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GIS PARK STUDY INFORMATION

Based upon presentation by GIS Specialist, Zack Schwartz, certain areas were identified as potential new park projects. At the request of Advisory Board Members, the following documents are being provided to reflect locations of the "Park Candidates" for site visits.



Canidate Parcels New Park Project Palmetto, FL

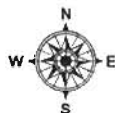
- Area 1: North of 10th St. W.,
West of 2nd Ave. W.,
East of 8th Ave W., and
South of 13th St W.
- Area 2: 700-900 Block of
Haben Blvd., west side
- Area 3: 505 5th St W.
- Area 4: US301, east side, east of
Palmetto Estuary Park

- Potential New Park parcels
- Parks
- CRA boundary MPAO 2009
- City of Palmetto, FL

Community Redevelopment Agency

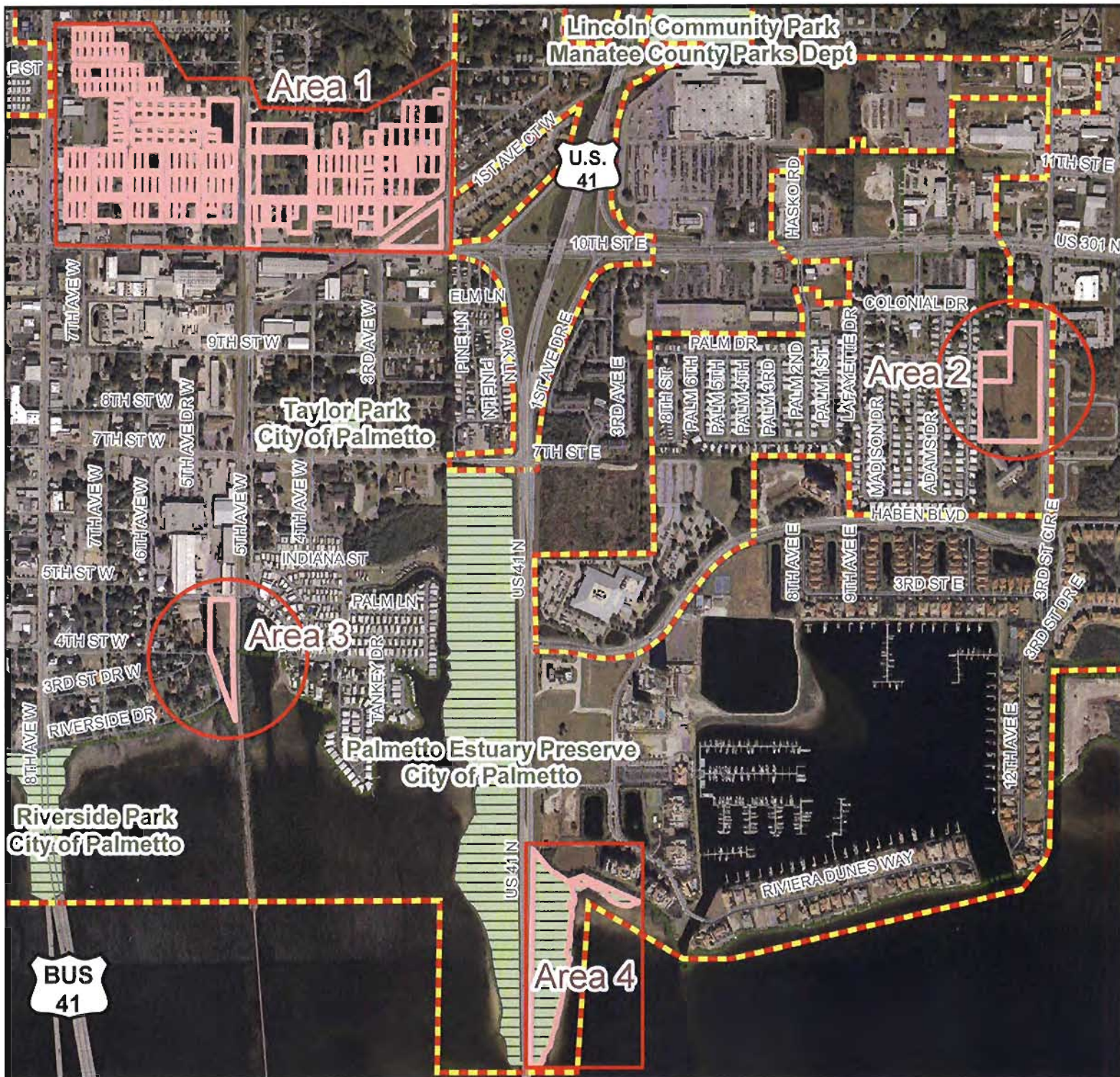
GIS Staff
City of Palmetto, FL

This map was developed by the GIS Staff at the Palmetto CRA.
It is provided for general reference and it is not warranted in any way.
Errors from non-coincidence of features from different sources may exist.
The city of Palmetto, FL, the CRA and its employees shall be held
harmless for any inappropriate or unintended use of this information.
2/2010



0 0.15 0.3
Kilometers

0 0.15 0.3
Miles





Canidate Parcels New Park Project AREA 1

Area 1: North of 10th St. W.,
West of 2nd Ave. W., and
East of 8th Ave W., and
South of 13th St W.

- Potential New park Parcels
- Parks
- CRA boundary MPAO 2009
- City of Palmetto, FL

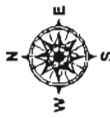
Community Redevelopment Agency

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2010



0 0.045 0.09 Kilometers

0 0.045 0.09 Miles



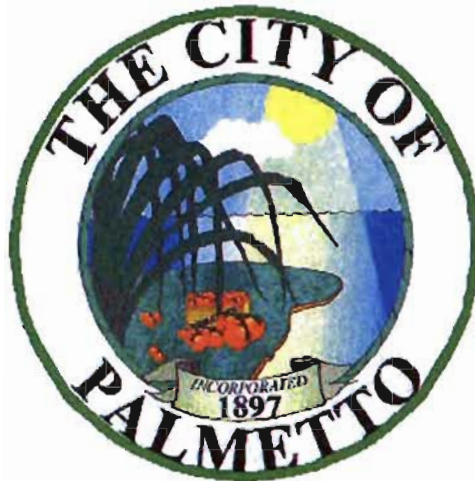
ID	CPID	IMPROV	JUSTV	LANDV	ADIRNG	ADIRSH	ISHOME	ACRES	BURIP	OWNER	ZONING	ADIRSU	ADIRSU2	LOCA2IP	ADIROR	UNITING	GENZONE	GENPARK	YLU	ZONEANO
0	2627800002	98631	104531	5900	711	13TH	Y	0.117	-21	JONES, HENRY CURTIS	RM6	ST		34221	W		RHSF	605.2	RES10	RM6
1	2627700012	103257	109157	5900	709	13TH	Y	0.117	-20.959999	MAYS, LUCRECIA	RM6	ST		34221	W		RHSF	1315	RES10	RM6
2	2627700061	72248	78148	5900	707	13TH	Y	0.117	-20.68	COTTON, ROBERT L JR	RM6	ST		34221	W		RHSF	1493	RES10	RM6
3	2627700013	71084	76984	5900	701	13TH	Y	0.117	-20.659999	GARCIA, SEVERIANO P	RM6	ST		34221	W		RHSF	640.6	RES10	RM6
4	2630100002	88828	93828	5000	609	13TH	Y	0.117	-21.03	PALAWSKI, JAMES J	RM6	ST		34221	W		RHSF	1793	RES10	RM6
5	2648510659	60398	77048	16650	1123	6TH	Y	0.116	-10.239999	STUART, YVONNE MARIE	UNDEF	AVE	DR	34221	W		RHSF	701.3	RES10	RM6
6	2648510659	58058	74708	16650	1125	6TH	Y	0.116	-10.239999	HERNANDEZ, ANDREA LYNN	UNDEF	AVE	DR	34221	W		RHSF	660	RES10	RM6
7	2648510709	59749	76399	16650	1121	6TH	Y	0.116	-10.239999	HARRIS, PATRICIA ELAINE	UNDEF	AVE	DR	34221	W		RHSF	688.9	RES10	RM6
8	2648511209	55547	72447	16900	605	12TH	Y	0	-10.109999	DUBOSE-ADAMS, MELISSA TYETTE	UNDEF	ST		34221	W		RHSF	643.3	RES10	RM6
9	2648510659	60398	77298	16900	607	12TH	Y	0	-10.109999	MARTINEZ-REYES, ERIC GALINDO	UNDEF	ST		34221	W		RHSF	706.1	RES10	RM6
10	2648511219	57104	73754	16650	603	12TH	Y	0.107	-10.239999	BERNARD-DENIS, LINDA	UNDEF	ST		34221	W		RHSF	653	RES10	RM6
11	2631800006	0	9477	9478	418	11TH	Y	0.231	0	ATLANTIC LAND & IMPROVEMENT CO THE	CG	ST	DR	34221	W	CM	181.1	RES10	CG	
12	2631600000	1140141	1331661	191520	400	11TH	Y	3.482	-7.57	LOUIS P THOMAS III FAMILY	RM6	ST		34221	W	A	RHSF	254.56	RES10	RM6
13	2648511209	56920	73570	16650	601	12TH	Y	0.107	-10.239999	STAMPER, CYNTHIA JAVON	UNDEF	ST		34221	W		RHSF	651.6	RES10	RM6
14	2648512059	54426	71076	16650	507	12TH	Y	0.107	-7	WOODALL, CYNTHIA RAE	UNDEF	ST		34221	W		RHSF	633.2	RES10	RM6
15	2648512009	56150	72800	16650	505	12TH	Y	0.107	-6.969999	ROSADO, ALICIA MARIE	UNDEF	ST		34221	W		RHSF	645.9	RES10	RM6
16	2648511959	56311	72961	16650	503	12TH	Y	0.107	-6.969999	BRISTOL, MARIE ANGE VILSAINT	UNDEF	ST		34221	W		RHSF	647.1	RES10	RM6
17	2648511209	0	3	3	0	NO ASSIGNED ADDRESS	Y	0	0	MANATEE COUNTY HABITAT FOR HUMANITY INC	UNDEF			34221	W		RHSF	0.06	RES10	UNDEF
18	2648511459	54982	71882	16900	606	11TH	Y	0	-10.109999	HEFFNER, TERESA	UNDEF	ST	CT	34221	W		RHSF	639.2	RES10	RM6
19	2648511509	55526	73176	16650	604	11TH	Y	0.105	-6.969999	BAXTER, CLEMENTINE CYNTHIA	UNDEF	ST	CT	34221	W		RHSF	648.7	RES10	RM6
20	2648511559	55840	72490	16650	602	11TH	Y	0.105	-6.98	CURINGTONE, DONNIA E	UNDEF	ST	CT	34221	W		RHSF	643.7	RES10	RM6
21	2648511609	58593	75243	16650	510	11TH	Y	0.105	-6.94	REMILUS, FRANCOISE	UNDEF	ST	CT	34221	W		RHSF	668.8	RES10	RM6
22	2648511659	55679	72329	16650	508	11TH	Y	0.105	-6.98	PADGETTE, MICHELLE	UNDEF	ST	CT	34221	W		RHSF	642.5	RES10	RM6
23	2648511709	53642	70252	16650	506	11TH	Y	0.105	-6.3	TAYLOR, HELENE Y	UNDEF	ST	CT	34221	W		RHSF	627.5	RES10	RM6
24	2648511759	56526	73826	17300	504	11TH	Y	0	-6.969999	LAURENT, JEAN Y	UNDEF	ST	CT	34221	W		RHSF	653.5	RES10	RM6
25	2648511409	58961	75861	16900	605	11TH	Y	0	-6.17	JAIMES, BERTOLDO BARRIOS	UNDEF	ST	CT	34221	W		RHSF	678.6	RES10	RM6
26	2652500001	11833	20133	8300	310	11TH	Y	0.231	-19.309999	FLORIDA FIDELITY CORPORATION	RM6	ST	DR	34221	W		RHSF	392.8	RES10	RM6
27	26517310103	0	5700	5700	1201	2ND	Y	0.116	-5	STEVENS, THOMAS	RM6	AVE		34221	W		RHSF	108.9	RES10	RM6
28	2648511259	0	3	3	0	NO ASSIGNED ADDRESS	Y	0	0	MANATEE COUNTY HABITAT FOR HUMANITY INC	UNDEF			34221	W		RHSF	0.06	RES10	UNDEF
29	2632900003	62469	69669	7200	207	12TH	Y	0.172	-19.389999	PETERSON, GWENDOLYN Y	RM6	ST		34221	W		RHSF	506.8	RES10	RM6
30	2633000001	57740	65940	8200	203	12TH	Y	0.227	-19.819999	CARNES, LEWIS WILLIAM	RM6	ST		34221	W		RHSF	1760	RES10	RM6
31	2633100009	61504	77904	16400	201	12TH	Y	0.532	-20.43	CLEMONS, BERTHA	RM6	ST		34221	W		RHSF	181	RES10	RM6
32	2645700002	73623	79323	5700	608	12TH	Y	0.109	-20.969999	MAYS, LULA M	RM6	ST		34221	W		RHSF	244.8	RES10	R6
33	2644000057	49065	54765	5700	603	12TH	Y	0.109	-19.459999	ABUNDEZ, GEBARDO	R6	ST	DR	34221	W		RHSF	163.6	RES10	R6
34	26440007107	119217	124917	5700	605	12TH	Y	0.109	-21.03	GARCIA, CESAR	R6	ST	DR	34221	W		RHSF	159.4	RES10	R6
35	26440001156	17761	22961	5700	607	12TH	Y	0.109	-18.819999	RAMIREZ, JORGE	RM6	ST	DR	34221	W		RHSF	182.9	RES10	RM6
36	2644100006	21534	27234	5700	611	12TH	Y	0.109	-17.989999	AMILL, JOSE	RM6	ST	DR	34221	W		RHSF	207.9	RES10	RM6
37	2644300004	103081	103081	5700	615	12TH	Y	0.109	-20.159999	BENITEZ, ANTONIO	RM6	ST	DR	34221	W		RHSF	594.7	RES10	RM6
38	2644300002	88143	97943	9800	617	12TH	Y	0.217999	-20.639999	SHANNON, RONALD V	RM6	ST	DR	34221	W		RHSF	396.7	RES10	RM6
39	2644300000	39146	44846	5700	707	12TH	Y	0.109	-21.049999	MORGAN, HAROLD	RM6	ST	DR	34221	W		RHSF	297.4	RES10	RM6
40	2644400000	39146	44846	5700	707	12TH	Y	0.109	-20.139999	TURCIOS, JOSE M	RM6	ST	DR	34221	W		RHSF	0	RES10	RM6
41	2643500008	83300	89000	5700	704	12TH	Y	0.109	-21.1	STRICKLAND, ALVERA F	RM6	ST	DR	34221	W		RHSF	446	RES10	RM6
42	2643400001	42745	48445	5700	702	12TH	Y	0.109	-20.37	BETANCOURT, GABRIEL	RM6	ST	DR	34221	W		RHSF	2148	RES10	RM6
43	2643300003	106701	112401	5700	700	12TH	Y	0.109	-20.95	TORY, ROSE M	RM6	ST	DR	34221	W		RHSF	303.7	RES10	RM6
44	2643200005	62459	68159	5700	618	12TH	Y	0.109	-19.739999	STRONG, LEO D	RM6	ST	DR	34221	W		RHSF	999.9	RES10	RM6
45	2643000009	46607	52307	5700	612	12TH	Y	0.109	-19.389999	JONES, ANGELA SUE	RM6	ST	DR	34221	W		RHSF	1150	RES10	RM6
46	26429000109	94818	100518	5700	610	12TH	Y	0.109	-20.889999	BALTAAZAR, PEDRO	RM6	ST	DR	34221	W		RHSF	269.2	RES10	R4
47	26429000059	94818	100518	5700	608	12TH	Y	0.109	-20.889999	GUZMAN GUERRERO, GREGORIO	RM6	ST	DR	34221	W		RHSF	546.6	RES10	R4
48	2647700100	52679	58379	5700	524	12TH	Y	0.109	-19.54	RIO, ARTURO GUERRERO	R4	AVE		34221	W		RMSF	1200	RES10	RM6
49	26472000050	83106	88806	5700	1202	6TH	Y	0.109	-21.739999	DIAS-ARROYO, MARIA C	RM6	ST		34221	W		RHSF	455.8	RES10	RM6
50	2645900008	97476	103176	5700	602	12TH	Y	0.109	-20.12	BETANCOURT, GUILLERMO	RM6	ST		34221	W		RHSF	423.4	RES10	RM6
51	2645800000	72177	77877	5700	606	12TH	Y	0.109	-20.879999	GUZMAN, JORGE	RM6	ST		34221	W		RHSF	1032	RES10	RM6
52	2645600004	47795	53495	5700	610	12TH	Y	0.109	-20.53	TYNNEYTON LLC	RM6	ST		34221	W		RHSF	953.7	RES10	RM6
53	2645500006	44190	49890	5700	612	12TH	Y	0.109	-19.319999	BURDICK, JEFFREY	RM6	ST		34221	W	1	RHSF	1728	RES10	RM6
54	2645400009	61201	66901	5700	614	12TH	Y	0.109	-11.909999	LOWE, JAMES GARRY	RM6	ST		34221	W		RHSF	1278	RES10	RM6
55	2645300001	82526	88226	5700	700	12TH	Y	0.109	-19.989999	MCNEAL, JAMES L	RM6	ST		34221	W		RHSF	679.5	RES10	RM6
56	2645200003	16449	22149	5700	706	12TH	Y	0.109	-19.2	DAVIS, SHIRLEY EST OF	RM6	ST		34221	W		RHSF	423.4	RES10	RM6
57	2634300251	89610	94610	5000	1107	3RD	Y	0.116	-20.18	CORDEIRO, JANETT	R6	AVE		34221	W		RHSF	552.6	RES10	R6
58	2651700003	252119	275719	23600	619	11TH	Y	0.158	-16.2	FOY-TAYLOR FARMS	RM6	ST		34221	W		RHSF	5270	RES10	RM6
59	2651200004	83229	90429	7200	613	11TH	Y	0.158	-20.559999	GIRALDO, JUAN CARLOS	RM6	ST		34221	W		RHSF	1751	RES10	RM6
60	2651100006	84476	91626	7200	607	11TH	Y	0.158	-12.509999	FOY TAYLOR FARMS	RM6	ST		34221	W		RHSF	531.7	RES10	RM6
61	2651000008	15617	27817	12200	1009	6TH	Y	0.319999	-19.559999	WOODSON, LEAH M	RM6	AVE		34221	W		RHSF	0	RES10	RM6
62	2650500106	0	25116	25116	420	10TH	Y	0.361999	0	PALMARTO CITY OF	R6	ST		34221	W		RHSF	144.2	RES10	RM6
63	2653500005	1580	7546	5966	710	11TH	Y	0.158	0	LOUIS P THOMAS III FAMILY	RM6	ST		34221	W		RHSF	134.7	RES10	RM6
64	2653600003	0	7050	7050	706	11TH	Y	0.158	-4.079999	LOUIS P THOMAS III FAMILY	RM6	ST		34221	W		RHSF	3933	RES10	RM6
65	2653700001	199813	205779	5966	704	11TH	Y	0.158	0	WESTSIDE FUNERAL HOME INC	RM6	ST		34221	W		RHSF	1417	RES10	RM6
66	2654700009	68927	74127	7200	620	11														

67	2654800008	79761	86461	7200	616	11TH	Y	0.158	-19.68	ROBINSON, BEVERLY A	RM6	ST	34221	W	RHSF	576.2	RES10	RM6
68	2654900006	89750	101950	12200	1107	6TH	Y	0.319999	-20.51	MORELAND, JEAN TARVER	RM6	AVE	34221	W	RHSF	620.2	RES10	RM6
69	2650400008	0	7200	7200	517	11TH		0.158	-4	11TH STREET CHURCH OF CHRIST INC	RM6	ST	34221	W	RHSF	0	RES10	RM6
70	2650400001	0	7200	7200	515	11TH		0.158	-4	11TH STREET CHURCH OF CHRIST INC	RM6	ST	34221	W	RHSF	0	RES10	RM6
71	2650300003	276555	293978	17423	513	11TH		0.319999	-29.2	11TH STREET CHURCH OF CHRIST INC	RM6	ST	34221	W	RHSF	0	RES10	RM6
72	2649700159	96532	100182	3650	505	11TH		0.0086	-20.44	LOWE, JAMES GARRY	RM6	ST	34221	W	RHSF	191.5	RES10	RM6
73	2654000006	0	7200	7200	612	11TH		0.158	-4	FOY TAYLOR FARMS	RM6	ST	34221	W	RHSF	137.6	RES10	RM6
74	2655500003	110370	117570	7200	610	11TH		0.158	-12.02	FOY TAYLOR FARMS	RM6	ST	34221	W	RHSF	2247	RES10	RM6
75	2655600001	82965	90015	7050	608	11TH		0.158	-12.92	FOY TAYLOR FARMS	RM6	ST	34221	W	RHSF	1720	RES10	RM6
76	2656500050	0	7005	7050	602	11TH		0.158	-4.079999	FOY TAYLOR FARMS	RM6	ST	34221	W	RHSF	134.7	RES10	RM6
77	2656700009	0	7200	7200	516	11TH		0.158	-4	11TH STREET CHURCH OF CHRIST INC	RM6	ST	34221	W	RHSF	0	RES10	RM6
78	2656300007	0	7200	7200	514	11TH		0.158	-4	11TH STREET CHURCH OF CHRIST INC	RM6	ST	34221	W	RHSF	0	RES10	RM6
79	2656400005	94149	101349	7200	512	12TH	Y	0.158	-13.86	TORRES, MARTIN JR	RM6	ST	34221	W	RHSF	1165	RES10	RM6
80	2656500002	56778	63478	7200	510	11TH	Y	0.158	-19.28	SMITHA, STEVEN	RM6	ST	34221	W	RHSF	563.1	RES10	RM6
81	2657700028	64410	714938	7083	508	11TH	Y	0.158	0	CLARK, JESSIE LEE	RM6	ST	34221	W	RHSF	141.9	RES10	RM6
82	2657300006	0	7200	7200	506	11TH		0.158	-4	PROVIDENCE MISSIONARY	RM6	ST	34221	W	RHSF	0	RES10	RM6
83	2634700203	90694	97044	6350	304	11TH	Y	0.1115	-20.819999	HAMMOND, BETTY JEAN	RM6	ST	34221	W	RHSF	562.5	RES10	RM6
84	2634700153	88214	94564	6350	1103	3RD	Y	0.1115	-15.93	DAWES, ANGELA A	RM6	AVE	34221	W	RHSF	557.5	RES10	RM6
85	2652300068	82197	89247	7050	709	11TH	Y	0.158	-12.979999	LIMAS, CELULA	R6	ST	34221	W	RHSF	1706	RES10	R6
86	2652300100	87563	94713	7050	707	11TH	Y	0.158	-21.54	MONIX, JOYCE E	R6	ST	34221	W	RHSF	651.3	RES10	R6
87	2652300019	80794	87344	7050	1011	7TH	Y	0.158	-21.45	KIMBROUGH, MARY JO	RM6	AVE	34221	W	RHSF	531.3	RES10	R6
88	2657400004	129134	134634	7200	504	11TH	Y	0.158	-20.95	ANDERSON, SYLVIA	RM6	ST	34221	W	RHSF	923.7	RES10	RM6
89	2657500001	30359	37559	7200	502	11TH	Y	0.158	-19.69	BRUMFIELD, RAYFUS	RM6	ST	34221	W	RHSF	230.5	RES10	RM6
90	2649600000	169327	162127	12200	501	11TH	Y	0.319999	-10.949999	PALMETTO LAND COMPANY LLC	RM6	ST	34221	W	RHSF	3099	RES10	RM6
91	2649700209	0	3650	3650	507	11TH		0.074	-7.59	LOWE, JAMES GARRY	RM6	ST	34221	W	RHSF	69.77	RES10	RM6
92	2654900001	0	7300	7300	1106	4TH		0.172	-3.95	TURNER CHAPEL AFRICAN	RM6	AVE	34221	W	RHSF	0	RES10	RM6
93	2634810002	0	7300	7200	332	11TH		0.172	-3.95	TURNER CHAPEL AFRICAN	RM6	ST	34221	W	RHSF	0	RES10	RM6
94	2634800003	71460	78760	7300	308	11TH		0.172	-19.54	TURNER CHAPEL AFRICAN	RM6	ST	34221	W	RHSF	0	RES10	RM6
95	2634700302	71460	78760	7300	306	11TH		0.172	-19.54	DENEAL, BETTY F	RM6	ST	34221	W	RHSF	2503	RES10	RM6
96	2634700252	87099	94399	7300	306	11TH	Y	0.172	-20.62	GILMORE, LARONDA R	RM6	ST	34221	W	RHSF	565.6	RES10	RM6
97	2634700104	87069	92069	5000	1105	3RD	Y	0.1116	-21.02	DAMIS, FRANK	RM6	AVE	34221	W	RHSF	875.6	RES10	RM6
98	2636300002	48041	56341	8300	1104	3RD		0.231	-21.469999	JONES, ROBERT WILLARD	RM6	AVE	34221	W	RHSF	1077	RES10	RM6
99	2636200004	133126	141426	8300	270	11TH	Y	0.231	-21.61	JONES, VIVIAN R	RM6	ST	34221	W	RHSF	521.8	RES10	RM6
100	0	0	0	0	0			0	0									
101	0	0	0	0	0			0	0									
102	2636100006	40035	48335	8300	214	11TH	Y	0.231	-21.45	CLEMONS, RUBY TAYLOR	RM6	ST	34221	W	RHSF	387.2	RES10	RM6
103	2636000008	79506	97906	18400	204	11TH		0.699	-20.37	DORBY, BETTY D	RM6	ST	34221	W	RHSF	1871	RES10	RM6
104	2653400008	0	7050	7050	709	11TH		0.158	-4.079999	LOUIS P THOMAS III FAMILY	RM6	ST	34221	W	RHSF	134.7	RES10	RM6
105	2653300000	0	7050	7050	705	11TH		0.158	-4.079999	LOUIS P THOMAS III FAMILY	RM6	ST	34221	W	RHSF	134.7	RES10	RM6
106	2653200002	50895	58045	7050	701	11TH	Y	0.158	-19.139999	CARLEY, VALNEVA	RM6	ST	34221	W	RHSF	274.7	RES10	RM6
107	2654500004	26621	32171	5350	621	11TH		0.079	-20.129999	BASKIN, LEONARD	RM6	ST	34221	W	RHSF	614.9	RES10	RM6
108	2654300009	39986	47186	7200	617	11TH		0.158	-18.6	MARTINEZ, CESAR	RM6	ST	34221	W	RHSF	902	RES10	RM6
109	2654200001	30423	37623	7200	615	11TH		0.158	-18.1	ALBERT CUMMINGS ENTERPRISES INC	RM6	ST	34221	W	RHSF	719.2	RES10	RM6
110	2655306008	49256	56456	7200	1114	6TH	Y	0.158	-19.04	MICHEL, RUTH ANN	RM6	AVE	34221	W	RHSF	264.6	RES10	RM6
111	2655200000	69091	76291	7200	611	11TH	Y	0.158	-20.54	FLOYD, WILLIE MAE	RM6	ST	34221	W	RHSF	463.7	RES10	RM6
112	2655100002	0	12200	12200	609	11TH		0.319999	-17.85	TAYLOR, ALVIN JOHNSON	RM6	ST	34221	W	RHSF	233.2	RES10	RM6
113	26556100001	54196	61396	7200	515	11TH		0.158	-19.19	BARRETT, MICHAEL	RM6	ST	34221	W	RHSF	1173	RES10	RM6
114	26566000059	94180	101380	7200	519	11TH	Y	0.161	-19.86	PERRY, REYNOLDO F	RM6	ST	34221	W	RHSF	1166	RES10	RM6
115	26544000007	0	7200	7200	619	11TH		0.158	-4	GILLIARD, DOROTHY A	RM6	ST	34221	W	RHSF	137.6	RES10	RM6
116	26560000109	93813	100863	7050	511	11TH	Y	0.16	-19.879999	CENTENO-GOMEZ, JOSE	RM6	ST	34221	W	RHSF	1151	RES10	RM6
117	26558000007	86358	93558	7200	509	11TH	Y	0.158	-20.95	BAZAN, JUAN MANUEL SR	RM6	ST	34221	W	RHSF	1016	RES10	RM6
118	26571000000	88458	95358	6900	507	11TH	Y	0.152	-19.65	GILLIARD, DOROTHY	RM6	ST	34221	W	RHSF	632.8	RES10	RM6
119	26570000002	2000	9786	7786	505	11TH		0.165	0	MCINNNEY, KATHRYN L	RM6	ST	34221	W	RHSF	187	RES10	RM6
120	26569000004	308007	316748	8741	501	11TH		0.161	-0.14	PROVIDENCE MISSIONARY	RM6	ST	34221	W	RHSF	0	RES10	RM6
121	26546000002	54729	60879	6150	1110	7TH		0.079	-20.639999	BASKIN, CONSTINE D	RM6	AVE	34221	W	RHSF	1163	RES10	RM6
122	26568000006	0	8729	8729	501	11TH		0.16	0	PROVIDENCE MISSIONARY	RM6	ST	34221	W	RHSF	0	RES10	RM6
123	2648510759	60792	77442	16650	1119	6TH	Y	0.116	-6.17	HARRIS, KEVIN TYRONE	UNDEF	AVE	34221	W	RHSF	708.8	RES10	RM6
124	2648511809	59914	77414	17500	1118	5TH	Y	0.104	-6.9	WILLIAMS, RUBEN HENRY	UNDEF	AVE	34221	W	RHSF	708.3	RES10	RM6
125	26339000002	2684	37109	34425	419	11TH		0.465	-0.02	PACIFIC TOMATO GROWERS LTD	CG	ST	34221	W	CM	709.3	RES10	CG
126	2631600000	1140241	1331661	191520	400	11TH		3.482	-7.57	LOUIS P THOMAS III FAMILY	RM6	ST	34221	W	RHSF	25456	RES10	RM6
127	2634310003	0	7300	7300	323	11TH		0.172	-3.95	TURNER CHAPEL AFRICAN	RM6	ST	34221	W	RHSF	0	RES10	RM6
128	26344000002	61636	68936	7300	321	11TH	Y	0.172	-16.969999	SULLIVAN, CAROL V	RM6	ST	34221	W	RHSF	612.6	RES10	RM6
129	26345000009	24207	31507	7300	319	11TH		0.172	-19	CUMMINGS, DOROTHY	RM6	ST	34221	W	RHSF	602.3	RES10	RM6
130	26346000007	93832	101132	7300	317	11TH	Y	0.172	-13.029999	WILLIAMS, FLOYD JR	RM6	ST	34221	W	RHSF	730.3	RES10	RM6
131	26343000053	97877	103827	5950	307	11TH	Y	0.172	-21.879999	GONZALEZ, JUAN	R6	ST	34221	W	RHSF	603	RES10	R6
132	2634300103	100659	106609	5950	305	11TH	Y	0.172	-20.969999	AGUIAYO, ZULEMA	R6	ST	34221	W	RHSF	633	RES10	R6
133	2634300160	90694	96644	5950	303	11TH		0.115	-20.389999	PEREZ, ARACELY	R6	ST	34221	W	RHSF	1847	RES10	R6
134	26343000003	66990	77140	7650	1106	3RD	Y	0.112	-19.44	EVANS, IRA	RM6	AVE	34221	W	RHSF	483.4	RES10	RM6

**CITY OF PALMETTO
RIVERSIDE PARK AND DRIVE WEST
PLANNING STUDY - PHASE I
PRELIMINARY ENGINEERING REPORT**

Prepared for:

CITY OF PALMETTO
Community Redevelopment Agency (CRA)
715 4th Street West
Palmetto, Florida 34221



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Certificate of Authorization #1841

August 2008

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APPENDIX D	REVIEW COMMENTS

EXECUTIVE SUMMARY

The City of Palmetto's Community Redevelopment Agency (CRA) plans to revitalize the downtown areas of the Waterfront District which includes Riverside Park West and Riverside Drive West. The CRA considers Riverside Park an important component of the Waterfront District Redevelopment and envisions that Riverside Park and Drive will be the eastern gateway to the District. Accordingly, the CRA authorized Jones Edmunds to evaluate projects to improve Riverside Park and provide additional amenities that will attract the public and encourage them to use the park. In the opinion of the City, Riverside Park is generally not user-friendly. Its layout does not invite the public to use the facilities. For instance, in the past efforts were made to have the bait shack serve as a concession stand, but its location in relation to parking discouraged people from using the concession facilities. As a result, the concession facilities were closed.

The City retained Jones Edmunds to investigate the use of Riverside Park and Riverside Drive West and recommend alternatives for improvements. The project scope involves a three-phase approach:

- Phase 1—Preliminary Study.
- Phase 2—System Design and Permitting.
- Phase 3—Construction-Phase Services.

The initial authorization from the City was for completion of Phase 1 Preliminary Study. The scope of services authorized included conducting a Project Kick-Off Planning Meeting with CRA and Public Works Staff to review the project goals, schedule, and deliverables and to establish lines of communication; coordinating with South West Florida Water Management District, Florida Department of Transportation, and Manatee County to determine if permitting will be required for the proposed improvements; reviewing data gathering and field investigations to identify possible improvements; conducting a Workshop with the public and City staff; performing a traffic study; evaluating alternatives for improvements; and preparing a Preliminary Engineering Report.

Realizing that Riverside Park and Drive are a gateway to the waterfront district from the Green Bridge, the City is interested in improving the aesthetics and functionality of both the Park and the Drive. To determine the best way to improve the aesthetics and functionality, Jones Edmunds solicited input from the CRA, City staff, the public, an internal charrette (collaborative session between engineers and architects to draft solutions) and field investigations within the park.

Based on feedback received from the public and City staff, as well as Jones Edmunds' investigation of the site and internal ideas, a prioritized list of park improvements has been developed. The proposed improvements are prioritized in order of importance and in a logical, constructible order that allows flexibility in phasing. The projects are effectively a menu of

improvements that the City can select from based on available budget and future needs and desires.

The proposed improvements have been divided into two categories, parkwide improvements and proposed specific project improvements. Parkwide improvements include an improved pedestrian walkway system, seawall renovation, site furniture upgrades, lighting improvements, landscaping, and bridge lighting. Proposed specific project improvements include constructing day-use docks, converting the pavilion to a concession stand, building picnic shelters, building an 8-foot-wide boardwalk, constructing a new pavilion and stage area, building public restrooms on the pier, improving parking, building a walkway to Riverside Park East, limiting 8th Avenue access and visibility, building an amphitheater and art display area, and refurbishing the bait shack.

The recommended improvements are intended to be constructed in a phased approach based on available funding. The list is also flexible and allows for reprioritizing based on future public input and City staff desires. It is important to note that as improvements are made, consideration should be given to proposed future improvements and how they will tie into the overall master plan.

1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

The City of Palmetto's Community Redevelopment Agency (CRA) plans to revitalize the downtown areas of the Waterfront District, which includes Riverside Park West and Riverside Drive West. The CRA retained the services of Wallace Roberts & Todd, LLC (WRT) to create a Development Plan for the Waterfront District. The Plan includes commercial redevelopment and enhancement of existing parks as well as formal green/civic space associated with a new City Hall. In the vicinity of Riverside Park, the development plan explains the need for a new boat ramp, a district gateway, and a bike path. However, the development plan does not describe improvements to Riverside Park.

The CRA considers Riverside Park an important component of the Waterfront District Redevelopment and envisions that Riverside Park and Drive will be the eastern gateway to the District. Accordingly, the CRA authorized Jones Edmunds to evaluate projects to improve Riverside Park and provide additional amenities that will attract the public and encourage them to use the park.



Vicinity Map

1.2 EXISTING CONDITIONS

Riverside Park West is in the City of Palmetto west of 8th Avenue/Business US-41 and south of Riverside Drive on the northwest corner of the Green Bridge along the Manatee River. The park encompasses approximately 3 acres and has varied recreational amenities:

- A boat ramp owned and maintained by Manatee County.
- 12 boat/trailer parking spaces.
- 60 parking spaces including two handicap parking spaces.
- Approximately 1,100-square-foot pavilion with men's and women's restrooms.
- Walkways through the park and along the Manatee River.
- Several bench areas in small pavilions.
- A vacant bait shack/concession stand.
- A ¼-mile-long fishing pier.

An abandoned ¼-mile-long section of the former Green Bridge is used as a fishing pier and is one of the main attractions for park guests. The park was in the former right-of-way of 8th

Avenue before realignment and the new bridge. The south and western boundaries of the park along the Manatee River primarily consist of concrete seawalls. The seawalls are in fair to poor condition, with several areas of cracked and spalled concrete and exposed reinforcing steel evident. In addition, there is no handrail along the seawall for pedestrians.

Access to the park is available only from Riverside Drive at the western end of the park. This area routinely becomes congested with boat/trailer traffic, as well as passenger vehicles accessing the park. The primary recreational activities currently appear to be fishing, relaxing by the water, and using the boat-ramp. Sidewalks are available to park guests along the Manatee River and along 8th Avenue and Riverside Drive.

Vegetation within the park primarily consists of scattered palm trees. There is also a stand of mangroves at the corner of the park near the pavilion. The rest of the park consists of grassed areas, the asphalt parking lot, and brick paver sidewalks. The Manatee River adjacent to the park appears to be shallow, especially along the western seawall. The water is deeper at the boat-ramp on the north side of the park.

Riverside Drive West is a single two-lane road that borders the north side of the park between 9th Avenue West and 8th Avenue. An unsignalized intersection at Riverside Drive and 8th Avenue allows turning movements in all directions.

In the opinion of the City, Riverside Park is generally not user-friendly. Its layout does not invite the public to use the facilities. For instance, in the past there have been efforts to make the bait shack serve as a concession stand, but its location in relation to parking discouraged people from using the concession facilities. As a result, the concession facilities were closed.



Existing Conditions Map

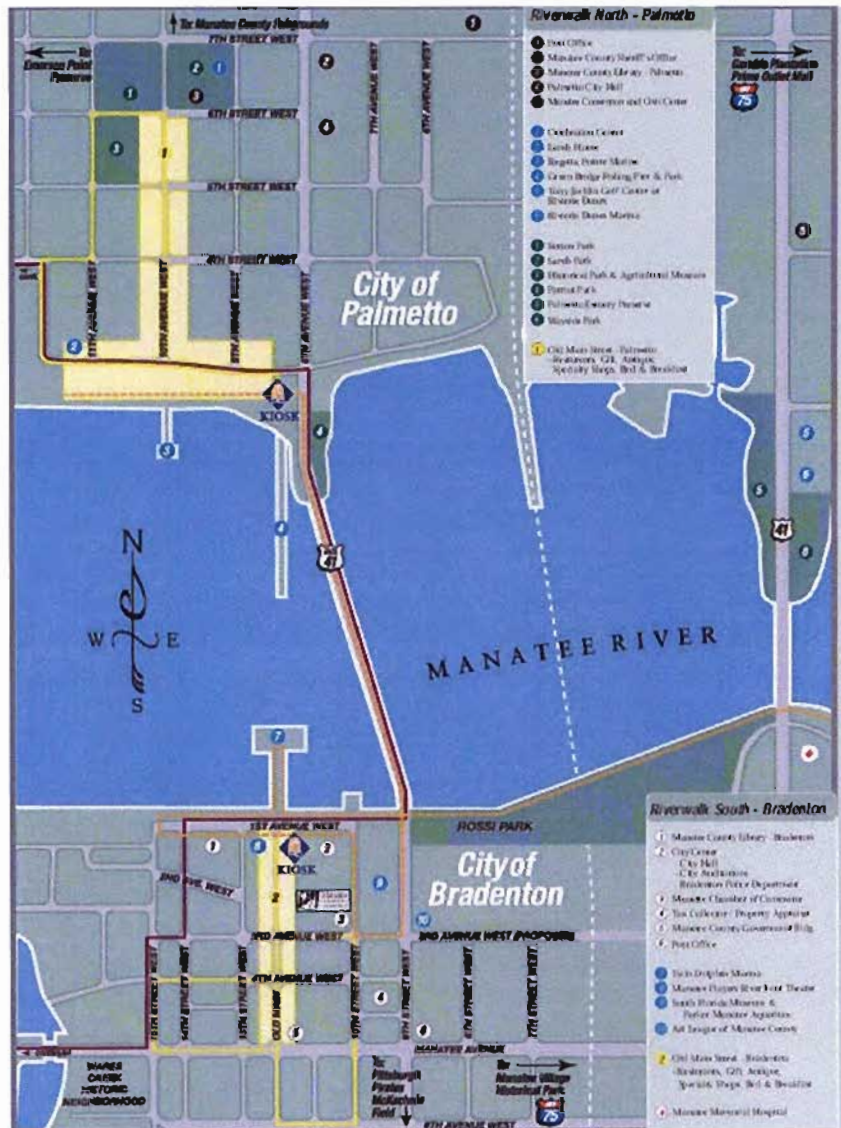
1.3 PROJECT SCOPE

The City retained Jones Edmunds to investigate the use of Riverside Park and Riverside Drive West and recommend alternatives for improvements. The project scope involves a three-phase approach:

- Phase 1—Preliminary Study.
- Phase 2—System Design and Permitting.
- Phase 3—Construction-Phase Services.

The initial authorization from the City was for completion of Phase 1 Preliminary Study. The scope of services authorized includes the following:

- Conducting a Project Kick-Off Planning Meeting with CRA and Public Works staff to review the project goals, schedule, and deliverables and to establish lines of communication.
- Coordinating with South West Florida Water Management District (SWFWMD), Florida Department of Transportation (FDOT), and Manatee County to determine if permitting will be required for the proposed improvements.
- Performing data-gathering review and field investigations to identify possible improvements.
- Conducting a Workshop with the public and City staff.
- Performing a Traffic Study.
- Evaluating alternatives for improvements.
- Preparing a Preliminary Engineering Report.



Riverwalk and Area Map

2.0 PARK ASSESSMENT

Realizing that Riverside Park and Drive are a gateway to the waterfront district from the Green Bridge, the City is interested in improving the aesthetics and functionality of both the Park and the Drive. To determine the best way to improve the aesthetics and functionality, Jones Edmunds solicited input from the CRA, City staff, the public, and by using an internal charrette and conducting field investigations within the park.

2.1 CHARRETTE AND FIELD INVESTIGATIONS

2.1.1 Charrette

Jones Edmunds performed an internal charrette with our engineers, architects, and planners to develop a list of conceptual improvements based on our knowledge of the park and its use, as well as the input of City staff. The intent was to determine whether any improvements could be made that would attract additional visitors to the waterfront district. As part of

our field investigation work, Jones Edmunds looked to other waterfront parks in Manatee County, throughout Florida, and elsewhere in the country. One of the main inspirations City staff referred to is the improvements that the City of Jacksonville made to its River Walk areas. The Jacksonville River Walk is larger than the City of Palmetto's Riverside Park West, but many of the same concepts could be applied. The results of Jones Edmunds' charrette are documented in the original Concept Plan provided in June 2007.



**Examples of
Charrette
Influences**

of our field investigation work, Jones Edmunds looked to other waterfront parks in Manatee County, throughout Florida, and elsewhere in the country. One of the main inspirations City staff referred to is the improvements that the City of Jacksonville made to its River Walk areas. The Jacksonville River Walk is larger than the City of Palmetto's Riverside Park West, but many of the same concepts could be applied. The results of Jones Edmunds' charrette are documented in the original Concept Plan provided in June 2007.

2.1.2 Field Investigations

To prepare for the charrette, Jones Edmunds' staff visited the park and observed park use and potential opportunities. It was noted that the park is very linear since it was a former FDOT right-of-way right next to 8th Avenue, a four-lane divided highway. While there is some grading relief between the park and 8th Avenue, roadway noise is obvious throughout the park. In addition, traffic congestion associated with the park is also evident. The main access to the park is off 8th Avenue. It was noted that the passenger vehicles were competing with vehicles hauling boat trailers visiting the park to use the County's boat ramp along Riverside Drive.

The north half of the park is dominated by parking lots. The south part of the park is greener and is better protected from 8th Avenue due to a change of elevation as the road rises towards the Green Bridge. The seawall, which dominates the west side of the park, has no handrails to prevent someone from accidentally falling in the water.

The restrooms are at the far north end of the park and are inconvenient for visitors using the fishing pier. Lack of public facilities at the pier appears to have resulted in sanitation problems on and around the pier and in the pavilion area. An educational kiosk is located at the northeast corner of the park, but it is not in the best location to serve the visitors to the park. The kiosk is out of the way for visitors who come to the park via car.

We noted that boat-trailers often park on the vacant lot (formerly known as Regatta Place) directly north of Riverside Drive, but we understand that a new development will be constructed there. While there may be shared parking opportunities with the marina, which is directly adjacent and west of the park, the future development will further compound the parking and traffic issues at the park. Eventually, a parking deck is planned for the northeast corner of 10th Avenue and Riverside Drive.

On the east side of 8th Avenue is a smaller park known as Riverside Park East. This park has a small number of pavilions and benches, but no other amenities. The only connection to Riverside Park East is by crossing 8th Avenue, but no pedestrian crosswalk is available.

2.1.3 Tax Parcel Review

A review of available tax parcel information for Manatee County's Tax Appraiser office indicates that the park is broken into at least five parcels:



**Boat ramp and trailer parking area
Parcel No. 311740000
833 Riverside Drive**



Existing pavilion area and north parking lot
Parcel No. 311620000 – 805 Riverside Drive



Northeast corner of park
Parcel No. 311680000 – 801 Riverside Drive



72.5-ft-wide strip of land that parallels seawall in south part of park.
Parcel No. 311670000 – 101 8th Ave. W -

Note that part of the park between Parcel No. 311670000 and 8th Ave. appears to be in FDOT right-of-way. Any improvements, including landscaping, will need to be coordinated with the FDOT. Also, note that the bait shack appears to be in FDOT right-of-way.

2.2 CITY STAFF AND CRA INPUT

2.2.1 Kickoff Meeting

At the Kick-Off Meeting (Minutes in Appendix B), Mayor Bustle described his vision for the park. He said he understands the value of the waterfront property and would like to make sure it is enjoyed and easily accessible to the public. Ultimately, he thought that the park should be linked to Estuary Park to the east and Sanctuary Cove to the west via a pedestrian corridor. He mentioned that the fishing pier is heavily used, but that the rest of the park is somewhat under-used. He would like to draw attention to the park, make it easier for the public to access, and provide the public with more amenities to increase use of the park.

Also at the Kick-Off Meeting, Ms. Tanya Lukowiak, CRA Director, mentioned that boat/trailer parking is a problem. There are approximately 12 spaces available. It was also acknowledged that budgeting for the project is limited. Therefore, a phased approach to park improvements will be required. The City Staff would prefer to make improvements to Riverside Park first and prepare it for future phases. The first phase should address traffic concerns, the educational pavilion, bait shack locations, and install finger docks. An amphitheater and boardwalks would be wish-list items for later phases.

Mr. Geoff Seger, Director of Parks and Recreation, mentioned that several other studies have been performed, including a conceptual master plan called the Green Bridge Park prepared by D.F.W. Planning Group. Their plan included a pedestrian bridge over 8th Avenue.

2.2.2 City Review Comments

Jones Edmunds also received written comments from Mr. Frank Woodard, Deputy Director for Public Works. His comments, dated March 4, 2008 and included in Appendix D, were based on Jones Edmunds' June 2007 draft Conceptual Improvements Plan. Mr. Woodard's comments were that shared parking would not be possible with the adjacent marina. The parking lot should remain in its current configuration and the proposed traffic circle at the boat-ramp should be relocated. He also indicated the desire for a cantilevered walkway to be built under the 8th Avenue Bridge to allow pedestrian access to Riverside Park East and Riverside Drive East, which is an important connection to the City.

2.3 WORKSHOP

2.3.1 Introduction

A public workshop was held on May 8th, 2007 to discuss improvements to Riverside Park West and Riverside Drive West. Attendees included members of the public, CRA staff, and Jones Edmunds employees. The purpose of the workshop was to gain feedback from the public and staff on the park's conditions and examine options for improving usability, attractiveness, and access to the park. Potential improvement ideas for the park were solicited and discussed. Jones Edmunds conducted a survey to establish a wish list of potential improvements.



Riverside Park Improvements Workshop

The survey/comment form (Appendix B) consisted of a list of items for potential park improvements separated into four categories: Facilities/Park Maintenance, Park Functionality, Park Aesthetics, and Recreation. The attendees were asked to rate the items, from 0 to 10, with 0 indicating no desire, 5 indicating a neutral position, and 10 indicating highly desirable. There was also a section on the back of the survey for additional comments.

Results of the workshop and survey/comment forms are summarized below:

2.3.2 Workshop Input

Items discussed during the workshop included:

- Buffering US Business 41 (8th Avenue) from the park without compromising security.
- Relocating the bait shop is preferred. Having one is important and creates a certain positive ambiance for a waterfront community gathering spot.
- Re-opening the bait shack bathrooms or building new ones on the pier was suggested by a member of the public. It was reported that the pier often smells of urine.
- Many members of the public liked the idea of boaters having dock access to the park.
- A member of the public mentioned that an effort should be made to reduce the amount of pavement since it retains heat.
- The Mayor mentioned the idea of having valet parking for boat trailers during peak times.
- A member of the public suggested selling boat trailer passes or charging a launching fee of \$10 (similar to Pinellas County).

- It was suggested that illegal parking be monitored and enforced.
- The Mayor cited the San Antonio Riverwalk as an example of a good waterside public gathering area.
- The potential of displacing parking with a new public parking garage at the corner of 10th Avenue and Riverside was discussed.
- The idea of expanding or eliminating the Riverside Park East parking lot was discussed. It was also mentioned that the options are very limited for that area due to the size of the parcel of land.
- For special events, a member of the public suggested using a shuttle to minimize parking issues.

2.3.3 Results

The results from six comment surveys were compiled and evaluated (Appendix B). All categories ranked equally with the exception of Park Functionality which had the lowest ranking. Although the categories were rated similarly, the public desired some individual items over others.

The public indicated through the comment survey that the most important park improvement items were as follows:

- Install public docks for use.
- Retrofit lights with period style-fixtures.
- Trim/clear mangroves near existing pavilion.
- Improve the seawall/install railing.
- Improve the parking situation.

City staff indicated additional/priorities which were not ranked as high by the public survey:

- Improving the northbound left turn from Riverside Park West.
- Separating business 8th Avenue from the park (i.e. - calming traffic along Riverside Drive).
- Incorporating art into the park.
- Providing an amphitheatre.

2.4 TRAFFIC ANALYSIS

Tindale-Oliver & Associates, Inc conducted a traffic study for the 8th Avenue and Riverside Drive intersection and provided a draft of the study dated July 23, 2007. Refer to Appendix A.

The traffic study analyzed the 8th Avenue at Riverside Drive intersection and identified potential improvements for the intersection that could be implemented concurrent with and in coordination with improvements to Riverside Park. The study areas consisted primarily of the 8th Avenue at

Riverside Drive intersection, in addition to the roadway network located west of 8th Avenue, bounded by 10th Avenue West, 5th Street West, and Riverside Drive.

Traffic volumes were determined by collecting intersection turning movement counts and segment counts in April and May 2007. The segment counts, which were performed for 7 consecutive days, were obtained to identify the periods of worst-case traffic conditions.

The analysis horizon for this study reflected existing conditions with the addition of traffic anticipated to occur from two proposed redevelopment projects on Riverside Drive - Regatta Place and a proposed mixed-use development at the northeast corner of Riverside Drive at 10th Avenue.

The results of the analysis indicate that the 8th Avenue at Riverside Drive intersection will experience operational difficulties under baseline conditions. Specifically, minor-street left-turn and through movements will operate over capacity and experience relatively high delays. To resolve these deficiencies, the subject intersections can be restricted to prevent minor-street left-turns and minor-street through movements, thus requiring the restricted traffic volumes to access 8th Avenue via the traffic signal located at 5th Street.

In addition, the northbound left-turn lane at the 8th Avenue/Riverside Drive intersection was identified to only be long enough to accommodate anticipated queue storage. To accommodate deceleration the lane would need to be extended by approximately 100 feet.

3.0 PARK PLAN

Based on feedback received from the public and City staff, as well as Jones Edmunds' investigation of the site and internal ideas, a prioritized list of park improvements has been developed. Figure 1 addresses the majority of the public and staff's wishes. The proposed improvements are prioritized in order of importance and in a logical, constructible order that allows flexibility in phasing. The projects are effectively a menu of improvements that the City can select from based on available budget and future needs and desires.



PARKWIDE IMPROVEMENTS

1. IMPROVED PEDESTRIAN WALKWAY SYSTEM
2. SEAWALL RENOVATION AND RAIL SAFETY
3. SITE FURNITURE UPGRADES
4. LIGHTING IMPROVEMENTS
5. LANDSCAPING
6. GREEN BRIDGE LIGHTING

PROPOSED IMPROVEMENTS

1. DAY USE DOCK
 2. CONVERT PAVILION TO CONCESSION WITH BOAT RAMP ATTENDANT
 3. PICNIC SHELTERS
 4. BOARDWALK
 5. COVERED PAVILION/STAGE
 6. PUBLIC RESTROOM (ON PIER)
 7. ONSITE PARKING IMPROVEMENTS
 8. RIVERWALK
 9. LIMITED ACCESS TO US 41 (BUS)

10. CONCRETE PAVEMENT REINFORCED SERVICE DRIVE / SIDEWALK
 11. AMPHITHEATER
 12. ART DISPLAY/MONUMENT
 13. PLANTED BUFFER
 14. RENOVATE BART SHACK
 15. PARK ENTRY SIGN
 16. CITY GATEWAY
 17. US 41 TURN LANE EXTENSION

RIVERSIDE PARK WEST PROPOSED IMPROVEMENTS

Figure 1

LEGEND

- LANDSCAPING
- LAWN AREAS (GRASS)



PARKING COUNT		
LOCATION	EXISTING	PROPOSED
HANDICAP (ON-SITE)	2	4
HANDICAP (PARKING DECK)	2	4
ON-SITE	61	52
PARKING DECK	58	74
SUBTOTAL	123	134
TRAILER	11	20
TOTAL	134	154



RIVERSIDE PARK WEST
PROPOSED
IMPROVEMENTS
Figure 2

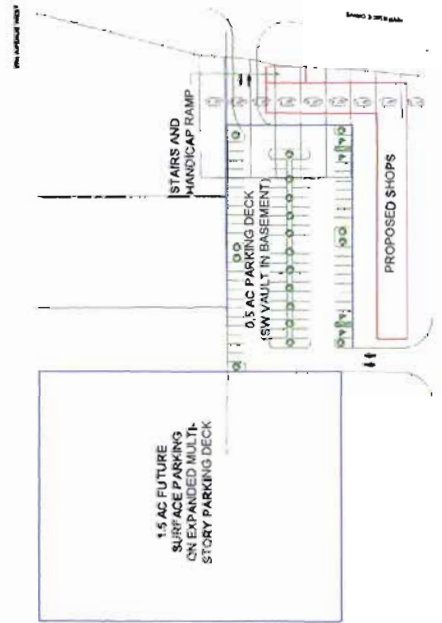
PROPOSED IMPROVEMENTS

- 1 DAY USE DOCK 2 PHASE 1 3 PHASE 2 4 CONCRETE PAVEMENT REINFORCED SERVICE DRIVE / SIDEWALK 5 AMPHITHEATER 6 ART DISPLAY/MONUMENT 7 PLANTED BUFFER 8 RENOVATE BAIT SHACK 9 PARK ENTRY SIGN 10 CITY GATEWAY 11 US-41 TURN LANE EXTENSION
- 12 PICNIC SHELTERS 13 BOARDWALK 14 COVERED PAVILION/STAGE 15 PUBLIC RESTROOM (ON PIER) 16 ONSITE PARKING IMPROVEMENTS 17 RIVERWALK 18 LIMITED ACCESS TO US 41 (BUS)

PARKWIDE IMPROVEMENTS

- 1 IMPROVED PEDESTRIAN WALKWAY SYSTEM
2 SEAWALL RENOVATION AND RAIL SAFETY
3 SITE FURNITURE UPGRADES
4 LIGHTING IMPROVEMENTS
5 LANDSCAPING
6 GREEN BRIDGE LIGHTING

PARKING COUNT		
LOCATION	EXISTING	PROPOSED
HANDICAP (ON-SITE)	2	4
HANDICAP (PARKING DECK)	2	4
ON-SITE	61	52
PARKING DECK	58	74
SUBTOTAL	123	134
TRAILER	11	20
TOTAL	134	154



3.1 PROPOSED IMPROVEMENTS

The proposed improvements have been divided into two categories, parkwide improvements and proposed specific project improvements. Refer to Figures 1 and 2.

3.1.1 Parkwide Improvements

3.1.1.1 Improved Pedestrian Walkway System



Existing Walkway

The park walkways consist of brick pavers and colored-stamped concrete sidewalks. Jones Edmunds understands these walkways were installed as part of a previous in-house City staff project conducted approximately 15 years ago. City staff considers the brick-pavers a safety hazard and points out that the stamped concrete sidewalks are cracked. The recommended plan is to upgrade and replace these walkways with a new paver system and bring more connectivity between the north and south ends of the park.

3.1.1.2 Seawall Renovation and Rail Safety

The entire western side of the park is bordered by a concrete seawall approximately 800 feet long. The seawall appears to be original from before 8th Avenue was realigned. The deteriorations of the wall include concrete spalls, cracks, and reinforcing steel corrosion. The concrete spalls cover approximately 80% of the vertical face of the wall above and below the water level. The cracks and reinforcing steel are exposed along the upper corner of the entire wall. Corrosion penetrations are observed on the reinforcing steel bars. The seawall has no railing to prevent accidental falls.



Existing Damaged Seawall

Jones Edmunds recommends renovating the seawall and installing a safety railing that would complement the ambiance of the waterfront district. Seawall renovation could include repairing the corroded steel and spalling concrete by constructing an integral corrosion-inhibitor patch or installing a new pre-cast concrete wall with tie anchors directly in front of the existing wall and grouting the gap between the new and existing wall with solid grout. In both cases, the spalled concrete should be removed up to 1 inch behind the steel bars, the corroded steel bars should be cleaned and coated with corrosion inhibitor, and new cast-in-placed concrete caps should be installed.

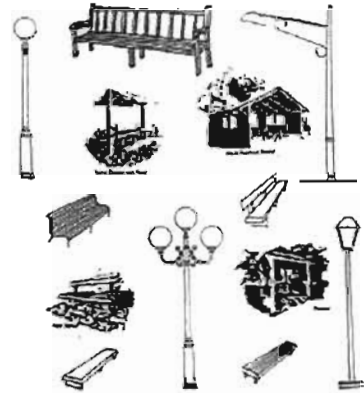
The advantages of repair patching are lower cost and shorter construction. Repair patching would require maintenance and may have a service life up to 15 years. A budget cost of patch repair is approximately \$35.00 per square foot of wall area.

The advantages of installing new walls are longer service life of up to 40 years and low maintenance. The budget cost is approximately \$80.00 per square foot of wall area.

The proposed railing would be a decorative-type and could be tied into recommended decorative lighting and fencing system upgrades (see below).

3.1.1.3 Site Furniture Upgrades

As part of specific project improvements, new picnic shelters and new site furniture are recommended. To maintain consistency, Jones Edmunds recommends new site furniture to upgrade and/or replace existing benches, trash cans, water fountains, picnic tables, and bike racks.



Examples of Furniture Upgrades

3.1.1.4 Lighting Improvements



There are several types of lighting fixtures in the park. The north end of the park has lantern-type decorative fixtures. The pier has a cobra-head style fixture. There are pole-mounted lights along Riverside Drive. There are also cobra-head light fixtures on 8th Avenue (FDOT right of way) which would not be part of the park improvements. According to Geoff Seger it is not possible to obtain replacement parts for the existing decorative fixtures. As part of the proposed improvements, Jones Edmunds recommends upgrading site lighting throughout the park with new matching decorative fixtures.

Cobra-Head Light Fixture

3.1.1.5 Landscaping

There are some landscaped beds and an irrigation system throughout the park. However, based primarily on the public's input, there is a desire for improved park landscaping. Many of the landscaping areas maintained by park staff get trampled by public use. The recommended landscaping focuses on dense areas of vegetation, possibly surrounded with decorative fences, similar to that proposed for the



Circular Park Bench

seawall railing. This would provide for ease of maintenance and prevent trampling of the landscaped areas. Circular park benches can be used to help protect new trees and landscaping. Specific improvements for landscaping are included in Section 3.1.2.

3.1.1.6 Green Bridge Lighting



Example of bridge lighting in Jacksonville

The former Green Bridge now used as a fishing pier is lit by cobra-head style fixtures. Based on the input of City staff, it is recommended that the fishing pier be showcased with decorative colorful lighting, similar to what the City of Jacksonville has installed on its numerous bridges.

3.1.2 Proposed Specific Improvements

3.1.2.1 Day-Use Dock

To encourage the use of the park by boaters, Jones Edmunds recommends two day-use docks be installed in the south half of the park. Floating docks are suggested. The north dock, referred to as Phase 1A, would tie into an existing step-down area of the seawall but also allow an accessible ramp. The south dock would mimic the themed step-down of the seawall. We recommend that seawall improvements discussed above be completed before construction of the new docks. The docks would enhance public use of the park by allowing boats to dock at the park. Currently, space is only available for two boats at the boat ramp, primarily for trailering of boats. The day-use docks would allow boaters to access the park via water and use picnic pavilions, restroom facilities, and concession stands. These docks could attract additional visitors to the park.



Proposed Location of Dock 1A

3.1.2.2 Convert Pavilion to Concession with Boat-Ramp Attendant

The location of the pavilion in the north half of the park with proximity to and visibility from 8th Avenue and Riverside Drive makes it a good candidate to be used as a concession stand. The approximately 1,100-square-foot pavilion (approximately 25 feet by 45 feet) already contains a men's and women's restroom. Utility services are available to convert a portion of the roofed area into a small concession area. This concession stand would be conveniently located between the parking lots and the entry to Riverside Park and close to the proposed day-use docks. The concession building



Riverside Park Pavilion

could also be used to house a boat-ramp attendant. One idea discussed at the workshop was to have a valet service for boat-trailers during high-use periods which would include summer weekends and holidays. The valet service would be provided by an outside vendor as-needed. Boat-trailers could be taken to a proposed future parking deck at the corner of Riverside and 10th Avenue or to existing available surface lots owned by the City of Palmetto to the north in the waterfront district. The attendant could also rent out paddle boats and kayaks.

3.1.2.3 Picnic Shelters



**Proposed Picnic Shelter
Location**

Based on site observations, covered areas are most frequently used within the park, regardless of season. Jones Edmunds recommends the City provide at least four picnic shelters adjacent to the concession stand since the existing covered shelter will be displaced when it is converted to a concession stand. We also recommend that covered picnic shelters be provided and clustered throughout the south half of the park close to the day-use docks.

3.1.2.4 Boardwalk

The lack of a park connection to the natural environment was brought up at the workshop. To address this, we recommend an 8-foot-wide boardwalk to connect the boat-trailer parking area to the passenger vehicle parking area, bypassing the new concession area. The boardwalk could be constructed on the water side of the mangroves.



Example Boardwalk

It would give visitors a new reference point for viewing the park, standing over the water looking either inland to a dense grouping of mangroves or out to the open water. The mangroves help shelter the area from seeing and hearing 8th Avenue traffic.



**Location of
Proposed Boardwalk**

3.1.2.5 Covered Pavilion/Stage

Since the pavilion would be displaced by the new concession stand, a larger pavilion area would still be necessary at the park to accommodate larger functions and parties. We recommend locating a new pavilion in the south half of the park which is a greener area than the existing pavilion area. This pavilion could be partially constructed over the water to give visitors the sense of openness. The pavilion could also be used, if elevated, as a stage



**Example of Pavilion
Over Water**



**Orient Pavilion to Celebrate
Western Sunsets**

for the proposed amphitheater. The pavilion/stage would be constructed with an aluminum standing-seam metal roof and marine-grade lumber since it will be partially over the open water. We suggest that the pavilion not have sidewalls to provide an open feel. To use the pavilion as a stage the western wall of the pavilion could have a roll-up curtain to provide focus on the stage and prevent the western sunset from impeding views of performances on stage. The pavilion would be oriented to the west of the amphitheater to celebrate western sunsets.

3.1.2.6 Public Restroom on the Pier

As noted earlier, there is a long distance between the ¼-mile-long pier and available public restrooms. The lack of public facilities at the pier has resulted in sanitation problems. To encourage use of public facilities, a small restroom is recommended on the pier. The restroom would be a pre-manufactured unit that could be delivered directly to the pier. Since the pier was originally designed for heavy traffic volume, the weight of the pre-manufactured structure is not expected to be an issue. The manufactured restroom could be set above the existing pier which would allow a small tank underneath to be used for waste storage and pumping. A small potable water-line could be run along the side rail of the bridge and connect to the restrooms. The restroom lift station would consist of a very small grinder pump and a small-diameter force main. The force main can be made of HDPE pipe, which is available in long rolls with few joints.



The Fishing Pier

Small-diameter HDPE pipe could also be run through another PVC conduit to prevent any accidental spillage. We recommend that this piping conduit also be strapped to the side rail of the old Green Bridge. Electrical power can be run to the restroom to provide lighting. Security is important for this facility since it will be remotely located. The roofing materials and color scheme could be coordinated with the other facility improvement projects within the park.

3.1.2.7 On-Site Parking Improvements

City staff requested that the existing passenger vehicle parking lot remain in its current configuration, with 60-degree parking spaces and a cul-de-sac at the south end for turning around. There are currently approximately 60 passenger vehicle spaces and 11 boat/trailer parking spaces. Tree islands are recommended to break up the hard surfaces.

Any displaced parking could be constructed near the new concession stand. Additional boat/trailer parking is recommended by reconfiguring the north end of the park adjacent to Riverside Drive as shown in Figure 1. We recommend that all asphalt roads and parking areas be overlaid to provide a new uniform look. Additionally, we recommend that six tree islands be installed to break up the hardness of the parking lot. Off-set spaces can be regained by adding additional spaces at the north end of the main lot, adjacent to the new concession building.



On-Site Parking

3.1.2.8 River Walk



Green Bridge

Manatee River Walk is an important recreational opportunity that connects the City of Palmetto with the City of Bradenton to the south. The City of Palmetto would like Riverside Park visitors to have the opportunity to safely cross to Riverside Park East and to other communities and areas of interest to the east, including Sanctuary Park. As previously discussed, a pedestrian bridge was proposed at one time to cross over 8th Avenue. However, due to funding limitations, that idea has not come to fruition. An

alternative to crossing 8th Avenue is to go underneath the bridges, as is done as part of Jacksonville's River Walk area and in the City of Palatka.

At the south end of the park there are actually two bridges, the old Green Bridge which is now used as a fishing pier, and the new Green Bridge which is US Business 41. The River Walk would extend underneath both bridges. The challenge is that both bridges, especially the former Green Bridge, have low clearance heights at 5 feet and 7 feet above water. Therefore, the proposed elevation of the walkway under the bridge would actually be below the Manatee River water line at some times of the year. Dredging of the river bottom would be required.



Clearance Under Bridge

To install a corridor below water level it is recommended to construct a cast-in-place reinforced concrete structure with 4- to 5-foot knee walls along the entire walk. The walking surface could be made with waterproof decking or composite decking constructed 4 to 8 inches above the corridor floor. A sump pump would be required to keep the area dry during heavy rainfalls. For

a 10-foot-wide corridor, the budget cost is approximately \$450.00 per linear foot including the decking.

Floating docks are not recommended since there is the risk of clearance problems when the water line is high.

A third alternative to crossing 8th Avenue is to cross at surface elevation at Riverside Drive. A traffic signal or signalized crosswalk could be installed. Based on the results of the traffic study a signalized intersection is not required at this location. However, a signalized crosswalk could be coordinated with FDOT and would be much less expensive than constructing a pedestrian bridge or a walkway under the two bridges.

Another consideration of a walkway under the bridges is security. Proper lighting would be required and security patrols of the walkways are desirable to help ensure the safety of visitors crossing under the bridges.



Example of Jacksonville Riverwalk under Bridge

3.1.2.9 Limited Access to 8th Avenue

As identified in the Traffic Study, Riverside Drive eastbound can be restricted to prevent left-turns onto 8th Avenue northbound as well as the through movement across 8th Avenue to Riverside Drive east. Additionally, the northbound left-turn lane at 8th Avenue and Riverside Drive can be lengthened by approximately 100 feet to allow for queuing and deceleration needs. These improvements will prohibit left turns on 8th Avenue, which is understood to be a congested area especially with boat-trailers and will lengthen the turn-lane to accommodate longer boat-trailers.



**Riverside Drive from
8th Avenue**

3.1.2.10 Paver-Reinforced Service Drive Sidewalk

A service drive exists between the cul-de-sac at the south end of the parking lot and the fishing pier. It is used to maintain the pier as well as allow deliveries to the bait shack. Although this operation needs to continue, the drive can be redesigned to provide a more attractive and decorative drive. The use of either concrete pavers or turf reinforced pavers would allow that access and provide a more decorative look. The recommended driveway would also be slightly realigned around the proposed amphitheater discussed next.



Example of Turf Paver

3.1.2.11 Amphitheater

An amphitheater is desirable for small public performances. The south end of the park is the logical place for an amphitheater due to available space. The slope of the grade in this area makes it a logical choice as 8th Avenue rises up to the Green Bridge and the grade slopes away down to Manatee River. The back of the amphitheater would consist of a concrete retaining wall which would also shelter the amphitheater visually and audibly from 8th Avenue traffic. The amphitheater would be oriented to the west of the amphitheater to celebrate western sunsets. The back wall of the amphitheater could be used for art display or a welcoming message.



**Example of Amphitheater at
Jacksonville Riverwalk**

3.1.2.12 Art Display Monument

As part of the construction of the retaining wall for the amphitheater, an art display monument could be created on the south end of the amphitheater. This area is highly visible from 8th Avenue, especially as motorists travel north from Bradenton across the Green Bridge. City staff indicates that an art display should be an important part of Riverside Park.



Example Art

3.1.2.13 Planted Buffer



The park is dominated by 8th Avenue, a four-lane divided highway. Several types of buffers were contemplated and the City desires a planted buffer. A buffer could contain large palm trees as well as smaller ground cover and bushes between the palms to provide a wall or fence between the road and the park.

Palmetto Tree

3.1.2.14 Renovated Bait Shack

The bait shack is an important element of the park. Although it is not an historical structure, it has been in the park for many years and we understand that it is important to the community. The recommended plan is to revitalize the bait shack, but only use it for bait sales. The bait shack has failed to function as a food concession stand, possibly due to the perception of mixing food and bait.



The Bait Shack

3.1.2.15 Sign and Access

Since the boat-ramp at the north end of the park is owned and maintained by the County, a park entry sign is recommended to designate separation between these two attractions. Park entry signage should be provided adjacent to the boat-trailer area to provide guests with the clear indication that they are entering Riverside Park and that it is a separate entity from the boat ramp.

3.1.2.16 Historic District Gateway



A Gateway is recommended to serve as a formal entry to the Historic District. At the workshop the possibility of using large palm trees was discussed. The gateway will provide pedestrians, as well as motorists on the Green Bridge, an inviting message that they are entering the City of Palmetto.

Palms Trees at Entrance to Fishing Pier

3.1.2.17 8th Avenue Turn-Lane Extension

As mentioned above, access to 8th Avenue from Riverside Drive can be limited to right-turns only to reduce congestion. A longer left turn-lane from 8th Avenue will prohibit left-turns from Riverside Drive and is recommended for deceleration and boat-trailer queuing purposes.

3.1.3 Summary of Improvements

The recommended improvements are intended to be constructed in a phased approach based on available funding. The list is also flexible and allows for reprioritizing based on future public input and City staff desires. It is also important to note that as improvements are made, consideration should be given to how other improvements will align with the overall master plan.

3.2 PERMITTING

3.2.1 SWFWMD Regulations

Under Part IV of Chapter 373, Florida Statutes and Chapters 40D-4.40, and 400, Florida Administrative Code (FAC), SWFWMD is responsible for permitting construction and operation of surface water management systems within its jurisdictional boundaries. The usual procedures and information used by the SWFWMD staff in permit application review are outlined in their document *Basis of Review (BOR) Environmental Resource Permit Applications with the Southwest Florida Water Management District – Management and Storage of Surface Waters*, see Appendix C for SWFWMD BOR – Chapter 5.

Concerning the roadway work, Jones Edmunds will coordinate with the SWFWMD to receive an exemption based on Rule 40D-4.051(12)(b) Minor Roadway Safety Projects, which allows an exemption for “turn lanes less than 0.25 mile in length and other intersection improvements.”

Additionally, Jones Edmunds attended a meeting with SWFWMD on July 1, 2008 to determine the permitting requirements for the stormwater vault project. During this meeting the improvements to Riverside Park improvements were discussed. It was determined that the

Riverside Park improvements do not qualify for compensatory stormwater treatment. SWFWMD clarified that compensatory stormwater treatment is permitted for roadway projects only.

3.2.2 City of Palmetto Regulations

Since the project is within the limits of the City, it is anticipated that approval by the City's Development Review Committee will be required. The Development Review Committee requires an approved SWFWMD permit before final site plan approval.

3.2.3 FDEP Permitting

Jones Edmunds can coordinate with FDEP's Southwest District Office an exemption from permitting for a small grinder lift station for the public restroom on the pier. According to Rule 62-604.600(2)(b), FAC, 'Construction of any single gravity or non-gravity individual service connection from a single building to a gravity collection system' does not require a collection system permit. Since the proposed public restroom on the pier is considered a non-gravity individual service connection, it therefore meets the exemption requirements of FDEP.

3.2.4 Florida Department of Transportation Permitting

Permitting through the FDOT is anticipated for the improvements to 8th Avenue and the Riverside Drive intersection. The permit will be required to work within FDOT's right-of-way. A Drainage Connection Permit will be required for any additional catch basins or inlets that may be required based on the scope of the improvements. An FDOT Right-of-Way Encroachment Permit may also be necessary.

4.0 COST ESTIMATE

Jones Edmunds developed cost opinions for the recommended improvements. Jones Edmunds' cost opinions can be found in Table 1. The total costs include estimates for permitting, design, and construction costs.

Table 1 Opinion of Probable Cost

Description	Option	Opinion of Probable Cost
Proposed Improvements		
Day Use Dock - 1A Phase 1	1A	\$97,000
Day Use Dock - 1B Phase 1	1B	\$97,000
Convert Pavilion to Concession With Boat Ramp Attendant	2	\$233,000
Picnic Shelters	3	\$100,000
Boardwalk (wood construction)	4	\$130,000
Covered Pavilion/Stage	5	\$424,000
Public Restroom (on pier)	6	\$123,000
Onsite Parking Improvements	7	\$92,000
Riverwalk	8	\$660,000
Limited Access to US41 (8th Avenue)	9	\$173,000
Turf Paver Reinforced Service Drive	10	\$82,000
Amphitheater	11	\$156,000
Art Display/Monument	12	\$21,000
Planted Buffer	13	\$167,000
Renovate Bait Shack	14	\$52,000
Park Entry Sign	15	\$15,000
Gateway	16	\$87,000
US-41 (8th Avenue) Turn Lane Extension	17	\$216,000
Parkwide Improvements		
Improved Pedestrian Walkway System	1	\$133,000
Seawall Renovation and Rail System	2	\$216,000
Site Furniture Upgrades	3	\$91,000
Lighting Improvements	4	\$130,000
Landscaping	5	\$89,000
Green Bridge Lighting	6	\$87,000

APPENDIX A

8TH AVENUE AT RIVERSIDE DRIVE TRAFFIC ANALYSIS

DRAFT

BUSINESS US-41 at RIVERSIDE DRIVE TRAFFIC ANALYSIS

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**July 23, 2007
279001-00.07**

BUSINESS US-41 at RIVERSIDE DRIVE TRAFFIC ANALYSIS

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Introduction

This report documents an analysis of the Business US-41 at Riverside Drive intersection, located in the city of Palmetto, Florida; as illustrated in Figure 1. The analysis was undertaken to identify potential improvements for the subject intersection that could be implemented concurrent with improving Riverside Park.

Study Area

The study area for this project consisted primarily of the Business US-41 at Riverside Drive intersection, in addition to the roadway network located west of Business US-41, bounded by 10th Avenue West, 5th Street West, and Riverside Drive. The study area is illustrated in Figure 1, and Figure 2 illustrates existing study area lane geometry and traffic control devices.

Analysis Horizon

The analysis horizon for this study reflected existing conditions with the addition of traffic anticipated to occur from two proposed redevelopment projects located on Riverside Drive.

Existing Traffic Volumes

Existing traffic volumes were identified through the collection of intersection turning movement counts and segment counts performed in April and May of 2007. The intersection turning movement counts, adjusted to reflect peak season conditions, are shown in Figure 3 and documented in Appendix A. The segment counts, which were

performed for a period of 7 consecutive days, were obtained to identify the periods of worst-case traffic conditions. Upon review of the segment counts, it was determined that typical AM and PM peak hours reflected worst-case conditions for the study intersection and the remainder of the study area. Appendix B documents the segment counts.

Baseline Traffic Volumes

As discussed above, the analysis horizon for this study reflected existing conditions with the addition of traffic anticipated to occur from two proposed redevelopment projects located on Riverside Drive; Regatta Place and a proposed mixed-use development at the northeast corner of Riverside Drive at 10th Avenue. Appendix C documents the traffic volumes estimated for each of these developments. It is noted that historical traffic volumes on Business US-41 over the prior 5 years indicated negative growth; as documented in Appendix D. Therefore, no further adjustments were made to forecast the baseline traffic volumes used in this analysis; as illustrated in Figure 4.

Baseline Analysis

Intersection capacity analyses were performed for study area intersections for AM and PM peak hour baseline conditions. The analysis of signalized intersections was undertaken using the Synchro software program using the percentile delay methodology. This methodology provides a means for effectively evaluating actuated signal parameters. The analysis of unsignalized intersections was undertaken using the Synchro software program using the methodology of the 2000 Highway Capacity

Manual. Table 1 summarizes the results of the baseline conditions analysis. Appendix E contains worksheets documenting the baseline conditions analysis.

As shown in Table 1, all study area intersections are anticipated to operate adequately under peak hour baseline conditions; except for the Business US-41 at Riverside Drive intersection and the Business US-41 at 4th Street intersection. The minor-street movements at these intersections are anticipated to experience operational difficulties under peak hour baseline conditions.

Improvement Scenario

In consideration of the results of the baseline analysis, the following improvements were analyzed:

- Restrict the Business US-41 at Riverside Drive intersection to prevent minor-street left-turns and minor-street through movements.

- Restrict the Business US-41 at 4th Street intersection to prevent minor-street left-turns and minor-street through movements.

Traffic volumes were reassigned in consideration of the above improvements as illustrated in Figure 5, and documented in Appendix F. The reassignment of traffic volumes assumed that the traffic associated with the restricted movements would be displaced to the signalized intersection of Business US-41 at 5th Street. Table 2

summarizes the results of the improvement scenario analysis. Appendix G contains worksheets documenting the improvement scenario analysis.

As shown in Table 2, all study area intersections are anticipated to operate adequately under peak hour conditions in the improvement scenario; including the Business US-41 at Riverside Drive intersection. It is noted that the northbound left-turn movement at the Business US-41 at Riverside Drive intersection is anticipated to operate at LOS F during AM peak hour conditions; however, this movement was identified to operate under capacity, indicating acceptable operations given the relatively low demand volumes during this period.

Auxiliary Lanes

The existing northbound and southbound left-turn lanes on Business US-41 at Riverside Drive were analyzed to determine if they can adequately accommodate anticipated traffic volumes. Queue storage was estimated based on the results of the intersection analysis and deceleration distance was identified assuming a design speed of 35 mph (posted speed + 5 mph) in consideration of 2006 FDOT Design Standards, Index #301. The turn lane analysis, as documented in Appendix H, identified that the existing southbound left-turn lane at the Business US-41 at Riverside Drive intersection is of adequate length to accommodate anticipated queue storage and deceleration needs. The analysis also identified that the existing northbound left-turn lane at the Business US-41 at Riverside Drive intersection is only long enough to accommodate anticipated

queue storage. In order to also accommodate deceleration needs, the lane would need to be extended by approximately 100 feet.

Conclusion

The results of the analysis documented herein indicate that the Business US-41 at Riverside Drive intersection is anticipated to experience operational difficulties under baseline conditions. Specifically, minor-street left-turn and through movements are anticipated to operate over capacity and experience relatively high delays. This finding is also applicable to the Business US-41 at 4th Street intersection. To resolve these deficiencies, the subject intersections can be restricted to prevent minor-street left-turns and minor-street through movements; requiring the restricted traffic volumes to access Business US-41 via the traffic signal located at 5th Street. Upon implementing these improvements, the subject intersections are anticipated to operate adequately under peak hour conditions. Additionally, the signalized intersection of Business US-41 at 5th Street is anticipated to continue to operate adequately.

In addition, the existing northbound left-turn lane at the Business US-41 at Riverside Drive intersection was identified to only be long enough to accommodate anticipated queue storage. In order to also accommodate deceleration needs, the lane would need to be extended by approximately 100 feet.

Table 1. Summary of Baseline Conditions Analysis

Intersection	Time Period	Measure	Movement												Overall
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
10th Avenue at 5th Street	AM Peak Hour	V/C	Note 1	0.26	Note 1	Note 1	0.10	Note 1	Note 1	0.14	Note 1	Note 1	0.16	Note 1	n/a
		Delay [sec]	Note 1	9.2	Note 1	Note 1	8.2	Note 1	Note 1	8.3	Note 1	Note 1	8.6	Note 1	8.7
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
	PM Peak Hour	V/C	Note 1	0.08	Note 1	Note 1	0.17	Note 1	Note 1	0.34	Note 1	Note 1	0.15	Note 1	n/a
		Delay [sec]	Note 1	8.4	Note 1	Note 1	8.8	Note 1	Note 1	9.8	Note 1	Note 1	8.5	Note 1	9.2
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
10th Avenue at 4th Street	AM Peak Hour	V/C	Note 1	0.27	Note 1	Note 1	0.08	Note 1	Note 1	0.13	Note 1	Note 1	0.10	Note 1	n/a
		Delay [sec]	Note 1	9.0	Note 1	Note 1	7.9	Note 1	Note 1	8.6	Note 1	Note 1	8.3	Note 1	8.6
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
	PM Peak Hour	V/C	Note 1	0.23	Note 1	Note 1	0.34	Note 1	Note 1	0.41	Note 1	Note 1	0.18	Note 1	n/a
		Delay [sec]	Note 1	10.0	Note 1	Note 1	10.8	Note 1	Note 1	11.8	Note 1	Note 1	9.6	Note 1	10.8
		LOS	Note 1	B	Note 1	Note 1	B	Note 1	Note 1	B	Note 1	Note 1	A	Note 1	B
10th Avenue at Riverside Dr	AM Peak Hour	V/C	Note 1	0.04	Note 1	Note 1	0.10	Note 1	Note 1	0.01	Note 1	Note 1	0.13	Note 1	n/a
		Delay [sec]	Note 1	7.5	Note 1	Note 1	7.3	Note 1	Note 1	7.2	Note 1	Note 1	8.0	Note 1	7.6
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
	PM Peak Hour	V/C	Note 1	0.03	Note 1	Note 1	0.33	Note 1	Note 1	0.04	Note 1	Note 1	0.14	Note 1	n/a
		Delay [sec]	Note 1	7.7	Note 1	Note 1	8.8	Note 1	Note 1	7.8	Note 1	Note 1	8.6	Note 1	8.6
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
Bus-41 at 5th Street	AM Peak Hour	V/C	0.28	0.54	n/a	n/a	0.79	n/a	n/a	0.65	n/a	n/a	0.97	n/a	n/a
		Delay [sec]	45.3	18.4	n/a	n/a	76.5	n/a	n/a	10.7	n/a	n/a	44.1	n/a	33.1
		LOS	D	B	n/a	n/a	E	n/a	n/a	B	n/a	n/a	D	n/a	C
	PM Peak Hour	V/C	0.29	0.27	n/a	n/a	0.78	n/a	n/a	0.94	n/a	n/a	0.71	n/a	n/a
		Delay [sec]	47.4	14.8	n/a	n/a	68.7	n/a	n/a	25.0	n/a	n/a	26.4	n/a	28.1
		LOS	D	B	n/a	n/a	E	n/a	n/a	C	n/a	n/a	C	n/a	C
Bus-41 at 4th Street	AM Peak Hour	V/C	Note 1	0.37	Note 1	Note 1	2.34	Note 1	0.45	Note 2	Note 2	0.00	Note 2	Note 2	n/a
		Delay [sec]	Note 1	15.9	Note 1	Note 1	5800	Note 1	32.9	Note 2	Note 2	0.1	Note 2	Note 2	n/a
		LOS	Note 1	C	Note 1	Note 1	F	Note 1	D	Note 2	Note 2	A	Note 2	Note 2	n/a
	PM Peak Hour	V/C	Note 1	1.60	Note 1	Note 1	0.01	Note 1	0.41	Note 2	Note 2	0.01	Note 2	Note 2	n/a
		Delay [sec]	Note 1	434.5	Note 1	Note 1	18.3	Note 1	15.7	Note 2	Note 2	0.1	Note 2	Note 2	n/a
		LOS	Note 1	F	Note 1	Note 1	C	Note 1	C	Note 2	Note 2	A	Note 2	Note 2	n/a
Bus-41 at Riverside Dr	AM Peak Hour	V/C	Note 1	2.10	0.37	Note 1	0.18	Note 1	0.90	Note 2	Note 2	0.00	Note 2	Note 2	n/a
		Delay [sec]	Note 1	1067	17.8	Note 1	353.8	Note 1	120.8	Note 2	Note 2	10.8	Note 2	Note 2	n/a
		LOS	Note 1	F	C	Note 1	F	Note 1	F	Note 2	Note 2	B	Note 2	Note 2	n/a
	PM Peak Hour	V/C	Note 1	1.39	0.33	Note 1	3.26	Note 1	0.58	Note 2	Note 2	0.02	Note 2	Note 2	n/a
		Delay [sec]	Note 1	500	14.6	Note 1	Err	Note 1	23.5	Note 2	Note 2	19.0	Note 2	Note 2	n/a
		LOS	Note 1	F	B	Note 1	F	Note 1	C	Note 2	Note 2	C	Note 2	Note 2	n/a

Note 1: Movement occurs from a shared lane

Note 2: Unopposed movement

Table 2. Summary of Improvement Scenario Analysis

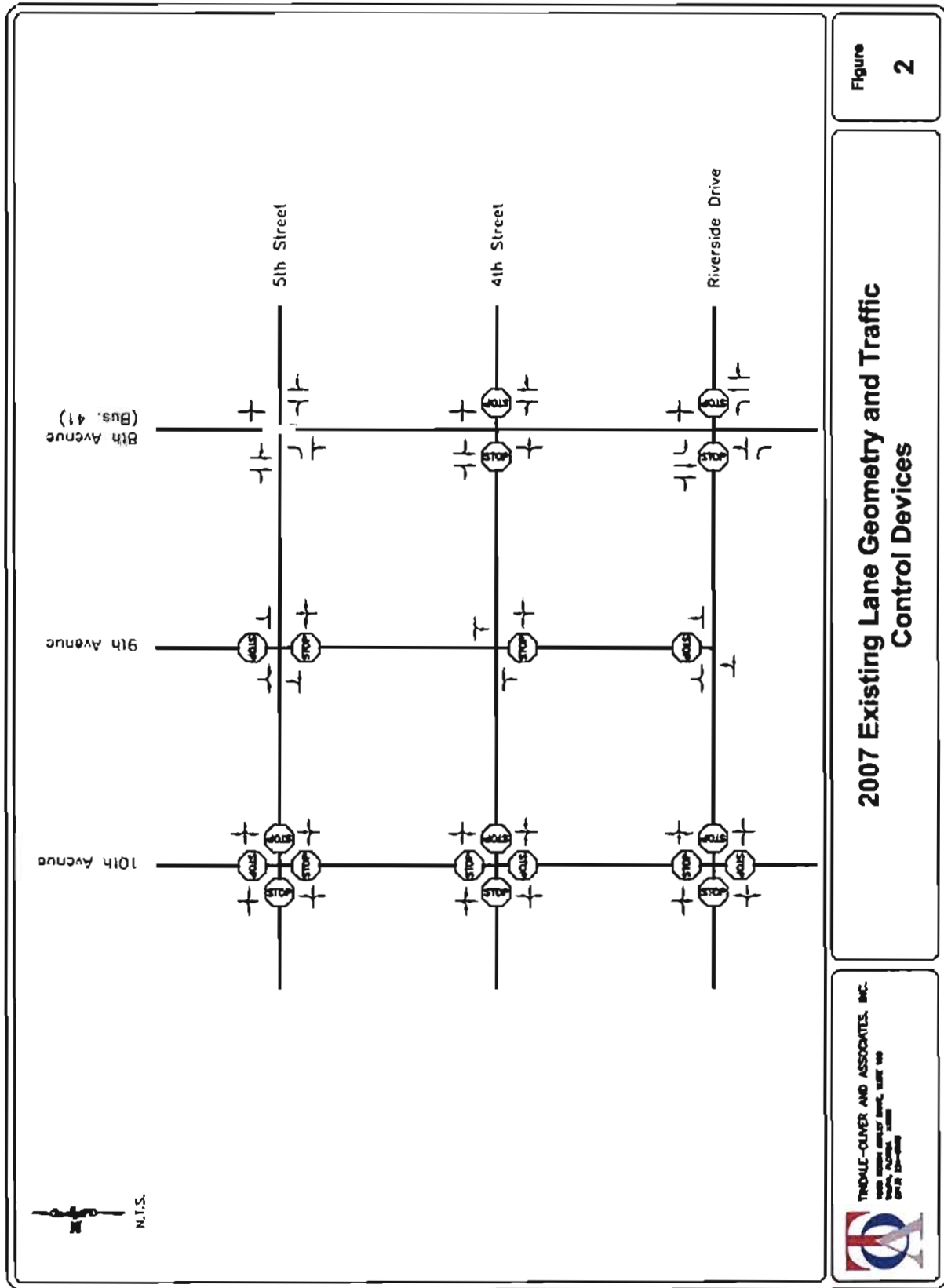
Intersection	Time Period	Measure	Movement												Overall
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
10th Avenue at 5th Street	AM Peak Hour	V/C	Note 1	0.26	Note 1	Note 1	0.11	Note 1	Note 1	0.17	Note 1	Note 1	0.17	Note 1	n/a
		Delay (sec)	Note 1	9.3	Note 1	Note 1	8.3	Note 1	Note 1	8.4	Note 1	Note 1	8.7	Note 1	8.8
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
	PM Peak Hour	V/C	Note 1	0.08	Note 1	Note 1	0.17	Note 1	Note 1	0.40	Note 1	Note 1	0.15	Note 1	n/a
		Delay (sec)	Note 1	8.6	Note 1	Note 1	9.0	Note 1	Note 1	10.3	Note 1	Note 1	8.6	Note 1	9.5
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	B	Note 1	Note 1	A	Note 1	A
10th Avenue at 4th Street	AM Peak Hour	V/C	Note 1	0.28	Note 1	Note 1	0.08	Note 1	Note 1	0.17	Note 1	Note 1	0.11	Note 1	n/a
		Delay (sec)	Note 1	9.1	Note 1	Note 1	8.0	Note 1	Note 1	8.8	Note 1	Note 1	8.4	Note 1	8.8
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
	PM Peak Hour	V/C	Note 1	0.24	Note 1	Note 1	0.35	Note 1	Note 1	0.48	Note 1	Note 1	0.19	Note 1	n/a
		Delay (sec)	Note 1	10.3	Note 1	Note 1	11.1	Note 1	Note 1	13.1	Note 1	Note 1	9.8	Note 1	11.5
		LOS	Note 1	B	Note 1	Note 1	B	Note 1	Note 1	B	Note 1	Note 1	A	Note 1	B
10th Avenue at Riverside Dr	AM Peak Hour	V/C	Note 1	0.04	Note 1	Note 1	0.12	Note 1	Note 1	0.01	Note 1	Note 1	0.13	Note 1	n/a
		Delay (sec)	Note 1	7.5	Note 1	Note 1	7.3	Note 1	Note 1	7.2	Note 1	Note 1	8.1	Note 1	7.7
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
	PM Peak Hour	V/C	Note 1	0.03	Note 1	Note 1	0.34	Note 1	Note 1	0.04	Note 1	Note 1	0.14	Note 1	n/a
		Delay (sec)	Note 1	7.8	Note 1	Note 1	8.9	Note 1	Note 1	7.8	Note 1	Note 1	8.6	Note 1	8.7
		LOS	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	Note 1	A	Note 1	A
Bus-41 at 5th Street	AM Peak Hour	V/C	0.40	0.54	n/a	n/a	0.79	n/a	n/a	0.64	n/a	n/a	0.97	n/a	n/a
		Delay (sec)	48.3	18.2	n/a	n/a	76.3	n/a	n/a	10.7	n/a	n/a	43.9	n/a	33.4
		LOS	D	B	n/a	n/a	E	n/a	n/a	B	n/a	n/a	D	n/a	C
	PM Peak Hour	V/C	0.51	0.27	n/a	n/a	0.78	n/a	n/a	0.92	n/a	n/a	0.71	n/a	n/a
		Delay (sec)	55.7	15.2	n/a	n/a	68.6	n/a	n/a	22.8	n/a	n/a	26.4	n/a	27.5
		LOS	E	B	n/a	n/a	E	n/a	n/a	C	n/a	n/a	C	n/a	C
Bus-41 at 4th Street	AM Peak Hour	V/C	n/a	n/a	0.37	n/a	n/a	0.00	0.45	Note 2	Note 2	0.00	Note 2	Note 2	n/a
		Delay (sec)	n/a	n/a	16.2	n/a	n/a	12.4	32.8	Note 2	Note 2	0.1	Note 2	Note 2	n/a
		LOS	n/a	n/a	C	n/a	n/a	B	D	Note 2	Note 2	A	Note 2	Note 2	n/a
	PM Peak Hour	V/C	n/a	n/a	0.17	n/a	n/a	0.01	0.41	Note 2	Note 2	0.01	Note 2	Note 2	n/a
		Delay (sec)	n/a	n/a	12.1	n/a	n/a	17.9	15.4	Note 2	Note 2	0.2	Note 2	Note 2	n/a
		LOS	n/a	n/a	B	n/a	n/a	C	C	Note 2	Note 2	A	Note 2	Note 2	n/a
Bus-41 at Riverside Dr	AM Peak Hour	V/C	n/a	n/a	0.38	n/a	n/a	0.18	0.90	Note 2	Note 2	0.00	Note 2	Note 2	n/a
		Delay (sec)	n/a	n/a	18.1	n/a	n/a	0.0	120.5	Note 2	Note 2	10.8	Note 2	Note 2	n/a
		LOS	n/a	n/a	C	n/a	n/a	A	F	Note 2	Note 2	B	Note 2	Note 2	n/a
	PM Peak Hour	V/C	n/a	n/a	0.33	n/a	n/a	0.00	0.58	Note 2	Note 2	0.02	Note 2	Note 2	n/a
		Delay (sec)	n/a	n/a	14.6	n/a	n/a	21.1	23.5	Note 2	Note 2	19.0	Note 2	Note 2	n/a
		LOS	n/a	n/a	B	n/a	n/a	C	C	Note 2	Note 2	C	Note 2	Note 2	n/a

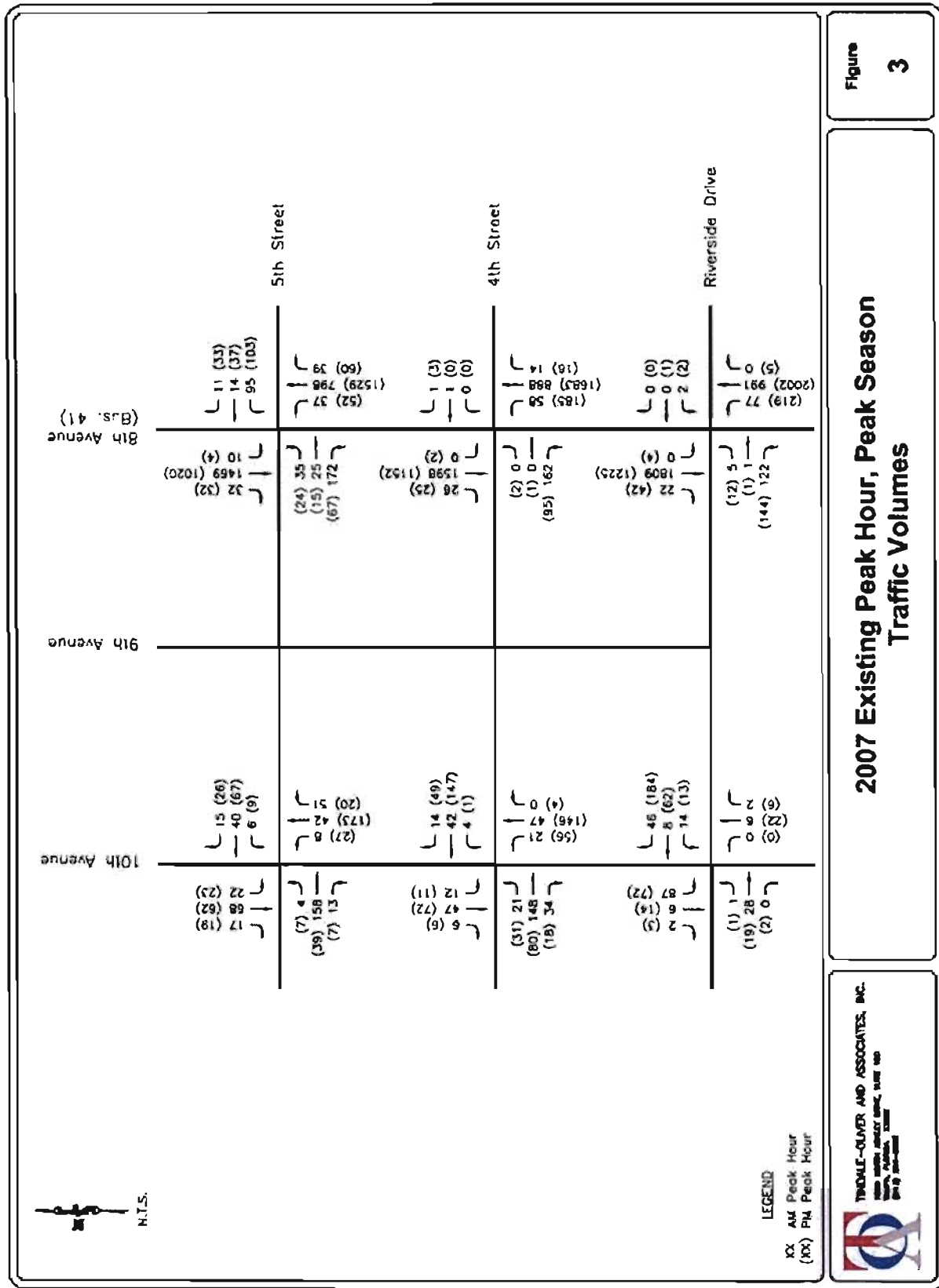
Note 1: Movement occurs from a shared lane

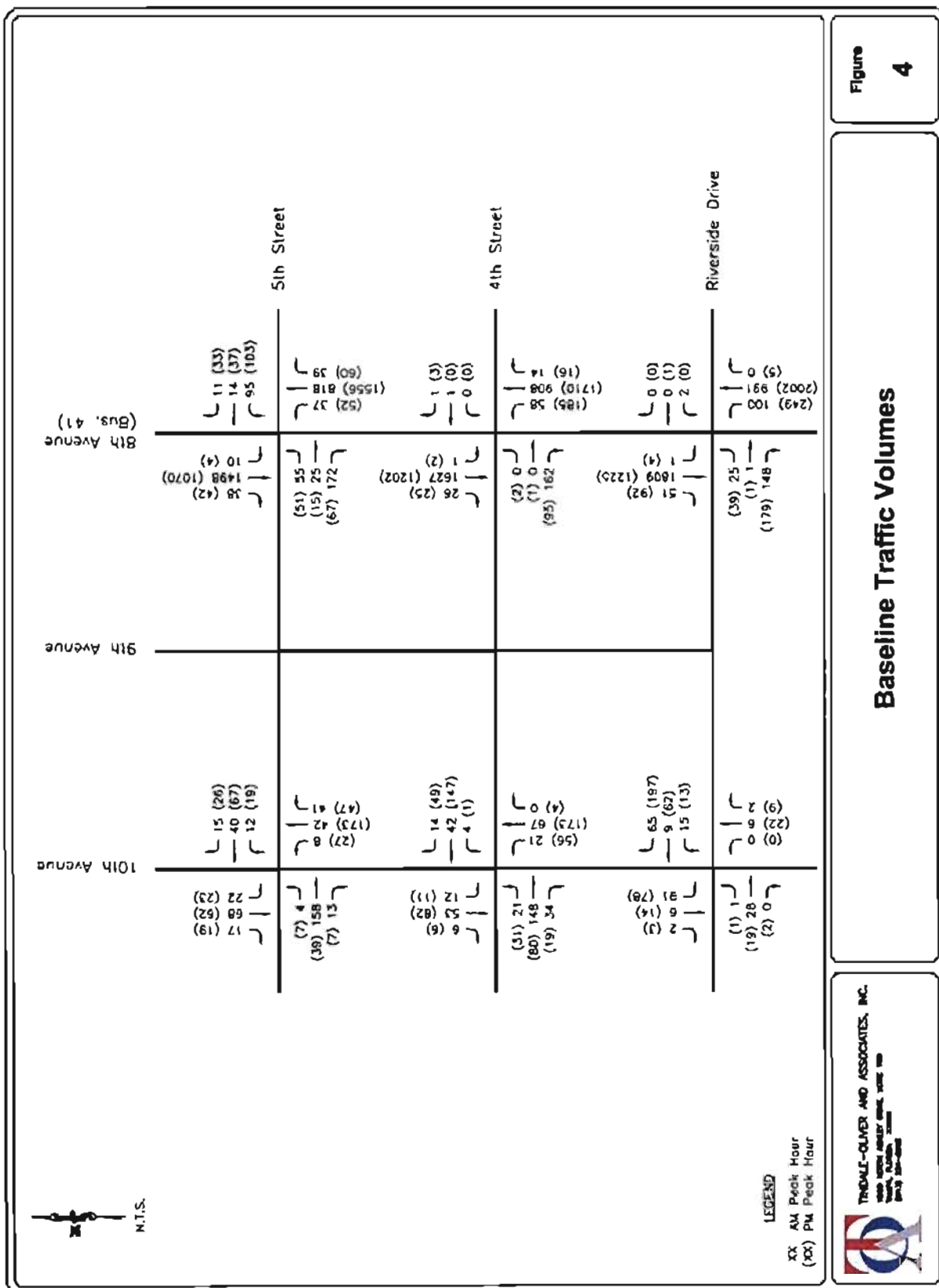
Note 2: Unopposed movement

Figure 1. Study Location









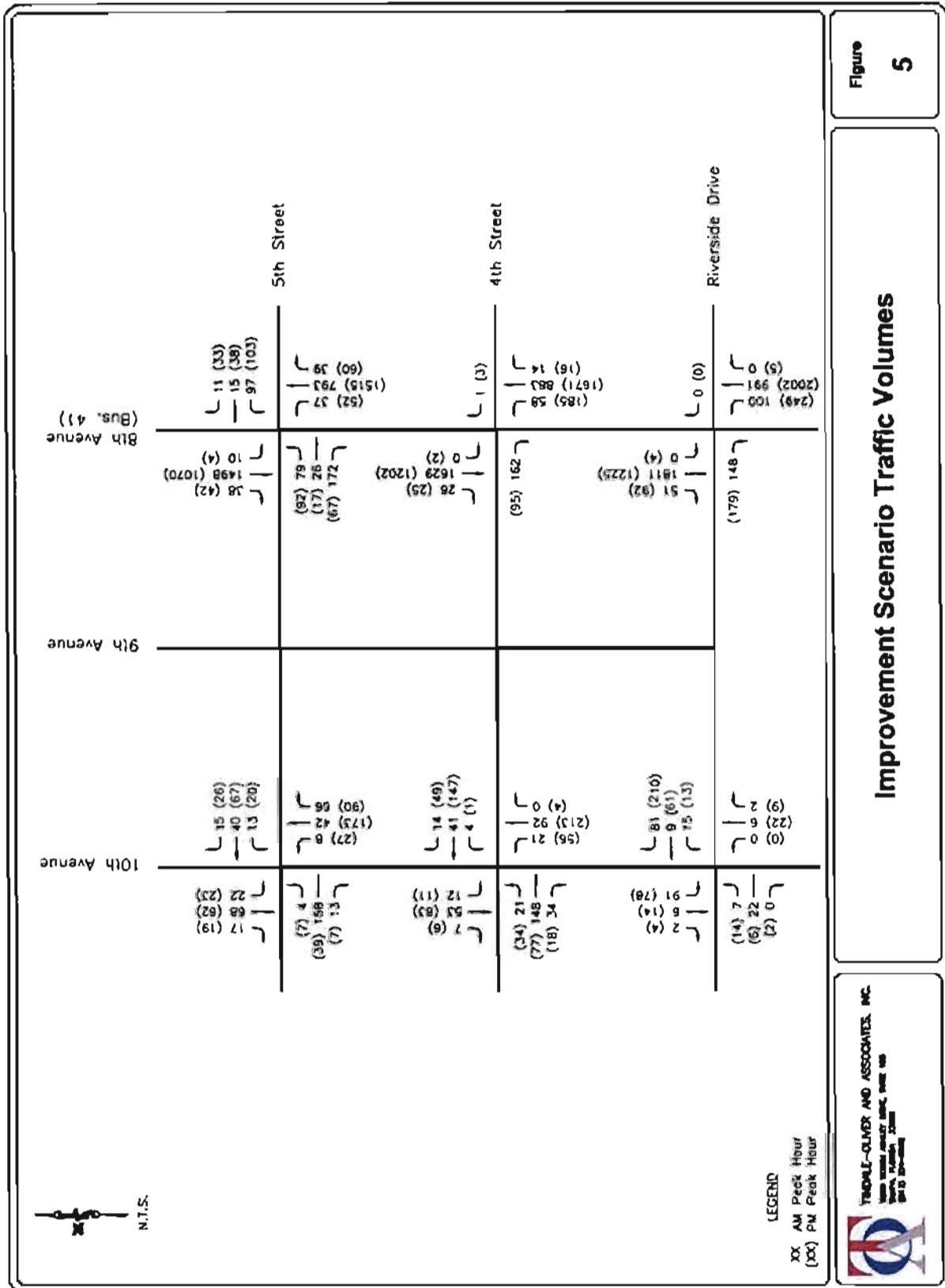


Figure 5

Appendix A

Intersection Counts

Intersection: 10th Avenue at 5th Street (Total)

Date: May 3, 2007

Source: Tindale-Oliver and Associates, Inc. (JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	1	6	0	3	10	2	1	20	1	2	5	1	52
7:15 - 7:30	3	4	2	5	15	6	1	36	5	2	5	1	85
7:30 - 7:45	1	10	5	10	20	4	1	48	5	0	8	4	116
7:45 - 8:00	3	13	6	3	14	4	2	36	2	1	11	5	100
8:00 - 8:15	1	13	7	3	16	2	0	30	0	3	14	4	93
8:15 - 8:30	0	13	5	6	13	4	6	18	1	4	10	4	84
8:30 - 8:45	3	15	1	7	10	5	2	20	2	2	9	0	76
8:45 - 9:00	0	5	5	1	15	2	2	13	3	4	12	3	65
AM PEAK HOUR 7:15 - 8:15	8	40	20	21	65	16	4	150	12	6	38	14	394
PEAK HOUR FACTOR	-	-	-	-	-	-	-	-	-	-	-	-	0.85

Peak Season Adjustment Factor: 1.05

AM PEAK HOUR PEAK SEASON	8	42	21	22	68	17	4	158	13	6	40	15	414
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	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	2	29	5	8	15	3	1	10	0	1	19	6	99
4:15 - 4:30	4	22	1	5	16	4	2	10	2	4	14	6	90
4:30 - 4:45	5	37	6	5	12	5	1	11	2	3	17	5	109
4:45 - 5:00	3	31	4	5	13	4	2	12	2	4	20	5	105
5:00 - 5:15	13	45	3	6	18	3	1	8	3	2	13	13	128
5:15 - 5:30	5	52	6	6	16	6	3	6	0	0	14	2	116
5:30 - 5:45	6	42	3	2	10	0	2	6	2	1	8	4	86
5:45 - 6:00	1	14	7	4	14	0	2	6	2	1	15	4	70
PM PEAK HOUR 4:30 - 5:30	26	165	19	22	59	18	7	37	7	9	64	25	458
PEAK HOUR FACTOR	-	-	-	-	-	-	-	-	-	-	-	-	0.69

Peak Season Adjustment Factor: 1.05

PM PEAK HOUR PEAK SEASON	27	173	20	23	62	19	7	39	7	9	67	26	479
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Intersection: 10th Avenue at 5th Street (Cars)

Date: May 3, 2007

Source: Tindale-Oliver and Associates, Inc. (JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	1	6	0	3	10	2	1	19	1	2	5	1	51
7:15 - 7:30	3	4	2	5	15	6	1	36	5	2	5	1	85
7:30 - 7:45	1	10	4	10	20	4	1	48	5	0	8	4	115
7:45 - 8:00	3	13	6	3	14	4	2	36	2	1	11	5	100
8:00 - 8:15	1	13	7	3	15	2	0	29	0	3	14	4	91
8:15 - 8:30	0	13	5	6	13	4	6	18	1	4	10	4	84
8:30 - 8:45	3	15	1	7	10	4	2	20	2	2	9	0	75
8:45 - 9:00	0	5	5	1	15	2	1	13	3	4	12	3	64
AM PEAK HOUR 7:15 - 8:15	8	40	19	21	64	16	4	149	12	6	38	14	391

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	2	27	5	8	14	3	1	10	0	1	19	6	96
4:15 - 4:30	4	22	1	5	16	4	2	10	2	4	14	5	89
4:30 - 4:45	5	37	6	5	12	5	1	11	2	3	17	5	109
4:45 - 5:00	3	31	4	5	13	4	2	12	2	4	20	5	105
5:00 - 5:15	13	45	3	6	18	3	1	8	3	2	13	13	128
5:15 - 5:30	5	52	6	6	16	6	3	6	0	0	14	2	116
5:30 - 5:45	6	42	3	2	10	0	2	6	2	1	8	4	86
5:45 - 6:00	1	14	7	4	14	0	2	6	2	1	15	4	70
PM PEAK HOUR 4:30 - 5:30	26	165	19	22	59	18	7	37	7	9	64	25	458

Intersection: 10th Avenue at 5th Street (Trucks)

Date: May 3, 2007

Source: Tindale-Oliver and Associates, Inc. (JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 - 7:45	0	0	1	0	0	0	0	0	0	0	0	0	1
7:45 - 8:00	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	1	0	0	1	0	0	0	0	2
8:15 - 8:30	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 - 9:00	0	0	0	0	0	0	1	0	0	0	0	0	1
AM PEAK HOUR 7:15 - 8:15	0	0	1	0	1	0	0	1	0	0	0	0	3

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	2	0	0	1	0	0	0	0	0	0	0	3
4:15 - 4:30	0	0	0	0	0	0	0	0	0	0	0	1	1
4:30 - 4:45	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 - 5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 - 5:15	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 - 5:30	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 - 5:45	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 - 6:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PEAK HOUR 4:30 - 5:30	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 10th Avenue at 4th Street (Total)

Date: May 9, 2007

Source: Tindale-Oliver and Associates, Inc. (BR)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	2	7	1	1	15	2	1	27	7	0	4	1	68
7:15 - 7:30	1	5	2	1	14	0	3	37	6	0	2	4	75
7:30 - 7:45	2	7	0	6	14	3	3	41	13	0	11	2	102
7:45 - 8:00	3	13	0	3	9	1	5	38	11	0	10	4	97
8:00 - 8:15	8	13	0	1	12	2	8	27	2	3	11	4	91
8:15 - 8:30	7	11	0	1	9	0	4	32	6	1	7	3	81
8:30 - 8:45	0	17	1	3	5	1	5	23	5	2	4	6	72
8:45 - 9:00	5	12	1	2	10	3	3	20	5	0	5	4	70
AM PEAK HOUR 7:30 - 8:30	20	44	0	11	44	6	20	138	32	4	39	13	371
PEAK HOUR FACTOR	--	--	--	--	--	--	--	--	--	--	--	--	0.91

Peak Season Adjustment Factor: 1.07

AM PEAK HOUR PEAK SEASON	21	47	0	12	47	6	21	148	34	4	42	14	396
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	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	9	27	0	3	16	2	10	10	7	1	16	17	118
4:15 - 4:30	6	26	0	2	9	4	2	14	2	0	16	8	89
4:30 - 4:45	8	34	0	4	6	1	7	11	4	1	25	12	113
4:45 - 5:00	13	24	2	2	16	0	9	24	2	0	30	8	130
5:00 - 5:15	11	50	1	2	14	4	8	22	5	1	43	14	175
5:15 - 5:30	17	40	1	5	18	2	5	12	5	0	33	13	151
5:30 - 5:45	11	22	0	1	19	0	7	17	5	0	31	11	124
5:45 - 6:00	5	32	0	2	15	5	0	14	7	2	14	11	107
PM PEAK HOUR 4:45 - 5:45	52	136	4	10	67	6	29	75	17	1	137	46	580
PEAK HOUR FACTOR	--	--	--	--	--	--	--	--	--	--	--	--	0.83

Peak Season Adjustment Factor: 1.07

PM PEAK HOUR PEAK SEASON	56	146	4	11	72	6	31	80	18	1	147	49	621
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Intersection: 10th Avenue at 4th Street (Cars)

Date: May 9, 2007

Source: Tindale-Oliver and Associates, Inc. (BR)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	2	6	1	1	13	2	1	26	6	0	4	1	63
7:15 - 7:30	1	5	1	1	12	0	3	37	6	0	2	3	71
7:30 - 7:45	2	6	0	6	13	3	3	41	13	0	11	2	100
7:45 - 8:00	2	13	0	3	8	1	5	38	10	0	10	4	94
8:00 - 8:15	8	12	0	1	12	1	7	27	2	3	10	4	87
8:15 - 8:30	7	9	0	1	9	0	4	31	6	1	7	3	78
8:30 - 8:45	0	17	1	3	5	1	5	23	5	2	4	6	72
8:45 - 9:00	5	11	1	2	10	3	3	20	5	0	5	4	69
AM PEAK HOUR 7:30 - 8:30	19	40	0	11	42	5	19	137	31	4	38	13	359

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	9	27	0	3	15	2	9	9	7	1	16	17	115
4:15 - 4:30	6	26	0	2	9	4	2	13	2	0	16	8	88
4:30 - 4:45	7	34	0	4	6	1	7	11	4	1	25	10	110
4:45 - 5:00	13	24	2	2	16	0	9	24	2	0	30	8	130
5:00 - 5:15	11	49	1	2	14	4	8	22	5	1	43	14	174
5:15 - 5:30	17	40	0	5	17	2	5	12	5	0	33	13	149
5:30 - 5:45	11	21	0	1	19	0	7	17	5	0	31	11	123
5:45 - 6:00	5	32	0	2	15	5	0	14	7	2	14	11	107
PM PEAK HOUR 4:45 - 5:45	52	134	3	10	66	6	29	75	17	1	137	46	576

Intersection: 10th Avenue at 4th Street (Trucks)

Date: May 9, 2007

Source: Tindale-Oliver and Associates, Inc. (BR)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	1	0	0	2	0	0	1	1	0	0	0	5
7:15 - 7:30	0	0	1	0	2	0	0	0	0	0	0	1	4
7:30 - 7:45	0	1	0	0	1	0	0	0	0	0	0	0	2
7:45 - 8:00	1	0	0	0	1	0	0	0	1	0	0	0	3
8:00 - 8:15	0	1	0	0	0	1	1	0	0	0	1	0	4
8:15 - 8:30	0	2	0	0	0	0	0	1	0	0	0	0	3
8:30 - 8:45	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 - 9:00	0	1	0	0	0	0	0	0	0	0	0	0	1
AM PEAK HOUR 7:30 - 8:30	1	4	0	0	2	1	1	1	1	0	1	0	12

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	0	0	0	1	0	1	1	0	0	0	0	3
4:15 - 4:30	0	0	0	0	0	0	0	1	0	0	0	0	1
4:30 - 4:45	1	0	0	0	0	0	0	0	0	0	0	2	3
4:45 - 5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 - 5:15	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 - 5:30	0	0	1	0	1	0	0	0	0	0	0	0	2
5:30 - 5:45	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 - 6:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PEAK HOUR 4:45 - 5:45	0	2	1	0	1	0	0	0	0	0	0	0	4

Intersection: 10th Avenue at Riverside Drive (Total)

Date: May 10, 2007

Source: Tindale-Oliver and Associates, Inc. (JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	1	4	11	1	0	1	3	0	3	4	9	37
7:15 - 7:30	0	1	2	26	2	0	0	3	0	2	1	6	43
7:30 - 7:45	0	0	1	25	2	1	0	5	0	6	0	12	52
7:45 - 8:00	0	1	0	25	3	0	0	9	0	3	2	9	52
8:00 - 8:15	0	1	1	14	1	0	1	8	0	4	1	13	44
8:15 - 8:30	0	4	0	17	0	1	0	4	0	1	5	12	44
8:30 - 8:45	0	0	2	23	1	0	1	4	0	1	3	16	51
8:45 - 9:00	0	2	0	14	1	0	1	5	0	5	4	10	42
AM PEAK HOUR 7:30 - 8:30	0	6	2	81	6	2	1	26	0	14	8	46	192
PEAK HOUR FACTOR	-	-	-	-	-	-	-	-	-	-	-	-	0.92

Peak Season Adjustment Factor: 1.07

AM PEAK HOUR PEAK SEASON	0	6	2	87	6	2	1	28	0	15	9	49	205
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	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	4	3	19	4	1	1	2	0	3	6	21	64
4:15 - 4:30	0	2	0	10	1	0	1	4	0	5	13	33	69
4:30 - 4:45	0	4	2	10	3	1	1	2	0	4	20	26	73
4:45 - 5:00	0	8	2	17	2	0	0	2	0	5	17	39	92
5:00 - 5:15	0	6	2	23	1	1	1	6	1	2	14	47	104
5:15 - 5:30	0	3	2	19	6	1	0	1	1	4	15	46	98
5:30 - 5:45	0	4	2	8	4	1	0	9	0	1	12	40	81
5:45 - 6:00	0	2	2	12	3	0	0	4	0	3	14	37	77
PM PEAK HOUR 4:45 - 5:45	0	21	8	67	13	3	1	18	2	12	58	172	375
PEAK HOUR FACTOR	-	-	-	-	-	-	-	-	-	-	-	-	0.90

Peak Season Adjustment Factor: 1.07

PM PEAK HOUR PEAK SEASON	0	22	9	72	14	3	1	19	2	13	62	184	401
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Intersection: 10th Avenue at Riverside Drive (Cars)

Date: May 10, 2007

Source: Tindale-Oliver and Associates, Inc. (JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	0	4	11	1	0	1	3	0	3	4	9	36
7:15 - 7:30	0	1	2	25	2	0	0	3	0	2	1	6	42
7:30 - 7:45	0	0	1	25	2	1	0	5	0	5	0	12	51
7:45 - 8:00	0	1	0	24	3	0	0	9	0	3	2	9	51
8:00 - 8:15	0	1	1	14	1	0	1	8	0	4	1	12	43
8:15 - 8:30	0	4	0	17	0	1	0	4	0	1	5	12	44
8:30 - 8:45	0	0	2	23	1	0	1	4	0	1	3	15	50
8:45 - 9:00	0	1	0	14	0	0	1	5	0	5	4	10	40
AM PEAK HOUR 7:30 - 8:30	0	6	2	80	6	2	1	26	0	13	8	45	189

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	4	3	19	4	1	1	2	0	3	6	21	64
4:15 - 4:30	0	2	0	9	1	0	1	4	0	5	13	32	67
4:30 - 4:45	0	4	2	9	3	1	1	2	0	4	20	26	72
4:45 - 5:00	0	8	2	17	2	0	0	2	0	5	17	39	92
5:00 - 5:15	0	6	2	23	1	1	1	6	1	2	14	47	104
5:15 - 5:30	0	3	2	19	6	1	0	1	1	4	15	46	98
5:30 - 5:45	0	4	2	8	4	1	0	9	0	1	11	40	80
5:45 - 6:00	0	2	2	12	3	0	0	4	0	3	14	37	77
PM PEAK HOUR 4:45 - 5:45	0	21	8	67	13	3	1	18	2	12	57	172	374

Intersection: 10th Avenue at Riverside Drive (Trucks)

Date: May 10, 2007

Source: Tindale-Oliver and Associates, Inc. (JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 - 7:30	0	0	0	1	0	0	0	0	0	0	0	0	1
7:30 - 7:45	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 - 8:00	0	0	0	1	0	0	0	0	0	0	0	0	1
8:00 - 8:15	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15 - 8:30	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0	0	0	0	0	0	1	1
8:45 - 9:00	0	1	0	0	1	0	0	0	0	0	0	0	2
AM PEAK HOUR 7:30 - 8:30	0	0	0	1	0	0	0	0	0	1	0	1	3

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 - 4:30	0	0	0	1	0	0	0	0	0	0	0	1	2
4:30 - 4:45	0	0	0	1	0	0	0	0	0	0	0	0	1
4:45 - 5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 - 5:15	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 - 5:30	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 - 5:45	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 - 6:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PEAK HOUR 4:45 - 5:45	0	0	0	0	0	0	0	0	0	0	1	0	1

Intersection: Business US-41 at 5th Street (Total)

Date: May 15, 2007

Source: Tindale-Oliver and Associates, Inc. (BR & JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	10	152	6	1	241	2	2	3	27	17	1	2	464
7:15 - 7:30	9	160	8	3	375	5	11	2	35	14	2	2	627
7:30 - 7:45	8	184	7	0	407	6	9	6	58	28	3	3	720
7:45 - 8:00	8	199	14	4	312	14	7	9	40	24	3	1	635
8:00 - 8:15	9	196	6	2	266	5	5	6	26	21	5	4	551
8:15 - 8:30	3	190	6	4	269	9	9	7	17	19	5	2	540
8:30 - 8:45	3	178	7	1	294	14	11	7	14	16	3	2	550
8:45 - 9:00	4	170	5	2	246	11	6	5	14	17	2	1	483
AM PEAK HOUR 7:15 - 8:15	34	739	36	9	1360	30	32	23	159	88	13	10	2533
PEAK HOUR FACTOR	-	-	-	-	-	-	-	-	-	-	-	-	0.88

Peak Season Adjustment Factor: 1.08

AM PEAK HOUR PEAK SEASON	37	798	39	10	1469	32	35	25	172	95	14	11	2737
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	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	11	312	9	1	251	5	8	7	7	21	14	7	653
4:15 - 4:30	11	290	7	1	201	8	7	6	10	17	8	5	571
4:30 - 4:45	3	304	15	1	248	4	3	2	8	17	4	3	612
4:45 - 5:00	12	350	10	3	244	9	5	4	10	17	6	13	683
5:00 - 5:15	10	380	15	1	226	7	8	7	27	41	10	5	737
5:15 - 5:30	15	345	19	0	234	10	5	1	9	20	8	8	674
5:30 - 5:45	11	341	12	0	240	4	4	2	16	17	10	5	662
5:45 - 6:00	12	309	8	1	191	5	2	6	9	7	2	5	557
PM PEAK HOUR 4:45 - 5:45	48	1416	56	4	944	30	22	14	62	95	34	31	2756
PEAK HOUR FACTOR	-	-	-	-	-	-	-	-	-	-	-	-	0.93

Peak Season Adjustment Factor: 1.08

PM PEAK HOUR PEAK SEASON	52	1529	60	4	1020	32	24	15	67	103	37	33	2976
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Intersection: Business US-41 at 5th Street (Cars)

Date: May 15, 2007

Source: Tindale-Oliver and Associates, Inc. (BR & JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	10	146	6	1	238	2	2	3	26	17	1	2	452
7:15 - 7:30	9	154	9	3	372	5	11	2	35	14	2	2	618
7:30 - 7:45	8	180	7	0	402	6	8	6	58	28	3	3	709
7:45 - 8:00	8	191	14	4	308	14	7	9	40	24	2	1	622
8:00 - 8:15	8	187	6	2	260	4	5	6	26	20	5	4	533
8:15 - 8:30	3	185	6	4	257	9	9	7	17	19	5	2	523
8:30 - 8:45	3	178	6	1	284	14	11	7	14	16	3	2	539
8:45 - 9:00	4	166	5	2	242	11	6	5	14	15	2	1	473
AM PEAK HOUR 7:15 - 8:15	33	712	36	9	1342	29	31	23	159	86	12	10	2482

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	11	303	9	1	246	5	8	7	7	21	14	7	639
4:15 - 4:30	11	284	7	1	198	8	7	6	9	17	7	5	560
4:30 - 4:45	3	296	15	1	246	4	3	2	8	17	4	3	602
4:45 - 5:00	12	340	10	3	241	9	5	4	10	17	6	12	669
5:00 - 5:15	9	374	15	1	222	7	8	7	27	41	10	5	726
5:15 - 5:30	15	338	19	0	231	10	5	1	9	20	8	8	664
5:30 - 5:45	11	336	12	0	238	4	4	2	16	17	10	5	655
5:45 - 6:00	11	306	8	1	190	5	2	6	9	7	2	5	552
PM PEAK HOUR 4:45 - 5:45	47	1388	56	4	932	30	22	14	62	95	34	30	2714

Intersection: Business US-41 at 5th Street (Trucks)

Date: May 15, 2007

Source: Tindale-Oliver and Associates, Inc. (BR & JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	6	0	0	5	0	0	0	1	0	0	0	12
7:15 - 7:30	0	6	0	0	3	0	0	0	0	0	0	0	9
7:30 - 7:45	0	4	0	0	5	0	1	0	0	1	0	0	11
7:45 - 8:00	0	8	0	0	4	0	0	0	0	0	1	0	13
8:00 - 8:15	1	9	0	0	6	1	0	0	0	1	0	0	18
8:15 - 8:30	0	5	0	0	12	0	0	0	0	0	0	0	17
8:30 - 8:45	0	0	1	0	10	0	0	0	0	0	0	0	11
8:45 - 9:00	0	4	0	0	4	0	0	0	0	2	0	0	10
AM PEAK HOUR 7:15 - 8:15	1	27	0	0	18	1	1	0	0	2	1	0	51

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	9	0	0	5	0	0	0	0	0	0	0	14
4:15 - 4:30	0	6	0	0	3	0	0	0	1	0	1	0	11
4:30 - 4:45	0	8	0	0	2	0	0	0	0	0	0	0	10
4:45 - 5:00	0	10	0	0	3	0	0	0	0	0	0	1	14
5:00 - 5:15	1	6	0	0	4	0	0	0	0	0	0	0	11
5:15 - 5:30	0	7	0	0	3	0	0	0	0	0	0	0	10
5:30 - 5:45	0	5	0	0	2	0	0	0	0	0	0	0	7
5:45 - 6:00	1	3	0	0	1	0	0	0	0	0	0	0	5
PM PEAK HOUR 4:45 - 5:45	1	28	0	0	12	0	0	0	0	0	0	1	42

Intersection: Business US-41 at 4th Street (Total)

Date: May 9, 2007

Source: Tindale-Oliver and Associates, Inc. (TM & JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	6	163	1	0	329	0	1	0	26	0	0	1	527
7:15 - 7:30	4	186	4	0	418	4	0	0	37	0	1	1	655
7:30 - 7:45	16	222	0	0	480	3	0	0	47	0	0	0	768
7:45 - 8:00	16	206	4	0	307	8	0	0	39	0	0	0	580
8:00 - 8:15	18	216	5	0	288	9	0	0	28	0	0	0	564
8:15 - 8:30	10	235	2	0	312	3	1	0	34	0	0	1	598
8:30 - 8:45	9	180	3	0	292	5	1	0	24	0	0	0	514
8:45 - 9:00	6	152	1	1	266	1	0	0	20	0	0	1	448
AM PEAK HOUR 7:15 - 8:15	54	830	13	0	1493	24	0	0	151	0	1	1	2567
PEAK HOUR FACTOR	--	--	--	--	--	--	--	--	--	--	--	--	0.64

Peak Season Adjustment Factor: 1.07

AM PEAK HOUR PEAK SEASON	58	888	14	0	1598	26	0	0	162	0	1	1	2748
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	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	26	369	4	0	258	7	0	0	16	0	0	0	680
4:15 - 4:30	20	298	4	2	222	4	1	0	11	0	0	0	562
4:30 - 4:45	33	382	2	0	270	6	0	0	16	0	0	0	709
4:45 - 5:00	32	365	3	1	265	9	1	1	27	0	0	2	706
5:00 - 5:15	60	398	5	0	286	7	0	0	27	0	0	0	783
5:15 - 5:30	40	414	5	1	266	4	1	0	16	0	0	1	748
5:30 - 5:45	41	396	2	0	260	3	0	0	19	0	0	0	721
5:45 - 6:00	21	301	2	0	235	10	3	0	17	0	0	0	589
PM PEAK HOUR 4:45 - 5:45	173	1573	15	2	1077	23	2	1	89	0	0	3	2958
PEAK HOUR FACTOR	--	--	--	--	--	--	--	--	--	--	--	--	0.94

Peak Season Adjustment Factor: 1.07

PM PEAK HOUR PEAK SEASON	185	1683	16	2	1152	25	2	1	95	0	0	3	3164
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Intersection: Business US-41 at 4th Street (Cars)

Date: May 9, 2007

Source: Tindale-Oliver and Associates, Inc. (TM & JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	5	154	0	0	325	0	1	0	25	0	0	1	511
7:15 - 7:30	3	181	4	0	418	4	0	0	36	0	1	1	648
7:30 - 7:45	16	218	0	0	478	3	0	0	47	0	0	0	762
7:45 - 8:00	16	200	4	0	305	8	0	0	39	0	0	0	572
8:00 - 8:15	17	211	5	0	280	9	0	0	28	0	0	0	550
8:15 - 8:30	10	227	2	0	303	3	1	0	34	0	0	1	581
8:30 - 8:45	9	170	3	0	287	5	1	0	24	0	0	0	499
8:45 - 9:00	5	150	1	1	253	1	0	0	20	0	0	1	432
AM PEAK HOUR 7:15 - 8:15	52	810	13	0	1481	24	0	0	150	0	1	1	2532

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	26	360	4	0	254	7	0	0	16	0	0	0	667
4:15 - 4:30	19	292	4	2	218	4	1	0	11	0	0	0	551
4:30 - 4:45	32	377	2	0	265	6	0	0	16	0	0	0	698
4:45 - 5:00	32	363	3	1	261	9	1	1	27	0	0	2	700
5:00 - 5:15	60	392	5	0	284	7	0	0	27	0	0	0	775
5:15 - 5:30	40	405	5	1	262	4	1	0	15	0	0	1	734
5:30 - 5:45	41	393	2	0	258	3	0	0	19	0	0	0	716
5:45 - 6:00	21	297	2	0	234	10	3	0	17	0	0	0	584
PM PEAK HOUR 4:45 - 5:45	173	1553	15	2	1065	23	2	1	88	0	0	3	2925

Intersection: Business US-41 at 4th Street (Trucks)

Date: May 9, 2007

Source: Tindale-Oliver and Associates, Inc. (TM & JE)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	1	9	1	0	4	0	0	0	1	0	0	0	16
7:15 - 7:30	1	5	0	0	0	0	0	0	1	0	0	0	7
7:30 - 7:45	0	4	0	0	2	0	0	0	0	0	0	0	6
7:45 - 8:00	0	6	0	0	2	0	0	0	0	0	0	0	8
8:00 - 8:15	1	5	0	0	8	0	0	0	0	0	0	0	14
8:15 - 8:30	0	8	0	0	9	0	0	0	0	0	0	0	17
8:30 - 8:45	0	10	0	0	5	0	0	0	0	0	0	0	15
8:45 - 9:00	1	2	0	0	13	0	0	0	0	0	0	0	16
AM PEAK HOUR 7:15 - 8:15	2	20	0	0	12	0	0	0	1	0	0	0	35

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	9	0	0	4	0	0	0	0	0	0	0	13
4:15 - 4:30	1	6	0	0	4	0	0	0	0	0	0	0	11
4:30 - 4:45	1	5	0	0	5	0	0	0	0	0	0	0	11
4:45 - 5:00	0	2	0	0	4	0	0	0	0	0	0	0	6
5:00 - 5:15	0	6	0	0	2	0	0	0	0	0	0	0	8
5:15 - 5:30	0	9	0	0	4	0	0	0	1	0	0	0	14
5:30 - 5:45	0	3	0	0	2	0	0	0	0	0	0	0	5
5:45 - 6:00	0	4	0	0	1	0	0	0	0	0	0	0	5
PM PEAK HOUR 4:45 - 5:45	0	20	0	0	12	0	0	0	1	0	0	0	33

Intersection: Business US-41 at Riverside Drive (Total)

Date: May 10, 2007

Source: Tindale-Oliver and Associates, Inc. (TM & DD)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	11	153	1	1	318	8	1	0	18	0	0	0	511
7:15 - 7:30	18	226	0	0	459	7	2	1	31	0	0	0	742
7:30 - 7:45	22	248	0	0	495	6	0	0	29	0	0	0	800
7:45 - 8:00	15	241	0	0	399	2	1	0	34	0	0	0	692
8:00 - 8:15	19	211	0	0	338	6	2	0	20	2	0	0	598
8:15 - 8:30	20	227	2	0	334	13	5	0	17	0	0	2	620
8:30 - 8:45	14	198	1	1	306	10	1	0	26	0	0	0	555
8:45 - 9:00	23	173	1	0	320	7	3	0	22	1	0	0	550
AM PEAK HOUR 7:15 - 8:15	72	926	0	0	1691	21	5	1	114	2	0	0	2832
PEAK HOUR FACTOR	--	--	--	--	--	--	--	--	--	--	--	--	0.89

Peak Season Adjustment Factor: 1.07

AM PEAK HOUR PEAK SEASON	77	991	0	0	1809	22	5	1	122	2	0	0	3029
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	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	34	351	1	3	278	7	1	0	31	1	0	0	707
4:15 - 4:30	67	390	3	1	257	9	5	0	19	1	0	2	754
4:30 - 4:45	33	450	1	1	289	8	3	0	22	0	0	0	807
4:45 - 5:00	54	461	2	0	278	5	3	0	34	0	0	0	837
5:00 - 5:15	53	472	1	1	296	13	1	0	51	0	1	0	891
5:15 - 5:30	65	488	1	2	280	13	4	1	28	0	0	0	882
5:30 - 5:45	37	413	1	3	296	9	4	0	25	0	0	0	788
5:45 - 6:00	39	424	0	1	245	9	2	0	26	0	0	0	746
PM PEAK HOUR 4:30 - 5:30	205	1871	5	4	1145	39	11	1	135	0	1	0	3417
PEAK HOUR FACTOR	--	--	--	--	--	--	--	--	--	--	--	--	0.96

Peak Season Adjustment Factor: 1.07

PM PEAK HOUR PEAK SEASON	219	2002	5	4	1225	42	12	1	144	0	1	0	3655
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Intersection: Business US-41 at Riverside Drive (Cars)

Date: May 10, 2007

Source: Tindale-Oliver and Associates, Inc. (TM & DD)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	11	151	1	1	307	7	1	0	16	0	0	0	495
7:15 - 7:30	16	220	0	0	446	7	2	1	29	0	0	0	721
7:30 - 7:45	22	242	0	0	488	6	0	0	29	0	0	0	787
7:45 - 8:00	14	238	0	0	388	2	1	0	33	0	0	0	674
8:00 - 8:15	19	203	0	0	320	6	2	0	20	2	0	0	572
8:15 - 8:30	20	219	2	0	329	13	5	0	17	0	0	2	607
8:30 - 8:45	14	193	1	1	296	9	1	0	26	0	0	0	541
8:45 - 9:00	22	165	1	0	307	7	3	0	22	1	0	0	528
AM PEAK HOUR 7:15 - 8:15	71	901	0	0	1642	21	5	1	111	2	0	0	2754

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	34	343	1	3	272	6	1	0	31	1	0	0	692
4:15 - 4:30	64	383	3	1	251	9	4	0	18	1	0	2	736
4:30 - 4:45	33	441	1	1	286	8	3	0	21	0	0	0	794
4:45 - 5:00	54	453	2	0	274	5	3	0	34	0	0	0	825
5:00 - 5:15	53	469	1	1	291	13	1	0	51	0	1	0	881
5:15 - 5:30	64	483	1	2	274	13	4	1	28	0	0	0	870
5:30 - 5:45	37	409	1	3	295	9	4	0	25	0	0	0	783
5:45 - 6:00	39	421	0	1	243	9	2	0	26	0	0	0	741
PM PEAK HOUR 4:30 - 5:30	204	1848	5	4	1125	39	11	1	134	0	1	0	3370

Intersection: Business US-41 at Riverside Drive (Trucks)

Date: May 10, 2007

Source: Tindale-Oliver and Associates, Inc. (TM & DD)

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
7:00 - 7:15	0	2	0	0	11	1	0	0	2	0	0	0	16
7:15 - 7:30	0	6	0	0	13	0	0	0	2	0	0	0	21
7:30 - 7:45	0	6	0	0	7	0	0	0	0	0	0	0	13
7:45 - 8:00	1	5	0	0	11	0	0	0	1	0	0	0	18
8:00 - 8:15	0	8	0	0	18	0	0	0	0	0	0	0	26
8:15 - 8:30	0	8	0	0	5	0	0	0	0	0	0	0	13
8:30 - 8:45	0	3	0	0	10	1	0	0	0	0	0	0	14
8:45 - 9:00	1	8	0	0	13	0	0	0	0	0	0	0	22
AM PEAK HOUR 7:15 - 8:15	1	25	0	0	49	0	0	0	3	0	0	0	78

	Northbound			Southbound			Eastbound			Westbound			RAW TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
4:00 - 4:15	0	8	0	0	6	1	0	0	0	0	0	0	15
4:15 - 4:30	3	7	0	0	6	0	1	0	1	0	0	0	18
4:30 - 4:45	0	9	0	0	3	0	0	0	1	0	0	0	13
4:45 - 5:00	0	8	0	0	4	0	0	0	0	0	0	0	12
5:00 - 5:15	0	3	0	0	7	0	0	0	0	0	0	0	10
5:15 - 5:30	1	5	0	0	6	0	0	0	0	0	0	0	12
5:30 - 5:45	0	4	0	0	1	0	0	0	0	0	0	0	5
5:45 - 6:00	0	3	0	0	2	0	0	0	0	0	0	0	5
PM PEAK HOUR 4:30 - 5:30	1	25	0	0	20	0	0	0	1	0	0	0	47

Appendix B

Segment Counts

Riverside - 7 Day Count

Location: 4th Street east of 9th Street
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
0100	1	3	1	2	2	4	5	9	6	8	1	7	2	6
0200	1	5	1	3	2	4	2	7	1	4	1	2	2	7
0300	2	3	1	6	1	4	2	12	3	6	2	2	1	4
0400	1	3	0	2	1	1	2	2	2	2	1	1	1	2
0500	3	3	2	2	4	4	4	6	6	0	3	3	3	1
0600	4	4	12	4	7	6	1	2	2	2	14	2	11	4
0700	31	9	40	8	48	13	12	4	8	0	56	12	49	11
0800	156	76	161	65	149	61	42	19	18	13	184	73	168	81
0900	120	71	121	80	130	74	59	19	41	73	127	66	132	68
1000	76	48	90	65	84	68	63	59	55	64	74	55	85	48
1100	45	25	78	59	78	70	76	49	71	71	77	65	73	51
1200	0	0	75	65	76	62	58	38	65	40	58	61	64	56
1300	0	0	57	93	68	100	66	62	103	51	80	69	69	84
1400	69	82	81	79	86	88	73	69	69	76	86	80	72	83
1500	69	75	79	73	79	108	63	58	62	49	65	81	77	80
1600	67	92	85	92	74	112	52	43	73	46	86	94	67	112
1700	84	137	69	111	79	145	72	78	61	45	73	129	68	121
1800	83	176	109	196	86	157	65	58	52	51	78	185	88	179
1900	85	127	72	98	70	105	56	59	49	45	57	89	68	93
2000	68	71	56	73	69	61	55	50	32	54	45	59	54	66
2100	55	50	44	61	47	63	35	44	28	35	35	44	30	47
2200	35	38	43	35	47	50	32	36	25	24	15	36	26	46
2300	21	23	12	21	36	28	29	26	15	19	13	22	13	15
2400	9	6	13	13	13	18	21	19	3	10	3	11	9	7
Totals:	1055	1123	1302	1266	1336	1404	951	840	850	785	1194	1230	1242	1251

-- Counts provided are raw data and have not been adjusted seasonally or by axle factor. --

Day 1: Wednesday, April 11, 2007 (1:00 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 10:45 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

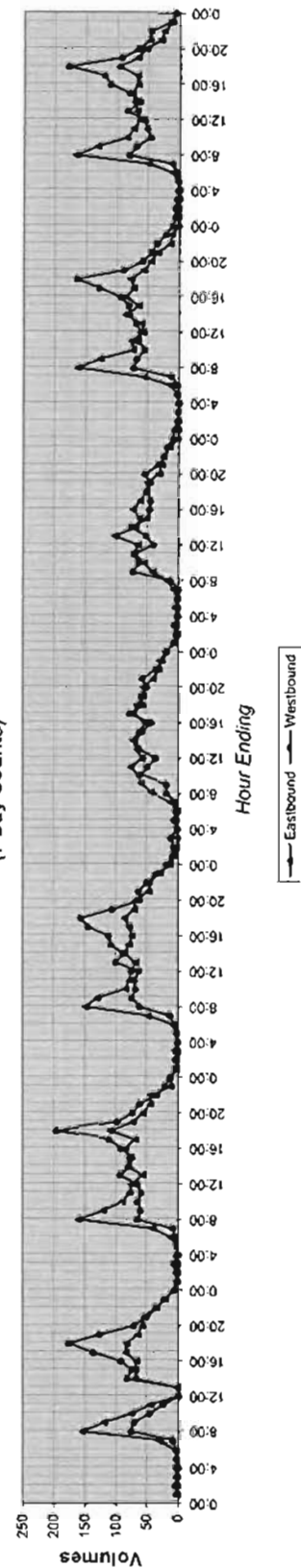
Day 4: Saturday April 15, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

4th Street east of 9th Street Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

Location: 4th Street west of 9th Avenue
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
0100	1	2	1	2	2	4	6	10	5	6	0	8	2	6
0200	1	5	1	2	2	4	1	7	1	4	1	2	2	7
0300	2	2	1	7	1	3	2	10	3	7	1	1	2	3
0400	0	3	0	2	1	1	2	4	2	2	2	1	1	2
0500	3	2	2	2	4	4	4	4	4	4	2	3	3	1
0600	10	4	12	4	7	5	1	4	3	3	14	2	11	3
0700	41	9	41	4	52	8	13	4	8	0	54	5	48	0
0800	161	43	189	46	152	39	42	20	17	12	173	50	172	50
0900	126	62	135	56	140	58	58	17	42	73	132	56	134	59
1000	83	45	93	53	93	65	64	51	53	59	80	53	90	51
1100	37	18	84	54	86	61	71	46	68	75	80	54	74	46
1200	0	0	77	58	84	58	61	43	87	34	55	54	68	51
1300	0	0	76	67	65	79	72	55	97	45	66	60	66	74
1400	52	63	84	76	79	79	68	65	57	66	63	67	63	55
1500	74	71	80	68	79	103	68	55	58	50	64	70	77	70
1600	67	89	88	91	78	100	51	40	73	42	89	76	70	101
1700	82	123	73	106	83	136	70	75	60	43	84	130	88	120
1800	75	180	103	190	83	152	67	52	42	43	73	167	97	175
1900	68	121	72	99	72	102	53	51	50	42	55	84	88	87
2000	51	73	59	72	66	64	52	49	29	51	40	52	46	65
2100	53	54	42	85	38	55	38	42	27	33	32	42	30	47
2200	27	30	43	35	40	46	31	37	24	25	14	36	25	43
2300	21	21	10	20	36	26	25	25	13	19	11	18	12	14
2400	8	5	10	13	10	18	20	16	2	9	3	9	8	6
Totals:	1043	1015	1356	1212	1354	1269	942	796	805	743	1208	1100	1242	1142

-- Counts provided are raw data and have not been adjusted seasonally or by axle factor.--

Day 1: Wednesday, April 11, 2007 (1:16 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 10:30 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

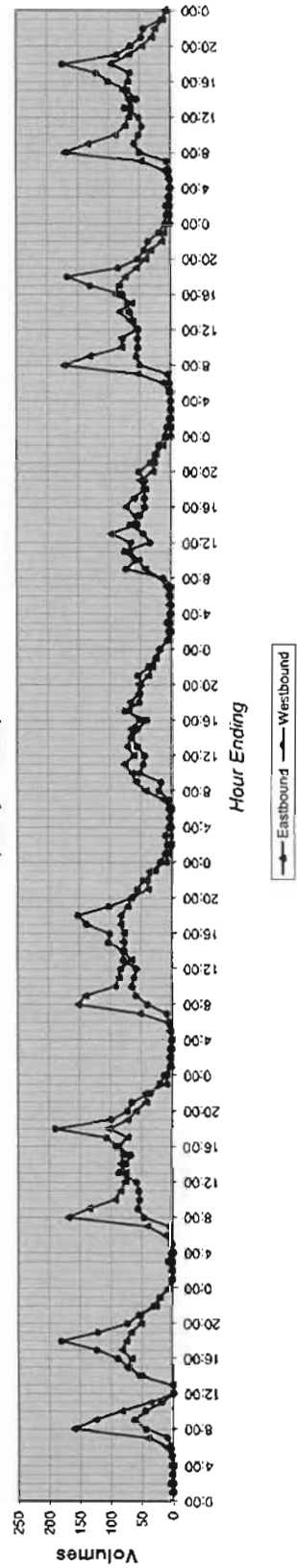
Day 4: Saturday April 14, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

4th Street west of 9th Avenue Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

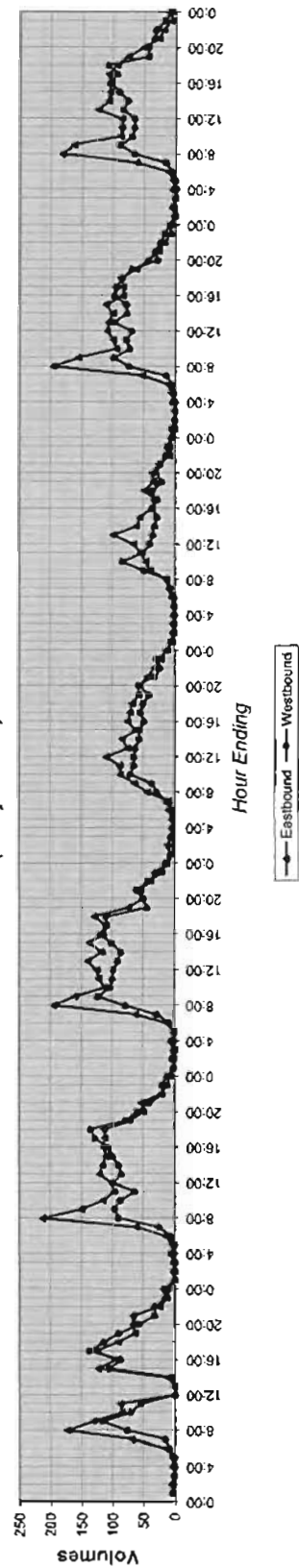
Location: 5th Street east of 9th Avenue
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
0100	4	4	0	1	3	2	3	7	5	6	1	6	1	2
0200	6	2	0	2	2	5	3	10	1	3	2	1	4	5
0300	2	2	1	2	0	2	4	6	2	3	1	0	1	1
0400	2	3	4	6	4	6	4	4	2	2	2	4	1	4
0500	5	0	5	4	2	1	3	2	2	2	6	2	5	0
0600	14	9	15	8	12	9	10	2	6	1	12	6	12	7
0700	70	16	61	26	63	29	10	14	10	8	53	15	63	16
0800	174	77	213	90	195	80	44	29	14	13	196	74	182	66
0900	132	117	152	96	162	125	65	37	40	49	157	99	184	89
1000	85	71	116	88	113	104	88	71	47	85	95	73	88	70
1100	88	55	98	64	123	101	89	66	55	52	100	78	87	56
1200	0	0	102	100	128	99	111	86	67	40	110	70	87	56
1300	0	0	122	86	141	82	76	63	100	36	108	99	125	84
1400	11	4	117	91	118	87	85	57	62	33	101	78	108	77
1500	124	106	111	101	137	102	63	57	57	29	112	79	105	91
1600	56	87	115	108	116	120	76	98	38	37	85	98	105	106
1700	128	137	112	128	110	111	72	55	31	32	85	95	108	94
1800	92	115	113	136	130	111	69	51	49	37	88	85	95	108
1900	64	91	73	80	75	44	58	41	35	22	63	70	77	43
2000	67	58	60	60	52	50	55	57	37	31	45	29	51	44
2100	68	33	54	41	55	81	42	33	26	25	28	33	28	34
2200	25	33	23	20	39	42	31	24	10	16	19	25	21	32
2300	13	16	14	21	32	20	23	28	10	13	9	16	8	18
2400	12	17	8	13	13	16	15	11	8	8	8	10	8	9
Totals:	1281	1053	1679	1368	1823	1419	1099	842	712	581	1486	1148	1536	1133

Counts provided are raw data and have not been adjusted seasonally or by axle factor.
 Day 1: Wednesday, April 11, 2007 (1:45 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 11:00 AM)

Day 2: Thursday April 12, 2007
 Day 3: Friday April 13, 2007
 Day 4: Saturday April 15, 2007
 Day 5: Sunday April 15, 2007
 Day 6: Monday April 16, 2007
 Day 7: Tuesday April 17, 2007

5th Street east of 9th Avenue Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

Location: 5th Street west of 9th Avenue
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
0100	3	2	0	1	1	2	2	5	5	7	1	5	1	2
0200	4	4	0	2	2	4	3	9	1	3	2	1	3	6
0300	1	2	1	2	0	1	3	4	2	3	1	0	1	1
0400	2	2	1	2	3	4	3	3	1	1	2	3	1	3
0500	5	0	4	0	2	1	2	4	4	1	5	2	5	0
0600	12	9	15	6	12	9	10	2	6	1	12	5	13	7
0700	72	10	57	14	52	16	8	4	8	6	50	9	61	8
0800	181	56	182	52	183	46	43	25	13	11	174	44	173	51
0900	106	108	124	71	133	95	57	31	34	44	147	85	152	73
1000	75	65	88	63	85	82	83	56	40	80	88	66	72	61
1100	74	55	67	51	90	77	78	62	48	52	67	56	64	53
1200	0	0	83	80	103	83	102	62	60	34	77	66	59	84
1300	0	0	85	74	97	80	65	62	89	34	88	97	98	77
1400	26	39	93	80	87	67	73	54	51	24	81	68	79	53
1500	90	88	71	76	99	73	61	50	46	28	92	76	86	78
1600	83	82	90	91	91	105	68	40	30	35	68	95	81	94
1700	90	112	89	125	80	109	65	55	27	28	73	106	79	87
1800	65	110	74	127	98	108	53	43	38	33	60	80	84	114
1900	49	90	56	69	56	45	45	40	30	22	53	75	61	47
2000	52	56	40	50	45	41	41	55	30	28	25	30	44	44
2100	53	22	45	37	36	55	36	35	22	31	24	31	26	37
2200	20	34	18	19	37	37	23	23	8	15	15	23	17	29
2300	11	12	9	16	28	19	19	21	9	9	8	14	6	14
2400	8	12	3	9	9	17	10	7	1	3	6	10	3	8
Totals:	1050	958	1276	1117	1409	1176	953	752	603	527	1219	1047	1249	1021

** Counts provided are raw data and have not been adjusted seasonally or by axle factor. **

Day 1: Wednesday, April 11, 2007 (1:30 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 11:00 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

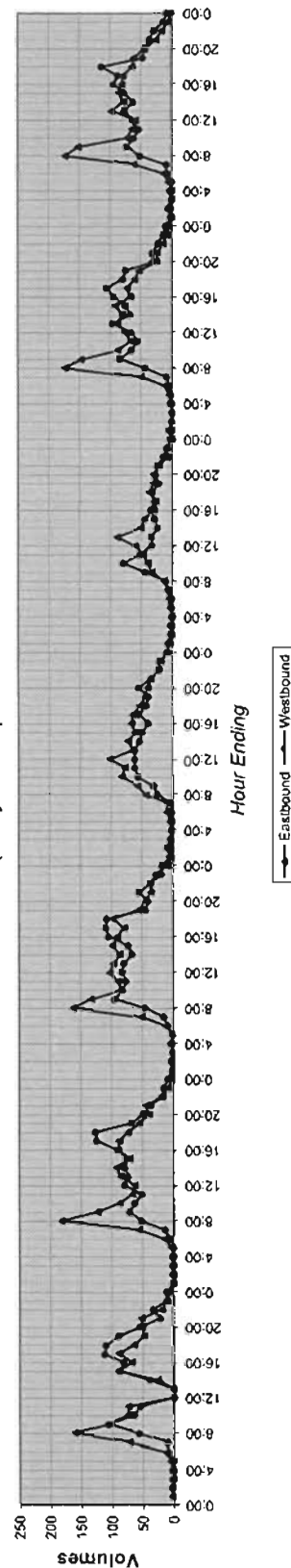
Day 4: Saturday April 14, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

5th Street west of 9th Avenue Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

Location: Riverside Drive east of Business US-41
 Summary Begin Date: April 11, 2007
 Source: Tndale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
0100	7	5	6	14	6	7	15	17	15	17	10	5	7	7
0200	1	5	3	4	4	8	15	11	13	19	3	6	1	2
0300	1	4	5	4	4	8	4	7	9	11	3	5	5	6
0400	2	3	2	2	0	1	9	4	6	5	3	1	3	3
0500	3	7	4	4	2	6	2	4	7	14	3	3	4	6
0600	11	8	7	5	8	6	4	9	3	1	7	3	8	8
0700	63	35	42	35	38	31	18	34	9	10	36	28	48	19
0800	116	102	91	75	113	95	42	60	12	25	103	80	125	95
0900	83	124	89	98	91	137	64	87	51	50	83	106	79	130
1000	107	100	94	130	112	113	107	128	58	66	93	100	88	119
1100	3	4	103	130	106	148	120	109	69	64	82	95	112	121
1200	8	25	96	144	116	186	102	135	84	78	84	130	97	164
1300	125	175	97	156	143	179	141	150	88	110	103	159	94	158
1400	130	130	134	98	137	155	129	119	103	97	108	123	148	134
1500	133	146	114	142	142	177	122	108	94	99	116	133	116	155
1600	127	181	144	183	128	201	111	127	90	80	111	169	123	185
1700	117	214	131	213	133	229	119	128	67	89	145	190	129	219
1800	135	292	137	320	117	269	100	147	83	96	107	269	131	303
1900	83	161	96	172	128	163	126	123	77	102	85	125	90	167
2000	80	133	119	146	106	144	101	112	67	80	80	108	119	110
2100	87	93	89	105	81	77	97	66	49	50	50	66	78	101
2200	49	57	79	56	74	70	84	39	44	37	17	39	52	45
2300	41	23	30	20	64	54	58	32	17	20	16	20	32	24
2400	7	15	14	19	27	22	27	30	3	10	6	21	8	8
Totals:	1518	2052	1726	2277	1852	2488	1718	1839	1116	1234	1455	1864	1865	2260

** Counts provided are raw data and have not been adjusted seasonally or by axle factor. **

Day 1: Wednesday, April 11, 2007 (11:45 AM to Midnight); Wednesday, April 18, 2007 (Midnight to 10:15 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

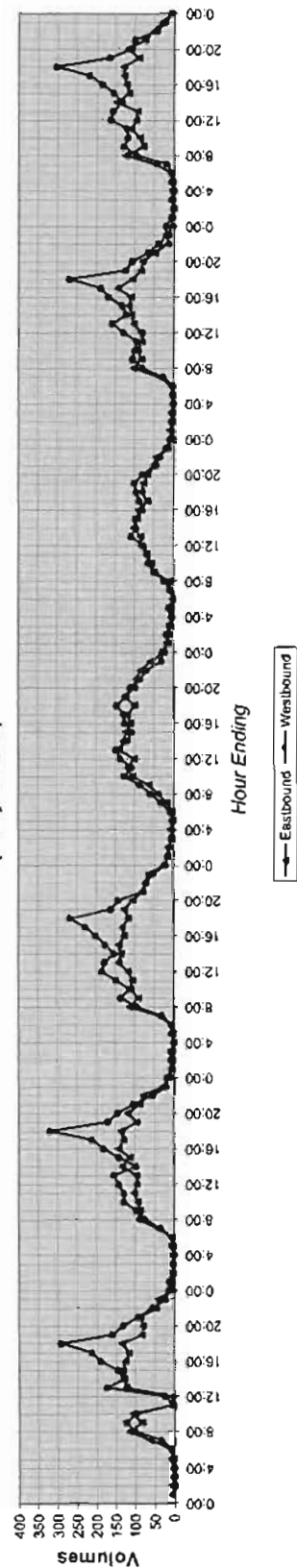
Day 4: Saturday April 14, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

Riverside Drive east of Business US-41 Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

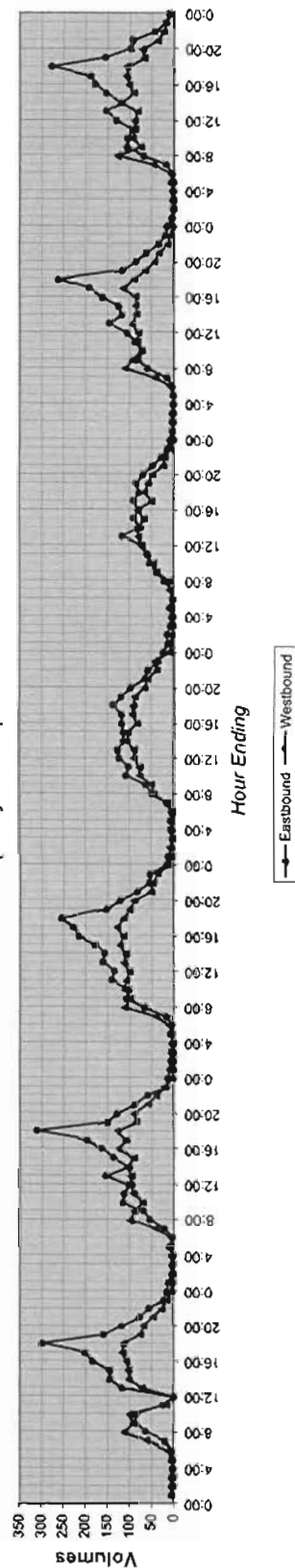
Location: Riverside Drive west of 9th Avenue
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
0100	4	4	2	10	1	7	4	12	6	13	4	3	6	4
0200	1	4	0	3	0	5	6	4	3	4	2	4	1	2
0300	1	4	2	2	1	4	0	3	1	7	2	4	1	3
0400	2	2	2	2	0	2	5	6	3	4	2	2	3	2
0500	3	4	7	8	4	7	4	6	4	9	2	2	2	6
0600	11	3	6	9	8	3	2	4	3	3	8	4	7	4
0700	62	19	41	22	38	15	14	15	9	5	42	15	48	17
0800	111	64	96	54	110	64	44	49	11	21	110	59	127	68
0900	91	86	88	69	98	106	50	63	36	38	94	80	75	106
1000	99	85	69	114	110	100	76	108	46	55	72	72	94	105
1100	17	24	90	111	107	141	77	102	62	59	82	88	88	93
1200	0	0	96	100	99	135	90	123	73	70	80	105	89	130
1300	70	116	95	153	112	161	89	127	80	117	95	146	82	153
1400	101	144	104	99	106	157	106	114	82	75	84	118	120	118
1500	102	143	89	137	121	178	104	114	67	91	86	125	91	153
1600	106	183	124	164	114	214	118	118	82	80	86	162	102	178
1700	115	200	107	195	128	226	94	118	50	91	115	192	108	189
1800	114	298	127	311	113	254	92	137	66	79	91	262	108	277
1900	76	160	85	149	99	152	87	119	58	85	65	117	67	155
2000	68	118	89	128	89	121	86	98	49	70	44	86	71	96
2100	47	77	58	88	50	82	59	66	24	48	34	63	36	93
2200	27	56	38	59	46	54	38	58	20	29	14	34	24	43
2300	15	22	21	15	36	53	42	35	9	14	7	19	19	19
2400	5	14	3	12	13	16	8	23	2	8	4	16	8	10
Totals:	1248	1820	1441	2008	1805	2257	1241	1821	649	1085	1225	1778	1371	2025

** Counts provided are raw data and have not been adjusted seasonally or by axle factor.
 Day 1: Wednesday, April 11, 2007 (12:15 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 10:15 AM)

Day 2: Thursday April 12, 2007
 Day 3: Friday April 13, 2007
 Day 4: Saturday April 15, 2007
 Day 5: Sunday April 15, 2007
 Day 6: Monday April 16, 2007
 Day 7: Tuesday April 17, 2007

Riverside Drive west of 9th Avenue Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

Location: 10th Avenue south of 5th Street
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
0100	2	5	7	0	4	5	9	6	3	4	4	3	2	3
0200	2	3	0	2	2	0	0	5	3	2	0	2	0	0
0300	3	0	1	2	2	1	6	0	4	2	1	1	1	2
0400	3	2	0	2	3	1	6	3	5	3	2	2	3	2
0500	4	3	7	5	1	3	3	2	7	2	3	2	4	2
0600	6	10	8	8	6	10	6	4	2	3	1	6	6	12
0700	23	42	13	32	20	37	8	10	5	11	18	36	21	37
0800	62	86	83	81	52	80	37	73	14	15	76	73	75	83
0900	88	91	82	100	108	99	51	65	36	44	79	87	78	79
1000	90	102	114	107	101	107	106	98	84	102	61	88	85	101
1100	83	84	112	99	134	108	3	183	91	83	78	79	93	78
1200	10	12	99	107	147	142	118	110	85	93	90	74	85	88
1300	0	0	127	139	144	111	98	103	129	94	126	88	143	111
1400	0	0	134	108	140	93	115	112	81	70	119	86	103	100
1500	70	50	115	63	144	93	92	74	75	59	110	82	126	96
1600	160	115	129	95	162	104	80	57	87	67	124	86	147	89
1700	190	93	193	114	189	104	88	62	71	48	164	94	158	93
1800	227	86	257	98	213	100	73	71	57	54	203	76	236	104
1900	105	89	108	67	108	76	88	59	35	46	100	64	121	90
2000	98	63	85	91	92	74	55	52	49	37	56	34	73	59
2100	59	36	63	47	53	49	58	48	39	18	46	28	43	36
2200	45	25	53	29	42	42	44	23	17	17	23	18	29	14
2300	23	14	9	12	54	31	16	27	5	4	15	6	11	4
2400	6	4	8	1	12	11	12	8	6	4	4	4	7	6
Totals:	1559	1005	1787	1429	1533	1481	1181	1215	871	882	1503	1107	1650	1302

** Counts provided are raw data and have not been adjusted seasonally or by a factor.

Day 1: Wednesday, April 11, 2007 (2:30 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 11:15 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

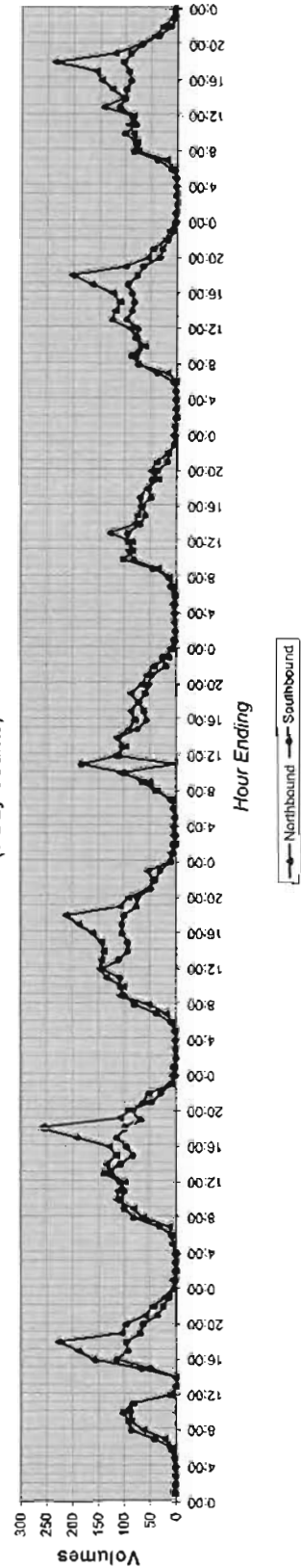
Day 4: Saturday April 14, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

10th Avenue south of 5th Street Traffic Volumes
 (7 Day Counts)



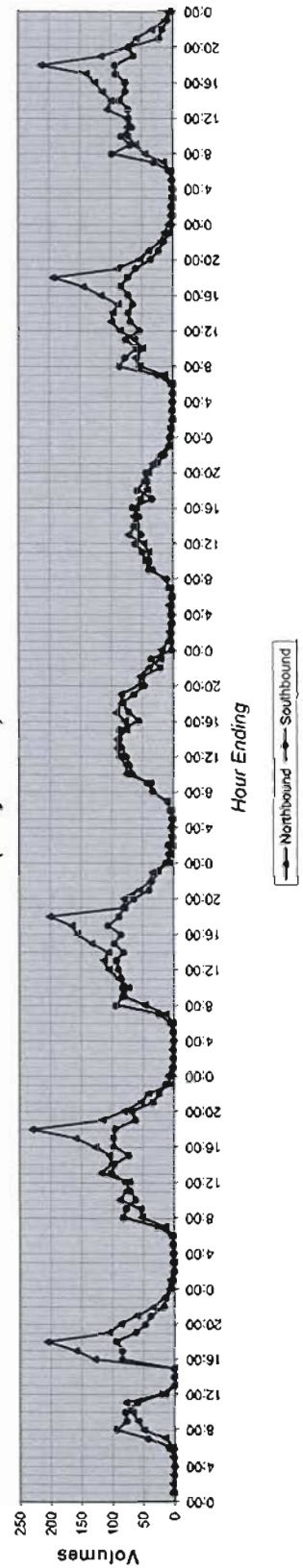
Riverside - 7 Day Count

Location: 10th Avenue south of 4th Street
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
0100	1	3	7	1	3	1	9	4	6	4	3	4	1	3
0200	3	1	1	1	2	1	2	9	6	3	1	2	2	3
0300	2	0	1	2	3	1	3	1	5	1	2	2	0	1
0400	1	0	2	2	2	0	4	4	4	4	2	1	1	1
0500	3	0	3	3	2	0	2	3	7	2	1	1	3	1
0600	2	8	3	4	2	6	4	5	2	3	1	3	4	6
0700	16	42	15	27	13	24	10	9	5	7	14	26	16	30
0800	49	93	53	82	47	93	35	33	14	10	54	86	45	98
0900	59	77	55	76	82	83	38	42	35	39	60	77	80	69
1000	68	79	89	82	74	83	77	67	41	44	49	59	73	83
1100	79	60	77	71	90	85	76	71	40	50	62	76	73	65
1200	16	20	73	79	106	90	88	77	48	61	86	54	73	71
1300	0	0	119	102	114	93	91	84	72	52	100	69	108	72
1400	0	0	101	97	106	81	91	88	60	63	97	72	99	86
1500	0	0	105	73	133	95	76	87	64	55	89	65	114	77
1600	129	84	128	98	156	85	79	56	60	68	116	72	126	77
1700	159	84	159	98	165	106	93	72	54	34	145	84	140	92
1800	208	94	230	95	201	88	93	83	42	58	194	73	213	93
1900	106	62	118	82	80	81	85	64	43	48	90	60	116	64
2000	87	47	81	68	80	64	55	47	40	43	54	36	72	71
2100	60	38	54	34	55	39	54	50	33	25	39	23	59	22
2200	34	17	42	24	38	34	40	21	21	14	20	16	34	17
2300	15	14	5	14	34	25	21	36	7	6	14	5	13	9
2400	8	5	10	2	8	13	19	3	6	5	7	3	7	3
Totals:	1104	828	1529	1179	1596	1214	1135	1016	717	695	1300	988	1450	1115

** Counts provided are raw data and have not been adjusted seasonally or by axle factor. **
 Day 1: Wednesday, April 11, 2007 (3:15 PM to Midnight); Wednesday, April 18, 2007 (Midnight to 11:15 AM)
 Day 2: Thursday April 12, 2007
 Day 3: Friday April 13, 2007
 Day 4: Saturday April 14, 2007
 Day 5: Sunday April 15, 2007
 Day 6: Monday April 16, 2007
 Day 7: Tuesday April 17, 2007

10th Avenue south of 4th Street Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

Location: 9th Avenue south of 4th Street
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
0100	0	0	0	0	1	0	0	0	1	0	0	0	0	0
0200	0	0	0	1	0	0	1	0	0	0	0	0	0	0
0300	0	0	0	0	1	0	2	0	0	0	0	1	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	2	0	0	0	0	0
0600	0	0	0	0	0	1	0	0	0	0	0	0	0	1
0700	5	3	9	1	9	2	0	0	0	0	6	1	4	0
0800	14	6	13	6	12	5	3	0	1	0	14	5	15	6
0900	20	5	15	5	24	6	7	2	1	0	16	5	25	6
1000	6	4	7	5	9	10	2	4	3	0	13	9	12	1
1100	9	7	9	8	22	28	7	2	5	0	11	6	13	5
1200	0	0	14	9	14	30	14	1	3	1	15	5	13	6
1300	6	14	15	4	31	4	5	2	5	0	16	11	26	6
1400	15	9	9	1	15	7	11	0	6	2	12	3	17	5
1500	10	7	14	9	13	7	9	2	6	0	8	1	11	4
1600	13	6	11	3	16	8	8	5	3	0	9	10	6	5
1700	11	8	11	11	8	14	7	0	7	3	7	3	9	10
1800	12	12	10	14	16	8	10	0	7	1	11	12	17	12
1900	8	5	8	3	4	3	11	7	3	1	11	2	7	2
2000	14	3	7	1	6	1	7	0	7	2	7	1	8	2
2100	7	1	7	2	12	2	3	1	2	0	1	1	8	0
2200	3	1	1	3	5	0	2	0	0	1	0	0	0	1
2300	4	1	1	2	0	0	3	2	0	1	0	0	0	0
2400	0	0	3	1	3	0	0	1	2	0	1	0	0	0
Totals:	157	92	171	69	221	136	112	29	64	12	159	76	191	72

** Counts provided are raw data and have not been adjusted seasonally or by axle factor. **

Day 1: Wednesday, April 11, 2007 (12:45 PM to Midnight), Wednesday, April 18, 2007 (Midnight to 10:30 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

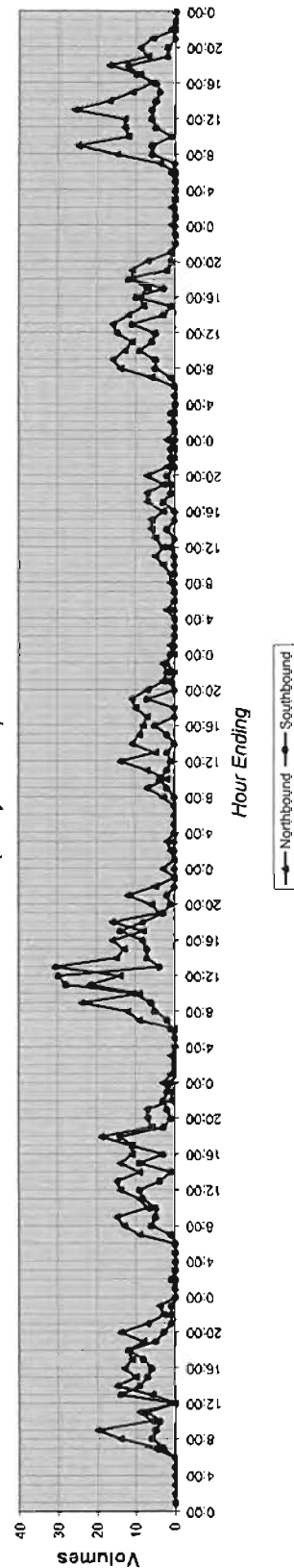
Day 4: Saturday April 15, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

9th Avenue south of 4th Street Traffic Volumes
 (7 Day Counts)



Riverside - 7 Day Count

Location: Business US-41 north of 5th Street

Survey Begin Date: April 11, 2007

Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
0100	68	81	73	81	89	84	181	173	187	174	44	74	47	71
0200	41	33	48	58	50	51	110	88	122	114	38	39	37	44
0300	55	24	49	39	53	61	95	78	94	135	41	38	37	28
0400	28	31	44	38	43	34	57	61	49	51	39	40	31	35
0500	48	66	41	55	57	74	67	61	48	50	62	39	53	62
0600	152	184	154	192	156	161	121	83	64	65	144	150	165	169
0700	445	679	424	640	447	648	224	324	86	160	428	550	433	863
0800	730	1416	736	1367	690	1319	384	528	237	278	692	1419	720	1372
0900	758	1143	749	1089	767	1151	538	871	369	451	756	1135	753	1097
1000	140	420	757	983	807	1066	728	890	452	547	753	927	730	950
1100	591	30	846	914	888	1032	836	996	528	558	769	880	824	879
1200	899	903	887	896	962	985	938	1209	862	850	939	891	882	915
1300	921	942	942	960	1069	1041	969	1300	803	778	946	953	949	947
1400	956	989	1000	964	1074	1002	969	1282	796	838	928	925	889	976
1500	1064	909	1055	951	1131	955	1048	1039	765	713	1052	958	1046	949
1600	1221	891	1253	959	1302	1006	977	879	782	689	1209	969	1188	931
1700	1378	972	1328	1062	1363	1087	1030	870	717	721	1355	986	1328	1007
1800	1423	1075	1363	1029	1400	1125	929	880	672	870	1406	977	1392	1051
1900	952	890	966	788	1074	975	874	872	639	681	888	802	998	798
2000	735	586	749	688	633	808	774	689	531	575	703	555	732	593
2100	631	531	671	548	715	713	689	634	481	446	559	439	855	471
2200	476	360	475	426	624	559	547	615	338	321	374	301	458	449
2300	253	271	267	281	449	434	458	443	153	211	209	289	282	243
2400	161	145	170	163	286	254	287	255	119	117	138	142	167	143
Totals:	14126	13560	15049	15174	16338	16642	13880	14930	9765	9974	14502	14598	14775	14883

** Counts provided are raw data and have not been adjusted seasonally or by axle factor.**

Day 1: Wednesday, April 11, 2007 (10:45 AM to Midnight), Wednesday, April 18, 2007 (Midnight to 8:15 AM)

Day 2: Thursday April 12, 2007

Day 3: Friday April 13, 2007

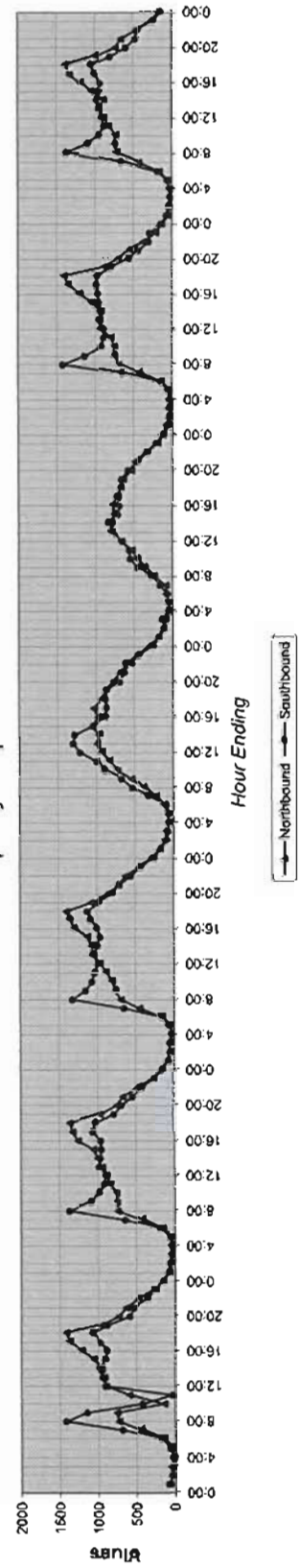
Day 4: Saturday April 15, 2007

Day 5: Sunday April 15, 2007

Day 6: Monday April 16, 2007

Day 7: Tuesday April 17, 2007

Business US-41 north of 5th Street Traffic Plots
(7 DayCounts)



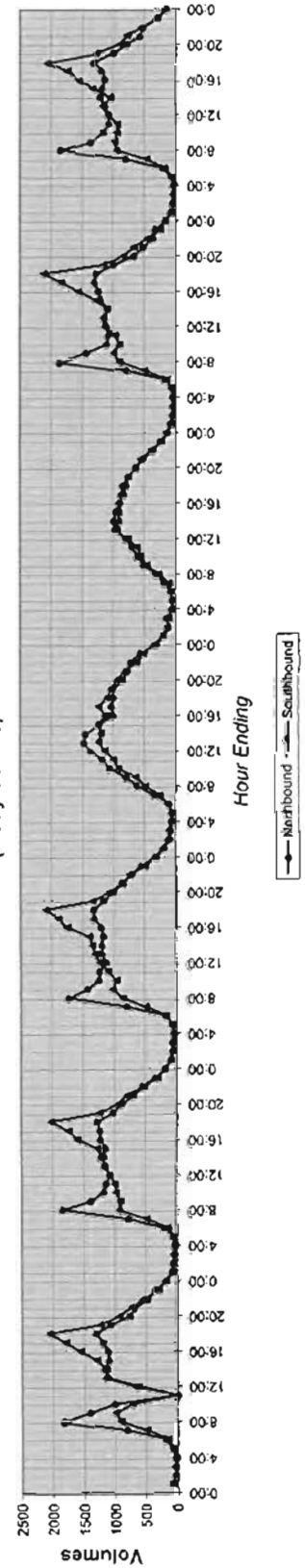
Riverside - 7 Day Count

Location: Business US-41 south of Riverside Drive
 Summary Begin Date: April 11, 2007
 Source: Tindale Oliver & Associates, Inc.

Hour Ending	Wednesday		Thursday		Friday		Saturday		Sunday		Monday		Tuesday	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
0100	74	90	87	89	95	95	215	188	209	200	59	85	61	80
0200	50	34	62	65	72	57	128	99	137	43	45	51	43	31
0300	55	25	81	48	66	61	119	90	117	148	41	40	45	31
0400	32	34	50	43	50	37	68	73	58	52	46	44	34	40
0500	56	75	52	67	62	77	78	73	52	55	73	48	59	67
0600	166	202	159	221	173	179	135	116	86	78	142	170	185	217
0700	486	812	497	791	489	794	262	339	112	188	487	790	463	804
0800	915	1624	944	1643	882	1737	485	620	271	310	902	1857	952	1852
0900	988	1417	940	1385	1030	1434	641	799	459	512	1001	1441	978	1360
1000	733	1010	986	1187	984	1247	1000	1188	616	897	804	1105	843	1164
1100	0	0	1005	1147	1101	1240	1000	1368	773	798	1142	1108	1091	1074
1200	684	605	1090	1084	1231	1125	1145	1368	948	875	1171	1149	1180	1148
1300	1157	1126	1178	1173	1308	1200	1250	1479	948	875	1171	1149	1180	1148
1400	1153	1176	1194	1228	1356	1200	1214	1455	924	986	1100	1099	1054	1217
1500	1302	1103	1290	1153	1407	1178	1248	1241	913	961	1281	1207	1340	1190
1600	1575	1120	1604	1240	1758	1207	1137	1014	917	896	1574	1243	1554	1143
1700	1814	1203	1755	1243	1895	1324	1246	1036	847	872	1834	1311	1751	1195
1800	2052	1316	2029	1290	2083	1334	1116	1010	814	849	2118	1282	2057	1317
1900	1254	1084	1251	1033	1347	1175	1039	1019	785	759	1160	1002	1288	1004
2000	943	783	953	888	1070	1011	953	849	640	647	839	669	904	782
2100	742	086	802	687	860	875	822	782	547	521	669	519	780	587
2200	559	468	531	552	737	710	630	728	387	357	450	368	548	523
2300	304	348	310	338	489	559	514	563	234	250	250	327	308	284
2400	189	178	199	188	333	319	353	315	147	129	172	163	181	180
Totals:	17315	16599	18599	18993	20858	20175	16721	17510	11531	11993	18428	18155	18745	18347

** Counts provided are raw data and have not been adjusted seasonally or by axle factor. **
 Day 1: Wednesday, April 11, 2007 (11:15 AM to Midnight); Wednesday, April 18, 2007 (Midnight to 10:00 AM)
 Day 2: Thursday April 12, 2007
 Day 3: Friday April 13, 2007
 Day 4: Saturday April 15, 2007
 Day 5: Sunday April 15, 2007
 Day 6: Monday April 16, 2007
 Day 7: Tuesday April 17, 2007

Business US-41 south of Riverside Drive Traffic Volumes
 (7 Day Counts)



Appendix C

Development Volumes

Regatta Place

ITE Land Use, Code, and Size	AM Peak Hour			PM Peak Hour					
	In	Out	Total	In	Out	Total			
Residential Condominium/Townhouse	230	119 dv	10	49	59	46	23	69	
Specialty Retail	814	6,691 sf	0	0	0	8	10	18	
Office	710	10,964 sf	28	4	32	3	13	16	
	Total Gross Trips			38	53	91	57	46	103
Internal Capture				0	0	0	-2	-2	-4
Total New External Trips				38	53	91	55	44	99

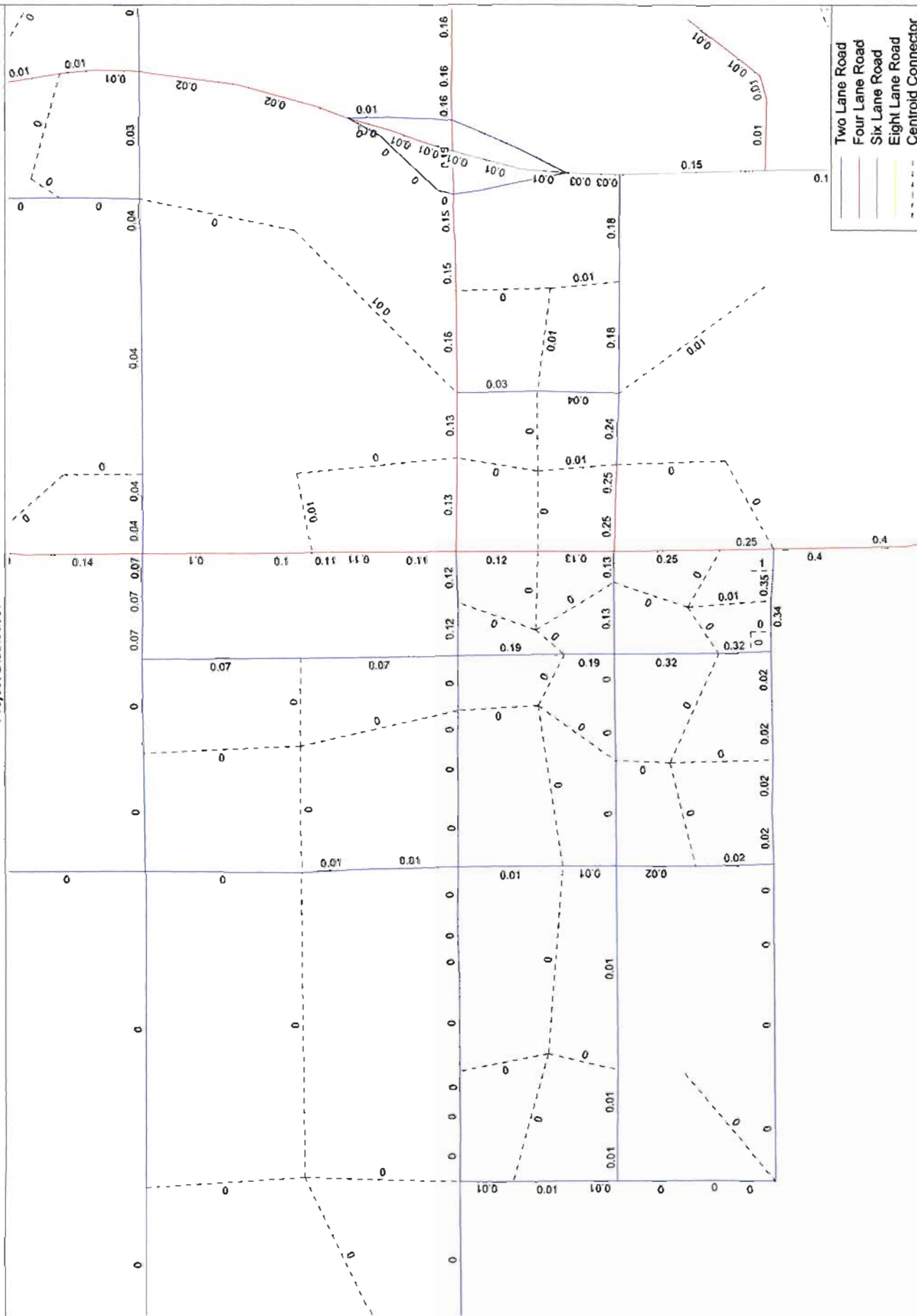
Note: Fitted curve was used when applicable, otherwise average rate was used.

10th Avenue Mixed Use Development

ITE Land Use, Code, and Size	AM Peak Hour			PM Peak Hour				
	In	Out	Total	In	Out	Total		
Hotel	310	80 rooms	19	12	31	25	22	47
Specialty Retail	814	20,000 sf	0	0	0	24	30	54
	Total Gross Trips		19	12	31	49	52	101
Internal Capture	0	0	0	0	-6	-6	-6	-12
Total New External Trips	19	12	31	43	46	89		

Note: Fitted curve was used when applicable, otherwise average rate was used.

Regatta Place
Project Distribution

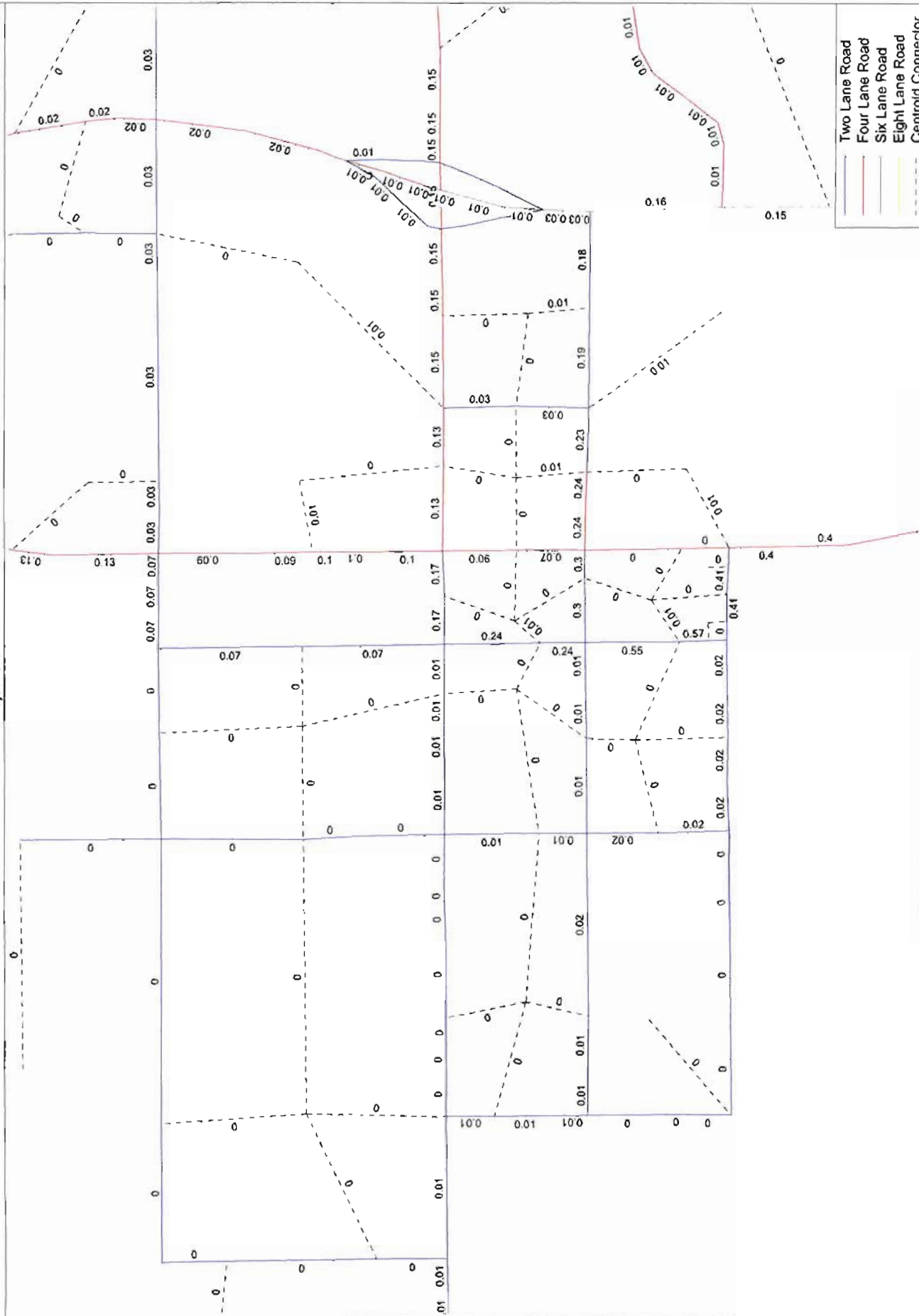


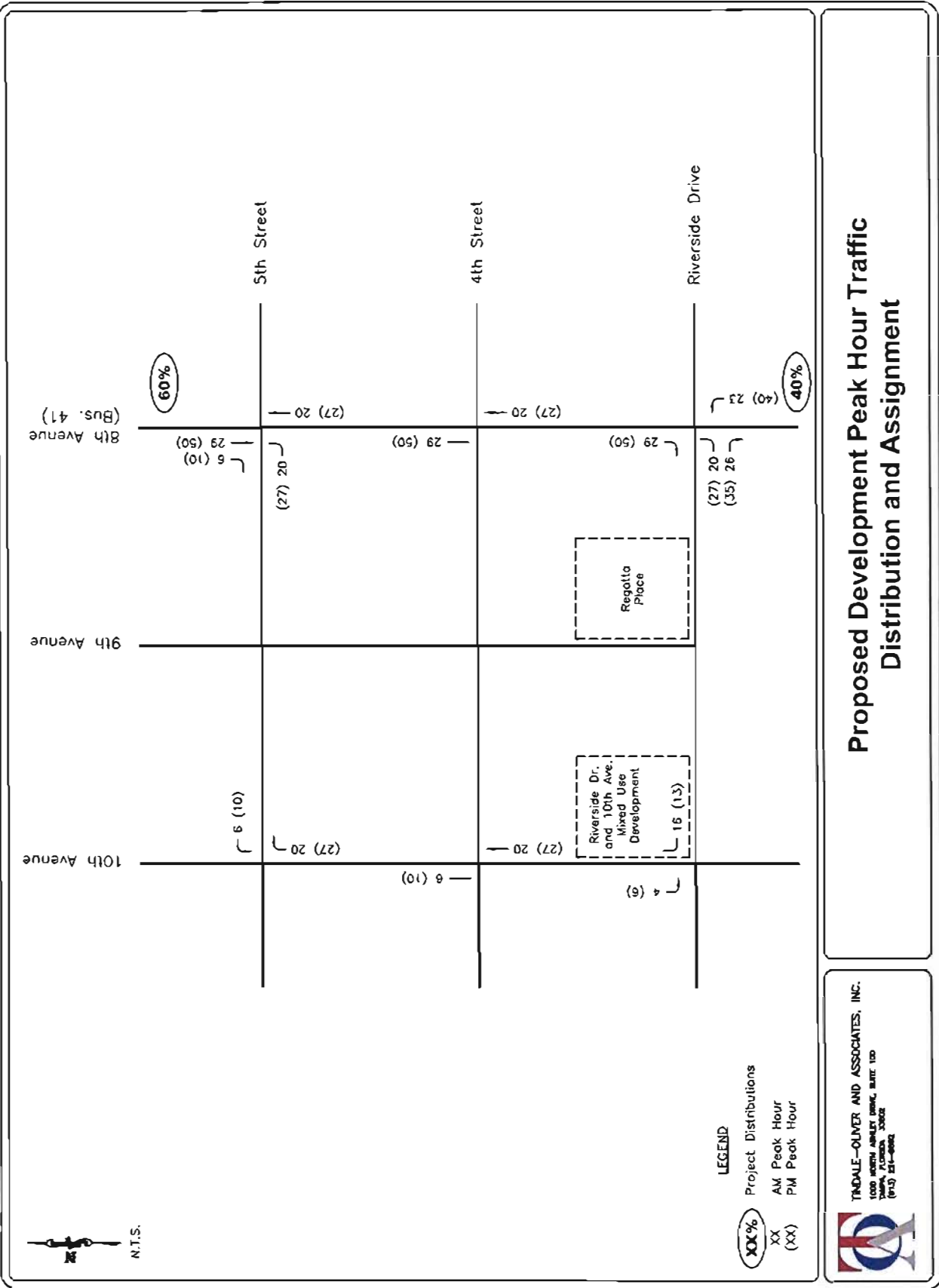
- Two Lane Road
- Four Lane Road
- Six Lane Road
- Eight Lane Road
- Centroid Connector

Licensed to Tindale-Oliver and Associates, Inc.

Viper Software by The Urban Analysis Group

Riverside at 10th Avenue
Project Distribution





Proposed Development Peak Hour Traffic Distribution and Assignment


TINDALE-OLIVER AND ASSOCIATES, INC.
 1000 WEST 40TH AVENUE, SUITE 100
 DENVER, COLORADO 80202
 (303) 733-4000

Location: 10th Avenue west at 5th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	21	22	68	17	4	158	13	6	40	15	414

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	21	22	68	17	4	158	13	6	40	15	414

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
Regatta Place	0	0	0	0	0	0	0	0	0	4	0	0	4
10th Avenue	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	0	0	0	0	0	0	0	0	0	6	0	0	6

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
10th Avenue	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Regatta Place	0	0	16	0	0	0	0	0	0	0	0	0	16
10th Avenue	0	0	4	0	0	0	0	0	0	0	0	0	4
Total	0	0	20	0	0	0	0	0	0	0	0	0	20

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	20	0	0	0	0	0	0	6	0	0	26

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	41	22	68	17	4	158	13	12	40	15	440

Location: 10th Avenue west at 4th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	47	0	12	47	6	21	148	34	4	42	14	396

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	47	0	12	47	6	21	148	34	4	42	14	396

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
Regatta Place	0	0	0	0	4	0	0	0	0	0	0	0	4
10th Avenue	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	6	0	0	0	0	0	0	0	6

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
10th Avenue	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Regatta Place	0	16	0	0	0	0	0	0	0	0	0	0	16
10th Avenue	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	20	0	0	0	0	0	0	0	0	0	0	20

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	20	0	0	6	0	0	0	0	0	0	0	26

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	67	0	12	53	6	21	148	34	4	42	14	422

Location: 10th Avenue west at Riverside Drive

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	87	6	2	1	28	0	15	9	49	205

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	87	6	2	1	28	0	15	9	49	205

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53
10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	4	0	0	0	0	0	0	0	0	4
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	4	0	0	0	0	0	0	0	0	4

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	30%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	0	0	0	0	0	0	0	0	16	16
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	16	16

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	4	0	0	0	0	0	0	0	16	20

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	91	6	2	1	28	0	15	9	65	225

Location: Business US-41 at 5th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	798	39	10	1,469	32	35	25	172	95	14	11	2,737

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	798	39	10	1,469	32	35	25	172	95	14	11	2,737

Approved Projects Traffic

	Inbound	Outbound
Regatta Place:	38	53
10th Avenue:	19	12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	0	0	19	4	0	0	0	0	0	0	23
10th Avenue	0	0	0	0	10	2	0	0	0	0	0	0	12
Total	0	0	0	0	29	6	0	0	0	0	0	0	35

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	30%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	30%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	60%
Regatta Place	0	16	0	0	0	0	16	0	0	0	0	0	32
10th Avenue	0	4	0	0	0	0	4	0	0	0	0	0	8
Total	0	20	0	0	0	0	20	0	0	0	0	0	40

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	20	0	0	29	6	20	0	0	0	0	0	75

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	818	39	10	1,498	38	55	25	172	95	14	11	2,812

Location: Business US-41 at 4th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	888	14	0	1,598	26	0	0	162	0	1	1	2,748

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	888	14	0	1,598	26	0	0	162	0	1	1	2,748

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
10th Avenue	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
Regatta Place	0	0	0	0	19	0	0	0	0	0	0	0	19
10th Avenue	0	0	0	0	10	0	0	0	0	0	0	0	10
Total	0	0	0	0	29	0	0	0	0	0	0	0	29

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
10th Avenue	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Regatta Place	0	16	0	0	0	0	0	0	0	0	0	0	16
10th Avenue	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	20	0	0	0	0	0	0	0	0	0	0	20

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	20	0	0	29	0	0	0	0	0	0	0	49

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	908	14	0	1,627	26	0	0	162	0	1	1	2,797

Location: Business US-41 at Riverside Drive

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	77	991	0	0	1,809	22	5	1	122	2	0	0	3,029

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	77	991	0	0	1,809	22	5	1	122	2	0	0	3,029

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
10th Avenue	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
Regatta Place	15	0	0	0	0	19	0	0	0	0	0	0	34
10th Avenue	8	0	0	0	0	10	0	0	0	0	0	0	18
Total	23	0	0	0	0	29	0	0	0	0	0	0	52

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	30%	0%	40%	0%	0%	0%	70%
10th Avenue	0%	0%	0%	0%	0%	0%	30%	0%	40%	0%	0%	0%	70%
Regatta Place	0	0	0	0	0	0	16	0	21	0	0	0	37
10th Avenue	0	0	0	0	0	0	4	0	5	0	0	0	9
Total	0	0	0	0	0	0	20	0	26	0	0	0	46

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	23	0	0	0	0	29	20	0	26	0	0	0	98

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	100	991	0	0	1,809	51	25	1	148	2	0	0	3,127

Location: 10th Avenue west at 5th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	20	23	62	19	7	39	7	9	67	26	479

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	20	23	62	19	7	39	7	9	67	26	479

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
Regatta Place	0	0	0	0	0	0	0	0	0	6	0	0	6
10th Avenue	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	10	0	0	10

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
10th Avenue	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Regatta Place	0	0	13	0	0	0	0	0	0	0	0	0	13
10th Avenue	0	0	14	0	0	0	0	0	0	0	0	0	14
Total	0	0	27	0	0	0	0	0	0	0	0	0	27

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	27	0	0	0	0	0	0	10	0	0	37

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	47	23	62	19	7	39	7	19	67	26	516

Location: 10th Avenue west at 4th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	146	4	11	72	6	31	80	18	1	147	49	621

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	146	4	11	72	6	31	80	18	1	147	49	621

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43

10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
Regatta Place	0	0	0	0	6	0	0	0	0	0	0	0	6
10th Avenue	0	0	0	0	4	0	0	0	0	0	0	0	4
Total	0	0	0	0	10	0	0	0	0	0	0	0	10

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
10th Avenue	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Regatta Place	0	13	0	0	0	0	0	0	0	0	0	0	13
10th Avenue	0	14	0	0	0	0	0	0	0	0	0	0	14
Total	0	27	0	0	0	0	0	0	0	0	0	0	27

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	27	0	0	10	0	0	0	0	0	0	0	37

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	173	4	11	82	6	31	80	18	1	147	49	658

Location: 10th Avenue west at Riverside Drive

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	72	14	3	1	19	2	13	62	184	401

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	72	14	3	1	19	2	13	62	184	401

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43

10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	8	0	0	0	0	0	0	0	0	6
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	6	0	0	0	0	0	0	0	0	6

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	30%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	0	0	0	0	0	0	0	0	13	13
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	13	13

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	6	0	0	0	0	0	0	0	13	19

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	78	14	3	1	19	2	13	62	197	420

Location: Business US-41 at 5th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,529	60	4	1,020	32	24	15	67	103	37	33	2,976

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,529	60	4	1,020	32	24	15	67	103	37	33	2,976

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	0	0	28	6	0	0	0	0	0	0	34
10th Avenue	0	0	0	0	22	4	0	0	0	0	0	0	26
Total	0	0	0	0	50	10	0	0	0	0	0	0	60

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	30%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	30%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	60%
Regatta Place	0	13	0	0	0	0	13	0	0	0	0	0	26
10th Avenue	0	14	0	0	0	0	14	0	0	0	0	0	28
Total	0	27	0	0	0	0	27	0	0	0	0	0	54

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	27	0	0	50	10	27	0	0	0	0	0	114

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,556	60	4	1,070	42	51	15	67	103	37	33	3,090

Location: Business US-41 at 4th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,683	16	2	1,152	25	2	1	95	0	0	3	3,164

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,683	16	2	1,152	25	2	1	95	0	0	3	3,164

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
10th Avenue	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
Regatta Place	0	0	0	0	28	0	0	0	0	0	0	0	28
10th Avenue	0	0	0	0	22	0	0	0	0	0	0	0	22
Total	0	0	0	0	50	0	0	0	0	0	0	0	50

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
10th Avenue	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Regatta Place	0	13	0	0	0	0	0	0	0	0	0	0	13
10th Avenue	0	14	0	0	0	0	0	0	0	0	0	0	14
Total	0	27	0	0	0	0	0	0	0	0	0	0	27

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	27	0	0	50	0	0	0	0	0	0	0	77

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,710	16	2	1,202	25	2	1	95	0	0	3	3,241

Location: Business US-41 at Riverside Drive

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	209	2,002	5	4	1,225	42	12	1	144	0	1	0	3,645

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	209	2,002	5	4	1,225	42	12	1	144	0	1	0	3,645

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43

10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
10th Avenue	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
Regatta Place	22	0	0	0	0	28	0	0	0	0	0	0	50
10th Avenue	18	0	0	0	0	22	0	0	0	0	0	0	40
Total	40	0	0	0	0	50	0	0	0	0	0	0	90

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	30%	0%	40%	0%	0%	0%	70%
10th Avenue	0%	0%	0%	0%	0%	0%	30%	0%	40%	0%	0%	0%	70%
Regatta Place	0	0	0	0	0	0	13	0	17	0	0	0	30
10th Avenue	0	0	0	0	0	0	14	0	18	0	0	0	32
Total	0	0	0	0	0	0	27	0	35	0	0	0	62

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	40	0	0	0	0	50	27	0	35	0	0	0	152

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	249	2,002	5	4	1,225	92	39	1	179	0	1	0	3,797

Appendix D

Business US-41

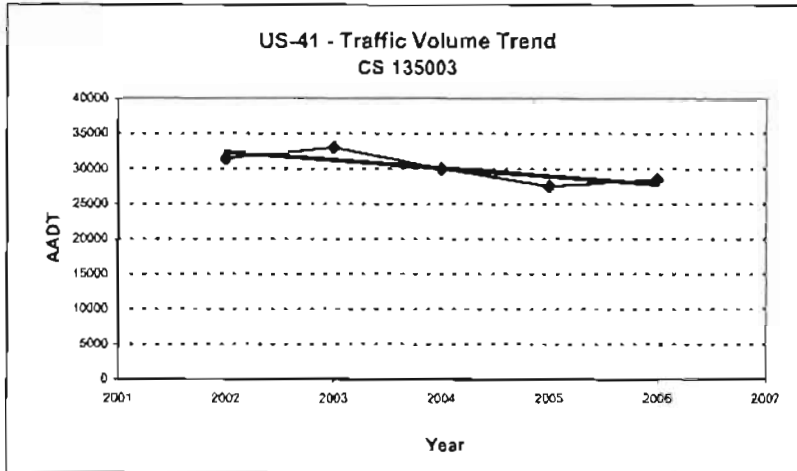
Traffic Volume Trend

US-41 Traffic Volume Trend

CS: 135003

Location: Business US-41 - south of 10th Street west

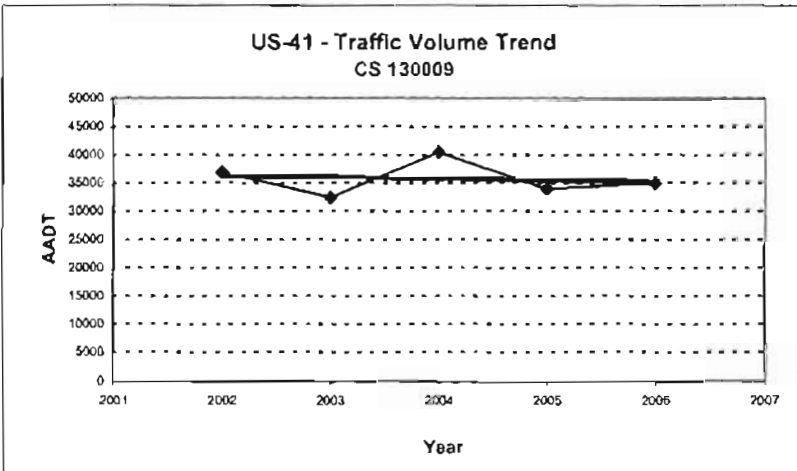
Year	AADT
2002	31500
2003	33000
2004	30000
2005	27500
2006	28500



CS: 130009

Location: Business US-41 - south of Riverside Dr

Year	AADT
2002	37000
2003	32500
2004	40500
2005	34000
2006	35000




















Appendix E

**Baseline Conditions
Analysis Worksheets**

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
AM Peak Hour - Baseline Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.869			0.988			0.994			0.996	
Flt Protected	0.950				0.962			0.998				
Satd. Flow (prot)	1752	1619	0	0	1758	0	0	3448	0	0	3524	0
Flt Permitted	0.692				0.533			0.593			0.946	
Satd. Flow (perm)	1277	1619	0	0	974	0	0	2049	0	0	3334	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		159			4			7			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		860			284			450			302	
Travel Time (s)		19.5			6.5			10.2			6.9	
Volume (vph)	55	25	172	95	14	11	37	818	39	10	1498	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	2%	2%	2%	8%	2%	3%	4%	2%	2%	2%	3%
Adj. Flow (vph)	62	28	195	108	16	12	42	930	44	11	1702	43
Lane Group Flow (vph)	62	223	0	0	136	0	0	1016	0	0	1756	0
Turn Type	Perm			Perm		custom				Perm		
Protected Phases		4			8			1 2			2	
Permitted Phases	4			8			1			2		
Detector Phases	4	4		8	8		1	1 2		2	2	
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0			27.0	27.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		11.5			31.5	31.5	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	14.5	82.0	0.0	67.5	67.5	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	11.6%	65.6%	0.0%	54.0%	54.0%	0.0%
Maximum Green (s)	38.5	38.5		38.5	38.5		10.0			63.0	63.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5			3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0			1.0	1.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0			3.0	3.0	
Recall Mode	None	None		None	None		Min			C-Min	C-Min	
Act Effct Green (s)	21.7	21.7			21.7			95.3			67.8	
Actuated g/C Ratio	0.17	0.17			0.17			0.76			0.54	
v/c Ratio	0.28	0.54			0.79			0.65			0.97	
Control Delay	45.3	18.4			76.5			10.7			44.1	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	45.3	18.4			76.5			10.7			44.1	
LOS	D	B			E			B			D	
Approach Delay		24.3			76.5			10.7			44.1	
Approach LOS		C			E			B			D	
90th %ile Green (s)	31.5	31.5		31.5	31.5		17.0			63.0	63.0	
90th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	

Synchro 6 Report

Tindale-Oliver & Associates, Inc.

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
AM Peak Hour - Baseline Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
70th %ile Green (s)	25.2	25.2		25.2	25.2		23.3			63.0	63.0	
70th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
50th %ile Green (s)	21.0	21.0		21.0	21.0		27.5			63.0	63.0	
50th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
30th %ile Green (s)	16.9	16.9		16.9	16.9		28.2			66.4	66.4	
30th %ile Term Code	Hold	Hold		Gap	Gap		Gap			Coord	Coord	
10th %ile Green (s)	11.3	11.3		11.3	11.3		18.9			81.3	81.3	
10th %ile Term Code	Hold	Hold		Gap	Gap		Gap			Coord	Coord	
Queue Length 50th (ft)	44	45			104			171			~804	
Queue Length 95th (ft)	77	106			159			318			#907	
Internal Link Dist (ft)		780			204			370			222	
Turn Bay Length (ft)												
Base Capacity (vph)	398	615			307			1564			1811	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.16	0.36			0.44			0.65			0.97	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 40 (32%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 33.1

Intersection LOS: C

Intersection Capacity Utilization 79.8%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

Splits and Phases: 6: 5th Street W & Bus US-41

14.5 s	67.5 s	43 s
		43 s

















HCM Unsignalized Intersection Capacity Analysis
1: 5th Street W & 10th Ave W

Riverside Park
AM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	158	13	12	40	15	8	42	41	22	68	17
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	186	15	14	47	18	9	49	48	26	80	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	206	79	107	126								
Volume Left (vph)	5	14	9	26								
Volume Right (vph)	15	18	48	20								
Hadj (s)	-0.01	-0.06	-0.20	-0.02								
Departure Headway (s)	4.6	4.6	4.5	4.7								
Degree Utilization, x	0.26	0.10	0.14	0.16								
Capacity (veh/h)	745	718	736	713								
Control Delay (s)	9.2	8.2	8.3	8.6								
Approach Delay (s)	9.2	8.2	8.3	8.6								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				8.7								
HCM Level of Service				A								
Intersection Capacity Utilization				27.1%	ICU Level of Service	A						
Analysis Period (min)				15								

















HCM Unsignalized Intersection Capacity Analysis
2: 4th Street W & 10th Ave W

Riverside Park
AM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	21	148	34	4	42	14	21	67	0	12	53	6
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	23	163	37	4	46	15	23	74	0	13	58	7
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	223	66	97	78								
Volume Left (vph)	23	4	23	13								
Volume Right (vph)	37	15	0	7								
Hadj (s)	-0.04	-0.08	0.18	0.08								
Departure Headway (s)	4.4	4.5	4.9	4.8								
Degree Utilization, x	0.27	0.08	0.13	0.10								
Capacity (veh/h)	791	747	694	699								
Control Delay (s)	9.0	7.9	8.6	8.3								
Approach Delay (s)	9.0	7.9	8.6	8.3								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay	8.6											
HCM Level of Service	A											
Intersection Capacity Utilization	30.1%			ICU Level of Service	A							
Analysis Period (min)	15											

















HCM Unsignalized Intersection Capacity Analysis
3: Riverside Dr & 10th Ave W

Riverside Park
AM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	28	0	15	9	65	0	6	2	91	6	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	30	0	16	10	71	0	7	2	99	7	2
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	32	97	9	108								
Volume Left (vph)	1	16	0	99								
Volume Right (vph)	0	71	2	2								
Hadj (s)	0.04	-0.36	-0.12	0.21								
Departure Headway (s)	4.3	3.8	4.2	4.4								
Degree Utilization, x	0.04	0.10	0.01	0.13								
Capacity (veh/h)	806	906	822	797								
Control Delay (s)	7.5	7.3	7.2	8.0								
Approach Delay (s)	7.5	7.3	7.2	8.0								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.6									
HCM Level of Service			A									
Intersection Capacity Utilization			30.8%	ICU Level of Service					A			
Analysis Period (min)			15									





















HCM Unsignalized Intersection Capacity Analysis
4: 4th Street W & Bus US-41

Riverside Park
AM Peak Hour - Baseline Conditions



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	162	0	1	1	58	908	14	1	1627	26
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	0	193	0	1	1	69	1081	17	1	1937	31
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)											450	
pX, platoon unblocked	0.52	0.52	0.52	0.52	0.52		0.52					
vC, conflicting volume	2635	3190	984	2391	3198	549	1968			1098		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3214	4276	57	2748	4290	549	1939			1098		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	63	100	0	100	55			100		
cM capacity (veh/h)	0	1	521	2	1	480	152			632		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	193	2	610	557	970	999						
Volume Left	0	0	69	0	1	0						
Volume Right	193	1	0	17	0	31						
cSH	521	1	152	1700	632	1700						
Volume to Capacity	0.37	2.34	0.45	0.33	0.00	0.59						
Queue Length 95th (ft)	42	26	52	0	0	0						
Control Delay (s)	15.9	5799.9	32.9	0.0	0.1	0.0						
Lane LOS	C	F	D		A							
Approach Delay (s)	15.9	5799.9	17.2		0.0							
Approach LOS	C	F										
Intersection Summary												
Average Delay			11.1									
Intersection Capacity Utilization			85.9%		ICU Level of Service		E					
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
5: Riverside Dr & Bus US-41

Riverside Park
AM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	25	1	148	2	0	0	100	991	0	1	1809	51
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	28	1	166	2	0	0	112	1113	0	1	2033	57
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh		1			1							
Upstream signal (ft)											1050	
pX, platoon unblocked	0.52	0.52	0.52	0.52	0.52		0.52					
vC, conflicting volume	2845	3402	1045	2524	3430	557	2090			1113		
vC1, stage 1 conf vol	2063	2063		1338	1338							
vC2, stage 2 conf vol	781	1338		1185	2092							
vCu, unblocked vol	3631	4706	156	3011	4762	557	2174			1113		
tC, single (s)	7.5	6.5	7.0	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	92	63	82	100	100	10			100		
cM capacity (veh/h)	14	13	445	12	0	474	125			623		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3			
Volume Total	29	166	2	112	742	371	1	1355	735			
Volume Left	28	0	2	112	0	0	1	0	0			
Volume Right	0	166	0	0	0	0	0	0	57			
cSH	14	445	12	125	1700	1700	623	1700	1700			
Volume to Capacity	2.10	0.37	0.18	0.90	0.44	0.22	0.00	0.80	0.43			
Queue Length 95th (ft)	110	43	12	143	0	0	0	0	0			
Control Delay (s)	1066.8	17.8	353.8	120.8	0.0	0.0	10.8	0.0	0.0			
Lane LOS	F	C	F	F			B					
Approach Delay (s)	174.6		353.8	11.1			0.0					
Approach LOS	F		F									
Intersection Summary												
Average Delay			13.8									
Intersection Capacity Utilization			74.1%		ICU Level of Service				D			
Analysis Period (min)			15									

Synchro 6 Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.877			0.975			0.995			0.994	
Flt Protected	0.950				0.971			0.998				
Satd. Flow (prot)	1770	1634	0	0	1760	0	0	3514	0	0	3518	0
Flt Permitted	0.631				0.773			0.699			0.948	
Satd. Flow (perm)	1175	1634	0	0	1401	0	0	2462	0	0	3335	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72			10			6			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		860			284			450			302	
Travel Time (s)		19.5			6.5			10.2			6.9	
Volume (vph)	51	15	67	103	37	33	52	1556	60	4	1070	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	55	16	72	111	40	35	56	1673	65	4	1151	45
Lane Group Flow (vph)	55	88	0	0	186	0	0	1794	0	0	1200	0
Turn Type	Perm			Perm		custom				Perm		
Protected Phases		4			8			1 2			2	
Permitted Phases	4			8			1			2		
Detector Phases	4	4		8	8		1	1 2		2	2	
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0			20.0	20.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		11.5			24.5	24.5	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	14.5	82.0	0.0	67.5	67.5	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	11.6%	65.6%	0.0%	54.0%	54.0%	0.0%
Maximum Green (s)	38.5	38.5		38.5	38.5		10.0			63.0	63.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5			3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0			1.0	1.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0			3.0	3.0	
Recall Mode	None	None		None	None		Min			C-Min	C-Min	
Act Effct Green (s)	20.4	20.4			20.4			96.6			63.5	
Actuated g/C Ratio	0.16	0.16			0.16			0.77			0.51	
v/c Ratio	0.29	0.27			0.78			0.94			0.71	
Control Delay	47.4	14.8			68.7			25.0			26.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	47.4	14.8			68.7			25.0			26.4	
LOS	D	B			E			C			C	
Approach Delay		27.3			68.7			25.0			26.4	
Approach LOS		C			E			C			C	
90th %ile Green (s)	28.3	28.3		28.3	28.3		20.2			63.0	63.0	
90th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
PM Peak Hour - Baseline Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
70th %ile Green (s)	23.2	23.2		23.2	23.2		25.3			63.0	63.0	
70th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
50th %ile Green (s)	19.8	19.8		19.8	19.8		28.7			63.0	63.0	
50th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
30th %ile Green (s)	16.5	16.5		16.5	16.5		32.0			63.0	63.0	
30th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
10th %ile Green (s)	11.9	11.9		11.9	11.9		36.6			63.0	63.0	
10th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
Queue Length 50th (ft)	40	11			139			537			378	
Queue Length 95th (ft)	75	54			206			#959			461	
Internal Link Dist (ft)		780			204			370			222	
Turn Bay Length (ft)												
Base Capacity (vph)	367	559			444			1903			1696	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.15	0.16			0.42			0.94			0.71	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 40 (32%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 28.1

Intersection LOS: C

Intersection Capacity Utilization 103.8%

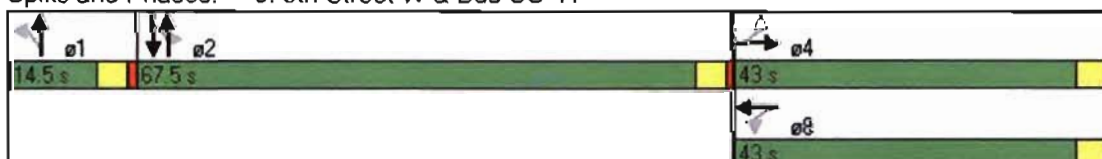
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

Splits and Phases: 6: 5th Street W & Bus US-41



















HCM Unsignalized Intersection Capacity Analysis
1: 5th Street W & 10th Ave W

Riverside Park
PM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	39	7	19	67	26	27	173	47	23	62	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	8	44	8	21	75	29	30	194	53	26	70	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	60	126	278	117								
Volume Left (vph)	8	21	30	26								
Volume Right (vph)	8	29	53	21								
Hadj (s)	-0.02	-0.07	-0.06	-0.03								
Departure Headway (s)	5.0	4.8	4.5	4.7								
Degree Utilization, x	0.08	0.17	0.34	0.15								
Capacity (veh/h)	652	683	775	723								
Control Delay (s)	8.4	8.8	9.8	8.5								
Approach Delay (s)	8.4	8.8	9.8	8.5								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.2									
HCM Level of Service			A									
Intersection Capacity Utilization			30.9%		ICU Level of Service				A			
Analysis Period (min)			15									

















HCM Unsignalized Intersection Capacity Analysis
2: 4th Street W & 10th Ave W

Riverside Park
PM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	31	80	19	1	147	49	56	173	4	11	82	6
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	37	96	23	1	177	59	67	208	5	13	99	7
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	157	237	281	119								
Volume Left (vph)	37	1	67	13								
Volume Right (vph)	23	59	5	7								
Hadj (s)	-0.01	-0.11	0.08	0.02								
Departure Headway (s)	5.4	5.1	5.2	5.4								
Degree Utilization, x	0.23	0.34	0.41	0.18								
Capacity (veh/h)	609	648	638	596								
Control Delay (s)	10.0	10.8	11.8	9.6								
Approach Delay (s)	10.0	10.8	11.8	9.6								
Approach LOS	B	B	B	A								
Intersection Summary												
Delay	10.8											
HCM Level of Service	B											
Intersection Capacity Utilization	47.0%			ICU Level of Service					A			
Analysis Period (min)	15											

















HCM Unsignalized Intersection Capacity Analysis
3: Riverside Dr & 10th Ave W

Riverside Park
PM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	19	2	13	62	197	0	22	9	78	14	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	21	2	14	69	219	0	24	10	87	16	3
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	24	302	34	106								
Volume Left (vph)	1	14	0	87								
Volume Right (vph)	2	219	10	3								
Hadj (s)	-0.01	-0.39	-0.14	0.18								
Departure Headway (s)	4.5	3.9	4.6	4.8								
Degree Utilization, x	0.03	0.33	0.04	0.14								
Capacity (veh/h)	752	890	723	696								
Control Delay (s)	7.7	8.8	7.8	8.6								
Approach Delay (s)	7.7	8.8	7.8	8.6								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.6									
HCM Level of Service			A									
Intersection Capacity Utilization			39.0%		ICU Level of Service				A			
Analysis Period (min)			15									




















HCM Unsignalized Intersection Capacity Analysis
4: 4th Street W & Bus US-41

Riverside Park
PM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	1	95	0	0	3	185	1710	16	2	1202	25
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	2	1	101	0	0	3	197	1819	17	2	1279	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)											450	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	2603	3526	653	2966	3531	918	1305			1836		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2808	4047	193	3296	4053	918	1068			1836		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	49	8	83	100	100	99	59			99		
cM capacity (veh/h)	4	1	608	0	1	274	483			328		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	104	3	1106	927	641	666						
Volume Left	2	0	197	0	2	0						
Volume Right	101	3	0	17	0	27						
cSH	65	274	483	1700	328	1700						
Volume to Capacity	1.60	0.01	0.41	0.55	0.01	0.39						
Queue Length 95th (ft)	229	1	49	0	0	0						
Control Delay (s)	434.5	18.3	15.7	0.0	0.2	0.0						
Lane LOS	F	C	C		A							
Approach Delay (s)	434.5	18.3	8.5		0.1							
Approach LOS	F	C										
Intersection Summary												
Average Delay			18.2									
Intersection Capacity Utilization			105.0%		ICU Level of Service					G		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
5: Riverside Dr & Bus US-41

Riverside Park
PM Peak Hour - Baseline Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	39	1	179	0	1	0	249	2002	5	4	1225	92
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	41	1	186	0	1	0	259	2085	5	4	1276	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised			Raised								
Median storage veh	1			1								
Upstream signal (ft)											1050	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	2894	3942	686	3440	3987	1045	1372			2091		
vC1, stage 1 conf vol	1332	1332		2607	2607							
vC2, stage 2 conf vol	1562	2609		833	1380							
vCu, unblocked vol	3187	4577	256	3912	4637	1045	1166			2091		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	93	67	100	0	100	42			98		
cM capacity (veh/h)	31	14	560	6	0	225	448			261		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3			
Volume Total	42	186	1	259	1390	700	4	851	521			
Volume Left	41	0	0	259	0	0	4	0	0			
Volume Right	0	186	0	0	0	5	0	0	96			
cSH	30	560	0	448	1700	1700	261	1700	1700			
Volume to Capacity	1.39	0.33	3.26	0.58	0.82	0.41	0.02	0.50	0.31			
Queue Length 95th (ft)	119	36	Err	90	0	0	1	0	0			
Control Delay (s)	499.7	14.6	Err	23.5	0.0	0.0	19.0	0.0	0.0			
Lane LOS	F	B	F	C			C					
Approach Delay (s)	103.2		Err	2.6			0.1					
Approach LOS	F		F									
Intersection Summary												
Average Delay			10.1									
Intersection Capacity Utilization			77.7%	ICU Level of Service					D			
Analysis Period (min)			15									

Appendix F

Improvement Scenario Traffic Volume Reassignment



N.T.S.

	10th Avenue	9th Avenue	8th Avenue (Bus. 41)	5th Street
XX Baseline Traffic Volume	[17] (0) [17] [68] (0) [68] [22] (0) [22]	15 (0) [15] 40 (0) [40] 12 (1) [13]	38 (0) [38] 1496 (0) [1496] 10 (0) [10]	11 (0) [11] 14 (1) [15] 95 (2) [97]
XX Traffic Volume Reassignment	[4] (0) 4 [156] (0) 156 [13] (0) 13	[8] (0) 8 [42] (0) 42 [66] (25) 41	[79] (24) 55 [26] (1) 25 [172] (0) 172	[37] (0) 37 [793] (-25) 818 [39] (0) 39
XX Improvement Scenario Traffic Volume	5 (1) [7] 12 (0) [12] 53 (0) [53]	14 (0) [14] 42 (-1) [41] 4 (0) [4]	26 (0) [26] 1627 (2) [1629] 0 (0) [0]	1 (0) [1] 1 (-1) [0] 0 (0) [0]
	[21] (0) 21 [148] (0) 148 [34] (0) 34	[2] (0) 2 [92] (25) 67 [0] (0) 0	[0] (0) 0 [0] (0) 0 [162] (0) 162	[58] (0) 58 [83] (-25) 908 [14] (0) 14
	2 (0) [2] 6 (0) [6] 9 (0) [9]	65 (15) [81] 9 (0) [9] 15 (0) [15]	51 (0) [51] 1809 (2) [1811] 0 (0) [0]	0 (0) [0] 0 (0) [0] 2 (-2) [0]
	[7] (6) 1 [22] (-6) 28 [0] (0) 0	[2] (0) 2 [0] (0) 0 [0] (0) 0	[0] (-25) 25 [0] (-1) 1 [148] (0) 148	[100] (0) 100 [991] (0) 991 [0] (0) 0
				Riverside Drive

LEGEND

XX Baseline Traffic Volume
 (XX) Traffic Volume Reassignment
 [XX] Improvement Scenario Traffic Volume



TINDALE-OLIVER AND ASSOCIATES, INC.
 1000 WEST 40TH AVENUE, SUITE 100
 DENVER, COLORADO 80202
 (313) 733-0000

AM Peak Hour Improvement Scenario Traffic Volume Reassignment



N.T.S.

10th Avenue	9th Avenue	5th Street	4th Street	Riverside Drive
[19] (0) [19] [62] (0) [62] [23] (0) [23]	[26] (0) [26] [67] (0) [67] [19] (1) [20]	[92] (41) 51 [17] (2) 15 [67] (0) 67 [25] (0) [25] 1202 (0) [1202] 2 (0) [2]	[56] (0) 56 [40] (0) 40 [4] (0) 4 [197] (13) [210] [62] (-1) [61] [13] (0) [13]	[249] (0) 249 [2002] (0) 2002 [5] (0) 5 [0] (-1) 1 [179] (0) 179
[7] (0) 7 [39] (0) 39 [7] (0) 7	[27] (0) 27 [173] (0) 173 [90] (43) 47 [49] (0) [49] 147 (0) [147] 1 (0) [1]	[52] (0) 52 [60] (0) 60 [41] (-41) 1556 1515 5 (0) [3] 0 (0) [0] 0 (0) [0]	[167] (-39) 1710 [185] (0) 185 [16] (0) 16 [0] (-2) 2 [95] (0) 95 [0] (-1) 1	[0] (0) 0 [22] (0) 22 [9] (0) 9 [0] (-1) 1 [179] (0) 179
[14] (13) 14 [6] (-13) 19 [2] (0) 2	[78] (0) [78] [4] (1) [4] [14] (0) [14]	[34] (3) 31 [77] (-3) 80 [18] (0) 18	[0] (0) [0] [1] (-1) [0] [0] (0) [0]	[249] (0) 249 [2002] (0) 2002 [5] (0) 5 [0] (-1) 1 [179] (0) 179

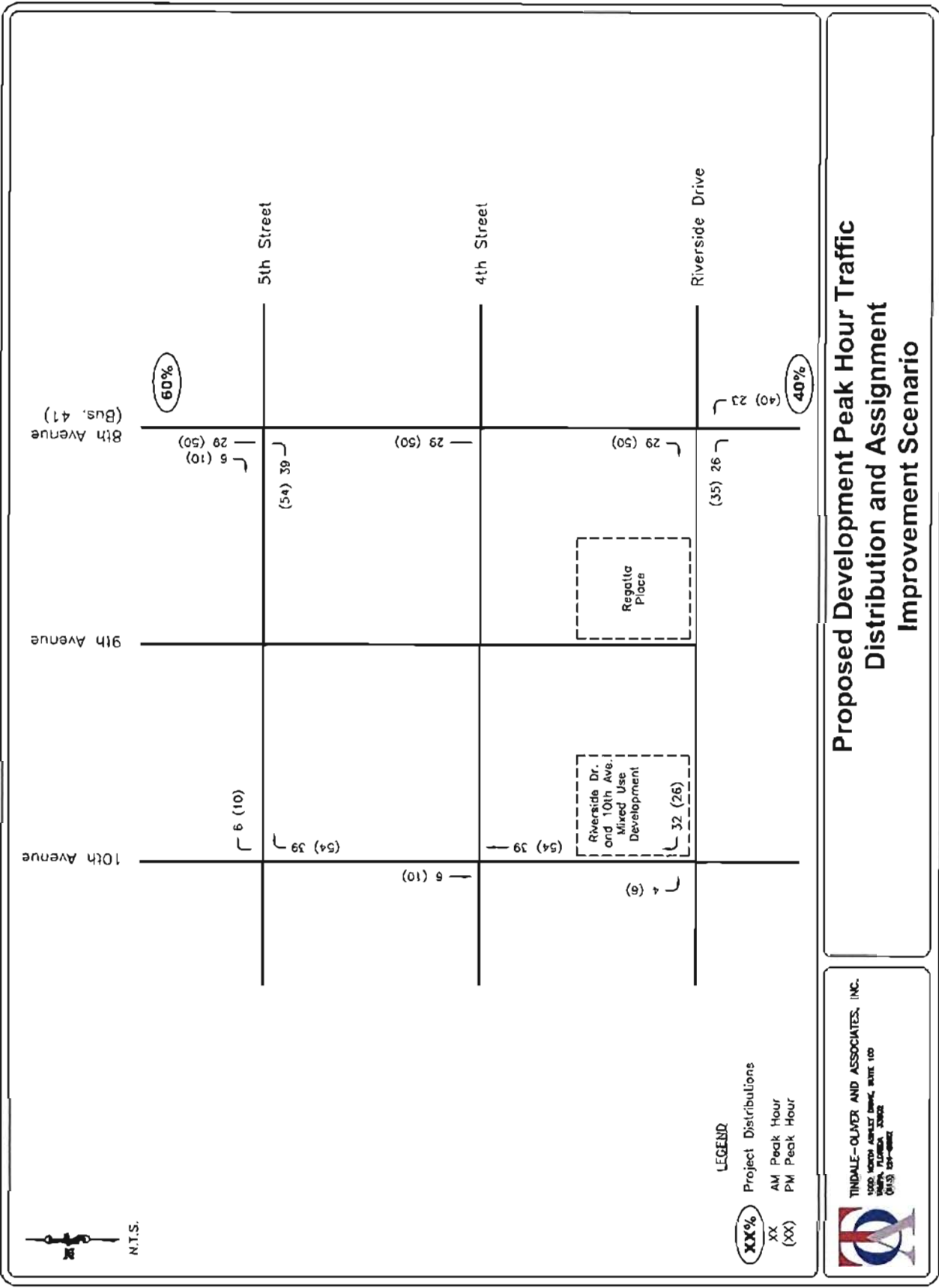
XX Baseline Traffic Volume
 (XX) Traffic Volume Reassignment
 [XX] Improvement Scenario Traffic Volume

LEGEND



TINDALE-OLIVER AND ASSOCIATES, INC.
 1000 NORTH ASHLEY DRIVE, SUITE 100
 DENVER, COLORADO 80202
 (303) 271-0880

PM Peak Hour Improvement Scenario Traffic Volume Reassignment



Proposed Development Peak Hour Traffic Distribution and Assignment Improvement Scenario

TINDALE-OLIVER AND ASSOCIATES, INC.
1000 NORTH AVENUE, SUITE 100
DADE CITY, FLORIDA 34608
(813) 294-0000



Location: 10th Avenue west at 5th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	21	22	68	17	4	158	13	6	40	15	414

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	21	22	68	17	4	158	13	6	40	15	414

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	0	6	0	0	0	0	0	0	1	0	0	7

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	27	22	68	17	4	158	13	7	40	15	421

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
Regatta Place	0	0	0	0	0	0	0	0	0	4	0	0	4
10th Avenue	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	0	0	0	0	0	0	0	0	0	6	0	0	6

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	32	0	0	0	0	0	0	0	0	0	32
10th Avenue	0	0	7	0	0	0	0	0	0	0	0	0	7
Total	0	0	39	0	0	0	0	0	0	0	0	0	39

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	39	0	0	0	0	0	0	6	0	0	45

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	8	42	66	22	68	17	4	158	13	13	40	15	466

Location: 10th Avenue west at 4th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	47	0	12	47	6	21	148	34	4	42	14	396

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	47	0	12	47	6	21	148	34	4	42	14	396

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	0	0	0	1	0	0	0	0	-1	0	6

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	53	0	12	47	7	21	148	34	4	41	14	402

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53
10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
Regatta Place	0	0	0	0	4	0	0	0	0	0	0	0	4
10th Avenue	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	6	0	0	0	0	0	0	0	6

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	32	0	0	0	0	0	0	0	0	0	0	32
10th Avenue	0	7	0	0	0	0	0	0	0	0	0	0	7
Total	0	39	0	0	0	0	0	0	0	0	0	0	39

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	39	0	0	6	0	0	0	0	0	0	0	45

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	21	92	0	12	53	7	21	148	34	4	41	14	447

Location: 10th Avenue west at Riverside Drive

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	87	6	2	1	28	0	15	9	49	205

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	87	6	2	1	28	0	15	9	49	205

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	0	0	0	0	0	6	-6	0	0	0	0	0

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	87	6	2	7	22	0	15	9	49	205

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53
10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	4	0	0	0	0	0	0	0	0	4
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	4	0	0	0	0	0	0	0	0	4

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%	60%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	0	0	0	0	0	0	0	0	32	32
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	32	32

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	4	0	0	0	0	0	0	0	32	36

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	6	2	91	6	2	7	22	0	15	9	81	241

Location: Business US-41 at 5th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	798	39	10	1,469	32	35	25	172	95	14	11	2,737

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	798	39	10	1,469	32	35	25	172	95	14	11	2,737

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	-5	0	0	0	0	5	1	0	2	1	0	4

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	793	39	10	1,469	32	40	26	172	97	15	11	2,741

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	0	0	19	4	0	0	0	0	0	0	23
10th Avenue	0	0	0	0	10	2	0	0	0	0	0	0	12
Total	0	0	0	0	29	6	0	0	0	0	0	0	35

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	0	0	0	0	32	0	0	0	0	0	32
10th Avenue	0	0	0	0	0	0	7	0	0	0	0	0	7
Total	0	0	0	0	0	0	39	0	0	0	0	0	39

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	0	29	6	39	0	0	0	0	0	74

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	37	793	39	10	1,498	38	79	26	172	97	15	11	2,815

Location: Business US-41 at 4th Street west

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	888	14	0	1,598	26	0	0	162	0	1	1	2,748

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	888	14	0	1,598	26	0	0	162	0	1	1	2,748

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	-5	0	0	2	0	0	0	0	0	-1	0	-4

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	883	14	0	1,600	26	0	0	162	0	0	1	2,744

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53
10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
10th Avenue	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
Regatta Place	0	0	0	0	19	0	0	0	0	0	0	0	19
10th Avenue	0	0	0	0	10	0	0	0	0	0	0	0	10
Total	0	0	0	0	29	0	0	0	0	0	0	0	29

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	0	0	0	0	0	0	0	0	0	0
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	0	29	0	0	0	0	0	0	0	29

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	58	883	14	0	1,629	26	0	0	162	0	0	1	2,773

Location: Business US-41 at Riverside Drive

2007 AM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	77	991	0	0	1,809	22	5	1	122	2	0	0	3,029

Baseline AM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	77	991	0	0	1,809	22	5	1	122	2	0	0	3,029

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	0	0	0	2	0	-5	-1	0	-2	0	0	-6

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	77	991	0	0	1,811	22	0	0	122	0	0	0	3,023

Approved Projects Traffic

Inbound Outbound

Regatta Place: 38 53

10th Avenue: 19 12

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
10th Avenue	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
Regatta Place	15	0	0	0	0	19	0	0	0	0	0	0	34
10th Avenue	8	0	0	0	0	10	0	0	0	0	0	0	18
Total	23	0	0	0	0	29	0	0	0	0	0	0	52

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	40%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	40%
Regatta Place	0	0	0	0	0	0	0	0	21	0	0	0	21
10th Avenue	0	0	0	0	0	0	0	0	5	0	0	0	5
Total	0	0	0	0	0	0	0	0	26	0	0	0	26

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	23	0	0	0	0	29	0	0	26	0	0	0	78

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	100	991	0	0	1,811	51	0	0	148	0	0	0	3,101

Location: 10th Avenue west at 5th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	20	23	62	19	7	39	7	9	67	26	479

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	20	23	62	19	7	39	7	9	67	26	479

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	0	16	0	0	0	0	0	0	1	0	0	17

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	36	23	62	19	7	39	7	10	67	26	496

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43

10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%
Regatta Place	0	0	0	0	0	0	0	0	0	6	0	0	6
10th Avenue	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	10	0	0	10

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	26	0	0	0	0	0	0	0	0	0	26
10th Avenue	0	0	28	0	0	0	0	0	0	0	0	0	28
Total	0	0	54	0	0	0	0	0	0	0	0	0	54

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	54	0	0	0	0	0	0	10	0	0	64

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	27	173	90	23	62	19	7	39	7	20	67	26	560

Location: 10th Avenue west at 4th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	146	4	11	72	6	31	80	18	1	147	49	621

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	146	4	11	72	6	31	80	18	1	147	49	621

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	13	0	0	1	0	3	-3	0	0	0	0	14

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	159	4	11	73	6	34	77	18	1	147	49	635

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%
Regatta Place	0	0	0	0	6	0	0	0	0	0	0	0	6
10th Avenue	0	0	0	0	4	0	0	0	0	0	0	0	4
Total	0	0	0	0	10	0	0	0	0	0	0	0	10

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	26	0	0	0	0	0	0	0	0	0	0	26
10th Avenue	0	28	0	0	0	0	0	0	0	0	0	0	28
Total	0	54	0	0	0	0	0	0	0	0	0	0	54

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	54	0	0	10	0	0	0	0	0	0	0	64

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	56	213	4	11	83	6	34	77	18	1	147	49	699

Location: 10th Avenue west at Riverside Drive

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	72	14	3	1	19	2	13	62	184	401

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	72	14	3	1	19	2	13	62	184	401

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	0	0	0	0	1	13	-13	0	0	-1	0	0

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	72	14	4	14	6	2	13	61	184	401

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43

10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	6	0	0	0	0	0	0	0	0	6
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	6	0	0	0	0	0	0	0	0	6

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%	60%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	0	0	0	0	0	0	0	0	26	26
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	26	26

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	6	0	0	0	0	0	0	0	26	32

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	22	9	78	14	4	14	6	2	13	61	210	433

Location: Business US-41 at 5th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,529	60	4	1,020	32	24	15	67	103	37	33	2,976

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,529	60	4	1,020	32	24	15	67	103	37	33	2,976

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	-14	0	0	0	0	14	2	0	0	1	0	3

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,515	60	4	1,020	32	38	17	67	103	38	33	2,979

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	0%	0%	50%	10%	0%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	0	0	28	6	0	0	0	0	0	0	34
10th Avenue	0	0	0	0	22	4	0	0	0	0	0	0	26
Total	0	0	0	0	50	10	0	0	0	0	0	0	60

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	60%
10th Avenue	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	60%
Regatta Place	0	0	0	0	0	0	26	0	0	0	0	0	26
10th Avenue	0	0	0	0	0	0	28	0	0	0	0	0	28
Total	0	0	0	0	0	0	54	0	0	0	0	0	54

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	0	50	10	54	0	0	0	0	0	114

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	52	1,515	60	4	1,070	42	92	17	67	103	38	33	3,093

Location: Business US-41 at 4th Street west

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,683	16	2	1,152	25	2	1	95	0	0	3	3,164

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,683	16	2	1,152	25	2	1	95	0	0	3	3,164

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	-12	0	0	0	0	-2	-1	0	0	0	0	-15

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,671	16	2	1,152	25	0	0	95	0	0	3	3,149

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 46

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
10th Avenue	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	50%
Regatta Place	0	0	0	0	28	0	0	0	0	0	0	0	28
10th Avenue	0	0	0	0	22	0	0	0	0	0	0	0	22
Total	0	0	0	0	50	0	0	0	0	0	0	0	50

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Regatta Place	0	0	0	0	0	0	0	0	0	0	0	0	0
10th Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	0	0	0	0	50	0	0	0	0	0	0	0	50

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	185	1,671	16	2	1,202	25	0	0	95	0	0	3	3,199

Location: Business US-41 at Riverside Drive

2007 PM Peak Hour - Peak Season

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	209	2,002	5	4	1,225	42	12	1	144	0	1	0	3,645

Baseline PM Peak Hour - Peak Season

Background Traffic

Annual

Growth Rate: 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	209	2,002	5	4	1,225	42	12	1	144	0	1	0	3,645

Re-assigned Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	0	0	0	0	0	0	-12	-1	0	0	-1	0	-14

Total Background Traffic

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	209	2,002	5	4	1,225	42	0	0	144	0	0	0	3,631

Approved Projects Traffic

Inbound Outbound

Regatta Place: 55 43
10th Avenue: 44 48

Inbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
10th Avenue	40%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	90%
Regatta Place	22	0	0	0	0	28	0	0	0	0	0	0	50
10th Avenue	18	0	0	0	0	22	0	0	0	0	0	0	40
Total	40	0	0	0	0	50	0	0	0	0	0	0	90

Outbound

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Regatta Place	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	40%
10th Avenue	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	40%
Regatta Place	0	0	0	0	0	0	0	0	17	0	0	0	17
10th Avenue	0	0	0	0	0	0	0	0	18	0	0	0	18
Total	0	0	0	0	0	0	0	0	35	0	0	0	35

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
Total	40	0	0	0	0	50	0	0	35	0	0	0	125

Total Traffic (Background + Approved Projects Traffic)

	Northbound			Southbound			Eastbound			Westbound			TOTAL
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
	249	2,002	5	4	1,225	92	0	0	179	0	0	0	3,756


















Appendix G

Improvement Scenario

Analysis Worksheets

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
AM Peak Hour - Improvement Scenario

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.870			0.988			0.993			0.996	
Flt Protected	0.950				0.962			0.998				
Satd. Flow (prot)	1752	1621	0	0	1758	0	0	3444	0	0	3524	0
Flt Permitted	0.691				0.527			0.593			0.946	
Satd. Flow (perm)	1275	1621	0	0	963	0	0	2047	0	0	3334	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		159			4			7			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		860			284			450			302	
Travel Time (s)		19.5			6.5			10.2			6.9	
Volume (vph)	79	26	172	97	15	11	37	793	39	10	1498	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	2%	2%	2%	8%	2%	3%	4%	2%	2%	2%	3%
Adj. Flow (vph)	90	30	195	110	17	12	42	901	44	11	1702	43
Lane Group Flow (vph)	90	225	0	0	139	0	0	987	0	0	1756	0
Turn Type	Perm			Perm		custom				Perm		
Protected Phases		4			8			1 2			2	
Permitted Phases	4			8			1			2		
Detector Phases	4	4		8	8		1	1 2		2	2	
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0			27.0	27.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		11.5			31.5	31.5	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	14.5	82.0	0.0	67.5	67.5	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	11.6%	65.6%	0.0%	54.0%	54.0%	0.0%
Maximum Green (s)	38.5	38.5		38.5	38.5		10.0			63.0	63.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5			3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0			1.0	1.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0			3.0	3.0	
Recall Mode	None	None		None	None		Min			C-Min	C-Min	
Act Effct Green (s)	22.3	22.3			22.3			94.7			67.9	
Actuated g/C Ratio	0.18	0.18			0.18			0.76			0.54	
v/c Ratio	0.40	0.54			0.79			0.64			0.97	
Control Delay	48.3	18.2			76.3			10.7			43.9	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	48.3	18.2			76.3			10.7			43.9	
LOS	D	B			E			B			D	
Approach Delay		26.8			76.3			10.7			43.9	
Approach LOS		C			E			B			D	
90th %ile Green (s)	32.4	32.4		32.4	32.4		16.1			63.0	63.0	
90th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	

Synchro 6 Report

Tindale-Oliver & Associates, Inc.

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
AM Peak Hour - Improvement Scenario

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
70th %ile Green (s)	25.9	25.9		25.9	25.9		22.6			63.0	63.0	
70th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
50th %ile Green (s)	21.6	21.6		21.6	21.6		26.9			63.0	63.0	
50th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
30th %ile Green (s)	17.4	17.4		17.4	17.4		27.5			66.6	66.6	
30th %ile Term Code	Hold	Hold		Gap	Gap		Gap			Coord	Coord	
10th %ile Green (s)	11.6	11.6		11.6	11.6		18.5			81.4	81.4	
10th %ile Term Code	Hold	Hold		Gap	Gap		Gap			Coord	Coord	
Queue Length 50th (ft)	65	46			106			166			~804	
Queue Length 95th (ft)	104	107			161			308			#907	
Internal Link Dist (ft)		780			204			370			222	
Turn Bay Length (ft)												
Base Capacity (vph)	398	615			303			1553			1812	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.23	0.37			0.46			0.64			0.97	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 40 (32%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 33.4

Intersection LOS: C

Intersection Capacity Utilization 79.4%

ICU Level of Service D

Analysis Period (min) 15

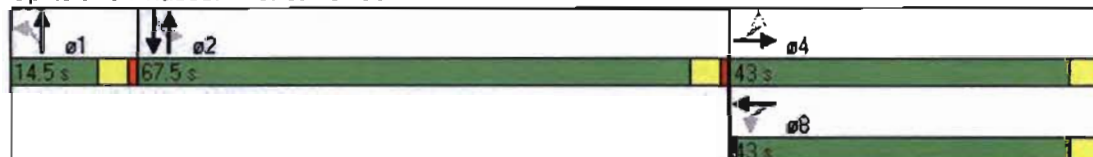
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

Splits and Phases: 6: 5th Street W & Bus US-41



















HCM Unsignalized Intersection Capacity Analysis
1: 5th Street W & 10th Ave W

Riverside Park
AM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	158	13	13	40	15	8	42	66	22	68	17
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	186	15	15	47	18	9	49	78	26	80	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	206	80	136	126								
Volume Left (vph)	5	15	9	26								
Volume Right (vph)	15	18	78	20								
Hadj (s)	-0.01	-0.06	-0.26	-0.02								
Departure Headway (s)	4.6	4.7	4.5	4.7								
Degree Utilization, x	0.26	0.11	0.17	0.17								
Capacity (veh/h)	731	702	747	704								
Control Delay (s)	9.3	8.3	8.4	8.7								
Approach Delay (s)	9.3	8.3	8.4	8.7								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.8									
HCM Level of Service			A									
Intersection Capacity Utilization		28.8%		ICU Level of Service		A						
Analysis Period (min)		15										

















HCM Unsignalized Intersection Capacity Analysis
2: 4th Street W & 10th Ave W

Riverside Park
AM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	21	148	34	4	41	14	21	92	0	12	53	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	23	163	37	4	45	15	23	101	0	13	58	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	223	65	124	79								
Volume Left (vph)	23	4	23	13								
Volume Right (vph)	37	15	0	8								
Hadj (s)	-0.04	-0.08	0.18	0.07								
Departure Headway (s)	4.5	4.6	4.9	4.8								
Degree Utilization, x	0.28	0.08	0.17	0.11								
Capacity (veh/h)	765	729	696	692								
Control Delay (s)	9.1	8.0	8.8	8.4								
Approach Delay (s)	9.1	8.0	8.8	8.4								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				8.8								
HCM Level of Service				A								
Intersection Capacity Utilization				31.2%	ICU Level of Service	A						
Analysis Period (min)				15								


















HCM Unsignalized Intersection Capacity Analysis
3: Riverside Dr & 10th Ave W

Riverside Park
AM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	22	0	15	9	81	0	6	2	91	6	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	24	0	16	10	88	0	7	2	99	7	2
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	32	114	9	108								
Volume Left (vph)	8	16	0	99								
Volume Right (vph)	0	88	2	2								
Hadj (s)	0.08	-0.39	-0.12	0.21								
Departure Headway (s)	4.4	3.8	4.2	4.4								
Degree Utilization, x	0.04	0.12	0.01	0.13								
Capacity (veh/h)	794	913	812	788								
Control Delay (s)	7.5	7.3	7.2	8.1								
Approach Delay (s)	7.5	7.3	7.2	8.1								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.7									
HCM Level of Service			A									
Intersection Capacity Utilization			26.2%		ICU Level of Service				A			
Analysis Period (min)			15									


















HCM Unsignalized Intersection Capacity Analysis
4: 4th Street W & Bus US-41

Riverside Park
AM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	162	0	0	1	58	883	14	1	1629	26
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	0	193	0	0	1	69	1051	17	1	1939	31
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)											450	
pX, platoon unblocked	0.52	0.52	0.52	0.52	0.52		0.52					
vC, conflicting volume	2622	3163	985	2362	3170	534	1970			1068		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3188	4221	62	2692	4234	534	1943			1068		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	63	100	100	100	55			100		
cM capacity (veh/h)	1	1	518	2	1	491	152			648		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	193	1	595	542	971	1001						
Volume Left	0	0	69	0	1	0						
Volume Right	193	1	0	17	0	31						
cSH	518	491	152	1700	648	1700						
Volume to Capacity	0.37	0.00	0.45	0.32	0.00	0.59						
Queue Length 95th (ft)	43	0	52	0	0	0						
Control Delay (s)	16.0	12.4	32.8	0.0	0.1	0.0						
Lane LOS	C	B	D		A							
Approach Delay (s)	16.0	12.4	17.2		0.0							
Approach LOS	C	B										
Intersection Summary												
Average Delay			6.9									
Intersection Capacity Utilization			71.9%		ICU Level of Service					C		
Analysis Period (min)			15									


















HCM Unsignalized Intersection Capacity Analysis
5: Riverside Dr & Bus US-41

Riverside Park
AM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	148	0	0	0	100	991	0	1	1811	51
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	166	0	0	0	112	1113	0	1	2035	57
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)											1050	
pX, platoon unblocked	0.52	0.52	0.52	0.52	0.52		0.52					
vC, conflicting volume	2847	3404	1046	2524	3433	557	2092			1113		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3629	4699	166	3008	4754	557	2177			1113		
tC, single (s)	7.5	6.5	7.0	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	62	100	100	100	10			100		
cM capacity (veh/h)	0	0	440	0	0	474	125			623		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	166	0	112	742	371	1	1357	736				
Volume Left	0	0	112	0	0	1	0	0				
Volume Right	166	0	0	0	0	0	0	57				
cSH	440	1700	125	1700	1700	623	1700	1700				
Volume to Capacity	0.38	0.18	0.90	0.44	0.22	0.00	0.80	0.43				
Queue Length 95th (ft)	43	0	143	0	0	0	0	0				
Control Delay (s)	18.1	0.0	120.5	0.0	0.0	10.8	0.0	0.0				
Lane LOS	C	A	F			B						
Approach Delay (s)	18.1	0.0	11.0			0.0						
Approach LOS	C	A										
Intersection Summary												
Average Delay			4.8									
Intersection Capacity Utilization			67.5%	ICU Level of Service					C			
Analysis Period (min)			15									

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
PM Peak Hour - Improvement Scenario


												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.880			0.975			0.994			0.994	
Flt Protected	0.950				0.971			0.998				
Satd. Flow (prot)	1770	1639	0	0	1760	0	0	3511	0	0	3518	0
Flt Permitted	0.630				0.773			0.697			0.948	
Satd. Flow (perm)	1174	1639	0	0	1401	0	0	2452	0	0	3335	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72			10			6			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		860			284			450			302	
Travel Time (s)		19.5			6.5			10.2			6.9	
Volume (vph)	92	17	67	103	38	33	52	1515	60	4	1070	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	99	18	72	111	41	35	56	1629	65	4	1151	45
Lane Group Flow (vph)	99	90	0	0	187	0	0	1750	0	0	1200	0
Turn Type	Perm			Perm		custom				Perm		
Protected Phases		4			8			1 2			2	
Permitted Phases	4			8			1			2		
Detector Phases	4	4		8	8		1	1 2		2	2	
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0			20.0	20.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		11.5			24.5	24.5	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	14.5	82.0	0.0	67.5	67.5	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	11.6%	65.6%	0.0%	54.0%	54.0%	0.0%
Maximum Green (s)	38.5	38.5		38.5	38.5		10.0			63.0	63.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5			3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0			1.0	1.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0			3.0	3.0	
Recall Mode	None	None		None	None		Min			C-Min	C-Min	
Act Effct Green (s)	20.5	20.5			20.5			96.5			63.5	
Actuated g/C Ratio	0.16	0.16			0.16			0.77			0.51	
v/c Ratio	0.51	0.27			0.78			0.92			0.71	
Control Delay	55.7	15.2			68.6			22.8			26.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	55.7	15.2			68.6			22.8			26.4	
LOS	E	B			E			C			C	
Approach Delay		36.4			68.6			22.8			26.4	
Approach LOS		D			E			C			C	
90th %ile Green (s)	28.4	28.4		28.4	28.4		20.1			63.0	63.0	
90th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	

Synchro 6 Report

Tindale-Oliver & Associates, Inc.

Lanes, Volumes, Timings
6: 5th Street W & Bus US-41

Riverside Park
PM Peak Hour - Improvement Scenario

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
70th %ile Green (s)	23.4	23.4		23.4	23.4		25.1			63.0	63.0	
70th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
50th %ile Green (s)	19.9	19.9		19.9	19.9		28.6			63.0	63.0	
50th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
30th %ile Green (s)	16.5	16.5		16.5	16.5		32.0			63.0	63.0	
30th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
10th %ile Green (s)	12.0	12.0		12.0	12.0		36.5			63.0	63.0	
10th %ile Term Code	Hold	Hold		Gap	Gap		Max			Coord	Coord	
Queue Length 50th (ft)	74	12			139			499			378	
Queue Length 95th (ft)	123	56			208			#923			461	
Internal Link Dist (ft)		780			204			370			222	
Turn Bay Length (ft)												
Base Capacity (vph)	366	561			444			1894			1696	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.27	0.16			0.42			0.92			0.71	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 40 (32%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 27.5

Intersection LOS: C

Intersection Capacity Utilization 102.7%

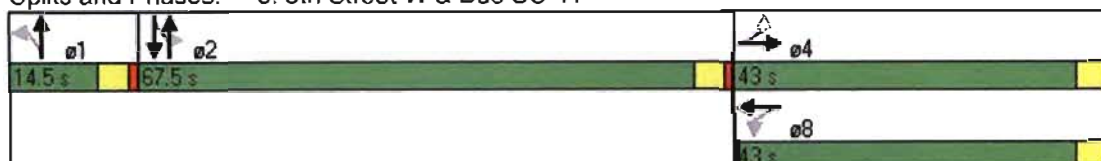
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

Splits and Phases: 6: 5th Street W & Bus US-41



















HCM Unsignalized Intersection Capacity Analysis
1: 5th Street W & 10th Ave W

Riverside Park
PM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	7	39	7	20	67	26	27	173	90	23	62	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	8	44	8	22	75	29	30	194	101	26	70	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	60	127	326	117								
Volume Left (vph)	8	22	30	26								
Volume Right (vph)	8	29	101	21								
Hadj (s)	-0.02	-0.07	-0.13	-0.03								
Departure Headway (s)	5.1	4.9	4.4	4.7								
Degree Utilization, x	0.08	0.17	0.40	0.15								
Capacity (veh/h)	632	662	788	712								
Control Delay (s)	8.6	9.0	10.3	8.6								
Approach Delay (s)	8.6	9.0	10.3	8.6								
Approach LOS	A	A	B	A								
Intersection Summary												
Delay				9.5								
HCM Level of Service				A								
Intersection Capacity Utilization				33.8%	ICU Level of Service	A						
Analysis Period (min)				15								

















HCM Unsignalized Intersection Capacity Analysis
2: 4th Street W & 10th Ave W

Riverside Park
PM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	34	77	18	1	147	49	56	213	4	11	83	6
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	41	93	22	1	177	59	67	257	5	13	100	7
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	155	237	329	120								
Volume Left (vph)	41	1	67	13								
Volume Right (vph)	22	59	5	7								
Hadj (s)	0.00	-0.11	0.07	0.02								
Departure Headway (s)	5.5	5.3	5.3	5.6								
Degree Utilization, x	0.24	0.35	0.48	0.19								
Capacity (veh/h)	586	626	640	580								
Control Delay (s)	10.3	11.1	13.1	9.8								
Approach Delay (s)	10.3	11.1	13.1	9.8								
Approach LOS	B	B	B	A								
Intersection Summary												
Delay				11.5								
HCM Level of Service				B								
Intersection Capacity Utilization				49.0%	ICU Level of Service			A				
Analysis Period (min)				15								

















HCM Unsignalized Intersection Capacity Analysis
3: Riverside Dr & 10th Ave W

Riverside Park
PM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	14	6	2	13	61	210	0	22	9	78	14	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	7	2	14	68	233	0	24	10	87	16	4
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	24	316	34	107								
Volume Left (vph)	16	14	0	87								
Volume Right (vph)	2	233	10	4								
Hadj (s)	0.11	-0.40	-0.14	0.17								
Departure Headway (s)	4.7	3.9	4.6	4.8								
Degree Utilization, x	0.03	0.34	0.04	0.14								
Capacity (veh/h)	730	900	717	692								
Control Delay (s)	7.8	8.9	7.8	8.6								
Approach Delay (s)	7.8	8.9	7.8	8.6								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				8.7								
HCM Level of Service				A								
Intersection Capacity Utilization				35.3%	ICU Level of Service	A						
Analysis Period (min)				15								




















HCM Unsignalized Intersection Capacity Analysis
4: 4th Street W & Bus US-41

Riverside Park
PM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	95	0	0	3	185	1671	16	2	1202	25
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	101	0	0	3	197	1778	17	2	1279	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)											450	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	2582	3485	653	2924	3489	897	1305			1795		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2780	3991	193	3240	3997	897	1068			1795		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	83	100	100	99	59			99		
cM capacity (veh/h)	4	1	608	2	1	283	483			340		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	101	3	1086	906	641	666						
Volume Left	0	0	197	0	2	0						
Volume Right	101	3	0	17	0	27						
cSH	608	283	483	1700	340	1700						
Volume to Capacity	0.17	0.01	0.41	0.53	0.01	0.39						
Queue Length 95th (ft)	15	1	49	0	0	0						
Control Delay (s)	12.1	17.9	15.4	0.0	0.2	0.0						
Lane LOS	B	C	C		A							
Approach Delay (s)	12.1	17.9	8.4		0.1							
Approach LOS	B	C										
Intersection Summary												
Average Delay			5.3									
Intersection Capacity Utilization			92.8%	ICU Level of Service					F			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
5: Riverside Dr & Bus US-41

Riverside Park
PM Peak Hour - Improvement Scenario

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Volume (veh/h)	0	0	179	0	0	1	249	2002	5	4	1225	92
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	186	0	0	1	259	2085	5	4	1276	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised			Raised								
Median storage veh	1			1								
Upstream signal (ft)											1050	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	2895	3942	686	3440	3987	1045	1372	2091				
vC1, stage 1 conf vol	1332	1332		2607	2607							
vC2, stage 2 conf vol	1562	2609		833	1380							
vCu, unblocked vol	3188	4577	256	3911	4637	1045	1166	2091				
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1	4.1				
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	2.2				
p0 queue free %	100	100	67	100	100	100	42	98				
cM capacity (veh/h)	33	14	560	6	0	225	448	261				
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	186	1	259	1390	700	4	851	521				
Volume Left	0	0	259	0	0	4	0	0				
Volume Right	186	1	0	0	5	0	0	96				
cSH	560	225	448	1700	1700	261	1700	1700				
Volume to Capacity	0.33	0.00	0.58	0.82	0.41	0.02	0.50	0.31				
Queue Length 95th (ft)	36	0	90	0	0	1	0	0				
Control Delay (s)	14.6	21.1	23.5	0.0	0.0	19.0	0.0	0.0				
Lane LOS	B	C	C	C								
Approach Delay (s)	14.6	21.1	2.6	0.1								
Approach LOS	B	C										
Intersection Summary												
Average Delay	2.3											
Intersection Capacity Utilization	65.5%			ICU Level of Service					C			
Analysis Period (min)	15											

Appendix H

Auxiliary Turn Lane Analysis

US-41 at Riverside Drive Turn Lane Length Calculations

Movement	Existing Length [feet]	Queue Length [feet]	Adjusted Queue Length [feet]	Posted Speed [mph]	Design Speed [mph]	Decel/Taper per FDOT Index 301 [feet]	Total Required Distance [feet]
NBL	200	143	150	30	35	145	295
SBL	175	1	25	30	35	145	170

APPENDIX B

KICK-OFF MEETING MINUTES DATED APRIL 3, 2007

MEMORANDUM



TO: Tanya Lukowiak, Executive Director
City of Palmetto - Community Redevelopment Agency (CRA)

FROM: Steve Szabo, Jones Edmunds

DATE: June 13, 2007

XC: Chris Lukowiak, City of Palmetto
Jim McLellan, Jones Edmunds

RE: Riverside Park West and Riverside Drive West Improvements Study
Workshop Findings

Introduction:

A public workshop was held on May 8th, 2007 to discuss improvements to Riverside Park West and Riverside Drive West, located in the City of Palmetto. Attendees included the public, City and Community Redevelopment Agency (CRA) staff, and Jones Edmunds. The general purpose for this workshop was to gain feedback from the general public and staff on the park's existing conditions and examine options for improving usability, attractiveness, and access to the park. Potential improvement ideas for the park were solicited and discussed. A survey was also conducted based upon a wish list of potential improvements.

The survey/comment form (attached) consisted of a list of items concerning the potential park improvements, separated into four categories: Facilities/Park Maintenance, Park Functionality, Park Aesthetics, and Recreation. The attendees were asked to rate the items, from 0 to 10, with 0 indicating no desire, 5 indicating a neutral position, and 10 indicating highly desired. There was also a section on the back of the survey for any additional comments.

Results of the workshop and survey/comment forms are summarized below:

Workshop:

Items discussed included:

- Buffering US Bus 41 from the park without compromising security.
- Relocating the bait shop is preferred. Having one is important and creates a certain positive ambiance for a waterfront community gathering spot.
- Re-opening the bait shack bathrooms or building new ones on the pier was suggested by a member of the public. It was reported that the pier often smells of urine.
- Many members of the public liked the idea of boaters having dock access to the park.

- A member of the public mentioned that an effort should be made to reduce the amount of pavement since it retains heat.
- The Mayor mentioned the idea of having valet parking for boat trailers during peak times.
- A member of the public suggested selling boat trailer passes or charging a launching fee of \$10 (similar to Pinellas County).
- It was suggested that illegal parking be monitored and enforced.
- The Mayor cited the San Antonio Riverwalk as an example of a good waterside public gathering area.
- The potential of displacing parking with a new public parking garage at the corner of 10th and Riverside was discussed.
- The idea of expanding or eliminating the Riverside Park East parking lot was discussed. It was also mentioned that the options are very limited for that area due to the size of the parcel of land.
- For special events, a member of the public suggested using a shuttle to minimize parking issues.

Results:

The results from six comment surveys were compiled and evaluated (see attached list). All categories ranked equally with the exception of Park Functionality, ranking with the lowest average. Although the categories ranked out evenly, the public desired some individual items over others.

The public indicated through the comment survey that the most important park improvement items were as follows:

- Install public docks for use
- Retrofit lights with period style-fixtures
- Trim/clear mangroves near existing pavilion
- Improve the seawall/install railing
- Improve the parking situation

City staff indicated additional/priorities which were not ranked as high on the community survey. These improvements included:

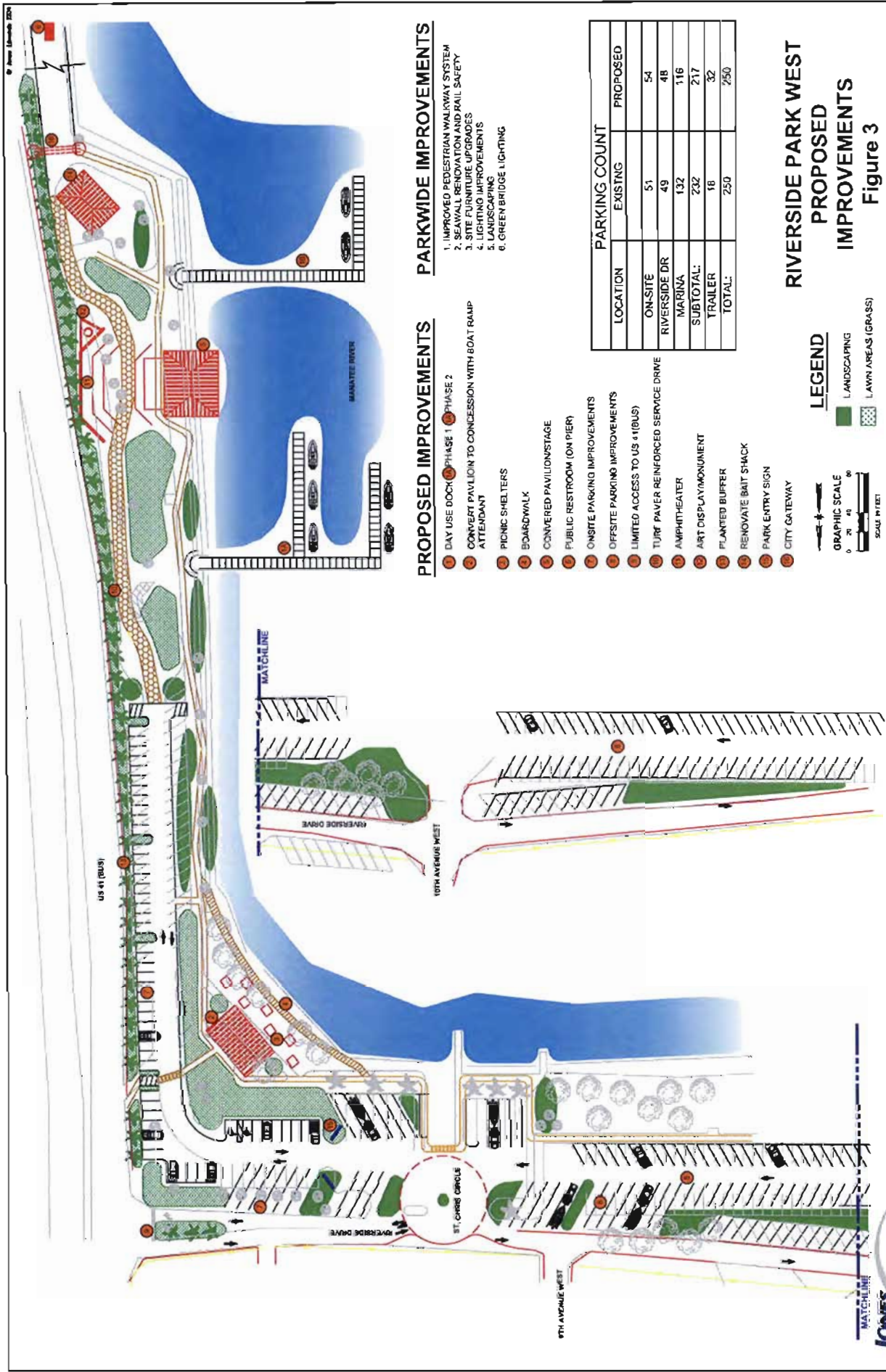
- Improving the northbound left turn from Riverside Park West
- Separating business US 41 from the park (i.e. - calming traffic along Riverside Drive)
- Incorporating art into the park
- Providing an amphitheatre

Based on the public's and staff's feedback, Jones Edmunds has prepared a prioritized list of park improvements. The attached draft conceptual sketch addresses the majority of public's and



staff's wishes. The proposed improvements are prioritized in order of importance and in a chronologic order that allows flexibility in phasing. The one item that has not been addressed is a pedestrian crossing of US Bus 41.

At this time, Jones Edmunds is still evaluating height requirements and permitting feasibility of the possibility of a route under the Green Bridge. Also, the traffic study is still in progress which may effect the Riverside Drive Improvements.



Riverside Park West Improvements Study
City of Palmetto, Florida
Public Workshop
May 8, 2007
Prioritized Comment Sheet Summary

Potential Park Improvement Item	Individual Citizen Responsdence							Average	Comments
	1	2	3	4	5	6			
Install public docks for day use	8	9	10	10	8	10		9.2	#5- floating docks
Retrofit site lights with period-style fixtures	6	10	10	10	8	10		9.0	
Trim/Clear mangroves near existing pavilion	7	7	10	10	10	10		9.0	#5- Increases visibility for beachfront
Improve parking/Address illegal boat trailer parking	8	10	8	10	8	10		9.0	
Repair seawall/install railing	5	10	8	10	10	10		8.8	
Relocate existing power lines to underground on Riverside Drive	7	9	10	5	10	10		8.5	
Improve landscaping	7	6	10	10	8	10		8.5	
Re-establish/relocate bait shop	7	8	8	10	8	10		8.5	
Install boardwalk along existing seawall	6	8	10	5	10	10		8.2	#5- Dog walk- fountain/litter refuse container, Human Water fountain
Retrofit existing pavilion for "Old Florida" look	5	10	10	10	8	5		8.0	
Install gateway to the fishing pier	5	4	10	10	8	10		7.8	
Improve northbound left turn	8	8	8	5	5	10		7.3	#5- Bike/Trike
Install attractions for children	8	10	10	5	0	10		7.2	
Separate Business US 41 from park (plantings, railing or wall)	7	8	10	5	8	5		7.2	#5- Raise fines, confiscate illegally parked vehicles
Incorporate art into the park	3	5	10	5	8	10		6.8	
Establish city gateway (landmark)	8	5	8	0	10	10		6.8	
Provide an amphitheater	7	5	8	5	8	5		6.3	
Provide a concession facility	6	10	5	10	0	5		6.0	#5- increase litter
Provide pedestrian walkway	0	10	8	0	8	10		6.0	
Provide additional covered seating	5	10	8	0	5	5		5.5	

Categorized Comment Sheet Summary

[illegible]

Comment Sheet

Riverside Park West Improvements Study City of Palmetto, Florida

Public Workshop May 8, 2007

Rate the following items from 0 to 10. If you desire, you may also enter additional comments and suggestions on back side of this sheet.

0 = Not Desired 5 = Neutral 10 = Highly Desired

Rating	Potential Park Improvement Item
--------	---------------------------------

Facilities / Park Maintenance

7	Provide a concession/refreshment facility near park entrance	litter
8	Re-establish or relocate the bait shop	
8	Provide an amphitheater	
8	Retrofit existing pavilion for an "Old Florida" look (i.e. metal roof)	
8	Install restrooms near the fishing pier (Old Green Bridge)	
10	Repair seawall / install railing	

Park Functionality

8	Improve parking situation / Address illegal boat trailer parking ;	Bike/trike
5	Improve northbound left turn from Riverside Drive to Business US 41,	
5	to reduce traffic backups	
5	Provide additional covered seating	
8	Provide pedestrian walkway either under or over Business US 41	
8	Separate Business US 41 from park (plantings, railing, or wall)	
	raise fines & confiscate illegally parked vehicles	
8	Sell parking passes	sell for passes
10	<u>Park Aesthetics</u>	
8	Incorporate art into the park	
10	Establish of a city gateway (landmark)	
8	Improve landscaping (Florida native canopy and ground plantings)	
10	Trim/clear mangroves near existing pavilion to increase visibility /	
8	safety Bench front	
5	Retrofit site lights with period-style fixtures	
8	Provide thematic lighting for the fishing pier (Old Green Bridge)	
10	Install gateway to the fishing pier (Old Green Bridge)	
	Relocate existing power lines to underground on Riverside Drive	

Recreation

0	Install attractions for children (playground or interactive water play fountain)	
8	Install public docks for day use	- Floating Docks
10	Install boardwalk along existing seawall	
	Dog walk - fountain / litter refuse containers	
	Human water fountain	

Comment Sheet

Riverside Park West Improvements Study City of Palmetto, Florida

Public Workshop May 8, 2007

Rate the following items from 0 to 10. If you desire, you may also enter additional comments and suggestions on back side of this sheet.

0 = Not Desired 5 = Neutral 10 = Highly Desired

Rating	Potential Park Improvement Item
<u>Facilities / Park Maintenance</u>	
10	Provide a concession/refreshment facility near park entrance
10	Re-establish or relocate the bait shop
5	Provide an amphitheater
10	Retrofit existing pavilion for an "Old Florida" look (i.e. metal roof)
10	Install restrooms near the fishing pier (Old Green Bridge)
10	Repair seawall / install railing
<u>Park Functionality</u>	
10	Improve parking situation / Address illegal boat trailer parking
5	Improve northbound left turn from Riverside Drive to Business US 41, to reduce traffic backups
0	Provide additional covered seating
0	Provide pedestrian walkway either under or over Business US 41
5	Separate Business US 41 from park (plantings, railing, or wall)
<u>Park Aesthetics</u>	
5	Incorporate art into the park
0	Establish of a city gateway (landmark)
10	Improve landscaping (Florida native canopy and ground plantings)
10	Trim/clear mangroves near existing pavilion to increase visibility / safety
10	Retrofit site lights with period-style fixtures
10	Provide thematic lighting for the fishing pier (Old Green Bridge)
10	Install gateway to the fishing pier (Old Green Bridge)
5	Relocate existing power lines to underground on Riverside Drive
<u>Recreation</u>	
5	Install attractions for children (playground or interactive water play fountain)
10	Install public docks for day use
5	Install boardwalk along existing seawall

Comment Sheet

Riverside Park West Improvements Study City of Palmetto, Florida

Public Workshop
May 8, 2007

Rate the following items from 0 to 10. If you desire, you may also enter additional comments and suggestions on back side of this sheet.

0 = Not Desired 5 = Neutral 10 = Highly Desired

Rating	Potential Park Improvement Item
	<u>Facilities / Park Maintenance</u>
5	Provide a concession/refreshment facility near park entrance
8	Re-establish or relocate the bait shop
8	Provide an amphitheater
10	Retrofit existing pavilion for an "Old Florida" look (i.e. metal roof)
10	Install restrooms near the fishing pier (Old Green Bridge)
8	Repair seawall / install railing
	<u>Park Functionality</u>
8/9	Improve parking situation / Address illegal boat trailer parking
8	Improve northbound left turn from Riverside Drive to Business US 41, to reduce traffic backups
8	Provide additional covered seating
8	Provide pedestrian walkway either under or over Business US 41
10	Separate Business US 41 from park (plantings, railing, or wall)
	<u>Park Aesthetics</u>
10	Incorporate art into the park
8	Establish of a city gateway (landmark)
10	Improve landscaping (Florida native canopy and ground plantings)
10	Trim/clear mangroves near existing pavilion to increase visibility / safety
10	Retrofit site lights with period-style fixtures
10	Provide thematic lighting for the fishing pier (Old Green Bridge)
10	Install gateway to the fishing pier (Old Green Bridge)
10	Relocate existing power lines to underground on Riverside Drive
	<u>Recreation</u>
10	Install attractions for children (playground or interactive water play fountain)
10	Install public docks for day use
10	Install boardwalk along existing seawall

Comment Sheet

Riverside Park West Improvements Study City of Palmetto, Florida

Public Workshop May 8, 2007

Rate the following items from 0 to 10. If you desire, you may also enter additional comments and suggestions on back side of this sheet.

0 = Not Desired 5 = Neutral 10 = Highly Desired

Rating	Potential Park Improvement Item
<u>Facilities / Park Maintenance</u>	
10	Provide a concession/refreshment facility near park entrance
6	Re-establish or relocate the bait shop
5	Provide an amphitheater
10	Retrofit existing pavilion for an "Old Florida" look (i.e. metal roof)
10	Install restrooms near the fishing pier (Old Green Bridge)
10	Repair seawall / install railing
<u>Park Functionality</u>	
10	Improve parking situation / Address illegal boat trailer parking
6	Improve northbound left turn from Riverside Drive to Business US 41, to reduce traffic backups
10	Provide additional covered seating
10	Provide pedestrian walkway either under or over Business US 41
8	Separate Business US 41 from park (plantings, railing, or wall)
<u>Park Aesthetics</u>	
8	Incorporate art into the park
5	Establish of a city gateway (landmark)
6	Improve landscaping (Florida native canopy and ground plantings)
9	Trim/clear mangroves near existing pavilion to increase visibility / safety
10	Retrofit site lights with period-style fixtures
10	Provide thematic lighting for the fishing pier (Old Green Bridge)
4	Install gateway to the fishing pier (Old Green Bridge)
4	Relocate existing power lines to underground on Riverside Drive
<u>Recreation</u>	
10	Install attractions for children (playground or interactive water play fountain)
9	Install public docks for day use
6	Install boardwalk along existing seawall

Comment Sheet

Riverside Park West Improvements Study City of Palmetto, Florida

Public Workshop May 8, 2007

Rate the following items from 0 to 10. If you desire, you may also enter additional comments and suggestions on back side of this sheet.

0 = Not Desired 5 = Neutral 10 = Highly Desired

Rating	Potential Park Improvement Item
--------	---------------------------------

Facilities / Park Maintenance

<u>6</u> <u>7</u> <u>7</u> <u>6</u> <u>8</u> <u>5</u>	Provide a concession/refreshment facility near park entrance Re-establish or relocate the bait shop Provide an amphitheater Retrofit existing pavilion for an "Old Florida" look (i.e. metal roof) Install restrooms near the fishing pier (Old Green Bridge) Repair seawall / install railing
--	---

Park Functionality

<u>6</u> <u>5</u> <u>6</u> <u>7</u>	Improve parking situation / Address illegal boat trailer parking Improve northbound left turn from Riverside Drive to Business US 41, to reduce traffic backups Provide additional covered seating Provide pedestrian walkway either under or over Business US 41 Separate Business US 41 from park (plantings, railing, or wall)
--	---

Park Aesthetics

<u>3</u> <u>6</u> <u>7</u> <u>6</u> <u>6</u> <u>5</u> <u>7</u>	Incorporate art into the park Establish of a city gateway (landmark) Improve landscaping (Florida native canopy and ground plantings) Trim/clear mangroves near existing pavilion to increase visibility / safety Retrofit site lights with period-style fixtures Provide thematic lighting for the fishing pier (Old Green Bridge) Install gateway to the fishing pier (Old Green Bridge) Relocate existing power lines to underground on Riverside Drive
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Recreation

 <u>8</u> <u>6</u>	Install attractions for children (playground or interactive water play fountain) Install public docks for day use Install boardwalk along existing seawall
--------------------------	--

Comment Sheet

Riverside Park West Improvements Study City of Palmetto, Florida

Public Workshop May 8, 2007

Rate the following items from 0 to 10. If you desire, you may also enter additional comments and suggestions on back side of this sheet.

0 = Not Desired 5 = Neutral 10 = Highly Desired

Rating	Potential Park Improvement Item
<u>Facilities / Park Maintenance</u>	
<u>5</u>	Provide a concession/refreshment facility near park entrance
<u>10</u>	Re-establish or relocate the bait shop
<u>5</u>	Provide an amphitheater <i>new room</i>
<u>5</u>	Retrofit existing pavilion for an "Old Florida" look (i.e. metal roof)
<u>10</u>	Install restrooms near the fishing pier (Old Green Bridge)
<u>10</u>	Repair seawall / install railing
<u>Park Functionality</u>	
<u>10</u>	Improve parking situation / Address illegal boat trailer parking
<u>10</u>	Improve northbound left turn from Riverside Drive to Business US 41, to reduce traffic backups
<u>5</u>	Provide additional covered seating
<u>10</u>	Provide pedestrian walkway either under or over Business US 41
<u>5</u>	Separate Business US 41 from park (plantings, railing, or wall)
<u>Park Aesthetics</u>	
<u>10</u>	Incorporate art into the park
<u>10</u>	Establish of a city gateway (landmark)
<u>10</u>	Improve landscaping (Florida native canopy and ground plantings)
<u>10</u>	Trim/clear mangroves near existing pavilion to increase visibility / safety
<u>10</u>	Retrofit site lights with period-style fixtures
<u>10</u>	Provide thematic lighting for the fishing pier (Old Green Bridge)
<u>10</u>	Install gateway to the fishing pier (Old Green Bridge)
<u>10</u>	Relocate existing power lines to underground on Riverside Drive
<u>Recreation</u>	
<u>10</u>	Install attractions for children (playground or interactive water play fountain)
<u>10</u>	Install public docks for day use
<u>10</u>	Install boardwalk along existing seawall

APPENDIX C

WORKSHOP MEMO DATED MAY 8, 2007

MEETING MINUTES

Date: April 3, 2007 Jones Edmunds Project Number: 09502-082-01

Time: 10:00 AM Location: Palmetto CRA Office

Reported By: Steve Szabo

**Purpose: Riverside Park West and Riverside Drive West Improvements Study
Kickoff Meeting**

Attendees: Tanya Lukowiak, City of Palmetto - Community Redevelopment Agency (CRA)
Larry Bustle, Mayor, City of Palmetto
Geoff Seger, City of Palmetto Community - Parks & Recreations & Public Buildings
Jim McLellan, Jones Edmunds
Steve Szabo, Jones Edmunds
Mike Raysor, Tindale-Oliver & Associates

Distribution: Attendees
Chris Lukowiak, City of Palmetto
Steve Starr, Jones Edmunds

Agenda: Discuss the project scope, schedule, and ideas for improvements to Riverside Park West and Riverside Drive West.

Discussion:

<u>Item</u>	<u>Action</u>	<u>Description</u>
1	Info	The meeting began with introductions followed by a discussion of the project goals. It was discussed that Jones Edmunds is under contract for Phase I, the planning phase. Jones Edmunds' scope was distributed to all attendees.
2	Info	Mrs. Lukowiak suggested that the study report be written so that it can be easily understood by the public and less like an engineering report.
3	Info	Mayor Bustle described his vision for the park improvements. He said that he understands the value of the waterfront property and would like to make sure it is enjoyed and easily accessible to the public. Ultimately, the park should be linked to Estuary Park to the East and Sanctuary Cove to the west via a pedestrian corridor. He mentioned that the fishing pier is heavily used, but that the rest of the park is somewhat under-utilized. He would like to draw attention to the park, make it easier for the public to access the park, and provide the public with opportunities which keep them in the park.
4	Info	Mrs. Lukowiak mentioned that boat trailer parking is a problem. The boat ramp is owned by the County. There are not enough spaces (+/- 19) for the amount of usage. The City recently converted some spaces at the public surface lot at Riverside and 10 th to accommodate boat trailers. Currently, trailers are parked across the street at the empty lot (aka - the Blue House / Regatta Point

		development). The City would prefer that a new ramp be opened somewhere else to help alleviate the parking concern.
5	Info	Mrs. Lukowiak said that there is a possibility for a riverboat to be purchased by a private entity and brought to the Riverside Park / Regatta Point Marina area. The boat may house a restaurant and / or theater. Since the idea is very conceptual in nature, it will not be incorporated into the improvement plan.
6	Tindale-Oliver	The traffic study will include a week long data collection period that will occur in mid-April followed by manual turning counts. Although some traffic is expected to drop off after the Easter holiday, it still should be representative. Mr. Raysor mentioned that additional traffic counts will be obtained from FDOT for BUS US 41.
7	CRA	Mrs. Lukowiak will provide additional information (other than the WRT report) that may help Mr. Raysor estimate future development sizes and uses for the traffic study. Mrs. Lukowiak will also provide the City's Impact Fee Schedule.
8	Tindale-Oliver / Jones Edmunds	Per Mrs. Lukowiak, coordinating with Manatee County as part of the planning phase is not required. Tindale-Oliver will be coordinating with FDOT concerning traffic counts on BUS US 41. After the proposed projects are determined, Jones Edmunds will coordinate with SFWMD / FDEP regarding permitting if necessary.
9	Info	A traffic study has not yet been performed for the condo / hotel mixed use development planned for the empty lot north of the park.. Mrs. Lukowiak did provide some conceptual renderings and plans for the development.
10	Info	A City parking garage is being contemplated for the northeast corner of Riverside and 10 th (site of existing public parking and old hotel).
11	CRA / PR	CRA and Jones Edmunds agreed to host a public workshop on May 8, 2007 at 6:30 PM. The workshop will take place at the park. Mrs. Lukowiak will advertise the meeting and Mr. Segar will provide tents, chairs, tables, and bottled water. The purpose of the workshop will to solicit input from the public, City staff, and commissions concerning possible park improvements. The workshop will be informal in nature, but will give the community the chance to share their ideas and concerns.
12	Info	\$150k in TRIP funds is available for Riverside / BUS US 41 intersection improvements. The program requires a 50% City match (total budget of \$300k).
13	Info	Construction budget expectations were discussed. In addition to the \$300k, other funding may be available for intersection/road improvements through the use of re-development impact fees. For the park, \$400k is being budgeted (\$200k FERD app, \$200k City match). The proposed projects will be planned in phases for budgetary purposes.
14	Info	Concerning phasing, the City would prefer to "fix" the site first and prepare it for future phases. The first phase should address traffic concerns, switching the pavilion and "bait shack" locations, and installing finger docks. An amphitheater and boardwalks would be wish list items for later phases.
15	Info	Ideas discussed included:
		<ul style="list-style-type: none"> • Improving the parking situation. • Building a traffic circle to discourage illegal boat ramp trailer parking and limit ingress / egress to BUS US 41. The Regatta Point property is owned

		by the City and the existing parking lot could be re-configured if necessary.
		<ul style="list-style-type: none"> Improving northbound left turn from Riverside to BUS US 41 since traffic backs up due to short queue length.
		<ul style="list-style-type: none"> Having a revitalized / relocated "bait shack" accessible to pedestrians, boaters, fisherman, and vehicles.
		<ul style="list-style-type: none"> Incorporating art into the park. Identified as an early priority for Riverside Park East.
		<ul style="list-style-type: none"> Installing public finger docks for day use.
		<ul style="list-style-type: none"> Clearing existing mangroves near the existing pavilion. The City can mitigate for the impacts at Estuary Park.
		<ul style="list-style-type: none"> Siting an amphitheater north of the existing "bait shack."
		<ul style="list-style-type: none"> Incorporating the Riverwalk marking system in the park. The City has an etching machine and stencil for marking of the logo.
		<ul style="list-style-type: none"> Retrofitting the site lights with "period style" fixtures.
		<ul style="list-style-type: none"> Greening of the old Green Bridge through the use of lights.
		<ul style="list-style-type: none"> Retaining the existing City sign at Riverside Park East.
		<ul style="list-style-type: none"> Planning for a City gateway.
		<ul style="list-style-type: none"> Connecting Riverside Park East and West via an underpass boardwalk or other means (later priority).
		<ul style="list-style-type: none"> Incorporating the Regatta Place development into the plan. The proposed mixed-use development includes 251 parking spaces, 81 of which are to be designated for public use.
		<ul style="list-style-type: none"> Relocating existing power lines underground.
		<ul style="list-style-type: none"> Landscaping with FL natives canopy and understory.
		<ul style="list-style-type: none"> Using alternatives to brick pavers due to the City's maintenance problems with them.
		<ul style="list-style-type: none"> Relocating the Veterans Monument currently at Riverside Park East.

Schedule:

The public workshop will be held May 8, 2007.

Submittal of a draft report of findings is tentatively scheduled for July 18, 2007.

Please report any additions or corrections in writing within 10 calendar days to the undersigned at Jones, Edmunds & Associates.

Steve Szabo, P.E.
Project Manager

APPENDIX D

REVIEW COMMENTS

Steve Szabo

From: Frank Woodard [fwoodard@palmettofl.org]
Sent: Monday, April 14, 2008 4:32 PM
To: Steve Szabo; Chris Lukowiak; Tanya Lukowiak
Cc: Geoff Seger; Steve Starr; Jim Mclellan; BRIAN HEPBURN
Subject: RE: Review Comments- Riverside Park

Steve:

Please note the following clarifications:

1. Yes, the City would like to keep the exiting cul-de-sac.
2. The City would like keep the existing parking along Bus. 41 as-is.
3. Agree
4. Agree
5. Agree
6. Please provide alternatives to the cantilever under the bridge, due to the safety concerns.

Give me a call if there are any other questions or concerns...

Thanks,
 Frank Woodard II, Deputy Director
 Public Works- Engineering & Project Mgmt.

From: Steve Szabo [mailto:SSzabo@jonesedmunds.com]
Sent: Wednesday, April 09, 2008 1:57 PM
To: Frank Woodard; Chris Lukowiak; Tanya Lukowiak
Cc: Geoff Seger; Steve Starr; Steve Szabo; Jim Mclellan; BRIAN HEPBURN
Subject: RE: Review Comments- Riverside Park

Frank:

We are currently in the process of preparing the preliminary engineering report for the Riverside Park improvements project. We would like to request some clarification based on the comments/suggestions we received from you last month:

1. The south end of the parking lot will need a turn around for emergency vehicles. **Jones Edmunds: We are currently showing a "no parking area" at the south end of the parking lot. The area consists of a "hammerhead", t-shaped turn around. Since the proposed parking is 90 degree, a cul-de-sac should not be required unless required/preferred by the City. Per the City Workshop, the intent was to minimize the amount of pavement in the park. Please advise if the City would like to keep the existing cul-de-sac.**
2. All parking spaces should be slanted to allow for better visibility. **Jones Edmunds: The intent of the 90 degree parking was to provide more "linear green space" along the park. If 60 degree parking is preferred, we suggest keeping the parking on both sides of the drive aisle and keeping the cul-de-sac. Essentially, keep the parking lot along Bus US 41 as-is. Please advice if the City would like to keep the existing parking along Bus US 41 as-is.**

3. Shorten day docks to avoid conflicts with boat traffic using the ramp. **Jones Edmunds: Comment accepted.**
4. Move "St. Chris' Circle" to 10th Avenue West to avoid conflicts with parking lot traffic and boat ramp. **Jones Edmunds: Comment accepted based on comment #5 below. Please note that the boat ramp requires a large paved area for maneuvering trailers.**
5. Riverside Dr. should remain a two street to avoid moving traffic thru a parking lot. **Jones Edmunds: Comment accepted.**
6. Need to include a cantilever under 8th Ave. bridge for access Riverside Dr. east. **Jones Edmunds: Comment accepted and will be incorporated. It should be noted that there is minimal vertical clearance (+/- 8'-10') between the bridge beams and the water surface under the 8th Ave. bridge. Also, we have some safety concerns siting a walkway under the bridge. Jones Edmunds suggests consulting with Palmetto PD on CEPTD requirements. We understand that a pedestrian bridge or signalized crosswalks were previously considered at Riverside Drive.**

We look forward to your clarifications on these issues. In the meantime, we are currently costing the improvements, preparing the PER, updating the master plan, and attempting to schedule a meeting with FDOT. Please feel free to call me with any questions or concerns. We hope to deliver a draft PER in mid-May.

Thanks,
Steve

Stephen M. Szabo, P.E.

Jones Edmunds & Associates, Inc.
Phone 321-269-2950
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Mobile 321-961-0868
sszabo@jonesedmunds.com
www.jonesedmunds.com

From: Frank Woodard [mailto:fwoodard@palmettofl.org]
Sent: Tuesday, March 04, 2008 10:09 AM
To: Jim McEllan; Chris Lukowiak; Tanya Lukowiak
Cc: Steve Szabo; Geoff Seger
Subject: Review Comments- Riverside Park

Jim:

DPW staff has reviewed the plans for the above note project and offer the following comments/suggestions:

7. The south end of the parking lot will need a turn around for emergency vehicles.
8. All parking spaces should be slanted to allow for better visibility.
9. Shorten day docks to avoid conflicts with boat traffic using the ramp.
10. Move "St. Chris' Circle" to 10th Avenue West to avoid conflicts with parking lot traffic and boat ramp.
11. Riverside Dr. should remain a two street to avoid moving traffic thru a parking lot.
12. Need to include a cantilever under 8th Ave. bridge for access Riverside Dr. east.

If there are any questions or concerns, please feel free to give me a call to discuss.

Thanks,
Frank Woodard II, Deputy Director
Public Works- Engineering & Project Mgmt.

From: Jim McLellan [mailto:JMcLellan@jonesedmunds.com]
Sent: Friday, February 22, 2008 9:12 AM
To: Frank Woodard
Cc: Steve Szabo
Subject: Riverside Park

Frank,

As you requested, attached please find a PDF copy of the Proposed Improvements plan for Riverside Park.

Let me know if you also need a copy of the Draft traffic study we submitted for comments too. I can forward that as well (didn't include here due to file size).

Thanks and have a great weekend.

Jim McLellan, PE

VP, Manager Jacksonville Office
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