Back to Table of Contents

APPENDIX A

Traffic Data Sheets

EXISTING TRAFFIC VOLUMES AND LOS

ROAD / HIGHWAY	VEHICLES PER DAY ADT	EXISTING NUMBER LANES	K	D	EXISTING DAILY HOUR VOLUME DDHV	% TRUCK TRAFFIC Pt	HEAVY TRAFFIC FACTOR Fhv	EXISTING PCPHPL Vp	ROADWAY SPEED (MPH)	EXISTING LOS
TO UPPER VALLEY, TX WTP										
INTERSTATE 10	40000	4	0.093	60%	2232	10%	0.952	1446.67	65	**C**
VINTON RD.	5500	2	0.093	60%	306.9	10%	0.952	397.83	40	**A**
LEVEE RD.	NA	2	0.093	50%	NA	NA	NA	NA	NA	NA
TO HATCH, NM WTP										
INTERSTATE 25	18379	4	0.093	60%	1025.5482	10%	0.952	664.71	75	**B**
NM STATE ROAD 26	5478	2	0.093	60%	305.6724	10%	0.952	396.24	65	**A**
HALL ST	16307	2	0.093	60%	909.9306	10%	0.952	1179.54	40	**D**
NM STATE ROAD 154	1497	2	0.093	60%	83.5326	10%	0.952	108.28	40	**A**
NM STATE ROAD 185	18313	4	0.093	60%	1021.8654	10%	0.952	662.32	55	**B**
TO LAS CRUCES, NM WTP										
INTERSTATE 25	18379	4	0.093	60%	1025.5482	10%	0.952	664.71	75	**B**
INTERSTATE 10	40000	4	0.093	60%	2232	10%	0.952	1446.67	65	**C**
TO ANTHONY, NM WTP (Preferred & Aq w/Local)										
INTERSTATE 10	40000	2	0.093	60%	2232	10%	0.952	2893.33	65	**C**
VINTON RD.	5500	4	0.093	60%	306.9	10%	0.952	198.92	40	**A**
STATE RD. 20 (DONIPHAN)	9220	4	0.093	60%	514.476	10%	0.952	333.46	60	**A**
NM STATE ROAD 478	12151	2	0.093	60%	678.0258	10%	0.952	878.92	55	**B**
NM STATE ROAD 226	3749	2	0.093	60%	209.1942	10%	0.952	271.18	55	**A**
TO ANTHONY, NM WTP (River w/Comb, Aq w/Comb)										
INTERSTATE 10	40000	2	0.093	60%	2232	10%	0.952	2893.33	65	**C**
VINTON RD.	5500	4	0.093	60%	306.9	10%	0.952	198.92	40	**A**
STATE RD. 20 (DONIPHAN)	9220	4	0.093	60%	514.476	10%	0.952	333.46	60	**A**
NM STATE ROAD 478	12151	2	0.093	60%	678.0258	10%	0.952	878.92	55	**B**
NM STATE ROAD 226	3749	2	0.093	60%	209.1942	10%	0.952	271.18	55	**A**

TRAFFIC ANALYSIS

CONSTRUCTION TRAFFIC

ROAD / HIGHWAY	FROM	TO	EXISTING NUMBER LANES	ROADWAY SPEED (MPH)	TOTAL TRUCK TRIPS	MAXIMUM WORKERS PER DAY	PROJECT DURATION (MONTHS)	PROJECT DURATION (DAYS)	AVERAGE TRUCKS PER DAY	MAX WORKER VEHICLES PER DAY
TO UPPER VALLEY, TX WTP										
INTERSTATE 10	CANUTILLO, TX	ANTHONY, TX	4	65	21000	300	37	814	25.8	540
VINTON RD.	INTERSTATE 10	LEVEE RD.	2	40	21000	300	37	814	25.8	540
LEVEE RD.	WESTWAY RD.	LEVEE ROAD	2	NA	21000	300	37	814	25.8	540
TO HATCH, NM WTP										
INTERSTATE 25	INTERSTATE 10	NM 26	4	75	1000	59	14	308	3.2	106.2
NM STATE ROAD 26	INTERSTATE 25	HALL ST	2	65	1000	59	14	308	3.2	106.2
HALL ST	NM 26	NM 154	2	40	1000	59	14	308	3.2	106.2
NM STATE ROAD 154	HALL ST	NM 185	2	40	1000	59	14	308	3.2	106.2
NM STATE ROAD 185	NM 154		4	55	1000	59	14	308	3.2	106.2
TO LAS CRUCES, NM WTP										
INTERSTATE 25	INTERSTATE 10	NM 26	4	75	5300	119	24	528	10.0	214.2
INTERSTATE 10	CANUTILLO, TX	ANTHONY, TX	4	65	5300	119	24	528	10.0	214.2
TO ANTHONY, NM WTP (Preferred & Aq w/Local)										
INTERSTATE 10	CANUTILLO, TX	ANTHONY, TX	4	65	1100	63	16	352	3.1	113.4
VINTON RD.	INTERSTATE 10	STATE RD. 20	2	40	1100	63	16	352	3.1	113.4
STATE RD. 20 (DONIPHAN)	VINTON RD.	NM 478	4	60	1100	63	16	352	3.1	113.4
NM STATE ROAD 478	STATE RD. 20	NM 225	4	55	1100	63	16	352	3.1	113.4
NM STATE ROAD 226	NM 404		2	55	1100	63	16	352	3.1	113.4
TO ANTHONY, NM WTP (River w/Comb, Aq w/Comb)										
INTERSTATE 10	CANUTILLO, TX	ANTHONY, TX	4	65	1100	6	5	110	10.0	10.8
VINTON RD.	INTERSTATE 10	STATE RD. 20	2	40	1100	6	5	110	10.0	10.8
STATE RD. 20 (DONIPHAN)	VINTON RD.	NM 478	4	60	1100	6	5	110	10.0	10.8
NM STATE ROAD 478	STATE RD. 20	NM 225	4	55	1100	6	5	110	10.0	10.8
NM STATE ROAD 226	NM 404		2	55	1100	6	5	110	10.0	10.8

FACTORS USED

Driver Population Factor Fp = 0.9
Peak Hour Factor PHF = 0.9
Passenger Car Equiv. For Trucks Et = 1.5
Pt = Truck Proportion
Fhv = Heavy Vehicle Adjustment Factor
PCPHPL = Passenger Cars Per Hour Per Lane
Vp = 15 min Passenger Car Equivalent
D = Directional Distribution Factor
Proportion AADT during peak hour K = 0.093

CALCULATED TRAFFIC VOLUMES WITH CONSTRUCTION TRAFFIC

ROAD / HIGHWAY	ADJUSTED VEHICLES PER DAY ADT	EXISTING NUMBER LANES	K	D	EXISTING DAILY HOUR VOLUME DDHV	% TRUCK TRAFFIC Pt	HEAVY TRAFFIC FACTOR Fhv	EXISTING PCPHPL Vp	ROADWAY SPEED (MPH)	NEW LOS
TO UPPER VALLEY, TX WTP										
INTERSTATE 10	40565.79853	4	0.093	60%	2263.6	10%	0.952	1467.13	65	**C**
VINTON RD.	6065.798526	2	0.093	60%	338.5	10%	0.952	438.76	40	**B**
LEVEE RD.	NA	2	0.093	60%	NA	NA	NA	NA	NA	**NA**
TO HATCH, NM WTP										
INTERSTATE 25	18488.4	4	0.093	60%	1031.7	10%	0.952	668.67	75	**B**
NM STATE ROAD 26	5587.4	2	0.093	60%	311.8	10%	0.952	404.16	65	**A**
HALL ST	16416.4	2	0.093	60%	916.0	10%	0.952	1187.46	40	**D**
NM STATE ROAD 154	1606.4	2	0.093	60%	89.6	10%	0.952	116.20	40	**A**
NM STATE ROAD 185	18422.4	4	0.093	60%	1028.0	10%	0.952	666.28	55	**B**
TO LAS CRUCES, NM WTP										
INTERSTATE 25	18379.0	4	0.093	60%	1025.5	10%	0.952	664.71	75	**B**
INTERSTATE 10	40224.2	4	0.093	60%	2244.5	10%	0.952	1454.78	65	**A**
TO ANTHONY, NM WTP (Preferred & Aq w/Local)										
INTERSTATE 10	40116.5	2	0.093	60%	2238.5	10%	0.952	2901.76	65	**C**
VINTON RD.	5616.525	4	0.093	60%	313.4	10%	0.952	203.13	40	**B**
STATE RD. 20 (DONIPHAN)	9336.525	4	0.093	60%	521.0	10%	0.952	337.67	60	**A**
NM STATE ROAD 478	12267.525	2	0.093	60%	684.5	10%	0.952	887.35	55	**B**
NM STATE ROAD 226	3865.5	2	0.093	60%	215.7	10%	0.952	279.61	55	**A**
TO ANTHONY, NM WTP (River w/Comb, Aq w/Comb)										
INTERSTATE 10	40020.8	2	0.093	60%	2233.2	10%	0.952	2894.84	65	**C**
VINTON RD.	5520.8	4	0.093	60%	308.1	10%	0.952	199.67	40	**B**
STATE RD. 20 (DONIPHAN)	9240.8	4	0.093	60%	515.6	10%	0.952	334.21	60	**A**
NM STATE ROAD 478	12171.8	2	0.093	60%	679.2	10%	0.952	880.43	55	**B**
NM STATE ROAD 226	3769.8	2	0.093	60%	210.4	10%	0.952	272.68	55	**A**

TRAFFIC ANALYSIS

CONSTRUCTION TRAFFIC

ROAD / HIGHWAY	LOCATION	EXISTING NUMBER LANES	ROADWAY SPEED (MPH)	WORKER ONE WAY TRIPS	TOTAL ONE WAY CARS	TOTAL AVG. TRIPS PER DAY	TOTAL ONE WAY TRUCKS	TOTAL TRCK RND TRIPS PER DAY	AVG. WORKER VEHICLES PER DAY
El Paso Aqueduct									
N.M. 404	INTERSECTION OF I-10	2	55	428	385.2	770.4	10	20.0	770.4
N.M. 213	INTERSECTION OF NM 404	2	65	428	385.2	770.4	10	20.0	770.4
Martin Luther King Dr.	INTERSECTION OF U.S. 54	4	30	428	385.2	770.4	10	20.0	770.4
Sean Haggerty Dr.	INTERSECTION OF McCOMBS	4	45	428	385.2	770.4	10	20.0	770.4
Dyer St.	INTERSECTION OF McCOMBS	4	40	428	385.2	770.4	10	20.0	770.4
Railroad Ave.	INTERSECTION OF DEER ST.	4	40	428	385.2	770.4	10	20.0	770.4
New Mexico - Texas Aqueduct									
N.M. 225	AT RIO GRANDE CROSSING	2	40	60	54	108	10	20.0	108
N.M. 227	AT RIO GRANDE CROSSING	2	50	60	54	108	10	20.0	108
N.M. 192	AT N.M. 478	2	40	60	54	108	10	20.0	108
N.M. 192	AT RIO GRANDE CROSSING	2	40	60	54	108	10	20.0	108
N.M. 192	AT N.M. 28	2	40	60	54	108	10	20.0	108
N.M. 478	AT N.M. 192	4	45	60	54	108	10	20.0	108
N.M. 228	AT N.M. 478	2	40	60	54	108	10	20.0	108
N.M. 28	AT RIO GRANDE CROSSING	2	40	60	54	108	10	20.0	108
ASR Field									
Loop 375	AT BIGGS ARMY AIRFIELD	4	60	128	115.2	230.4	10	20.0	230.4
U.S. 54	INTERSECTION OF LOOP 375	4	60	128	115.2	230.4	10	20.0	230.4
U.S. 54 Business Route	INTERSECTION OF LOOP 375	2	50	128	115.2	230.4	10	20.0	230.4
U.S. 62/180 (Montana St.)	INTERSECTION OF McRAE	6	40	128	115.2	230.4	10	20.0	230.4

FACTORS USED

Driver Population Factor Fp = 0.9
Peak Hour Factor PHF = 0.9
Passenger Car Equiv. For Trucks Et = 1.5
Pt = Truck Proportion
Fhv = Heavy Vehicle Adjustment Factor
PCPHPL = Passenger Cars Per Hour Per Lane
Vp = 15 min Passenger Car Equivalent
D = Directional Distribution Factor
Proportion AADT during peak hour K = 0.093

EXISTING TRAFFIC VOLUMES AND LOS

ROAD / HIGHWAY	VEHICLES PER DAY ADT	EXISTING NUMBER LANES	K	D	EXISTING DAILY HOUR VOLUME DDHV	% TRUCK TRAFFIC Pt	HEAVY TRAFFIC FACTOR Fhv	EXISTING PCPHPL Vp	ROADWAY SPEED (MPH)	EXISTING LOS
El Paso Aqueduct										
N.M. 404	5496	2	0.093	60%	306.6768	10.0%	0.952	397.54	55	**A**
N.M. 213	31000	2	0.093	60%	1729.8	10.0%	0.952	2242.33	65	**F**
Martin Luther King Dr.	5518	4	0.093	60%	307.9044	20.0%	0.909	209.07	30	**A**
Sean Haggerty Dr.	2204	4	0.093	60%	122.9832	10.0%	0.952	79.71	45	**A**
Dyer St.	11220	4	0.093	60%	626.076	10.0%	0.952	405.79	40	**B**
Railroad Ave.	6128	4	0.093	60%	341.9424	20.0%	0.909	232.18	40	**A**
New Mexico - Texas Aqueduct										
N.M. 225	4359	2	0.093	60%	243.2322	10.0%	0.952	315.30	40	**A**
N.M. 227	2000	2	0.093	60%	111.6	10.0%	0.952	144.67	50	**A**
N.M. 192	4518	2	0.093	60%	252.1044	10.0%	0.952	326.80	40	**A**
N.M. 192	4518	2	0.093	60%	252.1044	10.0%	0.952	326.80	40	**A**
N.M. 192	4518	2	0.093	60%	252.1044	10.0%	0.952	326.80	40	**A**
N.M. 478	4109	4	0.093	60%	229.2822	5.0%	0.976	145.07	45	**A**
N.M. 228	3110	2	0.093	60%	173.538	7.0%	0.966	221.74	40	**A**
N.M. 28	3586	2	0.093	60%	200.0988	10.0%	0.952	259.39	40	**A**
ASR Field										
Loop 375	40000	4	0.093	60%	2232	10.0%	0.952	1446.67	60	**D**
U.S. 54	58000	4	0.093	60%	3236.4	10.0%	0.952	2097.67	60	**E**
U.S. 54 Business Route	19100	2	0.093	60%	1065.78	20.0%	0.909	1447.36	50	**D**
U.S. 62/180 (Montana St.)	53060	6	0.093	60%	2960.748	20.0%	0.909	1340.26	40	**D**

CALCULATED TRAFFIC VOLUMES WITH CONSTRUCTION TRAFFIC

ROAD / HIGHWAY	ADJUSTED VEHICLES PER DAY ADT	EXISTING NUMBER LANES	K	D	EXISTING DAILY HOUR VOLUME DDHV	% TRUCK TRAFFIC Pt	HEAVY TRAFFIC FACTOR Fhv	EXISTING PCPHPL Vp	ROADWAY SPEED (MPH)	NEW LOS
El Paso Aqueduct										
N.M. 404	6286.4	2	0.093	0.6	350.8	0.1	0.952	454.72	55	**A**
N.M. 213	31790.4	2	0.093	0.6	1773.9	0.1	0.952	2299.51	65	**F**
Martin Luther King Dr.	6308.4	4	0.093	0.6	352.0	0.2	0.909	239.02	30	**A**
Sean Haggerty Dr.	2994.4	4	0.093	0.6	167.1	0.1	0.952	108.30	45	**A**
Dyer St.	12010.4	4	0.093	0.6	670.2	0.1	0.952	434.38	40	**B**
Railroad Ave.	6918.4	4	0.093	0.6	386.0	0.2	0.909	262.13	40	**A**
New Mexico - Texas Aqueduct										
N.M. 225	4487	2	0.093	0.6	250.4	0.1	0.952	324.56	40	**A**
N.M. 227	2128	2	0.093	0.6	118.7	0.1	0.952	153.93	50	**A**
N.M. 192	4646	2	0.093	0.6	259.2	0.1	0.952	336.06	40	**A**
N.M. 192	4646	2	0.093	0.6	259.2	0.1	0.952	336.06	40	**A**
N.M. 192	4646	2	0.093	0.6	259.2	0.1	0.952	336.06	40	**A**
N.M. 478	4237	4	0.093	0.6	236.4	0.1	0.976	149.59	45	**A**
N.M. 228	3238	2	0.093	0.6	180.7	0.1	0.966	230.87	40	**A**
N.M. 28	3714	2	0.093	0.6	207.2	0.1	0.952	268.65	40	**A**
ASR Field										
Loop 375	40250.4	4	0.093	0.6	2246.0	0.1	0.952	1455.72	60	**D**
U.S. 54	58250.4	4	0.093	0.6	3250.4	0.1	0.952	2106.72	60	**E**
U.S. 54 Business Route	19350.4	2	0.093	0.6	1079.8	0.2	0.909	1466.33	50	**D**
U.S. 62/180 (Montana St.)	53310.4	6	0.093	0.6	2974.7	0.2	0.909	1346.58	40	**D**

Facility	Max. # of Workers	Max. # of 1-way Trips (1-way trips)	Construction Duration (Months)	Construction Duration 1 (Days)	Total # of 1-way Worker Trips 2	# of 1-way Trips per Day	# of 1-way Trips per Hour 3
Hatch 3.5	59	118	14	308	32709.6	106.2	53.1
Las Cruces 20	119	238	24	528	113097.6	214.2	107.1
Anthony 4 (Preferred, Aq w/Local)	63	126	16	352	39916.8	113.4	56.7
Anthony 4 (River w/Comb, Aq w/Comb)	6	12	5	110	1188	10.8	5.4
Upper Valley 80	300	600	37	814	439560	540	270
El Paso Aqueduct	214	428	25	550	211860	385.2	192.6
NM-TX Aqueduct	30	60	37	814	43956	54	27
ASR Field	64	128	48	1056	121651.2	115.2	57.6

1 calculated by multiplying the construction duration (months) * 22 (for 22 working days/month)
2 calculated by multiplying the (maximum # of 1-way trips) *(construction duration [days]) * (0.9) to account for carpooling
3 # of trips/day is divided by 2 because workers would affect 1 hour of traffic when they arrive at work and 1 hour of traffic when they leave work

Facility	Total Trucks	Total Truck Trips (1-way trips) 1	Construction Duration (Months)	Construction Duration 2 (Days)	# of 1-Way Trips per Day 3	# of 1-Way Trips per Hour 4	# of Worker + Truck 1-way Trips per Day	# of Worker + Truck Trips During each of the 2 Peak Commute Hours	# of Worker + Truck Trips/Hr During the Remaining 6 Work Hrs
Hatch 3.5	500	1000	14	308	3.2	0.41	109	53.5	0.4
Las Cruces 20	2650	5300	24	528	10.0	1.25	224	108.4	1.3
Anthony 4 (Preferred, Aq w/Local)	550	1100	16	352	3.1	0.39	117	57.1	0.4
Anthony 4 (River w/Comb, Aq w/Comb)	550	1100	5	110	10.0	1.25	21	6.7	1.3
Upper Valley 80	10500	21000	37	814	25.8	3.22	566	273.2	3.2
El Paso Aqueduct	6000	12000	25	550	21.8	2.73	407	195.3	2.7
NM-TX Aqueduct	9000	18000	37	814	22.1	2.76	76	29.76	2.8
ASR Field	5000	10000	48	1056	9.5	1.18	125	58.8	1.2
									Because workers only drive during the 2 commute hours, this column only includes construction trucks, therefore, workers = 0 in this formula

1 calculated by multiplying the (total trucks) * 2 (for 2 trips/day)
2 calculated by multiplying the construction duration (months) * 22 (for 22 working days/month)
3 calculated by dividing (total truck trips [one-way]) by (construction duration [days])
4 calculated by dividing (# of 1-way trips per day) by 8 (for an 8-hour workday)