CITY WATER TUNNEL SHAFT 33B
PEDESTRIAN APPENDICES:

1. SURVEY SHEETS

2. INTERSECTION GEOMETRIES

3. DATA REDUCTION SHEETS

4. HCS

A. Chapter 4.10-Preferred Shaft Site 59th/1st

B. Chapter 5.10-Water Main Scenario A

C. Chapter 5.10-Water Main 59th/61st

D. Chapter 8.10-Alternate Shaft Site 54th/2nd

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   FACILITY LOCATION.... 54th Street at Second Avenue
   ANALYST............... CSD
   TIME OF ANALYSIS..... Existing AM
   DATE OF ANALYSIS..... 08-19-2005
   OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3
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A) INTERSECTION SCHEMATIC

```
          |1 |    | 2|
          |  | N  |  |
          |  |    |  |
     ------  |    |  ------
      8      |    |      3
     ---------   ---------
         W           E
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      7      |    |      4
     ------  |    |  ------
          |  |    |  |
          |  | S  |  |
          |6 |    | 5|
```

B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
	15-MINUTE PEDESTRIAN VOLUMES	EFFECTIVE WALKWAY WIDTH	AVERAGE WALKWAY		PLATOON	
WALKWAY	(TWO-WAY)	(FEET)	(p/m/f)*	LOS	(p/m/f)*	LOS
1	0	0	0		0	
2	86	6	1	A	5	B
3	77	6.5	1	A	5	B
4	103	10	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot


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C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES (VOLS. ARE OUTBOUND FROM CORNER)				SIDEWALK FLOW	
FROM 1->2:	29	FROM 5->6:	58	2<->3:	14
FROM 2->1:	47	FROM 6->5:	42	4<->5:	38
FROM 3->4:	54	FROM 7->8:	0	6<->7:	0
FROM 4->3:	37	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	12	NORTH	31
SOUTHEAST	12	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	17	6	0
3	13	7	0
4	15	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
********	**********	***
NORTHEAST	226	A
SOUTHEAST	212	A
SOUTHWEST	-80	F
NORTHWEST	-101	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Existing AM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

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D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	29	FROM 5->6:	58
FROM 2->1:	47	FROM 6->5:	42
FROM 3->4:	54	FROM 7->8:	0
FROM 4->3:	37	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	13.5	0	31
EAST	34.5	14	1.5	49
SOUTH	69.5	13.5	5.82	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

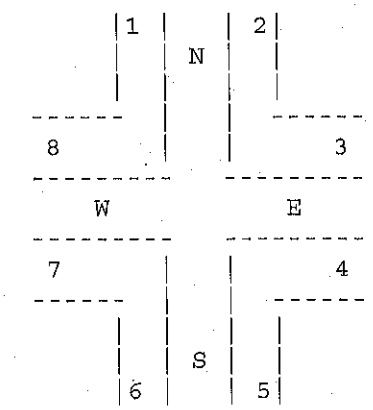
	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT.,PER PEDESTRIAN	LOS
NORTH	224	A	224	A	142	A
EAST	318	A	307	A	92	B
SOUTH	170	A	150	A	109	B
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Existing AM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... Existing MD
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC



B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
	15-MINUTE PEDESTRIAN VOLUMES	EFFECTIVE WALKWAY WIDTH	AVERAGE WALKWAY		PLATOON	
WALKWAY	(TWO-WAY)	(FEET)	(p/m/f)*	LOS	(p/m/f)*	LOS
1	0	0	0		0	
2	89	6	1	A	5	B
3	56	6.5	1	A	5	B
4	69	10	0	A	4	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES (VOLS. ARE OUTBOUND FROM CORNER)				SIDEWALK FLOW	
FROM 1->2:	44	FROM 5->6:	27	2<->3:	28
FROM 2->1:	28	FROM 6->5:	31	4<->5:	29
FROM 3->4:	50	FROM 7->8:	0	6<->7:	0
FROM 4->3:	29	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	12	NORTH	31
SOUTHEAST	12	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	17	6	0
3	13	7	0
4	15	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	232	A
SOUTHEAST	298	A
SOUTHWEST	-133	F
NORTHWEST	-112	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Existing MD ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

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D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	44	FROM 5->6:	27
FROM 2->1:	28	FROM 6->5:	31
FROM 3->4:	50	FROM 7->8:	0
FROM 4->3:	29	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	13.5	0	31
EAST	34.5	14	1.65	49
SOUTH	69.5	13.5	5.77	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

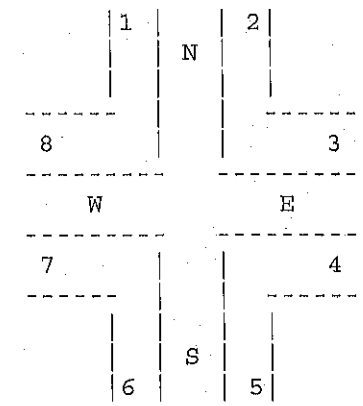
	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	236	A	236	A	150	A
EAST	367	A	352	A	107	B
SOUTH	293	A	259	A	188	A
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Existing MD ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... Existing PM
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC



B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
	15-MINUTE PEDESTRIAN VOLUMES	EFFECTIVE WALKWAY WIDTH	AVERAGE WALKWAY		PLATOON	
WALKWAY	(TWO-WAY)	(FEET)	(p/m/f)*	LOS	(p/m/f)*	LOS
1	0	0	0		0	
2	107	6	1	A	5	B
3	51	6.5	1	A	5	B
4	83	10	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES (VOLS. ARE OUTBOUND FROM CORNER)				SIDEWALK FLOW	
FROM 1->2:	28	FROM 5->6:	30	2<->3:	16
FROM 2->1:	13	FROM 6->5:	40	4<->5:	17
FROM 3->4:	33	FROM 7->8:	0	6<->7:	0
FROM 4->3:	39	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	12	NORTH	31
SOUTHEAST	12	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	17	6	0
3	13	7	0
4	15	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	326	A
SOUTHEAST	310	A
SOUTHWEST	-113	F
NORTHWEST	-186	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Existing PM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

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D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	28	FROM 5->6:	30
FROM 2->1:	13	FROM 6->5:	40
FROM 3->4:	33	FROM 7->8:	0
FROM 4->3:	39	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	13.5	0	31
EAST	34.5	14	1.7	49
SOUTH	69.5	13.5	5.35	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

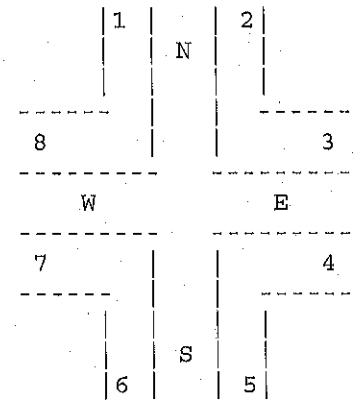
	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	415	A	415	A	263	A
EAST	402	A	385	A	117	B
SOUTH	243	A	217	A	156	A
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Existing PM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... No Build AM
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC



B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
	15-MINUTE PEDESTRIAN VOLUMES	EFFECTIVE WALKWAY WIDTH	AVERAGE WALKWAY		PLATOON	
WALKWAY	(TWO-WAY)	(FEET)	(p/m/f)*	LOS	(p/m/f)*	LOS
1	0	0	0		0	
2	88	6	1	A	5	B
3	79	6.5	1	A	5	B
4	105	10	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES (VOLS. ARE OUTBOUND FROM CORNER)				SIDEWALK FLOW	
FROM 1->2:	30	FROM 5->6:	59	2<->3:	14
FROM 2->1:	48	FROM 6->5:	43	4<->5:	39
FROM 3->4:	55	FROM 7->8:	0	6<->7:	0
FROM 4->3:	38	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	12	NORTH	31
SOUTHEAST	12	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	17	6	0
3	13	7	0
4	15	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	221	A
SOUTHEAST	207	A
SOUTHWEST	-78	F
NORTHWEST	-99	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... No Build AM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

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D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	30	FROM 5->6:	59
FROM 2->1:	48	FROM 6->5:	43
FROM 3->4:	55	FROM 7->8:	0
FROM 4->3:	38	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	13.5	0	31
EAST	34.5	14	1.52	49
SOUTH	69.5	13.5	5.95	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

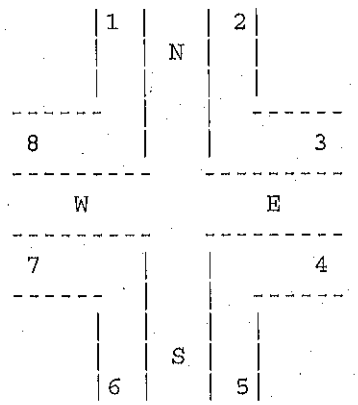
	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	218	A	218	A	138	A
EAST	312	A	300	A	90	B
SOUTH	167	A	147	A	107	B
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... No Build AM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... No Build MD
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC



B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
	15-MINUTE PEDESTRIAN VOLUMES	EFFECTIVE WALKWAY WIDTH	AVERAGE WALKWAY		PLATOON	
WALKWAY	(TWO-WAY)	(FEET)	(p/m/f)*	LOS	(p/m/f)*	LOS
1	0	0	0		0	
2	91	6	1	A	5	B
3	58	6.5	1	A	5	B
4	71	10	0	A	4	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES (VOLS. ARE OUTBOUND FROM CORNER)				SIDEWALK FLOW	
FROM 1->2:	45	FROM 5->6:	28	2<->3:	29
FROM 2->1:	29	FROM 6->5:	32	4<->5:	30
FROM 3->4:	51	FROM 7->8:	0	6<->7:	0
FROM 4->3:	30	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	12	NORTH	31
SOUTHEAST	12	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	17	6	0
3	13	7	0
4	15	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	225	A
SOUTHEAST	289	A
SOUTHWEST	-129	F
NORTHWEST	-109	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... No Build MD ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

****

D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	45	FROM 5->6:	28
FROM 2->1:	29	FROM 6->5:	32
FROM 3->4:	51	FROM 7->8:	0
FROM 4->3:	30	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	13.5	0	31
EAST	34.5	14	1.67	49
SOUTH	69.5	13.5	5.9	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

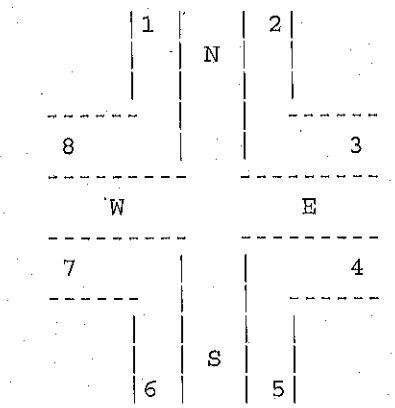
	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	230	A	230	A	146	A
EAST	358	A	343	A	104	B
SOUTH	283	A	249	A	182	A
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... No Build MD ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... No Build PM
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC



B) WALKWAY ANALYSIS

WALKWAY	INPUT DATA: 15-MINUTE PEDESTRIAN VOLUMES (TWO-WAY)	INPUT DATA: EFFECTIVE WALKWAY WIDTH (FEET)	ANALYSIS RESULTS: AVERAGE WALKWAY (p/m/f)*	ANALYSIS RESULTS: AVERAGE WALKWAY LOS	ANALYSIS RESULTS: PLATOON (p/m/f)*	ANALYSIS RESULTS: PLATOON LOS
1	0	0	0		0	
2	109	6	1	A	5	B
3	53	6.5	1	A	5	B
4	85	10	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

				SIDEWALK FLOW	
FROM 1->2:	29	FROM 5->6:	31	2<->3:	16
FROM 2->1:	13	FROM 6->5:	41	4<->5:	17
FROM 3->4:	34	FROM 7->8:	0	6<->7:	0
FROM 4->3:	40	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	12	NORTH	31
SOUTHEAST	12	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	17	6	0
3	13	7	0
4	15	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	319	A
SOUTHEAST	302	A
SOUTHWEST	-111	F
NORTHWEST	-183	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... No Build PM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

****

D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	29	FROM 5->6:	31
FROM 2->1:	13	FROM 6->5:	41
FROM 3->4:	34	FROM 7->8:	0
FROM 4->3:	40	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	13.5	0	31
EAST	34.5	14	1.72	49
SOUTH	69.5	13.5	5.45	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

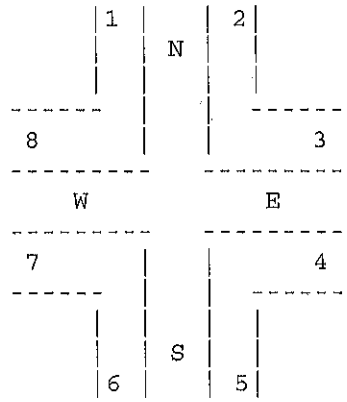
	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	405	A	405	A	257	A
EAST	392	A	375	A	114	B
SOUTH	236	A	210	A	151	A
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... No Build PM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... Build AM
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC



B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
WALKWAY	15-MINUTE PEDESTRIAN VOLUMES (TWO-WAY)	EFFECTIVE WALKWAY WIDTH (FEET)	AVERAGE WALKWAY (p/m/f)*	LOS	PLATOON (p/m/f)*	LOS
1	0	0	0		0	
2	88	5	1	A	5	B
3	79	5	1	A	5	B
4	105	5	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

				SIDEWALK FLOW	
FROM 1->2:	30	FROM 5->6:	59	2<->3:	14
FROM 2->1:	48	FROM 6->5:	43	4<->5:	39
FROM 3->4:	55	FROM 7->8:	0	6<->7:	0
FROM 4->3:	38	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	5	NORTH	31
SOUTHEAST	5	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	5	6	0
3	5	7	0
4	5	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	14	E
SOUTHEAST	69	B
SOUTHWEST	-78	F
NORTHWEST	-99	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Build AM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

****

D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	30	FROM 5->6:	59
FROM 2->1:	48	FROM 6->5:	43
FROM 3->4:	55	FROM 7->8:	0
FROM 4->3:	38	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	5	0	31
EAST	34.5	5	1.52	49
SOUTH	69.5	13.5	5.95	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	81	B	81	B	51	B
EAST	111	B	107	B	32	C
SOUTH	167	A	147	A	107	B
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Build AM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

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*****************************************************************

   FACILITY LOCATION.... 54th Street at Second Avenue
   ANALYST............... CSD
   TIME OF ANALYSIS..... Build MD
   DATE OF ANALYSIS..... 08-19-2005
   OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3
```

A) INTERSECTION SCHEMATIC

```
   ---------------------------------------------------------------
           |1 |    | 2|
           |  | N  |  |
           |  |    |  |
      ------  |    |  ------
       8      |    |      3
      ---------   ---------
          W           E
      ---------   ---------
       7      |    |      4
      ------  |    |  ------
           |  |    |  |
           |  | S  |  |
           |6 |    | 5|
```

B) WALKWAY ANALYSIS

WALKWAY	INPUT DATA: 15-MINUTE PEDESTRIAN VOLUMES (TWO-WAY)	INPUT DATA: EFFECTIVE WALKWAY WIDTH (FEET)	ANALYSIS RESULTS: AVERAGE WALKWAY (p/m/f)*	AVERAGE WALKWAY LOS	PLATOON (p/m/f)*	PLATOON LOS
1	0	0	0		0	
2	91	5	1	A	5	B
3	58	5	1	A	5	B
4	71	5	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot


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*****************************************************************
```

C) CORNER ANALYSIS

```
   ---------------------------------------------------------------
    15-MINUTE PEDESTRIAN VOLUMES
   (VOLS. ARE OUTBOUND FROM CORNER)      SIDEWALK FLOW
   --------------------------------      -------------
   FROM 1->2:   45  FROM 5->6:   28       2<->3:   29
   FROM 2->1:   29  FROM 6->5:   32       4<->5:   30
   FROM 3->4:   51  FROM 7->8:    0       6<->7:    0
   FROM 4->3:   30  FROM 8->7:    0       1<->8:    0
```

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	5	NORTH	31
SOUTHEAST	5	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	5	6	0
3	5	7	0
4	5	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	17	D
SOUTHEAST	99	B
SOUTHWEST	-129	F
NORTHWEST	-109	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Build MD ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

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D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	45	FROM 5->6:	28
FROM 2->1:	29	FROM 6->5:	32
FROM 3->4:	51	FROM 7->8:	0
FROM 4->3:	30	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	5	0	31
EAST	34.5	5	1.67	49
SOUTH	69.5	13.5	5.9	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS
NORTH	85	B	85	B	54	B
EAST	128	B	122	B	37	C
SOUTH	283	A	249	A	182	A
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Build MD ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

FACILITY LOCATION.... 54th Street at Second Avenue
ANALYST..... CSD
TIME OF ANALYSIS..... Build PM
DATE OF ANALYSIS..... 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

A) INTERSECTION SCHEMATIC

```
        |1 |    | 2|
        |  | N  |  |
        |  |    |  |
   ------  |    |  ------
    8      |    |      3
   ---------    ---------
       W            E
   ---------    ---------
    7      |    |      4
   ------  |    |  ------
        |  |    |  |
        |  | S  |  |
        |6 |    | 5|
```

B) WALKWAY ANALYSIS

	INPUT DATA		ANALYSIS RESULTS			
WALKWAY	15-MINUTE PEDESTRIAN VOLUMES (TWO-WAY)	EFFECTIVE WALKWAY WIDTH (FEET)	AVERAGE WALKWAY (p/m/f)*	LOS	PLATOON (p/m/f)*	LOS
1	0	0	0		0	
2	109	5	1	A	5	B
3	53	5	1	A	5	B
4	85	5	1	A	5	B
5	0	0	0		0	
6	0	0	0		0	
7	0	0	0		0	
8	0	0	0		0	

* (p/m/f) = Pedestrians/Minute/Foot

C) CORNER ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

				SIDEWALK FLOW	
FROM 1->2:	29	FROM 5->6:	31	2<->3:	16
FROM 2->1:	13	FROM 6->5:	41	4<->5:	17
FROM 3->4:	34	FROM 7->8:	0	6<->7:	0
FROM 4->3:	40	FROM 8->7:	0	1<->8:	0

CORNER LOCATION	CURB RADII (Ft.)	XWALK LOCATION	PED GREEN TIME (Sec)
NORTHEAST	5	NORTH	31
SOUTHEAST	5	EAST	49
SOUTHWEST	12	SOUTH	31
NORTHWEST	12	WEST	49

CYCLE LENGTH: 90

WALKWAY	ACTUAL WALKWAY WIDTH (Feet)	WALKWAY	ACTUAL WALKWAY WIDTH (Feet)
1	0	5	17
2	5	6	0
3	5	7	0
4	5	8	0

CORNER LEVEL OF SERVICE RESULTS:
****

CORNER LOCATION	SQ.FT. PER PEDESTRIAN	LOS
NORTHEAST	28	C
SOUTHEAST	102	B
SOUTHWEST	-111	F
NORTHWEST	-183	F

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Build PM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3

****

D) CROSSWALK ANALYSIS

15-MINUTE PEDESTRIAN VOLUMES
(VOLS. ARE OUTBOUND FROM CORNER)

FROM 1->2:	29	FROM 5->6:	31
FROM 2->1:	13	FROM 6->5:	41
FROM 3->4:	34	FROM 7->8:	0
FROM 4->3:	40	FROM 8->7:	0

LOCATION	CURB->CURB STREET WIDTH (Ft.)	XWALK WIDTH (Ft.)	CONFLICTING VEHICLE VOL. WITH PEDS (Veh/Cycle)	PED GREEN TIME (Sec)

NORTH	68.5	5	0	31
EAST	34.5	5	1.72	49
SOUTH	69.5	13.5	5.45	31
WEST	0	0	0	49

LEVEL OF SERVICE RESULTS:
****

	WITHOUT VEHICLES		WITH VEHICLES		MAXIMUM SURGE	
	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT. PER PEDESTRIAN	LOS	SQ.FT.. PER PEDESTRIAN	LOS
NORTH	150	A	150	A	95	B
EAST	140	A	134	A	41	B
SOUTH	236	A	210	A	151	A
WEST	0		0		0	

IDENTIFYING INFORMATION

FACILITY LOCATION.... 54th Street at Second Avenue
TIME AND DATE..... Build PM ; 08-19-2005
OTHER INFORMATION.... Shaft 33B to City Water Tunnel 3