APPENDIX F

Noise Analysis

Appendix E

- Figure E.1: CEQR Table 22-1, Noise Emission Reference Levels (A-weighted decibels with RMS "slow" time constant)
- Figure E.2: Estimated SBPCR Packaging and Summary Construction Schedule
- Figure E.3: Construction Equipment Projections Barge Mobilization, Wagner Park-Site & MJH
- Figure E.4: Construction Equipment Projections Wagner Park-Pavilion, Pier A & The Battery
- Figure E.5: Construction Equipment Projections Tidegate and Near Surface Isolation

<u>ID</u>	Equipment Description	Usage Factor (%)	<u>Lmax @ 50 Fee</u>
1	All Other Equipment > 5 HP	50	85
2	Auger Drill Rig	20	85
3	Backhoe	40	80
4	Bar Bender	20	80
5	Blasting	N/A	94
6	Boring Jack Power Unit	50	80
7	Chain Saw	20	85
8	Clam Shovel (dropping)	20	93
9	Compactor (ground)	20	80
10	Compressor (air, less than or equal to 350 cfm)	40	75
11	Compressor (air, greater than 350 cfm)	40	80
12	Concrete Batch Plant	15	83
13	Concrete Mixer Truck	40	85
14	Concrete Pump Truck	20	82
14			
	Concrete Saw	20	90
16	Crane	16	85
17	Dozer	40	85
18	Drill Rig Truck	20	84
19	Drum Mixer	50	80
20	Dump Truck	40	84
21	Dumpster/Rubbish Removal	20	78
22	Excavator	40	85
23	Flat Bed Truck	40	84
24	Front End Loader	40	80
25	Generator	50	82
26	Generator (< 25 KVA, VMS signs)	50	70
27	Gradall	40	85
28	Grader	40	85
29	Grapple (on Backhoe)	40	85
30	Horizontal Boring Hydr. Jack	25	80
31	Hydra Break Ram	10	90
31 32	Impact Pile Driver	20	90
33	Jackhammer	20	85
34	Man Lift	20	85
35	Mounted Impact Hammer (Hoe Ram)	20	90
36	Pavement Scarafier	20	85
37	Paver	50	85
38	Pickup Truck	40	55
39	Pneumatic Tools	50	85
40	Pumps	50	77
41	Refrigerator Unit	100	82
42	Rivet Buster / Chipping Gun	20	85
43	Rock Drill	20	85
44	Roller	20	85
45	Sand Blasting	20	85
46	Scraper	40	85
47	Shears (on Backhoe)	40	85
47 48	Slurry Plant	100	78
40 49	Slurry Trenching Machine	50	82
50	Soil Mix Drill Rig	50	80
51	Tractor	40	84
52	Vacuum Excavator (Vac-truck)	40	85
53	Vacuum Street Sweeper	10	80
54	Ventilation Fan	100	85
55	Vibrating Hopper	50	85
56	Vibratory Concrete Mixer	20	80
57	Vibratory Pile Driver	20	95
58	Warning Horn	5	85
59	Water Jet Deleading	20	85
60	Welder / Torch	40	73

Figure E.1: CEQR Table 22-1, Noise Emission Reference Levels (A-weighted decibels with RMS "slow" time constant)

the property line where the source or sources are located or as measured 50 or more feet from the source or sources are public rightof-way" is prohibited. A Indicates the value is from Local Law 113; other values are from 15 RCNY §28-109, Appendix. Sources: Local Law 113 and the New York City Department of Environmental Protection Notice of Adoption of Rules for Citywide Construction Noise Mitigation: 15 RCNY 28-109, Appendix.

Figure E.2: Estimated SBPCR Packaging and S	Summary Construction Schedule
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DESCRIPTION	START	END
Package 1: Barge Mobilization	A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR A CONTRAC	
Finalize Bid Documents	4/26/2021	5/28/2021
Procurement	5/31/2021	7/30/2021
Award Construction Contract	8/2/2021	11/2/2021
Construction	11/3/2021	5/3/2023
Package 2: Site Work Wagner Park and MJH		
Finalize Bid Documents	4/26/2021	5/28/2021
Procurement	5/31/2021	7/30/2021
Award Construction Contract (assumed EIS process over 11/2/21)	8/2/2021	11/2/2021
Construction	11/3/2021	12/31/2023
Package 3: Pavilion		
Finalize Bid Documents	4/26/2021	5/28/2021
Procurement	5/31/2021	7/30/2021
Award Construction Contract (assumed EIS process over 11/2/21)	8/2/2021	11/2/2021
Construction	11/3/2021	12/31/2023
Package 4: Pier A Plaza and Battery**		
Finalize Bid Documents	4/26/2021	5/28/2021
Procurement	5/31/2021	7/30/2021
Award Construction Contract (assumed EIS process over 11/2/21)	8/2/2021	11/2/2021
Construction	11/3/2021	6/30/2023
Packages 5+: Interior Drainage	TBD	

 $Source: LiRo, 20201124 \ SBPCAR \ Bid \ Packaging \ and \ Construction \ Schedule.pdf, 11/24/20.$

Figure E.3: Construction Equipment Projections – Barge Mobilization, Wagner Park-Site & MJH

Activity ID Package ID	Work task	Start	End Dat	e Equip I	D Equipment	CEQR Equivalent	CEQR			Type		021						2022										23			
ackage ID	WOIN task	Date	End Dat	-quip i	- Equipment	oran Equivalent	ID	(Qty Usage	туре	N-21	D-21	J-22	F-22	M-22 /	A-22 M-2	2 J-22	J-22	A-22 S	-22 0-2	N-22	D-22	J-23	F-23 M-2	23 A-23	3 M-23	J-23	J-23 A-2	3 S-23	O-23 N-23	J D-23
2	7	3	4		2	5	4		5		1	2	3	4	5	6 7	8	9	10	11 12	13	14	15	16 17	18	19	20	21 22		24 25	26
1 L1	Barge Mobilization		1 05/03/23		Auger Drill Rig	Auger Drill Rig	2		0 20%	S																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 2	Backhoe	Backhoe	3		0 40%	S																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 3	Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35		0 20%	D																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 4	Barge	Pickup Truck	38		1 40%	S	0.70	0.70	0.70	0.85	0.85 (0.85 1.0	0 1.00	1.00	0.45 0	.45 0.45	0.30	0.30	0.30	0.15 0.1	5 0.15	5					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 5	Boring Machine	Horizontal Boring Hydr. Jack	30		0 25%	S																					
1 L1	Barge Mobilization		1 05/03/23		Compressor, small	Compressor (air, less than or equal to 350 cfm)	10		0 40%	S																					
1 L1	Barge Mobilization		1 05/03/23		Compressor, large	Compressor (air, greater than 350 cfm)	11		0 40%	S																					
1 L1	Barge Mobilization		1 05/03/23		Concrete Pump	Concrete Pump Truck	14		0 20%	S																					
1 L1	Barge Mobilization		1 05/03/23		Concrete Saw, Walk Behind	Concrete Saw	15		0 20%	ŝ																					
1 L1	Barge Mobilization		1 05/03/23		Crane	Crane	16		1 16%	6	0.70	0.70	0.70	0.85	0.85 (0.85 1.0	0 1 00	1 00	0.45 0	45 0.49	0.30	0.30	0.30	0.15 0.1	5 0 15						
1 L1	Barge Mobilization		1 05/03/23			Impact Pile Driver	32		0 20%	5	0.70	0.70	0.70	0.00	0.00 (0.00 1.0	0 1.00	1.00	0.45 0	.45 0.40	0.50	0.50	0.00	0.10 0.1	0.10	,					
					Crane: Pile driving leads		57		0 20%																						
1 L1	Barge Mobilization		1 05/03/23		Crane: Vibratory Hammer	Vibratory Pile Driver	57			5																					
1 L1	Barge Mobilization		1 05/03/23		Crawler-type drill, 4"	Auger Drill Rig	2			5																					
1 L1	Barge Mobilization		1 05/03/23		Dump Truck	Dump Truck	20		0 40%	S																					
1 L1	Barge Mobilization		1 05/03/23		Forklift	Refrigerator Unit	41		0 100%	S																					
1 L1	Barge Mobilization		1 05/03/23		Front Loader	Front End Loader	24		0 40%	S																					
1 L1	Barge Mobilization		1 05/03/23		Gradall	Gradall	27		0 40%	S																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 18	Jackhammers, Pavement Breakers	Jackhammer	33		0 20%	D																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 19	Jumping Jacks	Compactor (ground)	9		0 20%	S																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 20	Pavement removal bucket	Scraper	46		0 40%	S																					
1 L1	Barge Mobilization	11/03/2	1 05/03/23	3 21	Pump, Centrif. water pump, 6"	Pumps	40		0 50%	S																					
1 L1	Barge Mobilization		1 05/03/23		Safety Boat, OSHA	Pickup Truck	38		1 40%	S	0.70	0.70	0.70	0.85	0.85 (0.85 1.0	0 1.00	1.00	0.45 0	.45 0.45	0.30	0.30	0.30	0.15 0.1	5 0.15	5					
1 L1	Barge Mobilization		1 05/03/23		Skidsteer	Tractor	51		0 40%	S																					
1 L1	Barge Mobilization		1 05/03/23		Tug boat	All Other Equipment > 5 HP	1		1 50%	s	0.70	0.70	0.70	0.85	0.85 (0.85 1.0	0 1.00	1.00	0.45 0	.45 0.45	0.30	0.30	0.30	0.15 0.1	5 0.15	5					
1 L1	Barge Mobilization		1 05/03/23		Vibratory Rollers	Roller	44		0 20%	S	1						_ 1.00		55		5.00										
2 L2	Wagner Park-Site		1 12/31/2		Auger Drill Rig	Auger Drill Rig	2	_	0 20%	5	1										-										+
2 L2	Wagner Park-Site		1 12/31/23		Backhoe	Backhoe	3		1 40%	s	0.70	0.70	0.70	0.70	0.95 (0.85 0.8	6 0.96	0.85	1 00 1	00 1.00	1.00	0.45	0.45	0.45 0.4	6 0.20	0.20	0.20	0.20 0.2	0 0 1 5	0.15 0.15	0.16
2 L2	Wagner Park-Site					Mounted Impact Hammer (Hoe Ram)	35		1 20%	5	0.70		1.00			1.00 0.8		0.05	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	0.15
	Wagner Park-Site		1 12/31/23 1 12/31/23		Backhoe: Hydraulic hammer attachment					0	0.70	0.65	1.00	1.00	1.00	1.00 0.8	5														
2 L2					Barge	Pickup Truck	38			5																					
2 L2	Wagner Park-Site		1 12/31/23		Boring Machine	Horizontal Boring Hydr. Jack	30		1 25%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	0.15
2 L2	Wagner Park-Site		1 12/31/23		Compressor, small	Compressor (air, less than or equal to 350 cfm)	10		0 40%	S																					
2 L2	Wagner Park-Site		1 12/31/23		Compressor, large	Compressor (air, greater than 350 cfm)	11		1 40%	S	0.70		0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00				0.45 0.4				0.30 0.3	0 0.15	0.15 0.15	5 0.15
2 L2	Wagner Park-Site		1 12/31/23		Concrete Pump	Concrete Pump Truck	14		1 20%	S	0.70		0.70	0.70	0.85 (0.85 0.8		0.85		.00 1.00				0.45 0.4			0.30	0.30 0.3		0.15 0.15	5 0.15
2 L2	Wagner Park-Site		1 12/31/23		Concrete Saw, Walk Behind	Concrete Saw	15		1 20%	S	0.70		0.70	0.70		0.85 0.8				.00 1.00				0.45 0.4				0.30 0.3		0.15 0.15	5 0.15
2 L2	Wagner Park-Site	11/03/2	1 12/31/23	3 10	Crane	Crane	16		1 16%	S	0.70		0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00				0.45 0.4					0 0.15	0.15 0.15	5 0.15
2 L2	Wagner Park-Site	11/03/2	1 12/31/23	3 11	Crane: Pile driving leads	Impact Pile Driver	32		1 20%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	5 0.15
2 L2	Wagner Park-Site	11/03/2	1 12/31/23	3 12	Crane: Vibratory Hammer	Vibratory Pile Driver	57		2 20%	S	1.40	1.40	1.40	1.40	1.70	1.70 1.7	0 1.70	1.70	2.00 2	.00 2.00	2.00	0.90	0.90	0.90 0.9	0.60	0.60	0.60	0.60 0.6	0.30	0.30 0.30	0.30
2 L2	Wagner Park-Site	11/03/2	1 12/31/23	3 13	Crawler-type drill, 4"	Auger Drill Rig	2		0 20%	S																					
2 L2	Wagner Park-Site	11/03/2	1 12/31/23	3 14	Dump Truck	Dump Truck	20		11 40%	S	7.70	7.70	7.70	7.70	9.35 9	9.35 9.3	5 9.35	9.35	11.00 1	1.00 11.0	0 11.00	4.95	4.95	4.95 4.9	5 3.30	3.30	3.30	3.30 3.3	0 1.65	1.65 1.65	5 1.65
2 L2	Wagner Park-Site	11/03/2	1 12/31/23	3 15	Forklift	Refrigerator Unit	41		1 100%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	5 0.15
2 L2	Wagner Park-Site		1 12/31/23		Front Loader	Front End Loader	24		1 40%	S	0.70	0.70		0.70		0.85 0.8		0.85		.00 1.00								0.30 0.3			
2 L2	Wagner Park-Site		1 12/31/23		Gradall	Gradall	27		0 40%	S																					
2 L2	Wagner Park-Site		1 12/31/23		Jackhammers, Pavement Breakers	Jackhammer	33		2 20%	D	1.40	1.70	2 00	2.00	2 00 2	2.00 1.7	0														
2 L2	Wagner Park-Site		1 12/31/2		Jumping Jacks	Compactor (ground)	9		2 20%	S	1.40		1.40					1.70	2 00 2	00 2.00	2.00	0.90	0.90	0.90 0.9	0.60	0.60	0.60	0.60 0.6	0 0.30	0.30 0.30	0.30
2 L2	Wagner Park-Site		1 12/31/2		Pavement removal bucket	Scraper	46		0 40%	ě	1.40	1.40	1.40	1.40	1.70	1.10 1.1	0 1.70	1.10	2.00 2	.00 2.00	2.00	0.00	0.00	0.00 0.0	0.00	0.00	0.00	0.00 0.0	0.00	0.00 0.00	0.00
2 L2	Wagner Park-Site		1 12/31/2		Pump, Centrif. water pump, 6"	Pumps	40		0 50%	°																					
							38		0 40%																						
2 L2	Wagner Park-Site		1 12/31/2		Safety Boat, OSHA	Pickup Truck	51			5	0.70	0.70	0.70	0.70	0.05			0.05	4.00		4.00	0.45	0.45				0.00		0.45	0.45 0.45	
2 L2	Wagner Park-Site		1 12/31/23		Skidsteer	Tractor			1 40%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	5 0.15
2 L2	Wagner Park-Site		1 12/31/23		Tug boat	All Other Equipment > 5 HP	1		0 50%	S																					
2 L2	Wagner Park-Site		1 12/31/23		Vibratory Rollers	Roller	44	_	1 20%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	0.15
3 L2	Museum of Jewish Heritage		1 12/31/23		Auger Drill Rig	Auger Drill Rig	2		0 20%	S																					
3 L2	Museum of Jewish Heritage		1 12/31/23		Backhoe	Backhoe	3		1 40%	S	0.70		0.70			0.85 0.8		0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	/ 0.15
3 L2	Museum of Jewish Heritage		1 12/31/23		Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35		1 20%	D	0.70	0.85	1.00	1.00	1.00	1.00 0.8	5														
3 L2	Museum of Jewish Heritage		1 12/31/23		Barge	Pickup Truck	38		0 40%	S																					
3 L2	Museum of Jewish Heritage	11/03/2	1 12/31/23	3 5	Boring Machine	Horizontal Boring Hydr. Jack	30		1 25%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	5 0.15
3 L2	Museum of Jewish Heritage	11/03/2	1 12/31/23	3 6	Compressor, small	Compressor (air, less than or equal to 350 cfm)	10		0 40%	S																					
3 L2	Museum of Jewish Heritage		1 12/31/23		Compressor, large	Compressor (air, greater than 350 cfm)	11		1 40%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	5 0.15
3 L2	Museum of Jewish Heritage		1 12/31/23		Concrete Pump	Concrete Pump Truck	14		1 20%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00			0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	5 0.15
3 L2	Museum of Jewish Heritage		1 12/31/23		Concrete Saw, Walk Behind	Concrete Saw	15		1 20%	s	0.70					0.85 0.8								0.45 0.4						0.15 0.15	0.15 ز
	Museum of Jewish Heritage		1 12/31/23			Crane	16		1 16%	S						0.85 0.8												0.30 0.3			
	Museum of Jewish Heritage		1 12/31/2		Crane: Pile driving leads	Impact Pile Driver	32		1 20%	S						0.85 0.8												0.30 0.3			
	Museum of Jewish Heritage		1 12/31/2			Vibratory Pile Driver	57		0 20%	S	1						- 0.00											0.00			5.10
3 L2	Museum of Jewish Heritage		1 12/31/2		Crawler-type drill, 4"	Auger Drill Rig	2		0 20%	0	1																				
3 L2 3 L2	Museum of Jewish Heritage					Dump Truck	20		0 20% 3.5 40%	0	2 45	2.45	2 45	2 /5	2 00 /	2.98 2.9	9 2.00	2.98	3.50 3	.50 3.50	3.50	1.58	1.58	1.58 1.5	8 1.05	5 1.05	1.05	1.05 1.0	5 0.53	0.53 0.53	3 0.53
			1 12/31/23			Refrigerator Unit	41		3.5 40% 1 100%	<u>с</u>	0.70					2.98 2.9 0.85 0.8				.50 3.50				1.58 1.5 0.45 0.4		0.30				0.53 0.53	
	Museum of Jewish Heritage		1 12/31/23							S																					
3 L2	Museum of Jewish Heritage		1 12/31/23		Front Loader	Front End Loader	24		1 40%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	o 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	0.30	0.30	0.30	0.30 0.3	U U.15	0.15 0.15	0.15
	Museum of Jewish Heritage		1 12/31/2		Gradall	Gradall	27		0 40%	S	1						-														
3 L2	Museum of Jewish Heritage		1 12/31/23		Jackhammers, Pavement Breakers	Jackhammer	33		2 20%	D						2.00 1.7		_													
	Museum of Jewish Heritage		1 12/31/23		Jumping Jacks	Compactor (ground)	9		2 20%	S	1.40	1.40	1.40	1.40	1.70	1.70 1.7	0 1.70	1.70	2.00 2	.00 2.00	2.00	0.90	0.90	0.90 0.9	0.60	0.60	0.60	0.60 0.6	0 0.30	0.30 0.30	/ 0.30
	Museum of Jewish Heritage		1 12/31/23		Pavement removal bucket	Scraper	46		0 40%	S																					
3 L2	Museum of Jewish Heritage	11/03/2	1 12/31/23	3 21	Pump, Centrif. water pump, 6"	Pumps	40		0 50%	S																					
3 L2	Museum of Jewish Heritage		1 12/31/23		Safety Boat, OSHA	Pickup Truck	38		0 40%	S																					
3 L2	Museum of Jewish Heritage		1 12/31/23		Skidsteer	Tractor	51		1 40%	S	0.70	0.70	0.70	0.70	0.85 (0.85 0.8	5 0.85	0.85	1.00 1	.00 1.00	1.00	0.45	0.45	0.45 0.4	5 0.30	0.30	0.30	0.30 0.3	0 0.15	0.15 0.15	0.15 ز
3 L2	Museum of Jewish Heritage		1 12/31/2		Tug boat	All Other Equipment > 5 HP	1		0 50%	S																					
3 L2	Museum of Jewish Heritage		1 12/31/2			Roller	44		1 20%	5	0.70	0.70	0.70	0.70	0.85	0.85 0.9	5 0.85	0.85	1 00 1	00 1.00	1.00	0.45	0.45	0 45 0 4	5 0 20	0.30	0.30	0.30 0.3	0 0 15	0.15 0.16	i 0.15
- LL		11/03/2	. 12/01/20						. 20/0	<u> </u>	0.10	0.10	0.70	0.10	0.00 (0.00	- 0.00	0.00			1.00	0.40	0.40	U.4 U.4		. 0.00	0.00	0.00 0.0	0.10	0.10	V.

Figure E.4: Construction Equipment Projections – Wagner Park-Pavilion, Pier A & The Battery

• · · · · · · ·		St	art]				CEQR	Max	CEQR	_	20)21					202	2									2	023			
Activity ID Package II	Work task		ate	End Date	Equip IC	D Equipment	CEQR Equivalent	ID	Qty	Usage	Туре			J-22	F-22	M-22 A-22	M-22			2 S-22	0-22	N-22	D-22	J-23 F	F-23 M	-23 A-2	23 M-2			A-23	S-23 O-23	N-23 D-
2	7		3	4		2	5	4	5			1	2	3	4	5 6	7	8	9 10	11	12	13	14	15	16	17 18	8 19	20	21	22	23 24	25 2
4 L3	Wagner Park-New Pavilio			12/31/23	1	Auger Drill Rig	Auger Drill Rig	2	0	20%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	2	Backhoe	Backhoe	3	1	40%	S	0.70	0.70	0.70	0.70	0.85 0.85	0.85	0.85	0.85 1.0	0 1.00	1.00	1.00	0.45	0.45 (0.45 0	.45 0.3	30 0.3	0 0.30	0.30	0.30	0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	3	Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35	0	20%	D																					
4 L3	Wagner Park-New Pavilio			12/31/23	4	Barge	Pickup Truck	38	0	40%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	5	Boring Machine	Horizontal Boring Hydr. Jack	30	1	25%	S	0.70	0.70	0.70	0.70	0.85 0.85	0.85	0.85	0.85 1.0	0 1.00	1.00	1.00	0.45	0.45 (0.45 0	.45 0.3	30 0.3	0 0.30	0.30	0.30	0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	6	Compressor, small	Compressor (air, less than or equal to 350 cfm)	10	0	40%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	7	Compressor, large	Compressor (air, greater than 350 cfm)	11	1	40%	S	0.70	0.70			0.85 0.85			0.85 1.0							.45 0.3					0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	8	Concrete Pump	Concrete Pump Truck	14	1	20%	S	0.70	0.70	0.70	0.70	0.85 0.85	0.85	0.85	0.85 1.0	0 1.00	1.00	1.00	0.45	0.45 (0.45 0	.45 0.3	30 0.3	0 0.30	0.30	0.30	0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	9	Concrete Saw, Walk Behind	Concrete Saw	15	0	20%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	10	Crane	Crane	16	1	16%	S	0.70	0.70		0.70	0.85 0.85			0.85 1.0							.45 0.3				0.30	0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	11	Crane: Pile driving leads	Impact Pile Driver	32	1	20%	S	0.70	0.70	0.70		0.85 0.85			0.85 1.0			1.00				.45 0.3					0.15 0.15	
4 L3	Wagner Park-New Pavilio			12/31/23	12	Crane: Vibratory Hammer	Vibratory Pile Driver	57	1	20%	S	0.70	0.70	0.70	0.70	0.85 0.85	0.85	0.85	0.85 1.0	0 1.00	1.00	1.00	0.45	0.45 (0.45 0	.45 0.3	30 0.3	0 0.30	0.30	0.30	0.15 0.15	0.15 0.
4 L3 4 L3	Wagner Park-New Pavilio			12/31/23 12/31/23	13	Crawler-type drill, 4"	Auger Drill Rig	2 20	0	20% 40%	5	5.60	5.60	5.60	5.60	6.80 6.80	6.80	6.80	6.80 8.0	0 8.00	8.00	8.00	3.60	3.60	3.60 3	.60 2.4		0 0 40	0.40	0.40	1 00 1 00	1.20 1.
	Wagner Park-New Pavilio				14	Dump Truck	Dump Truck	41	0	100%	5	0.70	0.70			0.85 0.85			0.80 8.0				0.45			.60 2.4		0 2.40 0 0.30			1.20 1.20 0.15 0.15	
4 L3	Wagner Park-New Pavilio			12/31/23	15	Forklift	Refrigerator Unit Front End Loader	24	1	40%	5	0.70		0.70					0.85 1.0				0.45		0.45 0 0.45 0		30 0.3 30 0.3					0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	16	Front Loader Gradall		24	1	40%	S	0.70	0.70	0.70	0.70	0.85 0.85	0.85	0.85	0.85 1.0	0 1.00	1.00	1.00	0.45	0.45 (0.45 0	.45 0.3	30 0.3	0 0.30	0.30	0.30	0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	17		Gradall		0		D																					
4 L3	Wagner Park-New Pavilio			12/31/23	18	Jackhammers, Pavement Breakers	Jackhammer	33	0	20%	D	1 4 40	4.40	4.40	4.40		4 70	4 70			0.00					~ ~ ~			0.00	0.00		
4 L3	Wagner Park-New Pavilio			12/31/23	19	Jumping Jacks	Compactor (ground)	9	2	20%	S	1.40	1.40	1.40	1.40	1.70 1.70	1.70	1.70	1.70 2.0	0 2.00	2.00	2.00	0.90	0.90 (0.90 0	.90 0.6	50 0.6	0 0.60	0.60	0.60	0.30 0.30	0.30 0.
4 L3	Wagner Park-New Pavilio			12/31/23	20	Pavement removal bucket	Scraper	46	0	40%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	21	Pump, Centrif. water pump, 6"	Pumps	40	0	50%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	22	Safety Boat, OSHA	Pickup Truck	38	0	40%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	23	Skidsteer	Tractor	51	1	40%	S	0.70	0.70	0.70	0.70	0.85 0.85	0.85	0.85	0.85 1.0	0 1.00	1.00	1.00	0.45	0.45 (0.45 0	.45 0.3	30 0.3	0 0.30	0.30	0.30	0.15 0.15	0.15 0.
4 L3	Wagner Park-New Pavilio			12/31/23	24	Tug boat	All Other Equipment > 5 HP	1	0	50%	S																					
4 L3	Wagner Park-New Pavilio			12/31/23	25	Vibratory Rollers	Roller	44	0	20%	S																					
5 L4	Pier A Plaza			06/30/23	1	Auger Drill Rig	Auger Drill Rig	2	0	20%	S																					
5 L4	Pier A Plaza			06/30/23	2	Backhoe	Backhoe	3	1	40%	S			0.70		0.85 0.85		1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0	03/21	06/30/23	3	Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35	1	20%	D	0.70	0.85	1.00	1.00	1.00 1.00	0.85															
5 L4	Pier A Plaza	11/0)3/21	06/30/23	4	Barge	Pickup Truck	38	0	40%	S																					
5 L4	Pier A Plaza	11/0	03/21	06/30/23	5	Boring Machine	Horizontal Boring Hydr. Jack	30	1	25%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0)3/21	06/30/23	6	Compressor, small	Compressor (air, less than or equal to 350 cfm)	10	0	40%	S																					
5 L4	Pier A Plaza	11/0)3/21	06/30/23	7	Compressor, large	Compressor (air, greater than 350 cfm)	11	1	40%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0)3/21	06/30/23	8	Concrete Pump	Concrete Pump Truck	14	1	20%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0)3/21	06/30/23	9	Concrete Saw, Walk Behind	Concrete Saw	15	1	20%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0	03/21	06/30/23	10	Crane	Crane	16	1	16%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0	03/21	06/30/23	11	Crane: Pile driving leads	Impact Pile Driver	32	1	20%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza	11/0	03/21	06/30/23	12	Crane: Vibratory Hammer	Vibratory Pile Driver	57	1	20%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
5 L4	Pier A Plaza			06/30/23	13	Crawler-type drill, 4"	Auger Drill Rig	2	0	20%	S																					
5 L4	Pier A Plaza			06/30/23	14	Dump Truck	Dump Truck	20	3	40%	S	2.10	2.10	2.10	2.55	2.55 2.55	2.55	3.00	3.00 3.0	0 1.35	1.35	1.35	0.90	0.90 (0.90 0	.90 0.4	45 0.4	5 0.45				
5 L4	Pier A Plaza			06/30/23	15	Forklift	Refrigerator Unit	41	1	100%	S	0.70	0.70			0.85 0.85			1.00 1.0							.30 0.1		5 0.15				
5 L4	Pier A Plaza			06/30/23	16	Front Loader	Front End Loader	24	1	40%	S	0.70		0.70					1.00 1.0									5 0.15				
5 L4	Pier A Plaza			06/30/23	17	Gradall	Gradall	27	0	40%	S			00	0.00	0.00	0.00															
5 L4	Pier A Plaza			06/30/23	18	Jackhammers, Pavement Breakers	Jackhammer	33	2	20%	D	1 40	1 70	2.00	2 00	2.00 2.00	1 70															
5 L4	Pier A Plaza			06/30/23	19	Jumping Jacks	Compactor (ground)	9	2	20%	S	1.40	1.40				1.70	2.00	2.00 2.0	0 0.90	0.90	0.90	0.60	0.60 (0.60 0	.60 0.3	30 0 3	0 0.30				
5 L4	Pier A Plaza			06/30/23	20	Pavement removal bucket	Scraper	46	0	40%	s	1.40	1.40	1.40	1.70	1.70 1.70	1.70	2.00	2.00 2.0	0 0.50	0.00	0.00	0.00	0.00	0.00 0	.00 0.0	0.0	0 0.00				
5 L4	Pier A Plaza			06/30/23	21	Pump, Centrif, water pump, 6"	Pumps	40	0	50%	s																					
5 L4	Pier A Plaza			06/30/23	22	Safety Boat, OSHA	Pickup Truck	38	0	40%	0																					
5 L4	Pier A Plaza			06/30/23	23	Skidsteer	Tractor	51	1	40%	6	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 0	0 30 0	.30 0.1	15 0 1	5 0.15				
5 L4	Pier A Plaza			06/30/23	24	Tug boat	All Other Equipment > 5 HP	1	0	50%	0	0.70	0.70	0.70	0.85	0.85 0.85	0.00	1.00	1.00 1.0	0 0.45	0.45	0.45	0.50	0.30 (0.30 0	.30 0.	15 0.1	5 0.15				
5 L4	Pier A Plaza			06/30/23	24	Vibratory Rollers	Roller	44	1	20%	S	0.70	0.70	0.70	0.95	0.85 0.85	0.95	1.00	1 00 1 0	0 0 45	0.45	0.45	0.20	0.20 /	0 20 0	20 0 1	15 0 1	E 0.1E				
					25						3	0.70	0.70	0.70	0.65	0.65 0.65	0.65	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.	15 0.1	5 0.15				
6 L4	The Battery			06/30/23	1	Auger Drill Rig	Auger Drill Rig Backhoe	2	0	20%	5	0.70	0.70	0.70	0.95	0.95 0.05	0.95	1.00	1 00 1 0	0 0.45	0.45	0.45	0.20	0.20	0 20 0	20 0	15 0 1	5 0 45				
6 L4	The Battery			06/30/23	4	Backhoe Backhoe: Hydraulia hemmer ettechment		-	1	40%	5			1.00		0.85 0.85		1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	10 0.1	5 0.15				
6 L4	The Battery			06/30/23	3	Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35	1		D	0.70	0.85	1.00	1.00	1.00 1.00	0.85															
6 L4	The Battery			06/30/23	4	Barge	Pickup Truck	38	0	40%	S	0.70	0.70	0.70	0.05	0.05 0.05	0.05	1.00	1 00 1 5	0 0 4-	0.45	0.45	0.00	0.00		20 0		E 0.4-				
6 L4	The Battery			06/30/23	5	Boring Machine	Horizontal Boring Hydr. Jack	30	1	25%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	U 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	o 0.15				
6 L4	The Battery			06/30/23	6	Compressor, small	Compressor (air, less than or equal to 350 cfm)	10	0	40%	S	0	0.70	0	0.07		0.07	4.00	4 00 4 7		0.17	0.45										
6 L4	The Battery			06/30/23	7	Compressor, large	Compressor (air, greater than 350 cfm)	11	1	40%	S	0.70				0.85 0.85												5 0.15				
6 L4	The Battery			06/30/23	8	Concrete Pump	Concrete Pump Truck	14	1	20%	S	0.70		0.70			0.85		1.00 1.0			0.45		0.30 (.30 0.1		5 0.15				
6 L4	The Battery			06/30/23	9	Concrete Saw, Walk Behind	Concrete Saw	15	1	20%	S	0.70				0.85 0.85												5 0.15				
6 L4	The Battery			06/30/23	10	Crane	Crane	16	1	16%	S	0.70				0.85 0.85												5 0.15				
6 L4	The Battery			06/30/23	11	Crane: Pile driving leads	Impact Pile Driver	32	1	20%	S					0.85 0.85																
6 L4	The Battery			06/30/23			Vibratory Pile Driver	57	1	20%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
6 L4	The Battery			06/30/23		Crawler-type drill, 4"	Auger Drill Rig	2	0	20%	S						_															
6 L4	The Battery			06/30/23		Dump Truck	Dump Truck	20	4	40%	S	2.80				3.40 3.40				0 1.80						.20 0.6		0 0.60				
6 L4	The Battery			06/30/23		Forklift	Refrigerator Unit	41	1	100%	S					0.85 0.85																
6 L4	The Battery			06/30/23		Front Loader	Front End Loader	24	1	40%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
6 L4	The Battery			06/30/23	17	Gradall	Gradall	27	0	40%	S																					
6 L4	The Battery	11/0	03/21	06/30/23	18	Jackhammers, Pavement Breakers	Jackhammer	33	2	20%	D					2.00 2.00																
6 L4	The Battery	11/0	03/21	06/30/23	19	Jumping Jacks	Compactor (ground)	9	2	20%	S	1.40	1.40	1.40	1.70	1.70 1.70	1.70	2.00	2.00 2.0	0 0.90	0.90	0.90	0.60	0.60 (0.60 0	.60 0.3	30 0.3	0 0.30				
6 L4	The Battery			06/30/23	20	Pavement removal bucket	Scraper	46	0	40%	S																					
6 L4	The Battery			06/30/23	21	Pump, Centrif. water pump, 6"	Pumps	40	0	50%	S																					
6 L4	The Battery			06/30/23	22	Safety Boat, OSHA	Pickup Truck	38	0	40%	S																					
6 L4	The Battery			06/30/23	23	Skidsteer	Tractor	51	1	40%	S	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1.00 1.0	0 0.45	0.45	0.45	0.30	0.30 (0.30 0	.30 0.1	15 0.1	5 0.15				
6 L4	The Battery			06/30/23	24	Tug boat	All Other Equipment > 5 HP	1	0	50%	S																					
	The Battery			06/30/23			Roller	44	-	20%	č	0.70	0.70	0.70	0.85	0.85 0.85	0.85	1.00	1 00 1 0	0 0 45	0.45	0.45	0.20	0.00	0 20 0	20 07	15 04	E 0.1E				
6 L4																																

Figure E.5: Construction Equipment Projections – Tidegate and Near Surface Isolation

Activity	ackage	Vork task	Start	En	I Eq	uip	Equipment	CEQR Equivalent		Max	CEQR		SPL	2021							2022											2	2023				
ID Í	<u></u>	TOIK (ask	Date	Dat		D	Equipment		ID	. Qty	Usage	rgpe	50	N-21 [D-21	J-22	F-22	M-22 A	λ-22 Μ	-22 J-	-22 J-	22 A	1-22	S-22 C	-22 N	22 D-	22	J-23 F	-23	M-23 A	-23 M-2	23 J-23	3 J-23	A-23	S-23 0	-23 N	,-23 D
	2	4	5	6			2	2	4	5	3		4	<i>1K</i>	17	10	19	29	29 - 1	2 2	23 2	ν	25	24	57 2	72 2	Υ.	30	39	32 3	22 - 2V	- 35	- 36	37	310	39 6	19 V
9	L5	Tidegate	12/03/21			1	Auger Drill Rig	Auger Drill Rig	2	1	20%		85					0.85			.45 0.				.15 0												
9	L5	Tidegate	12/03/21				Backhoe	Backhoe	3	1	40%		80	1	0.70	0.70	0.85	0.85	1.00 1.	00 0.	.45 0.	45 0	0.30	0.30 0	.15 0	.15											
9	L5	Tidegate	12/03/21				Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35	0	20%		90																								
9	L5	Tidegate	12/03/21				Barge	Pickup Truck	38	0	40%		55																								
9	L5	Tidegate	12/03/21				Boring Machine	Horizontal Boring Hydr. Jack	30	0	25%		80																								
9	L5	Tidegate	12/03/21				Compressor, small	Compressor (air, less than or equal to 350 cfm)		1	40%		75								.45 0.				.15 0												
9	L5	Tidegate	12/03/21	12/02	22	7	Compressor, large	Compressor (air, greater than 350 cfm)	11	1	40%		80		0.70	0.70	0.85	0.85	1.00 1.	00 0.	.45 0.	45 0	0.30	0.30 0	.15 0	15											
9	L5	Tidegate	12/03/21			8	Concrete Pump	Concrete Pump Truck	14	0	20%		82																								
9	L5	Tidegate	12/03/21			9	Concrete Saw, Walk Behind	Concrete Saw	15	0	20%	S	90																								
9	L5	Tidegate	12/03/21				Crane	Crane	16	0	16%	S	85																								
9	L5	Tidegate	12/03/21				Crane: Pile driving leads	Impact Pile Driver	32	0	20%		95																								
9	L5	Tidegate	12/03/21				Crane: Vibratory Hammer	Vibratory Pile Driver	57	0	20%	S	95																								
9	L5	Tidegate	12/03/21				Crawler-type drill, 4"	Auger Drill Rig	2	1	20%	S	85												.15 0												
9	L5	Tidegate	12/03/21	12/02			Dump Truck	Dump Truck	20	1	40%		84		0.70	0.70	0.85	0.85	1.00 1.	00 0.	.45 0.	45 0	0.30	0.30 0	.15 0	15											
9	L5	Tidegate	12/03/21	12/02	22		Forklift	Refrigerator Unit	41	0	100%		82																								
9	L5	Tidegate	12/03/21	12/02	22		Front Loader	Front End Loader	24	1	40%		80	1	0.70	0.70	0.85	0.85	1.00 1.	00 0.	.45 0.	45 0	0.30	0.30 0	.15 0	.15											
9	L5	Tidegate	12/03/21	12/02	22	17	Gradall	Gradall	27	0	40%		85																								
9	L5	Tidegate	12/03/21	12/02	22	18	Jackhammers, Pavement Breakers	Jackhammer	33	0	20%		85																								
9	L5	Tidegate	12/03/21				Jumping Jacks	Compactor (ground)	9	1	20%		80		0.70	0.70	0.85	0.85	1.00 1.	00 0.	.45 0.	45 0	0.30	0.30 0	.15 0	15											
9	L5	Tidegate	12/03/21				Pavement removal bucket	Scraper	46	0	40%		85																								
9	L5	Tidegate	12/03/21	12/02	22 3	21	Pump, Centrif. water pump, 6"	Pumps	40	1	50%		77		0.70	0.70	0.85	0.85	1.00 1.	00 0.	.45 0.	45 0	0.30	0.30 0	.15 0	15											
9	L5	Tidegate	12/03/21	12/02			Safety Boat, OSHA	Pickup Truck	38	0	40%		55																								
9	L5	Tidegate	12/03/21	12/02	22 2	23	Skidsteer	Tractor	51	0	40%		84																								
9	L5	Tidegate	12/03/21			24	Tug boat	All Other Equipment > 5 HP	1	0	50%		85																								
9	L5	Tidegate	12/03/21			25	Vibratory Rollers	Roller	44	0	20%	S	85																								
10	0	Near Surface Isolation	06/03/22			1	Auger Drill Rig	Auger Drill Rig	2	1	20%		85																								
10	0	Near Surface Isolation	06/03/22				Backhoe	Backhoe	3	1	40%		80							0.	.70 0.	85 1	1.00	1.00 0	.85 0.	45											
10	0	Near Surface Isolation	06/03/22				Backhoe: Hydraulic hammer attachment	Mounted Impact Hammer (Hoe Ram)	35	0	20%		90																								
10	0	Near Surface Isolation	06/03/22				Barge	Pickup Truck	38	0	40%		55																								
10	0	Near Surface Isolation	06/03/22				Boring Machine	Horizontal Boring Hydr. Jack	30	0	25%		80																								
10	0	Near Surface Isolation	06/03/22			6	Compressor, small	Compressor (air, less than or equal to 350 cfm)	10	1	40%		75							0.	.70 0.	85 1	1.00	1.00 0	.85 0.	45											
10	0	Near Surface Isolation	06/03/22			7	Compressor, large	Compressor (air, greater than 350 cfm)	11	1	40%		80																								
10	0	Near Surface Isolation	06/03/22				Concrete Pump	Concrete Pump Truck	14	0	20%		82																								
10	0	Near Surface Isolation	06/03/22			9	Concrete Saw, Walk Behind	Concrete Saw	15	0	20%	S	90							0.	.70 0.	85 1	1.00	1.00 0	.85 0.	45											
10	0	Near Surface Isolation	06/03/22				Crane	Crane	16	0	16%	S	85																								
10	0	Near Surface Isolation	06/03/22				Crane: Pile driving leads	Impact Pile Driver	32	0	20%	S	95																								
10	0	Near Surface Isolation	06/03/22				Crane: Vibratory Hammer	Vibratory Pile Driver	57	0	20%	S	95																								
10	0	Near Surface Isolation	06/03/22				Crawler-type drill, 4"	Auger Drill Rig	2	1	20%	S	85																								
10	0	Near Surface Isolation	06/03/22				Dump Truck	Dump Truck	20	1	40%	S	84							0.	.70 0.	85 1	1.00	1.00 0	.85 0.	45											
10	0	Near Surface Isolation	06/03/22					Refrigerator Unit	41	0	100%	S	82																								
10	0	Near Surface Isolation	06/03/22				Front Loader	Front End Loader	24	1	40%	S	80								.70 0.				.85 0.												
10	0	Near Surface Isolation	06/03/22	2 12/02	22	17	Gradall	Gradall	27	0	40%		85							0.	.70 0.	85 1	1.00	1.00 0	.85 0.	45											
10	0	Near Surface Isolation	06/03/22			18	Jackhammers, Pavement Breakers	Jackhammer	33	0	20%		85																								
10	0	Near Surface Isolation	06/03/22				Jumping Jacks	Compactor (ground)	9	1	20%		80																								
10	0	Near Surface Isolation	06/03/22				Pavement removal bucket	Scraper	46	0	40%		85																								
10	0	Near Surface Isolation	06/03/22				Pump, Centrif. water pump, 6"	Pumps	40	1	50%		77							0.	.70 0.	85 1	1.00	1.00 0	.85 0.	45											
10	0	Near Surface Isolation	06/03/22					Pickup Truck	38	0	40%		55																								
10	0	Near Surface Isolation	06/03/22	2 12/02	22 2	23	Skidsteer	Tractor	51	0	40%		84																								
10	0	Near Surface Isolation	06/03/22	2 12/02	22 2	24	Tug boat	All Other Equipment > 5 HP	1	0	50%	S	85																								
10	0	Near Surface Isolation	06/03/22	2 12/02	22 2	25	Vibratory Rollers	Roller	44	0	20%	S	85																								