

**Appendix 2-13**  
**Noise**

## Schedule



## Equipment List

Equipment List					
Resource	Equipment Model Assumption	Engine Type (Assumed)	Estimated Horsepower	Location	Shaft Site
100000 lbs Winch	Ingersoll Rand HA2-050M	Air	9.4	Above Ground	East Only
12 Yard Concrete Mixer	Peterbilt 365	Diesel	455	Above Ground	East & West
150000 lb Winch	Ingersoll Rand HA3-075M	Air	25	Above Ground	East Only
20 Yard Dump Truck	Kenworth T800	Diesel	525	Above Ground	East & West
30 Yard Dump Truck	Kenworth W900B	Diesel	475	Above Ground	East & West
50T Crane	Liebherr LTM 1050-3.1	Diesel	367	Above Ground	West Only
Asphalt Flow Boy	Flow Boy 3064	Diesel	425	Above Ground	East & West
Bobcat	S160 Skid Steer Loader	Diesel	61	<b>Below Ground</b>	East & West
Boom Truck	Manitowoc 900A	Diesel	300	Above Ground	East & West
Box Truck	Chevrolet Express 3500	Diesel	325	Above Ground	East & West
Bulldozer	Caterpillar D8T	Diesel	310	Above Ground	East & West
Cement Tanker	CSC Bulk Cement Trans DFL 1311A1	Diesel	300	Above Ground	West Only
Chipper	Vermeer WC2300	Diesel	440	Above Ground	East & West
Compressor	Sullair 750H	Diesel	275	<b>Above Ground/Below Ground during Tunnel Excavation, Tunnel Lining, and Project II connection</b>	East & West
Concrete Pumps	Putzmeister TK 60 HP <sup>2</sup>	Diesel	131	Above Ground	East & West
Concrete Truck	2003 STERLING LT8513	Diesel	300	Above Ground	East & West
Crane	Terex T750 Truck Crane	Diesel	500	Above Ground	East & West
Crawler Dozer	John Deere 770J	Diesel	115	Above Ground	East & West
Drill Jumbo	Sandvik DT920i	Diesel	241	<b>Above Ground/Below Ground during Tunnel Excavation and Project II connection</b>	East & West
Drill Rigs	Schramm T130XD	Diesel	760	Above Ground	East & West
Excavator	Liebherr R 934 C Litronic	Diesel	195	Above Ground	East & West
Excavator-SP	John Deere 450D LC	Diesel	348	Above Ground	East & West
Flat Truck	Ford F-650	Diesel	250	Above Ground	East & West
Fork Lift	Caterpillar P20000	Diesel	148	Above Ground	East & West
Front End Loader	Caterpillar 950H	Diesel	197	Above Ground	East & West
Fuel Tanker	Kenworth T-370, Paccar PX-8	Diesel	300	Above Ground	West Only
Fuel Truck	Freightliner FL-80	Diesel	300	Above Ground	East & West
Generator	Caterpillar XQ 45	Diesel	96	Above Ground	East & West
Generators	Terex T360	Diesel	426	<b>Above Ground/Below Ground during most of the Tunnel Excavation and Tunnel Lining work and during Project II connection</b>	East & West
Grader	John Deere 770G/GP	Diesel	245	Above Ground	East & West
Grout Mixers	Chemgrout CGMIX128/E	Electric		Above Ground	West Only
Grout Pumps	Putzmeister TK 60 HP <sup>2</sup>	Diesel	131	Above Ground	West Only
Harvester	John Deere 759H	Diesel	241	Above Ground	East & West
Hydraulic Winches	Ingersoll Rand LC2H500Q	electric		Above Ground	East & West
Hydroseeder	FINN Model T120 Hydroseeder	Diesel	35	Above Ground	East & West
Loaders	Caterpillar 950H	Diesel	197	Above Ground	East & West
Loco	Brookville Tunneling Locomotive	Diesel	100	<b>Below Ground</b>	East & West
Log Hauler	Kenworth 900B W/Log Hauler	Diesel	500	Above Ground	East & West
Paver	Caterpillar AP-1000D	Diesel	224	Above Ground	East & West
PB Winch	Timberland E780 General Purpose Winch	Air		Above Ground	East & West
Pickup Truck	Ford F-150	Diesel	365	Above Ground	East & West
Pile Driver	ABI Excavator Mounted Driver Model HVR 75	Diesel	200	Above Ground	West Only
Piling Rig	Bauer. BG 12H Rotary Drilling Rig. Base Carrier BT35.	Diesel	205	Above Ground	East Only
Potable Water Truck	Freightliner FL-80	Diesel	300	Above Ground	East & West
Pump	Tsurumi TE3-100HA	Gasoline	8	<b>Above Ground/Below Ground during Tunnel Excavation</b>	East & West
Pump	Honda WT40X	Gasoline	11	Above Ground	East & West
Rack Truck	Ford F-350/Whitney Racks	Diesel	385	Above Ground	East & West
Rock Breaker/Excavator	BTI BXR Hydraulic Breaker	Diesel	348	Above Ground	West Only
Rock Crusher	McCloskey MCB C50	Diesel	350	Above Ground	West Only
Rock Cutter	Vermeer T955	Diesel	415	Above Ground	West Only
Rock Drill/Excavator	TEI HEM Excavator Drill	Diesel	348	Above Ground	West Only
Roller	Caterpillar CB34 XW	Diesel	46	Above Ground	East & West
Semi-Trailer Truck	Freightliner CA113DC	Diesel	450	Above Ground	West Only
Shaft Crane	Liebherr LTM 1200-5.1	Diesel	496	Above Ground	East & West
Shotcrete Mixers	Putzmeister MRV-2200 Shear Force	Diesel	40	Above Ground	East & West
Shotcrete Pump	Putzmeister TK 60 HP	Diesel	131	Above Ground	East & West
Small Backhoe	Caterpillar 450 E	Diesel	125	Above Ground	East & West
Standard Backhoe	Caterpillar 450 E	Diesel	124	Above Ground	East & West
Surface Truck	Mack Truck CV712, AMI-300 ASET	Diesel	300	Above Ground	East & West
TBM	Not Estimated At This Time	electric		<b>Below Ground</b>	West Only
TBM Crane	Liebherr LTM 1200-5.1	Diesel	496	Above Ground	East & West
Tracked Swing Loader	John Deere 2954D	Diesel	188	Above Ground	East & West
Trailer Truck	Freightliner Classic XI	Diesel	455	Above Ground	West Only
Tunnel Pipe Transporter	Not Estimated At This Time	pulled by Locomotives		<b>Below Ground</b>	East & West
Ventilation System	Not Estimated At This Time	electric		Above Ground	East & West
Vibratory Sheeting Driver	ABI Excavator Mounted Driver Model HVR 75	Diesel	200	Above Ground	East & West
Water Tanker	Peterbilt 340	Diesel	330	Above Ground	East & West
Welding Machine	Not Estimated At This Time	electric		Above Ground	East & West

# Measured Noise Levels

Spot Measurements

Site	Measurement Location	Time	dBA				
			L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
2E	Corner of Liberty Street and Chelsea Road	AM	60.1	73.6	62.6	45.3	38.7
		PM	64.2	78.6	65	49.4	41.4
4E	30 Cobblestone Road	AM	52.5	58.7	54.8	51.5	48.8
		PM	48.2	59.9	48.7	42.9	40.4
12E	Corner of US Route 9D and Blossom Court	AM	74.7	81.7	77.6	73.7	64.3
		PM	73.3	81	76.3	71.9	64.8
9E	Jackson Street West of NYS Route 52	AM	69.7	76.4	73.4	67.7	58.9
		PM	69.3	76.1	73.3	67.4	54.1
11E	2483 South Avenue	AM	64.6	72.5	68.4	61.2	50.3
		PM	67	76.9	69.2	65.1	55.2
10E	Reese Park	AM	52.2	59.6	54.8	50.7	47.7
		PM	54.3	61.6	56.4	53.2	50.2

1W: 165 Latintown Road

Start Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
12/15/2010	10:00 AM	65.2	74.9	66.6	52.9	45.4
12/15/2010	11:00 AM	61.6	73.2	65.8	51.9	45.9
12/15/2010	12:00 PM	61.4	72	66.6	52.7	49.6
12/15/2010	1:00 PM	63.5	74.5	67.1	51.9	44.2
12/15/2010	2:00 PM	63	73.7	67.9	52.6	40.3
12/15/2010	3:00 PM	64	74.6	68.7	54.1	41.8
12/15/2010	4:00 PM	63.1	73	68.4	52.7	40.7
12/15/2010	5:00 PM	62.8	72.3	68.2	53.9	40.6
12/15/2010	6:00 PM	62	72.1	67.5	49.8	38.6
12/15/2010	7:00 PM	60.2	71.5	64.9	45	35.4
12/15/2010	8:00 PM	59.2	71.4	63.2	42.7	34
12/15/2010	9:00 PM	58.3	70.2	62.1	41.6	34.1
12/15/2010	10:00 PM	57.8	70.4	60.5	41.5	33.1
12/15/2010	11:00 PM	53.8	67.8	53.8	36.5	33.3
12/16/2010	12:00 AM	51.5	66.5	47.9	34.6	33.6
12/16/2010	1:00 AM	51.5	66.2	49	34.5	33.3
12/16/2010	2:00 AM	48.6	60.6	40.1	32.8	32.3
12/16/2010	3:00 AM	49.8	64.3	42.5	33.9	33
12/16/2010	4:00 AM	53	67.7	47.8	34.1	33.2
12/16/2010	5:00 AM	58.5	71.3	59.9	41.3	36.6
12/16/2010	6:00 AM	62	72.6	67.3	50.1	40
12/16/2010	7:00 AM	64.1	74.8	69.2	53.9	44.2
12/16/2010	8:00 AM	64.1	75.2	68.4	54.5	47.5
12/16/2010	9:00 AM	62.2	74	66.8	49.9	42.1



2W: US Route 9W between Carlino Drive and Pine Road

Start Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
12/15/2010	11:00 AM	75.8	85.3	79.2	72.6	61.4
12/15/2010	12:00 PM	76	85	79.4	73.2	62.8
12/15/2010	1:00 PM	76.1	85.4	79.5	73.6	63.9
12/15/2010	2:00 PM	76.3	84.7	79.6	74.1	65.4
12/15/2010	3:00 PM	76.4	84.4	79.6	74.7	65.3
12/15/2010	4:00 PM	76.8	84.3	79.7	75.6	68.2
12/15/2010	5:00 PM	75.9	82.4	78.7	74.9	67.3
12/15/2010	6:00 PM	75.1	82.6	78.4	73.5	64.5
12/15/2010	7:00 PM	73.7	81.7	77.6	71	59.6
12/15/2010	8:00 PM	72.5	81	76.7	68.4	57.6
12/15/2010	9:00 PM	72.4	80.8	76.7	68	56.6
12/15/2010	10:00 PM	71.2	80.4	75.6	65.1	54
12/15/2010	11:00 PM	70.2	80.2	74.5	62.5	51
12/16/2010	12:00 AM	67.4	78.7	71.7	56.6	43.7
12/16/2010	1:00 AM	65.8	78.1	68.7	51.6	41.3
12/16/2010	2:00 AM	66.2	79.2	67.8	50.1	40
12/16/2010	3:00 AM	66.6	78.8	68.2	49.9	40.6
12/16/2010	4:00 AM	68.6	80.6	71.8	58	44.1
12/16/2010	5:00 AM	72.4	83.3	76	65.4	54.5
12/16/2010	6:00 AM	75.5	84.8	79.1	72.7	62
12/16/2010	7:00 AM	77	84.9	80.3	75.2	67.2
12/16/2010	8:00 AM	76.4	84.7	79.7	74.5	65.3
12/16/2010	9:00 AM	75.9	84.8	79.3	73.3	61.7
12/16/2010	10:00 AM	74.2	83.6	77.6	71.1	60.8

1E: River Road North at Old State Road

Start Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
12/16/2010	11:20 AM	58.5	70.2	62.3	49.2	40.6
12/16/2010	12:00 PM	59.6	70.9	63.0	49.7	40.6
12/16/2010	1:00 PM	61.3	70.8	65.5	55.7	41.2
12/16/2010	2:00 PM	60.8	71.1	64.7	54.2	44.6
12/16/2010	3:00 PM	61.9	72.1	66.3	51.8	42.5
12/16/2010	4:00 PM	62.2	73.1	66.6	52.3	42.6
12/16/2010	5:00 PM	62.9	73.9	66.2	50.5	41.9
12/16/2010	6:00 PM	61.5	71.9	64.9	49.2	42.4
12/16/2010	7:00 PM	58.5	70.1	62.9	46.0	40.1
12/16/2010	8:00 PM	57.0	69.7	59.6	44.1	39.8
12/16/2010	9:00 PM	57.4	70.2	58.4	42.8	39.3
12/16/2010	10:00 PM	55.8	69.0	57.4	43.0	38.9
12/16/2010	11:00 PM	54.0	68.3	49.5	42.0	38.3
12/17/2010	12:00 AM	51.8	66.0	48.7	38.8	34.2
12/17/2010	1:00 AM	49.5	62.7	46.7	37.6	31.8
12/17/2010	2:00 AM	42.6	55.8	38.7	32.6	30.1
12/17/2010	3:00 AM	50.6	65.2	45.3	35.6	30.8
12/17/2010	4:00 AM	47.8	61.5	42.4	36.5	32.8
12/17/2010	5:00 AM	55.4	67.5	49.9	39.3	35.9
12/17/2010	6:00 AM	58.9	71.6	60.3	45.2	41.1
12/17/2010	7:00 AM	62.1	73.6	65.9	50.4	44.3
12/17/2010	8:00 AM	60.4	71.7	64.7	49.0	43.7
12/17/2010	9:00 AM	61.6	73.0	62.6	47.3	42.1
12/17/2010	10:00 AM	60.7	72.8	62.9	47.7	41.3

3E: River Road North at Sky Top Drive

Start Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
12/16/2010	12:00 PM	61	74.8	61.4	48.4	44.3
12/16/2010	1:00 PM	63.3	76.2	64.7	47.9	43.8
12/16/2010	2:00 PM	65.3	77.6	66.7	48.6	43.6
12/16/2010	3:00 PM	63.3	75.9	66	48.8	43.9
12/16/2010	4:00 PM	64.8	77.3	67.5	49.6	44.6
12/16/2010	5:00 PM	63.8	76.2	65.3	46.3	42.9
12/16/2010	6:00 PM	63	76.3	63.1	51	42
12/16/2010	7:00 PM	61.6	75.4	61.9	48.1	42.2
12/16/2010	8:00 PM	59.8	74.2	59.3	45.8	43.1
12/16/2010	9:00 PM	59.2	73.8	58.2	46.1	42.6
12/16/2010	10:00 PM	59.1	73.2	56.4	47.6	44.8
12/16/2010	11:00 PM	57.5	70	57.8	47.1	44
12/17/2010	12:00 AM	56.8	68.8	55.9	41.9	39
12/17/2010	1:00 AM	56	68.5	56.6	40.3	37.3
12/17/2010	2:00 AM	46.7	60.1	43.2	37.1	36.2
12/17/2010	3:00 AM	55	64.3	49.5	38.7	36.7
12/17/2010	4:00 AM	50.7	63	49.2	38.3	37.2
12/17/2010	5:00 AM	54.9	67	48.4	39.2	37.4
12/17/2010	6:00 AM	62	75.7	61.5	43.9	40.5
12/17/2010	7:00 AM	64.8	77.5	65.4	47.8	43.5
12/17/2010	8:00 AM	63.6	76.8	63.2	47.1	42.3
12/17/2010	9:00 AM	63.4	76.9	63.3	45.3	41.5
12/17/2010	10:00 AM	61.8	75.5	62.4	47.7	43
12/17/2010	11:00 AM	63.8	77.1	63.7	48	43.2

Site 5E: South Property Line at 199 River Road N, 13 ft. elevated

Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
1/11/2011	8:00 AM	52.9	63.9	56.7	46.4	42.9
1/11/2011	9:00 AM	49.7	61.6	52.0	42.9	40.5
1/11/2011	10:00 AM	52.0	62.6	51.1	42.2	39.7
1/11/2011	11:00 AM	54.5	68.3	54.9	46.2	40.5
1/11/2011	12:00 PM	53.0	64.1	55.2	42.4	38.9
1/11/2011	1:00 PM	52.8	64.4	54.2	41.9	39.0
1/11/2011	2:00 PM	56.4	69.9	56.9	42.8	38.9
1/11/2011	3:00 PM	52.8	63.5	56.8	43.3	39.0
1/10/2011	4:00 PM	51.5	61.4	56.3	44.5	39.2
1/10/2011	5:00 PM	49.1	59.5	53.7	41.8	39.3
1/10/2011	6:00 PM	48.5	60.3	51.9	40.5	37.5

Site 7E: North Property Line at 217 River Road N

Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
1/11/2011	8:00 AM	51.6	63.1	54.4	45.7	42.9
1/11/2011	9:00 AM	46.0	57.8	47.9	41.8	39.6
1/11/2011	10:00 AM	43.2	52.5	45.9	40.6	38.5
1/11/2011	11:00 AM	50.0	58.1	52.4	49.7	40.1
1/11/2011	12:00 PM	46.5	58.0	49.0	40.6	37.9
1/11/2011	1:00 PM	46.1	56.9	49.0	41.1	38.4
1/11/2011	2:00 PM	45.3	56.8	48.1	40.6	38.1
1/10/2011	3:00 PM	48.9	62.2	52.0	41.3	37.5
1/10/2011	4:00 PM	46.5	55.6	49.9	43.5	38.9
1/10/2011	5:00 PM	44.9	53.7	48.5	41.3	38.8
1/10/2011	6:00 PM	45.2	56.6	48.0	41.1	37.1

13E  
Stenger Court

Start Date	Start Time	dBA				
		L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
3/4/2012	7:00 PM	46.9	59.2	49.0	41.3	38.3
3/4/2012	8:00 PM	46.5	58.0	48.2	39.9	37.3
3/4/2012	9:00 PM	44.3	54.6	46.4	39.3	36.9
3/4/2012	10:00 PM	41.5	51.2	42.8	38.7	36.6
3/4/2012	11:00 PM	44.2	55.3	48.2	37.3	35.0
3/5/2012	12:00 AM	46.3	56.2	50.6	40.1	35.9
3/5/2012	1:00 AM	43.9	55.5	46.9	37.9	35.8
3/5/2012	2:00 AM	42.0	53.5	44.3	37.1	35.0
3/5/2012	3:00 AM	46.1	57.7	49.2	38.9	35.7
3/5/2012	4:00 AM	42.0	52.9	43.0	38.1	36.0
3/5/2012	5:00 AM	44.8	57.1	46.4	39.9	37.7
3/5/2012	6:00 AM	45.5	56.6	48.0	40.5	37.7
3/5/2012	7:00 AM	47.1	58.1	50.3	40.3	37.7
3/5/2012	8:00 AM	47.1	57.4	50.4	42.5	39.2
3/5/2012	9:00 AM	42.8	53.8	44.0	39.8	37.5
3/5/2012	10:00 AM	45.9	57.8	44.8	39.4	37.1
3/5/2012	11:00 AM	46.1	58.3	48.3	40.5	36.8
3/5/2012	12:00 PM	46.8	59.7	46.7	40.0	36.9
3/5/2012	1:00 PM	43.7	53.5	45.9	40.3	37.9
3/5/2012	2:00 PM	44.5	56.0	46.7	39.3	36.9
3/5/2012	3:00 PM	46.6	58.1	48.6	39.2	36.0
3/5/2012	4:00 PM	45.7	56.2	48.5	40.1	37.4
3/5/2012	5:00 PM	47.2	57.1	50.7	41.7	38.4
3/5/2012	6:00 PM	46.0	55.7	46.5	40.7	37.5

# Construction Noise Modeling Results

West Site Construction Noise Levels WITH NOISE CONTROL

Peak Duration                      4 months                      13 months                      35 months                      1 month                      1 month                      3 months                      1 month  
 Phase Duration                      14 months                      13 months                      43 months                      19 months                      8 months

7AM - 3PM

Receptor	Existing Leq	Site Prep			Shaft Construction			Tunnel Excavation			Tunnel Excavation (Tunnel Cleanup)			Tunnel Lining			Tunnel Lining (CIP against steel liner)			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment
1W	61.4	40.7	61.4	0.0	41.6	61.4	0.0	38.1	61.4	0.0	35.7	61.4	0.0	37.5	61.4	0.0	36.1	61.4	0.0	37.8	61.4	0.0
2W	74.2	64.9	74.7	0.5	60.8	74.4	0.2	65.4	74.7	0.5	57.2	74.3	0.1	63.3	74.5	0.3	59.0	74.3	0.1	61.6	74.4	0.2
3W	61.4	53.1	62.0	0.6	52.8	62.0	0.6	54.1	62.1	0.7	53.0	62.0	0.6	50.0	61.7	0.3	49.1	61.6	0.2	53.9	62.1	0.7
4W	61.4	50.6	61.7	0.3	52.9	62.0	0.6	48.5	61.6	0.2	46.4	61.5	0.1	48.3	61.6	0.2	47.1	61.6	0.2	48.4	61.6	0.2
5W	74.2	57.9	74.3	0.1	51.9	74.2	0.0	53.2	74.2	0.0	48.4	74.2	0.0	52.5	74.2	0.0	50.1	74.2	0.0	51.9	74.2	0.0

3PM - 11PM

Receptor	Existing Leq	Site Prep			Shaft Construction			Tunnel Excavation			Cleanup)			Tunnel Lining			Tunnel Lining			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment
1W	57.8	40.7	57.9	0.1	41.6	57.9	0.1	38.1	57.8	0.0	35.7	57.8	0.0	37.5	57.8	0.0	36.1	57.8	0.0	37.8	57.8	0.0
2W	71.2	64.9	72.1	0.9	60.8	71.6	0.4	65.4	72.2	1.0	57.2	71.4	0.2	63.3	71.9	0.7	59.0	71.5	0.3	61.6	71.7	0.5
3W	57.8	53.1	59.1	1.3	52.8	59.0	1.2	54.1	59.3	1.5	53.0	59.0	1.2	50.0	58.5	0.7	49.1	58.3	0.5	53.9	59.3	1.5
4W	57.8	50.6	58.6	0.8	52.9	59.0	1.2	48.5	58.3	0.5	46.4	58.1	0.3	48.3	58.3	0.5	47.1	58.2	0.4	48.4	58.3	0.5
5W	71.2	57.9	71.4	0.2	51.9	71.3	0.1	53.2	71.3	0.1	48.4	71.2	0.0	52.5	71.3	0.1	50.1	71.2	0.0	51.9	71.3	0.1

11PM - 7 AM

Receptor	Existing Leq	Shaft Construction			Tunnel Excavation			Cleanup)			Tunnel Lining			Tunnel Lining			Tunnel Connection					
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment			
1W	48.6				41.6	49.4	0.8	38.1	49.0	0.4	35.7	48.8	0.2	37.5	48.9	0.3	36.1	48.8	0.2	37.8	48.9	0.3
2W	65.8				60.8	67.0	1.2	65.4	68.6	2.8	57.2	66.4	0.6	63.3	67.7	1.9	59.0	66.6	0.8	61.6	67.2	1.4
3W	48.6				52.8	54.2	5.6	54.1	55.2	6.6	53.0	54.3	5.7	50.0	52.4	3.8	49.1	51.9	3.3	53.9	55.0	6.4
4W	48.6				52.9	54.3	5.7	48.5	51.6	3.0	46.4	50.6	2.0	48.3	51.5	2.9	47.1	50.9	2.3	48.4	51.5	2.9
5W	65.8				51.9	66.0	0.2	53.2	66.0	0.2	48.4	65.9	0.1	52.5	66.0	0.2	50.1	65.9	0.1	51.9	66.0	0.2



West Site Construction Noise Levels WITHOUT NOISE CONTROL

7AM - 3PM

Receptor	Existing Leq	Site Prep			Shaft Construction			Tunnel Excavation			Tunnel Lining			Tunnel Lining		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment
1W	61.4	40.7	61.4	0.0	41.6	61.4	0.0	38.1	61.4	0.0	37.5	61.4	0.0	37.8	61.4	0.0
2W	74.2	64.9	74.7	0.5	60.8	74.4	0.2	65.4	74.7	0.5	63.3	74.5	0.3	61.6	74.4	0.2
3W	61.4	53.1	62.0	0.6	52.8	62.0	0.6	54.1	62.1	0.7	50.0	61.7	0.3	53.9	62.1	0.7
4W	61.4	50.6	61.7	0.3	52.9	62.0	0.6	48.5	61.6	0.2	48.3	61.6	0.2	48.4	61.6	0.2
5W	74.2	57.9	74.3	0.1	51.9	74.2	0.0	53.2	74.2	0.0	52.5	74.2	0.0	51.9	74.2	0.0

3PM - 11PM

		Jan, 2013 through Feb, 2014			Feb, 2013 through Feb 2015			Mar, 2015 through Sept, 2018			Oct, 2018 through Mar, 2020			Oct, 2018 through Mar, 2021		
Receptor	Existing Leq	Site Prep			Shaft Construction			Tunnel Excavation			Tunnel Lining			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment
1W	57.8	40.7	57.9	0.1	41.6	57.9	0.1	38.1	57.8	0.0	37.5	57.8	0.0	37.8	57.8	0.0
2W	71.2	64.9	72.1	0.9	60.8	71.6	0.4	65.4	72.2	1.0	63.3	71.9	0.7	61.6	71.7	0.5
3W	57.8	53.1	59.1	1.3	52.8	59.0	1.2	54.1	59.3	1.5	50.0	58.5	0.7	53.9	59.3	1.5
4W	57.8	50.6	58.6	0.8	52.9	59.0	1.2	48.5	58.3	0.5	48.3	58.3	0.5	48.4	58.3	0.5
5W	71.2	57.9	71.4	0.2	51.9	71.3	0.1	53.2	71.3	0.1	52.5	71.3	0.1	51.9	71.3	0.1

11PM - 7 AM

		Jan, 2013 through Feb, 2014			Feb, 2013 through Feb 2015			Mar, 2015 through Sept, 2018			Oct, 2018 through Mar, 2020			Oct, 2018 through Mar, 2021		
Receptor	Existing Leq							Tunnel Excavation			Tunnel Lining			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment
1W	48.6						38.1	49.0	0.4	37.5	48.9	0.3	37.8	48.9	0.3	
2W	65.8						65.4	68.6	2.8	63.3	67.7	1.9	61.6	67.2	1.4	
3W	48.6						54.1	55.2	6.6	50.0	52.4	3.8	53.9	55.0	6.4	
4W	48.6						48.5	51.6	3.0	48.3	51.5	2.9	48.4	51.5	2.9	
5W	65.8						53.2	66.0	0.2	52.5	66.0	0.2	51.9	66.0	0.2	

East Site Construction Noise Levels WITH NOISE CONTROL

Peak Duration 2 months 4 months 2 months 23 months 2 months 1 month 13 months 2 months 1 month 4 months 1 month 1 month 8 months  
 Phase Duration 7AM - 3PM 10 months

Receptor	Existing Leq	Site Prep (stage 1)			Site Prep (stages 2-3)			Shaft Construction (Secant Piles)			Shaft Construction (Excavation Rock Lining)			Tunnel Excavation (Connector Tunnel)			Tunnel Excavation (Inundation Plugs)			Tunnel Excavation (TBM Removal)			Tunnel Lining (CIP against TBM)			Tunnel Lining (CIP against connector tunnel)			Tunnel Connection (Junction chamber support)		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment
1E	58.5	54.1	59.8	1.3	50.2	59.1	0.6	50.3	59.1	0.6	53.1	59.6	1.1	50.4	59.1	0.6	44.7	58.7	0.2	49.2	59.0	0.5	50.1	59.1	0.6	50.4	59.1	0.6	56.2	60.5	2.0
2E	60.1	54.9	61.2	1.1	55.0	61.3	1.2	56.7	61.7	1.6	58.7	62.5	2.4	57.9	62.1	2.0	52.8	60.8	0.7	53.4	60.9	0.8	54.3	61.1	1.0	58.0	62.2	2.1	57.0	61.8	1.7
3E	61.0	59.6	63.4	2.4	61.5	64.3	3.3	59.0	63.1	2.1	64.2	65.9	4.9	61.8	64.4	3.4	54.0	61.8	0.8	57.4	62.6	1.6	59.2	63.2	2.2	61.1	64.1	3.1	61.8	64.4	3.4
4E	52.5	49.8	54.4	1.9	52.1	55.3	2.8	46.9	53.6	1.1	54.1	56.4	3.9	52.9	55.7	3.2	39.5	52.7	0.2	49.0	54.1	1.6	53.7	56.2	3.7	53.8	56.2	3.7	52.8	55.7	3.2
5E	49.7	56.7	57.5	7.8	57.4	58.1	8.4	52.0	54.0	4.3	61.3	61.6	11.9	58.7	59.2	9.5	47.6	51.8	2.1	51.7	53.8	4.1	54.7	55.9	6.2	55.4	56.4	6.7	58.9	59.4	9.7
6E	61.0	54.0	61.9	0.9	56.0	62.2	1.2	50.6	61.4	0.4	58.6	63.0	2.0	54.0	61.8	0.8	43.7	61.1	0.1	50.4	61.4	0.4	53.9	61.8	0.8	54.5	61.9	0.9	55.0	62.0	1.9
7E	43.2	59.4	59.5	16.3	61.5	61.6	15.4	59.1	59.2	16.0	66.1	66.1	22.9	62.6	62.6	19.4	45.1	47.3	4.1	59.2	59.3	16.1	63.3	63.3	20.1	63.7	63.7	20.5	63.5	20.3	20.3
8E	43.2	61.3	61.4	18.2	62.8	62.8	19.6	59.7	59.8	16.6	66.4	66.4	23.2	63.6	63.6	20.4	45.4	47.4	4.2	59.8	59.9	16.7	65.0	65.0	21.8	65.3	65.3	22.1	64.2	64.2	21.0
9E	69.7	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	62.7	70.5	0.8
10E	52.2	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	29.8	52.2	0.0
11E	64.6	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	48.2	64.7	0.1
12E	74.7	60.2	74.9	0.2	60.2	74.9	0.2	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1	61.8	74.9	0.2
13E	42.8	49.6	50.4	7.6	51.0	51.6	8.8	41.7	45.3	2.5	50.5	51.2	8.4	46.9	48.3	5.5	34.5	43.4	0.6	40.3	44.7	1.9	46.7	48.2	5.4	47.0	48.4	5.6	47.1	48.5	5.7

Receptor	Existing Leq	Shaft Construction			Shaft Construction			Tunnel Excavation			Plugs			Tunnel Excavation (TBM Removal)			tunnel			connector tunnel			Tunnel Connection					
		Construction on Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment			
1E	54.0	50.3	55.5	1.5	53.1	55.6	2.6	50.4	55.6	1.6	44.7	54.5	0.5	49.2	55.2	1.2	50.1	55.5	1.5	50.4	55.6	1.6	56.2	58.2	4.2			
2E	64.2	56.7	64.9	0.7	58.5	65.2	1.0	57.9	65.1	0.9	52.8	64.5	0.3	53.4	64.5	0.3	54.3	64.6	0.4	58.0	65.1	0.9	57.0	65.0	0.8			
3E	59.1	59.0	62.1	3.0	62.4	64.1	5.0	61.8	63.7	4.6	54.0	60.3	1.2	57.4	61.3	2.2	59.2	62.2	3.1	61.1	63.2	4.1	61.8	63.7	4.6			
4E	48.2	46.9	50.6	2.4	54.0	55.0	6.8	52.9	54.2	6.0	39.5	48.7	0.5	49.0	51.6	3.4	53.7	54.8	6.6	53.8	54.9	6.7	52.8	54.1	5.9			
5E	49.5	52.0	53.9	4.4	57.3	58.0	8.5	58.7	59.2	9.7	47.6	51.7	2.2	51.7	53.7	4.2	54.7	55.8	6.3	55.4	56.4	6.9	58.9	59.4	9.9			
6E	59.1	50.6	59.7	0.8	56.4	61.0	1.9	54.0	60.3	1.2	43.7	59.2	0.1	50.4	59.6	0.5	53.9	60.2	1.1	54.5	60.4	1.3	55.0	60.5	1.4			
7E	44.9	59.1	59.3	14.4	67.0	67.0	22.1	62.6	62.7	17.8	45.1	48.0	3.1	59.2	59.4	14.5	63.3	63.4	18.5	63.7	63.8	18.8	63.5	63.6	18.7			
8E	44.9	59.7	59.8	14.9	67.7	67.7	22.8	63.6	63.7	18.8	45.4	48.2	3.3	59.8	59.9	15.0	65.0	65.0	20.1	65.3	65.3	20.4	64.2	64.3	19.4			
9E	69.3	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	62.7	70.2	0.9
10E	54.3	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	29.8	54.3	0.0
11E	67.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	48.2	67.1	0.1
12E	73.3	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	61.8	73.6	0.3
13E	41.5	41.7	44.6	3.1	48.1	49.0	7.5	46.9	48.0	6.5	34.5	42.3	0.8	40.3	44.0	2.5	46.7	47.8	6.3	47.0	48.1	6.6	47.1	48.2	6.7			

Receptor	Existing Leq	Tunnel Excavation			Tunnel Excavation (TBM Removal)			tunnel			connector tunnel			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment	Construction on Noise	Combined Noise Level	Increment
1E	42.6	50.4	51.1	6.5	49.2	50.1	7.5	50.1	50.8	8.2	50.4	51.1	6.5	56.2	56.4	13.8
2E	45.8	51.9	52.9	7.1	50.3	51.6	5.8	51.7	52.7	6.9	52.0	52.9	7.1	57.0	57.3	11.5
3E	46.7	59.9	60.1	13.4	56.3	56.8	10.1	58.4	58.7	12.0	59.0	59.2	12.5	61.8	61.9	15.2
4E	42.6	52.7	53.1	10.5	49.0	49.9	7.3	53.7	54.0	11.4	53.8	54.1	11.5	52.8	53.2	10.6
5E	42.6	58.3	58.4	15.8	51.5	52.0	9.4	54.6	54.9	12.3	55.0	55.2	12.6	58.9	59.0	16.4
6E	46.7	53.4	54.2	7.5	50.2	51.8	9.1	53.8	54.6	7.9	54.2	54.9	8.2	55.9	55.6	8.9
7E	42.6	62.5	62.5	19.9	59.2	59.3	16.7	63.3	63.3	20.7	63.7	63.7	21.1	63.5	63.5	20.9
8E	42.6	63.5	63.5	20.9	59.8	59.9	17.3	65.0	65.0	22.4	65.3	65.3	22.7	64.2	64.2	21.8
9E	64.1	59.7	65.4	1.3	59.7	65.4	1.3	59.7	65.4	1.3	59.7	65.4	1.3	62.7	66.5	2.4
10E	49.1	26.8	49.1	0.0	26.8	49.1	0.0	26.8	49.1	0.0	26.8	49.1	0.0	29.8	49.2	0.1
11E	61.8	45.2	61.9	0.1	45.2	61.9	0.1	45.2	61.9	0.1	45.2	61.9	0.1	48.2	62.0	0.2
12E	68.7	58.8	69.1	0.4	58.8	69.1	0.4	58.8	69.1	0.4	58.8	69.1	0.4	61.8	69.5	0.8
13E	42.0	46.7	48.0	6.0	40.3	44.2	2.2	46.7	48.0	6.0	46.9	48.1	6.1	47.1	48.3	6.8

East Site Construction Noise Levels WITHOUT NOISE CONTROL

7AM - 3PM

Receptor	Existing Leq	Site Prep (stages 2-3)			Shaft Construction (Excavation Rock Lining)			Tunnel Excavation (Connector Tunnel)			Tunnel Lining (CIP against connector tunnel)			Tunnel Connection (junction chamber support)		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Constructi on Noise	Combined Noise Level	Increment	Constructi on Noise	Combined Noise Level	Increment
1E	58.5	50.9	59.2	0.7	54.6	60.0	1.5	52.4	59.5	1.0	50.4	59.1	0.6	56.8	60.7	2.2
2E	60.1	55.0	61.3	1.2	58.7	62.5	2.4	58.0	62.2	2.1	58.0	62.2	2.1	57.2	61.9	1.8
3E	61.0	62.6	64.9	3.9	65.9	67.1	6.1	64.1	65.8	4.8	61.1	64.1	3.1	64.1	65.8	4.8
4E	52.5	52.3	55.4	2.9	57.1	58.4	5.9	55.4	57.2	4.7	53.8	56.2	3.7	55.5	57.3	4.8
5E	49.7	67.1	67.2	17.5	69.7	69.7	20.0	67.0	67.1	17.4	55.4	56.4	6.7	67.2	67.3	17.6
6E	61.0	60.5	63.8	2.8	67.0	68.0	7.0	64.4	66.0	5.0	54.5	61.9	0.9	64.8	66.3	5.3
7E	43.2	69.6	69.6	26.4	74.9	74.9	31.7	71.6	71.6	28.4	63.7	63.7	20.5	72.2	72.2	29.0
8E	43.2	68.7	68.7	25.5	75.5	75.5	32.3	72.9	72.9	29.7	65.3	65.3	22.1	73.4	73.4	30.2
9E	69.7	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4	59.7	70.1	0.4
10E	52.2	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0	26.8	52.2	0.0
11E	64.6	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0	45.2	64.6	0.0
12E	74.7	60.2	74.9	0.2	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1	58.8	74.8	0.1
13E	42.8	53.9	54.2	11.4	57.9	58.0	15.2	55.8	56.0	13.2	47.0	48.4	5.6	55.8	56.0	13.2

3PM - 11PM

Receptor	Existing Leq	Shaft Construction			Tunnel Excavation			connector tunnel)			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment	Constructi on Noise	Combined Noise Level	Increment	Constructi on Noise	Combined Noise Level	Increment
1E	54.0	54.4	57.2	3.2	52.4	56.3	2.3	50.4	55.6	1.6	56.8	58.6	4.6
2E	64.2	58.6	65.3	1.1	58.0	65.1	0.9	58.0	65.1	0.9	57.2	65.0	0.8
3E	59.1	63.8	65.1	6.0	64.1	65.3	6.2	61.1	63.2	4.1	64.1	65.3	6.2
4E	48.2	56.0	56.7	8.5	55.4	56.2	8.0	53.8	54.9	6.7	55.5	56.2	8.0
5E	49.5	65.9	66.0	16.5	67.0	67.1	17.6	55.4	56.4	6.9	67.2	67.3	17.8
6E	59.1	65.6	66.5	7.4	64.4	65.5	6.4	54.5	60.4	1.3	64.8	65.8	6.7
7E	44.9	73.3	73.3	28.4	71.6	71.6	26.7	63.7	63.8	18.9	72.2	72.2	27.3
8E	44.9	74.8	74.8	29.9	72.9	72.9	28.0	65.3	65.3	20.4	73.4	73.4	28.5
9E	69.3	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5	59.7	69.8	0.5
10E	54.3	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0	26.8	54.3	0.0
11E	67.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0	45.2	67.0	0.0
12E	73.3	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2	58.8	73.5	0.2
13E	41.5	56.2	56.3	14.8	55.8	56.0	14.5	47.0	48.1	6.6	55.8	56.0	14.5

11PM - 7AM

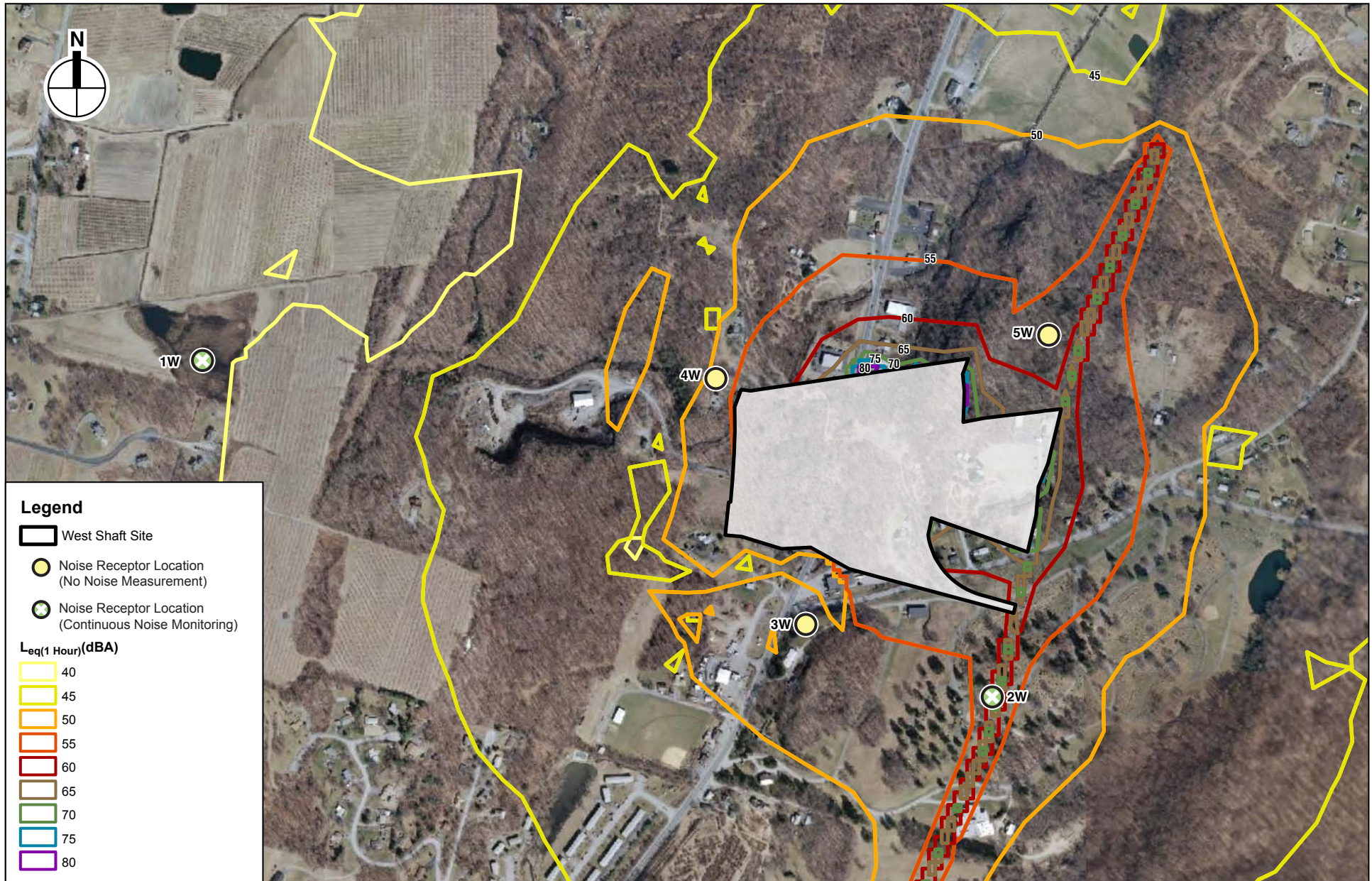
Receptor	Existing Leq	Tunnel Excavation			connector tunnel)			Tunnel Connection		
		Construction Noise	Combined Noise Level	Increment	Constructi on Noise	Combined Noise Level	Increment	Constructi on Noise	Combined Noise Level	Increment
1E	42.6	52.4	52.8	10.2	50.4	51.1	8.5	56.8	57.0	14.4
2E	45.8	58.0	58.3	12.5	58.0	58.3	12.5	57.2	57.5	11.7
3E	46.7	64.1	64.2	17.5	61.1	61.3	14.6	64.1	64.2	17.5
4E	42.6	55.4	55.6	13.0	53.8	54.1	11.5	55.5	55.7	13.1
5E	42.6	67.0	67.0	24.4	55.4	55.6	13.0	67.2	67.2	24.6
6E	46.7	64.4	64.5	17.8	54.5	55.2	8.5	64.8	64.9	18.2
7E	42.6	71.6	71.6	29.0	63.7	63.7	21.1	72.2	72.2	29.6
8E	42.6	72.9	72.9	30.3	65.3	65.3	22.7	73.4	73.4	30.8
9E	64.1	59.7	65.4	1.3	59.7	65.4	1.3	59.7	65.4	1.3
10E	49.1	26.8	49.1	0.0	26.8	49.1	0.0	26.8	49.1	0.0
11E	61.8	45.2	61.9	0.1	45.2	61.9	0.1	45.2	61.9	0.1
12E	68.7	58.8	69.1	0.4	58.8	69.1	0.4	58.8	69.1	0.4
13E	42.0	55.8	56.0	14.0	47.0	48.2	6.2	55.8	56.0	14.0

East Site Construction Noise Levels ONLY ONSITE ACTIVITY with Noise-Control

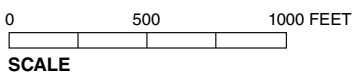
11PM - 7AM

Receptor	Existing Leq	Tunnel Excavation (Connector Tunnel ONSITE)			Tunnel Lining (CIP against connector tunnel ONSITE)		
		Construction Noise	Combined Noise Level	Increment	Construction Noise	Combined Noise Level	Increment
1E	42.6	36.9	43.6	1.0	36.9	43.6	1.0
2E	45.8	45.6	48.7	2.9	45.8	48.8	3.0
3E	46.7	59.9	60.1	13.4	58.2	58.5	11.8
4E	42.6	52.8	53.2	10.6	53.8	54.1	11.5
5E	42.6	58.7	58.8	16.2	54.9	55.1	12.5
6E	46.7	57.3	57.7	11.0	56.9	57.3	10.6
7E	42.6	64.0	64.0	21.4	63.9	63.9	21.3
8E	42.6	64.0	64.0	21.4	65.3	65.3	22.7

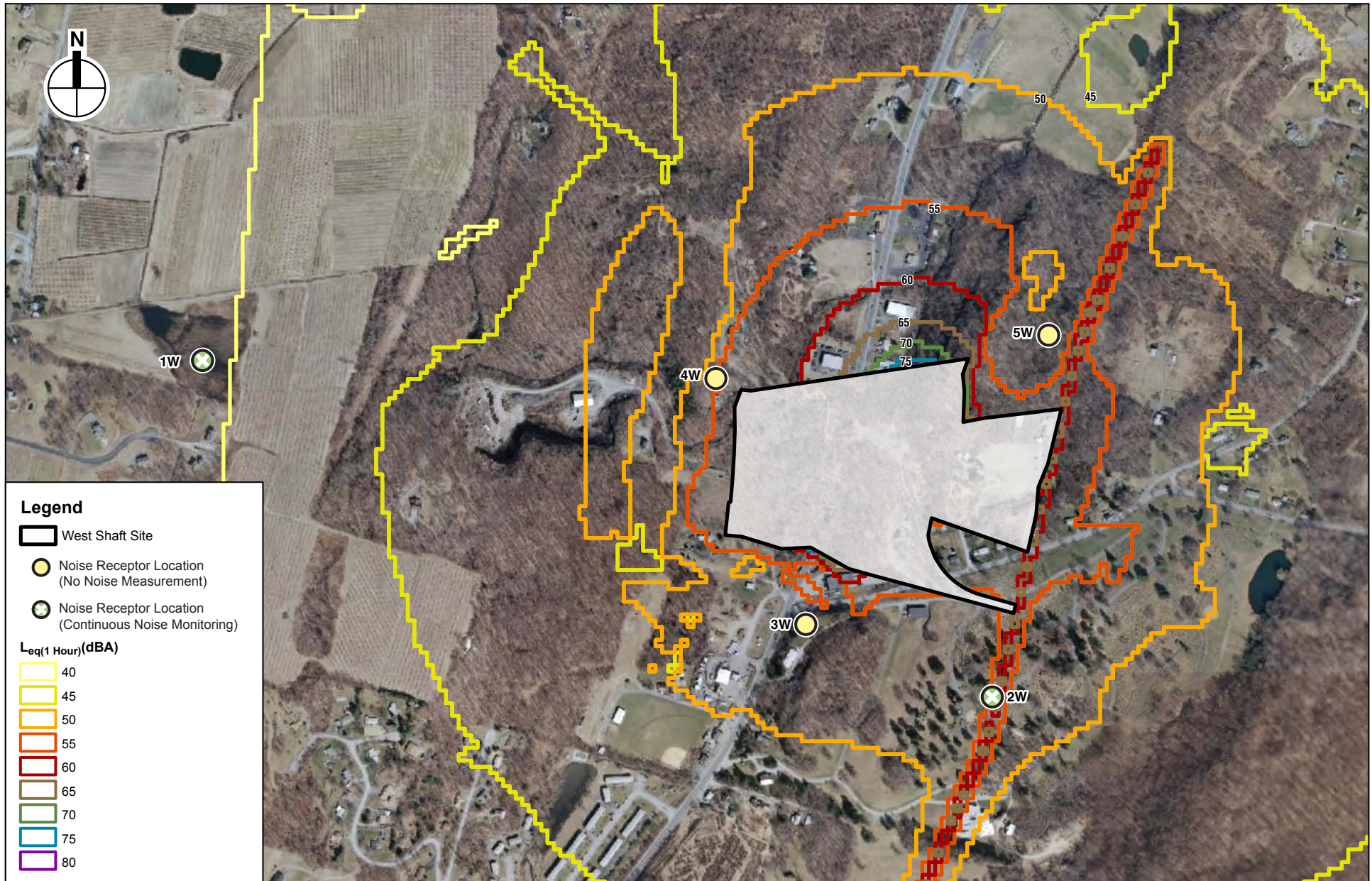
# Incremental Construction Noise Contours



This Figure Has Been Updated Since the DEIS

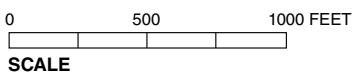
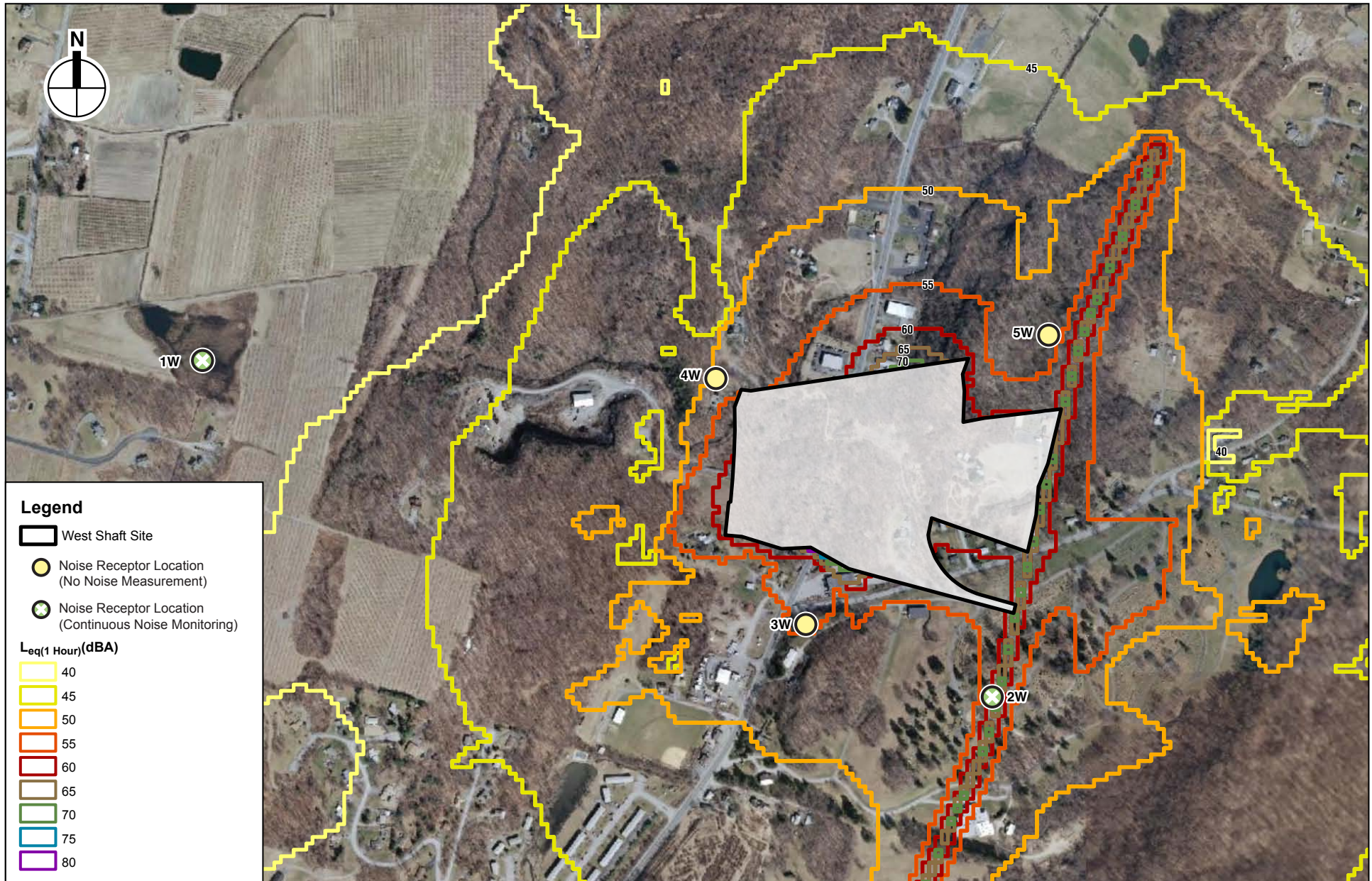


### West Site Prep



This Figure Has Been Updated Since the DEIS

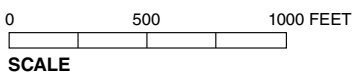
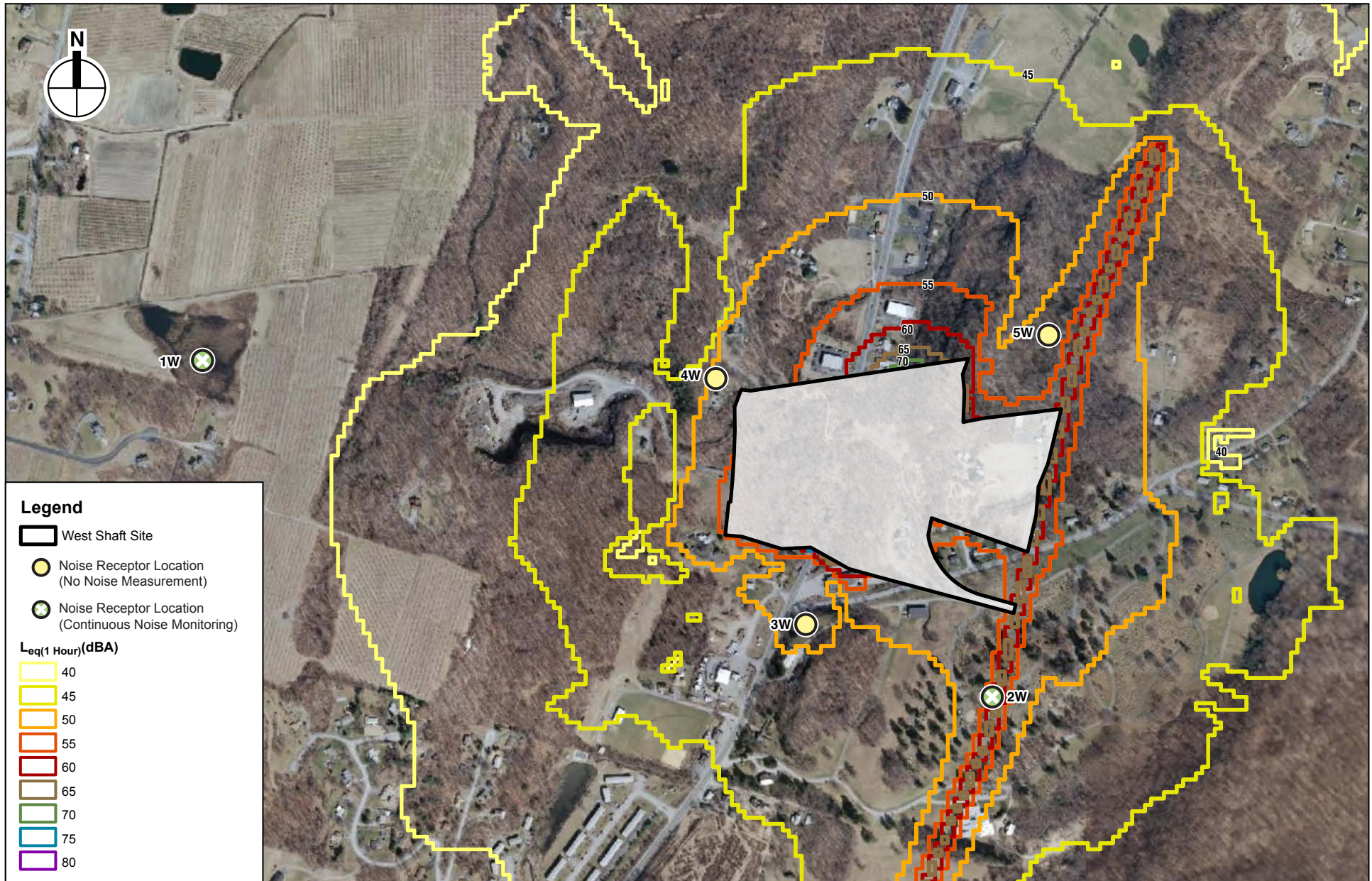
### West Shaft Construction Grid



This Figure Has Been Updated Since the DEIS

### West Tunnel Excavation Grid





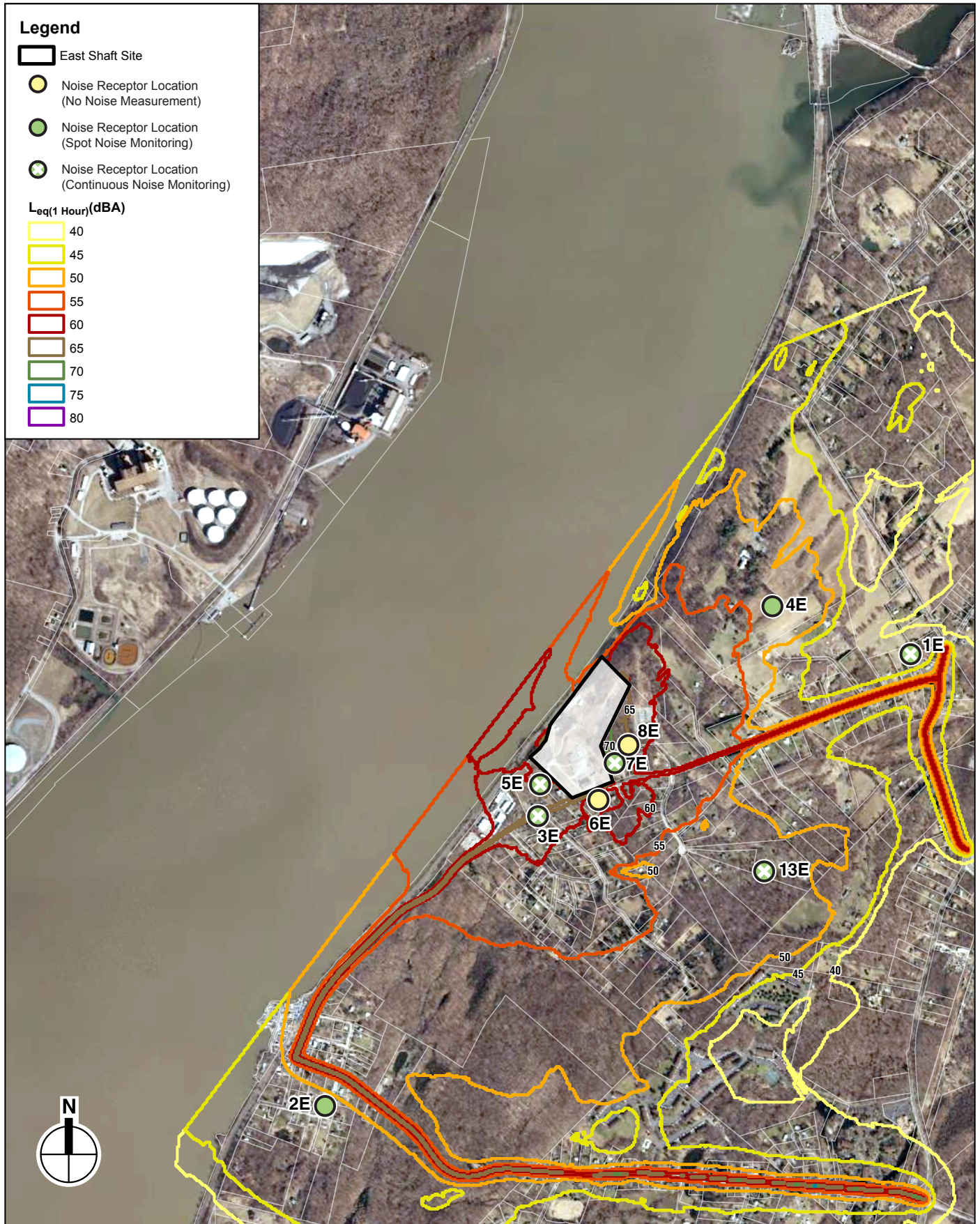
This Figure Has Been Updated Since the DEIS

### West Tunnel Lining Grid



This Figure Has Been Updated Since the DEIS

### East Site Prep MIT Grid



This Figure Has Been Updated Since the DEIS

### East Shaft Construction Shift 1 MIT Grid



This Figure Has Been Updated Since the DEIS

### East Shaft Construction Shift 2 MIT Grid



This Figure Has Been Updated Since the DEIS

### East Tunnel Excavation Shift 1 MIT Grid



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### East Tunnel Excavation Shift 3 MIT Grid



This Figure Has Been Updated Since the DEIS

### East Tunnel Lining Shift 1 MIT Grid



This Figure Has Been Updated Since the DEIS

### East Tunnel Lining Shift 3 MIT Grid