



DRAFT ENVIRONMENTAL IMPACT STATEMENT AND DRAFT SECTION 4(f) EVALUATION

APPENDIX 5

Transportation

5-1: Traffic and Pedestrian Volumes

5-2: Intersection Level of Service Summary Tables



DRAFT ENVIRONMENTAL IMPACT STATEMENT AND DRAFT SECTION 4(f) EVALUATION

APPENDIX 5-1

Traffic and Pedestrian Volumes

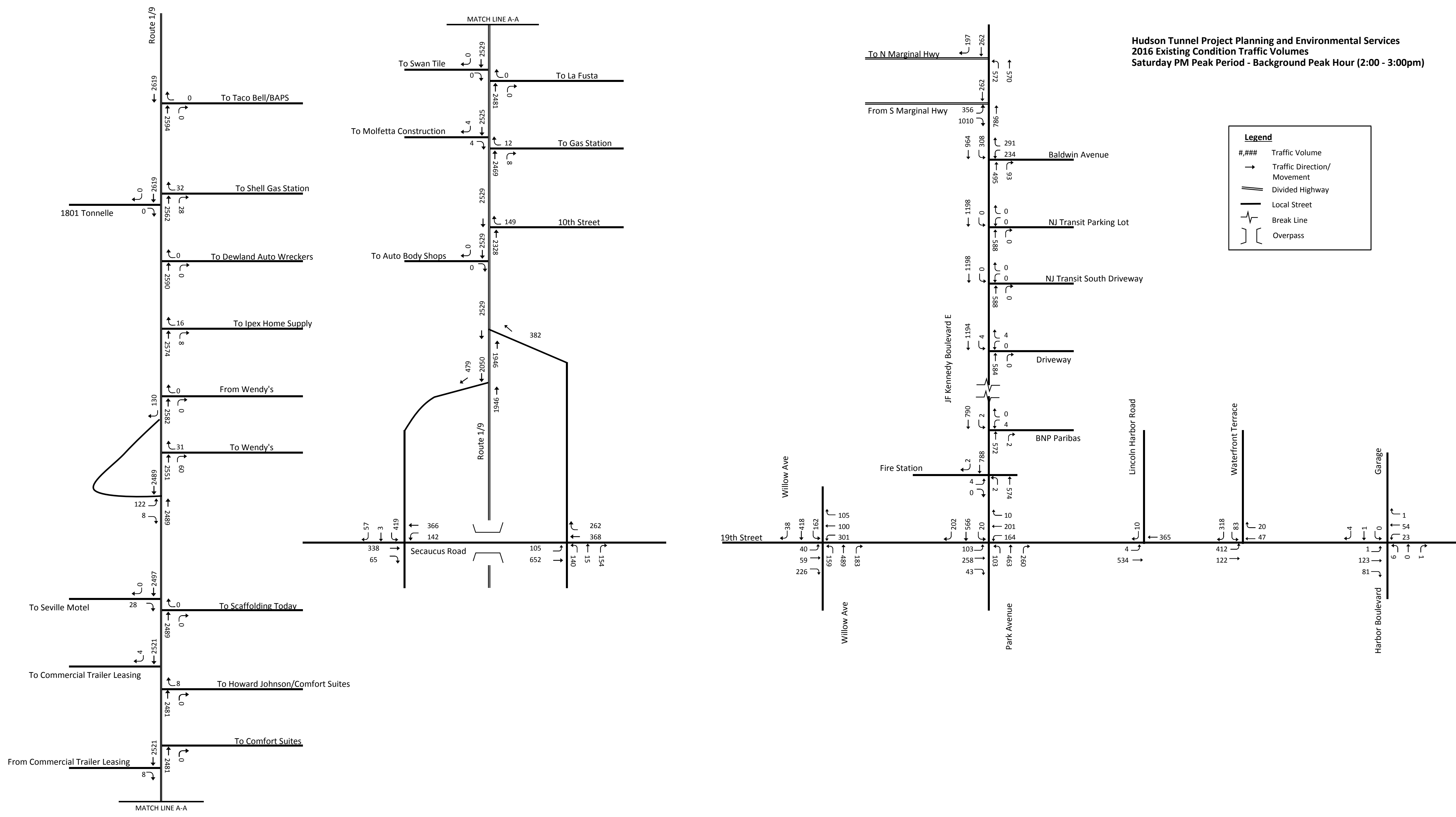
Traffic Flow Maps:
New Jersey—Saturday PM Peak Hour—
Background Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Saturday PM Peak Period - Background Peak Hour (2:00 - 3:00pm)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

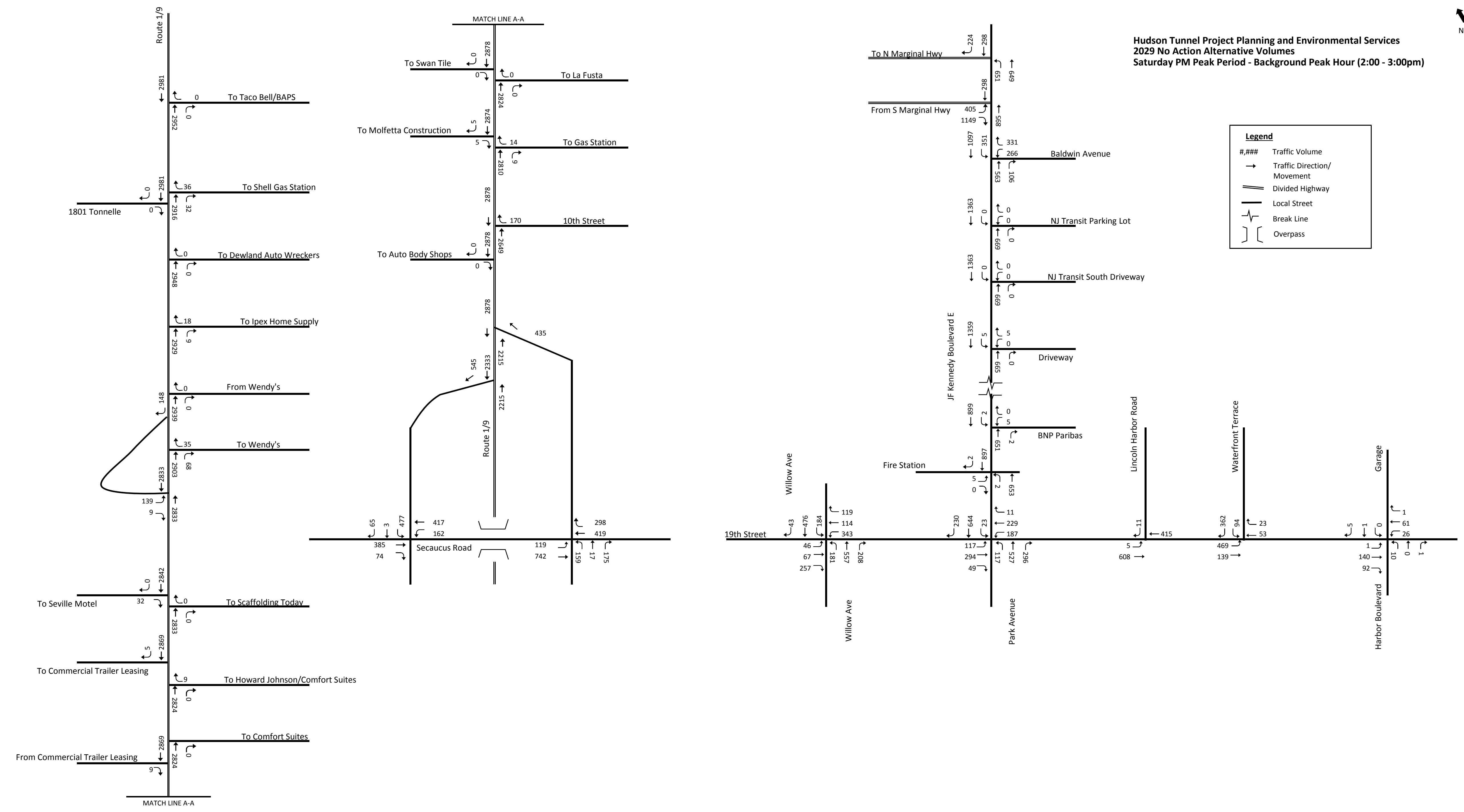


Hudson Tunnel Project Planning and Environmental Services
 2029 No Action Alternative Volumes
 Saturday PM Peak Period - Background Peak Hour (2:00 - 3:00pm)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

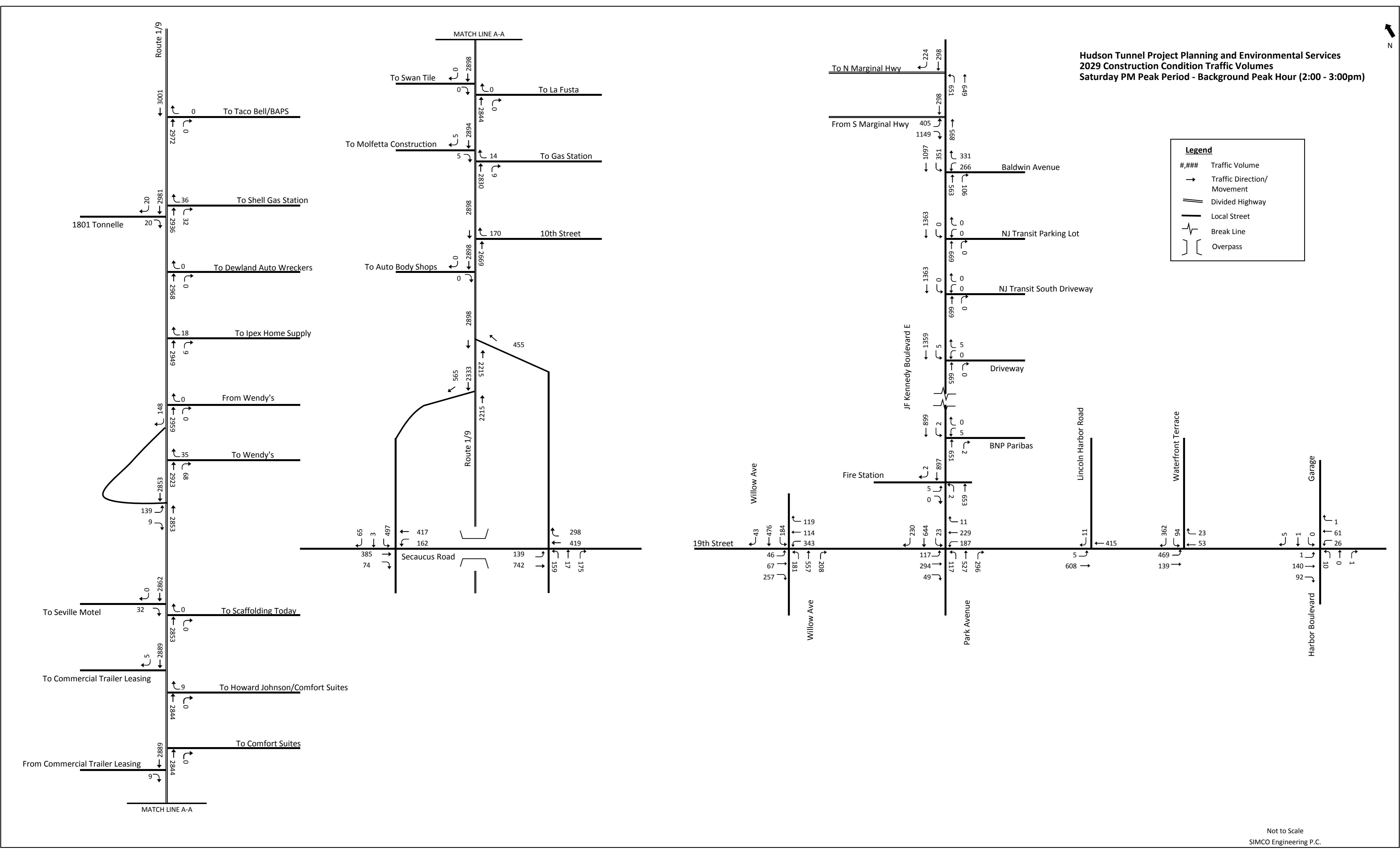




Hudson Tunnel Project Planning and Environmental Services
2029 Construction Condition Traffic Volumes
Saturday PM Peak Period - Background Peak Hour (2:00 - 3:00pm)

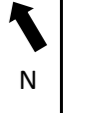
Legend

- ### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ⋈ Break Line
- { } Overpass



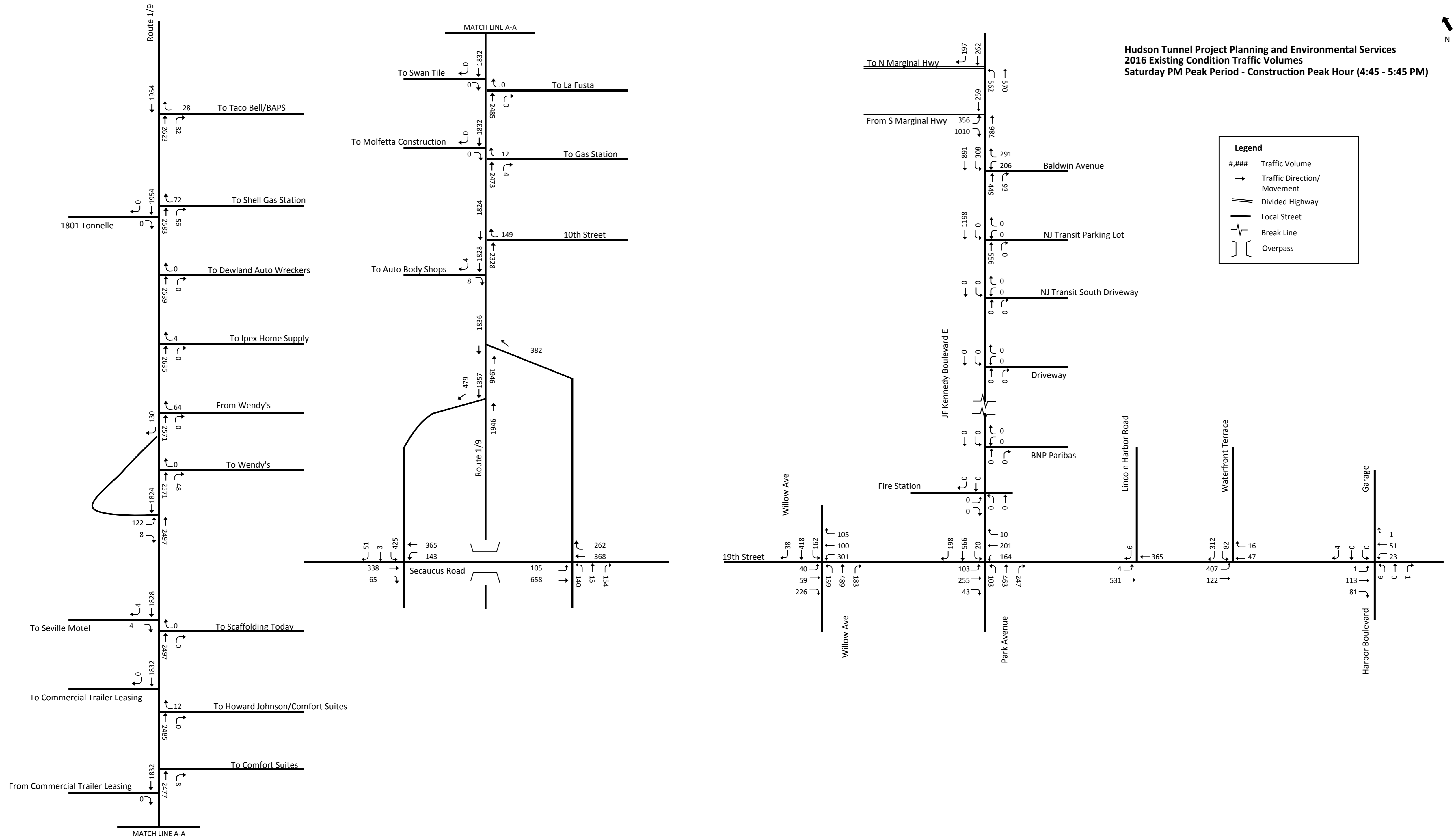
Traffic Flow Maps:
New Jersey—Saturday PM Peak Hour—
Construction Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Saturday PM Peak Period - Construction Peak Hour (4:45 - 5:45 PM)

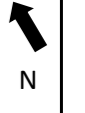


Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- == Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

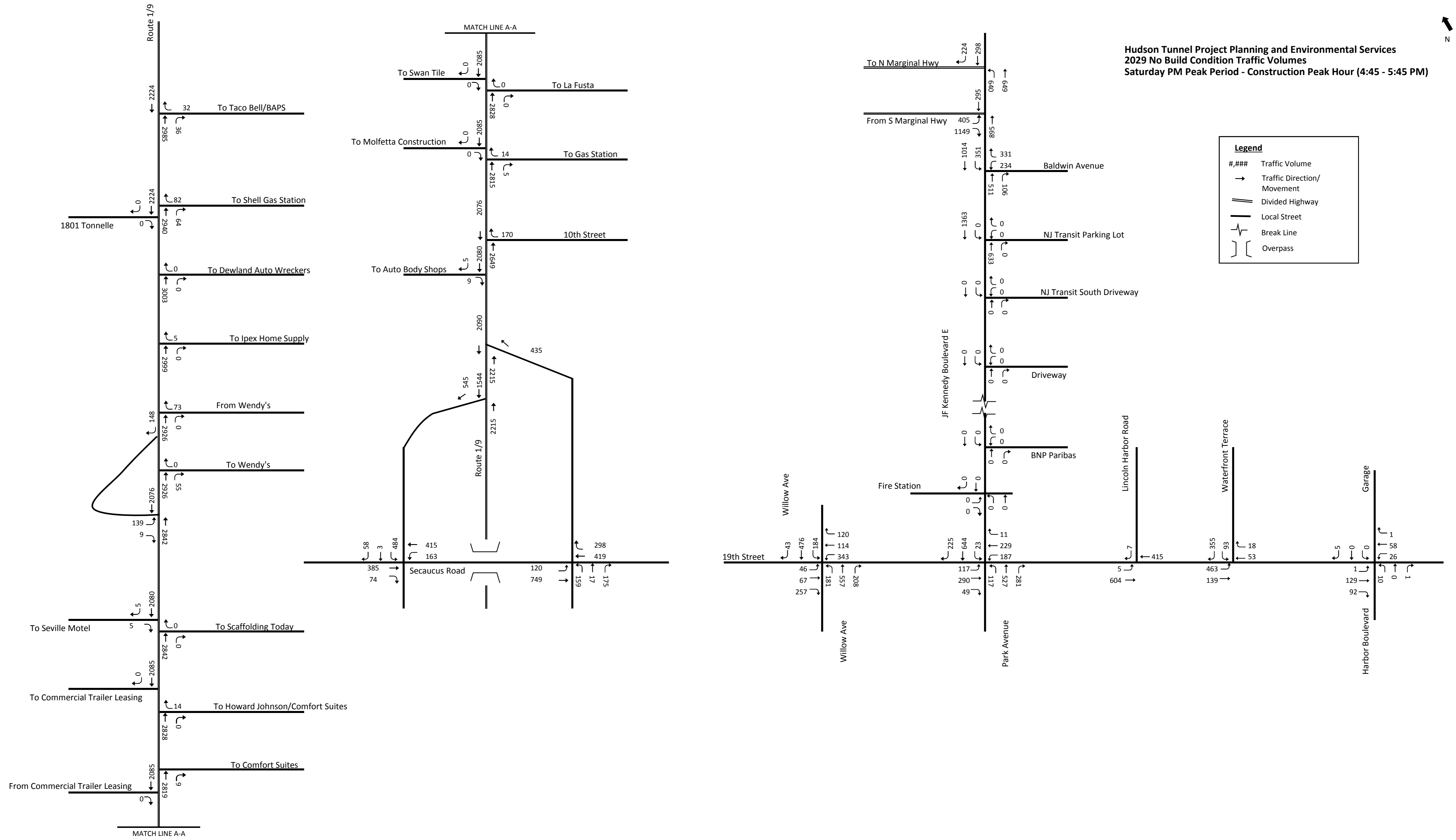


Hudson Tunnel Project Planning and Environmental Services
 2029 No Build Condition Traffic Volumes
 Saturday PM Peak Period - Construction Peak Hour (4:45 - 5:45 PM)

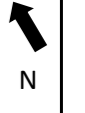


Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

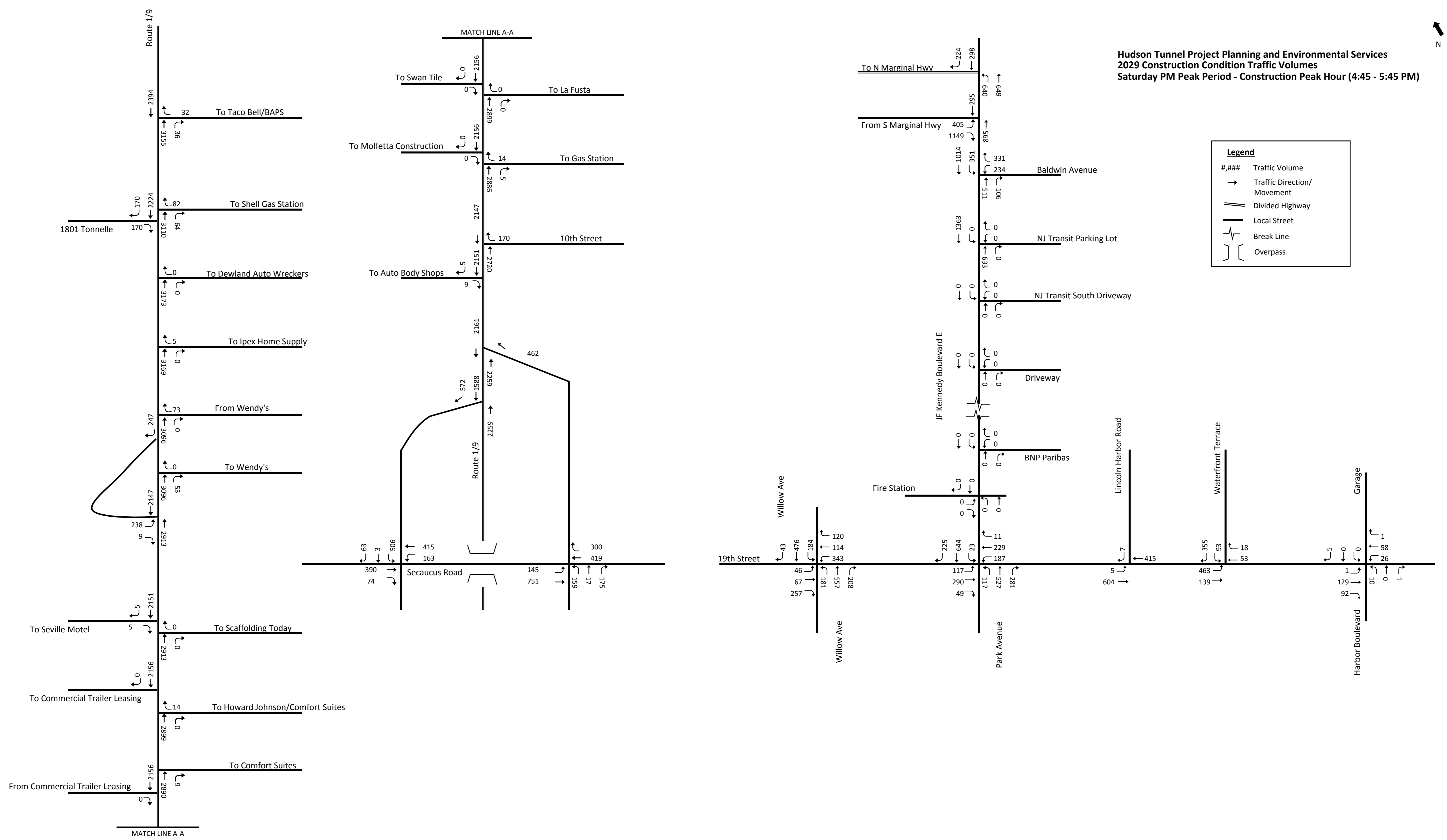


Hudson Tunnel Project Planning and Environmental Services
 2029 Construction Condition Traffic Volumes
 Saturday PM Peak Period - Construction Peak Hour (4:45 - 5:45 PM)



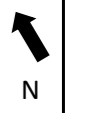
Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



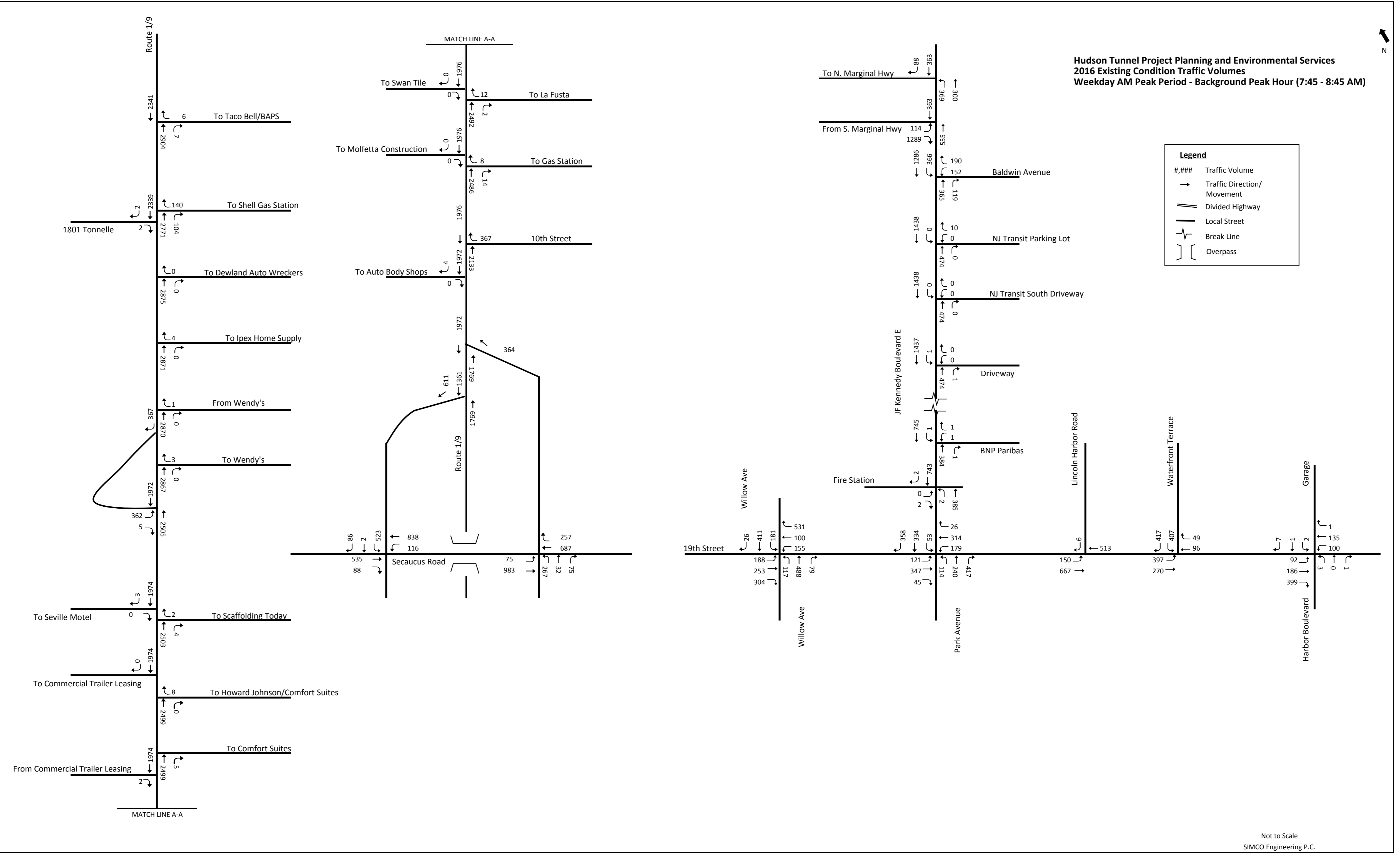
Traffic Flow Maps:
New Jersey—Weekday AM Peak Hour—
Background Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

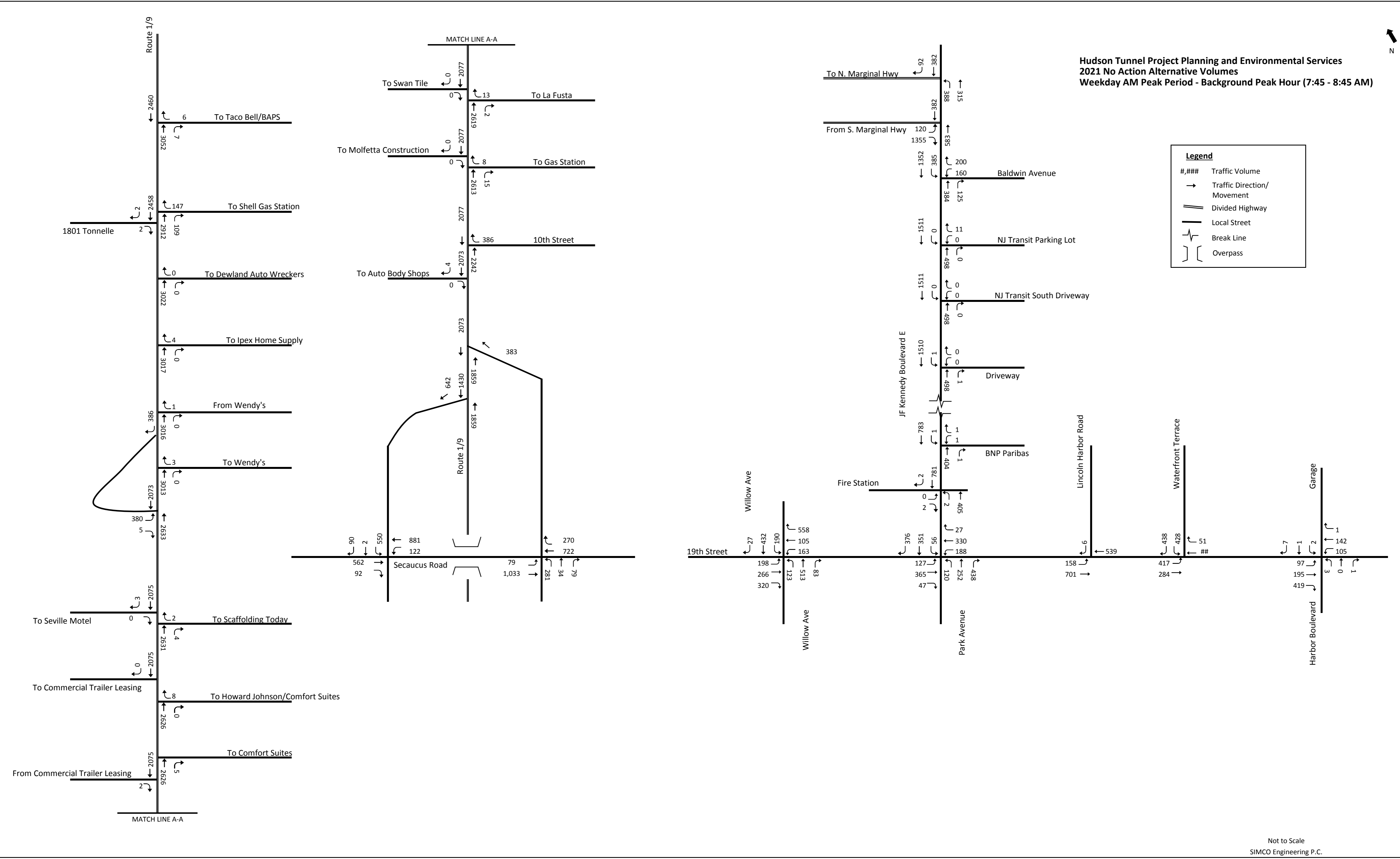




Hudson Tunnel Project Planning and Environmental Services
2021 No Action Alternative Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- == Divided Highway
- Local Street
- - - Break Line
- { } Overpass

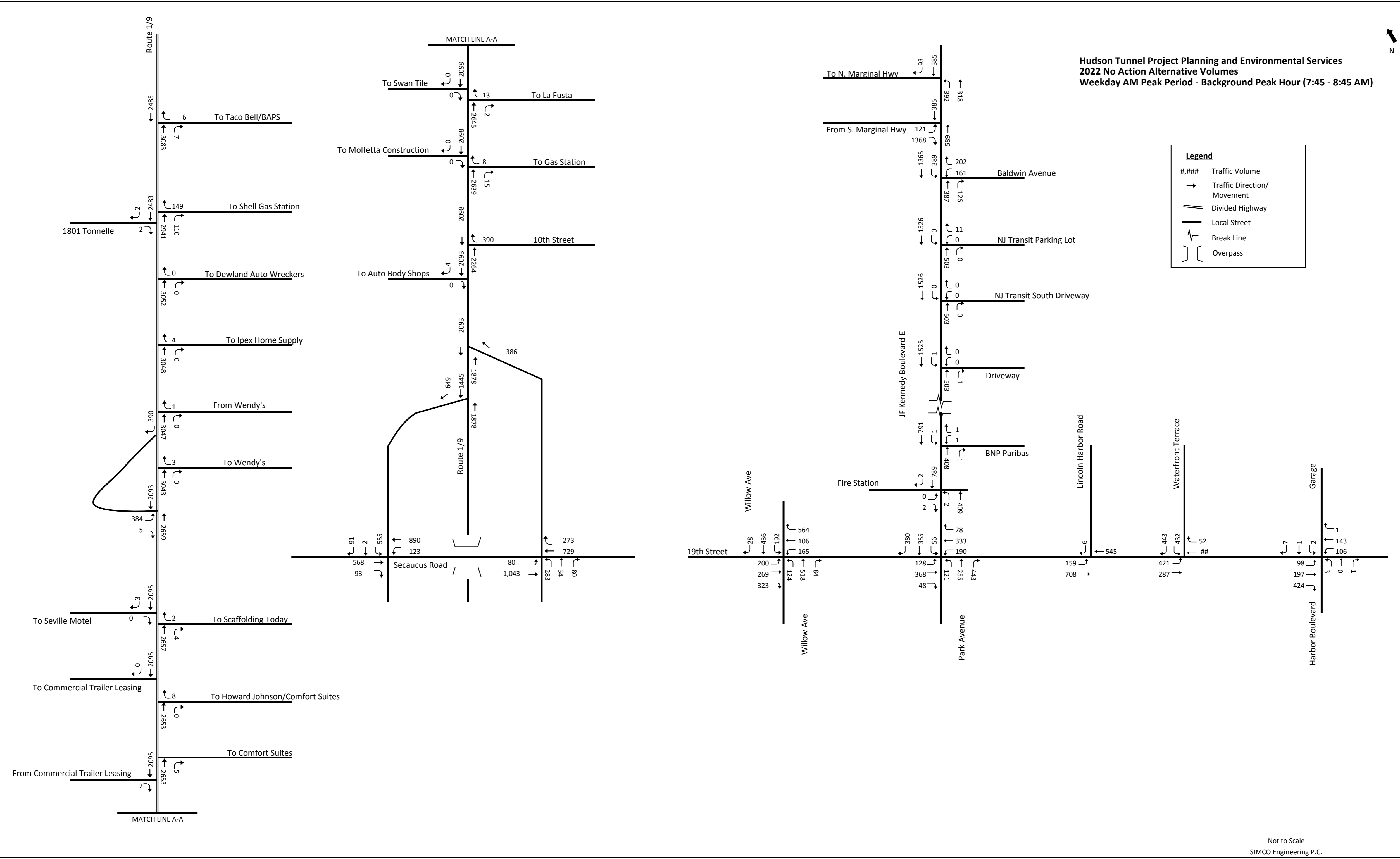




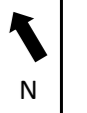
Hudson Tunnel Project Planning and Environmental Services
2022 No Action Alternative Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

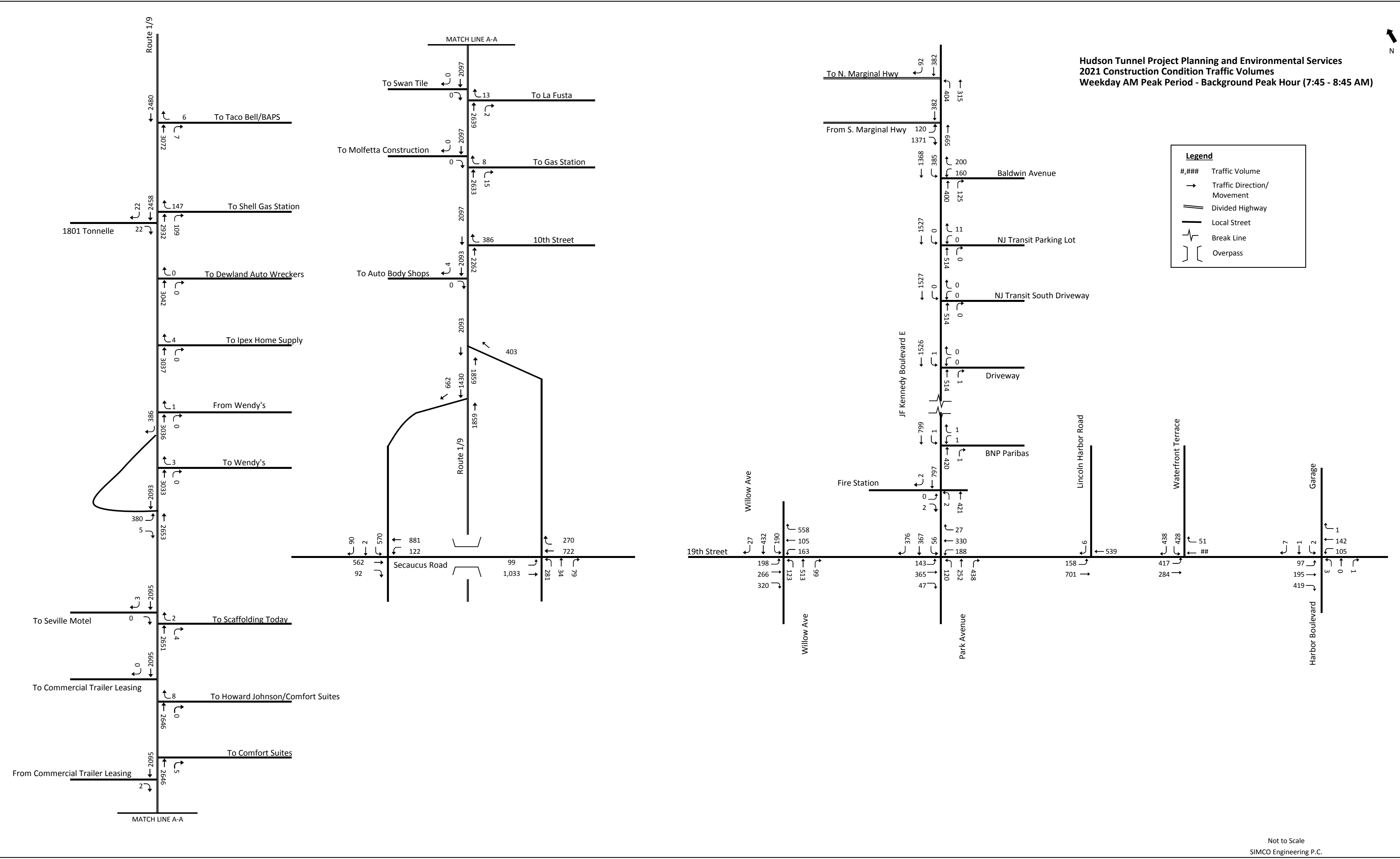


Hudson Tunnel Project Planning and Environmental Services
 2021 Construction Condition Traffic Volumes
 Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- == Divided Highway
- Local Street
- - - Break Line
- { } Overpass

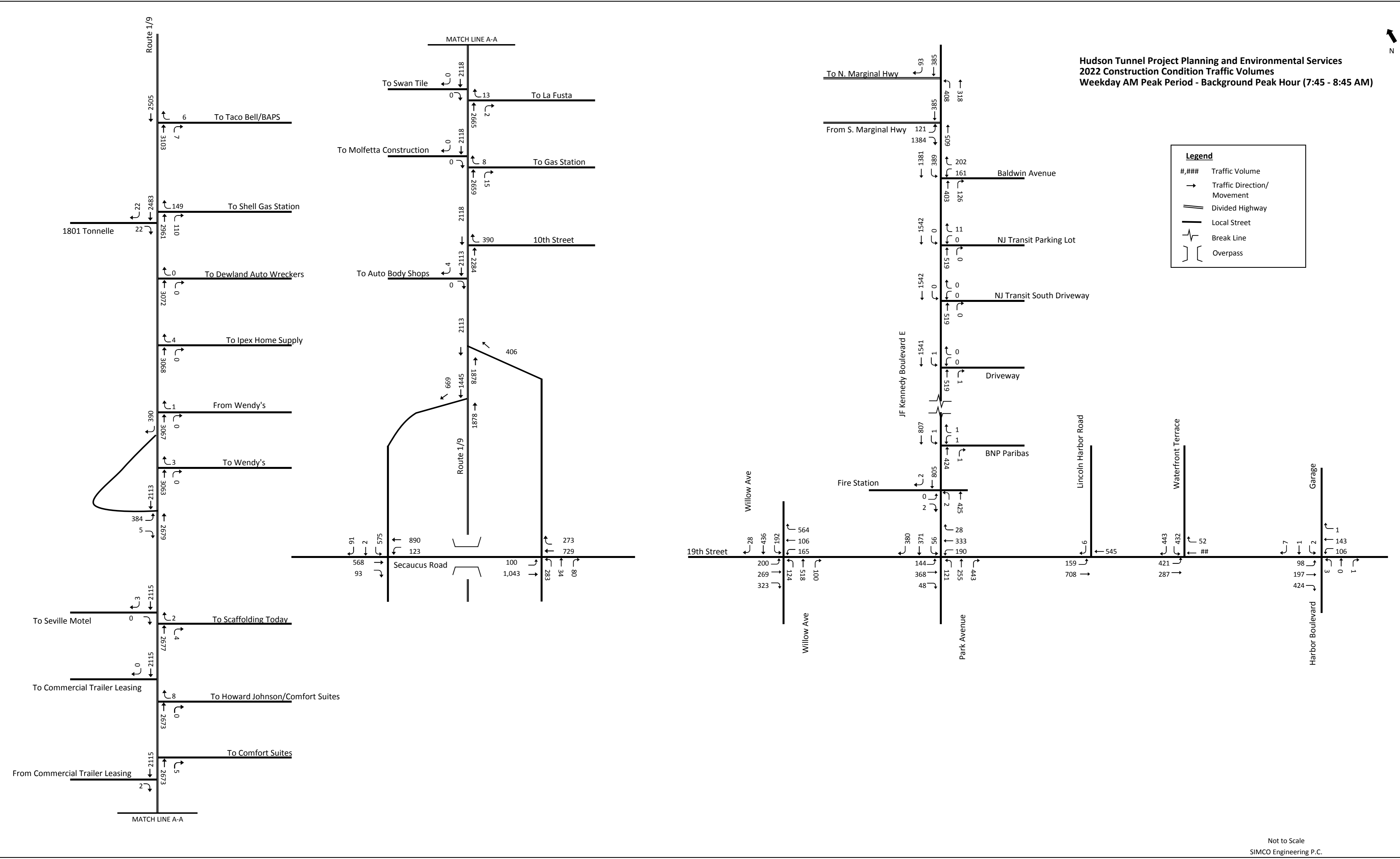




Hudson Tunnel Project Planning and Environmental Services
2022 Construction Condition Traffic Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



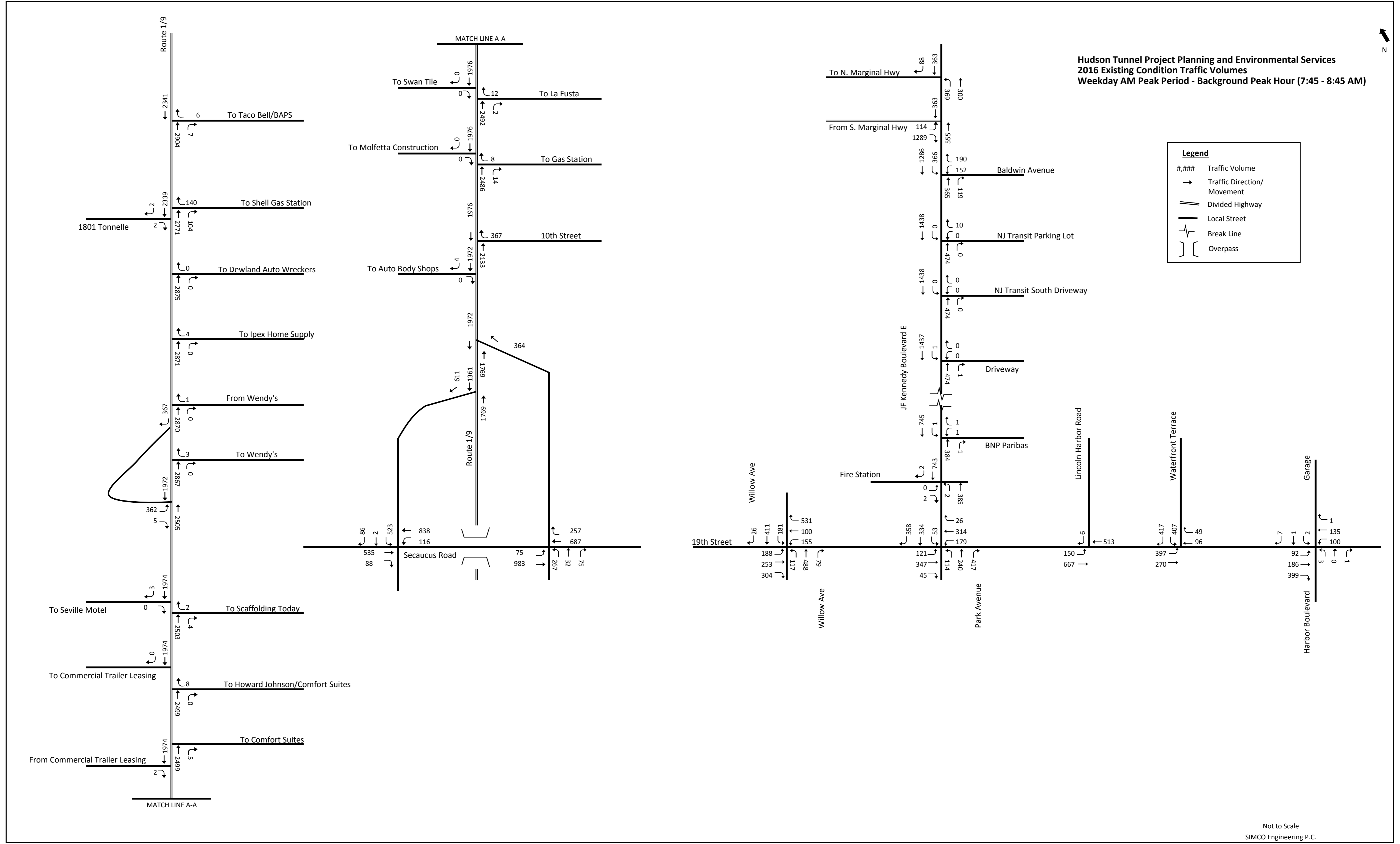
Traffic Flow Maps:
New Jersey—Weekday AM Peak Hour—
2029 Background Condition



Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- - - Break Line
- { } Overpass

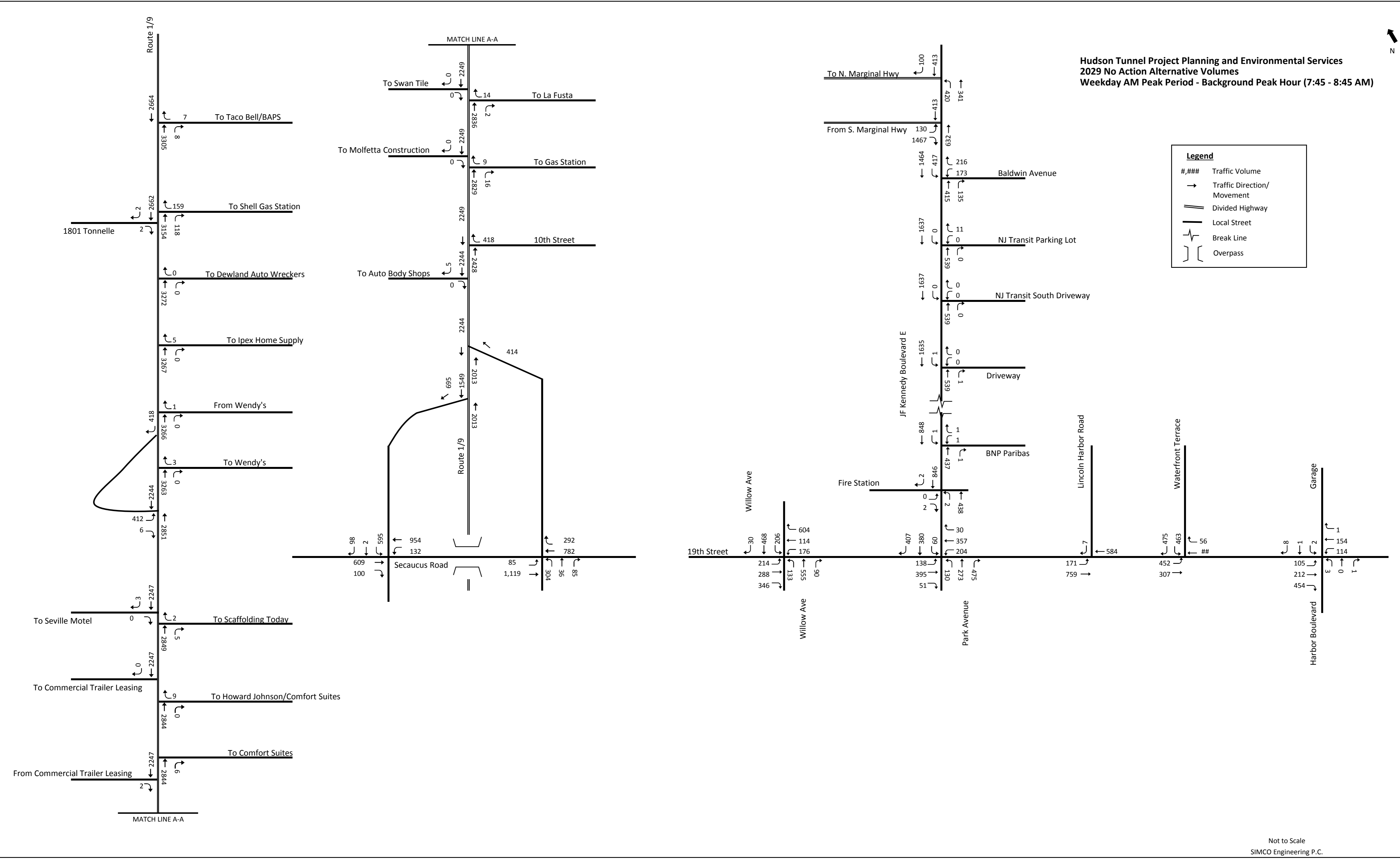




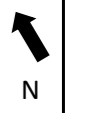
Hudson Tunnel Project Planning and Environmental Services
2029 No Action Alternative Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- - - Break Line
- { } Overpass

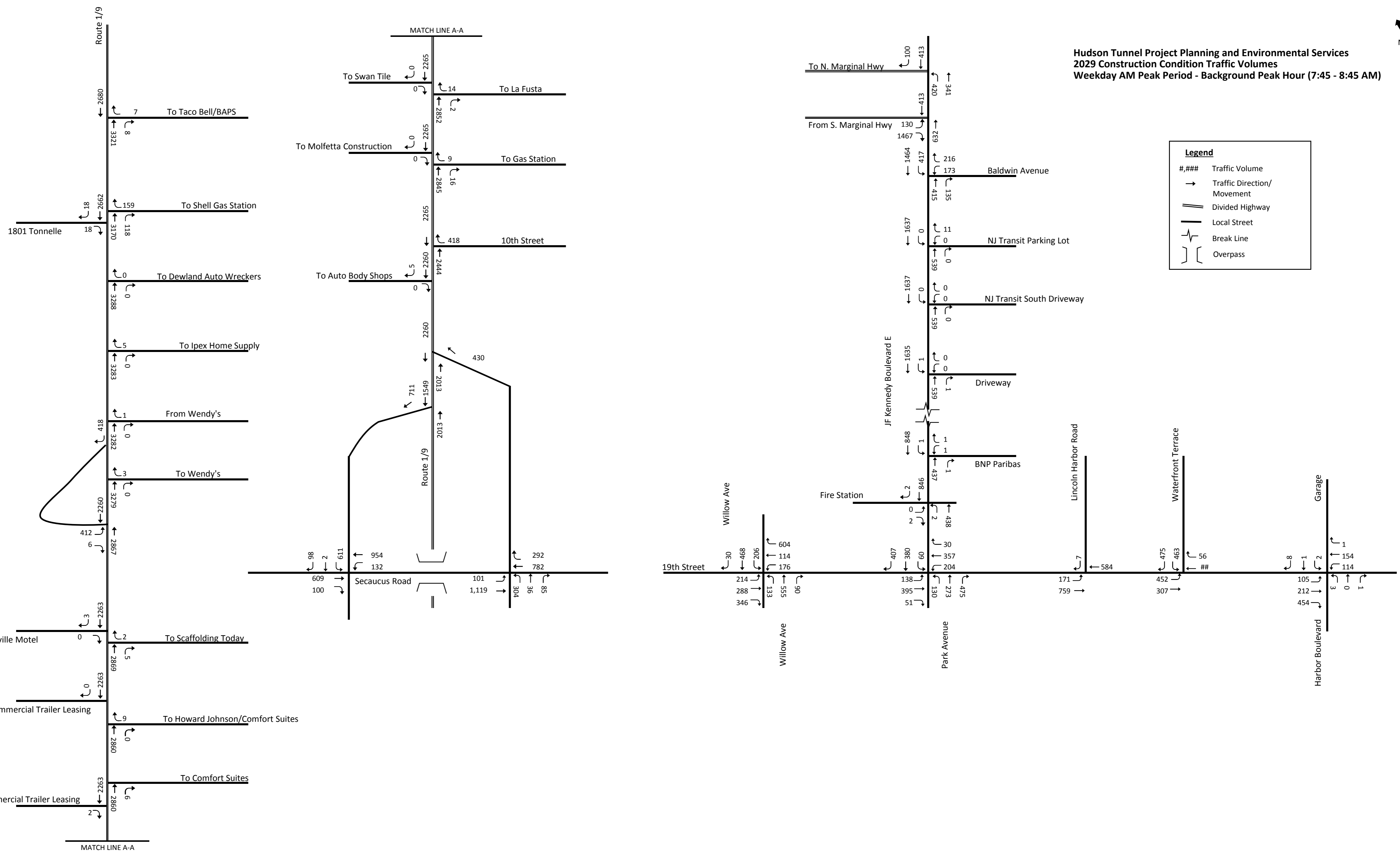


Hudson Tunnel Project Planning and Environmental Services
 2029 Construction Condition Traffic Volumes
 Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)

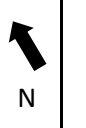


Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



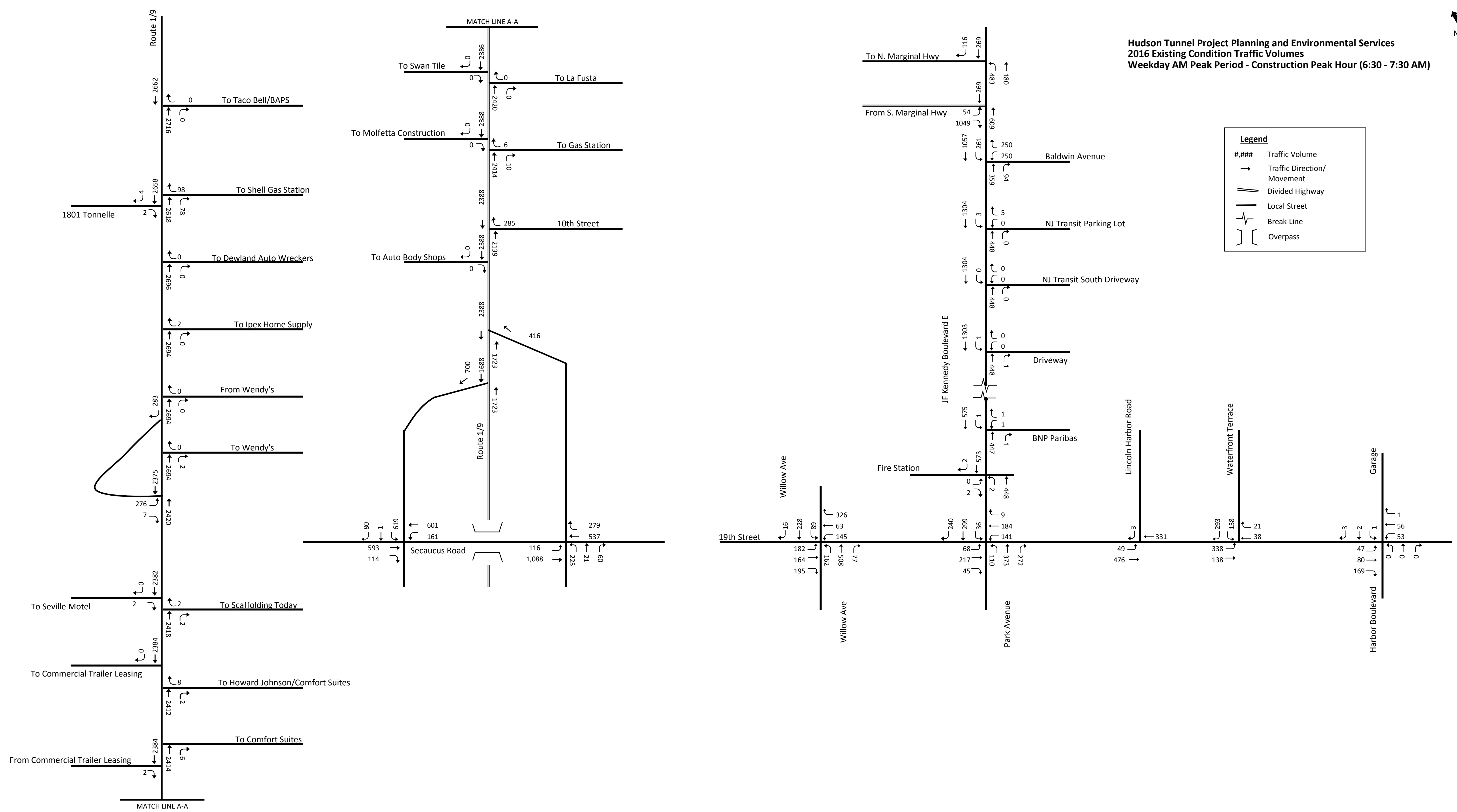
Traffic Flow Maps:
New Jersey—Weekday AM Peak Hour—
Construction Condition



Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

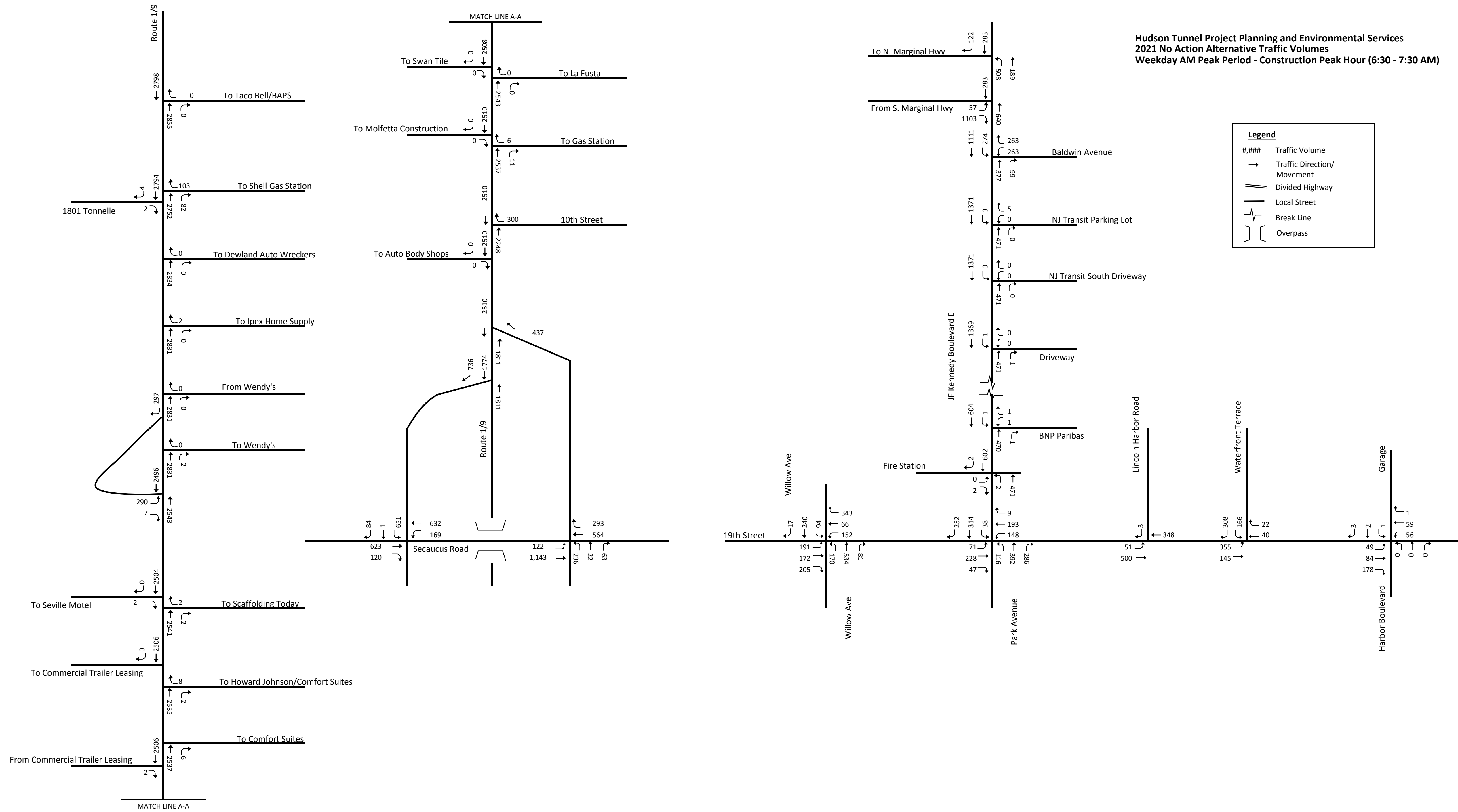


Hudson Tunnel Project Planning and Environmental Services
 2021 No Action Alternative Traffic Volumes
 Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

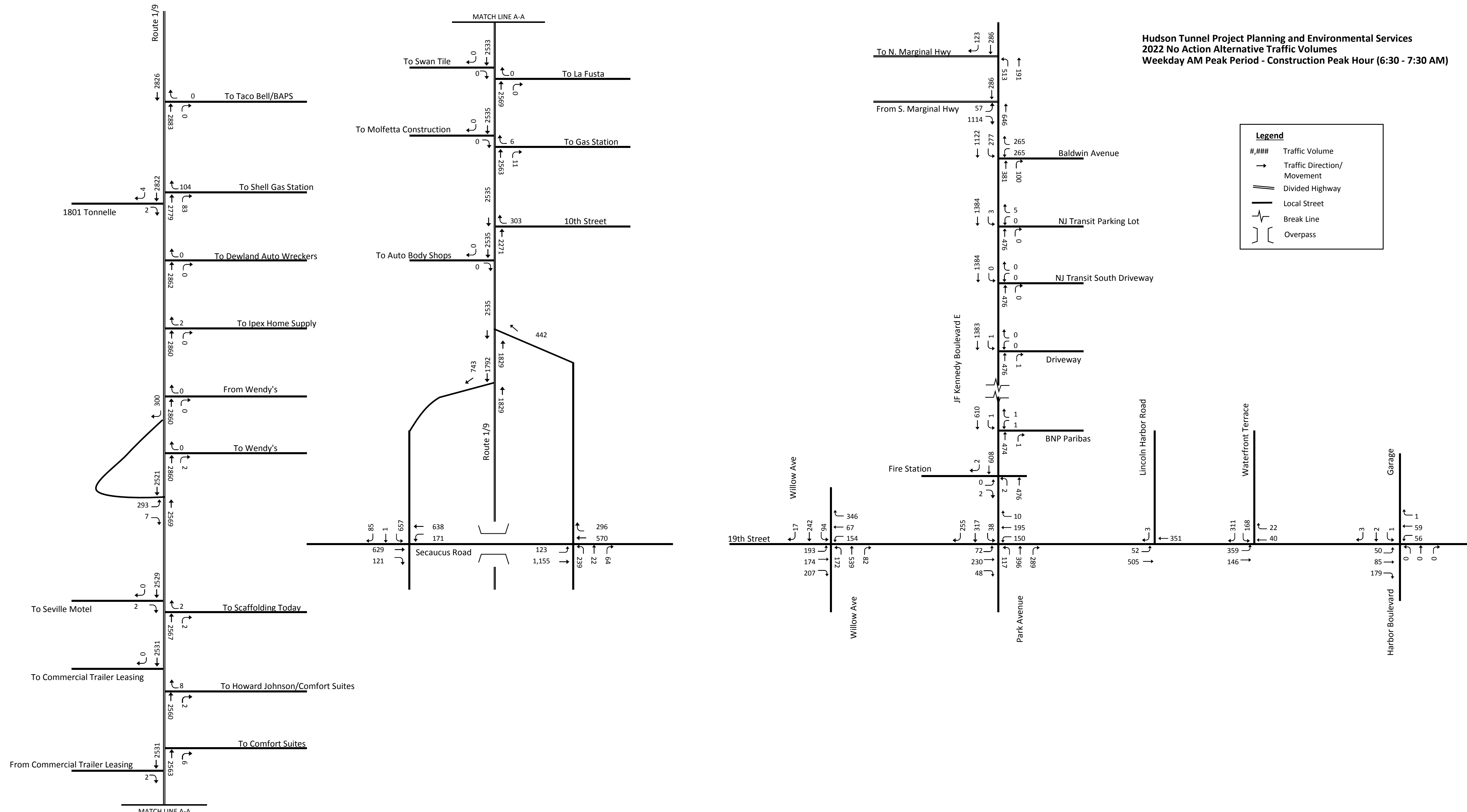


Hudson Tunnel Project Planning and Environmental Services
 2022 No Action Alternative Traffic Volumes
 Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

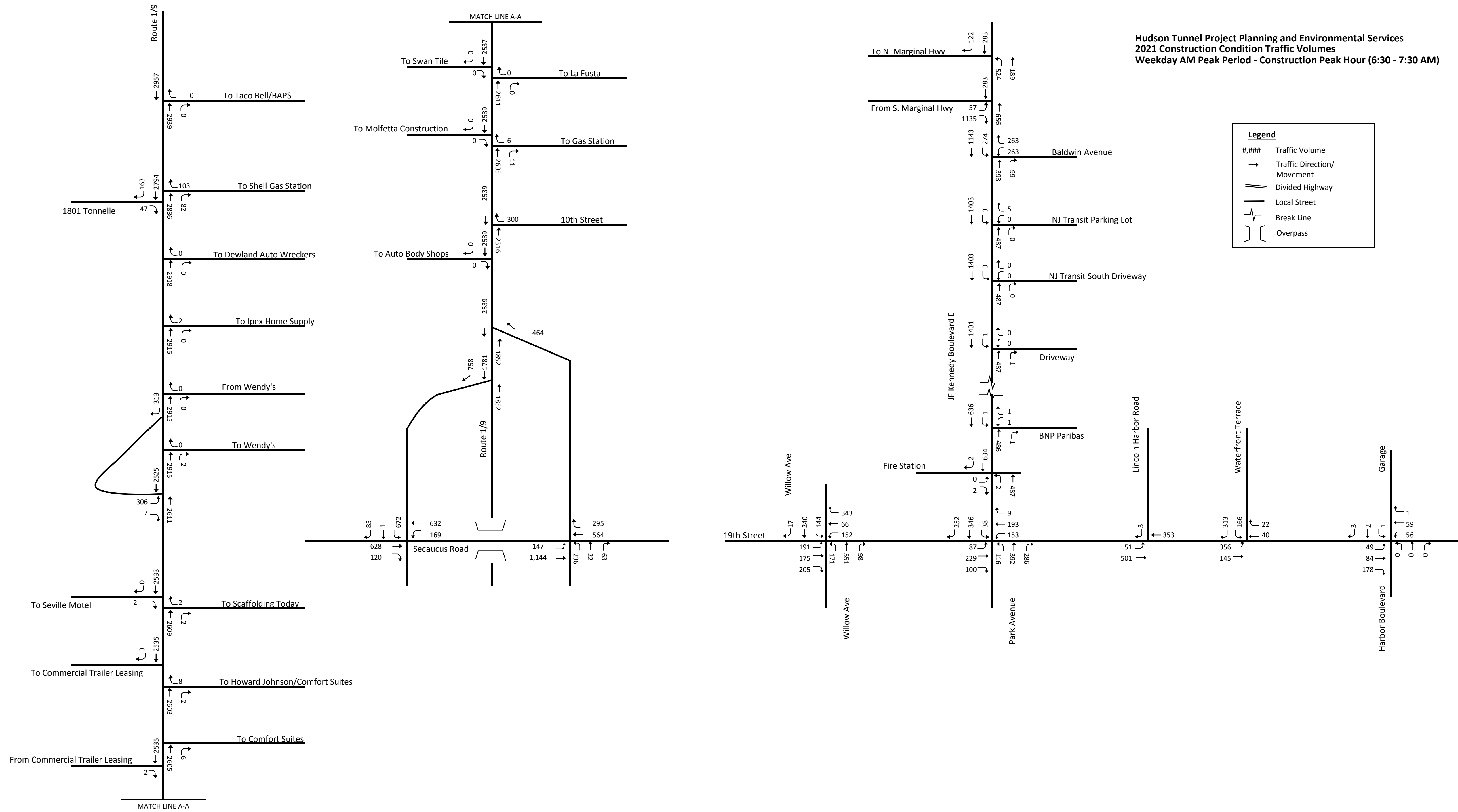




Hudson Tunnel Project Planning and Environmental Services
2021 Construction Condition Traffic Volumes
Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

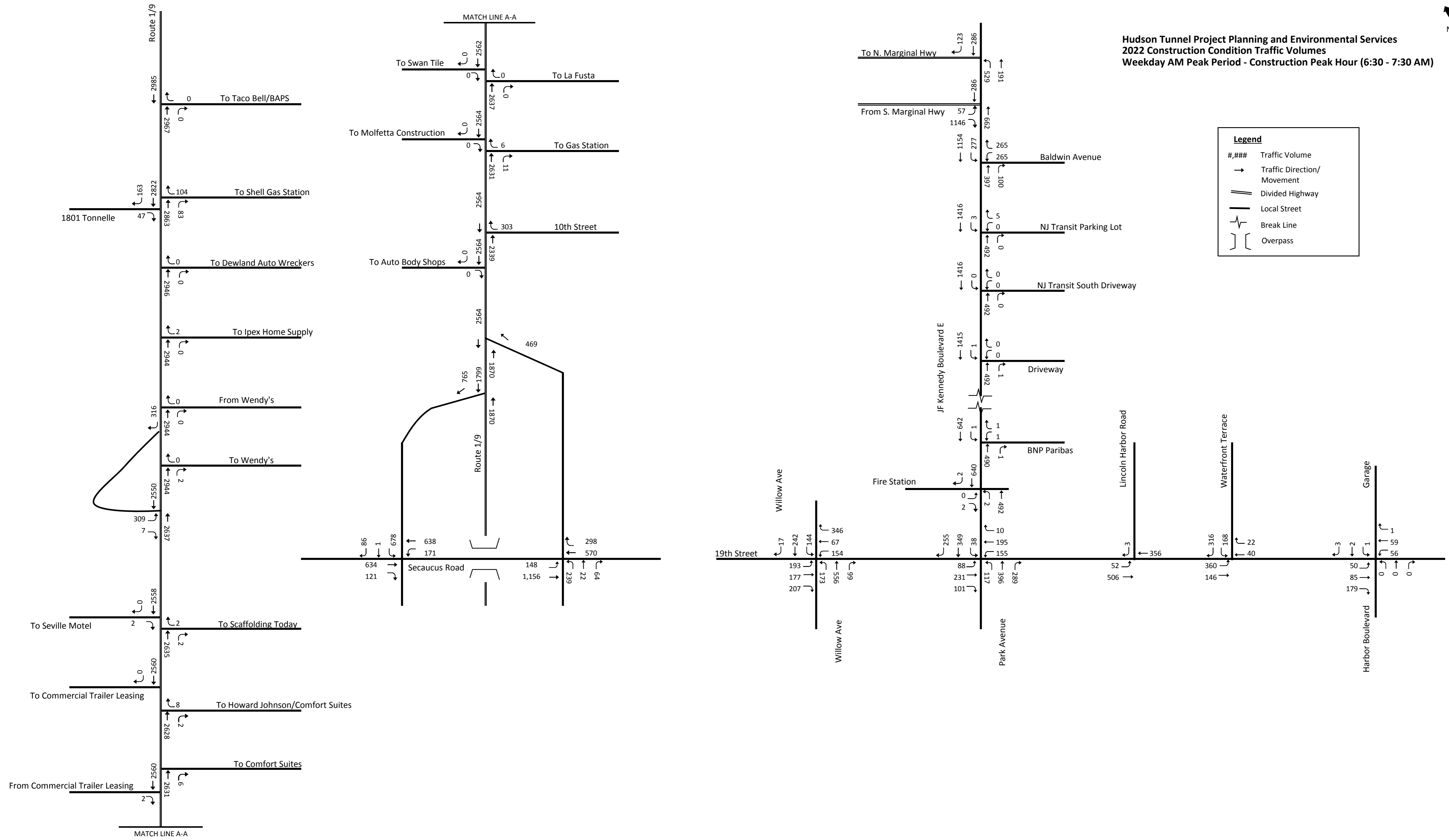


Hudson Tunnel Project Planning and Environmental Services
 2022 Construction Condition Traffic Volumes
 Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



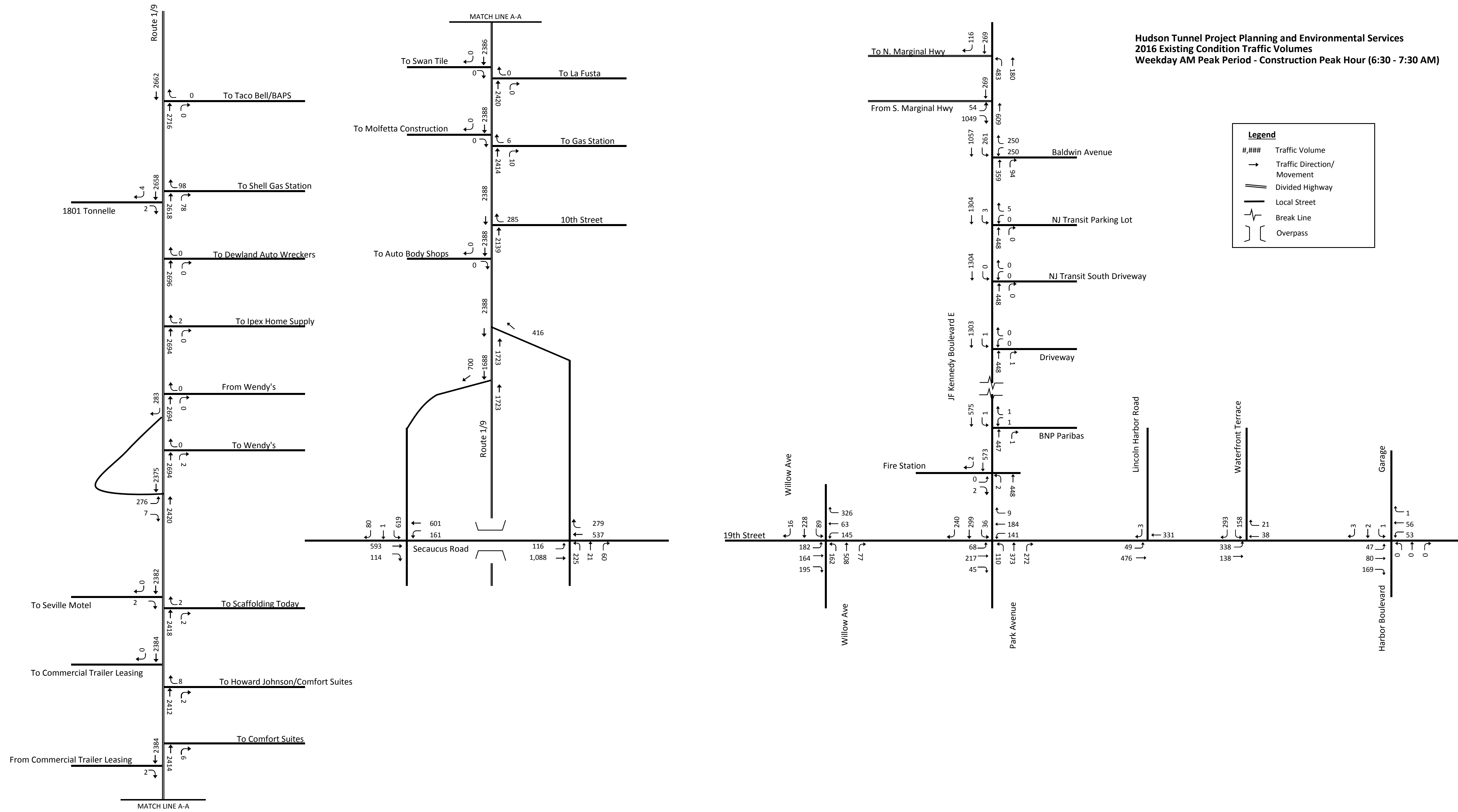
Traffic Flow Maps:
New Jersey—Weekday AM Peak Hour—
2029 Construction Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

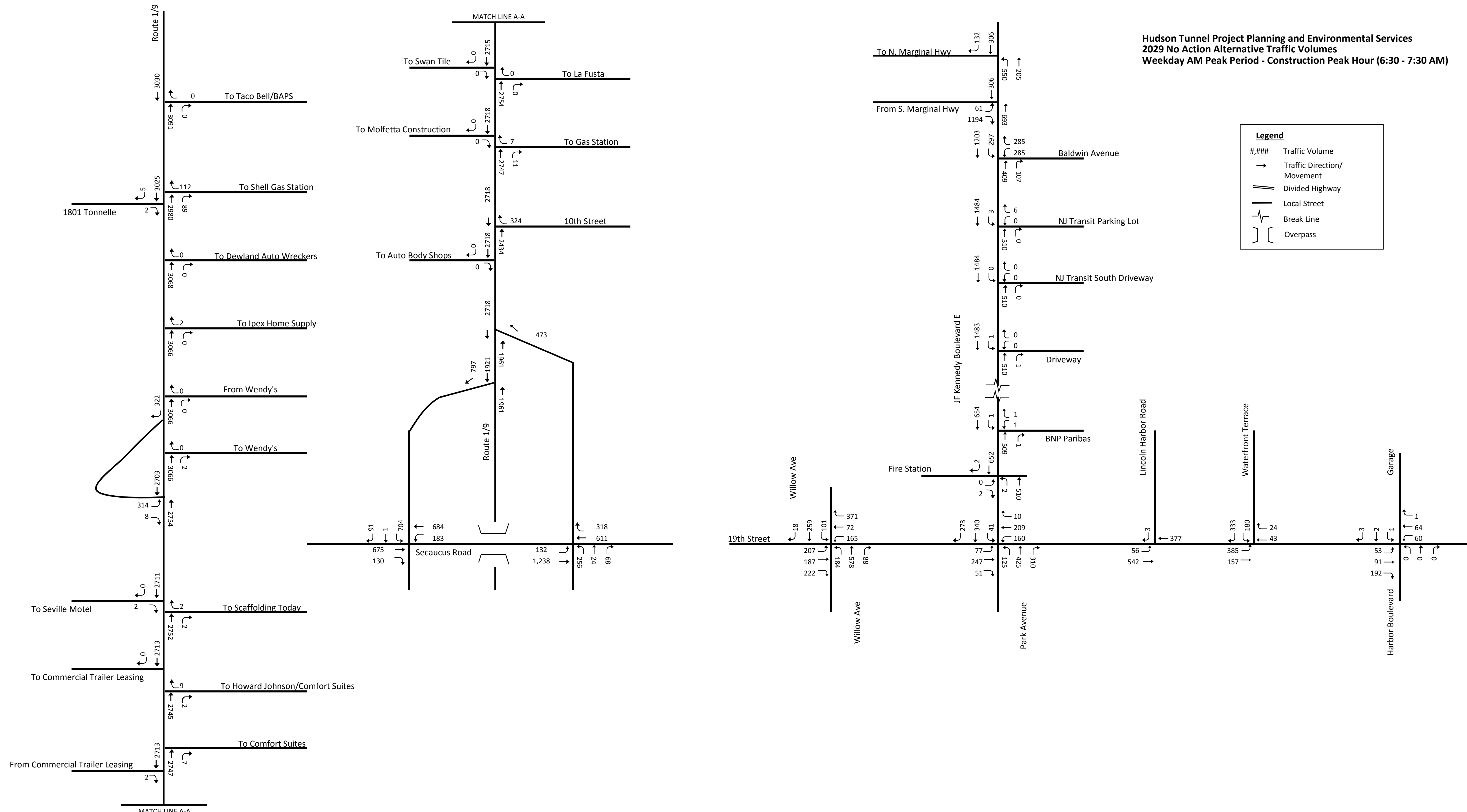


Hudson Tunnel Project Planning and Environmental Services
 2029 No Action Alternative Traffic Volumes
 Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- |- Break Line
- { } Overpass

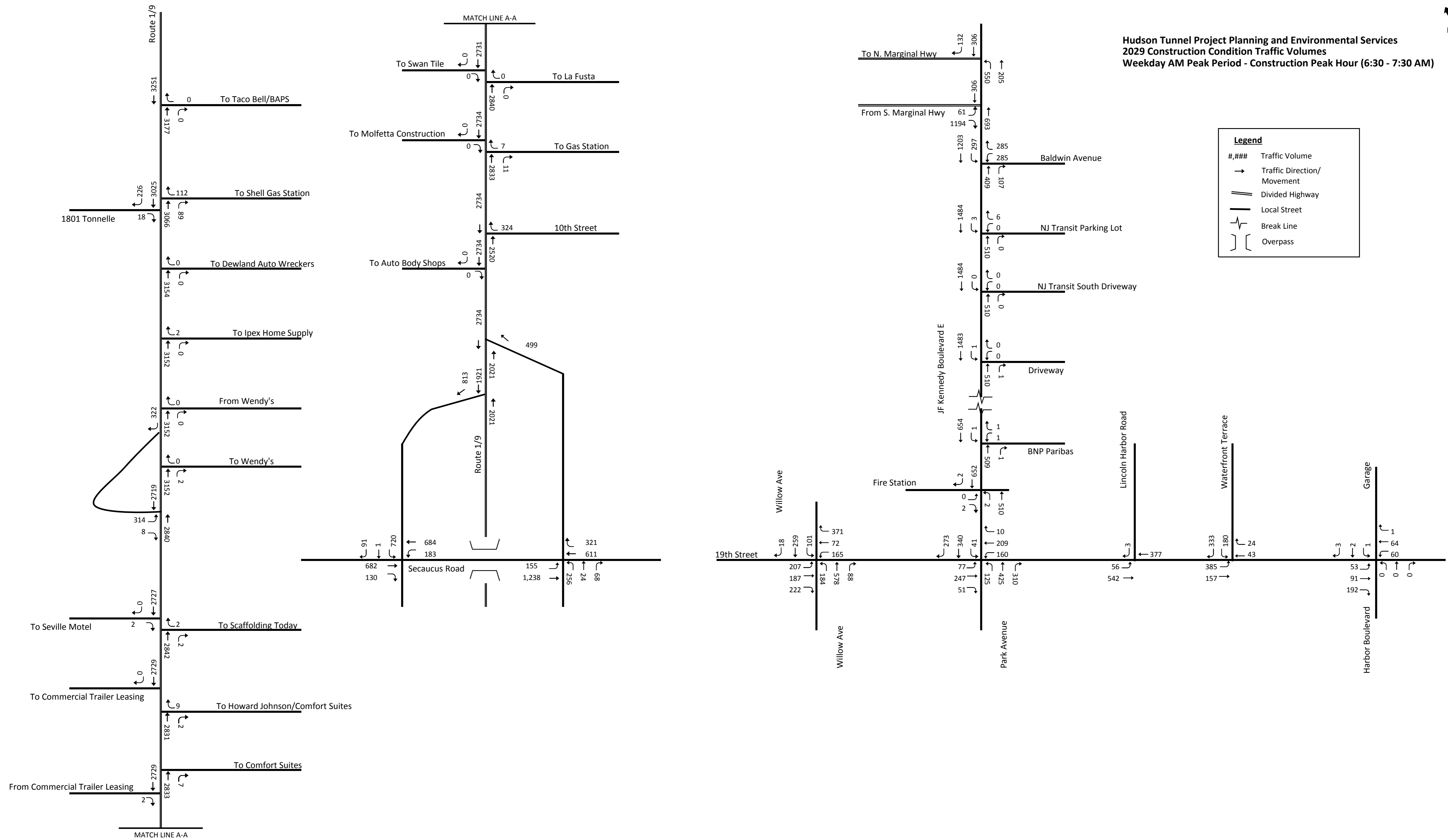


Hudson Tunnel Project Planning and Environmental Services
 2029 Construction Condition Traffic Volumes
 Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Legend

- #,### Traffic Volume
- Traffic Direction/
Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

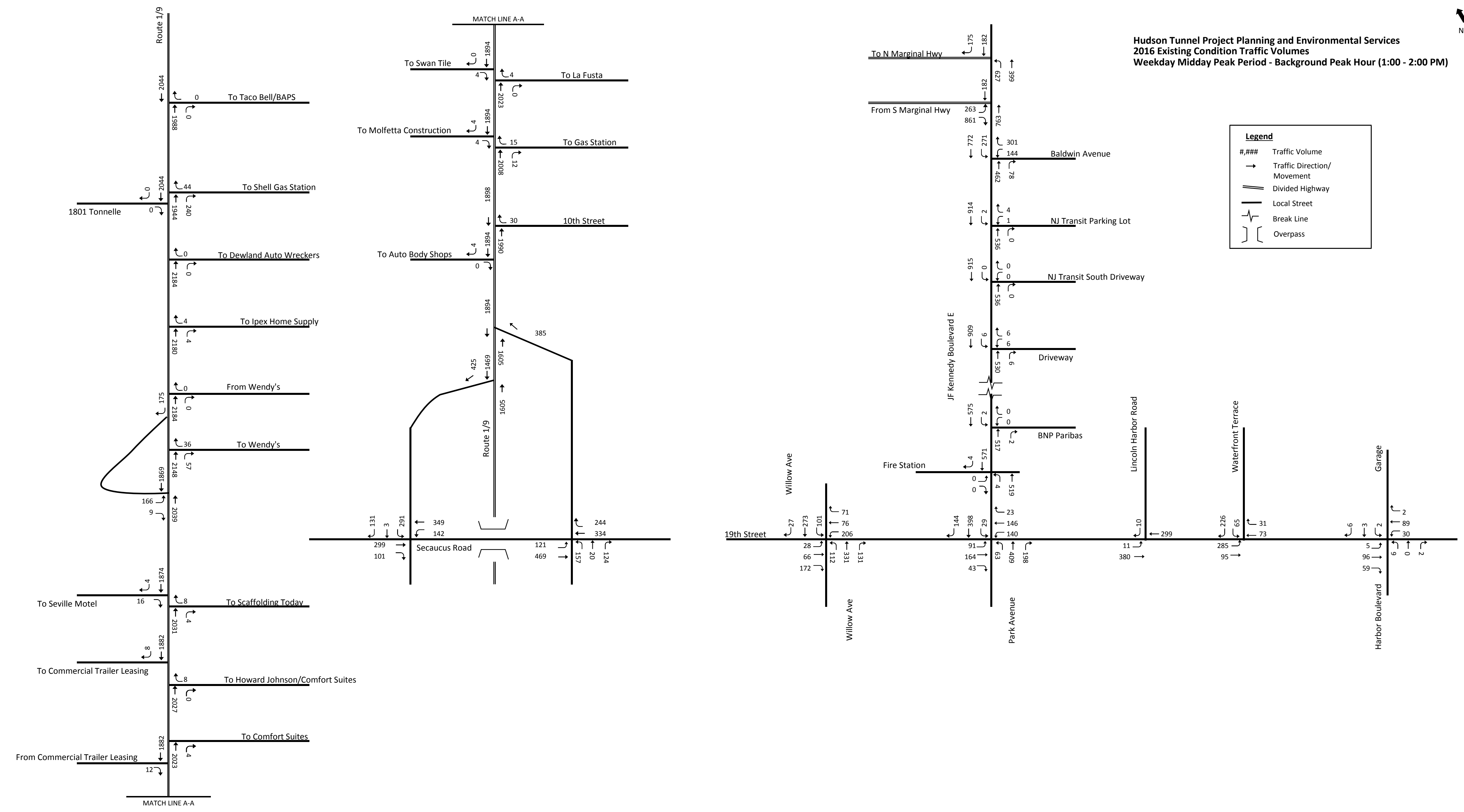


Traffic Flow Maps:
New Jersey—Weekday MD Peak Hour—
Background Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- |- Break Line
- { } Overpass

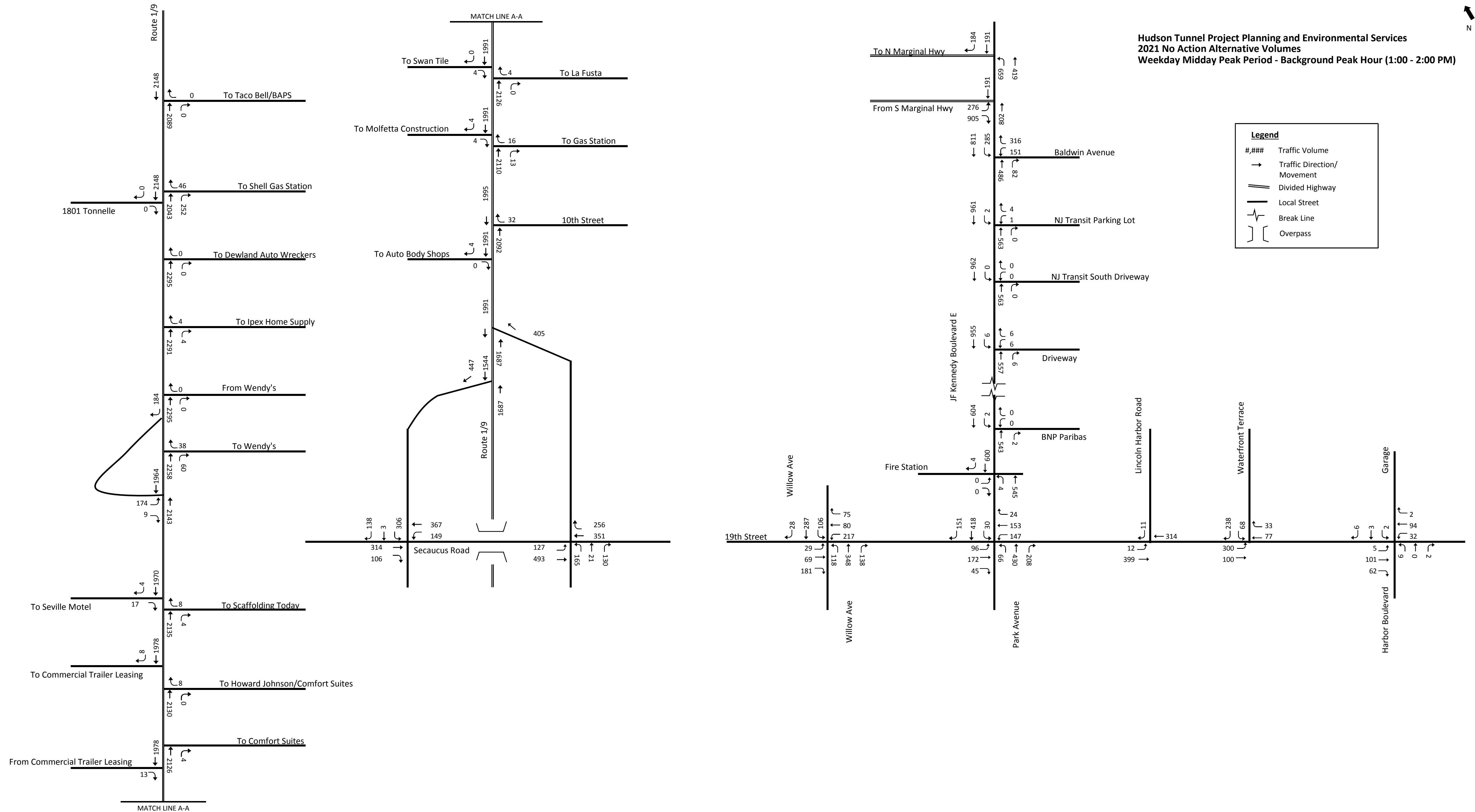


Hudson Tunnel Project Planning and Environmental Services
 2021 No Action Alternative Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

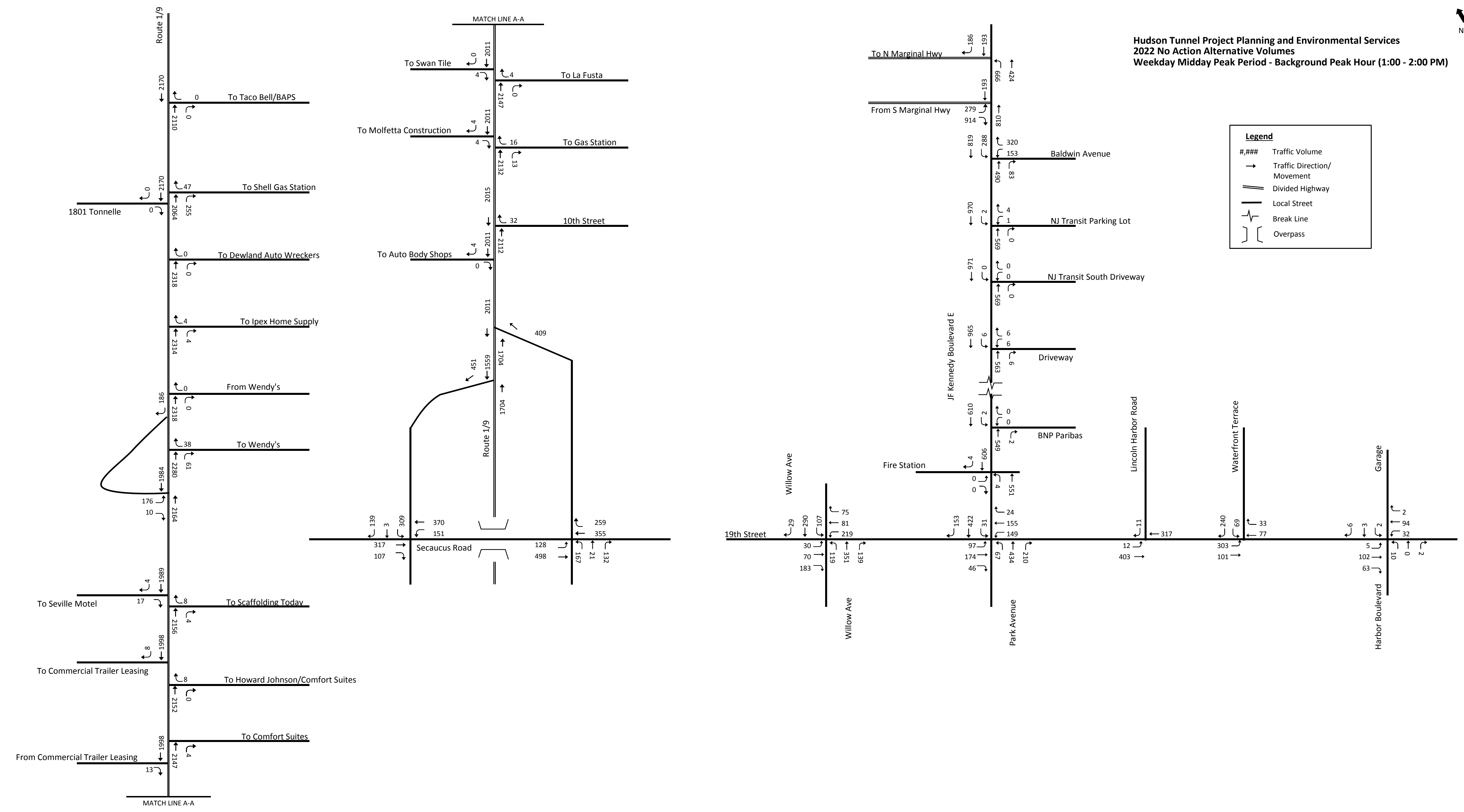


Hudson Tunnel Project Planning and Environmental Services
 2022 No Action Alternative Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

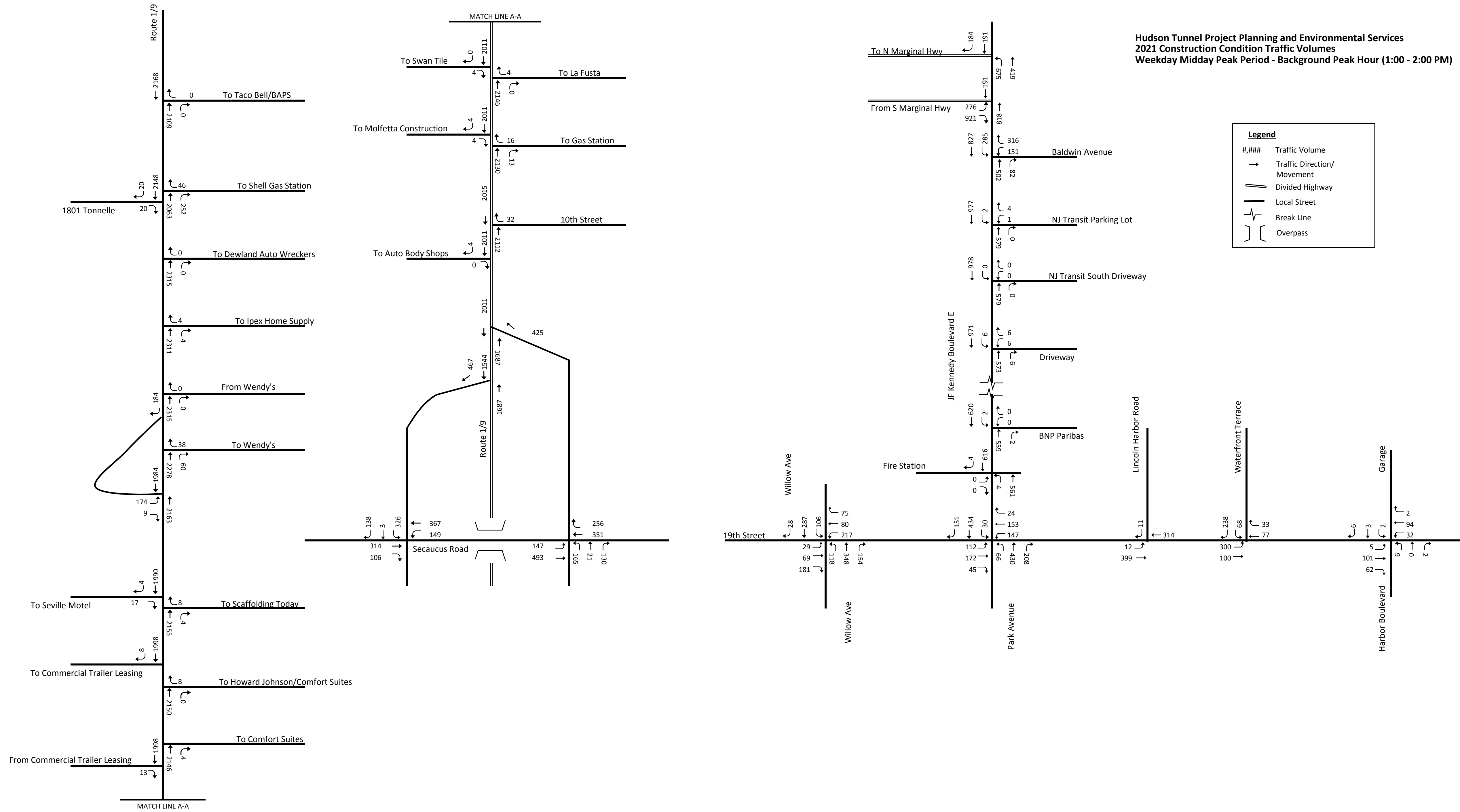




Hudson Tunnel Project Planning and Environmental Services
 2021 Construction Condition Traffic Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- ⌈ ⌋ Overpass

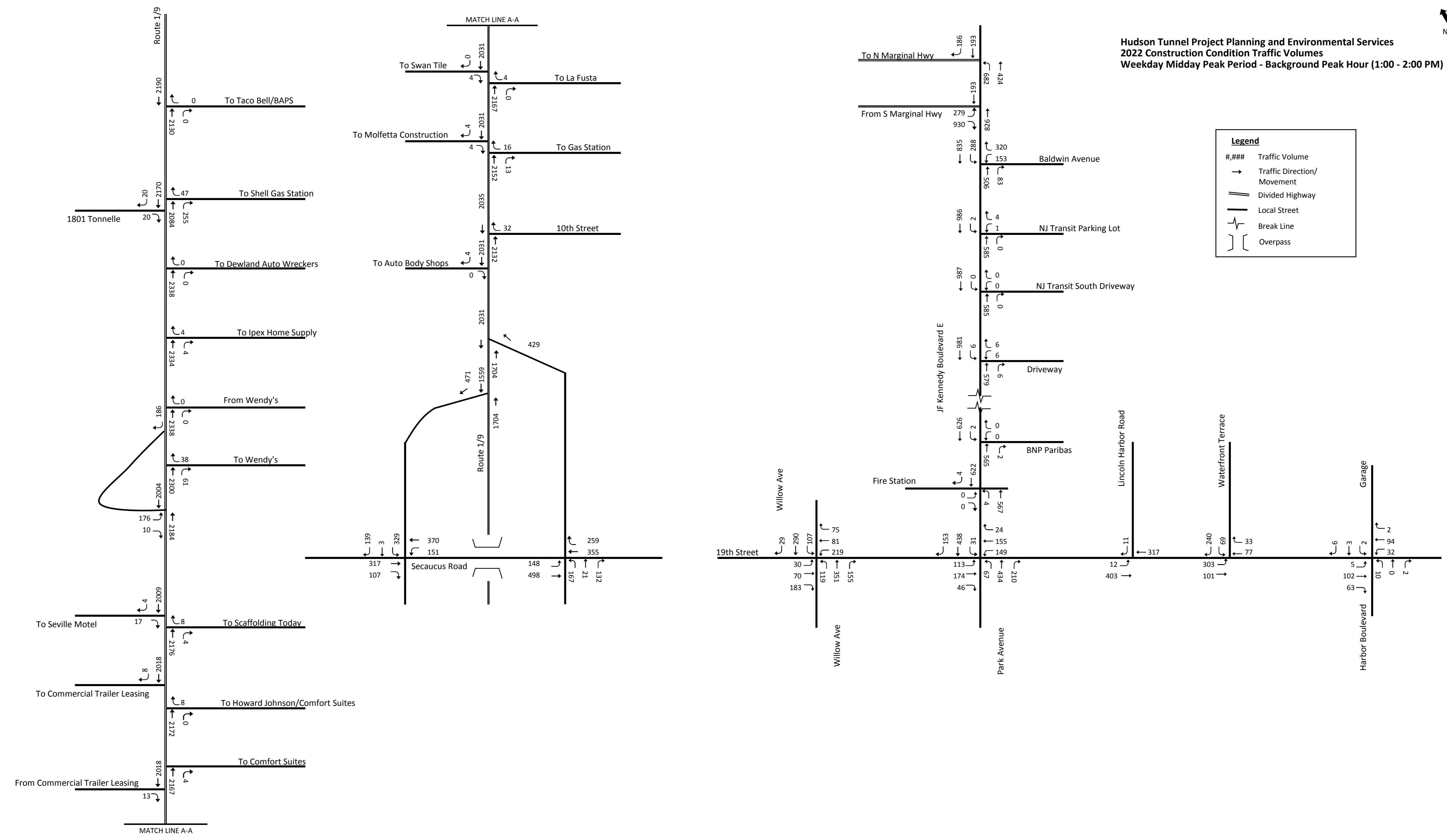


Hudson Tunnel Project Planning and Environmental Services
 2022 Construction Condition Traffic Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)



Legend

- ### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ⋈ Break Line
- { } Overpass



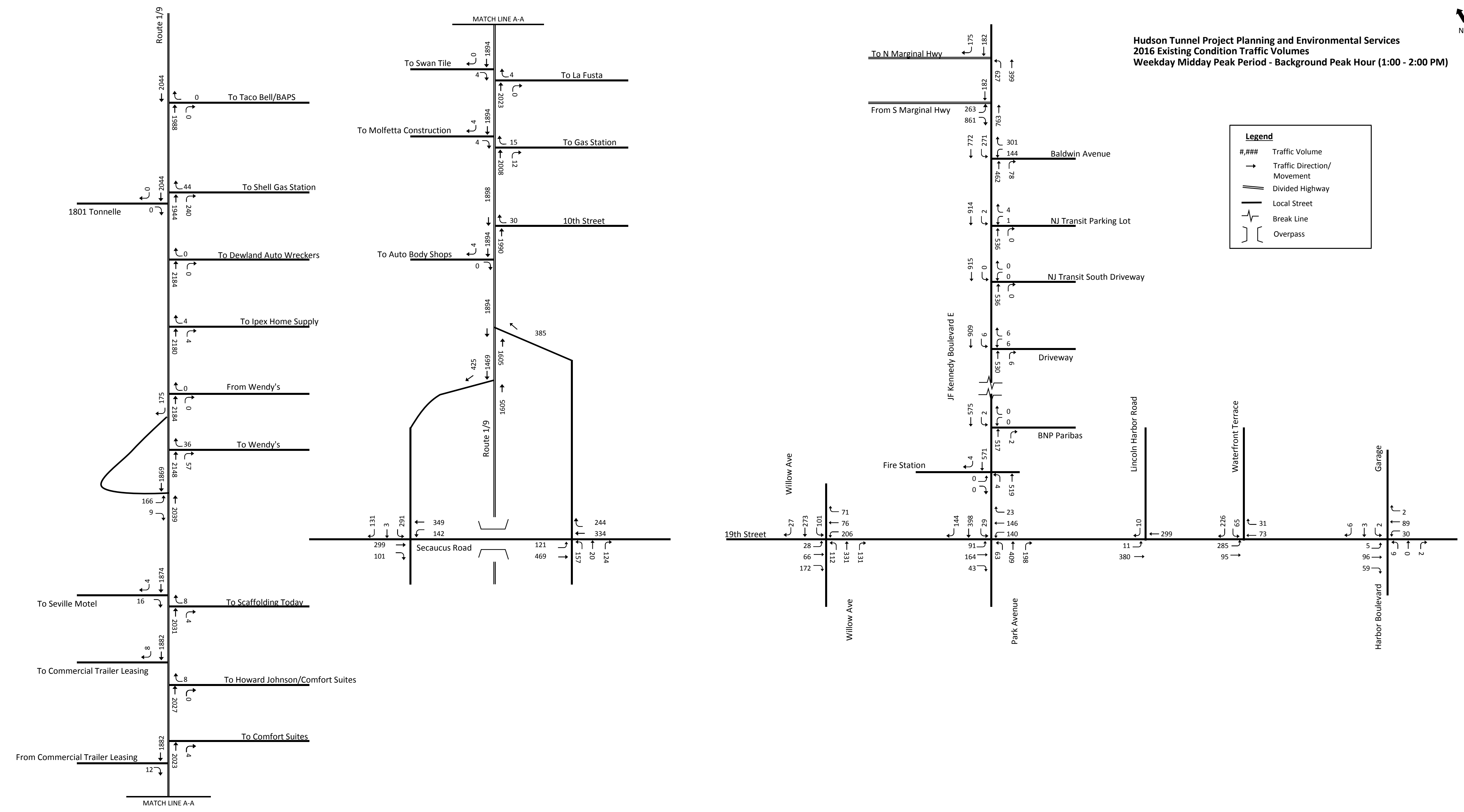
Traffic Flow Maps:
New Jersey—Weekday MD Peak Hour—
2029 Background Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

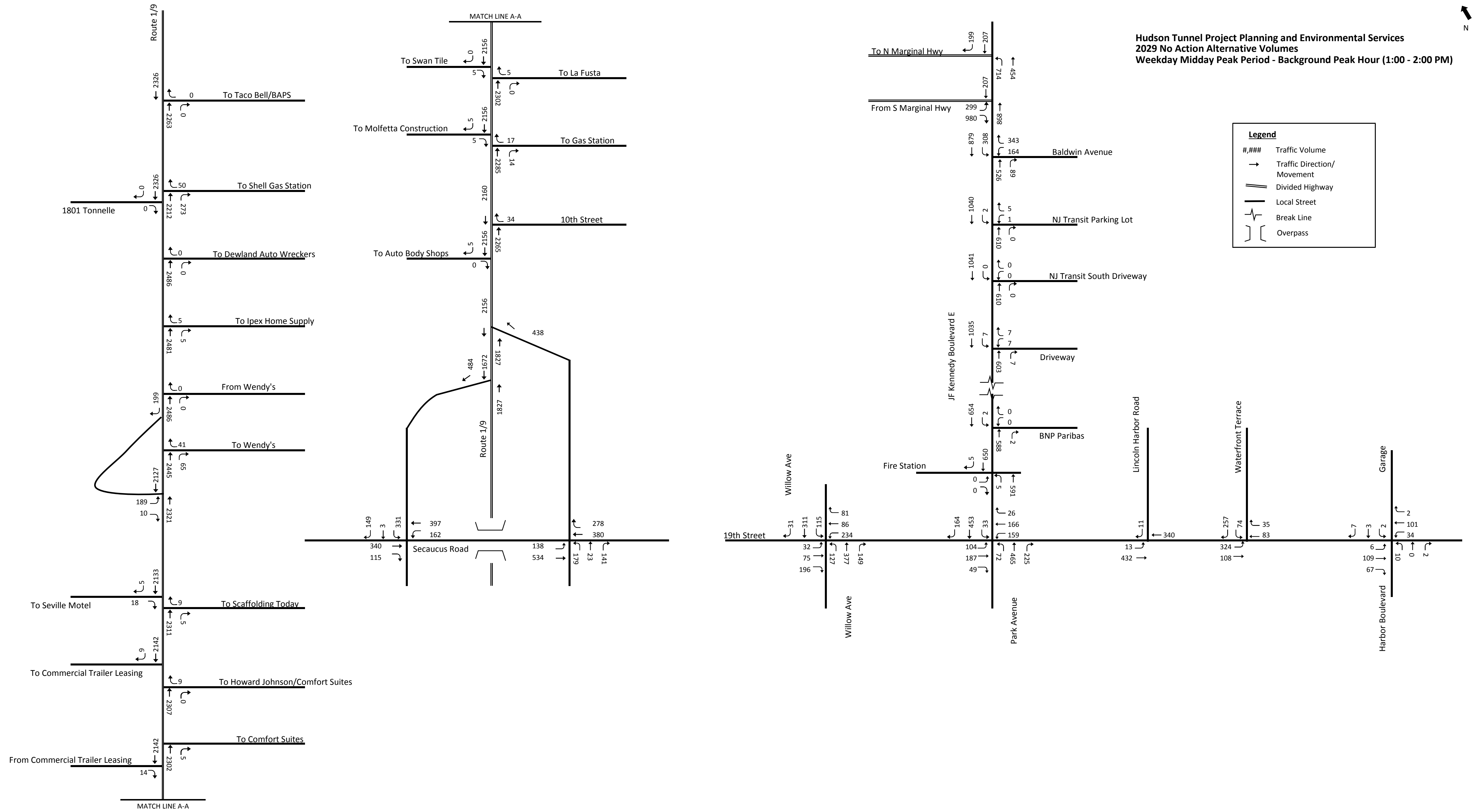


Hudson Tunnel Project Planning and Environmental Services
 2029 No Action Alternative Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

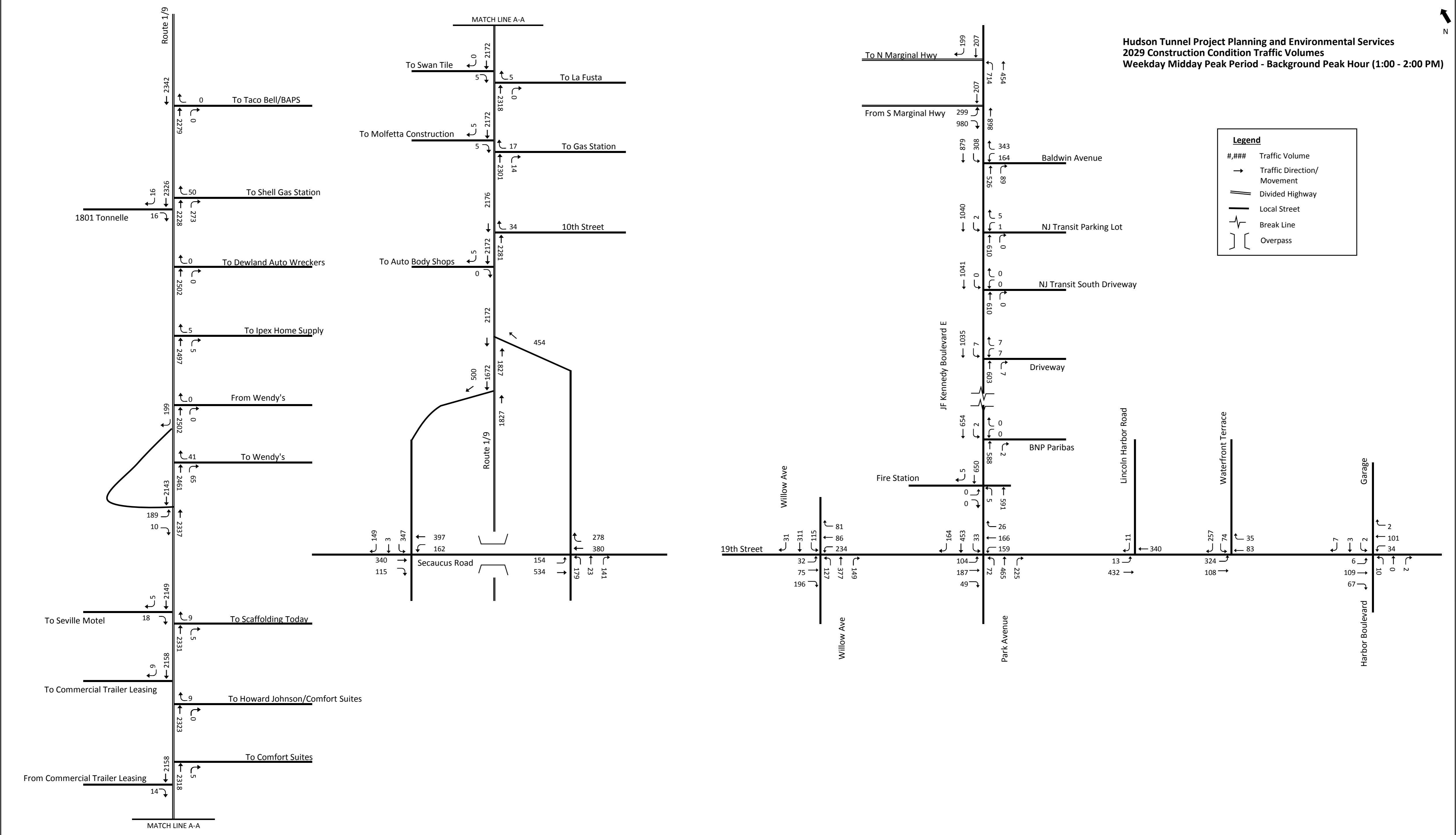


Hudson Tunnel Project Planning and Environmental Services
 2029 Construction Condition Traffic Volumes
 Weekday Midday Peak Period - Background Peak Hour (1:00 - 2:00 PM)



Legend

- ### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- - - Break Line
- { } Overpass

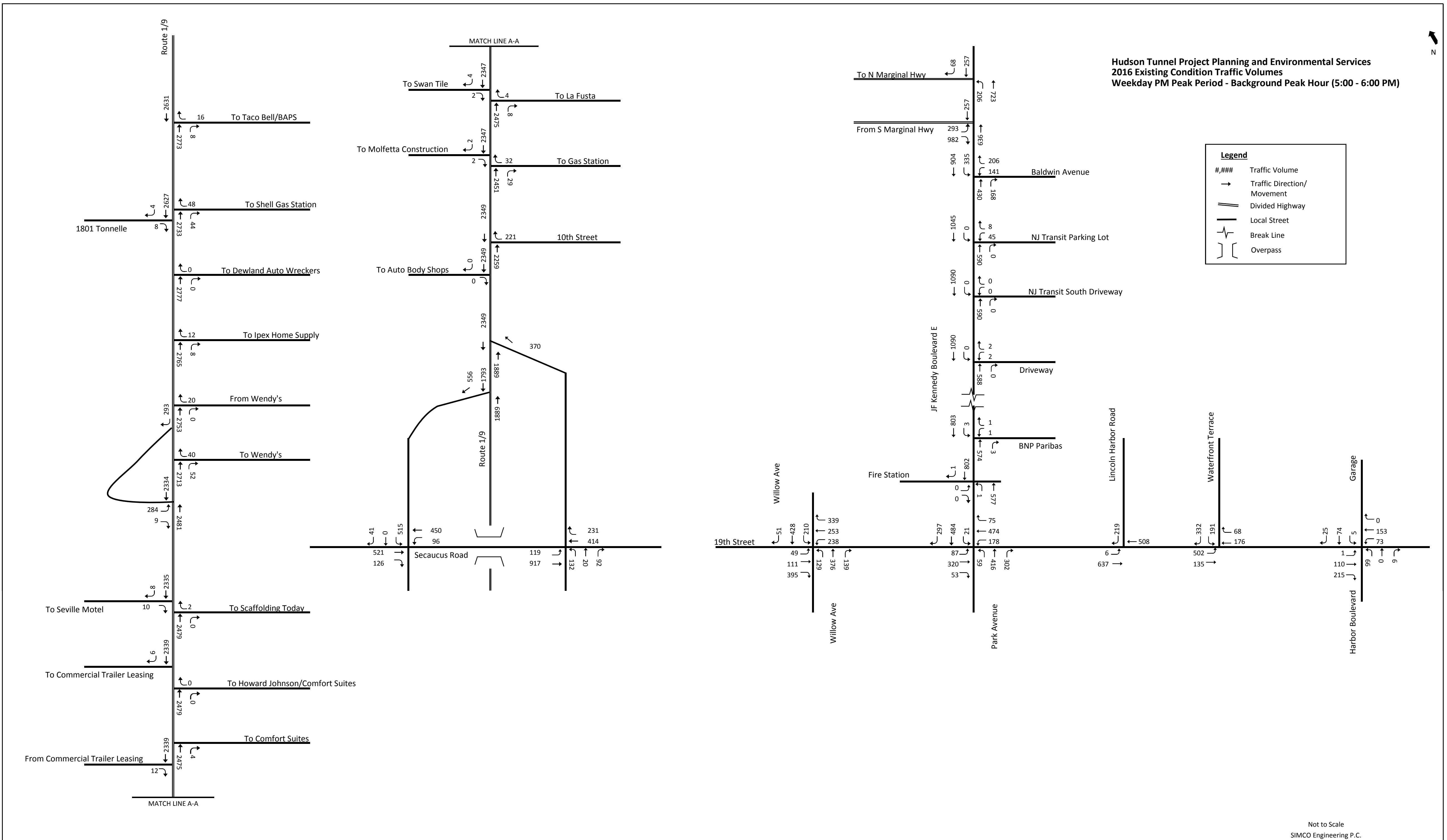


Traffic Flow Maps:
New Jersey—Weekday PM Peak Hour—
Background Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)

Legend

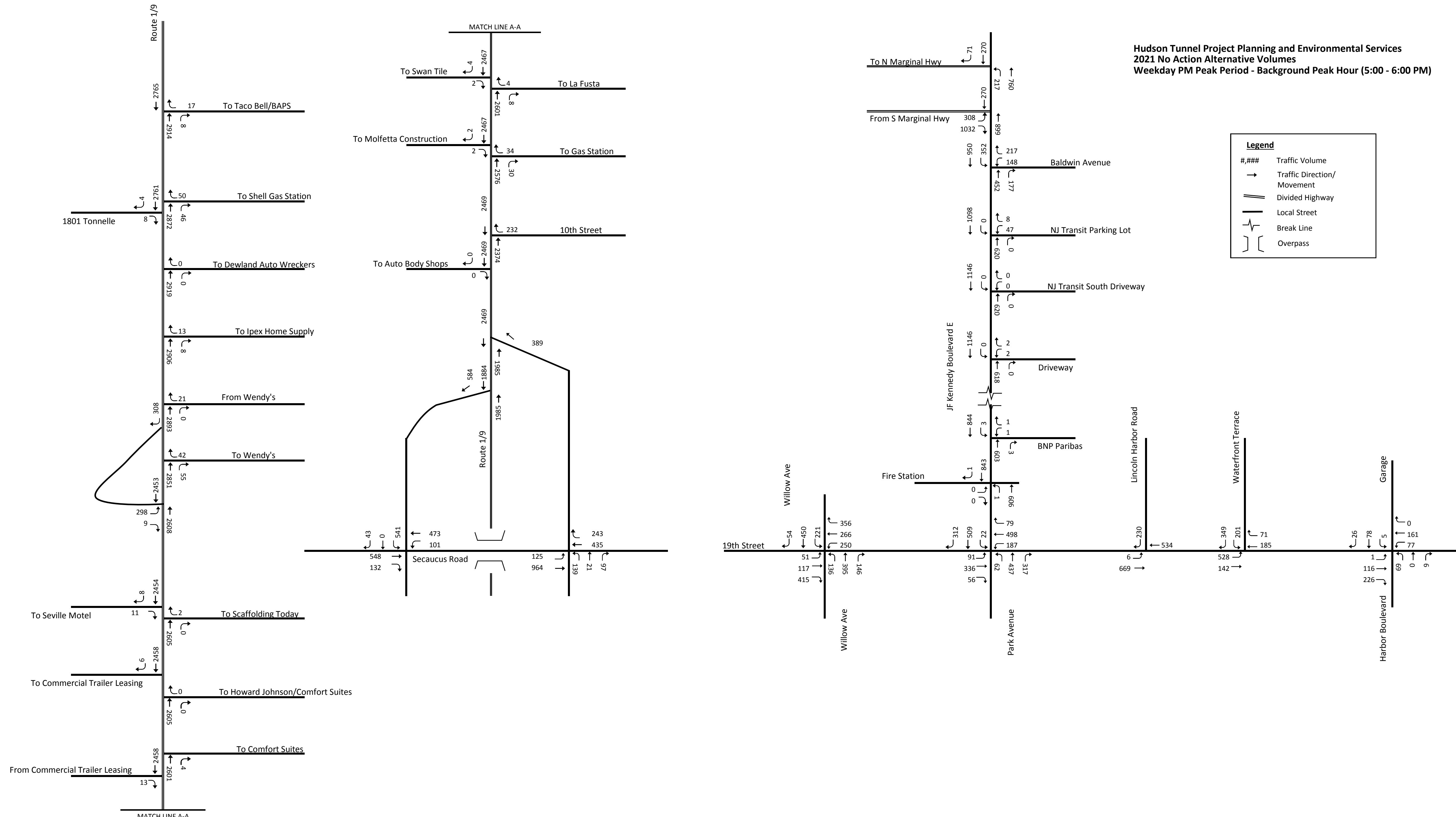
- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2021 No Action Alternative Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)

Legend

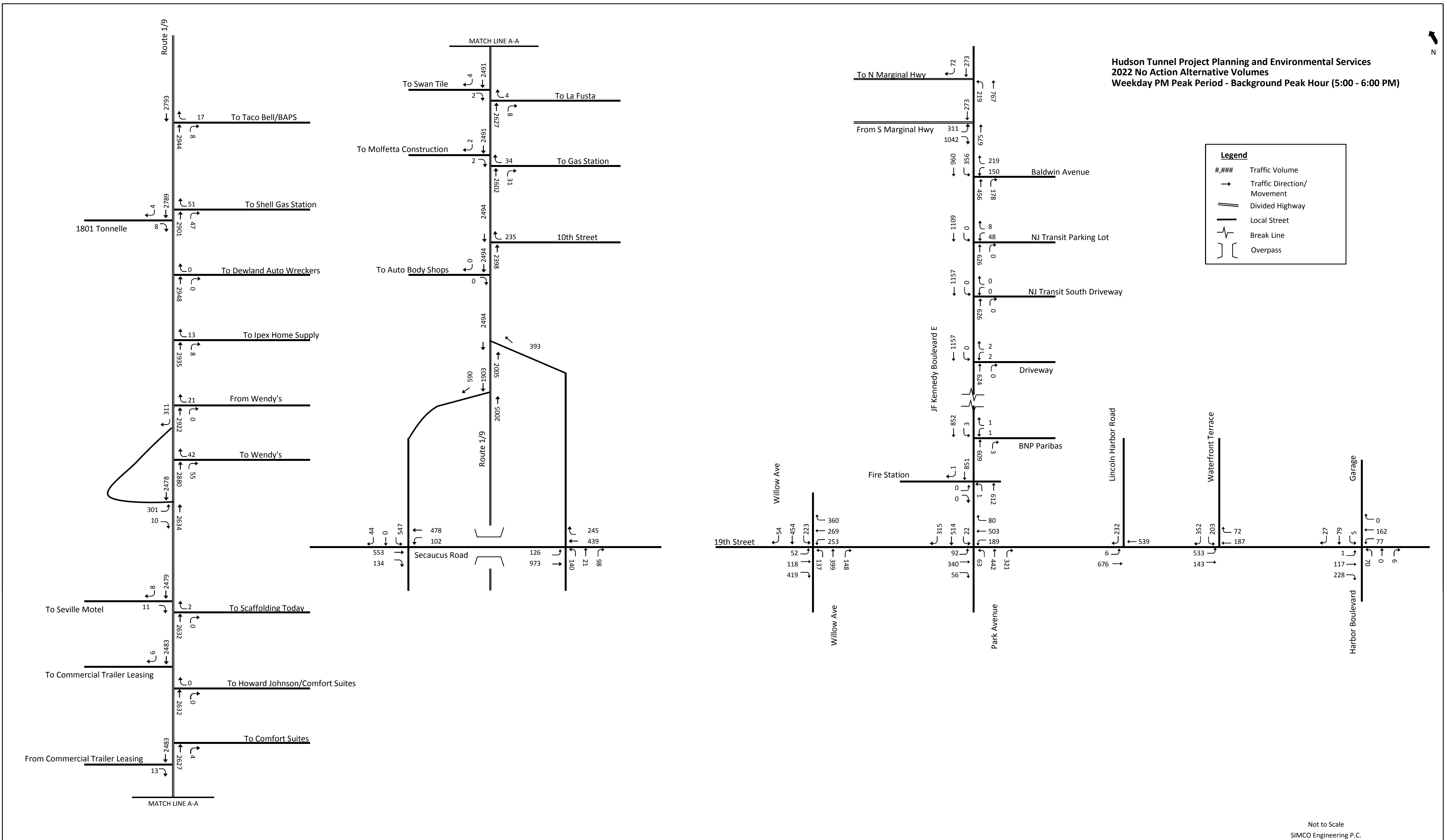
- #,### Traffic Volume
- Traffic Direction/Movement
- == Divided Highway
- Local Street
- ⚡ Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2022 No Action Alternative Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)

Legend

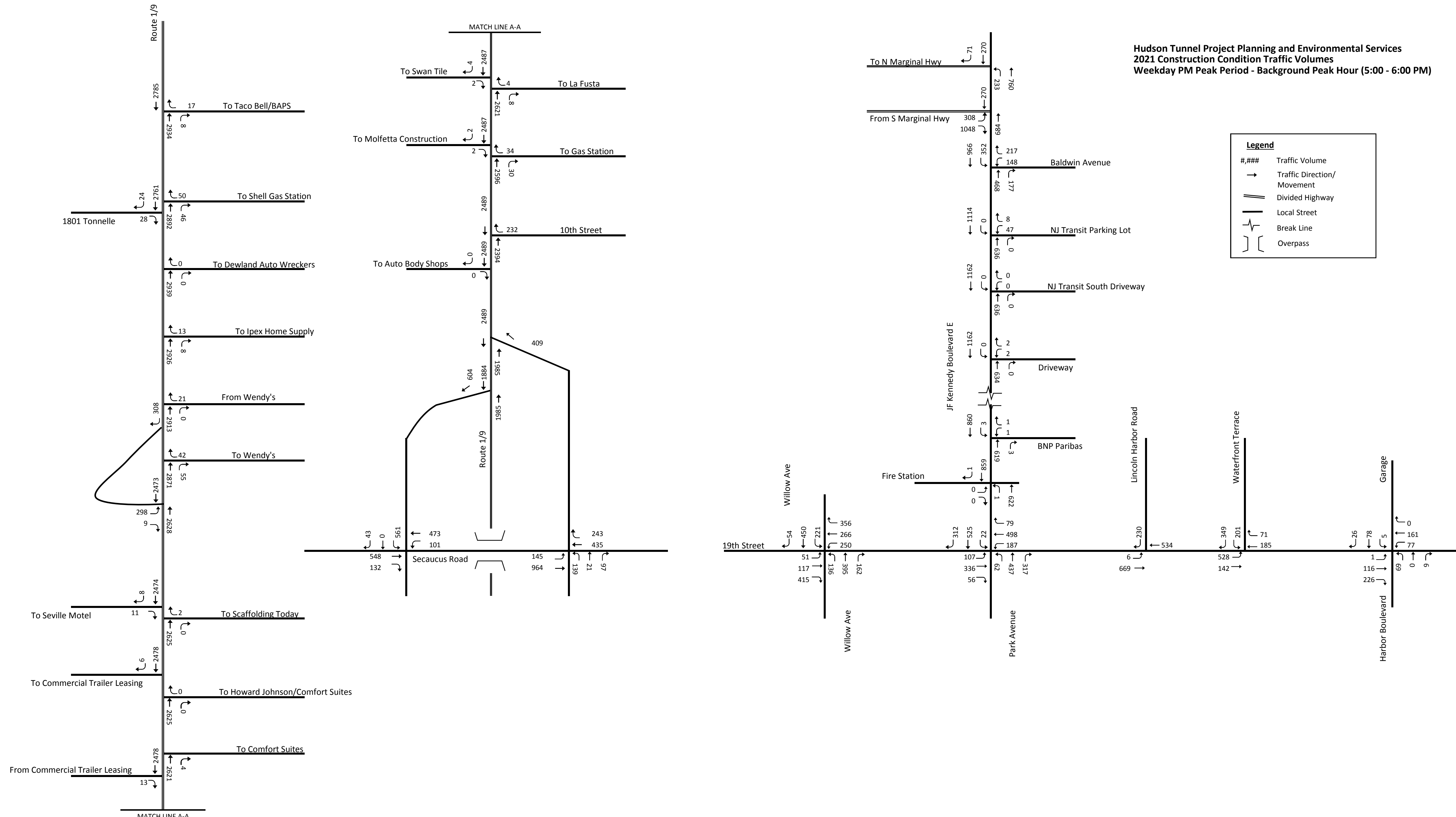
- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2021 Construction Condition Traffic Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

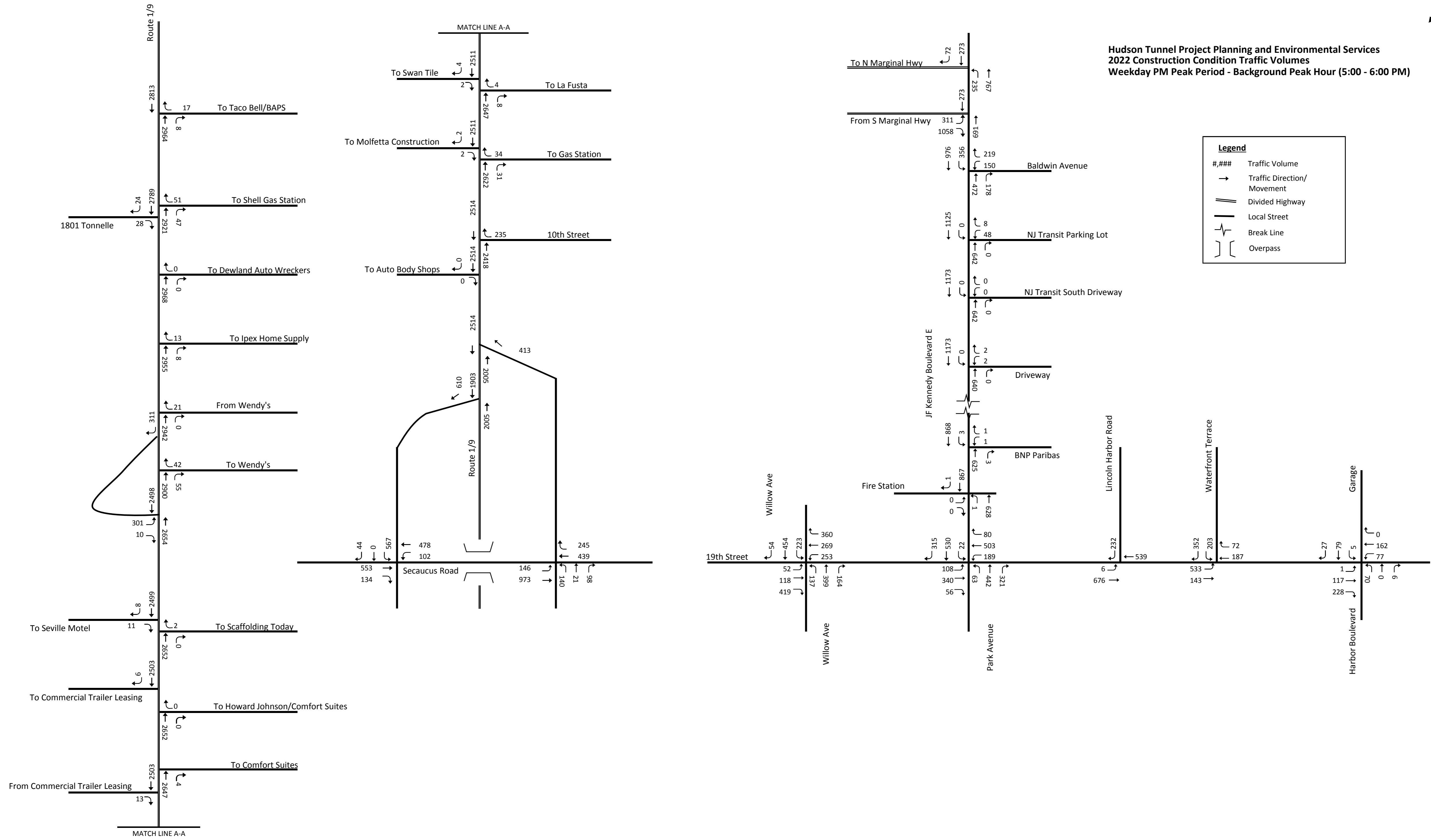


Hudson Tunnel Project Planning and Environmental Services
 2022 Construction Condition Traffic Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

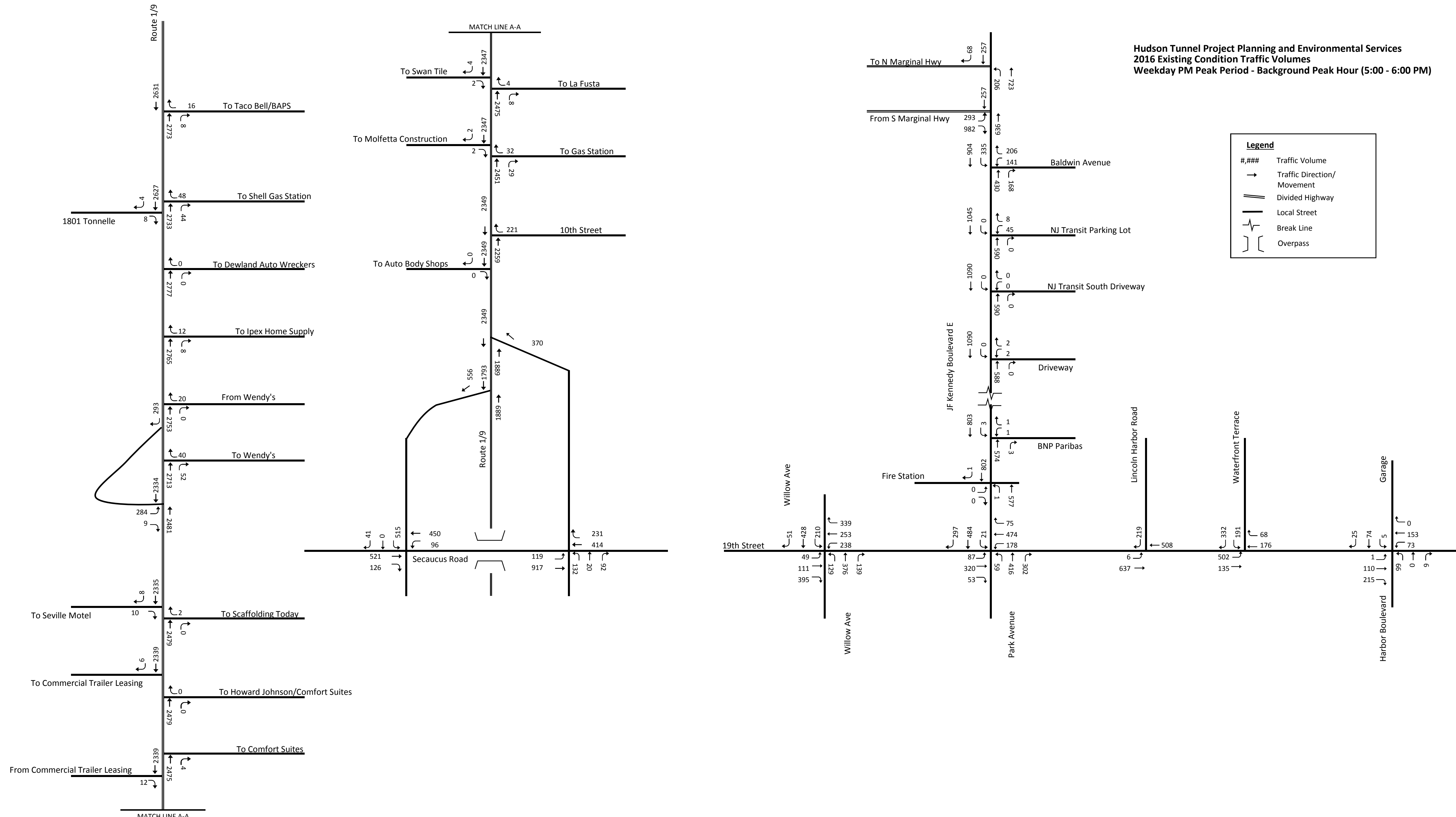


Traffic Flow Maps:
New Jersey—Weekday PM Peak Hour—
2029 Background Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)

Legend

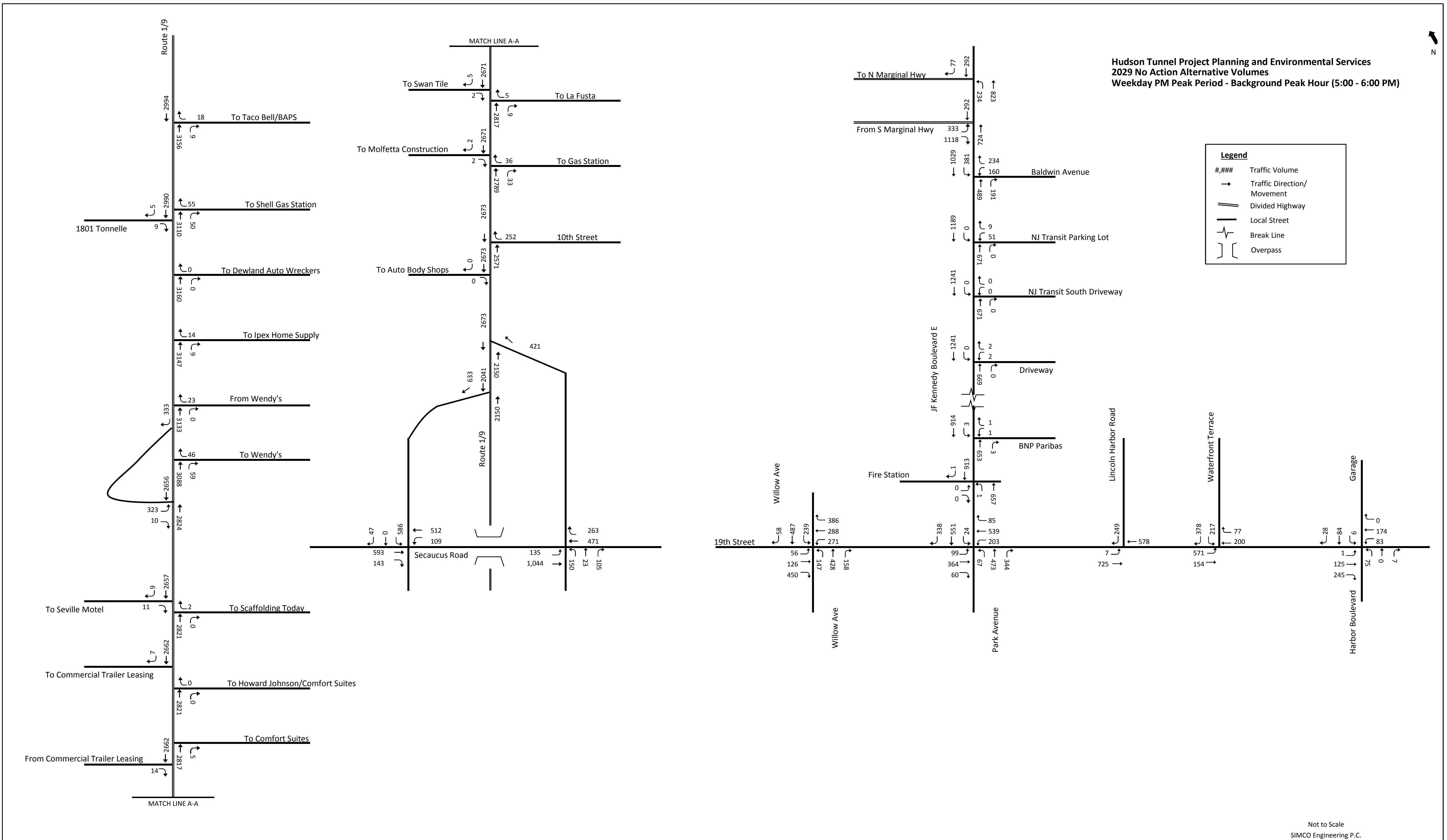
- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2029 No Action Alternative Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

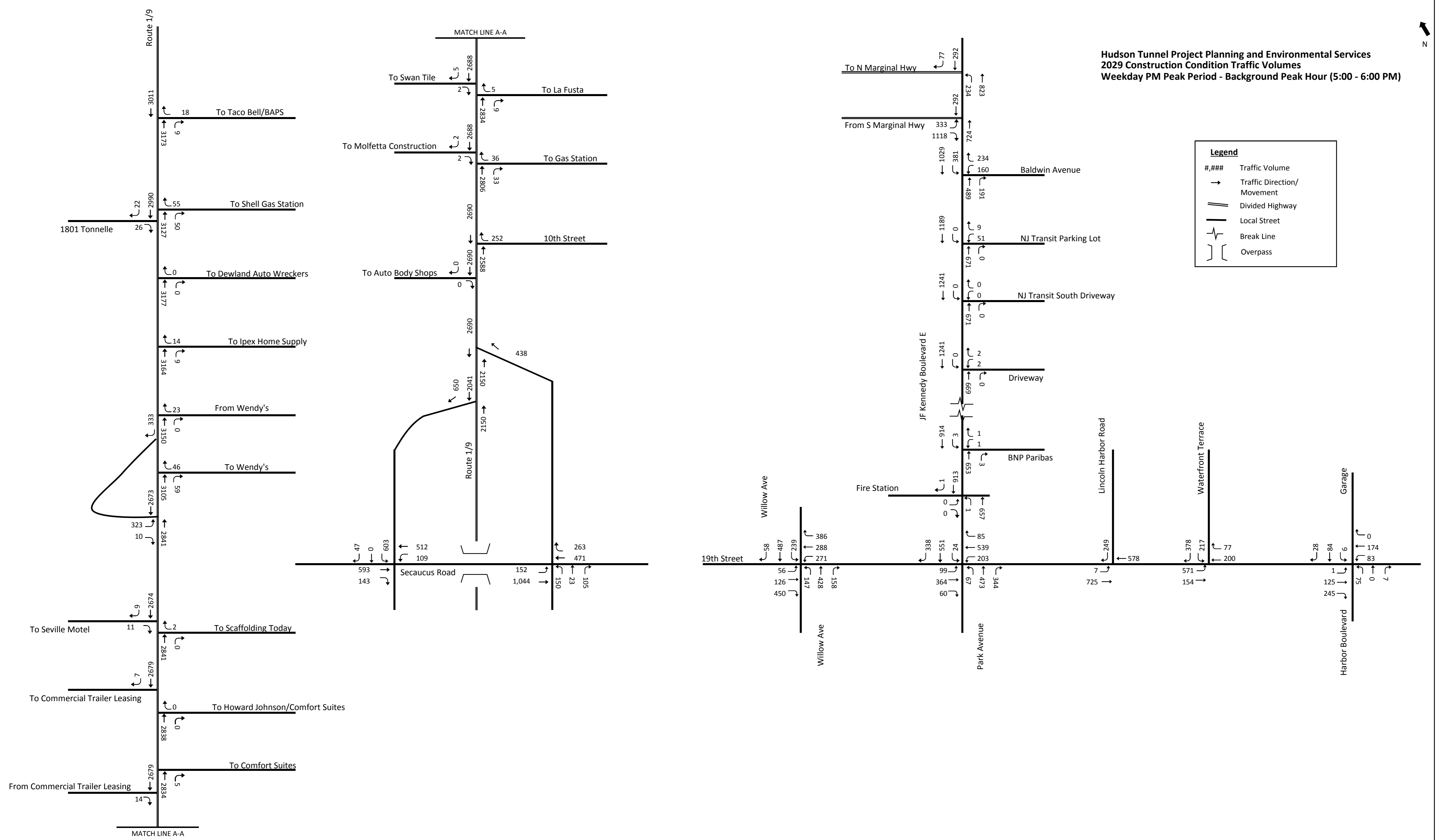


Hudson Tunnel Project Planning and Environmental Services
 2029 Construction Condition Traffic Volumes
 Weekday PM Peak Period - Background Peak Hour (5:00 - 6:00 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

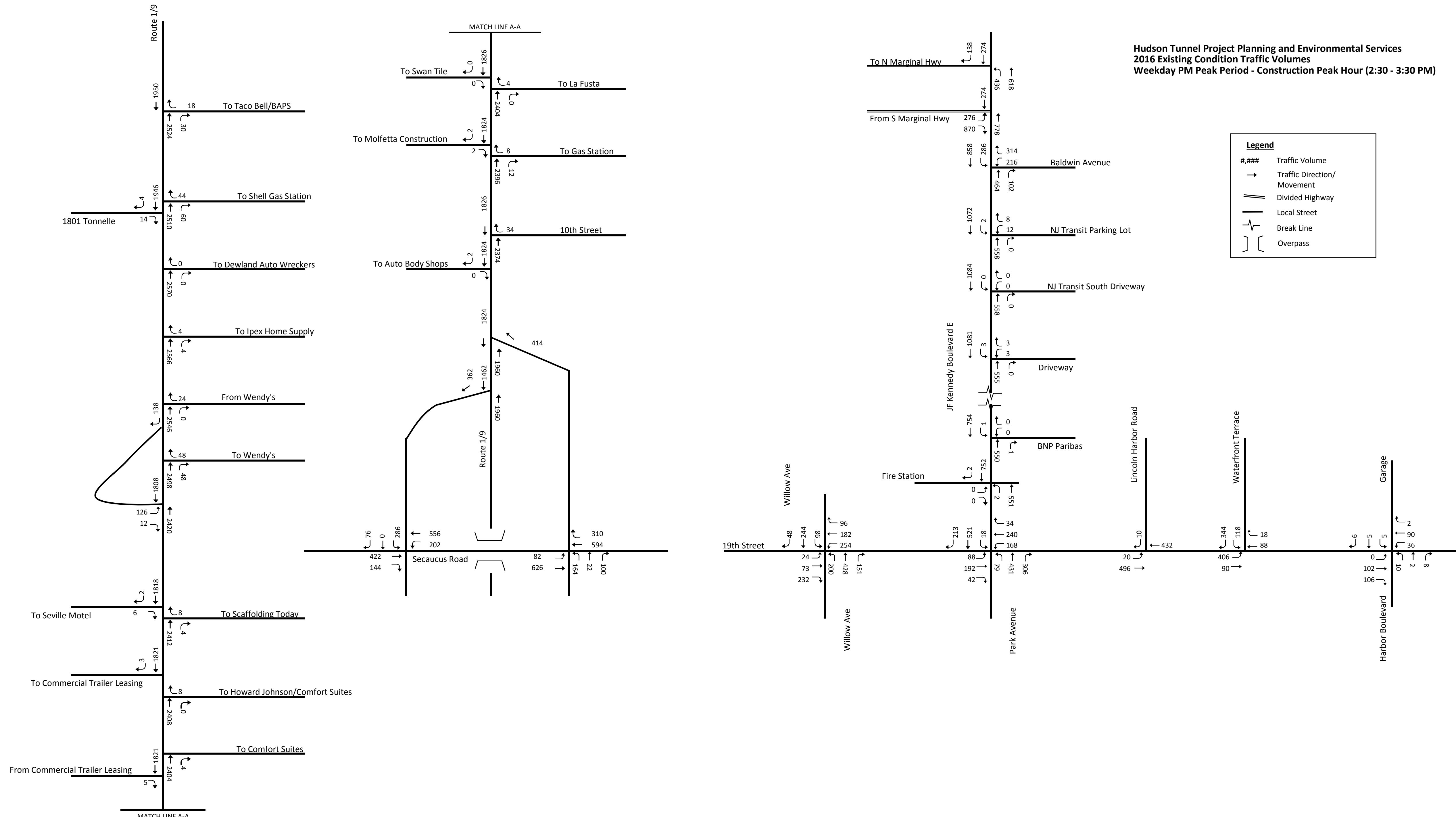


Traffic Flow Maps:
New Jersey—Weekday PM Peak Hour—
Construction Condition

Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)

Legend

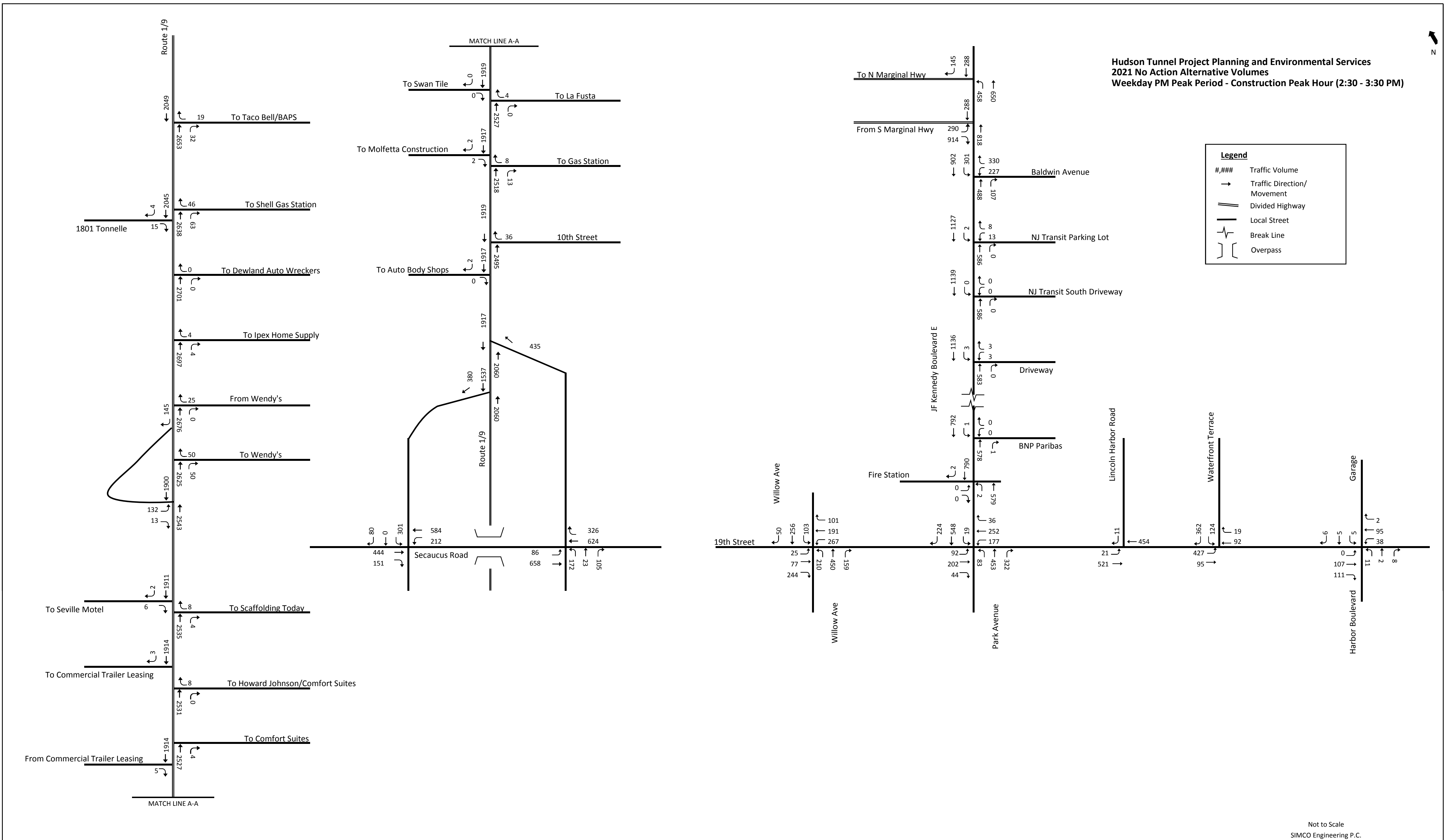
- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2021 No Action Alternative Volumes
 Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)

Legend

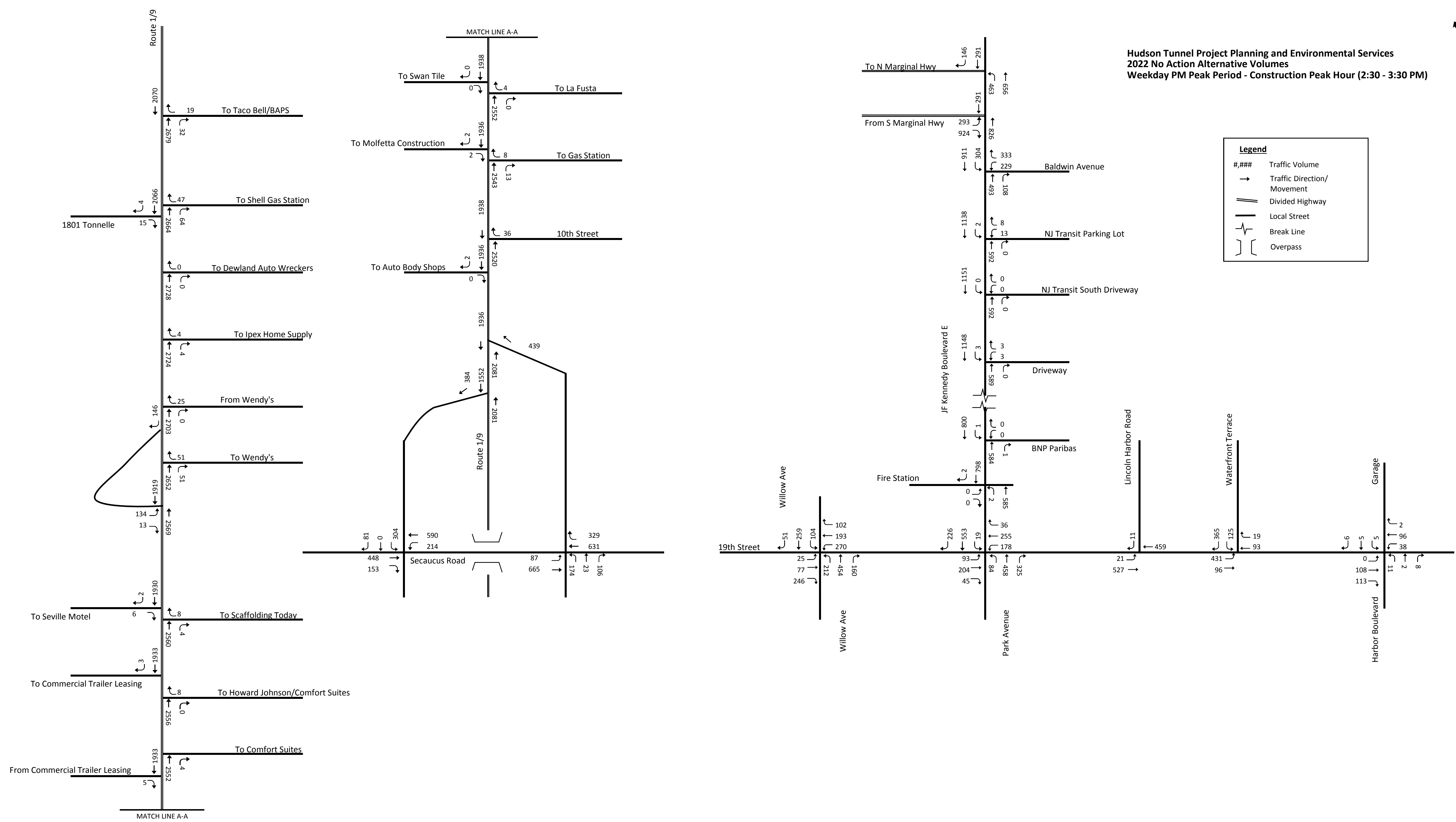
- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2022 No Action Alternative Volumes
 Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)

Legend

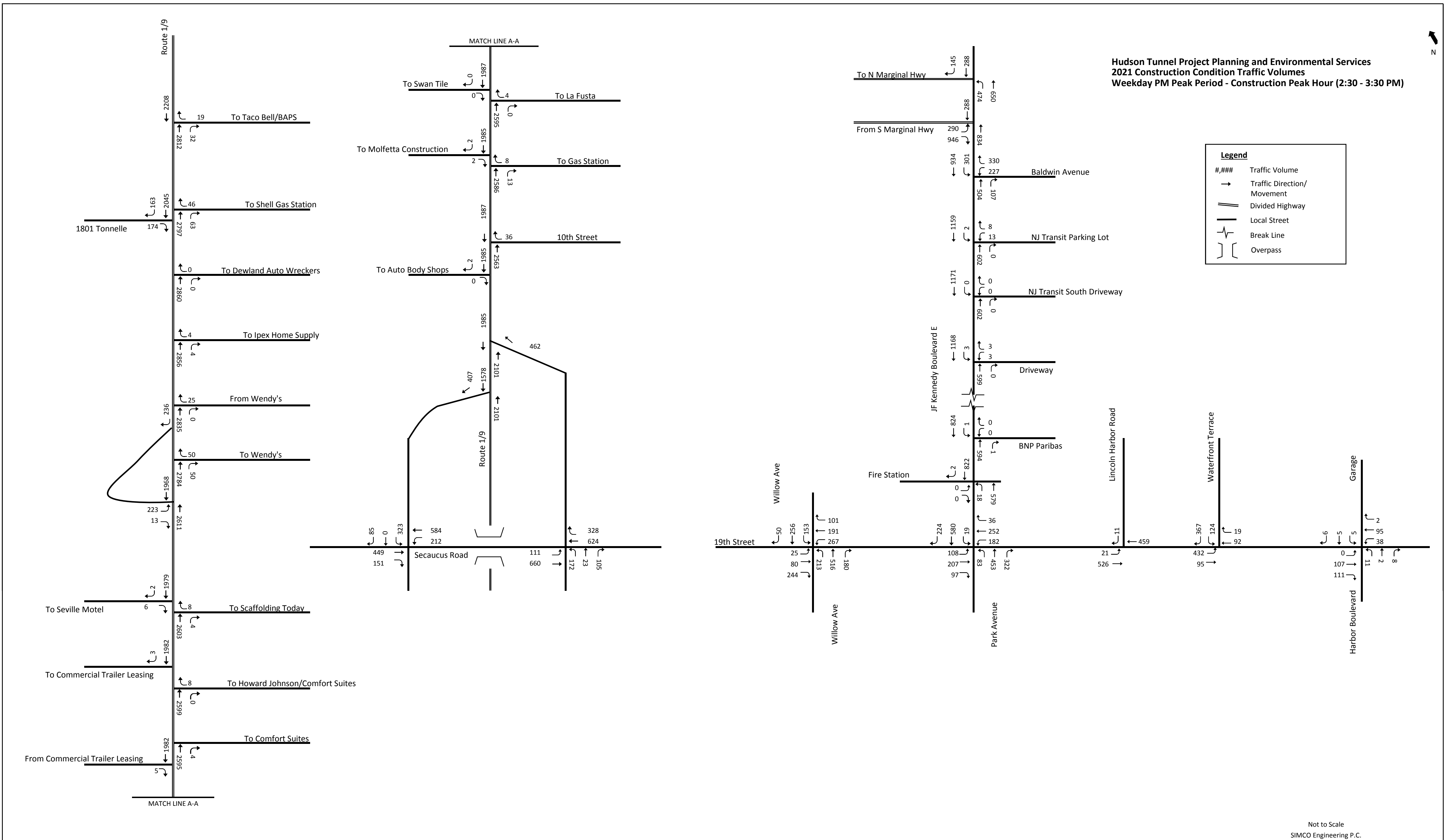
- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- - - Break Line
- { } Overpass



Hudson Tunnel Project Planning and Environmental Services
 2021 Construction Condition Traffic Volumes
 Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

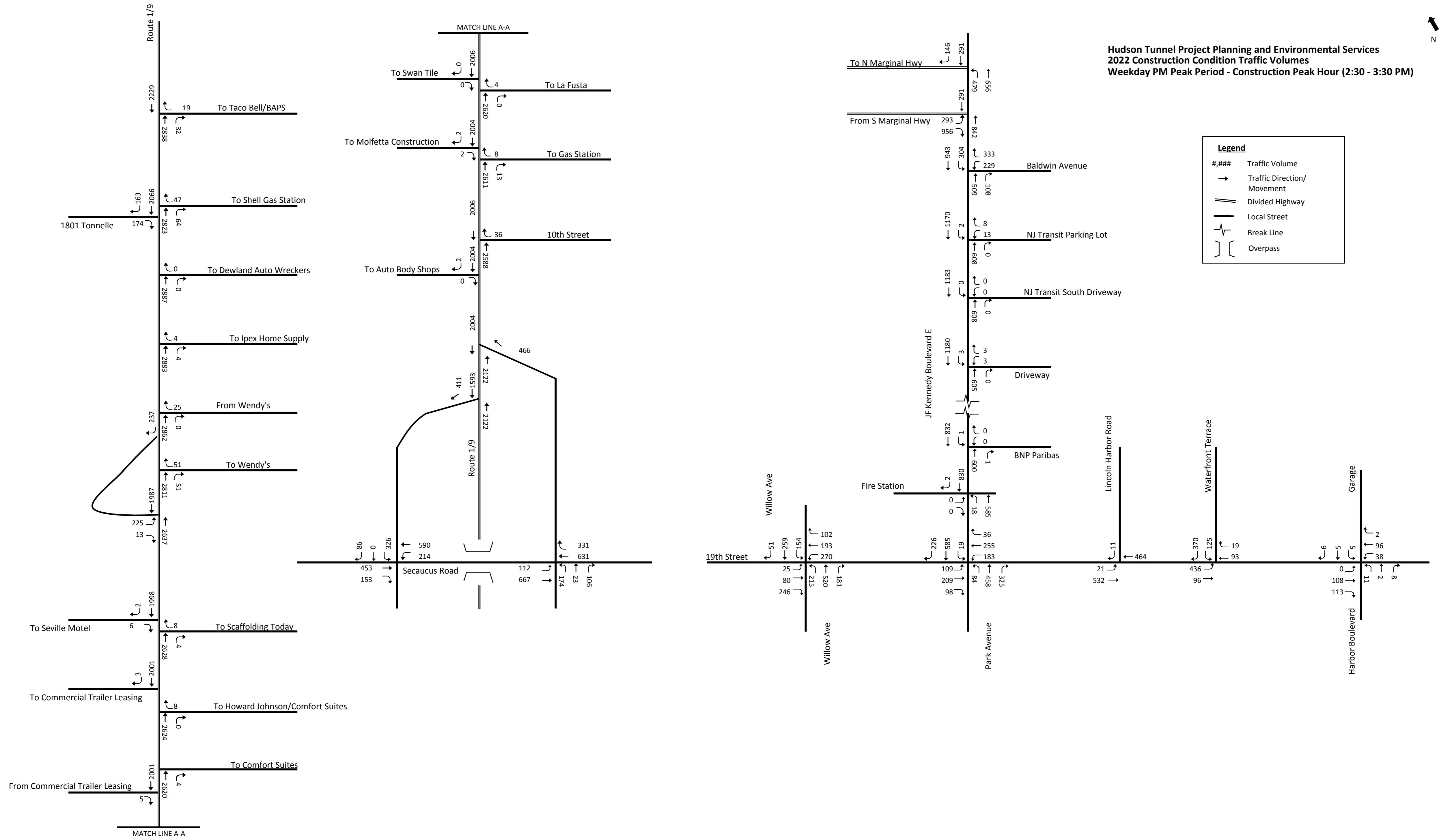


Hudson Tunnel Project Planning and Environmental Services
 2022 Construction Condition Traffic Volumes
 Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)



Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass



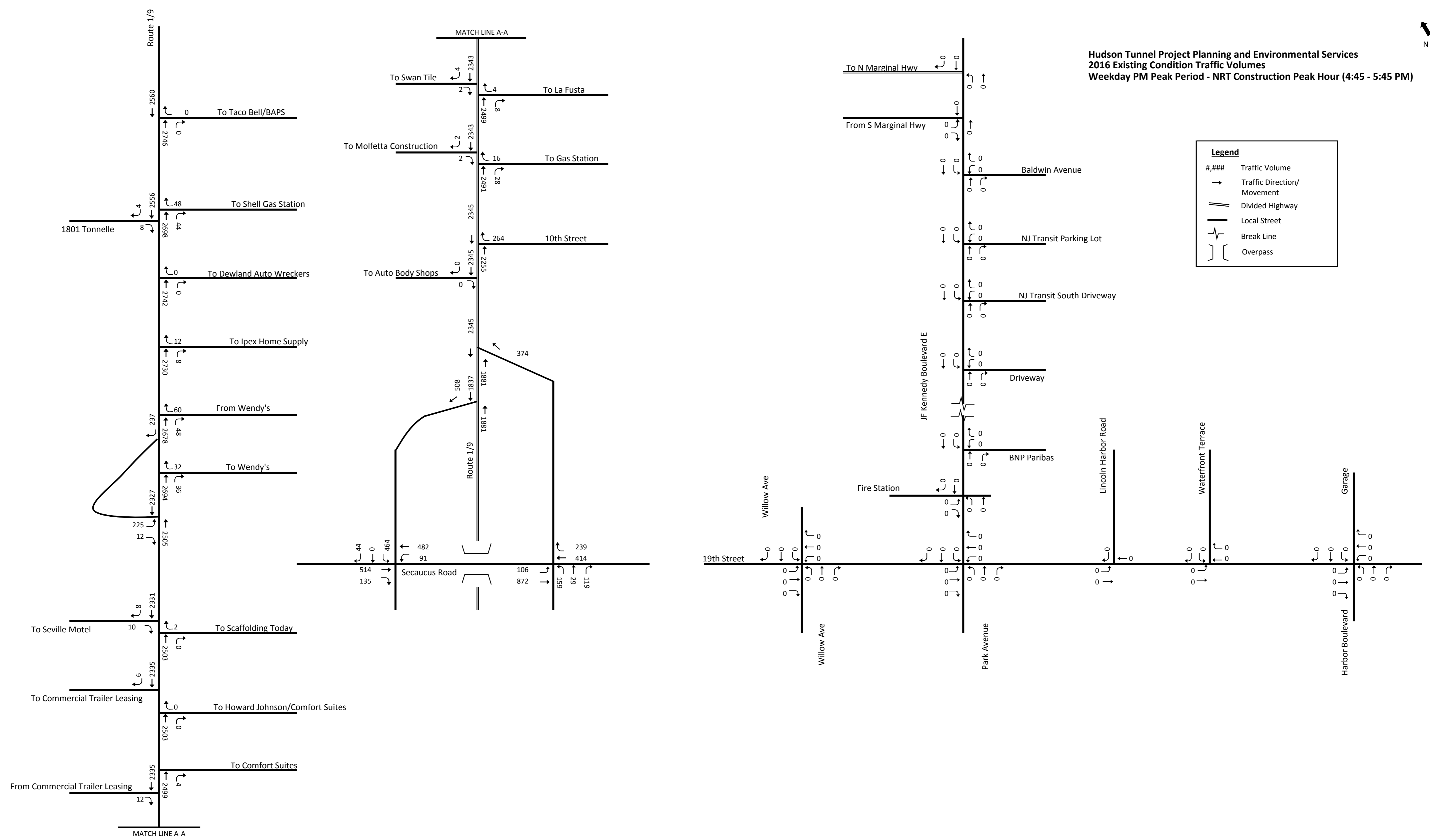
Traffic Flow Maps:
New Jersey—Weekday PM Peak Hour—
2029 Construction Condition

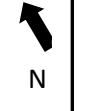
Hudson Tunnel Project Planning and Environmental Services
 2016 Existing Condition Traffic Volumes
 Weekday PM Peak Period - NRT Construction Peak Hour (4:45 - 5:45 PM)



Legend

- ### Traffic Volume
- Traffic Direction/Movement
- || Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

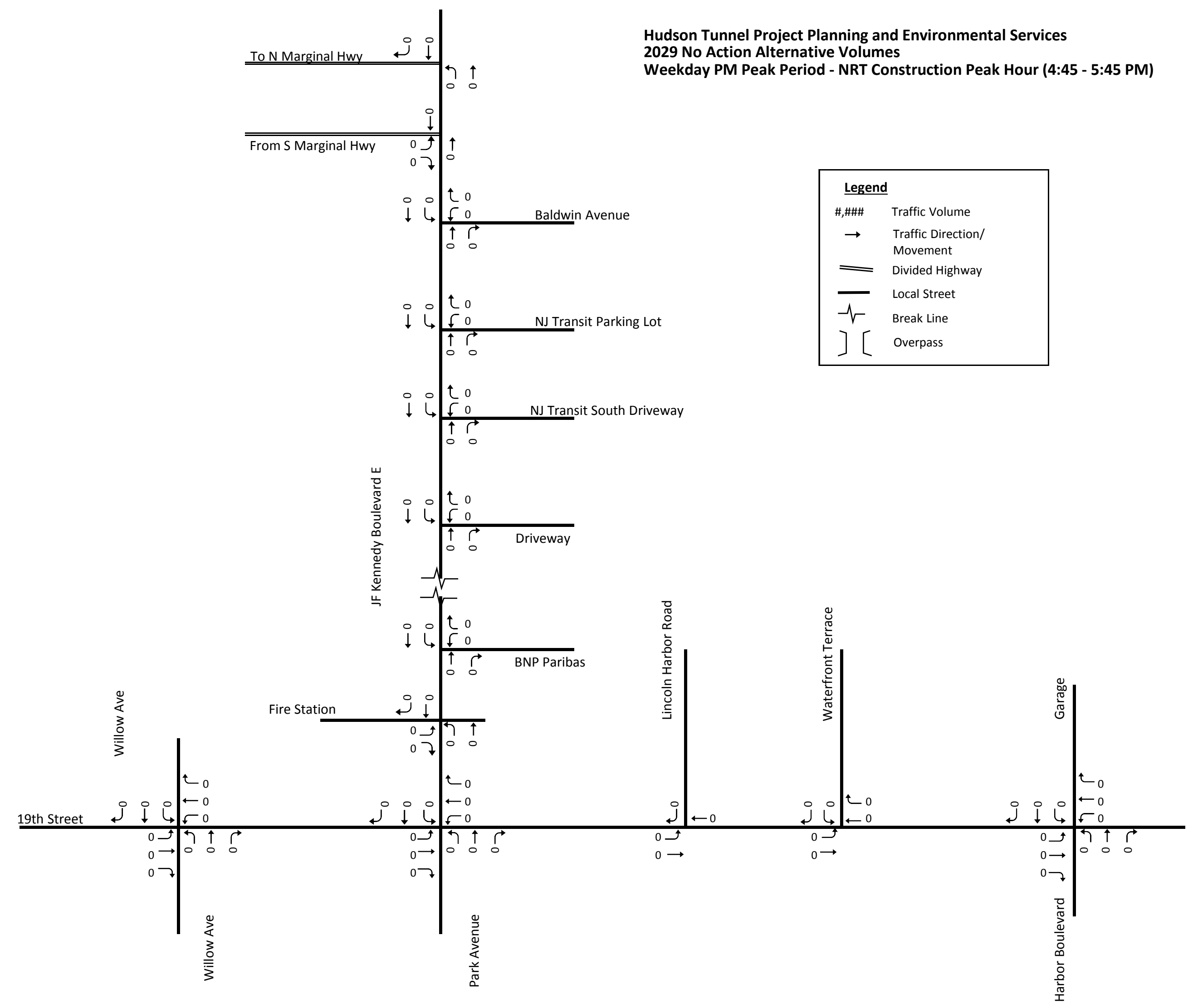
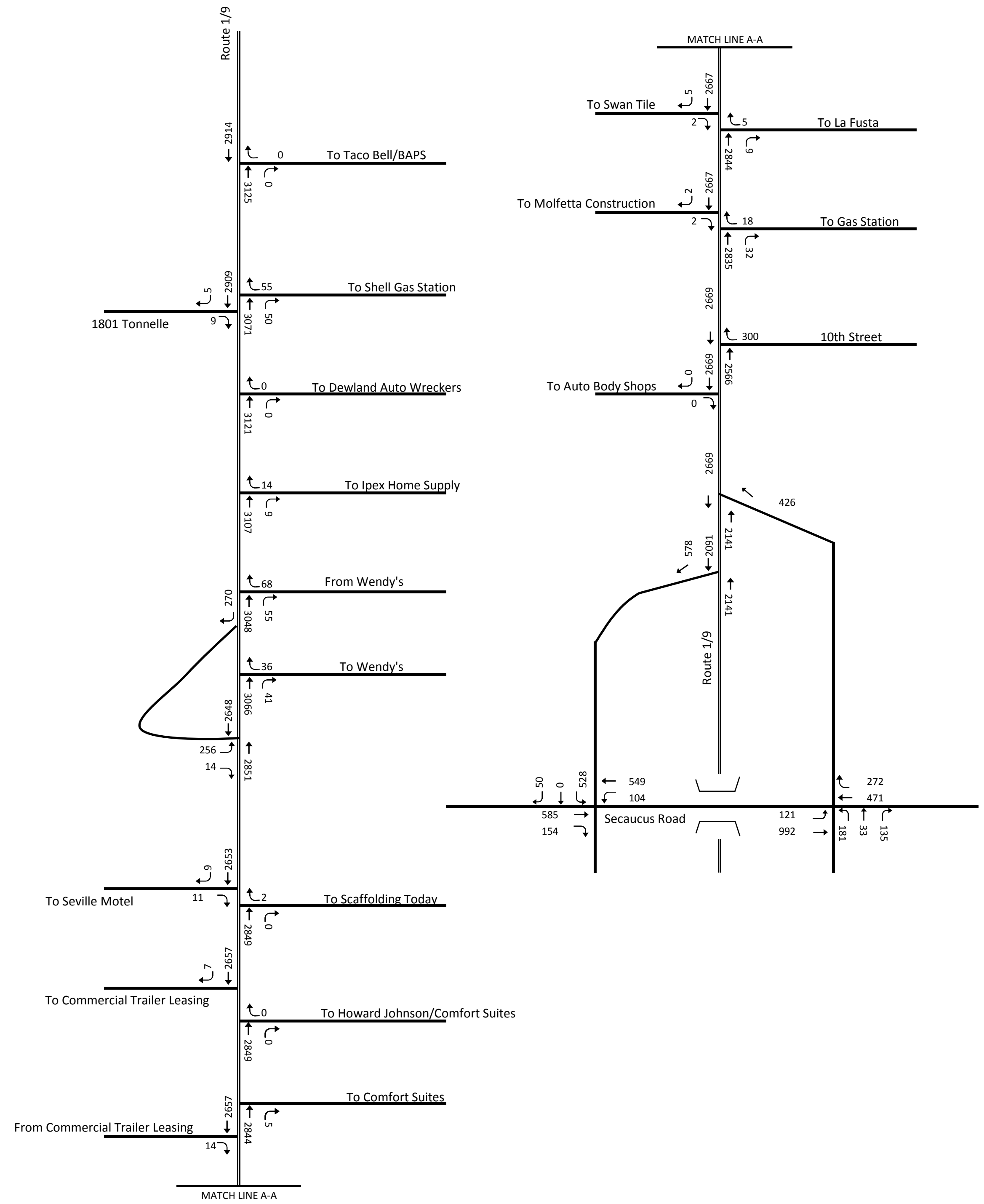




Hudson Tunnel Project Planning and Environmental Services
2029 No Action Alternative Volumes
Weekday PM Peak Period - NRT Construction Peak Hour (4:45 - 5:45 PM)

Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- - - Break Line
- { } Overpass

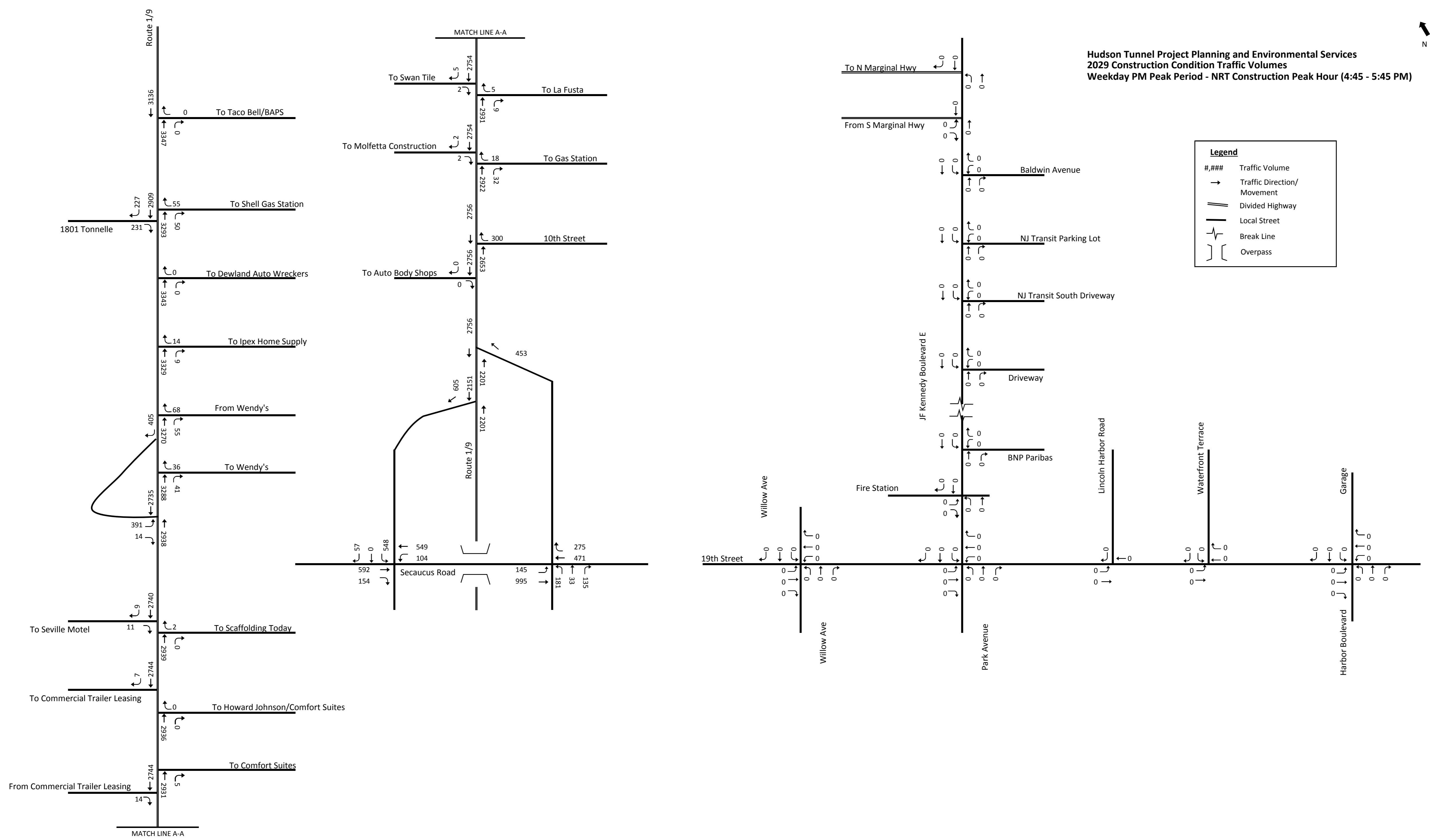


Hudson Tunnel Project Planning and Environmental Services
 2029 Construction Condition Traffic Volumes
 Weekday PM Peak Period - NRT Construction Peak Hour (4:45 - 5:45 PM)



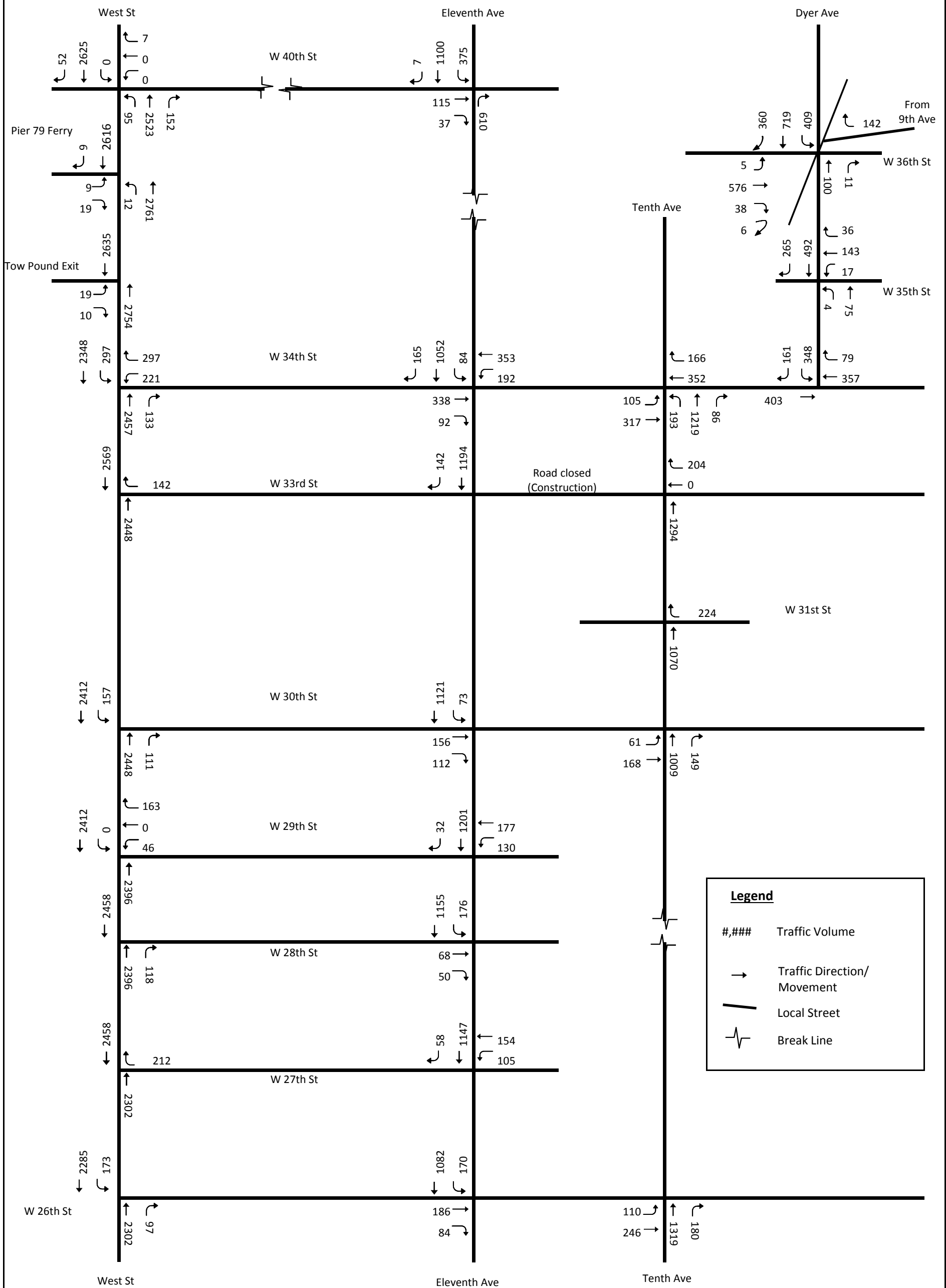
Legend

- #,### Traffic Volume
- Traffic Direction/Movement
- ||| Divided Highway
- Local Street
- ~ Break Line
- { } Overpass

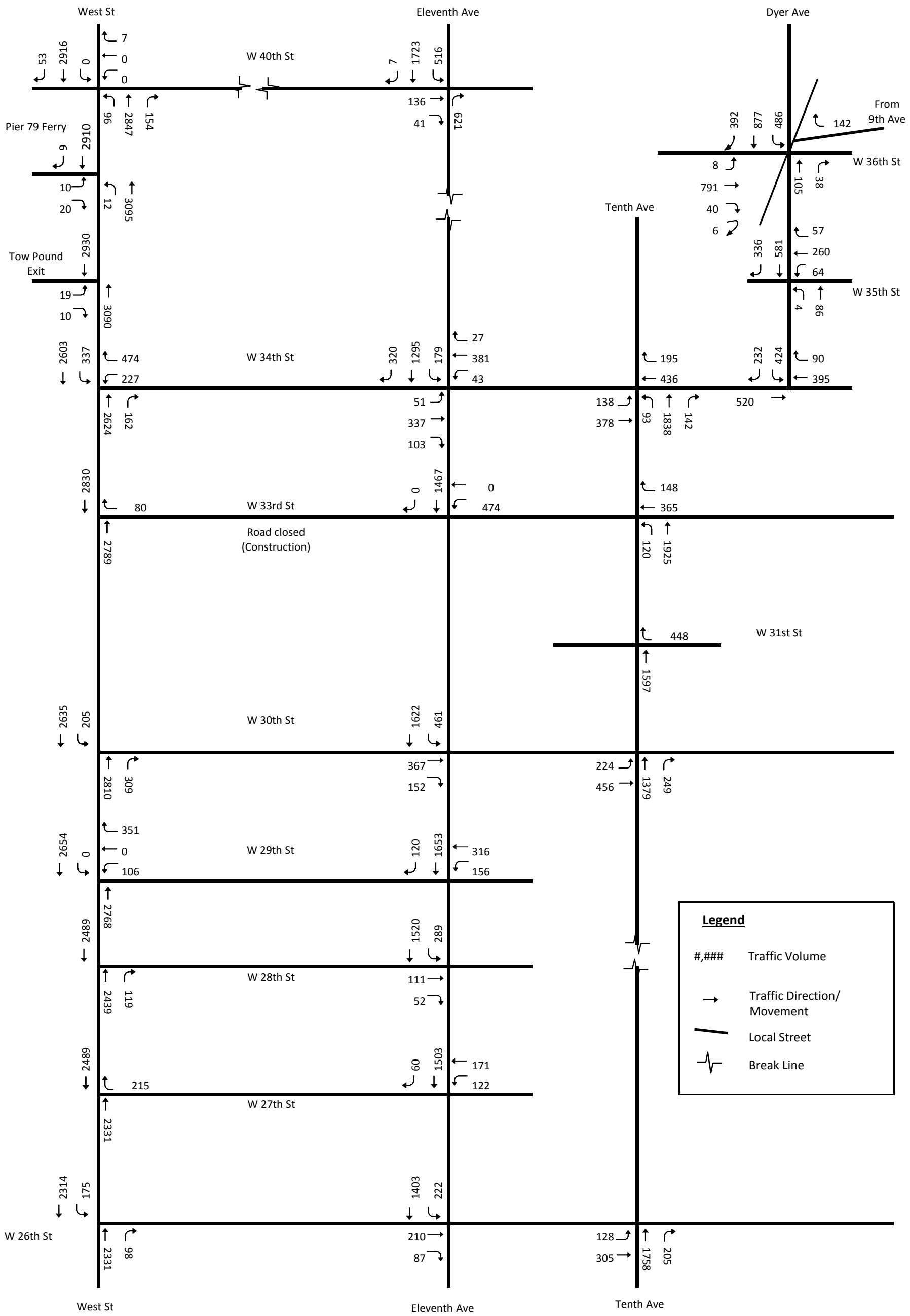


Traffic Flow Maps:
Manhattan—Weekday AM Peak Hour—
Background Condition

Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)



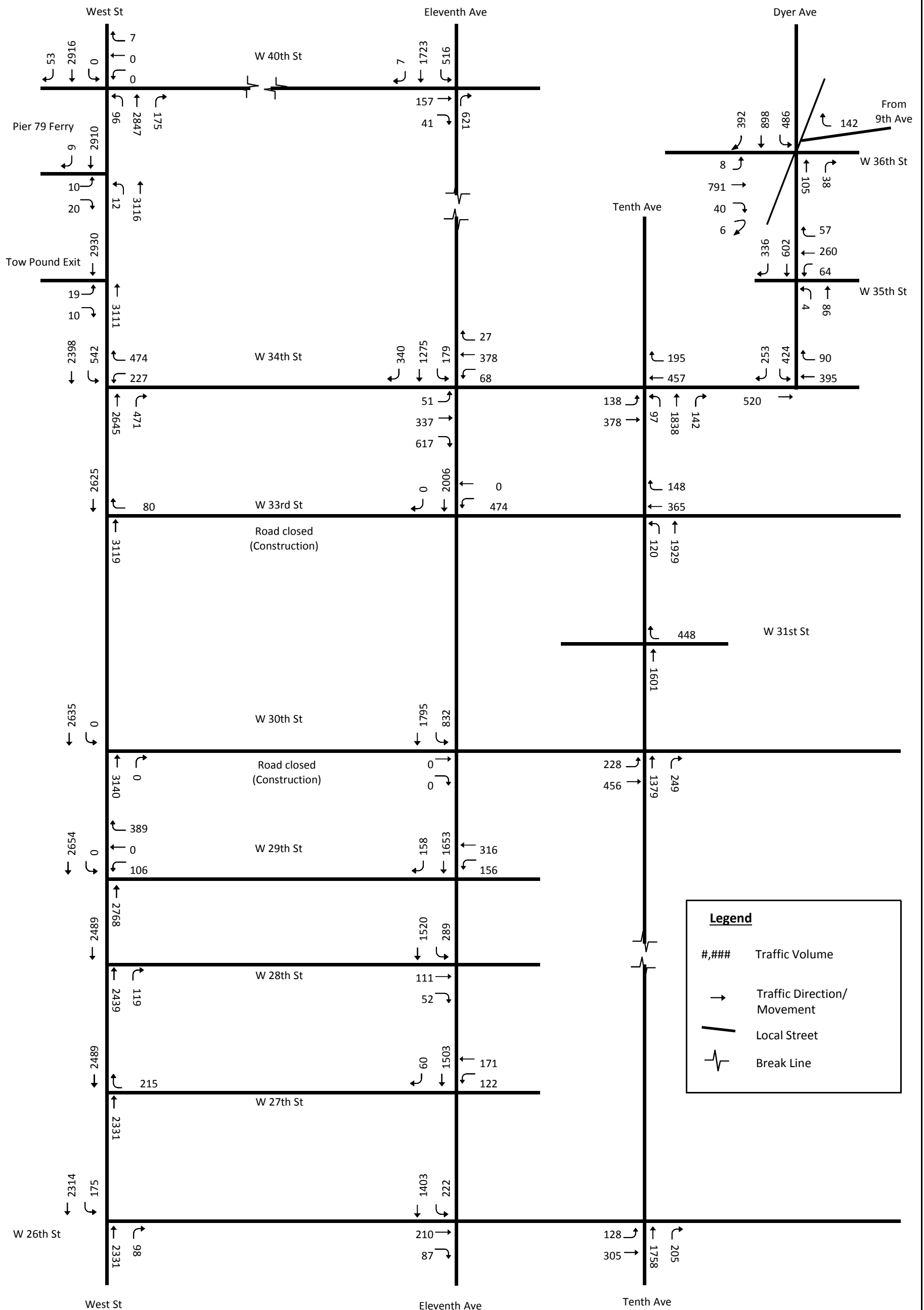
Hudson Tunnel Project Planning and Environmental Services
2021 No Action Alternative Traffic Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)



Legend

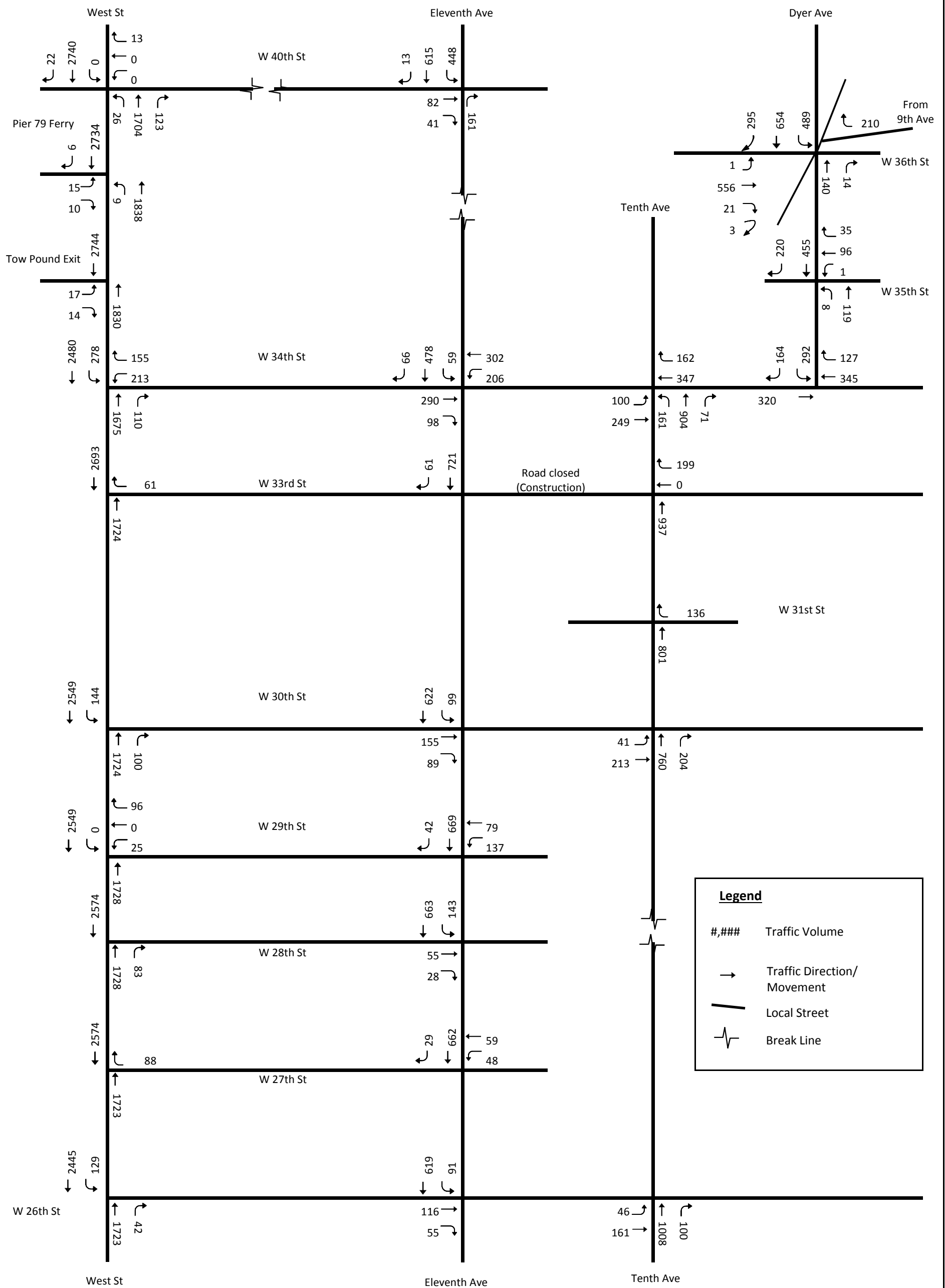
- #,### Traffic Volume
- Traffic Direction/Movement
- Local Street
- ⊢ Break Line

Hudson Tunnel Project Planning and Environmental Services
2021 Construction Condition Traffic Volumes
Weekday AM Peak Period - Background Peak Hour (7:45 - 8:45 AM)



Traffic Flow Maps:
Manhattan—Weekday AM Peak Hour—
Construction Condition

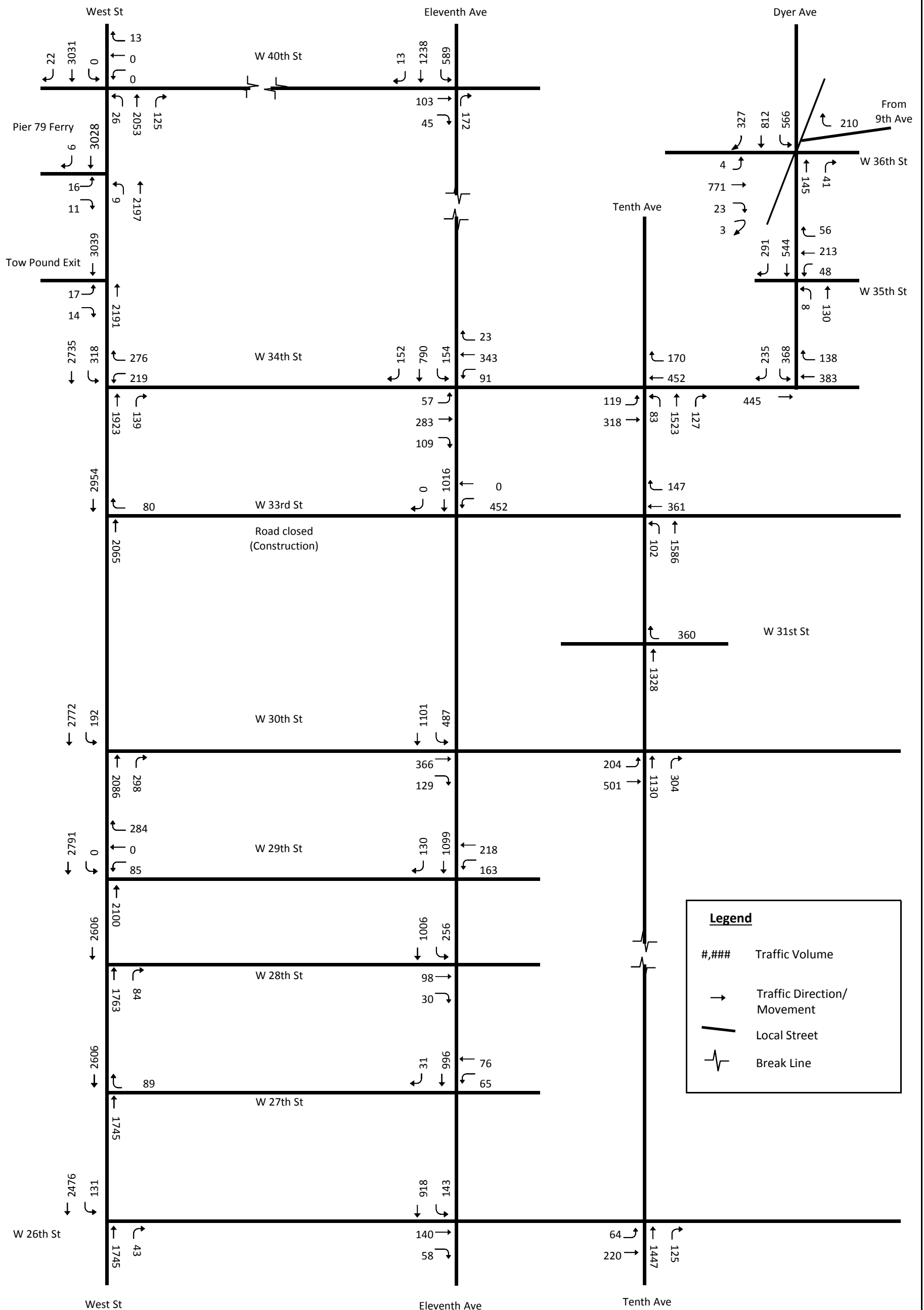
Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



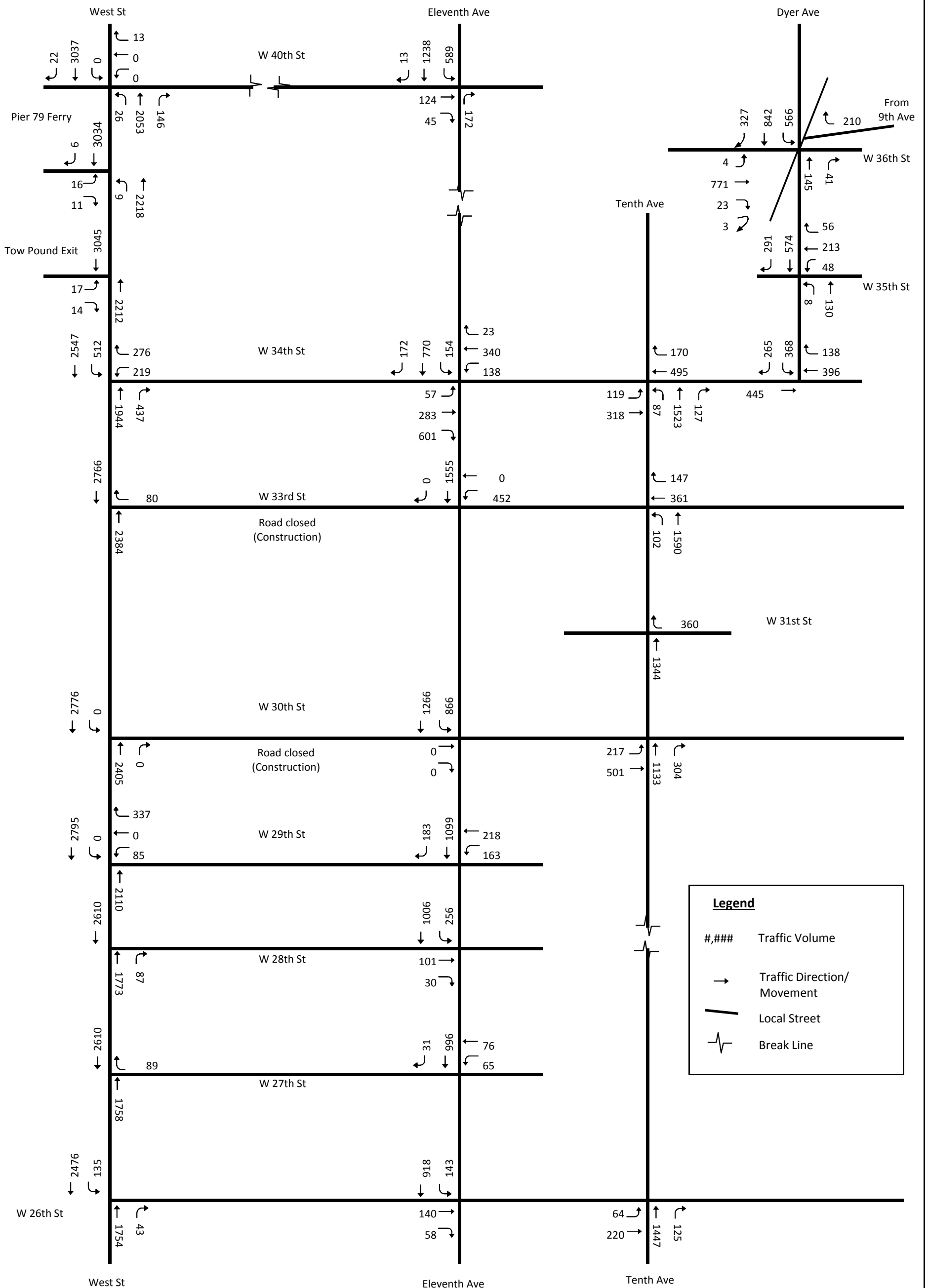
Not to Scale

SIMCO Engineering P.C.

Hudson Tunnel Project Planning and Environmental Services
2021 No Action Alternative Traffic Volumes
Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)



Hudson Tunnel Project Planning and Environmental Services
2021 Construction Condition Traffic Volumes
Weekday AM Peak Period - Construction Peak Hour (6:30 - 7:30 AM)

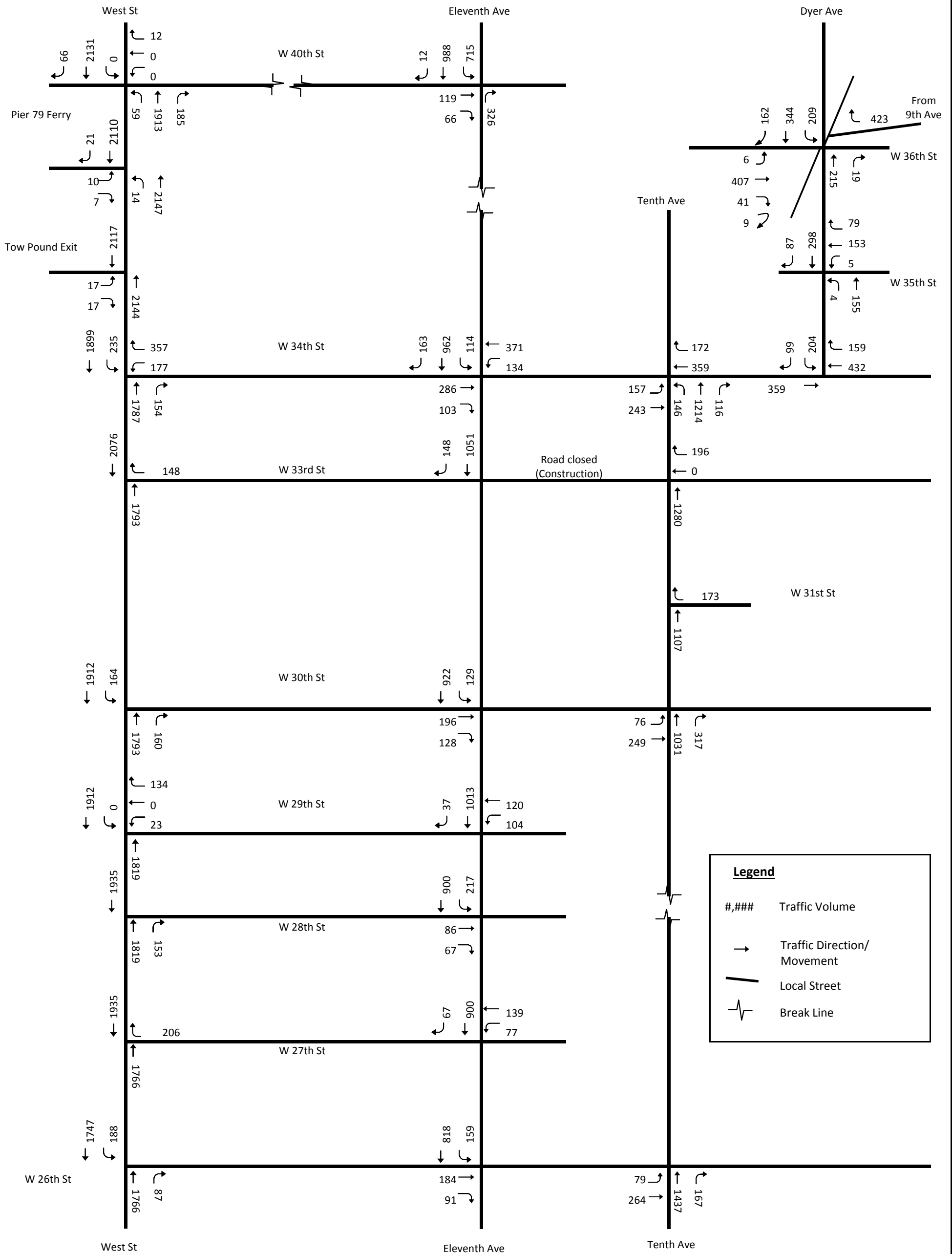


Legend

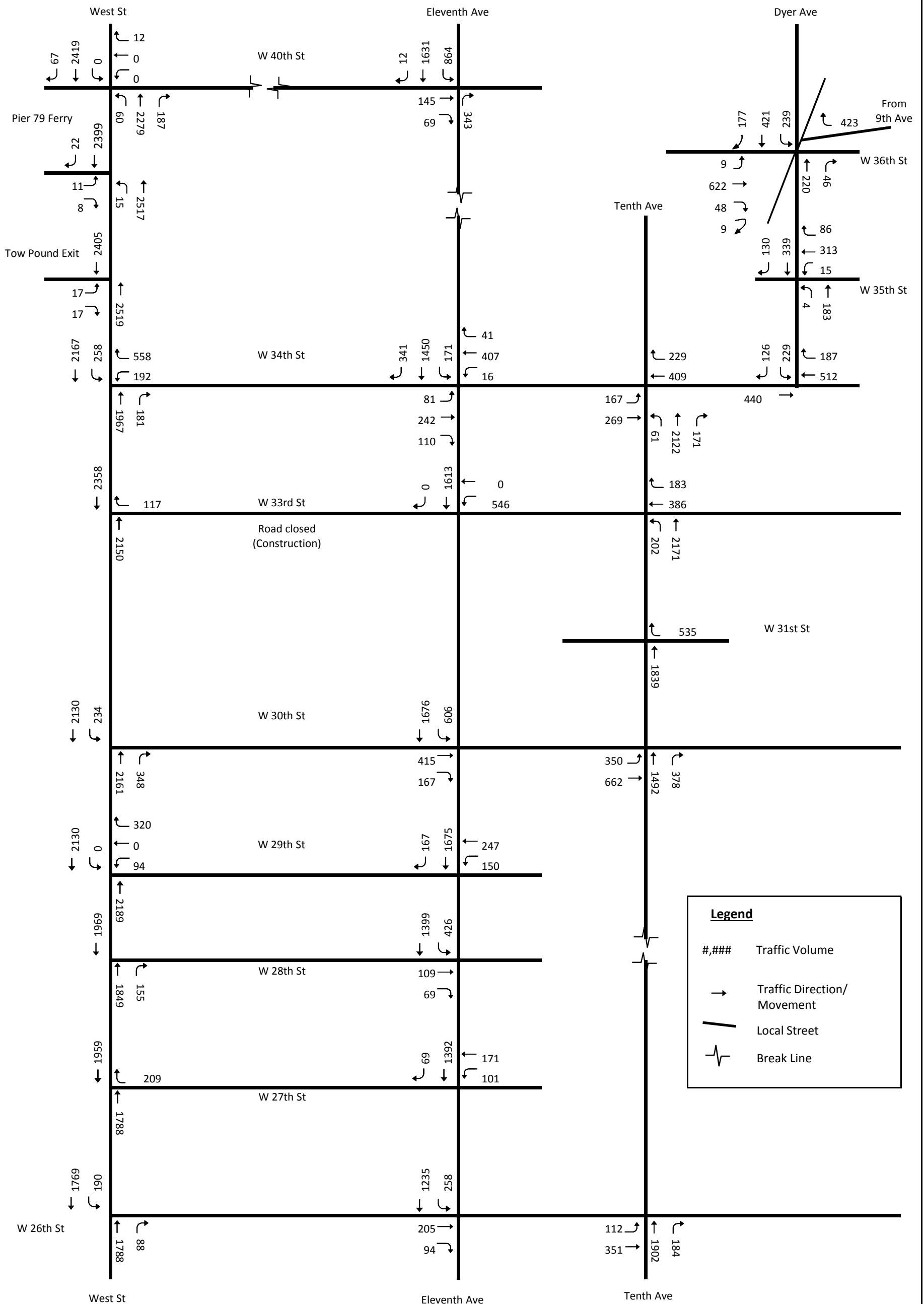
- #,### Traffic Volume
- Traffic Direction/Movement
- Local Street
- ⋈ Break Line

Traffic Flow Maps:
Manhattan—Weekday MD Peak Hour—
Background Condition

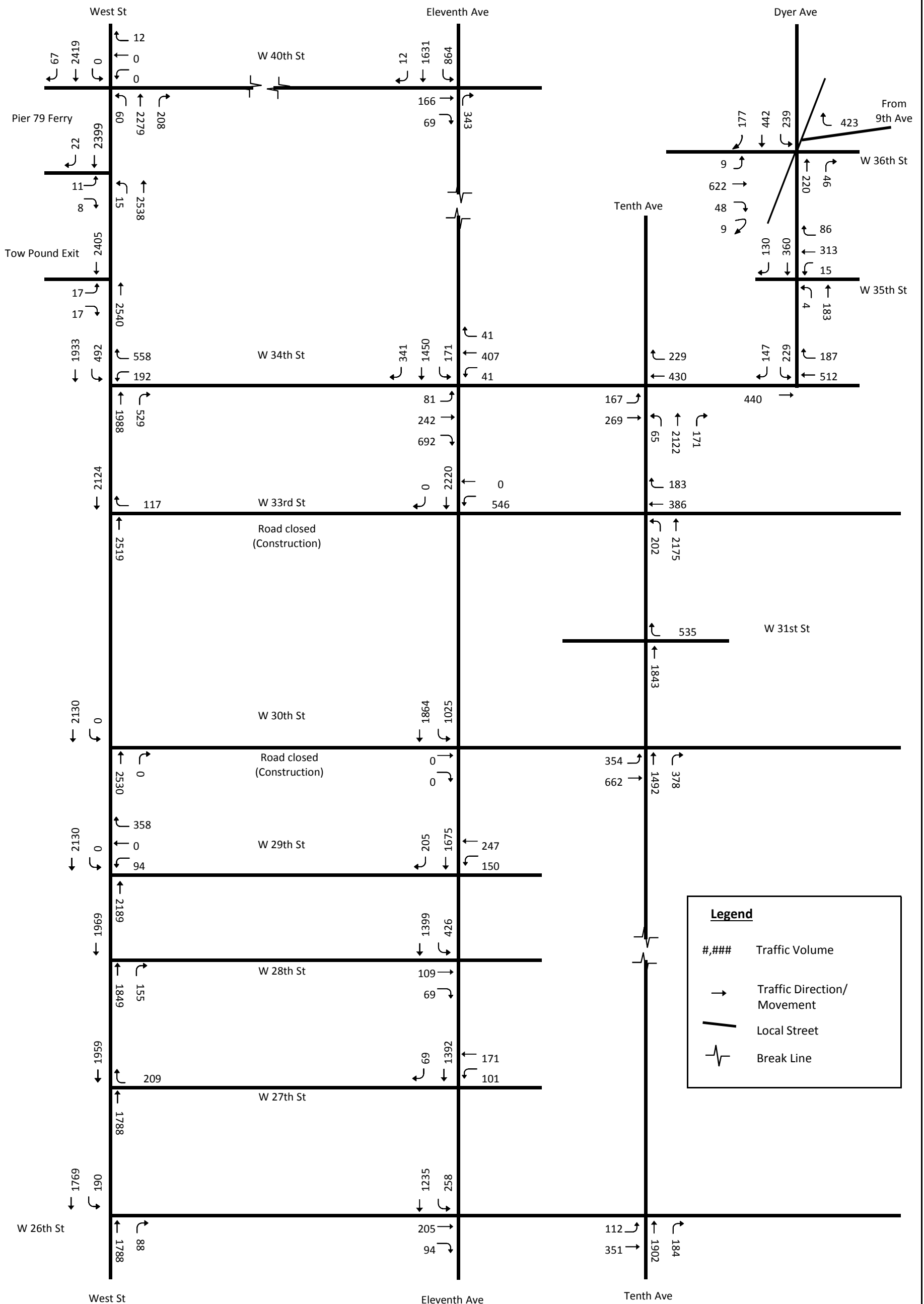
Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday Midday Peak Period - Background Peak Hour (12:45 - 1:45 PM)



Hudson Tunnel Project Planning and Environmental Services
2021 No Action Alternative Traffic Volumes
Weekday Midday Peak Period - Background Peak Hour (12:45 - 1:45 PM)

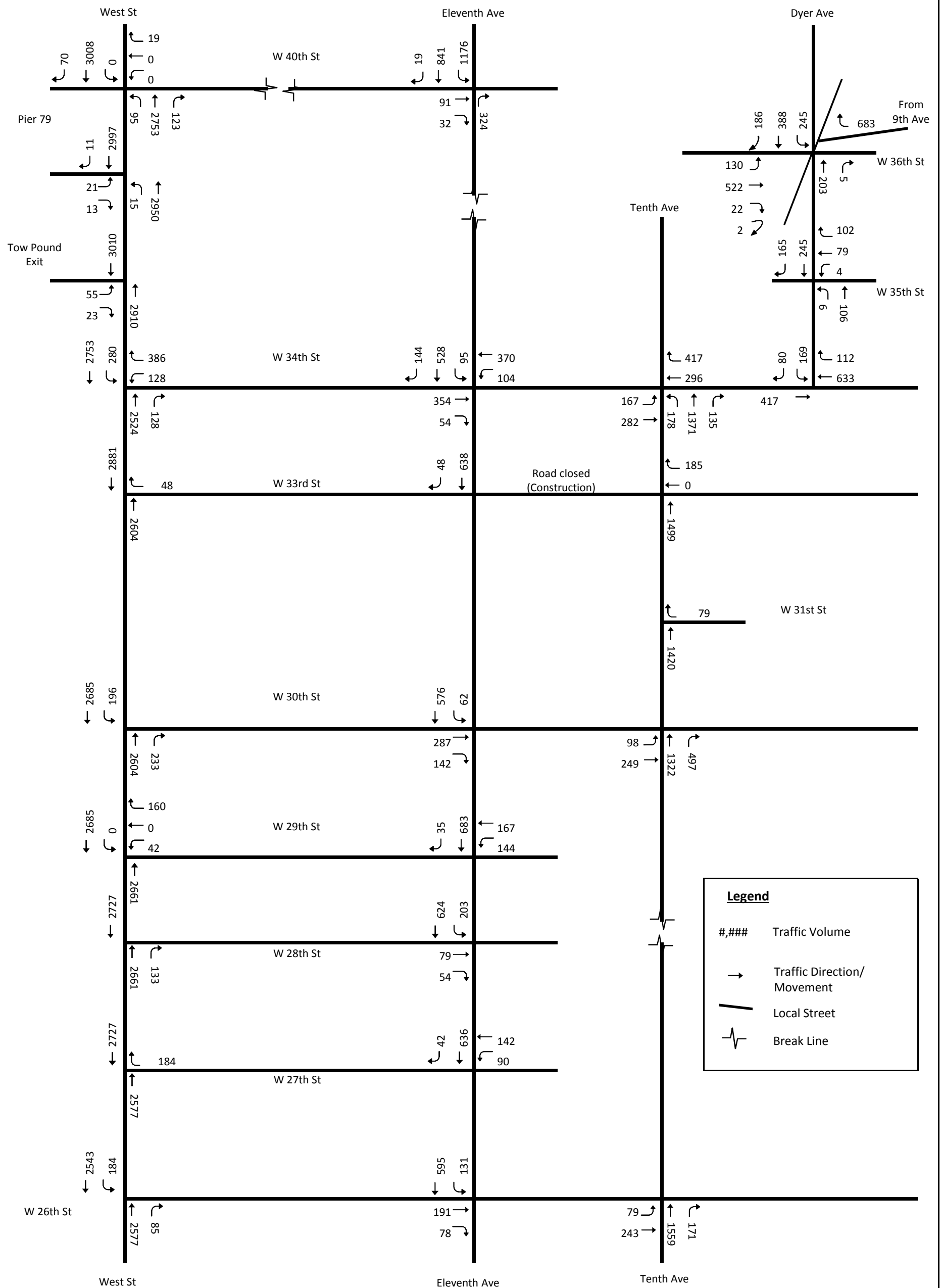


Hudson Tunnel Project Planning and Environmental Services
2021 Construction Condition Traffic Volumes
Weekday Midday Peak Period - Background Peak Hour (12:45 - 1:45 PM)

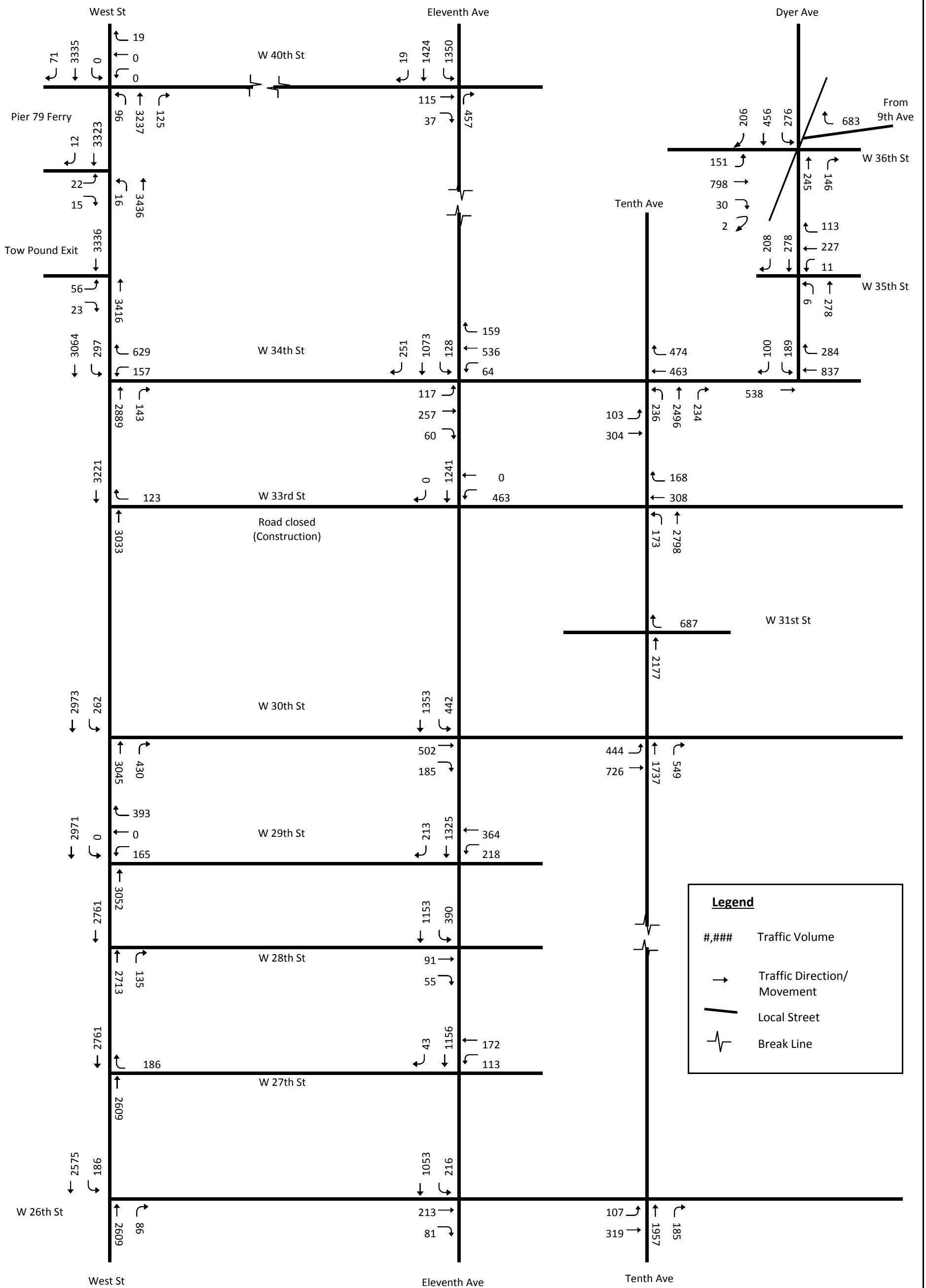


Traffic Flow Maps:
Manhattan—Weekday PM Peak Hour—
Background Condition

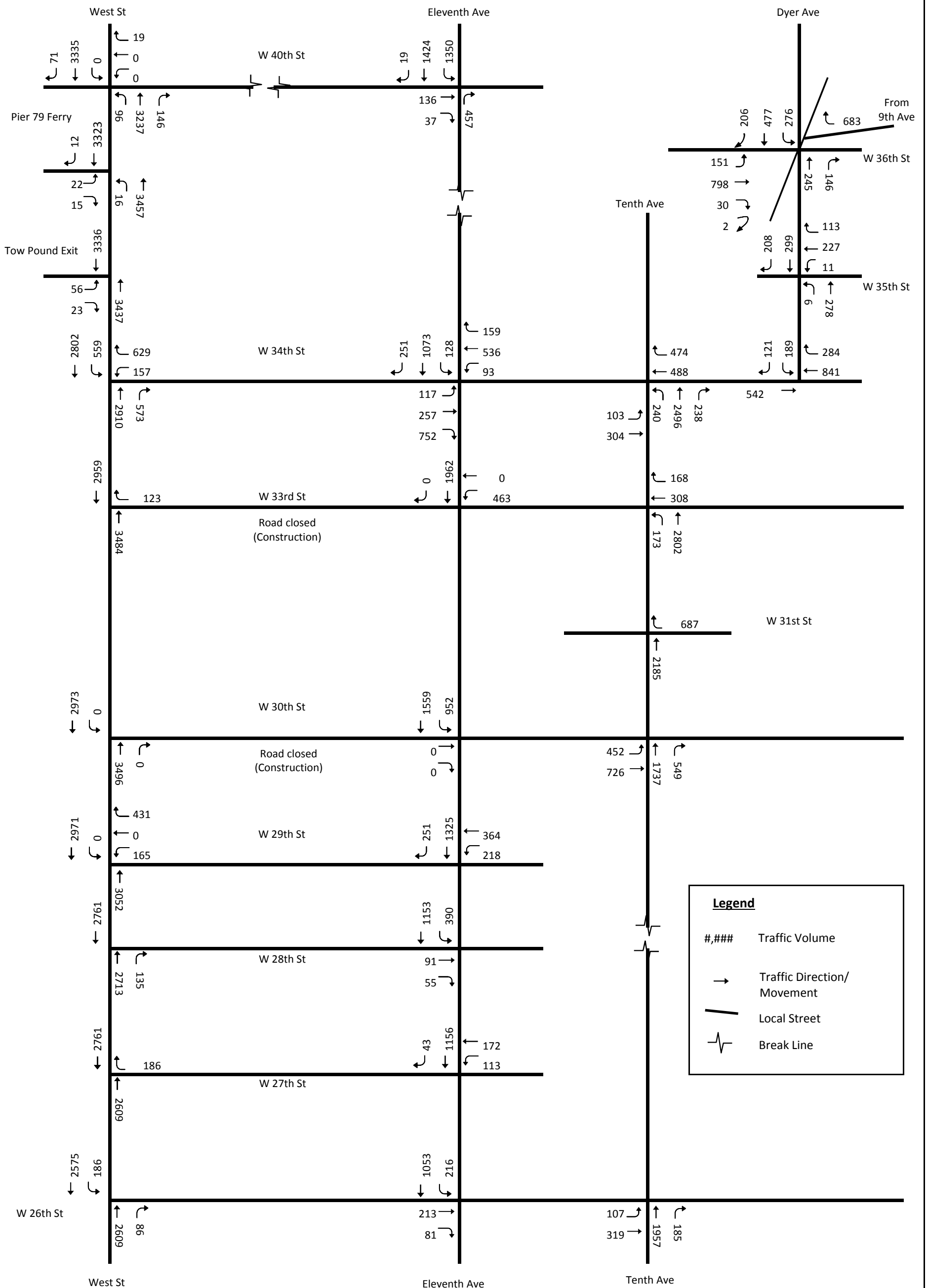
Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday PM Peak Period - Background Peak Hour (3:45 - 4:45 PM)



Hudson Tunnel Project Planning and Environmental Services
2021 No Action Alternative Traffic Volumes
Weekday PM Peak Period - Background Peak Hour (3:45 - 4:45 PM)

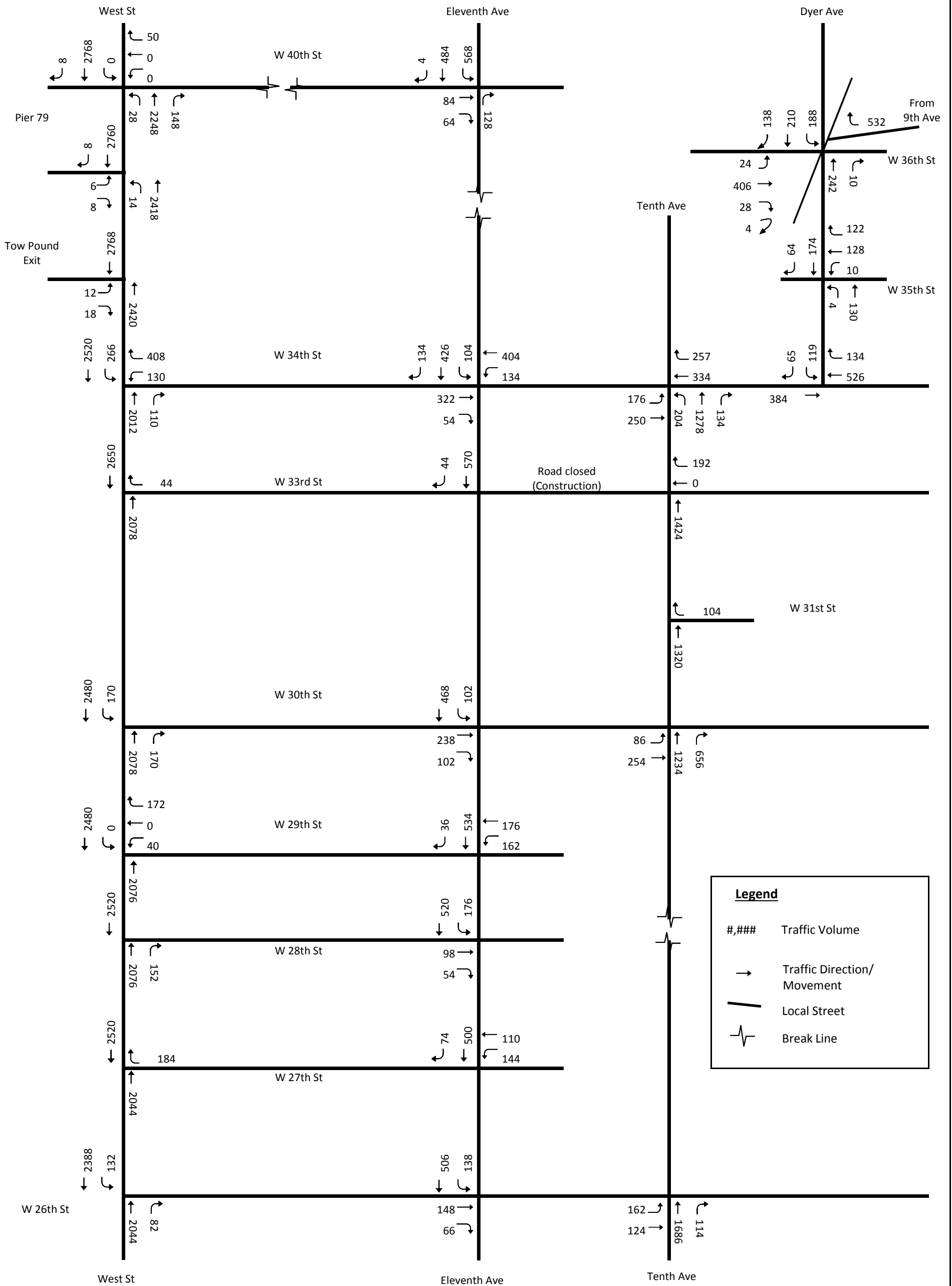


Hudson Tunnel Project Planning and Environmental Services
2021 Construction Condition Traffic Volumes
Weekday PM Peak Period - Background Peak Hour (3:45 - 4:45 PM)

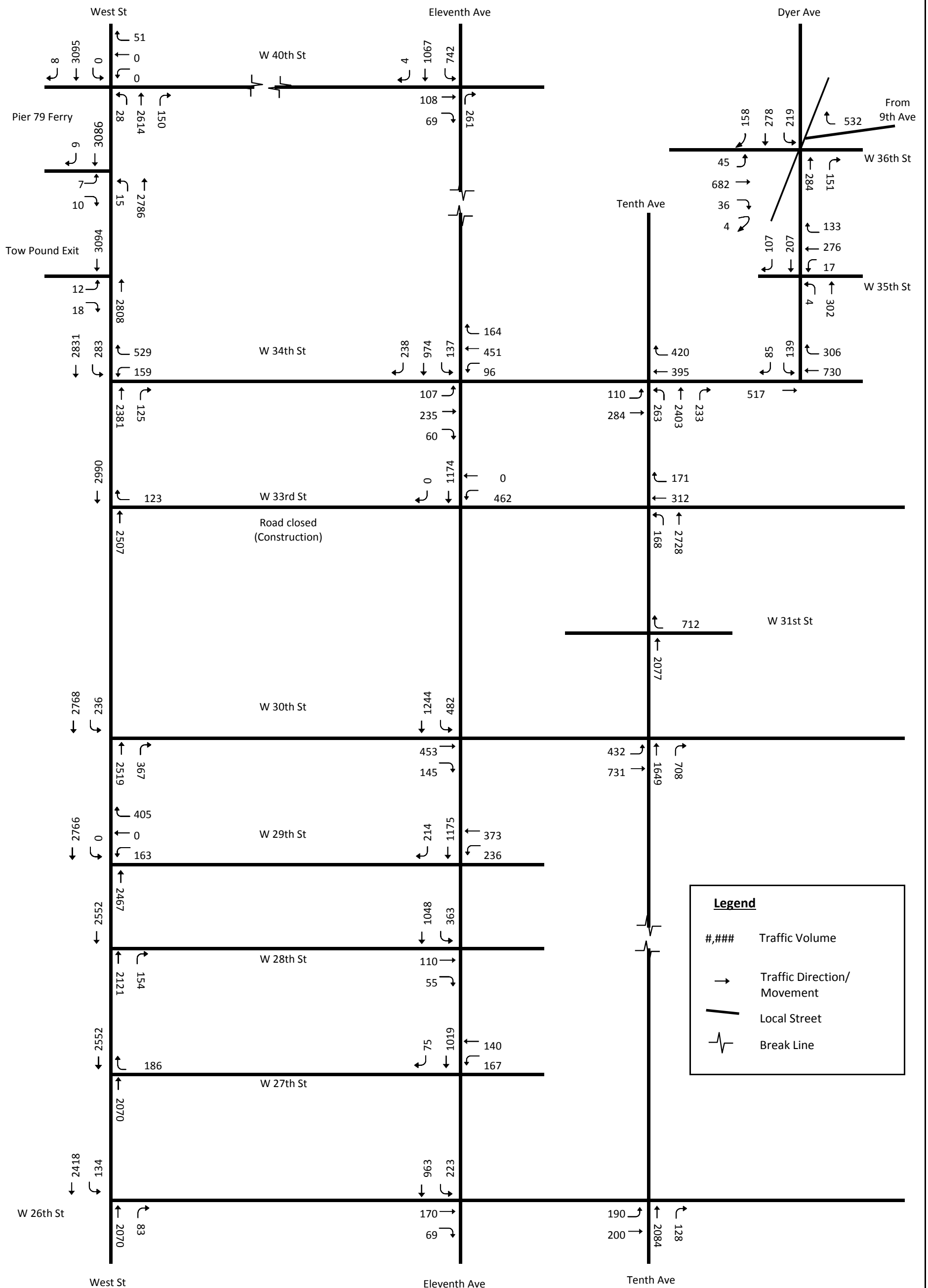


Traffic Flow Maps:
Manhattan—Weekday PM Peak Hour—
Construction Condition

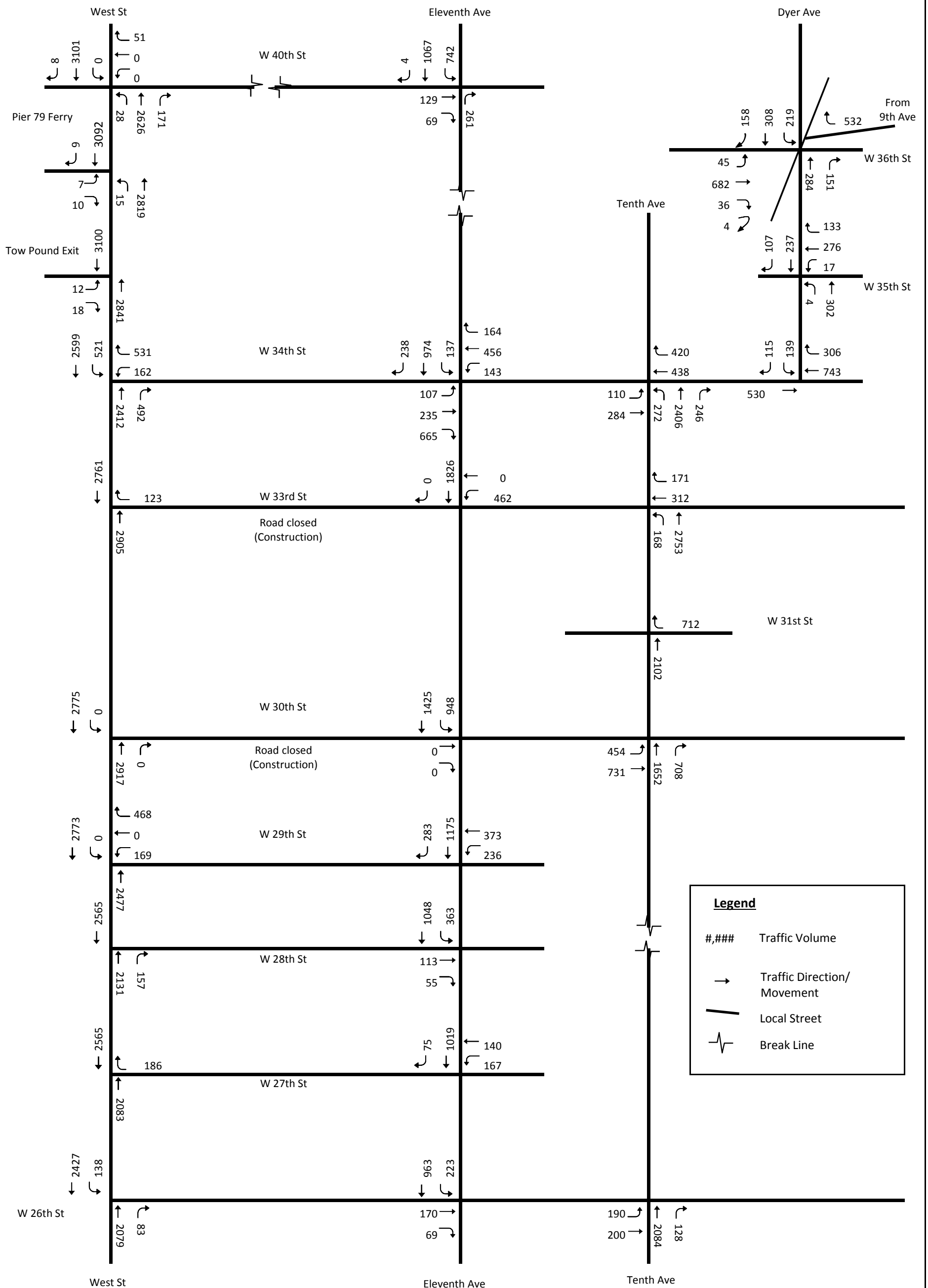
Hudson Tunnel Project Planning and Environmental Services
2016 Existing Condition Traffic Volumes
Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)



Hudson Tunnel Project Planning and Environmental Services
2021 No Action Alternative Traffic Volumes
Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)



Hudson Tunnel Project Planning and Environmental Services
2021 Construction Condition Traffic Volumes
Weekday PM Peak Period - Construction Peak Hour (2:30 - 3:30 PM)



Pedestrian Volumes: Manhattan Peak Hours

Existing Year: 2016
 Build Year: 2021
 Num of Years: 5
 Growth Rate: 0.25%
 Growth Factor: 0.0126

Corners and Crosswalks

PED Int #	Intersection	Type	Location	Direction	Movement	Existing 2016 Volume (Ped Counts)	Existing 2016 Volume (TMC Counts)	Background Growth	Soft Site Increment 601 W. 29th Street	Soft Site Increment 606 W. 30th Street	Soft Site Increment Western Rail Yard	Total No Build Increment	No Build 2021 Volume 2021	Build Detour	Build 2021 Volume 2021
1	10th Ave & 31st St	Crosswalk	North	Eastbound	V1	9		0			50	50	59		59
				Westbound	V2	74		1		87	88	162		162	
		Crosswalk	East	Northbound	V3	148		2		106	108	256		256	
				Southbound	V4	708		9		32	41	749		749	
Corner	NE		VNE	25		0		4	4	29		29			
2	10th Ave & 33rd St	Crosswalk	East	Northbound	V3	163	Due to construction, TMC Ped Counts were unusually low	2			137	139	302		302
				Southbound	V4	571		7		207	214	785		785	
		Crosswalk	South	Eastbound	V5	346		4	12	5	280	301	647		647
				Westbound	V6	92		1	4	2	793	800	892		892
Corner	SE		VSE	160		2		61	63	223		223			
3	11th Ave & 30th St	Crosswalk	North	Eastbound	V1	32	26	0	46	13	16	75	101		101
				Westbound	V2	16	12	0	10	5	14	29	41		41
		Crosswalk	South	Eastbound	V5	62	62	1	111	33	5	150	212		212
				Westbound	V6	102	83	1	23	11	6	41	124		124
		Crosswalk	West	Northbound	V7	128	103	1	299	81	16	397	500	-17	483
				Southbound	V8	319	294	4	67	26	8	105	399	-18	381
Corner	SW		VSW	2		0	10	67	51	128	130	35	165		
Corner	NW		VNW	31		0	0	0	0	0	31	-31	0		
4	12th St & 29th St	Crosswalk	North	Eastbound	V1	1	5	0				0	5		5
				Westbound	V2	3	2	0				0	2		2
		Crosswalk	East	Northbound	V3	4	7	0	1	1		2	9		9
				Southbound	V4	7	8	0	1	1		2	10		10
Corner	NE		VNE	1		0	0	0		0	1		1		
5	12th St & 30th St	Crosswalk	North	Eastbound	V1	0	0	0				0	0		0
				Westbound	V2	0	0	0				0	0		0
		Crosswalk	East	Northbound	V3	8	3	0	8	7	15	30	33	-18	15
				Southbound	V4	8	11	0	4	3	14	21	32	-17	15
		Crosswalk	South	Eastbound	V5	6	3	0			13	13	16		16
				Westbound	V6	7	6	0			15	15	21		21
Corner	NE		VNE	5		0	11	0	28	39	44	-44	0		
Corner	SE		VSE	10		0	10	2	0	12	22	35	57		

Sidewalks

PED Int #	Street - Side	Cross Street 1	Cross Street 2	Direction	Movement	Existing 2016 Volume		Background Growth	Soft Site Increment West 29th Street	Soft Site Increment 606 West 30th Street	Soft Site Increment Western Rail Yard	Total No Build Increment	No Build 2021 Volume	Build Detour	Build 2021 Volume
2	10th Avenue - East	31st Street	33rd Street	Northbound	S5	206		3			54	57	263		263
				Southbound	S6	840		11		27	38	878		878	
2	10th Avenue - West	31st Street	33rd Street	Northbound	S9	0		0			393	393	393	-393	0
				Southbound	S10	0		0		660	660	660	-660	0	
4	12th Street - East	29th Street	30th Street	Northbound	S1	2		0	1	1		2	4		4
				Southbound	S2	8		0	1	1		2	10		10
5	30th Street - South	12th Avenue	11th Avenue	Eastbound	S7	8		0	3	193	6	202	210	18	228
				Westbound	S8	10		0	7	74	8	89	99	17	116
5	30th Street - North	12th Avenue	11th Avenue	Eastbound	S3	4		0	4	0	10	14	18	-18	0
				Westbound	S4	5		0	7	0	5	12	17	-17	0

Existing Year: 2016
 Build Year: 2021
 Num of Years: 5
 Growth Rate: 0.25%
 Growth Factor: 0.0126

Corners and Crosswalks

PED Int #	Intersection	Type	Location	Direction	Movement	Existing 2016 Volume (Ped Counts)	Existing 2016 Volume (TMC Counts)	Background Growth	Soft Site Increment 601 W. 29th Street	Soft Site Increment 606 W. 30th Street	Soft Site Increment Western Rail Yard	Total No Build Increment	No Build 2021 Volume 2021	Build Detour	Build 2021 Volume 2021
1	10th Ave & 31st St	Crosswalk	North	Eastbound	V1	5		0			307	307	312		312
				Westbound	V2	10		0		300	300	310		310	
		Crosswalk	East	Northbound	V3	220		3		342	345	565		565	
				Southbound	V4	265		3		360	363	628		628	
Corner	NE		VNE	70		1		41	42	112		112			
2	10th Ave & 33rd St	Crosswalk	East	Northbound	V3	311	Due to construction, TMC Ped Counts were unusually low	4			768	772	1083		1083
				Southbound	V4	403		5		677	682	1085		1085	
		Crosswalk	South	Eastbound	V5	58		1	15	13	1421	1450	1508		1508
				Westbound	V6	138		2	15	14	1367	1398	1536		1536
Corner	SE		VSE	162	2		50	52	214		214				
3	11th Ave & 30th St	Crosswalk	North	Eastbound	V1	26	33	0	29	19	118	166	199		199
				Westbound	V2	25	13	0	29	19	122	170	183		183
		Crosswalk	South	Eastbound	V5	76	130	2	57	41	731	831	961		961
				Westbound	V6	92	135	2	57	41	745	845	980		980
		Crosswalk	West	Northbound	V7	132	149	2	170	94	100	366	515	-67	448
				Southbound	V8	133	176	2	173	96	105	376	552	-67	485
		Corner	SW		VSW	6		0	11	45	105	161	167	134	301
		Corner	NW		VNW	44		1	0	0	0	1	45	-45	0
4	12th St & 29th St	Crosswalk	North	Eastbound	V1	6	8	0				0	8		8
				Westbound	V2	4	4	0				0	4		4
		Crosswalk	East	Northbound	V3	5	15	0	5	6		11	26		26
				Southbound	V4	13	21	0	5	6		11	32		32
Corner	NE		VNE	0		0	4	0		4	4		4		
5	12th St & 30th St	Crosswalk	North	Eastbound	V1	0	1	0				0	1		1
				Westbound	V2	0	0	0				0	0		0
		Crosswalk	East	Northbound	V3	7	14	0	6	18	50	74	88	-67	21
				Southbound	V4	5	21	0	9	19	51	79	100	-67	33
		Crosswalk	South	Eastbound	V5	6	12	0			99	99	111		111
				Westbound	V6	9	18	0			101	101	119		119
		Corner	NE		VNE	3		0	19	0	0	19	22	-22	0
		Corner	SE		VSE	6		0	11	12	0	23	29	134	163

Sidewalks

PED Int #	Street - Side	Cross Street 1	Cross Street 2	Direction	Movement	Existing 2016 Volume		Background Growth	Soft Site Increment West 29th Street	Soft Site Increment 606 West 30th Street	Soft Site Increment Western Rail Yard	Total No Build Increment	No Build 2021 Volume	Build Detour	Build 2021 Volume
2	10th Avenue - East	31st Street	33rd Street	Northbound	S5	296		4			169	173	469		469
				Southbound	S6	365		5		174	179	544		544	
2	10th Avenue - West	31st Street	33rd Street	Northbound	S9	0		0			1849	1849	1849	-1849	0
				Southbound	S10	0		0		1780	1780	1780	-1780	0	
4	12th Street - East	29th Street	30th Street	Northbound	S1	4		0	2	6		8	12		12
				Southbound	S2	6		0	2	6		8	14		14
5	30th Street - South	12th Avenue	11th Avenue	Eastbound	S7	7		0	7	266	50	323	330	67	397
				Westbound	S8	10		0	4	269	51	324	334	67	401
5	30th Street - North	12th Avenue	11th Avenue	Eastbound	S3	0		0	11	0	56	67	67	-67	0
				Westbound	S4	3		0	8	0	56	64	67	-67	0

Existing Year: 2016
 Build Year: 2021
 Num of Years: 5
 Growth Rate: 0.25%
 Growth Factor: 0.0126

Corners and Crosswalks

PED Int #	Intersection	Type	Location	Direction	Movement	Existing 2016 Volume (Ped Counts)	Existing 2016 Volume (TMC Counts)	Background Growth	Soft Site Increment 601 W. 29th Street	Soft Site Increment 606 W. 30th Street	Soft Site Increment Western Rail Yard	Total No Build Increment	No Build 2021 Volume 2021	Build Detour	Build 2021 Volume 2021
1	10th Ave & 31st St	Crosswalk	North	Eastbound	V1	53		1			173	174	227		227
				Westbound	V2	5		0		116	116	121		121	
		Crosswalk	East	Northbound	V3	659		8		118	126	785		785	
				Southbound	V4	181		2		140	142	323		323	
Corner	NE		VNE	26		0		6	6	32		32			
2	10th Ave & 33rd St	Crosswalk	East	Northbound	V3	641	Due to construction, TMC Ped Counts were unusually low	8			473	481	1122		1122
				Southbound	V4	193		2		264	266	459		459	
		Crosswalk	South	Eastbound	V5	38		0	10	8	1296	1314	1352		1352
				Westbound	V6	166		2	15	9	600	626	792		792
Corner	SE		VSE	86	1		29	30	116		116				
3	11th Ave & 30th St	Crosswalk	North	Eastbound	V1	49	29	0	25	13	37	75	104		104
				Westbound	V2	13	11	0	48	19	41	108	119		119
		Crosswalk	South	Eastbound	V5	91	135	2	55	28	14	99	234		234
				Westbound	V6	110	100	1	111	43	13	168	268		268
		Crosswalk	West	Northbound	V7	324	381	5	157	66	24	252	633	-26	607
				Southbound	V8	147	229	3	314	104	32	453	682	-45	637
		Corner	SW		VSW	5		0	19	75	0	94	99	71	170
		Corner	NW		VNW	8		0	0	0	0	8	-8	0	
4	12th St & 29th St	Crosswalk	North	Eastbound	V1	0	5	0				0	5		5
				Westbound	V2	3	13	0				0	13		13
		Crosswalk	East	Northbound	V3	20	35	0	3	3		6	41		41
				Southbound	V4	8	15	0	3	2		5	20		20
Corner	NE		VNE	1		0	2	0		2	3		3		
5	12th St & 30th St	Crosswalk	North	Eastbound	V1	0	1	0				0	1		1
				Westbound	V2	0	1	0				0	1		1
		Crosswalk	East	Northbound	V3	15	31	0	5	11	20	36	67	-45	22
				Southbound	V4	4	32	0	16	18	19	53	85	-26	59
		Crosswalk	South	Eastbound	V5	11	23	0			40	40	63		63
				Westbound	V6	26	38	0			38	38	76		76
Corner	NE		VNE	6		0	22	0	0	22	28	-28	0		
Corner	SE		VSE	16		0	19	5	0	24	40	71	111		

Sidewalks

PED Int #	Street - Side	Cross Street 1	Cross Street 2	Direction	Movement	Existing 2016 Volume	Existing 2016 Volume	Background Growth	Soft Site Increment West 29th Street	Soft Site Increment 606 West 30th Street	Soft Site Increment Western Rail Yard	Total No Build Increment	No Build 2021 Volume	Build Detour	Build 2021 Volume
2	10th Avenue - East	31st Street	33rd Street	Northbound	S5	680		9			73	82	762		762
				Southbound	S6	231		3		101	104	335		335	
2	10th Avenue - West	31st Street	33rd Street	Northbound	S9	0		0			1302	1302	1302	-1302	0
				Southbound	S10	0		0		883	883	883	-883	0	
4	12th Street - East	29th Street	30th Street	Northbound	S1	20		0	1	3		4	24		24
				Southbound	S2	10		0	1	2		3	13		13
5	30th Street - South	12th Avenue	11th Avenue	Eastbound	S7	14		0	15	189	20	224	238	45	283
				Westbound	S8	25		0	4	262	19	285	310	26	336
5	30th Street - North	12th Avenue	11th Avenue	Eastbound	S3	6		0	17	0	22	39	45	-45	0
				Westbound	S4	0		0	5	0	21	26	-26	0	



DRAFT ENVIRONMENTAL IMPACT STATEMENT AND DRAFT SECTION 4(f) EVALUATION

APPENDIX 5-2

Intersection Level of Service Summary Tables

Intersection Level of Service Summary Table:
New Jersey—Background Peak Hours

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
Tonnelle Avenue Portal Analysis Intersections											
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	34.8	1.04	C	54.4	1.09	D	57.3	1.10	E
		SBT	10.9	0.92	B	16.6	0.97	B	18.1	0.97	B
		Overall	23.8		C	36.9		D	39.1		D
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.0	0.76	D	53.9	0.77	D	53.9	0.77	D
	Rt. 1/9	NBT	42.8	1.03	D	65.7	1.09	E	69.1	1.10	E
		SBT	16.1	0.87	B	20.7	0.93	C	21.7	0.93	C
		Overall	32.6		C	46.0		D	48.1		D
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	20.3	0.40	C	21.3	0.43	C	21.6	0.44	C
		WBL	13.6	0.45	B	14.5	0.51	B	15.2	0.52	B
		WBT	17.6	0.58	B	19.0	0.62	B	19.7	0.63	B
	Rt. 1/9 SB Ramps	SBL	41.8	0.92	D	43.9	0.93	D	46.8	0.95	D
		SBT	17.3	0.14	B	16.8	0.15	B	16.3	0.15	B
		Overall	23.9		C	25.3		C	26.5		C
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	6.2	0.29	A	6.8	0.33	A	7.0	0.40	A
		EBT	7.7	0.44	A	8.4	0.47	A	8.4	0.47	A
		WBTR	11.5	0.37	B	12.2	0.40	B	12.3	0.40	B
	Rt. 1/9 NB Ramps	NBL	41.7	0.78	D	41.8	0.79	D	41.8	0.79	D
		NBT	28.4	0.15	C	28.0	0.18	C	28.0	0.18	C
		Overall	14.0		B	14.6		B	14.6		B

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	29.8	0.68	C	31.1	0.73	C	31.1	0.73	C
	WBL	109.3	1.03	F	168.4	1.20	F	168.4	1.20	F
	WBT	22.8	0.19	C	22.9	0.20	C	22.9	0.20	C
	WBR	7.0	0.41	A	7.3	0.44	A	7.3	0.44	A
Willow Avenue	NBLTR	54.3	0.90	D	62.2	0.96	E	65.4	0.98	E
	SBLTR	39.5	0.84	D	44.2	0.89	D	44.2	0.89	D
	Overall	37.6		D	44.3		D	45.1		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	21.2	0.41	C	21.6	0.44	C	21.9	0.46	C
	WBL	121.6	1.05	F	156.2	1.15	F	164.2	1.18	F
	WBT	38.6	0.51	D	39.2	0.54	D	39.2	0.54	D
	WBR (Stop)	32.3	0.02	C	32.3	0.02	C	32.3	0.02	C
Park Avenue	NBLTR	27.0	0.63	C	29.3	0.71	C	29.8	0.72	C
	SBL	17.6	0.23	B	18.5	0.26	B	18.5	0.26	B
	SBT	18.8	0.44	B	19.3	0.47	B	19.7	0.49	B
	SBR	8.5	0.50	A	9.3	0.54	A	9.3	0.54	A
	Overall	29.4		C	32.7		C	33.3		C
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	23.1	0.29	C	23.3	0.30	C	23.3	0.30	C
	EBLT	10.2	0.48	B	10.6	0.51	B	10.6	0.51	B
	WBT	5.9	0.28	A	6.1	0.30	A	6.1	0.30	A
Lincoln Harbor Road	SBR	21.8	0.00	C	21.9	0.00	C	21.9	0.00	C
	Overall	10.2		B	10.5		B	10.5		B
10. 19th Street and Waterfront Terrace										
19th Street	EBL	25.9	0.78	C	27.6	0.81	C	27.6	0.81	C
	EBT	12.6	0.35	B	12.7	0.37	B	12.7	0.37	B
	WBTR	25.1	0.25	C	25.9	0.27	C	25.9	0.27	C
	Waterfront Terrace	SBL	25.2	0.71	C	28.1	0.76	C	28.1	0.76
	SBR	33.8	0.84	C	42.4	0.90	D	42.4	0.90	D
	Overall	25.4		C	28.8		C	28.8		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	34.2	0.01	C	34.2	0.02	C	34.2	0.02	C
JFK Boulevard	NBTR	1.0	0.19	A	1.0	0.20	A	1.0	0.21	A
	SBL	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
	SBT	0.7	0.41	A	0.7	0.44	A	0.7	0.44	A
	Overall	0.9		A	1.0		A	1.0		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	30.2	0.60	C	30.2	0.62	C	30.2	0.62	C
	WBR	25.7	0.14	C	25.4	0.15	C	25.4	0.15	C
JFK Boulevard	NBTR	11.4	0.38	B	12.5	0.41	B	12.8	0.43	B
	SBL	4.3	0.60	A	4.9	0.65	A	5.0	0.66	A
	SBT	3.8	0.46	A	4.1	0.50	A	4.1	0.50	A
	Overall	8.8		A	9.3		A	9.3		A
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	19.4	0.14	B	19.4	0.14	B	19.4	0.14	B
	EBR (Yield)	12.1	0.93	B	21.3	0.99	C	58.9	1.00	E
JFK Boulevard	NBT	31.9	0.64	C	33.6	0.67	C	34.5	0.69	C
	NBR	1.9	0.07	A	1.7	0.08	A	1.5	0.08	A
	SBT	8.1	0.42	A	8.4	0.45	A	8.5	0.45	A
	Overall	14.2		B	19.6		B	40.9		D
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	35.8	0.30	D	35.8	0.32	D	36.0	0.33	D
	SBTR	13.8	0.36	B	14.1	0.38	B	14.1	0.38	B
	Overall	23.5		C	23.7		C	24.0		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
Tonnelle Avenue Portal Analysis Intersections											
3. Rt. 1/9 NB and 10th Street											
10th Street	WBR	76.8	1.01	F	132.5	1.17	F	141.1	1.19	F	
4. Rt. 1/9 NB and Entrance Ramp											
Entrance Ramp	WBR	90.5	1.03	F	143.0	1.18	F	166.0	1.25	F	
Hoboken Shaft Site Analysis Intersections											
11. 19th Street and Harbor Boulevard											
19th Street	EBL	7.7	0.08	A	7.7	0.08	A	7.7	0.08	A	
	WBL	9.7	0.12	A	10.0	0.13	A	10.0	0.13	A	
Harbor Boulevard	NBLTR	22.8	0.02	C	24.9	0.03	C	24.9	0.03	C	
Garage	SBLT	25.8	0.02	D	28.3	0.02	D	28.3	0.02	D	
	SBR	8.7	0.01	A	8.7	0.01	A	8.7	0.01	A	

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday MD Background Peak Hour (1:00 - 2:00 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
Tonnelle Avenue Portal Analysis Intersections											
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	4.3	0.73	A	4.3	0.76	A	5.3	0.78	A
		SBT	4.8	0.76	A	4.9	0.79	A	6.0	0.81	A
		Overall	4.7		A	4.8		A	5.7		A
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.9	0.63	D	55.0	0.65	D	55.0	0.65	D
	Rt. 1/9	NBT	10.0	0.82	A	12.0	0.86	B	12.4	0.87	B
		SBT	9.1	0.79	A	10.7	0.83	B	11.0	0.84	B
		Overall	11.7		B	13.4		B	13.7		B
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	12.0	0.18	B	12.8	0.20	B	13.4	0.20	B
		WBL	6.8	0.27	A	7.3	0.29	A	7.8	0.29	A
		WBT	7.0	0.18	A	7.5	0.19	A	8.0	0.20	A
	Rt. 1/9 SB Ramps	SBL	39.1	0.78	D	38.5	0.79	D	38.3	0.80	D
		SBT	25.9	0.13	C	25.2	0.14	C	24.3	0.14	C
		Overall	18.0		B	18.2		B	18.7		B
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	3.9	0.25	A	4.1	0.27	A	4.2	0.31	A
		EBT	4.0	0.18	A	4.3	0.19	A	4.3	0.19	A
		WBTR	8.2	0.18	A	8.6	0.19	A	8.7	0.20	A
	Rt. 1/9 NB Ramps	NBL	42.9	0.70	D	42.8	0.70	D	42.8	0.70	D
		NBT	32.8	0.15	C	32.3	0.15	C	32.3	0.15	C
		Overall	12.6		B	12.8		B	12.8		B

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday MD Background Peak Hour (1:00 - 2:00 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	23.0	0.23	C	23.2	0.27	C	23.2	0.27	C
	WBL	41.5	0.73	D	47.1	0.79	D	47.1	0.79	D
	WBT	22.3	0.15	C	22.4	0.16	C	22.4	0.16	C
	WBR	4.5	0.03	A	4.5	0.03	A	4.5	0.03	A
Willow Avenue	NBLTR	51.3	0.62	D	52.1	0.66	D	52.7	0.68	D
	SBLTR	26.0	0.43	C	26.4	0.46	C	26.4	0.46	C
	Overall	35.1		D	36.2		D	36.6		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	18.5	0.19	B	18.7	0.20	B	18.9	0.22	B
	WBL	69.6	0.82	E	82.7	0.90	F	86.1	0.91	F
	WBT	34.3	0.24	C	34.6	0.25	C	34.6	0.25	C
	WBR (Stop)	32.3	0.02	C	32.3	0.02	C	32.3	0.02	C
Park Avenue	NBLTR	25.8	0.59	C	27.2	0.65	C	27.6	0.66	C
	SBL	15.8	0.13	B	16.2	0.14	B	16.2	0.14	B
	SBT	20.7	0.54	C	21.5	0.57	C	22.0	0.59	C
	SBR	4.5	0.12	A	4.5	0.12	A	4.5	0.12	A
	Overall	25.7		C	27.4		C	27.8		C
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	20.6	0.02	C	20.7	0.02	C	20.7	0.02	C
	EBLT	7.4	0.25	A	7.6	0.27	A	7.6	0.27	A
	WBT	5.0	0.16	A	5.0	0.17	A	5.0	0.17	A
Lincoln Harbor Road	SBR	20.5	0.00	C	20.6	0.00	C	20.6	0.00	C
	Overall	6.8		A	6.9		A	6.9		A
10. 19th Street and Waterfront Terrace										
19th Street	EBL	14.6	0.55	B	15.7	0.58	B	15.7	0.58	B
	EBT	7.9	0.13	A	8.2	0.14	A	8.2	0.14	A
	WBTR	16.7	0.12	B	17.3	0.13	B	17.3	0.13	B
Waterfront Terrace	SBL	17.3	0.17	B	17.4	0.18	B	17.4	0.18	B
	SBR	23.2	0.65	C	23.9	0.67	C	23.9	0.67	C
	Overall	16.8		B	17.6		B	17.6		B
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	34.3	0.05	C	34.3	0.05	C	34.3	0.05	C
	JFK Boulevard	NBTR	1.9	0.22	A	1.9	0.23	A	1.9	0.24
	SBL	0.3	0.00	A	0.3	0.00	A	0.4	0.00	A
	SBT	0.5	0.24	A	0.6	0.26	A	0.6	0.26	A
	Overall	1.2		A	1.2		A	1.2		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	31.1	0.65	C	31.5	0.66	C	31.5	0.66	C
	WBR	25.8	0.26	C	25.6	0.28	C	25.6	0.28	C
JFK Boulevard	NBTR	9.8	0.37	A	10.6	0.40	B	10.8	0.41	B
	SBL	4.0	0.48	A	4.5	0.52	A	4.6	0.53	A
	SBT	3.5	0.25	A	3.5	0.27	A	3.5	0.27	A
	Overall	11.1		B	11.5		B	11.5		B
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	20.3	0.28	C	20.4	0.30	C	20.4	0.30	C
	EBR (Yield)	1.3	0.54	A	1.5	0.58	A	1.6	0.59	A
JFK Boulevard	NBT	50.1	0.95	D	64.5	1.01	E	71.3	1.04	E
	NBR	2.5	0.05	A	2.3	0.06	A	2.2	0.06	A
	SBT	12.2	0.22	B	11.9	0.24	B	11.6	0.24	B
	Overall	19.7		B	24.1		C	26.3		C
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	35.6	0.51	D	35.8	0.55	D	35.5	0.55	D
	SBTR	12.9	0.22	B	13.1	0.23	B	13.3	0.24	B
	Overall	27.3		C	27.5		C	27.5		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday MD Background Peak Hour (1:00 - 2:00 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Tonnelle Avenue Portal Analysis Intersections										
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	24.3	0.17	C	26.6	0.19	D	27.1	0.20	D
4. Rt. 1/9 NB and Entrance Ramp										
Entrance Ramp	WBR	89.0	1.04	F	138.3	1.18	F	159.7	1.23	F
Hoboken Shaft Site Analysis Intersections										
11. 19th Street and Harbor Boulevard										
19th Street	EBL	7.7	0.00	A	7.7	0.00	A	7.7	0.00	A
	WBL	7.9	0.03	A	7.9	0.03	A	7.9	0.03	A
Harbor Boulevard	NBLTR	11.2	0.02	B	11.4	0.03	B	11.4	0.03	B
	SBLT	11.4	0.01	B	11.6	0.01	B	11.6	0.01	B
Garage	SBR	8.6	0.01	A	8.6	0.01	A	8.6	0.01	A

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Background Peak Hour (5:00 - 6:00 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
Tonnelle Avenue Portal Analysis Intersections											
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	6.5	0.98	A	30.3	1.02	C	32.4	1.03	C
		SBT	4.6	0.90	A	14.0	0.95	B	15.0	0.96	B
		Overall	14.3		B	22.6		C	24.1		C
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.1	0.73	D	54.0	0.74	D	54.0	0.74	D
	Rt. 1/9	NBT	24.1	0.97	C	38.2	1.02	D	40.7	1.03	D
		SBT	18.8	0.93	B	27.5	0.98	C	29.4	0.99	C
		Overall	23.7		C	34.4		C	36.5		D
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	18.6	0.37	B	19.4	0.40	B	19.9	0.40	B
		WBL	12.6	0.34	B	13.3	0.39	B	13.8	0.40	B
		WBT	13.3	0.27	B	14.0	0.29	B	14.5	0.30	B
	Rt. 1/9 SB Ramps	SBL	39.3	0.90	D	41.1	0.91	D	42.3	0.93	D
		SBT	17.2	0.04	B	16.6	0.04	B	16.1	0.04	B
		Overall	23.4		C	24.4		C	25.3		C
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	3.4	0.23	A	3.6	0.25	A	3.7	0.29	A
		EBT	4.4	0.36	A	4.7	0.38	A	4.7	0.38	A
		WBTR	7.6	0.21	A	7.9	0.22	A	8.0	0.22	A
	Rt. 1/9 NB Ramps	NBL	42.0	0.67	D	42.1	0.68	D	42.1	0.68	D
		NBT	34.5	0.23	C	34.4	0.28	C	34.4	0.28	C
		Overall	10.1		B	10.4		B	10.4		B

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Background Peak Hour (5:00 - 6:00 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	26.8	0.94dr	C	27.6	1.00dr	C	27.6	1.00dr	C
	WBL	103.0	1.05	F	151.0	1.19	F	151.0	1.19	F
	WBT	26.5	0.44	C	27.0	0.47	C	27.0	0.47	C
	WBR	5.9	0.27	A	6.1	0.29	A	6.1	0.29	A
Willow Avenue	NBLTR	51.9	0.79	D	54.6	0.84	D	55.7	0.85	E
	SBLTR	40.0	0.86	D	45.5	0.92	D	45.5	0.92	D
	Overall	40.0		D	46.3		D	46.6		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	20.0	0.33	C	20.3	0.35	C	20.5	0.36	C
	WBL	121.5	1.05	F	157.7	1.16	F	165.7	1.18	F
	WBT	44.8	0.74	D	46.9	0.78	D	46.9	0.78	D
	WBR (Stop)	32.7	0.05	C	32.8	0.06	C	32.8	0.06	C
Park Avenue	NBLTR	26.3	0.61	C	28.3	0.68	C	28.6	0.70	C
	SBL	16.0	0.10	B	16.5	0.11	B	16.5	0.11	B
	SBT	21.8	0.59	C	22.7	0.63	C	23.3	0.65	C
	SBR	7.7	0.44	A	8.2	0.47	A	8.2	0.47	A
	Overall	31.6		C	35.0		D	35.6		D
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	21.8	0.01	C	22.0	0.01	C	22.0	0.01	C
	EBLT	9.9	0.46	A	10.4	0.48	B	10.4	0.48	B
	WBT	5.7	0.27	A	5.9	0.29	A	5.9	0.29	A
Lincoln Harbor Road	SBR	22.2	0.10	C	22.4	0.10	C	22.4	0.10	C
	Overall	10.6		B	11.0		B	11.0		B
10. 19th Street and Waterfront Terrace										
19th Street	EBL	26.4	0.81	C	30.4	0.86	C	30.4	0.86	C
	EBT	10.5	0.17	B	10.7	0.18	B	10.7	0.18	B
	WBTR	27.7	0.37	C	29.4	0.41	C	29.4	0.41	C
Waterfront Terrace	SBL	20.9	0.39	C	21.8	0.42	C	21.8	0.42	C
	SBR	36.6	0.84	D	43.4	0.88	D	43.4	0.88	D
	Overall	26.9		C	30.5		C	30.5		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	45.2	0.59	D	47.2	0.62	D	47.2	0.62	D
	JFK Boulevard	NBTR	2.3	0.22	A	2.4	0.24	A	2.4	0.24
	SBL	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
	SBT	1.7	0.34	A	1.7	0.36	A	1.7	0.37	A
	Overall	3.4		A	3.6		A	3.6		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	42.9	0.68	D	43.6	0.69	D	43.6	0.69	D
	WBR	34.6	0.15	C	34.3	0.16	C	34.3	0.16	C
JFK Boulevard	NBTR	5.8	0.32	A	6.0	0.34	A	6.1	0.35	A
	SBL	4.7	0.59	A	6.2	0.65	A	6.5	0.66	A
	SBT	2.8	0.30	A	3.0	0.32	A	3.0	0.32	A
	Overall	9.9		A	10.3		B	10.3		B
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	30.9	0.40	C	31.1	0.42	C	31.1	0.42	C
	EBR (Yield)	1.7	0.61	A	2.0	0.64	A	2.0	0.65	A
JFK Boulevard	NBT	32.9	0.50	C	32.3	0.50	C	32.1	0.52	C
	NBR	8.6	0.19	A	7.2	0.21	A	7.2	0.21	A
	SBT	5.8	0.20	A	6.2	0.21	A	6.4	0.21	A
	Overall	10.5		B	10.3		B	10.5		B
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	53.3	0.20	D	53.6	0.21	D	54.0	0.23	D
	SBTR	9.6	0.18	A	9.7	0.19	A	9.7	0.19	A
	Overall	26.3		C	26.5		C	27.5		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Background Peak Hour (5:00 - 6:00 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Tonnelle Avenue Portal Analysis Intersections										
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	109.6	1.05	F	169.8	1.21	F	178.4	1.23	F
4. Rt. 1/9 NB and Entrance Ramp										
Entrance Ramp	WBR	82.0	1.02	F	132.3	1.16	F	154.2	1.22	F
Hoboken Shaft Site Analysis Intersections										
11. 19th Street and Harbor Boulevard										
19th Street	EBL	7.6	0.00	A	7.6	0.00	A	7.6	0.00	A
	WBL	8.2	0.08	A	8.3	0.08	A	8.3	0.08	A
Harbor Boulevard	NBLTR	21.8	0.26	C	25.0	0.31	C	25.0	0.31	C
Garage	SBLT	20.9	0.30	C	22.9	0.35	C	22.9	0.35	C
	SBR	8.9	0.03	A	9.0	0.04	A	9.0	0.04	A

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Intersection Level of Service Summary Table:
New Jersey—Construction Peak Hours

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
Tonnelle Avenue Portal Analysis Intersections											
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	13.0	0.94	B	21.3	0.99	C	29.0	1.02	C
		SBT	13.1	0.94	B	21.5	0.99	C	37.8	1.05	D
		Overall	13.1		B	21.5		C	33.5		C
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.3	0.74	D	54.2	0.74	D	54.2	0.76	D
	Rt. 1/9	NBT	23.0	0.96	C	35.8	1.01	D	47.1	1.05	D
		SBT	21.8	0.95	C	33.6	1.00	C	39.3	1.02	D
		Overall	24.5		C	36.0		D	44.0		D
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	22.3	0.49	C	23.4	0.53	C	23.7	0.53	C
		WBL	17.5	0.61	B	22.2	0.70	C	25.2	0.72	C
		WBT	15.7	0.36	B	16.5	0.38	B	16.9	0.39	B
	Rt. 1/9 SB Ramps	SBL	46.3	0.95	D	51.5	0.97	D	56.0	0.99	E
		SBTR	15.7	0.06	B	15.2	0.06	B	14.9	0.07	B
		Overall	26.8		C	29.2		C	31.1		C
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	5.0	0.31	A	5.4	0.35	A	5.6	0.42	A
		EBT	6.8	0.47	A	7.4	0.50	A	7.4	0.50	A
		WBTR	10.1	0.28	B	10.7	0.30	B	10.9	0.30	B
	Rt. 1/9 NB Ramps	NBL	42.0	0.74	D	41.6	0.75	D	41.6	0.75	D
		NBT	30.6	0.14	C	30.2	0.17	C	30.2	0.17	C
		Overall	12.2		B	12.6		B	12.7		B

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	27.8	0.59	C	28.6	0.63	C	28.7	0.63	C
	WBL	97.4	1.00	F	143.5	1.14	F	146.1	1.15	F
	WBT	22.2	0.14	C	22.3	0.15	C	22.3	0.15	C
Willow Avenue	WBR	5.8	0.27	A	5.9	0.28	A	5.9	0.28	A
	NBLTR	61.8	0.95	E	73.9	1.00	E	86.3	1.05	F
	SBLTR	26.2	0.43	C	26.6	0.46	C	27.8	0.53	C
	Overall	39.4		D	46.8		D	51.0		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	18.8	0.21	B	18.9	0.23	B	19.3	0.26	B
	WBL	80.7	0.89	F	97.1	0.96	F	131.9	1.08	F
	WBT	35.6	0.33	D	35.8	0.35	D	35.8	0.35	D
Park Avenue	WBR (Stop)	32.1	0.01	C	32.1	0.01	C	32.1	0.01	C
	NBLTR	31.0	0.76	C	33.8	0.82	C	35.8	0.85	D
	SBL	18.1	0.19	B	19.1	0.22	B	19.1	0.22	B
	SBT	18.1	0.40	B	18.5	0.42	B	19.2	0.46	B
	SBR	5.5	0.25	A	5.7	0.28	A	5.7	0.28	A
	Overall	27.8		C	30.2		C	33.2		C
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	21.4	0.12	C	21.6	0.12	C	21.6	0.12	C
	EBLT	8.3	0.35	A	8.6	0.37	A	8.6	0.37	A
	WBT	5.0	0.19	A	5.1	0.20	A	5.1	0.20	A
Lincoln Harbor Road	SBR	20.9	0.00	C	21.1	0.00	C	21.1	0.00	C
	Overall	7.9		A	8.1		A	8.1		A
10. 19th Street and Waterfront Terrace										
19th Street	EBL	20.4	0.70	C	22.2	0.74	C	22.5	0.75	C
	EBT	10.0	0.20	A	10.5	0.22	B	10.7	0.22	B
	WBTR	20.0	0.09	C	21.4	0.09	C	21.6	0.10	C
Waterfront Terrace	SBL	18.6	0.36	B	18.9	0.37	B	18.8	0.37	B
	SBR	27.4	0.75	C	28.7	0.77	C	28.8	0.77	C
	Overall	20.7		C	22.0		C	22.1		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	34.1	0.01	C	34.1	0.01	C	34.1	0.01	C
	JFK Boulevard	NBTR	1.8	0.18	A	1.8	0.19	A	1.8	0.20
	SBL	0.3	0.00	A	0.3	0.00	A	0.3	0.00	A
	SBT	0.7	0.40	A	0.7	0.43	A	0.7	0.44	A
	Overall	1.0		A	1.1		A	1.1		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	41.6	0.84	D	44.4	0.87	D	44.4	0.87	D
	WBR	23.0	0.21	C	22.7	0.22	C	22.7	0.22	C
JFK Boulevard	NBTR	12.2	0.37	B	13.1	0.40	B	13.2	0.42	B
	SBL	4.7	0.50	A	5.3	0.55	A	5.4	0.56	A
	SBT	5.2	0.44	A	5.6	0.47	A	5.7	0.48	A
	Overall	13.0		B	13.7		B	13.7		B
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	19.0	0.07	B	19.0	0.08	B	19.0	0.08	B
	EBR	4.6	0.80	A	6.2	0.85	A	7.4	0.87	A
JFK Boulevard	NBT	38.8	0.82	D	42.4	0.86	D	44.4	0.88	D
	NBR	3.0	0.06	A	2.8	0.06	A	2.6	0.06	A
	SBT	11.0	0.35	B	11.2	0.38	B	11.2	0.38	B
	Overall	14.5		B	16.2		B	17.4		B
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	35.8	0.40	D	36.1	0.42	D	35.9	0.43	D
	SBTR	13.1	0.27	B	13.3	0.29	B	13.4	0.29	B
	Overall	25.9		C	26.2		C	26.3		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Tonnelle Avenue Portal Analysis Intersections										
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	95.1	1.03	F	154.6	1.20	F	186.1	1.28	F
4. Rt. 1/9 NB and Entrance Ramp from Secaucus Road										
Entrance Ramp	WBR	82.2	1.04	F	133.1	1.18	F	181.3	1.30	F
Hoboken Shaft Site Analysis Intersections										
11. 19th Street and Harbor Boulevard										
19th Street	EBL	7.4	0.04	A	7.5	0.04	A	7.5	0.04	A
	WBL	8.0	0.05	A	8.1	0.05	A	8.1	0.05	A
Harbor Boulevard	NBLTR	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
Garage	SBLT	16.9	0.01	C	17.6	0.01	C	17.6	0.01	C
	SBR	8.9	0.00	A	8.9	0.00	A	8.9	0.00	A

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
Tonnelle Avenue Portal Analysis Intersections											
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	10.2	0.91	B	15.0	0.96	B	27.5	1.01	C
		SBT	5.6	0.80	A	6.8	0.84	A	9.9	0.90	A
		Overall	8.2		A	11.3		B	19.3		B
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.8	0.58	D	54.9	0.60	D	55.7	0.71	E
	Rt. 1/9	NBT	14.1	0.91	B	20.2	0.96	C	41.4	1.04	D
		SBT	8.4	0.79	A	10.0	0.83	A	16.3	0.90	B
		Overall	12.8		B	16.8		B	31.1		C
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	11.2	0.22	B	12.0	0.23	B	12.8	0.24	B
		WBL	6.0	0.38	A	6.5	0.41	A	7.0	0.42	A
		WBT	6.2	0.23	A	6.6	0.25	A	7.2	0.26	A
	Rt. 1/9 SB Ramps	SBL	39.6	0.76	D	39.6	0.77	D	39.0	0.77	D
		SBTR	27.5	0.06	C	26.9	0.07	C	25.9	0.07	C
		Overall	14.7		B	15.1		B	15.8		B
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	4.0	0.22	A	4.2	0.25	A	4.4	0.31	A
		EBT	4.3	0.23	A	4.6	0.25	A	4.6	0.25	A
		WBTR	8.1	0.28	A	8.5	0.30	A	8.6	0.30	A
	Rt. 1/9 NB Ramps	NBL	42.0	0.70	D	42.0	0.71	D	42.0	0.71	D
		NBT	32.7	0.16	C	32.3	0.16	C	32.3	0.16	C
		Overall	11.8		B	12.0		B	12.0		B

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	23.3	0.28	C	23.5	0.30	C	23.5	0.30	C
	WBL	69.8	0.95	E	90.4	1.03	F	91.5	1.03	F
	WBT	25.3	0.37	C	25.7	0.39	C	25.7	0.39	C
Willow Avenue	WBR	4.6	0.05	A	4.6	0.06	A	4.6	0.06	A
	NBLTR	57.1	0.91	E	66.0	0.97	E	96.6	1.08	F
	SBLTR	26.2	0.44	C	26.6	0.47	C	27.6	0.53	C
	Overall	41.8		D	47.9		D	60.3		E
8. 19th Street and Park Avenue										
19th Street	EBLTR	18.7	0.21	B	18.9	0.23	B	19.3	0.27	B
	WBL	109.4	1.01	F	134.9	1.09	F	180.7	1.22	F
	WBT	36.1	0.38	D	36.5	0.40	D	36.5	0.40	D
Park Avenue	WBR (Stop)	32.3	0.03	C	32.4	0.03	C	32.4	0.03	C
	NBLTR	29.8	0.73	C	34.2	0.82	C	36.3	0.84	D
	SBL	16.0	0.08	B	16.5	0.09	B	16.5	0.09	B
	SBT	22.5	0.62	C	23.5	0.65	C	24.7	0.69	C
	SBR	4.8	0.17	A	5.0	0.19	A	5.0	0.19	A
	Overall	30.9		C	34.6		C	38.6		D
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	21.3	0.04	C	21.5	0.05	C	21.5	0.05	C
	EBLT	8.3	0.32	A	8.6	0.34	A	8.7	0.35	A
	WBT	5.1	0.22	A	5.1	0.24	A	5.1	0.24	A
Lincoln Harbor Road	SBR	21.2	0.00	C	21.4	0.00	C	21.4	0.00	C
	Overall	7.3		A	7.5		A	7.5		A
10. 19th Street and Waterfront Terrace										
19th Street	EBL	20.5	0.69	C	22.8	0.74	C	23.4	0.75	C
	EBT	9.9	0.12	A	10.5	0.13	B	10.6	0.13	B
	WBTR	20.8	0.15	C	22.1	0.17	C	22.3	0.17	C
Waterfront Terrace	SBL	17.3	0.23	B	17.3	0.23	B	17.3	0.23	B
	SBR	27.3	0.76	C	28.1	0.77	C	28.3	0.78	C
	Overall	21.6		C	22.9		C	23.2		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	34.0	0.33	C	34.3	0.36	C	34.3	0.36	C
	JFK Boulevard	NBTR	2.3	0.21	A	2.4	0.22	A	2.4	0.23
	SBL	0.5	0.01	A	0.5	0.01	A	0.5	0.01	A
	SBT	0.8	0.29	A	0.8	0.31	A	0.8	0.32	A
	Overall	1.8		A	1.8		A	1.8		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	33.3	0.71	C	34.2	0.74	C	34.2	0.74	C
	WBR	24.5	0.22	C	24.2	0.23	C	24.2	0.23	C
JFK Boulevard	NBTR	10.7	0.38	B	11.8	0.42	B	12.0	0.43	B
	SBL	4.6	0.54	A	5.4	0.59	A	5.6	0.59	A
	SBT	3.8	0.33	A	4.1	0.35	A	4.2	0.37	A
	Overall	11.1		B	11.7		B	11.7		B
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	20.3	0.29	C	20.4	0.31	C	20.4	0.31	C
	EBR	1.3	0.55	A	1.5	0.58	A	1.7	0.60	A
JFK Boulevard	NBT	33.7	0.69	C	35.1	0.72	D	35.4	0.74	D
	NBR	2.2	0.13	A	2.0	0.14	A	1.9	0.14	A
	SBT	10.4	0.31	B	10.3	0.33	B	10.4	0.34	B
	Overall	11.5		B	11.9		B	12.0		B
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	35.9	0.34	D	35.8	0.36	D	35.8	0.37	D
	SBTR	13.0	0.27	B	13.3	0.29	B	13.3	0.29	B
	Overall	24.7		C	24.8		C	25.0		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2016 Existing			2021/2022 No Action Alternative			2021/2022 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Tonnelle Avenue Portal Analysis Intersections										
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	33.7	0.25	D	38.5	0.30	E	41.2	0.31	E
4. Rt. 1/9 NB and Entrance Ramp from Secaucus Road										
Entrance Ramp	WBR	91.9	1.05	F	151.4	1.22	F	202.5	1.34	F
Hoboken Shaft Site Analysis Intersections										
11. 19th Street and Harbor Boulevard										
19th Street	EBL	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
	WBL	7.7	0.03	A	7.8	0.04	A	7.8	0.04	A
Harbor Boulevard	NBLTR	10.5	0.04	B	10.7	0.04	B	10.7	0.04	B
Garage	SBLT	11.5	0.02	B	11.7	0.02	B	11.7	0.02	B
	SBR	8.6	0.01	A	8.6	0.01	A	8.6	0.01	A

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Intersection Level of Service Summary Table:
New Jersey—2029 Background Peak Hours

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	34.8	1.04	C	92.6	1.18	F	94.9	1.19	F
		SBT	10.9	0.92	B	37.8	1.05	D	40.0	1.05	D
		Overall	23.8		C	67.1		E	69.3		E
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.0	0.76	D	53.6	0.79	D	53.6	0.79	D
	Rt. 1/9	NBT	42.8	1.03	D	112.1	1.20	F	115.1	1.21	F
		SBT	16.1	0.87	B	39.3	1.02	D	41.5	1.02	D
		Overall	32.6		C	77.0		E	79.4		E
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	20.3	0.40	C	22.7	0.49	C	23.1	0.49	C
		WBL	13.6	0.45	B	18.6	0.63	B	20.1	0.64	C
		WBT	17.6	0.58	B	21.6	0.70	C	22.2	0.71	C
	Rt. 1/9 SB Ramps	SBL	41.8	0.92	D	50.7	0.97	D	52.6	0.98	D
		SBT	17.3	0.14	B	16.0	0.17	B	15.7	0.17	B
		Overall	23.9		C	28.5		C	29.5		C
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	6.2	0.29	A	7.8	0.39	A	8.1	0.46	A
		EBT	7.7	0.44	A	9.5	0.52	A	9.5	0.52	A
		WBTR	11.5	0.37	B	13.5	0.45	B	13.5	0.45	B
	Rt. 1/9 NB Ramps	NBL	41.7	0.78	D	41.9	0.80	D	41.9	0.80	D
		NBT	28.4	0.15	C	27.4	0.22	C	27.4	0.22	C
		Overall	14.0		B	15.6		B	15.6		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	76.8	1.01	F	271.9	1.50	F	281.8	1.53	F
4. Rt. 1/9 NB and Entrance Ramp										
Entrance Ramp	WBR	90.5	1.03	F	265.4	1.48	F	289.3	1.53	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday MD Background Peak Hour (1:00 - 2:00 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	4.3	0.73	A	6.7	0.84	A	6.9	0.84	A
		SBT	4.8	0.76	A	8.0	0.87	A	8.3	0.88	A
		Overall	4.7		A	7.5		A	7.8		A
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.9	0.63	D	54.9	0.66	D	54.9	0.66	D
	Rt. 1/9	NBT	10.0	0.82	A	18.7	0.94	B	19.5	0.95	B
		SBT	9.1	0.79	A	15.5	0.91	B	16.0	0.91	B
		Overall	11.7		B	18.9		B	19.5		B
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	12.0	0.18	B	13.9	0.22	B	14.4	0.23	B
		WBL	6.8	0.27	A	8.1	0.33	A	8.5	0.34	A
		WBT	7.0	0.18	A	8.3	0.22	A	8.8	0.22	A
	Rt. 1/9 SB Ramps	SBL	39.1	0.78	D	37.9	0.80	D	37.9	0.81	D
		SBT	25.9	0.13	C	24.1	0.15	C	23.5	0.15	C
		Overall	18.0		B	18.5		B	19.0		B
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	3.9	0.25	A	4.5	0.31	A	4.6	0.35	A
		EBT	4.0	0.18	A	4.6	0.21	A	4.6	0.21	A
		WBTR	8.2	0.18	A	9.2	0.22	A	9.3	0.22	A
	Rt. 1/9 NB Ramps	NBL	42.9	0.70	D	43.3	0.72	D	43.3	0.72	D
		NBT	32.8	0.15	C	31.7	0.16	C	31.7	0.16	C
		Overall	12.6		B	13.2		B	13.2		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday MD Background Peak Hour (1:00 - 2:00 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	24.3	0.17	C	31.2	0.24	D	31.7	0.24	D
4. Rt. 1/9 NB and Entrance Ramp										
Entrance Ramp	WBR	89.0	1.04	F	252.0	1.45	F	274.2	1.50	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Background Peak Hour (5:00 - 6:00 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	22.7	0.97	C	61.9	1.10	E	64.5	1.11	E
		SBT	12.9	0.90	B	32.1	1.02	C	33.9	1.04	C
		Overall	18.0		B	47.6		D	49.9		D
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	55.7	0.73	E	53.9	0.75	D	53.9	0.75	D
	Rt. 1/9	NBT	24.1	0.97	C	75.7	1.12	E	78.4	1.13	E
		SBT	28.1	0.93	C	57.3	1.08	E	59.8	1.08	E
		Overall	28.1		C	65.9		E	68.4		E
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	18.6	0.37	B	21.7	0.46	C	22.0	0.46	C
		WBL	12.6	0.34	B	14.7	0.45	B	15.1	0.46	B
		WBT	13.3	0.27	B	15.3	0.33	B	15.7	0.33	B
	Rt. 1/9 SB Ramps	SBL	39.3	0.90	D	45.5	0.95	D	47.4	0.96	D
		SBT	17.2	0.04	B	15.7	0.04	B	15.3	0.04	B
		Overall	23.4		C	27.0		C	28.0		C
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	3.4	0.23	A	3.9	0.29	A	4.0	0.32	A
		EBT	4.4	0.36	A	5.2	0.41	A	5.2	0.41	A
		WBTR	7.6	0.21	A	8.4	0.25	A	8.5	0.25	A
	Rt. 1/9 NB Ramps	NBL	42.0	0.67	D	42.4	0.69	D	42.4	0.69	D
		NBT	34.5	0.23	C	34.4	0.37	C	34.4	0.37	C
		Overall	10.1		B	10.8		B	10.8		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Background Peak Hour (5:00 - 6:00 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	109.6	1.05	F	316.4	1.56	F	326.8	1.58	F
4. Rt. 1/9 NB and Entrance Ramp										
Entrance Ramp	WBR	82.0	1.02	F	254.0	1.46	F	278.7	1.52	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Saturday PM Background Peak Hour (2:00 - 3:00 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition			
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	
1. Rt. 1/9 at Taco Bell											
	Rt. 1/9	NBT	8.9	0.89	A	27.9	1.02	C	29.9	1.02	C
		SBT	7.9	0.87	A	22.4	0.99	C	24.1	1.00	C
		Overall	8.5		A	25.2		C	27.1		C
2. Rt. 1/9 at Wendy's & White Cap Const. Supply											
	Wendy's & White Cap Const. Supply	EBL	54.0	0.53	D	54.2	0.57	D	54.2	0.57	D
	Rt. 1/9	NBT	11.0	0.88	B	28.7	1.00	C	30.5	1.01	C
		SBT	12.0	0.89	B	34.4	1.02	C	36.6	1.03	D
		Overall	12.7		B	32.2		C	34.1		C
5. Secaucus Road and Rt. 1/9 SB Ramps											
	Secaucus Road	EBTR	13.8	0.20	B	15.8	0.24	B	16.4	0.24	B
		WBL	8.3	0.28	A	9.9	0.36	A	10.5	0.37	B
		WBT	8.5	0.18	A	10.1	0.22	B	10.7	0.22	B
	Rt. 1/9 SB Ramps	SBL	37.5	0.81	D	36.7	0.83	D	36.6	0.84	D
		SBT	22.7	0.05	C	20.7	0.05	C	20.0	0.05	B
		Overall	19.0		B	19.9		B	20.3		C
6. Secaucus Road and Rt. 1/9 NB Ramps											
	Secaucus Road	EBL	3.4	0.20	A	3.9	0.25	A	4.0	0.29	A
		EBT	3.9	0.25	A	4.5	0.29	A	4.5	0.29	A
		WBTR	6.9	0.20	A	8.4	0.24	A	8.5	0.24	A
	Rt. 1/9 NB Ramps	NBL	41.5	0.67	D	41.9	0.70	D	41.9	0.70	D
		NBT	34.0	0.18	C	34.4	0.38	C	34.4	0.38	C
		Overall	11.8		B	12.7		B	12.6		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Saturday PM Background Peak Hour (2:00 - 3:00 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	129.7	1.01	F	329.8	1.51	F	341.5	1.54	F
4. Rt. 1/9 NB and Entrance Ramp										
Entrance Ramp	WBR	85.3	1.03	F	272.4	1.50	F	301.7	1.57	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Intersection Level of Service Summary Table:
New Jersey—Background Peak Hours—Mitigation

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2022 No Action Alternative			2022 Construction Condition			2022 Construction Condition with Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	31.1	0.73	C	31.1	0.73	C	42.9	0.87	D
	WBL	168.4	1.20	F	214.5	1.20	F	148.0	1.16	F
	WBT	22.9	0.20	C	22.9	0.20	C	22.1	0.20	C
Willow Avenue	WBR	7.3	0.44	A	7.3	0.44	A	7.3	0.44	A
	NBLTR	62.2	0.96	E	65.4	0.98	E	62.4	0.98	E
	SBLTR	44.2	0.89	D	44.2	0.89	D	49.5	0.93	D
	Overall	44.3		D	48.6		D	48.0		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	21.6	0.44	C	21.9	0.46	C	21.9	0.46	C
	WBL	156.2	1.15	F	164.2	1.18	F	164.2	1.18	F
	WBT	39.2	0.54	D	39.2	0.54	D	39.2	0.54	D
	WBR (Stop)	32.3	0.02	C	32.3	0.02	C	32.3	0.02	C
Park Avenue	NBLTR	29.3	0.71	C	29.3	0.71	C	29.3	0.72	C
	SBL	18.5	0.26	B	18.5	0.26	B	18.5	0.26	B
	SBT	19.3	0.47	B	19.3	0.47	B	19.3	0.49	B
	SBR	9.3	0.54	A	9.7	0.56	A	9.7	0.54	A
	Overall	32.7		C	33.1		C	33.1		C
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	23.3	0.30	C	23.3	0.30	C	23.3	0.30	C
	EBLT	10.6	0.51	B	10.6	0.51	B	10.6	0.51	B
	WBT	6.1	0.30	A	6.1	0.30	A	6.1	0.30	A
Lincoln Harbor Road	SBR	21.9	0.00	C	21.9	0.00	C	21.9	0.00	C
	Overall	10.5		B	10.5		B	10.5		B
10. 19th Street and Waterfront Terrace										
19th Street	EBL	27.6	0.81	C	27.6	0.81	C	27.6	0.81	C
	EBT	12.7	0.37	B	12.7	0.37	B	12.7	0.37	B
	WBTR	25.9	0.27	C	25.9	0.27	C	25.9	0.27	C
Waterfront Terrace	SBL	28.1	0.76	C	28.1	0.76	C	28.1	0.76	C
	SBR	42.4	0.90	D	42.4	0.90	D	42.4	0.90	D
	Overall	28.8		C	28.8		C	28.8		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	34.2	0.02	C	34.2	0.02	C	34.2	0.02	C
JFK Boulevard	NBTR	1.0	0.20	A	1.0	0.21	A	1.0	0.21	A
	SBL	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
	SBT	0.7	0.44	A	0.7	0.44	A	0.7	0.44	A
	Overall	1.0		A	1.0		A	1.0		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	30.2	0.62	C	30.2	0.62	C	30.2	0.62	C
	WBR	25.4	0.15	C	25.4	0.15	C	25.4	0.15	C
JFK Boulevard	NBTR	12.5	0.41	B	12.8	0.43	B	12.8	0.43	B
	SBL	4.9	0.65	A	5.0	0.66	A	5.0	0.66	A
	SBT	4.1	0.50	A	4.1	0.50	A	4.1	0.50	A
	Overall	9.3		A	9.3		A	9.3		A
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	19.4	0.14	B	19.4	0.14	B	19.4	0.14	B
	EBR (Yield)	21.3	0.99	C	58.9	1.00	E	58.9	1.00	E
JFK Boulevard	NBT	33.6	0.67	C	34.5	0.69	C	34.5	0.69	C
	NBR	1.7	0.08	A	1.5	0.08	A	1.5	0.08	A
	SBT	8.4	0.45	A	8.5	0.45	A	8.5	0.45	A
	Overall	19.6		B	40.9		D	40.9		D
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	35.8	0.32	D	36.0	0.33	D	36.0	0.33	D
	SBTR	14.1	0.38	B	14.1	0.38	B	14.1	0.38	B
	Overall	23.7		C	24.0		C	24.0		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Background Peak Hour (5:00 - 6:00 PM)

Intersection	Movement	2022 No Action			2022 Construction Condition			2022 Construction Condition with Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	27.6	1.00dr	C	27.6	1.00dr	C	26.5	0.97dr	C
	WBL	151.0	1.19	F	179.2	1.26	F	158.2	1.21	F
	WBT	27.0	0.47	C	27.0	0.47	C	26.0	0.45	C
	WBR	6.1	0.29	A	6.1	0.29	A	6.1	0.29	A
Willow Avenue	NBLTR	54.6	0.84	D	55.7	0.85	E	56.7	0.85	E
	SBLTR	45.5	0.92	D	45.5	0.92	D	51.6	0.95	D
	Overall	46.3		D	49.6		D	49.3		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	20.3	0.35	C	20.5	0.36	C	20.5	0.36	C
	WBL	157.7	1.16	F	165.7	1.18	F	165.7	1.18	F
	WBT	46.9	0.78	D	46.9	0.78	D	46.9	0.78	D
	WBR (Stop)	32.8	0.06	C	32.8	0.06	C	32.8	0.06	C
Park Avenue	NBLTR	28.3	0.68	C	28.3	0.68	C	28.3	0.70	C
	SBL	16.5	0.11	B	16.5	0.11	B	16.5	0.11	B
	SBT	22.7	0.63	C	22.7	0.63	C	22.7	0.65	C
	SBR	8.2	0.47	A	8.5	0.49	A	8.5	0.47	A
	Overall	35.0		D	35.4		D	35.4		D
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	22.0	0.01	C	22.0	0.01	C	22.0	0.01	C
	EBLT	10.4	0.48	B	10.4	0.48	B	10.4	0.48	B
	WBT	5.9	0.29	A	5.9	0.29	A	5.9	0.29	A
	SBR	22.4	0.10	C	22.4	0.10	C	22.4	0.10	C
Lincoln Harbor Road	SBR	22.4	0.10	C	22.4	0.10	C	22.4	0.10	C
	Overall	11.0		B	11.0		B	11.0		B
10. 19th Street and Waterfront Terrace										
19th Street	EBL	30.4	0.86	C	30.4	0.86	C	30.4	0.86	C
	EBT	10.7	0.18	B	10.7	0.18	B	10.7	0.18	B
	WBTR	29.4	0.41	C	29.4	0.41	C	29.4	0.41	C
	SBL	21.8	0.42	C	21.8	0.42	C	21.8	0.42	C
Waterfront Terrace	SBR	43.4	0.88	D	43.4	0.88	D	43.4	0.88	D
	Overall	30.5		C	30.5		C	30.5		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking Lot	WBLR	47.2	0.62	D	47.2	0.62	D	47.2	0.62	D
JFK Boulevard	NBTR	2.4	0.24	A	2.4	0.24	A	2.4	0.24	A
	SBL	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
	SBT	1.7	0.36	A	1.7	0.37	A	1.7	0.37	A
	Overall	3.6		A	3.6		A	3.6		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	43.6	0.69	D	43.6	0.69	D	43.6	0.69	D
	WBR	34.3	0.16	C	34.3	0.16	C	34.3	0.16	C
JFK Boulevard	NBTR	6.0	0.34	A	6.1	0.35	A	6.1	0.35	A
	SBL	6.2	0.65	A	6.5	0.66	A	6.5	0.66	A
	SBT	3.0	0.32	A	3.0	0.32	A	3.0	0.32	A
	Overall	10.3		B	10.3		B	10.3		B
14. JFK Boulevard and S. Marginal Highway										
S. Marginal Highway	EBL	31.1	0.42	C	31.1	0.42	C	31.1	0.42	C
	EBR (Yield)	2.0	0.64	A	2.0	0.65	A	2.0	0.65	A
JFK Boulevard	NBT	32.3	0.50	C	32.1	0.52	C	32.1	0.52	C
	NBR	7.2	0.21	A	7.2	0.21	A	7.2	0.21	A
	SBT	6.2	0.21	A	6.4	0.21	A	6.4	0.21	A
	Overall	10.3		B	10.5		B	10.5		B
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	53.6	0.21	D	54.0	0.23	D	54.0	0.23	D
	SBTR	9.7	0.19	A	9.7	0.19	A	9.7	0.19	A
	Overall	26.5		C	27.5		C	27.5		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Intersection Level of Service Summary Table:
New Jersey—2029 Construction Peak Hours

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Rt. 1/9 at Taco Bell										
Rt. 1/9	NBT	13.0	0.94	B	47.1	1.07	D	59.0	1.10	E
	SBT	13.1	0.94	B	47.4	1.07	D	79.5	1.15	E
	Overall	13.1		B	47.3		D	69.5		E
2. Rt. 1/9 at Wendy's & White Cap Const. Supply										
Wendy's & White Cap Const. Supply	EBL	54.3	0.74	D	54.2	0.76	D	54.2	0.76	D
Rt. 1/9	NBT	23.0	0.96	C	71.4	1.11	E	85.9	1.15	F
	SBT	21.8	0.95	C	67.7	1.10	E	70.2	1.11	E
	Overall	24.5		C	68.5		E	80.0		E
5. Secaucus Road and Rt. 1/9 SB Ramps										
Secaucus Road	EBTR	22.3	0.49	C	24.3	0.58	C	24.4	0.58	C
	WBL	17.5	0.61	B	41.2	0.84	D	42.7	0.85	D
	WBT	15.7	0.36	B	17.2	0.42	B	17.2	0.42	B
Rt. 1/9 SB Ramps	SBL	46.3	0.95	D	68.9	1.04	E	76.3	1.06	E
	SBTR	15.7	0.06	B	14.9	0.07	B	14.9	0.07	B
	Overall	26.8		C	35.9		D	38.4		D
6. Secaucus Road and Rt. 1/9 NB Ramps										
Secaucus Road	EBL	5.0	0.31	A	6.0	0.40	A	6.3	0.47	A
	EBT	6.8	0.47	A	8.4	0.55	A	8.4	0.55	A
	WBTR	10.1	0.28	B	11.7	0.33	B	11.8	0.33	B
Rt. 1/9 NB Ramps	NBL	42.0	0.74	D	41.9	0.77	D	41.9	0.77	D
	NBT	30.6	0.14	C	29.6	0.20	C	29.6	0.20	C
	Overall	12.2		B	13.5		B	13.5		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	95.1	1.03	F	295.3	1.53	F	351.4	1.66	F
4. Rt. 1/9 NB and Entrance Ramp from Secaucus Road										
Entrance Ramp	WBR	82.2	1.04	F	253.6	1.47	F	327.9	1.64	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Construction Peak Hour (4:45 - 5:45 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Rt. 1/9 at Taco Bell										
Rt. 1/9	NBT	18.0	0.98	B	62.3	1.11	E	96.0	1.19	F
	SBT	8.2	0.88	A	24.4	1.00	C	49.6	1.08	D
	Overall	13.5		B	44.4		D	74.0		E
2. Rt. 1/9 at Wendy's & White Cap Const. Supply										
Wendy's & White Cap Const. Supply	EBL	54.6	0.69	D	54.3	0.72	D	53.2	0.79	D
Rt. 1/9	NBT	22.1	0.96	C	71.1	1.11	E	121.6	1.22	F
	SBT	15.3	0.90	B	44.4	1.04	D	90.0	1.15	F
	Overall	20.8		C	58.0		E	102.1		F
5. Secaucus Road and Rt. 1/9 SB Ramps										
Secaucus Road	EBTR	14.7	0.32	B	17.0	0.39	B	17.5	0.40	B
	WBL	9.1	0.27	A	11.0	0.37	B	11.4	0.38	B
	WBT	9.7	0.25	A	11.7	0.30	B	12.1	0.30	B
Rt. 1/9 SB Ramps	SBL	36.9	0.82	D	36.6	0.84	D	37.3	0.86	D
	SBTR	21.4	0.03	C	19.5	0.04	B	19.0	0.04	B
	Overall	18.7		B	20.2		C	20.8		C
6. Secaucus Road and Rt. 1/9 NB Ramps										
Secaucus Road	EBL	4.0	0.22	A	4.7	0.27	A	4.8	0.32	A
	EBT	5.2	0.35	A	6.2	0.41	A	6.2	0.41	A
	WBTR	7.9	0.21	A	9.7	0.26	A	9.8	0.26	A
Rt. 1/9 NB Ramps	NBL	42.6	0.71	D	42.3	0.73	D	42.3	0.73	D
	NBT	33.3	0.33	C	33.1	0.45	C	33.1	0.45	C
	Overall	11.9		B	12.9		B	12.8		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Construction Peak Hour (4:45 - 5:45 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	99.5	1.02	F	298.9	1.53	F	353.2	1.65	F
4. Rt. 1/9 NB and Entrance Ramp from Secaucus Road										
Entrance Ramp	WBR	91.7	1.05	F	270.6	1.50	F	349.3	1.68	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Saturday PM Construction Peak Hour (4:45 - 5:45 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Rt. 1/9 at Taco Bell										
Rt. 1/9	NBT	10.9	0.92	B	39.2	1.05	D	62.5	1.11	E
	SBT	3.7	0.69	A	5.1	0.78	A	6.6	0.84	A
	Overall	7.9		A	24.7		C	38.5		D
2. Rt. 1/9 at Wendy's & White Cap Const. Supply										
Wendy's & White Cap Const. Supply	EBL	53.8	0.49	D	53.9	0.53	D	54.3	0.66	D
Rt. 1/9	NBT	13.7	0.92	B	43.6	1.05	D	71.5	1.12	E
	SBT	5.4	0.67	A	7.2	0.77	A	10.4	0.83	B
	Overall	11.5		B	29.0		C	46.0		D
5. Secaucus Road and Rt. 1/9 SB Ramps										
Secaucus Road	EBTR	14.0	0.17	B	16.0	0.21	B	16.5	0.22	B
	WBL	8.7	0.28	A	10.4	0.35	B	10.9	0.36	B
	WBT	8.8	0.18	A	10.5	0.21	B	11.0	0.22	B
Rt. 1/9 SB Ramps	SBL	37.3	0.81	D	36.5	0.84	D	36.6	0.85	D
	SBTR	22.0	0.04	C	20.0	0.04	B	19.4	0.05	B
	Overall	19.5		B	20.4		C	20.9		C
6. Secaucus Road and Rt. 1/9 NB Ramps										
Secaucus Road	EBL	3.0	0.19	A	3.4	0.23	A	3.5	0.28	A
	EBT	3.5	0.25	A	4.0	0.28	A	4.0	0.28	A
	WBTR	6.4	0.18	A	7.7	0.22	A	7.7	0.22	A
Rt. 1/9 NB Ramps	NBL	41.3	0.63	D	41.5	0.66	D	41.5	0.66	D
	NBT	35.0	0.16	C	35.0	0.31	C	35.0	0.31	C
	Overall	10.8		B	11.5		B	11.4		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Saturday PM Construction Peak Hour (4:45 - 5:45 PM)

Intersection	Movement	2016 Existing			2029 No Action Alternative			2029 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
3. Rt. 1/9 NB and 10th Street										
10th Street	WBR	134.0	1.02	F	339.4	1.53	F	383.7	1.62	F
4. Rt. 1/9 NB and Entrance Ramp from Secaucus Road										
Entrance Ramp	WBR	77.6	1.01	F	260.6	1.48	F	329.2	1.63	F

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

Intersection Level of Service Summary Table:
New Jersey—Construction Peak Hours—Mitigation

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2022 No Action Alternative			2022 Construction Condition			2022 Construction Condition with Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	28.6	0.63	C	28.7	0.63	C	23.5	0.54	C
	WBL	143.5	1.14	F	255.4	1.43	F	134.3	1.14	F
	WBT	22.3	0.15	C	22.3	0.15	C	18.7	0.13	B
Willow Avenue	WBR	5.9	0.28	A	5.9	0.28	A	6.3	0.29	A
	NBLTR	73.9	1.00	E	86.3	1.05	F	75.3	0.99	E
	SBLTR	26.6	0.46	C	27.6	0.52	C	35.5	0.67	D
	Overall	46.8		D	61.8		E	48.2		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	18.9	0.23	B	19.1	0.25	B	19.1	0.25	B
	WBL	97.1	0.96	F	103.2	0.98	F	103.2	0.98	F
	WBT	35.8	0.35	D	36.0	0.36	D	36.0	0.36	D
	WBR (Stop)	32.1	0.01	C	32.1	0.01	C	32.1	0.01	C
Park Avenue	NBLTR	33.8	0.82	C	33.8	0.82	C	33.8	0.82	C
	SBL	19.1	0.22	B	19.1	0.22	B	19.1	0.22	B
	SBT	18.5	0.42	B	18.5	0.42	B	18.5	0.42	B
	SBR	5.7	0.28	A	6.2	0.32	A	6.2	0.32	A
Overall	30.2		C	30.3		C	30.3		C	
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	21.6	0.12	C	21.6	0.12	C	21.6	0.12	C
	EBLT	8.6	0.37	A	8.6	0.37	A	8.6	0.37	A
	WBT	5.1	0.20	A	5.1	0.20	A	5.1	0.20	A
Lincoln Harbor Road	SBR	21.1	0.00	C	21.1	0.00	C	21.1	0.00	C
	Overall	8.1		A	8.1		A	8.1		A
10. 19th Street and Waterfront Terrace										
19th Street	EBL	22.2	0.74	C	22.5	0.75	C	22.5	0.75	C
	EBT	10.5	0.22	B	10.7	0.22	B	10.7	0.22	B
	WBTR	21.4	0.09	C	21.6	0.10	C	21.6	0.10	C
Waterfront Terrace	SBL	18.9	0.37	B	18.8	0.37	B	18.8	0.37	B
	SBR	28.7	0.77	C	28.8	0.77	C	28.8	0.77	C
Overall	22.0		C	22.1		C	22.1		C	
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking lot	WBLR	34.1	0.01	C	34.1	0.01	C	34.1	0.01	C
	JFK Boulevard	NBTR	1.8	0.19	A	1.8	0.20	A	1.8	0.20
JFK Boulevard	SBL	0.3	0.00	A	0.3	0.00	A	0.3	0.00	A
	SBT	0.7	0.43	A	0.7	0.44	A	0.7	0.44	A
	Overall	1.1		A	1.1		A	1.1		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	44.4	0.87	D	44.4	0.87	D	44.4	0.87	D
	WBR	22.7	0.22	C	22.7	0.22	C	22.7	0.22	C
JFK Boulevard	NBTR	13.1	0.40	B	13.2	0.42	B	13.2	0.42	B
	SBL	5.3	0.55	A	5.4	0.56	A	5.4	0.56	A
	SBT	5.6	0.47	A	5.7	0.48	A	5.7	0.48	A
Overall	13.7		B	13.7		B	13.7		B	
14. JFK Boulevard and S. Marginal Highway										
JFK Boulevard	EBL	19.0	0.08	B	19.0	0.08	B	19.0	0.08	B
	EBR	6.2	0.85	A	7.4	0.87	A	7.4	0.87	A
JFK Boulevard	NBT	42.4	0.86	D	44.4	0.88	D	44.4	0.88	D
	NBR	2.8	0.06	A	2.6	0.06	A	2.6	0.06	A
	SBT	11.2	0.38	B	11.2	0.38	B	11.2	0.38	B
Overall	16.2		B	17.4		B	17.4		B	
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	36.1	0.42	D	35.9	0.43	D	35.9	0.43	D
	SBTR	13.3	0.29	B	13.4	0.29	B	13.4	0.29	B
	Overall	26.2		C	26.3		C	26.3		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
Hudson County, New Jersey
Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2022 No Action Alternative			2022 Construction Condition			2022 Construction Condition with Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
Hoboken Shaft Site Analysis Intersections										
7. 19th Street and Willow Avenue										
19th Street	EBLTR	23.5	0.30	C	23.5	0.30	C	21.2	0.27	C
	WBL	90.4	1.03	F	107.6	1.17	F	96.7	1.06	F
	WBT	25.7	0.39	C	25.7	0.39	C	22.9	0.35	C
	WBR	4.6	0.06	A	4.6	0.06	A	5.3	0.06	A
Willow Avenue	NBLTR	66.0	0.97	E	96.6	1.08	F	68.6	0.97	E
	SBLTR	26.6	0.47	C	27.6	0.52	C	33.7	0.64	C
	Overall	47.9		D	67.3		E	51.6		D
8. 19th Street and Park Avenue										
19th Street	EBLTR	18.9	0.23	B	19.1	0.25	B	19.1	0.25	B
	WBL	134.9	1.09	F	143.9	1.12	F	143.9	1.12	F
	WBT	36.5	0.40	D	36.6	0.41	D	36.6	0.41	D
	WBR (Stop)	32.4	0.03	C	32.4	0.03	C	32.4	0.03	C
Park Avenue	NBLTR	34.2	0.82	C	34.2	0.82	C	34.2	0.82	C
	SBL	16.5	0.09	B	16.5	0.09	B	16.5	0.09	B
	SBT	23.5	0.65	C	23.5	0.65	C	23.5	0.65	C
	SBR	5.0	0.19	A	5.2	0.22	A	5.2	0.22	A
Overall	34.6		C	34.9		C	34.9		C	
9. 19th Street and Lincoln Harbor Road										
19th Street	EBL	21.5	0.05	C	21.5	0.05	C	21.5	0.05	C
	EBLT	8.6	0.34	A	8.7	0.35	A	8.7	0.35	A
	WBT	5.1	0.24	A	5.1	0.24	A	5.1	0.24	A
Lincoln Harbor Road	SBR	21.4	0.00	C	21.4	0.00	C	21.4	0.00	C
	Overall	7.5		A	7.5		A	7.5		A
10. 19th Street and Waterfront Terrace										
19th Street	EBL	22.8	0.74	C	23.4	0.75	C	23.4	0.75	C
	EBT	10.5	0.13	B	10.6	0.13	B	10.6	0.13	B
	WBTR	22.1	0.17	C	22.3	0.17	C	22.3	0.17	C
	SBL	17.3	0.23	B	17.3	0.23	B	17.3	0.23	B
Waterfront Terrace	SBR	28.1	0.77	C	28.3	0.78	C	28.3	0.78	C
	Overall	22.9		C	23.2		C	23.2		C
12. JFK Boulevard and NJ Transit Bus Parking Lot										
NJ Transit Bus Parking lot	WBLR	34.3	0.36	C	34.3	0.36	C	34.3	0.36	C
	JFK Boulevard	NBTR	2.4	0.22	A	2.4	0.23	A	2.4	0.23
JFK Boulevard	SBL	0.5	0.01	A	0.5	0.01	A	0.5	0.01	A
	SBT	0.8	0.31	A	0.8	0.32	A	0.8	0.32	A
	Overall	1.8		A	1.8		A	1.8		A
13. JFK Boulevard and Baldwin Avenue										
Baldwin Avenue	WBL	34.2	0.74	C	34.2	0.74	C	34.2	0.74	C
	WBR	24.2	0.23	C	24.2	0.23	C	24.2	0.23	C
JFK Boulevard	NBTR	11.8	0.42	B	12.0	0.43	B	12.0	0.43	B
	SBL	5.4	0.59	A	5.6	0.59	A	5.6	0.59	A
	SBT	4.1	0.35	A	4.2	0.37	A	4.2	0.37	A
Overall	11.7		B	11.7		B	11.7		B	
14. JFK Boulevard and S. Marginal Highway										
JFK Boulevard	EBL	20.4	0.31	C	20.4	0.31	C	20.4	0.31	C
	EBR	1.5	0.58	A	1.7	0.60	A	1.7	0.60	A
JFK Boulevard	NBT	35.1	0.72	D	35.4	0.74	D	35.4	0.74	D
	NBR	2.0	0.14	A	1.9	0.14	A	1.9	0.14	A
	SBT	10.3	0.33	B	10.4	0.34	B	10.4	0.34	B
Overall	11.9		B	12.0		B	12.0		B	
15. JFK Boulevard and N. Marginal Highway										
JFK Boulevard	NBL	35.8	0.36	D	35.8	0.37	D	35.8	0.37	D
	SBTR	13.3	0.29	B	13.3	0.29	B	13.3	0.29	B
	Overall	24.8		C	25.0		C	25.0		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).
- Not Applicable due to lane closure.

Intersection Level of Service Summary Table:
Manhattan—Background Peak Hours

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Twelfth Avenue and West 26th Street										
Twelfth Avenue	NBTR	12.5	0.61	B	12.6	0.62	B	12.6	0.62	B
	SBL	80.4	0.53	F	78.2	0.54	E	79.9	0.54	E
	SBT	3.9	0.68	A	3.6	0.71	A	3.7	0.71	A
	Overall	11.0		B	10.7		B	10.8		B
2. Twelfth Avenue and West 29th Street										
West 29th Street	WBL	55.6	0.22	E	64.3	0.51	E	64.3	0.51	E
	WBR	86.1	0.81	F	411.6	1.74	F	513.8	1.97	F
Twelfth Avenue	NBT	7.2	0.59	A	8.3	0.68	A	8.3	0.68	A
	SBT	0.8	0.69	A	0.9	0.76	A	0.9	0.76	A
	Overall	7.3		A	31.2		C	40.8		D
3. Twelfth Avenue and West 30th Street										
Twelfth Avenue	NBTR	9.8	0.72	A	15.3	0.91	B	13.4	0.87	B
	SBL	82.6	0.76	F	113.5	1.00	F	0.0	0.0	A
	SBT	3.1	0.77	A	4.8	0.84	A	4.3	0.84	A
	Overall	8.9		A	14.0		B	9.3		A
4. Twelfth Avenue and West 34th Street										
West 34th Street	WBL	58.6	0.53	E	59.1	0.55	E	59.1	0.55	E
	WBR	43.7	0.66	D	98.5	1.05	F	98.5	1.05	F
Twelfth Avenue	NBT	35.7	0.82	D	33.2	0.88	C	32.8	0.89	C
	NBR	26.8	0.25	C	25.4	0.30	C	40.3	0.87	D
	SBL	89.7	0.60	F	86.6	0.68	F	145.6	1.10	F
	SBT	32.8	0.68	C	32.6	0.76	C	29.4	0.70	C
	Overall	38.5		D	41.7		D	47.0		D
5. Twelfth Avenue and Tow Pound Exit										
Tow Pound Exit	EBL	47.4	0.07	D	47.4	0.07	D	47.4	0.07	D
	EBR	47.6	0.06	D	47.6	0.06	D	47.6	0.06	D
Twelfth Avenue	NBT	18.9	0.68	B	18.8	0.76	B	19.2	0.77	B
	SBT	1.0	0.79	A	3.1	0.88	A	3.1	0.88	A
	Overall	10.4		B	11.3		B	11.6		B
6. Twelfth Avenue and Pier 79 Ferry										
Pier 79 Ferry	EBLR	55.9	0.23	E	56.3	0.24	E	56.3	0.24	E
Twelfth Avenue	NBL	77.2	0.10	E	73.5	0.10	E	73.9	0.10	E
	NBT	23.0	0.86	C	32.6	0.97	C	32.7	0.97	C
	SBTR	11.2	0.94	B	31.7	1.04	C	31.7	1.04	C
	Overall	17.5		B	32.4		C	32.4		C
7. Twelfth Avenue and West 40th Street										
West 40th Street	WBR	40.8	0.03	D	40.8	0.03	D	40.8	0.03	D
Twelfth Avenue	NBL	59.4	0.26	E	56.9	0.26	E	56.7	0.26	E
	NBTR	5.5	0.88	A	12.2	0.98	B	14.2	0.99	B
	SBT	22.7	0.84	C	29.4	0.93	C	29.4	0.93	C
	SBR	9.6	0.07	A	9.6	0.07	A	9.6	0.07	A
	Overall	14.2		B	20.5		C	21.6		C
8. Eleventh Avenue and West 26th Street										
West 26th Street	EBTR	41.0	0.74	D	46.3	0.81	D	46.3	0.81	D
Eleventh Avenue	SBLT	4.4	0.39	A	4.4	0.51	A	3.9	0.51	A
	Overall	11.2		B	11.1		B	10.8		B
9. Eleventh Avenue and West 27th Street										
West 27th Street	WBLT	32.4	0.67	C	37.2	0.76	D	37.2	0.76	D
Eleventh Avenue	SBTR	3.3	0.42	A	2.9	0.55	A	2.5	0.55	A
	Overall	9.1		A	9.0		A	8.7		A
10. Eleventh Avenue and West 28th Street										
West 28th Street	EBT	19.4	0.23	B	20.4	0.31	C	20.4	0.31	C
Eleventh Avenue	SBL	3.9	0.26	A	4.3	0.42	A	4.2	0.42	A
	SBT	4.4	0.44	A	4.2	0.58	A	3.8	0.58	A
	Overall	5.7		A	5.7		A	5.3		A
11. Eleventh Avenue and West 29th Street										
West 29th Street	WBL	16.5	0.24	B	17.1	0.29	B	17.1	0.29	B
	WBT	16.7	0.27	B	20.0	0.49	B	20.0	0.49	B
Eleventh Avenue	SBT	4.6	0.52	A	4.6	0.71	A	0.5	0.71	A
	SBR	3.7	0.10	A	4.5	0.36	A	0.7	0.48	A
	Overall	7.0		A	7.7		A	4.4		A

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York

Weekday AM Background Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
12. Eleventh Avenue and West 30th Street										
West 30th Street	EBT	16.1	0.22	B	-	-	-	-	-	-
	EBR	16.3	0.22	B	-	-	-	-	-	-
Eleventh Avenue	EBTR	-	-	-	18.1	0.43	B	-	-	-
	SBLT	4.8	0.62	A	17.4	0.88	B	76.8	1.30dl	E
	Overall	6.9		A	17.6		B	76.8		E
13. Eleventh Avenue and West 33rd Street										
West 33rd Street	WBL	-	-	-	20.8	0.87	C	18.3	0.87	B
Eleventh Avenue	SBTR	6.5	0.55	A	2.1	0.55	A	10.1	0.76	B
	Overall	6.5		A	6.7		A	11.7		B
14. Eleventh Avenue and West 34th Street										
West 34th Street	EBTR	30.8	0.59	C	-	-	-	-	-	-
	EBLTR	-	-	-	23.7	0.55	C	223.3	1.45dr	F
West Eleventh Avenue	WBLT	31.4	0.70	C	-	-	-	-	-	-
	WBLTR	-	-	-	15.9	0.45	B	24.9	0.56	C
	SBLTR	15.7	0.69	B	28.2	0.97	C	29.0	0.98	C
	Overall	22.3		C	25.4		C	89.2		F
15. Eleventh Avenue and West 40th Street										
West 40th Street	EBTR	33.9	0.53	C	36.8	0.61	D	40.3	0.69	D
Eleventh Avenue	NBR	8.7	0.35	A	8.9	0.35	A	9.5	0.35	A
	SBL	7.3	0.16	A	7.6	0.22	A	7.6	0.22	A
	SBTR	8.9	0.40	A	11.5	0.62	B	11.5	0.62	B
	Overall	10.6		B	12.0		B	12.6		B
16. Tenth Avenue and West 26th Street										
West 26th Street	EBLT	46.7	0.78	D	62.8	0.95	E	62.8	0.95	E
Tenth Avenue	NBTR	13.5	0.46	B	15.2	0.60	B	15.2	0.60	B
	Overall	20.3		C	24.4		C	24.4		C
17. Tenth Avenue and West 30th Street										
West 30th Street	EBLT	27.3	0.46	C	247.2	1.46	F	248.7	1.47	F
Tenth Avenue	NBTR	4.7	0.33	A	5.2	0.48	A	5.2	0.48	A
	Overall	8.7		A	84.8		F	85.5		F
18. Tenth Avenue and West 33rd Street										
West 33rd Street	WBTR	31.4	0.56	C	61.0	0.97	E	61.0	0.97	E
Tenth Avenue	NBLT	-	-	-	74.0	1.10	E	74.8	1.10	E
	NBT	19.3	0.70	B	-	-	-	-	-	-
	Overall	20.9		C	71.4		E	72.0		E
19. Tenth Avenue and West 34th Street										
West 34th Street	EBLT	36.1	0.59	D	23.1	0.75	C	30.0	0.76	C
	WBT	21.0	0.38	C	22.5	0.46	C	23.3	0.48	C
	WBR	24.9	0.47	C	26.5	0.54	C	26.6	0.54	C
Tenth Avenue	NBL	-	-	-	1.4	0.13	A	1.4	0.13	A
	NBT	-	-	-	1.9	0.64	A	1.9	0.64	A
	NBLT	4.6	0.51	A	-	-	-	-	-	-
	NBR	3.6	0.15	A	1.5	0.26	A	1.5	0.26	A
Overall	12.0		B	9.5		A	10.8		B	
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	18.8	0.28	B	20.0	0.36	B	20.2	0.36	C
	WBT	11.6	0.24	B	11.8	0.27	B	11.8	0.27	B
	WBR	8.4	0.10	A	8.5	0.12	A	8.5	0.12	A
Dyer Avenue	SBL	52.6	0.86	D	89.2	1.05	F	89.1	1.05	F
	SBR	69.3	0.88	E	183.2	1.27	F	230.5	1.38	F
	Overall	31.1		C	57.9		E	66.6		E
21. Dyer Avenue and West 35th Street										
West 35th Street	WBLTR	25.4	0.38	C	35.0	0.74	C	35.0	0.74	C
Dyer Avenue	NBLT	5.8	0.10	A	5.9	0.12	A	5.9	0.12	A
	SBTR	54.8	0.70	D	57.8	0.87dr	E	58.5	0.87	E
	Overall	44.6		D	47.4		D	48.0		D
22. Dyer Avenue SB and West 36th Street										
West 36th Street	EBTR	25.1	0.30	C	25.2	0.31	C	25.2	0.31	C
Dyer Avenue	SBL	34.0	0.65	C	41.4	0.79	D	42.3	0.80	D
	SBLT	30.6	0.70	C	36.2	0.85	D	37.1	0.87	D
	SBR	12.1	0.45	B	12.7	0.49	B	12.7	0.49	B
	Overall	26.5		C	31.1		C	31.8		C
23. Dyer Avenue NB and West 36th Street										
West 36th Street	EBLT	0.7	0.30	A	1.9	0.42	A	1.9	0.42	A
Dyer Avenue	NBT	34.6	0.30	C	36.8	0.39	D	36.9	0.39	D
	Overall	6.1		A	7.2		A	7.2		A

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday MD Background Peak Hour (12:45 - 1:45 PM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Twelfth Avenue and West 26th Street										
Twelfth Avenue	NBTR	10.0	0.50	A	10.1	0.51	B	10.1	0.51	B
	SBL	51.5	0.52	D	49.0	0.53	D	49.3	0.53	D
	SBT	3.0	0.56	A	3.0	0.58	A	3.0	0.58	A
	Overall	8.9		A	8.8		A	8.8		A
2. Twelfth Avenue and West 29th Street										
West 29th Street	WBL	38.2	0.09	D	43.8	0.38	D	43.8	0.38	D
	WBR	47.4	0.51	D	175.0	1.23	F	233.6	1.37	F
Twelfth Avenue	NBTR	6.3	0.49	A	7.0	0.59	A	7.0	0.59	A
	SBT	0.6	0.60	A	0.7	0.67	A	0.7	0.67	A
	Overall	5.4		A	18.0		B	24.4		C
3. Twelfth Avenue and West 30th Street										
Twelfth Avenue	NBTR	9.1	0.61	A	12.2	0.80	B	11.7	0.77	B
	SBL	58.5	0.72	E	102.6	1.03	F	0.0	0.0	A
	SBT	13.4	0.70	B	12.9	0.78	B	14.0	0.78	B
	Overall	13.2		B	16.9		B	12.8		B
4. Twelfth Avenue and West 34th Street										
West 34th Street	WBL	40.4	0.39	D	41.1	0.43	D	41.1	0.43	D
	WBR	38.2	0.73	D	119.5	1.14	F	119.5	1.14	F
Twelfth Avenue	NBT	35.9	0.70	D	42.7	0.77	D	42.4	0.78	D
	NBR	29.7	0.32	C	35.2	0.37	D	106.6	1.09	F
	SBL	57.7	0.68	E	57.7	0.74	E	249.6	1.42	F
	SBT	17.9	0.63	B	17.9	0.72	B	17.0	0.64	B
	Overall	29.9		C	41.4		D	65.2		E
5. Twelfth Avenue and Tow Pound Exit										
Tow Pound Exit	EBL	41.8	0.07	D	41.8	0.07	D	41.8	0.07	D
	EBR	42.0	0.08	D	42.0	0.08	D	42.0	0.08	D
Twelfth Avenue	NBT	3.6	0.52	A	6.6	0.61	A	6.6	0.62	A
	SBT	0.6	0.65	A	1.4	0.74	A	1.4	0.74	A
	Overall	2.4		A	4.3		A	4.3		A
6. Twelfth Avenue and Pier 79 Ferry										
Pier 79 Ferry	EBLR	42.7	0.11	D	43.0	0.12	D	43.0	0.12	D
Twelfth Avenue	NBL	71.6	0.10	E	70.4	0.10	E	70.0	0.10	E
	NBT	11.8	0.66	B	10.9	0.77	B	11.2	0.78	B
	SBTR	17.6	0.84	B	25.2	0.95	C	25.2	0.95	C
	Overall	15.1		B	18.4		B	18.5		B
7. Twelfth Avenue and West 40th Street										
West 40th Street	WBR	33.6	0.04	C	33.6	0.04	C	33.6	0.04	C
Twelfth Avenue	NBL	46.2	0.14	D	46.1	0.14	D	46.1	0.14	D
	NBTR	11.6	0.62	B	11.9	0.72	B	12.3	0.73	B
	SBT	15.3	0.70	B	17.9	0.80	B	17.9	0.80	B
	SBR	8.3	0.08	A	8.3	0.08	A	8.3	0.08	A
	Overall	13.9		B	15.2		B	15.4		B
8. Eleventh Avenue and West 26th Street										
West 26th Street	EBTR	33.8	0.62	C	35.6	0.67	D	35.6	0.67	D
Eleventh Avenue	SBLT	4.0	0.33	A	4.3	0.51	A	4.0	0.50	A
	Overall	10.9		B	9.7		A	9.6		A
9. Eleventh Avenue and West 27th Street										
West 27th Street	WBLT	25.6	0.46	C	28.5	0.59	C	28.5	0.59	C
Eleventh Avenue	SBTR	4.0	0.33	A	3.1	0.50	A	2.9	0.49	A
	Overall	8.5		A	7.8		A	7.5		A
10. Eleventh Avenue and West 28th Street										
West 28th Street	EBT	21.4	0.36	C	22.3	0.41	C	22.3	0.41	C
Eleventh Avenue	SBL	5.6	0.34	A	9.2	0.67	A	8.5	0.67	A
	SBT	4.7	0.37	A	4.8	0.57	A	4.5	0.57	A
	Overall	7.0		A	7.4		A	7.0		A
11. Eleventh Avenue and West 29th Street										
West 29th Street	WBL	16.1	0.21	B	17.3	0.30	B	17.3	0.30	B
	WBT	16.0	0.21	B	19.1	0.43	B	19.1	0.43	B
Eleventh Avenue	SBT	5.0	0.42	A	4.1	0.69	A	0.2	0.69	A
	SBR	4.6	0.10	A	4.3	0.43	A	0.5	0.53	A
	Overall	7.2		A	7.0		A	3.8		A

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday MD Background Peak Hour (12:45 - 1:45 PM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
12. Eleventh Avenue and West 30th Street										
West 30th Street	EBT	16.4	0.26	B	-	-	-	-	-	-
	EBR	16.9	0.26	B	-	-	-	-	-	-
	EBTR	-	-	-	19.0	0.49	B	-	-	-
Eleventh Avenue	SBLT	3.7	0.56	A	22.6	0.97	C	126.3	1.58dl	F
	Overall	6.8		A	21.9		C	126.3		F
13. Eleventh Avenue and West 33rd Street										
West 33rd Street	WBL	-	-	-	31.1	1.00	C	31.1	1.00	C
Eleventh Avenue	SBTR	5.7	0.51	A	1.7	0.63	A	11.4	0.73	B
	Overall	5.7		A	8.9		A	15.1		B
14. Eleventh Avenue and West 34th Street										
West 34th Street	EBTR	31.4	0.62	C	-	-	-	-	-	-
	EBLTR	-	-	-	25.1	0.60	C	382.8	1.90dr	F
	WBLT	21.8	0.59	C	-	-	-	-	-	-
	WBLTR	-	-	-	8.4	0.41	A	10.3	0.51	B
West Eleventh Avenue	SBLTR	20.1	0.70	C	79.7	1.12	E	79.6	1.12	E
	Overall	19.5		B	59.6		E	165.5		F
15. Eleventh Avenue and West 40th Street										
West 40th Street	EBTR	39.8	0.68	D	46.7	0.78	D	54.5	0.86	D
Eleventh Avenue	NBR	8.0	0.25	A	10.0	0.26	A	11.6	0.26	B
	SBL	8.2	0.31	A	8.7	0.37	A	8.7	0.37	A
	SBTR	8.8	0.38	A	11.5	0.62	B	11.5	0.62	B
	Overall	11.4		B	13.3		B	14.4		B
16. Tenth Avenue and West 26th Street										
West 26th Street	EBLT	46.4	0.73	D	71.8	0.99	E	71.8	0.99	E
Tenth Avenue	NBTR	13.9	0.50	B	15.8	0.64	B	15.8	0.64	B
	Overall	20.4		C	27.4		C	27.4		C
17. Tenth Avenue and West 30th Street										
West 30th Street	EBLT	30.0	0.55	C	42.9	0.92	D	41.5	0.93	D
Tenth Avenue	NBTR	4.7	0.40	A	4.7	0.52	A	4.7	0.52	A
	Overall	9.8		A	18.6		B	18.1		B
18. Tenth Avenue and West 33rd Street										
West 33rd Street	WBTR	33.3	0.60	C	97.8	1.10	F	97.8	1.10	F
Tenth Avenue	NBLT	-	-	-	100.7	1.16	F	101.5	1.16	F
	NBT	17.9	0.63	B	-	-	-	-	-	-
	Overall	20.0		B	100.1		F	100.7		F
19. Tenth Avenue and West 34th Street										
West 34 Street	EBLT	55.0	0.76	D	35.2	1.01dl	D	33.0	1.04dl	C
	WBTR	18.8	0.44	B	20.5	0.54	C	21.3	0.55	C
	WBR	30.1	0.64	C	40.5	0.79	D	43.9	0.82	D
Tenth Avenue	NBL	-	-	-	1.7	0.05	A	1.7	0.06	A
	NBT	-	-	-	2.7	0.74	A	2.7	0.74	A
	NBLT	5.2	0.50	A	-	-	-	-	-	-
	NBR	4.2	0.22	A	1.9	0.32	A	1.9	0.32	A
	Overall	18.0		B	11.7		B	11.8		B
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	21.4	0.26	C	19.5	0.32	B	19.8	0.32	B
	WBT	12.0	0.28	B	12.5	0.33	B	12.5	0.33	B
	WBR	9.2	0.21	A	9.6	0.24	A	9.6	0.24	A
Dyer Avenue	SBL	14.8	0.47	B	23.5	0.53	C	25.1	0.53	C
	SBR	24.8	0.56	C	38.2	0.71	D	50.8	0.83	D
	Overall	16.0		B	18.3		B	20.2		C
21. Dyer Avenue and West 35th Street										
West 35th Street	WBLTR	26.8	0.46	C	37.7	0.79	D	37.7	0.79	D
Dyer Avenue	NBLT	6.4	0.20	A	6.7	0.24	A	6.7	0.24	A
	SBTR	50.3	0.36	D	51.2	0.45	D	51.6	0.47	D
	Overall	33.9		C	37.9		D	38.4		D
22. Dyer Avenue SB and West 36th Street										
West 36th Street	EBTR	25.4	0.32	C	25.5	0.34	C	25.5	0.34	C
Dyer Avenue	SBL	29.3	0.37	C	30.7	0.44	C	31.0	0.45	C
	SBLT	28.2	0.40	C	29.2	0.48	C	29.4	0.50	C
	SBR	9.3	0.22	A	9.5	0.24	A	9.5	0.24	A
	Overall	24.4		C	25.4		C	25.6		C
23. Dyer Avenue NB and West 36th Street										
West 36th Street	EBLT	0.5	0.20	A	2.2	0.31	A	2.2	0.31	A
Dyer Avenue	NBT	34.8	0.54	C	40.8	0.63	D	40.7	0.63	D
	Overall	13.6		B	14.4		B	14.3		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday PM Background Peak Hour (3:45 - 4:45 PM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Twelfth Avenue and West 26th Street										
Twelfth Avenue	NBTR	11.7	0.71	B	11.9	0.72	B	11.9	0.72	B
	SBL	52.0	0.65	D	46.3	0.66	D	46.6	0.66	D
	SBT	6.5	0.73	A	11.5	0.75	B	11.5	0.75	B
	Overall	10.7		B	12.8		B	12.8		B
2. Twelfth Avenue and West 29th Street										
West 29th Street	WBL	43.8	0.12	D	83.1	0.79	F	83.1	0.79	F
	WBR	52.6	0.50	D	530.2	2.00	F	615.9	2.20	F
Twelfth Avenue	NBTR	10.7	0.81	B	4.9	0.82	A	4.9	0.82	A
	SBT	9.4	0.90	A	3.7	0.87	A	3.7	0.87	A
	Overall	11.6		B	38.3		D	46.9		D
3. Twelfth Avenue and West 30th Street										
Twelfth Avenue	NBTR	8.2	0.87	A	57.7	1.08	E	44.1	1.05	D
	SBL	110.5	0.99	F	223.7	1.32	F	-	-	-
	SBT	33.5	0.87	C	39.3	0.97	D	39.5	0.97	D
	Overall	22.9		C	56.1		E	42.1		D
4. Twelfth Avenue and West 34th Street										
West 34th Street	WBL	54.0	0.32	D	55.6	0.40	E	55.6	0.40	E
	WBR	87.2	0.97	F	323.2	1.58	F	323.2	1.58	F
Twelfth Avenue	NBT	18.6	0.79	B	18.1	0.91	B	19.5	0.92	B
	NBR	5.8	0.21	A	4.9	0.24	A	29.0	0.96	C
	SBL	104.6	1.04	F	122.8	1.10	F	544.6	2.07	F
	SBT	3.2	0.81	A	7.9	0.90	A	5.2	0.83	A
	Overall	20.5		C	45.1		D	77.5		E
5. Twelfth Avenue and Tow Pound Exit										
Tow Pound Exit	EBL	64.3	0.32	E	64.4	0.32	E	64.4	0.32	E
	EBR	62.7	0.20	E	62.7	0.20	E	62.7	0.20	E
Twelfth Avenue	NBT	0.9	0.66	A	2.4	0.77	A	2.6	0.78	A
	SBT	5.0	0.84	A	10.3	0.93	B	10.3	0.93	B
	Overall	3.9		A	7.1		A	7.1		A
6. Twelfth Avenue and Pier 79 Ferry										
Pier 79 Ferry	EBLR	62.2	0.28	E	63.4	0.31	E	63.4	0.31	E
Twelfth Avenue	NBL	73.1	0.18	E	78.4	0.19	E	79.2	0.19	E
	NBT	8.1	0.76	A	11.7	0.88	B	11.9	0.89	B
	SBTR	15.0	0.99	B	53.2	1.10	D	53.2	1.10	D
	Overall	12.1		B	32.3		C	32.3		C
7. Twelfth Avenue and West 40th Street										
West 40th Street	WBR	49.5	0.11	D	49.5	0.11	D	49.5	0.11	D
Twelfth Avenue	NBL	51.6	0.28	D	55.3	0.28	E	55.4	0.28	E
	NBTR	6.0	0.72	A	5.5	0.84	A	5.6	0.85	A
	SBT	21.4	0.90	C	36.0	1.00	D	36.0	1.00	D
	SBR	6.7	0.08	A	6.8	0.09	A	6.8	0.09	A
	Overall	14.5		B	21.2		C	21.2		C
8. Eleventh Avenue and West 26th Street										
West 26th Street	EBTR	32.5	0.58	C	34.0	0.63	C	34.0	0.63	C
Eleventh Avenue	SBLT	4.7	0.24	A	4.3	0.42	A	3.9	0.42	A
	Overall	12.4		B	10.1		B	9.7		A
9. Eleventh Avenue and West 27th Street										
West 27th Street	WBLT	25.6	0.46	C	27.9	0.57	C	27.9	0.57	C
Eleventh Avenue	SBTR	4.5	0.24	A	3.2	0.43	A	2.7	0.43	A
	Overall	10.3		B	8.3		A	8.0		A
10. Eleventh Avenue and West 28th Street										
West 28th Street	EBT	20.0	0.28	B	20.3	0.30	C	20.3	0.30	C
Eleventh Avenue	SBL	8.0	0.29	A	8.9	0.56	A	7.8	0.56	A
	SBT	6.7	0.26	A	5.9	0.48	A	5.5	0.48	A
	Overall	8.9		A	7.9		A	7.4		A
11. Eleventh Avenue and West 29th Street										
West 29th Street	WBL	17.0	0.28	B	19.3	0.42	B	19.3	0.42	B
	WBT	16.5	0.25	B	21.3	0.55	C	21.3	0.55	C
Eleventh Avenue	SBT	7.9	0.30	A	5.6	0.59	A	0.6	0.59	A
	SBR	7.4	0.09	A	7.8	0.53	A	1.2	0.63	A
	Overall	10.5		B	9.8		A	5.9		A

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York

Weekday PM Background Peak Hour (3:45 - 4:45 PM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
12. Eleventh Avenue and West 30th Street										
West 30th Street	EBT	17.7	0.36	B	-	-	-	-	-	-
	EBR	17.3	0.29	B	-	-	-	-	-	-
Eleventh Avenue	EBTR	-	-	-	19.4	0.52	B	-	-	-
	SBLT	4.4	0.34	A	13.7	0.77	B	60.7	1.44dl	E
	Overall	9.7		A	15.3		B	60.7		E
13. Eleventh Avenue and West 33rd Street										
West 33rd Street	WBL	-	-	-	21.5	0.85	C	21.5	0.85	C
Eleventh Avenue	SBTR	4.2	0.28	A	2.1	0.48	A	11.4	0.76	B
	Overall	4.2		A	7.3		A	13.3		B
14. Eleventh Avenue and West 34th Street										
West 34th Street	EBTR	29.6	0.55	C	-	-	-	-	-	-
	EBLTR	-	-	-	25.0	0.59	C	450.3	1.93	F
	WBLT	18.1	0.55	B	-	-	-	-	-	-
West Eleventh Avenue	WBLTR	-	-	-	20.6	0.76	C	59.6	1.04	E
	SBLTR	11.0	0.44	B	16.8	0.82	B	16.8	0.82	B
	Overall	17.7		B	19.3		B	172.0		F
15. Eleventh Avenue and West 40th Street										
West 40th Street	EBTR	32.2	0.44	C	35.4	0.55	D	38.0	0.62	D
Eleventh Avenue	NBR	7.7	0.21	A	10.4	0.30	B	11.7	0.30	B
	SBL	9.5	0.45	A	10.2	0.52	B	10.2	0.52	B
	SBTR	8.3	0.32	A	10.4	0.54	B	10.4	0.54	B
	Overall	10.0		A	11.5		B	11.9		B
16. Tenth Avenue and West 26th Street										
West 26th Street	EBLT	44.3	0.59	D	48.8	0.79	D	48.8	0.79	D
Tenth Avenue	NBTR	15.1	0.59	B	17.4	0.73	B	17.4	0.73	B
	Overall	19.3		B	22.2		C	22.2		C
17. Tenth Avenue and West 30th Street										
West 30th Street	EBLT	28.5	0.66	C	124.4	1.19	F	131.9	1.2	F
Tenth Avenue	NBTR	4.9	0.55	A	5.0	0.65	A	5.0	0.65	A
	Overall	9.0		A	47.7		D	50.5		D
18. Tenth Avenue and West 33rd Street										
West 33rd Street	WBTR	29.9	0.51	C	53.4	0.93	D	53.4	0.93	D
Tenth Avenue	NBLT	-	-	-	246.2	1.49	F	247.0	1.49	F
	NBT	20.5	0.76	C	-	-	-	-	-	-
	Overall	21.6		C	219.8		F	220.5		F
19. Tenth Avenue and West 34th Street										
West 34th Street	EBLT	63.1	1.01	E	25.8	0.85dl	C	29.5	0.89dl	C
	WBTR	22.6	0.68	C	24.2	0.80	C	25.2	0.82	C
	WBR	36.0	0.79	D	58.0	0.97	E	65.8	1.00	E
Tenth Avenue	NBL	-	-	-	1.3	0.32	A	1.3	0.33	A
	NBT	-	-	-	54.7	1.11	D	54.7	1.11	D
	NBLT	3.9	0.56	A	-	-	-	-	-	-
	NBR	3.2	0.23	A	1.4	0.41	A	1.4	0.42	A
Overall	18.9		B	41.7		D	42.7		D	
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	20.3	0.26	C	14.9	0.34	B	15.3	0.34	B
	WBT	13.0	0.39	B	14.6	0.51	B	14.6	0.51	B
	WBR	8.6	0.14	A	10.8	0.36	B	10.8	0.36	B
Dyer Avenue	SBL	18.4	0.43	B	26.0	0.48	C	27.5	0.48	C
	SBR	23.3	0.44	C	32.8	0.55	C	38.5	0.67	D
Overall	16.2		B	16.5		B	17.4		B	
21. Dyer Avenue and West 35th Street										
West 35th Street	WBLTR	26.3	0.42	C	35.8	0.75	D	35.8	0.75	D
Dyer Avenue	NBLT	6.7	0.16	A	8.7	0.40	A	8.7	0.40	A
	SBTR	53.5	0.41	D	53.7	0.49	D	54.0	0.51	D
	Overall	38.6		D	36.3		D	36.8		D
22. Dyer Avenue SB and West 36th Street										
West 36th Street	EBTR	27.4	0.48	C	27.6	0.49	C	27.6	0.49	C
Dyer Avenue	SBL	31.3	0.46	C	33.0	0.53	C	33.5	0.55	C
	SBLT	29.2	0.49	C	30.4	0.57	C	30.7	0.58	C
	SBR	9.7	0.26	A	10.0	0.29	A	10.0	0.29	A
	Overall	25.9		C	26.8		C	27.0		C
23. Dyer Avenue NB and West 36th Street										
West 36th Street	EBLT	0.6	0.34	A	3.1	0.49	A	3.1	0.49	A
Dyer Avenue	NBT	28.5	0.52	C	84.7	1.03	F	84.7	1.03	F
	Overall	8.0		A	28.9		C	28.9		C

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Intersection Level of Service Summary Table:
Manhattan—Background Peak Hours—Mitigation

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday Background AM Peak Hour (7:45 - 8:45 AM)

Intersection	Movement	2021 No Action Alternative			2021 Construction Condition			2021 Construction Condition With Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
2. West Street and West 29th Street										
West 29th Street	WBL	64.3	0.51	E	64.3	0.51	E	58.0	0.44	E
	WBR	411.6	1.74	F	513.8	1.97	F	391.1	1.70	F
West Street	NBT	8.3	0.68	A	8.3	0.68	A	10.0	0.71	B
	SBT	0.9	0.76	A	0.9	0.76	A	1.1	0.79	A
	Overall	31.2		C	40.8		D	33.2		C
4. West Street and West 34th Street										
West 34th Street	WBL	59.1	0.55	E	59.1	0.55	E	Unmitigated		
	WBR	98.5	1.05	F	98.5	1.05	F			
West Street	NBT	33.2	0.88	C	32.8	0.89	C			
	NBR	25.4	0.30	C	40.3	0.87	D			
	SBL	86.6	0.68	F	145.6	1.10	F			
	SBT	32.6	0.76	C	29.4	0.70	C			
	Overall	41.7		D	47.0		D			
12. 11th Avenue and West 30th Street										
West 30th Street	EBT	-	-	-	-	-	-	-	-	-
	EBR	-	-	-	-	-	-	-	-	-
	EBTR	18.1	0.43	B	-	-	-	-	-	-
11th Avenue	SBLT	17.4	0.88	B	76.8	1.30dl	E	42.2	1.21dl	D
	Overall	17.6		B	76.8		E	42.2		D
14. 11th Avenue and West 34th Street										
West 34th Street	EBLTR	23.7	0.55	C	223.3	1.45dr	F	197.3	1.36	F
	WBLTR	15.9	0.45	B	24.9	0.56	C	24.8	0.57	C
West 11th Avenue	SBLTR	28.2	0.97	C	29.0	0.98	C	45.0	1.03	D
	Overall	25.4		C	89.2		F	89.7		F
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	20.0	0.36	B	20.2	0.36	C	20.1	0.36	C
	WBT	11.8	0.27	B	11.8	0.27	B	11.8	0.27	B
	WBR	8.5	0.12	A	8.5	0.12	A	8.5	0.12	A
Dyer Avenue	SBL	89.2	1.05	F	89.1	1.05	F	57.7	0.93	E
	SBR	183.2	1.27	F	230.5	1.38	F	162.2	1.22	F
	Overall	57.9		E	66.6		E	48.4		D

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York

Weekday Background MD Peak Hour (12:45 - 1:45 PM)

Intersection	Movement	2021 No Action Alternative			2021 Construction Condition			2021 Construction Condition With Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
2. West Street and West 29th Street										
West 29th Street	WBL	43.8	0.38	D	43.8	0.38	D	40.4	0.34	D
	WBR	175.0	1.23	F	233.6	1.37	F	170.7	1.23	F
West Street	NBTR	7.0	0.59	A	7.0	0.59	A	8.4	0.61	A
	SBT	0.7	0.67	A	0.7	0.67	A	0.8	0.69	A
	Overall	18.0		B	24.4		C	19.6		B
4. West Street and West 34th Street										
West 34th Street	WBL	41.1	0.43	D	41.1	0.43	D	Unmitigated		
	WBR	119.5	1.14	F	119.5	1.14	F			
West Street	NBT	42.7	0.77	D	42.4	0.78	D			
	NBR	35.2	0.37	D	106.6	1.09	F			
	SBL	57.7	0.74	E	249.6	1.42	F			
	SBT	17.9	0.72	B	17.0	0.64	B			
	Overall	41.4		D	65.2		E			
12. 11th Avenue and West 30th Street										
West 30th Street	EBT	-	-	-	-	-	-	-	-	-
	EBR	-	-	-	-	-	-	-	-	-
	EBTR	19.0	0.49	B	-	-	-	-	-	-
11th Avenue	SBLT	22.6	0.97	C	126.3	1.58dl	F	42.8	1.35dl	D
	Overall	21.9		C	126.3		F	42.8		D
14. 11th Avenue and West 34th Street										
West 34th Street	EBLTR	25.1	0.60	C	382.8	1.90dr	F	Unmitigated		
	WBLTR	8.4	0.41	A	10.3	0.51	B			
West 11th Avenue	SBLTR	79.7	1.12	E	79.6	1.12	E			
	Overall	59.6		E	165.5		F			
15. 11th Avenue and West 40th Street										
West 40th Street	EBTR	39.8	0.68	B	54.5	0.86	D	41.8	0.76	D
11th Avenue	NBR	8.0	0.25	B	11.6	0.26	A	13.3	0.27	B
	SBL	8.2	0.31	A	8.7	0.37	A	10.3	0.39	A
	SBTR	8.8	0.80	C	11.5	0.62	B	13.7	0.66	B
	Overall	11.4		D	14.4		B	15.1		B
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	19.5	0.32	B	19.8	0.32	B	19.9	0.32	B
	WBT	12.5	0.33	B	12.5	0.33	B	12.5	0.33	B
	WBR	9.6	0.24	A	9.6	0.24	A	9.6	0.24	A
Dyer Avenue	SBL	23.5	0.53	C	25.1	0.53	C	24.1	0.50	C
	SBR	38.2	0.71	D	50.8	0.83	D	44.5	0.78	D
	Overall	18.3		B	20.2		C	19.4		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday Background PM Peak Hour (3:45 - 4:45 PM)

Intersection	Movement	2021 No Action Alternative			2021 Construction Condition			2021 Construction Condition With Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
2. West Street and West 29th Street										
West 29th Street	WBL	83.1	0.79	F	83.1	0.79	F	69.2	0.68	E
	WBR	530.2	2.00	F	615.9	2.20	F	472.5	1.88	F
West Street	NBTR	4.9	0.82	A	4.9	0.82	A	8.0	0.85	A
	SBT	3.7	0.87	A	3.7	0.87	A	5.5	0.91	A
	Overall	38.3		D	46.9		D	39.3		D
4. West Street and West 34th Street										
West 34th Street	WBL	55.6	0.40	E	55.6	0.40	E	55.6	0.40	E
	WBR	323.2	1.58	F	323.2	1.58	F	266.0	1.46	F
West Street	NBT	18.1	0.91	B	19.5	0.92	B	20.8	0.96	C
	NBR	4.9	0.24	A	29.0	0.96	C	37.8	1.01	D
	SBL	122.8	1.10	F	544.6	2.07	F	322.5	1.58	F
	SBT	7.9	0.90	A	5.2	0.83	A	5.2	0.83	A
	Overall	45.1		D	77.5		E	58.5		E
12. 11th Avenue and West 30th Street										
West 30th Street	EBT	-	-	-	-	-	-	-	-	-
	EBR	-	-	-	-	-	-	-	-	-
11th Avenue	EBTR	19.4	0.52	B	-	-	-	-	-	-
	SBLT	13.7	0.77	B	60.7	1.44dl	E	39.7	1.37dl	D
	Overall	15.3		B	60.7		E	39.7		D
14. 11th Avenue and West 34th Street										
West 34th Street	EBLTR	25.0	0.59	C	450.3	1.93	F	366.5	1.74	F
	WBLTR	20.6	0.76	C	59.6	1.04	E	29.3	0.92	C
West 11th Avenue	SBLTR	16.8	0.82	B	16.8	0.82	B	25.0	0.92	C
	Overall	19.3		B	172.0		F	140.2		F
17. 10th Avenue and West 30th Street										
West 30th Street	EBLT	124.4	1.19	F	131.9	1.20	F	115.6	1.16	F
10th Avenue	NBTR	5.0	0.65	A	5.0	0.65	A	5.6	0.67	A
	Overall	47.7		D	50.5		D	45.0		D
19. 10th Avenue and West 34th Street										
West 34 Street	EBLT	25.8	0.85dl	C	29.5	0.89dl	C	Unmitigated		
	WBTR	24.2	0.80	C	25.2	0.82	C			
10th Avenue	WBR	58.0	0.97	E	65.8	1.00	E			
	NBL	1.3	0.32	A	1.3	0.33	A			
	NBT	54.7	1.11	D	54.7	1.11	D			
	NBLT	-	-	-	-	-	-			
	NBR	1.4	0.41	A	1.4	0.42	A			
	Overall	41.7		D	42.7		D			

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Intersection Level of Service Summary Table:
Manhattan—Construction Peak Hours

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Twelfth Avenue and West 26th Street										
Twelfth Avenue	NBTR	11.3	0.53	B	11.4	0.54	B	11.4	0.54	B
	SBL	75.9	0.35	E	72.7	0.36	E	74.2	0.37	E
	SBT	3.3	0.75	A	3.7	0.76	A	3.8	0.76	A
	Overall	8.9		A	9.0		A	9.2		A
2. Twelfth Avenue and West 29th Street										
West 29th Street	WBL	53.0	0.11	D	58.4	0.37	E	58.4	0.37	E
	WBR	63.6	0.50	E	300.0	1.48	F	420.1	1.76	F
Twelfth Avenue	NBT	6.8	0.50	A	7.6	0.61	A	7.7	0.61	A
	SBT	0.7	0.72	A	0.9	0.79	A	0.9	0.79	A
	Overall	5.2		A	22.1		C	33.1		C
3. Twelfth Avenue and West 30th Street										
Twelfth Avenue	NBTR	8.4	0.60	A	12.7	0.81	B	12.4	0.78	B
	SBL	75.7	0.69	E	96.1	0.93	F	-	-	-
	SBT	3.9	0.81	A	6.6	0.88	A	5.4	0.88	A
	Overall	8.0		A	12.6		B	9.0		A
4. Twelfth Avenue and West 34th Street										
West 34th Street	WBL	56.3	0.46	E	56.6	0.47	E	56.6	0.47	E
	WBR	33.4	0.33	C	40.8	0.59	D	40.8	0.59	D
Twelfth Avenue	NBT	32.6	0.71	C	30.3	0.82	C	29.9	0.83	C
	NBR	26.2	0.23	C	24.1	0.29	C	48.2	0.93	D
	SBL	88.2	0.55	F	84.6	0.63	F	116.5	1.01	F
	SBT	33.8	0.71	C	33.4	0.78	C	30.5	0.73	C
	Overall	36.9		D	35.8		D	39.7		D
5. Twelfth Avenue and Tow Pound Exit										
Tow Pound Exit	EBL	47.2	0.05	D	47.2	0.05	D	47.2	0.05	D
	EBR	47.5	0.06	D	47.5	0.06	D	47.5	0.06	D
Twelfth Avenue	NBT	16.0	0.55	B	17.9	0.66	B	18.4	0.66	B
	SBT	1.4	0.81	A	4.4	0.90	A	4.4	0.90	A
	Overall	8.2		A	10.9		B	11.2		B
6. Twelfth Avenue and Pier 79 Ferry										
Pier 79 Ferry	EBLR	55.1	0.20	E	55.7	0.22	E	55.7	0.22	E
Twelfth Avenue	NBL	79.8	0.07	E	74.6	0.07	E	75.4	0.07	E
	NBT	22.4	0.70	C	26.6	0.83	C	26.0	0.84	C
	SBTR	11.9	0.95	B	33.8	1.05	C	34.6	1.05	C
	Overall	17.0		B	30.7		C	30.8		C
7. Twelfth Avenue and West 40th Street										
West 40th Street	WBR	41.3	0.06	D	41.3	0.06	D	41.3	0.06	D
Twelfth Avenue	NBL	66.2	0.09	E	60.5	0.09	E	60.7	0.09	E
	NBTR	0.4	0.49	A	0.4	0.58	A	0.4	0.59	A
	SBT	22.8	0.84	C	29.1	0.93	C	29.3	0.93	C
	SBR	9.3	0.03	A	9.3	0.03	A	9.3	0.03	A
	Overall	14.2		B	17.4		B	17.4		B
8. Eleventh Avenue and West 26th Street										
West 26th Street	EBTR	29.9	0.44	C	31.5	0.51	C	31.5	0.51	C
Eleventh Avenue	SBLT	2.5	0.26	A	2.5	0.40	A	2.2	0.40	A
	Overall	7.5		A	6.8		A	6.6		A
9. Eleventh Avenue and West 27th Street										
West 27th Street	WBLT	22.1	0.23	C	23.3	0.31	C	23.3	0.31	C
Eleventh Avenue	SBTR	4.3	0.30	A	4.0	0.45	A	3.4	0.45	A
	Overall	6.4		A	6.1		A	5.5		A
10. Eleventh Avenue and West 28th Street										
West 28th Street	EBTR	18.5	0.16	B	19.5	0.24	B	19.6	0.24	B
Eleventh Avenue	SBL	6.8	0.19	A	6.0	0.34	A	5.6	0.34	A
	SBT	7.3	0.28	A	5.9	0.43	A	5.2	0.43	A
	Overall	8.2		A	7.1		A	6.6		A
11. Eleventh Avenue and West 29th Street										
West 29th Street	WBL	17.7	0.32	B	18.7	0.38	B	18.7	0.38	B
	WBT	15.3	0.14	B	18.4	0.39	B	18.4	0.39	B
Eleventh Avenue	SBT	5.7	0.31	A	4.8	0.50	A	0.4	0.50	A
	SBR	5.2	0.09	A	4.9	0.29	A	0.8	0.41	A
	Overall	8.4		A	8.3		A	4.9		A

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
12. Eleventh Avenue and West 30th Street										
West 30th Street	EBT	16.0	0.23	B	-	-	-	-	-	-
	EBR	15.8	0.18	B	-	-	-	-	-	-
Eleventh Avenue	EBTR	-	-	-	17.9	0.42	B	-	-	-
	SBLT	7.2	0.41	A	18.0	0.74	B	37.0	1.46dl	D
	Overall	9.5		A	18.0		B	37.0		D
13. Eleventh Avenue and West 33rd Street										
West 33rd Street	WBT	-	-	-	16.7	0.83	B	16.6	0.83	D
Eleventh Avenue	SBTR	7.8	0.33	A	2.7	0.42	A	11.8	0.65	B
	Overall	7.8		A	6.9		A	12.9		B
14. Eleventh Avenue and West 34th Street										
West 34th Street	EBTR	29.2	0.52	C	-	-	-	-	-	-
	EBLTR	-	-	-	22.8	0.51	C	154.7	1.31dr	F
	WBLT	31.5	0.66	C	-	-	-	-	-	-
Eleventh Avenue	WBLTR	-	-	-	21.4	0.52	C	39.4	0.70	D
	SBLTR	11.2	0.38	B	13.4	0.70	B	13.4	0.70	B
	Overall	22.2		C	17.0		B	67.7		E
15. Eleventh Avenue and West 40th Street										
West 40th Street	EBTR	33.7	0.50	C	37.1	0.60	D	40.9	0.68	D
Eleventh Avenue	NBR	7.0	0.11	A	7.2	0.12	A	8.9	0.12	A
	SBL	7.6	0.21	A	8.0	0.28	A	8.0	0.28	A
	SBTR	8.0	0.27	A	10.4	0.54	B	10.4	0.54	B
	Overall	10.0		B	11.4		B	12.0		B
16. Tenth Avenue and West 26th Street										
West 26th Street	EBLT	31.7	0.36	C	33.6	0.49	C	33.6	0.49	C
Tenth Avenue	NBTR	12.2	0.33	B	13.5	0.47	B	13.5	0.47	B
	Overall	15.2		B	16.5		B	16.5		B
17. Tenth Avenue and West 30th Street										
West 30th Street	EBLT	23.1	0.52	C	228.3	1.42	F	240.7	1.45	F
Tenth Avenue	NBTR	4.3	0.27	A	4.9	0.41	A	4.9	0.41	A
	Overall	8.8		A	86.7		F	92.1		F
18. Tenth Avenue and West 33rd Street										
West 33rd Street	WBTR	29.6	0.52	C	79.1	1.04	E	79.1	1.04	E
Tenth Avenue	NBLT	-	-	-	22.9	0.83	C	23.0	0.83	C
	NBT	15.3	0.46	B	-	-	-	-	-	-
	Overall	18.2		B	37.6		D	37.6		D
19. Tenth Avenue and West 34th Street										
West 34 Street	EBLT	33.6	0.55	C	23.8	0.72	C	30.6	0.74	C
	WBT	21.5	0.41	C	23.6	0.51	C	24.7	0.56	C
	WBR	23.1	0.42	C	23.3	0.42	C	23.4	0.42	C
Tenth Avenue	NBL	-	-	-	2.2	0.11	A	2.2	0.12	A
	NBT	-	-	-	3.0	0.54	A	2.9	0.53	A
	NBLT	6.8	0.38	A	-	-	-	-	-	-
	NBR	5.2	0.11	A	2.5	0.21	A	2.5	0.21	A
	Overall	15.7		B	11.1		B	12.5		B
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	18.3	0.23	B	20.2	0.34	C	20.5	0.34	C
	WBT	11.6	0.24	B	11.8	0.26	B	11.9	0.27	B
	WBR	9.0	0.18	A	9.1	0.19	A	9.1	0.19	A
Dyer Avenue	SBL	43.6	0.76	D	65.4	0.95	E	65.5	0.95	E
	SBR	83.4	0.96	F	228.0	1.37	F	304.4	1.55	F
	Overall	30.1		C	58.9		E	74.5		E
21. Dyer Avenue and West 35th Street										
West 35th Street	WBLTR	23.5	0.25	C	29.8	0.60	C	29.8	0.60	C
Dyer Avenue	NBLT	6.2	0.18	A	6.3	0.19	A	6.3	0.19	A
	SBTR	54.0	0.64	D	56.1	0.80	E	56.8	0.82	E
	Overall	42.1		D	43.3		D	44.1		D
22. Dyer Avenue SB and West 36th Street										
West 36th Street	EBTR	23.7	0.17	C	23.7	0.18	C	23.7	0.18	C
Dyer Avenue	SBL	34.1	0.65	C	41.3	0.78	D	42.2	0.80	D
	SBLT	30.1	0.69	C	35.0	0.83	C	36.1	0.85	D
	SBR	11.1	0.37	B	11.6	0.42	B	11.6	0.42	B
	Overall	26.7		C	31.1		C	32.0		C
23. Dyer Avenue NB and West 36th Street										
West 36th Street	EBLT	0.8	0.29	A	1.8	0.40	A	1.8	0.40	A
Dyer Avenue	NBT	41.7	0.47	D	42.6	0.59	D	42.6	0.59	D
	Overall	10.8		B	10.8		B	10.8		B

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
1. Twelfth Avenue and West 26th Street										
Twelfth Avenue	NBTR	9.6	0.59	A	9.7	0.59	A	9.7	0.60	A
	SBL	49.6	0.47	D	42.2	0.48	D	42.6	0.50	D
	SBT	5.4	0.71	A	10.1	0.71	B	10.4	0.72	B
	Overall	8.6		A	10.7		B	10.9		B
2. Twelfth Avenue and West 29th Street										
West 29th Street	WBL	43.5	0.11	D	77.4	0.73	E	79.9	0.76	E
	WBR	54.4	0.54	D	566.0	2.08	F	710.3	2.41	F
Twelfth Avenue	NBT	8.2	0.65	A	3.4	0.68	A	3.5	0.68	A
	SBT	8.3	0.80	A	1.3	0.79	A	1.3	0.79	A
	Overall	10.2		B	43.2		D	60.0		E
3. Twelfth Avenue and West 30th Street										
Twelfth Avenue	NBTR	8.3	0.74	A	27.9	0.97	C	23.6	0.94	C
	SBL	86.2	0.84	F	167.2	1.17	F	-	-	A
	SBT	31.9	0.79	C	33.6	0.88	C	33.4	0.88	C
	Overall	21.7		C	35.4		D	27.9		C
4. Twelfth Avenue and West 34th Street										
West 34th Street	WBL	54.5	0.34	D	56.2	0.42	E	56.4	0.43	E
	WBR	103.9	1.03	F	219.2	1.34	F	221.2	1.34	F
Twelfth Avenue	NBT	17.0	0.66	B	15.1	0.79	B	16.5	0.80	B
	NBR	7.4	0.21	A	5.7	0.24	A	34.6	0.94	C
	SBL	105.7	1.03	F	122.3	1.09	F	518.2	2.01	F
	SBT	1.9	0.76	A	4.1	0.85	A	2.9	0.78	A
	Overall	21.4		C	32.2		C	66.1		E
5. Twelfth Avenue and Tow Pound Exit										
Tow Pound Exit	EBL	59.2	0.07	E	59.2	0.07	E	59.2	0.07	E
	EBR	61.4	0.15	E	61.4	0.15	E	61.4	0.15	E
Twelfth Avenue	NBT	0.9	0.58	A	0.9	0.68	A	1.0	0.68	A
	SBT	2.3	0.76	A	5.2	0.85	A	5.3	0.85	A
	Overall	2.0		A	3.4		A	3.5		A
6. Twelfth Avenue and Pier 79 Ferry										
Pier 79 Ferry	EBLR	58.8	0.14	E	59.5	0.16	E	59.5	0.16	E
Twelfth Avenue	NBL	80.4	0.21	F	77.1	0.22	E	78.2	0.22	E
	NBT	3.9	0.66	A	7.0	0.76	A	7.4	0.77	A
	SBTR	8.6	0.89	A	16.8	1.00	B	17.3	1.00	B
	Overall	6.7		A	12.3		B	12.7		B
7. Twelfth Avenue and West 40th Street										
West 40th Street	WBR	52.7	0.26	D	52.9	0.27	D	52.9	0.27	D
Twelfth Avenue	NBL	46.1	0.12	D	50.3	0.12	D	50.3	0.12	D
	NBTR	4.4	0.64	A	5.9	0.74	A	6.0	0.75	A
	SBT	16.4	0.80	B	21.2	0.90	C	21.3	0.90	C
	SBR	6.3	0.01	A	6.3	0.01	A	6.3	0.01	A
	Overall	11.3		B	14.3		B	14.3		B
8. Eleventh Avenue and West 26th Street										
West 26th Street	EBTR	29.5	0.44	C	30.5	0.49	C	30.5	0.49	C
Eleventh Avenue	SBLT	7.0	0.21	A	5.3	0.39	A	5.0	0.39	A
	Overall	12.6		B	9.6		A	9.3		A
9. Eleventh Avenue and West 27th Street										
West 27th Street	WBLT	26.0	0.48	C	28.4	0.58	C	28.4	0.58	C
Eleventh Avenue	SBTR	5.7	0.22	A	4.2	0.41	A	3.6	0.41	A
	Overall	12.0		B	9.6		A	9.1		A
10. Eleventh Avenue and West 28th Street										
West 28th Street	EBTR	20.4	0.31	C	20.8	0.33	C	20.8	0.34	C
Eleventh Avenue	SBL	10.6	0.24	B	9.7	0.49	A	8.7	0.49	A
	SBT	9.4	0.20	A	7.3	0.40	A	6.8	0.40	A
	Overall	11.9		B	9.5		A	9.0		A
11. Eleventh Avenue and West 29th Street										
West 29th Street	WBL	17.2	0.29	B	19.3	0.43	B	19.3	0.43	B
	WBT	17.0	0.29	B	23.1	0.61	C	23.1	0.61	C
Eleventh Avenue	SBT	6.5	0.22	A	4.1	0.48	A	0.1	0.48	A
	SBR	6.3	0.08	A	5.5	0.45	A	0.5	0.59	A
	Overall	10.7		B	10.0		A	7.0		A

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2016 Existing			2021 No Action Alternative			2021 Construction Condition		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
12. Eleventh Avenue and West 30th Street										
West 30th Street	EBT	16.6	0.27	B	-	-	-	-	-	-
	EBR	16.0	0.19	B	-	-	-	-	-	-
Eleventh Avenue	EBTR	-	-	-	17.8	0.41	B	-	-	-
	SBLT	4.9	0.32	A	13.7	0.76	B	46.1	1.46dl	D
	Overall	9.0		A	14.7		B	46.1		D
13. Eleventh Avenue and West 33rd Street										
West 33rd Street	WBT	-	-	-	20	0.85	B	20	0.85	E
Eleventh Avenue	SBTR	4.9	0.26	A	1.9	0.47	A	10.3	0.74	B
	Overall	4.9		A	6.9		A	12.2		B
14. Eleventh Avenue and West 34th Street										
West 34th Street	EBTR	28.4	0.48	C	-	-	-	-	-	-
	EBLTR	-	-	-	23.1	0.50	C	339.3	1.68	F
	WBLT	16.0	0.60	B	-	-	-	-	-	-
Eleventh Avenue	WBLTR	-	-	-	19.0	0.73	B	42.1	0.98	D
	SBLTR	14.3	0.43	B	21.3	0.86	C	21.2	0.86	C
	Overall	17.9		B	20.9		C	121.5		F
15. Eleventh Avenue and West 40th Street										
West 40th Street	EBTR	38.9	0.63	D	46.0	0.75	D	54.1	0.83	D
Eleventh Avenue	NBR	7.0	0.10	A	10.5	0.21	B	12.7	0.21	B
	SBL	7.9	0.27	A	8.6	0.35	A	8.6	0.35	A
	SBTR	7.6	0.22	A	9.8	0.48	A	9.8	0.48	A
	Overall	11.2		B	12.3		B	13.6		B
16. Tenth Avenue and West 26th Street										
West 26th Street	EBLT	45.1	0.71	D	64.0	0.93	E	64.0	0.93	E
Tenth Avenue	NBTR	14.2	0.53	B	15.9	0.65	B	15.9	0.65	B
	Overall	19.2		B	24.3		C	24.3		C
17. Tenth Avenue and West 30th Street										
West 30th Street	EBLT	26.5	0.62	C	113.2	1.16	F	127.2	1.19	F
Tenth Avenue	NBTR	6.0	0.96dr	A	5.9	0.96dr	A	5.9	0.96dr	A
	Overall	9.4		A	44.0		D	49.4		D
18. Tenth Avenue and West 33rd Street										
West 33rd Street	WBTR	30.0	0.51	C	54.5	0.93	D	54.5	0.93	D
Tenth Avenue	NBLT	-	-	-	196.9	1.38	F	202.1	1.39	F
	NBT	18.9	0.68	B	-	-	-	-	-	-
	Overall	20.3		C	175.2		F	179.8		F
19. Tenth Avenue and West 34th Street										
West 34th Street	EBLT	55.7	0.68	E	21.3	0.60	C	27.2	0.61	C
	WBT	16.3	0.49	B	17.5	0.66	B	18.6	0.68	B
	WBR	26.1	0.64	C	37.7	0.85	D	43.8	0.89	D
Tenth Avenue	NBL	-	-	-	1.5	0.35	A	1.5	0.36	A
	NBT	-	-	-	18.9	1.03	B	19.4	1.03	B
	NBLT	4.5	0.51	A	-	-	-	-	-	-
	NBR	3.7	0.22	A	1.5	0.40	A	1.6	0.42	A
Overall	16.3		B	18.1		B	19.5		B	
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	19.5	0.23	B	13.6	0.31	B	13.9	0.32	B
	WBT	12.6	0.35	B	14.3	0.49	B	14.4	0.50	B
	WBR	9.0	0.18	A	11.6	0.41	B	11.6	0.41	B
Dyer Avenue	SBL	5.4	0.24	A	7.2	0.29	A	8.5	0.29	A
	SBR	8.2	0.31	A	12.7	0.41	B	22.3	0.55	C
	Overall	13.4		B	13.0		B	13.8		B
21. Dyer Avenue and West 35th Street										
West 35th Street	WBLTR	28.6	0.54	C	45.3	0.88	D	45.3	0.88	D
Dyer Avenue	NBLT	5.9	0.17	A	7.1	0.38	A	7.1	0.38	A
	SBTR	47.9	0.21	D	48.5	0.28	D	49.3	0.30	D
	Overall	30.3		C	35.0		C	35.6		D
22. Dyer Avenue SB and West 36th Street										
West 36th Street	EBTR	26.9	0.44	C	27.1	0.45	C	27.1	0.45	C
Dyer Avenue	SBL	27.7	0.27	C	28.8	0.33	C	29.2	0.35	C
	SBLT	26.7	0.27	C	27.4	0.34	C	27.6	0.36	C
	SBR	9.0	0.18	A	9.2	0.21	A	9.2	0.21	A
	Overall	24.2		C	24.7		C	24.9		C
23. Dyer Avenue NB and West 36th Street										
West 36th Street	EBLT	0.5	0.22	A	2.1	0.37	A	2.0	0.37	A
Dyer Avenue	NBT	31.8	0.62	C	121.0	1.14	F	121.0	1.14	F
	Overall	13.6		B	52.4		D	52.4		D

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Intersection Level of Service Summary Table:
Manhattan—Construction Peak Hours—Mitigation

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday AM Construction Peak Hour (6:30 - 7:30 AM)

Intersection	Movement	2021 No Action Alternative			2021 Construction Condition			2021 Construction Condition with Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
2. West Street and West 29th Street										
West 29th Street	WBL	58.4	0.37	E	58.4	0.37	E	52.8	0.31	D
	WBR	300.0	1.48	F	420.1	1.76	F	290.2	1.47	F
West Street	NBT	7.6	0.61	A	7.7	0.61	A	9.8	0.64	A
	SBT	0.9	0.79	A	0.9	0.79	A	1.2	0.83	A
	Overall	22.1		C	33.1		C	25.3		C
4. West Street and West 34th Street										
West 34th Street	WBL	56.6	0.47	E	56.6	0.47	E	Unmitigated		
	WBR	40.8	0.59	D	40.8	0.59	D			
West Street	NBT	30.3	0.82	C	29.9	0.83	C			
	NBR	24.1	0.29	C	48.2	0.93	D			
	SBL	84.6	0.63	F	116.5	1.01	F			
	SBT	33.4	0.78	C	30.5	0.73	C			
	Overall	35.8		D	39.7		D			
14. 11th Avenue and West 34th Street										
West 34th Street	EBLTR	22.8	0.51	C	154.7	1.31dr	F	96.4	1.18dr	F
	WBLTR	21.4	0.52	C	39.4	0.70	D	35.4	0.63	D
11th Avenue	SBLTR	13.4	0.70	B	13.4	0.70	B	17.8	0.78	B
	Overall	17.0		B	67.7		E	48.6		D
17. 10th Avenue and West 30th Street										
West 30th Street	EBLT	228.3	1.42	F	240.7	1.45	F	219.4	1.41	F
10th Avenue	NBTR	4.9	0.41	A	4.9	0.41	A	5.4	0.42	A
	Overall	86.7		F	92.1		F	84.5		F
20. Dyer Avenue and West 34th Street										
West 34th Street	EBT	20.2	0.34	C	20.5	0.34	C	20.4	0.34	C
	WBT	11.8	0.26	B	11.9	0.27	B	11.9	0.27	B
	WBR	9.1	0.19	A	9.1	0.19	A	9.1	0.19	A
Dyer Avenue	SBL	65.4	0.95	E	65.5	0.95	E	49.9	0.84	D
	SBR	228.0	1.37	F	304.4	1.55	F	225.5	1.37	F
	Overall	58.9		E	74.5		E	57.9		E

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Hudson Tunnel Project Planning and Environmental Services
INTERSECTION LEVELS OF SERVICE SUMMARY
 New York, New York
 Weekday PM Construction Peak Hour (2:30 - 3:30 PM)

Intersection	Movement	2021 No Action Alternative			2021 Construction Condition			2021 Construction Condition with Mitigation		
		Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS	Delay (sec/veh)	v/c ratio	LOS
2. West Street and West 29th Street										
West 29th Street	WBL	77.4	0.73	E	79.9	0.76	E	67.5	0.65	E
	WBR	566.0	2.08	F	710.3	2.41	F	553.1	2.06	F
West Street	NBT	3.4	0.68	A	3.5	0.68	A	5.7	0.71	A
	SBT	1.3	0.79	A	1.3	0.79	A	2.7	0.82	A
	Overall	43.2		D	60.0		E	48.9		D
4. West Street and West 34th Street										
West 34th Street	WBL	56.2	0.42	E	56.4	0.43	E	56.4	0.43	E
	WBR	219.2	1.34	F	221.2	1.34	F	174.3	1.24	F
West Street	NBT	15.1	0.79	B	16.5	0.80	B	17.1	0.83	B
	NBR	5.7	0.24	A	34.6	0.94	C	42.5	0.98	D
	SBL	122.3	1.09	F	518.2	2.01	F	289.6	1.51	F
	SBT	4.1	0.85	A	2.9	0.78	A	2.9	0.78	A
	Overall	32.2		C	66.1		E	46.6		D
12. Eleventh Avenue and West 30th Street										
West 30th Street	EBT	-	-	-	-	-	-	-	-	-
	EBR	-	-	-	-	-	-	-	-	-
	EBTR	17.8	0.41	B	-	-	-	-	-	-
Eleventh Avenue	SBLT	13.7	0.76	B	46.1	1.46dl	D	36.6	1.42dl	D
	Overall	14.7		B	46.1		D	36.6		D
14. 11th Avenue and West 34th Street										
West 34th Street	EBLTR	23.1	0.50	C	339.3	1.68	F	246.9	1.47	F
	WBLTR	19.0	0.73	B	42.1	0.98	D	24.1	0.86	C
11th Avenue	SBLTR	21.3	0.86	C	21.2	0.86	C	33.9	0.97	C
	Overall	20.9		C	121.5		F	95.2		F
15. 11th Avenue and West 40th Street										
West 40th Street	EBTR	46.0	0.75	D	54.1	0.83	D	49.0	0.80	D
	11th Avenue	NBR	10.5	0.21	B	12.7	0.21	B	12.9	0.21
	SBL	8.6	0.35	A	8.6	0.35	A	9.1	0.35	A
	SBTR	9.8	0.48	A	9.8	0.48	A	10.4	0.49	B
	Overall	12.3		B	13.6		B	13.6		B
17. 10th Avenue and West 30th Street										
West 30th Street	EBLT	113.2	1.16	F	127.2	1.19	F	110.4	1.15	F
	10th Avenue	NBTR	5.9	0.96dr	A	5.9	0.96dr	A	6.4	0.98dr
	Overall	44.0		D	49.4		D	43.7		D
18. 10th Avenue and West 33rd Street										
West 33rd Street	WBTR	54.5	0.93	D	54.5	0.93	D	Unmitigated		
	10th Avenue	NBLT	196.9	1.38	F	202.1	1.39			
	Overall	175.2		F	179.8		F			

Notes: Analysis results based on Synchro 8.0, build 806, revision 77 (8.0.806.77).

- Not Applicable due to lane closure or modifications to lane use. dr De Facto Right Turn, dl De Facto Left Turn

Pedestrian Level of Service Summary Table:
Manhattan—Existing Conditions

Hudson Tunnel Pedestrian Analysis
2016 Existing Conditions: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
10th Avenue between 31st and 33rd Street	East	11.5	1,046	0.67	116.2	B
12th Avenue between 29th and 30th Street	East	2.5	10	0.50	1980.0	A
30th Street between 12th and 11th Avenue	South	7.5	18	0.64	4224.0	A
Weekday Midday Peak Hour						
10th Avenue between 31st and 33rd Street	East	11.5	661	0.87	239.5	B
12th Avenue between 29th and 30th Street	East	2.5	10	0.63	2494.8	A
30th Street between 12th and 11th Avenue	South	7.5	17	0.61	4262.8	A
Weekday PM Peak Hour						
10th Avenue between 31st and 33rd Street	East	11.5	911	0.97	193.7	B
12th Avenue between 29th and 30th Street	East	2.5	30	0.94	1240.8	A
30th Street between 12th and 11th Avenue	South	7.5	39	0.75	2284.6	A
Note: SFP = square feet per pedestrian						

Hudson Tunnel Pedestrian Analysis
2016 Existing Conditions: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
10th Avenue and 31st Street	Northeast	94.9	A	207.8	A	141.9	A
10th Avenue and 33rd Street	Southeast	71.5	A	102.9	A	103.3	A
11th Avenue and 30th Street	Northwest	228.1	A	284.3	A	223.2	A
	Southwest	160.8	A	147.8	A	114.7	A
12th Avenue and 29th Street	Northeast	3038.4	A	1808.5	A	1527.9	A
12th Avenue and 30th Street	Northeast	1976.2	A	1271.9	A	704.0	A
	Southeast	2050.4	A	1029.1	A	548.8	A

Note: SFP = square feet per pedestrian

**Hudson Tunnel Pedestrian Analysis
2016 Existing Conditions: Crosswalk Analysis**

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
10th Avenue and 31st Street	North	70	12	83	97.9	A
10th Avenue and 33rd Street	South	70	12	438	37.3	C
Weekday Midday Peak Hour						
10th Avenue and 31st Street	North	70	12	15	452.4	A
10th Avenue and 33rd Street	South	70	12	196	76.7	A
Weekday PM Peak Hour						
10th Avenue and 31st Street	North	70	12	58	226.1	A
10th Avenue and 33rd Street	South	70	12	204	106.1	A
Note: SFP = square feet per pedestrian						