR 125	SB 125 to WB SR 905, SB SR 125 to EB SR 11, SB SR 125 to SB SR 905	\$74	\$90
I-15	SR 56	North to West	\$101	\$265
SR 94	SR 125	South to East	\$69	\$88
SR 94	SR 125	West to North	\$81	\$122
Subtotal			\$897	\$1,362

Goods Movement

Year Built By	Air Cargo System Improvement	Capital Cost (\$2014) millions	Capital Cost (\$YOE) millions
2020	SDIA Interior Northside Roadway	\$4	\$4
2020	SDIA Air Cargo Facility Improvements for cargo storage and handling	\$20	\$20
Subtotal		\$24	\$24
TOTAL		\$24,276	\$45,836

Table A.5
Revenue Constrained and Unconstrained Projects

Transit Facilities

Service	Route	Description	Revenue Constrained Peak/Off-Peak (minutes)	Unconstrained Peak/Off-Peak (minutes)	Unconstrained Capital Cost (\$2014); millions
HSR	598	Commuter Rail Overlay (Temecula to Airport ITC)	NA	15/15	\$340
HSR	--	Extension from Airport ITC to San Ysidro/Otay Mesa	NA	15/60	\$2,734
COASTER	398	Double tracking, grade separation at Leucadia Blvd and two other locations, stations/ platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, extension to Convention Center/Gaslamp Quarter and Camp Pendleton, and Del Mar and UTC Tunnels ¹	20/60	15/15	\$5,786
COASTER	398	COASTER extension to National City	NA	15/15	\$900
SPRINTER	399	SPRINTER efficiency improvements; double tracking Oceanside to Escondido; includes six rail grade separations at El Camino Real, Melrose Dr, Vista Village Dr/Main St, North Dr, Civic Center, Auto Pkwy and Mission Ave and a Branch Extension to Westfield North County ¹	10/10	7.5/7.5	\$1,122
SPRINTER	588	SPRINTER Express	10/15	10/15	\$244
Trolley	510	Mid-Coast Trolley Extension	7.5/7.5	7.5/7.5	\$1,753
Trolley	510	Blue Line/Mid-Coast Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St, Palomar St, Taylor and Ash St, and Blue/Orange Track Connection at 12th/Imperial	7.5/7.5	7.5/7.5	\$431
Trolley	520	Orange Line Frequency Enhancements and four rail grade separations at Euclid Ave, Broadway/ Lemon Grove Ave, Allison Ave/University Ave, Severin Dr	7.5/7.5	7.5/7.5	\$267
Trolley	530	Green Line Frequency Enhancements	7.5/7.5	7.5/7.5	\$0
Trolley	522	Orange Line Express - El Cajon to San Diego International Airport ITC (ITC)	NA	10/10	\$198
Trolley	540	Blue Line Express - Santa Fe Depot to San Ysidro via Downtown	NA	10/10	\$391
Trolley	550	SDSU to Palomar Station via East San Diego, Southeast San Diego, National City	NA	7.5/7.5	\$1,582
Trolley	560	SDSU to Downtown San Diego via El Cajon Blvd/Mid-City (transition of Mid-City <i>Rapid</i> to Trolley)	7.5/7.5	7.5/7.5	\$2,390
Trolley	561	UTC COASTER Connection	7.5/7.5	7.5/7.5	\$343
Trolley	561	COASTER Connection to Mira Mesa/Carroll Canyon (extension of Route 510)	NA	7.5/7.5	\$824
Trolley	562	San Ysidro to Carmel Valley via Chula Vista, National City, Southeast San Diego, Mid-City, Mission Valley, and Kearny Mesa	7.5/10	7.5/7.5	\$2,967

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Transit Facilities (continued)

Service	Route	Description	Revenue Constrained Peak/Off-Peak (minutes)	Unconstrained Peak/Off-Peak (minutes)	Unconstrained Capital Cost (\$2014); millions
Trolley	563	Pacific Beach to El Cajon Transit Center via Balboa and Kearny Mesa	7.5/10	7.5/7.5	\$1,299
Trolley	564	Otay Mesa East Border Crossing to Western Chula Vista via Otay Ranch/Millennia	NA	7.5/7.5	\$1,001
Trolley	566	Palomar St Trolley Station to Carmel Valley via Mid-City, Kearny Mesa (Route 562 Express)	NA	10/10	\$335
Trolley	510, 520, 540, 522 and 560	Downtown Trolley Tunnel	NA	7.5/7.5	\$2,666
Rapid	2	North Park to Downtown San Diego via 30th St, Golden Hill	10/10	10/10	\$39
Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	10/10	10/10	\$87
Rapid	11	Spring Valley to SDSU via Southeast San Diego, Downtown, Hillcrest, Mid-City	10/10	10/10	\$113
Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	10/10	10/10	\$49
Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	10/10	10/10	\$105
Rapid	41	Fashion Valley to UTC/UC San Diego via Linda Vista and Clairemont	10/10	10/10	\$55
Rapid	90	El Cajon Transit Center to San Diego International Airport ITC via SR 94, City College (peak only)	10/10	10/10	\$20
Rapid	103	Solana Beach to Sabre Springs Rapid station via Carmel Valley	15/15	15/15	\$67
Rapid	120	Kearny Mesa to Downtown via Mission Valley	10/10	10/10	\$78
Rapid	225	South Bay Rapid (Otay Mesa to Downtown) and Otay Mesa ITC	15/30	10/10	\$206
Rapid	235	Temecula (peak only) Extension of Escondido to Downtown Rapid (formerly Route 610)	10/NA	10/NA	\$98
Rapid	430	Oceanside to Escondido (peak only)	NA	10/10	\$240
Rapid	440	Carlsbad to Escondido Transit Center via Palomar Airport Rd	10/10	10/10	\$51
Rapid	471	Downtown Escondido to East Escondido	10/10	10/10	\$32
Rapid	473	UTC/UC San Diego to Oceanside via Hwy 101 Coastal Communities, Carmel Valley	10/10	10/10	\$130
Rapid	474	Oceanside to Vista via Mission Ave/Santa Fe Road Corridor	10/10	10/10	\$50
Rapid	477	Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real	10/10	10/10	\$80
Rapid	550	SDSU to Palomar Station via East San Diego, Southeast San Diego, National City ²	10/10	NA	\$59

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Transit Facilities (continued)

Service	Route	Description	Revenue Constrained Peak/Off-Peak (minutes)	Unconstrained Peak/Off-Peak (minutes)	Unconstrained Capital Cost (\$2014); millions
Rapid	635	Eastlake to Palomar Trolley via Main St Corridor	10/10	10/10	\$56
Rapid	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	10/10	10/10	\$39
Rapid	637	North Park to 32nd St Trolley via Golden Hill	10/10	10/10	\$33
Rapid	638	Iris Trolley to Otay Mesa via Otay, Airway Dr, SR 905 Corridor	10/10	10/10	\$38
Rapid	639	Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	NA	10/10	\$54
Rapid	640A/ 640B	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College Route 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	640A = 10/15 640B=15/NA	NA	\$153
Rapid	650	Chula Vista to Palomar Airport Rd Business Park via I-805/I-5 (peak only)	15/NA	15/NA	\$82
Rapid	652	Downtown to UTC via Kearny Mesa Guideway/ I-805	NA	10/10	\$3
Rapid	653	Mid-City to Palomar Airport Rd via Kearny Mesa/ I-805/I-5	15/NA	15/NA	\$10
Rapid	688/ 689/ 690	San Ysidro to Sorrento Mesa via I-805/I-15/SR 52 Corridors; Otay Mesa Port of Entry (POE) to UTC/Torrey Pines via Otay Ranch/Millennia, I-805 Corridor; Mid City to Sorrento Mesa via I-805 Corridor. All Peak Only	15/NA	15/NA (no Rt 690)	\$458
Rapid	692	Grossmont Center to Otay Town Center/Millennia via Southwest College, SR125, Spring Valley	NA	15/15	\$5
Rapid	709	H St Trolley to Millennia via H St Corridor, Southwestern College	10/10	10/10	\$37
Rapid	870	El Cajon to UTC via Santee, SR 52, I-805	10/NA	10/15	\$7
Rapid	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	10/NA	10/NA	\$12
Rapid	905	Extension of Iris Trolley Station to Otay Mesa Port of Entry (POE) with new service to Otay Mesa East POE and Imperial Beach	10/10	10/10	\$2
Rapid	910	Coronado to Downtown via Coronado Bridge	10/10	10/10	\$26
Rapid	940	Oceanside to Sorrento Mesa via I-5, Carlsbad, Encinitas (peak only)	NA	10/0	\$39
Rapid	SR 163 DARs	Kearny Mesa to Downtown via SR 163. Stations at Sharp/Children's Hospital, University Ave, and Fashion Valley Transit Center	✓	✓	\$150

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Transit Facilities (continued)

Service	Route	Description	Revenue Constrained Peak/Off-Peak (minutes)	Unconstrained Peak/Off-Peak (minutes)	Unconstrained Capital Cost (\$2014); millions
Shuttle	448/449	San Marcos Shuttle ³	10/10	10/10	\$0
Streetcar	551	Chula Vista Downtown ⁴	NA	10/10	\$14
Streetcar	552	National City Downtown ⁴	NA	10/10	\$41
Streetcar	553	Downtown San Diego: Little Italy to East Village ⁴	10/10	10/10	\$14
Streetcar	554	Hillcrest/Balboa Park/Downtown San Diego Loop ⁴	10/10	10/10	\$29
Streetcar	555	30th St to Downtown San Diego via North Park/Golden Hill ⁴	10/10	10/10	\$26
Streetcar	557	El Cajon Downtown ⁴	NA	10/10	\$16
Streetcar	558	Escondido Downtown ⁴	NA	10/10	\$51
Streetcar	559	Oceanside Downtown ⁴	NA	10/10	\$46
Streetcar	565	Mission Beach to La Jolla via Pacific Beach ⁴	10/10	10/10	\$25
Airport Express	-	Airport Express Routes ⁵	30/30	30/30	\$52
Local	-	Local Bus Routes - 15 minutes in key corridors	15/15	15/15	NA
Local	-	Local Bus Routes - 10 minutes in key corridors	10/10	10/10	NA
ITC	-	San Diego International Airport ITC and I-5 Direct Connector Ramps	✓	✓	\$170
ITC	-	San Ysidro ITC	✓	✓	\$118
ITC	-	Otay Mesa East ITC	NA	✓	\$0
Transit Lanes	SR 15 from I-805 to I-8	Addition of two transit lanes for routes 235, 280/290, 653, and Airport Express Route to the cross-border facility in Otay Mesa	✓	✓	\$56
Other	-	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, park and ride, and transit center expansions)	✓	✓	\$7,696
Subtotal					\$38,690

Managed Lanes / Toll Lanes / Highway Projects / Operational Improvements

Freeway	From	To	Existing or Planned Phase	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
I-5	SR 905	SR 54	8F	8F+2ML	8F+2ML	\$308
I-5	SR 54	SR 15	8F	10F+2ML	10F+2ML	\$343

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Managed Lanes / Toll Lanes / Highway Projects / Operational Improvements (continued)

Freeway	From	To	Existing or Planned Phase	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
I-5	I-15	I-8	8F	8F+Operational	8F+Operational	\$1,177
I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	8F/10F+2ML	\$556
I-5	La Jolla Village Dr	I-5/805 Merge	8F/14F	8F/14F+2ML	8F/14F+2ML	\$206
I-5	I-5/I-805 Merge	SR 56	8F/14F +2ML	8F/14F+4ML	8F/14F+4ML	\$91
I-5	SR 56	Manchester Ave	8F+2ML	8F+4ML	8F+4ML	\$455
I-5	Manchester Ave	Vandegrift Blvd	8F	8F+4ML	8F+4ML	\$2,458
I-5	Vandegrift Blvd	Orange County	8F	8F+4T	8F+4T	\$1,813
I-8	I-5	SR 125	8F/10F	8F/10F+Operational	8F/10F+Operational	\$667
I-8	SR 125	2nd St	6F/8F	6F/8F+Operational	6F/8F+Operational	\$167
I-8	2nd St	Los Coches	4F/6F	6F	6F	\$35
I-8	Los Coches	Dunbar Rd ⁶	4F/6F	4F/6F	6F	\$131
SR 11/ Otay Mesa East POE	SR 125	Mexico	--	4T + POE	4T + POE	\$832
SR 15	I-5	SR 94	6F	8F+2ML	8F+2ML	\$136
SR 15	SR 94	I-805	6F	6F+2ML	6F+2ML	\$30
I-15	Viaduct		8F	8F+2ML	8F+2ML	\$843
I-15	I-8	SR 163	8F	8F+2ML	8F+2ML	\$56
I-15	Centre City Pkwy	SR 78	8F/10F+4ML	8F/10F+4ML	10F+4ML	\$232
I-15	SR 78	Riverside County	8F	8F+4T	8F+4T	\$1,030
SR 52	I-5	I-805	4F	6F	6F	\$111
SR 52	I-805	I-15	6F	6F+2ML	6F+2ML	\$91
SR 52	I-15	SR 125 ⁶	6F	6F+2ML(R)	6F+3ML(R)	\$379
SR 52	Mast Blvd	SR 125	4F	6F	6F	\$76
SR 52	SR 125	SR 67 ⁶	4F	4F	6F	\$253
SR 54	I-5	SR 125 ⁶	6F	6F+2ML	6F/8F+2ML	\$230
SR 56	I-5	I-15	4F	6F	6F +2ML	\$797
SR 67	I-8	Mapleview St ⁶	4F/6F	4F/6F	6F/8F	\$141
SR 67	Mapleview St	Dye Rd	2C/4C	4C	4C	\$636
SR 76	I-5	Melrose	4E	4E	6E	\$232
SR 76	Mission	I-15	2C	4C	4C	\$305
SR 76	I-15	Couser Canyon	2C/4C	4C/6C+Operational	4C/6C+Operational	\$131

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Managed Lanes / Toll Lanes / Highway Projects / Operational Improvements (continued)

Freeway	From	To	Existing or Planned Phase	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
SR 76	Couser Canyon	SR 79	2C	2C	2C+Operational	\$633
SR 78	I-5	I-15	6F	6F+2ML+Operational	6F+2ML+Operational	\$1,192
SR 94	I-5	I-805	8F	8F+2ML	8F+2ML	\$535
SR 94	I-805	College Ave ⁶	8F	8F+2ML	8F/10F+2ML	\$495
SR 94	College Ave	SR 125	8F	8F+2ML	8F+2ML	\$172
SR 94	SR 125	Avocado Blvd	4F	6F	6F	\$111
SR 94	Avocado Blvd	Jamacha	4C	6C	6C	\$91
SR 94	Jamacha	Steele Canyon Rd	2C/4C	4C	6C	\$40
SR 125	SR 905	San Miguel Rd	4T	8F	8F	\$323
SR 125	San Miguel Rd	SR 54	4F	8F	8F	\$177
SR 125	SR 54	SR 94 ⁶	6F	6F+2ML	8F+2ML	\$146
SR 125	SR 94	I-8	8F	10F+2ML	10F+2ML	\$293
SR 125	I-8	SR 52 ⁶	6F	6F	6F+2ML	\$263
SR 163	I-805	I-151	8F	8F	8F+2ML	\$333
SR 241	Orange County	I-5	--	6T	6T	\$479
I-805	SR 905	Palomar St	8F	8F+2ML	8F+2ML	\$343
I-805	SR 54	SR 94	8F +2ML	8F+4ML	8F+4ML	\$704
I-805	SR 94	Carroll Canyon Rd	8F	8F+4ML	8F+4ML	\$2,585
SR 905	I-5	I-805 ⁶	4F	4F	8F	\$157
SR 905	I-805	Mexico ⁶	6F	6F	8F	\$202
Subtotal						\$24,222

Managed Lanes Connectors

Freeway	Intersecting Freeway	Movement	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
I-5	SR 15	North to North and South to South		✓	\$197
I-5	SR 54	West to South and North to East		✓	\$121
I-5	SR 54	South to East and West to North		✓	\$121
I-5	SR 56	South to East and West to North		✓	\$177
I-5	SR 56	North to East and West to South		✓	\$152
I-5	SR 78	South to East and West to North, North to East and West to South	✓	✓	\$253
I-5	I-805	North to North and South to South	✓	✓	\$51
I-15	SR 52	West to North and South to East	✓	✓	\$130

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Managed Lanes Connectors (continued)

Freeway	Intersecting Freeway	Movement	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
I-15	SR 52	West to South and North to East		✓	\$141
I-15	SR 56	East to North and South to West		✓	\$172
I-15	SR 78	East to South and North to West	✓	✓	\$106
I-15	SR 163	North to North and South to South		✓	\$162
SR 15	SR 94	South to West and East to North	✓	✓	\$71
SR 15	I-805	North to North and South to South	✓	✓	\$81
SR 52	SR 125	North to West and East to South		✓	\$111
SR 94	SR 125	East to North and South to West		✓	\$146
I-805	SR 52	West to North and South to East	✓	✓	\$91
I-805	SR 54	North to West and East to South		✓	\$157
I-805	SR 94	North to West and East to South	✓	✓	\$101
I-805	SR 94	West to South and North to East		✓	\$217
I-805	SR 94	East to North and South to East		✓	\$212
I-805	SR 163	North to North and South to South		✓	\$192
				Subtotal	\$3,162

Freeway Connectors

Freeway	Intersecting Freeway	Movement	Revenue Constrained	Unconstrained	Unconstrained Capital Costs (\$2014) millions
I-5	I-8	East to North and South to West ⁷		✓	\$323
I-5	SR 56	West to North and South to East	✓	✓	\$273
I-5	SR 78	South to East and West to South	✓	✓	\$273
I-5	SR 94	North to East ⁷		✓	\$131
I-15	SR 56	North to West	✓	✓	\$101
SR 94	SR 125	South to East and West to North	✓	✓	\$150
SR 11/ SR 905	SR 125	EB SR 11 and WB SR 11 to NB SR 125, NB SR 905 to NB SR 125	✓	✓	\$26
SR 11/ SR 905	SR 125	SB 125 to WB SR 905, SB SR 125 to EB SR 11, SB SR 125 to SB SR 905	✓	✓	\$74
				Subtotal	\$1,351

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Goods Movement

Maritime System Improvements	Revenue Constrained	Unconstrained	Unconstrained Capital Costs (\$2014) millions
Tenth Ave Marine Terminal (TAMT) Marine Cargo Staging and Handling Projects, including but not limited to: enhanced open storage, shed demolition, cargo handling infrastructure improvements, wharf reinforcements, additional crane, on-dock shorepower, improvements to facilitate "marine highway" cargo, and front gate technology enhancements. ⁸		✓	\$88
TAMT Freight Rail Improvements, including but not limited to: track upgrades and increased staging area for rail cargo and loading ⁸		✓	\$28
National City Marine Terminal (NCMT) Marine Cargo Staging and Handling Projects, including but not limited to: construct garages for additional roll-on/roll-off cargo storage, wharf extension to create two new berths, and improvements to facilitate "marine highway" cargo. ⁸		✓	\$95
NCMT Freight Rail Improvements, including but not limited to: additional rail storage facilities in the vicinity of the balloon track. ⁸		✓	\$3
Harbor Dr Multimodal Corridor Improvements, including but not limited to: improvements at 32nd St and Vesta St; pedestrian crossings and bridges; various truck improvements; bikeway accommodations; streetscape, safety, and parking improvements. ⁸		✓	\$273
<i>Rail Mainline Capacity</i>			
Desert Line Basic Service, Rehabilitation ⁹		✓	\$182
<i>Rail Intermodal System Improvements</i>			
Logistics Center Mid County ⁸		✓	\$2,130
Logistics Center North County ⁸		✓	\$166
<i>Rail Safety, Tunnels</i>			
LOSSAN Grade Separations (locations TBD)		✓	\$260
<i>Pipeline</i>			
I-15 Access to Kinder Morgan (KM) MV Terminal ⁸		✓	NA
KM, New Miramar Junction/Terminal/Tanks ⁹		✓	NA
KM Expand to 16 Pipe/Extend to Mexico ⁹		✓	NA
<i>Border System Improvements</i>			
Otay Mesa Southbound Truck Route Improvements ⁹		✓	\$35
Jacumba Port of Entry (POE) ⁹		✓	NA
Otay Mesa Port of Entry Modernization Project ⁹		✓	\$63

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Truck Rest Stop

Maritime System Improvements	Revenue Constrained	Unconstrained	Unconstrained Capital Costs (\$2014) millions
Truck parking at SR 76/I-15 ⁸		✓	\$14
Truck staging at border ⁸		✓	\$30
Truck rest stop with restrooms, location TBD ⁸		✓	NA

Mexican Freight Projects

Mesa de Otay II Port of Entry and Related Roads ⁸		✓	NA
Tijuana Intermodal Terminal/Distribution Center ⁹		✓	NA
Ensenada Port Expansion ⁹		✓	NA
Mexican Rail Yard Bicentennial Multi-modal Center in Tijuana ⁹		✓	NA
Jacumé Port of Entry (POE) ⁹		✓	NA
Expansion of Tecate Port of Entry Cargo Inspection Facility ⁹		✓	NA
Tijuana-Tecate Rail Line Improvements ⁹		✓	\$20
		Subtotal	\$3,387

Active Transportation Projects¹⁰

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Uptown - Fashion Valley to Downtown San Diego	San Diego	✓	✓	\$23.0
Uptown - Old Town to Hillcrest	San Diego	✓	✓	\$18.0
Uptown - Hillcrest to Balboa Park	San Diego	✓	✓	\$3.0
North Park - Mid-City - Hillcrest to Kensington	San Diego	✓	✓	\$6.0
North Park - Mid-City - Hillcrest to City Heights (Hillcrest-El Cajon Corridor)	San Diego	✓	✓	\$6.0
North Park - Mid-City - City Heights	San Diego	✓	✓	\$3.0
North Park - Mid-City - Hillcrest to City Heights (City Heights - Old Town Corridor)	San Diego	✓	✓	\$5.0
North Park - Mid-City - City Heights to Rolando	San Diego	✓	✓	\$4.0
San Diego River Trail - Qualcomm Stadium	San Diego	✓	✓	\$0.8
Coastal Rail Trail San Diego - Rose Creek	San Diego	✓	✓	\$21.0
Bayshore Bikeway - Main St to Palomar	Chula Vista/ Imperial Beach	✓	✓	\$3.0
Coastal Rail Trail Encinitas - Chesterfield to G St	Encinitas	✓	✓	\$7.0
Coastal Rail Trail Encinitas - Chesterfield to Solana Beach	Encinitas	✓	✓	\$0.2

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Inland Rail Trail (combination of four projects)	San Marcos, Vista, Co. of San Diego	✓	✓	\$33.0
Coastal Rail Trail Oceanside - Wisconsin to Oceanside Blvd	Oceanside	✓	✓	\$0.2
Plaza Bonita Bike Path	National City	✓	✓	\$0.4
Bayshore Bikeway - National City Marina to 32nd St	San Diego/ National City	✓	✓	\$2.0
I-15 Mid-City - Adams Ave to Camino Del Rio S	San Diego	✓	✓	\$9.0
Pershing and El Prado - North Park to Downtown San Diego	San Diego	✓	✓	\$7.0
Pershing and El Prado - Cross-Park	San Diego	✓	✓	\$0.6
San Ysidro to Imperial Beach - Bayshore Bikeway Connection	Imperial Beach/ San Diego	✓	✓	\$8.9
Terrace Dr/Central Ave - Adams to Wightman	San Diego	✓	✓	\$1.0
San Diego River Trail – I-805 to Fenton	San Diego	✓	✓	\$2.0
San Diego River Trail - Short gap connections	San Diego	✓	✓	\$1.0
Coastal Rail Trail Encinitas - Leucadia to G St	Encinitas	✓	✓	\$5.0
Bayshore Bikeway - Barrio Logan	San Diego	✓	✓	\$19.0
San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	✓	✓	\$10.0
Downtown to Southeast connections	San Diego	✓	✓	\$23.8
Coastal Rail Trail San Diego - UTC	San Diego	✓	✓	\$3.8
Coastal Rail Trail San Diego - Rose Canyon	San Diego	✓	✓	\$12.0
Coastal Rail Trail San Diego - Pac Hwy (W Washington St to Laurel St)	San Diego	✓	✓	\$4.0
Coastal Rail Trail San Diego - Pac Hwy (Laurel St to Santa Fe Depot)	San Diego	✓	✓	\$8.0
Coastal Rail Trail San Diego – Pac Hwy (Taylor St to W Washington St)	San Diego	✓	✓	\$4.0
Coastal Rail Trail San Diego- Pac Hwy (Fiesta Island Rd to Taylor St)	San Diego	✓	✓	\$7.0
City Heights /Encanto/Lemon Grove	Lemon Grove/ San Diego	✓	✓	\$7.0
City Heights/Fairmount Corridor	San Diego	✓	✓	\$12.0
Rolando to Grossmont/La Mesa	La Mesa/ El Cajon/ San Diego	✓	✓	\$2.0
La Mesa/Lemon Grove/El Cajon connections	Lemon Grove/ La Mesa	✓	✓	\$6.0

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
San Diego River Trail - Qualcomm Stadium to Ward Rd	San Diego	✓	✓	\$2.0
San Diego River Trail - Rancho Mission Rd to Camino Del Rio North	San Diego	✓	✓	\$0.3
Coastal Rail Trail San Diego - Rose Creek Mission Bay Connection	San Diego	✓	✓	\$4.0
Coastal Rail Trail Carlsbad - Reach 4 Cannon to Palomar Airport Rd	Carlsbad	✓	✓	\$5.0
Coastal Rail Trail Carlsbad - Reach 5 Palomar Airport Rd to Poinsettia Station	Carlsbad	✓	✓	\$3.0
Coastal Rail Trail Encinitas - Carlsbad to Leucadia	Encinitas	✓	✓	\$7.0
Coastal Rail Trail Del Mar	Del Mar	✓	✓	\$0.4
Coastal Rail Trail San Diego - Del Mar to Sorrento via Carmel Valley	Del Mar/ San Diego	✓	✓	\$0.4
Coastal Rail Trail San Diego - Carmel Valley to Roselle via Sorrento	San Diego	✓	✓	\$0.9
Coastal Rail Trail San Diego - Roselle Canyon	San Diego	✓	✓	\$5.0
Chula Vista National City connections	Chula Vista/ National City	✓	✓	\$11.0
Pacific Beach to Mission Beach	San Diego	✓	✓	\$10.0
Ocean Beach to Mission Bay	San Diego	✓	✓	\$24.0
San Diego River Trail - Bridge connection (Sefton Field to Mission Valley YMCA)	San Diego	✓	✓	\$7.0
San Diego River Trail - Mast Park to Lakeside baseball park	Santee	✓	✓	\$10.0
I-8 Flyover - Camino del Rio S to Camino del Rio N	San Diego	✓	✓	\$10.0
Coastal Rail Trail Oceanside - Broadway to Eaton	Oceanside	✓	✓	\$0.4
El Cajon - Santee connections	El Cajon/La Mesa/ Santee	✓	✓	\$12.0
San Diego River Trail - Father Junipero Serra Trail to West Hills Parkway	San Diego	✓	✓	\$3.0
Inland Rail Trail Oceanside	Oceanside	✓	✓	\$19.0
Coastal Rail Trail Carlsbad - Reach 3 Tamarack to Cannon	Carlsbad	✓	✓	\$5.0
Clairemont Dr (Mission Bay to Burgener)	San Diego	✓	✓	\$8.0
Harbor Dr (Downtown to Ocean Beach)	San Diego	✓	✓	\$7.0
Mira Mesa Bike Blvd	San Diego	✓	✓	\$4.0

Table A.5 (continued)**Revenue Constrained and Unconstrained Projects***Active Transportation Projects (continued)*

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Sweetwater River Bikeway Ramps	National City	✓	✓	\$9.0
Coastal Rail Trail Oceanside - Alta Loma Marsh bridge	Oceanside	✓	✓	\$5.0
Coastal Rail Trail San Diego - Mission Bay (Clairemont to Tecolote)	San Diego	✓	✓	\$3.0
Bayshore Bikeway Coronado - Golf course adjacent	Coronado	✓	✓	\$3.0
San Luis Rey River Trail	Oceanside, Unincorporated	✓	✓	\$37.0
Encinitas-San Marcos Corridor – Double Peak Dr to San Marcos Blvd	San Marcos	✓	✓	\$12.0
Escondido Creek Bikeway – Quince St to Broadway	Escondido	✓	✓	\$2.0
Escondido Creek Bikeway – Escondido Creek to Washington Ave	Escondido	✓	✓	\$1.0
Escondido Creek Bikeway – 9th Ave to Escondido Creek	Escondido	✓	✓	\$1.0
Escondido Creek Bikeway – El Norte Pkwy to northern bikeway terminus	Escondido	✓	✓	\$6.0
Encinitas to San Marcos Corridor – Leucadia Blvd to El Camino Real	Carlsbad, Encinitas	✓	✓	\$2.0
I-15 Bikeway – Via Rancho Pkwy to Lost Oak Ln	Escondido	✓	✓	\$4.0
I-15 Bikeway – Rancho Bernardo Community Park to Lake Hodges Bridge	San Diego	✓	✓	\$3.0
I-15 Bikeway – Camino del Norte to Aguamiel Rd	San Diego	✓	✓	\$13.0
I-15 Bikeway – Poway Rd interchange to Carmel Mountain Rd	San Diego	✓	✓	\$17.0
SR 56 Bikeway – Azuaga St to Rancho Penasquitos Blvd	San Diego	✓	✓	\$2.0
I-15 Bikeway – Murphy Canyon Rd to Affinity Ct	San Diego	✓	✓	\$40.0
SR 56 Bikeway – El Camino Real to Caminito Pointe	San Diego	✓	✓	\$2.0
SR 52 Bikeway – I-5 to Santo Rd	San Diego	✓	✓	\$30.0
SR 52 Bikeway – SR 52/Mast Dr to San Diego River Trail	San Diego	✓	✓	\$2.0
I-8 Corridor – San Diego River Trail to Riverside Dr	Unincorporated	✓	✓	\$2.0
I-805 Connector – Bonita Rd to Floyd Ave	Chula Vista, Unincorporated	✓	✓	\$6.0
SR 125 Connector – Bonita Rd to U.S.-Mexico Border	Chula Vista, San Diego	✓	✓	\$39.0
SR 905 Connector – E Beyer Blvd to U.S.-Mexico Border	San Diego, Unincorporated	✓	✓	\$34.0
El Camino Real Bike Lanes – Douglas Dr to Mesa Dr	Oceanside	✓	✓	\$1.0
Vista Way Connector from Arcadia	Vista, Unincorporated	✓	✓	\$2.1
I-15 Bikeway – W. Country Club Ln to Nutmeg St	Escondido	✓	✓	\$0.6

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
El Camino Real Bike Lanes – Marron Rd to SR 78 offramp	Carlsbad	✓	✓	\$0.3
Carlsbad to San Marcos Corridor – Paseo del Norte to Avenida Encinas	Carlsbad	✓	✓	\$0.4
Encinitas to San Marcos Corridor – Kristen Ct to Ecker Ranch Rd	Encinitas	✓	✓	\$0.4
Encinitas to San Marcos Corridor – Encinitas Blvd/I-5 Interchange	Encinitas	✓	✓	\$0.2
Mira Mesa Corridor – Reagan Rd to Parkdale Ave	San Diego	✓	✓	\$0.4
Mira Mesa Corridor – Scranton Rd to I-805	San Diego	✓	✓	\$0.4
Mira Mesa Corridor – Sorrento Valley Rd to Sorrento Valley Blvd	San Diego	✓	✓	\$0.8
Mid-County Bikeway – I-5/Via de la Valle Interchange	San Diego	✓	✓	\$0.3
Mid-County Bikeway – Rancho Santa Fe segment	San Diego, Unincorporated	✓	✓	\$3.0
El Camino Real Bike Lanes – Manchester Ave to Tennis Club Dr	Encinitas	✓	✓	\$0.5
Mid-County Bikeway – Manchester Ave/I-5 Interchange to San Elijo Ave	Encinitas	✓	✓	\$0.8
Central Coast Corridor – Van Nuys St to San Rafael Pl	San Diego	✓	✓	\$1.0
Clairemont – Centre-City Corridor – Coastal Rail Trail to Genesee Ave	San Diego	✓	✓	\$2.0
Clairemont – Centre-City Corridor – Coastal Rail Trail to Genesee Ave	San Diego	✓	✓	\$2.0
SR 125 Corridor – Mission Gorge Rd to Glen Vista Way	Santee	✓	✓	\$0.3
SR 125 Corridor – Prospect Ave to Weld Blvd	Santee, El Cajon	✓	✓	\$0.8
I-8 Corridor – Lakeside Ave to SR 67	Unincorporated	✓	✓	\$0.5
I-8 Corridor – Willows Rd to SR 79	Unincorporated	✓	✓	\$5.0
E County Northern Loop – N Marshall Ave to El Cajon Blvd	El Cajon	✓	✓	\$0.3
E County Northern Loop – Washington Ave to Dewitt Ct	El Cajon	✓	✓	\$1.0
E County Northern Loop – SR 94 onramp to Del Rio Rd	Unincorporated	✓	✓	\$0.2
E County Southern Loop – Pointe Pkwy To Omega St	Unincorporated	✓	✓	\$0.8
SR 125 Corridor – SR 94 to S of Avocado St	Unincorporated	✓	✓	\$1.1
Centre City – La Mesa Corridor – Gateside Rd to Campo Rd	La Mesa, Unincorporated	✓	✓	\$0.4
Bay to Ranch Bikeway – River Ash Dr to Paseo Ranchero	Chula Vista	✓	✓	\$0.5

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Projects (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Mid-County Bikeway – San Elijo Ave to 101 Terminus	Encinitas	✓	✓	\$1.0
Central Coast Corridor – Van Nuys St	San Diego	✓	✓	\$0.2
E County Northern Loop – El Cajon Blvd to Washington Ave	El Cajon	✓	✓	\$1.0
E County Northern Loop – Calavo Dr to Sweetwater Springs Blvd	Unincorporated	✓	✓	\$0.7
Central Coast Corridor – Torrey Pines Rd to Nautilus St	San Diego	✓	✓	\$6.0
Central Coast Corridor – Via Del Norte to Van Nuys St	San Diego	✓	✓	\$5.0
Kearny Mesa to Beaches Corridor – Ingraham St from Garnet Ave to Pacific Beach Dr	San Diego	✓	✓	\$2.0
Kearny Mesa to Beaches Corridor – Clairemont Dr to Genesee Ave	San Diego	✓	✓	\$10.0
Kearny Mesa to Beaches Corridor – Genesee Ave to Linda Vista Dr	San Diego	✓	✓	\$6.0
Bay to Ranch Bikeway – E J St from 2nd Ave to Paseo Del Rey	Chula Vista	✓	✓	\$12.0
Chula Vista Greenbelt – Bay Blvd to Oleander Ave	Chula Vista	✓	✓	\$17.0
Safe Routes to Transit at new transit stations	Various	✓	✓	\$1,025.0
Local Bike Projects	Various	✓	✓	\$728.4
Local pedestrian/safety/traffic calming projects	Various	✓	✓	\$180.4
Regional Bicycle and Pedestrian Programs	Various	✓	✓	\$30.4
Regional Bicycle and Pedestrian Programs	Various	✓	✓	\$30.4
Regional Safe Routes to School Implementation	Various	✓	✓	\$76.7
			Subtotal	\$2,849

Active Transportation Retrofits - Safe Routes to Transit at Existing Stations

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Plaza Camino Real Transit Center	Carlsbad		✓	
El Camino Real at Cannon/College	Carlsbad		✓	
Carlsbad Poinsettia COASTER Station	Carlsbad		✓	
Carlsbad Village COASTER Station	Carlsbad		✓	
E St Trolley Station	Chula Vista		✓	
Old Highway 80 between El Cajon and Alpine	County - Fallbrook		✓	
Fallbrook High School	County - Fallbrook		✓	

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Retrofits - Safe Routes to Transit at Existing Stations (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
WB Jamacha Blvd at Sweetwater Springs Blvd	County - Spring Valley		✓	
Jamacha Blvd at Lamplighter Village Dr	County - Spring Valley		✓	
SB Sweetwater Rd at Troy St	County - Spring Valley		✓	
Sweetwater Rd between Jamacha Blvd and Broadway	County - Spring Valley		✓	
Buena Creek SPRINTER Station	County of San Diego		✓	
Encinitas COASTER Station	Encinitas		✓	
Encinitas pedestrian undercrossing connections	Encinitas		✓	
Escondido Transit Center	Escondido		✓	
Del Lago Transit Station	Escondido		✓	
Amaya Trolley Station	La Mesa		✓	
70th St Trolley Station	La Mesa		✓	
National City Blvd and E 32nd St/W 33rd St	National City		✓	
Oceanside Transit Center	Oceanside		✓	
Coast Highway SPRINTER Station	Oceanside		✓	
Crouch St SPRINTER Station	Oceanside		✓	
El Camino Real SPRINTER Station	Oceanside		✓	
Rancho Del Oro SPRINTER Station	Oceanside		✓	
College Blvd SPRINTER Station	Oceanside		✓	
Oceanside High School	Oceanside		✓	
San Luis Rey Transit Center	Oceanside		✓	
Tri-City Medical Center	Oceanside		✓	
32nd and Commercial Trolley Station	San Diego - Barrio Logan		✓	
Euclid Ave between Home Ave and Roselawn Ave	San Diego - City Heights		✓	
Alvarado Trolley Station	San Diego - College Area		✓	
70th St between El Cajon Blvd and Alvarado Rd	San Diego - College Area		✓	
12th and Imperial Transit Center	San Diego - Downtown		✓	
Harbor Dr Pedestrian Bridge	San Diego - Downtown		✓	

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Retrofits - Safe Routes to Transit at Existing Stations (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Harborside Trolley Station	San Diego - Harborside		✓	
Pacific Fleet Trolley Station	San Diego - Harborside		✓	
Washington St at Hancock St/I-5 Overcrossing	San Diego - Mission Hills		✓	
WB Hotel Circle S. at Bachman Pl	San Diego - Mission Valley		✓	
Fenton Parkway Trolley Station	San Diego - Mission Valley		✓	
Grantville Trolley Station	San Diego - Mission Valley		✓	
Morena/Linda Vista Trolley Station	San Diego - Mission Valley		✓	
54th St between Euclid Ave and Chollas Pkwy	San Diego - Oak Park		✓	
EB Airway Rd at Dublin Dr	San Diego - Otay Mesa		✓	
EB Airway Rd at Excellante St (Southwestern College)	San Diego - Otay Mesa		✓	
La Media Rd at Airway Rd	San Diego - Otay Mesa		✓	
WB Siempre Vida Rd at La Media Rd	San Diego - Otay Mesa		✓	
SB Hollister St at Conifer Ave (Palm St Trolley Station)	San Diego - Palm City		✓	
NB S. Vista Ave at Beyer Blvd Trolley Station	San Diego - San Ysidro		✓	
Calle Primera between Willow Rd and Via de San Ysidro	San Diego - San Ysidro		✓	
Sorrento Valley COASTER Station	San Diego - Sorrento Valley		✓	
SB Gilman Dr at Villa La Jolla Dr	San Diego - University City		✓	
EB Eastgate Mall between I-805 and Miramar Rd	San Diego - University City		✓	
Palomar College SPRINTER Station	San Marcos		✓	
San Marcos Civic Center SPRINTER Station	San Marcos		✓	
Cal State San Marcos SPRINTER Station	San Marcos		✓	
Nordahl Rd SPRINTER Station	San Marcos		✓	
Rancheros Dr/State Department of Rehabilitation	San Marcos		✓	

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Retrofits - Safe Routes to Transit at Existing Stations (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Solana Beach COASTER Station	Solana Beach		✓	
Melrose Dr SPRINTER Station	Vista		✓	
Vista Transit Center	Vista		✓	
Civic Center-Vista SPRINTER Station	Vista		✓	
Sweetwater Rd between Jamacha Blvd and Broadway	County - Spring Valley		✓	
			Subtotal	\$500¹¹

Active Transportation Retrofits - Bicycle/Pedestrian Improvements at Freeway Interchanges

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Navajo Rd at SR 125	El Cajon		✓	
Fletcher Parkway/Graves Rd at SR 67	El Cajon		✓	
West Bernardo / Pomerado Rd at I-15	San Diego		✓	
Rancho Bernardo Rd at I-15	San Diego		✓	
Bernardo Center Dr at I-15	San Diego		✓	
Balboa Ave at SR 163	San Diego		✓	
Balboa Ave at SR 163	San Diego		✓	
Friars Rd at SR 163	San Diego		✓	
Quince St at SR 163	San Diego		✓	
6th St / University Ave at SR 163	San Diego		✓	
Washington St at SR 163	San Diego		✓	
Richmond St at SR 163	San Diego		✓	
SR 905 / Tocayo Ave at I-5	San Diego		✓	
Dairy Mart Rd / San Ysidro Rd at I-5	San Diego		✓	
Via De San Ysidro at I-5	San Diego		✓	
Camino De La Plaza at I-5, I-805	San Diego		✓	
West Mission Bay Dr at I-8	San Diego		✓	
E San Ysidro Blvd at I-805	San Diego		✓	
SR 905 at I-805	San Diego		✓	
Picador Blvd/ Smythe Ave at SR 905	San Diego		✓	
Camino Del Rio West at I-5 NB/I-8 EB	San Diego		✓	
Camino Del Rio West at I-5 SB	San Diego		✓	

Table A.5 (continued)

Revenue Constrained and Unconstrained Projects

Active Transportation Retrofits - Bicycle/Pedestrian Improvements at Freeway Interchanges (continued)

Project	Jurisdiction(s)	Revenue Constrained	Unconstrained	Unconstrained Capital Cost (\$2014) millions
Winter Gardens Blvd at SR 67	San Diego County		✓	
Riverford Rd at SR 67	San Diego County		✓	
Bradley Ave at SR 67	San Diego County		✓	
Tavern Rd at I-8	San Diego County		✓	
Willows Rd at I-8	San Diego County		✓	
Japatul Valley Rd at I-8	San Diego County		✓	
Sunrise Highway at I-8	San Diego County		✓	
Pine Valley Rd at I-8	San Diego County		✓	
Buckman Springs Rd at I-8	San Diego County		✓	
Kitchen Creek Rd at I-8	San Diego County		✓	
Crestwood Rd at I-8	San Diego County		✓	
Campo Blvd at I-8	San Diego County		✓	
Jacumba at I-8	San Diego County		✓	
In-Ko-Pah Park Rd at I-8	San Diego County		✓	
Magnolia Ave at SR 52	Santee		✓	
Prospect Ave at SR 67	Santee		✓	
			Subtotal	\$56¹²
			TOTAL	\$74,217

¹ Unconstrained rail facilities (shared use freight and passengers)

² *Rapid* Route 550 appeared only as a Trolley route in the Unconstrained Network

³ Capital cost to be funded by the City of San Marcos

⁴ Streetcar cost is representative of 10 percent of the total capital cost

⁵ Implementation of these services is dependent upon funding from aviation and other private sources

⁶ Unconstrained Managed Lanes/Highway improvements (shared use freight and passengers)

⁷ Unconstrained Freeway Connectors improvements (shared use freight and passengers)

⁸ Projects that require innovative financing strategies which require development with multiple parties

⁹ Projects of interest to SANDAG; to be financed by other parties

¹⁰ Figure A.9 includes Regional Bicycle Network segments built by others; such segments are not included in Table A.5.

¹¹ The subtotal reflects estimated Safe Routes to Transit Retrofit project costs ranging from \$186,000 to \$7.5 million per stop area or station area

¹² The subtotal reflects estimated Freeway Interchange Retrofit project costs ranging from \$500,000 to \$3 million per interchange

Table A.6
No-Build Projects

Transit Services

Route #	Description	Note
215	Mid-City <i>Rapid</i> Downtown to SDSU	In Service
225	South Bay <i>Rapid</i> Otay Mesa to Downtown (formerly Route 628)	Final Design
235/280/290	I-15 <i>Rapid</i> Escondido to Downtown	In Service
237	Rancho Bernardo to UC San Diego <i>Rapid</i>	In Service
398	LOSSAN Double Tracking (selected segments)	Under Environmental and Construction Phase
510	Mid-Coast LRT Old Town to University Towne Centre	Under Design and Construction Phase

Managed Lanes / Highway Projects

Segment	From	To	Improvement	Note
I-805	SR 52	Carroll Canyon Rd	+2ML	Under construction
SR 11 (Phase I)	SR 125	Enrico Fermi Dr	+4T	Under construction
SR 15	I-805	I-8	+2TL	Under construction
SR 76	Mission Rd	I-15	+2C	Under construction

Tables A.1 – A.6 Legend

BNSF = Burlington Northern Santa Fe Railway	POE = Port of Entry
Const. = Construction	R = Reversible
C = Conventional Highway	ROW = Right-of-Way
DAR = Direct Access Ramp	SDIV = San Diego and Imperial Valley Railroad
Eng. = Engineering	T = Toll Lanes
F = Freeway Lanes	TL = Transit Lanes
ML = Managed Lanes	

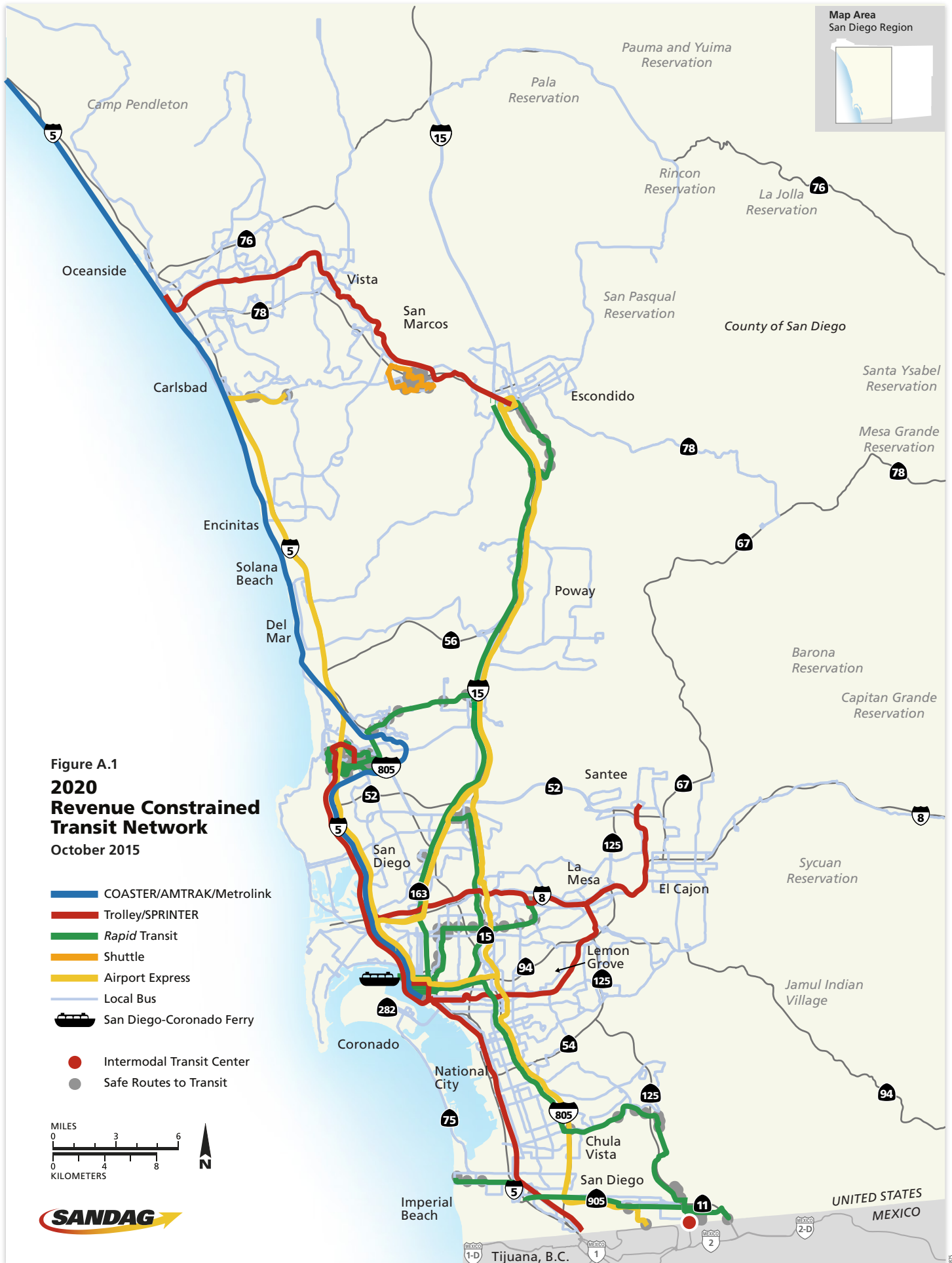
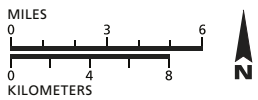


Figure A.1
2020 Revenue Constrained Transit Network
 October 2015

- COASTER/AMTRAK/Metrolink
- Trolley/SPRINTER
- Rapid Transit
- Shuttle
- Airport Express
- Local Bus
- San Diego-Coronado Ferry
- Intermodal Transit Center
- Safe Routes to Transit



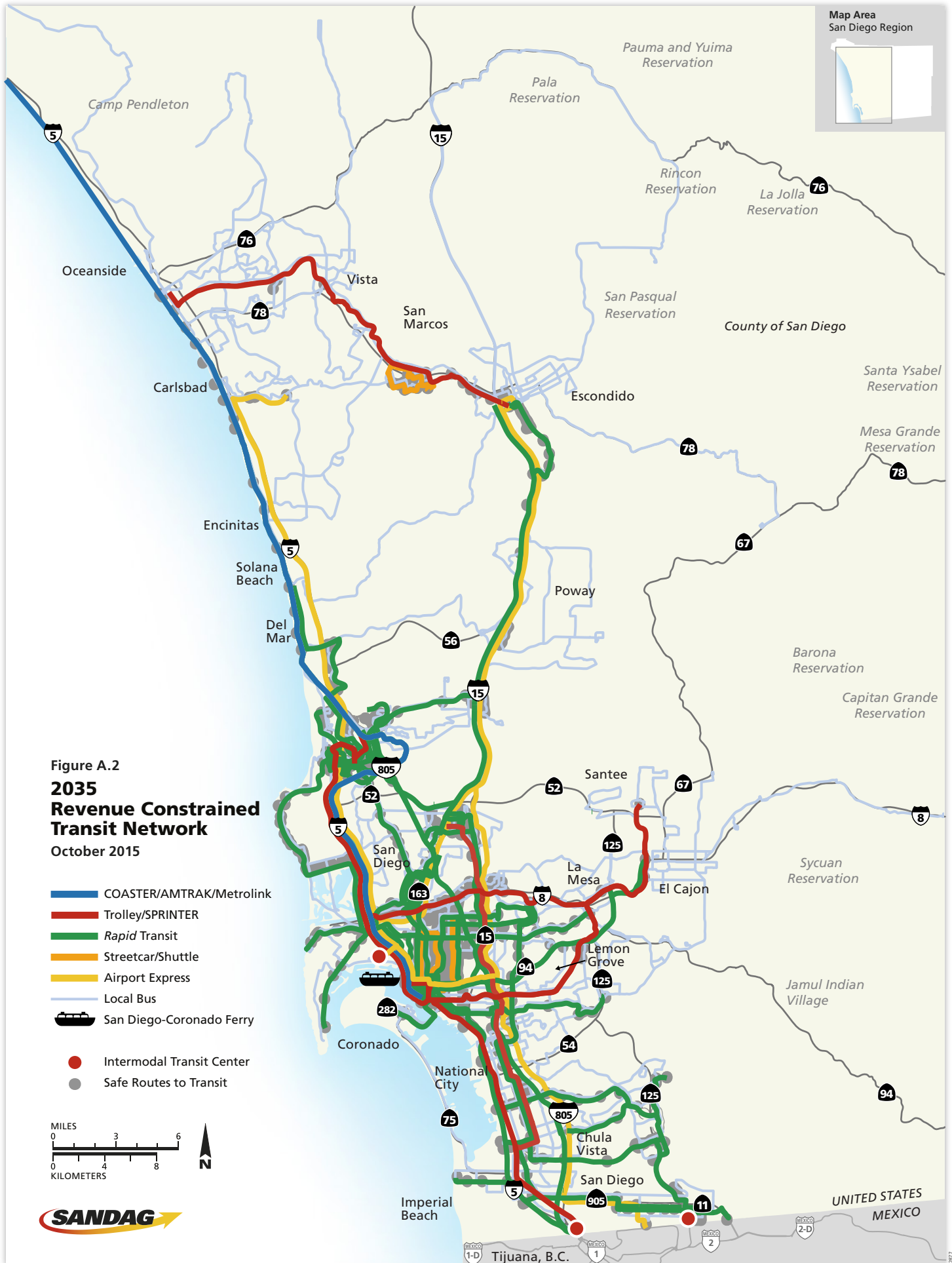
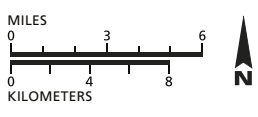
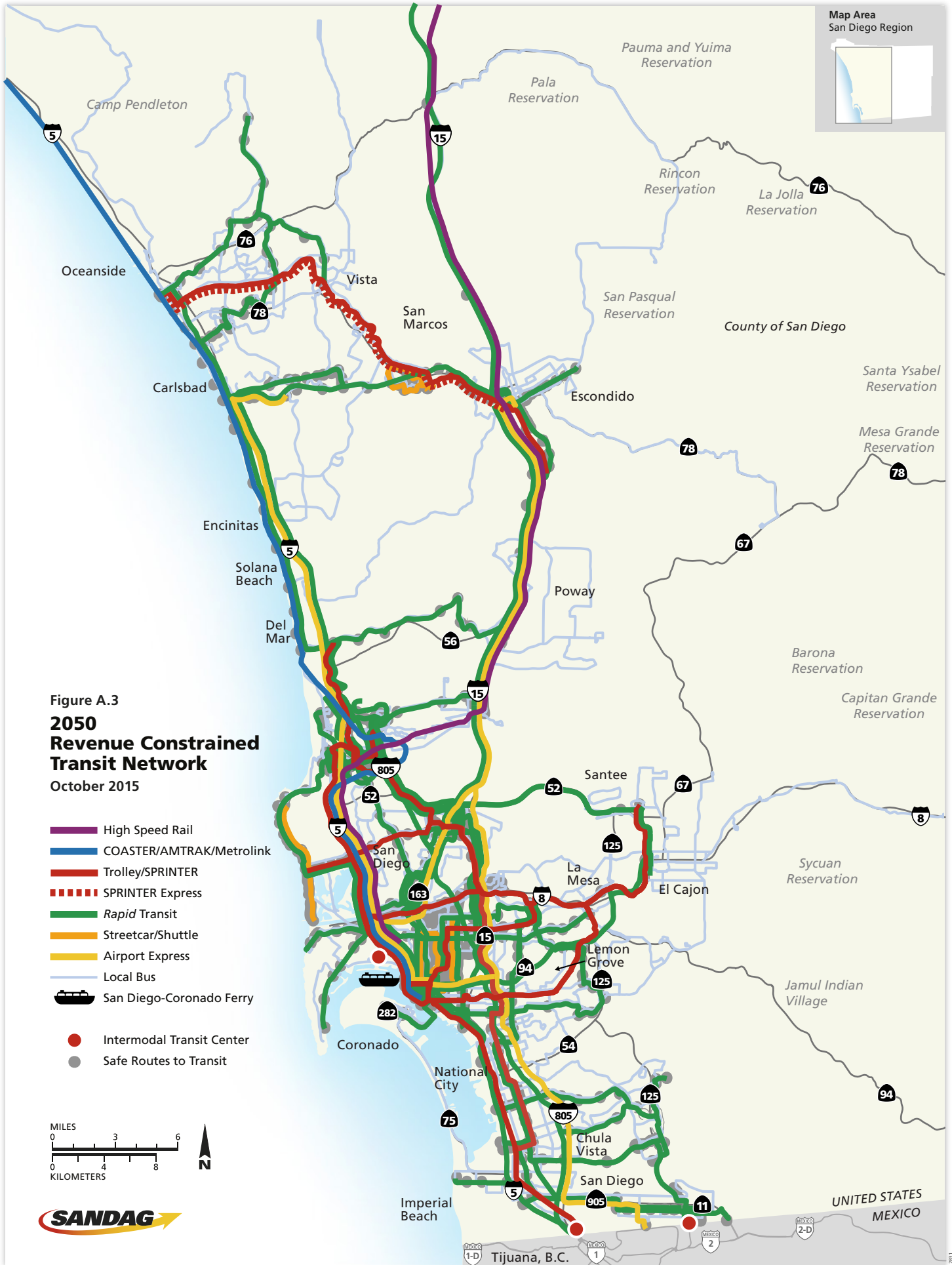


Figure A.2
2035 Revenue Constrained Transit Network
 October 2015

- COASTER/AMTRAK/Metrolink
- Trolley/SPRINTER
- Rapid Transit
- Streetcar/Shuttle
- Airport Express
- Local Bus
- San Diego-Coronado Ferry
- Intermodal Transit Center
- Safe Routes to Transit









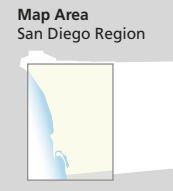


Figure A.6
2050
Revenue Constrained
Managed Lanes and
Highway Network
 October 2015

- Existing Managed Lanes
 - Managed Lanes
 - General Purpose Lanes
 - Toll Lanes
 - Operational Improvements
 - Existing Facility
 - Freeway Connectors
 - ML Connectors
 - Freeway & ML Connectors
 - Bicycle/Pedestrian Improvements at Freeway Interchanges
- C = Conventional Highway
 F = Freeway
 ML = Managed Lanes
 T = Toll Road
 R = Reversible Lanes
 OPS = Operational Improvements

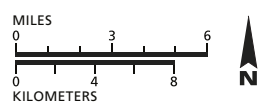


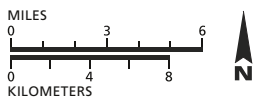


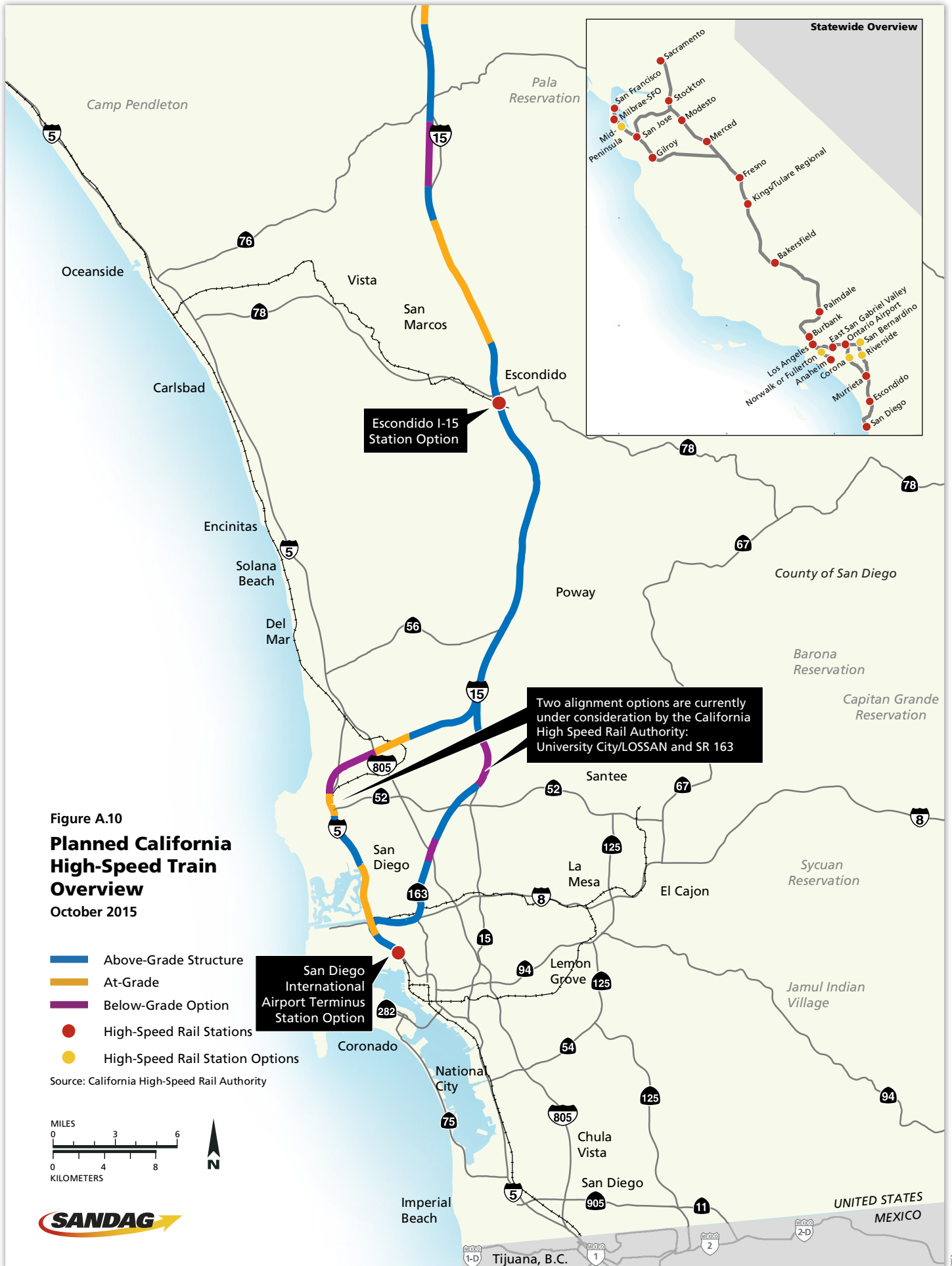




Figure A.9
2050 Revenue Constrained Regional Bike Network
 October 2015

- Class I - Bike Path
- Cycle Track
- Bike Boulevard
- Enhanced Class II - Bike Lane
- Enhanced Class III - Bike Route
- Freeways and Highways
- Regional Arterials







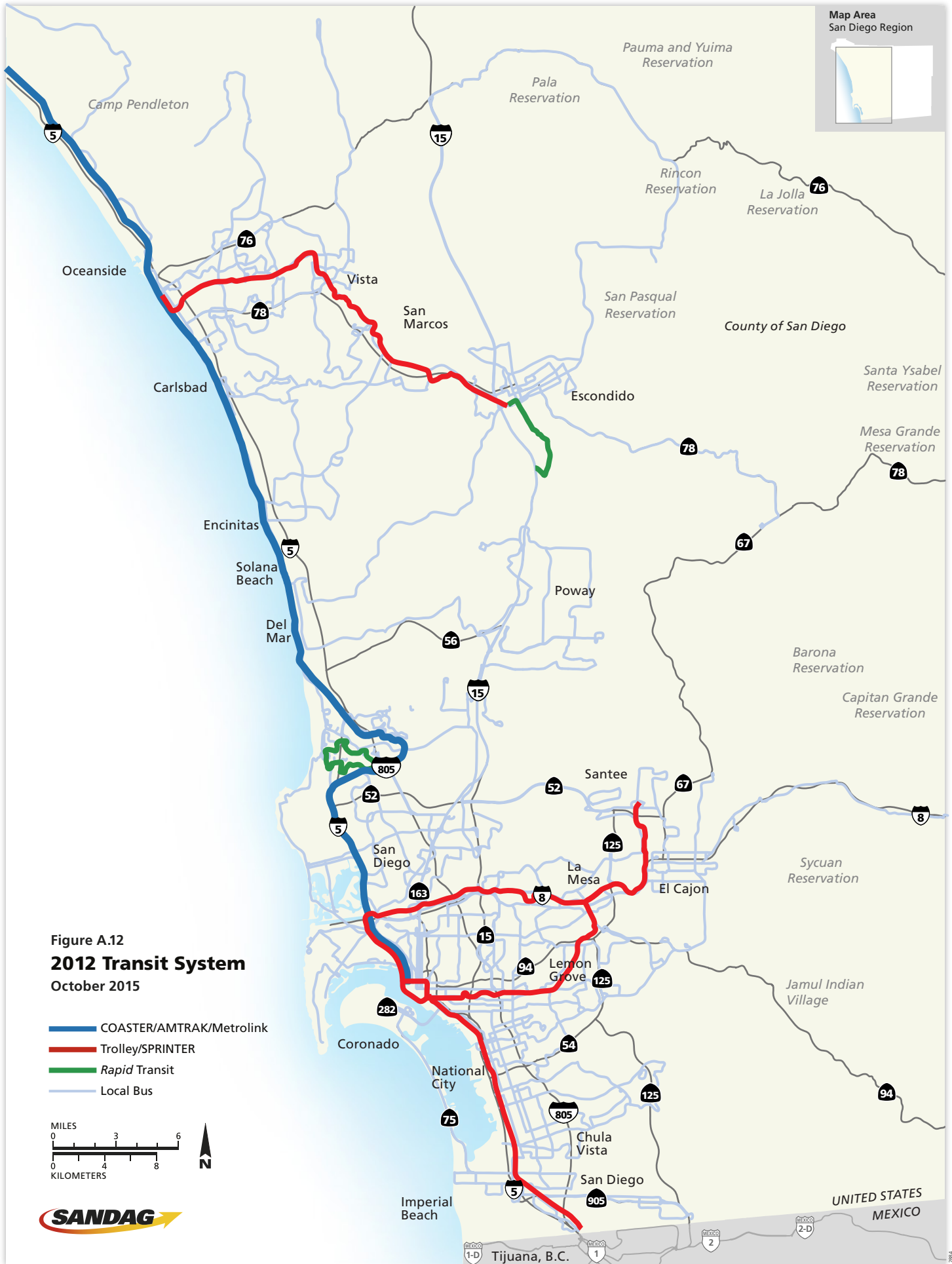
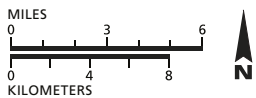




Figure A.13
**2012
 Managed Lanes and
 Highway Network**
 October 2015

Existing Managed Lanes





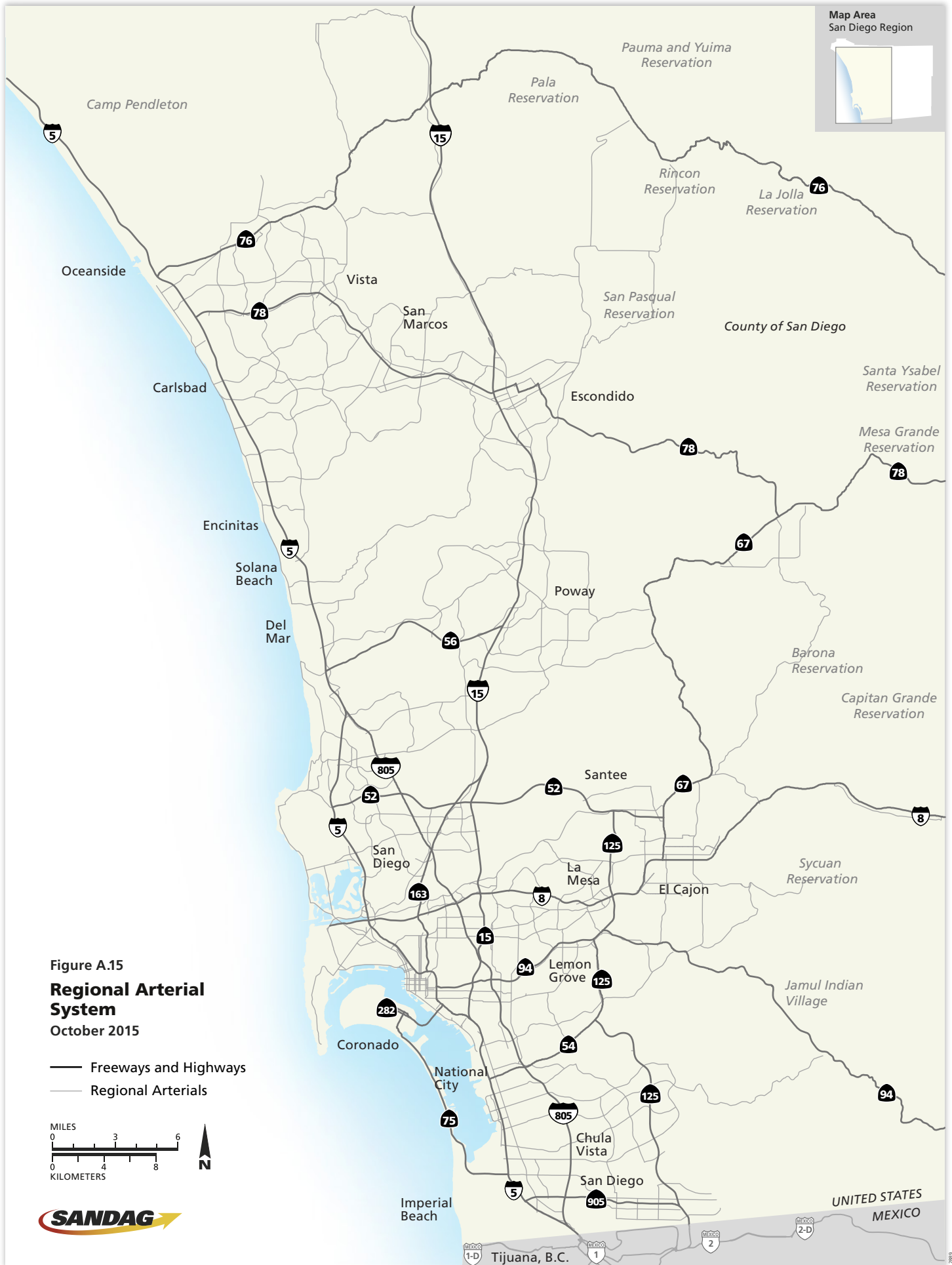
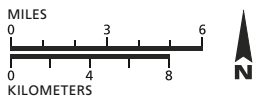


Figure A.15
Regional Arterial System
 October 2015

- Freeways and Highways
- Regional Arterials



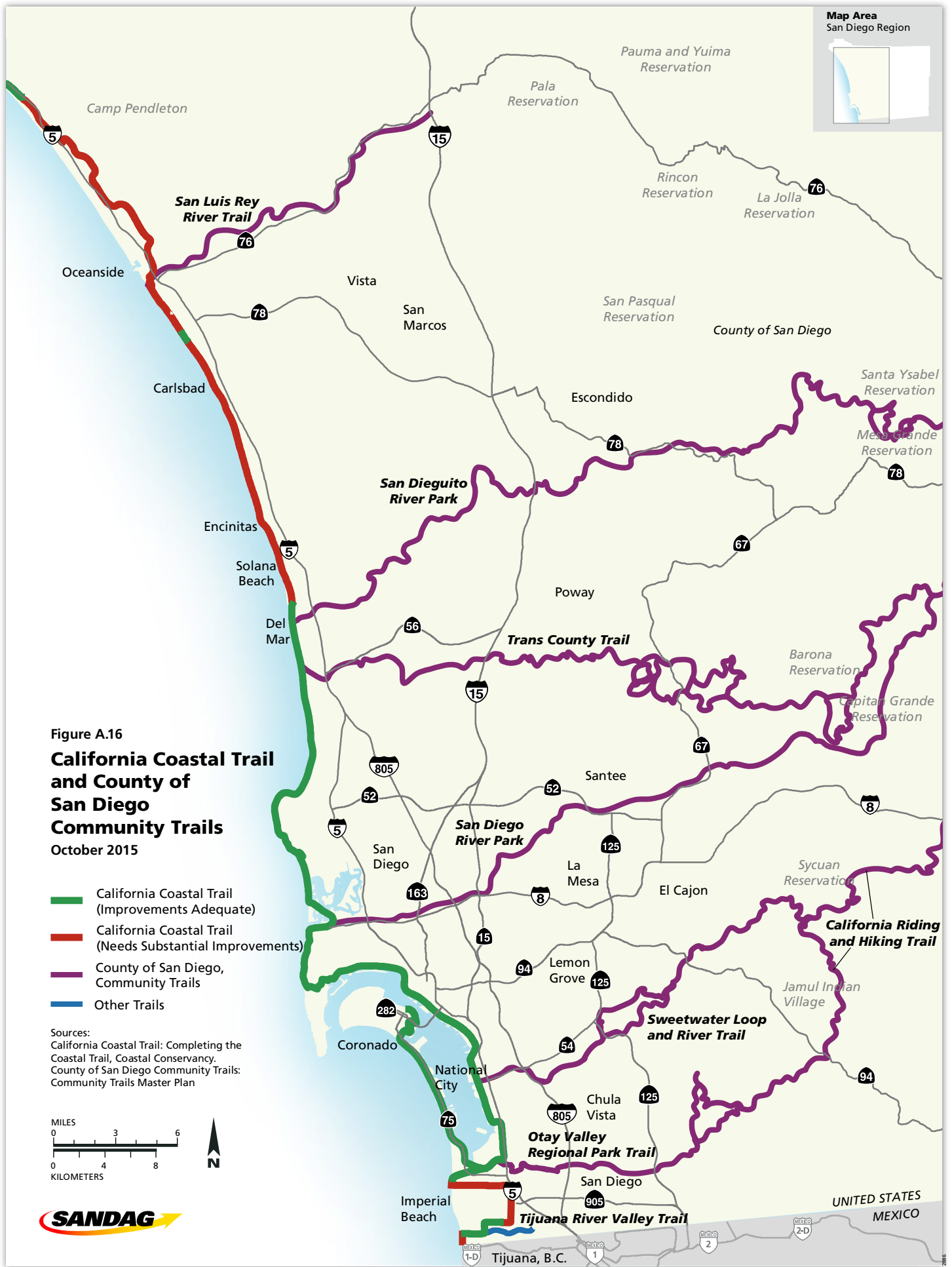


Figure A.16
California Coastal Trail and County of San Diego Community Trails
October 2015

- California Coastal Trail (Improvements Adequate)
- California Coastal Trail (Needs Substantial Improvements)
- County of San Diego, Community Trails
- Other Trails

Sources:
California Coastal Trail: Completing the Coastal Trail, Coastal Conservancy.
County of San Diego Community Trails: Community Trails Master Plan

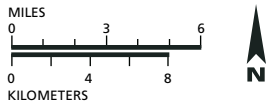




Figure A.17
**2050
 Unconstrained
 Transit Network**
 October 2015

- High Speed Rail
- COASTER/AMTRAK/Metrolink
- Trolley/SPRINTER
- - - Trolley/SPRINTER Express
- Rapid Transit
- Streetcar/Shuttle
- Airport Express
- Local Bus
- San Diego-Coronado Ferry
- Intermodal Transit Center
- Safe Routes to Transit including retrofits

MILES
 0 3 6
 KILOMETERS
 0 4 8

N

SANDAG



Figure A.18
**2050
Unconstrained
Managed Lanes and
Highway Network**
October 2015

- Existing Managed Lanes
- Managed Lanes
- General Purpose Lanes
- Toll Lanes
- Operational Improvements
- Existing Facility
- Freeway Connectors
- ML Connectors
- Freeway & ML Connectors
- Bicycle/Pedestrian Improvements at Freeway Interchanges

C = Conventional Highway
F = Freeway
ML = Managed Lanes
T = Toll Road
R = Reversible Lanes
OPS = Operational Improvements
E = Expressway

