Appendix I
Noise Attachments

Appendix I-1
Field Noise Data Sheets

FORMS FIELD DATA REPORT

Field Noise Measurement Data

Record: 1486	
Project Name	*MGA Warehouse*
Project #	*14279*
Observer(s)	
Date	*2022-09-27*

Meteorological Conditions	
Temp (F)	*95*
Humidity % (R.H.)	*15.7*
Wind	*Light*
Wind Speed (MPH)	*4.5*
Wind Direction	*South West*
Sky	*Partly Cloudy*

Instrument and Calibrator Information	
Instrument Name List	*Piccolo #1893*
Instrument Name	*Piccolo #1893*
Instrument Name Lookup Key	*Piccolo #1893*
Manufacturer	*Soft dB inc.*
Model	*Piccolo*
Serial Number	*P0222050202*
Calibration Date	*05/02/2022*
Calibrator Name	*(SB) LD CAL200*
Calibrator Name	*(SB) LD CAL200*
Calibrator Name Lookup Key	*(SB) LD CAL200*
Calibrator Manufacturer	*Larson Davis*
Calibrator Model	*LD CAL200*
Calibrator Serial #	*19952*
GPS Assistance Used	*No*
Pre-Test (dBA SPL)	*94*
Post-Test (dBA SPL)	*94*
Windscreen	*Yes*
Weighting?	*A-WTD*
Slow/Fast?	*Slow*
ANSI?	*Yes*

Monitoring	
Record #	*1*
Site ID	*ST1*
Site Location Lat/Long	*34.594062, -117.167292*
Begin (Time)	*15:24:00*
End (Time)	*15:34:00*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Distant Traffic*
Other Noise Sources Additional Description	*Footsteps, Buzzing from bugs*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Description / Photos

Terrain	*Soft*

Site Photos

Photo

Comments / Description	*ST1 North*

Site Photos

Photo

Comments / Description	*ST1 East*

Site Photos

Photo	
	
Comments / Description	*ST1 South*

Site Photos

Photo	
	
Comments / Description	*ST1 West*

FORMS FIELD DATA REPORT

Monitoring

Record #	*2*
Site ID	*ST2*
Site Location Lat/Long	*34.593645, -117.169522*
Begin (Time)	*16:24:00*
End (Time)	*16:34:00*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Distant Traffic*
Other Noise Sources Additional Description	*Bugs buzzing, Footsteps, Voices over radio from Apple Valley Fire Center*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Description / Photos

Terrain	*Soft*

Site Photos

Photo

Comments / Description	*ST2 North*

Site Photos

Photo	
	
Comments / Description	*ST2 West*

Site Photos

Photo	
	
Comments / Description	*ST2 East*

Site Photos

Photo	
Comments / Description	*ST2 South*

Monitoring

Record #	*3*
Site ID	*ST3*
Site Location Lat/Long	*34.595472, -117.165246*
Begin (Time)	*16:41:00*
End (Time)	*16:51:00*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Distant Conversations / Yelling, Distant Dog Barking, Distant Traffic*
Other Noise Sources Additional Description	*Flag flapping, footsteps*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Description / Photos

Terrain	*Mixed*

Site Photos

Photo	
	
Comments / Description	*ST3 North*

Site Photos

Photo	
	
Comments / Description	*ST3 West*

Site Photos

Photo	
	
Comments / Description	*ST3 East*

Site Photos

Photo	
	
Comments / Description	*ST3 South*

Monitoring

Record #	*4*
Site ID	*ST5*
Site Location Lat/Long	*34.631530, -117.207249*
Begin (Time)	*17:01:00*
End (Time)	*17:11:00*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Birds, Distant Conversations / Yelling, Distant Traffic*
Other Noise Sources Additional Description	*Footsteps, metal gate clanking*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Source Info and Traffic Counts

Number of Lanes	*2*
Lane Width (feet)	*10*
Roadway Width (feet)	*20*
Roadway Width (m)	*6.1*
Distance to Roadway (feet)	*2.5*
Distance to Roadway (m)	*0.8*
Distance Measured to Centerline or Edge of Pavement?	*Edge of Pavement*
Estimated Vehicle Speed (MPH)	*55*
Speeds Estimated by:	*Driving the Pace*
Posted Speed Limit Sign (MPH)	*45*

Traffic Counts

Vehicle Count Summary	*A 60, MT 0, HT 0, B 0, MC 0*
Select Method for Recording Count Duration	*Enter Manually*
Counting Both Directions?	*Yes*
Count Duration (minutes)	*10*
Vehicle Count Tally	
Select Method for Vehicle Counts	*Use Counter (+/-)*
Number of Vehicles - Autos	*60*
Number of Vehicles - Medium Trucks	*0*
Number of Vehicles - Heavy Trucks	*0*
Number of Vehicles - Buses	*0*
Number of Vehicles - Motorcyles	*0*

Description / Photos

Terrain	*Mixed*

Site Photos

Photo	
	
Comments / Description	*ST5 North*

Site Photos

Photo	
	
Comments / Description	*ST5 East*

Site Photos

Photo	
	
Comments / Description	*ST5 West*

Site Photos

Photo	
	
Comments / Description	*ST5 South*

FORMS DUDEK FIELD DATA REPORT

Monitoring

Record #	*5*
Site ID	*ST4*
Site Location Lat/Long	*34.594498, -117.242081*
Begin (Time)	*17:20:00*
End (Time)	*17:30:00*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Distant Dog Barking, Distant Traffic*
Other Noise Sources Additional Description	*Footsteps*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Source Info and Traffic Counts

Number of Lanes	*2*
Lane Width (feet)	*10*
Roadway Width (feet)	*20*
Roadway Width (m)	*6.1*
Distance to Roadway (feet)	*26*
Distance to Roadway (m)	*7.9*
Distance Measured to Centerline or Edge of Pavement?	*Edge of Pavement*
Estimated Vehicle Speed (MPH)	*55*
Speeds Estimated by:	*Driving the Pace*
Posted Speed Limit Sign (MPH)	*45*

Traffic Counts

Vehicle Count Summary	*A 39, MT 0, HT 0, B 0, MC 0*
Select Method for Recording Count Duration	*Enter Manually*
Counting Both Directions?	*Yes*
Count Duration (minutes)	*10*
Vehicle Count Tally	
Select Method for Vehicle Counts	*Use Counter (+/-)*
Number of Vehicles - Autos	*39*
Number of Vehicles - Medium Trucks	*0*
Number of Vehicles - Heavy Trucks	*0*
Number of Vehicles - Buses	*0*
Number of Vehicles - Motorcyles	*0*

Description / Photos

Terrain	*Mixed*

Site Photos

Photo	
	
Comments / Description	*ST4 North*

Site Photos

Photo	
	
Comments / Description	*ST4 West*

Site Photos

Photo	
	
Comments / Description	*ST4 South*

Site Photos

Photo	
	
Comments / Description	*ST4 East*

ST1

Start Date	Start Time	End Time	Duration	LAeq	LASmax	LASmin
9/27/2022	3:21:39 PM	3:21:40 PM	0:00:01	38.9	39.2	38.4
9/27/2022	3:21:40 PM	3:21:50 PM	0:00:10	36	38.7	34.6
9/27/2022	3:21:50 PM	3:22:00 PM	0:00:10	37	38.6	35.7
9/27/2022	3:22:00 PM	3:22:10 PM	0:00:10	34.1	35.7	33.2
9/27/2022	3:22:10 PM	3:22:20 PM	0:00:10	35.9	37.5	33.7
9/27/2022	3:22:20 PM	3:22:30 PM	0:00:10	36.6	37.6	35.3
9/27/2022	3:22:30 PM	3:22:40 PM	0:00:10	40.9	44.4	36
9/27/2022	3:22:40 PM	3:22:50 PM	0:00:10	40.9	43	38
9/27/2022	3:22:50 PM	3:23:00 PM	0:00:10	37.7	41.3	34.3
9/27/2022	3:23:00 PM	3:23:10 PM	0:00:10	33.7	34.8	33
9/27/2022	3:23:10 PM	3:23:20 PM	0:00:10	33.3	35.5	32.1
9/27/2022	3:23:20 PM	3:23:30 PM	0:00:10	32	33.3	31.6
9/27/2022	3:23:30 PM	3:23:40 PM	0:00:10	31.1	31.9	30.9
9/27/2022	3:23:40 PM	3:23:50 PM	0:00:10	31.5	31.7	31
9/27/2022	3:23:50 PM	3:24:00 PM	0:00:10	32.4	32.9	31.3
9/27/2022	3:24:00 PM	3:24:10 PM	0:00:10	33	33.8	32.5
9/27/2022	3:24:10 PM	3:24:20 PM	0:00:10	34.1	35.5	32.7
9/27/2022	3:24:20 PM	3:24:30 PM	0:00:10	34.5	35.4	34
9/27/2022	3:24:30 PM	3:24:40 PM	0:00:10	35	37.5	33.2
9/27/2022	3:24:40 PM	3:24:50 PM	0:00:10	36.7	38	35.1
9/27/2022	3:24:50 PM	3:25:00 PM	0:00:10	40.4	42.7	38.1
9/27/2022	3:25:00 PM	3:25:10 PM	0:00:10	45.2	46.7	41.7
9/27/2022	3:25:10 PM	3:25:20 PM	0:00:10	42.8	44.9	40.1
9/27/2022	3:25:20 PM	3:25:30 PM	0:00:10	36.3	40.1	33.7
9/27/2022	3:25:30 PM	3:25:40 PM	0:00:10	35.1	35.9	34.3
9/27/2022	3:25:40 PM	3:25:50 PM	0:00:10	33.6	34.8	33.1
9/27/2022	3:25:50 PM	3:26:00 PM	0:00:10	37.8	40.5	33.9
9/27/2022	3:26:00 PM	3:26:10 PM	0:00:10	38	39.5	37
9/27/2022	3:26:10 PM	3:26:20 PM	0:00:10	38	39.2	36
9/27/2022	3:26:20 PM	3:26:30 PM	0:00:10	35.8	36.8	35.2
9/27/2022	3:26:30 PM	3:26:40 PM	0:00:10	36.5	37.7	35.6
9/27/2022	3:26:40 PM	3:26:50 PM	0:00:10	37.8	38.6	36.3
9/27/2022	3:26:50 PM	3:27:00 PM	0:00:10	36.5	37.9	35
9/27/2022	3:27:00 PM	3:27:10 PM	0:00:10	40.3	42.3	35.8
9/27/2022	3:27:10 PM	3:27:20 PM	0:00:10	39.5	40.9	38.8
9/27/2022	3:27:20 PM	3:27:30 PM	0:00:10	40	41.5	38.3
9/27/2022	3:27:30 PM	3:27:40 PM	0:00:10	37.5	40.1	33.2
9/27/2022	3:27:40 PM	3:27:50 PM	0:00:10	37.2	43	31.9
9/27/2022	3:27:50 PM	3:28:00 PM	0:00:10	37.2	43.5	34.7
9/27/2022	3:28:00 PM	3:28:10 PM	0:00:10	34.9	37.3	32.6
9/27/2022	3:28:10 PM	3:28:20 PM	0:00:10	37.2	40	33.3
9/27/2022	3:28:20 PM	3:28:30 PM	0:00:10	31.7	33.3	31.1
9/27/2022	3:28:30 PM	3:28:40 PM	0:00:10	32	33.9	31.5

9/27/2022	3:28:40 PM	3:28:50 PM	0:00:10	33.5	34.2	31.8
9/27/2022	3:28:50 PM	3:29:00 PM	0:00:10	34.6	36.3	33.6
9/27/2022	3:29:00 PM	3:29:10 PM	0:00:10	42.1	47.4	35.6
9/27/2022	3:29:10 PM	3:29:20 PM	0:00:10	37.6	43.2	35.5
9/27/2022	3:29:20 PM	3:29:30 PM	0:00:10	33	36.5	32.2
9/27/2022	3:29:30 PM	3:29:40 PM	0:00:10	35.7	36.7	33
9/27/2022	3:29:40 PM	3:29:50 PM	0:00:10	38.7	40.4	36.3
9/27/2022	3:29:50 PM	3:30:00 PM	0:00:10	35.2	40.5	32.8
9/27/2022	3:30:00 PM	3:30:10 PM	0:00:10	35.4	39.2	32.9
9/27/2022	3:30:10 PM	3:30:20 PM	0:00:10	36	37.2	35
9/27/2022	3:30:20 PM	3:30:30 PM	0:00:10	38	39	36.2
9/27/2022	3:30:30 PM	3:30:40 PM	0:00:10	37.1	38.7	36
9/27/2022	3:30:40 PM	3:30:50 PM	0:00:10	36.6	38.5	35.3
9/27/2022	3:30:50 PM	3:31:00 PM	0:00:10	37.3	38.4	36.1
9/27/2022	3:31:00 PM	3:31:10 PM	0:00:10	37.6	39	36.5
9/27/2022	3:31:10 PM	3:31:20 PM	0:00:10	38.5	39.5	37.7
9/27/2022	3:31:20 PM	3:31:30 PM	0:00:10	39.5	40.9	36.9
9/27/2022	3:31:30 PM	3:31:40 PM	0:00:10	39.6	41.7	38.1
9/27/2022	3:31:40 PM	3:31:50 PM	0:00:10	42.6	44.6	40.8
9/27/2022	3:31:50 PM	3:32:00 PM	0:00:10	47.7	52.7	42.1
9/27/2022	3:32:00 PM	3:32:10 PM	0:00:10	47.1	50.6	39.4
9/27/2022	3:32:10 PM	3:32:20 PM	0:00:10	49	53.1	40.5
9/27/2022	3:32:20 PM	3:32:30 PM	0:00:10	41	43.7	37.6
9/27/2022	3:32:30 PM	3:32:34 PM	0:00:04	39.9	42.2	37.7

Leq	39.4
Lmax	53.1
Lmin	30.9

ST2

Number	Start Date	Start Time	End Time	Duration	LAeq	LASmax	LASmin
611	9/27/2022	4:22:08 PM	4:22:10 PM	0:00:02	41.9	45.8	41.6
612	9/27/2022	4:22:10 PM	4:22:20 PM	0:00:10	40.2	41.6	39.1
613	9/27/2022	4:22:20 PM	4:22:30 PM	0:00:10	39.5	41.2	38.4
614	9/27/2022	4:22:30 PM	4:22:40 PM	0:00:10	43	45.2	39.5
615	9/27/2022	4:22:40 PM	4:22:50 PM	0:00:10	43.8	46	41.7
616	9/27/2022	4:22:50 PM	4:23:00 PM	0:00:10	40.8	44.4	37.6
617	9/27/2022	4:23:00 PM	4:23:10 PM	0:00:10	44.6	48	37.6
618	9/27/2022	4:23:10 PM	4:23:20 PM	0:00:10	52	54.4	47
619	9/27/2022	4:23:20 PM	4:23:30 PM	0:00:10	48.2	53.6	41.3
620	9/27/2022	4:23:30 PM	4:23:40 PM	0:00:10	38.5	41.7	36.8
621	9/27/2022	4:23:40 PM	4:23:50 PM	0:00:10	35.6	37.5	34.3
622	9/27/2022	4:23:50 PM	4:24:00 PM	0:00:10	36.8	38.4	34.3
623	9/27/2022	4:24:00 PM	4:24:10 PM	0:00:10	40.2	41.6	38.4
624	9/27/2022	4:24:10 PM	4:24:20 PM	0:00:10	39.1	40.7	38.1
625	9/27/2022	4:24:20 PM	4:24:30 PM	0:00:10	38.8	41.7	36.3
626	9/27/2022	4:24:30 PM	4:24:40 PM	0:00:10	42.3	42.8	41.4
627	9/27/2022	4:24:40 PM	4:24:50 PM	0:00:10	40.2	42.7	37.9
628	9/27/2022	4:24:50 PM	4:25:00 PM	0:00:10	35.6	37.8	34.8
629	9/27/2022	4:25:00 PM	4:25:10 PM	0:00:10	32.8	35.3	31.7
630	9/27/2022	4:25:10 PM	4:25:20 PM	0:00:10	35.4	40.7	31.6
631	9/27/2022	4:25:20 PM	4:25:30 PM	0:00:10	32.3	32.9	31.9
632	9/27/2022	4:25:30 PM	4:25:40 PM	0:00:10	32	32.4	31.6
633	9/27/2022	4:25:40 PM	4:25:50 PM	0:00:10	33.4	36.1	31.9
634	9/27/2022	4:25:50 PM	4:26:00 PM	0:00:10	41.1	43.4	36.2
635	9/27/2022	4:26:00 PM	4:26:10 PM	0:00:10	35.8	40	33.6
636	9/27/2022	4:26:10 PM	4:26:20 PM	0:00:10	34.3	35.4	32.9
637	9/27/2022	4:26:20 PM	4:26:30 PM	0:00:10	35	35.6	34.1
638	9/27/2022	4:26:30 PM	4:26:40 PM	0:00:10	39.5	42.4	35.7
639	9/27/2022	4:26:40 PM	4:26:50 PM	0:00:10	44	46	41.6
640	9/27/2022	4:26:50 PM	4:27:00 PM	0:00:10	40.3	45	34.9
641	9/27/2022	4:27:00 PM	4:27:10 PM	0:00:10	35.5	36.7	34.5
642	9/27/2022	4:27:10 PM	4:27:20 PM	0:00:10	33.8	34.7	33.2
643	9/27/2022	4:27:20 PM	4:27:30 PM	0:00:10	37.7	38.7	34.4
644	9/27/2022	4:27:30 PM	4:27:40 PM	0:00:10	38.2	38.7	37.6
645	9/27/2022	4:27:40 PM	4:27:50 PM	0:00:10	39.4	40.1	38.5
646	9/27/2022	4:27:50 PM	4:28:00 PM	0:00:10	40.1	40.9	39.4
647	9/27/2022	4:28:00 PM	4:28:10 PM	0:00:10	40.5	41.4	39.7
648	9/27/2022	4:28:10 PM	4:28:20 PM	0:00:10	37	39.9	35.1
649	9/27/2022	4:28:20 PM	4:28:30 PM	0:00:10	33.8	35.9	31.9
650	9/27/2022	4:28:30 PM	4:28:40 PM	0:00:10	33.4	34.7	31.9
651	9/27/2022	4:28:40 PM	4:28:50 PM	0:00:10	39.2	42.9	34.6
652	9/27/2022	4:28:50 PM	4:29:00 PM	0:00:10	42.2	43	41.3
653	9/27/2022	4:29:00 PM	4:29:10 PM	0:00:10	40.8	43	38.3

654	9/27/2022	4:29:10 PM	4:29:20 PM	0:00:10	35	38.3	33.1
655	9/27/2022	4:29:20 PM	4:29:30 PM	0:00:10	32.4	33.5	31.5
656	9/27/2022	4:29:30 PM	4:29:40 PM	0:00:10	34.6	35.5	32.7
657	9/27/2022	4:29:40 PM	4:29:50 PM	0:00:10	36	37.4	35.2
658	9/27/2022	4:29:50 PM	4:30:00 PM	0:00:10	40.2	42.1	37.3
659	9/27/2022	4:30:00 PM	4:30:10 PM	0:00:10	39.5	42.2	37.2
660	9/27/2022	4:30:10 PM	4:30:20 PM	0:00:10	36	37.3	33.8
661	9/27/2022	4:30:20 PM	4:30:30 PM	0:00:10	37.8	41.7	33.3
662	9/27/2022	4:30:30 PM	4:30:40 PM	0:00:10	39.8	41.4	37.6
663	9/27/2022	4:30:40 PM	4:30:50 PM	0:00:10	37	38.7	36
664	9/27/2022	4:30:50 PM	4:31:00 PM	0:00:10	39.1	41.3	36.2
665	9/27/2022	4:31:00 PM	4:31:10 PM	0:00:10	39.8	42.6	37.6
666	9/27/2022	4:31:10 PM	4:31:20 PM	0:00:10	55.2	62.9	41.6
667	9/27/2022	4:31:20 PM	4:31:30 PM	0:00:10	47.4	56.1	39.6
668	9/27/2022	4:31:30 PM	4:31:40 PM	0:00:10	37.6	40.3	35.5
669	9/27/2022	4:31:40 PM	4:31:50 PM	0:00:10	33	36.1	32.2
670	9/27/2022	4:31:50 PM	4:32:00 PM	0:00:10	31.8	33.7	31
671	9/27/2022	4:32:00 PM	4:32:10 PM	0:00:10	31.4	32	30.5
672	9/27/2022	4:32:10 PM	4:32:20 PM	0:00:10	31.7	33.2	30.2
673	9/27/2022	4:32:21 PM	4:32:27 PM	0:00:06	42.2	46.5	33.4

Leq	42.3
Lmax	62.9
Lmin	30.2

ST3

Number	Start Date	Start Time	End Time	Duration	LAeq	LASmax	LASmin
674	9/27/2022	4:38:21 PM	4:38:30 PM	0:00:09	42.3	46.1	38.6
675	9/27/2022	4:38:30 PM	4:38:40 PM	0:00:10	40.2	44.9	37.1
676	9/27/2022	4:38:40 PM	4:38:50 PM	0:00:10	42.4	45	37.8
677	9/27/2022	4:38:50 PM	4:39:00 PM	0:00:10	38.7	42.8	35
678	9/27/2022	4:39:00 PM	4:39:10 PM	0:00:10	43.9	47.4	35.2
679	9/27/2022	4:39:10 PM	4:39:20 PM	0:00:10	47.4	53.8	39.1
680	9/27/2022	4:39:20 PM	4:39:30 PM	0:00:10	40.6	46	37.2
681	9/27/2022	4:39:30 PM	4:39:40 PM	0:00:10	45.2	50.2	37.2
682	9/27/2022	4:39:40 PM	4:39:50 PM	0:00:10	45.3	50.2	41.6
683	9/27/2022	4:39:50 PM	4:40:00 PM	0:00:10	46.6	49.4	44.3
684	9/27/2022	4:40:00 PM	4:40:10 PM	0:00:10	50.8	55.4	47.5
685	9/27/2022	4:40:10 PM	4:40:20 PM	0:00:10	53.2	57.2	47.3
686	9/27/2022	4:40:20 PM	4:40:30 PM	0:00:10	52.5	55.2	47.1
687	9/27/2022	4:40:30 PM	4:40:40 PM	0:00:10	66	73	48.1
688	9/27/2022	4:40:40 PM	4:40:50 PM	0:00:10	64.4	74.1	43.6
689	9/27/2022	4:40:50 PM	4:41:00 PM	0:00:10	50.9	52.8	44.4
690	9/27/2022	4:41:00 PM	4:41:10 PM	0:00:10	41.3	47.1	38.5
691	9/27/2022	4:41:10 PM	4:41:20 PM	0:00:10	39.4	40.9	37.7
692	9/27/2022	4:41:20 PM	4:41:30 PM	0:00:10	42.2	44.8	38.1
693	9/27/2022	4:41:30 PM	4:41:40 PM	0:00:10	42	45	39.1
694	9/27/2022	4:41:40 PM	4:41:50 PM	0:00:10	42.4	46.7	36.7
695	9/27/2022	4:41:50 PM	4:42:00 PM	0:00:10	39.5	43.2	36.1
696	9/27/2022	4:42:00 PM	4:42:10 PM	0:00:10	42.5	46.3	36.2
697	9/27/2022	4:42:10 PM	4:42:20 PM	0:00:10	45.1	47.8	42.7
698	9/27/2022	4:42:20 PM	4:42:30 PM	0:00:10	43.5	45.2	41.6
699	9/27/2022	4:42:30 PM	4:42:40 PM	0:00:10	44.6	46.5	42.6
700	9/27/2022	4:42:40 PM	4:42:50 PM	0:00:10	43.2	46	38.6
701	9/27/2022	4:42:50 PM	4:43:00 PM	0:00:10	37.4	43.4	36.1
702	9/27/2022	4:43:00 PM	4:43:10 PM	0:00:10	38.7	43.1	35.5
703	9/27/2022	4:43:10 PM	4:43:20 PM	0:00:10	40.8	42.6	39.5
704	9/27/2022	4:43:20 PM	4:43:30 PM	0:00:10	41.4	42.4	39.5
705	9/27/2022	4:43:30 PM	4:43:40 PM	0:00:10	44.5	47	40.9
706	9/27/2022	4:43:40 PM	4:43:50 PM	0:00:10	40.7	44.9	38.9
707	9/27/2022	4:43:50 PM	4:44:00 PM	0:00:10	40.9	42.9	39.1
708	9/27/2022	4:44:00 PM	4:44:10 PM	0:00:10	41.4	43	40.4
709	9/27/2022	4:44:10 PM	4:44:20 PM	0:00:10	40.7	43.1	38.3
710	9/27/2022	4:44:20 PM	4:44:30 PM	0:00:10	38.4	39.8	36.7
711	9/27/2022	4:44:30 PM	4:44:40 PM	0:00:10	39.6	41.2	38.1
712	9/27/2022	4:44:40 PM	4:44:50 PM	0:00:10	36.9	39.3	36.2
713	9/27/2022	4:44:50 PM	4:45:00 PM	0:00:10	36.3	37.5	34.5
714	9/27/2022	4:45:00 PM	4:45:10 PM	0:00:10	35.6	37.1	34.5
715	9/27/2022	4:45:10 PM	4:45:20 PM	0:00:10	34.9	36.4	33.6
716	9/27/2022	4:45:20 PM	4:45:30 PM	0:00:10	34.8	37.2	33.1

717	9/27/2022	4:45:30 PM	4:45:40 PM	0:00:10	34.9	37.1	33.1
718	9/27/2022	4:45:40 PM	4:45:50 PM	0:00:10	33.3	34.7	32.4
719	9/27/2022	4:45:50 PM	4:46:00 PM	0:00:10	32.8	34.7	31.7
720	9/27/2022	4:46:00 PM	4:46:10 PM	0:00:10	33	34.7	32.1
721	9/27/2022	4:46:10 PM	4:46:20 PM	0:00:10	32.5	33	32
722	9/27/2022	4:46:20 PM	4:46:30 PM	0:00:10	35.4	37.5	32.5
723	9/27/2022	4:46:30 PM	4:46:40 PM	0:00:10	41.1	44	35.6
724	9/27/2022	4:46:40 PM	4:46:50 PM	0:00:10	42	44.2	39.7
725	9/27/2022	4:46:50 PM	4:47:00 PM	0:00:10	39.3	43.8	37
726	9/27/2022	4:47:00 PM	4:47:10 PM	0:00:10	36	37.4	35
727	9/27/2022	4:47:10 PM	4:47:20 PM	0:00:10	34.9	36.8	33.9
728	9/27/2022	4:47:20 PM	4:47:30 PM	0:00:10	35.6	36.7	34.4
729	9/27/2022	4:47:30 PM	4:47:40 PM	0:00:10	34	35.2	33.1
730	9/27/2022	4:47:40 PM	4:47:50 PM	0:00:10	33.5	35	32.6
731	9/27/2022	4:47:50 PM	4:48:00 PM	0:00:10	42.4	46.8	33.5
732	9/27/2022	4:48:00 PM	4:48:10 PM	0:00:10	44	50.2	33.6
733	9/27/2022	4:48:10 PM	4:48:20 PM	0:00:10	32.8	33.6	32.2
734	9/27/2022	4:48:20 PM	4:48:30 PM	0:00:10	32.5	33.3	31.8
735	9/27/2022	4:48:30 PM	4:48:39 PM	0:00:09	34.9	40.6	32

Leq	51.2
Lmax	74.1
Lmin	31.7

ST4

Number	Start Date	Start Time	End Time	Duration	LAeq	LASmax	LASmin
797	9/27/2022	5:18:02 PM	5:18:10 PM	0:00:08	53.9	57.4	48.3
798	9/27/2022	5:18:10 PM	5:18:20 PM	0:00:10	49.9	56.2	39.5
799	9/27/2022	5:18:20 PM	5:18:30 PM	0:00:10	67.4	74.7	50.6
800	9/27/2022	5:18:30 PM	5:18:40 PM	0:00:10	61.9	69.8	45.5
801	9/27/2022	5:18:40 PM	5:18:50 PM	0:00:10	64	72.5	53.1
802	9/27/2022	5:18:50 PM	5:19:00 PM	0:00:10	68.9	74.7	52.8
803	9/27/2022	5:19:00 PM	5:19:10 PM	0:00:10	51.2	55.2	45.7
804	9/27/2022	5:19:10 PM	5:19:20 PM	0:00:10	62.6	69	48.5
805	9/27/2022	5:19:20 PM	5:19:30 PM	0:00:10	67.8	72.8	54.4
806	9/27/2022	5:19:30 PM	5:19:40 PM	0:00:10	53.2	67.5	44.6
807	9/27/2022	5:19:40 PM	5:19:50 PM	0:00:10	48.3	53.8	41.7
808	9/27/2022	5:19:50 PM	5:20:00 PM	0:00:10	63.9	70.9	43.4
809	9/27/2022	5:20:00 PM	5:20:10 PM	0:00:10	61.9	68.1	52.2
810	9/27/2022	5:20:10 PM	5:20:20 PM	0:00:10	74.5	80.9	61.2
811	9/27/2022	5:20:20 PM	5:20:30 PM	0:00:10	61.1	68.1	54.9
812	9/27/2022	5:20:30 PM	5:20:40 PM	0:00:10	58	68.5	46.5
813	9/27/2022	5:20:40 PM	5:20:50 PM	0:00:10	66.3	74.3	45.5
814	9/27/2022	5:20:50 PM	5:21:00 PM	0:00:10	74.2	78.9	65.2
815	9/27/2022	5:21:00 PM	5:21:10 PM	0:00:10	55.5	71	49.7
816	9/27/2022	5:21:10 PM	5:21:20 PM	0:00:10	68.6	75.4	44.6
817	9/27/2022	5:21:20 PM	5:21:30 PM	0:00:10	53	68.5	46.2
818	9/27/2022	5:21:30 PM	5:21:40 PM	0:00:10	64	70.3	47.5
819	9/27/2022	5:21:40 PM	5:21:50 PM	0:00:10	49.5	55.2	40.9
820	9/27/2022	5:21:50 PM	5:22:00 PM	0:00:10	48.3	53.9	40.9
821	9/27/2022	5:22:00 PM	5:22:10 PM	0:00:10	68.7	73.6	44.9
822	9/27/2022	5:22:10 PM	5:22:20 PM	0:00:10	51.2	60	43.8
823	9/27/2022	5:22:20 PM	5:22:30 PM	0:00:10	47.3	50.5	40.9
824	9/27/2022	5:22:30 PM	5:22:40 PM	0:00:10	71.6	78.2	45
825	9/27/2022	5:22:40 PM	5:22:50 PM	0:00:10	70.8	77	59.5
826	9/27/2022	5:22:50 PM	5:23:00 PM	0:00:10	66.3	73.5	53.2
827	9/27/2022	5:23:00 PM	5:23:10 PM	0:00:10	47.9	53.4	41.4
828	9/27/2022	5:23:10 PM	5:23:20 PM	0:00:10	47.9	53.4	41.2
829	9/27/2022	5:23:20 PM	5:23:30 PM	0:00:10	42.6	49.2	38.9
830	9/27/2022	5:23:30 PM	5:23:40 PM	0:00:10	67	73.8	49.3
831	9/27/2022	5:23:40 PM	5:23:50 PM	0:00:10	46.7	57	42.3
832	9/27/2022	5:23:50 PM	5:24:00 PM	0:00:10	66.3	73.4	41.9
833	9/27/2022	5:24:00 PM	5:24:10 PM	0:00:10	55.4	64.1	48.4
834	9/27/2022	5:24:10 PM	5:24:20 PM	0:00:10	74.3	81.2	59.2
835	9/27/2022	5:24:20 PM	5:24:30 PM	0:00:10	50.4	59.2	45.5
836	9/27/2022	5:24:30 PM	5:24:40 PM	0:00:10	42.3	45.4	39.9
837	9/27/2022	5:24:40 PM	5:24:50 PM	0:00:10	39.5	40.1	38.6
838	9/27/2022	5:24:50 PM	5:25:00 PM	0:00:10	56.1	64.2	38.9
839	9/27/2022	5:25:00 PM	5:25:10 PM	0:00:10	61.9	68.8	41.2

840	9/27/2022	5:25:10 PM	5:25:20 PM	0:00:10	36.7	41.1	36.2
841	9/27/2022	5:25:20 PM	5:25:30 PM	0:00:10	38.4	40.8	36.7
842	9/27/2022	5:25:30 PM	5:25:40 PM	0:00:10	63.3	69.5	40.8
843	9/27/2022	5:25:40 PM	5:25:50 PM	0:00:10	65.5	71.7	50.4
844	9/27/2022	5:25:50 PM	5:26:00 PM	0:00:10	43.3	57.4	39.9
845	9/27/2022	5:26:00 PM	5:26:10 PM	0:00:10	66.8	71.5	45.8
846	9/27/2022	5:26:10 PM	5:26:20 PM	0:00:10	68.7	77.2	48.7
847	9/27/2022	5:26:20 PM	5:26:30 PM	0:00:10	70.7	79.1	49.2
848	9/27/2022	5:26:30 PM	5:26:40 PM	0:00:10	43.3	49.3	39.9
849	9/27/2022	5:26:40 PM	5:26:50 PM	0:00:10	67.3	71	42.9
850	9/27/2022	5:26:50 PM	5:27:00 PM	0:00:10	68.6	74.7	50
851	9/27/2022	5:27:00 PM	5:27:10 PM	0:00:10	44.5	49.9	41.4
852	9/27/2022	5:27:10 PM	5:27:20 PM	0:00:10	40	45.9	37.1
853	9/27/2022	5:27:20 PM	5:27:30 PM	0:00:10	62.6	68.5	41
854	9/27/2022	5:27:30 PM	5:27:40 PM	0:00:10	53.7	65.4	43.3

Leq	65.8
Lmax	81.2
Lmin	36.2

ST5

Start Date	Start Time	End Time	Duration	LAeq	LASmax	LASmin
9/27/2022	4:58:27 PM	4:58:30 PM	0:00:03	58.6	69.5	59.6
9/27/2022	4:58:30 PM	4:58:40 PM	0:00:10	67.4	74.5	53.5
9/27/2022	4:58:40 PM	4:58:50 PM	0:00:10	66.4	73.6	55
9/27/2022	4:58:50 PM	4:59:00 PM	0:00:10	49.8	55	47.2
9/27/2022	4:59:00 PM	4:59:10 PM	0:00:10	71	76	47.7
9/27/2022	4:59:10 PM	4:59:20 PM	0:00:10	72.1	76	64.2
9/27/2022	4:59:20 PM	4:59:30 PM	0:00:10	56.1	70.6	45.5
9/27/2022	4:59:30 PM	4:59:40 PM	0:00:10	69	74.2	56.1
9/27/2022	4:59:40 PM	4:59:50 PM	0:00:10	49.8	60.8	44.1
9/27/2022	4:59:50 PM	5:00:00 PM	0:00:10	41.5	44.6	39.4
9/27/2022	5:00:00 PM	5:00:10 PM	0:00:10	69.6	77.1	42.7
9/27/2022	5:00:10 PM	5:00:20 PM	0:00:10	72.6	76.4	55.2
9/27/2022	5:00:20 PM	5:00:30 PM	0:00:10	71.3	77	58.6
9/27/2022	5:00:30 PM	5:00:40 PM	0:00:10	74.8	82.5	55.8
9/27/2022	5:00:40 PM	5:00:50 PM	0:00:10	75	81	56.1
9/27/2022	5:00:50 PM	5:01:00 PM	0:00:10	68.7	76	56.8
9/27/2022	5:01:00 PM	5:01:10 PM	0:00:10	66.9	74.5	49.8
9/27/2022	5:01:10 PM	5:01:20 PM	0:00:10	47.5	50.8	44.4
9/27/2022	5:01:20 PM	5:01:30 PM	0:00:10	68.5	74.8	44.4
9/27/2022	5:01:30 PM	5:01:40 PM	0:00:10	69.8	77.2	58.7
9/27/2022	5:01:40 PM	5:01:50 PM	0:00:10	69.3	75.8	53.2
9/27/2022	5:01:50 PM	5:02:00 PM	0:00:10	45.3	53.2	41.7
9/27/2022	5:02:00 PM	5:02:10 PM	0:00:10	66.6	74.2	42.4
9/27/2022	5:02:10 PM	5:02:20 PM	0:00:10	50.9	54	47.6
9/27/2022	5:02:20 PM	5:02:30 PM	0:00:10	69.6	75	52.8
9/27/2022	5:02:30 PM	5:02:40 PM	0:00:10	48.7	54.5	47.8
9/27/2022	5:02:40 PM	5:02:50 PM	0:00:10	73.6	79.7	49.6
9/27/2022	5:02:50 PM	5:03:00 PM	0:00:10	61.3	70.2	55.5
9/27/2022	5:03:00 PM	5:03:10 PM	0:00:10	66.3	74.1	44.3
9/27/2022	5:03:10 PM	5:03:20 PM	0:00:10	42.6	46.8	39.9
9/27/2022	5:03:20 PM	5:03:30 PM	0:00:10	70.2	77.7	47
9/27/2022	5:03:30 PM	5:03:40 PM	0:00:10	47.4	56.1	43
9/27/2022	5:03:40 PM	5:03:50 PM	0:00:10	41.2	43.7	38.7
9/27/2022	5:03:50 PM	5:04:00 PM	0:00:10	37	38.6	34.7
9/27/2022	5:04:00 PM	5:04:10 PM	0:00:10	68	76.6	34.6
9/27/2022	5:04:10 PM	5:04:20 PM	0:00:10	69.6	77.1	57.3
9/27/2022	5:04:20 PM	5:04:30 PM	0:00:10	49.3	57.3	45
9/27/2022	5:04:30 PM	5:04:40 PM	0:00:10	71.3	77.9	48.2
9/27/2022	5:04:40 PM	5:04:50 PM	0:00:10	53.6	74	45.4
9/27/2022	5:04:50 PM	5:05:00 PM	0:00:10	72.4	76.6	59.7
9/27/2022	5:05:00 PM	5:05:10 PM	0:00:10	69.3	76.9	53.3
9/27/2022	5:05:10 PM	5:05:20 PM	0:00:10	51	57.3	45.5
9/27/2022	5:05:20 PM	5:05:30 PM	0:00:10	70.5	76.2	57.5

9/27/2022	5:05:30 PM	5:05:40 PM	0:00:10	65.7	73.2	51.4
9/27/2022	5:05:40 PM	5:05:50 PM	0:00:10	54.6	67.5	51.4
9/27/2022	5:05:50 PM	5:06:00 PM	0:00:10	69.4	76	55.2
9/27/2022	5:06:00 PM	5:06:10 PM	0:00:10	66	73.6	44.2
9/27/2022	5:06:10 PM	5:06:20 PM	0:00:10	68.4	76	54.8
9/27/2022	5:06:20 PM	5:06:30 PM	0:00:10	48.6	54.7	42.1
9/27/2022	5:06:30 PM	5:06:40 PM	0:00:10	72	79.9	39.1
9/27/2022	5:06:40 PM	5:06:50 PM	0:00:10	70.5	78.1	56.6
9/27/2022	5:06:50 PM	5:07:00 PM	0:00:10	71.2	75.3	61.1
9/27/2022	5:07:00 PM	5:07:10 PM	0:00:10	53.9	70.8	45.2
9/27/2022	5:07:10 PM	5:07:20 PM	0:00:10	66.1	74.3	43.2
9/27/2022	5:07:20 PM	5:07:30 PM	0:00:10	67.8	74.2	57.4
9/27/2022	5:07:30 PM	5:07:40 PM	0:00:10	57.4	72.7	45.3
9/27/2022	5:07:40 PM	5:07:50 PM	0:00:10	66.7	73.8	45.2
9/27/2022	5:07:50 PM	5:08:00 PM	0:00:10	50	59.6	47.3
9/27/2022	5:08:00 PM	5:08:10 PM	0:00:10	42.9	47.3	39.1
9/27/2022	5:08:10 PM	5:08:20 PM	0:00:10	61.1	68.4	39
9/27/2022	5:08:20 PM	5:08:24 PM	0:00:04	51.5	63.8	52.5

Leq	68.0
Lmax	82.5
Lmin	34.6

Appendix I-2

Construction Noise Modeling Input and Output

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 1

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	Dozer	1	40	82		850	57.4	1	60	53
	Backhoe	1	40	78		900	52.9	1	60	49
	Dozer	1	40	82		1000	56.0	1	60	52
	Tractor	1	40	84		1100	57.2	1	60	53
	Front End Loader	1	40	79		1200	51.4	1	60	47
	Dozer	1	40	82		1300	53.7	1	60	50
	Backhoe	1	40	78		1400	49.1	1	60	45
							Total for Site Preparation Phase:			**59.3**
Grading	Excavator	1	40	81		850	56.4	1	60	52
	Scraper	1	40	84		900	58.9	1	60	55
	Excavator	1	40	81		1000	55.0	1	60	51
	Grader	1	40	85		1100	58.2	1	60	54
	Dozer	1	40	82		1200	54.4	1	60	50
	Scraper	1	40	84		1300	55.7	1	60	52
	Backhoe	1	40	78		1400	49.1	1	60	45
	Tractor	1	40	84		1500	54.5	1	60	50
							Total for Grading Phase:			**61.1**
Building Construction	Crane	1	16	81		1050	54.6	1	60	47
	Man lift	1	20	75		1100	48.2	1	60	41
	Welder / Torch	1	40	73		1200	45.4	1	60	41
	Generator	1	50	72		1300	43.7	1	60	41
	Backhoe	1	40	78		1400	49.1	1	60	45
	Tractor	1	40	84		1500	54.5	1	60	50
	Man lift	1	20	75		1600	44.9	1	60	38
	Front End Loader	1	40	79		1700	48.4	1	60	44
	Man lift	1	20	75		1800	43.9	1	60	37
							Total for Building Construction Phase:			**54.3**
Paving	Paver	1	50	77		850	52.4	1	60	49
	Concrete Pump Truck	1	20	81		900	55.9	1	60	49
	Paver	1	50	77		1000	51.0	1	60	48
	Roller	1	20	80		1100	53.2	1	60	46
	Concrete Mixer Truck	1	40	79		1200	51.4	1	60	47
	Roller	1	20	80		1300	51.7	1	60	45
								Total for Paving Phase:		**55.5**
Architectural Coating	Compressor (air)	1	40	78		1050	51.6	1	60	48
							Total for Architectural Coating Phase:			**47.6**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 1

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	Dozer	1	40	82		850	57.4	1	60	53
	Backhoe	1	40	78		900	52.9	1	60	49
	Dozer	1	40	82		1000	56.0	1	60	52
	Tractor	1	40	84		1100	57.2	1	60	53
	Front End Loader	1	40	79		1200	51.4	1	60	47
	Dozer	1	40	82		1300	53.7	1	60	50
	Backhoe	1	40	78		1400	49.1	1	60	45
							Total for Site Preparation Phase:			**59.3**
Grading	Excavator	1	40	81		850	56.4	1	60	52
	Scraper	1	40	84		900	58.9	1	60	55
	Excavator	1	40	81		1000	55.0	1	60	51
	Grader	1	40	85		1100	58.2	1	60	54
	Dozer	1	40	82		1200	54.4	1	60	50
	Scraper	1	40	84		1300	55.7	1	60	52
	Backhoe	1	40	78		1400	49.1	1	60	45
	Tractor	1	40	84		1500	54.5	1	60	50
							Total for Grading Phase:			**61.1**
Building Construction	Crane	1	16	81		1050	54.6	1	60	47
	Man lift	1	20	75		1100	48.2	1	60	41
	Welder / Torch	1	40	73		1200	45.4	1	60	41
	Generator	1	50	72		1300	43.7	1	60	41
	Backhoe	1	40	78		1400	49.1	1	60	45
	Tractor	1	40	84		1500	54.5	1	60	50
	Man lift	1	20	75		1600	44.9	1	60	38
	Front End Loader	1	40	79		1700	48.4	1	60	44
	Man lift	1	20	75		1800	43.9	1	60	37
							Total for Building Construction Phase:			**54.3**
Paving	Paver	1	50	77		850	52.4	1	60	49
	Concrete Pump Truck	1	20	81		900	55.9	1	60	49
	Paver	1	50	77		1000	51.0	1	60	48
	Roller	1	20	80		1100	53.2	1	60	46
	Concrete Mixer Truck	1	40	79		1200	51.4	1	60	47
	Roller	1	20	80		1300	51.7	1	60	45
								Total for Paving Phase:		**55.5**
Architectural Coating	Compressor (air)	1	40	78		1050	51.6	1	60	48
							Total for Architectural Coating Phase:			**47.6**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 1

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	Dozer	1	40	82		1750	51.1	1	60	47
	Backhoe	1	40	78		1750	47.1	1	60	43
	Dozer	1	40	82		1750	51.1	1	60	47
	Tractor	1	40	84		1750	53.1	1	60	49
	Front End Loader	1	40	79		1750	48.1	1	60	44
	Dozer	1	40	82		1750	51.1	1	60	47
	Backhoe	1	40	78		1750	47.1	1	60	43
							Total for Site Preparation Phase:			**54.8**
Grading	Excavator	1	40	81		1750	50.1	1	60	46
	Scraper	1	40	84		1750	53.1	1	60	49
	Excavator	1	40	81		1750	50.1	1	60	46
	Grader	1	40	85		1750	54.1	1	60	50
	Dozer	1	40	82		1750	51.1	1	60	47
	Scraper	1	40	84		1750	53.1	1	60	49
	Backhoe	1	40	78		1750	47.1	1	60	43
	Tractor	1	40	84		1750	53.1	1	60	49
							Total for Grading Phase:			**57.0**
Building Construction	Crane	1	16	81		1750	50.1	1	60	42
	Man lift	1	20	75		1750	44.1	1	60	37
	Welder / Torch	1	40	73		1750	42.1	1	60	38
	Generator	1	50	72		1750	41.1	1	60	38
	Backhoe	1	40	78		1750	47.1	1	60	43
	Tractor	1	40	84		1750	53.1	1	60	49
	Man lift	1	20	75		1750	44.1	1	60	37
	Front End Loader	1	40	79		1750	48.1	1	60	44
	Man lift	1	20	75		1750	44.1	1	60	37
							Total for Building Construction Phase:			**52.4**
Paving	Paver	1	50	77		1750	46.1	1	60	43
	Concrete Pump Truck	1	20	81		1750	50.1	1	60	43
	Paver	1	50	77		1750	46.1	1	60	43
	Roller	1	20	80		1750	49.1	1	60	42
	Concrete Mixer Truck	1	40	79		1750	48.1	1	60	44
	Roller	1	20	80		1750	49.1	1	60	42
								Total for Paving Phase:		**50.8**
Architectural Coating	Compressor (air)	1	40	78		1750	47.1	1	60	43
							Total for Architectural Coating Phase:			**43.1**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 1

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	Dozer	1	40	82		650	59.7	1	60	56
	Backhoe	1	40	78		700	55.1	1	60	51
	Dozer	1	40	82		800	57.9	1	60	54
	Tractor	1	40	84		900	58.9	1	60	55
	Front End Loader	1	40	79		1000	53.0	1	60	49
	Dozer	1	40	82		1100	55.2	1	60	51
	Backhoe	1	40	78		1200	50.4	1	60	46
							Total for Site Preparation Phase:			**61.2**
Grading	Excavator	1	40	81		650	58.7	1	60	55
	Scraper	1	40	84		700	61.1	1	60	57
	Excavator	1	40	81		800	56.9	1	60	53
	Grader	1	40	85		900	59.9	1	60	56
	Dozer	1	40	82		1000	56.0	1	60	52
	Scraper	1	40	84		1100	57.2	1	60	53
	Backhoe	1	40	78		1200	50.4	1	60	46
	Tractor	1	40	84		1300	55.7	1	60	52
							Total for Grading Phase:			**62.9**
Building Construction	Crane	1	16	81		850	56.4	1	60	48
	Man lift	1	20	75		900	49.9	1	60	43
	Welder / Torch	1	40	73		950	47.4	1	60	43
	Generator	1	50	72		1000	46.0	1	60	43
	Backhoe	1	40	78		1100	51.2	1	60	47
	Tractor	1	40	84		1200	56.4	1	60	52
	Man lift	1	20	75		1300	46.7	1	60	40
	Front End Loader	1	40	79		1400	50.1	1	60	46
	Man lift	1	20	75		1500	45.5	1	60	38
							Total for Building Construction Phase:			**56.2**
Paving	Paver	1	50	77		650	54.7	1	60	52
	Concrete Pump Truck	1	20	81		700	58.1	1	60	51
	Paver	1	50	77		800	52.9	1	60	50
	Roller	1	20	80		900	54.9	1	60	48
	Concrete Mixer Truck	1	40	79		1000	53.0	1	60	49
	Roller	1	20	80		1100	53.2	1	60	46
								Total for Paving Phase:		**57.5**
Architectural Coating	Compressor (air)	1	40	78		850	53.4	1	60	49
							Total for Architectural Coating Phase:			**49.4**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 1

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	Dozer	1	40	82		2500	48.0	1	60	44
	Backhoe	1	40	78		2500	44.0	1	60	40
	Dozer	1	40	82		2500	48.0	1	60	44
	Tractor	1	40	84		2500	50.0	1	60	46
	Front End Loader	1	40	79		2500	45.0	1	60	41
	Dozer	1	40	82		2500	48.0	1	60	44
	Backhoe	1	40	78		2500	44.0	1	60	40
							Total for Site Preparation Phase:			**51.7**
Grading	Excavator	1	40	81		2500	47.0	1	60	43
	Scraper	1	40	84		2500	50.0	1	60	46
	Excavator	1	40	81		2500	47.0	1	60	43
	Grader	1	40	85		2500	51.0	1	60	47
	Dozer	1	40	82		2500	48.0	1	60	44
	Scraper	1	40	84		2500	50.0	1	60	46
	Backhoe	1	40	78		2500	44.0	1	60	40
	Tractor	1	40	84		2500	50.0	1	60	46
							Total for Grading Phase:			**53.9**
Building Construction	Crane	1	16	81		2500	47.0	1	60	39
	Man lift	1	20	75		2500	41.0	1	60	34
	Welder / Torch	1	40	73		2500	39.0	1	60	35
	Generator	1	50	72		2500	38.0	1	60	35
	Backhoe	1	40	78		2500	44.0	1	60	40
	Tractor	1	40	84		2500	50.0	1	60	46
	Man lift	1	20	75		2500	41.0	1	60	34
	Front End Loader	1	40	79		2500	45.0	1	60	41
	Man lift	1	20	75		2500	41.0	1	60	34
							Total for Building Construction Phase:			**49.3**
Paving	Paver	1	50	77		2500	43.0	1	60	40
	Concrete Pump Truck	1	20	81		2500	47.0	1	60	40
	Paver	1	50	77		2500	43.0	1	60	40
	Roller	1	20	80		2500	46.0	1	60	39
	Concrete Mixer Truck	1	40	79		2500	45.0	1	60	41
	Roller	1	20	80		2500	46.0	1	60	39
								Total for Paving Phase:		**47.7**
Architectural Coating	Compressor (air)	1	40	78		2500	44.0	1	60	40
							Total for Architectural Coating Phase:			**40.0**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 1

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	Dozer	1	40	82		1900	50.4	1	60	46
	Backhoe	1	40	78		2000	46.0	1	60	42
	Dozer	1	40	82		2100	49.5	1	60	46
	Tractor	1	40	84		2200	51.1	1	60	47
	Front End Loader	1	40	79		2300	45.7	1	60	42
	Dozer	1	40	82		2400	48.4	1	60	44
	Backhoe	1	40	78		2500	44.0	1	60	40
							Total for Site Preparation Phase:			**53.0**
Grading	Excavator	1	40	81		1900	49.4	1	60	45
	Scraper	1	40	84		2000	52.0	1	60	48
	Excavator	1	40	81		2100	48.5	1	60	45
	Grader	1	40	85		2200	52.1	1	60	48
	Dozer	1	40	82		2300	48.7	1	60	45
	Scraper	1	40	84		2400	50.4	1	60	46
	Backhoe	1	40	78		2500	44.0	1	60	40
	Tractor	1	40	84		2600	49.7	1	60	46
							Total for Grading Phase:			**54.9**
Building Construction	Crane	1	16	81		2100	48.5	1	60	41
	Man lift	1	20	75		2200	42.1	1	60	35
	Welder / Torch	1	40	73		2300	39.7	1	60	36
	Generator	1	50	72		2400	38.4	1	60	35
	Backhoe	1	40	78		2500	44.0	1	60	40
	Tractor	1	40	84		2600	49.7	1	60	46
	Man lift	1	20	75		2700	40.4	1	60	33
	Front End Loader	1	40	79		2800	44.0	1	60	40
	Man lift	1	20	75		2900	39.7	1	60	33
							Total for Building Construction Phase:			**49.2**
Paving	Paver	1	50	77		1900	45.4	1	60	42
	Concrete Pump Truck	1	20	81		2000	49.0	1	60	42
	Paver	1	50	77		2100	44.5	1	60	42
	Roller	1	20	80		2200	47.1	1	60	40
	Concrete Mixer Truck	1	40	79		2300	45.7	1	60	42
	Roller	1	20	80		2400	46.4	1	60	39
								Total for Paving Phase:		**49.1**
Architectural Coating	Compressor (air)	1	40	78		2100	45.5	1	60	42
							Total for Architectural Coating Phase:			**41.6**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80

allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Off-Site Utilities	Backhoe	1	40	78		1500	48.5	8	480	44
	Man lift	1	20	75		1500	45.5	8	480	38
	Excavator	1	40	81		1500	51.5	8	480	47
	Concrete Saw	1	20	90		1500	60.5	8	480	53
	Front End Loader	1	40	79		1500	49.5	8	480	45
	Crane	1	16	81		1500	51.5	8	480	43
	Excavator	1	40	81		1500	51.5	8	480	47
	Welder / Torch	1	40	73		1500	43.5	8	480	39
	Paver	1	50	77		1500	47.5	8	480	44
	Crane	1	16	81		1500	51.5	8	480	43
	Excavator	1	40	81		1500	51.5	8	480	47
	Compactor (ground)	1	20	80		1500	50.5	8	480	43
	Roller	1	20	80		1500	50.5	8	480	43
	Compressor (air)	1	40	78		1500	48.5	8	480	44
							Total for Off-Site Utilities Phase:			**57.9**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Off-Site Utilities	Backhoe	1	40	78		760	54.4	8	480	50
	Man lift	1	20	75		800	50.9	8	480	44
	Excavator	1	40	81		850	56.4	8	480	52
	Concrete Saw	1	20	90		900	64.9	8	480	58
	Front End Loader	1	40	79		950	53.4	8	480	49
	Crane	1	16	81		1000	55.0	8	480	47
	Excavator	1	40	81		1050	54.6	8	480	51
	Welder / Torch	1	40	73		1100	46.2	8	480	42
	Paver	1	50	77		850	52.4	8	480	49
	Crane	1	16	81		900	55.9	8	480	48
	Excavator	1	40	81		950	55.4	8	480	51
	Compactor (ground)	1	20	80		1000	54.0	8	480	47
	Roller	1	20	80		1050	53.6	8	480	47
	Compressor (air)	1	40	78		1100	51.2	8	480	47
							Total for Off-Site Utilities Phase:			**62.1**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Off-Site Utilities	Backhoe	1	40	78		1500	48.5	8	480	44
	Man lift	1	20	75		1500	45.5	8	480	38
	Excavator	1	40	81		1500	51.5	8	480	47
	Concrete Saw	1	20	90		1500	60.5	8	480	53
	Front End Loader	1	40	79		1500	49.5	8	480	45
	Crane	1	16	81		1500	51.5	8	480	43
	Excavator	1	40	81		1500	51.5	8	480	47
	Welder / Torch	1	40	73		1500	43.5	8	480	39
	Paver	1	50	77		1500	47.5	8	480	44
	Crane	1	16	81		1500	51.5	8	480	43
	Excavator	1	40	81		1500	51.5	8	480	47
	Compactor (ground)	1	20	80		1500	50.5	8	480	43
	Roller	1	20	80		1500	50.5	8	480	43
	Compressor (air)	1	40	78		1500	48.5	8	480	44
							Total for Off-Site Utilities Phase:			**57.9**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80

allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Off-Site Utilities	Backhoe	1	40	78		680	55.3	8	480	51
	Man lift	1	20	75		700	52.1	8	480	45
	Excavator	1	40	81		720	57.8	8	480	54
	Concrete Saw	1	20	90		750	66.5	8	480	59
	Front End Loader	1	40	79		780	55.1	8	480	51
	Crane	1	16	81		800	56.9	8	480	49
	Excavator	1	40	81		850	56.4	8	480	52
	Welder / Torch	1	40	73		900	47.9	8	480	44
	Paver	1	50	77		780	53.1	8	480	50
	Crane	1	16	81		850	56.4	8	480	48
	Excavator	1	40	81		900	55.9	8	480	52
	Compactor (ground)	1	20	80		950	54.4	8	480	47
	Roller	1	20	80		1000	54.0	8	480	47
	Compressor (air)	1	40	78		1050	51.6	8	480	48
							Total for Off-Site Utilities Phase:			**63.4**

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Combined equipment type and quantity (for table in report document?)
Off-Site Utilities	Backhoe	1	40	78		3000	42.4	8	480	38	Backhoe (1)
	Man lift	1	20	75		3000	39.4	8	480	32	Man lift (1)
	Excavator	1	40	81		3000	45.4	8	480	41	Excavator (1)
	Concrete Saw	1	20	90		3000	54.4	8	480	47	Concrete Saw (1)
	Front End Loader	1	40	79		3000	43.4	8	480	39	Front End Loader (1)
	Crane	1	16	81		3000	45.4	8	480	37	Crane (1)
	Excavator	1	40	81		3000	45.4	8	480	41	Excavator (1)
	Welder / Torch	1	40	73		3000	37.4	8	480	33	Welder / Torch (1)
	Paver	1	50	77		3000	41.4	8	480	38	Paver (1)
	Crane	1	16	81		3000	45.4	8	480	37	Crane (1)
	Excavator	1	40	81		3000	45.4	8	480	41	Excavator (1)
	Compactor (ground)	1	20	80		3000	44.4	8	480	37	Compactor (ground) (1)
	Roller	1	20	80		3000	44.4	8	480	37	Roller (1)
	Compressor (air)	1	40	78		3000	42.4	8	480	38	Compressor (air) (1)
							Total for Off-Site Utilities Phase:			**51.9**	

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = 80

allowable hours over which Leq is to be averaged (example: 8 for FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Off-Site Utilities	Backhoe	1	40	78		1850	46.6	8	480	43
	Man lift	1	20	75		1900	43.4	8	480	36
	Excavator	1	40	81		1950	49.2	8	480	45
	Concrete Saw	1	20	90		2000	58.0	8	480	51
	Front End Loader	1	40	79		2050	46.7	8	480	43
	Crane	1	16	81		2100	48.5	8	480	41
	Excavator	1	40	81		2200	48.1	8	480	44
	Welder / Torch	1	40	73		2300	39.7	8	480	36
	Paver	1	50	77		1950	45.2	8	480	42
	Crane	1	16	81		2100	48.5	8	480	41
	Excavator	1	40	81		2200	48.1	8	480	44
	Compactor (ground)	1	20	80		2300	46.7	8	480	40
	Roller	1	20	80		2400	46.4	8	480	39
	Compressor (air)	1	40	78		2500	44.0	8	480	40
							Total for Off-Site Utilities Phase:			**55.1**

Appendix I-3
Traffic Noise Calculations

Dudek					**14 March 2023**							
MG					**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**					
PROJECT/CONTRACT:	**14279**						**a State highway agency substantiates the use**					
RUN:	**MGA Warehouse - Existing with Project**						**of a different type with the approval of FHWA**					
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**		
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**	
	ft			ft	ft	ft		mph	%			
Central Rd. n. of Johnson Rd.	25.0	point1	1	2,312.1	5,217.4	0.00				Average		
		point21	21	2,320.2	4,202.2	0.00						
Lafayette St. w. of Central Rd.	25.0	point16	16	311.5	1,501.6	0.00				Average		
		point9	9	2,342.5	1,515.6	0.00						
Sycamore Ln.	25.0	point18	18	3,625.5	1,548.7	0.00				Average		
		point2	2	3,590.5	4,195.9	0.00						
Central Rd. s. of Johnson Rd.	25.0	point22	22	2,320.2	4,202.2	0.00				Average		
		point36	36	2,332.4	2,860.1	0.00						
Central Rd. s. of Lafayette St.	25.0	point25	25	2,344.9	1,515.9	0.00				Average		
		point3	3	2,356.5	117.8	0.00						
Johnson Road w. of Central Rd,	25.0	point28	28	-10,000.0	4,134.6	0.00				Average		
		point14	14	434.8	4,191.4	0.00				Average		
		point5	5	2,319.1	4,202.0	0.00						
Dale Evans Pkwy n. of Johnson Rd	25.0	point29	29	-10,087.1	4,118.4	0.00				Average		
		point30	30	-10,087.1	16,620.9	0.00						
Stoddard Wells Rd.	25.0	point31	31	-16,974.8	-190.0	0.00				Average		
		point32	32	-20,118.8	-4,796.2	0.00				Average		
		point33	33	-21,946.6	-6,185.3	0.00				Average		
		point35	35	-24,372.8	-7,051.1	0.00				Average		
		point34	34	-28,009.7	-7,799.8	0.00						
Lafayette St. e. of Central Rd,	25.0	point23	23	2,348.6	1,516.1	0.00				Average		
		point26	26	3,643.0	1,526.1	0.00				Average		
		point11	11	6,124.2	1,526.1	0.00						
Johnson Road e. of Central Rd.	25.0	point20	20	2,323.0	4,202.5	0.00				Average		
		point6	6	3,598.0	4,203.5	0.00				Average		

		point19	19	3,598.5	4,202.5	0.00				Average	
		point7	7	6,006.1	4,195.5	0.00					
Central Rd. n. of Lafayette St.	25.0	point38	38	2,332.4	2,860.1	0.00				Average	
		point24	24	2,344.6	1,518.0	0.00					

Dudek **14 March 2023**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Central Rd. n. of Johnson Rd.	point1	1	71	35	1	35	1	30	0	0	0	0
	point21	21										
Lafayette St. w. of Central Rd.	point16	16	0	0	0	0	0	0	0	0	0	0
	point9	9										
Sycamore Ln.	point18	18	0	0	0	0	0	0	0	0	0	0
	point2	2										
Central Rd. s. of Johnson Rd.	point22	22	224	35	5	35	2	30	0	0	0	0
	point36	36										
Central Rd. s. of Lafayette St.	point25	25	225	35	5	35	2	30	0	0	0	0
	point3	3										
Johnson Road w. of Central Rd,	point28	28	154	45	3	45	2	40	0	0	0	0
	point14	14	154	45	3	45	2	40	0	0	0	0
	point5	5										
Dale Evans Pkwy n. of Johnson Rd	point29	29	262	45	9	45	14	40	0	0	0	0
	point30	30										
Stoddard Wells Rd.	point31	31	430	45	9	45	4	40	0	0	0	0
	point32	32	430	45	9	45	4	40	0	0	0	0
	point33	33	430	45	9	45	4	40	0	0	0	0
	point35	35	430	45	9	45	4	40	0	0	0	0
	point34	34										
Lafayette St. e. of Central Rd,	point23	23	0	0	0	0	0	0	0	0	0	0
	point26	26	0	0	0	0	0	0	0	0	0	0
	point11	11										

Johnson Road e. of Central Rd.	point20	20	3	45	0	0	0	0	0	0	0	0
	point6	6	3	45	0	0	0	0	0	0	0	0
	point19	19	3	45	0	0	0	0	0	0	0	0
	point7	7										
Central Rd. n. of Lafayette St.	point38	38	225	35	5	35	2	30	0	0	0	0
	point24	24										

Dudek
MG

14 March 2023
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	4,183.0	2,363.2	0.00	4.92	0.00	66	10.0	8.0	Y
M2	2	1	3,151.1	966.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3	3	1	5,120.8	1,992.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4	5	1	-22,897.4	-6,735.6	0.00	4.92	0.00	66	10.0	8.0	Y
M5	6	1	-10,220.2	10,871.1	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek
MG
14 March 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	29.3	66	29.3	10	----	29.3	0.0	8	-8.0
M2	2	1	0.0	34.2	66	34.2	10	----	34.2	0.0	8	-8.0
M3	3	1	0.0	26.8	66	26.8	10	----	26.8	0.0	8	-8.0
M4	5	1	0.0	52.6	66	52.6	10	----	52.6	0.0	8	-8.0
M5	6	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**14 March 2023**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**14279**							**a State highway agency substantiates the use**				
RUN:	**MGA Warehouse - Existing with Project**							**of a different type with the approval of FHWA**				
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**				**Flow Control**			**Segment**	
				X	**Y**	**Z**		**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft			mph	%		
Central Rd. n. of Johnson Rd.	25.0	point1	1	2,312.1	5,217.4	0.00					Average	
		point21	21	2,320.2	4,202.2	0.00						
Lafayette St. w. of Central Rd.	25.0	point16	16	311.5	1,501.6	0.00					Average	
		point9	9	2,342.5	1,515.6	0.00						
Sycamore Ln.	25.0	point18	18	3,625.5	1,548.7	0.00					Average	
		point2	2	3,590.5	4,195.9	0.00						
Central Rd. s. of Johnson Rd.	25.0	point22	22	2,320.2	4,202.2	0.00					Average	
		point36	36	2,332.4	2,860.1	0.00						
Central Rd. s. of Lafayette St.	25.0	point25	25	2,344.9	1,515.9	0.00					Average	
		point3	3	2,356.5	117.8	0.00						
Johnson Road w. of Central Rd,	25.0	point28	28	-10,000.0	4,134.6	0.00					Average	
		point14	14	434.8	4,191.4	0.00					Average	
		point5	5	2,319.1	4,202.0	0.00						
Dale Evans Pkwy n. of Johnson Rd	25.0	point29	29	-10,087.1	4,118.4	0.00					Average	
		point30	30	-10,087.1	16,620.9	0.00						
Stoddard Wells Rd.	25.0	point31	31	-16,974.8	-190.0	0.00					Average	
		point32	32	-20,118.8	-4,796.2	0.00					Average	
		point33	33	-21,946.6	-6,185.3	0.00					Average	
		point35	35	-24,372.8	-7,051.1	0.00					Average	
		point34	34	-28,009.7	-7,799.8	0.00						
Lafayette St. e. of Central Rd.	25.0	point23	23	2,348.6	1,516.1	0.00					Average	
		point47	47	2,564.3	1,517.7	0.00						
Johnson Road e. of Central Rd.	25.0	point20	20	2,323.0	4,202.5	0.00					Average	
		point50	50	3,173.0	4,203.2	0.00						
Central Rd. n. of Lafayette St.	25.0	point38	38	2,332.4	2,860.1	0.00					Average	

		point24	24	2,344.6	1,518.0	0.00					
Lafayette St. e. of south entrance/exit	25.0	point48	48	2,564.3	1,517.7	0.00				Average	
		point26	26	3,643.0	1,526.1	0.00				Average	
		point11	11	6,124.2	1,526.1	0.00					
Johnson Road e. of north entrance/exit	25.0	point51	51	3,173.0	4,203.2	0.00				Average	
		point6	6	3,598.0	4,203.5	0.00				Average	
		point19	19	3,598.5	4,202.5	0.00				Average	
		point7	7	6,006.1	4,195.5	0.00					

Dudek **14 March 2023**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Central Rd. n. of Johnson Rd.	point1	1	85	35	1	35	4	30	0	0	0	0
	point21	21										
Lafayette St. w. of Central Rd.	point16	16	0	0	0	0	0	0	0	0	0	0
	point9	9										
Sycamore Ln.	point18	18	0	0	0	0	0	0	0	0	0	0
	point2	2										
Central Rd. s. of Johnson Rd.	point22	22	288	35	10	35	30	30	0	0	0	0
	point36	36										
Central Rd. s. of Lafayette St.	point25	25	257	35	7	35	10	30	0	0	0	0
	point3	3										
Johnson Road w. of Central Rd,	point28	28	234	45	9	45	30	40	0	0	0	0
	point14	14	234	45	9	45	30	40	0	0	0	0
	point5	5										
Dale Evans Pkwy n. of Johnson Rd	point29	29	275	45	10	45	17	40	0	0	0	0
	point30	30										
Stoddard Wells Rd.	point31	31	496	45	14	45	29	40	0	0	0	0
	point32	32	496	45	14	45	29	40	0	0	0	0
	point33	33	496	45	14	45	29	40	0	0	0	0
	point35	35	496	45	14	45	29	40	0	0	0	0
	point34	34										
Lafayette St. e. of Central Rd.	point23	23	62	35	3	35	16	30	0	0	0	0
	point47	47										
Johnson Road e. of Central Rd.	point20	20	67	45	1	45	7	40	0	0	0	0

	point50	50										
Central Rd. n. of Lafayette St.	point38	38	287	35	10	35	20	30	0	0	0	0
	point24	24										
Lafayette St. e. of south entrance/exit	point48	48	0	0	0	0	0	0	0	0	0	0
	point26	26	0	0	0	0	0	0	0	0	0	0
	point11	11										
Johnson Road e. of north entrance/exit	point51	51	3	45	0	0	0	0	0	0	0	0
	point6	6	3	45	0	0	0	0	0	0	0	0
	point19	19	3	45	0	0	0	0	0	0	0	0
	point7	7										

Dudek 14 March 2023
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	Perturbs #Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Proposed Bldg	W	0.00	99.99	0.00				0.00	point1	1	2,751.0	3,619.7	0.00	36.50	0.00	0	0		
									point2	2	3,342.3	3,621.3	0.00	36.50	0.00	0	0		
									point3	3	3,361.1	1,800.7	0.00	36.50	0.00	0	0		
									point4	4	2,769.5	1,793.7	0.00	36.50	0.00	0	0		
									point5	5	2,752.9	3,612.5	0.00	36.50					

Dudek
MG

14 March 2023
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	4,183.0	2,363.2	0.00	4.92	0.00	66	10.0	8.0	Y
M2	2	1	3,151.1	966.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3	3	1	5,120.8	1,992.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4	5	1	-22,897.4	-6,735.6	0.00	4.92	0.00	66	10.0	8.0	Y
M5	6	1	-10,220.2	10,871.1	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek
MG
14 March 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Existing with Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	27.3	66	27.3	10	----	27.3	0.0	8	-8.0
M2	2	1	0.0	38.2	66	38.2	10	----	38.2	0.0	8	-8.0
M3	3	1	0.0	27.3	66	27.3	10	----	27.3	0.0	8	-8.0
M4	5	1	0.0	55.3	66	55.3	10	----	55.3	0.0	8	-8.0
M5	6	1	0.0	57.0	66	57.0	10	----	57.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**14 March 2023**							
MG					**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**					
PROJECT/CONTRACT:	**14279**						**a State highway agency substantiates the use**					
RUN:	**MGA Warehouse - Year 2025**						**of a different type with the approval of FHWA**					
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**		
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**	
	ft			ft	ft	ft		mph	%			
Central Rd. n. of Johnson Rd.	25.0	point1	1	2,312.1	5,217.4	0.00				Average		
		point21	21	2,320.2	4,202.2	0.00						
Lafayette St. w. of Central Rd.	25.0	point16	16	311.5	1,501.6	0.00				Average		
		point9	9	2,342.5	1,515.6	0.00						
Sycamore Ln.	25.0	point18	18	3,625.5	1,548.7	0.00				Average		
		point2	2	3,590.5	4,195.9	0.00						
Central Rd. s. of Johnson Rd.	25.0	point22	22	2,320.2	4,202.2	0.00				Average		
		point36	36	2,332.4	2,860.1	0.00						
Central Rd. s. of Lafayette St.	25.0	point25	25	2,344.9	1,515.9	0.00				Average		
		point3	3	2,356.5	117.8	0.00						
Johnson Road w. of Central Rd,	25.0	point28	28	-10,000.0	4,134.6	0.00				Average		
		point14	14	434.8	4,191.4	0.00				Average		
		point5	5	2,319.1	4,202.0	0.00						
Dale Evans Pkwy n. of Johnson Rd	25.0	point29	29	-10,087.1	4,118.4	0.00				Average		
		point30	30	-10,087.1	16,620.9	0.00						
Stoddard Wells Rd.	25.0	point31	31	-16,974.8	-190.0	0.00				Average		
		point32	32	-20,118.8	-4,796.2	0.00				Average		
		point33	33	-21,946.6	-6,185.3	0.00				Average		
		point35	35	-24,372.8	-7,051.1	0.00				Average		
		point34	34	-28,009.7	-7,799.8	0.00						
Lafayette St. e. of Central Rd,	25.0	point23	23	2,348.6	1,516.1	0.00				Average		
		point26	26	3,643.0	1,526.1	0.00				Average		
		point11	11	6,124.2	1,526.1	0.00						
Johnson Road e. of Central Rd.	25.0	point20	20	2,323.0	4,202.5	0.00				Average		
		point6	6	3,598.0	4,203.5	0.00				Average		

		point19	19	3,598.5	4,202.5	0.00				Average	
		point7	7	6,006.1	4,195.5	0.00					
Central Rd. n. of Lafayette St.	25.0	point38	38	2,332.4	2,860.1	0.00				Average	
		point24	24	2,344.6	1,518.0	0.00					

Dudek **14 March 2023**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **14279**
RUN: **MGA Warehouse - Year 2025**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Central Rd. n. of Johnson Rd.	point1	1	59	35	16	35	4	30	0	0	0	0
	point21	21										
Lafayette St. w. of Central Rd.	point16	16	0	0	0	0	0	0	0	0	0	0
	point9	9										
Sycamore Ln.	point18	18	0	0	0	0	0	0	0	0	0	0
	point2	2										
Central Rd. s. of Johnson Rd.	point22	22	182	35	48	35	12	30	0	0	0	0
	point36	36										
Central Rd. s. of Lafayette St.	point25	25	180	35	48	35	12	30	0	0	0	0
	point3	3										
Johnson Road w. of Central Rd,	point28	28	134	45	36	45	9	40	0	0	0	0
	point14	14	134	45	36	45	9	40	0	0	0	0
	point5	5										
Dale Evans Pkwy n. of Johnson Rd	point29	29	225	45	60	45	15	40	0	0	0	0
	point30	30										
Stoddard Wells Rd.	point31	31	352	45	94	45	23	40	0	0	0	0
	point32	32	352	45	94	45	23	40	0	0	0	0
	point33	33	352	45	94	45	23	40	0	0	0	0
	point35	35	352	45	94	45	23	40	0	0	0	0
	point34	34										
Lafayette St. e. of Central Rd,	point23	23	0	0	0	0	0	0	0	0	0	0
	point26	26	0	0	0	0	0	0	0	0	0	0
	point11	11										

INPUT: TRAFFIC FOR LAeq1h Volumes **14279**

Johnson Road e. of Central Rd.	point20	20	12	45	3	45	1	40	0	0	0	0
	point6	6	12	45	3	45	1	40	0	0	0	0
	point19	19	12	45	3	45	1	40	0	0	0	0
	point7	7										
Central Rd. n. of Lafayette St.	point38	38	180	35	48	35	12	30	0	0	0	0
	point24	24										

Dudek
MG

14 March 2023
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2025

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	4,183.0	2,363.2	0.00	4.92	0.00	66	10.0	8.0	Y
M2	2	1	3,151.1	966.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3	3	1	5,120.8	1,992.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4	5	1	-22,897.4	-6,735.6	0.00	4.92	0.00	66	10.0	8.0	Y
M5	6	1	-10,220.2	10,871.1	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek
MG
14 March 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2025
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	34.0	66	34.0	10	----	34.0	0.0	8	-8.0
M2	2	1	0.0	39.1	66	39.1	10	----	39.1	0.0	8	-8.0
M3	3	1	0.0	31.4	66	31.4	10	----	31.4	0.0	8	-8.0
M4	5	1	0.0	56.1	66	56.1	10	----	56.1	0.0	8	-8.0
M5	6	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**14 March 2023**							
MG					**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**					
PROJECT/CONTRACT:	**14279**						**a State highway agency substantiates the use**					
RUN:	**MGA Warehouse - Year 2025 with Projec**						**of a different type with the approval of FHWA**					
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**		
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**	
	ft			ft	ft	ft		mph	%			
Central Rd. n. of Johnson Rd.	25.0	point1	1	2,312.1	5,217.4	0.00				Average		
		point21	21	2,320.2	4,202.2	0.00						
Lafayette St. w. of Central Rd.	25.0	point16	16	311.5	1,501.6	0.00				Average		
		point9	9	2,342.5	1,515.6	0.00						
Sycamore Ln.	25.0	point18	18	3,625.5	1,548.7	0.00				Average		
		point2	2	3,590.5	4,195.9	0.00						
Central Rd. s. of Johnson Rd.	25.0	point22	22	2,320.2	4,202.2	0.00				Average		
		point36	36	2,332.4	2,860.1	0.00						
Central Rd. s. of Lafayette St.	25.0	point25	25	2,344.9	1,515.9	0.00				Average		
		point3	3	2,356.5	117.8	0.00						
Johnson Road w. of Central Rd,	25.0	point28	28	-10,000.0	4,134.6	0.00				Average		
		point14	14	434.8	4,191.4	0.00				Average		
		point5	5	2,319.1	4,202.0	0.00						
Dale Evans Pkwy n. of Johnson Rd	25.0	point29	29	-10,087.1	4,118.4	0.00				Average		
		point30	30	-10,087.1	16,620.9	0.00						
Stoddard Wells Rd.	25.0	point31	31	-16,974.8	-190.0	0.00				Average		
		point32	32	-20,118.8	-4,796.2	0.00				Average		
		point33	33	-21,946.6	-6,185.3	0.00				Average		
		point35	35	-24,372.8	-7,051.1	0.00				Average		
		point34	34	-28,009.7	-7,799.8	0.00						
Central Rd. n. of Lafayette St.	25.0	point38	38	2,332.4	2,860.1	0.00				Average		
		point24	24	2,344.6	1,518.0	0.00						
Lafayette St. e. of Central Rd.	25.0	point43	43	2,348.6	1,516.1	0.00				Average		
		point44	44	2,564.3	1,517.7	0.00						
Lafayette St. e. of south entrance/exit	25.0	point45	45	2,564.3	1,517.7	0.00				Average		

		point46	46	3,643.0	1,526.1	0.00				Average	
		point47	47	6,124.2	1,526.1	0.00					
Johnson Road e. of Central Rd.	25.0	point48	48	2,323.0	4,202.5	0.00				Average	
		point49	49	3,173.0	4,203.2	0.00					
Johnson Road e. of north entrance/exit	25.0	point50	50	3,173.0	4,203.2	0.00				Average	
		point51	51	3,598.0	4,203.5	0.00				Average	
		point53	53	3,598.5	4,202.5	0.00				Average	
		point52	52	6,006.1	4,195.5	0.00					

Dudek **14 March 2023**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **14279**
RUN: **MGA Warehouse - Year 2025 with Projec**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Central Rd. n. of Johnson Rd.	point1	1	73	35	16	35	7	30	0	0	0	0
	point21	21										
Lafayette St. w. of Central Rd.	point16	16	0	0	0	0	0	0	0	0	0	0
	point9	9										
Sycamore Ln.	point18	18	0	0	0	0	0	0	0	0	0	0
	point2	2										
Central Rd. s. of Johnson Rd.	point22	22	246	35	53	35	40	30	0	0	0	0
	point36	36										
Central Rd. s. of Lafayette St.	point25	25	212	35	50	35	20	30	0	0	0	0
	point3	3										
Johnson Road w. of Central Rd,	point28	28	214	45	42	45	37	40	0	0	0	0
	point14	14	214	45	42	45	37	40	0	0	0	0
	point5	5										
Dale Evans Pkwy n. of Johnson Rd	point29	29	238	45	61	45	18	40	0	0	0	0
	point30	30										
Stoddard Wells Rd.	point31	31	418	45	99	45	48	40	0	0	0	0
	point32	32	418	45	99	45	48	40	0	0	0	0
	point33	33	418	45	99	45	48	40	0	0	0	0
	point35	35	418	45	99	45	48	40	0	0	0	0
	point34	34										
Central Rd. n. of Lafayette St.	point38	38	242	35	53	35	30	30	0	0	0	0
	point24	24										
Lafayette St. e. of Central Rd.	point43	43	62	35	3	35	16	30	0	0	0	0

	point44	44										
Lafayette St. e. of south entrance/exit	point45	45	0	0	0	0	0	0	0	0	0	0
	point46	46	0	0	0	0	0	0	0	0	0	0
	point47	47										
Johnson Road e. of Central Rd.	point48	48	0	0	0	0	0	0	0	0	0	0
	point49	49										
Johnson Road e. of north entrance/exit	point50	50	3	45	0	0	0	0	0	0	0	0
	point51	51	3	45	0	0	0	0	0	0	0	0
	point53	53	3	45	0	0	0	0	0	0	0	0
	point52	52										

Dudek
MG

14 March 2023
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2025 with Projec

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	4,183.0	2,363.2	0.00	4.92	0.00	66	10.0	8.0	Y
M2	2	1	3,151.1	966.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3	3	1	5,120.8	1,992.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4	5	1	-22,897.4	-6,735.6	0.00	4.92	0.00	66	10.0	8.0	Y
M5	6	1	-10,220.2	10,871.1	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek 14 March 2023
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2025 with Projec

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	Perturbs #Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier5	W	0.00	99.99	0.00				0.00	point12	12	2,751.0	3,619.7	0.00	36.50	0.00	0	0		
									point13	13	3,342.3	3,621.3	0.00	36.50	0.00	0	0		
									point14	14	3,361.1	1,800.7	0.00	36.50	0.00	0	0		
									point15	15	2,769.5	1,793.7	0.00	36.50	0.00	0	0		
									point16	16	2,752.9	3,612.5	0.00	36.50					

Dudek
MG
14 March 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2025 with Projec
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	29.4	66	29.4	10	----	29.4	0.0	8	-8.0
M2	2	1	0.0	40.7	66	40.7	10	----	40.7	0.0	8	-8.0
M3	3	1	0.0	29.3	66	29.3	10	----	29.3	0.0	8	-8.0
M4	5	1	0.0	57.5	66	57.5	10	----	57.5	0.0	8	-8.0
M5	6	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**14 March 2023**							
MG					**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**					
PROJECT/CONTRACT:	**14279**						**a State highway agency substantiates the use**					
RUN:	**MGA Warehouse - Year 2040**						**of a different type with the approval of FHWA**					
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**		
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**	
	ft			ft	ft	ft		mph	%			
Central Rd. n. of Johnson Rd.	25.0	point1	1	2,312.1	5,217.4	0.00				Average		
		point21	21	2,320.2	4,202.2	0.00						
Lafayette St. w. of Central Rd.	25.0	point16	16	311.5	1,501.6	0.00				Average		
		point9	9	2,342.5	1,515.6	0.00						
Sycamore Ln.	25.0	point18	18	3,625.5	1,548.7	0.00				Average		
		point2	2	3,590.5	4,195.9	0.00						
Central Rd. s. of Johnson Rd.	25.0	point22	22	2,320.2	4,202.2	0.00				Average		
		point36	36	2,332.4	2,860.1	0.00						
Central Rd. s. of Lafayette St.	25.0	point25	25	2,344.9	1,515.9	0.00				Average		
		point3	3	2,356.5	117.8	0.00						
Johnson Road w. of Central Rd,	25.0	point28	28	-10,000.0	4,134.6	0.00				Average		
		point14	14	434.8	4,191.4	0.00				Average		
		point5	5	2,319.1	4,202.0	0.00						
Dale Evans Pkwy n. of Johnson Rd	25.0	point29	29	-10,087.1	4,118.4	0.00				Average		
		point30	30	-10,087.1	16,620.9	0.00						
Stoddard Wells Rd.	25.0	point31	31	-16,974.8	-190.0	0.00				Average		
		point32	32	-20,118.8	-4,796.2	0.00				Average		
		point33	33	-21,946.6	-6,185.3	0.00				Average		
		point35	35	-24,372.8	-7,051.1	0.00				Average		
		point34	34	-28,009.7	-7,799.8	0.00						
Lafayette St. e. of Central Rd,	25.0	point23	23	2,348.6	1,516.1	0.00				Average		
		point26	26	3,643.0	1,526.1	0.00				Average		
		point11	11	6,124.2	1,526.1	0.00						
Johnson Road e. of Central Rd.	25.0	point20	20	2,323.0	4,202.5	0.00				Average		
		point6	6	3,598.0	4,203.5	0.00				Average		

		point19	19	3,598.5	4,202.5	0.00				Average	
		point7	7	6,006.1	4,195.5	0.00					
Central Rd. n. of Lafayette St.	25.0	point38	38	2,332.4	2,860.1	0.00				Average	
		point24	24	2,344.6	1,518.0	0.00					

Dudek **14 March 2023**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **14279**
RUN: **MGA Warehouse - Year 2040**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Central Rd. n. of Johnson Rd.	point1	1	74	35	20	35	5	30	0	0	0	0
	point21	21										
Lafayette St. w. of Central Rd.	point16	16	0	0	0	0	0	0	0	0	0	0
	point9	9										
Sycamore Ln.	point18	18	0	0	0	0	0	0	0	0	0	0
	point2	2										
Central Rd. s. of Johnson Rd.	point22	22	113	35	30	35	8	30	0	0	0	0
	point36	36										
Central Rd. s. of Lafayette St.	point25	25	108	35	29	35	7	30	0	0	0	0
	point3	3										
Johnson Road w. of Central Rd,	point28	28	80	45	21	45	5	40	0	0	0	0
	point14	14	80	45	21	45	5	40	0	0	0	0
	point5	5										
Dale Evans Pkwy n. of Johnson Rd	point29	29	452	45	120	45	30	40	0	0	0	0
	point30	30										
Stoddard Wells Rd.	point31	31	550	45	147	45	37	40	0	0	0	0
	point32	32	550	45	147	45	37	40	0	0	0	0
	point33	33	550	45	147	45	37	40	0	0	0	0
	point35	35	550	45	147	45	37	40	0	0	0	0
	point34	34										
Lafayette St. e. of Central Rd,	point23	23	0	0	0	0	0	0	0	0	0	0
	point26	26	0	0	0	0	0	0	0	0	0	0
	point11	11										

Johnson Road e. of Central Rd.	point20	20	34	45	9	45	2	40	0	0	0	0
	point6	6	34	45	9	45	2	40	0	0	0	0
	point19	19	34	45	9	45	2	40	0	0	0	0
	point7	7										
Central Rd. n. of Lafayette St.	point38	38	108	35	29	35	7	30	0	0	0	0
	point24	24										

Dudek
MG

14 March 2023
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2040

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	4,183.0	2,363.2	0.00	4.92	0.00	66	10.0	8.0	Y
M2	2	1	3,151.1	966.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3	3	1	5,120.8	1,992.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4	5	1	-22,897.4	-6,735.6	0.00	4.92	0.00	66	10.0	8.0	Y
M5	6	1	-10,220.2	10,871.1	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek
MG
14 March 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2040
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	33.0	66	33.0	10	----	33.0	0.0	8	-8.0
M2	2	1	0.0	37.2	66	37.2	10	----	37.2	0.0	8	-8.0
M3	3	1	0.0	30.8	66	30.8	10	----	30.8	0.0	8	-8.0
M4	5	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0
M5	6	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**14 March 2023**							
MG					**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**					
PROJECT/CONTRACT:	**14279**						**a State highway agency substantiates the use**					
RUN:	**MGA Warehouse - Year 2040 with Projec**						**of a different type with the approval of FHWA**					
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**		
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**	
	ft			ft	ft	ft		mph	%			
Central Rd. n. of Johnson Rd.	25.0	point1	1	2,312.1	5,217.4	0.00				Average		
		point21	21	2,320.2	4,202.2	0.00						
Lafayette St. w. of Central Rd.	25.0	point16	16	311.5	1,501.6	0.00				Average		
		point9	9	2,342.5	1,515.6	0.00						
Sycamore Ln.	25.0	point18	18	3,625.5	1,548.7	0.00				Average		
		point2	2	3,590.5	4,195.9	0.00						
Central Rd. s. of Johnson Rd.	25.0	point22	22	2,320.2	4,202.2	0.00				Average		
		point36	36	2,332.4	2,860.1	0.00						
Central Rd. s. of Lafayette St.	25.0	point25	25	2,344.9	1,515.9	0.00				Average		
		point3	3	2,356.5	117.8	0.00						
Johnson Road w. of Central Rd,	25.0	point28	28	-10,000.0	4,134.6	0.00				Average		
		point14	14	434.8	4,191.4	0.00				Average		
		point5	5	2,319.1	4,202.0	0.00						
Dale Evans Pkwy n. of Johnson Rd	25.0	point29	29	-10,087.1	4,118.4	0.00				Average		
		point30	30	-10,087.1	16,620.9	0.00						
Stoddard Wells Rd.	25.0	point31	31	-16,974.8	-190.0	0.00				Average		
		point32	32	-20,118.8	-4,796.2	0.00				Average		
		point33	33	-21,946.6	-6,185.3	0.00				Average		
		point35	35	-24,372.8	-7,051.1	0.00				Average		
		point34	34	-28,009.7	-7,799.8	0.00						
Central Rd. n. of Lafayette St.	25.0	point38	38	2,332.4	2,860.1	0.00				Average		
		point24	24	2,344.6	1,518.0	0.00						
Lafayette St. e. of Central Rd.	25.0	point43	43	2,348.6	1,516.1	0.00				Average		
		point44	44	2,564.3	1,517.7	0.00						
Lafayette St. e. of south entrance/exit	25.0	point45	45	2,564.3	1,517.7	0.00				Average		

		point46	46	3,643.0	1,526.1	0.00				Average	
		point47	47	6,124.2	1,526.1	0.00					
Johnson Road e. of Central Rd.	25.0	point48	48	2,323.0	4,202.5	0.00				Average	
		point49	49	3,173.0	4,203.2	0.00					
Johnson Road e. of north entrance/exit	25.0	point50	50	3,173.0	4,203.2	0.00				Average	
		point51	51	3,598.0	4,203.5	0.00				Average	
		point53	53	3,598.5	4,202.5	0.00				Average	
		point52	52	6,006.1	4,195.5	0.00					

Dudek **14 March 2023**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2040 with Projec

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Central Rd. n. of Johnson Rd.	point1	1	88	35	20	35	8	30	0	0	0	0
	point21	21										
Lafayette St. w. of Central Rd.	point16	16	0	0	0	0	0	0	0	0	0	0
	point9	9										
Sycamore Ln.	point18	18	0	0	0	0	0	0	0	0	0	0
	point2	2										
Central Rd. s. of Johnson Rd.	point22	22	177	35	35	35	36	30	0	0	0	0
	point36	36										
Central Rd. s. of Lafayette St.	point25	25	140	35	31	35	15	30	0	0	0	0
	point3	3										
Johnson Road w. of Central Rd,	point28	28	160	45	27	45	33	40	0	0	0	0
	point14	14	160	45	27	45	33	40	0	0	0	0
	point5	5										
Dale Evans Pkwy n. of Johnson Rd	point29	29	465	45	121	45	33	40	0	0	0	0
	point30	30										
Stoddard Wells Rd.	point31	31	616	45	152	45	62	40	0	0	0	0
	point32	32	616	45	152	45	62	40	0	0	0	0
	point33	33	616	45	152	45	62	40	0	0	0	0
	point35	35	616	45	152	45	62	40	0	0	0	0
	point34	34										
Central Rd. n. of Lafayette St.	point38	38	170	35	34	35	25	30	0	0	0	0
	point24	24										
Lafayette St. e. of Central Rd.	point43	43	62	35	3	35	16	30	0	0	0	0

	point44	44										
Lafayette St. e. of south entrance/exit	point45	45	0	0	0	0	0	0	0	0	0	0
	point46	46	0	0	0	0	0	0	0	0	0	0
	point47	47										
Johnson Road e. of Central Rd.	point48	48	98	45	10	45	9	40	0	0	0	0
	point49	49										
Johnson Road e. of north entrance/exit	point50	50	3	45	0	0	0	0	0	0	0	0
	point51	51	3	45	0	0	0	0	0	0	0	0
	point53	53	3	45	0	0	0	0	0	0	0	0
	point52	52										

Dudek
MG

14 March 2023
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2040 with Projec

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	4,183.0	2,363.2	0.00	4.92	0.00	66	10.0	8.0	Y
M2	2	1	3,151.1	966.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3	3	1	5,120.8	1,992.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4	5	1	-22,897.4	-6,735.6	0.00	4.92	0.00	66	10.0	8.0	Y
M5	6	1	-10,220.2	10,871.1	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek 14 March 2023
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2040 with Projec

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier5	W	0.00	99.99	0.00				0.00	point12	12	2,751.0	3,619.7	0.00	36.50	0.00	0	0		
									point13	13	3,342.3	3,621.3	0.00	36.50	0.00	0	0		
									point14	14	3,361.1	1,800.7	0.00	36.50	0.00	0	0		
									point15	15	2,769.5	1,793.7	0.00	36.50	0.00	0	0		
									point16	16	2,752.9	3,612.5	0.00	36.50					

Dudek
MG
14 March 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 14279
RUN: MGA Warehouse - Year 2040 with Projec
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	28.8	66	28.8	10	----	28.8	0.0	8	-8.0
M2	2	1	0.0	39.5	66	39.5	10	----	39.5	0.0	8	-8.0
M3	3	1	0.0	28.9	66	28.9	10	----	28.9	0.0	8	-8.0
M4	5	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
M5	6	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Appendix I-4
Equipment Noise Calculations

from CMS "Midpoint at 237" March 27, 2014 noise study				Dudek time estimate			
	dBA	dist (feet)	at 50'	minutes per hour	hourly Leq	source	PWL
truck passby	68	30	63.6	2	48.8	**traveling on lot**	**83.5**
truck airbrakes	72	25	66.0	0.05	35.2	at dock	69.8
truck backup alarm	79	30	74.6	0.1	46.8	at dock	81.4
idle before shutoff	70	25	64.0	5	53.2	at dock	87.8
truck engine ignition + airbrakes	71	25	65.0	0.05	34.2	at dock	68.8
truck accelerating from stop	74	25	68.0	0.05	37.2	at dock	71.8
						total at dock	**88.9**

dock door quantities from 2/16/22 siteplan		peak hour trips*	split**	log add***
Building 1	docks	109		
east	112		54.5	17.4
west	112		54.5	17.4

*(3 and 4-axle trucks)

**(based on dock ratio for the building)

***(to single truck noise levels)

MGA Warehouse Project - Daytime Op's

Receiver		Land Use	Limiting Value		rel. Axis			Lr w/o Noise Control		dL req.		Lr w/ Noise Control		Ex
Name	ID		Day	Night	Station	Distance	Height	Day	Night	Day	Night	Day	Night	Da
			dB(A)	dB(A)	m	m	m	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(
M1			0	0	248	229.50	1.52	35.6	35.6	35.6	35.6	0.0	0.0	-
M2			0	0	863	225.66	1.52	29.1	29.1	29.1	29.1	0.0	0.0	-
M3			0	0	1570	156.13	1.52	29.1	29.1	29.1	29.1	0.0	0.0	-

MGA Warehouse Project - Nighttime Op's

Receiver		Land Use	Limiting Value		rel. Axis			Lr w/o Noise Control		dL req.		Lr w/ Noise Control		Ex
Name	ID		Day	Night	Station	Distance	Height	Day	Night	Day	Night	Day	Night	Da
			dB(A)	dB(A)	m	m	m	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(
M1			0	0	248	229.50	1.52	29.8	29.8	29.8	29.8	0.0	0.0	-
M2			0	0	863	225.66	1.52	24.4	24.4	24.4	24.4	0.0	0.0	-
M3			0	0	1570	156.13	1.52	23.4	23.4	23.4	23.4	0.0	0.0	-