

APPENDIX A

Proposed Project Details, Schedule, and Route Maps

APPENDIX A

Proposed Project Details and Route Maps

Proposed Project Details

Proposed Project Schedule

Proposed Project Route Maps

APPENDIX A

Table 1 Total Land Disturbance for Proposed Project with Revised Components Compared to 2013 RTRP EIR

Project Feature	Site Quantity		Work Area Disturbance Calculation (L x W in feet)		Permanent Disturbance Calculation (L x W in feet)		Work Area Disturbance (acres)		Temporary Disturbance (acres)		Permanent Disturbance (acres)	
	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed
Overhead 230-kV Transmission Line												
Guard Structures	16	14	150 x 100	100 x 50	--	--	5.5	1.6	5.5	1.6	--	--
Construct New LST	16	12	200 x 200	200 x 200	84 x 84 ^a	95 x 95 ^a	14.7	11.0	11.5	8.6	3.2	2.5
Construct New TSP	59	47	200 x 100	200 x 100	30-ft radius ^b	30-ft radius ^b	27.1	21.6	23.5	18.5	3.5	3.1
Modify Existing LST	1	1	200 x 200	200 x 200	--	-- ^d	0.7	0.9	0.7	0.9	--	--
230-kV Conductor & optical ground wire (OPGW) Stringing Setup Area – Puller ^e	17	11	300 x 100	300 x 100	--	--	11.7	7.6	11.7	7.6	--	--
230-kV Conductor & OPGW Stringing Setup Area – Tensioner ^e	17	11	400 x 100	400 x 100	--	--	15.6	10.1	15.6	10.1	--	--
230-kV Conductor Field Splice Area ^f	2	2	50 x 50	50 x 50	--	--	0.1	0.1	0.1	0.1	--	--
New Roads (Downline, Access, and Spur)	7.5 miles	4.1 miles	Linear <u>feet</u> x 18 ^g	Linear <u>feet</u> x 18 ^g	Linear <u>feet</u> x 18 ^g	Linear <u>feet</u> x 18 ^g	16.4	8.9	0	0	16.4	8.9
Underground 230-kV Transmission Line												
Construct New Riser Pole	--	4	--	200 x 100	--	30-ft radius ^c	--	1.8	--	1.5	--	0.3
Vault Installation	--	32	--	150 x 100	--	8 x 5 paved 14 x 11 unpaved	--	11.0	--	10.96	--	0.04 ^j
Conduit Duct Bank Installation	--	20,400 feet	--	Linear <u>feet</u> x 30	--	--	--	14.0	--	14.0	--	--
Distribution Lines												
Distribution Pole Removal	23	27	30 x 150	30 x 150	14	14	2.4	2.8	2.3	2.7	0.08	0.1
TSP Riser Pole or Distribution Pole Installation	14	11	30 x 150	30 x 150	15	15	1.4	1.1	1.3	1.1 ⁱ	0.06	0.04 ⁱ
Vault Installation	7	6	30 x 150	30 x 150	4 x 4	4 x 4	0.7	0.9	0.7	0.9	0.003	0.002 ^j
Conduit Duct Bank Installation	4,000 feet	5,850 feet	Linear <u>feet</u> x 30 or 32	Linear <u>feet</u> x 30	--	--	2.7	4.5	2.7	4.5	--	--

APPENDIX A

Project Feature	Site Quantity		Work Area Disturbance Calculation		Permanent Disturbance Calculation		Work Area Disturbance		Temporary Disturbance		Permanent Disturbance	
			(L x W in feet)	(L x W in feet)	(L x W in feet)	(L x W in feet)	(acres)	(acres)	(acres)	(acres)		
Telecommunication Fiber Optic Cables												
Vault Installation	6	22	6 x 6	100 x 50 ^h	--	4 x 4	0.002	0.001 ^h	--	-- ^h	0.002	0.001 ^j
Conduit Duct Bank Installation	3,900 feet	17,700 feet	Linear <u>feet</u> x 1.5	Linear <u>feet</u> x 30 ^h	--	--	--	-- ^h	--	-- ^h	--	--
Fiber Optic Cable Pulling Site	6	6	40 x 60	40 x 60	--	--	0.3	0.3	0.3	0.3	--	--
Substation												
Wildlife Substation	1 (3 acres)	1 (3 acres)	--	--	--	--	3	3	--	--	3	3
Marshalling Yards												
Yard-1 - Material and Equipment Marshalling Yard ^k	1 (15 acres)	1 (15 acres)	--	--	--	--	--	--	--	--	--	--
Yard-2 - Material and Equipment Marshalling Yard ^k	1 (4 acres)	1 (5.5 acres)	--	--	--	--	--	--	--	--	--	--
Sum of Estimated Disturbance Acreage^l							3.302	3.301	0.3	0.3	3.002	3.001

- Notes:
- ^a Assumes permanent disturbance is comprised of the 45-foot-wide by 45-foot-long footprint for each LST and clearance of vegetation within 25 feet of the tower footprint inside the ROW (approximately 0.2 acre per LST). As each tower's actual permanent footprint varies with tower height and strength level, these values will adjust with final engineering.
 - ^b Assumes permanent disturbance is comprised of the 10-foot diameter footprint for each TSP and clearance of vegetation within 25 feet of the TSP inside the ROW (approximately 0.06 acre per TSP). As each TSP's actual permanent footprint varies with TSP height and strength level, these values will adjust with final engineering.
 - ^c A riser pole is assumed to have the same permanent disturbance as a TSP.
 - ^d This structure has pre-existing permanently disturbed area for ongoing operations and maintenance access by SCE
 - ^e Based on 9,000 feet conductor reel lengths, number of circuits, and route design.
 - ^f Includes anchoring and dead-end hardware and/or equipment needed to temporarily secure conductor wire to the correct tension.
 - ^g Based on length of road in miles x road width of 14 feet with 2 feet of shoulder on each side of road.
 - ^h The telecommunications fiber optic cables would be installed at the same time as and within the same duct banks the underground 230-kV transmission lines and the distribution lines. The telecommunication vaults would be installed at the as the vaults for the underground 230-kV transmission lines and the distribution lines. As such, the temporary disturbance would not increase.
 - ⁱ TSP riser poles for distribution line locations 7 and 8 would be placed in locations where existing distribution poles are removed; therefore, there would be no new permanent impact areas. Temporary impact areas for riser pole installation are accounted for in the pole removal disturbance acreage.
 - ^j Permanent impacts would only occur in unpaved areas.
 - ^k Material and Equipment Marshalling Yards to be located in previously disturbed areas.
 - ^l The disturbed acreage calculations are estimates based upon SCE's preferred area of use for the described project feature, the width of the existing ROW, or the width of the proposed ROW; they are subject to revision based upon final engineering and review of the project by SCE's Construction Manager and/or contractor awarded project.

Footing Volume and Area Calculations:

LST depth +/- 60 ft. deep, 4-ft. diameter, qty 4 per LST: earth removed for footing = +/- 28 cu. yds. x 4 = 112 cu. yds.; surface area = 12.57 sq. ft. x 4 = 50.28 sq. ft.

TSP depth +/- 60 ft. deep, 10-ft. diameter, qty 1 per TSP: earth removed for footing = +/- 175 cu. yds.; surface area = 78.54 sq. ft.

APPENDIX A

Proposed Project Details and Route Maps

Proposed Project Details

Proposed Project Schedule

Proposed Project Route Maps

Project Name: Riverside Transmission Reliability Project - DR#7
 Data Date: 01-Jul-17
 Project Finish: 05-Jan-24

RIVERSIDE TRANSMISSION RELIABILITY HYBRID PROJECT (RTRP)

Project Schedule As of 07/25/17

DRAFT

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessors	Successors	2017				2018				2019				2020				2021				2022				2023				4
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessors	Successors
Transmission Line (Bulk-Trans, >160kV)							
Transmission Line							
T/L Engineering (May be used for all contractor scope in EPC Project)							
6200	Transmission - Engineering	282	18-Sep-18	30-Oct-19	-634	5600	6420, 5800, 6010, 5950, 6204
6202	Transmission - Engineering - Borings & Geotechnical Studies	126	22-Apr-19	17-Oct-19	-529	6200	6204
6204	Transmission - Engineering - Grading Permits	126	31-Oct-19	04-May-20	-529	6202, 6200	5590, 5810
T/L Procurement / Materials							
6220	Transmission - Procurement	210	31-Oct-19	01-Sep-20	-508		
6220	Transmission - Procurement	210	31-Oct-19	01-Sep-20	-508	5650, 6200	5590, 6270
T/L Construction							
6270	Marshaling Yard Preparation and Mobilization	23	09-Mar-21	15-Apr-21	-634	5950, 5900, 6030, 622	6380, 6280, 6330, 6290, 6300
LSTs							
6290	LST Steel Haul	6	15-Mar-21	22-Mar-21	-234	6270	6300
6380	LST Modification	10	15-Mar-21	26-Mar-21	-190	6270	
6280	LST Foundation Installation	36	15-Mar-21	03-May-21	-216	6270	
6300	LST Assembly	43	23-Mar-21	27-May-21	-234	6290	6310
6310	LST Erection	36	08-Apr-21	27-May-21	-234	6300	
TSPs							
6330	TSP Haul	17	15-Mar-21	06-Apr-21	-634	6270	6340
6320	TSP Foundation Installation	158	15-Mar-21	25-Oct-21	-338	6270	
6340	TSP Assembly	51	07-Apr-21	17-Jun-21	-634	6330	6350
6350	TSP Erection	102	02-Jun-21	25-Oct-21	-634	6340	6360
Stringing & Testing							
6360	Stringing	63	20-Oct-21	24-Jan-22	-634	6350	6370
6370	Restoration/Testing	30	25-Jan-22	08-Mar-22	-634	6360	6650
Transmission Line -							
T/L Engineering (May be used for all contractor scope in EPC Project)							
6255	Underground 220kV Transmission - Engineering	567	18-Sep-18	21-Dec-20	-889	5600	6256, 6258, 6257
6256	Underground 220kV Transmission - Engineering - Borings & Geotechnical Studies	126	22-Apr-19	17-Oct-19	-545	6255	6257
6257	Underground 220kV Transmission - Engineering - Grading Permits	126	22-Dec-20	22-Jun-21	-830	6256, 6255	6269
T/L Procurement / Materials							
6258	Underground 220kV Transmission - UG Cable Procurement	400	15-Jul-20	17-Feb-22	-889		6269
T/L Construction							
6309	Riser Pole Preparation	20	16-Sep-21	13-Oct-21	-330	6269	
6269	Underground Vault Installation	224	16-Sep-21	08-Aug-22	-889	6257, 6258	6309, 6279
6279	Underground Duct Bank Installation	110	04-Mar-22	08-Aug-22	-889	6269	6289
6289	Underground Cable Installation	96	13-Apr-22	26-Aug-22	-889	6279	6319, 6299
6319	Cable Terminating	120	15-Apr-22	04-Oct-22	-889	6289	6329
6299	Cable Splicing	159	23-May-22	10-Jan-23	-639	6289	
6329	Trench Restoration/Paving/Testing	72	29-Nov-22	14-Mar-23	-889	6319	6650
Substation							
Mira Loma & Vista							
Sub Engineering (May be used for all contractor scope in EPC Project)							
147	Sub Engineering	147	18-Sep-18	19-Apr-19	-312		

Legend:
 Actual Work: Blue bar
 Critical Remaining Work: Red bar
 Remaining Work: Green bar
 Milestone: Diamond symbol
 Summary: Arrow symbol

TASK filter: All Activities

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Project Name: Riverside Transmission Reliability Project - DR#7
 Data Date: 01-Jul-17
 Project Finish: 05-Jan-24

RIVERSIDE TRANSMISSION RELIABILITY HYBRID PROJECT (RTRP)

Project Schedule As of 07/25/17

DRAFT

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessors	Successors	2017												2018				2019				2020				2021				2022				2023				24																																																											
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4																																																												
7000	Ancillary Substation (Mira Loma & Vista) - Engineering	147	18-Sep-18	19-Apr-19	-312	5600	7020																																																	<ul style="list-style-type: none"> ■ Ancillary Substation (Mira Loma & Vista) - Engineering ■ 19-Jul-19, Sub Procurement / Materials ■ Ancillary Substation (Mira Loma & Vista) - Procurement ■ 02-Oct-20, Sub Construction ■ Ancillary Substation (Mira Loma & Vista) : Construction & Testing ■ Ancillary Substation (Mira Loma & Vista) : In-Service Testing ■ 13-Jul-23 																																															
Sub Procurement / Materials																																																																																																							
7020	Ancillary Substation (Mira Loma & Vista) - Procurement	63	22-Apr-19	19-Jul-19	-312	7000	5500, 5590, 7050																																																																																																
Sub Construction																																																																																																							
7050	Ancillary Substation (Mira Loma & Vista) - Construction & Testing	42	05-Aug-20	02-Oct-20	-204	5900, 7020	7060																																																																																																
Sub Commissioning																																																																																																							
7060	Ancillary Substation (Mira Loma & Vista) - In-Service Testing	10	16-May-23	30-May-23	-858	6900, 7050	9100																																																																																																
Wildlife																																																																																																							
Sub Engineering (May be used for all contractor scope in EPC Project)																																																																																																							
7500	Wildlife Substation - Engineering	251	18-Sep-18	17-Sep-19	-486	5600	7520, 5590, 7522, 5500,																																																																																																
Sub Procurement / Materials																																																																																																							
7520	Wildlife Substation - Procurement - Major Material (excl. MEER)	251	19-Dec-18	18-Dec-19	-224	7500, 5650	7550, 7560																																																																																																
7522	Wildlife Substation - Procurement - MEER	251	17-Sep-19	16-Sep-20	-391	7500	7550, 5590, 7560																																																																																																
Sub Construction																																																																																																							
7550	Wildlife Substation - Construction & Testing	223	13-Jan-21	08-Dec-21	-367	7520, 7522, 5900, 595	7590																																																																																																
Civil/Site Prep/Below Grade																																																																																																							
7600	Install Perimeter Chain Link Fence	15	13-Jan-21	03-Feb-21	-212		7560																																																																																																
7560	Move On Layout - Install Temp Power (Generator or Other)	5	05-Feb-21	11-Feb-21	-213	7520, 7600, 5950, 590	7610, 7570																																																																																																
7570	SWPPP/WEAP Training	1	12-Feb-21	12-Feb-21	-213	7560	7580																																																																																																
7610	Excavate and Set Forms for MEER Foundation (1 Ea.)	15	12-Feb-21	05-Mar-21	-205	7560	7620																																																																																																
7580	Install BMPs, Erosion Waddles	2	16-Feb-21	17-Feb-21	-213	7570	7640, 7630																																																																																																
7640	Excavate and Set Forms for 220kV Buses (2 Ea.)	10	18-Feb-21	03-Mar-21	-173	7580																																																																																																	
7630	Excavate and Set Forms Line, B.T. & Bank Positions (5 Ea.)	50	18-Feb-21	28-Apr-21	-213	7580																																																																																																	
7620	Erect Pre-Fab MEER	30	08-Mar-21	16-Apr-21	-205	7610																																																																																																	
7690	Conduit & Grounding	20	29-Mar-21	23-Apr-21	-331		7700																																																																																																
7660	Install Telecom Vaults & Conduits	5	05-Apr-21	09-Apr-21	-200	7650																																																																																																	
7670	Install Security Conduit	10	05-Apr-21	16-Apr-21	-215	7650	7680																																																																																																
7650	Install Trenches	15	05-Apr-21	23-Apr-21	-215		7660, 7670																																																																																																
7680	Install Drainage (Swales, Rip Rap)	10	19-Apr-21	30-Apr-21	-215	7670																																																																																																	
7700	Install Rock Dust	10	03-May-21	14-May-21	-331	7690	7710																																																																																																
7710	Install Paving	10	17-May-21	28-May-21	-331	7700	7720																																																																																																
Electrical																																																																																																							
7730	SWPPP/WEAP Training	1	01-Jun-21	01-Jun-21	-331	7720	7740																																																																																																
7720	Move On Receive Materials	5	01-Jun-21	07-Jun-21	-331	7710	7730																																																																																																
7740	Install Relay Panels, A/C, D/C Panels	15	02-Jun-21	22-Jun-21	-331	7730	7750																																																																																																
7760	Set OICs and Pull Boxes	10	14-Jun-21	25-Jun-21	-324		7770, 7780																																																																																																
7780	Set Deadend Steel	10	14-Jun-21	25-Jun-21	-324	7760	7790																																																																																																
7750	Continuous Wiring (Relay Racks, ATS, CBs, OICs, CCVTs)	80	23-Jun-21	14-Oct-21	-331	7740																																																																																																	
7790	Set All Support Steel (Conductor, PTs)	10	28-Jun-21	12-Jul-21	-324	7780	7800																																																																																																
7770	Pull Control Cables From All Equipment	15	28-Jun-21	19-Jul-21	-269	7760																																																																																																	
7810	Build 220kV Disconnects and Set	60	06-Jul-21	28-Sep-21	-319																																																																																																		
7800	Install and Ground Equipment	60	13-Jul-21	05-Oct-21	-324	7790																																																																																																	
7820	Conductor Line Position	40	02-Aug-21	27-Sep-21	-740		7830																																																																																																
7830	Conductor Buses	15	28-Sep-21	18-Oct-21	-740	7820	7840																																																																																																
7840	Testing/Final Disconnect Adjustments	34	19-Oct-21	08-Dec-21	-740	7830	7590, 6450																																																																																																
Sub Commissioning																																																																																																							
7590	Wildlife Substation - Commissioning & In-Service Testing	41	16-May-23	13-Jul-23	-889	6900, 7550, 7840, 646	9100																																																																																																
IT/Telecom																																																																																																							
IT/Telecom Engineering																																																																																																							
6800	Telecom - Engineering	163	18-Sep-18	20-May-19	-445	5600	5500, 6810, 5800, 6600																																																																																																
IT/Telecom Procurement																																																																																																							
6810	Telecom - Procurement	63	21-May-19	19-Aug-19	-19	5650, 6800	6860, 5590																																																																																																
IT/Telecom Construction																																																																																																							
6860	Fiber Optic Transport to Communicate with Adjacent SCE Subs (Mira Loma & Vista)	84	10-Jan-23	09-May-23	-889	6650, 6810, 5900, 665	6870																																																																																																
6870	Multiplex Equipment to Deliver Line Protection Ckts (L90, 311L, SCADA EMS)	1	10-May-23	10-May-23	-889	6860	6880																																																																																																
6880	DATA ccts for Admin, and GRID2 for Operation Networks (DFR/PMU)	1	11-May-23	11-May-23	-889	6870	6890																																																																																																

█ Actual Work █ Critical Remaining Work ▬ Summary
█ Remaining Work ◆ Milestone

TASK filter: All Activities

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Project Name: Riverside Transmission Reliability Project - DR#7
 Data Date: 01-Jul-17
 Project Finish: 05-Jan-24

RIVERSIDE TRANSMISSION RELIABILITY HYBRID PROJECT (RTRP)

Project Schedule As of 07/25/17

DRAFT

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessors	Successors	2017		2018		2019		2020		2021		2022		2023		1
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
6890	Voice Communications for Phones	1	12-May-23	12-May-23	-889	6880	6900															1
6900	Corp Security DATA transport for Cameras, Card Readers, Etc	1	15-May-23	15-May-23	-889	6890	7060, 7590															1
Trans Telecom		1102	16-Nov-18	11-Apr-23	-889																	
Trans Telecom		1102	16-Nov-18	11-Apr-23	-889																	
ECS Engineering		126	16-Nov-18	20-May-19	-445																	
6600	ECS - Engineering	126	16-Nov-18	20-May-19	-445	5600, 6800	6610, 5500, 5800															
ECS Procurement		63	21-May-19	19-Aug-19	-81																	
6610	ECS - Procurement	63	21-May-19	19-Aug-19	-81	6600, 5650	6650, 5590, 6652															
ECS Construction		526	09-Mar-21	11-Apr-23	-889																	
6652	ECS - Construction & Testing - Telecom Routes 2 & 3	105	09-Mar-21	04-Aug-21	-468	5950, 6610, 5900, 603	6860															
6650	ECS - Construction & Testing - Telecom Route 1 - Splicing (Intermittent)	105	07-Nov-22	11-Apr-23	-889	5900, 6610, 6370, 632	6860															
Distribution (<=33kV)		893	22-Mar-19	07-Oct-22	-740																	
Distribution		893	22-Mar-19	07-Oct-22	-740																	
Dist Engineering/Planning		84	22-Mar-19	19-Jul-19	-487																	
6420	Distribution (Transmission Crossings) - Engineering	84	22-Mar-19	19-Jul-19	-487	6200	6430, 5800															
Dist Procurement		84	22-Jul-19	18-Nov-19	-183																	
6430	Distribution (Transmission Crossings) - Procurement	84	22-Jul-19	18-Nov-19	-183	6420, 5650	5590, 6450															
Dist Construction		219	09-Dec-21	07-Oct-22	-740																	
6450	Distribution - Civil (Intermittent)	79	09-Dec-21	22-Mar-22	-740	5900, 6430, 7840	6460															
6460	Distribution - Electrical (Intermittent)	140	23-Mar-22	07-Oct-22	-740	6450	7590															

█ Actual Work █ Critical Remaining Work Summary
█ Remaining Work ◆ Milestone

TASK filter: All Activities

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




Proposed Project Route Maps

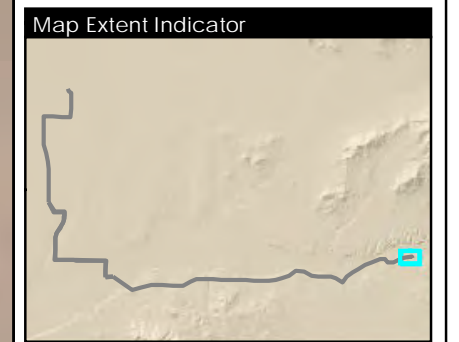
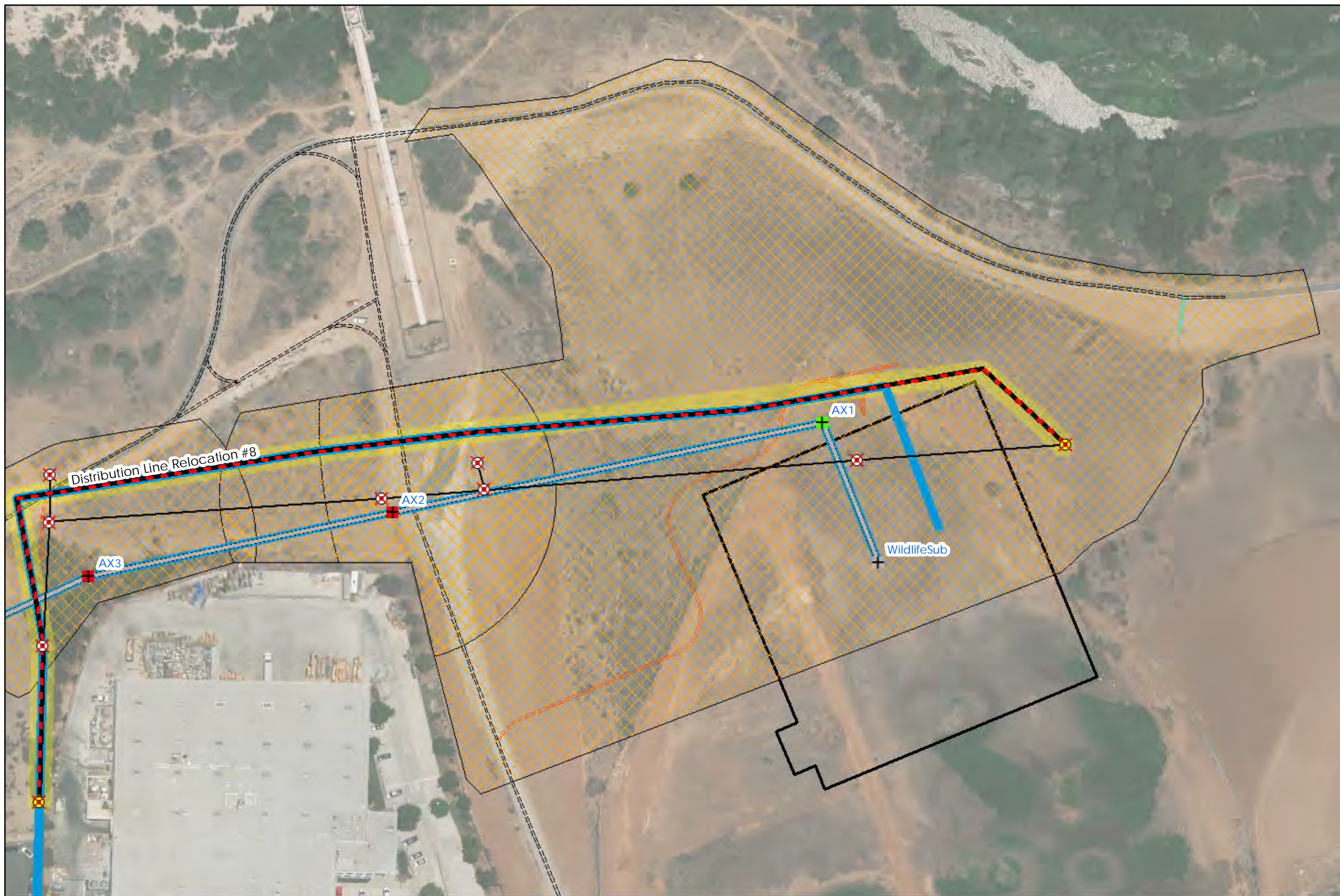
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 1 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Rack
-  Existing Pole to be Removed
-  Existing Pole to be Replaced with New Riser Pole
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD
-  Wildlife Substation Area



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017
















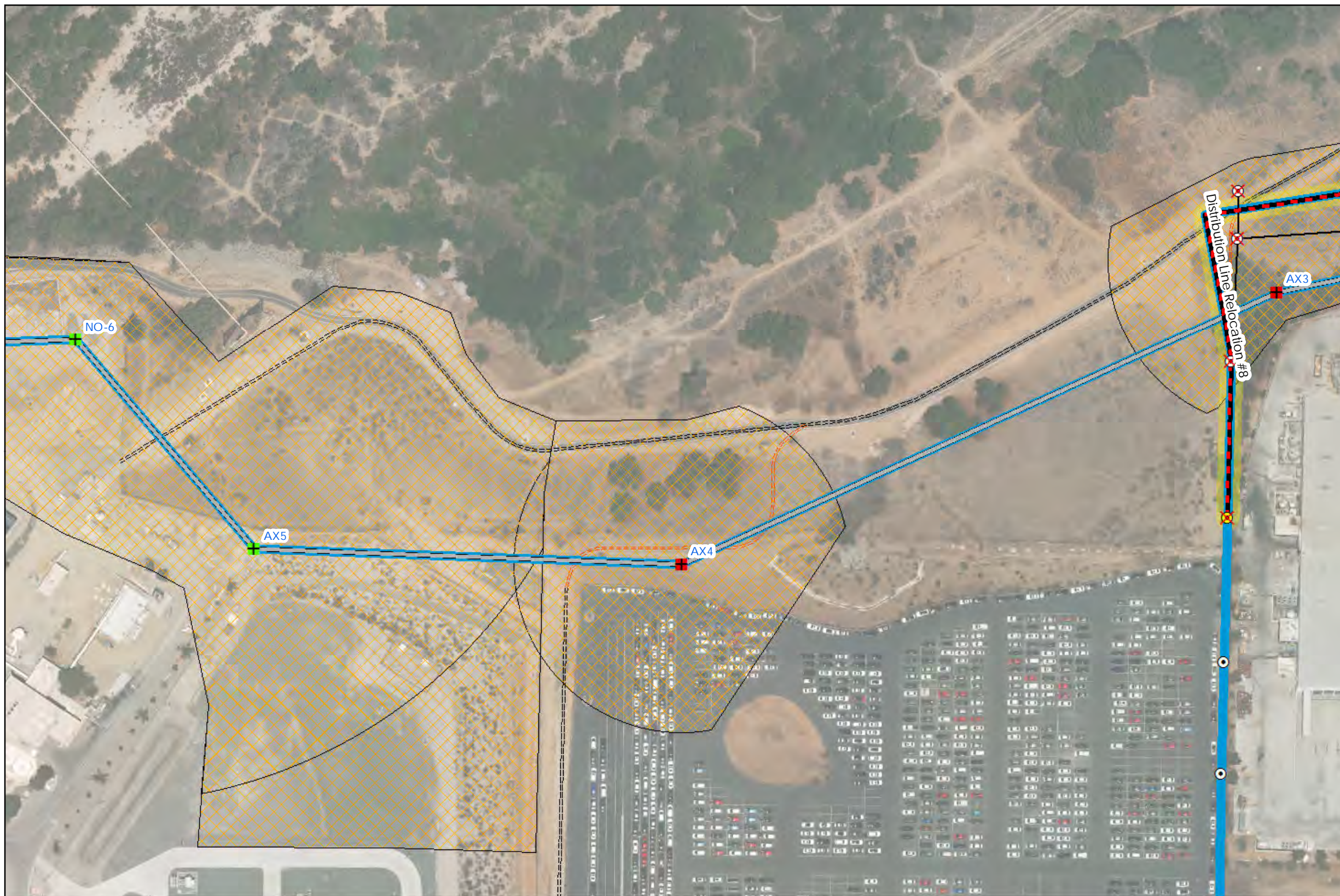
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 2 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Existing Pole
-  Existing Pole to be Removed
-  Existing Pole to be Replaced with New Riser Pole
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD



Map Extent Indicator









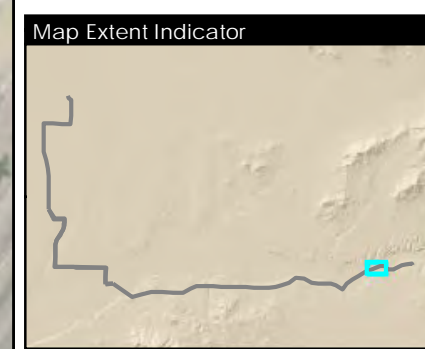
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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017







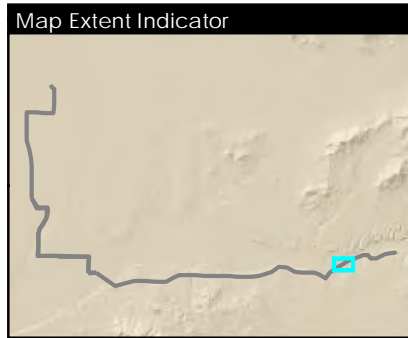
- Legend
-  Tubular Steel Pole (TSP)
 -  Lattice Steel Tower (LST)
 -  Proposed 2013 Alignment (Overhead)
 -  Proposed Telecom Alignment
 -  Existing Access Road
 -  GDAD




Scale = 1:1,500
 0 12.5 25 50 75 100 Feet
 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017



- Legend
-  Tubular Steel Pole (TSP)
 -  Proposed 2013 Alignment (Overhead)
 -  Proposed Telecom Alignment
 -  GDAD









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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017

PANORAMA

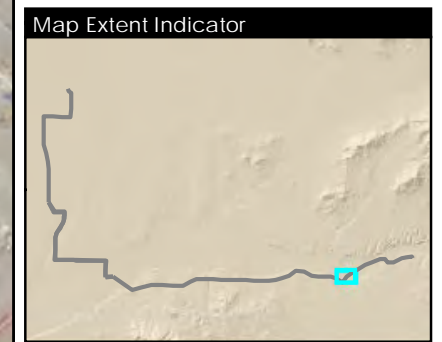
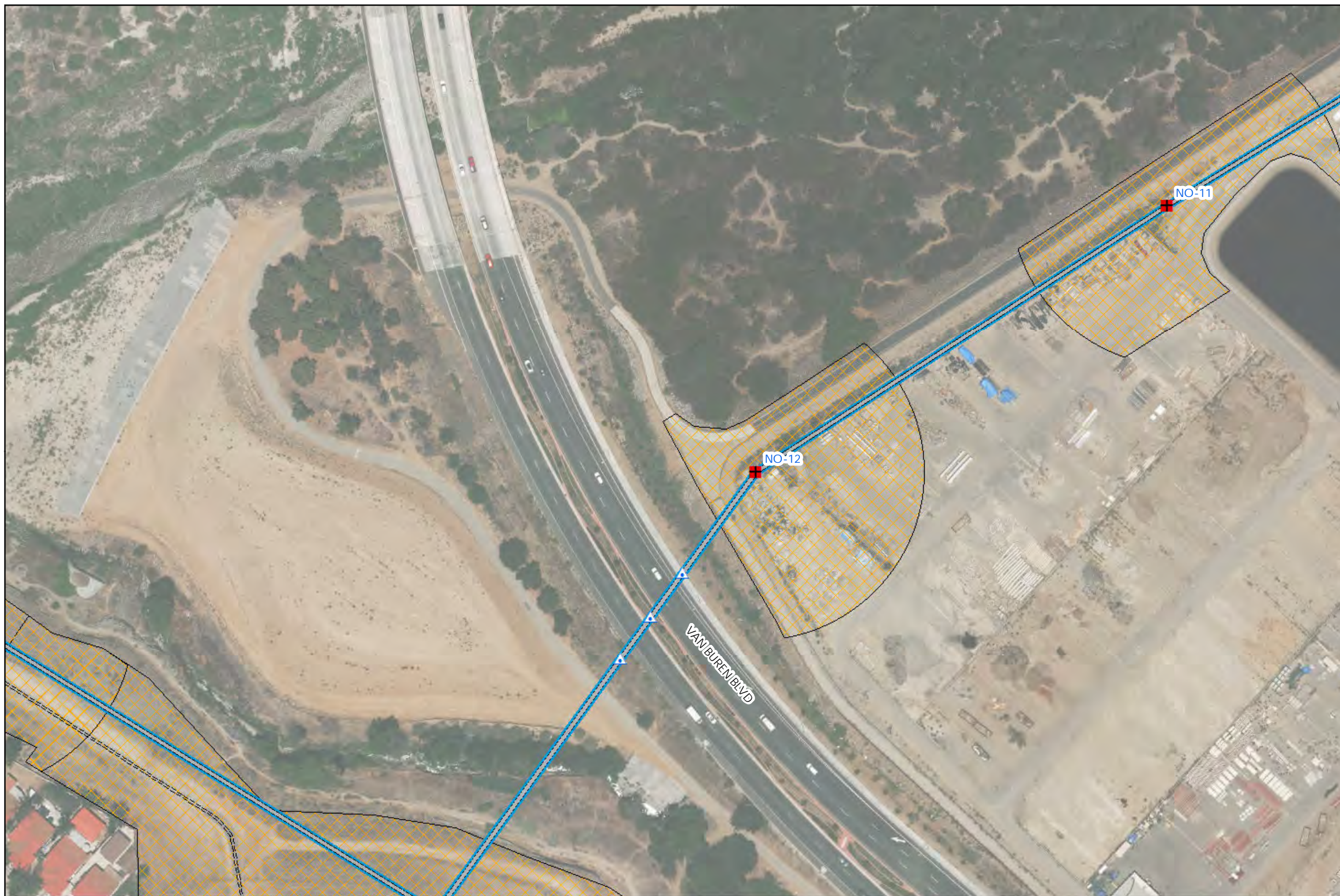
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 5 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Guard Structure
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  GDAD



Scale = 1:1,500

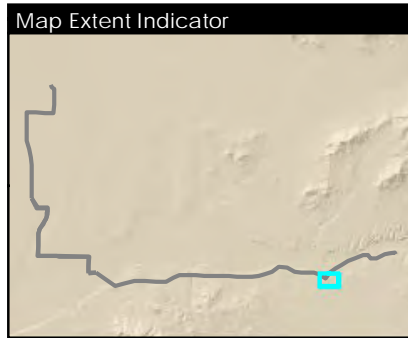


Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





- Legend
- Lattice Steel Tower (LST)
 - Guard Structure
 - Existing Pole
 - Proposed 2013 Alignment (Overhead)
 - Proposed Telecom Alignment
 - Existing Access Road
 - New Stub Road (Permanent)
 - GDAD



Scale = 1:1,500
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 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017
















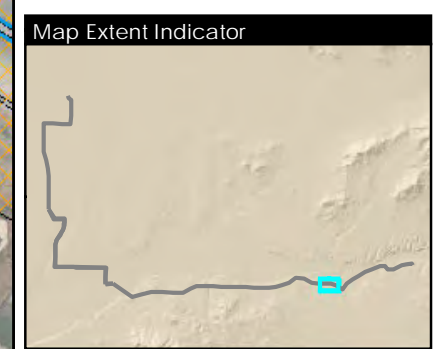
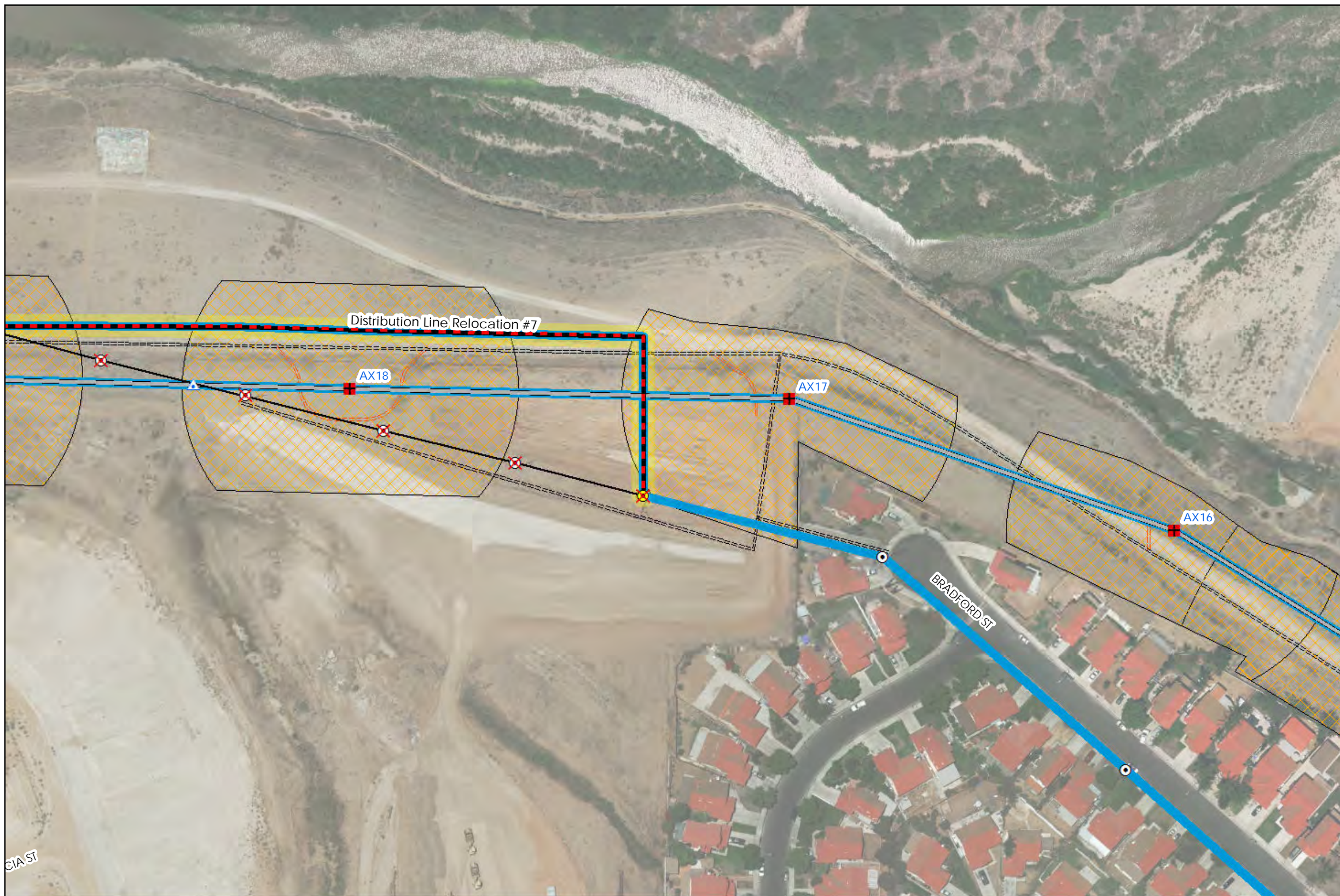
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 7 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Guard Structure
-  Existing Pole
-  Existing Pole to be Removed
-  Existing Pole to be Replaced with New Riser Pole
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017



















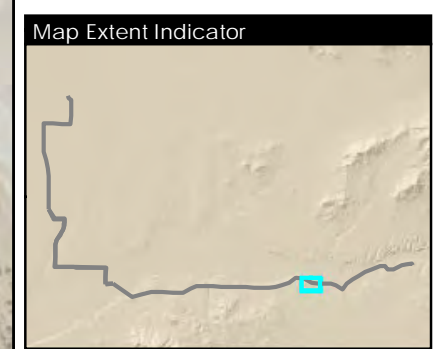
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 8 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Guard Structure
-  Existing Pole
-  Existing Pole to be Removed
-  Existing Pole to be Replaced with New Riser Pole
-  New Pole
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500

0 12.5 25 50 75 100 Feet
Aerial Imagery: 6/14/2016
Date Created: 11/6/2017

















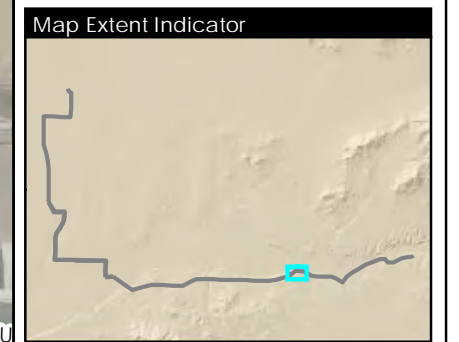
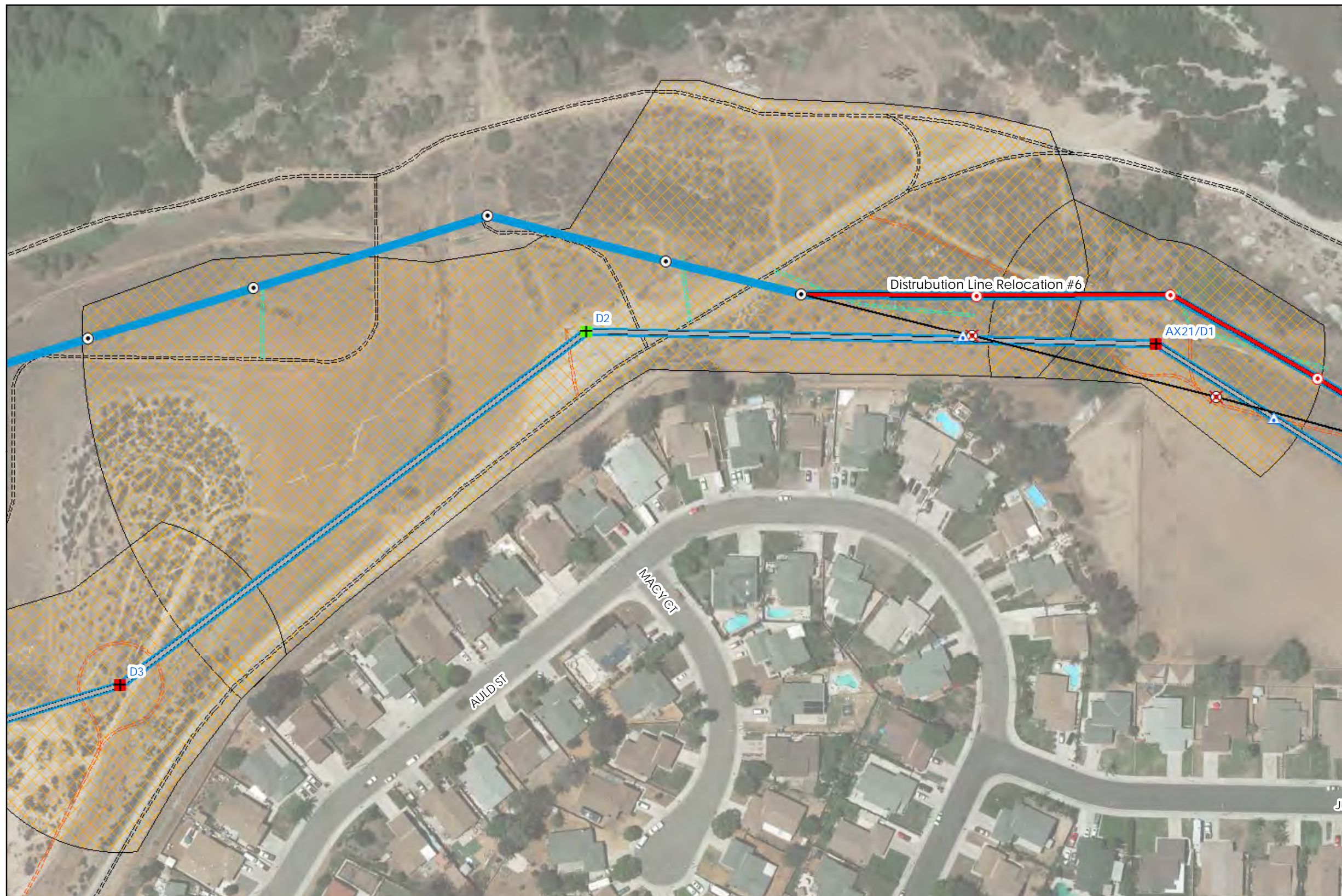
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 9 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Guard Structure
-  Existing Pole
-  Existing Pole to be Removed
-  New Pole
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD

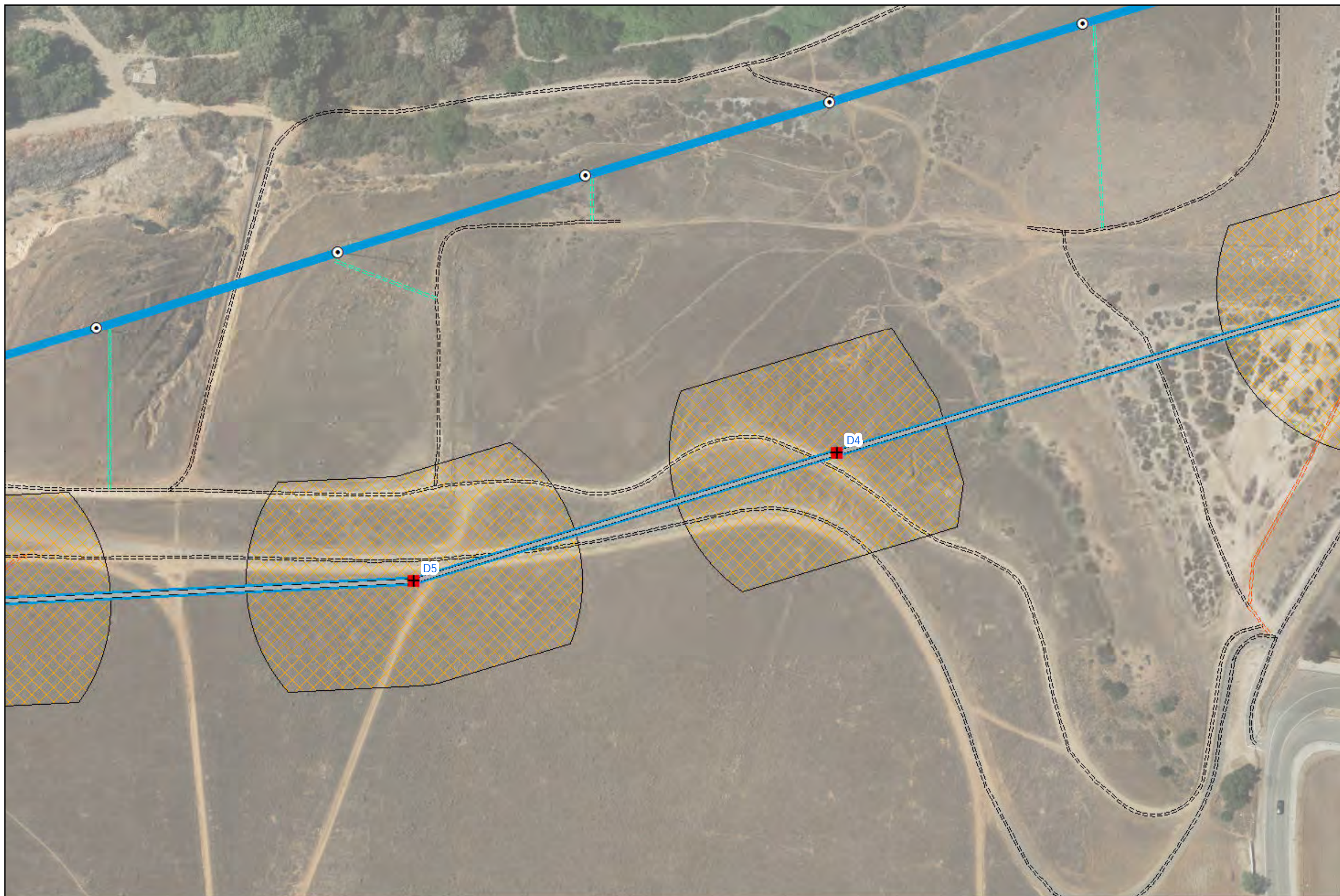


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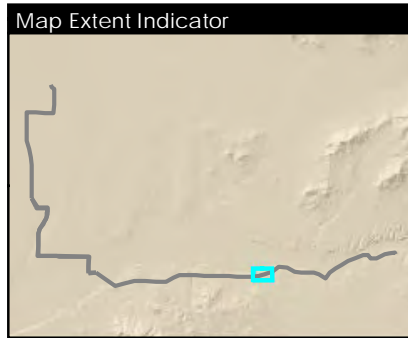


Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





- Legend
- Tubular Steel Pole (TSP)
 - Existing Pole
 - Proposed 2013 Alignment (Overhead)
 - Proposed Telecom Alignment
 - Existing Access Road
 - New Stub Road (Permanent)
 - Overland Travel (Temporary)
 - GDAD



Scale = 1:1,500
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 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017









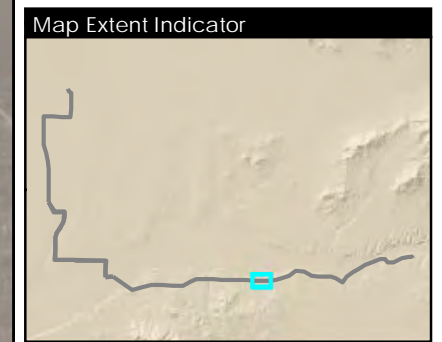
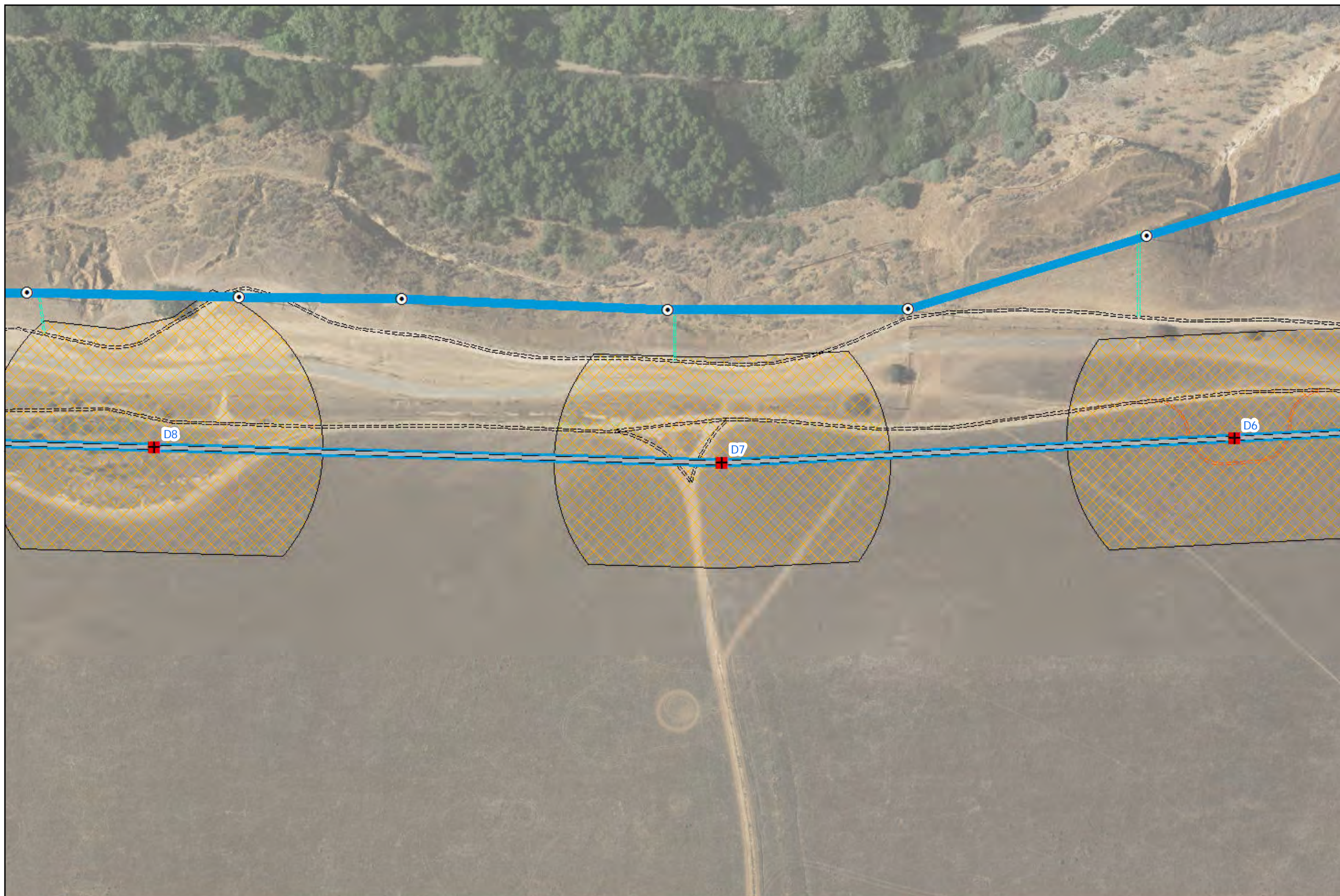
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 11 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017










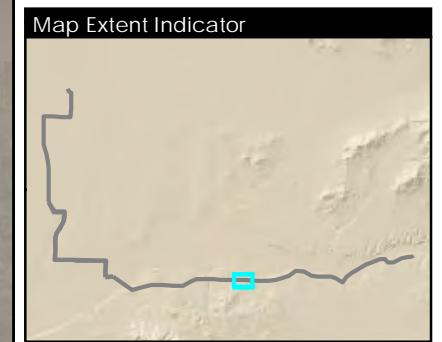
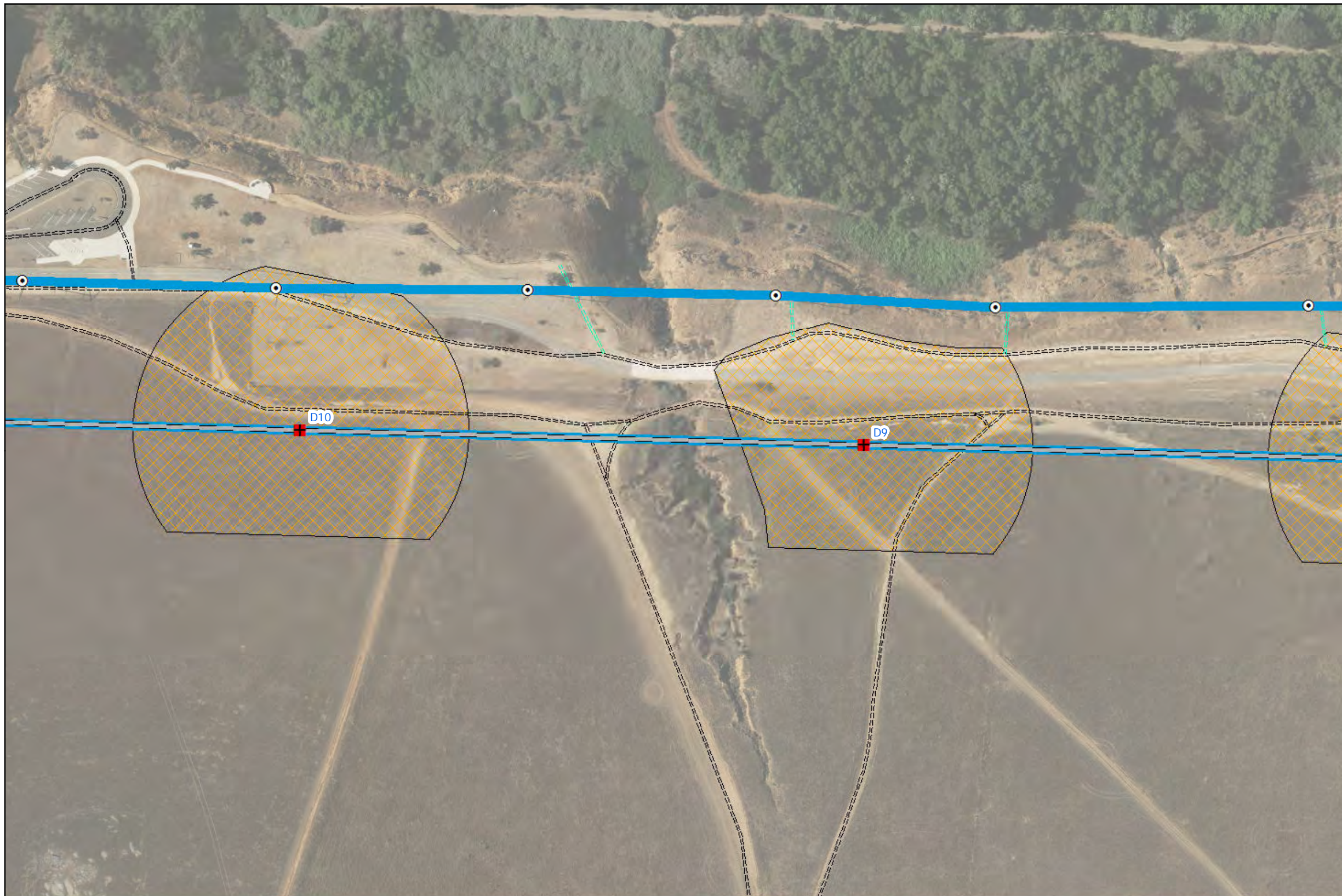
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 12 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017










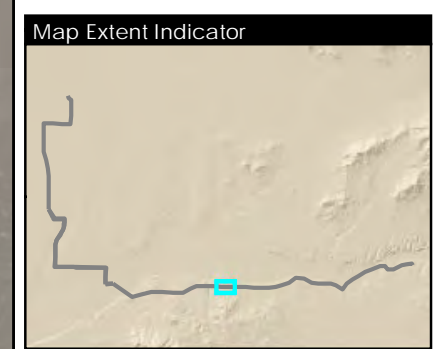
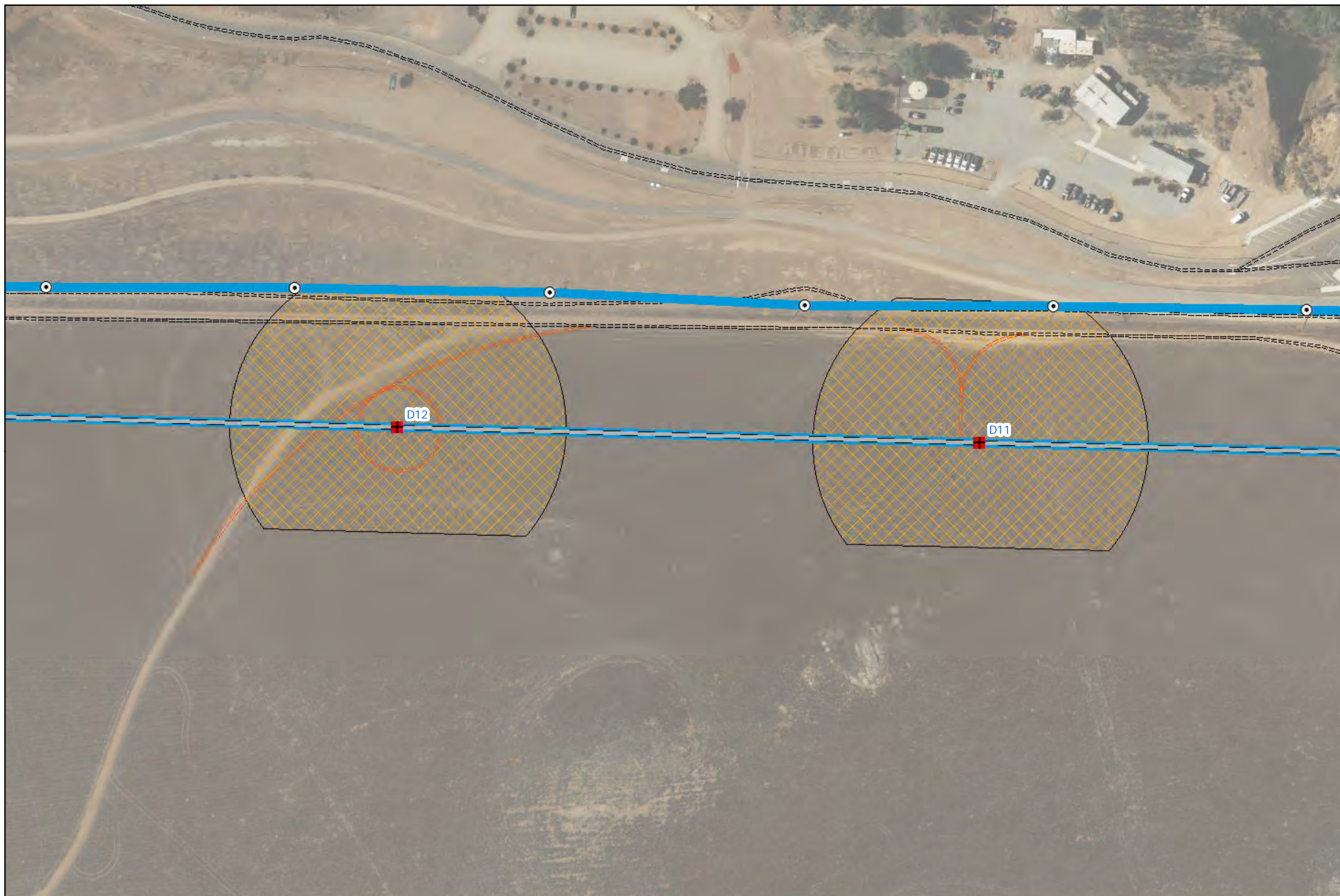
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 13 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD

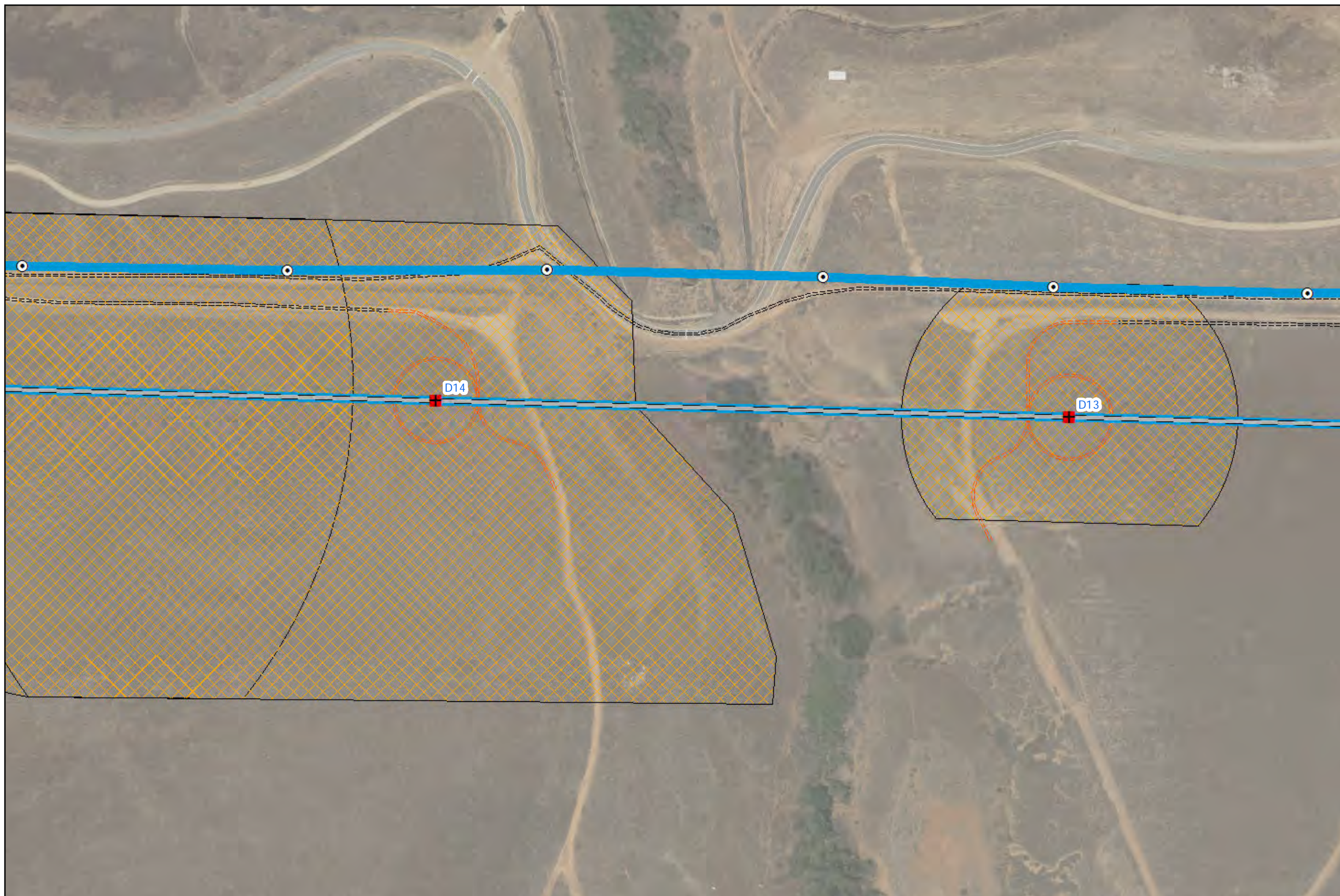









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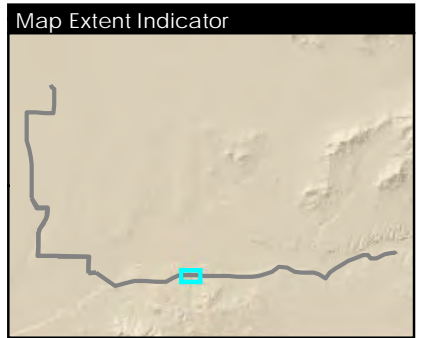


Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





- Legend
-  Tubular Steel Pole (TSP)
 -  Existing Pole
 -  Proposed 2013 Alignment (Overhead)
 -  Proposed Telecom Alignment
 -  Existing Access Road
 -  New Stub Road (Permanent)
 -  GDAD



Scale = 1:1,500
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 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017











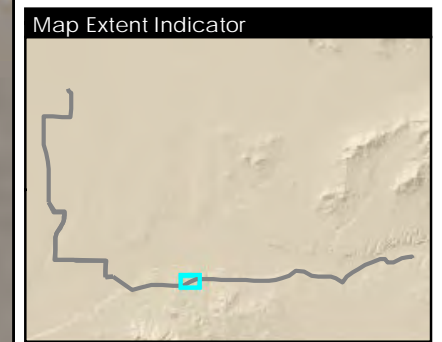
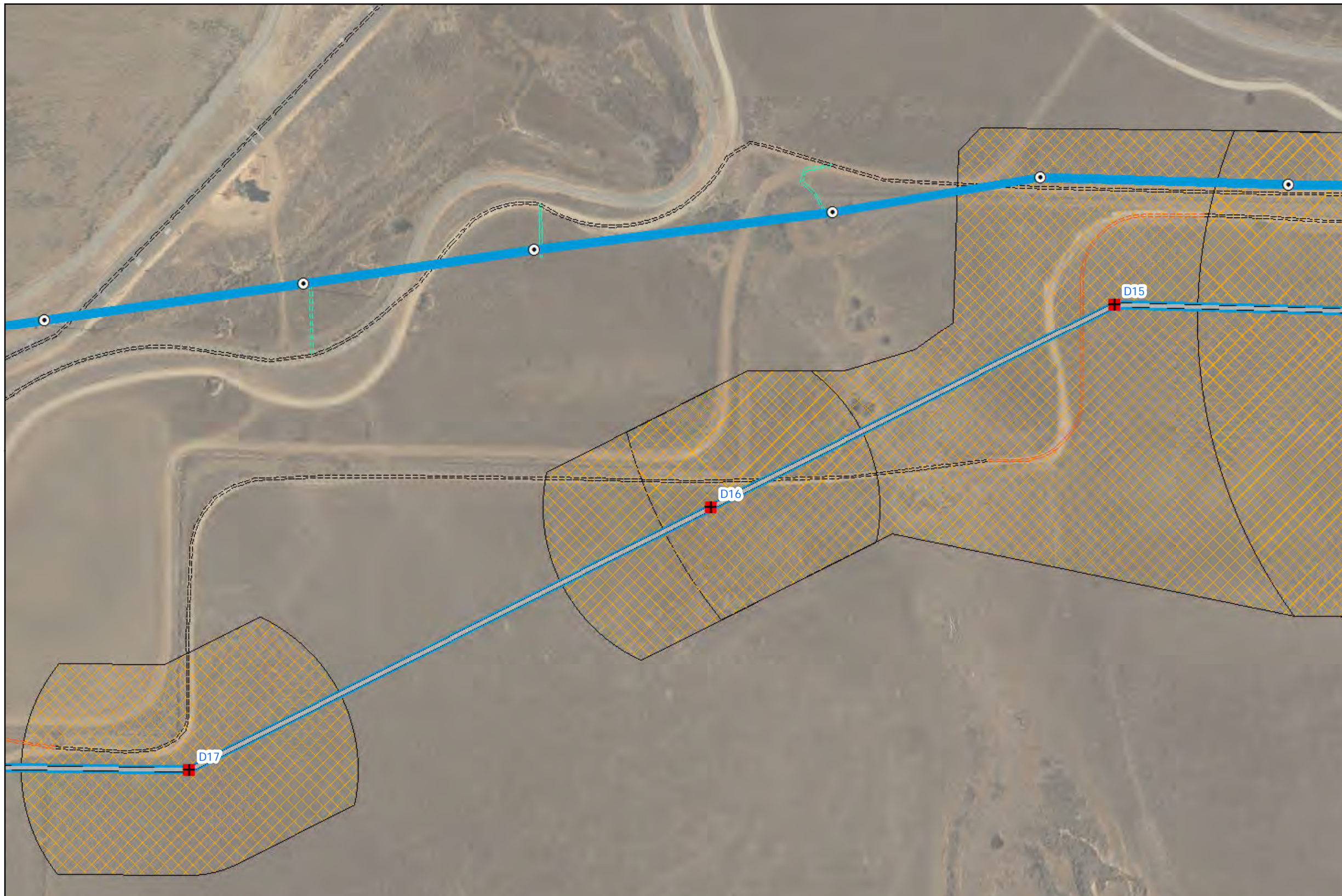
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 15 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD












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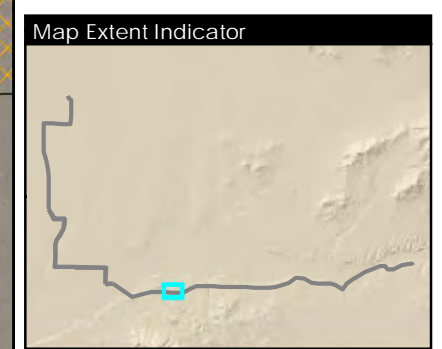
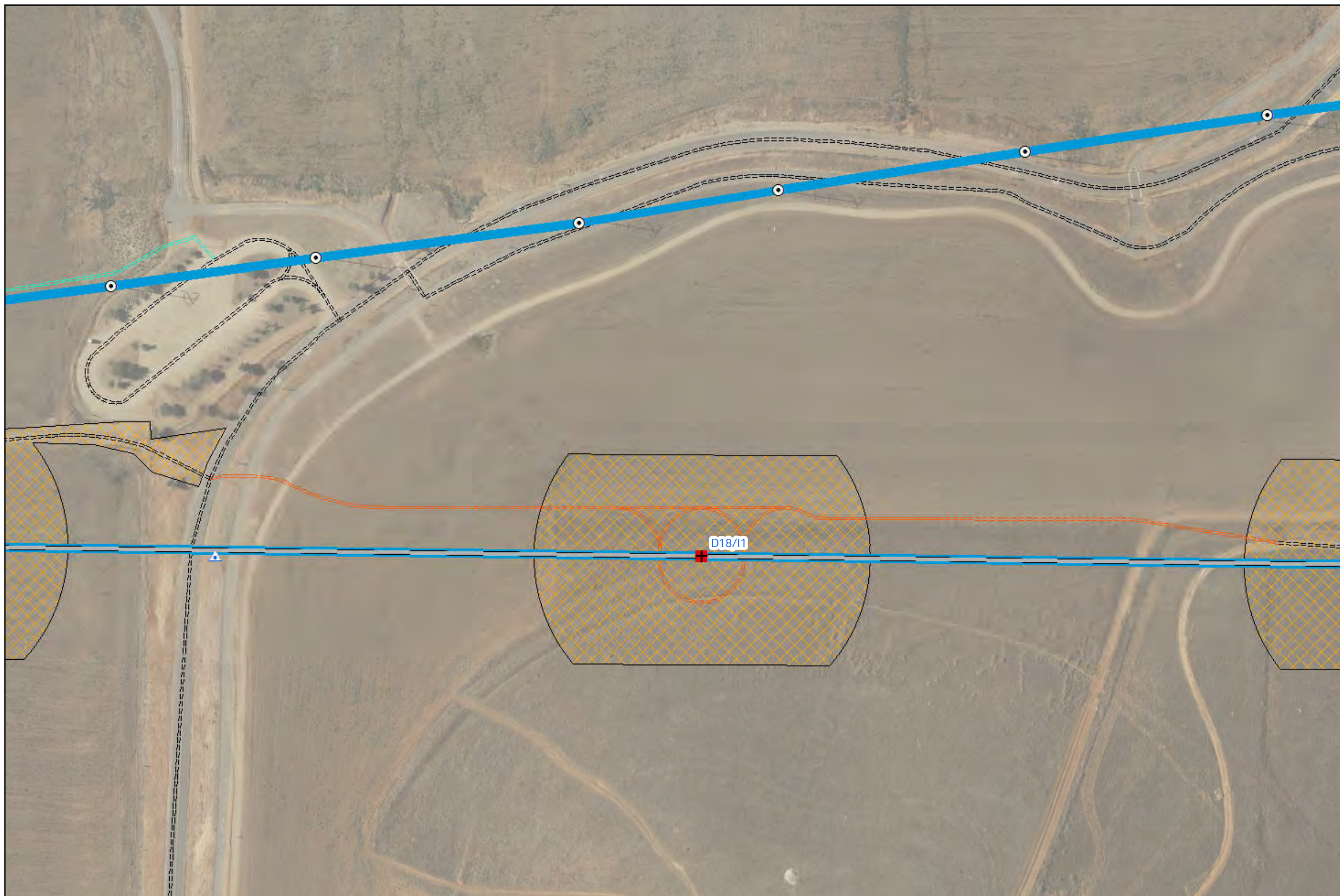
0 12.525 50 75 100 Feet

Aerial Imagery: 6/14/2016
Date Created: 11/6/2017



Legend

-  Tubular Steel Pole (TSP)
-  Guard Structure
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500
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 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017



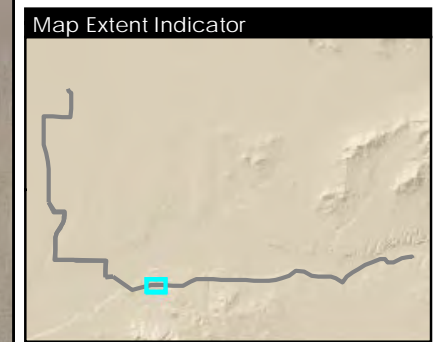
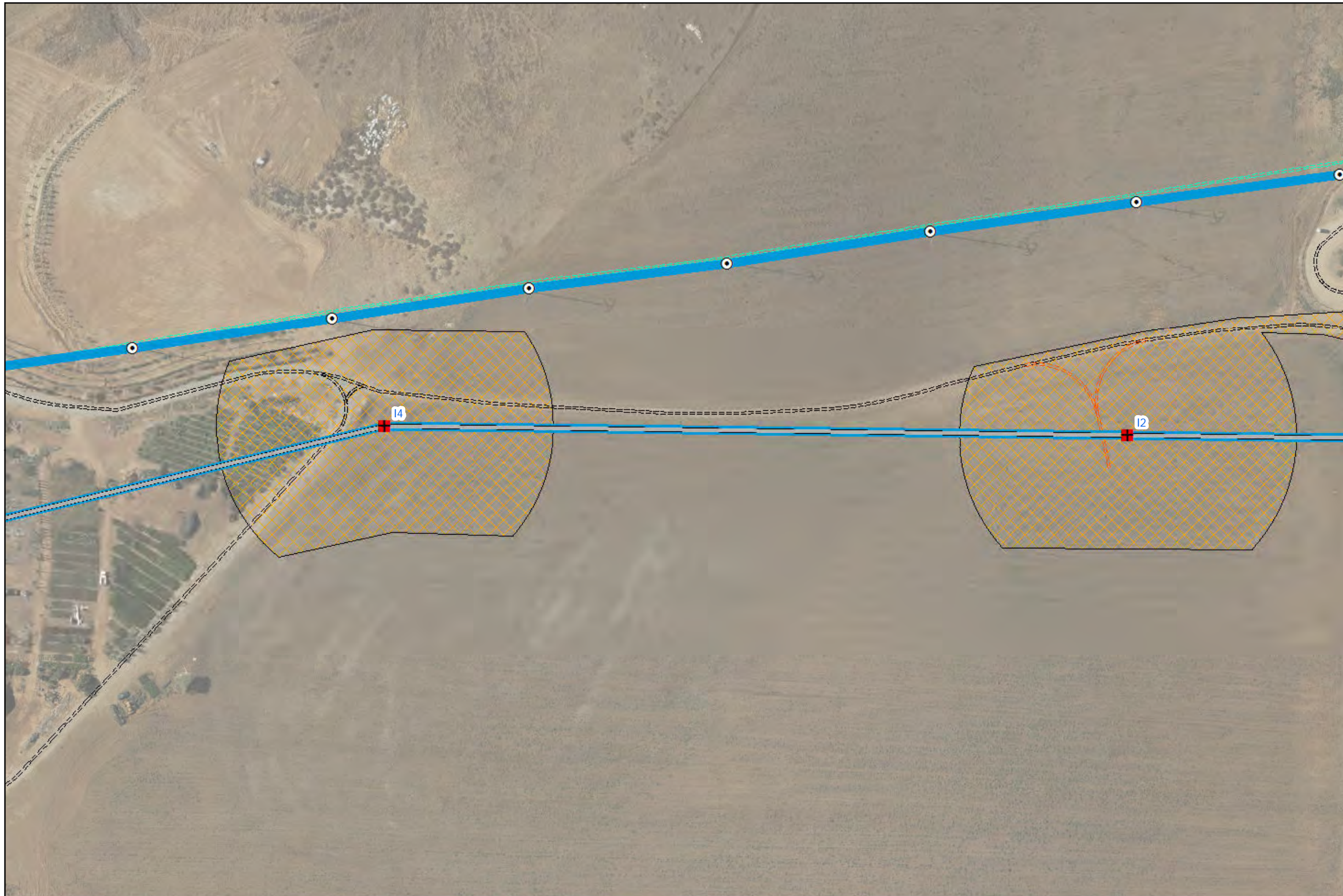
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 17 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017













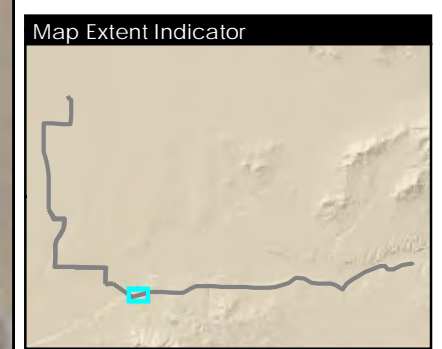
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 18 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Guard Structure
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017




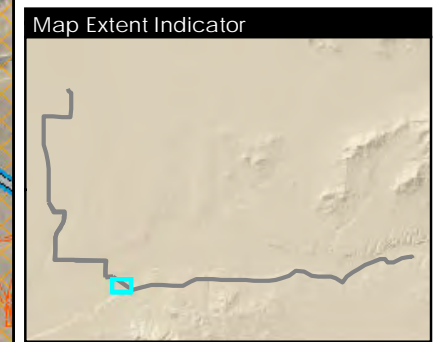
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 19 of 46

Legend

-  Guard Structure
-  Existing Pole
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017



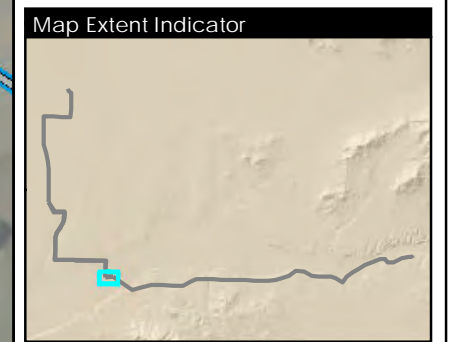
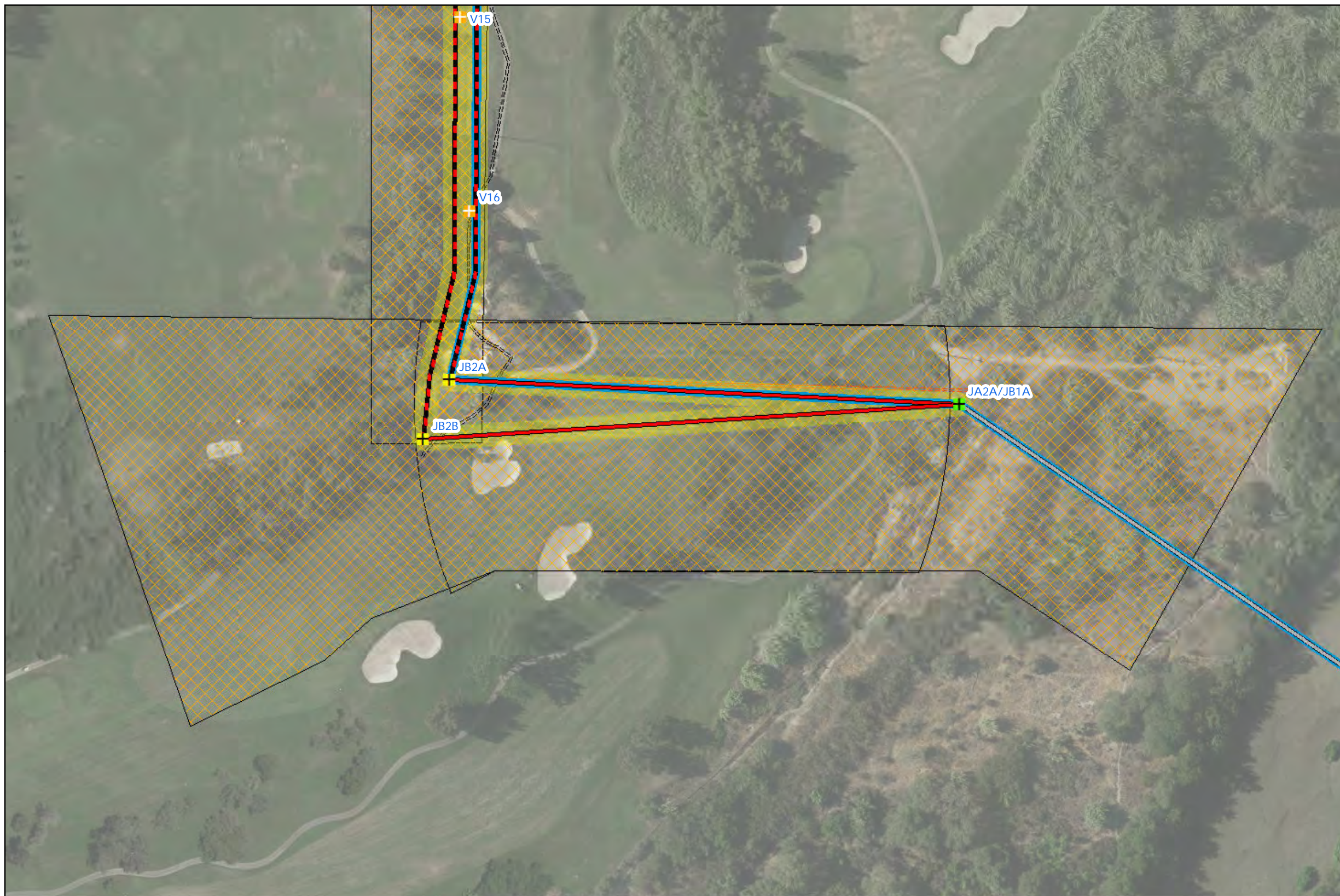
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 20 of 46

Legend

- Lattice Steel Tower (LST)
- Riser pole (TSP)
- Vault
- Proposed 230-kV Transmission Line (Overhead)
- Proposed 230-kV Transmission Line (Underground)
- Proposed 2013 Alignment (Overhead)
- Proposed 2013 Alignment (Underground)
- Proposed Telecom Alignment
- Revised Project Element
- Existing Access Road
- New Stub Road (Permanent)
- GDAD



Scale = 1:1,500





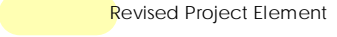
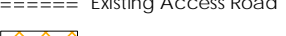



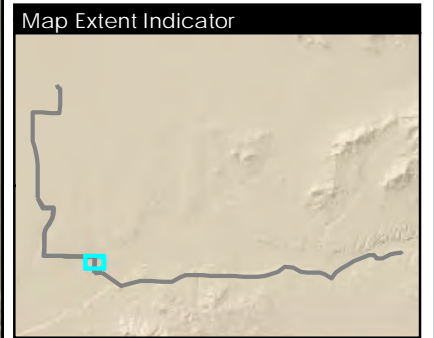
Aerial Imagery: 6/14/2016
Date Created: 11/6/2017



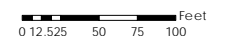


Legend

-  Vault
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017






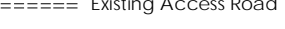



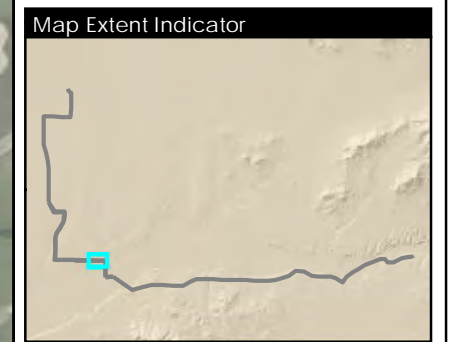
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 22 of 46

Legend

-  Vault
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017









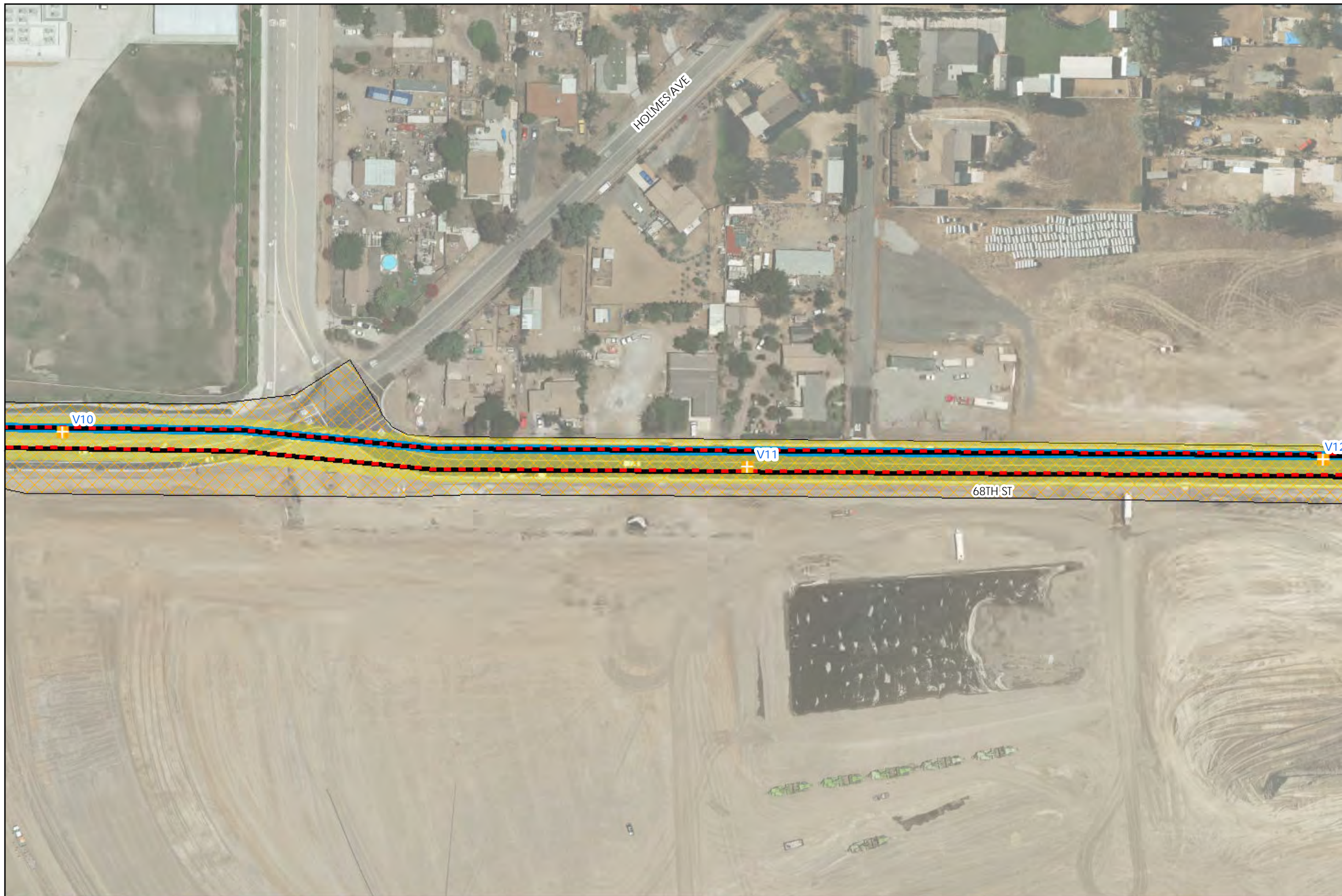
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

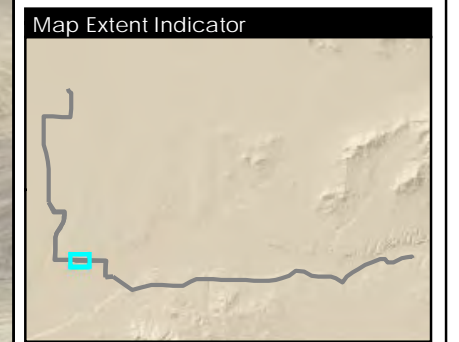
Map 23 of 46

Legend

-  Vault
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  GDAD



NOTE: Location 4 facilities were removed during construction of the Riverbend Residential Development



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017









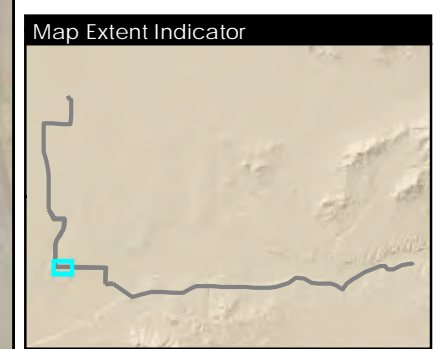
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 24 of 46

Legend

-  Vault
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017









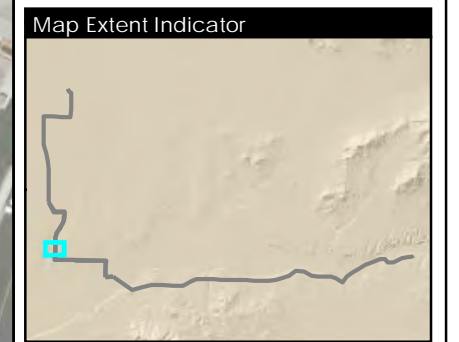
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 25 of 46

Legend

-  Vault
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  GDAD

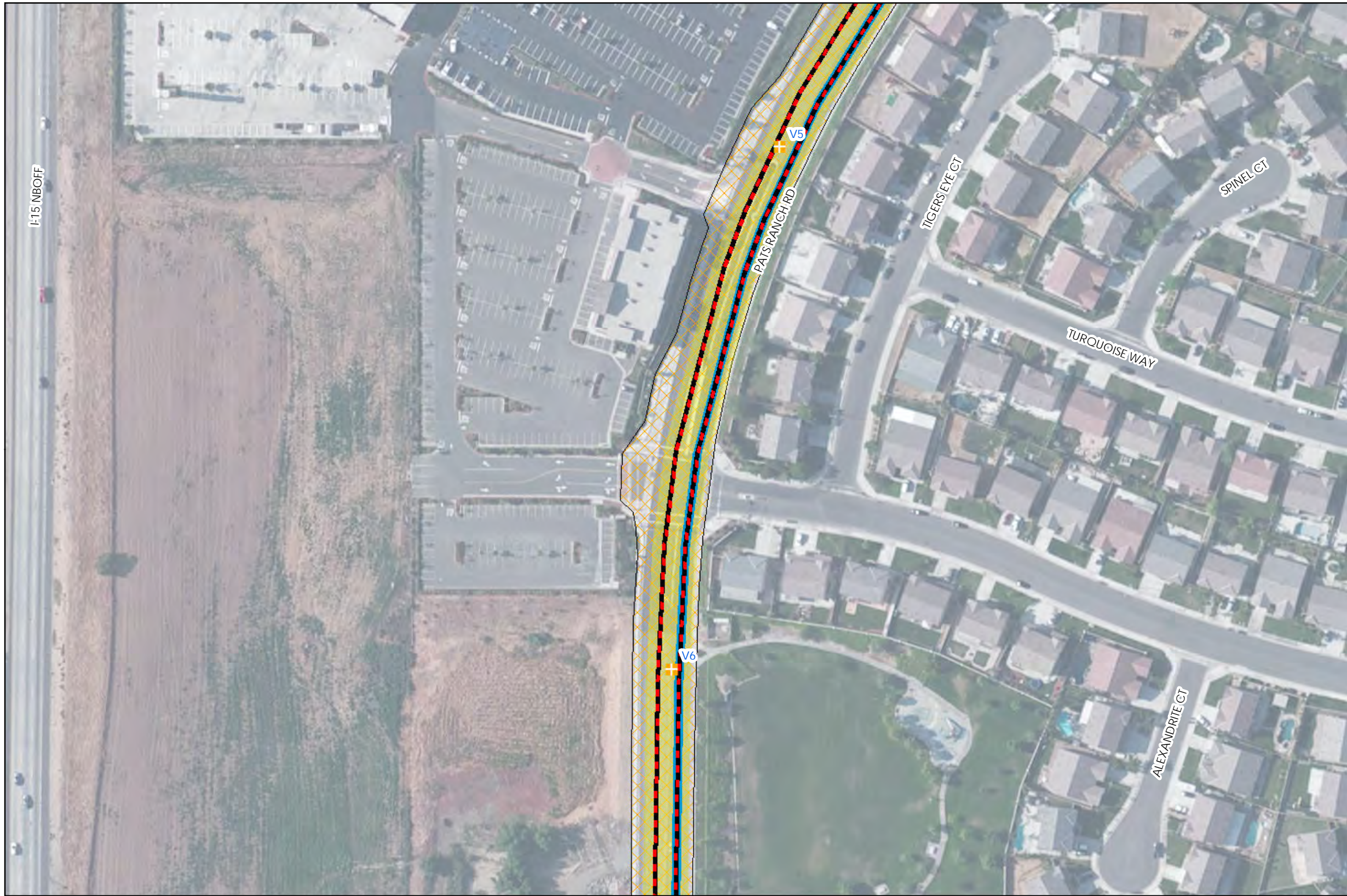


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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017











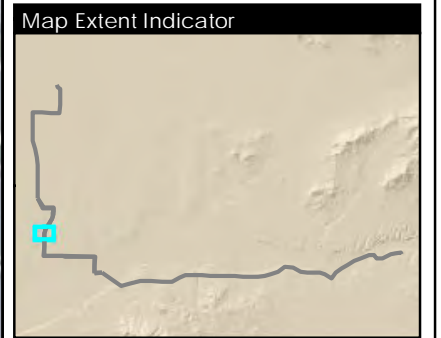
Riverside Transmission Reliability Project

Project Elements (All Elements)
Mapbook

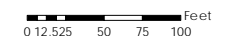
Map 26 of 46

Legend

-  Vault
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  GDAD



Scale = 1:1,500









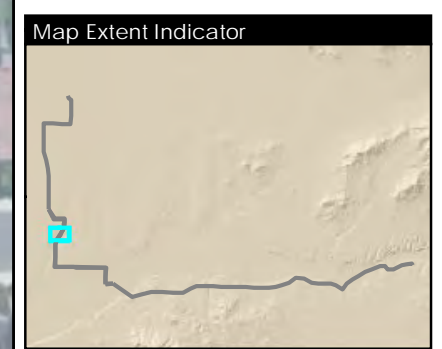
Aerial Imagery: 6/14/2016
Date Created: 11/6/2017




PANORAMA



- Legend
-  Vault
 -  Proposed 230-kV Transmission Line (Underground)
 -  Proposed 2013 Alignment (Underground)
 -  Proposed Telecom Alignment
 -  Revised Project Element
 -  GDAD










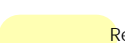



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 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017

 PANORAMA

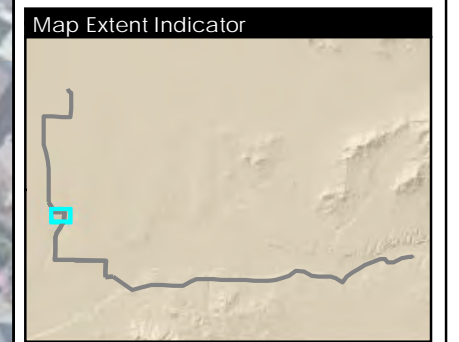
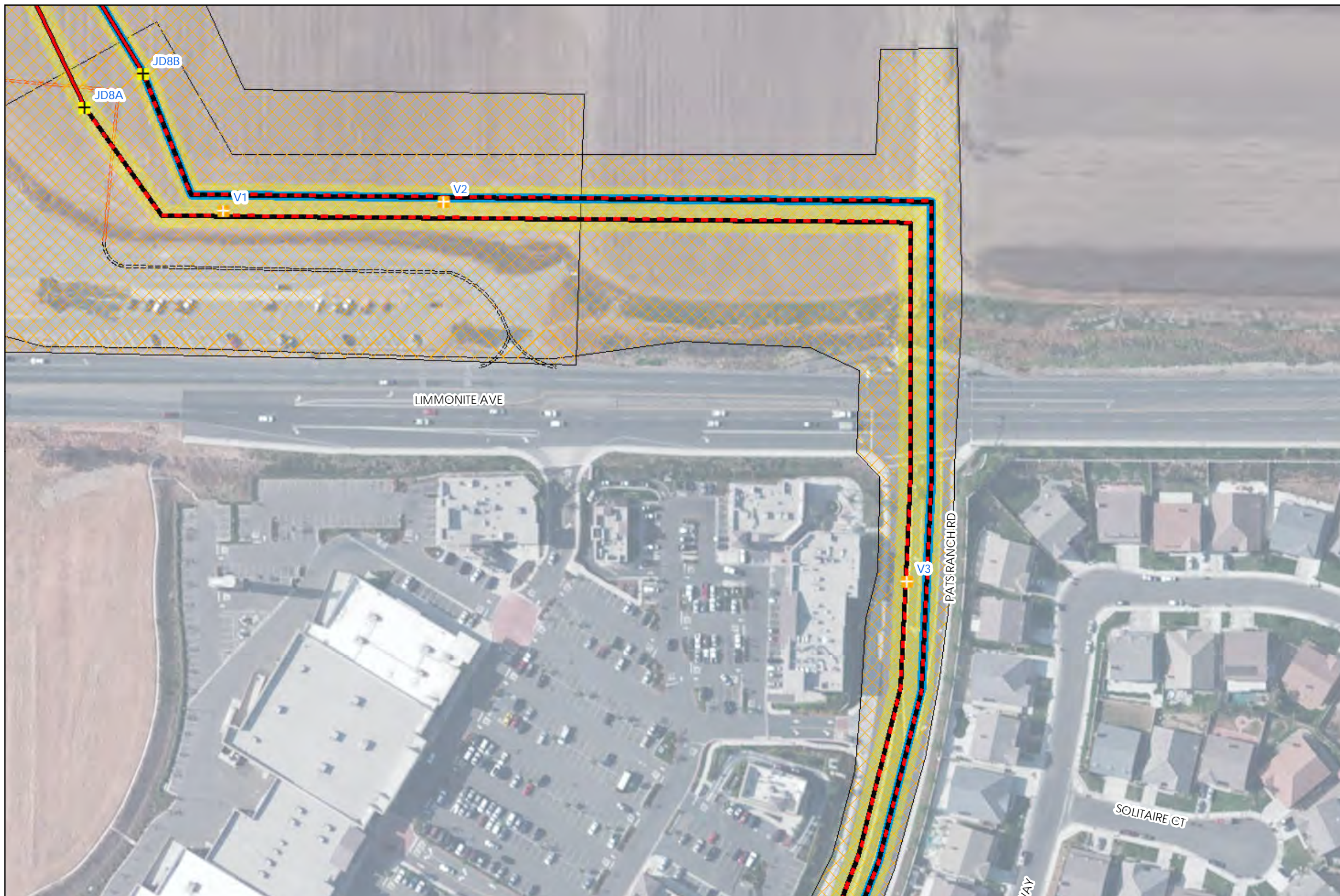
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 28 of 46

Legend

-  Riser pole (TSP)
-  Vault
-  Proposed 230-kV Transmission Line (Overhead)
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Overhead)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017














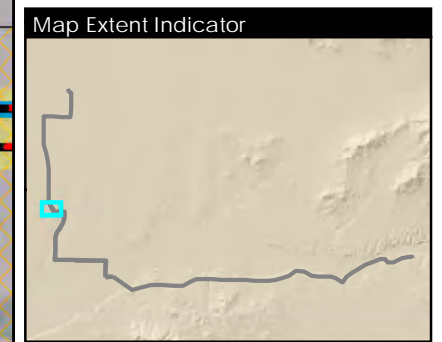
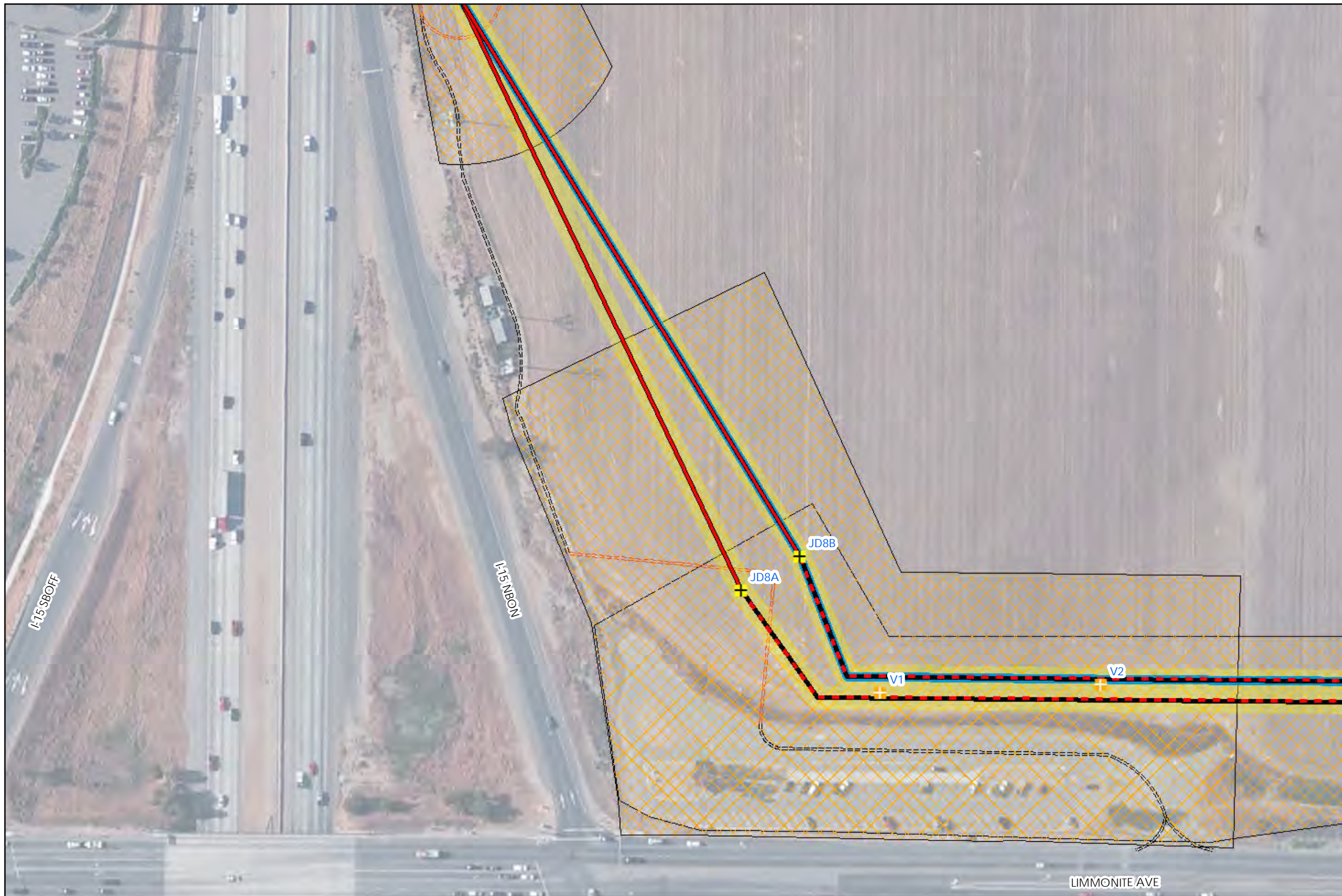
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 29 of 46

Legend

-  Riser pole (TSP)
-  Vault
-  Proposed 230-kV Transmission Line (Overhead)
-  Proposed 230-kV Transmission Line (Underground)
-  Proposed 2013 Alignment (Overhead)
-  Proposed 2013 Alignment (Underground)
-  Proposed Telecom Alignment
-  Revised Project Element
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD












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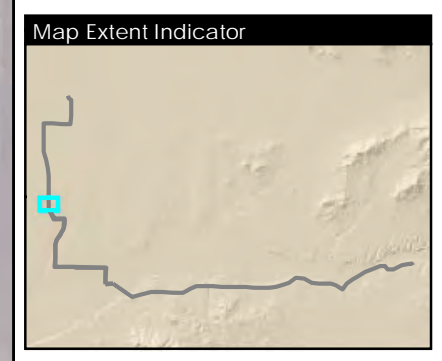


Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





- Legend
-  Tubular Steel Pole (TSP)
 -  Lattice Steel Tower (LST)
 -  Proposed 230-kV Transmission Line (Overhead)
 -  Proposed 2013 Alignment (Overhead)
 -  Proposed Telecom Alignment
 -  Revised Project Element
 -  Existing Access Road
 -  New Stub Road (Permanent)
 -  GDAD









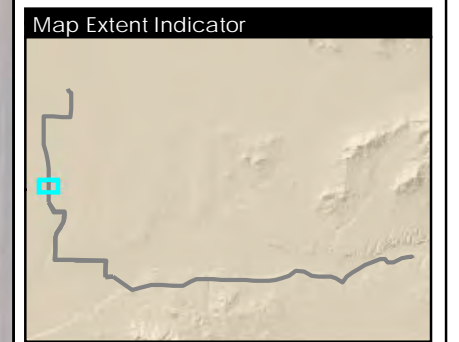
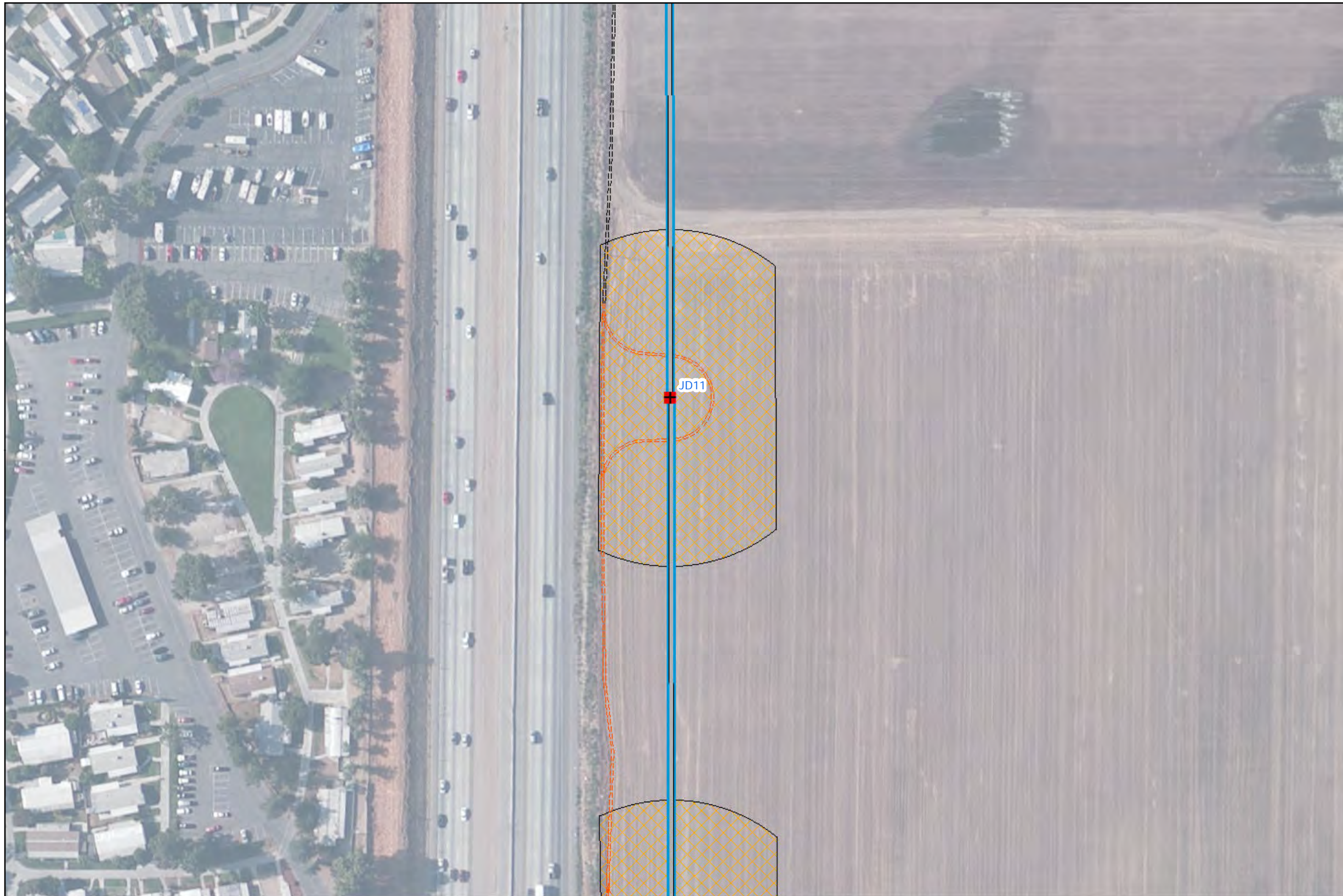
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 31 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD

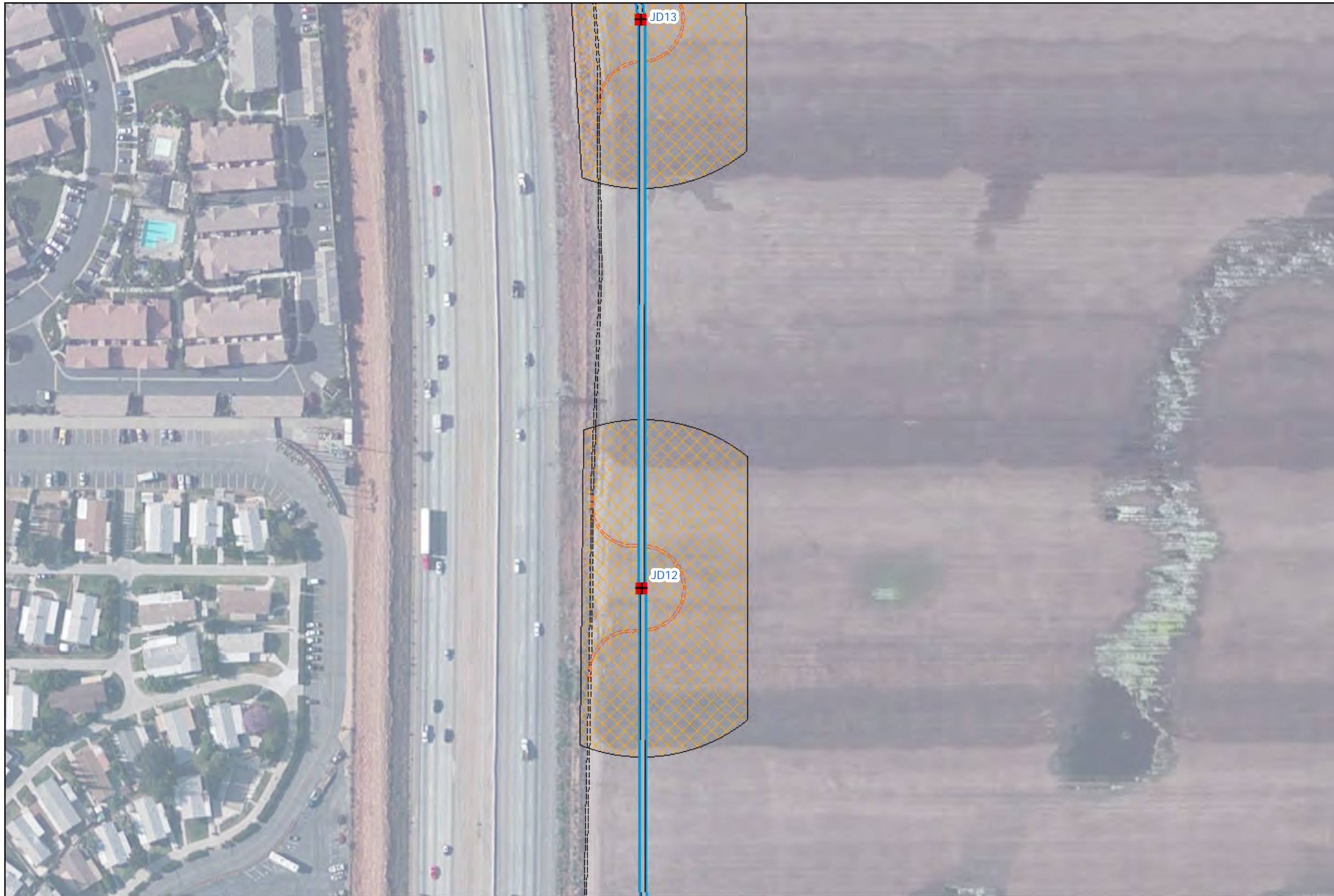








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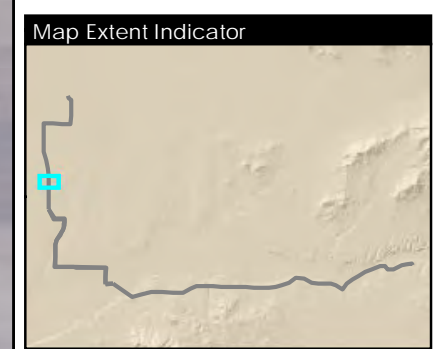


Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





- Legend
-  Tubular Steel Pole (TSP)
 -  Proposed 2013 Alignment (Overhead)
 -  Proposed Telecom Alignment
 -  Existing Access Road
 -  New Stub Road (Permanent)
 -  GDAD



Scale = 1:1,500
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 Aerial Imagery: 6/14/2016
 Date Created: 11/6/2017









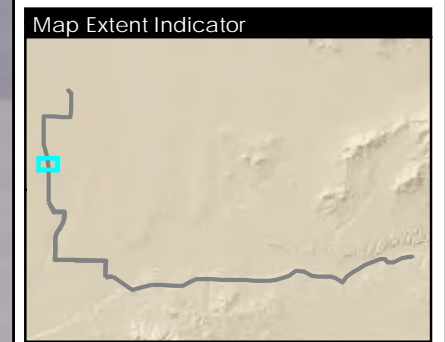
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 33 of 46

Legend









-  Tubular Steel Pole (TSP)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD

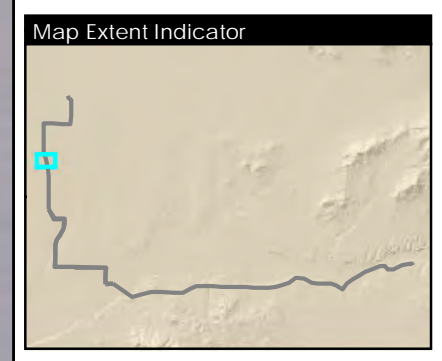


Scale = 1:1,500
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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





- Legend
-  Tubular Steel Pole (TSP)
 -  Existing Pole
 -  Existing Distribution Alignment (Overhead)
 -  Proposed 2013 Alignment (Overhead)
 -  Proposed Telecom Alignment
 -  Existing Access Road
 -  New Stub Road (Permanent)
 -  GDAD













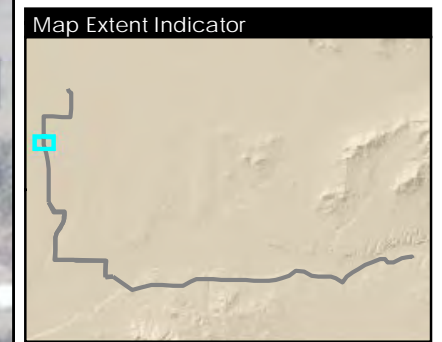
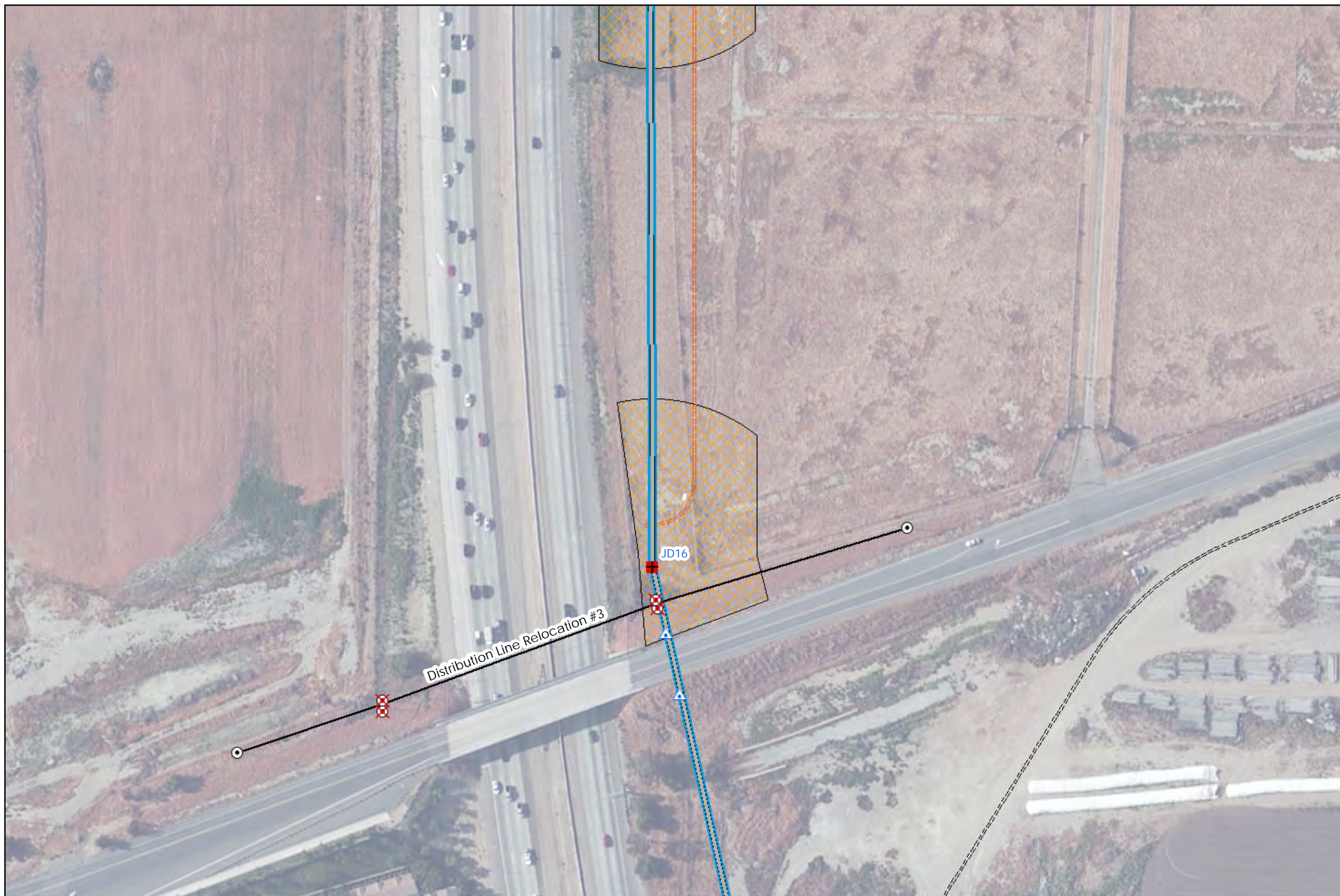
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 35 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Guard Structure
-  Existing Pole
-  Existing Pole to be Removed
-  Existing Distribution Alignment (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Existing Access Road
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017








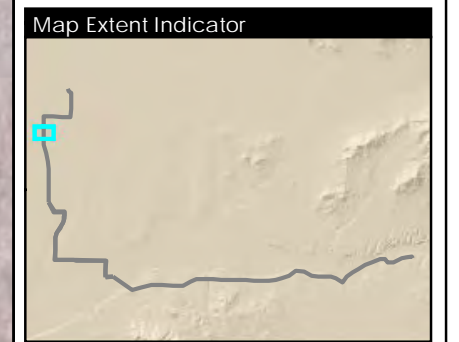
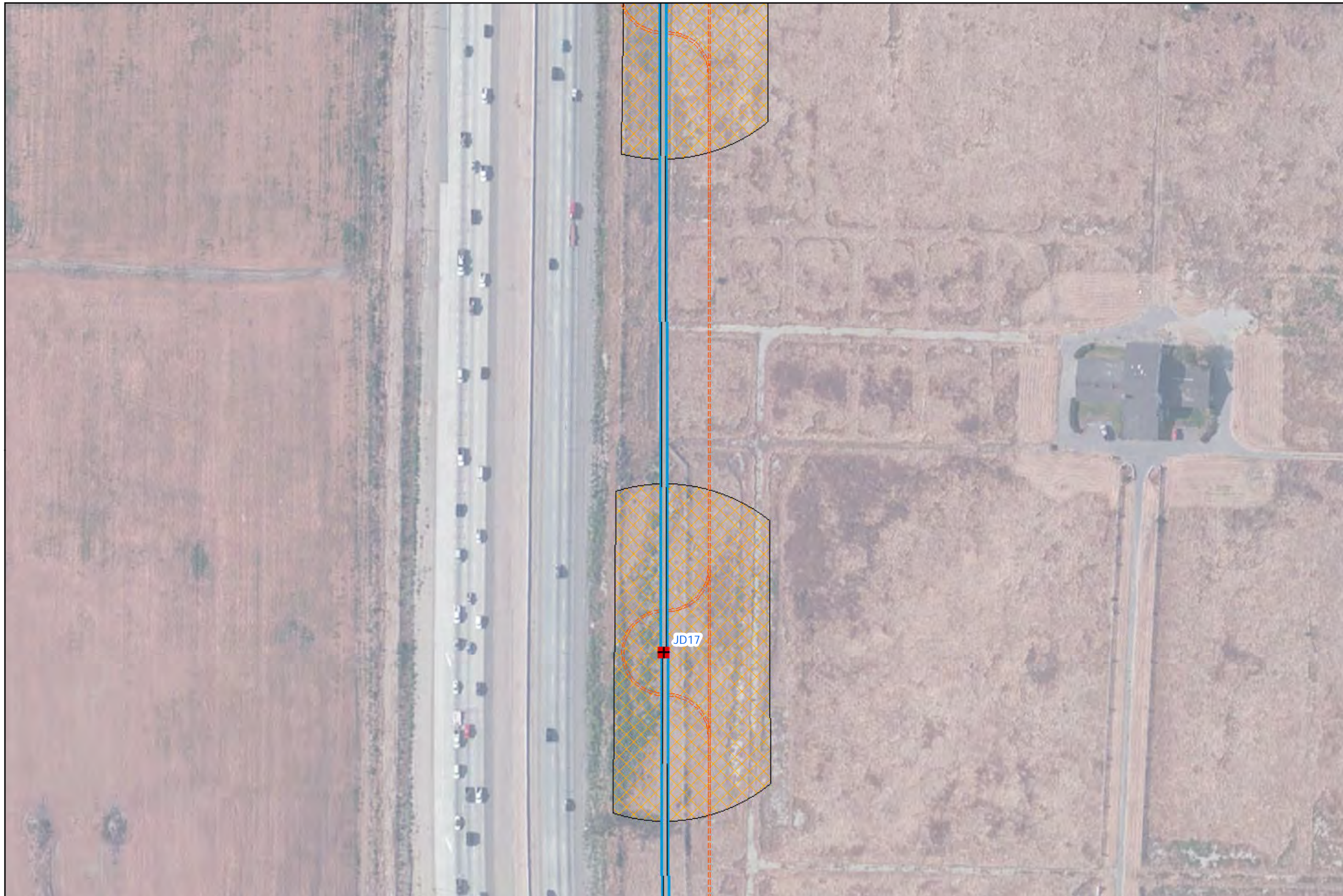
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 36 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500
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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017












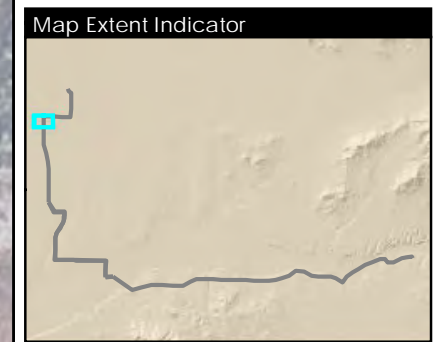
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 37 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Guard Structure
-  Existing Pole to be Removed
-  Existing Distribution Alignment (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017












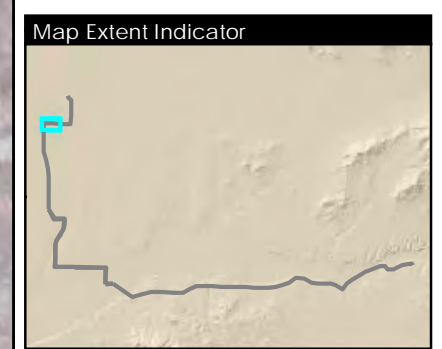
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 38 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Guard Structure
-  Existing Pole to be Removed
-  Existing Distribution Alignment (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017






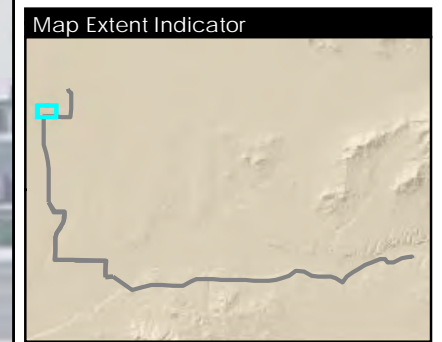
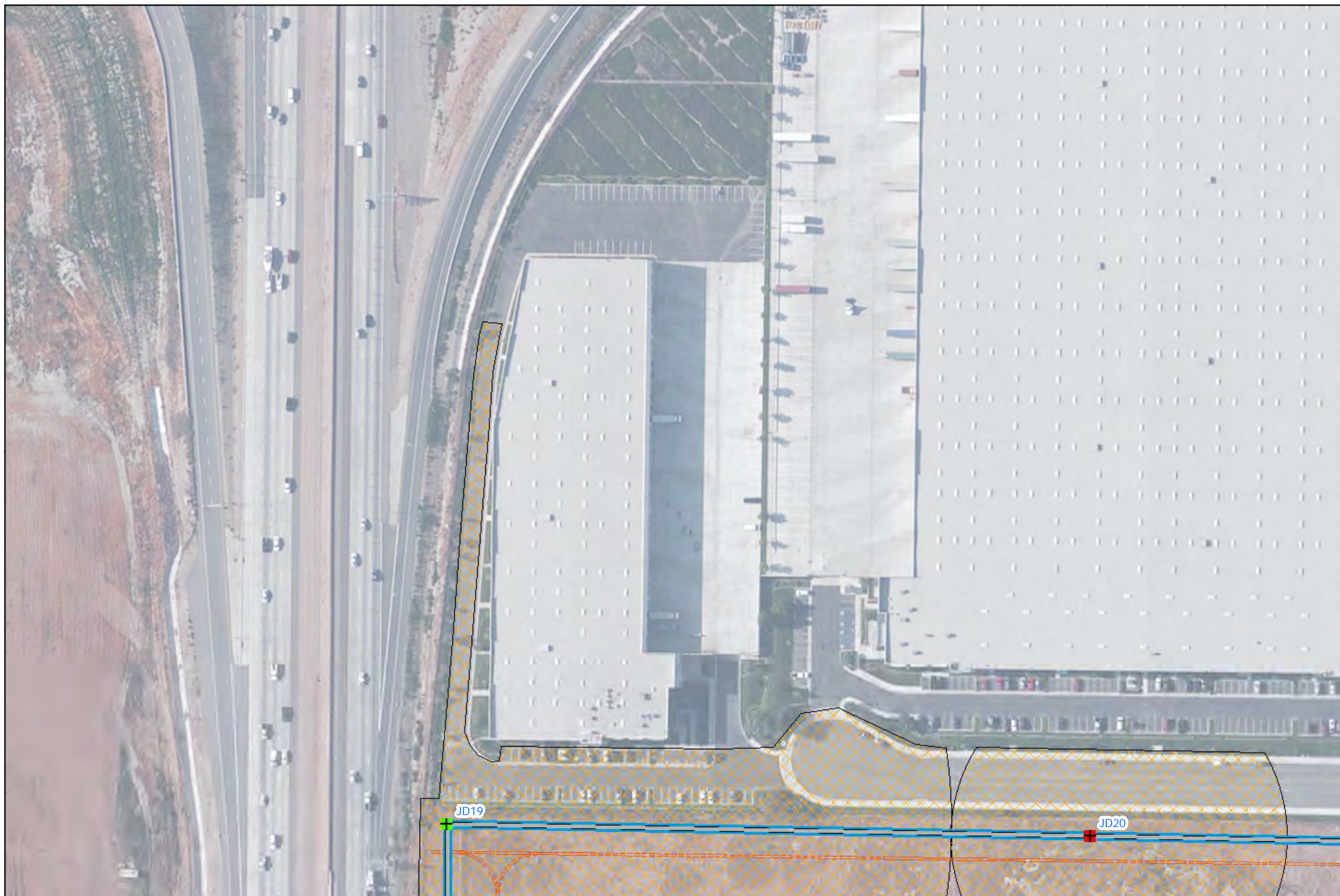
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 39 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017











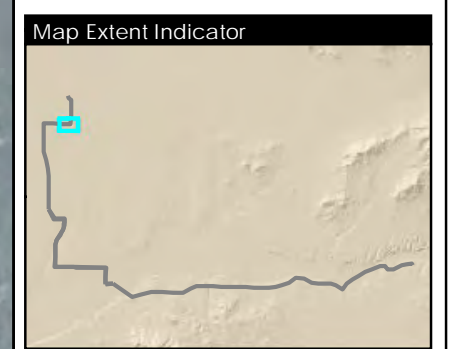
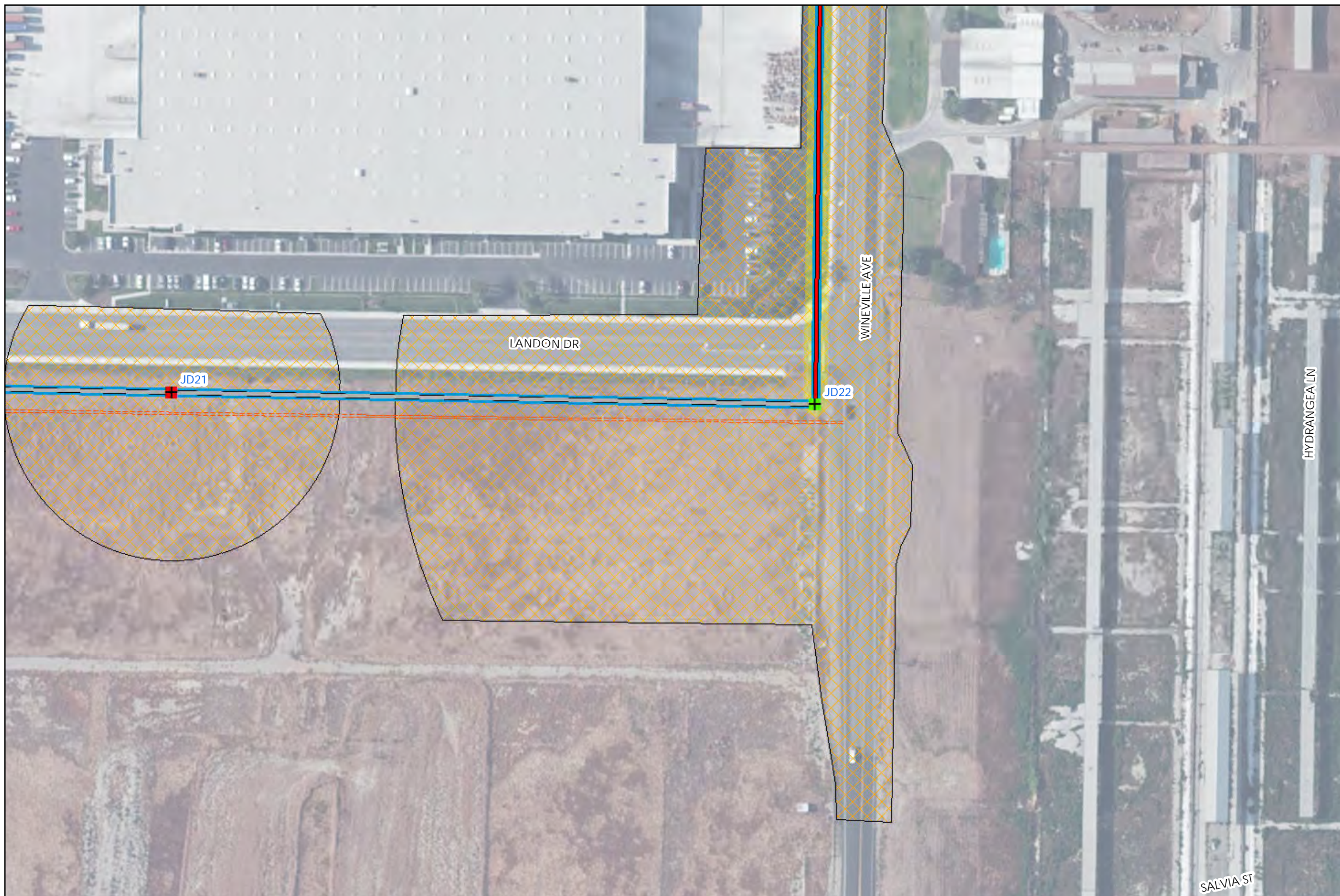
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 40 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Proposed 230-kV Transmission Line (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  New Stub Road (Permanent)
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017












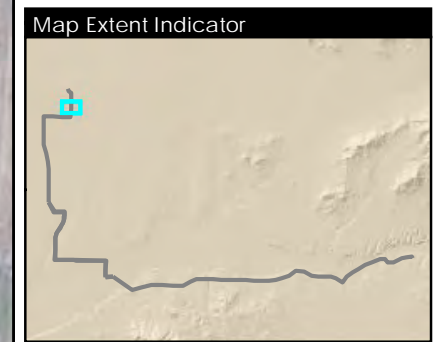
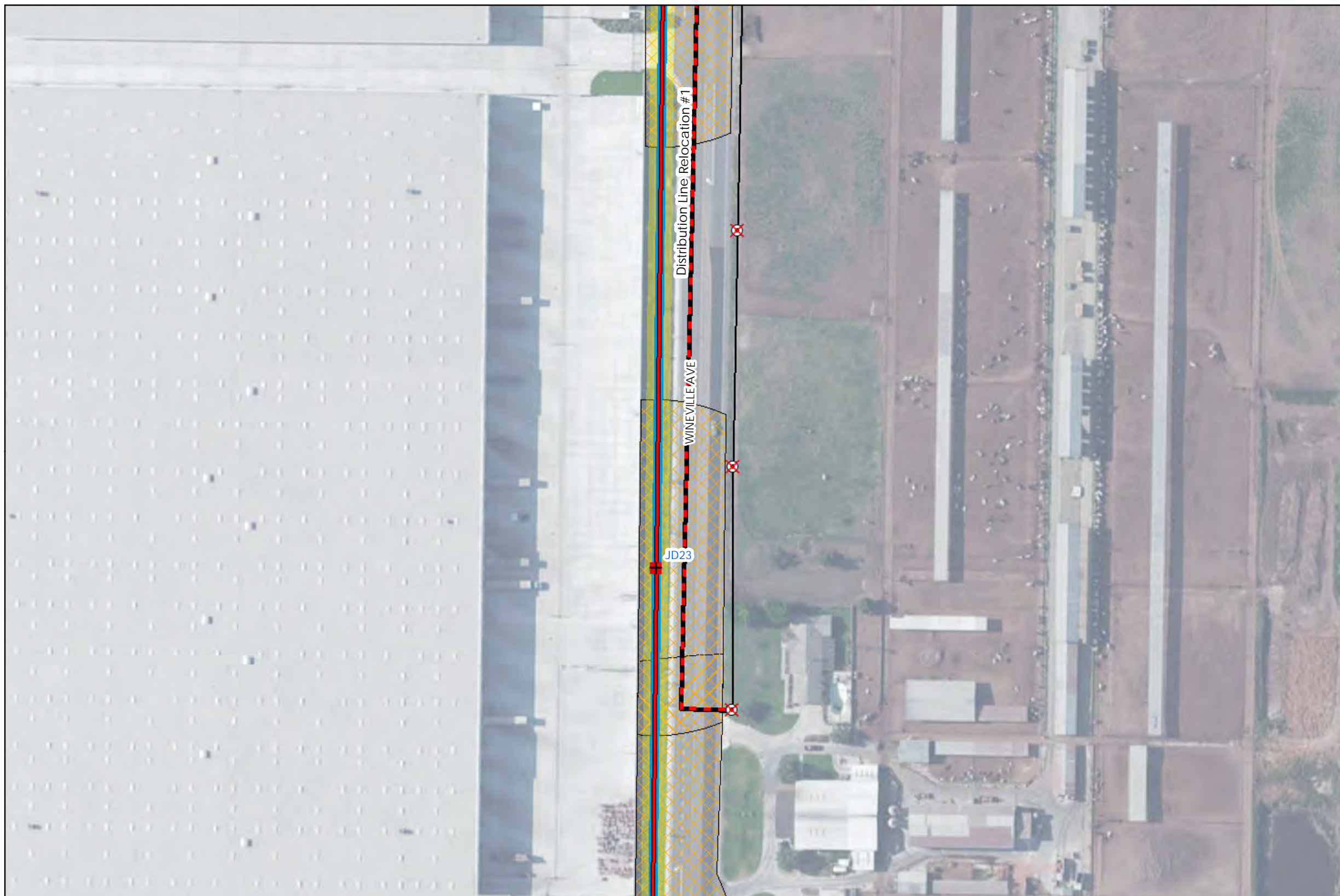
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 41 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Existing Pole to be Removed
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Proposed 230-kV Transmission Line (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017





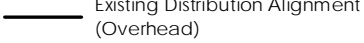
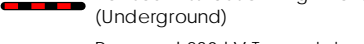







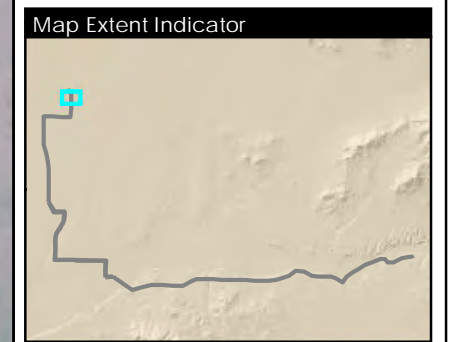
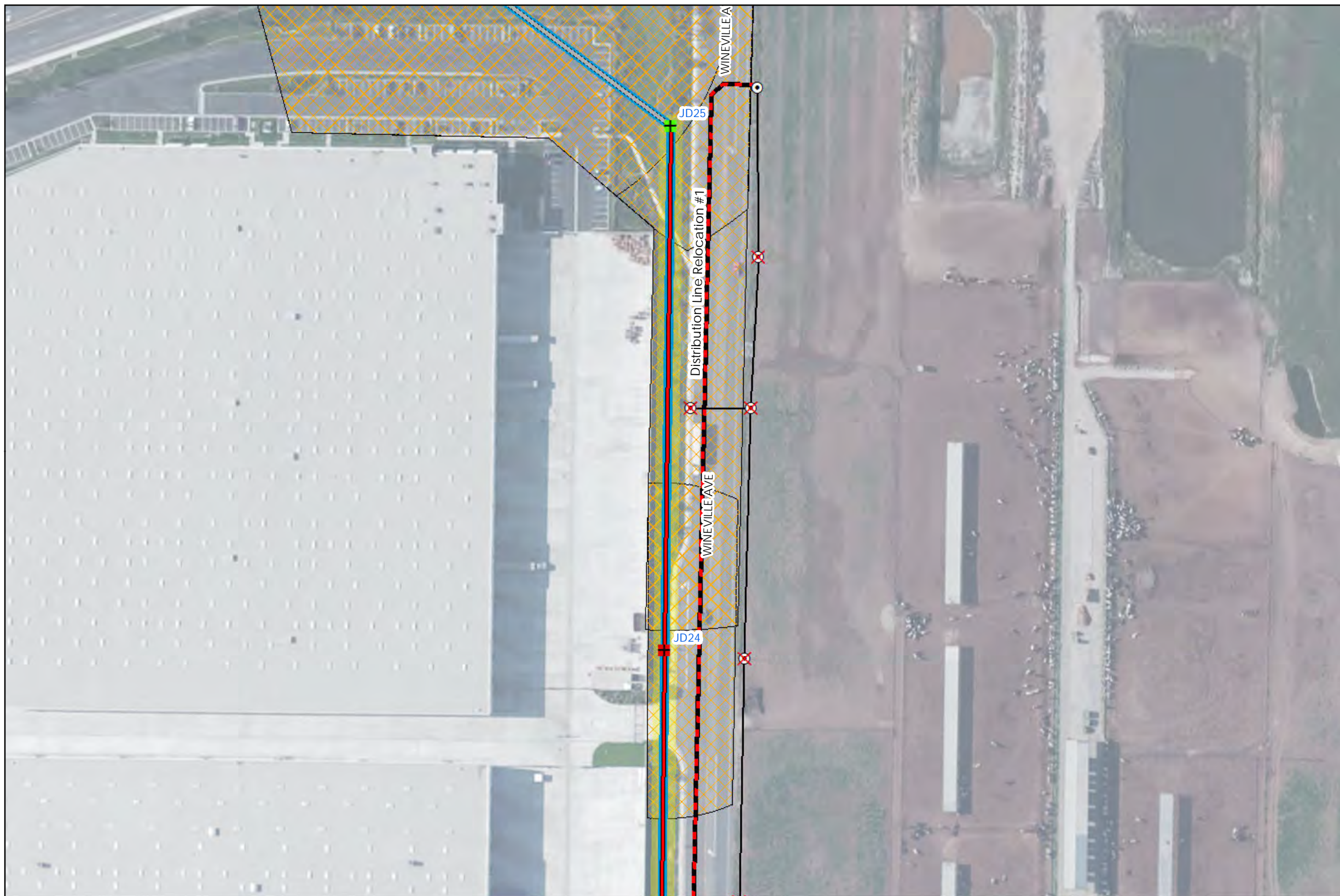
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 42 of 46

Legend

-  Tubular Steel Pole (TSP)
-  Lattice Steel Tower (LST)
-  Existing Pole
-  Existing Pole to be Removed
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Proposed 230-kV Transmission Line (Overhead)
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Revised Project Element
-  GDAD



Scale = 1:1,500



Aerial Imagery: 6/14/2016
Date Created: 11/6/2017













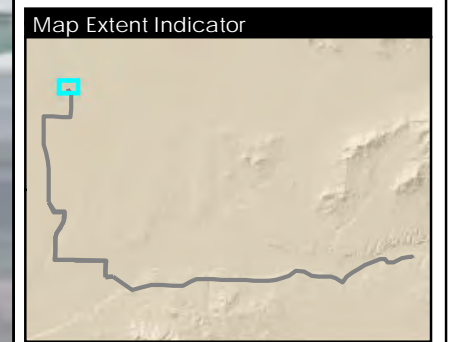
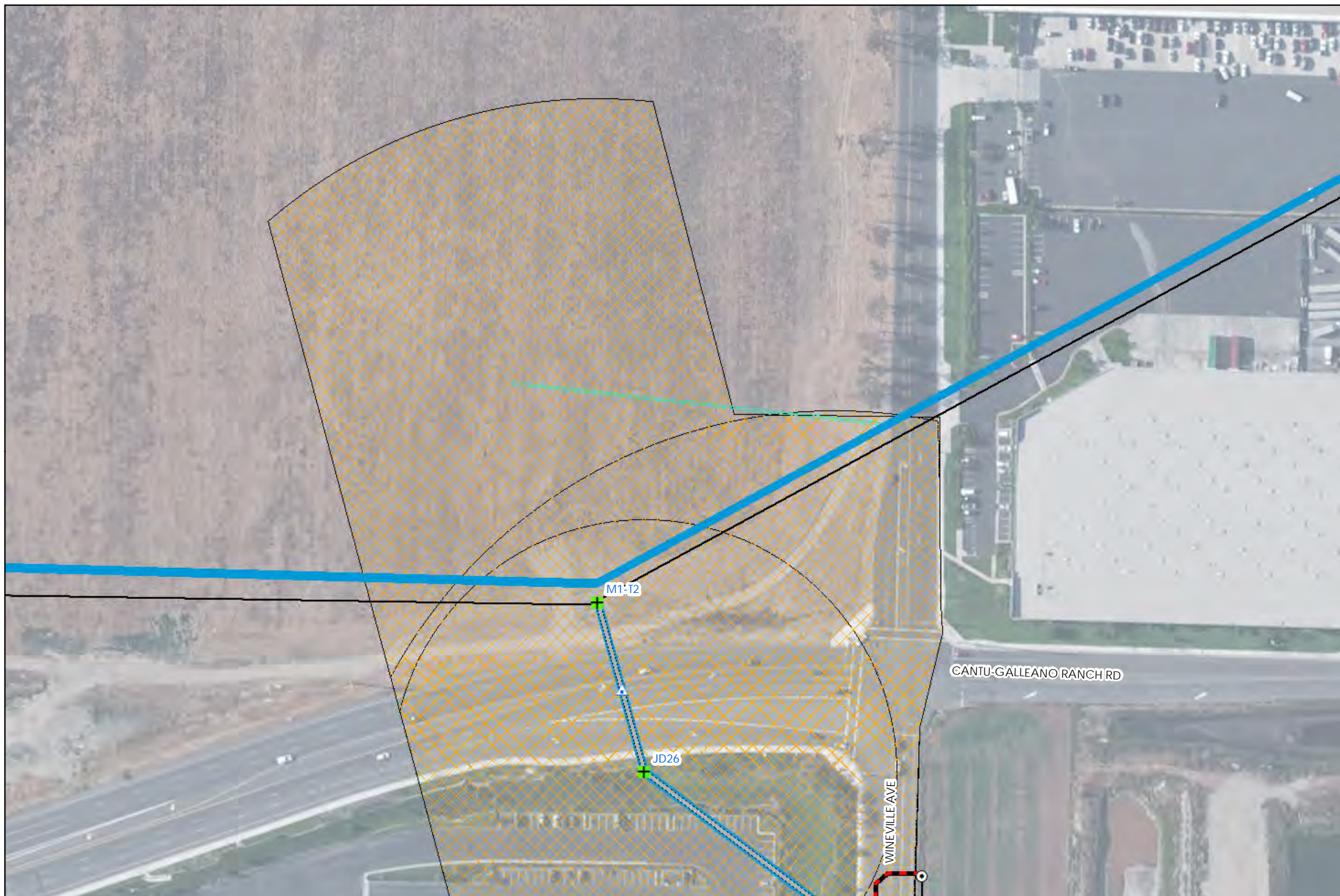
Riverside Transmission Reliability Project

Project Elements(All Elements)
Mapbook

Map 43 of 46

Legend

-  Lattice Steel Tower (LST)
-  Guard Structure
-  Existing Pole
-  Existing Distribution Alignment (Overhead)
-  Revised Distribution Alignment (Underground)
-  Existing Mira Loma - Vista #1 230-kV Transmission Line Alignment
-  Proposed 2013 Alignment (Overhead)
-  Proposed Telecom Alignment
-  Overland Travel (Temporary)
-  GDAD



Scale = 1:1,500

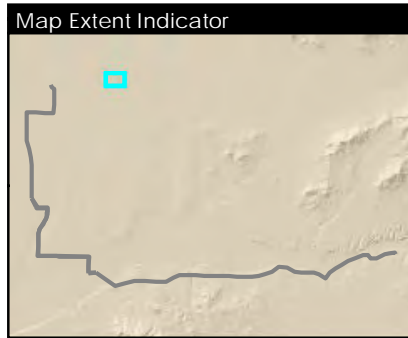


Aerial Imagery: 6/14/2016
Date Created: 11/6/2017



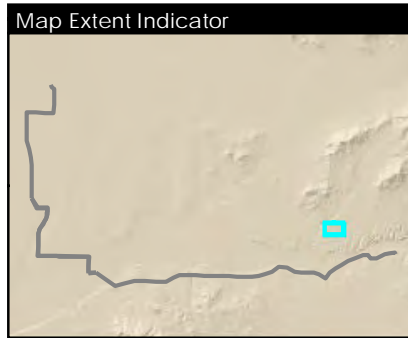


- Legend
- Revised Project Element
 - Tentative Marshalling Yard





Legend
Tentative Marshalling Yard

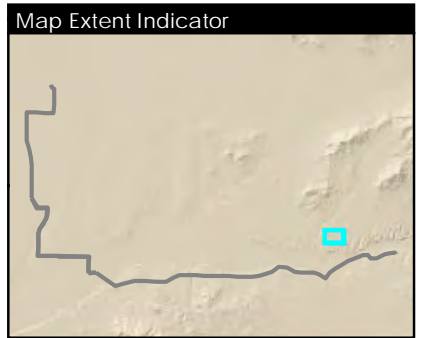


Scale = 1:1,500
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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017
PANORAMA



Clay Marshalling Yard

Legend
Tentative Marshalling Yard



Scale = 1:1,500
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Aerial Imagery: 6/14/2016
Date Created: 11/6/2017
PANORAMA