

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
SEGMENT 1 - Sausalito	MARIN COUNTY LOOP  2 <sup>nd</sup> Street	Richardson Street Main Street Valley Street Sausalito Boulevard	All Open-Trench
	Bridgeway	El Portal	Open Trench
Larkspur	Magnolia Avenue	Ward Street Cane Street	Directional Drilling Directional Drilling
San Rafael	Rice Drive	Du Bois Street Francisco Boulevard West	All Open-Trench
	Francisco Boulevard West		Open-Trench
	Francisco Boulevard East	Irene Street Shoreline Parkway Pelican Way Morphew Street Grange Way	All Open-Trench
Richmond	MacDonald Avenue	16 <sup>th</sup> Street 17 <sup>th</sup> Street 18 <sup>th</sup> Street 19 <sup>th</sup> Street 20 <sup>th</sup> Street 21 <sup>st</sup> Street 22 <sup>nd</sup> Street 23 <sup>rd</sup> Street	All Open-Trench
Oakland	Shattuck Avenue	54 <sup>th</sup> Street 53 <sup>rd</sup> Street 52 <sup>nd</sup> Street	All Open-Trench
Berkeley	Bancroft Way	San Pablo Avenue (SR 123) Byron Street Curtis Street Mathews Street Browning Street Bonar Street Mabel Street West Street Valley Street Acton Street Edwards Street Sacramento Street	All Open-Trench (except at Shattuck Avenue)

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Berkeley (cont.)	Bancroft Way	San Pablo Avenue (SR 123) Spaulding Avenue California Street Jefferson Avenue McGee Avenue Roosevelt Avenue Grant Street Milvia Street	All Open-Trench (except at Shattuck Avenue)
		Shattuck Avenue	Directional Drilling
	Grant Avenue	Bancroft Way Channing Way	All Open-Trench
	Channing Way	Grant Avenue McKinley Avenue Martin Luther King Jr. Way Milvia Street	All Open-Trench
	Milvia Street	Channing Way Durant Avenue Bancroft Way	All Open-Trench
SEGMENT 3 –W.	ALNUT CREEK RING		
Walnut Creek	Camino Diablo	SR 24 e/b and w/b on-ramps Springbrook Road	Open-Trench Open-Trench
Danville	San Ramon Valley Boulevard	Midland Way Jewel Terrace	Open-Trench Open Trench
San Ramon	Bollinger Canyon Road	I-680 on- and off-ramps San Ramon Valley Boulevard	All Open-Trench
Dublin	San Ramon Valley Boulevard	Vomac Road Shannon Avenue	All Open-Trench
SEGMENT 4- HA Hayward	AYWARD RING Depot Road	Gettysberg Avenue Dodge Avenue Adrian Avenue	All Open-Trench
	Hesperian Boulevard	SR 92 on- and off-ramps	All Open-Trench
	Mardie Street	Joanne Street Joyce Street	All Open-Trench
	Joyce Street	Mardie Street Orchard Avenue	All Open-Trench

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Hayward (cont.)	Orchard Avenue	Joyce Street UP Right of Way overpass BART overpass Oneil Avenue	Open-Trench Directional Drilling Directional Drilling Open-Trench
	Oneil Avenue	Orchard Avenue Unpaved Ground	All Open-Trench
	Unpaved Ground	Oneil Avenue Mission Boulevard	Open-Trench
	Hathaway Avenue	Flint Court Hathaway Court Lansing Way West A Street	All Open-Trench
	West A Street	Hathaway Avenue	Open-Trench
SEGMENT 6 – D Menlo Park	UMBARTON CROSSING Chilco Street	SR 84 (Bayfront Expressway)	Open-Trench
	Bayfront Bike Trail		Open-Trench
Fremont	Thornton Avenue	State Route 84	Directional Drilling
Newark	Thornton Avenue	Jarvis Avenue Marshlands Road Peachtree Avenue Hickory Street Willow Street Chestnut Street Laurel Street Maple Street Poplar Street Spruce Street Walnut Street	All Directional Drilling
SEGMENT 7 –OA	AKLAND SEGMENT		
Oakland	Brush Street	7 <sup>th</sup> Street 6 <sup>th</sup> Street I-980 Overpass 5 <sup>th</sup> Street 4 <sup>th</sup> Street 3 <sup>rd</sup> Street 2 <sup>nd</sup> Street	All Open-Trench

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Oakland (cont.)	Brush Street	Embarcadero	All Open-Trench
	23 <sup>RD</sup> Street	Telegraph Avenue Valley Street Broadway Webster Street Valdez Street Waverly Street Harrison Street	All Open-Trench
	Jefferson Street	11 <sup>th</sup> Street 10 <sup>th</sup> Street 9 <sup>th</sup> Street 8 <sup>th</sup> Street 7 <sup>th</sup> Street	All Open-Trench
	Clay Street	12 <sup>th</sup> Street 11 <sup>th</sup> Street	All Open-Trench
	Harrison Street	23 <sup>rd</sup> Street Grand Avenue 21 <sup>st</sup> Street 20 <sup>th</sup> Street	All Open-Trench
	20 <sup>th</sup> Street	Telegraph Avenue Broadway Franklin Street Webster Street Harrison Street	All Open-Trench
	17 <sup>th</sup> Street	Franklin Street	Open-Trench
	14 <sup>th</sup> Street	San Pablo Ave./Broadway	
	12 <sup>th</sup> Street	Broadway Franklin Street	All Open-Trench
	11 <sup>th</sup> Street	Jefferson Street Clay Street	All Open-Trench
SEGMENT 20 – I Belmont	PENINSULA SEGMENT Old County Road	Harbor Boulevard	Open Transh
Deimont	Old County Road	Harbor Boulevard	Open-Trench
Redwood City	Arguello Street	Whipple Avenue Howland Street Standish Street	All Open-Trench

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Redwood City (cont.)	Arguello Street	Hopkins Avenue Simpson Street Alden Street Brewster Avenue	All Open-Trench
	Franklin Street	Diller Street Jackson Avenue	All Open-Trench
	Wilson	Franklin Street Commercial	
	SR 82 (El Camino Real)	Jefferson Avenue Jackson Avenue	All Open-Trench
Mountain View	Pioneer Way	East Dana Street	Open-Trench
San Jose	Market Street		
POINTS OF PRE	SENCE CONNECTIONS		
	Webster Street  14 <sup>th</sup> Street	19 <sup>th</sup> Street 17 <sup>th</sup> Street 15 <sup>th</sup> Street 14 <sup>th</sup> Street 13 <sup>th</sup> Street 13 <sup>th</sup> Street 11 <sup>th</sup> Street 11 <sup>th</sup> Street 10 <sup>th</sup> Street 9 <sup>th</sup> Street 8 <sup>th</sup> Street 7 <sup>th</sup> Street 6 <sup>th</sup> Street 1-980 Overpass 5 <sup>th</sup> Street 4 <sup>th</sup> Street 2 <sup>rd</sup> Street 2 <sup>nd</sup> Street 2 <sup>nd</sup> Street Embarcadero Broadway/San Pablo Avenue	All Open-Trench
	12 <sup>th</sup> Street	Franklin Street Webster Street	III open Henen
	Franklin Street	Franklin Street Webster Street 14 <sup>th</sup> Street 13 <sup>th</sup> Street 12 <sup>th</sup> Street	All Open-Trench

#### TABLE J-2 ROADWAY CROSSINGS ALONG METROMEDIA BACKBONE – CALTRAIN RIGHT OF WAY<sup>a</sup>

Location	Roadway Crossings along Caltrain Right of Way	Roadway Crossing Type	Construction Method at Roadway Crossing
San Francisco	Mariposa Street	Roadway Overpass	Open-Trench
	22 <sup>nd</sup> Street	Roadway Overpass	Open-Trench
	23 <sup>rd</sup> Street	Roadway Overpass	Open-Trench
	Cesar Chavez Street	Roadway Underpass	Directional Drilling
	Evans Avenue	Roadway Underpass	Directional Drilling
	I-280 (Southern Freeway)	Freeway Overpass	Directional Drilling
	Jerrold Avenue	Roadway Underpass	Directional Drilling
	Quint Street	Roadway Underpass	Directional Drilling
	Oakdale Avenue	Roadway Overpass	Open-Trench
	Williams Avenue	Roadway Overpass	Open-Trench
	Paul Avenue	Roadway Overpass	Open-Trench
Brisbane	Tunnel Avenue	Roadway Overpass	Directional Drilling
	U.S. 101 (Bayshore Freeway)	Freeway Overpass	Open-Trench
	Sierra Point Parkway	Roadway Overpass	Open-Trench
So. San Francisco	Oyster Point Boulevard	Roadway Overpass	Open-Trench
	Grand Avenue	Roadway Overpass	Directional Drilling
	U.S. 101 (Bayshore Freeway)	Freeway Overpass	Directional Drilling
	Airport Boulevard	Roadway Underpass	Directional Drilling
	South Linden Avenue	At-Grade	Directional Drilling
San Bruno	Scott Street	At-Grade	Directional Drilling
oun Druno	I-380	Freeway Overpass	Open-Trench/
	1-300	Ticeway Overpass	Directional Drilling
	San Bruno Avenue	At-Grade	Open-Trench
	San Mateo Avenue	At-Grade	Open-Trench
	Angus Avenue	At-Grade	Open-Trench
Millbrae	Center Street	At-Grade	Open-Trench
	East Millbrae Avenue	Roadway Overpass	Open-Trench
Burlingame	Broadway	At-Grade	Directional Drilling
	Oak Grove Avenue	At-Grade	Directional Drilling
	North Street	At-Grade	Directional Drilling
	South Street	At-Grade	Directional Drilling
	Howard Avenue	At-Grade	Directional Drilling
	Bayswater Avenue	At-Grade	Directional Drilling
San Mateo	Peninsula Avenue	At-Grade	Directional Drilling
San Mateu	Villa Terrace	At-Grade	Directional Drilling
	Bellevue Avenue	At-Grade At-Grade	Directional Drilling
	East Poplar Avenue	Roadway Underpass	Directional Drilling
	East Santa Inez Avenue	Roadway Underpass Roadway Underpass	Directional Drilling
	Last Santa Inc. Avenue	Roadway Onderpass	Differential Diffing

## TABLE J-2 (Continued) ROADWAY CROSSINGS ALONG METROMEDIA BACKBONE – CALTRAIN RIGHT OF WAY<sup>a</sup>

Location	Roadway Crossings along Caltrain Right of Way	Roadway Crossing Type	Construction Method at Roadway Crossing
San Mateo	Mount Diablo Avenue	Roadway Underpass	Directional Drilling
(cont.)	Tilton Avenue	Roadway Underpass	Directional Drilling
	1 <sup>st</sup> Avenue	At-Grade	Directional Drilling
	2 <sup>nd</sup> Avenue	At-Grade	Directional Drilling
	East 3 <sup>rd</sup> Avenue	At-Grade	Directional Drilling
	East 4 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	East 5 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	9 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	SR 92 (Arthur Younger Freeway)	Freeway Overpass	Open-Trench
	25 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	East Hillside Boulevard	Roadway Underpass	Directional Drilling
	42 <sup>nd</sup> Avenue	Roadway Underpass	Directional Drilling
Belmont	Ralston Avenue	At-Grade	Directional Drilling
	Harbor Boulevard	At-Grade	Directional Drilling
San Carlos	Holly Street	At-Grade	Directional Drilling
	Brittan Avenue	Roadway Underpass	Directional Drilling
	Howard Avenue	Roadway Underpass	Directional Drilling
Redwood City	Whipple Avenue	At-Grade	Directional Drilling
Reawood City	Brewster Avenue	At-Grade	Directional Drilling
	Broadway	At-Grade	Directional Drilling
	Jefferson Avenue	Roadway Underpass	Directional Drilling
	Maple Street	At-Grade	Directional Drilling
	Main Street	At-Grade	Directional Drilling
	Chestnut Street	At-Grade	Directional Drilling
	SR 84 (Woodside Expressway)	Roadway Overpass	Directional Drilling
San Mateo County	5 <sup>th</sup> Avenue	Roadway Underpass	Directional Drilling
Atherton	Fair Oaks Lane	At-Grade	Directional Drilling
	Watkins Avenue	At-Grade	Directional Drilling
Menlo Park	Encinal Avenue	At-Grade	Directional Drilling
	Glenwood Avenue	At-Grade	Directional Drilling
	Oak Grove Avenue	At-Grade	Directional Drilling
	Ravenswood Avenue	At-Grade	Directional Drilling
Palo Alto	Alma Street	At-Grade	Directional Drilling
	University Avenue	Roadway Underpass	Directional Drilling
	Embarcadero Road	Roadway Underpass	Directional Drilling
	Churchill Avenue	At-Grade	Directional Drilling

## TABLE J-2 (Continued) ROADWAY CROSSINGS ALONG METROMEDIA BACKBONE – CALTRAIN RIGHT OF WAY<sup>a</sup>

Location	Roadway Crossings along Caltrain Right of Way	Roadway Crossing Type	Construction Method at Roadway Crossing
Palo Alto (cont.)	Oregon Expressway (County Road G3)	Roadway Underpass	Directional Drilling
	Meadow Drive	At-Grade	Directional Drilling
	Charleston Road	At-Grade	Directional Drilling
<b>Mountain View</b>	San Antonio Avenue	Roadway Overpass	Directional Drilling
THOUSE THE T	Rengstorff Avenue	At-Grade	Directional Drilling
	Shoreline Boulevard	Roadway Overpass	Open-Trench
	Castro Street/Moffet Boulevard	At-Grade	Directional Drilling
	SR 85 (Stevens Creek Freeway)	Freeway Overpass	Open-Trench
	Whisman Road	Roadway Overpass	Open-Trench
	SR 237 (Mountain View-Alviso	Roadway Overpass	Open-Trench
	Road)		
Sunnyvale	Mary Avenue	At-Grade	Directional Drilling
Sumiyvale	Mathilda Avenue	Roadway Overpass	Open-Trench
	Sunnyvale Avenue	At-Grade	Directional Drilling
	North Fair Oaks Avenue	Roadway Overpass	Directional Drilling
	Wolfe Road	Roadway Overpass	Open-Trench
	Lawrence Expressway (County	Roadway Overpass	Directional Drilling
	Road G2)		
Santa Clara	Bowers Avenue	Underpass	Directional Drilling
Santa Ciara	San Tomas Expressway	Roadway Overpass	Open-Trench
	(County Road G4)	roadway overpass	open Trenen
	Scott Boulevard	Roadway Overpass	Open-Trench
	Lafayette Street	Underpass	Directional Drilling
	De La Cruz Boulevard	Roadway Overpass	Directional Drilling
	I-880/SR 17	Freeway Overpass	Open-Trench
	Hedding Street	Roadway Overpass	Directional Drilling
	Stockton Avenue	At-Grade	Directional Drilling
	West Taylor Street	Underpass	Directional Drilling
	Lenzen Ävenue	At-Grade	Directional Drilling
	West Julian Street	Underpass	Directional Drilling
	The Alameda	Underpass	Directional Drilling
	Park Avenue	Roadway Underpass	Directional Drilling
	West San Carlos Street	Roadway Overpass	Open-Trench
	Auzerais Avenue	At-Grade	Directional Drilling
	I-280 (Sinclair Freeway)	Freeway Underpass	Directional Drilling
	West Virginia Street	At-Grade	Directional Drilling
	Bird Avenue	Roadway Underpass	Directional Drilling
	Delmas Avenue	Roadway Underpass	Directional Drilling
	Prevost Street	Roadway Underpass	Directional Drilling
	SR 87 (Guadelupe Freeway)	Freeway Underpass	Directional Drilling
		D 1 II 1	D' (' 1 D '11'
	Willow Street West Alma Avenue	Roadway Underpass Roadway Underpass	Directional Drilling Directional Drilling

#### TABLE J-3 ROADWAY/BART CROSSINGS ALONG METROMEDIA BACKBONE – UP RIGHT OF WAY<sup>a</sup>

Location	Roadway/BART Crossings along UP Right of Way	Roadway/BART Crossing Type	Construction Method at Roadway Crossing
Oakland	I-580 (MacArthur Freeway)	Freeway Overpasses	Open-Trench/ Directional Drilling
	West Grand Avenue	Roadway Overpass	Open-Trench
	I-880	Freeway Overpasses	Directional Drilling
	7 <sup>th</sup> Street	Roadway Underpass	Directional Drilling
	BART	BART Overcrossing	Directional Drilling
	Adeline Street/Middle Harbor Road	At-Grade	Directional Drilling
	Market Street	At-Grade	Directional Drilling
	Martin Luther King Jr. Way	At-Grade	Directional Drilling
	Clay Street	At-Grade	Open-Trench
	Washington Street	At-Grade	Open-Trench
	Broadway	At-Grade	Open-Trench
	Franklin Street	At-Grade	Open-Trench
	Webster Street	At-Grade	Open-Trench
	Oak Street	At-Grade	Directional Drilling
	5 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	I-880 (Nimitz Freeway)	Freeway Overpass	Directional Drilling
	16 <sup>th</sup> Avenue	Roadway Overpass	Open-Trench
	22 <sup>nd</sup> Avenue	Roadway Overpass	Directional Drilling
	29 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	Fruitvale Avenue	At-Grade	Directional Drilling
	37 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	42 <sup>nd</sup> Avenue (State Route 77)	Underpass	Directional Drilling
	High Street	At-Grade	Directional Drilling
	San Leandro Boulevard	At-Grade	Directional Drilling
	BART	Roadway Overpass	Open-Trench/
			Directional Drilling
	50 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	54 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	Seminary Avenue	At-Grade	Directional Drilling
	66 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	69 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	Hegenberger Road	Roadway Overpass	Directional Drilling
	75 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	81 <sup>st</sup> Avenue	At-Grade	Directional Drilling
	85 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	92 <sup>nd</sup> Avenue	At-Grade	Directional Drilling
	98 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	San Leandro Street	Roadway Underpass	Directional Drilling
	105 <sup>th</sup> Avenue	At-Grade	Directional Drilling
			D: .: 15 ::::
San Leandro	Peralta Avenue	At-Grade	Directional Drilling
	Davis Street (SR 112)	At-Grade	Directional Drilling
	Estudillo Avenue	At-Grade	Directional Drilling
	Parrot Street	At-Grade	Directional Drilling

## TABLE J-3 (Continued) ROADWAY/BART CROSSINGS ALONG METROMEDIA BACKBONE – UP RIGHT OF WAY<sup>a</sup>

Location	Roadway/BART Crossings along UP Right of Way	Roadway/BART Crossing Type	Construction Method at Roadway Crossing
San Leandro	Thornton Street	At-Grade	Directional Drilling
(cont.)	Williams Street	At-Grade	Directional Drilling
	Castro Street	At-Grade	Directional Drilling
	Harlan Street	At-Grade	Directional Drilling
	Estabrook Street	At-Grade	Directional Drilling
	Marina Boulevard	At-Grade	Directional Drilling
	Washington Avenue	Roadway Underpass	Directional Drilling
	139 <sup>th</sup> Avenue	At-Grade	Directional Drilling
	143 <sup>rd</sup> Avenue	At-Grade	Directional Drilling
	Halcyon Drive	At-Grade	Directional Drilling
	Hesperian Boulevard	At-Grade	Directional Drilling
	Thornally Street	Roadway Underpass	Directional Drilling
Alameda County	Ashland Avenue	Roadway Underpass	Directional Drilling
·	I-238	Freeway Overpass	Open-Trench
	Lewelling Boulevard	At-Grade	Directional Drilling
	Hampton Road	At-Grade	Directional Drilling
	Medford Avenue	At-Grade	Directional Drilling
	Cherry Way	At-Grade	Directional Drilling
	Blossom Way	At-Grade	Directional Drilling
	Grove Way	At-Grade	Directional Drilling
Hayward	Sunset Boulevard	At-Grade	Directional Drilling
11ay wai u	A Street	At-Grade	Directional Drilling
	B Street	At-Grade	Directional Drilling
	D Street	Roadway Underpass	Directional Drilling
	Jackson Street	Roadway Underpass	Directional Drilling
	Orchard Avenue	Roadway Underpass Roadway Underpass	Directional Drilling
	Harder Road	Roadway Underpass	Directional Drilling
	Tennyson Road	Roadway Underpass	Directional Drilling
	Industrial Parkway	Roadway Underpass	Directional Drilling
	Sandoval Way	Roadway Underpass	Directional Drilling
	Sandovarvvay	rioud way chacipuss	Ziivviioiiiii Ziiiiiig
Union City	Whipple Road	At-Grade	Directional Drilling
· <b>J</b>	F Street	At-Grade	Directional Drilling
	BART	BART Overcrossing	Open-Trench
	H Street	At-Grade	Directional Drilling
	I Street	At-Grade	Directional Drilling
	Decoto Road	At-Grade	Directional Drilling
Fremont	Niles Boulevard	Roadway Overpass	Open-Trench
	Mission Boulevard (SR 238)	Roadway Underpass	Directional Drilling
	Orchard Drive	Roadway Underpass	Directional Drilling
	Pickering Avenue	Roadway Underpass	Directional Drilling
	Morrison Canyon Road	At-Grade	Directional Drilling

## TABLE J-3 (Continued) ROADWAY/BART CROSSINGS ALONG METROMEDIA BACKBONE – UP RIGHT OF WAY<sup>a</sup>

Location	Roadway/BART Crossings along UP Right of Way	Roadway/BART Crossing Type	Construction Method at Roadway Crossing
Fremont (cont.)	Mission Boulevard (SR 238)	Roadway Underpass	Directional Drilling
	Paseo Padre Parkway	At-Grade	Directional Drilling
	Washington Boulevard	At-Grade	Directional Drilling
	Auto Mall Parkway Grimmer Boulevard	Roadway Overpass	Directional Drilling
	Mission Boulevard (SR 262)	Roadway Underpass Roadway Underpass	Directional Drilling Directional Drilling
	Warren Avenue	At-Grade	Directional Drilling
	Kato Road	At-Grade	Directional Drilling
Milpitas	Dixon Landing Road	At-Grade	Directional Drilling
тирішэ	Abel Street	Roadway Overpass	Open-Trench
	Calaveras Boulevard (SR 237)	Roadway Overpass	Open-Trench
	Montague Expressway (County Road G4)	At-Grade	Directional Drilling
	East Capitol Avenue	At-Grade	Directional Drilling
San Jose	Trade Zone Boulevard	At-Grade	Directional Drilling
	Hostetter Road	At-Grade	Directional Drilling
	Lundy Avenue/Sierra Road	At-Grade	Directional Drilling
	Berryessa Road	At-Grade	Directional Drilling
	Mabury Road	At-Grade	Directional Drilling
	U.S. 101 (Bayshore Freeway)	Freeway Underpass	Directional Drilling
	East Julian Street	At-Grade	Directional Drilling
	East Saint James Street	At-Grade At-Grade	Directional Drilling
	East Santa Clara Street Shortridge Avenue	At-Grade At-Grade	Directional Drilling Directional Drilling
	East San Fernando Street	At-Grade At-Grade	Directional Drilling
	Whitton Avenue	At-Grade At-Grade	Directional Drilling
	San Antonio Street	At-Grade	Directional Drilling
	South 24 <sup>th</sup> Street	At-Grade	Directional Drilling
	South 23 <sup>rd</sup> Street	At-Grade	Directional Drilling
	East William Street	At-Grade	Directional Drilling
	I-280 (Sinclair Freeway)	Freeway Overpass	Open-Trench
	Keyes Street	At-Grade	Directional Drilling
	East Alma Street	At-Grade	Directional Drilling
	South 10 <sup>th</sup> Street	At-Grade	Directional Drilling
	South 7 <sup>th</sup> Street	At-Grade	Directional Drilling
	SR 82 (Monterey Highway) Pomona Avenue	At-Grade At-Grade	Directional Drilling Directional Drilling
	Little Orchard Street	At-Grade At-Grade	Directional Drilling
	Almaden Road (County Road	At-Grade At-Grade	Directional Drilling
	G8)		

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
BURBANK LOCA	L SEGMENT		
Burbank	Lankershim Boulevard	Burbank Boulevard Magnolia Boulevard	Open-Trench Open-Trench
	Magnolia Boulevard	Bakman Avenue	Open-Trench
	Bakman Avenue		
	Ostego Street	Lankershim Boulevard	Open-Trench
	Lankershim Boulevard	Camarillo Street	Open-Trench
	Cahuenga Boulevard	101 Off Ramp	Open-Trench
	Lankershim Boulevard	Cahuenga Boulevard	Directional Drilling
	Cahuenga Boulevard	Universal Center Drive Burham Street	Open-Trench Open-Trench
PASADEN	A LOCAL SEGMENT		
Pasadena	N. Los Robles Avenue	E. Orange Grove Boulevard	Directional Drilling
	E. Orange Grove Boulevard	N. Lake Avenue	Directional Drilling
	N. Lake Avenue	Not Applicable	
	E. Washington Boulevard	N. Allen Avenue N. Altadena Drive	Directional Drilling Directional Drilling
	N. Altadena Drive	Not Applicable	
	New York Drive	Not Applicable	
SANTA MO	ONICA LOCAL SEGMENT		
Santa Monica	Olympic Boulevard	S. Bundy Drive	Directional Drilling
	Stewart Street	Not Applicable	
	Colorado Avenue	Not Applicable	
	26 <sup>th</sup> Street	Not Applicable	

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Santa Monica (cont.)	Broadway	Lincoln Boulevard 7 <sup>th</sup> Street	Directional Drilling Directional Drilling
	2 <sup>nd</sup> Street	Colorado	Directional Drilling
	Main Street	Pico Boulevard	Directional Drilling
	Pico Boulevard	Ocean Avenue	Directional Drilling
	Ocean Avenue	Santa Monica Boulevard	Directional Drilling
	Arizona Avenue	7 <sup>th</sup> Street Lincoln Boulevard	Directional Drilling Directional Drilling
	Centinela Avenue	Wilshire Boulevard	Directional Drilling
	Wilshire Boulevard	Bundy Drive	Directional Drilling
GLENDA	ALE LOCAL SEGMENT		
Glendale	N. Brand Street	Broadway Avenue E. Harvard Street	Directional Drilling Directional Drilling
	E. Harvard Street	Orange Street N. Central Avenue	Directional Drilling Directional Drilling
	N. Central Avenue	Wilson Avenue Broadway Avenue Milford Street N. Central Avenue	Directional Drilling Directional Drilling Directional Drilling Directional Drilling
	Doran Street	N. Brand Boulevard Glendale Avenue	Directional Drilling Directional Drilling
	S. Glendale Avenue	Wilson Avenue Broadway Avenue	Directional Drilling Directional Drilling

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
CENTURY CITY	Y LOCAL SEGMENT		
Los Angeles	W. Olympic Boulevard	Beverly Glen Boulevard Overland Avenue Westwood Boulevard Glendon Avenue Kelton Avenue Midvale Avenue Veteran Avenue Bentley Avenue Camden Avenue Sepulveda Sawtelle	Directional Drilling
	S. Beverly Glen Blvd.	Olympic Boulevard	Directional Drilling
	W. Pico Blvd.	Avenue of the Stars Motor Avenue Beverly Glen Boulevard	Directional Drilling except at Motor and Avenue of the Stars
	Constellation Boulevard	Century Park East	Open-Trench
	Century Park East	Olympic Boulevard	Open-Trench
	Galaxy Way	Avenue of the Stars	Open Trench
	Avenue of the Stars	Constellation Boulevard	Open-Trench
	W. Santa Monica Blvd.	Century Park East Avenue of the Stars	Directional Drilling
SANTA MONICA	A TO BURBANK SEGMENT		
Los Angeles	W. Victory Boulevard	Vineland Lankershim Boulevard Laurel Canyon Boulevard	Directional Drilling Directional Drilling Directional Drilling
	St. Clair Avenue	Vanowen Street	Directional Drilling
	W. Vanowen Street	Woodman Avenue Van Nuys Boulevard	Directional Drilling Directional Drilling
	Kester Street	Victory Boulevard Burbank Boulevard Magnolia Boulevard Ventura Boulevard	Directional Drilling Directional Drilling Directional Drilling Open Trench

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Burbank	Greenleaf Street	N/A	N/A
	Noble Avenue	N/A	N/A
	Valley Vista Boulevard	N/A	N/A
	Woodcliff Road	Mulholland Drive	Directional Drilling
	Mulholland Drive	Beverly Glen Boulevard	Directional Drilling
	Beverly Glen Boulevard	Sunset Boulevard Wilshire Boulevard	Open Trench Directional Drilling
HOLLYWOOD	LOCAL SEGMENT		
Los Angeles	2 <sup>nd</sup> Street	Glendale Boulevard	Open-Trench
	Glendale Boulevard	Temple Street Park Avenue	Open-Trench Open-Trench
	Park Avenue	Sunset Boulevard	Open-Trench
Hollywood	Sunset Avenue	Alvarado St. Sunset Boulevard Vermont Avenue Sunset Boulevard Edgemont Street	Open-Trench Open-Trench Open-Trench Open-Trench Open-Trench
	Bates Avenue		
	Talmadge Street		
	Franklin Avenue		
	Vermont Avenue	Hollywood Boulevard Sunset Boulevard	Open-Trench Open-Trench
	Sunset Boulevard	Kenmore Avenue	Open-Trench
	Alexandria Street		
	Fountain Avenue	Western Avenue	Open-Trench
	Van Ness Avenue	Santa Monica Boulevard	Open-Trench
	Melrose Avenue	Gower Avenue	Open-Trench

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Hollywood (cont.)	Gower Avenue	Santa Monica Boulevard Sunset Avenue	Open-Trench Open-Trench
	Sunset Boulevard	Vine Street Cahuenga Boulevard	Open-Trench Open-Trench
	Seward Street	De Longpre Avenue	Open-Trench
	Formosa Street		
	Sunset Boulevard	Formosa Avenue	Directional Drilling
	Gardner Street	Santa Monica Boulevard	Open-Trench
	Santa Monica Boulevard	Fairfax Avenue	Open-Trench
	Laurel Avenue	Melrose Avenue	Open-Trench
	Melrose Avenue	Fairfax Avenue	Open-Trench
	Fairfax Avenue	Beverly Boulevard	Open-Trench
<b>Beverly Hills</b>	Beverly Boulevard	La Cieniega Boulevard	Open-Trench
	Civic Center Drive		
	Foothill Drive	Alden Drive	Open-Trench
	Alden Drive	Wilshire Boulevard Maple Drive	Open-Trench Open-Trench
MARINA DEL R	EY LOCAL SEGMENT		
Marina Del Rey	Culver Boulevard Centinela Avenue Walsh Avenue Bonaparte Avenue Glencoe Avenue Mindanao Way La Villa Marina Fiji Way Lincoln Boulevard Braddock Drive	Centinela Boulevard Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Lincoln Boulevard Culver Boulevard Centinela Boulevard	Directional Drilling Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Directional Drilling Directional Drilling Directional Drilling
	Marshall Street	Not Applicable	Not Applicable

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
LAX/FLORENCE	CE SEGMENT		
Hawthorne	El Segundo Boulevard	Hawthorne Boulevard	Directional-Drilling
Hawthorne/ Los Angeles / Inglewood	Hawthorne Boulevard	Imperial Hwy	Directional-Drilling
Inglewood	La Brea Avenue	Century Boulevard Florence Avenue	Directional-Drilling Directional-Drilling
Inglewood / Los Angles	Florence Avenue	Crenshaw Boulevard	Directional-Drilling
Los Angles		Western Avenue Vermont Avenue Figueroa Avenue	Directional-Drilling  Directional-Drilling
	Santa Fe Avenue	Central Avenue Florence Avenue	Directional-Drilling Directional-Drilling
LAX SEGMENT	Γ		
Westchester	Airport Boulevard	Arbor Vitae	Directional Drilling
	96 <sup>th</sup> Street	Sepulveda Boulevard	Directional Drilling
	Sepulveda Boulevard	Century Boulevard	Directional Drilling
	Century Boulevard	Airport Boulevard	Directional Drilling
EL SEGUNDO S	SEGMENT		
El Segundo	E. Imperial Avenue	Aviation Boulevard Sepulveda Boulevard	Directional Drilling Directional Drilling
	Sepulveda Boulevard	E. El Segundo Boulevard	Directional Drilling
	E. Maple Avenue	Continental Boulevard Sepulveda Boulevard	Directional Drilling Directional Drilling
	E. Mariposa Avenue	Sepulveda Boulevard	Directional Drilling
	E. Grand Avenue	Sepulveda Boulevard	Directional Drilling
	E. El Segundo Boulevard	Sepulveda Boulevard Aviation Boulevard	Directional Drilling Directional Drilling

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
El Segundo	Continental Boulevard	E. El Segundo Boulevard	Directional Drilling
(cont.)	N. Nash Street	Not Applicable	
	N. Douglas Street	E. El Segundo Boulevard	Directional Drilling
LONG BEACH	DOWNEY SEGMENT		
Downey	Bellflower Boulevard	Imperial Hwy	Directional-Drilling
Bellflower	Bellflower Boulevard	Roescrans Avenue Alondra Boulevard Artesia Boulevard	Directional-Drilling Directional-Drilling Directional-Drilling
Lakewood	Bellflower Boulevard	Del Amo Boulevard E. Carson Street	Directional-Drilling Directional-Drilling
CYPRESS/BUE	ENA PARK SEGMENT		
Buena Park	Knott Street	Orangethorpe La Palma Avenue	Directional-Drilling Directional-Drilling
Anaheim	Knott Street	Lincoln Avenue Ball Road Katella Avenue	Directional-Drilling Directional-Drilling Directional-Drilling
FASHION ISLA	AND SEGMENT		
Irvine	Corporate Park Avenue	Alton Parkway	Directional-Drilling
	Alton Parkway	Corporate Park Avenue	Directional-Drilling
	Irvine Center Drive		
	Spectrum Street		
	Fortune Drive		
	Gateway Parkway	Alton Parkway	Directional-Drilling
	Alton Parkway	Technology Drive	Directional-Drilling
	Technology Drive	Alton Parkway	Directional-Drilling
	Alton Parkway		

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Irvine (cont.)	Barranca Parkway	Irvine Center Drive	Directional-Drilling
	Irvine Center Drive		
	Pacufica Street	Barranca Parkway	Directional-Drilling
	Barranca Parkway	Laguna Canyon Road	Directional-Drilling
	Laguna Canyon Road		
	Irvine Center Drive	Barranca Parkway Sand Canyon Drive Jeffrey Road Culver Drive	Directional-Drilling Directional-Drilling Directional-Drilling
	Culver Drive	Barranca Parkway	Directional-Drilling
	Barranca Parkway	Barranca I arkway	Directional-Diffining
Newport Beach	Jamboree Road	Macarthur Boulevard San Joaquin Hills Road	Directional-Drilling Directional-Drilling
	Santa Barbara Drive	Jamboree Road Newport Beach Drive	Directional-Drilling Directional-Drilling
	Newport Center Drive	San Miguel Drive	Directional-Drilling
	San Miguel Drive	Macarthur Boulevard	Directional-Drilling
	Macarthur Boulevard	San Joaquin Hills Drive Jamboree Road	Directional-Drilling Directional-Drilling
CARSON/COST	A MESA SEGMENT		
Carson /Long	Santa Fe Avenue	E. Carson Street	Directional Drilling
Beach		W. Wardlow Road	Directional Drilling
Long Beach	W. Willow Street	I-710	
	N. Pacific Avenue	Pacific Coast Hwy. W. Anaheim Street	Directional Drilling
		7 <sup>th</sup> Street	Open-Trench
	W. Broadway Avenue	NA	NA

ocation	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Long Beach (cont.)	Golden Avenue	W. Ocean Boulevard	Directional Drilling
	W. Ocean Boulevard	E. Ocean Boulevard	Directional Drilling
	Linden Avenue	NA	NA
	E. Broadway Avenue	Atlantic Avenue N. Alamitos Avenue	Directional Drilling Open-Trench
	N. Alamitos Avenue	NA	NA
	E. 3 <sup>rd</sup> Street	Cherry Avenue	Directional Drilling
	Junipero Avenue	NA	NA
	E. 7 <sup>th</sup> Street	Redondo Avenue	Directional Drilling
	Termino Street	E. Anaheim Street	Directional Drilling
	E. 15 <sup>th</sup> Street	NA	NA
	Ximeno Avenue	Pacific Coast Highway	Directional Drilling
	E. Atherton Avenue	NA	NA
	Clark Avenue	<ul><li>E. Los Coyotes Diagonal</li><li>I-405</li><li>Willow Street</li><li>E. Spring Street</li><li>E. Carson Street</li></ul>	Open-Trench Directional Drilling Directional Drilling Open-Trench Open-Trench
	E. Carson Street	N. Bellflower Blvd N. Los Coyotes Diagonal	Open-Trench Open-Trench
	N. Los Coyotes Diagonal	NA	NA
	N. Studebaker Road	NA	NA
	E. Spring Street	I-605	Directional Drilling
Los Alamitos/	Cerritos Avenue	Los Alamitos Blvd	Directional Drilling
Cypress		Moody Street Valley View Street	Directional Drilling Directional Drilling

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Cypress	Holder Street	Katella Avenue	Open-Trench
	Katella Avenue	Knott Street	Open-Trench
Stanton/Gar den Grove	Knott Street	Chapman Avenue	Directional Drilling
uen Grove		Highway 22 Garden Grove Avenue	Directional Drilling Directional Drilling
Westminster	Golden West Street	NA	NA
	Hymboldt Avenue	NA	NA
	La Pat Street	Westminster Blvd	Open-Trench
	Westminster Blvd	Goldenwest Street	Directional Drilling
	Hoover Street	NA	NA
Westminster/ Midway/ Garden Grove	Bolsa Avenue	Beach Blvd	Directional Drilling
Greve		Magnolia Street Brookhurst Street	Directional Drilling Directional Drilling
Santa Ana	W. First Street	Euclid Street Harbor Blvd	Directional Drilling Directional Drilling
	Fairview Street	Warner Avenue Edinger Avenue Warner Avenue	Directional Drilling Directional Drilling Directional Drilling
	Alton Avenue	Bristol Street	Directional Drilling
	Bristol Street	W. Macarthur Blvd	Open-Trench
Santa	W. Macarthur Blvd	Main Street	Directional Drilling
Ana/Irvine		Highway 55 Red Hill Avenue	Directional Drilling Open-Trench
Irvine	Red Hill Avenue	NA	NA
	Reynolds Avenue	NA	NA
	Armstrong	NA	NA

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
IRVINE/COST	A MESA SEGMENT		
Irvine	Red Hill Avenue	Macarthur Boulevard Mitchell Park	Directional Drilling Directional Drilling
	Mitchell N.		Directional Drilling
	Sky Parkway	Main Street Von Karman Avenue Jamboree Road	Directional Drilling Directional Drilling Directional Drilling
	Center Drive	Main Street	Directional Drilling
	Main Street	Macarthur Boulevard Von Karman Avenue Jamboree Road	Directional Drilling Directional Drilling Directional Drilling
	Armstrong Avenue	Alton Parkway	Directional Drilling
	Alton Parkway		
	Jamboree Road	Mcgaw Avenue Main Street Michelson Drive Campus Drive Fairchild Road	Directional Drilling Directional Drilling Directional Drilling Directional Drilling Directional Drilling
	Von Karman Avenue	Main Street Michelson Drive Dupont Drive	Directional Drilling Directional Drilling Directional Drilling
	Dupont Drive	Macarthur Boulevard	Directional Drilling
	Campus Drive	Jamboree Road	Directional Drilling
	Teller Avenue	Michelson Drive	Directional Drilling
Costa Mesa	Flower Street	Macarthur Boulevard Sunflower Avenue	Directional Drilling Directional Drilling
	Sunflower Avenue	Towncenter Drive	Directional Drilling
	Towncenter Drive	Bristol Street	Directional Drilling
	Bristol Street	Anton Boulevard	Directional Drilling

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Costa Mesa (cont.)	Anton Boulevard	Sunflower Avenue	Directional Drilling
(cont.)	Main Street	Not Applicable	
	Sandpointe Street	Not Applicable	
	Hutton Centre Drive	Not Applicable	
	Imperial Avenue	Not Applicable	
DOWNTOWN	LOS ANGELES SEGMENT		
Los Angeles	1 <sup>st</sup> Street	Not Applicable	
	Fremont Street	Not Applicable	
	Diamond Street	Figueroa Street	Open Trenching
	Los Angeles Street	Olympic Boulevard	Directional Drilling
	6 <sup>th</sup> Street	Flower Street	Open Trenching
	9 <sup>th</sup> Street	Grand Avenue	Open Trenching
	11 <sup>th</sup> Street	Main Street S. Broadway Grand Avenue Figueroa Street	Open Trenching Open Trenching Open Trenching Open Trenching
	12 <sup>th</sup> Street	Main Street S. Broadway Grand Avenue Figueroa Street	Open Trenching Open Trenching Open Trenching Open Trenching
	Figueroa Street	Olympic Boulevard 9 <sup>th</sup> Street 7 <sup>th</sup> Street Wilshire Boulevard 6 <sup>th</sup> Street	Open Trenching Open Trenching Open Trenching Open Trenching Open Trenching
	Hill Street	4 <sup>th</sup> Street 3 <sup>rd</sup> Street 1 <sup>st</sup> Street Temple Street	Open Trenching Open Trenching Open Trenching Open Trenching

Location	Roadway Alignment is Within	Roadways Crossing Alignment	Construction Method at Roadway Crossings
Los Angeles (cont.)	Temple Street	Grand Avenue Figueroa Street	Open Trenching Open Trenching
		Temple Street	Open Trenching
	Grand Avenue	1 <sup>st</sup> Street	Open Trenching
		7 <sup>th</sup> Street	Open Trenching
	Beaudry Avenue	1 <sup>st</sup> Street	Open Trenching
	-	3 <sup>rd</sup> Street	Open Trenching
		4 <sup>th</sup> Street	Open Trenching
		6 <sup>th</sup> Street	Open Trenching
		Wilshire Boulevard	Open Trenching
	Flower Street	Wilshire Boulevard	Open Trenching
	Wilshire Boulevard	Grand Avenue	Open Trenching
	Hope Street	1 <sup>st</sup> Street	Open Trenching