

Appendix B

Purpose and Need Data:

Tables B1-B4 Access Point Data
Level of Service Figures for No Build

	Ramp	Straightline Mileage	Geographical Sections	Neighborhoods/Points of Interest						Community Development Corporations (CDC's)								
				Tremont	Industrial Valley	Central	CBD	Goodrich-Kirtland Pk.	University Circle	Tremont West	Maingate	Flats Oxbow	Historic Gateway	Playhouse Square	Quadrangle (North)	Quadrangle (South)	Midtown	St. Clair Superior
I-90 EB Ramps	On-ramp from W 14th	15.39	Central Viaduct	✓	✓					✓		✓						
	On-ramp from I-77 NB	16.51	Central Interchange															
	On-ramp from Prospect	17.00	Trench			✓	✓		✓				✓	✓	✓	✓		
	On-ramp from Chester EB	17.30	Trench				✓						✓	✓				
	On-ramp from Chester WB	17.45	Trench			✓		✓	✓								✓	
	On-ramp from Superior	17.82	Curve				✓	✓	✓				✓	✓			✓	✓
	On-ramp from St. Clair/E 33rd	17.92	Curve				✓	✓										✓
	On-ramp from SR 2 EB	18.60	Curve															
I-90 WB Ramps	On-ramp from SR 2 EB	18.15	Curve															
	On-ramp from E 26th/Lakeside	18.04	Curve				✓	✓						✓				✓
	On-ramp from E 26th/Superior	17.53	Trench				✓	✓	✓				✓	✓				✓
	On-ramp from E 24th/Chester	17.30	Trench			✓	✓	✓	✓				✓	✓			✓	
	On-ramp from Prospect	17.05	Trench			✓	✓		✓				✓	✓	✓	✓	✓	
	On-ramp from E 14th/I-77 NB	16.17	Central Interchange				✓						✓	✓	✓	✓	✓	
	On-ramp from E 9th/Carnegie	16.20	Central Interchange				✓					✓	✓	✓		✓		
	On-ramp from Orange/Carnegie/Ontario	16.10	Central Viaduct		✓		✓					✓	✓			✓		
I-71 NB Ramps	On-ramp from SR 176	18.46	Southern Innerbelt		✓													
	On-ramp from I-90/I-490	18.36	Southern Innerbelt															
I-71 SB Ramps	On-ramp from Ontario/Orange	15.85	I-77		✓		✓					✓	✓					
	On-ramp from E 9th	15.85	I-77				✓						✓	✓				
I-77 NB Ramps	On-ramp from Woodland/E 30th	15.46	I-77		✓	✓					✓					✓		
	On-ramp from Ontario/Orange	15.85	I-77		✓		✓					✓	✓					
I-77 SB Ramps	On-ramp from E 9th	15.85	I-77				✓						✓	✓				
	On-ramp from I-90 EB	15.85	I-77				✓						✓	✓				
	On-ramp from E 14th/I-90 WB	15.75	I-77				✓						✓	✓	✓	✓	✓	
	On-ramp from Orange/E 30th	15.08	I-77		✓	✓	✓				✓		✓					
	On-ramp from Ontario/Orange	15.85	I-77		✓		✓						✓	✓				

Table B1: Neighborhood and CDC Access from I-90/I-71/I-77



	Ramp	Straightline Mileage	Geographical Sections	Neighborhoods/Points of Interest						Community Development Corporations (CDC's)							
				Tremont	Industrial Valley	Central	CBD	Goodrich-Kirtland Pk.	University Circle	Tremont West	Maingate	Flats Oxbow	Historic Gateway	Playhouse Square	Quadrangle (North)	Quadrangle (South)	Midtown
I-90 EB Ramps	I-71 NB merge	14.90	Central Viaduct														
	Off-ramp to SB Broadway/Orange	16.10	Central Viaduct		✓	✓					✓	✓			✓		
	Off-ramp to NB Orange/Ontario	16.25	Central Interchange		✓		✓					✓	✓				
	Off-ramp to E 9th	16.35	Central Interchange				✓						✓	✓			
	Off-ramp to I-77 SB	16.35	Central Interchange														
	Off-ramp to E 22nd/Central	16.65	Central Interchange			✓	✓							✓	✓	✓	✓
	Off-ramp to Carnegie EB	16.81	Trench			✓			✓							✓	✓
	Off-ramp to Chester	17.18	Trench			✓		✓	✓								✓
	Off-ramp to Superior/E 30th	17.52	Trench				✓	✓	✓					✓	✓		✓
	Off-ramp to E 33rd/Lakeside	18.08	Curve				✓	✓							✓		✓
Off-ramp to SR 2 WB	18.40	Curve															
I-90 WB Ramps	Off-ramp to SR 2 WB	18.30	Curve														
	Off-ramp to E 26th/St. Clair/Superior	17.84	Curve				✓	✓	✓				✓	✓			✓
	Off-ramp to E 24th/Payne/Chester	17.40	Trench			✓	✓	✓	✓				✓	✓		✓	
	Off-ramp to Prospect	17.12	Trench			✓	✓		✓				✓	✓	✓	✓	
	Off-ramp to I-77 SB	16.68	Central Interchange														
	Off-ramp to W 14th/Abbey	15.39	Central Viaduct	✓	✓					✓		✓					
	Off-ramp to I-90 WB	14.90	Central Viaduct														
I-71 NB Ramps	Off-ramp to W 14th/I-90/I-490	18.20	Southern Innerbelt	✓	✓					✓							
I-71 SB Ramps	Off-ramp to SR 176	18.02	Southern Innerbelt		✓												
I-77 NB Ramps	Off-ramp to Woodland/E 30th	14.95	I-77		✓	✓	✓				✓		✓		✓	✓	
	Off-ramp to E 14th NB/E 22nd	15.70	I-77			✓	✓					✓	✓	✓	✓	✓	
	Off-ramp to I-90 WB	15.80	I-77														
	Off-ramp to Orange/Ontario/E 9th	15.87	I-77		✓	✓	✓					✓	✓	✓			
	Off-ramp to E 14th SB/I-90 EB	15.97	I-77														
I-77 SB Ramps	Off-ramp to Orange/E 30th	15.47	I-77		✓	✓					✓					✓	

Table B2: Neighborhood and CDC Access to I-90/I-71/I-77

	Ramp	Geographical Sections	Straightline Mileage	Approximate Distance to Next Ramp (feet)	AM Peak				PM Peak				Crash Data			Hot Spots*				Highway Safety Program Listings**				Current Geometric Deficiencies			
					2000 Volumes	2035 Volumes	2000 LOS	2035 LOS	2000 Volumes	2035 Volumes	2000 LOS	2035 LOS	ADT	Number of Crashes	Crash Rate	2000-2002	2001-2003	2002-2004	2003-2005	2000-2002	2001-2003	2002-2004	2003-2005	Acceleration and Deceleration Deficiencies	Taper Rate Deficiencies	Ramp Spacing Deficiencies	Weave Deficiencies
I-90 EB Ramps	I-71 NB merge	Central Viaduct	14.90	2,580	2645	3049	D	D	1788	1962	C	C	data unavailable	2	data unavailable	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
	On-ramp from W 14th	Central Viaduct	15.39	3,750	834	932	C	C	335	364	B	B	5,723	1	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Taper Rate - 44:1 (50:1 Standard)		
	Off-ramp to SB Broadway/Orange	Central Viaduct	16.10	790	236	294	D	E	149	123	C	C	8,291	1	0.46	29	3	1	1	29	3	1	1	Deceleration Length - 446' (800' Standard)			
	Off-ramp to NB Orange/Ontario	Central Interchange	16.25	530	803	878	B	C	580	628	B	B	8,440	59	31.92	29	3	1	1	29	3	1	1				
	Off-ramp to E 9th	Central Interchange	16.35	*same as below	843	995	B	C	450	482	A	A	8,000	53	28.81	29	3	1	1	29	3	1	1	Deceleration Length - 455' (800' Standard)			
	Off-ramp to I-77 SB	Central Interchange	16.35	840	31	61	A	A	28	32	A	A	8,074	5	4.35	29	3	1	1	29	3	1	1		Taper Rate (low speed entrance) - 11:1 (35:1 Standard)	Ramp Spacing (entrance to entrance) - 525' (800' Standard)	
	On-ramp from I-77 NB	Central Interchange	16.51	740	1635	1879	F	F	1390	1464	F	F	24,191	73	27.56	29	3	1	1	29	3	1	1			Deficient Weave (I-77 to E 22nd) - 490' (2500' needed)	
	Off-ramp to E 22nd/Central	Central Interchange	16.65	840	348	390	F	F	333	350	C	C	2,762	38	96.65	29	3	1	1	29	3	1	1			Deficient Weave (I-77 to E 22nd) - 490' (2500' needed)	
	Off-ramp to Carnegie EB	Trench	16.81	1,000	880	1075	F	F	744	862	D	E	7,219	14	11.81	29	3	1	1	29	3	1	1	Deceleration Length - 0' (800' Standard)			
	On-ramp from Prospect	Trench	17.00	950	150	150	A	A	662	720	B	B	3,480	9	14.76	29	3	1	1	29	3	1	1			Deficient Weave (Prospect to Chester) - 810' (2500' needed)	
	Off-ramp to Chesler	Trench	17.18	630	923	1010	C	C	293	320	A	A	8,835	51	35.14	29	3	1	1	29	3	1	1			Deficient Weave (Prospect to Chester) - 810' (2500' needed)	
	On-ramp from Chesler EB	Trench	17.30	790	37	40	C	D	367	420	D	D	1,795	6	20.35	29	3	1	1	29	3	1	1	Acceleration Length (minimum) - 255' (850' Standard)	Taper Rate - 30:1 (50:1 Standard)		
	On-ramp from Chesler WB	Trench	17.45	900	67	70	A	A	301	310	A	A	1,892	6	16.09	29	3	1	1	29	3	1	1			Deficient Weave (Chester to Superior) - 630' (2500' needed)	
	Off-ramp to Superior/E 30th	Trench	17.52	1,580	1048	1080	C	C	419	470	A	A	7,632	20	14.96	29	3	1	1	29	3	1	1			Deficient Weave (Chester to Superior) - 630' (2500' needed)	
	On-ramp from Superior	Curve	17.82	530	90	80	A	A	569	670	B	B	3,337	10	19.55	29	3	1	1	29	3	1	1				
	On-ramp from St. Clair/E 33rd	Curve	17.92	840	46	30	B	A	206	180	B	B	1,031	6	27.97	29	3	1	1	29	3	1	1	Acceleration Length (from slope) - 30' (960' Standard)	Taper Rate - 7.5:1 (50:1 Standard)		
Off-ramp to E 33rd/Lakeside	Curve	18.08	1,690	484	510	C	C	109	80	C	D	2,500	3	6.85	N/A	49	39	37	N/A	79	68	95			Ramp Spacing - 810' from St. Clair (1,600' Standard)		
Off-ramp to SR 2 WB	Curve	18.40	1,050	263	300	A	A	473	530	A	A	2,118	5	8.62	N/A	49	39	37	N/A	79	68	95					
On-ramp from SR 2 EB	Curve	18.60	5,300	1375	1590	B	B	2261	2630	C	D	data unavailable	data unavailable	data unavailable	N/A	49	39	37	N/A	79	68	95					
I-90 WB Ramps	Off-ramp to SR 2 WB	Curve	18.30	790	2570	2980	D	D	1671	1940	B	C	data unavailable	data unavailable	data unavailable	N/A	49	39	37	N/A	79	68	95				
	On-ramp from SR 2 EB	Curve	18.15	580	602	680	A	A	607	690	A	A	6,083	18	11.75	N/A	49	39	37	N/A	79	68	95				
	On-ramp from E 26th/Lakeside	Curve	18.04	1,050	21	220	B	B	331	370	B	B	2,039	15	41.99	N/A	49	39	37	N/A	79	68	95	Acceleration Length (from slope) - 75' (960' Standard)	Taper Rate - 10:1 (50:1 Standard)		
	Off-ramp to E 26th/St. Clair/Superior	Curve	17.84	1,640	631	900	B	C	347	420	A	A	7,232	6	4.74	29	3	1	1	29	3	1	1				
	On-ramp from E 26th/Superior	Trench	17.53	6,860	431	400	A	A	966	1040	C	C	3,967	1	1.44	29	3	1	1	29	3	1	1			Deficient Weave (Superior to Chester) - 650' (700' needed)	
	Off-ramp to E 24th/Payne/Chester	Trench	17.40	530	928	1080	C	C	113	140	A	A	3,412	6	9.45	29	3	1	1	29	3	1	1			Deficient Weave (Superior to Chester) - 650' (700' needed)	
	On-ramp from E 24th/Chester	Trench	17.30	950	514	590	A	B	650	680	B	B	8,409	57	38.69	29	3	1	1	29	3	1	1			Deficient Weave (Chester to Prospect) - 1000' (2250' needed)	
	Off-ramp to Prospect	Trench	17.12	370	708	780	B	B	68	80	A	A	3,209	10	25.87	29	3	1	1	29	3	1	1			Deficient Weave (Chester to Prospect) - 1000' (2250' needed)	
	On-ramp from Prospect	Trench	17.05	2,000	288	350	D	D	918	1020	F	F	4,736	12	21.04	29	3	1	1	29	3	1	1	Acceleration Length (minimum) - 370' (850' Standard)	Taper Rate - 17:1 (50:1 Standard)		
	Off-ramp to I-77 SB	Central Interchange	16.68	2,530	1403	1559	D	D	1294	1246	F	F	22,297	45	3.92	29	3	1	1	29	3	1	1	Deceleration Length - 470' (800' Standard)	Taper Rate (low speed entrance) - 3:1 (35:1 Standard)		
	On-ramp from E 9th/Carnegie	Central Interchange	16.20	160	413	452	C	C	969	1052	F	F	6,529	71	31.03	29	3	1	1	29	3	1	1	Acceleration Length (minimum) - 300' (850' Standard)	Taper Rate - 23:1 (50:1 Standard)	Ramp Spacing (entrance to entrance) - 445' (1000' Standard)	
	On-ramp from E 14th/I-77 NB	Central Interchange	16.17	370	265	337	C	C	783	846	E	F	9,877	49	8.09	29	3	1	1	29	3	1	1	Acceleration Length (minimum) - 490' (850' Standard)	Taper Rate (low speed entrance) - 21:1 (35:1 Standard)	Ramp Spacing (entrance to entrance) - 455' (800' Standard)	
	On-ramp from Orange/Carnegie/Ontario	Central Interchange	16.10	3,750	266	313	A	A	583	580	B	B	5,693	34	30.30	29	3	1	1	29	3	1	1				
	Off-ramp to W 14th/Abbey	Central Interchange	15.39	2,590	244	268	B	C	230	246	D	E	3,528	3	4.31	N/A	N/A	132	N/A	N/A	N/A	N/A	N/A	N/A	Deceleration Length - 564' (800' Standard)		Ramp Spacing (turning roadways) - 354' (600' Standard)
Diverge from I-71 SB	Central Interchange	14.90	4,000	1264	1465	B	B	2662	2923	C	C	17,695	9	1.45	N/A	N/A	132	N/A	N/A	N/A	N/A	N/A	N/A				

Table B3: Ramp Analysis Data

