

Appendix B: Construction Air Quality Analysis

South Terminal Phase II Construction Staging and Equipment Plan

Construction Stage Number	Stage Description	Activities		Start Week	End Week	Construction Days (Weekday only, or Weekday and Weekends, or Weekends only)	Construction Hours (start time-end time)	Construction Vehicle Type	
								Construction Vehicle Type	Number of Equipment Pieces of each type
1	Installation of 4 new crossovers (Crossovers 1-1A,5-5A,11-11A,13-13A) on existing tracks close to the station 2645+00, installation of 1 new crossover (9-9A) at station 2614+00, and construction of new track MT1 between Julian St and Santa Clara St	1.1	Mobilize on site	1	5	Weekdays only	7 AM - 5:30 PM	Truck	2
								Flatbed (for trailer)	1
								Forklift	2
		1.2	Reconstruction Pump Station	6	16	Weekdays only	7 AM - 5:30 PM	Excavator with braker	1
								Front End Loader	1
								Truck	1
		1.3	Relocate Fence and Utilities	6	16	Weekdays only	7 AM - 5:30 PM	Truck	1
								Hand tools (Saw)	1
								Post Pole Digger	1
								Concrete Truck	1
		1.4	Parking Lot Pavement Demolition	11	14	Weekdays only	7 AM - 5:30 PM	Excavator with braker	1
								Front End Loader	1
								Truck	1
		1.5	Grading New MT1 and New MT4	14	20	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Front End Loader	1
								Truck	2
								Stabilizer (soil)	1
								Soil compactor	1
		1.6	Railroad Signal	10	32	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Truck	2
								Truck with spooler	1
		1.7	Construct MT1 between Julian St and Santa Clara St and MT4	33	40	Weekdays only	7 AM - 5:30 PM	Ballast Truck	2
								Tire mounted crane	1
								Tamper	1
Regulator	1								
Stabilizer (track)	1								
Speed Swing	1								
1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13-13A	41	48	Weekdays and Weekends	9 AM - 9 PM	Ballast Truck	2		
						Tire mounted crane	2		
						Tamper	1		
						Regulator	1		

Construction Stage Number	Stage Description	Activities	Start Week	End Week	Construction Days (Weekday only, or Weekday and Weekends, or Weekends only)	Construction Hours (start time-end time)	Construction Vehicle Type	Number of Equipment Pieces of each type	
							Stabilizer (track)	1	
							Speed Swing	1	
							Rail cutter	2	
2	Construction of new MT1 connections at Julian St and at San Jose Diridon Station (Turnouts 3,19)	2.1	Grading New MT1 close to Julian St	49	52	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Front End Loader	1
								Truck	2
								Stabilizer (soil)	1
								Soil compactor	1
		2.2	Railroad Signal	53	56	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Truck	2
								Truck with spooler	1
		2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	57	58	Weekdays and Weekends	9 AM - 9 PM	Ballast Truck	2
								Tire mounted crane	1
Tamper	1								
Regulator	1								
						Stabilizer (track)	1		
						Speed Swing	1		
3	Construction of new MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21,23)	3.1	Railroad Signal	59	64	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Truck	2
								Truck with spooler	1
		3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21,23)	65	68	Weekdays and Weekends	9 AM - 9 PM	Ballast Truck	2
								Tire mounted crane	1
								Tamper	1
								Regulator	1
						Stabilizer (track)	1		
						Speed Swing	1		
4	Construction of new MT3 and connections at San Jose Diridon Station (Turnouts 15,7A,25,27,29)	4.1	Railroad Signal	69	74	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Truck	2
								Truck with spooler	1
		4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and	75	78	Weekdays and Weekends	9 AM - 9 PM	Ballast Truck	2
								Tire mounted crane	1
								Tamper	1
						Regulator	1		
						Stabilizer (track)	1		

Construction Stage Number	Stage Description	Activities	Start Week	End Week	Construction Days (Weekday only, or Weekday and Weekends, or Weekends only)	Construction Hours (start time-end time)	Construction Vehicle Type	Number of Equipment Pieces of each type	
		Slip Switches 21,23)					Speed Swing	1	
5	Construction of new MT4 and connections at San Jose Diridon Station (Turnouts 15A,25A,31,35 and Slip Switch 33)	5.1	Grading New MT4 close to Santa Clara St	79	82	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Front End Loader	1
								Truck	2
								Stabilizer (soil)	1
								Soil compactor	1
		5.2	Railroad Signal	83	86	Weekdays only	7 AM - 5:30 PM	Excavator	1
								Truck	2
								Truck with spooler	1
		5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21,23)	87	90	Weekdays and Weekends	9 AM - 9 PM	Ballast Truck	2
								Tire mounted crane	1
								Tamper	1
								Regulator	1
								Stabilizer (track)	1
						Speed Swing	1		
5.4	Demobilize and Punch List	91	96	Weekdays only	7 AM - 5:30 PM	Truck	2		
						Flatbed (for trailer)	1		
						Forklift	2		

Summary of Construction Emissions By Phase

Construction Stage Number	NOx Lbs	PM2.5 Lbs	PM10 Lbs	ROG Lbs
1	8,521	548	531	1,071
2	1,423	89	86	187
3	1,716	102	99	211
4	1,716	102	99	211
5	2,575	154	150	342

Total Construction Emissions (lbs) **15,950** **996** **966** **2,023**

Average Emissions Per Day (lbs) (524 construction days)	30.4	1.9	1.8	3.9
BAAQMD CEQA Thresholds (lbs/day)	54	54	82	54

Construction Emissions Calculations

Construction Stage Number	Activities	Description	Construction Vehicle Type	Hrs	Average HP	Load Factor	Emission Factors (grams/horsepower-hour)					Emissions (grams)					Emissions (lbs)				
							NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust
1	1.7	Construct MT1 between Julian St and Santa Clara St and MT4	Ballast Trucks	840	10.0000	0.2100	6.1148	1.0572	1.0254	1.6100	0.0260	10,787	1,865	1,809	2,840	46	24	4	4	6	0
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Ballast Trucks	1344	10.0000	0.2100	6.1148	1.0572	1.0254	1.6100	0.0260	17,258	2,984	2,894	4,544	73	38	7	6	10	0
2	2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	Ballast Trucks	336	10.0000	0.2100	6.1148	1.0572	1.0254	1.6100	0.0260	4,315	746	724	1,136	18	10	2	2	3	0
3	3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Ballast Trucks	672	10.0000	0.2100	6.1148	1.0572	1.0254	1.6100	0.0260	8,629	1,492	1,447	2,272	37	19	3	3	5	0
4	4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Ballast Trucks	672	10.0000	0.2100	6.1148	1.0572	1.0254	1.6100	0.0260	8,629	1,492	1,447	2,272	37	19	3	3	5	0
5	5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Ballast Trucks	672	10.0000	0.2100	6.1148	1.0572	1.0254	1.6100	0.0260	8,629	1,492	1,447	2,272	37	19	3	3	5	0
1	1.3	Relocate Fence and Utilities	Concrete Truck	577.5	5.9830	0.4300	5.7647	0.5979	0.5800	0.8805	0.0114	8,565	888	862	1,308	17	19	2	2	3	0
1	1.5	Grading New MT1 and New MT4	Excavator	367.5	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	32,197	3,106	3,012	4,738	34	71	7	7	10	0
1	1.6	Railroad Signal	Excavator	630	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	55,195	5,324	5,164	8,123	58	122	12	11	18	0
2	2.1	Grading New MT1 close to Julian St	Excavator	210	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	18,398	1,775	1,721	2,708	19	41	4	4	6	0
2	2.2	Railroad Signal	Excavator	210	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	18,398	1,775	1,721	2,708	19	41	4	4	6	0
3	3.1	Railroad Signal	Excavator	315	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	27,598	2,662	2,582	4,061	29	61	6	6	9	0
4	4.1	Railroad Signal	Excavator	315	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	27,598	2,662	2,582	4,061	29	61	6	6	9	0
5	5.1	Grading New MT4 close to Santa Clara St	Excavator	210	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	18,398	1,775	1,721	2,708	19	41	4	4	6	0
5	5.2	Railroad Signal	Excavator	210	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	18,398	1,775	1,721	2,708	19	41	4	4	6	0
1	1.2	Reconstruction Pump Station	Excavator with braker	577.5	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	50,596	4,880	4,734	7,446	53	112	11	10	16	0
1	1.4	Parking Lot Pavement Demolition	Excavator with braker	210	137.6000	0.5300	1.2013	0.1159	0.1124	0.1768	0.0013	18,398	1,775	1,721	2,708	19	41	4	4	6	0
1	1.1	Mobilize on site	Flatbed (for trailer)	262.5	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	68,962	3,510	3,405	10,540	44	152	8	8	23	0
5	5.4	Demobilize and Punch List	Flatbed (for trailer)	315	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	82,754	4,212	4,086	12,648	52	182	9	9	28	0
1	1.1	Mobilize on site	Forklift	525	85.4800	0.5900	0.7298	0.0488	0.0473	0.1599	0.0003	19,322	1,291	1,252	4,234	7	43	3	3	9	0
5	5.4	Demobilize and Punch List	Forklift	630	85.4800	0.5900	0.7298	0.0488	0.0473	0.1599	0.0003	23,186	1,549	1,503	5,080	9	51	3	3	11	0
1	1.2	Reconstruction Pump Station	Front End Loader	577.5	136.3000	0.4800	1.7344	0.1736	0.1684	0.2020	0.0023	65,529	6,558	6,362	7,631	88	144	14	14	17	0

Construction Stage Number	Activities	Description	Construction Vehicle Type	Hrs	Average HP	Load Factor	Emission Factors (grams/horsepower-hour)					Emissions (grams)					Emissions (lbs)				
							NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust
1	1.4	Parking Lot Pavement Demolition	Front End Loader	210	136.3000	0.4800	1.7344	0.1736	0.1684	0.2020	0.0023	23,829	2,385	2,313	2,775	32	53	5	5	6	0
1	1.5	Grading New MT1 and New MT4	Front End Loader	367.5	136.3000	0.4800	1.7344	0.1736	0.1684	0.2020	0.0023	41,701	4,174	4,048	4,856	56	92	9	9	11	0
2	2.1	Grading New MT1 close to Julian St	Front End Loader	210	136.3000	0.4800	1.7344	0.1736	0.1684	0.2020	0.0023	23,829	2,385	2,313	2,775	32	53	5	5	6	0
5	5.1	Grading New MT4 close to Santa Clara St	Front End Loader	210	136.3000	0.4800	1.7344	0.1736	0.1684	0.2020	0.0023	23,829	2,385	2,313	2,775	32	53	5	5	6	0
1	1.3	Relocate Fence and Utilities	Hand tools (Saw)	577.5	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	103,088	9,178	8,903	11,032	154	227	20	20	24	0
1	1.3	Relocate Fence and Utilities	Post Pole Digger	577.5	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	103,088	9,178	8,903	11,032	154	227	20	20	24	0
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Rail Cutter	1344	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	239,914	21,361	20,720	25,675	357	529	47	46	57	1
1	1.7	Construct MT1 between Julian St and Santa Clara St and MT4	Regulator	420	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	74,973	6,675	6,475	8,023	112	165	15	14	18	0
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Regulator	672	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	119,957	10,680	10,360	12,837	179	264	24	23	28	0
2	2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	Regulator	168	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	29,989	2,670	2,590	3,209	45	66	6	6	7	0
3	3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Regulator	336	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	59,978	5,340	5,180	6,419	89	132	12	11	14	0
4	4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Regulator	336	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	59,978	5,340	5,180	6,419	89	132	12	11	14	0
5	5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Regulator	336	137.7000	0.5900	2.1972	0.1956	0.1898	0.2351	0.0033	59,978	5,340	5,180	6,419	89	132	12	11	14	0
1	1.5	Grading New MT1 and New MT4	Soil compactor	367.5	84.7600	0.5900	2.0797	0.2581	0.2504	0.2310	0.0029	38,221	4,744	4,601	4,245	53	84	10	10	9	0
2	2.1	Grading New MT1 close to Julian St	Soil compactor	210	84.7600	0.5900	2.0797	0.2581	0.2504	0.2310	0.0029	21,840	2,711	2,629	2,426	30	48	6	6	5	0
5	5.1	Grading New MT4 close to Santa Clara St	Soil compactor	210	84.7600	0.5900	2.0797	0.2581	0.2504	0.2310	0.0029	21,840	2,711	2,629	2,426	30	48	6	6	5	0
1	1.7	Construct MT1 between Julian St and Santa Clara St and MT4	Speed Swing	420	676.0000	0.5900	2.1294	0.1265	0.1227	0.1794	0.0020	356,702	21,192	20,557	30,055	337	786	47	45	66	1
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Speed Swing	672	676.0000	0.5900	2.1294	0.1265	0.1227	0.1794	0.0020	570,723	33,908	32,891	48,088	540	1,258	75	73	106	1

Construction Stage Number	Activities	Description	Construction Vehicle Type	Hrs	Average HP	Load Factor	Emission Factors (grams/horsepower-hour)					Emissions (grams)					Emissions (lbs)				
							NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust
2	2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	Speed Swing	168	676.0000	0.5900	2.1294	0.1265	0.1227	0.1794	0.0020	142,681	8,477	8,223	12,022	135	315	19	18	27	0
3	3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Speed Swing	336	676.0000	0.5900	2.1294	0.1265	0.1227	0.1794	0.0020	285,361	16,954	16,445	24,044	270	629	37	36	53	1
4	4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Speed Swing	336	676.0000	0.5900	2.1294	0.1265	0.1227	0.1794	0.0020	285,361	16,954	16,445	24,044	270	629	37	36	53	1
5	5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Speed Swing	336	676.0000	0.5900	2.1294	0.1265	0.1227	0.1794	0.0020	285,361	16,954	16,445	24,044	270	629	37	36	53	1
1	1.5	Grading New MT1 and New MT4	Stabilizer (soil)	367.5	231.2000	0.5900	1.2459	0.0731	0.0709	0.1754	0.0012	62,455	3,662	3,552	8,791	58	138	8	8	19	0
2	2.1	Grading New MT1 close to Julian St	Stabilizer (soil)	210	231.2000	0.5900	1.2459	0.0731	0.0709	0.1754	0.0012	35,688	2,093	2,030	5,023	33	79	5	4	11	0
5	5.1	Grading New MT4 close to Santa Clara St	Stabilizer (soil)	210	231.2000	0.5900	1.2459	0.0731	0.0709	0.1754	0.0012	35,688	2,093	2,030	5,023	33	79	5	4	11	0
1	1.7	Construct MT1 between Julian St and Santa Clara St and MT4	Stabilizer (track)	420	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	110,339	5,616	5,448	16,864	70	243	12	12	37	0
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Stabilizer (track)	672	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	176,542	8,986	8,717	26,982	111	389	20	19	59	0
2	2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	Stabilizer (track)	168	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	44,136	2,247	2,179	6,746	28	97	5	5	15	0
3	3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Stabilizer (track)	336	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	88,271	4,493	4,358	13,491	56	195	10	10	30	0
4	4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Stabilizer (track)	336	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	88,271	4,493	4,358	13,491	56	195	10	10	30	0
5	5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Stabilizer (track)	336	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	88,271	4,493	4,358	13,491	56	195	10	10	30	0

Construction Stage Number	Activities	Description	Construction Vehicle Type	Hrs	Average HP	Load Factor	Emission Factors (grams/horsepower-hour)					Emissions (grams)					Emissions (lbs)				
							NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust
1	1.7	Construct MT1 between Julian St and Santa Clara St and MT4	Tamper	420	4.2000	0.4300	4.6352	0.4352	0.4222	0.6797	0.0044	3,516	330	320	516	3	8	1	1	1	0
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Tamper	672	4.2000	0.4300	4.6352	0.4352	0.4222	0.6797	0.0044	5,625	528	512	825	5	12	1	1	2	0
2	2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	Tamper	168	4.2000	0.4300	4.6352	0.4352	0.4222	0.6797	0.0044	1,406	132	128	206	1	3	0	0	0	0
3	3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Tamper	336	4.2000	0.4300	4.6352	0.4352	0.4222	0.6797	0.0044	2,813	264	256	412	3	6	1	1	1	0
4	4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Tamper	336	4.2000	0.4300	4.6352	0.4352	0.4222	0.6797	0.0044	2,813	264	256	412	3	6	1	1	1	0
5	5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Tamper	336	4.2000	0.4300	4.6352	0.4352	0.4222	0.6797	0.0044	2,813	264	256	412	3	6	1	1	1	0
1	1.7	Construct MT1 between Julian St and Santa Clara St and MT4	Tire Mounted Crane	420	237.7000	0.4300	1.6719	0.0738	0.0716	0.1891	0.0019	71,772	3,168	3,073	8,116	81	158	7	7	18	0
1	1.8	Installation of Crossovers 1-1A,5-5A,9-9A,11-11A,13- 13A	Tire Mounted Crane	1344	237.7000	0.4300	1.6719	0.0738	0.0716	0.1891	0.0019	229,669	10,138	9,834	25,972	259	506	22	22	57	1
2	2.3	Construct connections to new MT1 at Julian St and at San Jose Diridon Station. Installation of new Turnouts 3,19	Tire Mounted Crane	168	237.7000	0.4300	1.6719	0.0738	0.0716	0.1891	0.0019	28,709	1,267	1,229	3,247	32	63	3	3	7	0
3	3.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Tire Mounted Crane	336	237.7000	0.4300	1.6719	0.0738	0.0716	0.1891	0.0019	57,417	2,535	2,458	6,493	65	127	6	5	14	0
4	4.2	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Tire Mounted Crane	336	237.7000	0.4300	1.6719	0.0738	0.0716	0.1891	0.0019	57,417	2,535	2,458	6,493	65	127	6	5	14	0
5	5.3	Construct new track MT2 and connections at San Jose Diridon Station (Turnouts 3A,7 and Slip Switches 21, 23)	Tire Mounted Crane	336	237.7000	0.4300	1.6719	0.0738	0.0716	0.1891	0.0019	57,417	2,535	2,458	6,493	65	127	6	5	14	0
1	1.1	Mobilize on site	Truck	525	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	137,923	7,021	6,810	21,080	87	304	15	15	46	0

Construction Stage Number	Activities	Description	Construction Vehicle Type	Hrs	Average HP	Load Factor	Emission Factors (grams/horsepower-hour)					Emissions (grams)					Emissions (lbs)				
							NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust	NOx	PM2.5	PM10	VOC Running Exhaust	VOC Crankcase Running Exhaust
1	1.2	Reconstruction Pump Station	Truck	577.5	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	151,716	7,723	7,491	23,188	96	334	17	17	51	0
1	1.3	Relocate Fence and Utilities	Truck	577.5	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	151,716	7,723	7,491	23,188	96	334	17	17	51	0
1	1.4	Parking Lot Pavement Demolition	Truck	210	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	55,169	2,808	2,724	8,432	35	122	6	6	19	0
1	1.5	Grading New MT1 and New MT4	Truck	735	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	193,093	9,829	9,534	29,512	122	426	22	21	65	0
1	1.6	Railroad Signal	Truck	1260	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	331,016	16,849	16,344	50,592	209	730	37	36	112	0
2	2.1	Grading New MT1 close to Julian St	Truck	420	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	110,339	5,616	5,448	16,864	70	243	12	12	37	0
2	2.2	Railroad Signal	Truck	420	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	110,339	5,616	5,448	16,864	70	243	12	12	37	0
3	3.1	Railroad Signal	Truck	630	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	165,508	8,425	8,172	25,296	105	365	19	18	56	0
4	4.1	Railroad Signal	Truck	630	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	165,508	8,425	8,172	25,296	105	365	19	18	56	0
5	5.1	Grading New MT4 close to Santa Clara St	Truck	420	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	110,339	5,616	5,448	16,864	70	243	12	12	37	0
5	5.2	Railroad Signal	Truck	420	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	110,339	5,616	5,448	16,864	70	243	12	12	37	0
5	5.4	Demobilize and Punch List	Truck	630	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	165,508	8,425	8,172	25,296	105	365	19	18	56	0
1	1.6	Railroad Signal	Truck with spooler	630	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	165,508	8,425	8,172	25,296	105	365	19	18	56	0
2	2.2	Railroad Signal	Truck with spooler	210	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	55,169	2,808	2,724	8,432	35	122	6	6	19	0
3	3.1	Railroad Signal	Truck with spooler	315	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	82,754	4,212	4,086	12,648	52	182	9	9	28	0
4	4.1	Railroad Signal	Truck with spooler	315	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	82,754	4,212	4,086	12,648	52	182	9	9	28	0
5	5.2	Railroad Signal	Truck with spooler	210	419.9000	0.5900	1.0604	0.0540	0.0524	0.1621	0.0007	55,169	2,808	2,724	8,432	35	122	6	6	19	0

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