EAST MAIN STREET CORRIDOR STUDY

TORRINGTON, CT

APPENDICES

- FOCUS AREAS - ASSESSOR’S DATA
- FOCUS AREAS - PHOTO GROUPS
- TRANSPORTATION SUPPORTING DOCUMENTS

FOCUS AREAS - ASSESSOR'S DATA

TORRINGTON EAST MAIN STREET CORRIDOR STUDY AREA: FOCUS AREAS PROPERTY DETAILS

Focus Area	Addresses	Acreage	Map/Lot/Parcel	Owner	Zone
Target Plaza **Intent: access management and vehicular connection**	1922 East Main St.	18.5	144/003/036	Target Corporation	Local Business (LB)
	1902 East Main St.	5.7	144/003/038	Torringford Development LLC	LB
Torrington Plaza **Intent: access management and vehicular connectivity**	970 Torringford St.	37.05	144/003/033/1 thru 144/003/033/6	GG TORRINGTON LLC 15/16 & TIC SL TORRINGTON LLC 1/16 Englewood Cliffs, NJ	Commercial/Industrial Restricted
Big Lots (rear parcel) **Intent: access management and internal circulation**	1927 East Main St.	9.39	247/002/024	TEP Inc.	LB
Wendy's/Retail Strip **Intent: Possible active transportation connection via Dibble**	220 Dibble Street	3.4	137/005/010	Dibble Street Associates	LB
Vacant Lot **Intent: Development**	1571 East Main St.	0.5	137/005/008	Dibble Street Associates	Single-family residence R10s
	2565 East Main St.	0.96	137/005/007	Dibble Street Associates	LB

CONTINUED

CONTINUED

TORRINGTON EAST MAIN STREET CORRIDOR STUDY AREA: FOCUS AREAS PROPERTY DETAILS

1397-1439 Block **Intent: Access management**	1397 East Main St.	0.54	137/004/001	MacDonald Family 86 Cimmaron Drive Palm Coast, FL 32137	LB
	1399/1415 East Main St.	0.34	137/004/002	MacDonald Family 86 Cimmaron Drive Palm Coast, FL 32137	LB
	1431-39 East Main St./ 7 Griswold Street	1.86	137/004/005	Lambis Enterprises LLC 7 Griswold Street Torrington, CT 06790	LB
Torringford West/East Main Block **Intent: Business improvement by organizing parking and improving access management; anticipating future traffic safety improvements**	1238 East Main St.	0.33	137/009/002	Survivors of Mario & Domenica Tedeschi	LB
	1276 East Main St. 1270 East Main St.	8.89	137/008/003	Torrington Developers LLC 1224 Mill Street Suite D103 East Berlin, CT 06023	LB
	1280 East Main St.	2.31	138/009/001	Torrington Commercial Associates	LB
	380 Torringford West St. Vacant	7.33	138/009/033	POAH Torrington West LLC	General Residence R6
Former Rite Aid **Intent: reuse/redevelopment; access management recommendations**	218 East Main St.	1.77	126/004/024	Joseph & Ralph Sabia	LB
Route 8 Node **Intent: traffic safety; pedestrian connectivity development/redevelopment; Gateway aesthetic enhancements**	451 E. Main St. Burger King	0.64	125/010/001	Burger King of Conn Inc. #0590	LB
	475 East Main St. Vacant Lot/Burger King frontage	0.26	125/010/002	Maple Holdings LLC	LB
	417 East Elm Twin Colony Diner	0.64	125/007/001	417 East Elm	LB
	507 East Main St. Glass Building	1.7	125/009/001	One Torrington Office Plaza LLC	LB

FOCUS AREAS - PHOTO GROUPS

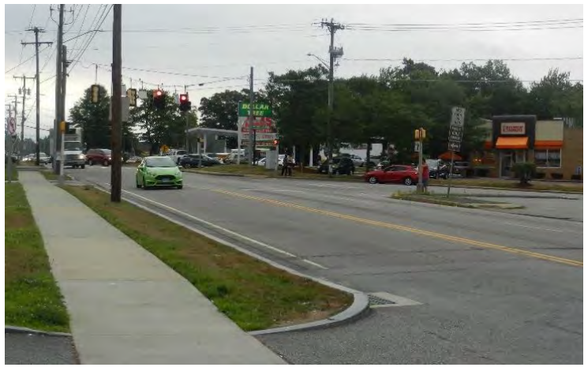
East Main/Route 8 Gateway

FOCUS AREAS - PHOTO GROUPS

Former Rite Aid Pharmacy – 218 East Main

The Glass Building - 507 East Main

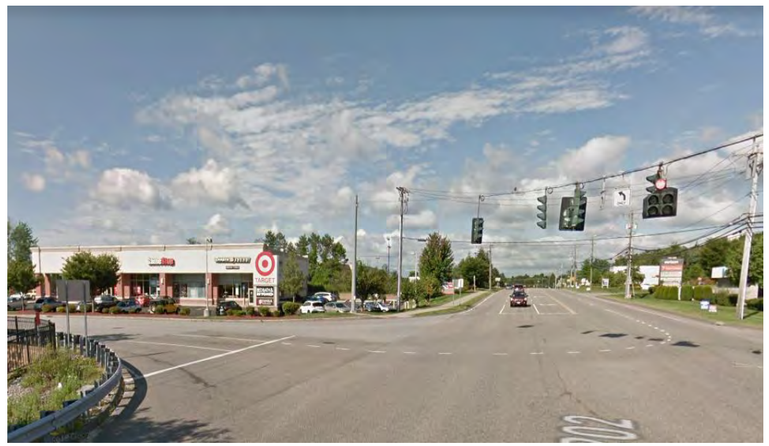
FOCUS AREAS - PHOTO GROUPS



Torringford West Street Area

1397-1435 E. Main Block

FOCUS AREAS - PHOTO GROUPS



Target Plaza/Torrington Plaza (Walmart)

Big Lots (Rear Parcel) – 1927 East Main

Wendy's & Adjacent Parcel- 220 Dibble

TRANSPORTATION SUPPORTING DOCUMENTS

- **Existing Roadway Geometry and Lane Usage**
- **Traffic Volume Networks**
- **Motor Vehicle Crash Data**
- **Vehicular Speed Summary**
- **Traffic Count Data**
- **Intersection Operations Analysis Worksheets**

EXISTING GEOMETRY AND LANE USAGE

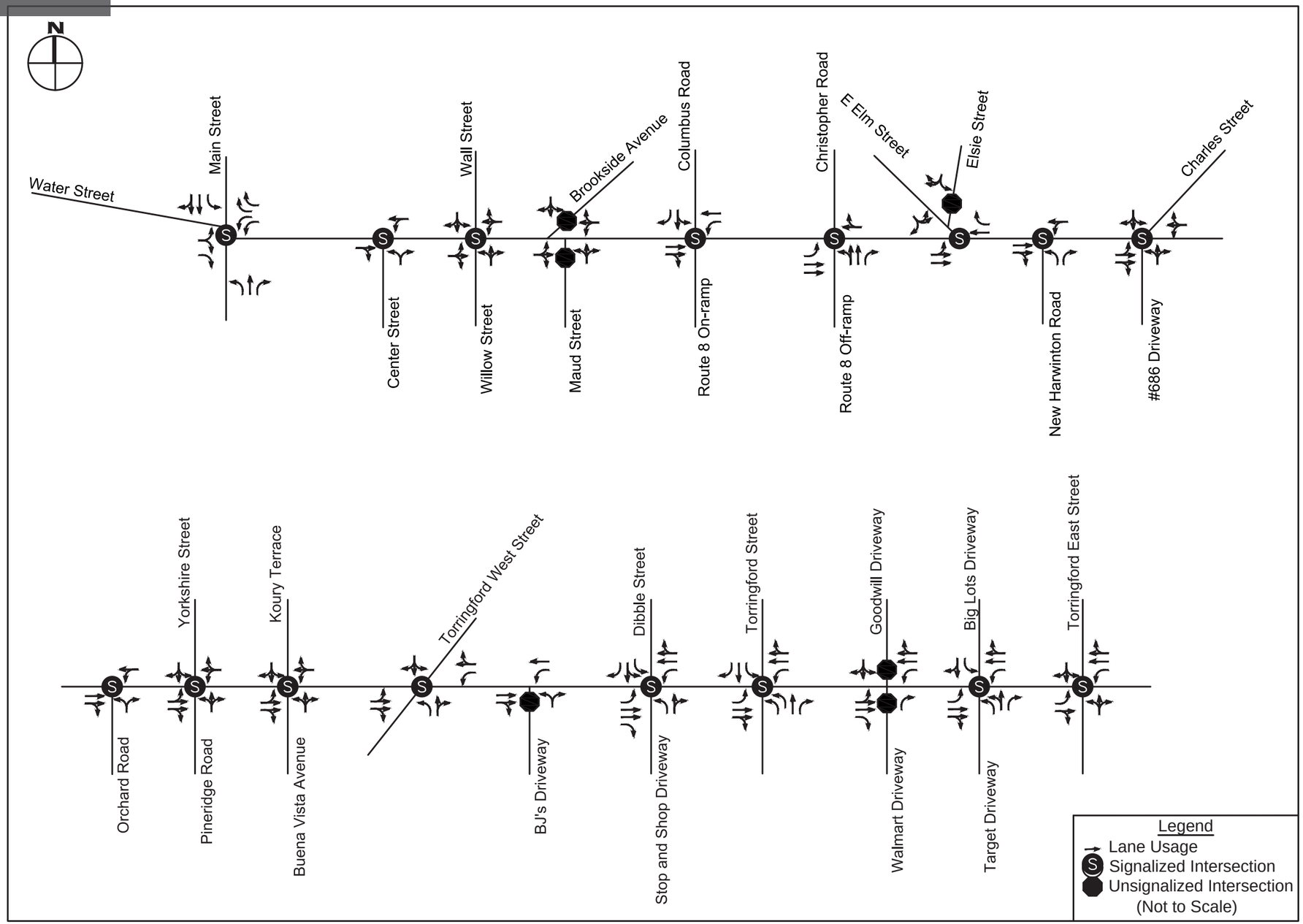


Figure x
Existing Geometry and Lane Configuration
East Main Street Corridor Study
Torrington, CT

TRAFFIC VOLUME NETWORKS

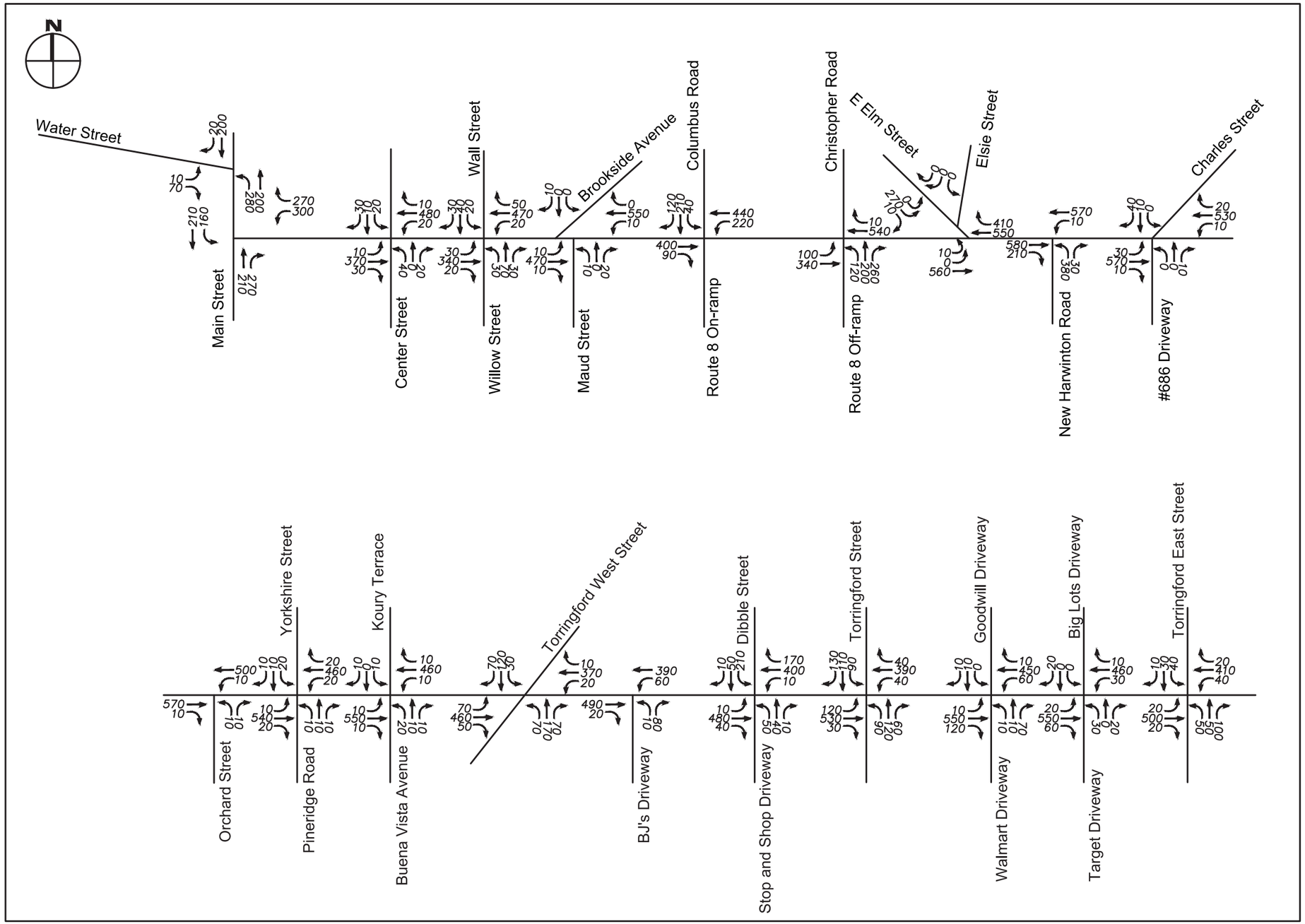


Figure x
2020 Existing Conditions Weekday Morning Peak Hour Traffic Volumes
East Main Street Corridor Study
Torrington, CT

TRAFFIC VOLUME NETWORKS

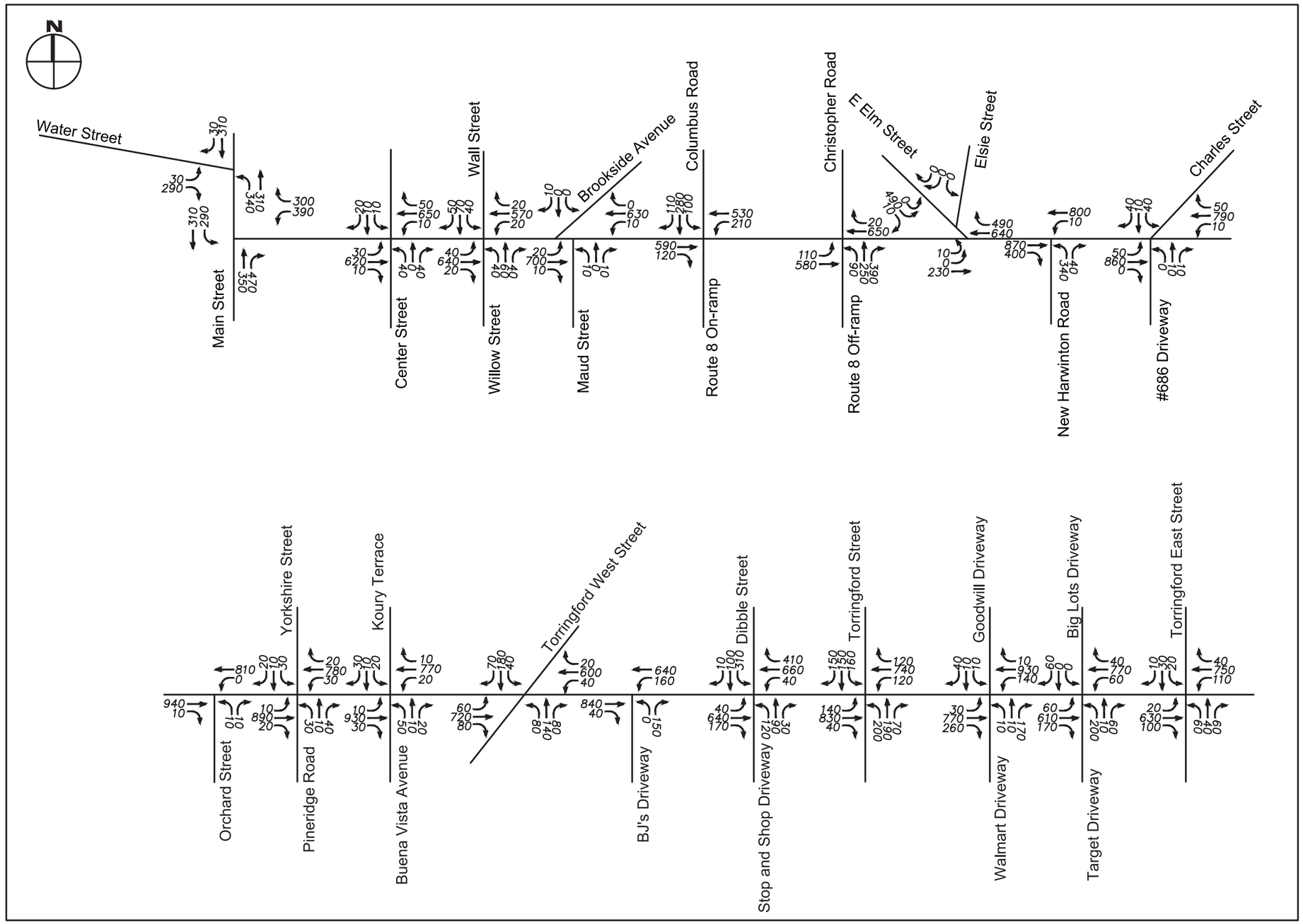


Figure x
2020 Existing Conditions Weekday Afternoon Peak Hour Traffic Volumes
East Main Street Corridor Study
Torrington, CT

TRAFFIC VOLUME NETWORKS

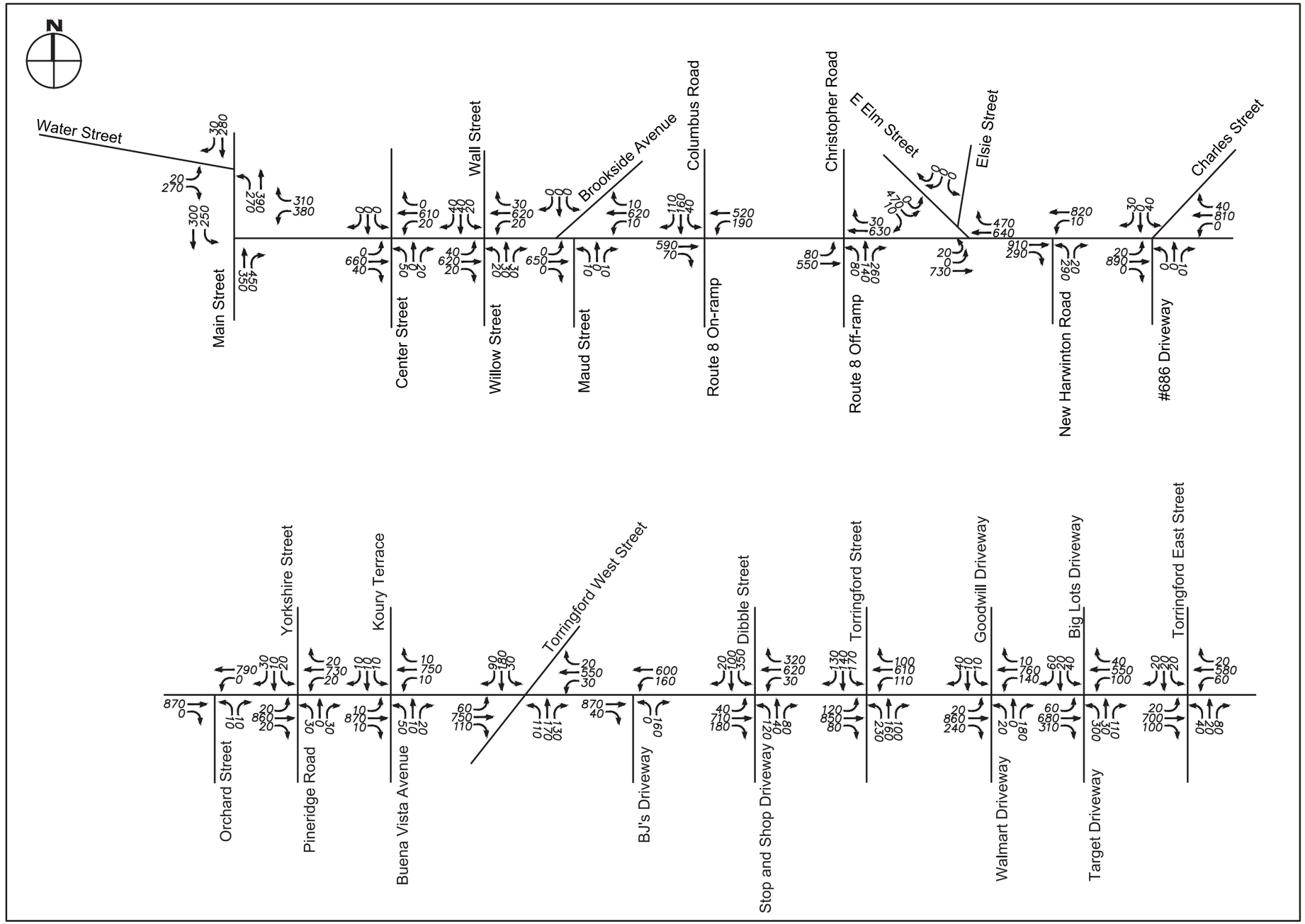
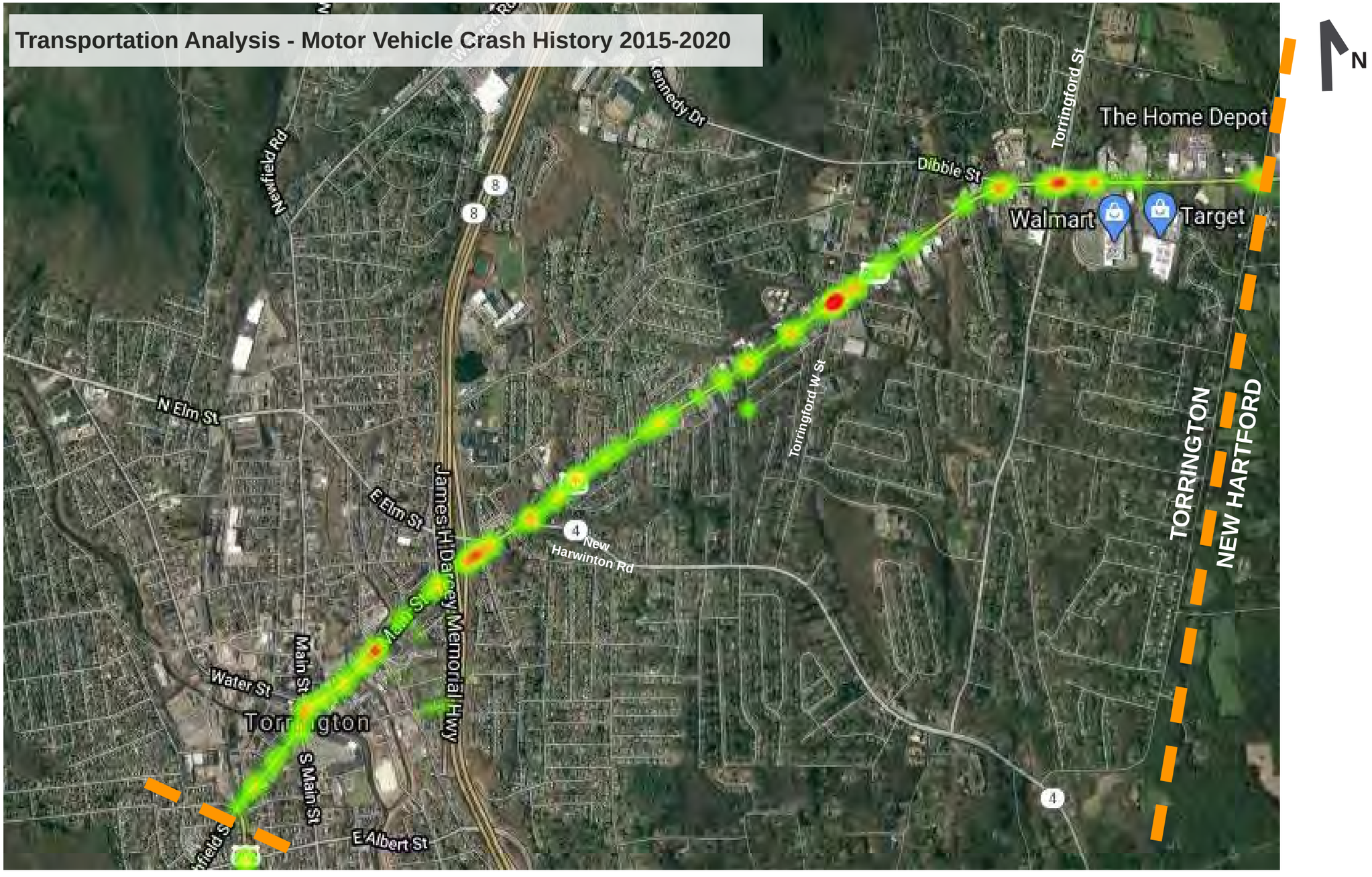


Figure x
2020 Existing Conditions Saturday Midday Peak Hour Traffic Volumes
East Main Street Corridor Study
Torrington, CT

MOTOR VEHICLE CRASH DATA



MOTOR VEHICLE CRASH DATA

Motor Vehicle Crash Data Summary (Page 1 of 9)

Source: Connecticut Crash Data Repository

	East Main Street/Main Street/Franklin Street	East Main Street/Volkman Place	East Main Street/Center Street	East Main Street/St John Place
Total	***26***	***8***	***10***	***2***
Year				
2017	14	3	2	0
2018	3	3	5	1
2019	9	2	3	1
Severity				
Property Damage	24	8	7	2
Injury	2	0	3	0
Fatality	0	0	0	0
Collision Type				
Angle	4	0	1	0
Rear End	12	4	7	1
Head On	0	0	0	0
Sideswipe	9	2	1	1
Pedestrian	0	0	0	0
Other	1	2	1	0
Time				
AM Peak (7-9AM)	2	1	1	0
PM Peak (4-6 PM)	4	0	2	1
Weekday Other	14	6	5	1
Saturday Midday (11AM-1PM)	1	0	1	0
Weekend Other	5	1	1	0
Road Conditions				
Dry	21	8	9	1
Wet	5	0	1	0
Season				
Dec-Feb	13	1	1	0
Mar-May	2	1	1	1
Jun-Aug	10	4	1	1
Sep-Nov	1	2	7	0
Light				
Daylight	20	4	7	1
Dark (Lit)	5	3	3	0
Dusk/Dawn	1	1	0	0

Motor Vehicle Crash Data Summary (Page 2 of 9)

	East Main Street/Baeder Street	East Main Street/Willow Street/Wall Street	East Main Street/Maud Street/Brookside Avenue	East Main Street/Columbus Road
Total	***10***	***24***	***11***	***30***
Year				
2017	3	7	3	8
2018	5	7	4	17
2019	2	10	4	5
Severity				
Property Damage	8	20	9	19
Injury	2	4	2	11
Fatality	0	0	0	0
Collision Type				
Angle	1	6	1	15
Rear End	6	15	6	10
Head On	0	0	0	0
Sideswipe	3	2	1	4
Pedestrian	0	0	1	1
Other	0	1	1	0
Time				
AM Peak (7-9AM)	1	1	2	1
PM Peak (4-6 PM)	3	3	2	3
Weekday Other	4	14	5	23
Saturday Midday (11AM-1PM)	0	0	0	0
Weekend Other	2	6	2	3
Road Conditions				
Dry	9	20	9	26
Wet	1	4	2	4
Season				
Dec-Feb	2	5	2	8
Mar-May	4	4	4	8
Jun-Aug	2	6	4	7
Sep-Nov	2	9	1	7
Light				
Daylight	8	18	11	15
Dark (Lit)	2	6	0	13
Dusk/Dawn	0	0	0	2

MOTOR VEHICLE CRASH DATA

Motor Vehicle Crash Data Summary (Page 3 of 9)

	East Main Street/Christopher Road	East Main Street/Hillside Avenue	East Main Street/East Elm Street	East Main Street/Torrington Heights Road/Bird Street
Total	***12***	***15***	***16***	***3***
Year				
2017	4	4	9	0
2018	7	3	5	1
2019	1	8	2	2
Severity				
Property Damage	5	13	11	3
Injury	7	2	5	0
Fatality	0	0	0	0
Collision Type				
Angle	7	4	2	0
Rear End	2	6	7	2
Head On	0	3	0	0
Sideswipe	1	0	4	0
Pedestrian	1	1	0	0
Other	1	1	3	1
Time				
AM Peak (7-9AM)	2	1	1	1
PM Peak (4-6 PM)	0	2	1	0
Weekday Other	8	10	7	1
Saturday Midday (11AM-1PM)	0	0	1	0
Weekend Other	2	2	6	1
Road Conditions				
Dry	10	12	12	2
Wet	2	3	4	1
Season				
Dec-Feb	1	2	2	0
Mar-May	2	7	5	1
Jun-Aug	4	3	5	2
Sep-Nov	5	3	4	0
Light				
Daylight	8	10	13	3
Dark (Lit)	4	3	3	0
Dusk/Dawn	0	2	0	0

Motor Vehicle Crash Data Summary (Page 4 of 9)

	East Main Street/New Harwinton Road	East Main Street/Irving Avenue/Fern Drive	East Main Street/Charles Street	East Main Street/Nathaniel Street
Total	***19***	***14***	***17***	***3***
Year				
2017	8	4	4	0
2018	3	7	8	1
2019	8	3	5	2
Severity				
Property Damage	14	9	14	2
Injury	5	5	3	1
Fatality	0	0	0	0
Collision Type				
Angle	6	3	5	0
Rear End	8	9	11	2
Head On	1	0	0	0
Sideswipe	2	2	0	1
Pedestrian	0	0	0	0
Other	2	0	1	0
Time				
AM Peak (7-9AM)	1	1	1	0
PM Peak (4-6 PM)	4	3	4	1
Weekday Other	9	6	11	2
Saturday Midday (11AM-1PM)	0	1	0	0
Weekend Other	5	3	1	0
Road Conditions				
Dry	18	11	15	1
Wet	1	3	2	2
Season				
Dec-Feb	4	2	3	0
Mar-May	3	1	0	1
Jun-Aug	5	5	7	1
Sep-Nov	7	6	7	1
Light				
Daylight	17	12	14	2
Dark (Lit)	2	2	3	1
Dusk/Dawn	0	0	0	0

MOTOR VEHICLE CRASH DATA

Motor Vehicle Crash Data Summary (Page 5 of 9)

	East Main Street/Arlene Street	East Main Street/Bishop Street	East Main Street/Wheeler Lane	East Main Street/Orchard Road
Total	***6***	***6***	***2***	***4***
Year				
2017	1	3	1	1
2018	4	1	1	2
2019	1	2	0	1
Severity				
Property Damage	0	5	2	4
Injury	0	1	0	0
Fatality	0	0	0	0
Collision Type				
Angle	0	2	0	0
Rear End	5	3	1	1
Head On	0	0	0	0
Sideswipe	1	1	1	2
Pedestrian	0	0	0	0
Other	0	0	0	1
Time				
AM Peak (7-9AM)	0	0	0	1
PM Peak (4-6 PM)	1	1	1	0
Weekday Other	4	3	1	3
Saturday Midday (11AM-1PM)	0	0	0	0
Weekend Other	1	2	0	0
Road Conditions				
Dry	5	6	2	2
Wet	1	0	0	2
Season				
Dec-Feb	1	0	1	2
Mar-May	2	1	0	1
Jun-Aug	1	2	0	0
Sep-Nov	2	3	1	1
Light				
Daylight	4	6	1	3
Dark (Lit)	2	0	1	1
Dusk/Dawn	0	0	0	0

Motor Vehicle Crash Data Summary (Page 6 of 9)

	East Main Street/Tioga Street	East Main Street/Crestwood Road	East Main Street/Whitewood Road	East Main Street/Pineridge Road/Yorkshire Street
Total	***8***	***3***	***1***	***7***
Year				
2017	2	1	1	1
2018	2	2	0	2
2019	4	0	0	4
Severity				
Property Damage	3	2	1	4
Injury	5	1	0	3
Fatality	0	0	0	0
Collision Type				
Angle	3	2	0	1
Rear End	4	1	1	4
Head On	0	0	0	0
Sideswipe	1	0	0	1
Pedestrian	0	0	0	0
Other	0	0	0	1
Time				
AM Peak (7-9AM)	0	0	0	0
PM Peak (4-6 PM)	2	0	0	0
Weekday Other	6	3	1	6
Saturday Midday (11AM-1PM)	0	0	0	0
Weekend Other	0	0	0	1
Road Conditions				
Dry	7	3	1	5
Wet	1	0	0	2
Season				
Dec-Feb	1	0	0	0
Mar-May	2	1	0	2
Jun-Aug	4	0	1	3
Sep-Nov	1	2	0	2
Light				
Daylight	5	2	1	4
Dark (Lit)	2	1	0	3
Dusk/Dawn	1	0	0	0

MOTOR VEHICLE CRASH DATA

Motor Vehicle Crash Data Summary (Page 7 of 9)

	East Main Street/Hartford Avenue	East Main Street/Buena Vista Avenue	East Main Street/Torringford West Street
Total	***15***	***19***	***61***
Year			
2017	4	8	27
2018	4	10	21
2019	7	1	13
Severity			
Property Damage	10	14	44
Injury	5	5	17
Fatality	0	0	0
Collision Type			
Angle	3	5	14
Rear End	7	9	34
Head On	0	1	1
Sideswipe	4	2	10
Pedestrian	0	0	0
Other	1	2	2
Time			
AM Peak (7-9AM)	0	1	2
PM Peak (4-6 PM)	3	2	6
Weekday Other	10	11	39
Saturday Midday (11AM-1PM)	0	0	5
Weekend Other	2	5	9
Road Conditions			
Dry	13	14	51
Wet	2	5	10
Season			
Dec-Feb	5	4	14
Mar-May	1	3	18
Jun-Aug	5	3	16
Sep-Nov	4	9	13
Light			
Daylight	13	17	46
Dark (Lit)	1	2	15
Dusk/Dawn	1	0	0

Motor Vehicle Crash Data Summary (Page 8 of 9)

	East Main Street/Pfeffer Lane	East Main Street/Durand Street	East Main Street/Griswold Street
Total	***15***	***10***	***8***
Year			
2017	6	4	3
2018	6	4	4
2019	3	2	1
Severity			
Property Damage	12	4	5
Injury	3	6	3
Fatality	0	0	0
Collision Type			
Angle	3	1	4
Rear End	8	6	2
Head On	0	0	0
Sideswipe	2	2	1
Pedestrian	0	0	0
Other	2	1	1
Time			
AM Peak (7-9AM)	0	1	0
PM Peak (4-6 PM)	4	2	1
Weekday Other	6	5	3
Saturday Midday (11AM-1PM)	3	0	2
Weekend Other	2	2	2
Road Conditions			
Dry	15	10	8
Wet	0	0	0
Season			
Dec-Feb	4	2	2
Mar-May	2	4	3
Jun-Aug	6	3	1
Sep-Nov	3	1	2
Light			
Daylight	14	8	7
Dark (Lit)	1	1	1
Dusk/Dawn	0	1	0

MOTOR VEHICLE CRASH DATA

Motor Vehicle Crash Data Summary (Page 9 of 9)

	East Main Street/Greenridge Road	East Main Street/Dibble Street	East Main Street/Torringford Street	East Main Street/ Target Driveway	East Main Street/Torringford East Street/Harrison Road
Total	***8***	***21***	***66***	***4***	***12***
Year					
2017	4	5	20	1	4
2018	3	9	27	3	3
2019	1	7	19	0	5
Severity					
Property Damage	4	18	46	1	9
Injury	4	3	20	3	3
Fatality	0	0	0	0	0
Collision Type					
Angle	0	3	19	3	2
Rear End	3	8	37	0	7
Head On	0	1	1	1	0
Sideswipe	3	7	5	0	1
Pedestrian	0	0	0	0	1
Other	2	2	4	0	1
Time					
AM Peak (7-9AM)	0	1	3	0	0
PM Peak (4-6 PM)	4	0	13	0	2
Weekday Other	3	11	34	2	4
Saturday Midday (11AM-1PM)	0	0	0	0	1
Weekend Other	1	8	16	2	1
Road Conditions					
Dry	8	14	59	4	11
Wet	0	7	7	0	1
Season					
Dec-Feb	1	8	22	0	0
Mar-May	0	4	15	0	4
Jun-Aug	1	2	13	1	0
Sep-Nov	6	7	16	3	8
Light					
Daylight	6	20	51	3	10
Dark (Lit)	2	1	15	1	1
Dusk/Dawn	0	0	0	0	1

VEHICULAR SPEED SUMMARY

Table 1 **East Main Street Vehicular Speed Summary**

	Median Speed (mph)		85th Percentile Speed (mph)	
Location	Eastbound	Westbound	Eastbound	Westbound
East of Center Street	28	28	32	32
West of Griswold Street	40	33	45	39

TRAFFIC COUNT DATA

East Main Street (Route 202)
east of Center Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-A

Count Date:
Friday, March 13, 2020

Volume

EB						WB						Combined					
Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min
12:00 AM	11		12:00 PM	72		12:00 AM	10		12:00 PM	82		12:00 AM	21		12:00 PM	154	
12:15 AM	5		12:15 PM	66		12:15 AM	6		12:15 PM	102		12:15 AM	11		12:15 PM	168	
12:30 AM	5		12:30 PM	82		12:30 AM	3		12:30 PM	74		12:30 AM	8		12:30 PM	156	
12:45 AM	4	25	12:45 PM	102	322	12:45 AM	4	23	12:45 PM	102	360	12:45 AM	8	48	12:45 PM	204	682
1:00 AM	4		1:00 PM	94		1:00 AM	8		1:00 PM	106		1:00 AM	12		1:00 PM	200	
1:15 AM	4		1:15 PM	77		1:15 AM	1		1:15 PM	99		1:15 AM	5		1:15 PM	176	
1:30 AM	5		1:30 PM	88		1:30 AM	1		1:30 PM	102		1:30 AM	6		1:30 PM	190	
1:45 AM	1	14	1:45 PM	94	353	1:45 AM	7	17	1:45 PM	90	397	1:45 AM	8	31	1:45 PM	184	750
2:00 AM	2		2:00 PM	93		2:00 AM	3		2:00 PM	99		2:00 AM	5		2:00 PM	192	
2:15 AM	5		2:15 PM	90		2:15 AM	4		2:15 PM	98		2:15 AM	9		2:15 PM	188	
2:30 AM	2		2:30 PM	90		2:30 AM	3		2:30 PM	96		2:30 AM	5		2:30 PM	186	
2:45 AM	5	14	2:45 PM	80	353	2:45 AM	2	12	2:45 PM	101	394	2:45 AM	7	26	2:45 PM	181	747
3:00 AM	2		3:00 PM	86		3:00 AM	5		3:00 PM	106		3:00 AM	7		3:00 PM	192	
3:15 AM	5		3:15 PM	99		3:15 AM	2		3:15 PM	101		3:15 AM	7		3:15 PM	200	
3:30 AM	12		3:30 PM	83		3:30 AM	7		3:30 PM	93		3:30 AM	19		3:30 PM	176	
3:45 AM	15	34	3:45 PM	91	359	3:45 AM	9	23	3:45 PM	96	396	3:45 AM	24	57	3:45 PM	187	755
4:00 AM	14		4:00 PM	55		4:00 AM	8		4:00 PM	89		4:00 AM	22		4:00 PM	144	
4:15 AM	22		4:15 PM	43		4:15 AM	15		4:15 PM	35		4:15 AM	37		4:15 PM	78	
4:30 AM	41		4:30 PM	41		4:30 AM	25		4:30 PM	39		4:30 AM	66		4:30 PM	80	
4:45 AM	34	111	4:45 PM	39	178	4:45 AM	35	83	4:45 PM	29	192	4:45 AM	69	194	4:45 PM	68	370
5:00 AM	46		5:00 PM	61		5:00 AM	31		5:00 PM	36		5:00 AM	77		5:00 PM	97	
5:15 AM	37		5:15 PM	85		5:15 AM	42		5:15 PM	94		5:15 AM	79		5:15 PM	179	
5:30 AM	60		5:30 PM	75		5:30 AM	63		5:30 PM	86		5:30 AM	123		5:30 PM	161	
5:45 AM	67	210	5:45 PM	80	301	5:45 AM	63	199	5:45 PM	98	314	5:45 AM	130	409	5:45 PM	178	615
6:00 AM	60		6:00 PM	59		6:00 AM	54		6:00 PM	92		6:00 AM	114		6:00 PM	151	
6:15 AM	61		6:15 PM	80		6:15 AM	62		6:15 PM	78		6:15 AM	123		6:15 PM	158	
6:30 AM	69		6:30 PM	80		6:30 AM	70		6:30 PM	81		6:30 AM	139		6:30 PM	161	
6:45 AM	67	257	6:45 PM	75	294	6:45 AM	80	266	6:45 PM	75	326	6:45 AM	147	523	6:45 PM	150	620
7:00 AM	62		7:00 PM	86		7:00 AM	82		7:00 PM	71		7:00 AM	144		7:00 PM	157	
7:15 AM	66		7:15 PM	74		7:15 AM	80		7:15 PM	72		7:15 AM	146		7:15 PM	146	
7:30 AM	56		7:30 PM	60		7:30 AM	88		7:30 PM	64		7:30 AM	144		7:30 PM	124	
7:45 AM	83	267	7:45 PM	61	281	7:45 AM	91	341	7:45 PM	62	269	7:45 AM	174	608	7:45 PM	123	550
8:00 AM	66		8:00 PM	57		8:00 AM	68		8:00 PM	41		8:00 AM	134		8:00 PM	98	
8:15 AM	77		8:15 PM	61		8:15 AM	82		8:15 PM	64		8:15 AM	159		8:15 PM	125	
8:30 AM	68		8:30 PM	29		8:30 AM	70		8:30 PM	53		8:30 AM	138		8:30 PM	82	
8:45 AM	78	289	8:45 PM	42	189	8:45 AM	84	304	8:45 PM	45	203	8:45 AM	162	593	8:45 PM	87	392
9:00 AM	65		9:00 PM	47		9:00 AM	95		9:00 PM	38		9:00 AM	160		9:00 PM	85	
9:15 AM	90		9:15 PM	48		9:15 AM	84		9:15 PM	34		9:15 AM	174		9:15 PM	82	
9:30 AM	91		9:30 PM	38		9:30 AM	84		9:30 PM	34		9:30 AM	175		9:30 PM	72	
9:45 AM	89	335	9:45 PM	41	174	9:45 AM	92	355	9:45 PM	26	132	9:45 AM	181	690	9:45 PM	67	306
10:00 AM	90		10:00 PM	25		10:00 AM	98		10:00 PM	45		10:00 AM	188		10:00 PM	70	
10:15 AM	88		10:15 PM	26		10:15 AM	88		10:15 PM	29		10:15 AM	176		10:15 PM	55	
10:30 AM	110		10:30 PM	35		10:30 AM	73		10:30 PM	19		10:30 AM	183		10:30 PM	54	
10:45 AM	86	374	10:45 PM	16	102	10:45 AM	104	363	10:45 PM	18	111	10:45 AM	190	737	10:45 PM	34	213
11:00 AM	100		11:00 PM	15		11:00 AM	95		11:00 PM	18		11:00 AM	195		11:00 PM	33	
11:15 AM	77		11:15 PM	22		11:15 AM	100		11:15 PM	11		11:15 AM	177		11:15 PM	33	
11:30 AM	78		11:30 PM	9		11:30 AM	75		11:30 PM	7		11:30 AM	153		11:30 PM	16	
11:45 AM	65	320	11:45 PM	13	59	11:45 AM	73	343	11:45 PM	12	48	11:45 AM	138	663	11:45 PM	25	107
Total	2250			2965		Total	2329			3142		Total	4579			6107	
Percent	43.14%			56.86%		Percent	42.57%			57.43%		Percent	42.85%			57.15%	
Day Total			5215			Day Total			5471			Day Total			10686		
Peak Hour	10:15 AM			1:45 PM		Peak Hour	10:45 AM			12:45 PM		Peak Hour	10:30 AM			12:45 PM	
Volume	384			367		Volume	374			409		Volume	745			770	
P.H.F.	0.873			0.976		P.H.F.	0.899			0.965		P.H.F.	0.955			0.944	

East Main Street (Route 202)
east of Center Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-A

Count Date:
Saturday, March 14, 2020

Volume

EB						WB						Combined					
Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min
12:00 AM	11		12:00 PM	45		12:00 AM	7		12:00 PM	95		12:00 AM	18		12:00 PM	140	
12:15 AM	9		12:15 PM	63		12:15 AM	4		12:15 PM	77		12:15 AM	13		12:15 PM	140	
12:30 AM	9		12:30 PM	93		12:30 AM	4		12:30 PM	116		12:30 AM	13		12:30 PM	209	
12:45 AM	13	42	12:45 PM	107	308	12:45 AM	10	25	12:45 PM	102	390	12:45 AM	23	67	12:45 PM	209	698
1:00 AM	14		1:00 PM	79		1:00 AM	8		1:00 PM	95		1:00 AM	22		1:00 PM	174	
1:15 AM	8		1:15 PM	92		1:15 AM	2		1:15 PM	86		1:15 AM	10		1:15 PM	178	
1:30 AM	2		1:30 PM	96		1:30 AM	2		1:30 PM	75		1:30 AM	4		1:30 PM	171	
1:45 AM	4	28	1:45 PM	104	371	1:45 AM	0	12	1:45 PM	83	339	1:45 AM	4	40	1:45 PM	187	710
2:00 AM	5		2:00 PM	56		2:00 AM	9		2:00 PM	89		2:00 AM	14		2:00 PM	145	
2:15 AM	5		2:15 PM	87		2:15 AM	5		2:15 PM	85		2:15 AM	10		2:15 PM	172	
2:30 AM	7		2:30 PM	79		2:30 AM	8		2:30 PM	79		2:30 AM	15		2:30 PM	158	
2:45 AM	8	25	2:45 PM	36	258	2:45 AM	4	26	2:45 PM	75	328	2:45 AM	12	51	2:45 PM	111	586
3:00 AM	5		3:00 PM	16		3:00 AM	3		3:00 PM	8		3:00 AM	8		3:00 PM	24	
3:15 AM	1		3:15 PM	31		3:15 AM	1		3:15 PM	1		3:15 AM	2		3:15 PM	32	
3:30 AM	7		3:30 PM	37		3:30 AM	2		3:30 PM	2		3:30 AM	9		3:30 PM	39	
3:45 AM	9	22	3:45 PM	30	114	3:45 AM	9	15	3:45 PM	3	14	3:45 AM	18	37	3:45 PM	33	128
4:00 AM	6		4:00 PM	28		4:00 AM	4		4:00 PM	0		4:00 AM	10		4:00 PM	28	
4:15 AM	11		4:15 PM	37		4:15 AM	6		4:15 PM	2		4:15 AM	17		4:15 PM	39	
4:30 AM	11		4:30 PM	72		4:30 AM	10		4:30 PM	24		4:30 AM	21		4:30 PM	96	
4:45 AM	12	40	4:45 PM	71	208	4:45 AM	7	27	4:45 PM	82	108	4:45 AM	19	67	4:45 PM	153	316
5:00 AM	15		5:00 PM	51		5:00 AM	17		5:00 PM	85		5:00 AM	32		5:00 PM	136	
5:15 AM	10		5:15 PM	69		5:15 AM	15		5:15 PM	91		5:15 AM	25		5:15 PM	160	
5:30 AM	28		5:30 PM	59		5:30 AM	40		5:30 PM	87		5:30 AM	68		5:30 PM	146	
5:45 AM	28	81	5:45 PM	65	244	5:45 AM	34	106	5:45 PM	74	337	5:45 AM	62	187	5:45 PM	139	581
6:00 AM	30		6:00 PM	70		6:00 AM	33		6:00 PM	70		6:00 AM	63		6:00 PM	140	
6:15 AM	38		6:15 PM	66		6:15 AM	40		6:15 PM	67		6:15 AM	78		6:15 PM	133	
6:30 AM	58		6:30 PM	55		6:30 AM	42		6:30 PM	68		6:30 AM	100		6:30 PM	123	
6:45 AM	50	176	6:45 PM	59	250	6:45 AM	39	154	6:45 PM	68	273	6:45 AM	89	330	6:45 PM	127	523
7:00 AM	64		7:00 PM	65		7:00 AM	41		7:00 PM	49		7:00 AM	105		7:00 PM	114	
7:15 AM	54		7:15 PM	47		7:15 AM	37		7:15 PM	56		7:15 AM	91		7:15 PM	103	
7:30 AM	58		7:30 PM	53		7:30 AM	57		7:30 PM	42		7:30 AM	115		7:30 PM	95	
7:45 AM	81	257	7:45 PM	46	211	7:45 AM	70	205	7:45 PM	45	192	7:45 AM	151	462	7:45 PM	91	403
8:00 AM	81		8:00 PM	43		8:00 AM	74		8:00 PM	52		8:00 AM	155		8:00 PM	95	
8:15 AM	78		8:15 PM	55		8:15 AM	70		8:15 PM	51		8:15 AM	148		8:15 PM	106	
8:30 AM	72		8:30 PM	46		8:30 AM	69		8:30 PM	37		8:30 AM	141		8:30 PM	83	
8:45 AM	82	313	8:45 PM	45	189	8:45 AM	90	303	8:45 PM	49	189	8:45 AM	172	616	8:45 PM	94	378
9:00 AM	106		9:00 PM	51		9:00 AM	96		9:00 PM	43		9:00 AM	202		9:00 PM	94	
9:15 AM	93		9:15 PM	43		9:15 AM	76		9:15 PM	37		9:15 AM	169		9:15 PM	80	
9:30 AM	99		9:30 PM	34		9:30 AM	74		9:30 PM	38		9:30 AM	173		9:30 PM	72	
9:45 AM	86	384	9:45 PM	22	150	9:45 AM	94	340	9:45 PM	30	148	9:45 AM	180	724	9:45 PM	52	298
10:00 AM	88		10:00 PM	24		10:00 AM	78		10:00 PM	32		10:00 AM	166		10:00 PM	56	
10:15 AM	91		10:15 PM	25		10:15 AM	99		10:15 PM	21		10:15 AM	190		10:15 PM	46	
10:30 AM	81		10:30 PM	22		10:30 AM	94		10:30 PM	20		10:30 AM	175		10:30 PM	42	
10:45 AM	86	346	10:45 PM	23	94	10:45 AM	114	385	10:45 PM	13	86	10:45 AM	200	731	10:45 PM	36	180
11:00 AM	75		11:00 PM	20		11:00 AM	122		11:00 PM	26		11:00 AM	197		11:00 PM	46	
11:15 AM	89		11:15 PM	15		11:15 AM	96		11:15 PM	15		11:15 AM	185		11:15 PM	30	
11:30 AM	102		11:30 PM	19		11:30 AM	100		11:30 PM	15		11:30 AM	202		11:30 PM	34	
11:45 AM	69	335	11:45 PM	11	65	11:45 AM	62	380	11:45 PM	11	67	11:45 AM	131	715	11:45 PM	22	132
Total	2049			2462		Total	1978			2471		Total	4027			4933	
Percent	45.42%			54.58%		Percent	44.46%			55.54%		Percent	44.94%			55.06%	
Day Total			4511			Day Total			4449			Day Total			8960		
Peak Hour	9:00 AM			12:45 PM		Peak Hour	10:45 AM			12:30 PM		Peak Hour	10:45 AM			12:30 PM	
Volume	384			374		Volume	432			399		Volume	784			770	
P.H.F.	0.906			0.874		P.H.F.	0.885			0.860		P.H.F.	0.970			0.921	

TRAFFIC COUNT DATA

East Main Street (Route 202)
east of Center Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Friday, March 13, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-A

Speed (60-minute)

WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	1	3	7	12	0	0	0	0	0	0	0	0	23	33.0	29.1
1:00 AM	0	0	2	9	4	1	1	0	0	0	0	0	0	17	32.0	29.2
2:00 AM	0	1	1	3	6	1	0	0	0	0	0	0	0	12	32.0	28.8
3:00 AM	1	0	1	4	11	4	2	0	0	0	0	0	0	23	36.4	31.5
4:00 AM	0	0	4	35	32	9	3	0	0	0	0	0	0	83	34.0	30.3
5:00 AM	2	2	18	89	72	16	0	0	0	0	0	0	0	199	33.0	28.7
6:00 AM	1	3	17	105	103	31	5	0	1	0	0	0	0	266	34.0	29.9
7:00 AM	2	3	46	172	96	19	3	0	0	0	0	0	0	341	32.0	28.3
8:00 AM	4	1	55	133	86	21	4	0	0	0	0	0	0	304	33.0	28.2
9:00 AM	8	4	81	176	69	14	3	0	0	0	0	0	0	355	31.0	26.7
10:00 AM	9	1	72	168	96	17	0	0	0	0	0	0	0	363	32.0	27.2
11:00 AM	4	1	71	167	88	11	1	0	0	0	0	0	0	343	31.0	27.3
12:00 PM	5	6	60	191	86	11	1	0	0	0	0	0	0	360	32.0	27.4
1:00 PM	2	5	73	179	109	28	1	0	0	0	0	0	0	397	32.0	28.0
2:00 PM	3	10	55	201	102	21	1	1	0	0	0	0	0	394	32.0	27.8
3:00 PM	6	3	45	200	121	19	1	0	1	0	0	0	0	396	32.0	28.1
4:00 PM	14	6	36	75	53	8	0	0	0	0	0	0	0	192	32.0	26.4
5:00 PM	4	6	51	169	76	8	0	0	0	0	0	0	0	314	31.0	27.2
6:00 PM	3	1	28	188	90	13	3	0	0	0	0	0	0	326	32.0	28.3
7:00 PM	2	1	30	140	81	12	3	0	0	0	0	0	0	269	32.0	28.5
8:00 PM	1	0	19	86	81	12	4	0	0	0	0	0	0	203	33.0	29.3
9:00 PM	1	0	18	42	58	12	1	0	0	0	0	0	0	132	33.4	29.4
10:00 PM	0	0	3	48	43	12	2	2	1	0	0	0	0	111	34.5	30.8
11:00 PM	0	0	13	15	18	2	0	0	0	0	0	0	0	48	33.0	28.6
Total	72	55	802	2602	1593	302	39	3	3	0	0	0	0	5471	32.0	28.1
Percent	1.32%	1.01%	14.66%	47.56%	29.12%	5.52%	0.71%	0.05%	0.05%	0.00%	0.00%	0.00%	0.00%			
AM Peak	10:00 AM	9:00 AM	9:00 AM	9:00 AM	6:00 AM	6:00 AM	6:00 AM		6:00 AM					10:00 AM		
Volume	9	4	81	176	103	31	5	0	1	0	0	0	0	363		
PM Peak	4:00 PM	2:00 PM	1:00 PM	2:00 PM	3:00 PM	1:00 PM	8:00 PM	10:00 PM	3:00 PM					1:00 PM		
Volume	14	10	73	201	121	28	4	2	1	0	0	0	0	397		

15th Percentile: 24.0 MPH
50th Percentile: 28.0 MPH
85th Percentile: 32.0 MPH
95th Percentile: 35.0 MPH

Average Speed: 28.1 MPH
10 MPH Pace: 23 to 32 MPH
Number in Pace: 4335
Percent in Pace: 79.2%

Posted Speed Limit: 30 MPH
Number of Vehicles > 30 MPH: 1506
Percent of Vehicles > 30 MPH: 27.5%

East Main Street (Route 202)
east of Center Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Saturday, March 14, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-A

Speed (60-minute)

WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	0	1	8	10	5	1	0	0	0	0	0	0	25	36.4	31.4
1:00 AM	0	0	3	4	5	0	0	0	0	0	0	0	0	12	33.0	28.2
2:00 AM	0	1	4	13	4	4	0	0	0	0	0	0	0	26	32.8	28.3
3:00 AM	0	0	1	3	9	2	0	0	0	0	0	0	0	15	34.0	31.1
4:00 AM	0	0	1	8	14	3	1	0	0	0	0	0	0	27	34.1	30.9
5:00 AM	0	0	4	44	35	21	2	0	0	0	0	0	0	106	35.0	30.5
6:00 AM	0	1	11	59	56	21	6	0	0	0	0	0	0	154	35.0	30.4
7:00 AM	3	3	15	81	74	25	3	1	0	0	0	0	0	205	34.0	29.7
8:00 AM	6	1	30	122	112	31	1	0	0	0	0	0	0	303	33.0	29.0
9:00 AM	3	2	48	157	107	21	2	0	0	0	0	0	0	340	32.0	28.3
10:00 AM	2	9	68	186	102	18	0	0	0	0	0	0	0	385	32.0	27.6
11:00 AM	1	5	55	195	107	16	1	0	0	0	0	0	0	380	32.0	28.0
12:00 PM	7	5	48	195	112	23	0	0	0	0	0	0	0	390	32.0	27.8
1:00 PM	4	4	48	145	117	19	2	0	0	0	0	0	0	339	32.0	28.3
2:00 PM	2	10	60	156	83	17	0	0	0	0	0	0	0	328	32.0	27.5
3:00 PM	0	2	3	8	0	0	1	0	0	0	0	0	0	14	26.0	25.1
4:00 PM	2	3	18	52	26	6	1	0	0	0	0	0	0	108	32.0	27.6
5:00 PM	1	1	37	169	105	21	3	0	0	0	0	0	0	337	32.0	28.6
6:00 PM	1	0	35	127	94	15	1	0	0	0	0	0	0	273	33.0	28.6
7:00 PM	1	0	10	91	73	15	1	1	0	0	0	0	0	192	33.0	29.4
8:00 PM	1	1	29	79	60	19	0	0	0	0	0	0	0	189	33.0	28.7
9:00 PM	0	0	9	58	69	12	0	0	0	0	0	0	0	148	33.0	29.6
10:00 PM	0	1	5	30	33	15	1	1	0	0	0	0	0	86	36.0	30.6
11:00 PM	0	1	6	22	24	14	0	0	0	0	0	0	0	67	36.0	30.0
Total	34	50	549	2012	1431	343	27	3	0	0	0	0	0	4449	33.0	28.6
Percent	0.76%	1.12%	12.34%	45.22%	32.16%	7.71%	0.61%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	8:00 AM	10:00 AM	10:00 AM	11:00 AM	8:00 AM	8:00 AM	6:00 AM	7:00 AM						10:00 AM		
Volume	6	9	68	195	112	31	6	1	0	0	0	0	0	385		
PM Peak	12:00 PM	2:00 PM	2:00 PM	12:00 PM	1:00 PM	12:00 PM	5:00 PM	7:00 PM						12:00 PM		
Volume	7	10	60	195	117	23	3	1	0	0	0	0	0	390		

15th Percentile: 25.0 MPH
50th Percentile: 29.0 MPH
85th Percentile: 33.0 MPH
95th Percentile: 36.0 MPH

Average Speed: 28.6 MPH
10 MPH Pace: 24 to 33 MPH
Number in Pace: 3534
Percent in Pace: 79.4%

Posted Speed Limit: 30 MPH
Number of Vehicles > 30 MPH: 1379
Percent of Vehicles > 30 MPH: 31.0%

TRAFFIC COUNT DATA

East Main Street (Route 202)
east of Center Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Friday, March 13, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-A

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	0	5	11	6	2	1	0	0	0	0	0	0	25	32.8	28.7
1:00 AM	1	0	1	2	6	4	0	0	0	0	0	0	0	14	35.1	29.7
2:00 AM	0	1	2	5	2	4	0	0	0	0	0	0	0	14	36.1	29.3
3:00 AM	0	0	2	7	13	9	3	0	0	0	0	0	0	34	37.0	32.4
4:00 AM	1	0	1	30	59	18	2	0	0	0	0	0	0	111	35.0	31.3
5:00 AM	1	7	23	84	74	17	4	0	0	0	0	0	0	210	33.0	28.9
6:00 AM	5	7	52	87	84	19	1	2	0	0	0	0	0	257	33.0	28.1
7:00 AM	13	13	56	110	61	11	3	0	0	0	0	0	0	267	32.0	26.4
8:00 AM	7	9	56	137	63	15	0	1	1	0	0	0	0	289	32.0	27.3
9:00 AM	10	31	90	132	54	11	5	2	0	0	0	0	0	335	31.0	25.9
10:00 AM	10	25	85	160	78	15	0	1	0	0	0	0	0	374	31.0	26.2
11:00 AM	5	14	78	161	49	12	1	0	0	0	0	0	0	320	30.0	26.2
12:00 PM	2	13	72	161	62	11	0	1	0	0	0	0	0	322	31.0	26.8
1:00 PM	2	9	104	154	77	3	0	2	2	0	0	0	0	353	30.2	26.7
2:00 PM	0	10	65	192	73	10	0	2	1	0	0	0	0	353	31.0	27.4
3:00 PM	0	3	72	179	83	18	3	1	0	0	0	0	0	359	32.0	27.9
4:00 PM	0	3	36	102	37	0	0	0	0	0	0	0	0	178	30.0	26.9
5:00 PM	2	4	52	150	79	14	0	0	0	0	0	0	0	301	32.0	27.7
6:00 PM	1	3	45	157	77	11	0	0	0	0	0	0	0	294	31.1	27.9
7:00 PM	2	4	34	122	99	19	0	1	0	0	0	0	0	281	33.0	28.7
8:00 PM	2	0	13	84	67	18	5	0	0	0	0	0	0	189	33.0	29.6
9:00 PM	0	1	29	53	69	17	4	1	0	0	0	0	0	174	33.1	29.5
10:00 PM	1	1	4	33	44	17	2	0	0	0	0	0	0	102	36.0	30.8
11:00 PM	0	0	5	18	30	6	0	0	0	0	0	0	0	59	34.0	30.4
Total	65	158	982	2331	1346	281	34	14	4	0	0	0	0	5215	32.0	27.6
Percent	1.25%	3.03%	18.83%	44.70%	25.81%	5.39%	0.65%	0.27%	0.08%	0.00%	0.00%	0.00%	0.00%			
AM Peak	7:00 AM	9:00 AM	9:00 AM	11:00 AM	6:00 AM	6:00 AM	9:00 AM	6:00 AM	8:00 AM					10:00 AM		
Volume	13	31	90	161	84	19	5	2	1	0	0	0	0	374		
PM Peak	12:00 PM	12:00 PM	1:00 PM	2:00 PM	7:00 PM	7:00 PM	8:00 PM	1:00 PM	1:00 PM					3:00 PM		
Volume	2	13	104	192	99	19	5	2	2	0	0	0	0	359		

15th Percentile: 23.0 MPH
50th Percentile: 28.0 MPH
85th Percentile: 32.0 MPH
95th Percentile: 35.0 MPH

Average Speed: 27.6 MPH
10 MPH Pace: 23 to 32 MPH
Number in Pace: 3923
Percent in Pace: 75.2%

Posted Speed Limit: 30 MPH
Number of Vehicles > 30 MPH: 1298
Percent of Vehicles > 30 MPH: 24.9%

TRAFFIC COUNT DATA

East Main Street (Route 202)
east of Center Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Saturday, March 14, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-A

Speed (60-minute)

EB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	2	3	16	14	7	0	0	0	0	0	0	0	42	34.9	29.5
1:00 AM	0	0	4	9	12	3	0	0	0	0	0	0	0	28	33.0	29.3
2:00 AM	0	0	2	9	8	4	1	1	0	0	0	0	0	25	35.0	31.3
3:00 AM	0	0	3	0	10	8	1	0	0	0	0	0	0	22	37.9	33.1
4:00 AM	0	0	2	15	11	11	1	0	0	0	0	0	0	40	37.0	31.5
5:00 AM	0	1	4	25	39	11	1	0	0	0	0	0	0	81	34.0	30.6
6:00 AM	3	1	19	53	70	26	4	0	0	0	0	0	0	176	35.0	30.1
7:00 AM	10	5	18	109	83	25	5	2	0	0	0	0	0	257	34.0	28.9
8:00 AM	7	4	39	141	98	19	5	0	0	0	0	0	0	313	33.0	28.3
9:00 AM	13	12	89	148	100	20	2	0	0	0	0	0	0	384	32.0	26.9
10:00 AM	14	21	58	150	78	22	3	0	0	0	0	0	0	346	32.0	26.9
11:00 AM	25	32	60	129	71	15	3	0	0	0	0	0	0	335	32.0	25.5
12:00 PM	12	14	61	126	80	14	1	0	0	0	0	0	0	308	32.0	26.7
1:00 PM	11	13	63	161	102	20	1	0	0	0	0	0	0	371	32.0	27.3
2:00 PM	6	12	51	113	58	16	0	2	0	0	0	0	0	258	32.0	27.0
3:00 PM	8	11	27	48	18	2	0	0	0	0	0	0	0	114	30.0	24.7
4:00 PM	11	18	39	82	48	9	1	0	0	0	0	0	0	208	31.0	25.9
5:00 PM	10	7	27	95	88	16	1	0	0	0	0	0	0	244	33.0	27.9
6:00 PM	6	7	29	100	84	24	0	0	0	0	0	0	0	250	33.7	28.5
7:00 PM	1	2	25	77	80	23	1	2	0	0	0	0	0	211	34.0	29.5
8:00 PM	0	4	8	74	72	27	4	0	0	0	0	0	0	189	35.0	30.2
9:00 PM	1	2	6	53	58	26	2	1	0	0	1	0	0	150	35.0	30.5
10:00 PM	0	0	6	28	35	19	5	1	0	0	0	0	0	94	36.0	31.4
11:00 PM	0	0	3	22	24	10	6	0	0	0	0	0	0	65	37.0	31.8
Total	138	168	646	1783	1341	377	48	9	0	0	1	0	0	4511	33.0	28.0
Percent	3.06%	3.72%	14.32%	39.53%	29.73%	8.36%	1.06%	0.20%	0.00%	0.00%	0.02%	0.00%	0.00%			
AM Peak	11:00 AM	11:00 AM	9:00 AM	10:00 AM	9:00 AM	6:00 AM	7:00 AM	7:00 AM						9:00 AM		
Volume	25	32	89	150	100	26	5	2	0	0	0	0	0	384		
PM Peak	12:00 PM	4:00 PM	1:00 PM	1:00 PM	1:00 PM	8:00 PM	11:00 PM	2:00 PM			9:00 PM			1:00 PM		
Volume	12	18	63	161	102	27	6	2	0	0	1	0	0	371		

15th Percentile: 23.0 MPH
50th Percentile: 28.0 MPH
85th Percentile: 33.0 MPH
95th Percentile: 36.0 MPH

Average Speed: 28.0 MPH
10 MPH Pace: 24 to 33 MPH
Number in Pace: 3178
Percent in Pace: 70.5%

Posted Speed Limit: 30 MPH
Number of Vehicles > 30 MPH: 1419
Percent of Vehicles > 30 MPH: 31.5%

East Main Street (EB)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (EB)

Count Date: Friday, March 13, 2020

Volume

EB						Combined					
Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min
12:00 AM	4		12:00 PM	152		12:00 AM	0		12:00 PM	0	
12:15 AM	4		12:15 PM	191		12:15 AM	0		12:15 PM	0	
12:30 AM	4		12:30 PM	185		12:30 AM	0		12:30 PM	0	
12:45 AM	5	17	12:45 PM	169	697	12:45 AM	0	0	12:45 PM	0	0
1:00 AM	5		1:00 PM	186		1:00 AM	0		1:00 PM	0	
1:15 AM	4		1:15 PM	169		1:15 AM	0		1:15 PM	0	
1:30 AM	2		1:30 PM	175		1:30 AM	0		1:30 PM	0	
1:45 AM	4	15	1:45 PM	168	698	1:45 AM	0	0	1:45 PM	0	0
2:00 AM	7		2:00 PM	161		2:00 AM	0		2:00 PM	0	
2:15 AM	5		2:15 PM	166		2:15 AM	0		2:15 PM	0	
2:30 AM	4		2:30 PM	175		2:30 AM	0		2:30 PM	0	
2:45 AM	8	24	2:45 PM	169	671	2:45 AM	0	0	2:45 PM	0	0
3:00 AM	9		3:00 PM	144		3:00 AM	0		3:00 PM	0	
3:15 AM	10		3:15 PM	167		3:15 AM	0		3:15 PM	0	
3:30 AM	20		3:30 PM	143		3:30 AM	0		3:30 PM	0	
3:45 AM	24	63	3:45 PM	155	609	3:45 AM	0	0	3:45 PM	0	0
4:00 AM	26		4:00 PM	148		4:00 AM	0		4:00 PM	0	
4:15 AM	30		4:15 PM	128		4:15 AM	0		4:15 PM	0	
4:30 AM	40		4:30 PM	140		4:30 AM	0		4:30 PM	0	
4:45 AM	56	152	4:45 PM	172	588	4:45 AM	0	0	4:45 PM	0	0
5:00 AM	57		5:00 PM	137		5:00 AM	0		5:00 PM	0	
5:15 AM	61		5:15 PM	126		5:15 AM	0		5:15 PM	0	
5:30 AM	67		5:30 PM	154		5:30 AM	0		5:30 PM	0	
5:45 AM	89	274	5:45 PM	119	536	5:45 AM	0	0	5:45 PM	0	0
6:00 AM	87		6:00 PM	129		6:00 AM	0		6:00 PM	0	
6:15 AM	101		6:15 PM	112		6:15 AM	0		6:15 PM	0	
6:30 AM	109		6:30 PM	118		6:30 AM	0		6:30 PM	0	
6:45 AM	99	396	6:45 PM	99	458	6:45 AM	0	0	6:45 PM	0	0
7:00 AM	102		7:00 PM	92		7:00 AM	0		7:00 PM	0	
7:15 AM	110		7:15 PM	107		7:15 AM	0		7:15 PM	0	
7:30 AM	108		7:30 PM	73		7:30 AM	0		7:30 PM	0	
7:45 AM	114	434	7:45 PM	74	346	7:45 AM	0	0	7:45 PM	0	0
8:00 AM	112		8:00 PM	63		8:00 AM	0		8:00 PM	0	
8:15 AM	158		8:15 PM	42		8:15 AM	0		8:15 PM	0	
8:30 AM	135		8:30 PM	43		8:30 AM	0		8:30 PM	0	
8:45 AM	141	546	8:45 PM	39	187	8:45 AM	0	0	8:45 PM	0	0
9:00 AM	146		9:00 PM	29		9:00 AM	0		9:00 PM	0	
9:15 AM	150		9:15 PM	38		9:15 AM	0		9:15 PM	0	
9:30 AM	164		9:30 PM	25		9:30 AM	0		9:30 PM	0	
9:45 AM	181	641	9:45 PM	28	120	9:45 AM	0	0	9:45 PM	0	0
10:00 AM	176		10:00 PM	19		10:00 AM	0		10:00 PM	0	
10:15 AM	158		10:15 PM	15		10:15 AM	0		10:15 PM	0	
10:30 AM	167		10:30 PM	18		10:30 AM	0		10:30 PM	0	
10:45 AM	154	655	10:45 PM	17	69	10:45 AM	0	0	10:45 PM	0	0
11:00 AM	175		11:00 PM	8		11:00 AM	0		11:00 PM	0	
11:15 AM	176		11:15 PM	10		11:15 AM	0		11:15 PM	0	
11:30 AM	194		11:30 PM	15		11:30 AM	0		11:30 PM	0	
11:45 AM	172	717	11:45 PM	8	41	11:45 AM	0	0	11:45 PM	0	0
Total	3934			5020		Total	0			0	
Percent	43.94%			56.06%		Percent	#DIV/0!			#DIV/0!	
Day Total			8954			Day Total		0			
Peak Hour	11:00 AM			12:15 PM		Peak Hour	12:00 AM			12:00 PM	
Volume	717			731		Volume	0			0	
P.H.F.	0.924			0.957		P.H.F.	0.000			0.000	

Combined					
Start Time:	15 min	60 min		15 min	60 min
12:00 AM	4		12:00 PM	152	
12:15 AM	4		12:15 PM	191	
12:30 AM	4		12:30 PM	185	
12:45 AM	5	17	12:45 PM	169	697
1:00 AM	5		1:00 PM	186	
1:15 AM	4		1:15 PM	169	
1:30 AM	2		1:30 PM	175	
1:45 AM	4	15	1:45 PM	168	698
2:00 AM	7		2:00 PM	161	
2:15 AM	5		2:15 PM	166	
2:30 AM	4		2:30 PM	175	
2:45 AM	8	24	2:45 PM	169	671
3:00 AM	9		3:00 PM	144	
3:15 AM	10		3:15 PM	167	
3:30 AM	20		3:30 PM	143	
3:45 AM	24	63	3:45 PM	155	609
4:00 AM	26		4:00 PM	148	
4:15 AM	30		4:15 PM	128	
4:30 AM	40		4:30 PM	140	
4:45 AM	56	152	4:45 PM	172	588
5:00 AM	57		5:00 PM	137	
5:15 AM	61		5:15 PM	126	
5:30 AM	67		5:30 PM	154	
5:45 AM	89	274	5:45 PM	119	536
6:00 AM	87		6:00 PM	129	
6:15 AM	101		6:15 PM	112	
6:30 AM	109		6:30 PM	118	
6:45 AM	99	396	6:45 PM	99	458
7:00 AM	102		7:00 PM	92	
7:15 AM	110		7:15 PM	107	
7:30 AM	108		7:30 PM	73	
7:45 AM	114	434	7:45 PM	74	346
8:00 AM	112		8:00 PM	63	
8:15 AM	158		8:15 PM	42	
8:30 AM	135		8:30 PM	43	
8:45 AM	141	546	8:45 PM	39	187
9:00 AM	146		9:00 PM	29	
9:15 AM	150		9:15 PM	38	
9:30 AM	164		9:30 PM	25	
9:45 AM	181	641	9:45 PM	28	120
10:00 AM	176		10:00 PM	19	
10:15 AM	158		10:15 PM	15	
10:30 AM	167		10:30 PM	18	
10:45 AM	154	655	10:45 PM	17	69
11:00 AM	175		11:00 PM	8	
11:15 AM	176		11:15 PM	10	
11:30 AM	194		11:30 PM	15	
11:45 AM	172	717	11:45 PM	8	41
Total	3934			5020	
Percent	43.94%			56.06%	
Day Total			8954		
Peak Hour	11:00 AM			12:15 PM	
Volume	717			731	
P.H.F.	0.924			0.957	

TRAFFIC COUNT DATA

East Main Street (EB)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (EB)

Count Date: Saturday, March 14, 2020

Volume

EB						EB						Combined					
Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min
12:00 AM	5		12:00 PM	196		12:00 AM	0		12:00 PM	0		12:00 AM	5		12:00 PM	196	
12:15 AM	4		12:15 PM	176		12:15 AM	0		12:15 PM	0		12:15 AM	4		12:15 PM	176	
12:30 AM	5		12:30 PM	155		12:30 AM	0		12:30 PM	0		12:30 AM	5		12:30 PM	155	
12:45 AM	11	25	12:45 PM	220	747	12:45 AM	0	0	12:45 PM	0	0	12:45 AM	11	25	12:45 PM	220	747
1:00 AM	4		1:00 PM	175		1:00 AM	0		1:00 PM	0		1:00 AM	4		1:00 PM	175	
1:15 AM	8		1:15 PM	167		1:15 AM	0		1:15 PM	0		1:15 AM	8		1:15 PM	167	
1:30 AM	4		1:30 PM	160		1:30 AM	0		1:30 PM	0		1:30 AM	4		1:30 PM	160	
1:45 AM	6	22	1:45 PM	153	655	1:45 AM	0	0	1:45 PM	0	0	1:45 AM	6	22	1:45 PM	153	655
2:00 AM	1		2:00 PM	142		2:00 AM	0		2:00 PM	0		2:00 AM	1		2:00 PM	142	
2:15 AM	6		2:15 PM	151		2:15 AM	0		2:15 PM	0		2:15 AM	6		2:15 PM	151	
2:30 AM	2		2:30 PM	151		2:30 AM	0		2:30 PM	0		2:30 AM	2		2:30 PM	151	
2:45 AM	5	14	2:45 PM	148	592	2:45 AM	0	0	2:45 PM	0	0	2:45 AM	5	14	2:45 PM	148	592
3:00 AM	9		3:00 PM	112		3:00 AM	0		3:00 PM	0		3:00 AM	9		3:00 PM	112	
3:15 AM	8		3:15 PM	120		3:15 AM	0		3:15 PM	0		3:15 AM	8		3:15 PM	120	
3:30 AM	9		3:30 PM	132		3:30 AM	0		3:30 PM	0		3:30 AM	9		3:30 PM	132	
3:45 AM	18	44	3:45 PM	105	469	3:45 AM	0	0	3:45 PM	0	0	3:45 AM	18	44	3:45 PM	105	469
4:00 AM	12		4:00 PM	109		4:00 AM	0		4:00 PM	0		4:00 AM	12		4:00 PM	109	
4:15 AM	13		4:15 PM	120		4:15 AM	0		4:15 PM	0		4:15 AM	13		4:15 PM	120	
4:30 AM	29		4:30 PM	120		4:30 AM	0		4:30 PM	0		4:30 AM	29		4:30 PM	120	
4:45 AM	24	78	4:45 PM	112	461	4:45 AM	0	0	4:45 PM	0	0	4:45 AM	24	78	4:45 PM	112	461
5:00 AM	20		5:00 PM	94		5:00 AM	0		5:00 PM	0		5:00 AM	20		5:00 PM	94	
5:15 AM	19		5:15 PM	103		5:15 AM	0		5:15 PM	0		5:15 AM	19		5:15 PM	103	
5:30 AM	52		5:30 PM	82		5:30 AM	0		5:30 PM	0		5:30 AM	52		5:30 PM	82	
5:45 AM	53	144	5:45 PM	84	363	5:45 AM	0	0	5:45 PM	0	0	5:45 AM	53	144	5:45 PM	84	363
6:00 AM	46		6:00 PM	94		6:00 AM	0		6:00 PM	0		6:00 AM	46		6:00 PM	94	
6:15 AM	62		6:15 PM	75		6:15 AM	0		6:15 PM	0		6:15 AM	62		6:15 PM	75	
6:30 AM	51		6:30 PM	65		6:30 AM	0		6:30 PM	0		6:30 AM	51		6:30 PM	65	
6:45 AM	74	233	6:45 PM	60	294	6:45 AM	0	0	6:45 PM	0	0	6:45 AM	74	233	6:45 PM	60	294
7:00 AM	102		7:00 PM	54		7:00 AM	0		7:00 PM	0		7:00 AM	102		7:00 PM	54	
7:15 AM	95		7:15 PM	54		7:15 AM	0		7:15 PM	0		7:15 AM	95		7:15 PM	54	
7:30 AM	108		7:30 PM	43		7:30 AM	0		7:30 PM	0		7:30 AM	108		7:30 PM	43	
7:45 AM	124	429	7:45 PM	57	208	7:45 AM	0	0	7:45 PM	0	0	7:45 AM	124	429	7:45 PM	57	208
8:00 AM	123		8:00 PM	46		8:00 AM	0		8:00 PM	0		8:00 AM	123		8:00 PM	46	
8:15 AM	146		8:15 PM	38		8:15 AM	0		8:15 PM	0		8:15 AM	146		8:15 PM	38	
8:30 AM	146		8:30 PM	39		8:30 AM	0		8:30 PM	0		8:30 AM	146		8:30 PM	39	
8:45 AM	169	584	8:45 PM	37	160	8:45 AM	0	0	8:45 PM	0	0	8:45 AM	169	584	8:45 PM	37	160
9:00 AM	181		9:00 PM	30		9:00 AM	0		9:00 PM	0		9:00 AM	181		9:00 PM	30	
9:15 AM	166		9:15 PM	30		9:15 AM	0		9:15 PM	0		9:15 AM	166		9:15 PM	30	
9:30 AM	195		9:30 PM	26		9:30 AM	0		9:30 PM	0		9:30 AM	195		9:30 PM	26	
9:45 AM	172	714	9:45 PM	13	99	9:45 AM	0	0	9:45 PM	0	0	9:45 AM	172	714	9:45 PM	13	99
10:00 AM	189		10:00 PM	12		10:00 AM	0		10:00 PM	0		10:00 AM	189		10:00 PM	12	
10:15 AM	184		10:15 PM	12		10:15 AM	0		10:15 PM	0		10:15 AM	184		10:15 PM	12	
10:30 AM	192		10:30 PM	10		10:30 AM	0		10:30 PM	0		10:30 AM	192		10:30 PM	10	
10:45 AM	204	769	10:45 PM	15	49	10:45 AM	0	0	10:45 PM	0	0	10:45 AM	204	769	10:45 PM	15	49
11:00 AM	210		11:00 PM	10		11:00 AM	0		11:00 PM	0		11:00 AM	210		11:00 PM	10	
11:15 AM	197		11:15 PM	10		11:15 AM	0		11:15 PM	0		11:15 AM	197		11:15 PM	10	
11:30 AM	175		11:30 PM	7		11:30 AM	0		11:30 PM	0		11:30 AM	175		11:30 PM	7	
11:45 AM	185	767	11:45 PM	11	38	11:45 AM	0	0	11:45 PM	0	0	11:45 AM	185	767	11:45 PM	11	38
Total	3823			4135		Total	0			0		Total	3823			4135	
Percent	48.04%			51.96%		Percent	#DIV/0!			#DIV/0!		Percent	48.04%			51.96%	
Day Total			7958			Day Total			0			Day Total			7958		
Peak Hour	10:30 AM			12:00 PM		Peak Hour	12:00 AM			12:00 PM		Peak Hour	10:30 AM			12:00 PM	
Volume	803			747		Volume	0			0		Volume	803			747	
P.H.F.	0.956			0.849		P.H.F.	0.000			0.000		P.H.F.	0.956			0.849	

East Main Street (EB)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Friday, March 13, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (EB)

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	0	1	1	0	7	6	1	0	1	0	0	0	17	44.0	40.1
1:00 AM	0	0	0	1	2	6	2	1	1	1	0	0	1	15	52.2	41.7
2:00 AM	0	1	2	1	4	5	4	5	2	0	0	0	0	24	46.0	37.5
3:00 AM	1	0	0	1	10	20	22	8	0	1	0	0	0	63	44.0	38.9
4:00 AM	0	0	0	3	6	46	63	27	6	1	0	0	0	152	46.0	41.1
5:00 AM	0	0	1	3	23	94	113	29	7	3	0	1	0	274	44.0	40.2
6:00 AM	0	1	4	6	35	95	152	72	28	3	0	0	0	396	48.0	41.2
7:00 AM	0	0	2	15	48	152	141	64	11	0	1	0	0	434	45.0	39.4
8:00 AM	0	2	6	15	67	191	171	76	15	2	1	0	0	546	45.0	39.3
9:00 AM	0	2	3	23	100	244	191	65	11	2	0	0	0	641	44.0	38.5
10:00 AM	0	0	3	1	81	253	223	76	16	1	1	0	0	655	44.0	39.5
11:00 AM	0	3	7	21	122	290	194	67	13	0	0	0	0	717	44.0	38.1
12:00 PM	0	1	7	15	101	252	223	74	21	0	3	0	0	697	44.0	39.1
1:00 PM	0	1	9	11	83	232	256	79	25	2	0	0	0	698	45.0	39.6
2:00 PM	0	2	3	18	64	232	236	93	18	5	0	0	0	671	45.0	39.9
3:00 PM	0	2	6	13	78	200	202	82	23	2	0	1	0	609	45.0	39.6
4:00 PM	1	1	5	16	74	190	222	68	8	2	1	0	0	588	44.0	39.2
5:00 PM	0	0	4	5	42	188	205	73	15	3	1	0	0	536	45.0	40.2
6:00 PM	1	2	5	8	53	160	151	61	15	0	2	0	0	458	45.0	39.5
7:00 PM	0	1	4	4	37	111	134	38	12	4	0	0	1	346	45.0	39.9
8:00 PM	0	0	3	4	10	56	62	40	8	3	0	0	1	187	47.0	41.2
9:00 PM	0	0	1	0	13	38	46	17	4	1	0	0	0	120	45.2	40.5
10:00 PM	0	0	0	1	2	20	24	16	3	3	0	0	0	69	47.8	42.2
11:00 PM	0	0	0	1	2	12	19	4	2	1	0	0	0	41	45.0	40.7
Total	3	19	76	187	1057	3094	3062	1136	264	41	10	2	3	8954	45.0	39.5
Percent	0.03%	0.21%	0.85%	2.09%	11.80%	34.55%	34.20%	12.69%	2.95%	0.46%	0.11%	0.02%	0.03%			
AM Peak	3:00 AM	11:00 AM	11:00 AM	9:00 AM	11:00 AM	11:00 AM	10:00 AM	8:00 AM	6:00 AM	5:00 AM	7:00 AM	5:00 AM	1:00 AM	11:00 AM		
Volume	1	3	7	23	122	290	223	76	28	3	1	1	1	717		
PM Peak	4:00 PM	2:00 PM	1:00 PM	2:00 PM	12:00 PM	12:00 PM	1:00 PM	2:00 PM	1:00 PM	2:00 PM	12:00 PM	3:00 PM	7:00 PM	1:00 PM		
Volume	1	2	9	18	101	252	256	93	25	5	3	1	1	698		

15th Percentile: 35.0 MPH
50th Percentile: 40.0 MPH
85th Percentile: 45.0 MPH
95th Percentile: 48.0 MPH

Average Speed: 39.5 MPH
10 MPH Pace: 35 to 44 MPH
Number in Pace: 6156
Percent in Pace: 68.8%

Posted Speed Limit: 35 MPH
Number of Vehicles > 35 MPH: 7167
Percent of Vehicles > 35 MPH: 80.0%

TRAFFIC COUNT DATA

East Main Street (EB)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Saturday, March 14, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (EB)

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	1	1	7	10	6	0	0	0	0	0	25	46.8	41.2
1:00 AM	0	0	0	0	2	7	10	3	0	0	0	0	0	22	44.0	40.3
2:00 AM	0	1	0	0	1	5	3	3	1	0	0	0	0	14	45.2	39.4
3:00 AM	0	1	0	1	3	14	14	10	0	1	0	0	0	44	46.6	40.2
4:00 AM	0	1	3	2	9	25	27	9	2	0	0	0	0	78	44.0	38.6
5:00 AM	0	1	0	0	18	33	53	31	6	2	0	0	0	144	46.0	41.2
6:00 AM	0	0	3	2	20	47	81	54	15	11	0	0	0	233	48.0	42.2
7:00 AM	0	0	1	13	24	119	151	83	29	5	3	0	1	429	47.0	41.4
8:00 AM	0	2	2	13	47	187	212	98	18	5	0	0	0	584	46.0	40.4
9:00 AM	0	1	5	31	69	252	259	77	16	2	2	0	0	714	44.0	39.2
10:00 AM	0	2	10	22	119	273	251	78	12	1	1	0	0	769	44.0	38.7
11:00 AM	2	1	5	31	115	297	213	87	13	3	0	0	0	767	44.0	38.4
12:00 PM	0	3	11	24	106	259	246	79	16	2	1	0	0	747	44.0	38.7
1:00 PM	1	3	6	18	84	237	226	65	12	3	0	0	0	655	44.0	38.8
2:00 PM	1	1	6	22	82	199	191	70	16	2	0	1	1	592	45.0	39.1
3:00 PM	0	1	1	12	53	147	171	64	17	3	0	0	0	469	45.0	40.0
4:00 PM	0	0	4	13	42	135	159	78	22	7	1	0	0	461	46.0	40.7
5:00 PM	0	1	2	10	45	100	132	47	21	4	0	0	1	363	46.0	40.3
6:00 PM	0	1	4	5	37	109	98	30	8	2	0	0	0	294	44.0	39.2
7:00 PM	0	1	0	8	16	67	74	32	6	3	1	0	0	208	45.0	40.3
8:00 PM	0	0	0	2	8	43	63	34	6	3	1	0	0	160	46.0	41.7
9:00 PM	0	0	2	0	2	31	37	20	6	1	0	0	0	99	48.0	41.7
10:00 PM	0	0	1	0	4	12	17	12	0	3	0	0	0	49	46.0	41.4
11:00 PM	0	0	0	0	2	13	12	6	5	0	0	0	0	38	46.5	41.4
Total	4	21	66	230	909	2618	2710	1076	247	63	10	1	3	7958	45.0	39.7
Percent	0.05%	0.26%	0.83%	2.89%	11.42%	32.90%	34.05%	13.52%	3.10%	0.79%	0.13%	0.01%	0.04%			
AM Peak	11:00 AM	8:00 AM	10:00 AM	9:00 AM	10:00 AM	11:00 AM	9:00 AM	8:00 AM	7:00 AM	6:00 AM	7:00 AM		7:00 AM	10:00 AM		
Volume	2	2	10	31	119	297	259	98	29	11	3	0	1	769		
PM Peak	1:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	4:00 PM	4:00 PM	12:00 PM	2:00 PM	2:00 PM	12:00 PM		
Volume	1	3	11	24	106	259	246	79	22	7	1	1	1	747		

15th Percentile: 34.0 MPH
50th Percentile: 40.0 MPH
85th Percentile: 45.0 MPH
95th Percentile: 49.0 MPH

Average Speed: 39.7 MPH
10 MPH Pace: 36 to 45 MPH
Number in Pace: 5330
Percent in Pace: 67.0%

Posted Speed Limit: 35 MPH
Number of Vehicles > 35 MPH: 6391
Percent of Vehicles > 35 MPH: 80.3%

East Main Street (Route 202)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (WB)

Count Date: Friday, March 13, 2020

Volume

WB						Combined					
Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min
12:00 AM	6		12:00 PM	164		12:00 AM	0		12:00 PM	0	
12:15 AM	5		12:15 PM	148		12:15 AM	0		12:15 PM	0	
12:30 AM	4		12:30 PM	156		12:30 AM	0		12:30 PM	0	
12:45 AM	2	17	12:45 PM	152	620	12:45 AM	0	0	12:45 PM	0	0
1:00 AM	11		1:00 PM	139		1:00 AM	0		1:00 PM	0	
1:15 AM	3		1:15 PM	133		1:15 AM	0		1:15 PM	0	
1:30 AM	1		1:30 PM	170		1:30 AM	0		1:30 PM	0	
1:45 AM	1	16	1:45 PM	167	609	1:45 AM	0	0	1:45 PM	0	0
2:00 AM	4		2:00 PM	119		2:00 AM	0		2:00 PM	0	
2:15 AM	4		2:15 PM	155		2:15 AM	0		2:15 PM	0	
2:30 AM	5		2:30 PM	133		2:30 AM	0		2:30 PM	0	
2:45 AM	4	17	2:45 PM	156	563	2:45 AM	0	0	2:45 PM	0	0
3:00 AM	2		3:00 PM	184		3:00 AM	0		3:00 PM	0	
3:15 AM	5		3:15 PM	147		3:15 AM	0		3:15 PM	0	
3:30 AM	3		3:30 PM	155		3:30 AM	0		3:30 PM	0	
3:45 AM	11	21	3:45 PM	151	637	3:45 AM	0	0	3:45 PM	0	0
4:00 AM	8		4:00 PM	134		4:00 AM	0		4:00 PM	0	
4:15 AM	14		4:15 PM	172		4:15 AM	0		4:15 PM	0	
4:30 AM	20		4:30 PM	174		4:30 AM	0		4:30 PM	0	
4:45 AM	28	70	4:45 PM	156	636	4:45 AM	0	0	4:45 PM	0	0
5:00 AM	27		5:00 PM	162		5:00 AM	0		5:00 PM	0	
5:15 AM	41		5:15 PM	143		5:15 AM	0		5:15 PM	0	
5:30 AM	38		5:30 PM	132		5:30 AM	0		5:30 PM	0	
5:45 AM	51	157	5:45 PM	145	582	5:45 AM	0	0	5:45 PM	0	0
6:00 AM	53		6:00 PM	120		6:00 AM	0		6:00 PM	0	
6:15 AM	70		6:15 PM	121		6:15 AM	0		6:15 PM	0	
6:30 AM	92		6:30 PM	133		6:30 AM	0		6:30 PM	0	
6:45 AM	82	297	6:45 PM	100	474	6:45 AM	0	0	6:45 PM	0	0
7:00 AM	91		7:00 PM	98		7:00 AM	0		7:00 PM	0	
7:15 AM	87		7:15 PM	100		7:15 AM	0		7:15 PM	0	
7:30 AM	103		7:30 PM	87		7:30 AM	0		7:30 PM	0	
7:45 AM	127	408	7:45 PM	64	349	7:45 AM	0	0	7:45 PM	0	0
8:00 AM	125		8:00 PM	72		8:00 AM	0		8:00 PM	0	
8:15 AM	119		8:15 PM	67		8:15 AM	0		8:15 PM	0	
8:30 AM	138		8:30 PM	60		8:30 AM	0		8:30 PM	0	
8:45 AM	115	497	8:45 PM	49	248	8:45 AM	0	0	8:45 PM	0	0
9:00 AM	117		9:00 PM	55		9:00 AM	0		9:00 PM	0	
9:15 AM	140		9:15 PM	37		9:15 AM	0		9:15 PM	0	
9:30 AM	118		9:30 PM	38		9:30 AM	0		9:30 PM	0	
9:45 AM	141	516	9:45 PM	31	161	9:45 AM	0	0	9:45 PM	0	0
10:00 AM	145		10:00 PM	42		10:00 AM	0		10:00 PM	0	
10:15 AM	139		10:15 PM	28		10:15 AM	0		10:15 PM	0	
10:30 AM	148		10:30 PM	20		10:30 AM	0		10:30 PM	0	
10:45 AM	156	588	10:45 PM	12	102	10:45 AM	0	0	10:45 PM	0	0
11:00 AM	140		11:00 PM	11		11:00 AM	0		11:00 PM	0	
11:15 AM	142		11:15 PM	15		11:15 AM	0		11:15 PM	0	
11:30 AM	160		11:30 PM	15		11:30 AM	0		11:30 PM	0	
11:45 AM	175	617	11:45 PM	8	49	11:45 AM	0	0	11:45 PM	0	0
Total	3221			5030		Total	0			0	
Percent	39.04%			60.96%		Percent	#DIV/0!			#DIV/0!	
Day Total			8251			Day Total			0		
Peak Hour	11:30 AM			4:15 PM		Peak Hour	12:00 AM			12:00 PM	
Volume	647			664		Volume	0			0	
P.H.F.	0.924			0.954		P.H.F.	0.000			0.000	

Combined					
Start Time:	15 min	60 min		15 min	60 min
12:00 AM	6		12:00 PM	164	
12:15 AM	5		12:15 PM	148	
12:30 AM	4		12:30 PM	156	
12:45 AM	2	17	12:45 PM	152	620
1:00 AM	11		1:00 PM	139	
1:15 AM	3		1:15 PM	133	
1:30 AM	1		1:30 PM	170	
1:45 AM	1	16	1:45 PM	167	609
2:00 AM	4		2:00 PM	119	
2:15 AM	4		2:15 PM	155	
2:30 AM	5		2:30 PM	133	
2:45 AM	4	17	2:45 PM	156	563
3:00 AM	2		3:00 PM	184	
3:15 AM	5		3:15 PM	147	
3:30 AM	3		3:30 PM	155	
3:45 AM	11	21	3:45 PM	151	637
4:00 AM	8		4:00 PM	134	
4:15 AM	14		4:15 PM	172	
4:30 AM	20		4:30 PM	174	
4:45 AM	28	70	4:45 PM	156	636
5:00 AM	27		5:00 PM	162	
5:15 AM	41		5:15 PM	143	
5:30 AM	38		5:30 PM	132	
5:45 AM	51	157	5:45 PM	145	582
6:00 AM	53		6:00 PM	120	
6:15 AM	70		6:15 PM	121	
6:30 AM	92		6:30 PM	133	
6:45 AM	82	297	6:45 PM	100	474
7:00 AM	91		7:00 PM	98	
7:15 AM	87		7:15 PM	100	
7:30 AM	103		7:30 PM	87	
7:45 AM	127	408	7:45 PM	64	349
8:00 AM	125		8:00 PM	72	
8:15 AM	119		8:15 PM	67	
8:30 AM	138		8:30 PM	60	
8:45 AM	115	497	8:45 PM	49	248
9:00 AM	117		9:00 PM	55	
9:15 AM	140		9:15 PM	37	
9:30 AM	118		9:30 PM	38	
9:45 AM	141	516	9:45 PM	31	161
10:00 AM	145		10:00 PM	42	
10:15 AM	139		10:15 PM	28	
10:30 AM	148		10:30 PM	20	
10:45 AM	156	588	10:45 PM	12	102
11:00 AM	140		11:00 PM	11	
11:15 AM	142		11:15 PM	15	
11:30 AM	160		11:30 PM	15	
11:45 AM	175	617	11:45 PM	8	49
Total	3221			5030	
Percent	39.04%			60.96%	
Day Total			8251		
Peak Hour	11:30 AM			4:15 PM	
Volume	647			664	
P.H.F.	0.924			0.954	

TRAFFIC COUNT DATA

East Main Street (Route 202)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (WB)

Count Date:
Saturday, March 14, 2020

Volume

WB						EB						Combined					
Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min	Start Time:	15 min	60 min		15 min	60 min
12:00 AM	11		12:00 PM	140		12:00 AM	0		12:00 PM	0		12:00 AM	11		12:00 PM	140	
12:15 AM	2		12:15 PM	152		12:15 AM	0		12:15 PM	0		12:15 AM	2		12:15 PM	152	
12:30 AM	5		12:30 PM	177		12:30 AM	0		12:30 PM	0		12:30 AM	5		12:30 PM	177	
12:45 AM	10	28	12:45 PM	130	599	12:45 AM	0	0	12:45 PM	0	0	12:45 AM	10	28	12:45 PM	130	599
1:00 AM	10		1:00 PM	153		1:00 AM	0		1:00 PM	0		1:00 AM	10		1:00 PM	153	
1:15 AM	4		1:15 PM	147		1:15 AM	0		1:15 PM	0		1:15 AM	4		1:15 PM	147	
1:30 AM	3		1:30 PM	151		1:30 AM	0		1:30 PM	0		1:30 AM	3		1:30 PM	151	
1:45 AM	5	22	1:45 PM	132	583	1:45 AM	0	0	1:45 PM	0	0	1:45 AM	5	22	1:45 PM	132	583
2:00 AM	3		2:00 PM	130		2:00 AM	0		2:00 PM	0		2:00 AM	3		2:00 PM	130	
2:15 AM	6		2:15 PM	139		2:15 AM	0		2:15 PM	0		2:15 AM	6		2:15 PM	139	
2:30 AM	2		2:30 PM	138		2:30 AM	0		2:30 PM	0		2:30 AM	2		2:30 PM	138	
2:45 AM	3	14	2:45 PM	124	531	2:45 AM	0	0	2:45 PM	0	0	2:45 AM	3	14	2:45 PM	124	531
3:00 AM	4		3:00 PM	158		3:00 AM	0		3:00 PM	0		3:00 AM	4		3:00 PM	158	
3:15 AM	2		3:15 PM	127		3:15 AM	0		3:15 PM	0		3:15 AM	2		3:15 PM	127	
3:30 AM	1		3:30 PM	105		3:30 AM	0		3:30 PM	0		3:30 AM	1		3:30 PM	105	
3:45 AM	6	13	3:45 PM	142	532	3:45 AM	0	0	3:45 PM	0	0	3:45 AM	6	13	3:45 PM	142	532
4:00 AM	6		4:00 PM	135		4:00 AM	0		4:00 PM	0		4:00 AM	6		4:00 PM	135	
4:15 AM	3		4:15 PM	108		4:15 AM	0		4:15 PM	0		4:15 AM	3		4:15 PM	108	
4:30 AM	13		4:30 PM	114		4:30 AM	0		4:30 PM	0		4:30 AM	13		4:30 PM	114	
4:45 AM	13	35	4:45 PM	114	471	4:45 AM	0	0	4:45 PM	0	0	4:45 AM	13	35	4:45 PM	114	471
5:00 AM	12		5:00 PM	122		5:00 AM	0		5:00 PM	0		5:00 AM	12		5:00 PM	122	
5:15 AM	19		5:15 PM	113		5:15 AM	0		5:15 PM	0		5:15 AM	19		5:15 PM	113	
5:30 AM	24		5:30 PM	107		5:30 AM	0		5:30 PM	0		5:30 AM	24		5:30 PM	107	
5:45 AM	29	84	5:45 PM	100	442	5:45 AM	0	0	5:45 PM	0	0	5:45 AM	29	84	5:45 PM	100	442
6:00 AM	37		6:00 PM	104		6:00 AM	0		6:00 PM	0		6:00 AM	37		6:00 PM	104	
6:15 AM	46		6:15 PM	95		6:15 AM	0		6:15 PM	0		6:15 AM	46		6:15 PM	95	
6:30 AM	56		6:30 PM	93		6:30 AM	0		6:30 PM	0		6:30 AM	56		6:30 PM	93	
6:45 AM	58	197	6:45 PM	69	361	6:45 AM	0	0	6:45 PM	0	0	6:45 AM	58	197	6:45 PM	69	361
7:00 AM	51		7:00 PM	67		7:00 AM	0		7:00 PM	0		7:00 AM	51		7:00 PM	67	
7:15 AM	71		7:15 PM	57		7:15 AM	0		7:15 PM	0		7:15 AM	71		7:15 PM	57	
7:30 AM	90		7:30 PM	63		7:30 AM	0		7:30 PM	0		7:30 AM	90		7:30 PM	63	
7:45 AM	95	307	7:45 PM	57	244	7:45 AM	0	0	7:45 PM	0	0	7:45 AM	95	307	7:45 PM	57	244
8:00 AM	121		8:00 PM	50		8:00 AM	0		8:00 PM	0		8:00 AM	121		8:00 PM	50	
8:15 AM	117		8:15 PM	63		8:15 AM	0		8:15 PM	0		8:15 AM	117		8:15 PM	63	
8:30 AM	120		8:30 PM	38		8:30 AM	0		8:30 PM	0		8:30 AM	120		8:30 PM	38	
8:45 AM	115	473	8:45 PM	43	194	8:45 AM	0	0	8:45 PM	0	0	8:45 AM	115	473	8:45 PM	43	194
9:00 AM	123		9:00 PM	59		9:00 AM	0		9:00 PM	0		9:00 AM	123		9:00 PM	59	
9:15 AM	135		9:15 PM	38		9:15 AM	0		9:15 PM	0		9:15 AM	135		9:15 PM	38	
9:30 AM	147		9:30 PM	35		9:30 AM	0		9:30 PM	0		9:30 AM	147		9:30 PM	35	
9:45 AM	127	532	9:45 PM	26	158	9:45 AM	0	0	9:45 PM	0	0	9:45 AM	127	532	9:45 PM	26	158
10:00 AM	166		10:00 PM	29		10:00 AM	0		10:00 PM	0		10:00 AM	166		10:00 PM	29	
10:15 AM	171		10:15 PM	18		10:15 AM	0		10:15 PM	0		10:15 AM	171		10:15 PM	18	
10:30 AM	165		10:30 PM	13		10:30 AM	0		10:30 PM	0		10:30 AM	165		10:30 PM	13	
10:45 AM	176	678	10:45 PM	7	67	10:45 AM	0	0	10:45 PM	0	0	10:45 AM	176	678	10:45 PM	7	67
11:00 AM	152		11:00 PM	10		11:00 AM	0		11:00 PM	0		11:00 AM	152		11:00 PM	10	
11:15 AM	168		11:15 PM	10		11:15 AM	0		11:15 PM	0		11:15 AM	168		11:15 PM	10	
11:30 AM	163		11:30 PM	8		11:30 AM	0		11:30 PM	0		11:30 AM	163		11:30 PM	8	
11:45 AM	160	643	11:45 PM	12	40	11:45 AM	0	0	11:45 PM	0	0	11:45 AM	160	643	11:45 PM	12	40
Total	3026			4222		Total	0			0		Total	3026			4222	
Percent	41.75%			58.25%		Percent	#DIV/0!			#DIV/0!		Percent	41.75%			58.25%	
Day Total			7248			Day Total		0				Day Total			7248		
Peak Hour	10:00 AM			12:15 PM		Peak Hour	12:00 AM			12:00 PM		Peak Hour	10:00 AM			12:15 PM	
Volume	678			612		Volume	0			0		Volume	678			612	
P.H.F.	0.963			0.864		P.H.F.	0.000			0.000		P.H.F.	0.963			0.864	

East Main Street (Route 202)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Friday, March 13, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (WB)

Speed (60-minute)

WB															
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	2	5	2	6	1	1	0	0	0	0	17	43.0	37.5
1:00 AM	0	0	1	1	7	1	4	1	1	0	0	0	0	16	43.3	36.2
2:00 AM	1	0	0	1	3	6	5	1	0	0	0	0	0	17	42.0	36.3
3:00 AM	0	0	0	0	6	5	7	1	2	0	0	0	0	21	44.0	39.4
4:00 AM	0	0	0	1	5	39	15	8	1	1	0	0	0	70	42.7	38.9
5:00 AM	0	0	3	5	32	65	42	8	1	1	0	0	0	157	42.0	37.6
6:00 AM	0	0	2	27	70	115	70	12	0	1	0	0	0	297	41.0	36.3
7:00 AM	0	1	6	46	127	152	61	14	1	0	0	0	0	408	40.0	35.3
8:00 AM	0	0	12	67	170	166	70	12	0	0	0	0	0	497	40.0	34.6
9:00 AM	0	0	16	111	177	144	57	11	0	0	0	0	0	516	39.0	33.5
10:00 AM	0	0	22	101	220	176	59	8	2	0	0	0	0	588	39.0	33.5
11:00 AM	3	15	69	178	174	121	45	11	1	0	0	0	0	617	38.0	31.0
12:00 PM	0	7	42	144	203	164	53	6	1	0	0	0	0	620	38.0	32.3
1:00 PM	0	10	63	143	202	133	46	12	0	0	0	0	0	609	38.0	31.8
2:00 PM	0	6	53	169	192	109	28	4	2	0	0	0	0	563	36.0	31.1
3:00 PM	13	49	83	175	179	91	34	12	0	1	0	0	0	637	36.0	29.4
4:00 PM	0	3	37	147	206	157	73	10	2	0	1	0	0	636	39.0	32.9
5:00 PM	0	1	18	136	198	172	51	6	0	0	0	0	0	582	38.0	33.1
6:00 PM	0	1	26	95	168	141	41	2	0	0	0	0	0	474	38.0	33.0
7:00 PM	0	0	6	41	133	117	39	9	2	2	0	0	0	349	39.0	34.7
8:00 PM	0	0	0	8	69	122	43	5	1	0	0	0	0	248	41.0	36.3
9:00 PM	0	0	3	9	45	59	34	8	2	1	0	0	0	161	42.0	36.6
10:00 PM	0	0	0	6	24	45	16	10	1	0	0	0	0	102	42.9	37.1
11:00 PM	0	0	0	2	14	22	8	2	1	0	0	0	0	49	40.0	37.0
Total	17	93	462	1615	2629	2324	907	174	22	7	1	0	0	8251	39.0	33.2
Percent	0.21%	1.13%	5.60%	19.57%	31.86%	28.17%	10.99%	2.11%	0.27%	0.08%	0.01%	0.00%	0.00%			
AM Peak	11:00 AM	11:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	6:00 AM	7:00 AM	3:00 AM	4:00 AM				11:00 AM		
Volume	3	15	69	178	220	176	70	14	2	1	0	0	0	617		
PM Peak	3:00 PM	3:00 PM	3:00 PM	3:00 PM	4:00 PM	5:00 PM	4:00 PM	1:00 PM	2:00 PM	7:00 PM	4:00 PM			3:00 PM		
Volume	13	49	83	175	206	172	73	12	2	2	1	0	0	637		

15th Percentile:	27.0 MPH	Average Speed:	33.2 MPH	Posted Speed Limit:	35 MPH
50th Percentile:	33.0 MPH	10 MPH Pace:	28 to 37 MPH	Number of Vehicles > 35 MPH:	2909
85th Percentile:	39.0 MPH	Number in Pace:	5108	Percent of Vehicles > 35 MPH:	35.3%
95th Percentile:	43.0 MPH	Percent in Pace:	61.9%		

TRAFFIC COUNT DATA

East Main Street (Route 202)
west of Griswold Street
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770.00
Count Date: Saturday, March 14, 2020

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-B (WB)

Speed (60-minute)

WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 +	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	1	13	11	3	0	0	0	0	0	28	42.0	39.8
1:00 AM	0	0	0	2	9	7	4	0	0	0	0	0	0	22	39.9	35.3
2:00 AM	0	0	0	2	3	4	3	1	1	0	0	0	0	14	42.2	36.8
3:00 AM	0	0	0	2	1	4	6	0	0	0	0	0	0	13	43.0	38.0
4:00 AM	0	0	0	4	5	10	10	6	0	0	0	0	0	35	44.8	38.4
5:00 AM	0	0	0	4	14	36	24	3	1	1	1	0	0	84	42.0	38.2
6:00 AM	0	0	2	6	37	75	64	10	2	1	0	0	0	197	43.0	38.0
7:00 AM	0	2	6	34	60	117	63	19	5	1	0	0	0	307	42.0	36.5
8:00 AM	0	0	12	70	154	152	72	13	0	0	0	0	0	473	41.0	34.6
9:00 AM	1	8	44	92	147	163	67	9	1	0	0	0	0	532	39.0	33.2
10:00 AM	0	7	51	160	237	162	56	5	0	0	0	0	0	678	38.0	32.1
11:00 AM	8	15	81	177	192	119	45	4	2	0	0	0	0	643	36.0	30.6
12:00 PM	0	3	55	173	182	127	49	9	0	1	0	0	0	599	38.0	31.7
1:00 PM	2	4	49	146	204	136	40	2	0	0	0	0	0	583	37.0	31.7
2:00 PM	2	2	28	114	184	124	60	16	1	0	0	0	0	531	39.0	33.1
3:00 PM	0	2	19	114	194	136	59	8	0	0	0	0	0	532	39.0	33.1
4:00 PM	0	1	16	76	147	162	57	12	0	0	0	0	0	471	39.0	34.2
5:00 PM	0	0	19	91	141	132	47	9	3	0	0	0	0	442	39.0	33.5
6:00 PM	0	0	3	40	146	119	45	8	0	0	0	0	0	361	39.0	34.6
7:00 PM	0	1	5	15	63	105	45	9	1	0	0	0	0	244	41.0	36.0
8:00 PM	0	0	0	7	51	78	49	4	5	0	0	0	0	194	42.0	37.3
9:00 PM	0	0	2	5	27	65	49	7	2	0	1	0	0	158	42.0	37.9
10:00 PM	0	0	0	3	13	27	15	6	1	1	0	1	0	67	43.1	38.4
11:00 PM	0	0	0	0	10	18	10	1	0	1	0	0	0	40	41.2	37.7
Total	13	45	392	1337	2222	2091	950	164	25	6	2	1	0	7248	40.0	33.6
Percent	0.18%	0.62%	5.41%	18.45%	30.66%	28.85%	13.11%	2.26%	0.34%	0.08%	0.03%	0.01%	0.00%			
AM Peak	11:00 AM	11:00 AM	11:00 AM	11:00 AM	10:00 AM	9:00 AM	8:00 AM	7:00 AM	7:00 AM	5:00 AM	5:00 AM			10:00 AM		
Volume	8	15	81	177	237	163	72	19	5	1	1	0	0	678		
PM Peak	1:00 PM	1:00 PM	12:00 PM	12:00 PM	1:00 PM	4:00 PM	2:00 PM	2:00 PM	8:00 PM	12:00 PM	9:00 PM	10:00 PM		12:00 PM		
Volume	2	4	55	173	204	162	60	16	5	1	1	1	0	599		

15th Percentile: 28.0 MPH
50th Percentile: 34.0 MPH
85th Percentile: 40.0 MPH
95th Percentile: 43.0 MPH

Average Speed: 33.6 MPH
10 MPH Pace: 29 to 38 MPH
Number in Pace: 4338
Percent in Pace: 59.9%

Posted Speed Limit: 35 MPH
Number of Vehicles > 35 MPH: 2780
Percent of Vehicles > 35 MPH: 38.4%

TRAFFIC COUNT DATA

East Main Street (Route 202)
west of Harrison Road
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-C

Count Date: Friday, March 13, 2020
Direction: EB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	5	0	0	0	5
12:15 AM	0	0	4	0	0	0	4
12:30 AM	0	0	1	0	0	0	1
12:45 AM	0	0	1	0	0	0	1
1:00 AM	0	0	2	0	0	0	2
1:15 AM	0	0	3	0	0	1	4
1:30 AM	0	0	2	0	0	0	2
1:45 AM	0	0	2	0	0	0	2
2:00 AM	0	0	4	0	0	1	5
2:15 AM	0	0	2	0	1	0	3
2:30 AM	0	0	1	0	1	0	2
2:45 AM	0	0	1	0	0	0	1
3:00 AM	0	0	3	0	0	1	4
3:15 AM	0	0	3	0	1	0	4
3:30 AM	0	0	2	0	0	0	2
3:45 AM	0	0	6	0	1	0	7
4:00 AM	0	0	6	0	0	0	6
4:15 AM	0	0	7	0	0	1	8
4:30 AM	0	0	14	0	0	0	14
4:45 AM	0	0	20	0	0	0	20
5:00 AM	0	0	24	0	1	0	25
5:15 AM	0	0	34	0	0	0	34
5:30 AM	0	0	48	0	0	0	48
5:45 AM	0	0	46	0	0	0	46
6:00 AM	0	0	57	0	1	1	59
6:15 AM	0	0	83	1	2	0	86
6:30 AM	0	0	82	0	0	1	83
6:45 AM	0	0	80	0	0	1	81
7:00 AM	0	0	86	1	1	0	88
7:15 AM	0	0	94	0	0	0	94
7:30 AM	0	0	124	1	3	0	128
7:45 AM	0	0	111	1	7	2	121
8:00 AM	0	0	94	0	2	3	99
8:15 AM	0	0	103	1	0	0	104
8:30 AM	0	0	86	0	0	1	87
8:45 AM	0	0	109	0	2	4	115
9:00 AM	0	0	85	0	3	1	89
9:15 AM	0	0	104	0	3	2	109
9:30 AM	0	0	114	0	6	0	120
9:45 AM	0	0	105	0	3	2	110
10:00 AM	0	0	92	0	2	1	95
10:15 AM	0	0	105	0	0	2	107
10:30 AM	0	0	130	0	3	0	133
10:45 AM	0	0	98	0	6	1	105
11:00 AM	0	0	130	0	4	1	135
11:15 AM	0	0	122	0	4	0	126
11:30 AM	0	0	120	0	3	3	126
11:45 AM	0	0	118	0	2	1	121
AM Total	**0**	**0**	**2673**	**5**	**62**	**31**	**2771**
Percentage	**0.00%**	**0.00%**	**96.46%**	**0.18%**	**2.24%**	**1.12%**	
AM Peak	**12:00 AM**	**12:00 AM**	**11:00 AM**	**7:00 AM**	**10:30 AM**	**8:00 AM**	**11:00 AM**
Volume	**0**	**0**	**490**	**3**	**17**	**8**	**508**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	154	1	2	0	157
12:15 PM	0	0	122	0	2	1	125
12:30 PM	0	0	127	0	2	0	129
12:45 PM	0	0	138	0	2	0	140
1:00 PM	0	0	119	0	2	3	124
1:15 PM	0	0	142	0	1	0	143
1:30 PM	0	0	157	0	3	1	161
1:45 PM	0	0	124	0	1	1	126
2:00 PM	0	0	141	0	1	0	142
2:15 PM	0	0	132	0	3	0	135
2:30 PM	0	0	123	0	4	0	127
2:45 PM	0	0	132	0	4	0	136
3:00 PM	0	0	135	0	2	1	138
3:15 PM	0	0	126	0	3	0	129
3:30 PM	0	0	150	0	0	0	150
3:45 PM	0	0	159	0	0	0	159
4:00 PM	0	0	146	0	4	1	151
4:15 PM	0	0	136	0	1	0	137
4:30 PM	0	0	132	1	1	0	134
4:45 PM	0	0	145	0	0	0	145
5:00 PM	0	0	151	0	1	0	152
5:15 PM	0	0	129	0	0	1	130
5:30 PM	0	0	124	0	0	0	124
5:45 PM	0	0	132	1	0	0	133
6:00 PM	0	0	132	1	0	0	133
6:15 PM	0	0	111	0	0	1	112
6:30 PM	0	0	116	0	0	0	116
6:45 PM	0	0	102	0	0	0	102
7:00 PM	0	0	97	0	0	0	97
7:15 PM	0	0	90	0	0	0	90
7:30 PM	0	0	74	0	1	0	75
7:45 PM	0	0	78	0	0	1	79
8:00 PM	0	0	64	0	1	0	65
8:15 PM	0	0	73	0	0	0	73
8:30 PM	0	0	62	0	0	1	63
8:45 PM	0	0	61	0	1	1	63
9:00 PM	0	0	38	0	0	0	38
9:15 PM	0	0	33	0	0	0	33
9:30 PM	0	0	38	0	0	0	38
9:45 PM	0	0	25	0	0	0	25
10:00 PM	0	0	17	0	0	0	17
10:15 PM	0	0	23	0	0	0	23
10:30 PM	0	0	15	0	2	0	17
10:45 PM	0	0	15	0	0	0	15
11:00 PM	0	0	7	0	0	0	7
11:15 PM	0	0	10	0	0	0	10
11:30 PM	0	0	12	0	0	0	12
11:45 PM	0	0	13	0	1	0	14
PM Total	**0**	**0**	**4582**	**4**	**45**	**13**	**4644**
Percentage	**0.00%**	**0.00%**	**98.66%**	**0.09%**	**0.97%**	**0.28%**	
PM Peak	**12:00 PM**	**12:00 PM**	**3:30 PM**	**5:15 PM**	**2:15 PM**	**1:00 PM**	**3:30 PM**
Volume	**0**	**0**	**591**	**2**	**13**	**5**	**597**
Day Total	**0**	**0**	**7255**	**9**	**107**	**44**	**7415**
Percentage	**0.00%**	**0.00%**	**97.84%**	**0.12%**	**1.44%**	**0.59%**	

East Main Street (Route 202)
west of Harrison Road
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-C

Count Date: Saturday, March 14, 2020
Direction: EB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	10	0	0	1	11
12:15 AM	0	0	7	0	0	0	7
12:30 AM	0	0	9	0	0	0	9
12:45 AM	0	0	3	0	0	0	3
1:00 AM	0	0	2	0	0	0	2
1:15 AM	0	0	5	0	1	0	6
1:30 AM	0	0	4	0	0	1	5
1:45 AM	0	0	5	0	0	0	5
2:00 AM	0	0	5	0	0	1	6
2:15 AM	0	0	2	0	0	0	2
2:30 AM	0	0	3	0	0	0	3
2:45 AM	0	0	2	0	0	0	2
3:00 AM	0	0	1	0	0	0	1
3:15 AM	0	0	4	0	0	0	4
3:30 AM	0	0	2	0	0	0	2
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	5	0	1	0	6
4:15 AM	0	0	5	0	0	0	5
4:30 AM	0	0	9	0	0	0	9
4:45 AM	0	0	12	0	0	0	12
5:00 AM	0	0	8	0	0	0	8
5:15 AM	0	0	11	0	0	0	11
5:30 AM	0	0	18	0	0	0	18
5:45 AM	0	0	10	0	0	1	11
6:00 AM	0	0	13	0	0	2	15
6:15 AM	0	0	25	0	0	0	25
6:30 AM	0	0	40	0	0	0	40
6:45 AM	0	0	33	0	1	0	34
7:00 AM	0	0	42	0	1	0	43
7:15 AM	0	0	47	0	1	1	49
7:30 AM	0	0	49	0	2	0	51
7:45 AM	0	0	57	0	1	1	59
8:00 AM	0	0	54	0	1	0	55
8:15 AM	0	0	67	0	0	0	67
8:30 AM	0	0	99	0	1	0	100
8:45 AM	0	0	63	0	0	0	63
9:00 AM	0	0	87	0	1	0	88
9:15 AM	0	0	98	0	0	0	98
9:30 AM	0	0	128	0	1	0	129
9:45 AM	0	0	107	0	1	0	108
10:00 AM	0	0	146	0	2	1	149
10:15 AM	0	0	127	0	0	0	127
10:30 AM	0	0	154	0	1	0	155
10:45 AM	0	0	143	1	0	0	144
11:00 AM	0	0	154	0	0	0	154
11:15 AM	1	0	153	0	0	1	155
11:30 AM	0	0	132	0	2	1	135
11:45 AM	0	0	152	0	1	0	153
AM Total	**1**	**0**	**2315**	**1**	**19**	**11**	**2347**
Percentage	**0.04%**	**0.00%**	**98.64%**	**0.04%**	**0.81%**	**0.47%**	
AM Peak	**10:30 AM**	**12:00 AM**	**10:30 AM**	**10:00 AM**	**6:45 AM**	**5:15 AM**	**10:30 AM**
Volume	**1**	**0**	**604**	**1**	**5**	**3**	**608**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	163	0	1	0	164
12:15 PM	0	0	137	0	0	0	137
12:30 PM	0	0	141	0	1	0	142
12:45 PM	0	0	166	0	0	1	167
1:00 PM	0	0	139	0	1	0	140
1:15 PM	0	0	163	0	1	0	164
1:30 PM	0	0	128	0	0	0	128
1:45 PM	0	0	144	0	0	1	145
2:00 PM	0	0	160	0	1	0	161
2:15 PM	0	0	158	0	0	0	158
2:30 PM	0	0	150	0	1	0	151
2:45 PM	0	0	126	0	1	1	128
3:00 PM	0	0	126	0	0	0	126
3:15 PM	0	0	138	0	0	0	138
3:30 PM	0	0	139	0	0	0	139
3:45 PM	0	0	126	0	0	0	126
4:00 PM	0	0	113	0	0	0	113
4:15 PM	0	0	121	0	0	0	121
4:30 PM	0	0	115	0	2	1	118
4:45 PM	0	0	108	0	0	0	108
5:00 PM	0	0	117	0	1	0	118
5:15 PM	0	0	118	0	1	1	120
5:30 PM	0	0	93	0	0	1	94
5:45 PM	0	0	100	0	0	0	100
6:00 PM	0	0	78	0	0	0	78
6:15 PM	0	0	94	0	0	0	94
6:30 PM	0	0	72	0	0	0	72
6:45 PM	0	0	72	0	1	0	73
7:00 PM	0	0	66	0	0	0	66
7:15 PM	0	0	69	0	0	0	69
7:30 PM	0	0	54	0	0	0	54
7:45 PM	0	0	52	0	0	0	52
8:00 PM	0	0	49	0	0	0	49
8:15 PM	0	0	33	0	0	0	33
8:30 PM	0	0	38	0	0	1	39
8:45 PM	0	0	31	0	0	0	31
9:00 PM	0	0	43	0	1	0	44
9:15 PM	0	0	32	0	0	0	32
9:30 PM	0	0	23	0	0	0	23
9:45 PM	0	0	32	0	0	0	32
10:00 PM	0	0	20	0	0	0	20
10:15 PM	0	0	24	0	0	0	24
10:30 PM	0	0	10	0	0	0	10
10:45 PM	0	0	14	0	0	0	14
11:00 PM	0	0	8	0	0	0	8
11:15 PM	0	0	6	0	0	0	6
11:30 PM	0	0	6	0	0	0	6
11:45 PM	0	0	13	0	0	0	13
PM Total	**0**	**0**	**4128**	**0**	**13**	**7**	**4148**
Percentage	**0.00%**	**0.00%**	**99.52%**	**0.00%**	**0.31%**	**0.17%**	
PM Peak	**12:00 PM**	**12:00 PM**	**1:45 PM**	**12:00 PM**	**4:30 PM**	**4:30 PM**	**1:45 PM**
Volume	**0**	**0**	**612**	**0**	**4**	**2**	**615**
Day Total	**1**	**0**	**6443**	**1**	**32**	**18**	**6495**
Percentage	**0.02%**	**0.00%**	**99.20%**	**0.02%**	**0.49%**	**0.28%**	

TRAFFIC COUNT DATA

East Main Street (Route 202)
west of Harrison Road
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770

Count Date: Friday, March 13, 2020
Direction: WB

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-C

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	4	0	0	0	4
12:15 AM	0	0	5	0	0	0	5
12:30 AM	0	0	6	0	0	1	7
12:45 AM	0	0	9	0	0	1	10
1:00 AM	0	0	5	0	0	0	5
1:15 AM	0	0	2	0	0	0	2
1:30 AM	0	0	2	0	0	0	2
1:45 AM	0	0	2	0	1	0	3
2:00 AM	0	0	4	0	0	0	4
2:15 AM	0	0	2	0	0	0	2
2:30 AM	0	0	0	0	0	0	0
2:45 AM	0	0	1	0	0	0	1
3:00 AM	0	0	2	0	0	0	2
3:15 AM	0	0	2	0	1	0	3
3:30 AM	0	0	1	0	0	0	1
3:45 AM	0	0	2	0	0	0	2
4:00 AM	0	0	2	0	1	0	3
4:15 AM	0	0	6	0	0	0	6
4:30 AM	0	0	1	0	0	0	1
4:45 AM	0	0	6	0	0	0	6
5:00 AM	0	0	8	0	0	0	8
5:15 AM	0	0	15	0	0	3	18
5:30 AM	0	0	25	1	0	0	26
5:45 AM	0	0	28	0	1	0	29
6:00 AM	0	0	25	0	2	1	28
6:15 AM	0	0	32	1	1	0	34
6:30 AM	0	0	37	0	1	1	39
6:45 AM	0	0	60	0	2	0	62
7:00 AM	0	0	57	0	0	0	57
7:15 AM	0	0	82	0	1	1	84
7:30 AM	0	0	83	0	2	0	85
7:45 AM	0	0	122	0	1	1	124
8:00 AM	0	0	100	1	1	2	104
8:15 AM	0	0	113	0	1	0	114
8:30 AM	0	0	107	0	5	2	114
8:45 AM	0	0	112	0	1	1	114
9:00 AM	0	0	107	0	0	0	107
9:15 AM	0	0	107	0	2	1	110
9:30 AM	0	0	89	0	4	2	95
9:45 AM	0	0	119	0	4	0	123
10:00 AM	0	0	89	0	3	0	92
10:15 AM	0	0	86	0	5	0	91
10:30 AM	0	0	119	0	1	0	120
10:45 AM	0	0	115	0	1	3	119
11:00 AM	0	0	97	0	5	0	102
11:15 AM	0	0	98	0	0	4	102
11:30 AM	0	0	109	0	1	0	110
11:45 AM	0	0	123	1	3	1	128
AM Total	**0**	**0**	**2328**	**4**	**51**	**25**	**2408**
Percentage	**0.00%**	**0.00%**	**96.68%**	**0.17%**	**2.12%**	**1.04%**	
AM Peak	**12:00 AM**	**12:00 AM**	**7:45 AM**	**5:30 AM**	**9:30 AM**	**10:30 AM**	**7:45 AM**
Volume	**0**	**0**	**442**	**2**	**16**	**7**	**456**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	104	0	3	1	108
12:15 PM	0	0	128	0	7	1	136
12:30 PM	0	0	131	0	2	2	135
12:45 PM	0	0	137	0	2	2	141
1:00 PM	0	0	117	0	2	0	119
1:15 PM	0	0	105	0	3	0	108
1:30 PM	0	0	131	0	1	0	132
1:45 PM	0	0	111	0	1	1	113
2:00 PM	0	0	109	0	1	1	111
2:15 PM	0	0	115	0	1	0	116
2:30 PM	0	0	148	0	0	0	148
2:45 PM	0	0	139	0	1	1	141
3:00 PM	0	0	129	0	3	1	133
3:15 PM	0	0	156	0	2	0	158
3:30 PM	0	0	128	0	0	0	128
3:45 PM	0	0	179	0	3	0	182
4:00 PM	0	0	156	1	0	0	157
4:15 PM	0	0	189	1	1	2	193
4:30 PM	0	0	147	0	0	0	147
4:45 PM	0	0	177	0	0	1	178
5:00 PM	0	0	148	0	0	0	148
5:15 PM	0	0	156	1	1	0	158
5:30 PM	0	0	157	0	1	1	159
5:45 PM	0	0	135	1	0	0	136
6:00 PM	0	0	134	0	0	0	134
6:15 PM	0	0	142	0	0	1	143
6:30 PM	0	0	119	0	0	0	119
6:45 PM	0	0	114	0	0	0	114
7:00 PM	0	0	101	0	0	0	101
7:15 PM	0	0	100	0	2	0	102
7:30 PM	0	0	76	0	0	0	76
7:45 PM	0	0	62	0	0	0	62
8:00 PM	0	0	63	0	0	0	63
8:15 PM	0	0	56	0	0	0	56
8:30 PM	0	0	51	0	0	0	51
8:45 PM	0	0	37	0	0	0	37
9:00 PM	0	0	50	0	0	0	50
9:15 PM	0	0	40	0	0	0	40
9:30 PM	0	0	38	0	0	0	38
9:45 PM	0	0	22	0	0	1	23
10:00 PM	0	0	30	0	0	0	30
10:15 PM	0	0	22	0	0	0	22
10:30 PM	0	0	31	0	1	0	32
10:45 PM	0	0	12	1	0	0	13
11:00 PM	0	0	23	0	0	0	23
11:15 PM	0	0	19	0	0	0	19
11:30 PM	0	0	9	0	0	0	9
11:45 PM	0	0	10	0	0	0	10
PM Total	**0**	**0**	**4693**	**5**	**38**	**16**	**4752**
Percentage	**0.00%**	**0.00%**	**98.76%**	**0.11%**	**0.80%**	**0.34%**	
PM Peak	**12:00 PM**	**12:00 PM**	**3:45 PM**	**3:30 PM**	**12:00 PM**	**12:00 PM**	**3:45 PM**
Volume	**0**	**0**	**671**	**2**	**14**	**6**	**679**
Day Total	**0**	**0**	**7021**	**9**	**89**	**41**	**7160**
Percentage	**0.00%**	**0.00%**	**98.06%**	**0.13%**	**1.24%**	**0.57%**	

East Main Street (Route 202)
west of Harrison Road
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770

Count Date: Saturday, March 14, 2020
Direction: WB

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: 207479 ATR-C

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	10	0	0	0	10
12:15 AM	0	0	7	0	0	1	8
12:30 AM	0	0	3	0	0	0	3
12:45 AM	0	0	5	0	0	0	5
1:00 AM	0	0	10	0	0	0	10
1:15 AM	0	0	2	0	0	0	2
1:30 AM	0	0	6	0	0	0	6
1:45 AM	0	0	1	0	0	0	1
2:00 AM	0	0	3	0	0	0	3
2:15 AM	0	0	1	0	0	0	1
2:30 AM	0	0	3	0	0	0	3
2:45 AM	0	0	1	0	1	0	2
3:00 AM	0	0	0	0	0	0	0
3:15 AM	0	0	5	0	0	0	5
3:30 AM	0	0	0	0	0	0	0
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	1	0	0	0	1
4:15 AM	0	0	0	0	0	0	0
4:30 AM	0	0	1	0	0	0	1
4:45 AM	0	0	4	0	0	0	4
5:00 AM	0	0	5	0	0	0	5
5:15 AM	0	0	8	0	0	0	8
5:30 AM	0	0	11	0	0	1	12
5:45 AM	0	0	9	0	0	1	10
6:00 AM	0	0	13	0	0	1	14
6:15 AM	0	0	22	0	0	0	22
6:30 AM	0	0	25	0	1	1	27
6:45 AM	0	0	26	0	2	0	28
7:00 AM	0	0	33	0	1	0	34
7:15 AM	0	0	43	0	1	0	44
7:30 AM	0	0	43	0	0	0	43
7:45 AM	0	0	69	0	0	0	69
8:00 AM	0	0	66	0	0	0	66
8:15 AM	0	0	66	0	0	0	66
8:30 AM	0	0	77	0	0	0	77
8:45 AM	0	0	84	0	1	0	85
9:00 AM	0	0	92	0	1	0	93
9:15 AM	0	0	82	0	1	0	83
9:30 AM	0	0	91	0	0	0	91
9:45 AM	0	0	101	0	0	0	101
10:00 AM	0	0	104	0	1	0	105
10:15 AM	0	0	121	1	0	0	122
10:30 AM	0	0	118	0	0	0	118
10:45 AM	0	0	147	0	1	0	148
11:00 AM	0	0	148	0	0	1	149
11:15 AM	0	0	141	0	1	0	142
11:30 AM	0	0	161	0	1	1	163
11:45 AM	0	0	160	0	0	0	160
AM Total	**0**	**0**	**2132**	**1**	**13**	**7**	**2153**
Percentage	**0.00%**	**0.00%**	**99.02%**	**0.05%**	**0.60%**	**0.33%**	
AM Peak	**12:00 AM**	**12:00 AM**	**11:00 AM**	**9:30 AM**	**6:30 AM**	**5:15 AM**	**11:00 AM**
Volume	**0**	**0**	**610**	**1**	**5**	**3**	**614**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	119	0	1	0	120
12:15 PM	0	0	148	0	0	0	148
12:30 PM	0	0	140	0	0	0	140
12:45 PM	0	0	141	0	1	1	143
1:00 PM	1	0	123	0	0	1	125
1:15 PM	0	0	135	0	0	0	135
1:30 PM	0	0	146	0	0	0	146
1:45 PM	0	0	121	0	0	0	121
2:00 PM	0	0	130	0	0	0	130
2:15 PM	0	0	145	0	2	0	147
2:30 PM	0	0	126	0	0	0	126
2:45 PM	0	0	129	0	1	0	130
3:00 PM	0	0	137	0	1	0	138
3:15 PM	0	0	121	0	1	0	122
3:30 PM	0	0	147	0	0	0	147
3:45 PM	0	0	102	0	0	2	104
4:00 PM	0	0	112	0	0	1	113
4:15 PM	0	0	115	0	0	0	115
4:30 PM	0	0	104	0	0	0	104
4:45 PM	0	0	126	0	2	0	128
5:00 PM	0	0	112	0	0	1	113
5:15 PM	0	0	112	0	0	0	112
5:30 PM	0	0	98	0	1	0	99
5:45 PM	0	0	108	0	0	0	108
6:00 PM	0	0	94	0	0	0	94
6:15 PM	0	0	104	0	1	0	105
6:30 PM	0	0	85	0	0	0	85
6:45 PM	0	0	73	0	0	0	73
7:00 PM	0	0	88	0	0	0	88
7:15 PM	0	0	67	0	0	0	67
7:30 PM	0	0	80	0	0	0	80
7:45 PM	0	0	66	0	0	0	66
8:00 PM	0	0	49	0	0	0	49
8:15 PM	0	0	31	0	0	0	31
8:30 PM	0	0	49	0	0	0	49
8:45 PM	0	0	40	0	0	0	40
9:00 PM	0	0	32	0	0	0	32
9:15 PM	0	0	39	0	0	0	39
9:30 PM	0	0	30	0	0	0	30
9:45 PM	0	0	32	0	0	0	32
10:00 PM	0	0	34	0	0	0	34
10:15 PM	0	0	22	0	0	0	22
10:30 PM	0	0	29	0	0	0	29
10:45 PM	0	0	21	0	0	0	21
11:00 PM	0	0	11	0	0	0	11
11:15 PM	0	0	12	0	0	0	12
11:30 PM	0	0	8	0	1	0	9
11:45 PM	0	0	4	0	0	0	4
PM Total	**1**	**0**	**4097**	**0**	**12**	**6**	**4116**
Percentage	**0.02%**	**0.00%**	**99.54%**	**0.00%**	**0.29%**	**0.15%**	
PM Peak	**12:15 PM**	**12:00 PM**	**12:15 PM**	**12:00 PM**	**2:15 PM**	**3:15 PM**	**12:15 PM**
Volume	**1**	**0**	**552**	**0**	**4**	**3**	**556**
Day Total	**1**	**0**	**6229**	**1**	**25**	**13**	**6269**
Percentage	**0.02%**	**0.00%**	**99.36%**	**0.02%**	**0.40%**	**0.21%**	

TRAFFIC COUNT DATA

East Main Street (Route 202)
west of Harrison Road
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email:datarequests@pdillc.com

PDI File # 207479 ATR-C

Direction: EB

Weekly Report

Day	Friday		Saturday												Week Ave	
Date	03/13/20		03/14/20													
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	5	157	11	164	0	0	0	0	0	0	0	0	0	0	8	161
12:15	4	125	7	137	0	0	0	0	0	0	0	0	0	0	6	131
12:30	1	129	9	142	0	0	0	0	0	0	0	0	0	0	5	136
12:45	1	140	3	167	0	0	0	0	0	0	0	0	0	0	2	154
1:00	2	124	2	140	0	0	0	0	0	0	0	0	0	0	2	132
1:15	4	143	6	164	0	0	0	0	0	0	0	0	0	0	5	154
1:30	2	161	5	128	0	0	0	0	0	0	0	0	0	0	4	145
1:45	2	126	5	145	0	0	0	0	0	0	0	0	0	0	4	136
2:00	5	142	6	161	0	0	0	0	0	0	0	0	0	0	6	152
2:15	3	135	2	158	0	0	0	0	0	0	0	0	0	0	3	147
2:30	2	127	3	151	0	0	0	0	0	0	0	0	0	0	3	139
2:45	1	136	2	128	0	0	0	0	0	0	0	0	0	0	2	132
3:00	4	138	1	126	0	0	0	0	0	0	0	0	0	0	3	132
3:15	4	129	4	138	0	0	0	0	0	0	0	0	0	0	4	134
3:30	2	150	2	139	0	0	0	0	0	0	0	0	0	0	2	145
3:45	7	159	3	126	0	0	0	0	0	0	0	0	0	0	5	143
4:00	6	151	6	113	0	0	0	0	0	0	0	0	0	0	6	132
4:15	8	137	5	121	0	0	0	0	0	0	0	0	0	0	7	129
4:30	14	134	9	118	0	0	0	0	0	0	0	0	0	0	12	126
4:45	20	145	12	108	0	0	0	0	0	0	0	0	0	0	16	127
5:00	25	152	8	118	0	0	0	0	0	0	0	0	0	0	17	135
5:15	34	130	11	120	0	0	0	0	0	0	0	0	0	0	23	125
5:30	48	124	18	94	0	0	0	0	0	0	0	0	0	0	33	109
5:45	46	133	11	100	0	0	0	0	0	0	0	0	0	0	29	117
6:00	59	133	15	78	0	0	0	0	0	0	0	0	0	0	37	106
6:15	86	112	25	94	0	0	0	0	0	0	0	0	0	0	56	103
6:30	83	116	40	72	0	0	0	0	0	0	0	0	0	0	62	94
6:45	81	102	34	73	0	0	0	0	0	0	0	0	0	0	58	88
7:00	88	97	43	66	0	0	0	0	0	0	0	0	0	0	66	82
7:15	94	90	49	69	0	0	0	0	0	0	0	0	0	0	72	80
7:30	128	75	51	54	0	0	0	0	0	0	0	0	0	0	90	65
7:45	121	79	59	52	0	0	0	0	0	0	0	0	0	0	90	66
8:00	99	65	55	49	0	0	0	0	0	0	0	0	0	0	77	57
8:15	104	73	67	33	0	0	0	0	0	0	0	0	0	0	86	53
8:30	87	63	100	39	0	0	0	0	0	0	0	0	0	0	94	51
8:45	115	63	63	31	0	0	0	0	0	0	0	0	0	0	89	47
9:00	89	38	88	44	0	0	0	0	0	0	0	0	0	0	89	41
9:15	109	33	98	32	0	0	0	0	0	0	0	0	0	0	104	33
9:30	120	38	129	23	0	0	0	0	0	0	0	0	0	0	125	31
9:45	110	25	108	32	0	0	0	0	0	0	0	0	0	0	109	29
10:00	95	17	149	20	0	0	0	0	0	0	0	0	0	0	122	19
10:15	107	23	127	24	0	0	0	0	0	0	0	0	0	0	117	24
10:30	133	17	155	10	0	0	0	0	0	0	0	0	0	0	144	14
10:45	105	15	144	14	0	0	0	0	0	0	0	0	0	0	125	15
11:00	135	7	154	8	0	0	0	0	0	0	0	0	0	0	145	8
11:15	126	10	155	6	0	0	0	0	0	0	0	0	0	0	141	8
11:30	126	12	135	6	0	0	0	0	0	0	0	0	0	0	131	9
11:45	121	14	153	13	0	0	0	0	0	0	0	0	0	0	137	14
Total	2771	4644	2347	4148	0	0	0	0	0	0	0	0	0	0	2559	4396
Day Total	7415		6495		0		0		0		0		0		6955	
Peak HR	11:00 AM	3:30 PM	10:30 AM	1:45 PM											10:30 AM	1:15 PM
Volume	508	597	608	615											554	585

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email:datarequests@pdillc.com

PDI File # 207479 ATR-C

East Main Street (Route 202)
west of Harrison Road
City, State: Torrington, CT
Client: BSC Group/ M. Santos
Site Code: 83770

Direction: WB

Weekly Report

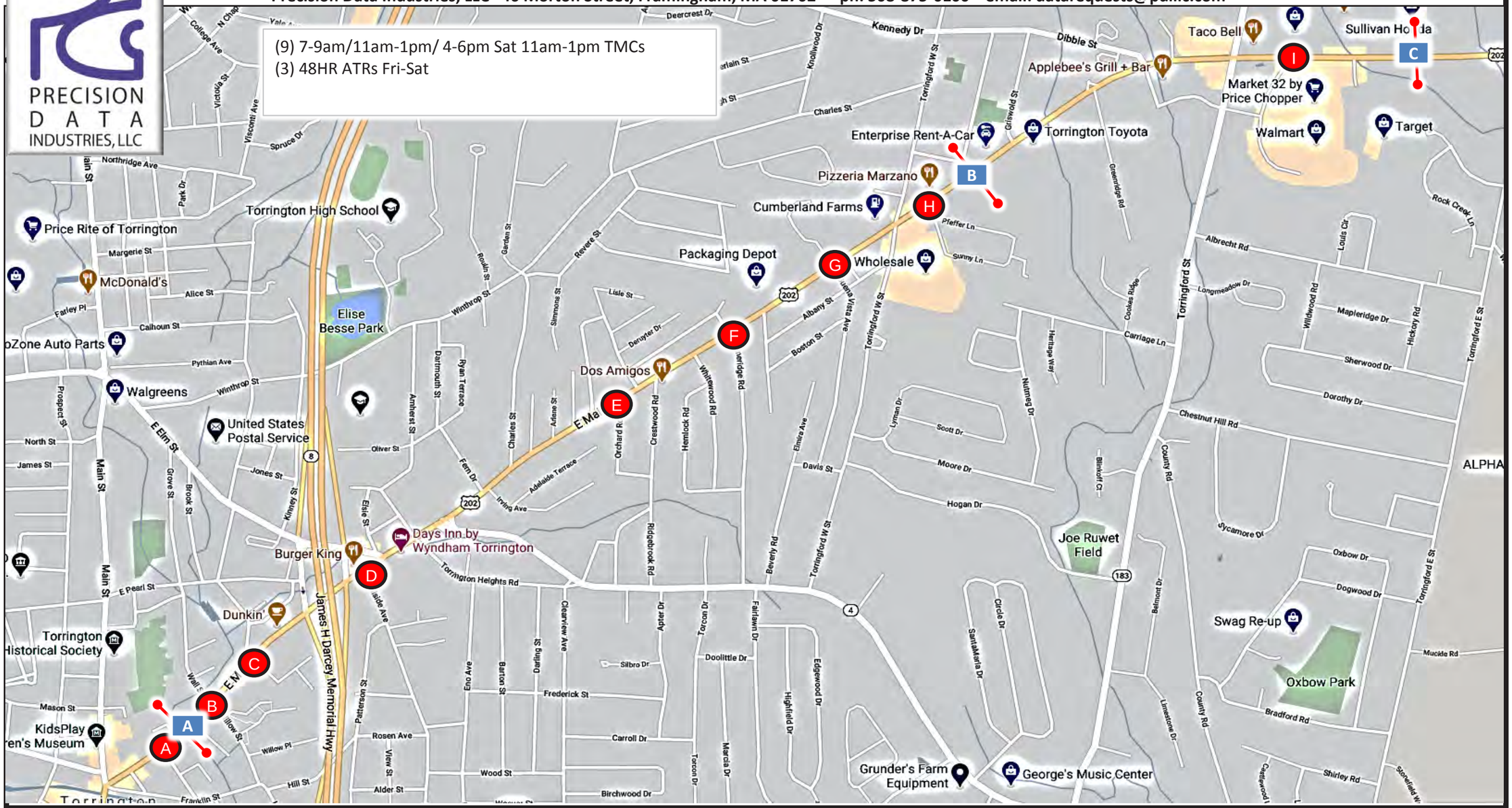
Day	Friday		Saturday												Week Ave	
Date	03/13/20		03/14/20													
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	4	108	10	120	0	0	0	0	0	0	0	0	0	0	7	114
12:15	5	136	8	148	0	0	0	0	0	0	0	0	0	0	7	142
12:30	7	135	3	140	0	0	0	0	0	0	0	0	0	0	5	138
12:45	10	141	5	143	0	0	0	0	0	0	0	0	0	0	8	142
1:00	5	119	10	125	0	0	0	0	0	0	0	0	0	0	8	122
1:15	2	108	2	135	0	0	0	0	0	0	0	0	0	0	2	122
1:30	2	132	6	146	0	0	0	0	0	0	0	0	0	0	4	139
1:45	3	113	1	121	0	0	0	0	0	0	0	0	0	0	2	117
2:00	4	111	3	130	0	0	0	0	0	0	0	0	0	0	4	121
2:15	2	116	1	147	0	0	0	0	0	0	0	0	0	0	2	132
2:30	0	148	3	126	0	0	0	0	0	0	0	0	0	0	2	137
2:45	1	141	2	130	0	0	0	0	0	0	0	0	0	0	2	136
3:00	2	133	0	138	0	0	0	0	0	0	0	0	0	0	1	136
3:15	3	158	5	122	0	0	0	0	0	0	0	0	0	0	4	140
3:30	1	128	0	147	0	0	0	0	0	0	0	0	0	0	1	138
3:45	2	182	3	104	0	0	0	0	0	0	0	0	0	0	3	143
4:00	3	157	1	113	0	0	0	0	0	0	0	0	0	0	2	135
4:15	6	193	0	115	0	0	0	0	0	0	0	0	0	0	3	154
4:30	1	147	1	104	0	0	0	0	0	0	0	0	0	0	1	126
4:45	6	178	4	128	0	0	0	0	0	0	0	0	0	0	5	153
5:00	8	148	5	113	0	0	0	0	0	0	0	0	0	0	7	131
5:15	18	158	8	112	0	0	0	0	0	0	0	0	0	0	13	135
5:30	26	159	12	99	0	0	0	0	0	0	0	0	0	0	19	129
5:45	29	136	10	108	0	0	0	0	0	0	0	0	0	0	20	122
6:00	28	134	14	94	0	0	0	0	0	0	0	0	0	0	21	114
6:15	34	143	22	105	0	0	0	0	0	0	0	0	0	0	28	124
6:30	39	119	27	85	0	0	0	0	0	0	0	0	0	0	33	102
6:45	62	114	28	73	0	0	0	0	0	0	0	0	0	0	45	94
7:00	57	101	34	88	0	0	0	0	0	0	0	0	0	0	46	95
7:15	84	102	44	67	0	0	0	0	0	0	0	0	0	0	64	85
7:30	85	76	43	80	0	0	0	0	0	0	0	0	0	0	64	78
7:45	124	62	69	66	0	0	0	0	0	0	0	0	0	0	97	64
8:00	104	63	66	49	0	0	0	0	0	0	0	0	0	0	85	56
8:15	114	56	66	31	0	0	0	0	0	0	0	0	0	0	90	44
8:30	114	51	77	49	0	0	0	0	0	0	0	0	0	0	96	50
8:45	114	37	85	40	0	0	0	0	0	0	0	0	0	0	100	39
9:00	107	50	93	32	0	0	0	0	0	0	0	0	0	0	100	41
9:15	110	40	83	39	0	0	0	0	0	0	0	0	0	0	97	40
9:30	95	38	91	30	0	0	0	0	0	0	0	0	0	0	93	34
9:45	123	23	101	32	0	0	0	0	0	0	0	0	0	0	112	28
10:00	92	30	105	34	0	0	0	0	0	0	0	0	0	0	99	32
10:15	91	22	122	22	0	0	0	0	0	0	0	0	0	0	107	22
10:30	120	32	118	29	0	0	0	0	0	0	0	0	0	0	119	31
10:45	119	13	148	21	0	0	0	0	0	0	0	0	0	0	134	17
11:00	102	23	149	11	0	0	0	0	0	0	0	0	0	0	126	17
11:15	102	19	142	12	0	0	0	0	0	0	0	0	0	0	122	16
11:30	110	9	163	9	0	0	0	0	0	0	0	0	0	0	137	9
11:45	128	10	160	4	0	0	0	0	0	0	0	0	0	0	144	7
Total	2408	4752	2153	4116	0	0	0	0	0	0	0	0	0	0	2281	4434
Day Total	7160		6269		0		0		0		0		0		6715	
Peak HR	7:45 AM	3:45 PM	11:00 AM	12:15 PM											11:00 AM	3:30 PM
Volume	456	679	614	556											528	570

TRAFFIC COUNT DATA

Location Map: 207479 Torrington, CT

Precision Data Industries, LLC 46 Morton Street, Framingham, MA 01702 ph: 508-875-0100 email: datarequests@pdillc.com

(9) 7-9am/11am-1pm/ 4-6pm Sat 11am-1pm TMCs
(3) 48HR ATRs Fri-Sat



Client:	Engineer:	Site Code:	Date:	PDI Job #	City, State:
BSC Group	M. Santos	83770.00	Thurs 3/12 thru Sat 3/14/2020	207479	Torrington, CT

TRAFFIC COUNT DATA

PDI File #: **207479 A**
Location: **N: Driveway S: Center Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway (from North)					East Main Street (Route 202) (from East)					Center Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	3	91	0	0	94	5	1	10	0	16	3	77	3	0	83	193
7:15 AM	0	0	0	0	0	0	75	0	0	75	3	0	3	0	6	6	78	0	0	84	165
7:30 AM	11	1	6	0	18	3	94	4	0	101	6	0	8	0	14	7	87	1	0	95	228
7:45 AM	5	2	3	0	10	0	123	2	0	125	2	0	10	0	12	6	79	2	0	87	234
Total	16	3	9	0	28	6	383	6	0	395	16	1	31	0	48	22	321	6	0	349	820
8:00 AM	2	1	3	0	6	0	107	3	0	110	4	0	14	0	18	3	86	1	0	90	224
8:15 AM	7	0	2	0	9	0	108	2	0	110	5	0	7	0	12	7	84	2	0	93	224
8:30 AM	13	0	10	0	23	0	99	1	0	100	3	1	4	0	8	5	88	2	0	95	226
8:45 AM	3	0	1	0	4	1	121	1	0	123	5	0	10	1	16	5	76	1	0	82	225
Total	25	1	16	0	42	1	435	7	0	443	17	1	35	1	54	20	334	6	0	360	899
Grand Total	41	4	25	0	70	7	818	13	0	838	33	2	66	1	102	42	655	12	0	709	1719
Approach %	58.6	5.7	35.7	0.0		0.8	97.6	1.6	0.0		32.4	2.0	64.7	1.0		5.9	92.4	1.7	0.0		
Total %	2.4	0.2	1.5	0.0	4.1	0.4	47.6	0.8	0.0	48.7	1.9	0.1	3.8	0.1	5.9	2.4	38.1	0.7	0.0	41.2	
Exiting Leg Total					21					713					60					925	1719
Cars	41	3	25	0	69	7	769	13	0	789	30	2	51	1	84	40	612	12	0	664	1606
% Cars	100.0	75.0	100.0	0.0	98.6	100.0	94.0	100.0	0.0	94.2	90.9	100.0	77.3	100.0	82.4	95.2	93.4	100.0	0.0	93.7	93.4
Exiting Leg Total					21					667					57					861	1606
Heavy Vehicles	0	1	0	0	1	0	49	0	0	49	3	0	15	0	18	2	43	0	0	45	113
% Heavy Vehicles	0.0	25.0	0.0	0.0	1.4	0.0	6.0	0.0	0.0	5.8	9.1	0.0	22.7	0.0	17.6	4.8	6.6	0.0	0.0	6.3	6.6
Exiting Leg Total					0					46					3					64	113

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway (from North)					East Main Street (Route 202) (from East)					Center Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	11	1	6	0	18	3	94	4	0	101	6	0	8	0	14	7	87	1	0	95	228
7:45 AM	5	2	3	0	10	0	123	2	0	125	2	0	10	0	12	6	79	2	0	87	234
8:00 AM	2	1	3	0	6	0	107	3	0	110	4	0	14	0	18	3	86	1	0	90	224
8:15 AM	7	0	2	0	9	0	108	2	0	110	5	0	7	0	12	7	84	2	0	93	224
Total Volume	25	4	14	0	43	3	432	11	0	446	17	0	39	0	56	23	336	6	0	365	910
% Approach Total	58.1	9.3	32.6	0.0		0.7	96.9	2.5	0.0		30.4	0.0	69.6	0.0		6.3	92.1	1.6	0.0		
PHF	0.568	0.500	0.583	0.000	0.597	0.250	0.878	0.688	0.000	0.892	0.708	0.000	0.696	0.000	0.778	0.821	0.966	0.750	0.000	0.961	0.972
Cars	25	3	14	0	42	3	403	11	0	417	14	0	28	0	42	21	320	6	0	347	848
Cars %	100.0	75.0	100.0	0.0	97.7	100.0	93.3	100.0	0.0	93.5	82.4	0.0	71.8	0.0	75.0	91.3	95.2	100.0	0.0	95.1	93.2
Heavy Vehicles	0	1	0	0	1	0	29	0	0	29	3	0	11	0	14	2	16	0	0	18	62
Heavy Vehicles %	0.0	25.0	0.0	0.0	2.3	0.0	6.7	0.0	0.0	6.5	17.6	0.0	28.2	0.0	25.0	8.7	4.8	0.0	0.0	4.9	6.8
Cars Enter Leg	25	3	14	0	42	3	403	11	0	417	14	0	28	0	42	21	320	6	0	347	848
Heavy Enter Leg	0	1	0	0	1	0	29	0	0	29	3	0	11	0	14	2	16	0	0	18	62
Total Entering Leg	25	4	14	0	43	3	432	11	0	446	17	0	39	0	56	23	336	6	0	365	910
Cars Exiting Leg					9					348					35					456	848
Heavy Exiting Leg					0					19					3					40	62
Total Exiting Leg					9					367					38					496	910

PDI File #: **207479 AA**
Location: **N: Driveway S: Center Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway (from North)					East Main Street (Route 202) (from East)					Center Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	1	0	0	0	1	2	100	6	0	108	12	0	8	0	20	4	84	0	0	88	217
11:15 AM	1	0	0	0	1	0	84	2	0	86	2	0	10	0	12	8	109	0	0	117	216
11:30 AM	3	0	0	0	3	0	111	2	0	113	3	0	6	0	9	10	109	2	0	121	246
11:45 AM	1	0	0	0	1	0	121	3	0	124	2	0	11	0	13	11	115	2	0	128	266
Total	6	0	0	0	6	2	416	13	0	431	19	0	35	0	54	33	417	4	0	454	945
12:00 PM	0	1	2	0	3	2	110	4	0	116	5	0	17	0	22	12	115	0	0	127	268
12:15 PM	2	0	0	0	2	1	113	5	0	119	6	0	7	0	13	6	95	1	0	102	236
12:30 PM	3	0	0	0	3	1	116	4	0	121	7	0	9	0	16	12	121	0	0	133	273
12:45 PM	0	0	3	0	3	0	120	1	0	121	1	0	6	0	7	9	122	0	0	131	262
Total	5	1	5	0	11	4	459	14	0	477	19	0	39	0	58	39	453	1	0	493	1039
Grand Total	11	1	5	0	17	6	875	27	0	908	38	0	74	0	112	72	870	5	0	947	1984
Approach %	64.7	5.9	29.4	0.0		0.7	96.4	3.0	0.0		33.9	0.0	66.1	0.0		7.6	91.9	0.5	0.0		
Total %	0.6	0.1	0.3	0.0	0.9	0.3	44.1	1.4	0.0	45.8	1.9	0.0	3.7	0.0	5.6	3.6	43.9	0.3	0.0	47.7	
Exiting Leg Total					11					913					100					960	1984
Cars	11	1	5	0	17	6	846	26	0	878	36	0	65	0	101	63	829	5	0	897	1893
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	96.7	96.3	0.0	96.7	94.7	0.0	87.8	0.0	90.2	87.5	95.3	100.0	0.0	94.7	95.4
Exiting Leg Total					11					870					90					922	1893
Heavy Vehicles	0	0	0	0	0	0	29	1	0	30	2	0	9	0	11	9	41	0	0	50	91
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.7	0.0	3.3	5.3	0.0	12.2	0.0	9.8	12.5	4.7	0.0	0.0	5.3	4.6
Exiting Leg Total					0					43					10					38	91

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Driveway (from North)					East Main Street (Route 202) (from East)					Center Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	1	0	0	0	1	0	121	3	0	124	2	0	11	0	13	11	115	2	0	128	266
12:00 PM	0	1	2	0	3	2	110	4	0	116	5	0	17	0	22	12	115	0	0	127	268
12:15 PM	2	0	0	0	2	1	113	5	0	119	6	0	7	0	13	6	95	1	0	102	236
12:30 PM	3	0	0	0	3	1	116	4	0	121	7	0	9	0	16	12	121	0	0	133	273
Total Volume	6	1	2	0	9	4	460	16	0	480	20	0	44	0	64	41	446	3	0	490	1043
% Approach Total	66.7	11.1	22.2	0.0		0.8	95.8	3.3	0.0		31.3	0.0	68.8	0.0		8.4	91.0	0.6	0.0		
PHF	0.500	0.250	0.250	0.000	0.750	0.500	0.950	0.800	0.000	0.968	0.714	0.000	0.647	0.000	0.727	0.854	0.921	0.375	0.000	0.921	0.955
Cars	6	1	2	0	9	4	445	15	0	464	18	0	37	0	55	33	430	3	0	466	994
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	96.7	93.8	0.0	96.7	90.0	0.0	84.1	0.0	85.9	80.5	96.4	100.0	0.0	95.1	95.3
Heavy Vehicles	0	0	0	0	0	0	15	1	0	16	2	0	7	0	9	8	16	0	0	24	49
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.3	6.3	0.0	3.3	10.0	0.0	15.9	0.0	14.1	19.5	3.6	0.0	0.0	4.9	4.7
Cars Enter Leg	6	1	2	0	9	4	445	15	0	464	18	0	37	0	55	33	430	3	0	466	994
Heavy Enter Leg	0	0	0	0	0	0	15	1	0	16	2	0	7	0	9	8	16	0	0	24	49
Total Entering Leg	6	1	2	0	9	4	460	16	0	480	20	0	44	0	64	41	446	3	0	490	1043
Cars Exiting Leg					7					450					49					488	994
Heavy Exiting Leg					0					18					9					22	49
Total Exiting Leg					7					468					58					510	1043

TRAFFIC COUNT DATA

PDI File #: **207479 AAA**
Location: **N: Driveway S: Center Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Center Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	4	1	5	0	10	1	138	1	0	140	7	0	16	0	23	12	143	0	0	155	328
4:15 PM	3	0	0	0	3	0	130	4	0	134	8	0	14	0	22	8	142	1	0	151	310
4:30 PM	6	0	0	0	6	1	138	8	0	147	10	0	7	0	17	8	151	5	0	164	334
4:45 PM	7	3	1	0	11	1	159	7	0	167	8	0	11	0	19	11	128	4	0	143	340
Total	20	4	6	0	30	3	565	20	0	588	33	0	48	0	81	39	564	10	0	613	1312
5:00 PM	2	1	2	0	5	1	118	5	0	124	4	0	8	0	12	13	153	0	0	166	307
5:15 PM	1	1	0	0	2	0	152	1	0	153	8	0	9	0	17	12	156	0	0	168	340
5:30 PM	0	0	0	0	0	0	129	8	0	137	7	0	15	0	22	7	118	0	0	125	284
5:45 PM	1	0	0	0	1	0	131	6	0	137	5	0	10	0	15	12	104	0	1	117	270
Total	4	2	2	0	8	1	530	20	0	551	24	0	42	0	66	44	531	0	1	576	1201
Grand Total	24	6	8	0	38	4	1095	40	0	1139	57	0	90	0	147	83	1095	10	1	1189	2513
Approach %	63.2	15.8	21.1	0.0		0.4	96.1	3.5	0.0		38.8	0.0	61.2	0.0		7.0	92.1	0.8	0.1		
Total %	1.0	0.2	0.3	0.0	1.5	0.2	43.6	1.6	0.0	45.3	2.3	0.0	3.6	0.0	5.8	3.3	43.6	0.4	0.0	47.3	
Exiting Leg Total					14					1160					129					1210	2513
Cars	24	6	7	0	37	4	1082	40	0	1126	56	0	90	0	146	81	1078	10	1	1170	2479
% Cars	100.0	100.0	87.5	0.0	97.4	100.0	98.8	100.0	0.0	98.9	98.2	0.0	100.0	0.0	99.3	97.6	98.4	100.0	100.0	98.4	98.6
Exiting Leg Total					14					1141					127					1197	2479
Heavy Vehicles	0	0	1	0	1	0	13	0	0	13	1	0	0	0	1	2	17	0	0	19	34
% Heavy Vehicles	0.0	0.0	12.5	0.0	2.6	0.0	1.2	0.0	0.0	1.1	1.8	0.0	0.0	0.0	0.7	2.4	1.6	0.0	0.0	1.6	1.4
Exiting Leg Total					0					19					2					13	34

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Driveway from North					East Main Street (Route 202) from East					Center Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	6	0	0	0	6	1	138	8	0	147	10	0	7	0	17	8	151	5	0	164	334
4:45 PM	7	3	1	0	11	1	159	7	0	167	8	0	11	0	19	11	128	4	0	143	340
5:00 PM	2	1	2	0	5	1	118	5	0	124	4	0	8	0	12	13	153	0	0	166	307
5:15 PM	1	1	0	0	2	0	152	1	0	153	8	0	9	0	17	12	156	0	0	168	340
Total Volume	16	5	3	0	24	3	567	21	0	591	30	0	35	0	65	44	588	9	0	641	1321
% Approach Total	66.7	20.8	12.5	0.0		0.5	95.9	3.6	0.0		46.2	0.0	53.8	0.0		6.9	91.7	1.4	0.0		
PHF	0.571	0.417	0.375	0.000	0.545	0.750	0.892	0.656	0.000	0.885	0.750	0.000	0.795	0.000	0.855	0.846	0.942	0.450	0.000	0.954	0.971
Cars	16	5	3	0	24	3	559	21	0	583	30	0	35	0	65	43	582	9	0	634	1306
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.6	100.0	0.0	98.6	100.0	0.0	100.0	0.0	100.0	97.7	99.0	100.0	0.0	98.9	98.9
Heavy Vehicles	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	1	6	0	0	7	15
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	2.3	1.0	0.0	0.0	1.1	1.1
Cars Enter Leg	16	5	3	0	24	3	559	21	0	583	30	0	35	0	65	43	582	9	0	634	1306
Heavy Enter Leg	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	1	6	0	0	7	15
Total Entering Leg	16	5	3	0	24	3	567	21	0	591	30	0	35	0	65	44	588	9	0	641	1321
Cars Exiting Leg					12					615					69					610	1306
Heavy Exiting Leg					0					6					1					8	15
Total Exiting Leg					12					621					70					618	1321

PDI File #: **207479 AAAA**
Location: **N: Driveway S: Center Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Center Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	4	0	0	0	4	1	82	2	0	85	4	0	12	0	16	10	109	0	0	119	224
11:15 AM	0	0	0	0	0	0	103	5	0	108	7	0	12	0	19	5	112	0	0	117	244
11:30 AM	0	0	0	0	0	0	106	11	0	117	6	0	7	0	13	6	93	0	0	99	229
11:45 AM	0	0	0	0	0	0	121	5	0	126	5	0	11	0	16	16	102	0	0	118	260
Total	4	0	0	0	4	1	412	23	0	436	22	0	42	0	64	37	416	0	0	453	957
12:00 PM	1	0	0	0	1	1	141	3	0	145	2	0	10	0	12	10	103	0	0	113	271
12:15 PM	0	0	0	0	0	0	110	5	0	115	3	0	8	0	11	7	107	0	0	114	240
12:30 PM	0	0	0	0	0	0	120	6	0	126	5	0	13	0	18	7	128	0	0	135	279
12:45 PM	0	0	0	0	0	0	115	7	0	122	1	0	8	0	9	5	120	0	0	125	256
Total	1	0	0	0	1	1	486	21	0	508	11	0	39	0	50	29	458	0	0	487	1046
Grand Total	5	0	0	0	5	2	898	44	0	944	33	0	81	0	114	66	874	0	0	940	2003
Approach %	100.0	0.0	0.0	0.0		0.2	95.1	4.7	0.0		28.9	0.0	71.1	0.0		7.0	93.0	0.0	0.0		
Total %	0.2	0.0	0.0	0.0	0.2	0.1	44.8	2.2	0.0	47.1	1.6	0.0	4.0	0.0	5.7	3.3	43.6	0.0	0.0	46.9	
Exiting Leg Total					2					907					110					984	2003
Cars	5	0	0	0	5	2	892	44	0	938	33	0	80	0	113	66	864	0	0	930	1986
% Cars	100.0	0.0	0.0	0.0	100.0	100.0	99.3	100.0	0.0	99.4	100.0	0.0	98.8	0.0	99.1	100.0	98.9	0.0	0.0	98.9	99.2
Exiting Leg Total					2					897					110					977	1986
Heavy Vehicles	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	0	10	0	0	10	17
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.6	0.0	0.0	1.2	0.0	0.9	0.0	1.1	0.0	0.0	1.1	0.8
Exiting Leg Total					0					10					0					7	17

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Driveway from North					East Main Street (Route 202) from East					Center Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	0	0	0	0	0	0	121	5	0	126	5	0	11	0	16	16	102	0	0	118	260
12:00 PM	1	0	0	0	1	1	141	3	0	145	2	0	10	0	12	10	103	0	0	113	271
12:15 PM	0	0	0	0	0	0	110	5	0	115	3	0	8	0	11	7	107	0	0	114	240
12:30 PM	0	0	0	0	0	0	120	6	0	126	5	0	13	0	18	7	128	0	0	135	279
Total Volume	1	0	0	0	1	1	492	19	0	512	15	0	42	0	57	40	440	0	0	480	1050
% Approach Total	100.0	0.0	0.0	0.0		0.2	96.1	3.7	0.0		26.3	0.0	73.7	0.0		8.3	91.7	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.250	0.872	0.792	0.000	0.883	0.750	0.000	0.808	0.000	0.792	0.625	0.859	0.000	0.000	0.889	0.941
Cars	1	0	0	0	1	1	489	19	0	509	15	0	42	0	57	40	436	0	0	476	1043
Cars %	100.0	0.0	0.0	0.0	100.0	100.0	99.4	100.0	0.0	99.4	100.0	0.0	100.0	0.0	100.0	100.0	99.1	0.0	0.0	99.2	99.3
Heavy Vehicles	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.7
Cars Enter Leg	1	0	0	0	1	1	489	19	0	509	15	0	42	0	57	40	436	0	0	476	1043
Heavy Enter Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Total Entering Leg	1	0	0	0	1	1	492	19	0	512	15	0	42	0	57	40	440	0	0	480	1050
Cars Exiting Leg					1					451					59					532	1043
Heavy Exiting Leg					0					4					0					3	7
Total Exiting Leg					1					455					59					535	1050

TRAFFIC COUNT DATA

PDI File #: **207479 B**
Location: **N: Wall Street S: Willow Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Wall Street from North					East Main Street (Route 202) from East					Willow Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	7	2	0	11	4	97	5	0	106	7	8	1	0	16	1	78	1	0	80	213
7:15 AM	4	6	1	0	11	6	72	4	0	82	8	7	2	0	17	3	76	2	0	81	191
7:30 AM	7	8	3	0	18	12	98	5	0	115	3	12	6	0	21	3	93	5	0	101	255
7:45 AM	5	11	2	0	18	14	114	5	0	133	9	21	13	0	43	2	78	4	0	84	278
Total	18	32	8	0	58	36	381	19	0	436	27	48	22	0	97	9	325	12	0	346	937
8:00 AM	8	8	5	0	21	10	111	1	0	122	8	23	2	0	33	4	82	6	0	92	268
8:15 AM	4	8	2	0	14	5	105	3	0	113	6	9	4	0	19	7	59	7	0	73	219
8:30 AM	11	6	0	0	17	5	87	1	0	93	5	13	4	0	22	2	94	5	0	101	233
8:45 AM	5	5	1	0	11	10	121	2	0	133	6	13	2	0	21	1	72	5	0	78	243
Total	28	27	8	0	63	30	424	7	0	461	25	58	12	0	95	14	307	23	0	344	963
Grand Total	46	59	16	0	121	66	805	26	0	897	52	106	34	0	192	23	632	35	0	690	1900
Approach %	38.0	48.8	13.2	0.0		7.4	89.7	2.9	0.0		27.1	55.2	17.7	0.0		3.3	91.6	5.1	0.0		
Total %	2.4	3.1	0.8	0.0	6.4	3.5	42.4	1.4	0.0	47.2	2.7	5.6	1.8	0.0	10.1	1.2	33.3	1.8	0.0	36.3	
Exiting Leg Total					207					700					108					885	1900
Cars	45	58	16	0	119	65	759	22	0	846	50	101	31	0	182	22	590	34	0	646	1793
% Cars	97.8	98.3	100.0	0.0	98.3	98.5	94.3	84.6	0.0	94.3	96.2	95.3	91.2	0.0	94.8	95.7	93.4	97.1	0.0	93.6	94.4
Exiting Leg Total					200					656					102					835	1793
Heavy Vehicles	1	1	0	0	2	1	46	4	0	51	2	5	3	0	10	1	42	1	0	44	107
% Heavy Vehicles	2.2	1.7	0.0	0.0	1.7	1.5	5.7	15.4	0.0	5.7	3.8	4.7	8.8	0.0	5.2	4.3	6.6	2.9	0.0	6.4	5.6
Exiting Leg Total					7					44					6					50	107

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Wall Street from North					East Main Street (Route 202) from East					Willow Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	7	8	3	0	18	12	98	5	0	115	3	12	6	0	21	3	93	5	0	101	255
7:45 AM	5	11	2	0	18	14	114	5	0	133	9	21	13	0	43	2	78	4	0	84	278
8:00 AM	8	8	5	0	21	10	111	1	0	122	8	23	2	0	33	4	82	6	0	92	268
8:15 AM	4	8	2	0	14	5	105	3	0	113	6	9	4	0	19	7	59	7	0	73	219
Total Volume	24	35	12	0	71	41	428	14	0	483	26	65	25	0	116	16	312	22	0	350	1020
% Approach Total	33.8	49.3	16.9	0.0		8.5	88.6	2.9	0.0		22.4	56.0	21.6	0.0		4.6	89.1	6.3	0.0		
PHF	0.750	0.795	0.600	0.000	0.845	0.732	0.939	0.700	0.000	0.908	0.722	0.707	0.481	0.000	0.674	0.571	0.839	0.786	0.000	0.866	0.917
Cars	23	35	12	0	70	40	403	12	0	455	26	61	22	0	109	15	295	21	0	331	965
Cars %	95.8	100.0	100.0	0.0	98.6	97.6	94.2	85.7	0.0	94.2	100.0	93.8	88.0	0.0	94.0	93.8	94.6	95.5	0.0	94.6	94.6
Heavy Vehicles	1	0	0	0	1	1	25	2	0	28	0	4	3	0	7	1	17	1	0	19	55
Heavy Vehicles %	4.2	0.0	0.0	0.0	1.4	2.4	5.8	14.3	0.0	5.8	0.0	6.2	12.0	0.0	6.0	6.3	5.4	4.5	0.0	5.4	5.4
Cars Enter Leg	23	35	12	0	70	40	403	12	0	455	26	61	22	0	109	15	295	21	0	331	965
Heavy Enter Leg	1	0	0	0	1	1	25	2	0	28	0	4	3	0	7	1	17	1	0	19	55
Total Entering Leg	24	35	12	0	71	41	428	14	0	483	26	65	25	0	116	16	312	22	0	350	1020
Cars Exiting Leg					122					333					62					448	965
Heavy Exiting Leg					6					17					3					29	55
Total Exiting Leg					128					350					65					477	1020

PDI File #: **207479 BB**
Location: **N: Wall Street S: Willow Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Wall Street from North					East Main Street (Route 202) from East					Willow Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	7	8	2	0	17	2	93	3	0	98	14	9	5	0	28	4	94	3	0	101	244
11:15 AM	7	6	2	0	15	2	76	7	0	85	11	7	3	0	21	6	96	6	0	108	229
11:30 AM	9	7	5	0	21	2	104	6	0	112	8	9	4	0	21	4	97	11	0	112	266
11:45 AM	13	11	2	0	26	6	116	2	0	124	11	17	1	0	29	6	102	7	0	115	294
Total	36	32	11	0	79	12	389	18	0	419	44	42	13	0	99	20	389	27	0	436	1033
12:00 PM	16	14	4	0	34	6	96	7	0	109	11	6	7	0	24	3	116	10	0	129	296
12:15 PM	14	7	2	0	23	4	102	8	0	114	9	11	4	0	24	5	83	11	0	99	260
12:30 PM	10	7	5	0	22	11	110	4	0	125	12	11	3	0	26	7	106	8	0	121	294
12:45 PM	14	6	1	0	21	8	117	5	0	130	9	9	2	0	20	4	123	6	0	133	304
Total	54	34	12	0	100	29	425	24	0	478	41	37	16	0	94	19	428	35	0	482	1154
Grand Total	90	66	23	0	179	41	814	42	0	897	85	79	29	0	193	39	817	62	0	918	2187
Approach %	50.3	36.9	12.8	0.0		4.6	90.7	4.7	0.0		44.0	40.9	15.0	0.0		4.2	89.0	6.8	0.0		
Total %	4.1	3.0	1.1	0.0	8.2	1.9	37.2	1.9	0.0	41.0	3.9	3.6	1.3	0.0	8.8	1.8	37.4	2.8	0.0	42.0	
Exiting Leg Total					182					925					147					933	2187
Cars	89	61	21	0	171	37	783	35	0	855	77	74	28	0	179	36	777	62	0	875	2080
% Cars	98.9	92.4	91.3	0.0	95.5	90.2	96.2	83.3	0.0	95.3	90.6	93.7	96.6	0.0	92.7	92.3	95.1	100.0	0.0	95.3	95.1
Exiting Leg Total					173					875					132					900	2080
Heavy Vehicles	1	5	2	0	8	4	31	7	0	42	8	5	1	0	14	3	40	0	0	43	107
% Heavy Vehicles	1.1	7.6	8.7	0.0	4.5	9.8	3.8	16.7	0.0	4.7	9.4	6.3	3.4	0.0	7.3	7.7	4.9	0.0	0.0	4.7	4.9
Exiting Leg Total					9					50					15					33	107

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Wall Street from North					East Main Street (Route 202) from East					Willow Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	16	14	4	0	34	6	96	7	0	109	11	6	7	0	24	3	116	10	0	129	296
12:15 PM	14	7	2	0	23	4	102	8	0	114	9	11	4	0	24	5	83	11	0	99	260
12:30 PM	10	7	5	0	22	11	110	4	0	125	12	11	3	0	26	7	106	8	0	121	294
12:45 PM	14	6	1	0	21	8	117	5	0	130	9	9	2	0	20	4	123	6	0	133	304
Total Volume	54	34	12	0	100	29	425	24	0	478	41	37	16	0	94	19	428	35	0	482	1154
% Approach Total	54.0	34.0	12.0	0.0		6.1	88.9	5.0	0.0		43.6	39.4	17.0	0.0		3.9	88.8	7.3	0.0		
PHF	0.844	0.607	0.600	0.000	0.735	0.659	0.908	0.750	0.000	0.919	0.854	0.841	0.571	0.000	0.904	0.679	0.870	0.795	0.000	0.906	0.949
Cars	53	32	12	0	97	25	414	19	0	458	37	35	15	0	87	18	408	35	0	461	1103
Cars %	98.1	94.1	100.0	0.0	97.0	86.2	97.4	79.2	0.0	95.8	90.2	94.6	93.8	0.0	92.6	94.7	95.3	100.0	0.0	95.6	95.6
Heavy Vehicles	1	2	0	0	3	4	11	5	0	20	4	2	1	0	7	1	20	0	0	21	51
Heavy Vehicles %	1.9	5.9	0.0	0.0	3.0	13.8	2.6	20.8	0.0	4.2	9.8	5.4	6.3	0.0	7.4	5.3	4.7	0.0	0.0	4.4	4.4
Cars Enter Leg	53	32	12	0	97	25	414	19	0	458	37	35	15	0	87	18	408	35	0	461	1103
Heavy Enter Leg	1	2	0	0	3	4	11	5	0	20	4	2	1	0	7	1	20	0	0	21	51
Total Entering Leg	54	34	12	0	100	29	425	24	0	478	41	37	16	0	94	19	428	35	0	482	1154
Cars Exiting Leg					95					457					69					482	1103
Heavy Exiting Leg					6					24					8					13	51
Total Exiting Leg					101					481					77					495	1154

TRAFFIC COUNT DATA

PDI File #: **207479 BBB**
Location: **N: Wall Street S: Willow Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office:508-875-0100 Fax:508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Wall Street (from North)					East Main Street (Route 202) (from East)					Willow Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	14	20	3	0	37	5	125	8	0	138	12	17	1	0	30	9	136	8	0	153	358
4:15 PM	17	18	2	0	37	5	116	4	0	125	11	15	3	0	29	7	135	12	0	154	345
4:30 PM	19	15	6	0	40	6	122	5	0	133	8	15	9	0	32	3	148	10	0	161	366
4:45 PM	10	10	3	0	23	2	145	3	0	150	7	17	13	0	37	5	121	9	0	135	345
Total	60	63	14	0	137	18	508	20	0	546	38	64	26	0	128	24	540	39	0	603	1414
5:00 PM	11	21	16	0	48	7	113	4	0	124	10	7	4	0	21	4	151	7	0	162	355
5:15 PM	7	13	5	0	25	4	135	5	0	144	7	15	5	0	27	5	163	7	0	175	371
5:30 PM	8	16	6	0	30	9	123	4	0	136	8	17	6	0	31	6	108	5	0	119	316
5:45 PM	15	5	1	0	21	3	108	1	0	112	5	15	11	0	31	5	106	1	0	112	276
Total	41	55	28	0	124	23	479	14	0	516	30	54	26	0	110	20	528	20	0	568	1318
Grand Total	101	118	42	0	261	41	987	34	0	1062	68	118	52	0	238	44	1068	59	0	1171	2732
Approach %	38.7	45.2	16.1	0.0		3.9	92.9	3.2	0.0		28.6	49.6	21.8	0.0		3.8	91.2	5.0	0.0		
Total %	3.7	4.3	1.5	0.0	9.6	1.5	36.1	1.2	0.0	38.9	2.5	4.3	1.9	0.0	8.7	1.6	39.1	2.2	0.0	42.9	
Exiting Leg Total					218					1178					196					1140	2732
Cars	101	117	42	0	260	41	974	32	0	1047	66	116	50	0	232	43	1050	57	0	1150	2689
% Cars	100.0	99.2	100.0	0.0	99.6	100.0	98.7	94.1	0.0	98.6	97.1	98.3	96.2	0.0	97.5	97.7	98.3	96.6	0.0	98.2	98.4
Exiting Leg Total					214					1158					192					1125	2689
Heavy Vehicles	0	1	0	0	1	0	13	2	0	15	2	2	2	0	6	1	18	2	0	21	43
% Heavy Vehicles	0.0	0.8	0.0	0.0	0.4	0.0	1.3	5.9	0.0	1.4	2.9	1.7	3.8	0.0	2.5	2.3	1.7	3.4	0.0	1.8	1.6
Exiting Leg Total					4					20					4					15	43

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Wall Street (from North)					East Main Street (Route 202) (from East)					Willow Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	19	15	6	0	40	6	122	5	0	133	8	15	9	0	32	3	148	10	0	161	366
4:45 PM	10	10	3	0	23	2	145	3	0	150	7	17	13	0	37	5	121	9	0	135	345
5:00 PM	11	21	16	0	48	7	113	4	0	124	10	7	4	0	21	4	151	7	0	162	355
5:15 PM	7	13	5	0	25	4	135	5	0	144	7	15	5	0	27	5	163	7	0	175	371
Total Volume	47	59	30	0	136	19	515	17	0	551	32	54	31	0	117	17	583	33	0	633	1437
% Approach Total	34.6	43.4	22.1	0.0		3.4	93.5	3.1	0.0		27.4	46.2	26.5	0.0		2.7	92.1	5.2	0.0		
PHF	0.618	0.702	0.469	0.000	0.708	0.679	0.888	0.850	0.000	0.918	0.800	0.794	0.596	0.000	0.791	0.850	0.894	0.825	0.000	0.904	0.968
Cars	47	59	30	0	136	19	508	16	0	543	31	53	29	0	113	17	577	31	0	625	1417
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.6	94.1	0.0	98.5	96.9	98.1	93.5	0.0	96.6	100.0	99.0	93.9	0.0	98.7	98.6
Heavy Vehicles	0	0	0	0	0	0	7	1	0	8	1	1	2	0	4	0	6	2	0	8	20
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.9	0.0	1.5	3.1	1.9	6.5	0.0	3.4	0.0	1.0	6.1	0.0	1.3	1.4
Cars Enter Leg	47	59	30	0	136	19	508	16	0	543	31	53	29	0	113	17	577	31	0	625	1417
Heavy Enter Leg	0	0	0	0	0	0	7	1	0	8	1	1	2	0	4	0	6	2	0	8	20
Total Entering Leg	47	59	30	0	136	19	515	17	0	551	32	54	31	0	117	17	583	33	0	633	1437
Cars Exiting Leg					103					638					92					584	1417
Heavy Exiting Leg					3					7					1					9	20
Total Exiting Leg					106					645					93					593	1437

PDI File #: **207479 BBBB**
Location: **N: Wall Street S: Willow Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office:508-875-0100 Fax:508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Wall Street (from North)					East Main Street (Route 202) (from East)					Willow Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	9	5	3	0	17	4	74	6	0	84	10	10	2	0	22	5	97	7	0	109	232
11:15 AM	10	9	3	0	22	3	95	3	0	101	13	16	1	0	30	5	108	8	0	121	274
11:30 AM	5	12	5	0	22	5	109	6	0	120	4	11	5	0	20	3	94	5	0	102	264
11:45 AM	5	7	4	0	16	4	118	5	0	127	3	14	2	0	19	1	101	3	0	105	267
Total	29	33	15	0	77	16	396	20	0	432	30	51	10	0	91	14	400	23	0	437	1037
12:00 PM	11	9	9	0	29	8	129	2	0	139	10	7	2	0	19	4	92	14	0	110	297
12:15 PM	9	9	3	0	21	8	100	7	0	115	5	5	5	0	15	5	101	9	0	115	266
12:30 PM	10	8	3	0	21	8	121	4	0	133	5	10	2	0	17	4	122	9	0	135	306
12:45 PM	7	9	2	0	18	4	104	5	0	113	9	8	5	0	22	3	112	5	0	120	273
Total	37	35	17	0	89	28	454	18	0	500	29	30	14	0	73	16	427	37	0	480	1142
Grand Total	66	68	32	0	166	44	850	38	0	932	59	81	24	0	164	30	827	60	0	917	2179
Approach %	39.8	41.0	19.3	0.0		4.7	91.2	4.1	0.0		36.0	49.4	14.6	0.0		3.3	90.2	6.5	0.0		
Total %	3.0	3.1	1.5	0.0	7.6	2.0	39.0	1.7	0.0	42.8	2.7	3.7	1.1	0.0	7.5	1.4	38.0	2.8	0.0	42.1	
Exiting Leg Total					185					918					136					940	2179
Cars	66	63	32	0	161	44	844	36	0	924	57	81	24	0	162	30	818	59	0	907	2154
% Cars	100.0	92.6	100.0	0.0	97.0	100.0	99.3	94.7	0.0	99.1	96.6	100.0	100.0	0.0	98.8	100.0	98.9	98.3	0.0	98.9	98.9
Exiting Leg Total					184					907					129					934	2154
Heavy Vehicles	0	5	0	0	5	0	6	2	0	8	2	0	0	0	2	0	9	1	0	10	25
% Heavy Vehicles	0.0	7.4	0.0	0.0	3.0	0.0	0.7	5.3	0.0	0.9	3.4	0.0	0.0	0.0	1.2	0.0	1.1	1.7	0.0	1.1	1.1
Exiting Leg Total					1					11					7					6	25

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Wall Street (from North)					East Main Street (Route 202) (from East)					Willow Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	11	9	9	0	29	8	129	2	0	139	10	7	2	0	19	4	92	14	0	110	297
12:15 PM	9	9	3	0	21	8	100	7	0	115	5	5	5	0	15	5	101	9	0	115	266
12:30 PM	10	8	3	0	21	8	121	4	0	133	5	10	2	0	17	4	122	9	0	135	306
12:45 PM	7	9	2	0	18	4	104	5	0	113	9	8	5	0	22	3	112	5	0	120	273
Total Volume	37	35	17	0	89	28	454	18	0	500	29	30	14	0	73	16	427	37	0	480	1142
% Approach Total	41.6	39.3	19.1	0.0		5.6	90.8	3.6	0.0		39.7	41.1	19.2	0.0		3.3	89.0	7.7	0.0		
PHF	0.841	0.972	0.472	0.000	0.767	0.875	0.880	0.643	0.000	0.899	0.725	0.750	0.700	0.000	0.830	0.800	0.875	0.661	0.000	0.889	0.933
Cars	37	35	17	0	89	28	450	17	0	495	27	30	14	0	71	16	420	37	0	473	1128
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	99.1	94.4	0.0	99.0	93.1	100.0	100.0	0.0	97.3	100.0	98.4	100.0	0.0	98.5	98.8
Heavy Vehicles	0	0	0	0	0	0	4	1	0	5	2	0	0	0	2	0	7	0	0	7	14
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.9	5.6	0.0	1.0	6.9	0.0	0.0	0.0	2.7	0.0	1.6	0.0	0.0	1.5	1.2
Cars Enter Leg	37	35	17	0	89	28	450	17	0	495	27	30	14	0	71	16	420	37	0	473	1128
Heavy Enter Leg	0	0	0	0	0	0	4	1	0	5	2	0	0	0	2	0	7	0	0	7	14
Total Entering Leg	37	35	17	0	89	28	454	18	0	500	29	30	14	0	73	16	427	37	0	480	1142
Cars Exiting Leg					95					464					68					501	1128
Heavy Exiting Leg					0					9					1					4	14
Total Exiting Leg					95					473					69					505	1142

TRAFFIC COUNT DATA

PDI File #: **207479 C**
Location: **N: Brookside Avenue S: Maud Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Brookside Avenue from North					East Main Street (Route 202) from East					Maud Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	0	107	0	0	107	2	0	1	0	3	0	87	6	0	93	204
7:15 AM	0	0	0	0	0	0	87	1	0	88	1	0	1	0	2	1	85	1	0	87	177
7:30 AM	1	0	0	0	1	0	116	1	0	117	2	0	0	0	2	0	98	1	0	99	219
7:45 AM	1	0	0	0	1	0	137	2	0	139	0	0	1	0	1	0	93	0	0	93	234
Total	3	0	0	0	3	0	447	4	0	451	5	0	3	0	8	1	363	8	0	372	834
8:00 AM	0	0	0	0	0	0	125	0	0	125	4	0	2	0	6	1	94	2	0	97	228
8:15 AM	3	0	0	0	3	1	111	1	0	113	6	0	2	0	8	1	68	1	0	70	194
8:30 AM	0	0	0	0	0	0	100	0	0	100	1	0	0	0	1	2	98	3	0	103	204
8:45 AM	0	0	0	0	0	0	135	0	0	135	1	0	0	0	1	0	81	0	0	81	217
Total	3	0	0	0	3	1	471	1	0	473	12	0	4	0	16	4	341	6	0	351	843
Grand Total	6	0	0	0	6	1	918	5	0	924	17	0	7	0	24	5	704	14	0	723	1677
Approach %	100.0	0.0	0.0	0.0		0.1	99.4	0.5	0.0		70.8	0.0	29.2	0.0		0.7	97.4	1.9	0.0		
Total %	0.4	0.0	0.0	0.0	0.4	0.1	54.7	0.3	0.0	55.1	1.0	0.0	0.4	0.0	1.4	0.3	42.0	0.8	0.0	43.1	
Exiting Leg Total					15					721					10					931	1677
Cars	6	0	0	0	6	1	865	5	0	871	17	0	7	0	24	5	660	13	0	678	1579
% Cars	100.0	0.0	0.0	0.0	100.0	100.0	94.2	100.0	0.0	94.3	100.0	0.0	100.0	0.0	100.0	100.0	93.8	92.9	0.0	93.8	94.2
Exiting Leg Total					14					677					10					878	1579
Heavy Vehicles	0	0	0	0	0	0	53	0	0	53	0	0	0	0	0	0	44	1	0	45	98
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	6.3	7.1	0.0	6.2	5.8
Exiting Leg Total					1					44					0					53	98

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Brookside Avenue from North					East Main Street (Route 202) from East					Maud Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	1	0	0	0	1	0	116	1	0	117	2	0	0	0	2	0	98	1	0	99	219
7:45 AM	1	0	0	0	1	0	137	2	0	139	0	0	1	0	1	0	93	0	0	93	234
8:00 AM	0	0	0	0	0	0	125	0	0	125	4	0	2	0	6	1	94	2	0	97	228
8:15 AM	3	0	0	0	3	1	111	1	0	113	6	0	2	0	8	1	68	1	0	70	194
Total Volume	5	0	0	0	5	1	489	4	0	494	12	0	5	0	17	2	353	4	0	359	875
% Approach Total	100.0	0.0	0.0	0.0		0.2	99.0	0.8	0.0		70.6	0.0	29.4	0.0		0.6	98.3	1.1	0.0		
PHF	0.417	0.000	0.000	0.000	0.417	0.250	0.892	0.500	0.000	0.888	0.500	0.000	0.625	0.000	0.531	0.500	0.901	0.500	0.000	0.907	0.935
Cars	5	0	0	0	5	1	461	4	0	466	12	0	5	0	17	2	336	4	0	342	830
Cars %	100.0	0.0	0.0	0.0	100.0	100.0	94.3	100.0	0.0	94.3	100.0	0.0	100.0	0.0	100.0	100.0	95.2	100.0	0.0	95.3	94.9
Heavy Vehicles	0	0	0	0	0	0	28	0	0	28	0	0	0	0	0	0	17	0	0	17	45
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	4.7	5.1
Cars Enter Leg	5	0	0	0	5	1	461	4	0	466	12	0	5	0	17	2	336	4	0	342	830
Heavy Enter Leg	0	0	0	0	0	0	28	0	0	28	0	0	0	0	0	0	17	0	0	17	45
Total Entering Leg	5	0	0	0	5	1	489	4	0	494	12	0	5	0	17	2	353	4	0	359	875
Cars Exiting Leg					5					348					6					471	830
Heavy Exiting Leg					0					17					0					28	45
Total Exiting Leg					5					365					6					499	875

PDI File #: **207479 CC**
Location: **N: Brookside Avenue S: Maud Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Brookside Avenue from North					East Main Street (Route 202) from East					Maud Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	2	0	0	0	2	0	87	1	0	88	1	0	1	0	2	2	103	2	0	107	199
11:15 AM	1	0	0	0	1	0	92	0	0	92	0	0	0	0	0	2	106	1	0	109	202
11:30 AM	1	0	0	0	1	0	113	0	0	113	0	0	0	0	0	0	108	1	0	109	223
11:45 AM	0	0	0	0	0	1	120	2	0	123	5	0	2	0	7	1	113	4	0	118	248
Total	4	0	0	0	4	1	412	3	0	416	6	0	3	0	9	5	430	8	0	443	872
12:00 PM	5	0	0	0	5	0	103	2	0	105	0	0	0	0	0	3	129	2	0	134	244
12:15 PM	3	0	0	0	3	0	118	1	0	119	1	0	1	0	2	2	90	3	0	95	219
12:30 PM	2	0	0	0	2	0	127	0	0	127	2	0	2	0	4	3	121	2	0	126	259
12:45 PM	5	0	0	0	5	0	122	3	0	125	2	2	1	0	5	1	133	1	0	135	270
Total	15	0	0	0	15	0	470	6	0	476	5	2	4	0	11	9	473	8	0	490	992
Grand Total	19	0	0	0	19	1	882	9	0	892	11	2	7	0	20	14	903	16	0	933	1864
Approach %	100.0	0.0	0.0	0.0		0.1	98.9	1.0	0.0		55.0	10.0	35.0	0.0		1.5	96.8	1.7	0.0		
Total %	1.0	0.0	0.0	0.0	1.0	0.1	47.3	0.5	0.0	47.9	0.6	0.1	0.4	0.0	1.1	0.8	48.4	0.9	0.0	50.1	
Exiting Leg Total					19					914					23					908	1864
Cars	17	0	0	0	17	1	842	7	0	850	10	1	6	0	17	13	854	16	0	883	1767
% Cars	89.5	0.0	0.0	0.0	89.5	100.0	95.5	77.8	0.0	95.3	90.9	50.0	85.7	0.0	85.0	92.9	94.6	100.0	0.0	94.6	94.8
Exiting Leg Total					18					864					20					865	1767
Heavy Vehicles	2	0	0	0	2	0	40	2	0	42	1	1	1	0	3	1	49	0	0	50	97
% Heavy Vehicles	10.5	0.0	0.0	0.0	10.5	0.0	4.5	22.2	0.0	4.7	9.1	50.0	14.3	0.0	15.0	7.1	5.4	0.0	0.0	5.4	5.2
Exiting Leg Total					1					50					3					43	97

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Brookside Avenue from North					East Main Street (Route 202) from East					Maud Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	5	0	0	0	5	0	103	2	0	105	0	0	0	0	0	3	129	2	0	134	244
12:15 PM	3	0	0	0	3	0	118	1	0	119	1	0	1	0	2	2	90	3	0	95	219
12:30 PM	2	0	0	0	2	0	127	0	0	127	2	0	2	0	4	3	121	2	0	126	259
12:45 PM	5	0	0	0	5	0	122	3	0	125	2	2	1	0	5	1	133	1	0	135	270
Total Volume	15	0	0	0	15	0	470	6	0	476	5	2	4	0	11	9	473	8	0	490	992
% Approach Total	100.0	0.0	0.0	0.0		0.0	98.7	1.3	0.0		45.5	18.2	36.4	0.0		1.8	96.5	1.6	0.0		
PHF	0.750	0.000	0.000	0.000	0.750	0.000	0.925	0.500	0.000	0.937	0.625	0.250	0.500	0.000	0.550	0.750	0.889	0.667	0.000	0.907	0.919
Cars	13	0	0	0	13	0	454	5	0	459	5	1	3	0	9	8	449	8	0	465	946
Cars %	86.7	0.0	0.0	0.0	86.7	0.0	96.6	83.3	0.0	96.4	100.0	50.0	75.0	0.0	81.8	88.9	94.9	100.0	0.0	94.9	95.4
Heavy Vehicles	2	0	0	0	2	0	16	1	0	17	0	1	1	0	2	1	24	0	0	25	46
Heavy Vehicles %	13.3	0.0	0.0	0.0	13.3	0.0	3.4	16.7	0.0	3.6	0.0	50.0	25.0	0.0	18.2	11.1	5.1	0.0	0.0	5.1	4.6
Cars Enter Leg	13	0	0	0	13	0	454	5	0	459	5	1	3	0	9	8	449	8	0	465	946
Heavy Enter Leg	2	0	0	0	2	0	16	1	0	17	0	1	1	0	2	1	24	0	0	25	46
Total Entering Leg	15	0	0	0	15	0	470	6	0	476	5	2	4	0	11	9	473	8	0	490	992
Cars Exiting Leg					9					454					13					470	946
Heavy Exiting Leg					1					24					2					19	46
Total Exiting Leg					10					478					15					489	992

TRAFFIC COUNT DATA

PDI File #: **207479 CCC**
Location: **N: Brookside Avenue S: Maud Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Brookside Avenue (from North)					East Main Street (Route 202) (from East)					Maud Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	3	0	0	0	3	0	141	5	0	146	3	0	0	0	3	2	151	4	0	157	309
4:15 PM	3	0	1	0	4	0	129	2	0	131	1	0	1	0	2	1	144	5	0	150	287
4:30 PM	2	0	0	0	2	0	134	4	0	138	0	0	2	0	2	2	159	2	0	163	305
4:45 PM	2	0	0	0	2	0	147	3	0	150	4	0	0	0	4	3	123	6	0	132	288
Total	10	0	1	0	11	0	551	14	0	565	8	0	3	0	11	8	577	17	0	602	1189
5:00 PM	1	0	0	0	1	0	127	2	0	129	1	0	2	0	3	3	177	2	0	182	315
5:15 PM	3	0	0	0	3	0	140	4	0	144	1	0	3	0	4	2	171	2	0	175	326
5:30 PM	2	0	0	0	2	0	137	1	0	138	3	0	2	0	5	3	122	3	0	128	273
5:45 PM	3	0	0	0	3	0	115	2	0	117	1	0	2	0	3	0	108	4	0	112	235
Total	9	0	0	0	9	0	519	9	0	528	6	0	9	0	15	8	578	11	0	597	1149
Grand Total	19	0	1	0	20	0	1070	23	0	1093	14	0	12	0	26	16	1155	28	0	1199	2338
Approach %	95.0	0.0	5.0	0.0		0.0	97.9	2.1	0.0		53.8	0.0	46.2	0.0		1.3	96.3	2.3	0.0		
Total %	0.8	0.0	0.0	0.0	0.9	0.0	45.8	1.0	0.0	46.7	0.6	0.0	0.5	0.0	1.1	0.7	49.4	1.2	0.0	51.3	
Exiting Leg Total					28					1170					39					1101	2338
Cars	18	0	1	0	19	0	1056	23	0	1079	14	0	12	0	26	16	1135	28	0	1179	2303
% Cars	94.7	0.0	100.0	0.0	95.0	0.0	98.7	100.0	0.0	98.7	100.0	0.0	100.0	0.0	100.0	100.0	98.3	100.0	0.0	98.3	98.5
Exiting Leg Total					28					1150					39					1086	2303
Heavy Vehicles	1	0	0	0	1	0	14	0	0	14	0	0	0	0	0	0	20	0	0	20	35
% Heavy Vehicles	5.3	0.0	0.0	0.0	5.0	0.0	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.7	1.5
Exiting Leg Total					0					20					0					15	35

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Brookside Avenue (from North)					East Main Street (Route 202) (from East)					Maud Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	2	0	0	0	2	0	134	4	0	138	0	0	2	0	2	2	159	2	0	163	305
4:45 PM	2	0	0	0	2	0	147	3	0	150	4	0	0	0	4	3	123	6	0	132	288
5:00 PM	1	0	0	0	1	0	127	2	0	129	1	0	2	0	3	3	177	2	0	182	315
5:15 PM	3	0	0	0	3	0	140	4	0	144	1	0	3	0	4	2	171	2	0	175	326
Total Volume	8	0	0	0	8	0	548	13	0	561	6	0	7	0	13	10	630	12	0	652	1234
% Approach Total	100.0	0.0	0.0	0.0		0.0	97.7	2.3	0.0		46.2	0.0	53.8	0.0		1.5	96.6	1.8	0.0		
PHF	0.667	0.000	0.000	0.000	0.667	0.000	0.932	0.813	0.000	0.935	0.375	0.000	0.583	0.000	0.813	0.833	0.890	0.500	0.000	0.896	0.946
Cars	8	0	0	0	8	0	540	13	0	553	6	0	7	0	13	10	623	12	0	645	1219
Cars %	100.0	0.0	0.0	0.0	100.0	0.0	98.5	100.0	0.0	98.6	100.0	0.0	100.0	0.0	100.0	100.0	98.9	100.0	0.0	98.9	98.8
Heavy Vehicles	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	1.2
Cars Enter Leg	8	0	0	0	8	0	540	13	0	553	6	0	7	0	13	10	623	12	0	645	1219
Heavy Enter Leg	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15
Total Entering Leg	8	0	0	0	8	0	548	13	0	561	6	0	7	0	13	10	630	12	0	652	1234
Cars Exiting Leg					12					629					23					555	1219
Heavy Exiting Leg					0					7					0					8	15
Total Exiting Leg					12					636					23					563	1234

PDI File #: **207479 CCCC**
Location: **N: Brookside Avenue S: Maud Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Brookside Avenue (from North)					East Main Street (Route 202) (from East)					Maud Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	1	0	0	0	1	0	81	0	0	81	1	0	1	0	2	1	112	1	0	114	198
11:15 AM	0	0	0	0	0	0	100	0	0	100	4	0	3	0	7	4	119	0	0	123	230
11:30 AM	2	0	1	0	3	1	117	4	0	122	1	0	2	0	3	0	110	1	0	111	239
11:45 AM	2	0	0	0	2	0	122	0	0	122	1	0	1	0	2	1	105	1	0	107	233
Total	5	0	1	0	6	1	420	4	0	425	7	0	7	0	14	6	446	3	0	455	900
12:00 PM	1	0	0	0	1	1	140	4	0	145	1	0	2	0	3	0	103	6	0	109	258
12:15 PM	3	0	0	0	3	1	116	1	0	118	1	0	0	0	1	0	105	3	0	108	230
12:30 PM	5	0	0	0	5	1	132	1	0	134	1	0	1	0	2	1	134	3	0	138	279
12:45 PM	1	0	0	0	1	1	114	1	0	116	0	0	0	0	0	1	116	1	0	118	235
Total	10	0	0	0	10	4	502	7	0	513	3	0	3	0	6	2	458	13	0	473	1002
Grand Total	15	0	1	0	16	5	922	11	0	938	10	0	10	0	20	8	904	16	0	928	1902
Approach %	93.8	0.0	6.3	0.0		0.5	98.3	1.2	0.0		50.0	0.0	50.0	0.0		0.9	97.4	1.7	0.0		
Total %	0.8	0.0	0.1	0.0	0.8	0.3	48.5	0.6	0.0	49.3	0.5	0.0	0.5	0.0	1.1	0.4	47.5	0.8	0.0	48.8	
Exiting Leg Total					21					915					19					947	1902
Cars	15	0	1	0	16	5	915	10	0	930	10	0	9	0	19	8	895	15	0	918	1883
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	99.2	90.9	0.0	99.1	100.0	0.0	90.0	0.0	95.0	100.0	99.0	93.8	0.0	98.9	99.0
Exiting Leg Total					20					906					18					939	1883
Heavy Vehicles	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	0	9	1	0	10	19
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.8	9.1	0.0	0.9	0.0	0.0	10.0	0.0	5.0	0.0	1.0	6.3	0.0	1.1	1.0
Exiting Leg Total					1					9					1					8	19

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Brookside Avenue (from North)					East Main Street (Route 202) (from East)					Maud Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	1	0	0	0	1	1	140	4	0	145	1	0	2	0	3	0	103	6	0	109	258
12:15 PM	3	0	0	0	3	1	116	1	0	118	1	0	0	0	1	0	105	3	0	108	230
12:30 PM	5	0	0	0	5	1	132	1	0	134	1	0	1	0	2	1	134	3	0	138	279
12:45 PM	1	0	0	0	1	1	114	1	0	116	0	0	0	0	0	1	116	1	0	118	235
Total Volume	10	0	0	0	10	4	502	7	0	513	3	0	3	0	6	2	458	13	0	473	1002
% Approach Total	100.0	0.0	0.0	0.0		0.8	97.9	1.4	0.0		50.0	0.0	50.0	0.0		0.4	96.8	2.7	0.0		
PHF	0.500	0.000	0.000	0.000	0.500	1.000	0.896	0.438	0.000	0.884	0.750	0.000	0.375	0.000	0.500	0.500	0.854	0.542	0.000	0.857	0.898
Cars	10	0	0	0	10	4	497	7	0	508	3	0	3	0	6	2	451	12	0	465	989
Cars %	100.0	0.0	0.0	0.0	100.0	100.0	99.0	100.0	0.0	99.0	100.0	0.0	100.0	0.0	100.0	100.0	98.5	92.3	0.0	98.3	98.7
Heavy Vehicles	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	7	1	0	8	13
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	7.7	0.0	1.7	1.3
Cars Enter Leg	10	0	0	0	10	4	497	7	0	508	3	0	3	0	6	2	451	12	0	465	989
Heavy Enter Leg	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	7	1	0	8	13
Total Entering Leg	10	0	0	0	10	4	502	7	0	513	3	0	3	0	6	2	458	13	0	473	1002
Cars Exiting Leg					16					454					9					510	989
Heavy Exiting Leg					1					7					0					5	13
Total Exiting Leg					17					461					9					515	1002

TRAFFIC COUNT DATA

PDI File #: **207479 D**
Location: **N: Driveway S: Hillside Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Hillside Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	4	0	0	0	4	0	121	3	0	124	7	0	2	0	9	2	137	1	0	140	277
7:15 AM	1	1	0	0	2	0	108	2	0	110	5	1	2	0	8	1	137	0	0	138	258
7:30 AM	2	0	0	0	2	0	117	2	0	119	3	1	2	0	6	3	129	2	0	134	261
7:45 AM	1	0	0	0	1	0	125	1	0	126	4	3	5	0	12	4	118	0	0	122	261
Total	8	1	0	0	9	0	471	8	0	479	19	5	11	0	35	10	521	3	0	534	1057
8:00 AM	3	0	0	0	3	0	123	2	0	125	1	0	0	0	1	1	141	1	0	143	272
8:15 AM	1	0	1	0	2	0	104	2	0	106	4	1	9	0	14	3	103	1	0	107	229
8:30 AM	0	0	1	0	1	0	110	2	0	112	3	1	4	0	8	2	122	1	0	125	246
8:45 AM	3	1	0	0	4	0	109	1	0	110	5	1	3	0	9	3	117	3	0	123	246
Total	7	1	2	0	10	0	446	7	0	453	13	3	16	0	32	9	483	6	0	498	993
Grand Total	15	2	2	0	19	0	917	15	0	932	32	8	27	0	67	19	1004	9	0	1032	2050
Approach %	78.9	10.5	10.5	0.0		0.0	98.4	1.6	0.0		47.8	11.9	40.3	0.0		1.8	97.3	0.9	0.0		
Total %	0.7	0.1	0.1	0.0	0.9	0.0	44.7	0.7	0.0	45.5	1.6	0.4	1.3	0.0	3.3	0.9	49.0	0.4	0.0	50.3	
Exiting Leg Total					17					1038					36					959	2050
Cars	15	2	2	0	19	0	869	13	0	882	31	8	23	0	62	16	941	9	0	966	1929
% Cars	100.0	100.0	100.0	0.0	100.0	0.0	94.8	86.7	0.0	94.6	96.9	100.0	85.2	0.0	92.5	84.2	93.7	100.0	0.0	93.6	94.1
Exiting Leg Total					17					974					31					907	1929
Heavy Vehicles	0	0	0	0	0	0	48	2	0	50	1	0	4	0	5	3	63	0	0	66	121
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	5.2	13.3	0.0	5.4	3.1	0.0	14.8	0.0	7.5	15.8	6.3	0.0	0.0	6.4	5.9
Exiting Leg Total					0					64					5					52	121

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway from North					East Main Street (Route 202) from East					Hillside Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	4	0	0	0	4	0	121	3	0	124	7	0	2	0	9	2	137	1	0	140	277
7:15 AM	1	1	0	0	2	0	108	2	0	110	5	1	2	0	8	1	137	0	0	138	258
7:30 AM	2	0	0	0	2	0	117	2	0	119	3	1	2	0	6	3	129	2	0	134	261
7:45 AM	1	0	0	0	1	0	125	1	0	126	4	3	5	0	12	4	118	0	0	122	261
Total Volume	8	1	0	0	9	0	471	8	0	479	19	5	11	0	35	10	521	3	0	534	1057
% Approach Total	88.9	11.1	0.0	0.0		0.0	98.3	1.7	0.0		54.3	14.3	31.4	0.0		1.9	97.6	0.6	0.0		
PHF	0.500	0.250	0.000	0.000	0.563	0.000	0.942	0.667	0.000	0.950	0.679	0.417	0.550	0.000	0.729	0.625	0.951	0.375	0.000	0.954	0.954
Cars	8	1	0	0	9	0	440	7	0	447	18	5	11	0	34	9	492	3	0	504	994
Cars %	100.0	100.0	0.0	0.0	100.0	0.0	93.4	87.5	0.0	93.3	94.7	100.0	100.0	0.0	97.1	90.0	94.4	100.0	0.0	94.4	94.0
Heavy Vehicles	0	0	0	0	0	0	31	1	0	32	1	0	0	0	1	1	29	0	0	30	63
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	6.6	12.5	0.0	6.7	5.3	0.0	0.0	0.0	2.9	10.0	5.6	0.0	0.0	5.6	6.0
Cars Enter Leg	8	1	0	0	9	0	440	7	0	447	18	5	11	0	34	9	492	3	0	504	994
Heavy Enter Leg	0	0	0	0	0	0	31	1	0	32	1	0	0	0	1	1	29	0	0	30	63
Total Entering Leg	8	1	0	0	9	0	471	8	0	479	19	5	11	0	35	10	521	3	0	534	1057
Cars Exiting Leg					8					510					17					459	994
Heavy Exiting Leg					0					30					2					31	63
Total Exiting Leg					8					540					19					490	1057

PDI File #: **207479 DD**
Location: **N: Driveway S: Hillside Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Hillside Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	4	0	0	0	4	0	86	2	0	88	2	0	0	0	2	5	109	9	0	123	217
11:15 AM	6	1	0	0	7	0	95	3	0	98	3	0	1	0	4	3	127	1	0	131	240
11:30 AM	4	0	1	0	5	1	114	1	0	116	3	0	0	0	3	5	124	1	0	130	254
11:45 AM	5	0	0	0	5	0	123	3	0	126	5	0	0	0	5	3	130	5	0	138	274
Total	19	1	1	0	21	1	418	9	0	428	13	0	1	0	14	16	490	16	0	522	985
12:00 PM	3	0	2	0	5	0	108	1	0	109	3	1	1	0	5	5	138	4	0	147	266
12:15 PM	6	0	0	0	6	0	123	1	1	125	5	1	1	0	7	3	126	4	0	133	271
12:30 PM	6	0	0	0	6	2	119	2	0	123	2	0	1	0	3	3	132	6	0	141	273
12:45 PM	2	0	0	0	2	0	119	3	0	122	4	0	3	0	7	2	149	10	0	161	292
Total	17	0	2	0	19	2	469	7	1	479	14	2	6	0	22	13	545	24	0	582	1102
Grand Total	36	1	3	0	40	3	887	16	1	907	27	2	7	0	36	29	1035	40	0	1104	2087
Approach %	90.0	2.5	7.5	0.0		0.3	97.8	1.8	0.1		75.0	5.6	19.4	0.0		2.6	93.8	3.6	0.0		
Total %	1.7	0.0	0.1	0.0	1.9	0.1	42.5	0.8	0.0	43.5	1.3	0.1	0.3	0.0	1.7	1.4	49.6	1.9	0.0	52.9	
Exiting Leg Total					45					1066					46					930	2087
Cars	35	1	3	0	39	3	846	16	1	866	26	2	7	0	35	27	995	39	0	1061	2001
% Cars	97.2	100.0	100.0	0.0	97.5	100.0	95.4	100.0	100.0	95.5	96.3	100.0	100.0	0.0	97.2	93.1	96.1	97.5	0.0	96.1	95.9
Exiting Leg Total					44					1025					44					888	2001
Heavy Vehicles	1	0	0	0	1	0	41	0	0	41	1	0	0	0	1	2	40	1	0	43	86
% Heavy Vehicles	2.8	0.0	0.0	0.0	2.5	0.0	4.6	0.0	0.0	4.5	3.7	0.0	0.0	0.0	2.8	6.9	3.9	2.5	0.0	3.9	4.1
Exiting Leg Total					1					41					2					42	86

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Driveway from North					East Main Street (Route 202) from East					Hillside Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	3	0	2	0	5	0	108	1	0	109	3	1	1	0	5	5	138	4	0	147	266
12:15 PM	6	0	0	0	6	0	123	1	1	125	5	1	1	0	7	3	126	4	0	133	271
12:30 PM	6	0	0	0	6	2	119	2	0	123	2	0	1	0	3	3	132	6	0	141	273
12:45 PM	2	0	0	0	2	0	119	3	0	122	4	0	3	0	7	2	149	10	0	161	292
Total Volume	17	0	2	0	19	2	469	7	1	479	14	2	6	0	22	13	545	24	0	582	1102
% Approach Total	89.5	0.0	10.5	0.0		0.4	97.9	1.5	0.2		63.6	9.1	27.3	0.0		2.2	93.6	4.1	0.0		
PHF	0.708	0.000	0.250	0.000	0.792	0.250	0.953	0.583	0.250	0.958	0.700	0.500	0.500	0.000	0.786	0.650	0.914	0.600	0.000	0.904	0.943
Cars	16	0	2	0	18	2	449	7	1	459	14	2	6	0	22	12	525	23	0	560	1059
Cars %	94.1	0.0	100.0	0.0	94.7	100.0	95.7	100.0	100.0	95.8	100.0	100.0	100.0	0.0	100.0	92.3	96.3	95.8	0.0	96.2	96.1
Heavy Vehicles	1	0	0	0	1	0	20	0	0	20	0	0	0	0	0	1	20	1	0	22	43
Heavy Vehicles %	5.9	0.0	0.0	0.0	5.3	0.0	4.3	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	7.7	3.7	4.2	0.0	3.8	3.9
Cars Enter Leg	16	0	2	0	18	2	449	7	1	459	14	2	6	0	22	12	525	23	0	560	1059
Heavy Enter Leg	1	0	0	0	1	0	20	0	0	20	0	0	0	0	0	1	20	1	0	22	43
Total Entering Leg	17	0	2	0	19	2	469	7	1	479	14	2	6	0	22	13	545	24	0	582	1102
Cars Exiting Leg					27					542					19					471	1059
Heavy Exiting Leg					1					20					1					21	43
Total Exiting Leg					28					562					20					492	1102

TRAFFIC COUNT DATA

PDI File #: **207479 DDD**
Location: **N: Driveway S: Hillside Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway (from North)					East Main Street (Route 202) (from East)					Hillside Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	0	1	0	9	1	141	5	0	147	6	2	3	0	11	10	180	4	0	194	361
4:15 PM	7	1	0	0	8	0	129	1	0	130	2	1	5	0	8	4	194	4	0	202	348
4:30 PM	10	0	0	0	10	0	130	0	0	130	4	0	2	0	6	9	205	7	0	221	367
4:45 PM	5	1	0	0	6	0	131	2	0	133	2	0	2	0	4	16	195	1	0	212	355
Total	30	2	1	0	33	1	531	8	0	540	14	3	12	0	29	39	774	16	0	829	1431
5:00 PM	4	0	0	0	4	0	140	4	0	144	5	1	1	0	7	8	194	2	0	204	359
5:15 PM	8	0	0	0	8	1	149	2	0	152	2	0	3	0	5	11	225	2	0	238	403
5:30 PM	2	2	1	0	5	0	122	4	0	126	4	1	0	0	5	6	176	5	0	187	323
5:45 PM	3	0	1	0	4	1	111	1	0	113	3	0	5	0	8	3	157	4	0	164	289
Total	17	2	2	0	21	2	522	11	0	535	14	2	9	0	25	28	752	13	0	793	1374
Grand Total	47	4	3	0	54	3	1053	19	0	1075	28	5	21	0	54	67	1526	29	0	1622	2805
Approach %	87.0	7.4	5.6	0.0		0.3	98.0	1.8	0.0		51.9	9.3	38.9	0.0		4.1	94.1	1.8	0.0		
Total %	1.7	0.1	0.1	0.0	1.9	0.1	37.5	0.7	0.0	38.3	1.0	0.2	0.7	0.0	1.9	2.4	54.4	1.0	0.0	57.8	
Exiting Leg Total					37					1557					90					1121	2805
Cars	46	4	3	0	53	3	1037	19	0	1059	26	5	21	0	52	66	1507	29	0	1602	2766
% Cars	97.9	100.0	100.0	0.0	98.1	100.0	98.5	100.0	0.0	98.5	92.9	100.0	100.0	0.0	96.3	98.5	98.8	100.0	0.0	98.8	98.6
Exiting Leg Total					37					1536					89					1104	2766
Heavy Vehicles	1	0	0	0	1	0	16	0	0	16	2	0	0	0	2	1	19	0	0	20	39
% Heavy Vehicles	2.1	0.0	0.0	0.0	1.9	0.0	1.5	0.0	0.0	1.5	7.1	0.0	0.0	0.0	3.7	1.5	1.2	0.0	0.0	1.2	1.4
Exiting Leg Total					0					21					1					17	39

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Driveway (from North)					East Main Street (Route 202) (from East)					Hillside Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	10	0	0	0	10	0	130	0	0	130	4	0	2	0	6	9	205	7	0	221	367
4:45 PM	5	1	0	0	6	0	131	2	0	133	2	0	2	0	4	16	195	1	0	212	355
5:00 PM	4	0	0	0	4	0	140	4	0	144	5	1	1	0	7	8	194	2	0	204	359
5:15 PM	8	0	0	0	8	1	149	2	0	152	2	0	3	0	5	11	225	2	0	238	403
Total Volume	27	1	0	0	28	1	550	8	0	559	13	1	8	0	22	44	819	12	0	875	1484
% Approach Total	96.4	3.6	0.0	0.0		0.2	98.4	1.4	0.0		59.1	4.5	36.4	0.0		5.0	93.6	1.4	0.0		
PHF	0.675	0.250	0.000	0.000	0.700	0.250	0.923	0.500	0.000	0.919	0.650	0.250	0.667	0.000	0.786	0.688	0.910	0.429	0.000	0.919	0.921
Cars	26	1	0	0	27	1	541	8	0	550	13	1	8	0	22	44	812	12	0	868	1467
Cars %	96.3	100.0	0.0	0.0	96.4	100.0	98.4	100.0	0.0	98.4	100.0	100.0	100.0	0.0	100.0	100.0	99.1	100.0	0.0	99.2	98.9
Heavy Vehicles	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	17
Heavy Vehicles %	3.7	0.0	0.0	0.0	3.6	0.0	1.6	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	1.1
Cars Enter Leg	26	1	0	0	27	1	541	8	0	550	13	1	8	0	22	44	812	12	0	868	1467
Heavy Enter Leg	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	17
Total Entering Leg	27	1	0	0	28	1	550	8	0	559	13	1	8	0	22	44	819	12	0	875	1484
Cars Exiting Leg					14					825					53					575	1467
Heavy Exiting Leg					0					7					0					10	17
Total Exiting Leg					14					832					53					585	1484

PDI File #: **207479 DDDD**
Location: **N: Driveway S: Hillside Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway (from North)					East Main Street (Route 202) (from East)					Hillside Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	2	0	1	0	3	0	105	1	0	106	4	0	1	0	5	5	138	5	0	148	262
11:15 AM	3	0	0	0	3	1	118	0	0	119	4	0	4	0	8	3	155	6	0	164	294
11:30 AM	4	0	0	0	4	0	131	0	0	131	3	0	0	0	3	4	121	6	0	131	269
11:45 AM	11	0	0	0	11	0	125	1	0	126	4	0	4	0	8	6	153	5	0	164	309
Total	20	0	1	0	21	1	479	2	0	482	15	0	9	0	24	18	567	22	0	607	1134
12:00 PM	5	1	0	0	6	0	128	5	0	133	1	1	3	0	5	8	143	7	0	158	302
12:15 PM	6	0	2	0	8	0	124	1	0	125	6	0	3	0	9	4	137	2	0	143	285
12:30 PM	2	0	1	0	3	0	131	4	0	135	4	0	4	0	8	3	151	8	0	162	308
12:45 PM	3	0	1	0	4	0	110	1	0	111	5	0	1	0	6	7	146	2	0	155	276
Total	16	1	4	0	21	0	493	11	0	504	16	1	11	0	28	22	577	19	0	618	1171
Grand Total	36	1	5	0	42	1	972	13	0	986	31	1	20	0	52	40	1144	41	0	1225	2305
Approach %	85.7	2.4	11.9	0.0		0.1	98.6	1.3	0.0		59.6	1.9	38.5	0.0		3.3	93.4	3.3	0.0		
Total %	1.6	0.0	0.2	0.0	1.8	0.0	42.2	0.6	0.0	42.8	1.3	0.0	0.9	0.0	2.3	1.7	49.6	1.8	0.0	53.1	
Exiting Leg Total					43					1180					54					1028	2305
Cars	36	1	5	0	42	1	956	13	0	970	31	1	20	0	52	40	1130	41	0	1211	2275
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	98.4	100.0	0.0	98.4	100.0	100.0	100.0	0.0	100.0	100.0	98.8	100.0	0.0	98.9	98.7
Exiting Leg Total					43					1166					54					1012	2275
Heavy Vehicles	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	14	0	0	14	30
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.1	1.3
Exiting Leg Total					0					14					0					16	30

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Driveway (from North)					East Main Street (Route 202) (from East)					Hillside Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	11	0	0	0	11	0	125	1	0	126	4	0	4	0	8	6	153	5	0	164	309
12:00 PM	5	1	0	0	6	0	128	5	0	133	1	1	3	0	5	8	143	7	0	158	302
12:15 PM	6	0	2	0	8	0	124	1	0	125	6	0	3	0	9	4	137	2	0	143	285
12:30 PM	2	0	1	0	3	0	131	4	0	135	4	0	4	0	8	3	151	8	0	162	308
Total Volume	24	1	3	0	28	0	508	11	0	519	15	1	14	0	30	21	584	22	0	627	1204
% Approach Total	85.7	3.6	10.7	0.0		0.0	97.9	2.1	0.0		50.0	3.3	46.7	0.0		3.3	93.1	3.5	0.0		
PHF	0.545	0.250	0.375	0.000	0.636	0.000	0.969	0.550	0.000	0.961	0.625	0.250	0.875	0.000	0.833	0.656	0.954	0.688	0.000	0.956	0.974
Cars	24	1	3	0	28	0	497	11	0	508	15	1	14	0	30	21	578	22	0	621	1187
Cars %	100.0	100.0	100.0	0.0	100.0	0.0	97.8	100.0	0.0	97.9	100.0	100.0	100.0	0.0	100.0	100.0	99.0	100.0	0.0	99.0	98.6
Heavy Vehicles	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	6	0	0	6	17
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	1.4
Cars Enter Leg	24	1	3	0	28	0	497	11	0	508	15	1	14	0	30	21	578	22	0	621	1187
Heavy Enter Leg	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	6	0	0	6	17
Total Entering Leg	24	1	3	0	28	0	508	11	0	519	15	1	14	0	30	21	584	22	0	627	1204
Cars Exiting Leg					23					596					33					535	1187
Heavy Exiting Leg					0					6					0					11	17
Total Exiting Leg					23					602					33					546	1204

TRAFFIC COUNT DATA

PDI File #: **207479 E**
Location: **N: Driveway S: Orchard Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office:508-875-0100 Fax:508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	1	108	0	0	109	0	0	0	0	0	1	113	1	0	115	225
7:15 AM	1	0	0	0	1	0	106	0	0	106	0	0	0	0	0	2	120	0	0	122	229
7:30 AM	0	0	0	0	0	0	111	0	0	111	0	0	2	0	2	0	125	0	0	125	238
7:45 AM	0	0	0	0	0	0	128	0	0	128	1	0	1	0	2	0	128	3	0	131	261
Total	2	0	0	0	2	1	453	0	0	454	1	0	3	0	4	3	486	4	0	493	953
8:00 AM	2	0	1	0	3	0	95	1	0	96	3	0	0	0	3	1	146	2	0	149	251
8:15 AM	0	0	0	0	0	0	106	0	0	106	0	0	0	0	0	0	112	0	0	112	218
8:30 AM	0	0	0	0	0	0	126	0	0	126	0	0	0	0	0	0	135	0	0	135	261
8:45 AM	0	0	0	0	0	0	110	0	0	110	0	0	0	0	0	2	125	0	0	127	237
Total	2	0	1	0	3	0	437	1	0	438	3	0	0	0	3	3	518	2	0	523	967
Grand Total	4	0	1	0	5	1	890	1	0	892	4	0	3	0	7	6	1004	6	0	1016	1920
Approach %	80.0	0.0	20.0	0.0		0.1	99.8	0.1	0.0		57.1	0.0	42.9	0.0		0.6	98.8	0.6	0.0		
Total %	0.2	0.0	0.1	0.0	0.3	0.1	46.4	0.1	0.0	46.5	0.2	0.0	0.2	0.0	0.4	0.3	52.3	0.3	0.0	52.9	
Exiting Leg Total					7					1009					7					897	1920
Cars	4	0	1	0	5	1	832	0	0	833	3	0	3	0	6	6	932	6	0	944	1788
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	93.5	0.0	0.0	93.4	75.0	0.0	100.0	0.0	85.7	100.0	92.8	100.0	0.0	92.9	93.1
Exiting Leg Total					7					936					6					839	1788
Heavy Vehicles	0	0	0	0	0	0	58	1	0	59	1	0	0	0	1	0	72	0	0	72	132
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	6.5	100.0	0.0	6.6	25.0	0.0	0.0	0.0	14.3	0.0	7.2	0.0	0.0	7.1	6.9
Exiting Leg Total					0					73					1					58	132

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	128	0	0	128	1	0	1	0	2	0	128	3	0	131	261
8:00 AM	2	0	1	0	3	0	95	1	0	96	3	0	0	0	3	1	146	2	0	149	251
8:15 AM	0	0	0	0	0	0	106	0	0	106	0	0	0	0	0	0	112	0	0	112	218
8:30 AM	0	0	0	0	0	0	126	0	0	126	0	0	0	0	0	0	135	0	0	135	261
Total Volume	2	0	1	0	3	0	455	1	0	456	4	0	1	0	5	1	521	5	0	527	991
% Approach Total	66.7	0.0	33.3	0.0		0.0	99.8	0.2	0.0		80.0	0.0	20.0	0.0		0.2	98.9	0.9	0.0		
PHF	0.250	0.000	0.250	0.000	0.250	0.000	0.889	0.250	0.000	0.891	0.333	0.000	0.250	0.000	0.417	0.250	0.892	0.417	0.000	0.884	0.949
Cars	2	0	1	0	3	0	427	0	0	427	3	0	1	0	4	1	483	5	0	489	923
Cars %	100.0	0.0	100.0	0.0	100.0	0.0	93.8	0.0	0.0	93.6	75.0	0.0	100.0	0.0	80.0	100.0	92.7	100.0	0.0	92.8	93.1
Heavy Vehicles	0	0	0	0	0	0	28	1	0	29	1	0	0	0	1	0	38	0	0	38	68
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	6.2	100.0	0.0	6.4	25.0	0.0	0.0	0.0	20.0	0.0	7.3	0.0	0.0	7.2	6.9
Cars Enter Leg	2	0	1	0	3	0	427	0	0	427	3	0	1	0	4	1	483	5	0	489	923
Heavy Enter Leg	0	0	0	0	0	0	28	1	0	29	1	0	0	0	1	0	38	0	0	38	68
Total Entering Leg	2	0	1	0	3	0	455	1	0	456	4	0	1	0	5	1	521	5	0	527	991
Cars Exiting Leg					5					487					1					430	923
Heavy Exiting Leg					0					39					1					28	68
Total Exiting Leg					5					526					2					458	991

PDI File #: **207479 EE**
Location: **N: Driveway S: Orchard Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office:508-875-0100 Fax:508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	0	118	0	0	118	0	0	0	0	0	0	162	0	0	162	280
11:15 AM	1	0	0	0	1	0	135	0	0	135	0	0	2	0	2	0	170	1	0	171	309
11:30 AM	0	0	0	0	0	1	158	1	0	160	0	0	0	0	0	3	169	0	0	172	332
11:45 AM	1	0	0	0	1	0	142	1	0	143	1	0	2	0	3	0	178	0	0	178	325
Total	2	0	0	0	2	1	553	2	0	556	1	0	4	0	5	3	679	1	0	683	1246
12:00 PM	1	0	0	0	1	1	136	0	0	137	0	0	0	0	0	1	149	0	0	150	288
12:15 PM	2	0	0	0	2	0	161	0	0	161	0	0	1	0	1	2	158	0	0	160	324
12:30 PM	0	0	0	0	0	0	157	0	0	157	0	0	0	0	0	0	168	1	0	169	326
12:45 PM	0	0	1	0	1	0	182	0	0	182	0	0	0	0	0	1	188	0	0	189	372
Total	3	0	1	0	4	1	636	0	0	637	0	0	1	0	1	4	663	1	0	668	1310
Grand Total	5	0	1	0	6	2	1189	2	0	1193	1	0	5	0	6	7	1342	2	0	1351	2556
Approach %	83.3	0.0	16.7	0.0		0.2	99.7	0.2	0.0		16.7	0.0	83.3	0.0		0.5	99.3	0.1	0.0		
Total %	0.2	0.0	0.0	0.0	0.2	0.1	46.5	0.1	0.0	46.7	0.0	0.0	0.2	0.0	0.2	0.3	52.5	0.1	0.0	52.9	
Exiting Leg Total					4					1344					9					1199	2556
Cars	5	0	1	0	6	2	1145	1	0	1148	0	0	4	0	4	6	1301	2	0	1309	2467
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	96.3	50.0	0.0	96.2	0.0	0.0	80.0	0.0	66.7	85.7	96.9	100.0	0.0	96.9	96.5
Exiting Leg Total					4					1302					7					1154	2467
Heavy Vehicles	0	0	0	0	0	0	44	1	0	45	1	0	1	0	2	1	41	0	0	42	89
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	3.7	50.0	0.0	3.8	100.0	0.0	20.0	0.0	33.3	14.3	3.1	0.0	0.0	3.1	3.5
Exiting Leg Total					0					42					2					45	89

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	1	0	0	0	1	1	136	0	0	137	0	0	0	0	0	1	149	0	0	150	288
12:15 PM	2	0	0	0	2	0	161	0	0	161	0	0	1	0	1	2	158	0	0	160	324
12:30 PM	0	0	0	0	0	0	157	0	0	157	0	0	0	0	0	0	168	1	0	169	326
12:45 PM	0	0	1	0	1	0	182	0	0	182	0	0	0	0	0	1	188	0	0	189	372
Total Volume	3	0	1	0	4	1	636	0	0	637	0	0	1	0	1	4	663	1	0	668	1310
% Approach Total	75.0	0.0	25.0	0.0		0.2	99.8	0.0	0.0		0.0	0.0	100.0	0.0		0.6	99.3	0.1	0.0		
PHF	0.375	0.000	0.250	0.000	0.500	0.250	0.874	0.000	0.000	0.875	0.000	0.000	0.250	0.000	0.250	0.500	0.882	0.250	0.000	0.884	0.880
Cars	3	0	1	0	4	1	612	0	0	613	0	0	1	0	1	4	649	1	0	654	1272
Cars %	100.0	0.0	100.0	0.0	100.0	100.0	96.2	0.0	0.0	96.2	0.0	0.0	100.0	0.0	100.0	100.0	97.9	100.0	0.0	97.9	97.1
Heavy Vehicles	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	14	0	0	14	38
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	2.9
Cars Enter Leg	3	0	1	0	4	1	612	0	0	613	0	0	1	0	1	4	649	1	0	654	1272
Heavy Enter Leg	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	14	0	0	14	38
Total Entering Leg	3	0	1	0	4	1	636	0	0	637	0	0	1	0	1	4	663	1	0	668	1310
Cars Exiting Leg					2					650					4					616	1272
Heavy Exiting Leg					0					14					0					24	38
Total Exiting Leg					2					664					4					640	1310

TRAFFIC COUNT DATA

PDI File #: **207479 EEE**
Location: **N: Driveway S: Orchard Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	0	1	0	186	0	0	186	0	0	0	0	0	1	197	1	0	199	386
4:15 PM	0	0	0	0	0	0	186	1	0	187	0	0	1	0	1	0	226	1	0	227	415
4:30 PM	2	0	1	0	3	0	182	0	0	182	0	0	0	0	0	1	226	0	0	227	412
4:45 PM	0	0	1	0	1	1	149	0	0	150	1	0	0	0	1	2	220	1	0	223	375
Total	3	0	2	0	5	1	703	1	0	705	1	0	1	0	2	4	869	3	0	876	1588
5:00 PM	1	0	0	0	1	0	193	0	0	193	0	0	1	0	1	3	198	0	0	201	396
5:15 PM	0	0	0	0	0	1	209	0	0	210	0	0	0	0	0	1	214	0	0	215	425
5:30 PM	0	0	0	0	0	0	148	3	0	151	2	0	0	0	2	0	182	0	0	182	335
5:45 PM	1	0	0	0	1	0	167	0	0	167	0	0	0	0	0	1	198	0	0	199	367
Total	2	0	0	0	2	1	717	3	0	721	2	0	1	0	3	5	792	0	0	797	1523
Grand Total	5	0	2	0	7	2	1420	4	0	1426	3	0	2	0	5	9	1661	3	0	1673	3111
Approach %	71.4	0.0	28.6	0.0		0.1	99.6	0.3	0.0		60.0	0.0	40.0	0.0		0.5	99.3	0.2	0.0		
Total %	0.2	0.0	0.1	0.0	0.2	0.1	45.6	0.1	0.0	45.8	0.1	0.0	0.1	0.0	0.2	0.3	53.4	0.1	0.0	53.8	
Exiting Leg Total					5					1666					13					1427	3111
Cars	5	0	2	0	7	2	1402	4	0	1408	3	0	2	0	5	8	1635	3	0	1646	3066
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	98.7	100.0	0.0	98.7	100.0	0.0	100.0	0.0	100.0	88.9	98.4	100.0	0.0	98.4	98.6
Exiting Leg Total					5					1640					12					1409	3066
Heavy Vehicles	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	1	26	0	0	27	45
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	11.1	1.6	0.0	0.0	1.6	1.4
Exiting Leg Total					0					26					1					18	45

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	2	0	1	0	3	0	182	0	0	182	0	0	0	0	0	1	226	0	0	227	412
4:45 PM	0	0	1	0	1	1	149	0	0	150	1	0	0	0	1	2	220	1	0	223	375
5:00 PM	1	0	0	0	1	0	193	0	0	193	0	0	1	0	1	3	198	0	0	201	396
5:15 PM	0	0	0	0	0	1	209	0	0	210	0	0	0	0	0	1	214	0	0	215	425
Total Volume	3	0	2	0	5	2	733	0	0	735	1	0	1	0	2	7	858	1	0	866	1608
% Approach Total	60.0	0.0	40.0	0.0		0.3	99.7	0.0	0.0		50.0	0.0	50.0	0.0		0.8	99.1	0.1	0.0		
PHF	0.375	0.000	0.500	0.000	0.417	0.500	0.877	0.000	0.000	0.875	0.250	0.000	0.250	0.000	0.500	0.583	0.949	0.250	0.000	0.954	0.946
Cars	3	0	2	0	5	2	723	0	0	725	1	0	1	0	2	6	848	1	0	855	1587
Cars %	100.0	0.0	100.0	0.0	100.0	100.0	98.6	0.0	0.0	98.6	100.0	0.0	100.0	0.0	100.0	85.7	98.8	100.0	0.0	98.7	98.7
Heavy Vehicles	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	1	10	0	0	11	21
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	14.3	1.2	0.0	0.0	1.3	1.3
Cars Enter Leg	3	0	2	0	5	2	723	0	0	725	1	0	1	0	2	6	848	1	0	855	1587
Heavy Enter Leg	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	1	10	0	0	11	21
Total Entering Leg	3	0	2	0	5	2	733	0	0	735	1	0	1	0	2	7	858	1	0	866	1608
Cars Exiting Leg					3					851					6					727	1587
Heavy Exiting Leg					0					10					1					10	21
Total Exiting Leg					3					861					7					737	1608

PDI File #: **207479 EEEE**
Location: **N: Driveway S: Orchard Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	0	165	0	0	165	1	0	1	0	2	1	199	0	0	200	367
11:15 AM	0	0	0	0	0	0	172	0	0	172	0	0	0	0	0	0	189	0	0	189	361
11:30 AM	0	0	1	0	1	1	158	1	0	160	0	0	1	0	1	0	182	0	0	182	344
11:45 AM	0	0	0	0	0	0	192	0	0	192	3	0	0	0	3	1	210	0	0	211	406
Total	0	0	1	0	1	1	687	1	0	689	4	0	2	0	6	2	780	0	0	782	1478
12:00 PM	0	0	0	0	0	0	157	1	0	158	1	0	1	0	2	0	193	0	0	193	353
12:15 PM	0	0	0	0	0	0	179	1	0	180	1	0	2	0	3	0	192	0	0	192	375
12:30 PM	0	0	0	0	0	0	172	0	0	172	1	0	0	0	1	0	190	0	0	190	363
12:45 PM	1	0	0	0	1	0	181	1	0	182	0	0	0	0	0	1	184	0	0	185	368
Total	1	0	0	0	1	0	689	3	0	692	3	0	3	0	6	1	759	0	0	760	1459
Grand Total	1	0	1	0	2	1	1376	4	0	1381	7	0	5	0	12	3	1539	0	0	1542	2937
Approach %	50.0	0.0	50.0	0.0		0.1	99.6	0.3	0.0		58.3	0.0	41.7	0.0		0.2	99.8	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.1	0.0	46.9	0.1	0.0	47.0	0.2	0.0	0.2	0.0	0.4	0.1	52.4	0.0	0.0	52.5	
Exiting Leg Total					1					1547					7					1382	2937
Cars	1	0	1	0	2	1	1361	4	0	1366	7	0	5	0	12	3	1523	0	0	1526	2906
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	98.9	100.0	0.0	98.9	100.0	0.0	100.0	0.0	100.0	100.0	99.0	0.0	0.0	99.0	98.9
Exiting Leg Total					1					1531					7					1367	2906
Heavy Vehicles	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	16	0	0	16	31
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	1.1
Exiting Leg Total					0					16					0					15	31

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Driveway from North					East Main Street (Route 202) from East					Orchard Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	0	0	0	0	0	0	192	0	0	192	3	0	0	0	3	1	210	0	0	211	406
12:00 PM	0	0	0	0	0	0	157	1	0	158	1	0	1	0	2	0	193	0	0	193	353
12:15 PM	0	0	0	0	0	0	179	1	0	180	1	0	2	0	3	0	192	0	0	192	375
12:30 PM	0	0	0	0	0	0	172	0	0	172	1	0	0	0	1	0	190	0	0	190	363
Total Volume	0	0	0	0	0	0	700	2	0	702	6	0	3	0	9	1	785	0	0	786	1497
% Approach Total	0.0	0.0	0.0	0.0		0.0	99.7	0.3	0.0		66.7	0.0	33.3	0.0		0.1	99.9	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.911	0.500	0.000	0.914	0.500	0.000	0.375	0.000	0.750	0.250	0.935	0.000	0.000	0.931	0.922
Cars	0	0	0	0	0	0	690	2	0	692	6	0	3	0	9	1	779	0	0	780	1481
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	98.6	100.0	0.0	98.6	100.0	0.0	100.0	0.0	100.0	100.0	99.2	0.0	0.0	99.2	98.9
Heavy Vehicles	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	6	0	0	6	16
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	1.1
Cars Enter Leg	0	0	0	0	0	0	690	2	0	692	6	0	3	0	9	1	779	0	0	780	1481
Heavy Enter Leg	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	6	0	0	6	16
Total Entering Leg	0	0	0	0	0	0	700	2	0	702	6	0	3	0	9	1	785	0	0	786	1497
Cars Exiting Leg					0					785					3					693	1481
Heavy Exiting Leg					0					6					0					10	16
Total Exiting Leg					0					791					3					703	1497

TRAFFIC COUNT DATA

PDI File #: **207479 F**
Location: **N: Yorkshire Street S: Pineridge Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Yorkshire Street (from North)					East Main Street (Route 202) (from East)					Pineridge Road (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	3	0	4	2	96	1	0	99	5	1	5	0	11	1	105	0	0	106	220
7:15 AM	2	1	1	0	4	2	101	1	0	104	5	0	0	0	5	3	125	1	0	129	242
7:30 AM	3	2	0	0	5	0	97	4	0	101	4	3	1	0	8	4	122	0	0	126	240
7:45 AM	3	0	3	0	6	3	114	4	0	121	0	2	3	0	5	2	120	1	0	123	255
Total	9	3	7	0	19	7	408	10	0	425	14	6	9	0	29	10	472	2	0	484	957
8:00 AM	1	1	1	0	3	9	86	1	0	96	3	1	2	0	6	6	134	0	0	140	245
8:15 AM	0	1	3	0	4	1	99	2	0	102	2	0	2	0	4	2	107	0	0	109	219
8:30 AM	0	1	5	0	6	5	119	4	0	128	4	1	2	0	7	3	131	2	0	136	277
8:45 AM	1	0	4	0	5	2	96	2	0	100	3	2	5	0	10	1	118	1	0	120	235
Total	2	3	13	0	18	17	400	9	0	426	12	4	11	0	27	12	490	3	0	505	976
Grand Total	11	6	20	0	37	24	808	19	0	851	26	10	20	0	56	22	962	5	0	989	1933
Approach %	29.7	16.2	54.1	0.0		2.8	94.9	2.2	0.0		46.4	17.9	35.7	0.0		2.2	97.3	0.5	0.0		
Total %	0.6	0.3	1.0	0.0	1.9	1.2	41.8	1.0	0.0	44.0	1.3	0.5	1.0	0.0	2.9	1.1	49.8	0.3	0.0	51.2	
Exiting Leg Total					39					1008					47					839	1933
Cars	11	6	18	0	35	20	751	18	0	789	25	9	19	0	53	21	898	5	0	924	1801
% Cars	100.0	100.0	90.0	0.0	94.6	83.3	92.9	94.7	0.0	92.7	96.2	90.0	95.0	0.0	94.6	95.5	93.3	100.0	0.0	93.4	93.2
Exiting Leg Total					34					941					45					781	1801
Heavy Vehicles	0	0	2	0	2	4	57	1	0	62	1	1	1	0	3	1	64	0	0	65	132
% Heavy Vehicles	0.0	0.0	10.0	0.0	5.4	16.7	7.1	5.3	0.0	7.3	3.8	10.0	5.0	0.0	5.4	4.5	6.7	0.0	0.0	6.6	6.8
Exiting Leg Total					5					67					2					58	132

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Yorkshire Street (from North)					East Main Street (Route 202) (from East)					Pineridge Road (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	3	0	3	0	6	3	114	4	0	121	0	2	3	0	5	2	120	1	0	123	255
8:00 AM	1	1	1	0	3	9	86	1	0	96	3	1	2	0	6	6	134	0	0	140	245
8:15 AM	0	1	3	0	4	1	99	2	0	102	2	0	2	0	4	2	107	0	0	109	219
8:30 AM	0	1	5	0	6	5	119	4	0	128	4	1	2	0	7	3	131	2	0	136	277
Total Volume	4	3	12	0	19	18	418	11	0	447	9	4	9	0	22	13	492	3	0	508	996
% Approach Total	21.1	15.8	63.2	0.0		4.0	93.5	2.5	0.0		40.9	18.2	40.9	0.0		2.6	96.9	0.6	0.0		
PHF	0.333	0.750	0.600	0.000	0.792	0.500	0.878	0.688	0.000	0.873	0.563	0.500	0.750	0.000	0.786	0.542	0.918	0.375	0.000	0.907	0.899
Cars	4	3	10	0	17	15	394	10	0	419	8	4	9	0	21	13	459	3	0	475	932
Cars %	100.0	100.0	83.3	0.0	89.5	83.3	94.3	90.9	0.0	93.7	88.9	100.0	100.0	0.0	95.5	100.0	93.3	100.0	0.0	93.5	93.6
Heavy Vehicles	0	0	2	0	2	3	24	1	0	28	1	0	0	0	1	0	33	0	0	33	64
Heavy Vehicles %	0.0	0.0	16.7	0.0	10.5	16.7	5.7	9.1	0.0	6.3	11.1	0.0	0.0	0.0	4.5	0.0	6.7	0.0	0.0	6.5	6.4
Cars Enter Leg	4	3	10	0	17	15	394	10	0	419	8	4	9	0	21	13	459	3	0	475	932
Heavy Enter Leg	0	0	2	0	2	3	24	1	0	28	1	0	0	0	1	0	33	0	0	33	64
Total Entering Leg	4	3	12	0	19	18	418	11	0	447	9	4	9	0	22	13	492	3	0	508	996
Cars Exiting Leg					22					477					26					407	932
Heavy Exiting Leg					3					36					1					24	64
Total Exiting Leg					25					513					27					431	996

PDI File #: **207479 FF**
Location: **N: Yorkshire Street S: Pineridge Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Yorkshire Street (from North)					East Main Street (Route 202) (from East)					Pineridge Road (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	1	0	2	0	3	2	128	2	0	132	6	2	0	0	8	3	149	2	0	154	297
11:15 AM	1	3	3	0	7	2	122	2	0	126	6	2	3	0	11	1	164	0	0	165	309
11:30 AM	2	1	3	0	6	5	146	1	0	152	6	0	4	0	10	3	164	2	0	169	337
11:45 AM	2	0	2	0	4	2	135	3	0	140	10	0	2	0	12	2	168	3	0	173	329
Total	6	4	10	0	20	11	531	8	0	550	28	4	9	0	41	9	645	7	0	661	1272
12:00 PM	2	1	4	0	7	3	153	7	0	163	5	0	4	0	9	3	153	1	0	157	336
12:15 PM	2	2	6	0	10	2	150	3	0	155	6	0	5	0	11	3	153	3	0	159	335
12:30 PM	2	1	3	0	6	3	148	4	0	155	3	3	7	0	13	3	148	2	0	153	327
12:45 PM	9	0	5	0	14	8	167	6	0	181	9	1	5	0	15	5	186	3	0	194	404
Total	15	4	18	0	37	16	618	20	0	654	23	4	21	0	48	14	640	9	0	663	1402
Grand Total	21	8	28	0	57	27	1149	28	0	1204	51	8	30	0	89	23	1285	16	0	1324	2674
Approach %	36.8	14.0	49.1	0.0		2.2	95.4	2.3	0.0		57.3	9.0	33.7	0.0		1.7	97.1	1.2	0.0		
Total %	0.8	0.3	1.0	0.0	2.1	1.0	43.0	1.0	0.0	45.0	1.9	0.3	1.1	0.0	3.3	0.9	48.1	0.6	0.0	49.5	
Exiting Leg Total					51					1364					59					1200	2674
Cars	21	8	27	0	56	26	1104	27	0	1157	49	8	30	0	87	23	1245	15	0	1283	2583
% Cars	100.0	100.0	96.4	0.0	98.2	96.3	96.1	96.4	0.0	96.1	96.1	100.0	100.0	0.0	97.8	100.0	96.9	93.8	0.0	96.9	96.6
Exiting Leg Total					49					1321					58					1155	2583
Heavy Vehicles	0	0	1	0	1	1	45	1	0	47	2	0	0	0	2	0	40	1	0	41	91
% Heavy Vehicles	0.0	0.0	3.6	0.0	1.8	3.7	3.9	3.6	0.0	3.9	3.9	0.0	0.0	0.0	2.2	0.0	3.1	6.3	0.0	3.1	3.4
Exiting Leg Total					2					43					1					45	91

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Yorkshire Street (from North)					East Main Street (Route 202) (from East)					Pineridge Road (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	2	1	4	0	7	3	153	7	0	163	5	0	4	0	9	3	153	1	0	157	336
12:15 PM	2	2	6	0	10	2	150	3	0	155	6	0	5	0	11	3	153	3	0	159	335
12:30 PM	2	1	3	0	6	3	148	4	0	155	3	3	7	0	13	3	148	2	0	153	327
12:45 PM	9	0	5	0	14	8	167	6	0	181	9	1	5	0	15	5	186	3	0	194	404
Total Volume	15	4	18	0	37	16	618	20	0	654	23	4	21	0	48	14	640	9	0	663	1402
% Approach Total	40.5	10.8	48.6	0.0		2.4	94.5	3.1	0.0		47.9	8.3	43.8	0.0		2.1	96.5	1.4	0.0		
PHF	0.417	0.500	0.750	0.000	0.661	0.500	0.925	0.714	0.000	0.903	0.639	0.333	0.750	0.000	0.800	0.700	0.860	0.750	0.000	0.854	0.868
Cars	15	4	18	0	37	15	595	19	0	629	21	4	21	0	46	14	627	9	0	650	1362
Cars %	100.0	100.0	100.0	0.0	100.0	93.8	96.3	95.0	0.0	96.2	91.3	100.0	100.0	0.0	95.8	100.0	98.0	100.0	0.0	98.0	97.1
Heavy Vehicles	0	0	0	0	0	1	23	1	0	25	2	0	0	0	2	0	13	0	0	13	40
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	6.3	3.7	5.0	0.0	3.8	8.7	0.0	0.0	0.0	4.2	0.0	2.0	0.0	0.0	2.0	2.9
Cars Enter Leg	15	4	18	0	37	15	595	19	0	629	21	4	21	0	46	14	627	9	0	650	1362
Heavy Enter Leg	0	0	0	0	0	1	23	1	0	25	2	0	0	0	2	0	13	0	0	13	40
Total Entering Leg	15	4	18	0	37	16	618	20	0	654	23	4	21	0	48	14	640	9	0	663	1402
Cars Exiting Leg					28					666					37					631	1362
Heavy Exiting Leg					1					15					1					23	40
Total Exiting Leg					29					681					38					654	1402

TRAFFIC COUNT DATA

PDI File #: **207479 FFF**
Location: **N: Yorkshire Street S: Pineridge Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Yorkshire Street from North					East Main Street (Route 202) from East					Pineridge Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	2	7	0	11	1	169	3	0	173	8	0	7	0	15	3	184	1	0	188	387
4:15 PM	3	1	3	0	7	4	177	4	0	185	4	1	8	0	13	7	195	2	0	204	409
4:30 PM	2	3	4	0	9	5	173	8	0	186	13	1	6	0	20	3	213	6	0	222	437
4:45 PM	4	2	7	0	13	3	151	7	0	161	10	2	6	0	18	3	217	2	0	222	414
Total	11	8	21	0	40	13	670	22	0	705	35	4	27	0	66	16	809	11	0	836	1647
5:00 PM	3	4	10	0	17	6	176	10	0	192	8	2	9	0	19	5	187	1	0	193	421
5:15 PM	2	1	4	0	7	3	212	3	0	218	7	0	8	0	15	5	194	1	0	200	440
5:30 PM	0	3	2	0	5	3	141	7	0	151	10	4	4	0	18	7	169	1	0	177	351
5:45 PM	0	1	2	0	3	1	174	4	0	179	9	2	4	0	15	2	185	0	0	187	384
Total	5	9	18	0	32	13	703	24	0	740	34	8	25	0	67	19	735	3	0	757	1596
Grand Total	16	17	39	0	72	26	1373	46	0	1445	69	12	52	0	133	35	1544	14	0	1593	3243
Approach %	22.2	23.6	54.2	0.0		1.8	95.0	3.2	0.0		51.9	9.0	39.1	0.0		2.2	96.9	0.9	0.0		
Total %	0.5	0.5	1.2	0.0	2.2	0.8	42.3	1.4	0.0	44.6	2.1	0.4	1.6	0.0	4.1	1.1	47.6	0.4	0.0	49.1	
Exiting Leg Total					52					1652					98					1441	3243
Cars	16	17	39	0	72	26	1356	46	0	1428	68	11	52	0	131	35	1515	14	0	1564	3195
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	98.8	100.0	0.0	98.8	98.6	91.7	100.0	0.0	98.5	100.0	98.1	100.0	0.0	98.2	98.5
Exiting Leg Total					51					1622					98					1424	3195
Heavy Vehicles	0	0	0	0	0	0	17	0	0	17	1	1	0	0	2	0	29	0	0	29	48
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	1.4	8.3	0.0	0.0	1.5	0.0	1.9	0.0	0.0	1.8	1.5
Exiting Leg Total					1					30					0					17	48

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Yorkshire Street from North					East Main Street (Route 202) from East					Pineridge Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	2	3	4	0	9	5	173	8	0	186	13	1	6	0	20	3	213	6	0	222	437
4:45 PM	4	2	7	0	13	3	151	7	0	161	10	2	6	0	18	3	217	2	0	222	414
5:00 PM	3	4	10	0	17	6	176	10	0	192	8	2	9	0	19	5	187	1	0	193	421
5:15 PM	2	1	4	0	7	3	212	3	0	218	7	0	8	0	15	5	194	1	0	200	440
Total Volume	11	10	25	0	46	17	712	28	0	757	38	5	29	0	72	16	811	10	0	837	1712
% Approach Total	23.9	21.7	54.3	0.0		2.2	94.1	3.7	0.0		52.8	6.9	40.3	0.0		1.9	96.9	1.2	0.0		
PHF	0.688	0.625	0.625	0.000	0.676	0.708	0.840	0.700	0.000	0.868	0.731	0.625	0.806	0.000	0.900	0.800	0.934	0.417	0.000	0.943	0.973
Cars	11	10	25	0	46	17	702	28	0	747	38	4	29	0	71	16	798	10	0	824	1688
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.6	100.0	0.0	98.7	100.0	80.0	100.0	0.0	98.6	100.0	98.4	100.0	0.0	98.4	98.6
Heavy Vehicles	0	0	0	0	0	0	10	0	0	10	0	1	0	0	1	0	13	0	0	13	24
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.3	0.0	20.0	0.0	0.0	1.4	0.0	1.6	0.0	0.0	1.6	1.4
Cars Enter Leg	11	10	25	0	46	17	702	28	0	747	38	4	29	0	71	16	798	10	0	824	1688
Heavy Enter Leg	0	0	0	0	0	0	10	0	0	10	0	1	0	0	1	0	13	0	0	13	24
Total Entering Leg	11	10	25	0	46	17	712	28	0	757	38	5	29	0	72	16	811	10	0	837	1712
Cars Exiting Leg					31					861					54					742	1688
Heavy Exiting Leg					1					13					0					10	24
Total Exiting Leg					32					874					54					752	1712

PDI File #: **207479 FFFF**
Location: **N: Yorkshire Street S: Pineridge Road**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Yorkshire Street from North					East Main Street (Route 202) from East					Pineridge Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	5	2	2	0	9	7	137	5	0	149	9	1	8	0	18	6	205	2	0	213	389
11:15 AM	3	3	7	0	13	2	160	4	0	166	7	0	4	0	11	4	185	2	0	191	381
11:30 AM	2	2	10	0	14	8	160	0	0	168	4	1	6	0	11	2	197	3	0	202	395
11:45 AM	2	2	4	0	8	5	199	4	0	208	9	0	8	0	17	4	202	6	0	212	445
Total	12	9	23	0	44	22	656	13	0	691	29	2	26	0	57	16	789	13	0	818	1610
12:00 PM	1	0	6	0	7	4	155	5	0	164	7	0	2	0	9	4	199	0	0	203	383
12:15 PM	4	1	3	0	8	3	170	4	0	177	6	1	5	0	12	7	180	0	0	187	384
12:30 PM	3	1	3	0	7	4	177	6	0	187	5	2	4	0	11	1	187	4	0	192	397
12:45 PM	3	1	11	0	15	4	171	5	0	180	3	3	9	0	15	5	170	2	0	177	387
Total	11	3	23	0	37	15	673	20	0	708	21	6	20	0	47	17	736	6	0	759	1551
Grand Total	23	12	46	0	81	37	1329	33	0	1399	50	8	46	0	104	33	1525	19	0	1577	3161
Approach %	28.4	14.8	56.8	0.0		2.6	95.0	2.4	0.0		48.1	7.7	44.2	0.0		2.1	96.7	1.2	0.0		
Total %	0.7	0.4	1.5	0.0	2.6	1.2	42.0	1.0	0.0	44.3	1.6	0.3	1.5	0.0	3.3	1.0	48.2	0.6	0.0	49.9	
Exiting Leg Total					64					1621					78					1398	3161
Cars	23	12	46	0	81	37	1315	33	0	1385	50	8	46	0	104	32	1511	18	0	1561	3131
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	98.9	100.0	0.0	99.0	100.0	100.0	100.0	0.0	100.0	97.0	99.1	94.7	0.0	99.0	99.1
Exiting Leg Total					63					1607					77					1384	3131
Heavy Vehicles	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	1	14	1	0	16	30
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	0.9	5.3	0.0	1.0	0.9
Exiting Leg Total					1					14					1					14	30

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Yorkshire Street from North					East Main Street (Route 202) from East					Pineridge Road from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	5	2	2	0	9	7	137	5	0	149	9	1	8	0	18	6	205	2	0	213	389
11:15 AM	3	3	7	0	13	2	160	4	0	166	7	0	4	0	11	4	185	2	0	191	381
11:30 AM	2	2	10	0	14	8	160	0	0	168	4	1	6	0	11	2	197	3	0	202	395
11:45 AM	2	2	4	0	8	5	199	4	0	208	9	0	8	0	17	4	202	6	0	212	445
Total Volume	12	9	23	0	44	22	656	13	0	691	29	2	26	0	57	16	789	13	0	818	1610
% Approach Total	27.3	20.5	52.3	0.0		3.2	94.9	1.9	0.0		50.9	3.5	45.6	0.0		2.0	96.5	1.6	0.0		
PHF	0.600	0.750	0.575	0.000	0.786	0.688	0.824	0.650	0.000	0.831	0.806	0.500	0.813	0.000	0.792	0.667	0.962	0.542	0.000	0.960	0.904
Cars	12	9	23	0	44	22	649	13	0	684	29	2	26	0	57	16	777	13	0	806	1591
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.9	100.0	0.0	99.0	100.0	100.0	100.0	0.0	100.0	100.0	98.5	100.0	0.0	98.5	98.8
Heavy Vehicles	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	12	0	0	12	19
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	1.2
Cars Enter Leg	12	9	23	0	44	22	649	13	0	684	29	2	26	0	57	16	777	13	0	806	1591
Heavy Enter Leg	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	12	0	0	12	19
Total Entering Leg	12	9	23	0	44	22	656	13	0	691	29	2	26	0	57	16	789	13	0	818	1610
Cars Exiting Leg					37					829					38					687	1591
Heavy Exiting Leg					0					12					0					7	19
Total Exiting Leg					37					841					38					694	1610

TRAFFIC COUNT DATA

PDI File #: **207479 G**
Location: **N: Koury Terrace S: Buena Vista Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Koury Terrace (from North)					East Main Street (Route 202) (from East)					Buena Vista Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	95	1	0	96	1	1	4	0	6	3	108	0	0	111	213
7:15 AM	1	1	0	0	2	1	103	0	0	104	1	1	2	0	4	2	128	2	0	132	242
7:30 AM	1	1	1	0	3	1	99	0	0	100	4	0	3	0	7	1	122	4	0	127	237
7:45 AM	0	0	0	0	0	3	112	0	0	115	0	1	6	0	7	0	128	1	0	129	251
Total	2	2	1	0	5	5	409	1	0	415	6	3	15	0	24	6	486	7	0	499	943
8:00 AM	0	0	2	0	2	2	97	0	0	99	0	0	5	0	5	3	136	2	0	141	247
8:15 AM	2	0	1	0	3	1	98	1	0	100	4	2	3	0	9	2	103	1	0	106	218
8:30 AM	4	0	3	0	7	4	115	2	0	121	2	0	6	0	8	1	133	4	0	138	274
8:45 AM	3	1	0	0	4	10	99	1	0	110	3	0	2	0	5	1	123	5	0	129	248
Total	9	1	6	0	16	17	409	4	0	430	9	2	16	0	27	7	495	12	0	514	987
Grand Total	11	3	7	0	21	22	818	5	0	845	15	5	31	0	51	13	981	19	0	1013	1930
Approach %	52.4	14.3	33.3	0.0		2.6	96.8	0.6	0.0		29.4	9.8	60.8	0.0		1.3	96.8	1.9	0.0		
Total %	0.6	0.2	0.4	0.0	1.1	1.1	42.4	0.3	0.0	43.8	0.8	0.3	1.6	0.0	2.6	0.7	50.8	1.0	0.0	52.5	
Exiting Leg Total					46					1003					21					860	1930
Cars	10	3	7	0	20	22	768	4	0	794	14	4	27	0	45	12	917	19	0	948	1807
% Cars	90.9	100.0	100.0	0.0	95.2	100.0	93.9	80.0	0.0	94.0	93.3	80.0	87.1	0.0	88.2	92.3	93.5	100.0	0.0	93.6	93.6
Exiting Leg Total					45					938					19					805	1807
Heavy Vehicles	1	0	0	0	1	0	50	1	0	51	1	1	4	0	6	1	64	0	0	65	123
% Heavy Vehicles	9.1	0.0	0.0	0.0	4.8	0.0	6.1	20.0	0.0	6.0	6.7	20.0	12.9	0.0	11.8	7.7	6.5	0.0	0.0	6.4	6.4
Exiting Leg Total					1					65					2					55	123

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Koury Terrace (from North)					East Main Street (Route 202) (from East)					Buena Vista Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	3	112	0	0	115	0	1	6	0	7	0	128	1	0	129	251
8:00 AM	0	0	2	0	2	2	97	0	0	99	0	0	5	0	5	3	136	2	0	141	247
8:15 AM	2	0	1	0	3	1	98	1	0	100	4	2	3	0	9	2	103	1	0	106	218
8:30 AM	4	0	3	0	7	4	115	2	0	121	2	0	6	0	8	1	133	4	0	138	274
Total Volume	6	0	6	0	12	10	422	3	0	435	6	3	20	0	29	6	500	8	0	514	990
% Approach Total	50.0	0.0	50.0	0.0		2.3	97.0	0.7	0.0		20.7	10.3	69.0	0.0		1.2	97.3	1.6	0.0		
PHF	0.375	0.000	0.500	0.000	0.429	0.625	0.917	0.375	0.000	0.899	0.375	0.375	0.833	0.000	0.806	0.500	0.919	0.500	0.000	0.911	0.903
Cars	5	0	6	0	11	10	399	2	0	411	6	2	17	0	25	5	468	8	0	481	928
Cars %	83.3	0.0	100.0	0.0	91.7	100.0	94.5	66.7	0.0	94.5	100.0	66.7	85.0	0.0	86.2	83.3	93.6	100.0	0.0	93.6	93.7
Heavy Vehicles	1	0	0	0	1	0	23	1	0	24	0	1	3	0	4	1	32	0	0	33	62
Heavy Vehicles %	16.7	0.0	0.0	0.0	8.3	0.0	5.5	33.3	0.0	5.5	0.0	33.3	15.0	0.0	13.8	16.7	6.4	0.0	0.0	6.4	6.3
Cars Enter Leg	5	0	6	0	11	10	399	2	0	411	6	2	17	0	25	5	468	8	0	481	928
Heavy Enter Leg	1	0	0	0	1	0	23	1	0	24	0	1	3	0	4	1	32	0	0	33	62
Total Entering Leg	6	0	6	0	12	10	422	3	0	435	6	3	20	0	29	6	500	8	0	514	990
Cars Exiting Leg					20					480					7					421	928
Heavy Exiting Leg					1					32					2					27	62
Total Exiting Leg					21					512					9					448	990

PDI File #: **207479 GG**
Location: **N: Koury Terrace S: Buena Vista Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Koury Terrace (from North)					East Main Street (Route 202) (from East)					Buena Vista Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	2	1	4	0	7	4	120	2	0	126	0	2	8	0	10	3	154	3	0	160	303
11:15 AM	5	1	1	0	7	5	120	1	0	126	2	1	7	0	10	0	169	5	0	174	317
11:30 AM	5	2	3	0	10	3	140	1	0	144	2	1	12	0	15	5	172	0	0	177	346
11:45 AM	1	1	5	0	7	0	137	1	0	138	3	0	3	0	6	5	167	7	0	179	330
Total	13	5	13	0	31	12	517	5	0	534	7	4	30	0	41	13	662	15	0	690	1296
12:00 PM	7	1	8	0	16	1	146	1	0	148	6	1	10	0	17	2	155	4	0	161	342
12:15 PM	6	0	7	0	13	2	141	2	0	145	3	0	8	0	11	5	151	3	0	159	328
12:30 PM	4	0	1	0	5	6	154	2	0	162	0	1	8	0	9	5	149	4	0	158	334
12:45 PM	7	2	2	0	11	2	168	2	0	172	5	1	6	0	12	4	184	4	0	192	387
Total	24	3	18	0	45	11	609	7	0	627	14	3	32	0	49	16	639	15	0	670	1391
Grand Total	37	8	31	0	76	23	1126	12	0	1161	21	7	62	0	90	29	1301	30	0	1360	2687
Approach %	48.7	10.5	40.8	0.0		2.0	97.0	1.0	0.0		23.3	7.8	68.9	0.0		2.1	95.7	2.2	0.0		
Total %	1.4	0.3	1.2	0.0	2.8	0.9	41.9	0.4	0.0	43.2	0.8	0.3	2.3	0.0	3.3	1.1	48.4	1.1	0.0	50.6	
Exiting Leg Total					60					1353					49					1225	2687
Cars	35	7	31	0	73	22	1087	12	0	1121	20	5	59	0	84	25	1263	30	0	1318	2596
% Cars	94.6	87.5	100.0	0.0	96.1	95.7	96.5	100.0	0.0	96.6	95.2	71.4	95.2	0.0	93.3	86.2	97.1	100.0	0.0	96.9	96.6
Exiting Leg Total					57					1314					44					1181	2596
Heavy Vehicles	2	1	0	0	3	1	39	0	0	40	1	2	3	0	6	4	38	0	0	42	91
% Heavy Vehicles	5.4	12.5	0.0	0.0	3.9	4.3	3.5	0.0	0.0	3.4	4.8	28.6	4.8	0.0	6.7	13.8	2.9	0.0	0.0	3.1	3.4
Exiting Leg Total					3					39					5					44	91

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Koury Terrace (from North)					East Main Street (Route 202) (from East)					Buena Vista Avenue (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	7	1	8	0	16	1	146	1	0	148	6	1	10	0	17	2	155	4	0	161	342
12:15 PM	6	0	7	0	13	2	141	2	0	145	3	0	8	0	11	5	151	3	0	159	328
12:30 PM	4	0	1	0	5	6	154	2	0	162	0	1	8	0	9	5	149	4	0	158	334
12:45 PM	7	2	2	0	11	2	168	2	0	172	5	1	6	0	12	4	184	4	0	192	387
Total Volume	24	3	18	0	45	11	609	7	0	627	14	3	32	0	49	16	639	15	0	670	1391
% Approach Total	53.3	6.7	40.0	0.0		1.8	97.1	1.1	0.0		28.6	6.1	65.3	0.0		2.4	95.4	2.2	0.0		
PHF	0.857	0.375	0.563	0.000	0.703	0.458	0.906	0.875	0.000	0.911	0.583	0.750	0.800	0.000	0.721	0.800	0.868	0.938	0.000	0.872	0.899
Cars	23	2	18	0	43	10	587	7	0	604	13	2	32	0	47	14	625	15	0	654	1348
Cars %	95.8	66.7	100.0	0.0	95.6	90.9	96.4	100.0	0.0	96.3	92.9	66.7	100.0	0.0	95.9	87.5	97.8	100.0	0.0	97.6	96.9
Heavy Vehicles	1	1	0	0	2	1	22	0	0	23	1	1	0	0	2	2	14	0	0	16	43
Heavy Vehicles %	4.2	33.3	0.0	0.0	4.4	9.1	3.6	0.0	0.0	3.7	7.1	33.3	0.0	0.0	4.1	12.5	2.2	0.0	0.0	2.4	3.1
Cars Enter Leg	23	2	18	0	43	10	587	7	0	604	13	2	32	0	47	14	625	15	0	654	1348
Heavy Enter Leg	1	1	0	0	2	1	22	0	0	23	1	1	0	0	2	2	14	0	0	16	43
Total Entering Leg	24	3	18	0	45	11	609	7	0	627	14	3	32	0	49	16	639	15	0	670	1391
Cars Exiting Leg					27					656					23					642	1348
Heavy Exiting Leg					2					15					3					23	43
Total Exiting Leg					29					671					26					665	1391

TRAFFIC COUNT DATA

PDI File #: **207479 GGG**
Location: **N: Koury Terrace S: Buena Vista Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Koury Terrace from North					East Main Street (Route 202) from East					Buena Vista Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	4	2	2	0	8	4	174	3	0	181	4	0	16	0	20	3	185	4	0	192	401
4:15 PM	5	0	5	0	10	2	157	6	0	165	2	1	11	0	14	7	199	5	0	211	400
4:30 PM	4	1	1	0	6	3	179	3	0	185	4	0	19	0	23	7	223	1	0	231	445
4:45 PM	4	0	4	0	8	3	142	5	1	151	2	1	8	0	11	7	228	1	0	236	406
Total	17	3	12	0	32	12	652	17	1	682	12	2	54	0	68	24	835	11	0	870	1652
5:00 PM	5	0	4	0	9	3	180	3	0	186	5	2	9	0	16	3	199	1	0	203	414
5:15 PM	9	0	5	0	14	1	201	1	0	203	1	2	9	0	12	6	193	2	0	201	430
5:30 PM	2	1	4	0	7	3	137	0	0	140	4	0	6	0	10	7	174	4	0	185	342
5:45 PM	2	1	7	0	10	7	165	0	0	172	2	0	10	0	12	2	183	4	0	189	383
Total	18	2	20	0	40	14	683	4	0	701	12	4	34	0	50	18	749	11	0	778	1569
Grand Total	35	5	32	0	72	26	1335	21	1	1383	24	6	88	0	118	42	1584	22	0	1648	3221
Approach %	48.6	6.9	44.4	0.0		1.9	96.5	1.5	0.1		20.3	5.1	74.6	0.0		2.5	96.1	1.3	0.0		
Total %	1.1	0.2	1.0	0.0	2.2	0.8	41.4	0.7	0.0	42.9	0.7	0.2	2.7	0.0	3.7	1.3	49.2	0.7	0.0	51.2	
Exiting Leg Total					54					1641					68					1458	3221
Cars	34	5	31	0	70	25	1322	21	1	1369	24	6	86	0	116	41	1556	21	0	1618	3173
% Cars	97.1	100.0	96.9	0.0	97.2	96.2	99.0	100.0	100.0	99.0	100.0	100.0	97.7	0.0	98.3	97.6	98.2	95.5	0.0	98.2	98.5
Exiting Leg Total					52					1612					67					1442	3173
Heavy Vehicles	1	0	1	0	2	1	13	0	0	14	0	0	2	0	2	1	28	1	0	30	48
% Heavy Vehicles	2.9	0.0	3.1	0.0	2.8	3.8	1.0	0.0	0.0	1.0	0.0	0.0	2.3	0.0	1.7	2.4	1.8	4.5	0.0	1.8	1.5
Exiting Leg Total					2					29					1					16	48

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Koury Terrace from North					East Main Street (Route 202) from East					Buena Vista Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	4	1	1	0	6	3	179	3	0	185	4	0	19	0	23	7	223	1	0	231	445
4:45 PM	4	0	4	0	8	3	142	5	1	151	2	1	8	0	11	7	228	1	0	236	406
5:00 PM	5	0	4	0	9	3	180	3	0	186	5	2	9	0	16	3	199	1	0	203	414
5:15 PM	9	0	5	0	14	1	201	1	0	203	1	2	9	0	12	6	193	2	0	201	430
Total Volume	22	1	14	0	37	10	702	12	1	725	12	5	45	0	62	23	843	5	0	871	1695
% Approach Total	59.5	2.7	37.8	0.0		1.4	96.8	1.7	0.1		19.4	8.1	72.6	0.0		2.6	96.8	0.6	0.0		
PHF	0.611	0.250	0.700	0.000	0.661	0.833	0.873	0.600	0.250	0.893	0.600	0.625	0.592	0.000	0.674	0.821	0.924	0.625	0.000	0.923	0.952
Cars	21	1	14	0	36	9	694	12	1	716	12	5	45	0	62	22	831	5	0	858	1672
Cars %	95.5	100.0	100.0	0.0	97.3	90.0	98.9	100.0	100.0	98.8	100.0	100.0	100.0	0.0	100.0	95.7	98.6	100.0	0.0	98.5	98.6
Heavy Vehicles	1	0	0	0	1	1	8	0	0	9	0	0	0	0	0	1	12	0	0	13	23
Heavy Vehicles %	4.5	0.0	0.0	0.0	2.7	10.0	1.1	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	4.3	1.4	0.0	0.0	1.5	1.4
Cars Enter Leg	21	1	14	0	36	9	694	12	1	716	12	5	45	0	62	22	831	5	0	858	1672
Heavy Enter Leg	1	0	0	0	1	1	8	0	0	9	0	0	0	0	0	1	12	0	0	13	23
Total Entering Leg	22	1	14	0	37	10	702	12	1	725	12	5	45	0	62	23	843	5	0	871	1695
Cars Exiting Leg					19					858					35					760	1672
Heavy Exiting Leg					1					12					1					9	23
Total Exiting Leg					20					870					36					769	1695

PDI File #: **207479 GGGG**
Location: **N: Koury Terrace S: Buena Vista Avenue**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Koury Terrace from North					East Main Street (Route 202) from East					Buena Vista Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	3	2	1	0	6	2	149	4	0	155	4	0	13	0	17	4	213	3	0	220	398
11:15 AM	1	1	3	0	5	1	150	4	0	155	4	0	11	0	15	7	184	4	0	195	370
11:30 AM	1	0	2	0	3	1	160	3	0	164	2	0	13	0	15	4	192	1	0	197	379
11:45 AM	2	1	2	0	5	0	191	4	0	195	5	1	16	0	22	3	207	1	0	211	433
Total	7	4	8	0	19	4	650	15	0	669	15	1	53	0	69	18	796	9	0	823	1580
12:00 PM	1	0	4	0	5	4	150	3	0	157	4	1	11	0	16	0	209	1	0	210	388
12:15 PM	3	1	3	0	7	4	173	1	0	178	4	0	11	0	15	3	183	3	0	189	389
12:30 PM	0	1	1	0	2	2	176	3	0	181	2	2	4	0	8	2	196	1	0	199	390
12:45 PM	2	0	3	0	5	1	184	2	0	187	0	0	11	0	11	3	185	3	0	191	394
Total	6	2	11	0	19	11	683	9	0	703	10	3	37	0	50	8	773	8	0	789	1561
Grand Total	13	6	19	0	38	15	1333	24	0	1372	25	4	90	0	119	26	1569	17	0	1612	3141
Approach %	34.2	15.8	50.0	0.0		1.1	97.2	1.7	0.0		21.0	3.4	75.6	0.0		1.6	97.3	1.1	0.0		
Total %	0.4	0.2	0.6	0.0	1.2	0.5	42.4	0.8	0.0	43.7	0.8	0.1	2.9	0.0	3.8	0.8	50.0	0.5	0.0	51.3	
Exiting Leg Total					36					1613					56					1436	3141
Cars	13	6	19	0	38	15	1322	24	0	1361	25	4	89	0	118	26	1556	17	0	1599	3116
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	99.2	100.0	0.0	99.2	100.0	100.0	98.9	0.0	99.2	100.0	99.2	100.0	0.0	99.2	99.2
Exiting Leg Total					36					1600					56					1424	3116
Heavy Vehicles	0	0	0	0	0	0	11	0	0	11	0	0	1	0	1	0	13	0	0	13	25
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	1.1	0.0	0.8	0.0	0.8	0.0	0.0	0.8	0.8
Exiting Leg Total					0					13					0					12	25

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Koury Terrace from North					East Main Street (Route 202) from East					Buena Vista Avenue from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	2	1	2	0	5	0	191	4	0	195	5	1	16	0	22	3	207	1	0	211	433
12:00 PM	1	0	4	0	5	4	150	3	0	157	4	1	11	0	16	0	209	1	0	210	388
12:15 PM	3	1	3	0	7	4	173	1	0	178	4	0	11	0	15	3	183	3	0	189	389
12:30 PM	0	1	1	0	2	2	176	3	0	181	2	2	4	0	8	2	196	1	0	199	390
Total Volume	6	3	10	0	19	10	690	11	0	711	15	4	42	0	61	8	795	6	0	809	1600
% Approach Total	31.6	15.8	52.6	0.0		1.4	97.0	1.5	0.0		24.6	6.6	68.9	0.0		1.0	98.3	0.7	0.0		
PHF	0.500	0.750	0.625	0.000	0.679	0.625	0.903	0.688	0.000	0.912	0.750	0.500	0.656	0.000	0.693	0.667	0.951	0.500	0.000	0.959	0.924
Cars	6	3	10	0	19	10	684	11	0	705	15	4	41	0	60	8	791	6	0	805	1589
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	99.1	100.0	0.0	99.2	100.0	100.0	97.6	0.0	98.4	100.0	99.5	100.0	0.0	99.5	99.3
Heavy Vehicles	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	0	4	0	0	4	11
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	2.4	0.0	1.6	0.0	0.5	0.0	0.0	0.5	0.7
Cars Enter Leg	6	3	10	0	19	10	684	11	0	705	15	4	41	0	60	8	791	6	0	805	1589
Heavy Enter Leg	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	0	4	0	0	4	11
Total Entering Leg	6	3	10	0	19	10	690	11	0	711	15	4	42	0	61	8	795	6	0	809	1600
Cars Exiting Leg					20					816					22					731	1589
Heavy Exiting Leg					0					4					0					7	11
Total Exiting Leg					20					820					22					738	1600

TRAFFIC COUNT DATA

PDI File #: **207479 H**
Location: **N: Tire Shop Dirveway S: BJ's Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Tire Shop Dirveway					East Main Street (Route 202)					BJ's Driveway					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	68	4	0	72	14	1	0	0	15	0	116	0	0	116	203
7:15 AM	0	0	0	0	0	0	73	6	0	79	14	1	0	0	15	3	121	0	0	124	218
7:30 AM	0	0	0	0	0	0	94	11	0	105	16	1	0	0	17	4	111	0	0	115	237
7:45 AM	0	0	0	0	0	0	88	5	0	93	10	0	0	0	10	7	114	0	0	121	224
Total	0	0	0	0	0	0	323	26	0	349	54	3	0	0	57	14	462	0	0	476	882
8:00 AM	0	0	0	0	0	0	83	11	0	94	18	0	0	0	18	5	120	0	0	125	237
8:15 AM	0	0	0	0	0	1	85	5	0	91	18	0	1	0	19	2	106	0	0	108	218
8:30 AM	0	0	0	0	0	0	88	17	0	105	17	0	1	0	18	2	128	0	0	130	253
8:45 AM	0	0	0	0	0	1	94	20	0	115	15	0	0	0	15	8	95	0	0	103	233
Total	0	0	0	0	0	2	350	53	0	405	68	0	2	0	70	17	449	0	0	466	941
Grand Total	0	0	0	0	0	2	673	79	0	754	122	3	2	0	127	31	911	0	0	942	1823
Approach %	0.0	0.0	0.0	0.0		0.3	89.3	10.5	0.0		96.1	2.4	1.6	0.0		3.3	96.7	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.1	36.9	4.3	0.0	41.4	6.7	0.2	0.1	0.0	7.0	1.7	50.0	0.0	0.0	51.7	
Exiting Leg Total					5					1033					110					675	1823
Cars	0	0	0	0	0	2	629	77	0	708	119	3	2	0	124	30	838	0	0	868	1700
% Cars	0.0	0.0	0.0	0.0	0.0	100.0	93.5	97.5	0.0	93.9	97.5	100.0	100.0	0.0	97.6	96.8	92.0	0.0	0.0	92.1	93.3
Exiting Leg Total					5					957					107					631	1700
Heavy Vehicles	0	0	0	0	0	0	44	2	0	46	3	0	0	0	3	1	73	0	0	74	123
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	6.5	2.5	0.0	6.1	2.5	0.0	0.0	0.0	2.4	3.2	8.0	0.0	0.0	7.9	6.7
Exiting Leg Total					0					76					3					44	123

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Tire Shop Dirveway					East Main Street (Route 202)					BJ's Driveway					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	83	11	0	94	18	0	0	0	18	5	120	0	0	125	237
8:15 AM	0	0	0	0	0	1	85	5	0	91	18	0	1	0	19	2	106	0	0	108	218
8:30 AM	0	0	0	0	0	0	88	17	0	105	17	0	1	0	18	2	128	0	0	130	253
8:45 AM	0	0	0	0	0	1	94	20	0	115	15	0	0	0	15	8	95	0	0	103	233
Total Volume	0	0	0	0	0	2	350	53	0	405	68	0	2	0	70	17	449	0	0	466	941
% Approach Total	0.0	0.0	0.0	0.0		0.5	86.4	13.1	0.0		97.1	0.0	2.9	0.0		3.6	96.4	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.931	0.663	0.000	0.880	0.944	0.000	0.500	0.000	0.921	0.531	0.877	0.000	0.000	0.896	0.930
Cars	0	0	0	0	0	2	337	53	0	392	66	0	2	0	68	17	408	0	0	425	885
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	96.3	100.0	0.0	96.8	97.1	0.0	100.0	0.0	97.1	100.0	90.9	0.0	0.0	91.2	94.0
Heavy Vehicles	0	0	0	0	0	0	13	0	0	13	2	0	0	0	2	0	41	0	0	41	56
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.2	2.9	0.0	0.0	0.0	2.9	0.0	9.1	0.0	0.0	8.8	6.0
Cars Enter Leg	0	0	0	0	0	2	337	53	0	392	66	0	2	0	68	17	408	0	0	425	885
Heavy Enter Leg	0	0	0	0	0	0	13	0	0	13	2	0	0	0	2	0	41	0	0	41	56
Total Entering Leg	0	0	0	0	0	2	350	53	0	405	68	0	2	0	70	17	449	0	0	466	941
Cars Exiting Leg					2					474					70					339	885
Heavy Exiting Leg					0					43					0					13	56
Total Exiting Leg					2					517					70					352	941

PDI File #: **207479 HH**
Location: **N: Tire Shop Dirveway S: BJ's Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Thursday, March 12, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Tire Shop Dirveway					East Main Street (Route 202)					BJ's Driveway					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	1	104	31	0	136	28	0	0	0	28	7	134	0	0	141	305
11:15 AM	0	0	0	0	0	0	97	26	0	123	25	0	0	0	25	12	149	0	0	161	309
11:30 AM	0	0	0	0	0	0	101	29	0	130	39	0	0	0	39	3	149	0	0	152	321
11:45 AM	0	0	0	0	0	2	118	26	0	146	29	0	0	0	29	9	143	0	0	152	327
Total	0	0	0	0	0	3	420	112	0	535	121	0	0	0	121	31	575	0	0	606	1262
12:00 PM	0	0	0	0	0	0	114	33	0	147	28	0	0	0	28	6	150	0	0	156	331
12:15 PM	0	0	0	0	0	0	113	25	0	138	35	0	0	0	35	7	136	0	0	143	316
12:30 PM	0	0	1	0	1	3	149	25	0	177	38	0	0	0	38	10	135	0	0	145	361
12:45 PM	0	0	1	0	1	2	127	13	0	142	28	0	1	0	29	7	187	0	0	194	366
Total	0	0	2	0	2	5	503	96	0	604	129	0	1	0	130	30	608	0	0	638	1374
Grand Total	0	0	2	0	2	8	923	208	0	1139	250	0	1	0	251	61	1183	0	0	1244	2636
Approach %	0.0	0.0	100.0	0.0		0.7	81.0	18.3	0.0		99.6	0.0	0.4	0.0		4.9	95.1	0.0	0.0		
Total %	0.0	0.0	0.1	0.0	0.1	0.3	35.0	7.9	0.0	43.2	9.5	0.0	0.0	0.0	9.5	2.3	44.9	0.0	0.0	47.2	
Exiting Leg Total					8					1435					269					924	2636
Cars	0	0	2	0	2	7	887	208	0	1102	248	0	1	0	249	60	1148	0	0	1208	2561
% Cars	0.0	0.0	100.0	0.0	100.0	87.5	96.1	100.0	0.0	96.8	99.2	0.0	100.0	0.0	99.2	98.4	97.0	0.0	0.0	97.1	97.2
Exiting Leg Total					7					1398					268					888	2561
Heavy Vehicles	0	0	0	0	0	1	36	0	0	37	2	0	0	0	2	1	35	0	0	36	75
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	12.5	3.9	0.0	0.0	3.2	0.8	0.0	0.0	0.0	0.8	1.6	3.0	0.0	0.0	2.9	2.8
Exiting Leg Total					1					37					1					36	75

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Tire Shop Dirveway					East Main Street (Route 202)					BJ's Driveway					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	0	0	0	0	0	0	114	33	0	147	28	0	0	0	28	6	150	0	0	156	331
12:15 PM	0	0	0	0	0	0	113	25	0	138	35	0	0	0	35	7	136	0	0	143	316
12:30 PM	0	0	1	0	1	3	149	25	0	177	38	0	0	0	38	10	135	0	0	145	361
12:45 PM	0	0	1	0	1	2	127	13	0	142	28	0	1	0	29	7	187	0	0	194	366
Total Volume	0	0	2	0	2	5	503	96	0	604	129	0	1	0	130	30	608	0	0	638	1374
% Approach Total	0.0	0.0	100.0	0.0		0.8	83.3	15.9	0.0		99.2	0.0	0.8	0.0		4.7	95.3	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.417	0.844	0.727	0.000	0.853	0.849	0.000	0.250	0.000	0.855	0.750	0.813	0.000	0.000	0.822	0.939
Cars	0	0	2	0	2	5	487	96	0	588	127	0	1	0	128	29	593	0	0	622	1340
Cars %	0.0	0.0	100.0	0.0	100.0	100.0	96.8	100.0	0.0	97.4	98.4	0.0	100.0	0.0	98.5	96.7	97.5	0.0	0.0	97.5	97.5
Heavy Vehicles	0	0	0	0	0	0	16	0	0	16	2	0	0	0	2	1	15	0	0	16	34
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	2.6	1.6	0.0	0.0	0.0	1.5	3.3	2.5	0.0	0.0	2.5	2.5
Cars Enter Leg	0	0	2	0	2	5	487	96	0	588	127	0	1	0	128	29	593	0	0	622	1340
Heavy Enter Leg	0	0	0	0	0	0	16	0	0	16	2	0	0	0	2	1	15	0	0	16	34
Total Entering Leg	0	0	2	0	2	5	503	96	0	604	129	0	1	0	130	30	608	0	0	638	1374
Cars Exiting Leg					5					722					125					488	1340
Heavy Exiting Leg					0					17					1					16	34
Total Exiting Leg					5					739					126					504	1374

TRAFFIC COUNT DATA

PDI File #: **207479 IIII**
Location: **N: Goodwill Driveway S: Torrington Fair Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/ M. Santos**
Site Code: **83770.00**
Count Date: **Saturday, March 14, 2020**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office:508-875-0100 Fax:508-875-0118
Email:datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Goodwill Driveway					East Main Street (Route 202)					Torrington Fair Driveway					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	10	2	2	0	14	7	136	27	0	170	36	1	2	0	39	55	185	6	0	246	469
11:15 AM	7	0	3	0	10	6	160	35	0	201	40	0	0	0	40	47	156	6	0	209	460
11:30 AM	9	2	0	0	11	4	168	29	0	201	36	1	1	0	38	66	163	9	0	238	488
11:45 AM	9	0	3	0	12	4	189	37	0	230	36	0	5	0	41	68	172	3	0	243	526
Total	35	4	8	0	47	21	653	128	0	802	148	2	8	0	158	236	676	24	0	936	1943
12:00 PM	7	0	1	0	8	1	145	26	0	172	39	0	2	0	41	47	189	5	0	241	462
12:15 PM	9	3	0	0	12	4	161	40	0	205	37	1	3	0	41	61	163	8	0	232	490
12:30 PM	11	2	0	0	13	1	192	29	0	222	61	1	2	0	64	46	150	3	0	199	498
12:45 PM	10	1	0	0	11	2	153	34	0	189	38	0	3	0	41	61	177	3	0	241	482
Total	37	6	1	0	44	8	651	129	0	788	175	2	10	0	187	215	679	19	0	913	1932
Grand Total	72	10	9	0	91	29	1304	257	0	1590	323	4	18	0	345	451	1355	43	0	1849	3875
Approach %	79.1	11.0	9.9	0.0		1.8	82.0	16.2	0.0		93.6	1.2	5.2	0.0		24.4	73.3	2.3	0.0		
Total %	1.9	0.3	0.2	0.0	2.3	0.7	33.7	6.6	0.0	41.0	8.3	0.1	0.5	0.0	8.9	11.6	35.0	1.1	0.0	47.7	
Exiting Leg Total					76					1687					718					1394	3875
Cars	72	10	9	0	91	29	1293	256	0	1578	321	4	18	0	343	451	1347	43	0	1841	3853
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	99.2	99.6	0.0	99.2	99.4	100.0	100.0	0.0	99.4	100.0	99.4	100.0	0.0	99.6	99.4
Exiting Leg Total					76					1677					717					1383	3853
Heavy Vehicles	0	0	0	0	0	0	11	1	0	12	2	0	0	0	2	0	8	0	0	8	22
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	0.0	0.8	0.6	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.0	0.4	0.6
Exiting Leg Total					0					10					1					11	22

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

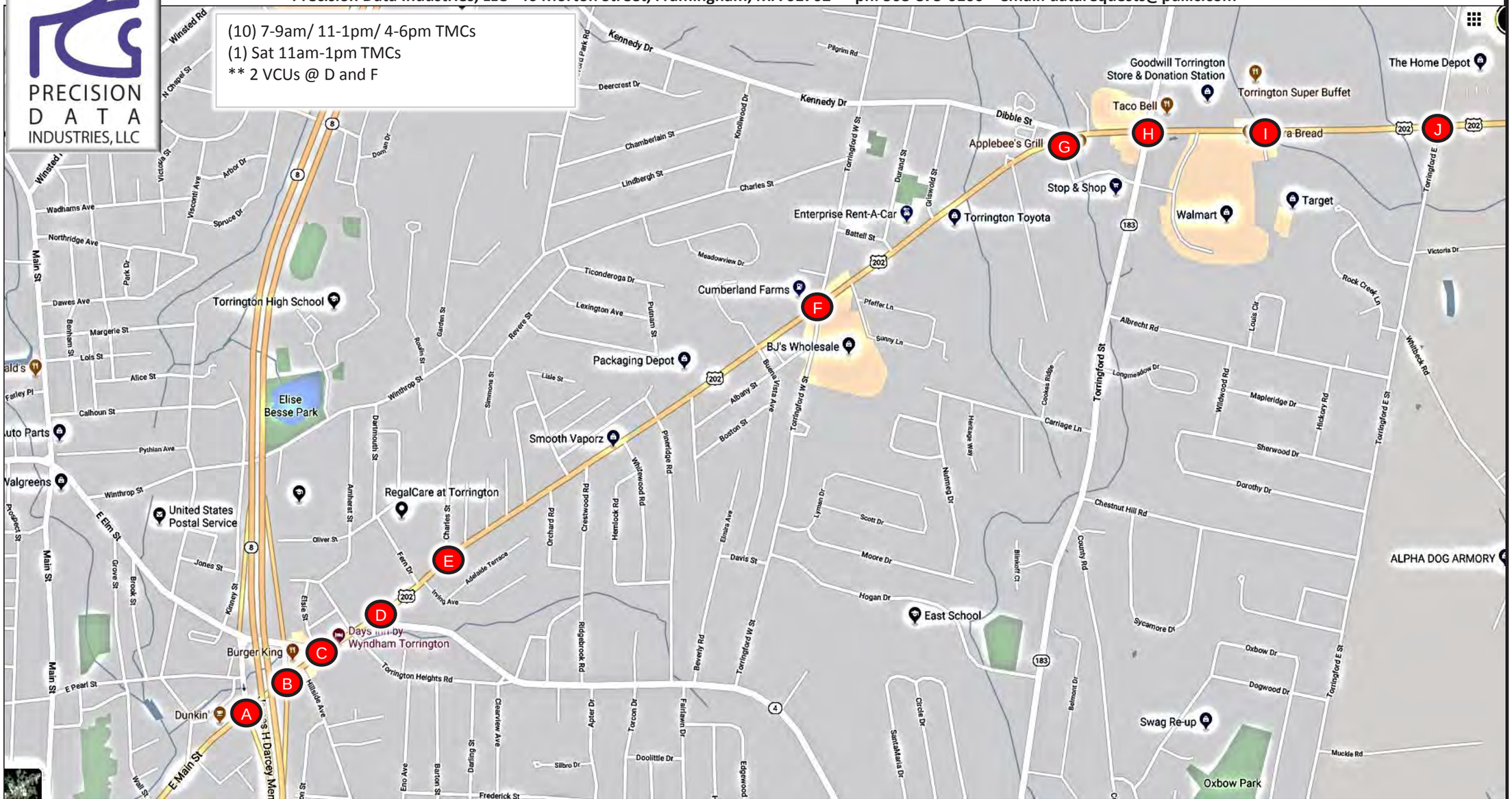
11:45 AM	Goodwill Driveway					East Main Street (Route 202)					Torrington Fair Driveway					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	9	0	3	0	12	4	189	37	0	230	36	0	5	0	41	68	172	3	0	243	526
12:00 PM	7	0	1	0	8	1	145	26	0	172	39	0	2	0	41	47	189	5	0	241	462
12:15 PM	9	3	0	0	12	4	161	40	0	205	37	1	3	0	41	61	163	8	0	232	490
12:30 PM	11	2	0	0	13	1	192	29	0	222	61	1	2	0	64	46	150	3	0	199	498
Total Volume	36	5	4	0	45	10	687	132	0	829	173	2	12	0	187	222	674	19	0	915	1976
% Approach Total	80.0	11.1	8.9	0.0		1.2	82.9	15.9	0.0		92.5	1.1	6.4	0.0		24.3	73.7	2.1	0.0		
PHF	0.818	0.417	0.333	0.000	0.865	0.625	0.895	0.825	0.000	0.901	0.709	0.500	0.600	0.000	0.730	0.816	0.892	0.594	0.000	0.941	0.939
Cars	36	5	4	0	45	10	684	131	0	825	172	2	12	0	186	222	671	19	0	912	1968
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	99.6	99.2	0.0	99.5	99.4	100.0	100.0	0.0	99.5	100.0	99.6	100.0	0.0	99.7	99.6
Heavy Vehicles	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	3	0	0	3	8
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.0	0.5	0.6	0.0	0.0	0.0	0.5	0.0	0.4	0.0	0.0	0.3	0.4
Cars Enter Leg	36	5	4	0	45	10	684	131	0	825	172	2	12	0	186	222	671	19	0	912	1968
Heavy Enter Leg	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	3	0	0	3	8
Total Entering Leg	36	5	4	0	45	10	687	132	0	829	173	2	12	0	187	222	674	19	0	915	1976
Cars Exiting Leg					31					847					358					732	1968
Heavy Exiting Leg					0					4					1					3	8
Total Exiting Leg					31					851					359					735	1976

PRECISION DATA INDUSTRIES, LLC

Location Map: 197294 Torrington, CT

Precision Data Industries, LLC 46 Morton Street, Framingham, MA 01702 ph: 508-875-0100 email: datarequests@pdillc.com

(10) 7-9am/ 11-1pm/ 4-6pm TMCs
(1) Sat 11am-1pm TMCs
** 2 VCUs @ D and F



Client:	Engineer:	Site Code:	Date:	PDI Job #	City, State:
BSC Group	S. Offei-Addo	TBA	Thurs 11/14 and Sat 11/16/2019	197294	Torrington, CT

TRAFFIC COUNT DATA

PDI File #: **197294 A**
Location: **N: Columbus Road S: Route 8 SB Onramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	30	48	9	0	87	0	73	53	0	126	0	0	0	0	0	21	91	0	0	112	325
7:15 AM	18	49	9	0	76	0	97	46	0	143	0	0	0	0	0	12	94	0	0	106	325
7:30 AM	30	45	8	0	83	0	109	57	0	166	0	0	0	0	0	24	77	0	0	101	350
7:45 AM	27	51	6	0	84	0	117	46	0	163	0	0	0	0	0	24	100	0	0	124	371
Total	105	193	32	0	330	0	396	202	0	598	0	0	0	0	0	81	362	0	0	443	1371
8:00 AM	25	34	10	0	69	0	99	49	0	148	0	0	0	0	0	16	61	0	0	77	294
8:15 AM	22	45	2	0	69	0	98	42	0	140	0	0	0	0	0	23	89	0	0	112	321
8:30 AM	22	37	13	0	72	0	76	35	0	111	0	0	0	0	0	11	97	0	0	108	291
8:45 AM	25	28	10	0	63	0	115	41	0	156	0	0	0	0	0	9	74	0	0	83	302
Total	94	144	35	0	273	0	388	167	0	555	0	0	0	0	0	59	321	0	0	380	1208
Grand Total	199	337	67	0	603	0	784	369	0	1153	0	0	0	0	0	140	683	0	0	823	2579
Approach %	33.0	55.9	11.1	0.0		0.0	68.0	32.0	0.0		0.0	0.0	0.0	0.0		17.0	83.0	0.0	0.0		
Total %	7.7	13.1	2.6	0.0	23.4	0.0	30.4	14.3	0.0	44.7	0.0	0.0	0.0	0.0	0.0	5.4	26.5	0.0	0.0	31.9	
Exiting Leg Total					0					750					846					983	2579
Cars	186	323	57	0	566	0	740	352	0	1092	0	0	0	0	0	132	639	0	0	771	2429
% Cars	93.5	95.8	85.1	0.0	93.9	0.0	94.4	95.4	0.0	94.7	0.0	0.0	0.0	0.0	0.0	94.3	93.6	0.0	0.0	93.7	94.2
Exiting Leg Total					0					696					807					926	2429
Heavy Vehicles	13	14	10	0	37	0	44	17	0	61	0	0	0	0	0	8	44	0	0	52	150
% Heavy Vehicles	6.5	4.2	14.9	0.0	6.1	0.0	5.6	4.6	0.0	5.3	0.0	0.0	0.0	0.0	0.0	5.7	6.4	0.0	0.0	6.3	5.8
Exiting Leg Total					0					54					39					57	150

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	30	48	9	0	87	0	73	53	0	126	0	0	0	0	0	21	91	0	0	112	325
7:15 AM	18	49	9	0	76	0	97	46	0	143	0	0	0	0	0	12	94	0	0	106	325
7:30 AM	30	45	8	0	83	0	109	57	0	166	0	0	0	0	0	24	77	0	0	101	350
7:45 AM	27	51	6	0	84	0	117	46	0	163	0	0	0	0	0	24	100	0	0	124	371
Total Volume	105	193	32	0	330	0	396	202	0	598	0	0	0	0	0	81	362	0	0	443	1371
% Approach Total	31.8	58.5	9.7	0.0		0.0	66.2	33.8	0.0		0.0	0.0	0.0	0.0		18.3	81.7	0.0	0.0		
PHF	0.875	0.946	0.889	0.000	0.948	0.000	0.846	0.886	0.000	0.901	0.000	0.000	0.000	0.000	0.000	0.844	0.905	0.000	0.000	0.893	0.924
Cars	100	186	29	0	315	0	366	194	0	560	0	0	0	0	0	75	341	0	0	416	1291
Cars %	95.2	96.4	90.6	0.0	95.5	0.0	92.4	96.0	0.0	93.6	0.0	0.0	0.0	0.0	0.0	92.6	94.2	0.0	0.0	93.9	94.2
Heavy Vehicles	5	7	3	0	15	0	30	8	0	38	0	0	0	0	0	6	21	0	0	27	80
Heavy Vehicles %	4.8	3.6	9.4	0.0	4.5	0.0	7.6	4.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	7.4	5.8	0.0	0.0	6.1	5.8
Cars Enter Leg	100	186	29	0	315	0	366	194	0	560	0	0	0	0	0	75	341	0	0	416	1291
Heavy Enter Leg	5	7	3	0	15	0	30	8	0	38	0	0	0	0	0	6	21	0	0	27	80
Total Entering Leg	105	193	32	0	330	0	396	202	0	598	0	0	0	0	0	81	362	0	0	443	1371
Cars Exiting Leg					0					370					455					466	1291
Heavy Exiting Leg					0					24					21					35	80
Total Exiting Leg					0					394					476					501	1371

PDI File #: **197294 AA**
Location: **N: Columbus Road S: Route 8 SB Onramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	22	33	8	0	63	0	62	37	0	99	0	0	0	0	0	14	105	0	0	119	281
11:15 AM	21	28	5	0	54	0	91	33	0	124	0	0	0	0	0	18	99	0	0	117	295
11:30 AM	21	34	7	0	62	0	101	29	0	130	0	0	0	0	0	17	103	0	0	120	312
11:45 AM	17	41	13	0	71	0	96	41	1	138	0	0	0	0	0	13	105	0	0	118	327
Total	81	136	33	0	250	0	350	140	1	491	0	0	0	0	0	62	412	0	0	474	1215
12:00 PM	24	42	17	0	83	0	72	37	0	109	0	0	0	0	0	14	104	0	0	118	310
12:15 PM	20	35	13	0	68	0	102	35	0	137	0	0	0	0	0	23	124	0	0	147	352
12:30 PM	19	37	7	0	63	0	82	35	0	117	0	0	0	0	0	8	99	0	0	107	287
12:45 PM	27	38	14	0	79	0	110	44	0	154	0	0	0	0	0	11	114	0	0	125	358
Total	90	152	51	0	293	0	366	151	0	517	0	0	0	0	0	56	441	0	0	497	1307
Grand Total	171	288	84	0	543	0	716	291	1	1008	0	0	0	0	0	118	853	0	0	971	2522
Approach %	31.5	53.0	15.5	0.0		0.0	71.0	28.9	0.1		0.0	0.0	0.0	0.0		12.2	87.8	0.0	0.0		
Total %	6.8	11.4	3.3	0.0	21.5	0.0	28.4	11.5	0.0	40.0	0.0	0.0	0.0	0.0	0.0	4.7	33.8	0.0	0.0	38.5	
Exiting Leg Total					0					938					697					887	2522
Cars	161	274	81	0	516	0	681	273	1	955	0	0	0	0	0	108	823	0	0	931	2402
% Cars	94.2	95.1	96.4	0.0	95.0	0.0	95.1	93.8	100.0	94.7	0.0	0.0	0.0	0.0	0.0	91.5	96.5	0.0	0.0	95.9	95.2
Exiting Leg Total					0					905					655					842	2402
Heavy Vehicles	10	14	3	0	27	0	35	18	0	53	0	0	0	0	0	10	30	0	0	40	120
% Heavy Vehicles	5.8	4.9	3.6	0.0	5.0	0.0	4.9	6.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0	8.5	3.5	0.0	0.0	4.1	4.8
Exiting Leg Total					0					33					42					45	120

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	24	42	17	0	83	0	72	37	0	109	0	0	0	0	0	14	104	0	0	118	310
12:15 PM	20	35	13	0	68	0	102	35	0	137	0	0	0	0	0	23	124	0	0	147	352
12:30 PM	19	37	7	0	63	0	82	35	0	117	0	0	0	0	0	8	99	0	0	107	287
12:45 PM	27	38	14	0	79	0	110	44	0	154	0	0	0	0	0	11	114	0	0	125	358
Total Volume	90	152	51	0	293	0	366	151	0	517	0	0	0	0	0	56	441	0	0	497	1307
% Approach Total	30.7	51.9	17.4	0.0		0.0	70.8	29.2	0.0		0.0	0.0	0.0	0.0		11.3	88.7	0.0	0.0		
PHF	0.833	0.905	0.750	0.000	0.883	0.000	0.832	0.858	0.000	0.839	0.000	0.000	0.000	0.000	0.000	0.609	0.889	0.000	0.000	0.845	0.913
Cars	83	144	48	0	275	0	349	141	0	490	0	0	0	0	0	53	428	0	0	481	1246
Cars %	92.2	94.7	94.1	0.0	93.9	0.0	95.4	93.4	0.0	94.8	0.0	0.0	0.0	0.0	0.0	94.6	97.1	0.0	0.0	96.8	95.3
Heavy Vehicles	7	8	3	0	18	0	17	10	0	27	0	0	0	0	0	3	13	0	0	16	61
Heavy Vehicles %	7.8	5.3	5.9	0.0	6.1	0.0	4.6	6.6	0.0	5.2	0.0	0.0	0.0	0.0	0.0	5.4	2.9	0.0	0.0	3.2	4.7
Cars Enter Leg	83	144	48	0	275	0	349	141	0	490	0	0	0	0	0	53	428	0	0	481	1246
Heavy Enter Leg	7	8	3	0	18	0	17	10	0	27	0	0	0	0	0	3	13	0	0	16	61
Total Entering Leg	90	152	51	0	293	0	366	151	0	517	0	0	0	0	0	56	441	0	0	497	1307
Cars Exiting Leg					0					476					338					432	1246
Heavy Exiting Leg					0					16					21					24	61
Total Exiting Leg					0					492					359					456	1307

TRAFFIC COUNT DATA

PDI File #: **197294 AAA**
Location: **N: Columbus Road S: Route 8 SB Onramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	23	64	21	0	108	0	111	43	0	154	0	0	0	0	0	22	152	0	0	174	436
4:15 PM	32	58	19	0	109	0	137	49	0	186	0	0	0	0	0	18	148	0	0	166	461
4:30 PM	27	70	26	0	123	0	121	46	0	167	0	0	0	0	0	35	134	0	0	169	459
4:45 PM	29	51	18	0	98	0	123	46	0	169	0	0	0	0	0	26	108	0	0	134	401
Total	111	243	84	0	438	0	492	184	0	676	0	0	0	0	0	101	542	0	0	643	1757
5:00 PM	14	74	32	0	120	0	105	50	0	155	0	0	0	0	0	31	143	0	0	174	449
5:15 PM	34	48	16	0	98	0	122	60	0	182	0	0	0	0	0	19	137	0	0	156	436
5:30 PM	27	38	17	0	82	0	129	47	0	176	0	0	0	0	0	21	125	0	0	146	404
5:45 PM	25	38	14	0	77	0	141	38	0	179	0	0	0	0	0	13	100	0	0	113	369
Total	100	198	79	0	377	0	497	195	0	692	0	0	0	0	0	84	505	0	0	589	1658
Grand Total	211	441	163	0	815	0	989	379	0	1368	0	0	0	0	0	185	1047	0	0	1232	3415
Approach %	25.9	54.1	20.0	0.0		0.0	72.3	27.7	0.0		0.0	0.0	0.0	0.0		15.0	85.0	0.0	0.0		
Total %	6.2	12.9	4.8	0.0	23.9	0.0	29.0	11.1	0.0	40.1	0.0	0.0	0.0	0.0	0.0	5.4	30.7	0.0	0.0	36.1	
Exiting Leg Total					0					1210					1005					1200	3415
Cars	209	435	162	0	806	0	972	370	0	1342	0	0	0	0	0	181	1035	0	0	1216	3364
% Cars	99.1	98.6	99.4	0.0	98.9	0.0	98.3	97.6	0.0	98.1	0.0	0.0	0.0	0.0	0.0	97.8	98.9	0.0	0.0	98.7	98.5
Exiting Leg Total					0					1197					986					1181	3364
Heavy Vehicles	2	6	1	0	9	0	17	9	0	26	0	0	0	0	0	4	12	0	0	16	51
% Heavy Vehicles	0.9	1.4	0.6	0.0	1.1	0.0	1.7	2.4	0.0	1.9	0.0	0.0	0.0	0.0	0.0	2.2	1.1	0.0	0.0	1.3	1.5
Exiting Leg Total					0					13					19					19	51

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	32	58	19	0	109	0	137	49	0	186	0	0	0	0	0	18	148	0	0	166	461
4:30 PM	27	70	26	0	123	0	121	46	0	167	0	0	0	0	0	35	134	0	0	169	459
4:45 PM	29	51	18	0	98	0	123	46	0	169	0	0	0	0	0	26	108	0	0	134	401
5:00 PM	14	74	32	0	120	0	105	50	0	155	0	0	0	0	0	31	143	0	0	174	449
Total Volume	102	253	95	0	450	0	486	191	0	677	0	0	0	0	0	110	533	0	0	643	1770
% Approach Total	22.7	56.2	21.1	0.0		0.0	71.8	28.2	0.0		0.0	0.0	0.0	0.0		17.1	82.9	0.0	0.0		
PHF	0.797	0.855	0.742	0.000	0.915	0.000	0.887	0.955	0.000	0.910	0.000	0.000	0.000	0.000	0.000	0.786	0.900	0.000	0.000	0.924	0.960
Cars	101	249	94	0	444	0	476	185	0	661	0	0	0	0	0	106	529	0	0	635	1740
Cars %	99.0	98.4	98.9	0.0	98.7	0.0	97.9	96.9	0.0	97.6	0.0	0.0	0.0	0.0	0.0	96.4	99.2	0.0	0.0	98.8	98.3
Heavy Vehicles	1	4	1	0	6	0	10	6	0	16	0	0	0	0	0	4	4	0	0	8	30
Heavy Vehicles %	1.0	1.6	1.1	0.0	1.3	0.0	2.1	3.1	0.0	2.4	0.0	0.0	0.0	0.0	0.0	3.6	0.8	0.0	0.0	1.2	1.7
Cars Enter Leg	101	249	94	0	444	0	476	185	0	661	0	0	0	0	0	106	529	0	0	635	1740
Heavy Enter Leg	1	4	1	0	6	0	10	6	0	16	0	0	0	0	0	4	4	0	0	8	30
Total Entering Leg	102	253	95	0	450	0	486	191	0	677	0	0	0	0	0	110	533	0	0	643	1770
Cars Exiting Leg					0					623					540					577	1740
Heavy Exiting Leg					0					5					14					11	30
Total Exiting Leg					0					628					554					588	1770

PDI File #: **197294 AAAA**
Location: **N: Columbus Road S: Route 8 SB Onramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	28	30	8	0	66	0	114	57	0	171	0	0	0	0	0	10	132	0	0	142	379
11:15 AM	23	43	12	0	78	0	128	37	0	165	0	0	0	0	0	24	138	0	0	162	405
11:30 AM	24	42	8	0	74	0	114	29	0	143	0	0	0	0	0	18	145	0	0	163	380
11:45 AM	24	34	9	0	67	0	123	49	0	172	0	0	0	0	0	12	125	0	0	137	376
Total	99	149	37	0	285	0	479	172	0	651	0	0	0	0	0	64	540	0	0	604	1540
12:00 PM	34	30	17	0	81	0	116	32	0	148	0	0	0	0	0	9	128	0	0	137	366
12:15 PM	22	38	9	0	69	0	122	40	0	162	0	0	0	0	0	12	138	0	0	150	381
12:30 PM	28	22	13	0	63	0	113	57	0	170	0	0	0	0	0	13	131	0	0	144	377
12:45 PM	28	42	13	0	83	0	142	36	0	178	0	0	0	0	0	24	121	0	0	145	406
Total	112	132	52	0	296	0	493	165	0	658	0	0	0	0	0	58	518	0	0	576	1530
Grand Total	211	281	89	0	581	0	972	337	0	1309	0	0	0	0	0	122	1058	0	0	1180	3070
Approach %	36.3	48.4	15.3	0.0		0.0	74.3	25.7	0.0		0.0	0.0	0.0	0.0		10.3	89.7	0.0	0.0		
Total %	6.9	9.2	2.9	0.0	18.9	0.0	31.7	11.0	0.0	42.6	0.0	0.0	0.0	0.0	0.0	4.0	34.5	0.0	0.0	38.4	
Exiting Leg Total					0					1147					740					1183	3070
Cars	210	275	87	0	572	0	959	330	0	1289	0	0	0	0	0	118	1049	0	0	1167	3028
% Cars	99.5	97.9	97.8	0.0	98.5	0.0	98.7	97.9	0.0	98.5	0.0	0.0	0.0	0.0	0.0	96.7	99.1	0.0	0.0	98.9	98.6
Exiting Leg Total					0					1136					723					1169	3028
Heavy Vehicles	1	6	2	0	9	0	13	7	0	20	0	0	0	0	0	4	9	0	0	13	42
% Heavy Vehicles	0.5	2.1	2.2	0.0	1.5	0.0	1.3	2.1	0.0	1.5	0.0	0.0	0.0	0.0	0.0	3.3	0.9	0.0	0.0	1.1	1.4
Exiting Leg Total					0					11					17					14	42

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Columbus Road from North					East Main Street (Route 202) from East					Route 8 SB Onramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	28	30	8	0	66	0	114	57	0	171	0	0	0	0	0	10	132	0	0	142	379
11:15 AM	23	43	12	0	78	0	128	37	0	165	0	0	0	0	0	24	138	0	0	162	405
11:30 AM	24	42	8	0	74	0	114	29	0	143	0	0	0	0	0	18	145	0	0	163	380
11:45 AM	24	34	9	0	67	0	123	49	0	172	0	0	0	0	0	12	125	0	0	137	376
Total Volume	99	149	37	0	285	0	479	172	0	651	0	0	0	0	0	64	540	0	0	604	1540
% Approach Total	34.7	52.3	13.0	0.0		0.0	73.6	26.4	0.0		0.0	0.0	0.0	0.0		10.6	89.4	0.0	0.0		
PHF	0.884	0.866	0.771	0.000	0.913	0.000	0.936	0.754	0.000	0.946	0.000	0.000	0.000	0.000	0.000	0.667	0.931	0.000	0.000	0.926	0.951
Cars	99	146	35	0	280	0	471	168	0	639	0	0	0	0	0	62	536	0	0	598	1517
Cars %	100.0	98.0	94.6	0.0	98.2	0.0	98.3	97.7	0.0	98.2	0.0	0.0	0.0	0.0	0.0	96.9	99.3	0.0	0.0	99.0	98.5
Heavy Vehicles	0	3	2	0	5	0	8	4	0	12	0	0	0	0	0	2	4	0	0	6	23
Heavy Vehicles %	0.0	2.0	5.4	0.0	1.8	0.0	1.7	2.3	0.0	1.8	0.0	0.0	0.0	0.0	0.0	3.1	0.7	0.0	0.0	1.0	1.5
Cars Enter Leg	99	146	35	0	280	0	471	168	0	639	0	0	0	0	0	62	536	0	0	598	1517
Heavy Enter Leg	0	3	2	0	5	0	8	4	0	12	0	0	0	0	0	2	4	0	0	6	23
Total Entering Leg	99	149	37	0	285	0	479	172	0	651	0	0	0	0	0	64	540	0	0	604	1540
Cars Exiting Leg					0					571					376					570	1517
Heavy Exiting Leg					0					6					9					8	23
Total Exiting Leg					0					577					385					578	1540

TRAFFIC COUNT DATA

PDI File #: **197294 B**
Location: **N: Christopher Road S: Route 8 NB Offramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Christopher Road					East Main Street (Route 202)					Route 8 NB Offramp					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	4	111	0	0	115	79	44	15	0	138	0	77	24	0	101	354
7:15 AM	0	0	0	0	0	1	121	0	0	122	44	31	22	0	97	0	84	18	0	102	321
7:30 AM	0	0	0	0	0	2	140	0	0	142	50	46	28	0	124	0	65	22	0	87	353
7:45 AM	0	0	0	0	0	4	125	0	0	129	66	57	40	0	163	0	81	24	0	105	397
Total	0	0	0	0	0	11	497	0	0	508	239	178	105	0	522	0	307	88	0	395	1425
8:00 AM	0	0	0	0	0	1	121	0	0	122	69	38	23	0	130	0	60	11	0	71	323
8:15 AM	0	0	0	0	0	4	119	0	0	123	55	45	17	0	117	0	64	26	0	90	330
8:30 AM	0	0	0	0	0	1	73	0	0	74	35	36	21	0	92	0	89	21	0	110	276
8:45 AM	0	0	0	0	0	4	115	0	0	119	70	53	28	0	151	0	67	15	0	82	352
Total	0	0	0	0	0	10	428	0	0	438	229	172	89	0	490	0	280	73	0	353	1281
Grand Total	0	0	0	0	0	21	925	0	0	946	468	350	194	0	1012	0	587	161	0	748	2706
Approach %	0.0	0.0	0.0	0.0		2.2	97.8	0.0	0.0		46.2	34.6	19.2	0.0		0.0	78.5	21.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.8	34.2	0.0	0.0	35.0	17.3	12.9	7.2	0.0	37.4	0.0	21.7	5.9	0.0	27.6	
Exiting Leg Total					532					1055					0					1119	2706
Cars	0	0	0	0	0	21	877	0	0	898	436	327	181	0	944	0	545	154	0	699	2541
% Cars	0.0	0.0	0.0	0.0	0.0	100.0	94.8	0.0	0.0	94.9	93.2	93.4	93.3	0.0	93.3	0.0	92.8	95.7	0.0	93.4	93.9
Exiting Leg Total					502					981					0					1058	2541
Heavy Vehicles	0	0	0	0	0	0	48	0	0	48	32	23	13	0	68	0	42	7	0	49	165
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	5.1	6.8	6.6	6.7	0.0	6.7	0.0	7.2	4.3	0.0	6.6	6.1
Exiting Leg Total					30					74					0					61	165

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Christopher Road					East Main Street (Route 202)					Route 8 NB Offramp					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	4	111	0	0	115	79	44	15	0	138	0	77	24	0	101	354
7:15 AM	0	0	0	0	0	1	121	0	0	122	44	31	22	0	97	0	84	18	0	102	321
7:30 AM	0	0	0	0	0	2	140	0	0	142	50	46	28	0	124	0	65	22	0	87	353
7:45 AM	0	0	0	0	0	4	125	0	0	129	66	57	40	0	163	0	81	24	0	105	397
Total Volume	0	0	0	0	0	11	497	0	0	508	239	178	105	0	522	0	307	88	0	395	1425
% Approach Total	0.0	0.0	0.0	0.0		2.2	97.8	0.0	0.0		45.8	34.1	20.1	0.0		0.0	77.7	22.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.688	0.888	0.000	0.000	0.894	0.756	0.781	0.656	0.000	0.801	0.000	0.914	0.917	0.000	0.940	0.897
Cars	0	0	0	0	0	11	465	0	0	476	229	163	98	0	490	0	287	84	0	371	1337
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	93.6	0.0	0.0	93.7	95.8	91.6	93.3	0.0	93.9	0.0	93.5	95.5	0.0	93.9	93.8
Heavy Vehicles	0	0	0	0	0	0	32	0	0	32	10	15	7	0	32	0	20	4	0	24	88
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	6.3	4.2	8.4	6.7	0.0	6.1	0.0	6.5	4.5	0.0	6.1	6.2
Cars Enter Leg	0	0	0	0	0	11	465	0	0	476	229	163	98	0	490	0	287	84	0	371	1337
Heavy Enter Leg	0	0	0	0	0	0	32	0	0	32	10	15	7	0	32	0	20	4	0	24	88
Total Entering Leg	0	0	0	0	0	11	497	0	0	508	239	178	105	0	522	0	307	88	0	395	1425
Cars Exiting Leg					258					516					0					563	1337
Heavy Exiting Leg					19					30					0					39	88
Total Exiting Leg					277					546					0					602	1425

PDI File #: **197294 BB**
Location: **N: Christopher Road S: Route 8 NB Offramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Christopher Road					East Main Street (Route 202)					Route 8 NB Offramp					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	1	94	0	0	95	41	33	11	0	85	0	90	22	0	112	292
11:15 AM	0	0	0	0	0	1	106	0	0	107	56	27	14	0	97	0	87	14	0	101	305
11:30 AM	0	0	0	0	0	1	117	0	0	118	23	28	13	0	64	0	97	17	0	114	296
11:45 AM	0	0	0	0	0	2	129	0	0	131	42	18	10	0	70	0	102	15	0	117	318
Total	0	0	0	0	0	5	446	0	0	451	162	106	48	0	316	0	376	68	0	444	1211
12:00 PM	0	0	0	0	0	5	101	0	0	106	42	38	5	0	85	0	108	10	0	118	309
12:15 PM	0	0	0	0	0	4	122	0	0	126	42	30	17	0	89	0	115	24	0	139	354
12:30 PM	0	0	0	0	0	1	107	0	0	108	44	33	12	0	89	0	85	23	0	108	305
12:45 PM	0	0	0	0	0	4	148	0	0	152	50	28	11	0	89	0	95	30	0	125	366
Total	0	0	0	0	0	14	478	0	0	492	178	129	45	0	352	0	403	87	0	490	1334
Grand Total	0	0	0	0	0	19	924	0	0	943	340	235	93	0	668	0	779	155	0	934	2545
Approach %	0.0	0.0	0.0	0.0		2.0	98.0	0.0	0.0		50.9	35.2	13.9	0.0		0.0	83.4	16.6	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.7	36.3	0.0	0.0	37.1	13.4	9.2	3.7	0.0	26.2	0.0	30.6	6.1	0.0	36.7	
Exiting Leg Total					409					1119					0					1017	2545
Cars	0	0	0	0	0	16	878	0	0	894	316	219	85	0	620	0	754	147	0	901	2415
% Cars	0.0	0.0	0.0	0.0	0.0	84.2	95.0	0.0	0.0	94.8	92.9	93.2	91.4	0.0	92.8	0.0	96.8	94.8	0.0	96.5	94.9
Exiting Leg Total					382					1070					0					963	2415
Heavy Vehicles	0	0	0	0	0	3	46	0	0	49	24	16	8	0	48	0	25	8	0	33	130
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	15.8	5.0	0.0	0.0	5.2	7.1	6.8	8.6	0.0	7.2	0.0	3.2	5.2	0.0	3.5	5.1
Exiting Leg Total					27					49					0					54	130

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Christopher Road					East Main Street (Route 202)					Route 8 NB Offramp					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	0	0	0	0	0	5	101	0	0	106	42	38	5	0	85	0	108	10	0	118	309
12:15 PM	0	0	0	0	0	4	122	0	0	126	42	30	17	0	89	0	115	24	0	139	354
12:30 PM	0	0	0	0	0	1	107	0	0	108	44	33	12	0	89	0	85	23	0	108	305
12:45 PM	0	0	0	0	0	4	148	0	0	152	50	28	11	0	89	0	95	30	0	125	366
Total Volume	0	0	0	0	0	14	478	0	0	492	178	129	45	0	352	0	403	87	0	490	1334
% Approach Total	0.0	0.0	0.0	0.0		2.8	97.2	0.0	0.0		50.6	36.6	12.8	0.0		0.0	82.2	17.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.700	0.807	0.000	0.000	0.809	0.890	0.849	0.662	0.000	0.989	0.000	0.876	0.725	0.000	0.881	0.911
Cars	0	0	0	0	0	11	453	0	0	464	166	119	42	0	327	0	391	82	0	473	1264
Cars %	0.0	0.0	0.0	0.0	0.0	78.6	94.8	0.0	0.0	94.3	93.3	92.2	93.3	0.0	92.9	0.0	97.0	94.3	0.0	96.5	94.8
Heavy Vehicles	0	0	0	0	0	3	25	0	0	28	12	10	3	0	25	0	12	5	0	17	70
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	21.4	5.2	0.0	0.0	5.7	6.7	7.8	6.7	0.0	7.1	0.0	3.0	5.7	0.0	3.5	5.2
Cars Enter Leg	0	0	0	0	0	11	453	0	0	464	166	119	42	0	327	0	391	82	0	473	1264
Heavy Enter Leg	0	0	0	0	0	3	25	0	0	28	12	10	3	0	25	0	12	5	0	17	70
Total Entering Leg	0	0	0	0	0	14	478	0	0	492	178	129	45	0	352	0	403	87	0	490	1334
Cars Exiting Leg					212					557					0					495	1264
Heavy Exiting Leg					18					24					0					28	70
Total Exiting Leg					230					581					0					523	1334

TRAFFIC COUNT DATA

PDI File #: **197294 BBB**
Location: **N: Christopher Road S: Route 8 NB Offramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Christopher Road from North					East Main Street (Route 202) from East					Route 8 NB Offramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	4	144	0	0	148	74	41	17	0	132	0	142	32	0	174	454
4:15 PM	0	0	0	0	0	5	155	0	0	160	70	39	29	0	138	0	141	27	0	168	466
4:30 PM	0	0	0	0	0	4	143	0	0	147	71	60	23	0	154	0	131	29	0	160	461
4:45 PM	0	0	0	0	0	3	145	0	0	148	85	51	20	0	156	0	103	27	1	131	435
Total	0	0	0	0	0	16	587	0	0	603	300	191	89	0	580	0	517	115	1	633	1816
5:00 PM	0	0	0	0	0	3	146	0	0	149	69	50	15	0	134	0	146	24	0	170	453
5:15 PM	0	0	0	0	0	5	158	0	0	163	76	63	24	0	163	0	133	22	0	155	481
5:30 PM	0	0	0	0	0	6	158	0	0	164	52	56	17	0	125	0	119	24	0	143	432
5:45 PM	0	0	0	0	0	4	159	0	0	163	52	54	21	0	127	0	98	18	1	117	407
Total	0	0	0	0	0	18	621	0	0	639	249	223	77	0	549	0	496	88	1	585	1773
Grand Total	0	0	0	0	0	34	1208	0	0	1242	549	414	166	0	1129	0	1013	203	2	1218	3589
Approach %	0.0	0.0	0.0	0.0		2.7	97.3	0.0	0.0		48.6	36.7	14.7	0.0		0.0	83.2	16.7	0.2		
Total %	0.0	0.0	0.0	0.0	0.0	0.9	33.7	0.0	0.0	34.6	15.3	11.5	4.6	0.0	31.5	0.0	28.2	5.7	0.1	33.9	
Exiting Leg Total					651					1562					0					1376	3589
Cars	0	0	0	0	0	32	1188	0	0	1220	539	410	161	0	1110	0	1006	196	2	1204	3534
% Cars	0.0	0.0	0.0	0.0	0.0	94.1	98.3	0.0	0.0	98.2	98.2	99.0	97.0	0.0	98.3	0.0	99.3	96.6	100.0	98.9	98.5
Exiting Leg Total					638					1545					0					1351	3534
Heavy Vehicles	0	0	0	0	0	2	20	0	0	22	10	4	5	0	19	0	7	7	0	14	55
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	5.9	1.7	0.0	0.0	1.8	1.8	1.0	3.0	0.0	1.7	0.0	0.7	3.4	0.0	1.1	1.5
Exiting Leg Total					13					17					0					25	55

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Christopher Road from North					East Main Street (Route 202) from East					Route 8 NB Offramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	4	143	0	0	147	71	60	23	0	154	0	131	29	0	160	461
4:45 PM	0	0	0	0	0	3	145	0	0	148	85	51	20	0	156	0	103	27	1	131	435
5:00 PM	0	0	0	0	0	3	146	0	0	149	69	50	15	0	134	0	146	24	0	170	453
5:15 PM	0	0	0	0	0	5	158	0	0	163	76	63	24	0	163	0	133	22	0	155	481
Total Volume	0	0	0	0	0	15	592	0	0	607	301	224	82	0	607	0	513	102	1	616	1830
% Approach Total	0.0	0.0	0.0	0.0		2.5	97.5	0.0	0.0		49.6	36.9	13.5	0.0		0.0	83.3	16.6	0.2		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.937	0.000	0.000	0.931	0.885	0.889	0.854	0.000	0.931	0.000	0.878	0.879	0.250	0.906	0.951
Cars	0	0	0	0	0	14	584	0	0	598	297	220	80	0	597	0	512	98	1	611	1806
Cars %	0.0	0.0	0.0	0.0	0.0	93.3	98.6	0.0	0.0	98.5	98.7	98.2	97.6	0.0	98.4	0.0	99.8	96.1	100.0	99.2	98.7
Heavy Vehicles	0	0	0	0	0	1	8	0	0	9	4	4	2	0	10	0	1	4	0	5	24
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	6.7	1.4	0.0	0.0	1.5	1.3	1.8	2.4	0.0	1.6	0.0	0.2	3.9	0.0	0.8	1.3
Cars Enter Leg	0	0	0	0	0	14	584	0	0	598	297	220	80	0	597	0	512	98	1	611	1806
Heavy Enter Leg	0	0	0	0	0	1	8	0	0	9	4	4	2	0	10	0	1	4	0	5	24
Total Entering Leg	0	0	0	0	0	15	592	0	0	607	301	224	82	0	607	0	513	102	1	616	1830
Cars Exiting Leg					332					809					0					665	1806
Heavy Exiting Leg					9					5					0					10	24
Total Exiting Leg					341					814					0					675	1830

PDI File #: **197294 BBBB**
Location: **N: Christopher Road S: Route 8 NB Offramp**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Christopher Road from North					East Main Street (Route 202) from East					Route 8 NB Offramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	4	158	0	0	162	57	27	14	0	98	0	119	17	0	136	396
11:15 AM	0	0	0	0	0	5	137	0	0	142	42	28	23	0	93	0	129	26	0	155	390
11:30 AM	0	0	0	0	0	1	130	0	0	131	56	30	13	0	99	0	130	22	0	152	382
11:45 AM	0	0	0	0	0	6	162	0	0	168	59	33	17	0	109	0	120	11	0	131	408
Total	0	0	0	0	0	16	587	0	0	603	214	118	67	0	399	0	498	76	0	574	1576
12:00 PM	0	0	0	0	0	7	126	0	0	133	55	24	17	0	96	0	129	21	0	150	379
12:15 PM	0	0	0	0	0	3	155	0	0	158	63	39	18	0	120	0	124	18	0	142	420
12:30 PM	0	0	0	0	0	7	144	0	0	151	56	36	24	0	116	0	120	23	0	143	410
12:45 PM	0	0	0	0	0	4	146	0	0	150	53	45	26	0	124	0	120	14	0	134	408
Total	0	0	0	0	0	21	571	0	0	592	227	144	85	0	456	0	493	76	0	569	1617
Grand Total	0	0	0	0	0	37	1158	0	0	1195	441	262	152	0	855	0	991	152	0	1143	3193
Approach %	0.0	0.0	0.0	0.0		3.1	96.9	0.0	0.0		51.6	30.6	17.8	0.0		0.0	86.7	13.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	1.2	36.3	0.0	0.0	37.4	13.8	8.2	4.8	0.0	26.8	0.0	31.0	4.8	0.0	35.8	
Exiting Leg Total					451					1432					0					1310	3193
Cars	0	0	0	0	0	37	1142	0	0	1179	436	256	152	0	844	0	981	152	0	1133	3156
% Cars	0.0	0.0	0.0	0.0	0.0	100.0	98.6	0.0	0.0	98.7	98.9	97.7	100.0	0.0	98.7	0.0	99.0	100.0	0.0	99.1	98.8
Exiting Leg Total					445					1417					0					1294	3156
Heavy Vehicles	0	0	0	0	0	0	16	0	0	16	5	6	0	0	11	0	10	0	0	10	37
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.3	1.1	2.3	0.0	0.0	1.3	0.0	1.0	0.0	0.0	0.9	1.2
Exiting Leg Total					6					15					0					16	37

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Christopher Road from North					East Main Street (Route 202) from East					Route 8 NB Offramp from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	0	0	0	0	0	6	162	0	0	168	59	33	17	0	109	0	120	11	0	131	408
12:00 PM	0	0	0	0	0	7	126	0	0	133	55	24	17	0	96	0	129	21	0	150	379
12:15 PM	0	0	0	0	0	3	155	0	0	158	63	39	18	0	120	0	124	18	0	142	420
12:30 PM	0	0	0	0	0	7	144	0	0	151	56	36	24	0	116	0	120	23	0	143	410
Total Volume	0	0	0	0	0	23	587	0	0	610	233	132	76	0	441	0	493	73	0	566	1617
% Approach Total	0.0	0.0	0.0	0.0		3.8	96.2	0.0	0.0		52.8	29.9	17.2	0.0		0.0	87.1	12.9	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.821	0.906	0.000	0.000	0.908	0.925	0.846	0.792	0.000	0.919	0.000	0.955	0.793	0.000	0.943	0.963
Cars	0	0	0	0	0	23	580	0	0	603	231	129	76	0	436	0	490	73	0	563	1602
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	98.8	0.0	0.0	98.9	99.1	97.7	100.0	0.0	98.9	0.0	99.4	100.0	0.0	99.5	99.1
Heavy Vehicles	0	0	0	0	0	0	7	0	0	7	2	3	0	0	5	0	3	0	0	3	15
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.1	0.9	2.3	0.0	0.0	1.1	0.0	0.6	0.0	0.0	0.5	0.9
Cars Enter Leg	0	0	0	0	0	23	580	0	0	603	231	129	76	0	436	0	490	73	0	563	1602
Heavy Enter Leg	0	0	0	0	0	0	7	0	0	7	2	3	0	0	5	0	3	0	0	3	15
Total Entering Leg	0	0	0	0	0	23	587	0	0	610	233	132	76	0	441	0	493	73	0	566	1617
Cars Exiting Leg					225					721					0					656	1602
Heavy Exiting Leg					3					5					0					7	15
Total Exiting Leg					228					726					0					663	1617

TRAFFIC COUNT DATA

PDI File #: **197294 C**
Location: **N: Elm Street S: Driveway NE: Elsie Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	1	0	57	35	0	93	19	0	0	0	0	19	0	49	107	0	0	156	0	0	0	0	0	0	0	142	2	0	0	144	412
7:15 AM	0	0	55	9	0	64	14	0	0	0	0	14	1	71	119	0	0	191	0	0	0	0	0	0	0	112	1	3	0	116	385
7:30 AM	0	0	60	5	0	65	4	0	0	0	0	4	0	73	142	0	0	215	0	0	0	0	0	0	0	116	0	3	0	119	403
7:45 AM	1	0	65	1	0	67	7	0	0	0	0	7	0	104	128	0	0	232	0	0	0	0	0	0	0	149	1	1	0	151	457
Total	2	0	237	50	0	289	44	0	0	0	0	44	1	297	496	0	0	794	0	0	0	0	0	0	0	519	4	7	0	530	1657
8:00 AM	2	0	66	3	0	71	5	0	0	0	0	5	1	97	119	0	0	217	0	0	0	0	0	0	0	124	1	0	0	125	418
8:15 AM	0	0	53	5	0	58	8	0	0	1	0	9	0	97	113	0	0	210	0	0	0	0	0	0	0	117	1	3	0	121	398
8:30 AM	0	0	83	1	0	84	8	0	0	0	0	8	0	78	90	0	0	168	0	0	0	0	0	0	0	121	0	0	0	121	381
8:45 AM	0	0	74	3	0	77	4	0	0	1	0	5	1	71	120	0	0	192	0	0	0	0	0	0	0	120	4	2	0	126	400
Total	2	0	276	12	0	290	25	0	0	2	0	27	2	343	442	0	0	787	0	0	0	0	0	0	0	482	6	5	0	493	1597
Grand Total	4	0	513	62	0	579	69	0	0	2	0	71	3	640	938	0	0	1581	0	0	0	0	0	0	0	1001	10	12	0	1023	3254
Approach %	0.7	0.0	88.6	10.7	0.0		97.2	0.0	0.0	2.8	0.0		0.2	40.5	59.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	97.8	1.0	1.2	0.0		
Total %	0.1	0.0	15.8	1.9	0.0	17.8	2.1	0.0	0.0	0.1	0.0	2.2	0.1	19.7	28.8	0.0	0.0	48.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.8	0.3	0.4	0.0	31.4	
Exiting Leg Total						721						75						1516						0						942	3254
Cars	4	0	474	60	0	538	66	0	0	1	0	67	1	600	888	0	0	1489	0	0	0	0	0	0	0	928	7	12	0	947	3041
% Cars	100.0	0.0	92.4	96.8	0.0	92.9	95.7	0.0	0.0	50.0	0.0	94.4	33.3	93.8	94.7	0.0	0.0	94.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.7	70.0	100.0	0.0	92.6	93.5
Exiting Leg Total						678						68						1403						0						892	3041
Heavy Vehicles	0	0	39	2	0	41	3	0	0	1	0	4	2	40	50	0	0	92	0	0	0	0	0	0	0	73	3	0	0	76	213
% Heavy Vehicles	0.0	0.0	7.6	3.2	0.0	7.1	4.3	0.0	0.0	50.0	0.0	5.6	66.7	6.3	5.3	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	30.0	0.0	0.0	7.4	6.5
Exiting Leg Total						43						7						113						0						50	213

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:30 AM	0	0	60	5	0	65	4	0	0	0	0	4	0	73	142	0	0	215	0	0	0	0	0	0	0	116	0	3	0	119	403
7:45 AM	1	0	65	1	0	67	7	0	0	0	0	7	0	104	128	0	0	232	0	0	0	0	0	0	0	149	1	1	0	151	457
8:00 AM	2	0	66	3	0	71	5	0	0	0	0	5	1	97	119	0	0	217	0	0	0	0	0	0	0	124	1	0	0	125	418
8:15 AM	0	0	53	5	0	58	8	0	0	1	0	9	0	97	113	0	0	210	0	0	0	0	0	0	0	117	1	3	0	121	398
Total Volume	3	0	244	14	0	261	24	0	0	1	0	25	1	371	502	0	0	874	0	0	0	0	0	0	0	506	3	7	0	516	1676
% Approach Total	1.1	0.0	93.5	5.4	0.0		96.0	0.0	0.0	4.0	0.0		0.1	42.4	57.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	98.1	0.6	1.4	0.0		
PHF	0.375	0.000	0.924	0.700	0.000	0.919	0.750	0.000	0.000	0.250	0.000	0.694	0.250	0.892	0.884	0.000	0.000	0.942	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.849	0.750	0.583	0.000	0.854	0.917
Cars	3	0	225	14	0	242	23	0	0	0	0	23	0	351	470	0	0	821	0	0	0	0	0	0	0	472	1	7	0	480	1566
Cars %	100.0	0.0	92.2	100.0	0.0	92.7	95.8	0.0	0.0	0.0	0.0	92.0	0.0	94.6	93.6	0.0	0.0	93.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.3	33.3	100.0	0.0	93.0	93.4
Heavy Vehicles	0	0	19	0	0	19	1	0	0	1	0	2	1	20	32	0	0	53	0	0	0	0	0	0	0	34	2	0	0	36	110
Heavy Vehicles %	0.0	0.0	7.8	0.0	0.0	7.3	4.2	0.0	0.0	100.0	0.0	8.0	100.0	5.4	6.4	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	66.7	0.0	0.0	7.0	6.6
Cars Enter Leg	3	0	225	14	0	242	23	0	0	0	0	23	0	351	470	0	0	821	0	0	0	0	0	0	0	472	1	7	0	480	1566
Heavy Enter Leg	0	0	19	0	0	19	1	0	0	1	0	2	1	20	32	0	0	53	0	0	0	0	0	0	0	34	2	0	0	36	110
Total Entering Leg	3	0	244	14	0	261	24	0	0	1	0	25	1	371	502	0	0	874	0	0	0	0	0	0	0	506	3	7	0	516	1676
Cars Exiting Leg						381						15						697						0						473	1566
Heavy Exiting Leg						21						3						54						0						32	110
Total Exiting Leg						402						18						751						0						505	1676

TRAFFIC COUNT DATA

PDI File #: **197294 CC**
Location: **N: Elm Street S: Driveway NE: Elsie Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
11:00 AM	1	0	74	2	0	77	7	0	0	0	0	7	0	72	96	0	0	168	0	0	0	0	0	0	0	122	1	6	0	129	381
11:15 AM	2	0	85	3	0	90	2	0	0	0	0	2	1	77	100	0	0	178	0	0	0	0	0	0	0	145	1	3	0	149	419
11:30 AM	1	0	85	0	0	86	2	0	0	0	0	2	1	73	118	0	0	192	0	0	0	0	0	0	0	110	1	1	0	112	392
11:45 AM	2	0	82	1	0	85	8	0	0	0	0	8	0	74	128	0	0	202	0	0	0	0	0	0	0	120	0	2	0	122	417
Total	6	0	326	6	0	338	19	0	0	0	0	19	2	296	442	0	0	740	0	0	0	0	0	0	0	497	3	12	0	512	1609
12:00 PM	1	0	96	4	0	101	5	1	0	0	0	6	0	83	102	0	0	185	0	0	0	0	0	0	0	139	0	3	0	142	434
12:15 PM	2	0	61	2	0	65	8	0	0	0	0	8	0	85	113	0	0	198	0	0	0	0	0	0	0	143	3	1	0	147	418
12:30 PM	4	0	75	4	0	83	5	0	0	0	0	5	0	91	95	0	0	186	0	0	0	0	0	0	0	123	1	1	0	125	399
12:45 PM	2	0	75	5	0	82	9	0	0	0	0	9	0	85	146	0	0	231	0	0	0	0	0	0	0	127	1	4	0	132	454
Total	9	0	307	15	0	331	27	1	0	0	0	28	0	344	456	0	0	800	0	0	0	0	0	0	0	532	5	9	0	546	1705
Grand Total	15	0	633	21	0	669	46	1	0	0	0	47	2	640	898	0	0	1540	0	0	0	0	0	0	0	1029	8	21	0	1058	3314
Approach %	2.2	0.0	94.6	3.1	0.0		97.9	2.1	0.0	0.0	0.0		0.1	41.6	58.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	97.3	0.8	2.0	0.0		
Total %	0.5	0.0	19.1	0.6	0.0	20.2	1.4	0.0	0.0	0.0	0.0	1.4	0.1	19.3	27.1	0.0	0.0	46.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.1	0.2	0.6	0.0	31.9	
Exiting Leg Total						707						31						1662						0						914	3314
Cars	14	0	618	21	0	653	45	1	0	0	0	46	2	616	851	0	0	1469	0	0	0	0	0	0	0	996	7	21	0	1024	3192
% Cars	93.3	0.0	97.6	100.0	0.0	97.6	97.8	100.0	0.0	0.0	0.0	97.9	100.0	96.3	94.8	0.0	0.0	95.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.8	87.5	100.0	0.0	96.8	96.3
Exiting Leg Total						682						30						1614						0						866	3192
Heavy Vehicles	1	0	15	0	0	16	1	0	0	0	0	1	0	24	47	0	0	71	0	0	0	0	0	0	0	33	1	0	0	34	122
% Heavy Vehicles	6.7	0.0	2.4	0.0	0.0	2.4	2.2	0.0	0.0	0.0	0.0	2.1	0.0	3.8	5.2	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	12.5	0.0	0.0	3.2	3.7
Exiting Leg Total						25						1						48						0						48	122

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
12:00 PM	1	0	96	4	0	101	5	1	0	0	0	6	0	83	102	0	0	185	0	0	0	0	0	0	0	139	0	3	0	142	434
12:15 PM	2	0	61	2	0	65	8	0	0	0	0	8	0	85	113	0	0	198	0	0	0	0	0	0	0	143	3	1	0	147	418
12:30 PM	4	0	75	4	0	83	5	0	0	0	0	5	0	91	95	0	0	186	0	0	0	0	0	0	0	123	1	1	0	125	399
12:45 PM	2	0	75	5	0	82	9	0	0	0	0	9	0	85	146	0	0	231	0	0	0	0	0	0	0	127	1	4	0	132	454
Total Volume	9	0	307	15	0	331	27	1	0	0	0	28	0	344	456	0	0	800	0	0	0	0	0	0	0	532	5	9	0	546	1705
% Approach Total	2.7	0.0	92.7	4.5	0.0		96.4	3.6	0.0	0.0	0.0		0.0	43.0	57.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	97.4	0.9	1.6	0.0		
PHF	0.563	0.000	0.799	0.750	0.000	0.819	0.750	0.250	0.000	0.000	0.000	0.778	0.000	0.945	0.781	0.000	0.000	0.866	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.930	0.417	0.563	0.000	0.929	0.939
Cars	8	0	297	15	0	320	26	1	0	0	0	27	0	332	430	0	0	762	0	0	0	0	0	0	0	516	4	9	0	529	1638
Cars %	88.9	0.0	96.7	100.0	0.0	96.7	96.3	100.0	0.0	0.0	0.0	96.4	0.0	96.5	94.3	0.0	0.0	95.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.0	80.0	100.0	0.0	96.9	96.1
Heavy Vehicles	1	0	10	0	0	11	1	0	0	0	0	1	0	12	26	0	0	38	0	0	0	0	0	0	0	16	1	0	0	17	67
Heavy Vehicles %	11.1	0.0	3.3	0.0	0.0	3.3	3.7	0.0	0.0	0.0	0.0	3.6	0.0	3.5	5.7	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	20.0	0.0	0.0	3.1	3.9
Cars Enter Leg	8	0	297	15	0	320	26	1	0	0	0	27	0	332	430	0	0	762	0	0	0	0	0	0	0	516	4	9	0	529	1638
Heavy Enter Leg	1	0	10	0	0	11	1	0	0	0	0	1	0	12	26	0	0	38	0	0	0	0	0	0	0	16	1	0	0	17	67
Total Entering Leg	9	0	307	15	0	331	27	1	0	0	0	28	0	344	456	0	0	800	0	0	0	0	0	0	0	532	5	9	0	546	1705
Cars Exiting Leg						367						19						813						0						439	1638
Heavy Exiting Leg						13						1						26						0						27	67
Total Exiting Leg						380						20						839						0						466	1705

TRAFFIC COUNT DATA

PDI File #: **197294 CCC**
Location: **N: Elm Street S: Driveway NE: Elsie Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	2	0	100	2	0	104	1	0	0	0	0	1	0	107	142	0	0	249	0	0	0	0	0	0	0	200	0	0	0	200	554
4:15 PM	1	0	101	5	0	107	5	0	0	0	0	5	1	116	149	0	0	266	0	0	0	0	0	0	0	211	0	0	0	211	589
4:30 PM	2	0	120	1	0	123	7	0	0	0	0	7	0	111	142	0	0	253	0	0	0	0	0	0	0	192	0	0	0	192	575
4:45 PM	0	0	107	7	0	114	5	0	0	0	0	5	0	120	144	0	0	264	0	0	0	0	0	0	0	175	0	0	0	175	558
Total	5	0	428	15	0	448	18	0	0	0	0	18	1	454	577	0	0	1032	0	0	0	0	0	0	0	778	0	0	0	778	2276
5:00 PM	1	0	113	2	0	116	11	0	0	0	0	11	0	100	144	0	0	244	0	0	0	0	0	0	1	206	0	1	0	208	579
5:15 PM	4	0	112	4	0	120	7	0	0	0	0	7	0	103	142	0	0	245	0	0	0	0	0	0	0	190	1	2	0	193	565
5:30 PM	1	0	100	7	0	108	7	0	0	0	0	7	0	109	159	0	0	268	0	0	0	0	0	0	0	158	0	0	0	158	541
5:45 PM	2	0	86	4	0	92	5	0	0	1	0	6	0	98	160	1	0	259	0	0	0	0	0	0	0	144	0	1	0	145	502
Total	8	0	411	17	0	436	30	0	0	1	0	31	0	410	605	1	0	1016	0	0	0	0	0	0	1	698	1	4	0	704	2187
Grand Total	13	0	839	32	0	884	48	0	0	1	0	49	1	864	1182	1	0	2048	0	0	0	0	0	0	1	1476	1	4	0	1482	4463
Approach %	1.5	0.0	94.9	3.6	0.0		98.0	0.0	0.0	2.0	0.0		0.0	42.2	57.7	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.1	99.6	0.1	0.3	0.0		
Total %	0.3	0.0	18.8	0.7	0.0	19.8	1.1	0.0	0.0	0.0	0.0	1.1	0.0	19.4	26.5	0.0	0.0	45.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.1	0.0	0.1	0.0	33.2	
Exiting Leg Total						916						34						2316						2						1195	4463
Cars	13	0	830	32	0	875	48	0	0	1	0	49	1	859	1163	1	0	2024	0	0	0	0	0	0	1	1463	1	4	0	1469	4417
% Cars	100.0	0.0	98.9	100.0	0.0	99.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	99.4	98.4	100.0	0.0	98.8	0.0	0.0	0.0	0.0	0.0	0.0	100.0	99.1	100.0	100.0	0.0	99.1	99.0
Exiting Leg Total						911						34						2294						2						1176	4417
Heavy Vehicles	0	0	9	0	0	9	0	0	0	0	0	0	0	5	19	0	0	24	0	0	0	0	0	0	0	13	0	0	0	13	46
% Heavy Vehicles	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.6	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	1.0
Exiting Leg Total						5						0						22						0						19	46

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:15 PM	1	0	101	5	0	107	5	0	0	0	0	5	1	116	149	0	0	266	0	0	0	0	0	0	0	211	0	0	0	211	589
4:30 PM	2	0	120	1	0	123	7	0	0	0	0	7	0	111	142	0	0	253	0	0	0	0	0	0	0	192	0	0	0	192	575
4:45 PM	0	0	107	7	0	114	5	0	0	0	0	5	0	120	144	0	0	264	0	0	0	0	0	0	0	175	0	0	0	175	558
5:00 PM	1	0	113	2	0	116	11	0	0	0	0	11	0	100	144	0	0	244	0	0	0	0	0	0	1	206	0	1	0	208	579
Total Volume	4	0	441	15	0	460	28	0	0	0	0	28	1	447	579	0	0	1027	0	0	0	0	0	0	1	784	0	1	0	786	2301
% Approach Total	0.9	0.0	95.9	3.3	0.0		100.0	0.0	0.0	0.0	0.0		0.1	43.5	56.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.1	99.7	0.0	0.1	0.0		
PHF	0.500	0.000	0.919	0.536	0.000	0.935	0.636	0.000	0.000	0.000	0.000	0.636	0.250	0.931	0.971	0.000	0.000	0.965	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.929	0.000	0.250	0.000	0.931	0.977
Cars	4	0	435	15	0	454	28	0	0	0	0	28	1	444	568	0	0	1013	0	0	0	0	0	0	1	779	0	1	0	781	2276
Cars %	100.0	0.0	98.6	100.0	0.0	98.7	100.0	0.0	0.0	0.0	0.0	100.0	100.0	99.3	98.1	0.0	0.0	98.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	99.4	0.0	100.0	0.0	99.4	98.9
Heavy Vehicles	0	0	6	0	0	6	0	0	0	0	0	0	0	3	11	0	0	14	0	0	0	0	0	0	0	5	0	0	0	5	25
Heavy Vehicles %	0.0	0.0	1.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.9	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6	1.1
Cars Enter Leg	4	0	435	15	0	454	28	0	0	0	0	28	1	444	568	0	0	1013	0	0	0	0	0	0	1	779	0	1	0	781	2276
Heavy Enter Leg	0	0	6	0	0	6	0	0	0	0	0	0	0	3	11	0	0	14	0	0	0	0	0	0	0	5	0	0	0	5	25
Total Entering Leg	4	0	441	15	0	460	28	0	0	0	0	28	1	447	579	0	0	1027	0	0	0	0	0	0	1	784	0	1	0	786	2301
Cars Exiting Leg						473						16						1214						1						572	2276
Heavy Exiting Leg						3						0						11						0						11	25
Total Exiting Leg						476						16						1225						1						583	2301

TRAFFIC COUNT DATA

PDI File #: **197294 CCCC**
Location: **N: Elm Street S: Driveway NE: Elsie Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
11:00 AM	0	0	109	1	0	110	5	0	0	0	0	5	0	102	160	0	0	262	0	0	0	0	0	0	0	168	0	0	0	168	545
11:15 AM	2	0	95	2	0	99	5	0	0	0	0	5	0	106	132	0	0	238	0	0	0	0	0	0	0	159	0	3	0	162	504
11:30 AM	2	0	101	1	0	104	2	0	0	1	0	3	0	123	133	0	0	256	0	0	0	0	0	0	0	170	0	4	0	174	537
11:45 AM	0	0	109	3	0	112	4	0	0	0	0	4	0	103	161	0	0	264	0	0	0	0	0	0	0	168	0	2	0	170	550
Total	4	0	414	7	0	425	16	0	0	1	0	17	0	434	586	0	0	1020	0	0	0	0	0	0	0	665	0	9	0	674	2136
12:00 PM	0	0	100	0	0	100	6	0	0	0	0	6	0	112	125	0	0	237	0	0	0	0	0	0	0	158	1	6	0	165	508
12:15 PM	1	0	107	1	0	109	7	0	0	0	0	7	0	100	153	0	0	253	0	0	0	0	0	0	0	174	0	1	0	175	544
12:30 PM	3	0	112	1	0	116	2	0	0	0	0	2	1	113	143	0	0	257	0	0	0	0	0	0	0	169	0	1	0	170	545
12:45 PM	6	0	102	2	0	110	5	0	0	0	0	5	2	103	127	0	0	232	0	0	0	0	0	0	0	159	0	0	0	159	506
Total	10	0	421	4	0	435	20	0	0	0	0	20	3	428	548	0	0	979	0	0	0	0	0	0	0	660	1	8	0	669	2103
Grand Total	14	0	835	11	0	860	36	0	0	1	0	37	3	862	1134	0	0	1999	0	0	0	0	0	0	0	1325	1	17	0	1343	4239
Approach %	1.6	0.0	97.1	1.3	0.0		97.3	0.0	0.0	2.7	0.0		0.2	43.1	56.7	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	98.7	0.1	1.3	0.0		
Total %	0.3	0.0	19.7	0.3	0.0	20.3	0.8	0.0	0.0	0.0	0.0	0.9	0.1	20.3	26.8	0.0	0.0	47.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.3	0.0	0.4	0.0	31.7	
Exiting Leg Total						915						15						2161						0						1148	4239
Cars	14	0	832	11	0	857	36	0	0	1	0	37	3	856	1112	0	0	1971	0	0	0	0	0	0	0	1306	1	16	0	1323	4188
% Cars	100.0	0.0	99.6	100.0	0.0	99.7	100.0	0.0	0.0	100.0	0.0	100.0	100.0	99.3	98.1	0.0	0.0	98.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.6	100.0	94.1	0.0	98.5	98.8
Exiting Leg Total						908						15						2139						0						1126	4188
Heavy Vehicles	0	0	3	0	0	3	0	0	0	0	0	0	0	6	22	0	0	28	0	0	0	0	0	0	0	19	0	1	0	20	51
% Heavy Vehicles	0.0	0.0	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.9	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	5.9	0.0	1.5	1.2
Exiting Leg Total						7						0						22						0						22	51

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Elm Street						Elsie Street						East Main Street (Route 202)						Driveway						East Main Street (Route 202)						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
11:45 AM	0	0	109	3	0	112	4	0	0	0	0	4	0	103	161	0	0	264	0	0	0	0	0	0	0	168	0	2	0	170	550
12:00 PM	0	0	100	0	0	100	6	0	0	0	0	6	0	112	125	0	0	237	0	0	0	0	0	0	0	158	1	6	0	165	508
12:15 PM	1	0	107	1	0	109	7	0	0	0	0	7	0	100	153	0	0	253	0	0	0	0	0	0	0	174	0	1	0	175	544
12:30 PM	3	0	112	1	0	116	2	0	0	0	0	2	1	113	143	0	0	257	0	0	0	0	0	0	0	169	0	1	0	170	545
Total Volume	4	0	428	5	0	437	19	0	0	0	0	19	1	428	582	0	0	1011	0	0	0	0	0	0	0	669	1	10	0	680	2147
% Approach Total	0.9	0.0	97.9	1.1	0.0		100.0	0.0	0.0	0.0	0.0		0.1	42.3	57.6	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	98.4	0.1	1.5	0.0		
PHF	0.333	0.000	0.955	0.417	0.000	0.942	0.679	0.000	0.000	0.000	0.000	0.679	0.250	0.947	0.904	0.000	0.000	0.957	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.961	0.250	0.417	0.000	0.971	0.976
Cars	4	0	426	5	0	435	19	0	0	0	0	19	1	427	570	0	0	998	0	0	0	0	0	0	0	661	1	10	0	672	2124
Cars %	100.0	0.0	99.5	100.0	0.0	99.5	100.0	0.0	0.0	0.0	0.0	100.0	100.0	99.8	97.9	0.0	0.0	98.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.8	100.0	100.0	0.0	98.8	98.9
Heavy Vehicles	0	0	2	0	0	2	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	0	8	0	0	0	8	23
Heavy Vehicles %	0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.1	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2	1.1
Cars Enter Leg	4	0	426	5	0	435	19	0	0	0	0	19	1	427	570	0	0	998	0	0	0	0	0	0	0	661	1	10	0	672	2124
Heavy Enter Leg	0	0	2	0	0	2	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	0	8	0	0	0	8	23
Total Entering Leg	4	0	428	5	0	437	19	0	0	0	0	19	1	428	582	0	0	1011	0	0	0	0	0	0	0	669	1	10	0	680	2147
Cars Exiting Leg						456						7						1087						0						574	2124
Heavy Exiting Leg						1						0						10						0						12	23
Total Exiting Leg						457						7						1097						0						586	2147

TRAFFIC COUNT DATA

PDI File #: **197294 D**
Location: **N: Driveway S: New Harwinton Road (Route 4)**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	101	10	0	111	26	0	63	0	89	40	119	0	0	159	359
7:15 AM	0	0	0	0	0	0	128	1	0	129	7	0	46	0	53	45	121	0	0	166	348
7:30 AM	0	0	0	0	0	0	138	0	0	138	4	0	77	0	81	52	123	0	0	175	394
7:45 AM	0	0	0	0	0	0	151	1	0	152	7	0	83	0	90	46	163	0	0	209	451
Total	0	0	0	0	0	0	518	12	0	530	44	0	269	0	313	183	526	0	0	709	1552
8:00 AM	0	0	0	0	0	0	104	3	0	107	8	0	102	0	110	57	123	0	0	180	397
8:15 AM	0	0	0	0	0	0	127	0	0	127	4	0	84	0	88	36	115	0	0	151	366
8:30 AM	0	0	0	0	0	0	114	4	0	118	5	0	61	0	66	48	136	0	0	184	368
8:45 AM	0	0	0	0	0	0	139	2	0	141	4	0	48	0	52	44	144	0	0	188	381
Total	0	0	0	0	0	0	484	9	0	493	21	0	295	0	316	185	518	0	0	703	1512
Grand Total	0	0	0	0	0	0	1002	21	0	1023	65	0	564	0	629	368	1044	0	0	1412	3064
Approach %	0.0	0.0	0.0	0.0		0.0	97.9	2.1	0.0		10.3	0.0	89.7	0.0		26.1	73.9	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	32.7	0.7	0.0	33.4	2.1	0.0	18.4	0.0	20.5	12.0	34.1	0.0	0.0	46.1	
Exiting Leg Total					0					1109					389					1566	3064
Cars	0	0	0	0	0	0	945	18	0	963	63	0	541	0	604	335	968	0	0	1303	2870
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	94.3	85.7	0.0	94.1	96.9	0.0	95.9	0.0	96.0	91.0	92.7	0.0	0.0	92.3	93.7
Exiting Leg Total					0					1031					353					1486	2870
Heavy Vehicles	0	0	0	0	0	0	57	3	0	60	2	0	23	0	25	33	76	0	0	109	194
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	5.7	14.3	0.0	5.9	3.1	0.0	4.1	0.0	4.0	9.0	7.3	0.0	0.0	7.7	6.3
Exiting Leg Total					0					78					36					80	194

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	138	0	0	138	4	0	77	0	81	52	123	0	0	175	394
7:45 AM	0	0	0	0	0	0	151	1	0	152	7	0	83	0	90	46	163	0	0	209	451
8:00 AM	0	0	0	0	0	0	104	3	0	107	8	0	102	0	110	57	123	0	0	180	397
8:15 AM	0	0	0	0	0	0	127	0	0	127	4	0	84	0	88	36	115	0	0	151	366
Total Volume	0	0	0	0	0	0	520	4	0	524	23	0	346	0	369	191	524	0	0	715	1608
% Approach Total	0.0	0.0	0.0	0.0		0.0	99.2	0.8	0.0		6.2	0.0	93.8	0.0		26.7	73.3	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.861	0.333	0.000	0.862	0.719	0.000	0.848	0.000	0.839	0.838	0.804	0.000	0.000	0.855	0.891
Cars	0	0	0	0	0	0	490	2	0	492	21	0	327	0	348	167	494	0	0	661	1501
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	94.2	50.0	0.0	93.9	91.3	0.0	94.5	0.0	94.3	87.4	94.3	0.0	0.0	92.4	93.3
Heavy Vehicles	0	0	0	0	0	0	30	2	0	32	2	0	19	0	21	24	30	0	0	54	107
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	5.8	50.0	0.0	6.1	8.7	0.0	5.5	0.0	5.7	12.6	5.7	0.0	0.0	7.6	6.7
Cars Enter Leg	0	0	0	0	0	0	490	2	0	492	21	0	327	0	348	167	494	0	0	661	1501
Heavy Enter Leg	0	0	0	0	0	0	30	2	0	32	2	0	19	0	21	24	30	0	0	54	107
Total Entering Leg	0	0	0	0	0	0	520	4	0	524	23	0	346	0	369	191	524	0	0	715	1608
Cars Exiting Leg					0					515					169					817	1501
Heavy Exiting Leg					0					32					26					49	107
Total Exiting Leg					0					547					195					866	1608

PDI File #: **197294 DD**
Location: **N: Driveway S: New Harwinton Road (Route 4)**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	0	128	0	0	128	3	0	38	0	41	37	142	0	0	179	348
11:15 AM	0	0	0	0	0	0	122	1	0	123	3	0	44	0	47	41	161	0	0	202	372
11:30 AM	0	0	0	0	0	0	141	0	0	141	2	0	51	0	53	39	140	0	0	179	373
11:45 AM	0	0	0	0	0	0	158	0	0	158	2	0	46	0	48	36	142	0	0	178	384
Total	0	0	0	0	0	0	549	1	0	550	10	0	179	0	189	153	585	0	0	738	1477
12:00 PM	0	0	0	0	0	0	138	0	0	138	7	0	33	0	40	52	164	0	0	216	394
12:15 PM	0	0	0	0	0	0	142	3	0	145	2	0	48	0	50	49	135	0	0	184	379
12:30 PM	0	0	0	0	0	0	128	0	0	128	7	0	55	0	62	43	139	0	0	182	372
12:45 PM	0	0	0	0	0	0	170	1	0	171	4	0	61	0	65	44	138	0	0	182	418
Total	0	0	0	0	0	0	578	4	0	582	20	0	197	0	217	188	576	0	0	764	1563
Grand Total	0	0	0	0	0	0	1127	5	0	1132	30	0	376	0	406	341	1161	0	0	1502	3040
Approach %	0.0	0.0	0.0	0.0		0.0	99.6	0.4	0.0		7.4	0.0	92.6	0.0		22.7	77.3	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	37.1	0.2	0.0	37.2	1.0	0.0	12.4	0.0	13.4	11.2	38.2	0.0	0.0	49.4	
Exiting Leg Total					0					1191					346					1503	3040
Cars	0	0	0	0	0	0	1074	5	0	1079	28	0	360	0	388	326	1128	0	0	1454	2921
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	95.3	100.0	0.0	95.3	93.3	0.0	95.7	0.0	95.6	95.6	97.2	0.0	0.0	96.8	96.1
Exiting Leg Total					0					1156					331					1434	2921
Heavy Vehicles	0	0	0	0	0	0	53	0	0	53	2	0	16	0	18	15	33	0	0	48	119
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	4.7	6.7	0.0	4.3	0.0	4.4	4.4	2.8	0.0	0.0	3.2	3.9
Exiting Leg Total					0					35					15					69	119

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	0	0	0	0	0	0	138	0	0	138	7	0	33	0	40	52	164	0	0	216	394
12:15 PM	0	0	0	0	0	0	142	3	0	145	2	0	48	0	50	49	135	0	0	184	379
12:30 PM	0	0	0	0	0	0	128	0	0	128	7	0	55	0	62	43	139	0	0	182	372
12:45 PM	0	0	0	0	0	0	170	1	0	171	4	0	61	0	65	44	138	0	0	182	418
Total Volume	0	0	0	0	0	0	578	4	0	582	20	0	197	0	217	188	576	0	0	764	1563
% Approach Total	0.0	0.0	0.0	0.0		0.0	99.3	0.7	0.0		9.2	0.0	90.8	0.0		24.6	75.4	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.850	0.333	0.000	0.851	0.714	0.000	0.807	0.000	0.835	0.904	0.878	0.000	0.000	0.884	0.935
Cars	0	0	0	0	0	0	550	4	0	554	19	0	191	0	210	178	563	0	0	741	1505
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	95.2	100.0	0.0	95.2	95.0	0.0	97.0	0.0	96.8	94.7	97.7	0.0	0.0	97.0	96.3
Heavy Vehicles	0	0	0	0	0	0	28	0	0	28	1	0	6	0	7	10	13	0	0	23	58
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	4.8	5.0	0.0	3.0	0.0	3.2	5.3	2.3	0.0	0.0	3.0	3.7
Cars Enter Leg	0	0	0	0	0	0	550	4	0	554	19	0	191	0	210	178	563	0	0	741	1505
Heavy Enter Leg	0	0	0	0	0	0	28	0	0	28	1	0	6	0	7	10	13	0	0	23	58
Total Entering Leg	0	0	0	0	0	0	578	4	0	582	20	0	197	0	217	188	576	0	0	764	1563
Cars Exiting Leg					0					582					182					741	1505
Heavy Exiting Leg					0					14					10					34	58
Total Exiting Leg					0					596					192					775	1563

TRAFFIC COUNT DATA

PDI File #: **197294 DDD**
Location: **N: Driveway S: New Harwinton Road (Route 4)**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	191	2	0	193	3	0	57	0	60	86	198	0	0	284	537
4:15 PM	0	0	0	0	0	0	180	1	0	181	5	0	90	0	95	86	218	0	0	304	580
4:30 PM	0	0	0	0	0	0	172	2	0	174	7	0	76	0	83	93	202	0	0	295	552
4:45 PM	0	0	0	0	0	0	194	0	0	194	10	0	67	0	77	78	182	0	0	260	531
Total	0	0	0	0	0	0	737	5	0	742	25	0	290	0	315	343	800	0	0	1143	2200
5:00 PM	0	0	0	0	0	0	181	3	0	184	13	0	74	0	87	107	191	0	0	298	569
5:15 PM	0	0	0	0	0	0	198	3	0	201	7	0	60	0	67	91	206	0	0	297	565
5:30 PM	0	0	0	0	0	0	186	5	0	191	9	0	70	0	79	77	164	0	0	241	511
5:45 PM	0	0	0	0	0	0	189	3	0	192	7	0	53	0	60	72	153	0	0	225	477
Total	0	0	0	0	0	0	754	14	0	768	36	0	257	0	293	347	714	0	0	1061	2122
Grand Total	0	0	0	0	0	0	1491	19	0	1510	61	0	547	0	608	690	1514	0	0	2204	4322
Approach %	0.0	0.0	0.0	0.0		0.0	98.7	1.3	0.0		10.0	0.0	90.0	0.0		31.3	68.7	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	34.5	0.4	0.0	34.9	1.4	0.0	12.7	0.0	14.1	16.0	35.0	0.0	0.0	51.0	
Exiting Leg Total					0					1575					709					2038	4322
Cars	0	0	0	0	0	0	1473	19	0	1492	59	0	542	0	601	687	1504	0	0	2191	4284
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	98.8	100.0	0.0	98.8	96.7	0.0	99.1	0.0	98.8	99.6	99.3	0.0	0.0	99.4	99.1
Exiting Leg Total					0					1563					706					2015	4284
Heavy Vehicles	0	0	0	0	0	0	18	0	0	18	2	0	5	0	7	3	10	0	0	13	38
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	3.3	0.0	0.9	0.0	1.2	0.4	0.7	0.0	0.0	0.6	0.9
Exiting Leg Total					0					12					3					23	38

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	180	1	0	181	5	0	90	0	95	86	218	0	0	304	580
4:30 PM	0	0	0	0	0	0	172	2	0	174	7	0	76	0	83	93	202	0	0	295	552
4:45 PM	0	0	0	0	0	0	194	0	0	194	10	0	67	0	77	78	182	0	0	260	531
5:00 PM	0	0	0	0	0	0	181	3	0	184	13	0	74	0	87	107	191	0	0	298	569
Total Volume	0	0	0	0	0	0	727	6	0	733	35	0	307	0	342	364	793	0	0	1157	2232
% Approach Total	0.0	0.0	0.0	0.0		0.0	99.2	0.8	0.0		10.2	0.0	89.8	0.0		31.5	68.5	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.937	0.500	0.000	0.945	0.673	0.000	0.853	0.000	0.900	0.850	0.909	0.000	0.000	0.951	0.962
Cars	0	0	0	0	0	0	717	6	0	723	33	0	303	0	336	361	789	0	0	1150	2209
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	98.6	100.0	0.0	98.6	94.3	0.0	98.7	0.0	98.2	99.2	99.5	0.0	0.0	99.4	99.0
Heavy Vehicles	0	0	0	0	0	0	10	0	0	10	2	0	4	0	6	3	4	0	0	7	23
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	5.7	0.0	1.3	0.0	1.8	0.8	0.5	0.0	0.0	0.6	1.0
Cars Enter Leg	0	0	0	0	0	0	717	6	0	723	33	0	303	0	336	361	789	0	0	1150	2209
Heavy Enter Leg	0	0	0	0	0	0	10	0	0	10	2	0	4	0	6	3	4	0	0	7	23
Total Entering Leg	0	0	0	0	0	0	727	6	0	733	35	0	307	0	342	364	793	0	0	1157	2232
Cars Exiting Leg					0					822					367					1020	2209
Heavy Exiting Leg					0					6					3					14	23
Total Exiting Leg					0					828					370					1034	2232

PDI File #: **197294 DDDD**
Location: **N: Driveway S: New Harwinton Road (Route 4)**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	0	188	2	0	190	8	0	63	0	71	63	197	0	0	260	521
11:15 AM	0	0	0	0	0	0	171	0	0	171	4	0	61	0	65	60	176	0	0	236	472
11:30 AM	0	0	0	0	0	0	190	0	0	190	3	0	74	0	77	57	203	0	0	260	527
11:45 AM	0	0	0	0	0	0	212	1	0	213	6	0	49	0	55	59	217	0	0	276	544
Total	0	0	0	0	0	0	761	3	0	764	21	0	247	0	268	239	793	0	0	1032	2064
12:00 PM	0	0	0	0	0	0	167	2	0	169	8	0	69	0	77	59	190	0	0	249	495
12:15 PM	0	0	0	0	0	0	192	2	0	194	0	0	67	0	67	70	199	0	0	269	530
12:30 PM	0	0	0	0	0	0	164	3	0	167	8	0	76	0	84	76	202	0	0	278	529
12:45 PM	0	0	0	0	0	0	176	2	0	178	3	0	72	0	75	60	187	0	0	247	500
Total	0	0	0	0	0	0	699	9	0	708	19	0	284	0	303	265	778	0	0	1043	2054
Grand Total	0	0	0	0	0	0	1460	12	0	1472	40	0	531	0	571	504	1571	0	0	2075	4118
Approach %	0.0	0.0	0.0	0.0		0.0	99.2	0.8	0.0		7.0	0.0	93.0	0.0		24.3	75.7	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	35.5	0.3	0.0	35.7	1.0	0.0	12.9	0.0	13.9	12.2	38.1	0.0	0.0	50.4	
Exiting Leg Total					0					1611					516					1991	4118
Cars	0	0	0	0	0	0	1434	12	0	1446	39	0	529	0	568	498	1556	0	0	2054	4068
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	98.2	100.0	0.0	98.2	97.5	0.0	99.6	0.0	99.5	98.8	99.0	0.0	0.0	99.0	98.8
Exiting Leg Total					0					1595					510					1963	4068
Heavy Vehicles	0	0	0	0	0	0	26	0	0	26	1	0	2	0	3	6	15	0	0	21	50
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	2.5	0.0	0.4	0.0	0.5	1.2	1.0	0.0	0.0	1.0	1.2
Exiting Leg Total					0					16					6					28	50

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Driveway from North					East Main Street (Route 202) from East					New Harwinton Road (Route 4) from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	0	0	0	0	0	0	212	1	0	213	6	0	49	0	55	59	217	0	0	276	544
12:00 PM	0	0	0	0	0	0	167	2	0	169	8	0	69	0	77	59	190	0	0	249	495
12:15 PM	0	0	0	0	0	0	192	2	0	194	0	0	67	0	67	70	199	0	0	269	530
12:30 PM	0	0	0	0	0	0	164	3	0	167	8	0	76	0	84	76	202	0	0	278	529
Total Volume	0	0	0	0	0	0	735	8	0	743	22	0	261	0	283	264	808	0	0	1072	2098
% Approach Total	0.0	0.0	0.0	0.0		0.0	98.9	1.1	0.0		7.8	0.0	92.2	0.0		24.6	75.4	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.867	0.667	0.000	0.872	0.688	0.000	0.859	0.000	0.842	0.868	0.931	0.000	0.000	0.964	0.964
Cars	0	0	0	0	0	0	722	8	0	730	22	0	261	0	283	261	802	0	0	1063	2076
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	98.2	100.0	0.0	98.3	100.0	0.0	100.0	0.0	100.0	98.9	99.3	0.0	0.0	99.2	99.0
Heavy Vehicles	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	3	6	0	0	9	22
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.1	0.7	0.0	0.0	0.8	1.0
Cars Enter Leg	0	0	0	0	0	0	722	8	0	730	22	0	261	0	283	261	802	0	0	1063	2076
Heavy Enter Leg	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	3	6	0	0	9	22
Total Entering Leg	0	0	0	0	0	0	735	8	0	743	22	0	261	0	283	264	808	0	0	1072	2098
Cars Exiting Leg					0					824					269					983	2076
Heavy Exiting Leg					0					6					3					13	22
Total Exiting Leg					0					830					272					996	2098

TRAFFIC COUNT DATA

PDI File #: **197294 E**
Location: **N: Charles Street S: Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	14	0	6	0	20	6	97	0	0	103	0	0	0	0	0	0	120	6	0	126	249
7:15 AM	13	0	6	0	19	5	109	0	0	114	0	0	0	0	0	0	124	2	0	126	259
7:30 AM	13	1	4	0	18	2	127	1	0	130	1	0	0	0	1	4	109	5	0	118	267
7:45 AM	3	0	6	0	9	6	144	4	0	154	0	0	0	0	0	3	140	9	0	152	315
Total	43	1	22	0	66	19	477	5	0	501	1	0	0	0	1	7	493	22	0	522	1090
8:00 AM	5	0	4	0	9	3	101	2	0	106	0	0	0	0	0	0	141	5	0	146	261
8:15 AM	6	0	4	0	10	6	124	0	0	130	0	0	0	0	0	0	114	2	0	116	256
8:30 AM	4	0	4	0	8	4	115	1	0	120	0	0	0	0	0	2	124	6	0	132	260
8:45 AM	8	0	4	0	12	6	121	0	0	127	2	0	1	0	3	0	135	4	1	140	282
Total	23	0	16	0	39	19	461	3	0	483	2	0	1	0	3	2	514	17	1	534	1059
Grand Total	66	1	38	0	105	38	938	8	0	984	3	0	1	0	4	9	1007	39	1	1056	2149
Approach %	62.9	1.0	36.2	0.0		3.9	95.3	0.8	0.0		75.0	0.0	25.0	0.0		0.9	95.4	3.7	0.1		
Total %	3.1	0.0	1.8	0.0	4.9	1.8	43.6	0.4	0.0	45.8	0.1	0.0	0.0	0.0	0.2	0.4	46.9	1.8	0.0	49.1	
Exiting Leg Total					77					1048					18					1006	2149
Cars	65	1	37	0	103	35	877	8	0	920	3	0	1	0	4	9	937	36	1	983	2010
% Cars	98.5	100.0	97.4	0.0	98.1	92.1	93.5	100.0	0.0	93.5	100.0	0.0	100.0	0.0	100.0	100.0	93.0	92.3	100.0	93.1	93.5
Exiting Leg Total					71					977					18					944	2010
Heavy Vehicles	1	0	1	0	2	3	61	0	0	64	0	0	0	0	0	0	70	3	0	73	139
% Heavy Vehicles	1.5	0.0	2.6	0.0	1.9	7.9	6.5	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.7	0.0	6.9	6.5
Exiting Leg Total					6					71					0					62	139

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	13	0	6	0	19	5	109	0	0	114	0	0	0	0	0	0	124	2	0	126	259
7:30 AM	13	1	4	0	18	2	127	1	0	130	1	0	0	0	1	4	109	5	0	118	267
7:45 AM	3	0	6	0	9	6	144	4	0	154	0	0	0	0	0	3	140	9	0	152	315
8:00 AM	5	0	4	0	9	3	101	2	0	106	0	0	0	0	0	0	141	5	0	146	261
Total Volume	34	1	20	0	55	16	481	7	0	504	1	0	0	0	1	7	514	21	0	542	1102
% Approach Total	61.8	1.8	36.4	0.0		3.2	95.4	1.4	0.0		100.0	0.0	0.0	0.0		1.3	94.8	3.9	0.0		
PHF	0.654	0.250	0.833	0.000	0.724	0.667	0.835	0.438	0.000	0.818	0.250	0.000	0.000	0.000	0.250	0.438	0.911	0.583	0.000	0.891	0.875
Cars	34	1	19	0	54	14	450	7	0	471	1	0	0	0	1	7	483	20	0	510	1036
Cars %	100.0	100.0	95.0	0.0	98.2	87.5	93.6	100.0	0.0	93.5	100.0	0.0	0.0	0.0	100.0	100.0	94.0	95.2	0.0	94.1	94.0
Heavy Vehicles	0	0	1	0	1	2	31	0	0	33	0	0	0	0	0	0	31	1	0	32	66
Heavy Vehicles %	0.0	0.0	5.0	0.0	1.8	12.5	6.4	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.8	0.0	5.9	6.0
Cars Enter Leg	34	1	19	0	54	14	450	7	0	471	1	0	0	0	1	7	483	20	0	510	1036
Heavy Enter Leg	0	0	1	0	1	2	31	0	0	33	0	0	0	0	0	0	31	1	0	32	66
Total Entering Leg	34	1	20	0	55	16	481	7	0	504	1	0	0	0	1	7	514	21	0	542	1102
Cars Exiting Leg					34					503					15					484	1036
Heavy Exiting Leg					3					32					0					31	66
Total Exiting Leg					37					535					15					515	1102

PDI File #: **197294 EE**
Location: **N: Charles Street S: Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	3	0	4	0	7	2	129	1	0	132	3	0	0	0	3	0	135	3	0	138	280
11:15 AM	1	0	1	0	2	9	114	0	0	123	1	0	0	0	1	1	148	8	0	157	283
11:30 AM	6	0	2	0	8	10	141	2	0	153	2	0	0	0	2	0	143	3	0	146	309
11:45 AM	3	0	4	0	7	3	149	0	0	152	1	0	2	0	3	2	147	2	0	151	313
Total	13	0	11	0	24	24	533	3	0	560	7	0	2	0	9	3	573	16	0	592	1185
12:00 PM	2	0	4	0	6	9	142	2	0	153	5	0	0	0	5	1	155	5	0	161	325
12:15 PM	2	0	9	0	11	6	143	0	0	149	1	0	0	0	1	0	137	6	0	143	304
12:30 PM	5	0	4	0	9	8	123	2	0	133	0	0	0	0	0	1	142	6	0	149	291
12:45 PM	12	2	11	0	25	11	169	1	0	181	1	0	0	0	1	3	125	4	1	133	340
Total	21	2	28	0	51	34	577	5	0	616	7	0	0	0	7	5	559	21	1	586	1260
Grand Total	34	2	39	0	75	58	1110	8	0	1176	14	0	2	0	16	8	1132	37	1	1178	2445
Approach %	45.3	2.7	52.0	0.0		4.9	94.4	0.7	0.0		87.5	0.0	12.5	0.0		0.7	96.1	3.1	0.1		
Total %	1.4	0.1	1.6	0.0	3.1	2.4	45.4	0.3	0.0	48.1	0.6	0.0	0.1	0.0	0.7	0.3	46.3	1.5	0.0	48.2	
Exiting Leg Total					95					1185					18					1147	2445
Cars	32	2	37	0	71	55	1063	8	0	1126	14	0	2	0	16	8	1101	36	1	1146	2359
% Cars	94.1	100.0	94.9	0.0	94.7	94.8	95.8	100.0	0.0	95.7	100.0	0.0	100.0	0.0	100.0	100.0	97.3	97.3	100.0	97.3	96.5
Exiting Leg Total					91					1152					18					1098	2359
Heavy Vehicles	2	0	2	0	4	3	47	0	0	50	0	0	0	0	0	0	31	1	0	32	86
% Heavy Vehicles	5.9	0.0	5.1	0.0	5.3	5.2	4.2	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	0.0	2.7	3.5
Exiting Leg Total					4					33					0					49	86

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	2	0	4	0	6	9	142	2	0	153	5	0	0	0	5	1	155	5	0	161	325
12:15 PM	2	0	9	0	11	6	143	0	0	149	1	0	0	0	1	0	137	6	0	143	304
12:30 PM	5	0	4	0	9	8	123	2	0	133	0	0	0	0	0	1	142	6	0	149	291
12:45 PM	12	2	11	0	25	11	169	1	0	181	1	0	0	0	1	3	125	4	1	133	340
Total Volume	21	2	28	0	51	34	577	5	0	616	7	0	0	0	7	5	559	21	1	586	1260
% Approach Total	41.2	3.9	54.9	0.0		5.5	93.7	0.8	0.0		100.0	0.0	0.0	0.0		0.9	95.4	3.6	0.2		
PHF	0.438	0.250	0.636	0.000	0.510	0.773	0.854	0.625	0.000	0.851	0.350	0.000	0.000	0.000	0.350	0.417	0.902	0.875	0.250	0.910	0.926
Cars	19	2	26	0	47	32	551	5	0	588	7	0	0	0	7	5	544	21	1	571	1213
Cars %	90.5	100.0	92.9	0.0	92.2	94.1	95.5	100.0	0.0	95.5	100.0	0.0	0.0	0.0	100.0	100.0	97.3	100.0	100.0	97.4	96.3
Heavy Vehicles	2	0	2	0	4	2	26	0	0	28	0	0	0	0	0	0	15	0	0	15	47
Heavy Vehicles %	9.5	0.0	7.1	0.0	7.8	5.9	4.5	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	2.6	3.7
Cars Enter Leg	19	2	26	0	47	32	551	5	0	588	7	0	0	0	7	5	544	21	1	571	1213
Heavy Enter Leg	2	0	2	0	4	2	26	0	0	28	0	0	0	0	0	0	15	0	0	15	47
Total Entering Leg	21	2	28	0	51	34	577	5	0	616	7	0	0	0	7	5	559	21	1	586	1260
Cars Exiting Leg					53					577					12					571	1213
Heavy Exiting Leg					2					17					0					28	47
Total Exiting Leg					55					594					12					599	1260

TRAFFIC COUNT DATA

PDI File #: **197294 EEE**
Location: **N: Charles Street S: Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	0	9	0	17	9	193	0	0	202	2	0	0	0	2	0	184	11	0	195	416
4:15 PM	7	0	12	0	19	10	176	1	1	188	0	1	0	0	1	0	211	10	0	221	429
4:30 PM	7	1	9	0	17	8	170	2	0	180	2	1	0	0	3	0	203	11	0	214	414
4:45 PM	12	0	6	0	18	14	176	0	0	190	1	1	0	0	2	0	179	8	0	187	397
Total	34	1	36	0	71	41	715	3	1	760	5	3	0	0	8	0	777	40	0	817	1656
5:00 PM	8	1	3	0	12	7	186	0	0	193	0	0	1	0	1	0	193	11	0	204	410
5:15 PM	9	0	10	0	19	7	182	2	0	191	2	0	1	0	3	1	180	7	0	188	401
5:30 PM	8	0	5	0	13	4	178	0	0	182	0	1	0	0	1	0	163	7	0	170	366
5:45 PM	11	0	4	0	15	11	178	0	0	189	1	0	1	0	2	0	146	8	0	154	360
Total	36	1	22	0	59	29	724	2	0	755	3	1	3	0	7	1	682	33	0	716	1537
Grand Total	70	2	58	0	130	70	1439	5	1	1515	8	4	3	0	15	1	1459	73	0	1533	3193
Approach %	53.8	1.5	44.6	0.0		4.6	95.0	0.3	0.1		53.3	26.7	20.0	0.0		0.1	95.2	4.8	0.0		
Total %	2.2	0.1	1.8	0.0	4.1	2.2	45.1	0.2	0.0	47.4	0.3	0.1	0.1	0.0	0.5	0.0	45.7	2.3	0.0	48.0	
Exiting Leg Total					147					1526					8					1512	3193
Cars	69	2	58	0	129	70	1421	5	1	1497	8	4	3	0	15	1	1443	73	0	1517	3158
% Cars	98.6	100.0	100.0	0.0	99.2	100.0	98.7	100.0	100.0	98.8	100.0	100.0	100.0	0.0	100.0	100.0	98.9	100.0	0.0	99.0	98.9
Exiting Leg Total					147					1510					8					1493	3158
Heavy Vehicles	1	0	0	0	1	0	18	0	0	18	0	0	0	0	0	0	16	0	0	16	35
% Heavy Vehicles	1.4	0.0	0.0	0.0	0.8	0.0	1.3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	1.1
Exiting Leg Total					0					16					0					19	35

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	0	9	0	17	9	193	0	0	202	2	0	0	0	2	0	184	11	0	195	416
4:15 PM	7	0	12	0	19	10	176	1	1	188	0	1	0	0	1	0	211	10	0	221	429
4:30 PM	7	1	9	0	17	8	170	2	0	180	2	1	0	0	3	0	203	11	0	214	414
4:45 PM	12	0	6	0	18	14	176	0	0	190	1	1	0	0	2	0	179	8	0	187	397
Total Volume	34	1	36	0	71	41	715	3	1	760	5	3	0	0	8	0	777	40	0	817	1656
% Approach Total	47.9	1.4	50.7	0.0		5.4	94.1	0.4	0.1		62.5	37.5	0.0	0.0		0.0	95.1	4.9	0.0		
PHF	0.708	0.250	0.750	0.000	0.934	0.732	0.926	0.375	0.250	0.941	0.625	0.750	0.000	0.000	0.667	0.000	0.921	0.909	0.000	0.924	0.965
Cars	33	1	36	0	70	41	703	3	1	748	5	3	0	0	8	0	767	40	0	807	1633
Cars %	97.1	100.0	100.0	0.0	98.6	100.0	98.3	100.0	100.0	98.4	100.0	100.0	0.0	0.0	100.0	0.0	98.7	100.0	0.0	98.8	98.6
Heavy Vehicles	1	0	0	0	1	0	12	0	0	12	0	0	0	0	0	0	10	0	0	10	23
Heavy Vehicles %	2.9	0.0	0.0	0.0	1.4	0.0	1.7	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.2	1.4
Cars Enter Leg	33	1	36	0	70	41	703	3	1	748	5	3	0	0	8	0	767	40	0	807	1633
Heavy Enter Leg	1	0	0	0	1	0	12	0	0	12	0	0	0	0	0	0	10	0	0	10	23
Total Entering Leg	34	1	36	0	71	41	715	3	1	760	5	3	0	0	8	0	777	40	0	817	1656
Cars Exiting Leg					84					809					4					736	1633
Heavy Exiting Leg					0					10					0					13	23
Total Exiting Leg					84					819					4					749	1656

PDI File #: **197294 EEEE**
Location: **N: Charles Street S: Driveway**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	8	0	7	0	15	7	178	0	0	185	2	1	0	0	3	0	192	9	0	201	404
11:15 AM	4	0	11	0	15	6	164	0	0	170	0	0	0	0	0	1	183	3	0	187	372
11:30 AM	8	0	12	0	20	12	189	0	0	201	1	0	1	0	2	0	210	3	0	213	436
11:45 AM	7	0	9	0	16	12	207	0	0	219	0	0	0	0	0	0	214	5	0	219	454
Total	27	0	39	0	66	37	738	0	0	775	3	1	1	0	5	1	799	20	0	820	1666
12:00 PM	5	0	7	0	12	1	159	0	0	160	2	0	0	0	2	1	190	6	0	197	371
12:15 PM	4	0	3	0	7	8	191	0	0	199	3	0	2	0	5	0	181	9	0	190	401
12:30 PM	5	0	5	0	10	6	174	1	0	181	2	0	2	0	4	0	194	7	0	201	396
12:45 PM	5	0	7	0	12	10	185	0	0	195	0	0	0	0	0	0	185	4	0	189	396
Total	19	0	22	0	41	25	709	1	0	735	7	0	4	0	11	1	750	26	0	777	1564
Grand Total	46	0	61	0	107	62	1447	1	0	1510	10	1	5	0	16	2	1549	46	0	1597	3230
Approach %	43.0	0.0	57.0	0.0		4.1	95.8	0.1	0.0		62.5	6.3	31.3	0.0		0.1	97.0	2.9	0.0		
Total %	1.4	0.0	1.9	0.0	3.3	1.9	44.8	0.0	0.0	46.7	0.3	0.0	0.2	0.0	0.5	0.1	48.0	1.4	0.0	49.4	
Exiting Leg Total					109					1620					3					1498	3230
Cars	45	0	60	0	105	62	1427	1	0	1490	10	1	5	0	16	2	1536	46	0	1584	3195
% Cars	97.8	0.0	98.4	0.0	98.1	100.0	98.6	100.0	0.0	98.7	100.0	100.0	100.0	0.0	100.0	100.0	99.2	100.0	0.0	99.2	98.9
Exiting Leg Total					109					1606					3					1477	3195
Heavy Vehicles	1	0	1	0	2	0	20	0	0	20	0	0	0	0	0	0	13	0	0	13	35
% Heavy Vehicles	2.2	0.0	1.6	0.0	1.9	0.0	1.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	1.1
Exiting Leg Total					0					14					0					21	35

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Charles Street from North					East Main Street (Route 202) from East					Driveway from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	8	0	7	0	15	7	178	0	0	185	2	1	0	0	3	0	192	9	0	201	404
11:15 AM	4	0	11	0	15	6	164	0	0	170	0	0	0	0	0	1	183	3	0	187	372
11:30 AM	8	0	12	0	20	12	189	0	0	201	1	0	1	0	2	0	210	3	0	213	436
11:45 AM	7	0	9	0	16	12	207	0	0	219	0	0	0	0	0	0	214	5	0	219	454
Total Volume	27	0	39	0	66	37	738	0	0	775	3	1	1	0	5	1	799	20	0	820	1666
% Approach Total	40.9	0.0	59.1	0.0		4.8	95.2	0.0	0.0		60.0	20.0	20.0	0.0		0.1	97.4	2.4	0.0		
PHF	0.844	0.000	0.813	0.000	0.825	0.771	0.891	0.000	0.000	0.885	0.375	0.250	0.250	0.000	0.417	0.250	0.933	0.556	0.000	0.936	0.917
Cars	26	0	38	0	64	37	726	0	0	763	3	1	1	0	5	1	791	20	0	812	1644
Cars %	96.3	0.0	97.4	0.0	97.0	100.0	98.4	0.0	0.0	98.5	100.0	100.0	100.0	0.0	100.0	100.0	99.0	100.0	0.0	99.0	98.7
Heavy Vehicles	1	0	1	0	2	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	22
Heavy Vehicles %	3.7	0.0	2.6	0.0	3.0	0.0	1.6	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	1.3
Cars Enter Leg	26	0	38	0	64	37	726	0	0	763	3	1	1	0	5	1	791	20	0	812	1644
Heavy Enter Leg	1	0	1	0	2	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	22
Total Entering Leg	27	0	39	0	66	37	738	0	0	775	3	1	1	0	5	1	799	20	0	820	1666
Cars Exiting Leg					58					832					1					753	1644
Heavy Exiting Leg					0					9					0					13	22
Total Exiting Leg					58					841					1					766	1666

TRAFFIC COUNT DATA

PDI File #: **197294 F**
Location: **N: Torringford West Street S: Torringford West Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	9	26	0	0	35	0	58	4	0	62	8	25	10	0	43	15	94	8	0	117	257
7:15 AM	18	29	2	0	49	0	76	1	0	77	17	17	11	0	45	15	123	10	0	148	319
7:30 AM	9	27	4	0	40	0	79	8	0	87	14	26	13	0	53	10	109	10	0	129	309
7:45 AM	15	24	6	0	45	2	109	3	0	114	11	37	14	0	62	9	117	15	0	141	362
Total	51	106	12	0	169	2	322	16	0	340	50	105	48	0	203	49	443	43	0	535	1247
8:00 AM	22	23	3	0	48	1	72	2	0	75	18	33	13	0	64	15	114	12	0	141	328
8:15 AM	12	22	8	0	42	5	79	3	0	87	16	34	20	0	70	10	91	16	0	117	316
8:30 AM	18	38	3	0	59	2	80	10	0	92	16	25	16	0	57	11	95	20	0	126	334
8:45 AM	16	30	3	0	49	1	97	6	0	104	13	26	15	0	54	12	95	6	0	113	320
Total	68	113	17	0	198	9	328	21	0	358	63	118	64	0	245	48	395	54	0	497	1298
Grand Total	119	219	29	0	367	11	650	37	0	698	113	223	112	0	448	97	838	97	0	1032	2545
Approach %	32.4	59.7	7.9	0.0		1.6	93.1	5.3	0.0		25.2	49.8	25.0	0.0		9.4	81.2	9.4	0.0		
Total %	4.7	8.6	1.1	0.0	14.4	0.4	25.5	1.5	0.0	27.4	4.4	8.8	4.4	0.0	17.6	3.8	32.9	3.8	0.0	40.6	
Exiting Leg Total					331					980					353					881	2545
Cars	117	213	29	0	359	10	601	34	0	645	104	221	109	0	434	93	771	96	0	960	2398
% Cars	98.3	97.3	100.0	0.0	97.8	90.9	92.5	91.9	0.0	92.4	92.0	99.1	97.3	0.0	96.9	95.9	92.0	99.0	0.0	93.0	94.2
Exiting Leg Total					327					904					340					827	2398
Heavy Vehicles	2	6	0	0	8	1	49	3	0	53	9	2	3	0	14	4	67	1	0	72	147
% Heavy Vehicles	1.7	2.7	0.0	0.0	2.2	9.1	7.5	8.1	0.0	7.6	8.0	0.9	2.7	0.0	3.1	4.1	8.0	1.0	0.0	7.0	5.8
Exiting Leg Total					4					76					13					54	147

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	15	24	6	0	45	2	109	3	0	114	11	37	14	0	62	9	117	15	0	141	362
8:00 AM	22	23	3	0	48	1	72	2	0	75	18	33	13	0	64	15	114	12	0	141	328
8:15 AM	12	22	8	0	42	5	79	3	0	87	16	34	20	0	70	10	91	16	0	117	316
8:30 AM	18	38	3	0	59	2	80	10	0	92	16	25	16	0	57	11	95	20	0	126	334
Total Volume	67	107	20	0	194	10	340	18	0	368	61	129	63	0	253	45	417	63	0	525	1340
% Approach Total	34.5	55.2	10.3	0.0		2.7	92.4	4.9	0.0		24.1	51.0	24.9	0.0		8.6	79.4	12.0	0.0		
PHF	0.761	0.704	0.625	0.000	0.822	0.500	0.780	0.450	0.000	0.807	0.847	0.872	0.788	0.000	0.904	0.750	0.891	0.788	0.000	0.931	0.925
Cars	66	104	20	0	190	9	314	16	0	339	56	129	63	0	248	43	382	63	0	488	1265
Cars %	98.5	97.2	100.0	0.0	97.9	90.0	92.4	88.9	0.0	92.1	91.8	100.0	100.0	0.0	98.0	95.6	91.6	100.0	0.0	93.0	94.4
Heavy Vehicles	1	3	0	0	4	1	26	2	0	29	5	0	0	0	5	2	35	0	0	37	75
Heavy Vehicles %	1.5	2.8	0.0	0.0	2.1	10.0	7.6	11.1	0.0	7.9	8.2	0.0	0.0	0.0	2.0	4.4	8.4	0.0	0.0	7.0	5.6
Cars Enter Leg	66	104	20	0	190	9	314	16	0	339	56	129	63	0	248	43	382	63	0	488	1265
Heavy Enter Leg	1	3	0	0	4	1	26	2	0	29	5	0	0	0	5	2	35	0	0	37	75
Total Entering Leg	67	107	20	0	194	10	340	18	0	368	61	129	63	0	253	45	417	63	0	525	1340
Cars Exiting Leg					201					458					163					443	1265
Heavy Exiting Leg					1					40					7					27	75
Total Exiting Leg					202					498					170					470	1340

PDI File #: **197294 FF**
Location: **N: Torringford West Street S: Torringford West Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	13	25	4	0	42	0	76	8	0	84	13	26	18	0	57	23	116	12	0	151	334
11:15 AM	18	31	2	0	51	2	83	10	0	95	29	23	19	0	71	27	109	12	0	148	365
11:30 AM	16	33	7	0	56	1	112	6	0	119	25	32	14	0	71	29	122	15	0	166	412
11:45 AM	22	45	4	0	71	2	107	8	0	117	25	39	10	0	74	23	119	16	0	158	420
Total	69	134	17	0	220	5	378	32	0	415	92	120	61	0	273	102	466	55	0	623	1531
12:00 PM	24	40	8	0	72	3	100	10	0	113	22	31	23	0	76	16	126	15	0	157	418
12:15 PM	27	60	6	0	93	1	112	7	0	120	20	27	29	0	76	17	146	23	0	186	475
12:30 PM	12	51	8	0	71	4	105	2	0	111	21	40	21	0	82	16	119	17	0	152	416
12:45 PM	21	35	5	0	61	4	139	9	0	152	25	30	21	0	76	18	107	18	0	143	432
Total	84	186	27	0	297	12	456	28	0	496	88	128	94	0	310	67	498	73	0	638	1741
Grand Total	153	320	44	0	517	17	834	60	0	911	180	248	155	0	583	169	964	128	0	1261	3272
Approach %	29.6	61.9	8.5	0.0		1.9	91.5	6.6	0.0		30.9	42.5	26.6	0.0		13.4	76.4	10.2	0.0		
Total %	4.7	9.8	1.3	0.0	15.8	0.5	25.5	1.8	0.0	27.8	5.5	7.6	4.7	0.0	17.8	5.2	29.5	3.9	0.0	38.5	
Exiting Leg Total					393					1188					549					1142	3272
Cars	147	315	43	0	505	16	794	57	0	867	175	244	152	0	571	164	935	125	0	1224	3167
% Cars	96.1	98.4	97.7	0.0	97.7	94.1	95.2	95.0	0.0	95.2	97.2	98.4	98.1	0.0	97.9	97.0	97.0	97.7	0.0	97.1	96.8
Exiting Leg Total					385					1153					536					1093	3167
Heavy Vehicles	6	5	1	0	12	1	40	3	0	44	5	4	3	0	12	5	29	3	0	37	105
% Heavy Vehicles	3.9	1.6	2.3	0.0	2.3	5.9	4.8	5.0	0.0	4.8	2.8	1.6	1.9	0.0	2.1	3.0	3.0	2.3	0.0	2.9	3.2
Exiting Leg Total					8					35					13					49	105

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	24	40	8	0	72	3	100	10	0	113	22	31	23	0	76	16	126	15	0	157	418
12:15 PM	27	60	6	0	93	1	112	7	0	120	20	27	29	0	76	17	146	23	0	186	475
12:30 PM	12	51	8	0	71	4	105	2	0	111	21	40	21	0	82	16	119	17	0	152	416
12:45 PM	21	35	5	0	61	4	139	9	0	152	25	30	21	0	76	18	107	18	0	143	432
Total Volume	84	186	27	0	297	12	456	28	0	496	88	128	94	0	310	67	498	73	0	638	1741
% Approach Total	28.3	62.6	9.1	0.0		2.4	91.9	5.6	0.0		28.4	41.3	30.3	0.0		10.5	78.1	11.4	0.0		
PHF	0.778	0.775	0.844	0.000	0.798	0.750	0.820	0.700	0.000	0.816	0.880	0.800	0.810	0.000	0.945	0.931	0.853	0.793	0.000	0.858	0.916
Cars	80	182	26	0	288	11	433	27	0	471	86	125	94	0	305	65	484	72	0	621	1685
Cars %	95.2	97.8	96.3	0.0	97.0	91.7	95.0	96.4	0.0	95.0	97.7	97.7	100.0	0.0	98.4	97.0	97.2	98.6	0.0	97.3	96.8
Heavy Vehicles	4	4	1	0	9	1	23	1	0	25	2	3	0	0	5	2	14	1	0	17	56
Heavy Vehicles %	4.8	2.2	3.7	0.0	3.0	8.3	5.0	3.6	0.0	5.0	2.3	2.3	0.0	0.0	1.6	3.0	2.8	1.4	0.0	2.7	3.2
Cars Enter Leg	80	182	26	0	288	11	433	27	0	471	86	125	94	0	305	65	484	72	0	621	1685
Heavy Enter Leg	4	4	1	0	9	1	23	1	0	25	2	3	0	0	5	2	14	1	0	17	56
Total Entering Leg	84	186	27	0	297	12	456	28	0	496	88	128	94	0	310	67	498	73	0	638	1741
Cars Exiting Leg					208					596					274					607	1685
Heavy Exiting Leg					5					17					7					27	56
Total Exiting Leg					213					613					281					634	1741

TRAFFIC COUNT DATA

PDI File #: **197294 FFF**
Location: **N: Torringford West Street S: Torringford West Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	23	49	10	0	82	3	129	10	0	142	15	32	24	0	71	28	126	17	0	171	466
4:15 PM	17	45	12	0	74	1	137	11	0	149	22	42	19	0	83	14	182	14	0	210	516
4:30 PM	18	37	7	0	62	5	122	8	0	135	20	47	14	0	81	12	155	16	0	183	461
4:45 PM	14	41	8	0	63	2	131	8	0	141	15	37	19	0	71	27	160	14	0	201	476
Total	72	172	37	0	281	11	519	37	0	567	72	158	76	0	306	81	623	61	0	765	1919
5:00 PM	17	43	10	0	70	4	151	6	0	161	14	32	20	0	66	16	160	12	0	188	485
5:15 PM	13	23	8	0	44	2	147	8	0	157	20	41	16	0	77	20	149	17	0	186	464
5:30 PM	13	33	4	0	50	2	141	9	0	152	16	35	15	0	66	14	140	9	0	163	431
5:45 PM	19	28	4	0	51	2	136	7	0	145	19	18	19	0	56	19	126	9	0	154	406
Total	62	127	26	0	215	10	575	30	0	615	69	126	70	0	265	69	575	47	0	691	1786
Grand Total	134	299	63	0	496	21	1094	67	0	1182	141	284	146	0	571	150	1198	108	0	1456	3705
Approach %	27.0	60.3	12.7	0.0		1.8	92.6	5.7	0.0		24.7	49.7	25.6	0.0		10.3	82.3	7.4	0.0		
Total %	3.6	8.1	1.7	0.0	13.4	0.6	29.5	1.8	0.0	31.9	3.8	7.7	3.9	0.0	15.4	4.0	32.3	2.9	0.0	39.3	
Exiting Leg Total					413					1402					516					1374	3705
Cars	132	298	63	0	493	21	1083	67	0	1171	139	284	146	0	569	150	1184	108	0	1442	3675
% Cars	98.5	99.7	100.0	0.0	99.4	100.0	99.0	100.0	0.0	99.1	98.6	100.0	100.0	0.0	99.6	100.0	98.8	100.0	0.0	99.0	99.2
Exiting Leg Total					413					1386					515					1361	3675
Heavy Vehicles	2	1	0	0	3	0	11	0	0	11	2	0	0	0	2	0	14	0	0	14	30
% Heavy Vehicles	1.5	0.3	0.0	0.0	0.6	0.0	1.0	0.0	0.0	0.9	1.4	0.0	0.0	0.0	0.4	0.0	1.2	0.0	0.0	1.0	0.8
Exiting Leg Total					0					16					1					13	30

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	17	45	12	0	74	1	137	11	0	149	22	42	19	0	83	14	182	14	0	210	516
4:30 PM	18	37	7	0	62	5	122	8	0	135	20	47	14	0	81	12	155	16	0	183	461
4:45 PM	14	41	8	0	63	2	131	8	0	141	15	37	19	0	71	27	160	14	0	201	476
5:00 PM	17	43	10	0	70	4	151	6	0	161	14	32	20	0	66	16	160	12	0	188	485
Total Volume	66	166	37	0	269	12	541	33	0	586	71	158	72	0	301	69	657	56	0	782	1938
% Approach Total	24.5	61.7	13.8	0.0		2.0	92.3	5.6	0.0		23.6	52.5	23.9	0.0		8.8	84.0	7.2	0.0		
PHF	0.917	0.922	0.771	0.000	0.909	0.600	0.896	0.750	0.000	0.910	0.807	0.840	0.900	0.000	0.907	0.639	0.902	0.875	0.000	0.931	0.939
Cars	65	166	37	0	268	12	535	33	0	580	69	158	72	0	299	69	652	56	0	777	1924
Cars %	98.5	100.0	100.0	0.0	99.6	100.0	98.9	100.0	0.0	99.0	97.2	100.0	100.0	0.0	99.3	100.0	99.2	100.0	0.0	99.4	99.3
Heavy Vehicles	1	0	0	0	1	0	6	0	0	6	2	0	0	0	2	0	5	0	0	5	14
Heavy Vehicles %	1.5	0.0	0.0	0.0	0.4	0.0	1.1	0.0	0.0	1.0	2.8	0.0	0.0	0.0	0.7	0.0	0.8	0.0	0.0	0.6	0.7
Cars Enter Leg	65	166	37	0	268	12	535	33	0	580	69	158	72	0	299	69	652	56	0	777	1924
Heavy Enter Leg	1	0	0	0	1	0	6	0	0	6	2	0	0	0	2	0	5	0	0	5	14
Total Entering Leg	66	166	37	0	269	12	541	33	0	586	71	158	72	0	301	69	657	56	0	782	1938
Cars Exiting Leg					226					758					268					672	1924
Heavy Exiting Leg					0					7					0					7	14
Total Exiting Leg					226					765					268					679	1938

PDI File #: **197294 FFFF**
Location: **N: Torringford West Street S: Torringford West Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	21	52	7	0	80	3	116	8	0	127	21	38	17	0	76	35	185	13	0	233	516
11:15 AM	15	39	11	0	65	3	117	6	0	126	25	31	24	0	80	28	170	16	0	214	485
11:30 AM	13	43	4	0	60	0	125	7	0	132	31	44	25	0	100	31	161	11	0	203	495
11:45 AM	16	39	12	0	67	5	128	9	0	142	33	44	28	0	105	28	189	12	0	229	543
Total	65	173	34	0	272	11	486	30	0	527	110	157	94	0	361	122	705	52	0	879	2039
12:00 PM	22	48	4	0	74	5	111	5	0	121	35	30	18	0	83	19	168	9	0	196	474
12:15 PM	27	38	9	0	74	3	143	10	0	156	29	35	30	0	94	24	169	18	0	211	535
12:30 PM	19	31	7	0	57	1	123	10	0	134	23	22	18	0	63	23	177	14	0	214	468
12:45 PM	15	50	3	0	68	1	137	8	0	146	29	42	21	0	92	25	160	15	0	200	506
Total	83	167	23	0	273	10	514	33	0	557	116	129	87	0	332	91	674	56	0	821	1983
Grand Total	148	340	57	0	545	21	1000	63	0	1084	226	286	181	0	693	213	1379	108	0	1700	4022
Approach %	27.2	62.4	10.5	0.0		1.9	92.3	5.8	0.0		32.6	41.3	26.1	0.0		12.5	81.1	6.4	0.0		
Total %	3.7	8.5	1.4	0.0	13.6	0.5	24.9	1.6	0.0	27.0	5.6	7.1	4.5	0.0	17.2	5.3	34.3	2.7	0.0	42.3	
Exiting Leg Total					415					1662					616					1329	4022
Cars	147	339	56	0	542	21	986	62	0	1069	223	286	178	0	687	212	1369	105	0	1686	3984
% Cars	99.3	99.7	98.2	0.0	99.4	100.0	98.6	98.4	0.0	98.6	98.7	100.0	98.3	0.0	99.1	99.5	99.3	97.2	0.0	99.2	99.1
Exiting Leg Total					412					1648					613					1311	3984
Heavy Vehicles	1	1	1	0	3	0	14	1	0	15	3	0	3	0	6	1	10	3	0	14	38
% Heavy Vehicles	0.7	0.3	1.8	0.0	0.6	0.0	1.4	1.6	0.0	1.4	1.3	0.0	1.7	0.0	0.9	0.5	0.7	2.8	0.0	0.8	0.9
Exiting Leg Total					3					14					3					18	38

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:30 AM	Torringford West Street					East Main Street (Route 202)					Torringford West Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:30 AM	13	43	4	0	60	0	125	7	0	132	31	44	25	0	100	31	161	11	0	203	495
11:45 AM	16	39	12	0	67	5	128	9	0	142	33	44	28	0	105	28	189	12	0	229	543
12:00 PM	22	48	4	0	74	5	111	5	0	121	35	30	18	0	83	19	168	9	0	196	474
12:15 PM	27	38	9	0	74	3	143	10	0	156	29	35	30	0	94	24	169	18	0	211	535
Total Volume	78	168	29	0	275	13	507	31	0	551	128	153	101	0	382	102	687	50	0	839	2047
% Approach Total	28.4	61.1	10.5	0.0		2.4	92.0	5.6	0.0		33.5	40.1	26.4	0.0		12.2	81.9	6.0	0.0		
PHF	0.722	0.875	0.604	0.000	0.929	0.650	0.886	0.775	0.000	0.883	0.914	0.869	0.842	0.000	0.910	0.823	0.909	0.694	0.000	0.916	0.942
Cars	77	168	29	0	274	13	500	31	0	544	126	153	99	0	378	102	682	50	0	834	2030
Cars %	98.7	100.0	100.0	0.0	99.6	100.0	98.6	100.0	0.0	98.7	98.4	100.0	98.0	0.0	99.0	100.0	99.3	100.0	0.0	99.4	99.2
Heavy Vehicles	1	0	0	0	1	0	7	0	0	7	2	0	2	0	4	0	5	0	0	5	17
Heavy Vehicles %	1.3	0.0	0.0	0.0	0.4	0.0	1.4	0.0	0.0	1.3	1.6	0.0	2.0	0.0	1.0	0.0	0.7	0.0	0.0	0.6	0.8
Cars Enter Leg	77	168	29	0	274	13	500	31	0	544	126	153	99	0	378	102	682	50	0	834	2030
Heavy Enter Leg	1	0	0	0	1	0	7	0	0	7	2	0	2	0	4	0	5	0	0	5	17
Total Entering Leg	78	168	29	0	275	13	507	31	0	551	128	153	101	0	382	102	687	50	0	839	2047
Cars Exiting Leg					216					837					301					676	2030
Heavy Exiting Leg					0					7					0					10	17
Total Exiting Leg					216					844					301					686	2047

TRAFFIC COUNT DATA

PDI File #: **197294 G**
Location: **N: Dibble Street S: Stop & Shop Plaza**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	11	52	0	64	28	63	0	0	91	4	6	14	0	24	11	97	0	0	108	287
7:15 AM	1	13	55	0	69	34	80	0	0	114	3	6	3	0	12	8	117	3	0	128	323
7:30 AM	3	11	47	0	61	34	107	1	0	142	0	11	8	0	19	10	110	2	0	122	344
7:45 AM	0	10	43	0	53	54	99	0	0	153	0	8	18	0	26	10	111	1	0	122	354
Total	5	45	197	0	247	150	349	1	0	500	7	31	43	0	81	39	435	6	0	480	1308
8:00 AM	0	8	46	0	54	37	79	1	0	117	4	8	11	0	23	10	100	2	0	112	306
8:15 AM	1	10	52	0	63	34	85	1	0	120	5	9	9	0	23	6	108	3	0	117	323
8:30 AM	0	8	55	0	63	31	92	0	0	123	1	9	9	0	19	17	101	0	0	118	323
8:45 AM	3	12	47	0	62	51	94	2	0	147	2	6	16	0	24	10	101	3	0	114	347
Total	4	38	200	0	242	153	350	4	0	507	12	32	45	0	89	43	410	8	0	461	1299
Grand Total	9	83	397	0	489	303	699	5	0	1007	19	63	88	0	170	82	845	14	0	941	2607
Approach %	1.8	17.0	81.2	0.0		30.1	69.4	0.5	0.0		11.2	37.1	51.8	0.0		8.7	89.8	1.5	0.0		
Total %	0.3	3.2	15.2	0.0	18.8	11.6	26.8	0.2	0.0	38.6	0.7	2.4	3.4	0.0	6.5	3.1	32.4	0.5	0.0	36.1	
Exiting Leg Total					380					1261					170					796	2607
Cars	9	79	378	0	466	296	651	5	0	952	15	59	84	0	158	76	778	14	0	868	2444
% Cars	100.0	95.2	95.2	0.0	95.3	97.7	93.1	100.0	0.0	94.5	78.9	93.7	95.5	0.0	92.9	92.7	92.1	100.0	0.0	92.2	93.7
Exiting Leg Total					369					1171					160					744	2444
Heavy Vehicles	0	4	19	0	23	7	48	0	0	55	4	4	4	0	12	6	67	0	0	73	163
% Heavy Vehicles	0.0	4.8	4.8	0.0	4.7	2.3	6.9	0.0	0.0	5.5	21.1	6.3	4.5	0.0	7.1	7.3	7.9	0.0	0.0	7.8	6.3
Exiting Leg Total					11					90					10					52	163

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	1	13	55	0	69	34	80	0	0	114	3	6	3	0	12	8	117	3	0	128	323
7:30 AM	3	11	47	0	61	34	107	1	0	142	0	11	8	0	19	10	110	2	0	122	344
7:45 AM	0	10	43	0	53	54	99	0	0	153	0	8	18	0	26	10	111	1	0	122	354
8:00 AM	0	8	46	0	54	37	79	1	0	117	4	8	11	0	23	10	100	2	0	112	306
Total Volume	4	42	191	0	237	159	365	2	0	526	7	33	40	0	80	38	438	8	0	484	1327
% Approach Total	1.7	17.7	80.6	0.0		30.2	69.4	0.4	0.0		8.8	41.3	50.0	0.0		7.9	90.5	1.7	0.0		
PHF	0.333	0.808	0.868	0.000	0.859	0.736	0.853	0.500	0.000	0.859	0.438	0.750	0.556	0.000	0.769	0.950	0.936	0.667	0.000	0.945	0.937
Cars	4	40	184	0	228	154	335	2	0	491	4	32	39	0	75	36	408	8	0	452	1246
Cars %	100.0	95.2	96.3	0.0	96.2	96.9	91.8	100.0	0.0	93.3	57.1	97.0	97.5	0.0	93.8	94.7	93.2	100.0	0.0	93.4	93.9
Heavy Vehicles	0	2	7	0	9	5	30	0	0	35	3	1	1	0	5	2	30	0	0	32	81
Heavy Vehicles %	0.0	4.8	3.7	0.0	3.8	3.1	8.2	0.0	0.0	6.7	42.9	3.0	2.5	0.0	6.3	5.3	6.8	0.0	0.0	6.6	6.1
Cars Enter Leg	4	40	184	0	228	154	335	2	0	491	4	32	39	0	75	36	408	8	0	452	1246
Heavy Enter Leg	0	2	7	0	9	5	30	0	0	35	3	1	1	0	5	2	30	0	0	32	81
Total Entering Leg	4	42	191	0	237	159	365	2	0	526	7	33	40	0	80	38	438	8	0	484	1327
Cars Exiting Leg					194					596					78					378	1246
Heavy Exiting Leg					6					40					4					31	81
Total Exiting Leg					200					636					82					409	1327

PDI File #: **197294 GG**
Location: **N: Dibble Street S: Stop & Shop Plaza**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	3	10	61	0	74	50	104	4	0	158	6	21	17	0	44	27	115	4	0	146	422
11:15 AM	2	28	63	0	93	63	100	1	0	164	3	17	24	0	44	40	114	8	0	162	463
11:30 AM	3	14	65	0	82	56	103	2	0	161	3	17	27	0	47	26	127	8	0	161	451
11:45 AM	2	27	63	0	92	53	110	8	0	171	10	12	29	0	51	25	89	12	0	126	440
Total	10	79	252	0	341	222	417	15	0	654	22	67	97	0	186	118	445	32	0	595	1776
12:00 PM	2	16	75	0	93	71	104	4	0	179	9	18	25	0	52	22	117	12	0	151	475
12:15 PM	4	18	84	0	106	86	106	9	0	201	5	18	20	0	43	31	135	7	0	173	523
12:30 PM	1	19	76	0	96	68	104	2	0	174	5	15	29	0	49	22	108	8	0	138	457
12:45 PM	4	14	62	0	80	73	163	2	0	238	4	20	23	0	47	25	113	11	0	149	514
Total	11	67	297	0	375	298	477	17	0	792	23	71	97	0	191	100	473	38	0	611	1969
Grand Total	21	146	549	0	716	520	894	32	0	1446	45	138	194	0	377	218	918	70	0	1206	3745
Approach %	2.9	20.4	76.7	0.0		36.0	61.8	2.2	0.0		11.9	36.6	51.5	0.0		18.1	76.1	5.8	0.0		
Total %	0.6	3.9	14.7	0.0	19.1	13.9	23.9	0.9	0.0	38.6	1.2	3.7	5.2	0.0	10.1	5.8	24.5	1.9	0.0	32.2	
Exiting Leg Total					728					1512					396					1109	3745
Cars	21	140	536	0	697	503	850	31	0	1384	44	137	192	0	373	212	885	66	0	1163	3617
% Cars	100.0	95.9	97.6	0.0	97.3	96.7	95.1	96.9	0.0	95.7	97.8	99.3	99.0	0.0	98.9	97.2	96.4	94.3	0.0	96.4	96.6
Exiting Leg Total					706					1465					383					1063	3617
Heavy Vehicles	0	6	13	0	19	17	44	1	0	62	1	1	2	0	4	6	33	4	0	43	128
% Heavy Vehicles	0.0	4.1	2.4	0.0	2.7	3.3	4.9	3.1	0.0	4.3	2.2	0.7	1.0	0.0	1.1	2.8	3.6	5.7	0.0	3.6	3.4
Exiting Leg Total					22					47					13					46	128

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	2	16	75	0	93	71	104	4	0	179	9	18	25	0	52	22	117	12	0	151	475
12:15 PM	4	18	84	0	106	86	106	9	0	201	5	18	20	0	43	31	135	7	0	173	523
12:30 PM	1	19	76	0	96	68	104	2	0	174	5	15	29	0	49	22	108	8	0	138	457
12:45 PM	4	14	62	0	80	73	163	2	0	238	4	20	23	0	47	25	113	11	0	149	514
Total Volume	11	67	297	0	375	298	477	17	0	792	23	71	97	0	191	100	473	38	0	611	1969
% Approach Total	2.9	17.9	79.2	0.0		37.6	60.2	2.1	0.0		12.0	37.2	50.8	0.0		16.4	77.4	6.2	0.0		
PHF	0.688	0.882	0.884	0.000	0.884	0.866	0.732	0.472	0.000	0.832	0.639	0.888	0.836	0.000	0.918	0.806	0.876	0.792	0.000	0.883	0.941
Cars	11	64	290	0	365	290	453	16	0	759	23	70	97	0	190	99	455	35	0	589	1903
Cars %	100.0	95.5	97.6	0.0	97.3	97.3	95.0	94.1	0.0	95.8	100.0	98.6	100.0	0.0	99.5	99.0	96.2	92.1	0.0	96.4	96.6
Heavy Vehicles	0	3	7	0	10	8	24	1	0	33	0	1	0	0	1	1	18	3	0	22	66
Heavy Vehicles %	0.0	4.5	2.4	0.0	2.7	2.7	5.0	5.9	0.0	4.2	0.0	1.4	0.0	0.0	0.5	1.0	3.8	7.9	0.0	3.6	3.4
Cars Enter Leg	11	64	290	0	365	290	453	16	0	759	23	70	97	0	190	99	455	35	0	589	1903
Heavy Enter Leg	0	3	7	0	10	8	24	1	0	33	0	1	0	0	1	1	18	3	0	22	66
Total Entering Leg	11	67	297	0	375	298	477	17	0	792	23	71	97	0	191	100	473	38	0	611	1969
Cars Exiting Leg					395					768					179					561	1903
Heavy Exiting Leg					12					25					5					24	66
Total Exiting Leg					407					793					184					585	1969

TRAFFIC COUNT DATA

PDI File #: **197294 GGG**
Location: **N: Dibble Street S: Stop & Shop Plaza**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	6	23	69	0	98	89	129	2	0	220	9	25	29	0	63	26	125	3	0	154	535
4:15 PM	2	19	70	0	91	99	145	7	0	251	7	22	26	0	55	40	137	9	0	186	583
4:30 PM	2	38	82	0	122	100	143	9	0	252	6	18	20	0	44	36	154	9	0	199	617
4:45 PM	2	25	78	0	105	74	156	8	0	238	5	17	38	0	60	39	156	8	0	203	606
Total	12	105	299	0	416	362	573	26	0	961	27	82	113	0	222	141	572	29	0	742	2341
5:00 PM	2	13	54	0	69	97	158	7	0	262	7	21	26	0	54	36	134	8	0	178	563
5:15 PM	2	21	65	0	88	100	122	10	0	232	13	17	32	0	62	32	129	5	0	166	548
5:30 PM	1	26	48	0	75	80	128	4	0	212	4	25	29	0	58	28	105	11	0	144	489
5:45 PM	0	23	51	0	74	78	116	5	0	199	7	29	19	0	55	22	110	5	0	137	465
Total	5	83	218	0	306	355	524	26	0	905	31	92	106	0	229	118	478	29	0	625	2065
Grand Total	17	188	517	0	722	717	1097	52	0	1866	58	174	219	0	451	259	1050	58	0	1367	4406
Approach %	2.4	26.0	71.6	0.0		38.4	58.8	2.8	0.0		12.9	38.6	48.6	0.0		18.9	76.8	4.2	0.0		
Total %	0.4	4.3	11.7	0.0	16.4	16.3	24.9	1.2	0.0	42.4	1.3	3.9	5.0	0.0	10.2	5.9	23.8	1.3	0.0	31.0	
Exiting Leg Total					949					1625					499					1333	4406
Cars	17	186	516	0	719	714	1085	52	0	1851	58	173	218	0	449	259	1037	58	0	1354	4373
% Cars	100.0	98.9	99.8	0.0	99.6	99.6	98.9	100.0	0.0	99.2	100.0	99.4	99.5	0.0	99.6	100.0	98.8	100.0	0.0	99.0	99.3
Exiting Leg Total					945					1611					497					1320	4373
Heavy Vehicles	0	2	1	0	3	3	12	0	0	15	0	1	1	0	2	0	13	0	0	13	33
% Heavy Vehicles	0.0	1.1	0.2	0.0	0.4	0.4	1.1	0.0	0.0	0.8	0.0	0.6	0.5	0.0	0.4	0.0	1.2	0.0	0.0	1.0	0.7
Exiting Leg Total					4					14					2					13	33

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	2	19	70	0	91	99	145	7	0	251	7	22	26	0	55	40	137	9	0	186	583
4:30 PM	2	38	82	0	122	100	143	9	0	252	6	18	20	0	44	36	154	9	0	199	617
4:45 PM	2	25	78	0	105	74	156	8	0	238	5	17	38	0	60	39	156	8	0	203	606
5:00 PM	2	13	54	0	69	97	158	7	0	262	7	21	26	0	54	36	134	8	0	178	563
Total Volume	8	95	284	0	387	370	602	31	0	1003	25	78	110	0	213	151	581	34	0	766	2369
% Approach Total	2.1	24.5	73.4	0.0		36.9	60.0	3.1	0.0		11.7	36.6	51.6	0.0		19.7	75.8	4.4	0.0		
PHF	1.000	0.625	0.866	0.000	0.793	0.925	0.953	0.861	0.000	0.957	0.893	0.886	0.724	0.000	0.888	0.944	0.931	0.944	0.000	0.943	0.960
Cars	8	94	283	0	385	369	595	31	0	995	25	78	110	0	213	151	575	34	0	760	2353
Cars %	100.0	98.9	99.6	0.0	99.5	99.7	98.8	100.0	0.0	99.2	100.0	100.0	100.0	0.0	100.0	100.0	99.0	100.0	0.0	99.2	99.3
Heavy Vehicles	0	1	1	0	2	1	7	0	0	8	0	0	0	0	0	0	6	0	0	6	16
Heavy Vehicles %	0.0	1.1	0.4	0.0	0.5	0.3	1.2	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.8	0.7
Cars Enter Leg	8	94	283	0	385	369	595	31	0	995	25	78	110	0	213	151	575	34	0	760	2353
Heavy Enter Leg	0	1	1	0	2	1	7	0	0	8	0	0	0	0	0	0	6	0	0	6	16
Total Entering Leg	8	95	284	0	387	370	602	31	0	1003	25	78	110	0	213	151	581	34	0	766	2369
Cars Exiting Leg					481					883					276					713	2353
Heavy Exiting Leg					1					7					1					7	16
Total Exiting Leg					482					890					277					720	2369

PDI File #: **197294 GGGG**
Location: **N: Dibble Street S: Stop & Shop Plaza**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	10	16	69	0	95	67	142	2	0	211	7	15	29	0	51	45	163	6	0	214	571
11:15 AM	6	25	83	0	114	75	130	2	0	207	6	22	22	0	50	52	148	7	0	207	578
11:30 AM	5	33	79	0	117	67	146	3	0	216	8	17	26	0	51	43	161	5	0	209	593
11:45 AM	4	16	89	0	109	60	145	6	0	211	14	28	39	0	81	47	189	8	0	244	645
Total	25	90	320	0	435	269	563	13	0	845	35	82	116	0	233	187	661	26	0	874	2387
12:00 PM	5	21	72	0	98	67	130	7	0	204	10	11	30	0	51	37	174	12	0	223	576
12:15 PM	4	19	71	0	94	78	160	8	1	247	6	15	20	0	41	36	169	9	0	214	596
12:30 PM	3	36	84	0	123	88	151	9	0	248	5	17	20	0	42	39	167	7	0	213	626
12:45 PM	3	14	56	0	73	84	153	5	0	242	8	22	42	0	72	37	164	5	0	206	593
Total	15	90	283	0	388	317	594	29	1	941	29	65	112	0	206	149	674	33	0	856	2391
Grand Total	40	180	603	0	823	586	1157	42	1	1786	64	147	228	0	439	336	1335	59	0	1730	4778
Approach %	4.9	21.9	73.3	0.0		32.8	64.8	2.4	0.1		14.6	33.5	51.9	0.0		19.4	77.2	3.4	0.0		
Total %	0.8	3.8	12.6	0.0	17.2	12.3	24.2	0.9	0.0	37.4	1.3	3.1	4.8	0.0	9.2	7.0	27.9	1.2	0.0	36.2	
Exiting Leg Total					792					2003					558					1425	4778
Cars	40	179	595	0	814	575	1142	42	1	1760	64	147	227	0	438	336	1318	59	0	1713	4725
% Cars	100.0	99.4	98.7	0.0	98.9	98.1	98.7	100.0	100.0	98.5	100.0	100.0	99.6	0.0	99.8	100.0	98.7	100.0	0.0	99.0	98.9
Exiting Leg Total					781					1978					557					1409	4725
Heavy Vehicles	0	1	8	0	9	11	15	0	0	26	0	0	1	0	1	0	17	0	0	17	53
% Heavy Vehicles	0.0	0.6	1.3	0.0	1.1	1.9	1.3	0.0	0.0	1.5	0.0	0.0	0.4	0.0	0.2	0.0	1.3	0.0	0.0	1.0	1.1
Exiting Leg Total					11					25					1					16	53

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Dibble Street from North					East Main Street (Route 202) from East					Stop & Shop Plaza from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	4	16	89	0	109	60	145	6	0	211	14	28	39	0	81	47	189	8	0	244	645
12:00 PM	5	21	72	0	98	67	130	7	0	204	10	11	30	0	51	37	174	12	0	223	576
12:15 PM	4	19	71	0	94	78	160	8	1	247	6	15	20	0	41	36	169	9	0	214	596
12:30 PM	3	36	84	0	123	88	151	9	0	248	5	17	20	0	42	39	167	7	0	213	626
Total Volume	16	92	316	0	424	293	586	30	1	910	35	71	109	0	215	159	699	36	0	894	2443
% Approach Total	3.8	21.7	74.5	0.0		32.2	64.4	3.3	0.1		16.3	33.0	50.7	0.0		17.8	78.2	4.0	0.0		
PHF	0.800	0.639	0.888	0.000	0.862	0.832	0.916	0.833	0.250	0.917	0.625	0.634	0.699	0.000	0.664	0.846	0.925	0.750	0.000	0.916	0.947
Cars	16	91	312	0	419	287	577	30	1	895	35	71	109	0	215	159	693	36	0	888	2417
Cars %	100.0	98.9	98.7	0.0	98.8	98.0	98.5	100.0	100.0	98.4	100.0	100.0	100.0	0.0	100.0	100.0	99.1	100.0	0.0	99.3	98.9
Heavy Vehicles	0	1	4	0	5	6	9	0	0	15	0	0	0	0	0	0	6	0	0	6	26
Heavy Vehicles %	0.0	1.1	1.3	0.0	1.2	2.0	1.5	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.7	1.1
Cars Enter Leg	16	91	312	0	419	287	577	30	1	895	35	71	109	0	215	159	693	36	0	888	2417
Heavy Enter Leg	0	1	4	0	5	6	9	0	0	15	0	0	0	0	0	0	6	0	0	6	26
Total Entering Leg	16	92	316	0	424	293	586	30	1	910	35	71	109	0	215	159	699	36	0	894	2443
Cars Exiting Leg					394					1041					280					702	2417
Heavy Exiting Leg					6					10					1					9	26
Total Exiting Leg					400					1051					281					711	2443

TRAFFIC COUNT DATA

PDI File #: **197294 H**
Location: **N: Torringford Street S: Torringford Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	18	26	19	0	63	6	61	3	0	70	15	28	7	0	50	7	121	22	0	150	333
7:15 AM	20	24	20	0	64	3	85	6	0	94	13	31	13	0	57	8	111	44	0	163	378
7:30 AM	46	26	20	0	92	5	75	8	0	88	14	27	20	0	61	9	107	29	0	145	386
7:45 AM	34	30	19	0	83	12	101	13	0	126	15	39	26	0	80	7	110	17	0	134	423
Total	118	106	78	0	302	26	322	30	0	378	57	125	66	0	248	31	449	112	0	592	1520
8:00 AM	21	21	19	0	61	11	71	12	0	94	15	13	20	0	48	3	128	16	0	147	350
8:15 AM	20	23	14	0	57	15	78	4	0	97	14	17	19	0	50	6	135	13	0	154	358
8:30 AM	19	22	25	0	66	12	92	8	0	112	11	11	16	0	38	8	111	27	0	146	362
8:45 AM	23	16	24	0	63	6	101	9	0	116	12	28	21	0	61	8	109	20	0	137	377
Total	83	82	82	0	247	44	342	33	0	419	52	69	76	0	197	25	483	76	0	584	1447
Grand Total	201	188	160	0	549	70	664	63	0	797	109	194	142	0	445	56	932	188	0	1176	2967
Approach %	36.6	34.2	29.1	0.0		8.8	83.3	7.9	0.0		24.5	43.6	31.9	0.0		4.8	79.3	16.0	0.0		
Total %	6.8	6.3	5.4	0.0	18.5	2.4	22.4	2.1	0.0	26.9	3.7	6.5	4.8	0.0	15.0	1.9	31.4	6.3	0.0	39.6	
Exiting Leg Total					452					1201					307					1007	2967
Cars	179	184	157	0	520	67	637	63	0	767	106	185	138	0	429	47	901	143	0	1091	2807
% Cars	89.1	97.9	98.1	0.0	94.7	95.7	95.9	100.0	0.0	96.2	97.2	95.4	97.2	0.0	96.4	83.9	96.7	76.1	0.0	92.8	94.6
Exiting Leg Total					395					1164					294					954	2807
Heavy Vehicles	22	4	3	0	29	3	27	0	0	30	3	9	4	0	16	9	31	45	0	85	160
% Heavy Vehicles	10.9	2.1	1.9	0.0	5.3	4.3	4.1	0.0	0.0	3.8	2.8	4.6	2.8	0.0	3.6	16.1	3.3	23.9	0.0	7.2	5.4
Exiting Leg Total					57					37					13					53	160

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	20	24	20	0	64	3	85	6	0	94	13	31	13	0	57	8	111	44	0	163	378
7:30 AM	46	26	20	0	92	5	75	8	0	88	14	27	20	0	61	9	107	29	0	145	386
7:45 AM	34	30	19	0	83	12	101	13	0	126	15	39	26	0	80	7	110	17	0	134	423
8:00 AM	21	21	19	0	61	11	71	12	0	94	15	13	20	0	48	3	128	16	0	147	350
Total Volume	121	101	78	0	300	31	332	39	0	402	57	110	79	0	246	27	456	106	0	589	1537
% Approach Total	40.3	33.7	26.0	0.0		7.7	82.6	9.7	0.0		23.2	44.7	32.1	0.0		4.6	77.4	18.0	0.0		
PHF	0.658	0.842	0.975	0.000	0.815	0.646	0.822	0.750	0.000	0.798	0.950	0.705	0.760	0.000	0.769	0.750	0.891	0.602	0.000	0.903	0.908
Cars	104	98	76	0	278	31	315	39	0	385	55	106	78	0	239	21	443	86	0	550	1452
Cars %	86.0	97.0	97.4	0.0	92.7	100.0	94.9	100.0	0.0	95.8	96.5	96.4	98.7	0.0	97.2	77.8	97.1	81.1	0.0	93.4	94.5
Heavy Vehicles	17	3	2	0	22	0	17	0	0	17	2	4	1	0	7	6	13	20	0	39	85
Heavy Vehicles %	14.0	3.0	2.6	0.0	7.3	0.0	5.1	0.0	0.0	4.2	3.5	3.6	1.3	0.0	2.8	22.2	2.9	18.9	0.0	6.6	5.5
Cars Enter Leg	104	98	76	0	278	31	315	39	0	385	55	106	78	0	239	21	443	86	0	550	1452
Heavy Enter Leg	17	3	2	0	22	0	17	0	0	17	2	4	1	0	7	6	13	20	0	39	85
Total Entering Leg	121	101	78	0	300	31	332	39	0	402	57	110	79	0	246	27	456	106	0	589	1537
Cars Exiting Leg					223					574					158					497	1452
Heavy Exiting Leg					24					17					9					35	85
Total Exiting Leg					247					591					167					532	1537

PDI File #: **197294 HH**
Location: **N: Torringford Street S: Torringford Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	36	23	41	0	100	22	80	16	0	118	12	37	41	0	90	8	148	24	0	180	488
11:15 AM	26	21	31	0	78	17	88	17	0	122	12	26	28	0	66	6	126	23	0	155	421
11:30 AM	16	21	33	0	70	20	111	15	0	146	10	25	34	0	69	10	151	22	0	183	468
11:45 AM	27	22	36	0	85	16	103	18	0	137	18	29	42	0	89	6	115	21	0	142	453
Total	105	87	141	0	333	75	382	66	0	523	52	117	145	0	314	30	540	90	0	660	1830
12:00 PM	41	35	43	0	119	23	93	16	0	132	21	30	39	0	90	6	156	36	0	198	539
12:15 PM	34	32	39	0	105	27	103	15	0	145	14	33	50	0	97	10	183	30	0	223	570
12:30 PM	36	20	32	0	88	27	113	18	0	158	10	27	34	0	71	11	148	30	0	189	506
12:45 PM	58	31	40	0	129	24	143	24	0	191	15	35	59	0	109	15	143	31	0	189	618
Total	169	118	154	0	441	101	452	73	0	626	60	125	182	0	367	42	630	127	0	799	2233
Grand Total	274	205	295	0	774	176	834	139	0	1149	112	242	327	0	681	72	1170	217	0	1459	4063
Approach %	35.4	26.5	38.1	0.0		15.3	72.6	12.1	0.0		16.4	35.5	48.0	0.0		4.9	80.2	14.9	0.0		
Total %	6.7	5.0	7.3	0.0	19.0	4.3	20.5	3.4	0.0	28.3	2.8	6.0	8.0	0.0	16.8	1.8	28.8	5.3	0.0	35.9	
Exiting Leg Total					635					1577					416					1435	4063
Cars	254	193	287	0	734	169	804	137	0	1110	111	235	324	0	670	69	1150	204	0	1423	3937
% Cars	92.7	94.1	97.3	0.0	94.8	96.0	96.4	98.6	0.0	96.6	99.1	97.1	99.1	0.0	98.4	95.8	98.3	94.0	0.0	97.5	96.9
Exiting Leg Total					608					1548					399					1382	3937
Heavy Vehicles	20	12	8	0	40	7	30	2	0	39	1	7	3	0	11	3	20	13	0	36	126
% Heavy Vehicles	7.3	5.9	2.7	0.0	5.2	4.0	3.6	1.4	0.0	3.4	0.9	2.9	0.9	0.0	1.6	4.2	1.7	6.0	0.0	2.5	3.1
Exiting Leg Total					27					29					17					53	126

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	41	35	43	0	119	23	93	16	0	132	21	30	39	0	90	6	156	36	0	198	539
12:15 PM	34	32	39	0	105	27	103	15	0	145	14	33	50	0	97	10	183	30	0	223	570
12:30 PM	36	20	32	0	88	27	113	18	0	158	10	27	34	0	71	11	148	30	0	189	506
12:45 PM	58	31	40	0	129	24	143	24	0	191	15	35	59	0	109	15	143	31	0	189	618
Total Volume	169	118	154	0	441	101	452	73	0	626	60	125	182	0	367	42	630	127	0	799	2233
% Approach Total	38.3	26.8	34.9	0.0		16.1	72.2	11.7	0.0		16.3	34.1	49.6	0.0		5.3	78.8	15.9	0.0		
PHF	0.728	0.843	0.895	0.000	0.855	0.935	0.790	0.760	0.000	0.819	0.714	0.893	0.771	0.000	0.842	0.700	0.861	0.882	0.000	0.896	0.903
Cars	155	113	150	0	418	97	438	71	0	606	59	119	180	0	358	40	621	119	0	780	2162
Cars %	91.7	95.8	97.4	0.0	94.8	96.0	96.9	97.3	0.0	96.8	98.3	95.2	98.9	0.0	97.5	95.2	98.6	93.7	0.0	97.6	96.8
Heavy Vehicles	14	5	4	0	23	4	14	2	0	20	1	6	2	0	9	2	9	8	0	19	71
Heavy Vehicles %	8.3	4.2	2.6	0.0	5.2	4.0	3.1	2.7	0.0	3.2	1.7	4.8	1.1	0.0	2.5	4.8	1.4	6.3	0.0	2.4	3.2
Cars Enter Leg	155	113	150	0	418	97	438	71	0	606	59	119	180	0	358	40	621	119	0	780	2162
Heavy Enter Leg	14	5	4	0	23	4	14	2	0	20	1	6	2	0	9	2	9	8	0	19	71
Total Entering Leg	169	118	154	0	441	101	452	73	0	626	60	125	182	0	367	42	630	127	0	799	2233
Cars Exiting Leg					335					830					224					773	2162
Heavy Exiting Leg					18					14					9					30	71
Total Exiting Leg					353					844					233					803	2233

TRAFFIC COUNT DATA

PDI File #: **197294 HHH**
Location: **N: Torringford Street S: Torringford Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	29	31	31	0	91	23	150	17	0	190	22	34	30	0	86	13	174	17	0	204	571
4:15 PM	28	33	32	0	93	32	174	30	0	236	12	49	63	0	124	7	158	29	0	194	647
4:30 PM	38	42	38	0	118	30	164	27	0	221	14	38	42	0	94	11	166	36	0	213	646
4:45 PM	33	22	33	0	88	27	154	20	0	201	14	46	37	0	97	11	204	26	0	241	627
Total	128	128	134	0	390	112	642	94	0	848	62	167	172	0	401	42	702	108	0	852	2491
5:00 PM	40	37	32	0	109	24	180	31	0	235	13	38	40	0	91	4	145	38	0	187	622
5:15 PM	37	33	31	0	101	23	153	20	0	196	11	29	40	0	80	14	175	38	0	227	604
5:30 PM	37	21	24	0	82	27	138	23	0	188	17	47	40	0	104	10	117	23	0	150	524
5:45 PM	34	23	35	0	92	22	131	15	0	168	8	28	35	0	71	9	129	27	0	165	496
Total	148	114	122	0	384	96	602	89	0	787	49	142	155	0	346	37	566	126	0	729	2246
Grand Total	276	242	256	0	774	208	1244	183	0	1635	111	309	327	0	747	79	1268	234	0	1581	4737
Approach %	35.7	31.3	33.1	0.0		12.7	76.1	11.2	0.0		14.9	41.4	43.8	0.0		5.0	80.2	14.8	0.0		
Total %	5.8	5.1	5.4	0.0	16.3	4.4	26.3	3.9	0.0	34.5	2.3	6.5	6.9	0.0	15.8	1.7	26.8	4.9	0.0	33.4	
Exiting Leg Total					751					1635					504					1847	4737
Cars	276	239	256	0	771	206	1225	182	0	1613	110	307	327	0	744	78	1256	233	0	1567	4695
% Cars	100.0	98.8	100.0	0.0	99.6	99.0	98.5	99.5	0.0	98.7	99.1	99.4	100.0	0.0	99.6	98.7	99.1	99.6	0.0	99.1	99.1
Exiting Leg Total					746					1622					499					1828	4695
Heavy Vehicles	0	3	0	0	3	2	19	1	0	22	1	2	0	0	3	1	12	1	0	14	42
% Heavy Vehicles	0.0	1.2	0.0	0.0	0.4	1.0	1.5	0.5	0.0	1.3	0.9	0.6	0.0	0.0	0.4	1.3	0.9	0.4	0.0	0.9	0.9
Exiting Leg Total					5					13					5					19	42

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	28	33	32	0	93	32	174	30	0	236	12	49	63	0	124	7	158	29	0	194	647
4:30 PM	38	42	38	0	118	30	164	27	0	221	14	38	42	0	94	11	166	36	0	213	646
4:45 PM	33	22	33	0	88	27	154	20	0	201	14	46	37	0	97	11	204	26	0	241	627
5:00 PM	40	37	32	0	109	24	180	31	0	235	13	38	40	0	91	4	145	38	0	187	622
Total Volume	139	134	135	0	408	113	672	108	0	893	53	171	182	0	406	33	673	129	0	835	2542
% Approach Total	34.1	32.8	33.1	0.0		12.7	75.3	12.1	0.0		13.1	42.1	44.8	0.0		4.0	80.6	15.4	0.0		
PHF	0.869	0.798	0.888	0.000	0.864	0.883	0.933	0.871	0.000	0.946	0.946	0.872	0.722	0.000	0.819	0.750	0.825	0.849	0.000	0.866	0.982
Cars	139	134	135	0	408	112	663	108	0	883	52	170	182	0	404	33	667	129	0	829	2524
Cars %	100.0	100.0	100.0	0.0	100.0	99.1	98.7	100.0	0.0	98.9	98.1	99.4	100.0	0.0	99.5	100.0	99.1	100.0	0.0	99.3	99.3
Heavy Vehicles	0	0	0	0	0	1	9	0	0	10	1	1	0	0	2	0	6	0	0	6	18
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.9	1.3	0.0	0.0	1.1	1.9	0.6	0.0	0.0	0.5	0.0	0.9	0.0	0.0	0.7	0.7
Cars Enter Leg	139	134	135	0	408	112	663	108	0	883	52	170	182	0	404	33	667	129	0	829	2524
Heavy Enter Leg	0	0	0	0	0	1	9	0	0	10	1	1	0	0	2	0	6	0	0	6	18
Total Entering Leg	139	134	135	0	408	113	672	108	0	893	53	171	182	0	406	33	673	129	0	835	2542
Cars Exiting Leg					411					854					275					984	2524
Heavy Exiting Leg					2					7					0					9	18
Total Exiting Leg					413					861					275					993	2542

PDI File #: **197294 DDDD**
Location: **N: Torringford Street S: Torringford Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	39	22	41	0	102	15	134	28	0	177	22	24	49	0	95	19	199	21	0	239	613
11:15 AM	39	35	40	0	114	24	110	19	0	153	19	29	44	0	92	23	164	21	0	208	567
11:30 AM	20	34	26	0	80	27	124	20	0	171	20	27	67	0	114	25	220	13	0	258	623
11:45 AM	32	24	41	0	97	27	126	25	0	178	18	36	52	0	106	23	194	25	0	242	623
Total	130	115	148	0	393	93	494	92	0	679	79	116	212	0	407	90	777	80	0	947	2426
12:00 PM	25	34	44	0	103	26	140	27	0	193	35	32	56	0	123	20	198	31	0	249	668
12:15 PM	18	26	44	0	88	23	146	24	0	193	22	31	47	0	100	16	180	20	0	216	597
12:30 PM	31	27	23	0	81	18	161	25	0	204	15	37	50	0	102	22	197	33	0	252	639
12:45 PM	47	38	46	0	131	23	129	26	0	178	17	42	52	0	111	15	175	22	0	212	632
Total	121	125	157	0	403	90	576	102	0	768	89	142	205	0	436	73	750	106	0	929	2536
Grand Total	251	240	305	0	796	183	1070	194	0	1447	168	258	417	0	843	163	1527	186	0	1876	4962
Approach %	31.5	30.2	38.3	0.0		12.6	73.9	13.4	0.0		19.9	30.6	49.5	0.0		8.7	81.4	9.9	0.0		
Total %	5.1	4.8	6.1	0.0	16.0	3.7	21.6	3.9	0.0	29.2	3.4	5.2	8.4	0.0	17.0	3.3	30.8	3.7	0.0	37.8	
Exiting Leg Total					627					2000					597					1738	4962
Cars	243	235	303	0	781	178	1055	193	0	1426	167	257	413	0	837	160	1516	184	0	1860	4904
% Cars	96.8	97.9	99.3	0.0	98.1	97.3	98.6	99.5	0.0	98.5	99.4	99.6	99.0	0.0	99.3	98.2	99.3	98.9	0.0	99.1	98.8
Exiting Leg Total					619					1986					588					1711	4904
Heavy Vehicles	8	5	2	0	15	5	15	1	0	21	1	1	4	0	6	3	11	2	0	16	58
% Heavy Vehicles	3.2	2.1	0.7	0.0	1.9	2.7	1.4	0.5	0.0	1.5	0.6	0.4	1.0	0.0	0.7	1.8	0.7	1.1	0.0	0.9	1.2
Exiting Leg Total					8					14					9					27	58

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Torringford Street from North					East Main Street (Route 202) from East					Torringford Street from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	25	34	44	0	103	26	140	27	0	193	35	32	56	0	123	20	198	31	0	249	668
12:15 PM	18	26	44	0	88	23	146	24	0	193	22	31	47	0	100	16	180	20	0	216	597
12:30 PM	31	27	23	0	81	18	161	25	0	204	15	37	50	0	102	22	197	33	0	252	639
12:45 PM	47	38	46	0	131	23	129	26	0	178	17	42	52	0	111	15	175	22	0	212	632
Total Volume	121	125	157	0	403	90	576	102	0	768	89	142	205	0	436	73	750	106	0	929	2536
% Approach Total	30.0	31.0	39.0	0.0		11.7	75.0	13.3	0.0		20.4	32.6	47.0	0.0		7.9	80.7	11.4	0.0		
PHF	0.644	0.822	0.853	0.000	0.769	0.865	0.894	0.944	0.000	0.941	0.636	0.845	0.915	0.000	0.886	0.830	0.947	0.803	0.000	0.922	0.949
Cars	115	123	156	0	394	89	569	102	0	760	89	141	202	0	432	72	745	104	0	921	2507
Cars %	95.0	98.4	99.4	0.0	97.8	98.9	98.8	100.0	0.0	99.0	100.0	99.3	98.5	0.0	99.1	98.6	99.3	98.1	0.0	99.1	98.9
Heavy Vehicles	6	2	1	0	9	1	7	0	0	8	0	1	3	0	4	1	5	2	0	8	29
Heavy Vehicles %	5.0	1.6	0.6	0.0	2.2	1.1	1.2	0.0	0.0	1.0	0.0	0.7	1.5	0.0	0.9	1.4	0.7	1.9	0.0	0.9	1.1
Cars Enter Leg	115	123	156	0	394	89	569	102	0	760	89	141	202	0	432	72	745	104	0	921	2507
Heavy Enter Leg	6	2	1	0	9	1	7	0	0	8	0	1	3	0	4	1	5	2	0	8	29
Total Entering Leg	121	125	157	0	403	90	576	102	0	768	89	142	205	0	436	73	750	106	0	929	2536
Cars Exiting Leg					334					990					297					886	2507
Heavy Exiting Leg					4					6					3					16	29
Total Exiting Leg					338					996					300					902	2536

TRAFFIC COUNT DATA

PDI File #: **197294 I**
Location: **N: Big Lots Drive S: Target Drive**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	73	2	0	76	0	0	4	0	4	8	139	10	0	157	237
7:15 AM	6	0	0	0	6	0	90	3	0	93	2	1	3	0	6	7	134	1	0	142	247
7:30 AM	4	0	2	0	6	1	99	2	0	102	3	0	5	0	8	7	128	3	0	138	254
7:45 AM	5	0	0	0	5	1	121	4	0	126	3	0	6	0	9	14	122	4	0	140	280
Total	15	0	2	0	17	3	383	11	0	397	8	1	18	0	27	36	523	18	0	577	1018
8:00 AM	4	0	0	0	4	0	91	7	0	98	3	0	5	0	8	11	136	3	0	150	260
8:15 AM	6	0	0	0	6	1	89	5	0	95	2	0	5	0	7	13	133	2	0	148	256
8:30 AM	3	0	0	0	3	3	115	6	0	124	4	0	8	0	12	18	106	6	0	130	269
8:45 AM	3	0	0	0	3	0	101	7	0	108	7	0	19	0	26	26	109	6	0	141	278
Total	16	0	0	0	16	4	396	25	0	425	16	0	37	0	53	68	484	17	0	569	1063
Grand Total	31	0	2	0	33	7	779	36	0	822	24	1	55	0	80	104	1007	35	0	1146	2081
Approach %	93.9	0.0	6.1	0.0		0.9	94.8	4.4	0.0		30.0	1.3	68.8	0.0		9.1	87.9	3.1	0.0		
Total %	1.5	0.0	0.1	0.0	1.6	0.3	37.4	1.7	0.0	39.5	1.2	0.0	2.6	0.0	3.8	5.0	48.4	1.7	0.0	55.1	
Exiting Leg Total					43					1033					140					865	2081
Cars	31	0	2	0	33	7	757	33	0	797	22	1	46	0	69	93	973	35	0	1101	2000
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	97.2	91.7	0.0	97.0	91.7	100.0	83.6	0.0	86.3	89.4	96.6	100.0	0.0	96.1	96.1
Exiting Leg Total					43					997					126					834	2000
Heavy Vehicles	0	0	0	0	0	0	22	3	0	25	2	0	9	0	11	11	34	0	0	45	81
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.8	8.3	0.0	3.0	8.3	0.0	16.4	0.0	13.8	10.6	3.4	0.0	0.0	3.9	3.9
Exiting Leg Total					0					36					14					31	81

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	5	0	0	0	5	1	121	4	0	126	3	0	6	0	9	14	122	4	0	140	280
8:00 AM	4	0	0	0	4	0	91	7	0	98	3	0	5	0	8	11	136	3	0	150	260
8:15 AM	6	0	0	0	6	1	89	5	0	95	2	0	5	0	7	13	133	2	0	148	256
8:30 AM	3	0	0	0	3	3	115	6	0	124	4	0	8	0	12	18	106	6	0	130	269
Total Volume	18	0	0	0	18	5	416	22	0	443	12	0	24	0	36	56	497	15	0	568	1065
% Approach Total	100.0	0.0	0.0	0.0		1.1	93.9	5.0	0.0		33.3	0.0	66.7	0.0		9.9	87.5	2.6	0.0		
PHF	0.750	0.000	0.000	0.000	0.750	0.417	0.860	0.786	0.000	0.879	0.750	0.000	0.750	0.000	0.750	0.778	0.914	0.625	0.000	0.947	0.951
Cars	18	0	0	0	18	5	407	21	0	433	11	0	21	0	32	52	478	15	0	545	1028
Cars %	100.0	0.0	0.0	0.0	100.0	100.0	97.8	95.5	0.0	97.7	91.7	0.0	87.5	0.0	88.9	92.9	96.2	100.0	0.0	96.0	96.5
Heavy Vehicles	0	0	0	0	0	0	9	1	0	10	1	0	3	0	4	4	19	0	0	23	37
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.5	0.0	2.3	8.3	0.0	12.5	0.0	11.1	7.1	3.8	0.0	0.0	4.0	3.5
Cars Enter Leg	18	0	0	0	18	5	407	21	0	433	11	0	21	0	32	52	478	15	0	545	1028
Heavy Enter Leg	0	0	0	0	0	0	9	1	0	10	1	0	3	0	4	4	19	0	0	23	37
Total Entering Leg	18	0	0	0	18	5	416	22	0	443	12	0	24	0	36	56	497	15	0	568	1065
Cars Exiting Leg					20					489					73					446	1028
Heavy Exiting Leg					0					20					5					12	37
Total Exiting Leg					20					509					78					458	1065

PDI File #: **197294 II**
Location: **N: Big Lots Drive S: Target Drive**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	12	2	3	0	17	5	82	17	0	104	8	1	39	0	48	49	96	14	0	159	328
11:15 AM	8	2	6	0	16	5	94	14	0	113	9	2	42	0	53	47	90	11	0	148	330
11:30 AM	10	0	2	0	12	1	95	8	0	104	12	1	37	0	50	49	90	12	0	151	317
11:45 AM	11	3	2	0	16	1	107	12	0	120	15	1	45	0	61	43	97	6	0	146	343
Total	41	7	13	0	61	12	378	51	0	441	44	5	163	0	212	188	373	43	0	604	1318
12:00 PM	7	1	1	0	9	8	94	11	0	113	11	0	33	0	44	55	105	11	0	171	337
12:15 PM	11	0	3	0	14	7	76	2	0	85	12	2	60	0	74	62	101	17	0	180	353
12:30 PM	8	3	1	0	12	4	103	18	0	125	10	4	64	0	78	42	117	17	0	176	391
12:45 PM	9	2	2	0	13	2	126	15	0	143	12	0	49	0	61	47	100	14	0	161	378
Total	35	6	7	0	48	21	399	46	0	466	45	6	206	0	257	206	423	59	0	688	1459
Grand Total	76	13	20	0	109	33	777	97	0	907	89	11	369	0	469	394	796	102	0	1292	2777
Approach %	69.7	11.9	18.3	0.0		3.6	85.7	10.7	0.0		19.0	2.3	78.7	0.0		30.5	61.6	7.9	0.0		
Total %	2.7	0.5	0.7	0.0	3.9	1.2	28.0	3.5	0.0	32.7	3.2	0.4	13.3	0.0	16.9	14.2	28.7	3.7	0.0	46.5	
Exiting Leg Total					146					905					504					1222	2777
Cars	72	13	20	0	105	30	750	95	0	875	88	10	363	0	461	389	765	101	0	1255	2696
% Cars	94.7	100.0	100.0	0.0	96.3	90.9	96.5	97.9	0.0	96.5	98.9	90.9	98.4	0.0	98.3	98.7	96.1	99.0	0.0	97.1	97.1
Exiting Leg Total					141					873					497					1185	2696
Heavy Vehicles	4	0	0	0	4	3	27	2	0	32	1	1	6	0	8	5	31	1	0	37	81
% Heavy Vehicles	5.3	0.0	0.0	0.0	3.7	9.1	3.5	2.1	0.0	3.5	1.1	9.1	1.6	0.0	1.7	1.3	3.9	1.0	0.0	2.9	2.9
Exiting Leg Total					5					32					7					37	81

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	7	1	1	0	9	8	94	11	0	113	11	0	33	0	44	55	105	11	0	171	337
12:15 PM	11	0	3	0	14	7	76	2	0	85	12	2	60	0	74	62	101	17	0	180	353
12:30 PM	8	3	1	0	12	4	103	18	0	125	10	4	64	0	78	42	117	17	0	176	391
12:45 PM	9	2	2	0	13	2	126	15	0	143	12	0	49	0	61	47	100	14	0	161	378
Total Volume	35	6	7	0	48	21	399	46	0	466	45	6	206	0	257	206	423	59	0	688	1459
% Approach Total	72.9	12.5	14.6	0.0		4.5	85.6	9.9	0.0		17.5	2.3	80.2	0.0		29.9	61.5	8.6	0.0		
PHF	0.795	0.500	0.583	0.000	0.857	0.656	0.792	0.639	0.000	0.815	0.938	0.375	0.805	0.000	0.824	0.831	0.904	0.868	0.000	0.956	0.933
Cars	33	6	7	0	46	19	384	45	0	448	45	6	202	0	253	203	411	59	0	673	1420
Cars %	94.3	100.0	100.0	0.0	95.8	90.5	96.2	97.8	0.0	96.1	100.0	100.0	98.1	0.0	98.4	98.5	97.2	100.0	0.0	97.8	97.3
Heavy Vehicles	2	0	0	0	2	2	15	1	0	18	0	0	4	0	4	3	12	0	0	15	39
Heavy Vehicles %	5.7	0.0	0.0	0.0	4.2	9.5	3.8	2.2	0.0	3.9	0.0	0.0	1.9	0.0	1.6	1.5	2.8	0.0	0.0	2.2	2.7
Cars Enter Leg	33	6	7	0	46	19	384	45	0	448	45	6	202	0	253	203	411	59	0	673	1420
Heavy Enter Leg	2	0	0	0	2	2	15	1	0	18	0	0	4	0	4	3	12	0	0	15	39
Total Entering Leg	35	6	7	0	48	21	399	46	0	466	45	6	206	0	257	206	423	59	0	688	1459
Cars Exiting Leg					84					463					254					619	1420
Heavy Exiting Leg					2					12					4					21	39
Total Exiting Leg					86					475					258					640	1459

TRAFFIC COUNT DATA

PDI File #: **197294 III**
Location: **N: Big Lots Drive S: Target Drive**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	14	0	6	0	20	3	149	11	0	163	18	2	40	0	60	52	120	11	0	183	426
4:15 PM	8	0	6	0	14	7	182	20	0	209	12	3	46	0	61	43	121	15	0	179	463
4:30 PM	14	2	8	0	24	6	176	9	0	191	15	3	47	0	65	39	144	11	0	194	474
4:45 PM	14	1	9	0	24	7	166	4	0	177	8	3	36	0	47	45	161	17	0	223	471
Total	50	3	29	0	82	23	673	44	0	740	53	11	169	0	233	179	546	54	0	779	1834
5:00 PM	16	2	7	0	25	11	173	17	0	201	16	1	51	0	68	31	131	12	0	174	468
5:15 PM	8	1	4	0	13	4	154	16	0	174	9	3	36	0	48	34	130	16	0	180	415
5:30 PM	17	1	3	0	21	7	165	9	0	181	13	1	35	0	49	30	98	12	0	140	391
5:45 PM	10	5	7	0	22	9	136	9	0	154	13	4	36	0	53	31	100	11	0	142	371
Total	51	9	21	0	81	31	628	51	0	710	51	9	158	0	218	126	459	51	0	636	1645
Grand Total	101	12	50	0	163	54	1301	95	0	1450	104	20	327	0	451	305	1005	105	0	1415	3479
Approach %	62.0	7.4	30.7	0.0		3.7	89.7	6.6	0.0		23.1	4.4	72.5	0.0		21.6	71.0	7.4	0.0		
Total %	2.9	0.3	1.4	0.0	4.7	1.6	37.4	2.7	0.0	41.7	3.0	0.6	9.4	0.0	13.0	8.8	28.9	3.0	0.0	40.7	
Exiting Leg Total					179					1159					412					1729	3479
Cars	100	12	50	0	162	52	1287	95	0	1434	104	20	321	0	445	301	990	105	0	1396	3437
% Cars	99.0	100.0	100.0	0.0	99.4	96.3	98.9	100.0	0.0	98.9	100.0	100.0	98.2	0.0	98.7	98.7	98.5	100.0	0.0	98.7	98.8
Exiting Leg Total					177					1144					408					1708	3437
Heavy Vehicles	1	0	0	0	1	2	14	0	0	16	0	0	6	0	6	4	15	0	0	19	42
% Heavy Vehicles	1.0	0.0	0.0	0.0	0.6	3.7	1.1	0.0	0.0	1.1	0.0	0.0	1.8	0.0	1.3	1.3	1.5	0.0	0.0	1.3	1.2
Exiting Leg Total					2					15					4					21	42

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	8	0	6	0	14	7	182	20	0	209	12	3	46	0	61	43	121	15	0	179	463
4:30 PM	14	2	8	0	24	6	176	9	0	191	15	3	47	0	65	39	144	11	0	194	474
4:45 PM	14	1	9	0	24	7	166	4	0	177	8	3	36	0	47	45	161	17	0	223	471
5:00 PM	16	2	7	0	25	11	173	17	0	201	16	1	51	0	68	31	131	12	0	174	468
Total Volume	52	5	30	0	87	31	697	50	0	778	51	10	180	0	241	158	557	55	0	770	1876
% Approach Total	59.8	5.7	34.5	0.0		4.0	89.6	6.4	0.0		21.2	4.1	74.7	0.0		20.5	72.3	7.1	0.0		
PHF	0.813	0.625	0.833	0.000	0.870	0.705	0.957	0.625	0.000	0.931	0.797	0.833	0.882	0.000	0.886	0.878	0.865	0.809	0.000	0.863	0.989
Cars	51	5	30	0	86	30	691	50	0	771	51	10	177	0	238	156	549	55	0	760	1855
Cars %	98.1	100.0	100.0	0.0	98.9	96.8	99.1	100.0	0.0	99.1	100.0	100.0	98.3	0.0	98.8	98.7	98.6	100.0	0.0	98.7	98.9
Heavy Vehicles	1	0	0	0	1	1	6	0	0	7	0	0	3	0	3	2	8	0	0	10	21
Heavy Vehicles %	1.9	0.0	0.0	0.0	1.1	3.2	0.9	0.0	0.0	0.9	0.0	0.0	1.7	0.0	1.2	1.3	1.4	0.0	0.0	1.3	1.1
Cars Enter Leg	51	5	30	0	86	30	691	50	0	771	51	10	177	0	238	156	549	55	0	760	1855
Heavy Enter Leg	1	0	0	0	1	1	6	0	0	7	0	0	3	0	3	2	8	0	0	10	21
Total Entering Leg	52	5	30	0	87	31	697	50	0	778	51	10	180	0	241	158	557	55	0	770	1876
Cars Exiting Leg					95					630					211					919	1855
Heavy Exiting Leg					1					8					2					10	21
Total Exiting Leg					96					638					213					929	1876

PDI File #: **197294 IIII**
Location: **N: Big Lots Drive S: Target Drive**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class: **Cars and Heavy Vehicles (Combined)**

	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	15	1	7	0	23	6	135	23	0	164	22	1	33	0	56	61	131	12	0	204	447
11:15 AM	13	4	7	0	24	4	133	25	0	162	18	4	47	0	69	74	104	18	0	196	451
11:30 AM	15	1	2	0	18	5	128	14	0	147	22	2	54	0	78	60	144	14	0	218	461
11:45 AM	9	8	9	0	26	15	134	28	0	177	23	5	71	0	99	63	141	16	0	220	522
Total	52	14	25	0	91	30	530	90	0	650	85	12	205	0	302	258	520	60	0	838	1881
12:00 PM	17	2	11	0	30	9	135	25	0	169	24	7	70	0	101	82	162	20	0	264	564
12:15 PM	8	2	8	0	18	6	132	18	0	156	36	5	69	0	110	81	138	14	0	233	517
12:30 PM	16	3	8	0	27	7	130	19	0	156	16	6	62	0	84	57	162	11	0	230	497
12:45 PM	12	3	13	0	28	6	127	21	0	154	36	5	67	0	108	72	136	14	0	222	512
Total	53	10	40	0	103	28	524	83	0	635	112	23	268	0	403	292	598	59	0	949	2090
Grand Total	105	24	65	0	194	58	1054	173	0	1285	197	35	473	0	705	550	1118	119	0	1787	3971
Approach %	54.1	12.4	33.5	0.0		4.5	82.0	13.5	0.0		27.9	5.0	67.1	0.0		30.8	62.6	6.7	0.0		
Total %	2.6	0.6	1.6	0.0	4.9	1.5	26.5	4.4	0.0	32.4	5.0	0.9	11.9	0.0	17.8	13.9	28.2	3.0	0.0	45.0	
Exiting Leg Total					212					1380					747					1632	3971
Cars	103	24	64	0	191	58	1040	172	0	1270	197	35	470	0	702	547	1100	118	0	1765	3928
% Cars	98.1	100.0	98.5	0.0	98.5	100.0	98.7	99.4	0.0	98.8	100.0	100.0	99.4	0.0	99.6	99.5	98.4	99.2	0.0	98.8	98.9
Exiting Leg Total					211					1361					743					1613	3928
Heavy Vehicles	2	0	1	0	3	0	14	1	0	15	0	0	3	0	3	3	18	1	0	22	43
% Heavy Vehicles	1.9	0.0	1.5	0.0	1.5	0.0	1.3	0.6	0.0	1.2	0.0	0.0	0.6	0.0	0.4	0.5	1.6	0.8	0.0	1.2	1.1
Exiting Leg Total					1					19					4					19	43

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Big Lots Drive from North					East Main Street (Route 202) from East					Target Drive from South					East Main Street (Route 202) from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	9	8	9	0	26	15	134	28	0	177	23	5	71	0	99	63	141	16	0	220	522
12:00 PM	17	2	11	0	30	9	135	25	0	169	24	7	70	0	101	82	162	20	0	264	564
12:15 PM	8	2	8	0	18	6	132	18	0	156	36	5	69	0	110	81	138	14	0	233	517
12:30 PM	16	3	8	0	27	7	130	19	0	156	16	6	62	0	84	57	162	11	0	230	497
Total Volume	50	15	36	0	101	37	531	90	0	658	99	23	272	0	394	283	603	61	0	947	2100
% Approach Total	49.5	14.9	35.6	0.0		5.6	80.7	13.7	0.0		25.1	5.8	69.0	0.0		29.9	63.7	6.4	0.0		
PHF	0.735	0.469	0.818	0.000	0.842	0.617	0.983	0.804	0.000	0.929	0.688	0.821	0.958	0.000	0.895	0.863	0.931	0.763	0.000	0.897	0.931
Cars	50	15	36	0	101	37	524	90	0	651	99	23	270	0	392	282	593	61	0	936	2080
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.7	100.0	0.0	98.9	100.0	100.0	99.3	0.0	99.5	99.6	98.3	100.0	0.0	98.8	99.0
Heavy Vehicles	0	0	0	0	0	0	7	0	0	7	0	0	2	0	2	1	10	0	0	11	20
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.1	0.0	0.0	0.7	0.0	0.5	0.4	1.7	0.0	0.0	1.2	1.0
Cars Enter Leg	50	15	36	0	101	37	524	90	0	651	99	23	270	0	392	282	593	61	0	936	2080
Heavy Enter Leg	0	0	0	0	0	0	7	0	0	7	0	0	2	0	2	1	10	0	0	11	20
Total Entering Leg	50	15	36	0	101	37	531	90	0	658	99	23	272	0	394	283	603	61	0	947	2100
Cars Exiting Leg					121					728					387					844	2080
Heavy Exiting Leg					0					10					1					9	20
Total Exiting Leg					121					738					388					853	2100

TRAFFIC COUNT DATA

PDI File #: **197294 J**
Location: **N: Harrison Road S: Torringford East Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Harrison Road					East Main Street (Route 202)					Torringford East Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	7	5	0	13	5	62	4	0	71	27	8	9	0	44	4	124	2	0	130	258
7:15 AM	2	4	9	0	15	8	80	8	0	96	31	16	9	0	56	2	121	3	0	126	293
7:30 AM	3	14	10	0	27	6	93	6	0	105	20	14	13	0	47	3	112	4	0	119	298
7:45 AM	5	8	7	0	20	2	106	9	0	117	22	5	10	0	37	6	110	0	0	116	290
Total	11	33	31	0	75	21	341	27	0	389	100	43	41	0	184	15	467	9	0	491	1139
8:00 AM	0	2	8	0	10	3	94	10	0	107	17	7	10	0	34	6	110	5	0	121	272
8:15 AM	3	4	7	0	14	1	82	3	0	86	17	3	13	0	33	6	127	1	0	134	267
8:30 AM	7	2	5	0	14	1	103	9	0	113	12	4	10	0	26	6	107	0	1	114	267
8:45 AM	3	3	2	0	8	3	89	6	0	98	17	6	12	0	35	7	96	3	1	107	248
Total	13	11	22	0	46	8	368	28	0	404	63	20	45	0	128	25	440	9	2	476	1054
Grand Total	24	44	53	0	121	29	709	55	0	793	163	63	86	0	312	40	907	18	2	967	2193
Approach %	19.8	36.4	43.8	0.0		3.7	89.4	6.9	0.0		52.2	20.2	27.6	0.0		4.1	93.8	1.9	0.2		
Total %	1.1	2.0	2.4	0.0	5.5	1.3	32.3	2.5	0.0	36.2	7.4	2.9	3.9	0.0	14.2	1.8	41.4	0.8	0.1	44.1	
Exiting Leg Total					110					1123					139					821	2193
Cars	24	43	52	0	119	27	682	52	0	761	158	60	82	0	300	35	877	18	2	932	2112
% Cars	100.0	97.7	98.1	0.0	98.3	93.1	96.2	94.5	0.0	96.0	96.9	95.2	95.3	0.0	96.2	87.5	96.7	100.0	100.0	96.4	96.3
Exiting Leg Total					105					1087					130					790	2112
Heavy Vehicles	0	1	1	0	2	2	27	3	0	32	5	3	4	0	12	5	30	0	0	35	81
% Heavy Vehicles	0.0	2.3	1.9	0.0	1.7	6.9	3.8	5.5	0.0	4.0	3.1	4.8	4.7	0.0	3.8	12.5	3.3	0.0	0.0	3.6	3.7
Exiting Leg Total					5					36					9					31	81

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Harrison Road					East Main Street (Route 202)					Torringford East Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	2	4	9	0	15	8	80	8	0	96	31	16	9	0	56	2	121	3	0	126	293
7:30 AM	3	14	10	0	27	6	93	6	0	105	20	14	13	0	47	3	112	4	0	119	298
7:45 AM	5	8	7	0	20	2	106	9	0	117	22	5	10	0	37	6	110	0	0	116	290
8:00 AM	0	2	8	0	10	3	94	10	0	107	17	7	10	0	34	6	110	5	0	121	272
Total Volume	10	28	34	0	72	19	373	33	0	425	90	42	42	0	174	17	453	12	0	482	1153
% Approach Total	13.9	38.9	47.2	0.0		4.5	87.8	7.8	0.0		51.7	24.1	24.1	0.0		3.5	94.0	2.5	0.0		
PHF	0.500	0.500	0.850	0.000	0.667	0.594	0.880	0.825	0.000	0.908	0.726	0.656	0.808	0.000	0.777	0.708	0.936	0.600	0.000	0.956	0.967
Cars	10	27	33	0	70	17	358	30	0	405	88	40	39	0	167	14	444	12	0	470	1112
Cars %	100.0	96.4	97.1	0.0	97.2	89.5	96.0	90.9	0.0	95.3	97.8	95.2	92.9	0.0	96.0	82.4	98.0	100.0	0.0	97.5	96.4
Heavy Vehicles	0	1	1	0	2	2	15	3	0	20	2	2	3	0	7	3	9	0	0	12	41
Heavy Vehicles %	0.0	3.6	2.9	0.0	2.8	10.5	4.0	9.1	0.0	4.7	2.2	4.8	7.1	0.0	4.0	17.6	2.0	0.0	0.0	2.5	3.6
Cars Enter Leg	10	27	33	0	70	17	358	30	0	405	88	40	39	0	167	14	444	12	0	470	1112
Heavy Enter Leg	0	1	1	0	2	2	15	3	0	20	2	2	3	0	7	3	9	0	0	12	41
Total Entering Leg	10	28	34	0	72	19	373	33	0	425	90	42	42	0	174	17	453	12	0	482	1153
Cars Exiting Leg					69					565					71					407	1112
Heavy Exiting Leg					4					12					7					18	41
Total Exiting Leg					73					577					78					425	1153

PDI File #: **197294 JJ**
Location: **N: Harrison Road S: Torringford East Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Harrison Road					East Main Street (Route 202)					Torringford East Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	4	0	4	0	8	4	84	7	0	95	8	4	9	0	21	12	89	6	0	107	231
11:15 AM	4	4	1	0	9	0	94	5	0	99	13	0	11	0	24	13	91	2	0	106	238
11:30 AM	1	2	2	0	5	2	91	8	0	101	13	0	10	0	23	9	88	1	0	98	227
11:45 AM	2	2	3	0	7	5	99	6	0	110	9	2	10	0	21	11	96	5	0	112	250
Total	11	8	10	0	29	11	368	26	0	405	43	6	40	0	89	45	364	14	0	423	946
12:00 PM	4	5	3	0	12	2	92	10	0	104	7	3	6	0	16	15	93	4	0	112	244
12:15 PM	2	2	6	0	10	2	66	7	0	75	13	3	12	0	28	13	90	4	0	107	220
12:30 PM	1	2	2	0	5	5	105	9	0	119	17	4	8	0	29	12	100	4	0	116	269
12:45 PM	12	6	5	0	23	6	119	9	0	134	14	5	14	0	33	14	90	7	0	111	301
Total	19	15	16	0	50	15	382	35	0	432	51	15	40	0	106	54	373	19	0	446	1034
Grand Total	30	23	26	0	79	26	750	61	0	837	94	21	80	0	195	99	737	33	0	869	1980
Approach %	38.0	29.1	32.9	0.0		3.1	89.6	7.3	0.0		48.2	10.8	41.0	0.0		11.4	84.8	3.8	0.0		
Total %	1.5	1.2	1.3	0.0	4.0	1.3	37.9	3.1	0.0	42.3	4.7	1.1	4.0	0.0	9.8	5.0	37.2	1.7	0.0	43.9	
Exiting Leg Total					80					857					183					860	1980
Cars	29	20	24	0	73	26	725	59	0	810	92	20	80	0	192	98	706	32	0	836	1911
% Cars	96.7	87.0	92.3	0.0	92.4	100.0	96.7	96.7	0.0	96.8	97.9	95.2	100.0	0.0	98.5	99.0	95.8	97.0	0.0	96.2	96.5
Exiting Leg Total					78					822					177					834	1911
Heavy Vehicles	1	3	2	0	6	0	25	2	0	27	2	1	0	0	3	1	31	1	0	33	69
% Heavy Vehicles	3.3	13.0	7.7	0.0	7.6	0.0	3.3	3.3	0.0	3.2	2.1	4.8	0.0	0.0	1.5	1.0	4.2	3.0	0.0	3.8	3.5
Exiting Leg Total					2					35					6					26	69

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Harrison Road					East Main Street (Route 202)					Torringford East Street					East Main Street (Route 202)					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	4	5	3	0	12	2	92	10	0	104	7	3	6	0	16	15	93	4	0	112	244
12:15 PM	2	2	6	0	10	2	66	7	0	75	13	3	12	0	28	13	90	4	0	107	220
12:30 PM	1	2	2	0	5	5	105	9	0	119	17	4	8	0	29	12	100	4	0	116	269
12:45 PM	12	6	5	0	23	6	119	9	0	134	14	5	14	0	33	14	90	7	0	111	301
Total Volume	19	15	16	0	50	15	382	35	0	432	51	15	40	0	106	54	373	19	0	446	1034
% Approach Total	38.0	30.0	32.0	0.0		3.5	88.4	8.1	0.0		48.1	14.2	37.7	0.0		12.1	83.6	4.3	0.0		
PHF	0.396	0.625	0.667	0.000	0.543	0.625	0.803	0.875	0.000	0.806	0.750	0.750	0.714	0.000	0.803	0.900	0.933	0.679	0.000	0.961	0.859
Cars	18	13	14	0	45	15	372	35	0	422	51	14	40	0	105	54	364	18	0	436	1008
Cars %	94.7	86.7	87.5	0.0	90.0	100.0	97.4	100.0	0.0	97.7	100.0	93.3	100.0	0.0	99.1	100.0	97.6	94.7	0.0	97.8	97.5
Heavy Vehicles	1	2	2	0	5	0	10	0	0	10	0	1	0	0	1	0	9	1	0	10	26
Heavy Vehicles %	5.3	13.3	12.5	0.0	10.0	0.0	2.6	0.0	0.0	2.3	0.0	6.7	0.0	0.0	0.9	0.0	2.4	5.3	0.0	2.2	2.5
Cars Enter Leg	18	13	14	0	45	15	372	35	0	422	51	14	40	0	105	54	364	18	0	436	1008
Heavy Enter Leg	1	2	2	0	5	0	10	0	0	10	0	1	0	0	1	0	9	1	0	10	26
Total Entering Leg	19	15	16	0	50	15	382	35	0	432	51	15	40	0	106	54	373	19	0	446	1034
Cars Exiting Leg					47					429					102					430	1008
Heavy Exiting Leg					2					11					2					11	26
Total Exiting Leg					49					440					104					441	1034

TRAFFIC COUNT DATA

PDI File #: **197294 JJJ**
Location: **N: Harrison Road S: Torringford East Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Thursday, November 14, 2019**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Harrison Road (from North)					East Main Street (Route 202) (from East)					Torringford East Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	5	6	2	0	13	8	144	20	0	172	15	6	8	0	29	28	125	4	0	157	371
4:15 PM	4	7	4	0	15	14	184	27	0	225	12	6	11	0	29	17	121	6	0	144	413
4:30 PM	4	6	4	0	14	11	179	21	0	211	14	8	17	0	39	28	154	5	0	187	451
4:45 PM	2	6	1	0	9	4	150	17	0	171	18	9	9	0	36	19	170	2	0	191	407
Total	15	25	11	0	51	37	657	85	0	779	59	29	45	0	133	92	570	17	0	679	1642
5:00 PM	1	10	5	0	16	7	172	33	0	212	12	8	13	0	33	27	125	4	0	156	417
5:15 PM	5	8	5	0	18	7	151	19	0	177	13	11	8	0	32	15	123	4	0	142	369
5:30 PM	2	7	2	0	11	5	159	17	0	181	15	8	9	0	32	17	94	6	0	117	341
5:45 PM	5	7	5	0	17	3	134	18	0	155	11	13	8	0	32	15	102	4	0	121	325
Total	13	32	17	0	62	22	616	87	0	725	51	40	38	0	129	74	444	18	0	536	1452
Grand Total	28	57	28	0	113	59	1273	172	0	1504	110	69	83	0	262	166	1014	35	0	1215	3094
Approach %	24.8	50.4	24.8	0.0		3.9	84.6	11.4	0.0		42.0	26.3	31.7	0.0		13.7	83.5	2.9	0.0		
Total %	0.9	1.8	0.9	0.0	3.7	1.9	41.1	5.6	0.0	48.6	3.6	2.2	2.7	0.0	8.5	5.4	32.8	1.1	0.0	39.3	
Exiting Leg Total					163					1152					395					1384	3094
Cars	27	56	27	0	110	59	1258	170	0	1487	109	68	83	0	260	165	998	33	0	1196	3053
% Cars	96.4	98.2	96.4	0.0	97.3	100.0	98.8	98.8	0.0	98.9	99.1	98.6	100.0	0.0	99.2	99.4	98.4	94.3	0.0	98.4	98.7
Exiting Leg Total					160					1134					391					1368	3053
Heavy Vehicles	1	1	1	0	3	0	15	2	0	17	1	1	0	0	2	1	16	2	0	19	41
% Heavy Vehicles	3.6	1.8	3.6	0.0	2.7	0.0	1.2	1.2	0.0	1.1	0.9	1.4	0.0	0.0	0.8	0.6	1.6	5.7	0.0	1.6	1.3
Exiting Leg Total					3					18					4					16	41

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Harrison Road (from North)					East Main Street (Route 202) (from East)					Torringford East Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	4	7	4	0	15	14	184	27	0	225	12	6	11	0	29	17	121	6	0	144	413
4:30 PM	4	6	4	0	14	11	179	21	0	211	14	8	17	0	39	28	154	5	0	187	451
4:45 PM	2	6	1	0	9	4	150	17	0	171	18	9	9	0	36	19	170	2	0	191	407
5:00 PM	1	10	5	0	16	7	172	33	0	212	12	8	13	0	33	27	125	4	0	156	417
Total Volume	11	29	14	0	54	36	685	98	0	819	56	31	50	0	137	91	570	17	0	678	1688
% Approach Total	20.4	53.7	25.9	0.0		4.4	83.6	12.0	0.0		40.9	22.6	36.5	0.0		13.4	84.1	2.5	0.0		
PHF	0.688	0.725	0.700	0.000	0.844	0.643	0.931	0.742	0.000	0.910	0.778	0.861	0.735	0.000	0.878	0.813	0.838	0.708	0.000	0.887	0.936
Cars	11	29	14	0	54	36	677	98	0	811	56	31	50	0	137	90	561	17	0	668	1670
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.8	100.0	0.0	99.0	100.0	100.0	100.0	0.0	100.0	98.9	98.4	100.0	0.0	98.5	98.9
Heavy Vehicles	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	18
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	0.0	0.0	1.5	1.1
Cars Enter Leg	11	29	14	0	54	36	677	98	0	811	56	31	50	0	137	90	561	17	0	668	1670
Heavy Enter Leg	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	18
Total Entering Leg	11	29	14	0	54	36	685	98	0	819	56	31	50	0	137	91	570	17	0	678	1688
Cars Exiting Leg					84					631					217					738	1670
Heavy Exiting Leg					0					9					1					8	18
Total Exiting Leg					84					640					218					746	1688

PDI File #: **197294 JJJJ**
Location: **N: Harrison Road S: Torringford East Street**
Location: **E: East Main Street (Route 202) W: East Main Street (Route 202)**
City, State: **Torrington, CT**
Client: **BSC Group/S.Offei-Addo**
Site Code: **TBD**
Count Date: **Saturday, November 16, 2019**
Start Time: **11:00 AM**
End Time: **1:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Harrison Road (from North)					East Main Street (Route 202) (from East)					Torringford East Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:00 AM	5	5	6	0	16	7	143	13	0	163	21	2	15	0	38	18	135	4	0	157	374
11:15 AM	5	6	2	0	13	7	149	15	0	171	16	2	15	0	33	19	112	3	0	134	351
11:30 AM	2	4	3	0	9	8	139	14	0	161	15	2	8	0	25	25	139	3	0	167	362
11:45 AM	0	1	8	0	9	6	140	13	0	159	18	6	22	0	46	19	142	4	0	165	379
Total	12	16	19	0	47	28	571	55	0	654	70	12	60	0	142	81	528	14	0	623	1466
12:00 PM	8	5	6	0	19	1	129	15	0	145	14	3	13	0	30	23	156	5	0	184	378
12:15 PM	0	5	3	0	8	5	134	13	0	152	17	3	15	0	35	16	154	4	0	174	369
12:30 PM	5	2	5	0	12	5	136	15	0	156	22	5	15	0	42	33	146	4	0	183	393
12:45 PM	5	1	8	0	14	8	131	10	0	149	21	3	12	0	36	19	162	7	0	188	387
Total	18	13	22	0	53	19	530	53	0	602	74	14	55	0	143	91	618	20	0	729	1527
Grand Total	30	29	41	0	100	47	1101	108	0	1256	144	26	115	0	285	172	1146	34	0	1352	2993
Approach %	30.0	29.0	41.0	0.0		3.7	87.7	8.6	0.0		50.5	9.1	40.4	0.0		12.7	84.8	2.5	0.0		
Total %	1.0	1.0	1.4	0.0	3.3	1.6	36.8	3.6	0.0	42.0	4.8	0.9	3.8	0.0	9.5	5.7	38.3	1.1	0.0	45.2	
Exiting Leg Total					107					1331					309					1246	2993
Cars	27	29	40	0	96	47	1086	107	0	1240	143	26	114	0	283	171	1131	32	0	1334	2953
% Cars	90.0	100.0	97.6	0.0	96.0	100.0	98.6	99.1	0.0	98.7	99.3	100.0	99.1	0.0	99.3	99.4	98.7	94.1	0.0	98.7	98.7
Exiting Leg Total					105					1314					307					1227	2953
Heavy Vehicles	3	0	1	0	4	0	15	1	0	16	1	0	1	0	2	1	15	2	0	18	40
% Heavy Vehicles	10.0	0.0	2.4	0.0	4.0	0.0	1.4	0.9	0.0	1.3	0.7	0.0	0.9	0.0	0.7	0.6	1.3	5.9	0.0	1.3	1.3
Exiting Leg Total					2					17					2					19	40

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Harrison Road (from North)					East Main Street (Route 202) (from East)					Torringford East Street (from South)					East Main Street (Route 202) (from West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	8	5	6	0	19	1	129	15	0	145	14	3	13	0	30	23	156	5	0	184	378
12:15 PM	0	5	3	0	8	5	134	13	0	152	17	3	15	0	35	16	154	4	0	174	369
12:30 PM	5	2	5	0	12	5	136	15	0	156	22	5	15	0	42	33	146	4	0	183	393
12:45 PM	5	1	8	0	14	8	131	10	0	149	21	3	12	0	36	19	162	7	0	188	387
Total Volume	18	13	22	0	53	19	530	53	0	602	74	14	55	0	143	91	618	20	0	729	1527
% Approach Total	34.0	24.5	41.5	0.0		3.2	88.0	8.8	0.0		51.7	9.8	38.5	0.0		12.5	84.8	2.7	0.0		
PHF	0.563	0.650	0.688	0.000	0.697	0.594	0.974	0.883	0.000	0.965	0.841	0.700	0.917	0.000	0.851	0.689	0.954	0.714	0.000	0.969	0.971
Cars	15	13	21	0	49	19	522	52	0	593	74	14	55	0	143	90	609	20	0	719	1504
Cars %	83.3	100.0	95.5	0.0	92.5	100.0	98.5	98.1	0.0	98.5	100.0	100.0	100.0	0.0	100.0	98.9	98.5	100.0	0.0	98.6	98.5
Heavy Vehicles	3	0	1	0	4	0	8	1	0	9	0	0	0	0	0	1	9	0	0	10	23
Heavy Vehicles %	16.7	0.0	4.5	0.0	7.5	0.0	1.5	1.9	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.1	1.5	0.0	0.0	1.4	1.5
Cars Enter Leg	15	13	21	0	49	19	522	52	0	593	74	14	55	0	143	90	609	20	0	719	1504
Heavy Enter Leg	3	0	1	0	4	0	8	1	0	9	0	0	0	0	0	1	9	0	0	10	23
Total Entering Leg	18	13	22	0	53	19	530	53	0	602	74	14	55	0	143	91	618	20	0	729	1527
Cars Exiting Leg					53					704					155					592	1504
Heavy Exiting Leg					0					10					2					11	23
Total Exiting Leg					53					714					157					603	1527

Intersection Operations Analysis Worksheets

Lane Group	NBT	NBR	SBL2	SBL	SBT	SWL	SWR	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	210	260	140	20	210	300	270			
Future Volume (vph)	210	260	140	20	210	300	270			
Lane Group Flow (vph)	228	294	0	174	228	326	293			
Turn Type	NA	custom	D.P+P	D.P+P	NA	Prot	custom			
Protected Phases	2	2 5	3 4	3 4	2 3 4	1	1 5	3	4	5
Permitted Phases		2	2	2			1			
Detector Phase	2	2 5	3 4	3 4	2 3 4	1	1 5			
Switch Phase										
Minimum Initial (s)	5.0					5.0		5.0	5.0	5.0
Minimum Split (s)	20.0					9.0		21.0	21.0	21.5
Total Split (s)	28.0					28.0		9.0	21.0	18.0
Total Split (%)	26.9%					26.9%		9%	20%	17%
Yellow Time (s)	3.0					3.0		3.0	3.0	3.5
All-Red Time (s)	1.0					1.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0					0.0				
Total Lost Time (s)	4.0					4.0				
Lead/Lag	Lag					Lead		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min					Max		None	Max	None
v/c Ratio	0.39	0.52		0.28	0.13	0.38	0.21			
Control Delay	37.0	11.3		7.9	5.3	32.2	2.7			
Queue Delay	0.4	0.4		1.3	0.9	0.0	0.0			
Total Delay	37.4	11.7		9.3	6.2	32.2	2.7			
Queue Length 50th (ft)	65	39		26	17	84	0			
Queue Length 95th (ft)	101	72		25	15	137	27			
Internal Link Dist (ft)	140				65	591				
Turn Bay Length (ft)						200	200			
Base Capacity (vph)	893	701		623	1691	866	1371			
Starvation Cap Reductn	259	115		285	1204	0	0			
Spillback Cap Reductn	313	0		0	0	0	36			
Storage Cap Reductn	0	0		0	0	0	0			
Reduced v/c Ratio	0.39	0.50		0.51	0.47	0.38	0.22			

Intersection Summary

Cycle Length: 104
Actuated Cycle Length: 95.5
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Main Street & Franklin Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
1: Main Street & Franklin Street & East Main Street

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	NWL	NWR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	210	260	10	140	20	210	0	0	300	270
Future Volume (vph)	210	260	10	140	20	210	0	0	300	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.0	4.0			4.0	4.0
Lane Util. Factor	0.95	1.00			1.00	0.95			0.97	0.88
Frt	1.00	0.85			1.00	1.00			1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00			0.95	1.00
Satd. Flow (prot)	3539	1583			1770	3539			3433	2787
Flt Permitted	1.00	1.00			0.55	1.00			0.95	1.00
Satd. Flow (perm)	3539	1583			1016	3539			3433	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	228	283	11	152	22	228	0	0	326	293
RTOR Reduction (vph)	0	82	0	0	0	0	0	0	0	183
Lane Group Flow (vph)	228	212	0	0	174	228	0	0	326	110
Turn Type	NA	custom		D.P+P	D.P+P	NA			Prot	custom
Protected Phases	2	2 5			3 4	3 4	2 3 4		1	1 5
Permitted Phases		2		2	2					1
Actuated Green, G (s)	15.9	27.7			41.0	45.0			24.1	41.4
Effective Green, g (s)	15.9	27.7			41.0	40.0			24.1	35.9
Actuated g/C Ratio	0.17	0.29			0.43	0.42			0.25	0.38
Clearance Time (s)	4.0								4.0	
Vehicle Extension (s)	3.0								3.0	
Lane Grp Cap (vph)	589	459			635	1483			867	1048
v/s Ratio Prot	0.06	c0.13			c0.07	0.06			c0.09	0.04
v/s Ratio Perm					0.05					
v/c Ratio	0.39	0.46			0.27	0.15			0.38	0.11
Uniform Delay, d1	35.4	27.7			19.5	17.2			29.4	19.3
Progression Factor	1.00	1.00			0.41	0.38			1.00	1.00
Incremental Delay, d2	0.4	0.7			0.2	0.0			1.2	0.0
Delay (s)	35.8	28.5			8.2	6.6			30.7	19.4
Level of Service	D	C			A	A			C	B
Approach Delay (s)	31.7				7.3		0.0		25.3	
Approach LOS	C				A		A		C	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	95.4	Sum of lost time (s)	23.5
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
62: Main Street & Water Street

Lane Group	EBL	EBR	NBL	NBT	SBT	Ø1	Ø3	Ø5
Lane Configurations								
Traffic Volume (vph)	10	170	280	200	200			
Future Volume (vph)	10	170	280	200	200			
Lane Group Flow (vph)	98	98	304	217	239			
Turn Type	Prot	Prot	D.P+P	NA	NA			
Protected Phases	4	4	1 3 5	1 3 5	2	1	3	5
Permitted Phases			2					
Detector Phase	4	4	1 3 5	1 3 5	2			
Switch Phase								
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0			20.0	9.0	21.0	21.5
Total Split (s)	21.0	21.0			28.0	28.0	9.0	18.0
Total Split (%)	20.2%	20.2%			26.9%	27%	9%	17%
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.5
All-Red Time (s)	2.0	2.0			1.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			
Total Lost Time (s)	5.0	5.0			4.0			
Lead/Lag	Lag	Lag			Lag	Lead	Lead	
Lead-Lag Optimize?								
Recall Mode	Max	Max			Min	Max	None	None
v/c Ratio	0.29	0.29	0.30	0.24	0.41			
Control Delay	13.0	10.6	4.9	17.8	35.7			
Queue Delay	0.0	0.0	0.7	2.1	0.0			
Total Delay	13.0	10.6	5.6	20.0	35.7			
Queue Length 50th (ft)	6	0	25	83	66			
Queue Length 95th (ft)	53	48	53	136	102			
Internal Link Dist (ft)	429			65	351			
Turn Bay Length (ft)		75						
Base Capacity (vph)	342	334	1022	903	888			
Starvation Cap Reductn	0	0	430	547	0			
Spillback Cap Reductn	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.29	0.29	0.51	0.61	0.27			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 95.5
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 62: Main Street & Water Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
62: Main Street & Water Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	170	280	200	200	20
Future Volume (vph)	10	170	280	200	200	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	
Frt	0.87	0.85	1.00	1.00	0.99	
Flt Protected	0.99	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1606	1504	1770	1863	3490	
Flt Permitted	0.99	1.00	0.53	1.00	1.00	
Satd. Flow (perm)	1606	1504	984	1863	3490	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	185	304	217	217	22
RTOR Reduction (vph)	72	81	0	0	8	0
Lane Group Flow (vph)	26	17	304	217	231	0
Turn Type	Prot	Prot	D.P+P	NA	NA	
Protected Phases	4	4	1 3 5	1 3 5	2	
Permitted Phases			2			
Actuated Green, G (s)	16.1	16.1	61.3	45.4	15.9	
Effective Green, g (s)	16.1	16.1	55.8	39.9	15.9	
Actuated g/C Ratio	0.17	0.17	0.58	0.42	0.17	
Clearance Time (s)	5.0	5.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0	
Lane Grp Cap (vph)	271	253	904	779	581	
v/s Ratio Prot	c0.02	0.01	c0.14	0.12	c0.07	
v/s Ratio Perm			0.06			
v/c Ratio	0.09	0.07	0.34	0.28	0.40	
Uniform Delay, d1	33.5	33.3	10.0	18.3	35.5	
Progression Factor	1.00	1.00	0.99	2.00	1.00	
Incremental Delay, d2	0.7	0.5	0.2	0.2	0.4	
Delay (s)	34.2	33.8	10.1	36.8	35.9	
Level of Service	C	C	B	D	D	
Approach Delay (s)	34.0		21.2		35.9	
Approach LOS	C		C		D	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	95.4	Sum of lost time (s)	23.5
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

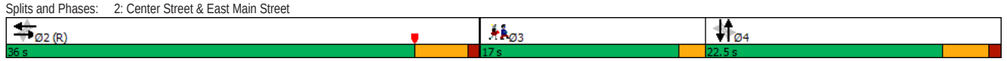
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
2: Center Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	370	20	480	40	0	20	10	
Future Volume (vph)	10	370	20	480	40	0	20	10	
Lane Group Flow (vph)	0	426	0	572	0	77	0	100	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	2	2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	15.0	15.0	15.0	15.0	5.0	5.0	5.0	5.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	22.5	22.5	22.5	22.5	17.0
Total Split (s)	36.0	36.0	36.0	36.0	22.5	22.5	22.5	22.5	17.0
Total Split (%)	47.7%	47.7%	47.7%	47.7%	29.8%	29.8%	29.8%	29.8%	23%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0		5.0		4.5		4.5	
Lead/Lag					Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.30		0.41		0.45		0.47	
Control Delay		3.5		4.3		21.1		24.7	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		3.5		4.3		21.1		24.7	
Queue Length 50th (ft)		44		67		8		22	
Queue Length 95th (ft)		98		146		34		33	
Internal Link Dist (ft)		591		539		293		243	
Turn Bay Length (ft)									
Base Capacity (vph)		1421		1398		304		402	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.30		0.41		0.25		0.25	

Intersection Summary
Cycle Length: 75.5
Actuated Cycle Length: 75.5
Offset: 38 (50%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 2: Center Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
2: Center Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	370	30	20	480	10	40	0	20	20	10	30
Future Volume (vph)	10	370	30	20	480	10	40	0	20	20	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.95			0.93	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		1787			1774			1408			1672	
Flt Permitted		0.99			0.98			0.75			0.90	
Satd. Flow (perm)		1767			1741			1092			1529	
Peak-hour factor, PHF	0.96	0.96	0.96	0.89	0.89	0.89	0.78	0.78	0.78	0.60	0.60	0.60
Adj. Flow (vph)	10	385	31	22	539	11	51	0	26	33	17	50
RTOR Reduction (vph)	0	1	0	0	0	0	0	52	0	0	45	0
Lane Group Flow (vph)	0	425	0	0	572	0	0	25	0	0	55	0
Heavy Vehicles (%)	0%	5%	9%	0%	7%	0%	28%	0%	18%	0%	25%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		58.8			58.8			7.2			7.2	
Effective Green, g (s)		58.8			58.8			7.2			7.2	
Actuated g/C Ratio		0.78			0.78			0.10			0.10	
Clearance Time (s)		5.0			5.0			4.5			4.5	
Vehicle Extension (s)		2.0			2.0			3.0			3.0	
Lane Grp Cap (vph)		1376			1355			104			145	
v/s Ratio Prot												
v/s Ratio Perm		0.24			c0.33			0.02			c0.04	
v/c Ratio		0.31			0.42			0.24			0.38	
Uniform Delay, d1		2.4			2.8			31.6			32.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			1.0			1.2			1.6	
Delay (s)		3.0			3.7			32.8			33.7	
Level of Service		A			A			C			C	
Approach Delay (s)		3.0			3.7			32.8			33.7	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	11.5
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

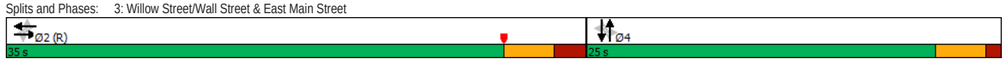
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
3: Willow Street/Wall Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	340	20	470	30	70	20	40
Future Volume (vph)	30	340	20	470	30	70	20	40
Lane Group Flow (vph)	0	448	0	593	0	194	0	106
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.41		0.52		0.58		0.30
Control Delay		7.1		6.5		24.7		15.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		7.1		6.5		24.7		15.6
Queue Length 50th (ft)		61		46		55		22
Queue Length 95th (ft)		140		70		65		47
Internal Link Dist (ft)		539		444		461		319
Turn Bay Length (ft)								
Base Capacity (vph)		1103		1134		573		602
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.41		0.52		0.34		0.18

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willow Street/Wall Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
3: Willow Street/Wall Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	340	20	20	470	50	30	70	30	20	40	30
Future Volume (vph)	30	340	20	20	470	50	30	70	30	20	40	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1789			1768			1716			1772	
Flt Permitted		0.94			0.98			0.91			0.92	
Satd. Flow (perm)		1688			1734			1585			1656	
Peak-hour factor, PHF	0.87	0.87	0.87	0.91	0.91	0.91	0.67	0.67	0.67	0.85	0.85	0.85
Adj. Flow (vph)	34	391	23	22	516	55	45	104	45	24	47	35
RTOR Reduction (vph)	0	2	0	0	4	0	0	22	0	0	28	0
Lane Group Flow (vph)	0	446	0	0	589	0	0	172	0	0	78	0
Heavy Vehicles (%)	5%	5%	6%	14%	6%	2%	12%	6%	0%	0%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		39.1			39.1			11.9			11.9	
Effective Green, g (s)		39.1			39.1			11.9			11.9	
Actuated g/C Ratio		0.65			0.65			0.20			0.20	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1100			1129			314			328	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.34			c0.11			0.05	
v/c Ratio		0.41			0.52			0.55			0.24	
Uniform Delay, d1		4.9			5.5			21.6			20.2	
Progression Factor		1.00			0.72			1.00			1.00	
Incremental Delay, d2		1.1			1.6			1.9			0.4	
Delay (s)		6.1			5.6			23.6			20.6	
Level of Service		A			A			C			C	
Approach Delay (s)		6.1			5.6			23.6			20.6	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

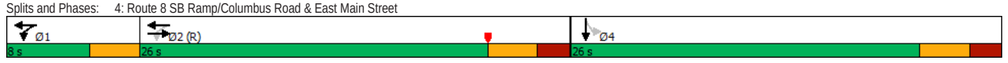
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
4: Route 8 SB Ramp/Columbus Road & East Main Street

Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	400	220	440	40	210
Future Volume (vph)	400	220	440	40	210
Lane Group Flow (vph)	550	244	489	42	347
Turn Type	NA	D.P+P	NA	Perm	NA
Protected Phases	2	1	1 2		4
Permitted Phases		2		4	
Detector Phase	2	1	1 2	4	4
Switch Phase					
Minimum Initial (s)	20.0	5.0		7.0	7.0
Minimum Split (s)	25.0	8.0		12.0	12.0
Total Split (s)	26.0	8.0		26.0	26.0
Total Split (%)	43.3%	13.3%		43.3%	43.3%
Yellow Time (s)	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Min	Max		None	None
v/c Ratio	0.48	0.40	0.45	0.10	0.75
Control Delay	13.4	4.3	3.6	15.7	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	4.3	3.6	15.7	27.2
Queue Length 50th (ft)	77	1	2	12	97
Queue Length 95th (ft)	107	m20	m95	28	153
Internal Link Dist (ft)	612		423		285
Turn Bay Length (ft)		150			
Base Capacity (vph)	1189	609	1113	579	637
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	0.46	0.40	0.44	0.07	0.54

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 31 (52%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 8 SB Ramp/Columbus Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
4: Route 8 SB Ramp/Columbus Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	400	90	220	440	0	0	0	0	40	210	120
Future Volume (vph)	0	400	90	220	440	0	0	0	0	40	210	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		3.0	3.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	1.00					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.95	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3306		1736	1759					1656	1721	
Flt Permitted		1.00		0.39	1.00					0.95	1.00	
Satd. Flow (perm)		3306		709	1759					1656	1721	
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	0	449	101	244	489	0	0	0	0	42	221	126
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	0	0	40	0
Lane Group Flow (vph)	0	517	0	244	489	0	0	0	0	42	307	0
Heavy Vehicles (%)	0%	6%	7%	4%	8%	0%	2%	2%	2%	9%	4%	5%
Turn Type		NA		D.P+P	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		20.2		32.2	35.2					14.8	14.8	
Effective Green, g (s)		20.2		32.2	35.2					14.8	14.8	
Actuated g/C Ratio		0.34		0.54	0.59					0.25	0.25	
Clearance Time (s)		5.0		3.0						5.0	5.0	
Vehicle Extension (s)		2.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1113		585	1031					408	424	
v/s Ratio Prot		0.16		0.08	c0.28						c0.18	
v/s Ratio Perm				0.14						0.03		
v/c Ratio		0.46		0.42	0.47					0.10	0.72	
Uniform Delay, d1		15.6		7.6	7.1					17.5	20.7	
Progression Factor		0.84		0.40	0.36					1.00	1.00	
Incremental Delay, d2		1.3		1.5	1.0					0.0	5.1	
Delay (s)		14.4		4.5	3.6					17.5	25.9	
Level of Service		B		A	A					B	C	
Approach Delay (s)		14.4			3.9			0.0			25.0	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	100	340	540	200	260
Future Volume (vph)	100	340	540	200	260
Lane Group Flow (vph)	106	362	618	400	325
Turn Type	D.P+P	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		26.0	23.0	23.0
Total Split (%)	18.3%		43.3%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.27	0.17	0.81	0.52	0.53
Control Delay	9.1	7.8	28.7	22.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.1	7.8	28.7	22.1	6.0
Queue Length 50th (ft)	28	57	191	66	0
Queue Length 95th (ft)	70	97	#408	82	32
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	405	2099	763	988	693
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	0.26	0.17	0.81	0.40	0.47

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 6 (10%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	340	0	0	540	10	120	200	260	0	0	0
Future Volume (vph)	100	340	0	0	540	10	120	200	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			1.00			0.95	1.00			
Frt	1.00	1.00			1.00			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1719	3374			1790			3293	1553			
Flt Permitted	0.21	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	384	3374			1790			3293	1553			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.80	0.80	0.80	0.92	0.92	0.92
Adj. Flow (vph)	106	362	0	0	607	11	150	250	325	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	250	0	0	0
Lane Group Flow (vph)	106	362	0	0	617	0	0	400	75	0	0	0
Heavy Vehicles (%)	5%	7%	0%	0%	6%	0%	7%	8%	4%	0%	0%	0%
Turn Type	D.P+P	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	33.1	36.1			25.6			13.9	13.9			
Effective Green, g (s)	33.1	36.1			25.6			13.9	13.9			
Actuated g/C Ratio	0.55	0.60			0.43			0.23	0.23			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	378	2030			763			762	359			
v/s Ratio Prot	c0.03	0.11			c0.34							
v/s Ratio Perm	0.12							0.12	0.05			
v/c Ratio	0.28	0.18			0.81			0.52	0.21			
Uniform Delay, d1	8.1	5.3			15.1			20.2	18.6			
Progression Factor	1.38	1.49			1.00			1.00	1.00			
Incremental Delay, d2	0.4	0.0			9.0			0.7	0.3			
Delay (s)	11.5	8.0			24.1			20.8	18.9			
Level of Service	B	A			C			C	B			
Approach Delay (s)	8.8				24.1			20.0		0.0		
Approach LOS	A				C			B		A		

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	WBR	SEL	Ø3
Lane Configurations						
Traffic Volume (vph)	10	560	550	410	270	
Future Volume (vph)	10	560	550	410	270	
Lane Group Flow (vph)	0	671	585	436	304	
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	3
Permitted Phases	2			2		
Detector Phase	2	2	2	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	19.0
Total Split (s)	29.0	29.0	29.0	29.0	31.0	19.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	39.2%	24%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	5.0	
Lead/Lag					Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.34	0.54	0.39	0.73	
Control Delay		8.6	12.1	2.1	37.4	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		8.6	12.1	2.1	37.4	
Queue Length 50th (ft)		74	147	0	137	
Queue Length 95th (ft)		121	292	39	198	
Internal Link Dist (ft)		160	602		27	
Turn Bay Length (ft)				300		
Base Capacity (vph)		1981	1076	1120	571	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.34	0.54	0.39	0.53	

Intersection Summary
Cycle Length: 79
Actuated Cycle Length: 79
Offset: 4 (5%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 6: East Main Street & East Elm Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	10	560	550	410	270	10
Future Volume (vph)	10	560	550	410	270	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0	6.0	5.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3375	1733	1538	1730	
Flt Permitted		0.94	1.00	1.00	0.95	
Satd. Flow (perm)		3187	1733	1538	1730	
Peak-hour factor, PHF	0.85	0.85	0.94	0.94	0.92	0.92
Adj. Flow (vph)	12	659	585	436	293	11
RTOR Reduction (vph)	0	0	0	165	2	0
Lane Group Flow (vph)	0	671	585	271	302	0
Heavy Vehicles (%)	0%	7%	6%	5%	8%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		49.1	49.1	49.1	18.9	
Effective Green, g (s)		49.1	49.1	49.1	18.9	
Actuated g/C Ratio		0.62	0.62	0.62	0.24	
Clearance Time (s)		6.0	6.0	6.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1980	1077	955	413	
v/s Ratio Prot			c0.34		c0.17	
v/s Ratio Perm		0.21		0.18		
v/c Ratio		0.34	0.54	0.28	0.73	
Uniform Delay, d1		7.2	8.5	6.9	27.7	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5	2.0	0.7	6.5	
Delay (s)		7.6	10.5	7.6	34.2	
Level of Service	A	B	A		C	
Approach Delay (s)	7.6	9.3			34.2	
Approach LOS	A	A			C	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	580	10	570	380	30
Future Volume (vph)	580	10	570	380	30
Lane Group Flow (vph)	918	0	675	452	36
Turn Type	NA	pm+pt	NA	Prot	Free
Protected Phases	2	3	2 3	4	
Permitted Phases		2 3	2 3		Free
Detector Phase	2	3	2 3	4	
Switch Phase					
Minimum Initial (s)	15.0	8.0		7.0	
Minimum Split (s)	20.0	15.0		12.0	
Total Split (s)	24.0	15.0		21.0	
Total Split (%)	40.0%	25.0%		35.0%	
Yellow Time (s)	3.0	4.0		3.0	
All-Red Time (s)	2.0	3.0		2.0	
Lost Time Adjust (s)	0.0			0.0	
Total Lost Time (s)	5.0			5.0	
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?					
Recall Mode	C-Max	None		None	
v/c Ratio	0.85		0.79	1.00	0.02
Control Delay	27.1		13.9	67.5	0.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	27.1		13.9	67.5	0.0
Queue Length 50th (ft)	145		31	162	0
Queue Length 95th (ft)	#225		#77	#296	0
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1078		854	454	1482
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.85		0.79	1.00	0.02

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: New Harwinton Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	580	210	10	570	380	30
Future Volume (vph)	580	210	10	570	380	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	4.0
Lane Util. Factor	0.95			1.00	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3213			1778	1703	1482
Flt Permitted	1.00			0.99	0.95	1.00
Satd. Flow (perm)	3213			1762	1703	1482
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.84	0.84
Adj. Flow (vph)	674	244	12	663	452	36
RTOR Reduction (vph)	62	0	0	0	0	0
Lane Group Flow (vph)	857	0	0	675	452	36
Heavy Vehicles (%)	6%	13%	50%	6%	6%	9%
Turn Type	NA		pm+pt	NA	Prot	Free
Protected Phases	2		3	2 3	4	
Permitted Phases			2 3	2 3		Free
Actuated Green, G (s)	19.0			27.0	16.0	60.0
Effective Green, g (s)	19.0			27.0	16.0	60.0
Actuated g/C Ratio	0.32			0.45	0.27	1.00
Clearance Time (s)	5.0				5.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	1017			795	454	1482
v/s Ratio Prot	0.27			c0.11	c0.27	
v/s Ratio Perm				c0.27		0.02
v/c Ratio	0.84			0.85	1.00	0.02
Uniform Delay, d1	19.1			14.7	22.0	0.0
Progression Factor	1.00			0.59	1.00	1.00
Incremental Delay, d2	8.4			7.6	40.8	0.0
Delay (s)	27.5			16.3	62.8	0.0
Level of Service	C			B	E	A
Approach Delay (s)	27.5			16.3	58.2	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
8: East Main Street & Charles Street

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	30	570	10	530	0	10
Future Volume (vph)	30	570	10	530	0	10
Lane Group Flow (vph)	0	685	0	682	40	70
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		2	4	4
Permitted Phases	2		2			
Detector Phase	2	2	2	2	4	4
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.29		0.50	0.09	0.27
Control Delay		7.1		4.9	0.4	12.9
Queue Delay		0.0		0.0	0.0	0.0
Total Delay		7.1		4.9	0.4	12.9
Queue Length 50th (ft)		71		107	0	5
Queue Length 95th (ft)		m100		160	0	23
Internal Link Dist (ft)		809		1163	247	598
Turn Bay Length (ft)						
Base Capacity (vph)		2330		1373	615	464
Starvation Cap Reductn		0		0	0	0
Spillback Cap Reductn		0		0	0	0
Storage Cap Reductn		0		0	0	0
Reduced v/c Ratio		0.29		0.50	0.07	0.15

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 41 (68%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: East Main Street & Charles Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
8: East Main Street & Charles Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	570	10	10	530	20	0	0	10	0	10	40
Future Volume (vph)	30	570	10	10	530	20	0	0	10	0	10	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	12	12	12	12	12	15	12	15
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.86			0.89	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3280			1779			1644			1688	
Flt Permitted		0.91			0.99			1.00			1.00	
Satd. Flow (perm)		2985			1760			1644			1688	
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.92	0.25	0.25	0.72	0.72	0.72
Adj. Flow (vph)	34	640	11	12	646	24	0	0	40	0	14	56
RTOR Reduction (vph)	0	1	0	0	1	0	0	36	0	0	50	0
Lane Group Flow (vph)	0	684	0	0	681	0	0	4	0	0	20	0
Heavy Vehicles (%)	5%	6%	2%	2%	6%	13%	0%	0%	0%	5%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		45.0			45.0			6.0			6.0	
Effective Green, g (s)		45.0			45.0			6.0			6.0	
Actuated g/C Ratio		0.75			0.75			0.10			0.10	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2238			1320			164			168	
v/s Ratio Prot								0.00			c0.01	
v/s Ratio Perm		0.23			c0.39							
v/c Ratio		0.31			0.52			0.02			0.12	
Uniform Delay, d1		2.4			3.1			24.4			24.6	
Progression Factor		2.53			0.98			1.00			1.00	
Incremental Delay, d2		0.2			1.4			0.1			0.3	
Delay (s)		6.4			4.4			24.4			24.9	
Level of Service		A			A			C			C	
Approach Delay (s)		6.4			4.4			24.4			24.9	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	6.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
9: Orchard Street & East Main Street

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	570	10	500	10
Future Volume (vph)	570	10	500	10
Lane Group Flow (vph)	659	0	573	48
Turn Type	NA	Perm	NA	Prot
Protected Phases	2		2	4
Permitted Phases		2		
Detector Phase	2	2	2	4
Switch Phase				
Minimum Initial (s)	20.0	20.0	20.0	7.0
Minimum Split (s)	25.0	25.0	25.0	11.0
Total Split (s)	41.0	41.0	41.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	31.7%
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.24		0.40	0.23
Control Delay	0.8		5.1	17.6
Queue Delay	0.0		0.0	0.0
Total Delay	0.8		5.1	17.6
Queue Length 50th (ft)	1		57	8
Queue Length 95th (ft)	2		200	11
Internal Link Dist (ft)	1163		1187	575
Turn Bay Length (ft)				
Base Capacity (vph)	2802		1448	402
Starvation Cap Reductn	0		0	0
Spillback Cap Reductn	0		0	0
Storage Cap Reductn	0		0	0
Reduced v/c Ratio	0.24		0.40	0.12

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 11 (18%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 9: Orchard Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
9: Orchard Street & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	570	10	10	500	10	10
Future Volume (vph)	570	10	10	500	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	4.0	
Lane Util. Factor	0.95			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3369			1761	1536	
Flt Permitted	1.00			0.99	0.98	
Satd. Flow (perm)	3369			1741	1536	
Peak-hour factor, PHF	0.88	0.88	0.89	0.89	0.42	0.42
Adj. Flow (vph)	648	11	11	562	24	24
RTOR Reduction (vph)	1	0	0	0	22	0
Lane Group Flow (vph)	658	0	0	573	26	0
Heavy Vehicles (%)	7%	0%	100%	6%	0%	25%
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			2	4	
Permitted Phases			2			
Actuated Green, G (s)	46.3			46.3	4.7	
Effective Green, g (s)	46.3			46.3	4.7	
Actuated g/C Ratio	0.77			0.77	0.08	
Clearance Time (s)	5.0			5.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2599			1343	120	
v/s Ratio Prot	0.20				c0.02	
v/s Ratio Perm				c0.33		
v/c Ratio	0.25			0.43	0.22	
Uniform Delay, d1	1.9			2.3	25.9	
Progression Factor	0.25			1.49	1.00	
Incremental Delay, d2	0.2			0.9	0.9	
Delay (s)	0.7			4.4	26.8	
Level of Service	A			A	C	
Approach Delay (s)	0.7			4.4	26.8	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	3.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
10: Pineridge Road/Yorkshire Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	540	20	460	10	10	20	10
Future Volume (vph)	10	540	20	460	10	10	20	10
Lane Group Flow (vph)	0	626	0	575	0	39	0	51
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.24		0.40		0.19		0.27
Control Delay		1.1		3.9		19.5		22.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		1.1		3.9		19.5		22.3
Queue Length 50th (ft)		4		59		9		13
Queue Length 95th (ft)		6		121		26		33
Internal Link Dist (ft)		1187		1137		621		153
Turn Bay Length (ft)								
Base Capacity (vph)		2640		1424		390		359
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.24		0.40		0.10		0.14

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 16 (27%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 10: Pineridge Road/Yorkshire Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
10: Pineridge Road/Yorkshire Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	540	20	20	460	20	10	10	10	20	10	10
Future Volume (vph)	10	540	20	20	460	20	10	10	10	20	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		0.99			0.99			0.95			0.97	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3365			1770			1722			1653	
Flt Permitted		0.95			0.97			0.87			0.82	
Satd. Flow (perm)		3186			1719			1521			1397	
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	11	593	22	23	529	23	13	13	13	25	13	13
RTOR Reduction (vph)	0	3	0	0	1	0	0	12	0	0	12	0
Lane Group Flow (vph)	0	623	0	0	574	0	0	27	0	0	39	0
Heavy Vehicles (%)	0%	7%	0%	9%	6%	17%	0%	0%	11%	17%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		46.1			46.1			4.9			4.9	
Effective Green, g (s)		46.1			46.1			4.9			4.9	
Actuated g/C Ratio		0.77			0.77			0.08			0.08	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2447			1320			124			114	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.33			0.02			c0.03	
v/c Ratio		0.25			0.43			0.22			0.34	
Uniform Delay, d1		2.0			2.4			25.8			26.0	
Progression Factor		0.39			1.00			1.00			1.00	
Incremental Delay, d2		0.2			1.0			0.9			1.8	
Delay (s)		1.0			3.5			26.6			27.8	
Level of Service		A			A			C			C	
Approach Delay (s)		1.0			3.5			26.6			27.8	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

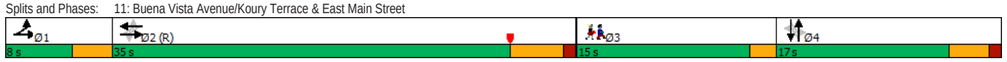
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
11: Buena Vista Avenue/Koury Terrace & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	550	10	460	20	10	10	0	
Future Volume (vph)	10	550	10	460	20	10	10	0	
Lane Group Flow (vph)	0	626	0	533	0	49	0	46	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2	1 2	2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		20.0	20.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0		25.0	25.0	11.0	11.0	11.0	11.0	15.0
Total Split (s)	8.0		35.0	35.0	17.0	17.0	17.0	17.0	15.0
Total Split (%)	10.7%		46.7%	46.7%	22.7%	22.7%	22.7%	22.7%	20%
Yellow Time (s)	3.0		4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				0.0		0.0		0.0	
Total Lost Time (s)				5.0		4.0		4.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.25		0.44		0.31		0.19	
Control Delay		2.2		7.3		29.7		2.1	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		2.2		7.3		29.7		2.1	
Queue Length 50th (ft)		23		97		16		0	
Queue Length 95th (ft)		46		181		40		0	
Internal Link Dist (ft)		1137		669		275		202	
Turn Bay Length (ft)									
Base Capacity (vph)		2545		1219		245		330	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.25		0.44		0.20		0.14	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 11: Buena Vista Avenue/Koury Terrace & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
11: Buena Vista Avenue/Koury Terrace & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	550	10	10	460	10	20	10	10	10	0	10
Future Volume (vph)	10	550	10	10	460	10	20	10	10	10	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.93	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3391			1778			1548			1593	
Flt Permitted		0.95			0.99			0.86			0.87	
Satd. Flow (perm)		3221			1757			1359			1421	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.81	0.81	0.81	0.43	0.43	0.43
Adj. Flow (vph)	11	604	11	11	511	11	25	12	12	23	0	23
RTOR Reduction (vph)	0	1	0	0	1	0	0	11	0	0	42	0
Lane Group Flow (vph)	0	625	0	0	532	0	0	38	0	0	4	0
Heavy Vehicles (%)	0%	6%	17%	33%	6%	0%	15%	33%	0%	0%	0%	17%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2	1 2		2			4			4		
Actuated Green, G (s)		56.2			51.2			6.8			6.8	
Effective Green, g (s)		56.2			51.2			6.8			6.8	
Actuated g/C Ratio		0.75			0.68			0.09			0.09	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)		2424			1199			123			128	
v/s Ratio Prot		c0.02										
v/s Ratio Perm		0.18			c0.30			c0.03			0.00	
v/c Ratio		0.26			0.44			0.31			0.03	
Uniform Delay, d1		2.9			5.4			31.9			31.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			1.2			1.4			0.1	
Delay (s)		3.2			6.6			33.3			31.2	
Level of Service		A			A			C			C	
Approach Delay (s)		3.2			6.6			33.3			31.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	6.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

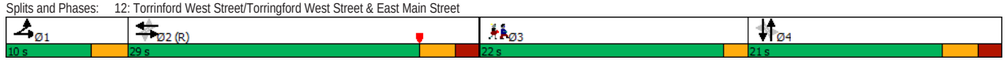
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
12: Torrinford West Street/Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	70	460	20	370	70	170	30	120	
Future Volume (vph)	70	460	20	370	70	170	30	120	
Lane Group Flow (vph)	0	624	25	469	78	267	0	268	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	21.0	21.0	21.0	21.0	22.0
Total Split (%)	12.2%		35.4%	35.4%	25.6%	25.6%	25.6%	25.6%	27%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)			5.0	5.0	5.0	5.0		5.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Min	C-Min	None	None	None	None	None
v/c Ratio		0.32	0.06	0.48	0.57	0.73		1.04	
Control Delay		4.8	8.8	12.8	48.9	41.9		100.4	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay		4.8	8.8	12.8	48.9	41.9		100.4	
Queue Length 50th (ft)		49	5	133	37	119		~140	
Queue Length 95th (ft)		68	15	176	#96	#227		#249	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100				
Base Capacity (vph)		1959	398	983	136	364		257	
Starvation Cap Reductn		0	0	0	0	0		0	
Spillback Cap Reductn		0	0	0	0	0		0	
Storage Cap Reductn		0	0	0	0	0		0	
Reduced v/c Ratio		0.32	0.06	0.48	0.57	0.73		1.04	

Intersection Summary
Cycle Length: 82
Actuated Cycle Length: 82
Offset: 25 (30%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
~ 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: 12: Torrinford West Street/Torringford West Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torrinford West Street/Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	460	50	20	370	10	70	170	70	30	120	70
Future Volume (vph)	70	460	50	20	370	10	70	170	70	30	120	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00			1.00	
Frt		0.99		1.00	1.00		1.00	0.96			0.96	
Flt Protected		0.99		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		3320		1626	1752		1805	1775			1766	
Flt Permitted		0.85		0.42	1.00		0.37	1.00			0.68	
Satd. Flow (perm)		2854		711	1752		701	1775			1215	
Peak-hour factor, PHF	0.93	0.93	0.93	0.81	0.81	0.81	0.90	0.90	0.90	0.82	0.82	0.82
Adj. Flow (vph)	75	495	54	25	457	12	78	189	78	37	146	85
RTOR Reduction (vph)	0	5	0	0	1	0	0	19	0	0	20	0
Lane Group Flow (vph)	0	619	0	25	468	0	78	248	0	0	248	0
Heavy Vehicles (%)	0%	8%	4%	11%	8%	10%	0%	0%	8%	0%	3%	2%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Effective Green, g (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Actuated g/C Ratio		0.65		0.56	0.56		0.20	0.20			0.20	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1884		398	982		136	346			237	
v/s Ratio Prot		c0.03			c0.27			0.14				
v/s Ratio Perm		0.18		0.04			0.11				c0.20	
v/c Ratio		0.33		0.06	0.48		0.57	0.72			1.05	
Uniform Delay, d1		6.5		8.2	10.8		29.9	30.9			33.0	
Progression Factor		1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.5		0.3	1.7		5.7	7.0			71.0	
Delay (s)		7.0		8.5	12.4		35.6	37.9			104.0	
Level of Service		A		A	B		D	D			F	
Approach Delay (s)		7.0			12.2			37.4			104.0	
Approach LOS		A			B			D			F	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

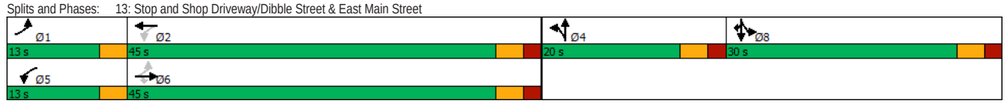
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
13: Stop and Shop Driveway/Dibble Street & East Main Street

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	10	480	40	10	400	50	40	210	50	10
Future Volume (vph)	10	480	40	10	400	50	40	210	50	10
Lane Group Flow (vph)	11	505	42	12	663	65	65	149	153	12
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Split	NA	Split	NA	Prot
Protected Phases	1	6		5	2	4	4	8	8	8
Permitted Phases	6		6	2						
Detector Phase	1	6	6	5	2	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	5.0	5.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0	10.0	13.0	13.0	13.0
Total Split (s)	13.0	45.0	45.0	13.0	45.0	20.0	20.0	30.0	30.0	30.0
Total Split (%)	12.0%	41.7%	41.7%	12.0%	41.7%	18.5%	18.5%	27.8%	27.8%	27.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead-Lag Optimize?										
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
v/c Ratio	0.03	0.39	0.06	0.03	0.50	0.28	0.28	0.44	0.45	0.03
Control Delay	9.9	14.3	0.2	9.8	13.8	29.4	26.5	27.6	27.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	14.3	0.2	9.8	13.8	29.4	26.5	27.6	27.5	0.1
Queue Length 50th (ft)	2	55	0	2	67	18	15	42	43	0
Queue Length 95th (ft)	10	141	0	10	161	58	53	125	127	0
Internal Link Dist (ft)		2541			805		375		773	
Turn Bay Length (ft)	125		125	125				200		50
Base Capacity (vph)	511	2499	1163	581	2496	531	510	833	847	866
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.04	0.02	0.27	0.12	0.13	0.18	0.18	0.01

Intersection Summary
Cycle Length: 108
Actuated Cycle Length: 54.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Stop and Shop Driveway/Dibble Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
13: Stop and Shop Driveway/Dibble Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	480	40	10	400	170	50	40	10	210	50	10
Future Volume (vph)	10	480	40	10	400	170	50	40	10	210	50	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1745	3261	1487	1805	3238		1752	1660		1649	1677	1615
Flt Permitted	0.34	1.00	1.00	0.44	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	616	3261	1487	840	3238		1752	1660		1649	1677	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.86	0.86	0.86	0.77	0.77	0.77	0.86	0.86	0.86
Adj. Flow (vph)	11	505	42	12	465	198	65	52	13	244	58	12
RTOR Reduction (vph)	0	0	26	0	43	0	0	9	0	0	0	10
Lane Group Flow (vph)	11	505	16	12	620	0	65	56	0	149	153	2
Heavy Vehicles (%)	0%	7%	5%	0%	8%	3%	3%	3%	43%	4%	5%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	Prot
Protected Phases	1	6		5	2		4	4		8	8	8
Permitted Phases	6		6	2								
Actuated Green, G (s)	22.3	21.6	21.6	22.3	21.6		5.6	5.6		11.0	11.0	11.0
Effective Green, g (s)	22.3	21.6	21.6	22.3	21.6		5.6	5.6		11.0	11.0	11.0
Actuated g/C Ratio	0.39	0.38	0.38	0.39	0.38		0.10	0.10		0.19	0.19	0.19
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	255	1237	564	341	1229		172	163		318	324	312
v/s Ratio Prot	c0.00	0.15		0.00	c0.19		c0.04	0.03		0.09	c0.09	0.00
v/s Ratio Perm	0.02		0.01	0.01								
v/c Ratio	0.04	0.41	0.03	0.04	0.50		0.38	0.34		0.47	0.47	0.01
Uniform Delay, d1	10.7	13.0	11.1	10.6	13.5		24.0	23.9		20.4	20.4	18.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.5	0.0	0.0	0.7		0.5	0.5		0.4	0.4	0.0
Delay (s)	10.7	13.4	11.1	10.6	14.2		24.5	24.4		20.8	20.8	18.5
Level of Service	B	B	B	B	B		C	C		C	C	B
Approach Delay (s)		13.2			14.2			24.5			20.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	56.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

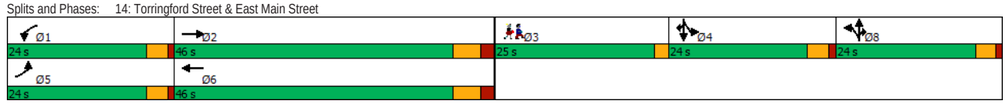
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
14: Torringford Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	120	530	40	390	90	120	60	90	110	130	
Future Volume (vph)	120	530	40	390	90	120	60	90	110	130	
Lane Group Flow (vph)	133	622	50	538	117	156	78	110	134	159	
Turn Type	Prot	NA	Prot	NA	Split	NA	Prot	Split	NA	Prot	
Protected Phases	5	2	1	6	8	8	8	4	4	4	3
Permitted Phases											
Detector Phase	5	2	1	6	8	8	8	4	4	4	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0
Total Split (s)	24.0	46.0	24.0	46.0	24.0	24.0	24.0	24.0	24.0	24.0	25.0
Total Split (%)	16.8%	32.2%	16.8%	32.2%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	17%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lag				Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	Min	None	Min	None	None	None	None	None	None	None
v/c Ratio	0.55	0.43	0.28	0.54	0.22	0.54	0.24	0.44	0.51	0.47	
Control Delay	42.8	19.3	43.0	26.6	33.2	41.2	7.0	40.2	41.6	11.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	42.8	19.3	43.0	26.6	33.2	41.2	7.0	40.2	41.6	11.5	
Queue Length 50th (ft)	58	115	22	108	24	68	0	48	59	0	
Queue Length 95th (ft)	144	216	62	184	52	137	15	110	129	42	
Internal Link Dist (ft)		805		413		1058			877		
Turn Bay Length (ft)	450						125	175		175	
Base Capacity (vph)	411	1881	506	1853	910	496	493	460	484	487	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.32	0.33	0.10	0.29	0.13	0.31	0.16	0.24	0.28	0.33	

Intersection Summary
Cycle Length: 143
Actuated Cycle Length: 77.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Torringford Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
14: Torringford Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	530	30	40	390	40	90	120	60	90	110	130
Future Volume (vph)	120	530	30	40	390	40	90	120	60	90	110	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	13	12	12	11	12	12	11	11	11
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1517	3443		1865	3405		3351	1827	1553	1694	1783	1369
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1517	3443		1865	3405		3351	1827	1553	1694	1783	1369
Peak-hour factor, PHF	0.90	0.90	0.90	0.80	0.80	0.80	0.77	0.77	0.77	0.82	0.82	0.82
Adj. Flow (vph)	133	589	33	50	488	50	117	156	78	110	134	159
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	66	0	0	136
Lane Group Flow (vph)	133	620	0	50	533	0	117	156	12	110	134	23
Heavy Vehicles (%)	19%	3%	22%	0%	5%	0%	1%	4%	4%	3%	3%	14%
Turn Type	Prot	NA		Prot	NA		Split	NA	Prot	Split	NA	Prot
Protected Phases	5	2		1	6		8	8	8	4	4	4
Permitted Phases												
Actuated Green, G (s)	12.4	32.9		4.4	24.9		12.2	12.2	12.2	11.5	11.5	11.5
Effective Green, g (s)	12.4	32.9		4.4	24.9		12.2	12.2	12.2	11.5	11.5	11.5
Actuated g/C Ratio	0.16	0.42		0.06	0.32		0.15	0.15	0.15	0.15	0.15	0.15
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	238	1433		103	1073		517	282	239	246	259	199
v/s Ratio Prot	c0.09	0.18		0.03	c0.16		0.03	c0.09	0.01	0.06	c0.08	0.02
v/s Ratio Perm												
v/c Ratio	0.56	0.43		0.49	0.50		0.23	0.55	0.05	0.45	0.52	0.12
Uniform Delay, d1	30.8	16.4		36.2	22.0		29.3	30.9	28.5	30.8	31.2	29.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.4		1.3	0.8		0.1	1.3	0.0	0.5	0.7	0.1
Delay (s)	32.4	16.8		37.5	22.7		29.3	32.2	28.5	31.3	31.9	29.4
Level of Service	C	B		D	C		C	C	C	C	C	C
Approach Delay (s)		19.6			24.0			30.4			30.8	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

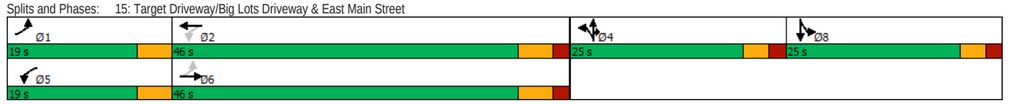
East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

Lanes, Volumes, Timings
15: Target Driveway/Big Lots Driveway & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	20	550	30	460	30	0	20	0
Future Volume (vph)	20	550	30	460	30	0	20	0
Lane Group Flow (vph)	21	642	34	534	20	20	27	27
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Prot	NA
Protected Phases	1	6	5	2	4	4	4	8
Permitted Phases	6		2					
Detector Phase	1	6	5	2	4	4	4	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	5.0	5.0	8.0
Minimum Split (s)	9.0	21.0	9.0	21.0	10.0	10.0	10.0	13.0
Total Split (s)	19.0	46.0	19.0	46.0	25.0	25.0	25.0	25.0
Total Split (%)	16.5%	40.0%	16.5%	40.0%	21.7%	21.7%	21.7%	21.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	Max	None	None	None	None
v/c Ratio	0.03	0.26	0.05	0.20	0.15	0.15	0.11	0.04
Control Delay	4.8	8.1	4.7	7.0	36.0	36.0	1.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	8.1	4.7	7.0	36.0	36.0	1.0	0.1
Queue Length 50th (ft)	1	55	2	24	8	8	0	0
Queue Length 95th (ft)	11	138	15	108	26	26	0	0
Internal Link Dist (ft)		599		825		361		225
Turn Bay Length (ft)	200		300		200		200	
Base Capacity (vph)	895	2460	791	2652	474	474	546	860
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.26	0.04	0.20	0.04	0.04	0.05	0.03

Intersection Summary
Cycle Length: 115
Actuated Cycle Length: 66.7
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 15: Target Driveway/Big Lots Driveway & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM Signalized Intersection Capacity Analysis
15: Target Driveway/Big Lots Driveway & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	550	60	30	460	10	30	0	20	0	0	20
Future Volume (vph)	20	550	60	30	460	10	30	0	20	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85		0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.95	1.00		1.00	
Satd. Flow (prot)	1805	3410		1719	3530		1517	1517	1495		1615	
Flt Permitted	0.45	1.00		0.39	1.00		0.95	0.95	1.00		1.00	
Satd. Flow (perm)	861	3410		709	3530		1517	1517	1495		1615	
Peak-hour factor, PHF	0.95	0.95	0.95	0.88	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	21	579	63	34	523	11	40	0	27	0	0	27
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	26	0	26	0
Lane Group Flow (vph)	21	638	0	34	533	0	20	20	1	0	1	0
Heavy Vehicles (%)	0%	4%	7%	5%	2%	0%	13%	0%	8%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	Prot	Split	NA	
Protected Phases	1	6		5	2		4	4	4	8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	47.5	45.8		49.9	47.0		3.3	3.3	3.3		2.7	
Effective Green, g (s)	47.5	45.8		49.9	47.0		3.3	3.3	3.3		2.7	
Actuated g/C Ratio	0.64	0.61		0.67	0.63		0.04	0.04	0.04		0.04	
Clearance Time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	568	2090		512	2221		67	67	66		58	
v/s Ratio Prot	0.00	c0.19		c0.00	0.15		c0.01	0.01	0.00		c0.00	
v/s Ratio Perm	0.02			0.04								
v/c Ratio	0.04	0.31		0.07	0.24		0.30	0.30	0.02		0.02	
Uniform Delay, d1	5.0	6.9		4.2	6.0		34.6	34.6	34.2		34.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.4		0.0	0.3		0.9	0.9	0.0		0.0	
Delay (s)	5.0	7.3		4.2	6.3		35.5	35.5	34.2		34.8	
Level of Service	A	A		A	A		D	D	C		C	
Approach Delay (s)		7.2			6.2			35.0			34.8	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	74.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM 2010 TWSC
18: Hillside Avenue & East Main Street

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	600	10	10	520	0	20	10	0	0	10	10
Future Vol, veh/h	10	600	10	10	520	0	20	10	0	0	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	73	73	73	56	56	56
Heavy Vehicles, %	0	6	10	13	7	0	0	0	5	0	0	0
Mvmt Flow	11	632	11	11	547	0	27	14	0	0	18	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	547	0	0	643	0	0	1247	1229	322	914	1234	547
Stage 1	-	-	-	-	-	-	660	660	-	569	569	-
Stage 2	-	-	-	-	-	-	587	569	-	345	665	-
Critical Hdwy	4.1	-	-	4.295	-	-	7.3	6.5	6.975	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.3235	-	-	3.5	4	3.3475	3.5	4	3.3
Pot Cap-1 Maneuver	1033	-	-	879	-	-	142	179	667	243	178	541
Stage 1	-	-	-	-	-	-	423	463	-	511	509	-
Stage 2	-	-	-	-	-	-	499	509	-	649	461	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1033	-	-	879	-	-	123	173	667	222	172	541
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	173	-	222	172	-
Stage 1	-	-	-	-	-	-	416	455	-	502	500	-
Stage 2	-	-	-	-	-	-	457	500	-	619	453	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	42.5	21
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	136	1033	-	-	879	-	-	261
HCM Lane V/C Ratio	0.302	0.01	-	-	0.012	-	-	0.137
HCM Control Delay (s)	42.5	8.5	0.1	-	9.1	0	-	21
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	0.5

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM 2010 TWSC
22: Maud Street & East Main Street

Intersection						
Int Delay, s/veh	0.9					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	470	10	10	550	10	20
Future Vol, veh/h	470	10	10	550	10	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	89	89	53	53
Heavy Vehicles, %	5	0	0	6	0	0
Mvmt Flow	516	11	11	618	19	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	527	0	1162	522
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	640	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1050	-	218	559
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	529	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1050	-	215	559
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	529	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	365	-	-	1050	-
HCM Lane V/C Ratio	0.155	-	-	0.011	-
HCM Control Delay (s)	16.7	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM 2010 TWSC
26: East Main Street & Brookside Avenue

Intersection						
Int Delay, s/veh	0.3					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	480	560	0	0	10
Future Vol, veh/h	10	480	560	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	89	89	42	42
Heavy Vehicles, %	0	5	6	0	0	0
Mvmt Flow	11	527	629	0	0	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	629	0	-	0	1178	629
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	549	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	963	-	-	-	213	486
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	963	-	-	-	210	486
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	583	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	963	-	-	-	486
HCM Lane V/C Ratio	0.011	-	-	-	0.049
HCM Control Delay (s)	8.8	0	-	-	12.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM 2010 TWSC
36: BJ's Driveway & East Main Street

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	490	20	60	390	10	80
Future Vol, veh/h	490	20	60	390	10	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	88	88	92	92
Heavy Vehicles, %	9	0	0	4	0	3
Mvmt Flow	544	22	68	443	11	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	566	0	913	283
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	358	-
Critical Hdwy	-	-	4.1	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	1016	-	277	711
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	684	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1016	-	252	711
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	684	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	711	-	-	1016	-
HCM Lane V/C Ratio	0.122	-	-	0.067	-
HCM Control Delay (s)	10.8	-	-	8.8	0.3
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

East Main Street Corridor Study - Torrington, CT
2020 Existing AM Peak Hour

HCM 2010 TWSC
44: Walmart Driveway & East Main Street

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	550	120	60	450	10	10	10	70	0	10	10
Future Vol, veh/h	10	550	120	60	450	10	10	10	70	0	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	93	93	93	65	65	65	75	75	75
Heavy Vehicles, %	14	4	2	2	2	0	11	0	5	0	0	20
Mvmt Flow	10	556	121	65	484	11	15	15	108	0	13	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	495	0	0	556	0	0	955	1201	278	926	1196	248
Stage 1	-	-	-	-	-	-	576	576	-	620	620	-
Stage 2	-	-	-	-	-	-	379	625	-	306	576	-
Critical Hdwy	4.38	-	-	4.14	-	-	7.72	6.5	7	7.5	6.5	7.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.72	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.72	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.34	-	-	2.22	-	-	3.61	4	3.35	3.5	4	3.5
Pot Cap-1 Maneuver	985	-	-	1011	-	-	200	186	710	227	188	700
Stage 1	-	-	-	-	-	-	448	505	-	447	483	-
Stage 2	-	-	-	-	-	-	591	480	-	684	505	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	985	-	-	1011	-	-	173	171	710	168	173	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	171	-	168	173	-
Stage 1	-	-	-	-	-	-	440	496	-	439	452	-
Stage 2	-	-	-	-	-	-	526	449	-	553	496	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	17.8	19.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	419	985	-	-	1011	-	-	277
HCM Lane V/C Ratio	0.33	0.01	-	-	0.064	-	-	0.096
HCM Control Delay (s)	17.8	8.7	0.1	-	8.8	-	-	19.4
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.2	-	-	0.3

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street & East Main Street

Lane Group	NBT	NBR	SBL2	SBL	SBT	SWL	SWR	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	350	440	230	60	310	390	300			
Future Volume (vph)	350	440	230	60	310	390	300			
Lane Group Flow (vph)	380	511	0	315	337	424	326			
Turn Type	NA	custom	D.P+P	D.P+P	NA	Prot	custom			
Protected Phases	2	2 5	3 4	3 4	2 3 4	1	1 5	3	4	5
Permitted Phases		2	2	2			1			
Detector Phase	2	2 5	3 4	3 4	2 3 4	1	1 5			
Switch Phase										
Minimum Initial (s)	5.0					5.0		5.0	5.0	5.0
Minimum Split (s)	20.0					9.0		21.0	21.0	21.0
Total Split (s)	28.0					28.0		9.0	21.0	18.0
Total Split (%)	26.9%					26.9%		9%	20%	17%
Yellow Time (s)	3.0					3.0		3.0	3.0	3.0
All-Red Time (s)	1.0					1.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0					0.0				
Total Lost Time (s)	4.0					4.0				
Lead/Lag	Lag					Lead		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min					Max		None	Max	None
v/c Ratio	0.49	0.80		0.54	0.19	0.53	0.24			
Control Delay	37.4	23.8		17.8	5.4	37.4	2.7			
Queue Delay	9.8	18.6		4.6	0.8	0.0	0.0			
Total Delay	47.1	42.4		22.5	6.1	37.4	2.7			
Queue Length 50th (ft)	115	107		80	25	128	0			
Queue Length 95th (ft)	162	#231		135	23	177	28			
Internal Link Dist (ft)	140				65	591				
Turn Bay Length (ft)						200	200			
Base Capacity (vph)	830	660		582	1808	805	1336			
Starvation Cap Reductn	412	148		195	1142	0	0			
Spillback Cap Reductn	353	0		0	0	0	74			
Storage Cap Reductn	0	0		0	0	0	0			
Reduced v/c Ratio	0.91	1.00		0.81	0.51	0.53	0.26			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 102.4
Natural Cycle: 95
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Franklin Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
1: Main Street & Franklin Street & East Main Street

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	NWL	NWR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	350	440	30	230	60	310	0	0	390	300
Future Volume (vph)	350	440	30	230	60	310	0	0	390	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.0	4.0			4.0	4.0
Lane Util. Factor	0.95	1.00			1.00	0.95			0.97	0.88
Frt	1.00	0.85			1.00	1.00			1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00			0.95	1.00
Satd. Flow (prot)	3539	1583			1770	3539			3433	2787
Flt Permitted	1.00	1.00			0.38	1.00			0.95	1.00
Satd. Flow (perm)	3539	1583			717	3539			3433	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	478	33	250	65	337	0	0	424	326
RTOR Reduction (vph)	0	75	0	0	0	0	0	0	0	208
Lane Group Flow (vph)	380	436	0	0	315	337	0	0	424	118
Turn Type	NA	custom		D.P+P	D.P+P	NA			Prot	custom
Protected Phases	2	2 5		3 4	3 4	2 3 4			1	1 5
Permitted Phases		2		2	2					1
Actuated Green, G (s)	22.3	35.3			47.3	51.3			24.0	42.0
Effective Green, g (s)	22.3	35.3			47.3	46.3			24.0	37.0
Actuated g/C Ratio	0.22	0.35			0.46	0.45			0.23	0.36
Clearance Time (s)	4.0								4.0	
Vehicle Extension (s)	3.0								3.0	
Lane Grp Cap (vph)	771	546			588	1601			805	1008
v/s Ratio Prot	0.11	c0.28			c0.13	0.10			c0.12	0.04
v/s Ratio Perm					0.12					
v/c Ratio	0.49	0.80			0.54	0.21			0.53	0.12
Uniform Delay, d1	35.0	30.3			23.9	16.9			34.2	21.8
Progression Factor	1.00	1.00			0.62	0.38			1.00	1.00
Incremental Delay, d2	0.5	8.0			0.9	0.1			2.5	0.1
Delay (s)	35.5	38.2			15.7	6.6			36.7	21.8
Level of Service	D	D			B	A			D	C
Approach Delay (s)	37.1					11.0	0.0		30.2	
Approach LOS	D					B	A		C	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	102.3	Sum of lost time (s)	23.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
62: Main Street & Water Street

Lane Group	EBL	EBR	NBL	NBT	SBT	Ø1	Ø3	Ø5
Lane Configurations								
Traffic Volume (vph)	30	290	340	310	310			
Future Volume (vph)	30	290	340	310	310			
Lane Group Flow (vph)	175	173	370	337	370			
Turn Type	Prot	Prot	D.P+P	NA	NA			
Protected Phases	4	4	1 3 5	1 3 5	2	1	3	5
Permitted Phases			2					
Detector Phase	4	4	1 3 5	1 3 5	2			
Switch Phase								
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0			20.0	9.0	21.0	21.0
Total Split (s)	21.0	21.0			28.0	28.0	9.0	18.0
Total Split (%)	20.2%	20.2%			26.9%	27%	9%	17%
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0			1.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			
Total Lost Time (s)	5.0	5.0			4.0			
Lead/Lag	Lag	Lag			Lag	Lead	Lead	
Lead-Lag Optimize?								
Recall Mode	Max	Max			Min	Max	None	None
v/c Ratio	0.47	0.45	0.38	0.39	0.48			
Control Delay	15.2	10.3	11.2	30.2	36.3			
Queue Delay	0.0	0.0	1.3	6.9	0.1			
Total Delay	15.2	10.4	12.5	37.1	36.3			
Queue Length 50th (ft)	19	0	89	173	108			
Queue Length 95th (ft)	83	62	135	228	154			
Internal Link Dist (ft)	429			65	351			
Turn Bay Length (ft)		75						
Base Capacity (vph)	373	381	974	855	826			
Starvation Cap Reductn	0	0	398	461	0			
Spillback Cap Reductn	4	5	0	0	30			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.47	0.46	0.64	0.86	0.46			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 102.4
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 62: Main Street & Water Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
62: Main Street & Water Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	290	340	310	310	30
Future Volume (vph)	30	290	340	310	310	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	
Frt	0.88	0.85	1.00	1.00	0.99	
Flt Protected	0.99	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1621	1504	1770	1863	3492	
Flt Permitted	0.99	1.00	0.40	1.00	1.00	
Satd. Flow (perm)	1621	1504	737	1863	3492	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	315	370	337	337	33
RTOR Reduction (vph)	120	146	0	0	7	0
Lane Group Flow (vph)	55	27	370	337	363	0
Turn Type	Prot	Prot	D.P+P	NA	NA	
Protected Phases	4	4	1 3 5	1 3 5	2	
Permitted Phases			2			
Actuated Green, G (s)	16.0	16.0	68.3	46.0	22.3	
Effective Green, g (s)	16.0	16.0	63.3	41.0	22.3	
Actuated g/C Ratio	0.16	0.16	0.62	0.40	0.22	
Clearance Time (s)	5.0	5.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0	
Lane Grp Cap (vph)	253	235	870	746	761	
v/s Ratio Prot	c0.03	0.02	0.17	c0.18	c0.10	
v/s Ratio Perm			0.09			
v/c Ratio	0.22	0.12	0.43	0.45	0.48	
Uniform Delay, d1	37.7	37.1	9.7	22.4	34.9	
Progression Factor	1.00	1.00	2.41	2.24	1.00	
Incremental Delay, d2	2.0	1.0	0.3	0.4	0.5	
Delay (s)	39.7	38.1	23.6	50.5	35.4	
Level of Service	D	D	C	D	D	
Approach Delay (s)	38.9			36.4	35.4	
Approach LOS	D			D	D	

Intersection Summary			
HCM 2000 Control Delay	36.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	102.3	Sum of lost time (s)	23.0
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

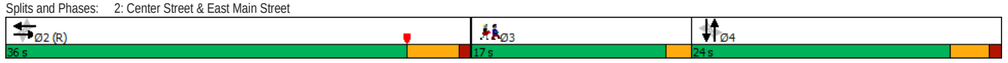
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
2: Center Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	30	620	10	650	40	0	10	10	
Future Volume (vph)	30	620	10	650	40	0	10	10	
Lane Group Flow (vph)	0	696	0	797	0	94	0	72	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	2	2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0	17.0
Total Split (s)	36.0	36.0	36.0	36.0	24.0	24.0	24.0	24.0	17.0
Total Split (%)	46.8%	46.8%	46.8%	46.8%	31.2%	31.2%	31.2%	31.2%	22%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0		5.0		4.0		4.0	
Lead/Lag					Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.48		0.53		0.45		0.36	
Control Delay		4.3		4.7		22.6		24.0	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		4.3		4.7		22.6		24.0	
Queue Length 50th (ft)		79		97		17		16	
Queue Length 95th (ft)		173		206		54		24	
Internal Link Dist (ft)		591		539		293		191	
Turn Bay Length (ft)									
Base Capacity (vph)		1464		1518		434		440	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.48		0.53		0.22		0.16	

Intersection Summary
Cycle Length: 77
Actuated Cycle Length: 77
Offset: 38 (49%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 2: Center Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
2: Center Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	620	10	10	650	50	40	0	40	10	10	20
Future Volume (vph)	30	620	10	10	650	50	40	0	40	10	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.93	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1873			1864			1729			1750	
Flt Permitted		0.95			0.99			0.85			0.90	
Satd. Flow (perm)		1784			1848			1514			1592	
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.86	0.86	0.86	0.55	0.55	0.55
Adj. Flow (vph)	32	653	11	11	730	56	47	0	47	18	18	36
RTOR Reduction (vph)	0	0	0	0	1	0	0	52	0	0	33	0
Lane Group Flow (vph)	0	696	0	0	796	0	0	42	0	0	39	0
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		61.4			61.4			6.6			6.6	
Effective Green, g (s)		61.4			61.4			6.6			6.6	
Actuated g/C Ratio		0.80			0.80			0.09			0.09	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1422			1473			129			136	
v/s Ratio Prot												
v/s Ratio Perm		0.39			c0.43			c0.03			0.02	
v/c Ratio		0.49			0.54			0.32			0.29	
Uniform Delay, d1		2.6			2.8			33.1			33.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.2			1.4			0.5			0.4	
Delay (s)		3.8			4.2			33.6			33.4	
Level of Service		A			A			C			C	
Approach Delay (s)		3.8			4.2			33.6			33.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	77.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

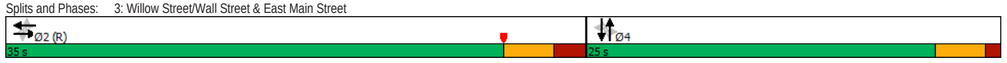
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
3: Willow Street/Wall Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	40	640	20	570	40	60	40	70
Future Volume (vph)	40	640	20	570	40	60	40	70
Lane Group Flow (vph)	0	777	0	664	0	178	0	225
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.69		0.57		0.52		0.60
Control Delay		13.4		8.0		20.9		23.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		13.4		8.0		20.9		23.1
Queue Length 50th (ft)		147		37		45		60
Queue Length 95th (ft)		#429		361		69		73
Internal Link Dist (ft)		539		444		461		319
Turn Bay Length (ft)								
Base Capacity (vph)		1127		1158		538		591
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.69		0.57		0.33		0.38

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Willow Street/Wall Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
3: Willow Street/Wall Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	640	20	20	570	20	40	60	40	40	70	50
Future Volume (vph)	40	640	20	20	570	20	40	60	40	40	70	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.96			0.96	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1864			1867			1736			1798	
Flt Permitted		0.94			0.97			0.84			0.89	
Satd. Flow (perm)		1765			1812			1471			1613	
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.79	0.79	0.79	0.71	0.71	0.71
Adj. Flow (vph)	44	711	22	22	620	22	51	76	51	56	99	70
RTOR Reduction (vph)	0	1	0	0	1	0	0	29	0	0	33	0
Lane Group Flow (vph)	0	776	0	0	663	0	0	149	0	0	192	0
Heavy Vehicles (%)	6%	1%	0%	6%	1%	0%	7%	2%	3%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		38.3			38.3			12.7			12.7	
Effective Green, g (s)		38.3			38.3			12.7			12.7	
Actuated g/C Ratio		0.64			0.64			0.21			0.21	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1126			1156			311			341	
v/s Ratio Prot												
v/s Ratio Perm		c0.44			0.37			0.10			c0.12	
v/c Ratio		0.69			0.57			0.48			0.56	
Uniform Delay, d1		7.0			6.2			20.7			21.2	
Progression Factor		1.00			0.79			1.00			1.00	
Incremental Delay, d2		3.5			1.8			1.2			2.1	
Delay (s)		10.5			6.7			21.9			23.3	
Level of Service		B			A			C			C	
Approach Delay (s)		10.5			6.7			21.9			23.3	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
4: Route 8 SB Ramp/Columbus Road & East Main Street

Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	590	210	530	100	280
Future Volume (vph)	590	210	530	100	280
Lane Group Flow (vph)	771	231	582	109	424
Turn Type	NA	D.P+P	NA	Perm	NA
Protected Phases	2	1	1 2		4
Permitted Phases		2		4	
Detector Phase	2	1	1 2	4	4
Switch Phase					
Minimum Initial (s)	20.0	5.0		7.0	7.0
Minimum Split (s)	25.0	8.0		12.0	12.0
Total Split (s)	26.0	8.0		26.0	26.0
Total Split (%)	43.3%	13.3%		43.3%	43.3%
Yellow Time (s)	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Min	Max		None	None
v/c Ratio	0.64	0.52	0.54	0.22	0.80
Control Delay	13.2	10.6	7.7	16.0	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	10.6	7.7	16.0	29.4
Queue Length 50th (ft)	120	10	60	29	127
Queue Length 95th (ft)	101	m27	m240	57	201
Internal Link Dist (ft)	612		423		285
Turn Bay Length (ft)		150			
Base Capacity (vph)	1241	448	1105	625	649
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	0.62	0.52	0.53	0.17	0.65

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 31 (52%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 8 SB Ramp/Columbus Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
4: Route 8 SB Ramp/Columbus Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	590	120	210	530	0	0	0	0	100	280	110
Future Volume (vph)	0	590	120	210	530	0	0	0	0	100	280	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		3.0	3.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	1.00					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.96	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3466		1752	1863					1787	1789	
Flt Permitted		1.00		0.24	1.00					0.95	1.00	
Satd. Flow (perm)		3466		451	1863					1787	1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	641	130	231	582	0	0	0	0	109	304	120
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	743	0	231	582	0	0	0	0	109	398	0
Heavy Vehicles (%)	0%	1%	4%	3%	2%	0%	2%	2%	2%	1%	2%	1%
Turn Type		NA		D.P+P	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		20.4		30.0	33.0					17.0	17.0	
Effective Green, g (s)		20.4		30.0	33.0					17.0	17.0	
Actuated g/C Ratio		0.34		0.50	0.55					0.28	0.28	
Clearance Time (s)		5.0		3.0						5.0	5.0	
Vehicle Extension (s)		2.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1178		433	1024					506	506	
v/s Ratio Prot		0.21		0.09	c0.31						c0.22	
v/s Ratio Perm				0.18						0.06		
v/c Ratio		0.63		0.53	0.57					0.22	0.79	
Uniform Delay, d1		16.6		9.2	8.8					16.4	19.8	
Progression Factor		0.70		0.68	0.74					1.00	1.00	
Incremental Delay, d2		2.0		2.4	1.2					0.1	7.3	
Delay (s)		13.7		8.6	7.7					16.5	27.2	
Level of Service		B		A	A					B	C	
Approach Delay (s)	13.7			8.0		0.0			25.0			
Approach LOS	B			A		A			C			

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	110	580	650	250	390
Future Volume (vph)	110	580	650	250	390
Lane Group Flow (vph)	121	637	721	366	419
Turn Type	D.P+P	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		26.0	23.0	23.0
Total Split (%)	18.3%		43.3%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.34	0.28	0.92	0.44	0.74
Control Delay	7.0	6.2	40.7	20.5	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	6.2	40.7	20.5	16.4
Queue Length 50th (ft)	16	100	245	57	50
Queue Length 95th (ft)	m38	140	#497	85	129
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	362	2248	780	1047	656
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	0.33	0.28	0.92	0.35	0.64

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	580	0	0	650	20	90	250	390	0	0	0
Future Volume (vph)	110	580	0	0	650	20	90	250	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			1.00			0.95	1.00			
Frt	1.00	1.00			1.00			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.99	1.00			
Satd. Flow (prot)	1736	3610			1870			3493	1599			
Flt Permitted	0.16	1.00			1.00			0.99	1.00			
Satd. Flow (perm)	292	3610			1870			3493	1599			
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	121	637	0	0	699	22	97	269	419	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	193	0	0	0
Lane Group Flow (vph)	121	637	0	0	719	0	0	366	226	0	0	0
Heavy Vehicles (%)	4%	0%	0%	0%	1%	7%	2%	2%	1%	2%	2%	2%
Turn Type	D.P+P	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	32.9	35.9			25.0			14.1	14.1			
Effective Green, g (s)	32.9	35.9			25.0			14.1	14.1			
Actuated g/C Ratio	0.55	0.60			0.42			0.23	0.23			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	350	2159			779			820	375			
v/s Ratio Prot	c0.05	0.18			c0.38							
v/s Ratio Perm	0.14							0.10	c0.14			
v/c Ratio	0.35	0.30			0.92			0.45	0.60			
Uniform Delay, d1	9.7	5.9			16.6			19.6	20.5			
Progression Factor	0.84	1.03			1.00			1.00	1.00			
Incremental Delay, d2	0.5	0.1			18.2			0.4	2.7			
Delay (s)	8.6	6.1			34.8			20.0	23.2			
Level of Service	A	A			C			C	C			
Approach Delay (s)	6.5				34.8			21.7		0.0		
Approach LOS	A				C			C		A		

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	WBR	SEL	Ø3
Lane Configurations						
Traffic Volume (vph)	10	230	640	490	490	
Future Volume (vph)	10	230	640	490	490	
Lane Group Flow (vph)	0	258	660	505	532	
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	3
Permitted Phases	2			2		
Detector Phase	2	2	2	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	19.0
Total Split (s)	29.0	29.0	29.0	29.0	31.0	19.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	39.2%	24%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	5.0	
Lead/Lag					Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.15	0.72	0.47	0.82	
Control Delay		11.4	21.9	3.0	34.6	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		11.4	21.9	3.0	34.6	
Queue Length 50th (ft)		34	244	0	230	
Queue Length 95th (ft)		60	#457	50	329	
Internal Link Dist (ft)		160	602		27	
Turn Bay Length (ft)				300		
Base Capacity (vph)		1693	921	1064	669	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.15	0.72	0.47	0.80	

Intersection Summary
Cycle Length: 79
Actuated Cycle Length: 79
Offset: 32 (41%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: East Main Street & East Elm Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	10	230	640	490	490	10
Future Volume (vph)	10	230	640	490	490	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0	6.0	5.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3568	1801	1599	1848	
Flt Permitted		0.93	1.00	1.00	0.95	
Satd. Flow (perm)		3312	1801	1599	1848	
Peak-hour factor, PHF	0.93	0.93	0.97	0.97	0.94	0.94
Adj. Flow (vph)	11	247	660	505	521	11
RTOR Reduction (vph)	0	0	0	247	1	0
Lane Group Flow (vph)	0	258	660	258	531	0
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		40.4	40.4	40.4	27.6	
Effective Green, g (s)		40.4	40.4	40.4	27.6	
Actuated g/C Ratio		0.51	0.51	0.51	0.35	
Clearance Time (s)		6.0	6.0	6.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1693	921	817	645	
v/s Ratio Prot			c0.37		c0.29	
v/s Ratio Perm		0.08		0.16		
v/c Ratio		0.15	0.72	0.32	0.82	
Uniform Delay, d1		10.2	14.9	11.2	23.5	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	4.8	1.0	8.4	
Delay (s)		10.4	19.6	12.3	31.9	
Level of Service		B	B	B	C	
Approach Delay (s)		10.4	16.4		31.9	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

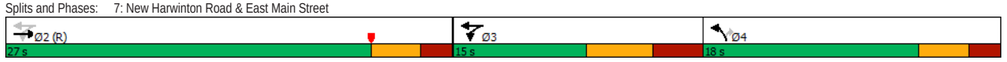
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	870	10	800	340	40
Future Volume (vph)	870	10	800	340	40
Lane Group Flow (vph)	1337	0	853	378	44
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	2	3	3	4	
Permitted Phases		2	2		4
Detector Phase	2	3	3	4	4
Switch Phase					
Minimum Initial (s)	15.0	8.0	8.0	7.0	7.0
Minimum Split (s)	20.0	15.0	15.0	12.0	12.0
Total Split (s)	27.0	15.0	15.0	18.0	18.0
Total Split (%)	45.0%	25.0%	25.0%	30.0%	30.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0		7.0	5.0	5.0
Lead/Lag		Lead	Lead	Lag	Lag
Lead-Lag Optimize?					
Recall Mode	C-Max	None	None	None	None
v/c Ratio	1.00		1.12	0.98	0.12
Control Delay	44.0		85.3	68.1	9.7
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	44.0		85.3	68.1	9.7
Queue Length 50th (ft)	225		~227	137	2
Queue Length 95th (ft)	#375		#568	#288	24
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1338		764	387	359
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	1.00		1.12	0.98	0.12

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 22 (37%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ 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: 7: New Harwinton Road & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	870	400	10	800	340	40
Future Volume (vph)	870	400	10	800	340	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			7.0	5.0	5.0
Lane Util. Factor	0.95			1.00	1.00	1.00
Frt	0.95			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3405			1899	1787	1524
Flt Permitted	1.00			0.81	0.95	1.00
Satd. Flow (perm)	3405			1536	1787	1524
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.90	0.90
Adj. Flow (vph)	916	421	11	842	378	44
RTOR Reduction (vph)	89	0	0	0	0	29
Lane Group Flow (vph)	1248	0	0	853	378	15
Heavy Vehicles (%)	1%	1%	1%	0%	1%	6%
Turn Type	NA		D.P+P	NA	Prot	Perm
Protected Phases	2		3	3	4	
Permitted Phases			2	2		4
Actuated Green, G (s)	22.0			30.0	13.0	13.0
Effective Green, g (s)	22.0			30.0	13.0	13.0
Actuated g/C Ratio	0.37			0.50	0.22	0.22
Clearance Time (s)	5.0			7.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1248			816	387	330
v/s Ratio Prot	0.37			c0.14	c0.21	
v/s Ratio Perm				c0.38		0.01
v/c Ratio	1.00			1.05	0.98	0.05
Uniform Delay, d1	19.0			15.0	23.3	18.6
Progression Factor	1.00			1.23	1.00	1.00
Incremental Delay, d2	25.4			40.4	39.2	0.1
Delay (s)	44.4			58.9	62.5	18.6
Level of Service	D			E	E	B
Approach Delay (s)	44.4			58.9	58.0	
Approach LOS	D			E	E	

Intersection Summary			
HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

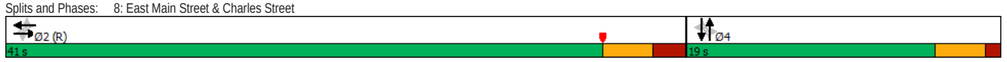
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
8: East Main Street & Charles Street

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	50	860	10	790	10	40	10
Future Volume (vph)	50	860	10	790	10	40	10
Lane Group Flow (vph)	0	989	0	904	30	0	97
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		2		2	4		4
Permitted Phases	2		2			4	
Detector Phase	2	2	2	2	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	9.0	9.0	9.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.0		4.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None
v/c Ratio		0.43		0.64	0.12		0.42
Control Delay		0.7		8.2	15.8		20.2
Queue Delay		0.0		0.0	0.0		0.0
Total Delay		0.7		8.2	15.8		20.2
Queue Length 50th (ft)		6		126	5		18
Queue Length 95th (ft)		m7		474	16		52
Internal Link Dist (ft)		809		1163	282		598
Turn Bay Length (ft)							
Base Capacity (vph)		2305		1403	454		403
Starvation Cap Reductn		0		0	0		0
Spillback Cap Reductn		0		0	0		0
Storage Cap Reductn		0		0	0		0
Reduced v/c Ratio		0.43		0.64	0.07		0.24

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 41 (68%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: East Main Street & Charles Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
8: East Main Street & Charles Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	860	0	10	790	50	0	10	10	40	10	40
Future Volume (vph)	50	860	0	10	790	50	0	10	10	40	10	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	12	12	12	12	12	15	12	15
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.94	
Flt Protected		1.00			1.00			1.00			0.98	
Satd. Flow (prot)		3448			1849			1772			1725	
Flt Permitted		0.87			0.99			1.00			0.84	
Satd. Flow (perm)		3005			1827			1772			1486	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.67	0.67	0.67	0.93	0.93	0.93
Adj. Flow (vph)	54	935	0	11	840	53	0	15	15	43	11	43
RTOR Reduction (vph)	0	0	0	0	2	0	0	13	0	0	38	0
Lane Group Flow (vph)	0	989	0	0	902	0	0	17	0	0	59	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	0%	3%
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.2			44.2			6.8			6.8	
Effective Green, g (s)		44.2			44.2			6.8			6.8	
Actuated g/C Ratio		0.74			0.74			0.11			0.11	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2213			1345			200			168	
v/s Ratio Prot								0.01				
v/s Ratio Perm		0.33			c0.49						c0.04	
v/c Ratio		0.45			0.67			0.08			0.35	
Uniform Delay, d1		3.1			4.1			23.8			24.6	
Progression Factor		0.14			1.15			1.00			1.00	
Incremental Delay, d2		0.2			2.3			0.2			1.3	
Delay (s)		0.7			7.0			24.0			25.8	
Level of Service	A			A			C			C		
Approach Delay (s)	0.7			7.0			24.0			25.8		
Approach LOS	A			A			C			C		

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
9: Orchard Street & East Main Street

Lane Group	EBT	WBT	NBL
Lane Configurations			
Traffic Volume (vph)	940	810	10
Future Volume (vph)	940	810	10
Lane Group Flow (vph)	1000	920	40
Turn Type	NA	NA	Prot
Protected Phases	2	2	4
Permitted Phases			
Detector Phase	2	2	4
Switch Phase			
Minimum Initial (s)	20.0	20.0	7.0
Minimum Split (s)	25.0	25.0	11.0
Total Split (s)	41.0	41.0	19.0
Total Split (%)	68.3%	68.3%	31.7%
Yellow Time (s)	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.32	0.55	0.18
Control Delay	0.5	6.7	17.5
Queue Delay	0.0	0.0	0.0
Total Delay	0.5	6.7	17.5
Queue Length 50th (ft)	0	0	7
Queue Length 95th (ft)	17	398	13
Internal Link Dist (ft)	1163	1187	575
Turn Bay Length (ft)			
Base Capacity (vph)	3168	1673	447
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.55	0.09

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: Orchard Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
9: Orchard Street & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	940	10	0	810	10	10
Future Volume (vph)	940	10	0	810	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	4.0	
Lane Util. Factor	0.95			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3563			1881	1729	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	3563			1881	1729	
Peak-hour factor, PHF	0.95	0.95	0.88	0.88	0.50	0.50
Adj. Flow (vph)	989	11	0	920	20	20
RTOR Reduction (vph)	1	0	0	0	19	0
Lane Group Flow (vph)	999	0	0	920	21	0
Heavy Vehicles (%)	1%	14%	0%	1%	0%	0%
Turn Type	NA			NA	Prot	
Protected Phases	2			2	4	
Permitted Phases			2			
Actuated Green, G (s)	48.0			48.0	3.0	
Effective Green, g (s)	48.0			48.0	3.0	
Actuated g/C Ratio	0.80			0.80	0.05	
Clearance Time (s)	5.0			5.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2850			1504	86	
v/s Ratio Prot	0.28			c0.49	c0.01	
v/s Ratio Perm						
v/c Ratio	0.35			0.61	0.24	
Uniform Delay, d1	1.7			2.4	27.4	
Progression Factor	0.18			1.95	1.00	
Incremental Delay, d2	0.3			1.4	1.5	
Delay (s)	0.6			6.0	28.9	
Level of Service	A			A	C	
Approach Delay (s)	0.6			6.0	28.9	
Approach LOS	A			A	C	

Intersection Summary

HCM 2000 Control Delay	3.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
10: Pineridge Road/Yorkshire Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	890	30	780	30	10	30	10
Future Volume (vph)	10	890	30	780	30	10	30	10
Lane Group Flow (vph)	0	979	0	954	0	88	0	88
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.38		0.70		0.35		0.36
Control Delay		10.4		9.9		17.3		20.9
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		10.4		9.9		17.3		20.9
Queue Length 50th (ft)		180		152		15		20
Queue Length 95th (ft)		223		341		47		36
Internal Link Dist (ft)		1187		1137		621		153
Turn Bay Length (ft)								
Base Capacity (vph)		2546		1357		416		412
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.38		0.70		0.21		0.21

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 13 (22%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 10: Pineridge Road/Yorkshire Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
10: Pineridge Road/Yorkshire Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	890	20	30	780	20	30	10	40	30	10	20
Future Volume (vph)	10	890	20	30	780	20	30	10	40	30	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.93			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3528			1873			1697			1771	
Flt Permitted		0.94			0.95			0.89			0.86	
Satd. Flow (perm)		3335			1779			1534			1561	
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.90	0.90	0.90	0.68	0.68	0.68
Adj. Flow (vph)	11	947	21	34	897	23	33	11	44	44	15	29
RTOR Reduction (vph)	0	2	0	0	1	0	0	39	0	0	26	0
Lane Group Flow (vph)	0	977	0	0	953	0	0	49	0	0	62	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	0%	20%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.0			44.0			7.0			7.0	
Effective Green, g (s)		44.0			44.0			7.0			7.0	
Actuated g/C Ratio		0.73			0.73			0.12			0.12	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2445			1304			178			182	
v/s Ratio Prot												
v/s Ratio Perm		0.29			c0.54			0.03			c0.04	
v/c Ratio		0.40			0.73			0.28			0.34	
Uniform Delay, d1		3.0			4.6			24.2			24.4	
Progression Factor		2.82			1.00			1.00			1.00	
Incremental Delay, d2		0.5			3.6			0.8			1.1	
Delay (s)		9.0			8.2			25.0			25.5	
Level of Service		A			A			C			C	
Approach Delay (s)	9.0			8.2			25.0			25.5		
Approach LOS	A			A			C			C		

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

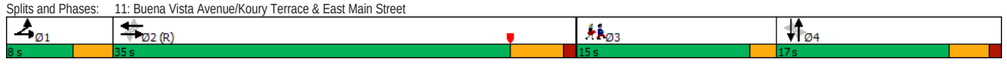
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
11: Buena Vista Avenue/Koury Terrace & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	930	20	770	50	10	20	10	
Future Volume (vph)	10	930	20	770	50	10	20	10	
Lane Group Flow (vph)	0	1055	0	898	0	120	0	90	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2	1 2	2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		20.0	20.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0		25.0	25.0	11.0	11.0	11.0	11.0	15.0
Total Split (s)	8.0		35.0	35.0	17.0	17.0	17.0	17.0	15.0
Total Split (%)	10.7%		46.7%	46.7%	22.7%	22.7%	22.7%	22.7%	20%
Yellow Time (s)	3.0		4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				0.0		0.0		0.0	
Total Lost Time (s)				5.0		4.0		4.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.41		0.75		0.57		0.36	
Control Delay		3.9		15.5		35.4		20.6	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		3.9		15.5		35.4		20.6	
Queue Length 50th (ft)		63		268		44		19	
Queue Length 95th (ft)		102		#501		63		35	
Internal Link Dist (ft)		1137		669		275		202	
Turn Bay Length (ft)									
Base Capacity (vph)		2569		1201		262		299	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.41		0.75		0.46		0.30	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Buena Vista Avenue/Koury Terrace & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
11: Buena Vista Avenue/Koury Terrace & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	930	30	20	770	10	50	10	20	20	10	30
Future Volume (vph)	10	930	30	20	770	10	50	10	20	20	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.93	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		3553			1874			1780			1700	
Flt Permitted		0.95			0.96			0.78			0.88	
Satd. Flow (perm)		3373			1808			1426			1513	
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.67	0.67	0.67	0.66	0.66	0.66
Adj. Flow (vph)	11	1011	33	22	865	11	75	15	30	30	15	45
RTOR Reduction (vph)	0	2	0	0	0	0	0	17	0	0	40	0
Lane Group Flow (vph)	0	1053	0	0	898	0	0	103	0	0	50	0
Heavy Vehicles (%)	0%	1%	4%	0%	1%	10%	0%	0%	0%	0%	0%	5%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2	1 2		2			4			4		
Actuated Green, G (s)		54.1			49.1			8.9			8.9	
Effective Green, g (s)		54.1			49.1			8.9			8.9	
Actuated g/C Ratio		0.72			0.65			0.12			0.12	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)		2445			1183			169			179	
v/s Ratio Prot		c0.03										
v/s Ratio Perm		0.28			c0.50			c0.07			0.03	
v/c Ratio		0.43			0.76			0.61			0.28	
Uniform Delay, d1		4.2			8.9			31.4			30.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			4.6			6.4			0.9	
Delay (s)		4.8			13.5			37.8			31.0	
Level of Service		A			B			D			C	
Approach Delay (s)	4.8			13.5			37.8			31.0		
Approach LOS	A			B			D			C		

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

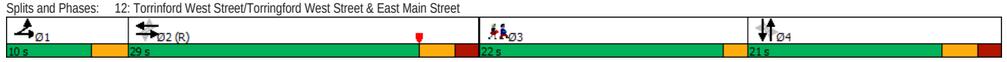
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
12: Torrinford West Street/Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	60	720	40	600	80	140	40	180	
Future Volume (vph)	60	720	40	600	80	140	40	180	
Lane Group Flow (vph)	0	925	44	681	88	242	0	319	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	21.0	21.0	21.0	21.0	22.0
Total Split (%)	12.2%		35.4%	35.4%	25.6%	25.6%	25.6%	25.6%	27%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)			5.0	5.0	5.0	5.0		5.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Min	C-Min	None	None	None	None	None
v/c Ratio		0.45	0.13	0.65	0.81	0.65		1.19	
Control Delay		5.9	9.9	16.0	81.9	35.8		146.0	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay		5.9	9.9	16.0	81.9	35.8		146.0	
Queue Length 50th (ft)		81	10	223	44	100		~193	
Queue Length 95th (ft)		107	26	337	#126	177		#353	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100				
Base Capacity (vph)		2043	329	1051	109	371		269	
Starvation Cap Reductn		0	0	0	0	0		0	
Spillback Cap Reductn		0	0	0	0	0		0	
Storage Cap Reductn		0	0	0	0	0		0	
Reduced v/c Ratio		0.45	0.13	0.65	0.81	0.65		1.19	

Intersection Summary
Cycle Length: 82
Actuated Cycle Length: 82
Offset: 28 (34%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
~ 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: 12: Torrinford West Street/Torringford West Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torrinford West Street/Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	720	80	40	600	20	80	140	80	40	180	70
Future Volume (vph)	60	720	80	40	600	20	80	140	80	40	180	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00			1.00	
Frt		0.99		1.00	1.00		1.00	0.95			0.97	
Flt Protected		1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		3518		1805	1873		1805	1777			1817	
Flt Permitted		0.84		0.31	1.00		0.29	1.00			0.72	
Satd. Flow (perm)		2968		587	1873		558	1777			1312	
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	65	774	86	44	659	22	88	154	88	44	198	77
RTOR Reduction (vph)	0	6	0	0	1	0	0	25	0	0	14	0
Lane Group Flow (vph)	0	919	0	44	680	0	88	217	0	0	305	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	3%	0%	0%	2%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Effective Green, g (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Actuated g/C Ratio		0.65		0.56	0.56		0.20	0.20			0.20	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1965		329	1050		108	346			256	
v/s Ratio Prot		c0.04			c0.36			0.12				
v/s Ratio Perm		0.26		0.08			0.16				c0.23	
v/c Ratio		0.47		0.13	0.65		0.81	0.63			1.19	
Uniform Delay, d1		7.4		8.5	12.4		31.6	30.3			33.0	
Progression Factor		1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.8		0.8	3.1		35.7	3.5			118.5	
Delay (s)		8.2		9.4	15.5		67.3	33.8			151.5	
Level of Service		A		A	B		E	C			F	

Approach	EB	WB	NB	SB
Approach Delay (s)	8.2	15.1	42.7	151.5
Approach LOS	A	B	D	F

Intersection Summary			
HCM 2000 Control Delay	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

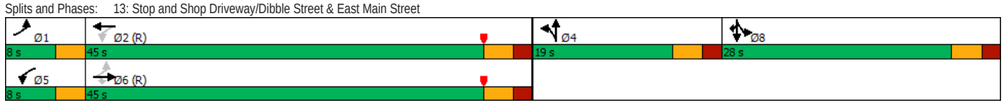
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
13: Stop and Shop Driveway/Dibble Street & East Main Street

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	640	170	40	660	120	90	310	100	10
Future Volume (vph)	40	640	170	40	660	120	90	310	100	10
Lane Group Flow (vph)	43	681	181	42	1115	135	135	255	264	13
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Split	NA	Split	NA	Prot
Protected Phases	1	6		5	2	4	4	8	8	8
Permitted Phases	6		6	2						
Detector Phase	1	6	6	5	2	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	5.0	5.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0	10.0	13.0	13.0	13.0
Total Split (s)	8.0	45.0	45.0	8.0	45.0	19.0	19.0	28.0	28.0	28.0
Total Split (%)	8.0%	45.0%	45.0%	8.0%	45.0%	19.0%	19.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead-Lag Optimize?										
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
v/c Ratio	0.19	0.39	0.21	0.10	0.63	0.67	0.62	0.78	0.80	0.03
Control Delay	13.9	18.6	3.6	12.5	19.4	58.0	49.9	55.3	55.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	18.6	3.6	12.5	19.4	58.0	49.9	55.3	55.9	0.2
Queue Length 50th (ft)	12	152	0	12	250	83	74	162	167	0
Queue Length 95th (ft)	31	221	41	31	360	142	132	208	214	0
Internal Link Dist (ft)		2541			805		375		773	
Turn Bay Length (ft)	125		125	125				200		50
Base Capacity (vph)	226	1725	870	403	1769	252	267	394	402	455
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.39	0.21	0.10	0.63	0.54	0.51	0.65	0.66	0.03

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: Stop and Shop Driveway/Dibble Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
13: Stop and Shop Driveway/Dibble Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	640	170	40	660	410	120	90	30	310	100	10
Future Volume (vph)	40	640	170	40	660	410	120	90	30	310	100	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1745	3455	1561	1805	3382		1805	1828		1715	1751	1615
Flt Permitted	0.15	1.00	1.00	0.33	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	278	3455	1561	627	3382		1805	1828		1715	1751	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.96	0.96	0.96	0.89	0.89	0.89	0.79	0.79	0.79
Adj. Flow (vph)	43	681	181	42	688	427	135	101	34	392	127	13
RTOR Reduction (vph)	0	0	93	0	82	0	0	12	0	0	0	11
Lane Group Flow (vph)	43	681	88	42	1033	0	135	123	0	255	264	2
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	Prot
Protected Phases	1	6		5	2		4	4		8	8	8
Permitted Phases	6		6	2								
Actuated Green, G (s)	51.7	48.7	48.7	51.7	48.7		11.3	11.3		19.0	19.0	19.0
Effective Green, g (s)	51.7	48.7	48.7	51.7	48.7		11.3	11.3		19.0	19.0	19.0
Actuated g/C Ratio	0.52	0.49	0.49	0.52	0.49		0.11	0.11		0.19	0.19	0.19
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	187	1682	760	359	1647		203	206		325	332	306
v/s Ratio Prot	c0.01	0.20		0.00	c0.31		c0.07	0.07		0.15	c0.15	0.00
v/s Ratio Perm	0.11		0.06	0.06								
v/c Ratio	0.23	0.40	0.12	0.12	0.63		0.67	0.60		0.78	0.80	0.01
Uniform Delay, d1	14.1	16.4	13.9	12.3	18.9		42.5	42.2		38.6	38.6	32.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.7	0.3	0.1	1.8		6.2	3.1		10.9	11.6	0.0
Delay (s)	14.4	17.1	14.3	12.3	20.8		48.8	45.2		49.4	50.2	32.9
Level of Service	B	B	B	B	C		D	D		D	D	C
Approach Delay (s)		16.4			20.5			47.0			49.4	
Approach LOS		B			C			D			D	

Intersection Summary				
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.66			
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0	
Intersection Capacity Utilization	59.5%	ICU Level of Service	B	
Analysis Period (min)	15			

c Critical Lane Group

Intersection Operations Analysis Worksheets

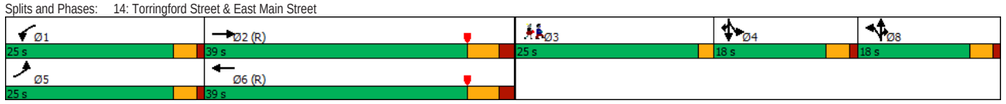
East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

Lanes, Volumes, Timings
14: Torringford Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	140	830	120	740	200	190	70	160	150	150	
Future Volume (vph)	140	830	120	740	200	190	70	160	150	150	
Lane Group Flow (vph)	161	1000	126	905	244	232	85	186	174	174	
Turn Type	Prot	NA	Prot	NA	Split	NA	Prot	Split	NA	Prot	
Protected Phases	5	2	1	6	8	8	8	4	4	4	3
Permitted Phases											
Detector Phase	5	2	1	6	8	8	8	4	4	4	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0
Total Split (s)	25.0	39.0	25.0	39.0	18.0	18.0	18.0	18.0	18.0	18.0	25.0
Total Split (%)	20.0%	31.2%	20.0%	31.2%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	20%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lag				Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None
v/c Ratio	0.73	0.72	0.66	0.70	0.36	0.61	0.21	0.65	0.58	0.44	
Control Delay	70.8	37.4	69.9	38.0	44.5	53.2	4.4	59.9	55.9	9.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	70.8	37.4	69.9	38.0	44.5	53.2	4.4	59.9	55.9	9.7	
Queue Length 50th (ft)	127	347	100	313	89	175	0	143	132	0	
Queue Length 95th (ft)	187	#530	160	#516	112	227	15	201	187	51	
Internal Link Dist (ft)		805		413		1058			877		
Turn Bay Length (ft)	450						125	175		175	
Base Capacity (vph)	303	1385	313	1300	680	378	408	284	299	399	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.72	0.40	0.70	0.36	0.61	0.21	0.65	0.58	0.44	

Intersection Summary
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 37 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Torringford Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
14: Torringford Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	830	40	120	740	120	200	190	70	160	150	150
Future Volume (vph)	140	830	40	120	740	120	200	190	70	160	150	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	13	12	12	11	12	12	11	11	11
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3551		1865	3500		3385	1881	1583	1745	1837	1561
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	3551		1865	3500		3385	1881	1583	1745	1837	1561
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.82	0.82	0.82	0.86	0.86	0.86
Adj. Flow (vph)	161	954	46	126	779	126	244	232	85	186	174	174
RTOR Reduction (vph)	0	2	0	0	9	0	0	0	68	0	0	146
Lane Group Flow (vph)	161	998	0	126	896	0	244	232	17	186	174	28
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	2%	0%	0%	0%
Turn Type	Prot	NA		Prot	NA		Split	NA	Prot	Split	NA	Prot
Protected Phases	5	2		1	6		8	8	8	4	4	4
Permitted Phases												
Actuated Green, G (s)	15.4	48.7		12.8	46.1		25.1	25.1	25.1	20.4	20.4	20.4
Effective Green, g (s)	15.4	48.7		12.8	46.1		25.1	25.1	25.1	20.4	20.4	20.4
Actuated g/C Ratio	0.12	0.39		0.10	0.37		0.20	0.20	0.20	0.16	0.16	0.16
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	222	1383		190	1290		679	377	317	284	299	254
v/s Ratio Prot	c0.09	c0.28		0.07	0.26		0.07	c0.12	0.01	c0.11	0.09	0.02
v/s Ratio Perm												
v/c Ratio	0.73	0.72		0.66	0.69		0.36	0.62	0.05	0.65	0.58	0.11
Uniform Delay, d1	52.8	32.4		54.0	33.5		43.0	45.5	40.4	49.0	48.4	44.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.5	3.3		6.6	3.1		0.1	2.1	0.0	4.1	1.9	0.1
Delay (s)	62.3	35.7		60.6	36.6		43.1	47.6	40.4	53.1	50.2	44.6
Level of Service	E	D		E	D		D	D	D	D	D	D
Approach Delay (s)		39.4			39.5			44.6			49.4	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

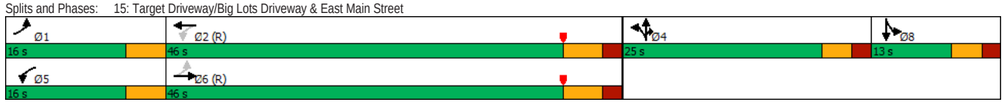
Lanes, Volumes, Timings
15: Target Driveway/Big Lots Driveway & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	60	610	60	770	200	10	60	0
Future Volume (vph)	60	610	60	770	200	10	60	0
Lane Group Flow (vph)	70	907	65	871	117	119	67	69
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Prot	NA
Protected Phases	1	6	5	2	4	4	4	8
Permitted Phases	6		2					
Detector Phase	1	6	5	2	4	4	4	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	5.0	5.0	8.0
Minimum Split (s)	9.0	21.0	9.0	21.0	10.0	10.0	10.0	13.0
Total Split (s)	16.0	46.0	16.0	46.0	25.0	25.0	25.0	13.0
Total Split (%)	16.0%	46.0%	16.0%	46.0%	25.0%	25.0%	25.0%	13.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.17	0.44	0.16	0.42	0.61	0.62	0.22	0.18
Control Delay	7.6	13.6	7.6	13.9	55.2	55.4	1.7	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	13.6	7.6	13.9	55.2	55.4	1.7	1.0
Queue Length 50th (ft)	14	166	13	164	75	76	0	0
Queue Length 95th (ft)	32	234	32	246	128	130	1	0
Internal Link Dist (ft)		599		825		361		225
Turn Bay Length (ft)	200		300		200		200	
Base Capacity (vph)	516	2060	502	2095	336	339	427	393
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.44	0.13	0.42	0.35	0.35	0.16	0.18

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 15: Target Driveway/Big Lots Driveway & East Main Street



East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
15: Target Driveway/Big Lots Driveway & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	610	170	60	770	40	200	10	60	0	0	60
Future Volume (vph)	60	610	170	60	770	40	200	10	60	0	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	0.97		1.00	0.99		1.00	1.00	0.85		0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (prot)	1805	3457		1805	3544		1681	1696	1615		1583	
Flt Permitted	0.28	1.00		0.26	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	525	3457		500	3544		1681	1696	1615		1583	
Peak-hour factor, PHF	0.86	0.86	0.86	0.93	0.93	0.93	0.89	0.89	0.89	0.87	0.87	0.87
Adj. Flow (vph)	70	709	198	65	828	43	225	11	67	0	0	69
RTOR Reduction (vph)	0	18	0	0	3	0	0	0	59	0	65	0
Lane Group Flow (vph)	70	889	0	65	868	0	117	119	8	0	4	0
Heavy Vehicles (%)	0%	1%	1%	0%	1%	3%	2%	0%	0%	0%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	Prot	Split	NA	
Protected Phases	1	6		5	2		4	4	4	8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	62.3	57.3		62.1	57.2		11.4	11.4	11.4		6.4	
Effective Green, g (s)	62.3	57.3		62.1	57.2		11.4	11.4	11.4		6.4	
Actuated g/C Ratio	0.62	0.57		0.62	0.57		0.11	0.11	0.11		0.06	
Clearance Time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	391	1980		374	2027		191	193	184		101	
v/s Ratio Prot	c0.01	c0.26		0.01	0.25		0.07	c0.07	0.00		c0.00	
v/s Ratio Perm	0.10			0.10								
v/c Ratio	0.18	0.45		0.17	0.43		0.61	0.62	0.04		0.04	
Uniform Delay, d1	7.8	12.3		7.9	12.1		42.2	42.2	39.4		43.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.1	0.7		0.1	0.7		4.0	4.1	0.0		0.1	
Delay (s)	7.9	13.0		8.0	12.8		46.2	46.3	39.5		44.0	
Level of Service	A	B		A	B		D	D	D		D	
Approach Delay (s)		12.6			12.5			44.8			44.0	
Approach LOS		B			B			D			D	

Intersection Summary

HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM 2010 TWSC
18: Hillside Avenue & East Main Street

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	970	50	10	630	10	10	10	0	0	10	30
Future Vol, veh/h	20	970	50	10	630	10	10	10	0	0	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	79	79	79	70	70	70
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	0	4
Mvmt Flow	22	1054	54	11	685	11	13	13	0	0	14	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	696	0	0	1108	0	0	1497	1843	554	1291	1865	348
Stage 1	-	-	-	-	-	-	1125	1125	-	713	713	-
Stage 2	-	-	-	-	-	-	372	718	-	578	1152	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.34
Pot Cap-1 Maneuver	909	-	-	638	-	-	86	76	481	123	74	642
Stage 1	-	-	-	-	-	-	222	283	-	394	438	-
Stage 2	-	-	-	-	-	-	626	436	-	474	275	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	909	-	-	638	-	-	63	69	481	99	67	642
Mov Cap-2 Maneuver	-	-	-	-	-	-	63	69	-	99	67	-
Stage 1	-	-	-	-	-	-	208	265	-	369	426	-
Stage 2	-	-	-	-	-	-	549	424	-	422	257	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	90.1	29.4
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	66	909	-	-	638	-	-	204
HCM Lane V/C Ratio	0.384	0.024	-	-	0.017	-	-	0.28
HCM Control Delay (s)	90.1	9.1	0.3	-	10.7	-	-	29.4
HCM Lane LOS	F	A	A	-	B	-	-	D
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0.1	-	-	1.1

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM 2010 TWSC
22: Maud Street & East Main Street

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	700	10	10	630	10	10
Future Vol, veh/h	700	10	10	630	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	94	94	81	81
Heavy Vehicles, %	1	0	2	0	0	0
Mvmt Flow	778	11	11	670	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	789	0	1476	784
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	692	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	831	-	140	396
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	831	-	137	396
Mov Cap-2 Maneuver	-	-	-	-	137	-
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	500	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	25.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	204	-	-	831	-
HCM Lane V/C Ratio	0.121	-	-	0.013	-
HCM Control Delay (s)	25.1	-	-	9.4	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM 2010 TWSC
26: East Main Street & Brookside Avenue

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↾	
Traffic Vol, veh/h	20	700	640	0	0	10
Future Vol, veh/h	20	700	640	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	94	94	67	67
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	22	778	681	0	0	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	681	0	-	0	1503	681
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	822	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	921	-	-	-	135	454
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	921	-	-	-	129	454
Mov Cap-2 Maneuver	-	-	-	-	129	-
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	921	-	-	-	454
HCM Lane V/C Ratio	0.024	-	-	-	0.033
HCM Control Delay (s)	9	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM 2010 TWSC
36: BJ's Driveway & East Main Street

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↱
Traffic Vol, veh/h	840	40	160	640	0	150
Future Vol, veh/h	840	40	160	640	0	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	90	90	80	80
Heavy Vehicles, %	1	3	0	2	0	0
Mvmt Flow	923	44	178	711	0	188

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	967	0	-	484
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	720	-	0	534
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	720	-	-	534
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	534	-	-	720	-
HCM Lane V/C Ratio	0.351	-	-	0.247	-
HCM Control Delay (s)	15.3	-	-	11.6	1.6
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.6	-	-	1	-

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing PM Peak Hour

HCM 2010 TWSC
44: Walmart Driveway & East Main Street

Intersection	
Int Delay, s/veh	30.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	770	260	140	930	10	10	10	170	10	10	40
Future Vol, veh/h	30	770	260	140	930	10	10	10	170	10	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	91	91	91	78	78	78	75	75	75
Heavy Vehicles, %	0	1	0	0	1	0	0	0	1	0	0	0
Mvmt Flow	32	828	280	154	1022	11	13	13	218	13	13	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1033	0	0	828	0	0	1718	2233	414	1821	2228	517
Stage 1	-	-	-	-	-	-	892	892	-	1336	1336	-
Stage 2	-	-	-	-	-	-	826	1341	-	485	892	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.92	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.31	3.5	4	3.3
Pot Cap-1 Maneuver	681	-	-	812	-	-	59	43	590	49	44	509
Stage 1	-	-	-	-	-	-	307	363	-	165	224	-
Stage 2	-	-	-	-	-	-	337	223	-	537	363	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	681	-	-	812	-	-	28	30	590	16	31	509
Mov Cap-2 Maneuver	-	-	-	-	-	-	28	30	-	16	31	-
Stage 1	-	-	-	-	-	-	266	315	-	143	181	-
Stage 2	-	-	-	-	-	-	226	181	-	282	315	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.4	198.5	$ 366.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	194	681	-	-	812	-	-	58
HCM Lane V/C Ratio	1.256	0.047	-	-	0.189	-	-	1.379
HCM Control Delay (s)	198.5	10.5	0.7	-	10.5	-	-	$ 366.4
HCM Lane LOS	F	B	A	-	B	-	-	F
HCM 95th %tile Q(veh)	13.1	0.1	-	-	0.7	-	-	7

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street & East Main Street

Lane Group	NBT	NBR	SBL2	SBL	SBT	SWL	SWR	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	350	430	220	30	300	380	310			
Future Volume (vph)	350	430	220	30	300	380	310			
Lane Group Flow (vph)	380	489	0	272	326	413	337			
Turn Type	NA	custom	D.P+P	D.P+P	NA	Prot	custom			
Protected Phases	2	2 5	3 4	3 4	2 3 4	1	1 5	3	4	5
Permitted Phases		2	2	2			1			
Detector Phase	2	2 5	3 4	3 4	2 3 4	1	1 5			
Switch Phase										
Minimum Initial (s)	5.0					5.0		5.0	5.0	5.0
Minimum Split (s)	20.0					9.0		21.0	21.0	21.0
Total Split (s)	28.0					28.0		9.0	21.0	18.0
Total Split (%)	26.9%					26.9%		9%	20%	17%
Yellow Time (s)	3.0					3.0		3.0	3.0	3.0
All-Red Time (s)	1.0					1.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0					0.0				
Total Lost Time (s)	4.0					4.0				
Lead/Lag	Lag					Lead		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min					Max		None	Max	None
v/c Ratio	0.50	0.78		0.47	0.18	0.51	0.25			
Control Delay	37.6	21.6		15.8	5.6	36.9	2.7			
Queue Delay	9.0	11.5		3.2	0.9	0.0	0.0			
Total Delay	46.6	33.1		19.1	6.5	36.9	2.7			
Queue Length 50th (ft)	115	99		83	26	124	0			
Queue Length 95th (ft)	162	198	110	23	173	29				
Internal Link Dist (ft)	140			65	591					
Turn Bay Length (ft)					200	200				
Base Capacity (vph)	834	663		579	1785	809	1348			
Starvation Cap Reductn	412	152		212	1162	0	0			
Spillback Cap Reductn	365	0		0	0	0	81			
Storage Cap Reductn	0	0		0	0	0	0			
Reduced v/c Ratio	0.90	0.96		0.74	0.52	0.51	0.27			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 101.9
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Main Street & Franklin Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
1: Main Street & Franklin Street & East Main Street

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	NWL	NWR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	350	430	20	220	30	300	0	0	380	310
Future Volume (vph)	350	430	20	220	30	300	0	0	380	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.0	4.0			4.0	4.0
Lane Util. Factor	0.95	1.00			1.00	0.95			0.97	0.88
Frt	1.00	0.85			1.00	1.00			1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00			0.95	1.00
Satd. Flow (prot)	3539	1583			1770	3539			3433	2787
Flt Permitted	1.00	1.00			0.38	1.00			0.95	1.00
Satd. Flow (perm)	3539	1583			711	3539			3433	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	467	22	239	33	326	0	0	413	337
RTOR Reduction (vph)	0	76	0	0	0	0	0	0	0	215
Lane Group Flow (vph)	380	413	0	0	272	326	0	0	413	122
Turn Type	NA	custom		D.P+P	D.P+P	NA			Prot	custom
Protected Phases	2	2 5		3 4	3 4	2 3 4			1	1 5
Permitted Phases		2		2	2					1
Actuated Green, G (s)	21.8	34.8			46.8	50.8			24.0	42.0
Effective Green, g (s)	21.8	34.8			46.8	45.8			24.0	37.0
Actuated g/C Ratio	0.21	0.34			0.46	0.45			0.24	0.36
Clearance Time (s)	4.0								4.0	
Vehicle Extension (s)	3.0								3.0	
Lane Grp Cap (vph)	757	541			586	1592			809	1012
v/s Ratio Prot	0.11	c0.26			c0.11	0.09			c0.12	0.04
v/s Ratio Perm					0.10					
v/c Ratio	0.50	0.76			0.46	0.20			0.51	0.12
Uniform Delay, d1	35.2	29.8			23.4	17.0			33.8	21.6
Progression Factor	1.00	1.00			0.61	0.40			1.00	1.00
Incremental Delay, d2	0.5	6.3			0.5	0.1			2.3	0.1
Delay (s)	35.7	36.2			14.8	6.8			36.1	21.6
Level of Service	D	D			B	A			D	C
Approach Delay (s)	36.0					10.4	0.0		29.6	
Approach LOS	D					B	A		C	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	101.8	Sum of lost time (s)	23.0
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

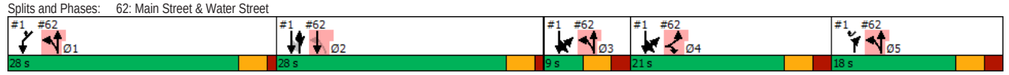
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
62: Main Street & Water Street

Lane Group	EBL	EBR	NBL	NBT	SBT	Ø1	Ø3	Ø5
Lane Configurations								
Traffic Volume (vph)	20	270	270	390	280			
Future Volume (vph)	20	270	270	390	280			
Lane Group Flow (vph)	160	155	293	424	337			
Turn Type	Prot	Prot	D.P+P	NA	NA			
Protected Phases	4	4	1 3 5	1 3 5	2	1	3	5
Permitted Phases			2					
Detector Phase	4	4	1 3 5	1 3 5	2			
Switch Phase								
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0			20.0	9.0	21.0	21.0
Total Split (s)	21.0	21.0			28.0	28.0	9.0	18.0
Total Split (%)	20.2%	20.2%			26.9%	27%	9%	17%
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0			1.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			
Total Lost Time (s)	5.0	5.0			4.0			
Lead/Lag	Lag	Lag			Lag	Lead	Lead	
Lead-Lag Optimize?								
Recall Mode	Max	Max			Min	Max	None	None
v/c Ratio	0.43	0.42	0.30	0.49	0.45			
Control Delay	13.6	10.3	6.2	33.5	35.6			
Queue Delay	0.0	0.0	0.9	9.4	0.2			
Total Delay	13.7	10.4	7.1	42.9	35.8			
Queue Length 50th (ft)	13	0	36	222	97			
Queue Length 95th (ft)	72	58	80	294	141			
Internal Link Dist (ft)	429			65	351			
Turn Bay Length (ft)		75						
Base Capacity (vph)	369	367	988	860	830			
Starvation Cap Reductn	0	0	447	397	0			
Spillback Cap Reductn	5	5	0	0	88			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.44	0.43	0.54	0.92	0.45			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 101.9
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 62: Main Street & Water Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
62: Main Street & Water Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	270	270	390	280	30
Future Volume (vph)	20	270	270	390	280	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	
Frt	0.87	0.85	1.00	1.00	0.99	
Flt Protected	0.99	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1611	1504	1770	1863	3487	
Flt Permitted	0.99	1.00	0.43	1.00	1.00	
Satd. Flow (perm)	1611	1504	800	1863	3487	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	293	293	424	304	33
RTOR Reduction (vph)	116	131	0	0	8	0
Lane Group Flow (vph)	44	24	293	424	329	0
Turn Type	Prot	Prot	D.P+P	NA	NA	
Protected Phases	4	4	1 3 5	1 3 5	2	
Permitted Phases			2			
Actuated Green, G (s)	16.0	16.0	67.8	46.0	21.8	
Effective Green, g (s)	16.0	16.0	62.8	41.0	21.8	
Actuated g/C Ratio	0.16	0.16	0.62	0.40	0.21	
Clearance Time (s)	5.0	5.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0	
Lane Grp Cap (vph)	253	236	884	750	746	
v/s Ratio Prot	c0.03	0.02	0.13	c0.23	c0.09	
v/s Ratio Perm			0.07			
v/c Ratio	0.17	0.10	0.33	0.57	0.44	
Uniform Delay, d1	37.2	36.8	9.1	23.5	34.7	
Progression Factor	1.00	1.00	1.38	2.12	1.00	
Incremental Delay, d2	1.5	0.9	0.2	0.9	0.4	
Delay (s)	38.6	37.6	12.7	50.7	35.1	
Level of Service	D	D	B	D	D	
Approach Delay (s)	38.1			35.2	35.1	
Approach LOS	D			D	D	

Intersection Summary			
HCM 2000 Control Delay	35.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	101.8	Sum of lost time (s)	23.0
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

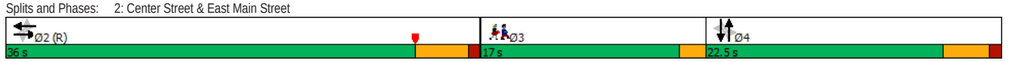
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
2: Center Street & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBT	Ø3
Lane Configurations						
Traffic Volume (vph)	660	20	610	50	0	
Future Volume (vph)	660	20	610	50	0	
Lane Group Flow (vph)	787	0	716	0	88	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	2		2		4	3
Permitted Phases		2		4		
Detector Phase	2	2	2	4	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	7.0
Minimum Split (s)	20.0	20.0	20.0	22.5	22.5	17.0
Total Split (s)	36.0	36.0	36.0	22.5	22.5	17.0
Total Split (%)	47.7%	47.7%	47.7%	29.8%	29.8%	23%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.0		5.0		4.5	
Lead/Lag				Lag	Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	None	None	None
v/c Ratio	0.53		0.49		0.45	
Control Delay	5.1		4.7		21.5	
Queue Delay	0.0		0.0		0.0	
Total Delay	5.1		4.7		21.5	
Queue Length 50th (ft)	101		87		13	
Queue Length 95th (ft)	220		186		42	
Internal Link Dist (ft)	591		539		293	
Turn Bay Length (ft)						
Base Capacity (vph)	1478		1455		387	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.53		0.49		0.23	

Intersection Summary
Cycle Length: 75.5
Actuated Cycle Length: 75.5
Offset: 38 (50%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Center Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
2: Center Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	660	40	20	610	0	50	0	20	0	0	0
Future Volume (vph)	0	660	40	20	610	0	50	0	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.5				
Lane Util. Factor		1.00			1.00			1.00				
Frt		0.99			1.00			0.96				
Flt Protected		1.00			1.00			0.97				
Satd. Flow (prot)		1817			1843			1764				
Flt Permitted		1.00			0.97			0.79				
Satd. Flow (perm)		1817			1789			1439				
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.79	0.79	0.79	0.25	0.25	0.25
Adj. Flow (vph)	0	742	45	23	693	0	63	0	25	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	53	0	0	0	0
Lane Group Flow (vph)	0	786	0	0	716	0	0	35	0	0	0	0
Heavy Vehicles (%)	0%	4%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Turn Type		NA		Perm	NA		Perm	NA				
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		59.5			59.5			6.5				
Effective Green, g (s)		59.5			59.5			6.5				
Actuated g/C Ratio		0.79			0.79			0.09				
Clearance Time (s)		5.0			5.0			4.5				
Vehicle Extension (s)		2.0			2.0			3.0				
Lane Grp Cap (vph)		1431			1409			123				
v/s Ratio Prot		c0.43										
v/s Ratio Perm					0.40			c0.02				
v/c Ratio		0.55			0.51			0.28				
Uniform Delay, d1		3.0			2.8			32.3				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		1.5			1.3			1.3				
Delay (s)		4.5			4.1			33.6				
Level of Service		A			A			C				
Approach Delay (s)		4.5			4.1			33.6			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	6.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	11.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

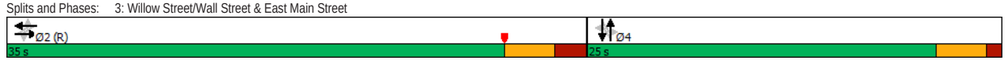
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
3: Willow Street/Wall Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	40	620	20	620	20	30	20	40
Future Volume (vph)	40	620	20	620	20	30	20	40
Lane Group Flow (vph)	0	791	0	762	0	160	0	200
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.72		0.65		0.48		0.56
Control Delay		13.2		11.5		18.7		20.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		13.2		11.5		18.7		20.6
Queue Length 50th (ft)		142		247		34		46
Queue Length 95th (ft)		#361		384		30		36
Internal Link Dist (ft)		539		444		461		319
Turn Bay Length (ft)								
Base Capacity (vph)	1102	1166	578	618				
Starvation Cap Reductn	0	0	0	0				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.72	0.65	0.28	0.32				

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Willow Street/Wall Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
3: Willow Street/Wall Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	620	20	20	620	30	20	30	30	20	40	40
Future Volume (vph)	40	620	20	20	620	30	20	30	30	20	40	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.95			0.95	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1773			1802			1782			1780	
Flt Permitted		0.93			0.97			0.86			0.92	
Satd. Flow (perm)		1657			1752			1554			1652	
Peak-hour factor, PHF	0.86	0.86	0.86	0.88	0.88	0.88	0.50	0.50	0.50	0.50	0.50	0.50
Adj. Flow (vph)	47	721	23	23	705	34	40	60	60	40	80	80
RTOR Reduction (vph)	0	1	0	0	2	0	0	45	0	0	51	0
Lane Group Flow (vph)	0	790	0	0	760	0	0	115	0	0	149	0
Heavy Vehicles (%)	1%	7%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		39.9			39.9			11.1			11.1	
Effective Green, g (s)		39.9			39.9			11.1			11.1	
Actuated g/C Ratio		0.66			0.66			0.18			0.18	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1101			1165			287			305	
v/s Ratio Prot												
v/s Ratio Perm		c0.48			0.43			0.07			c0.09	
v/c Ratio		0.72			0.65			0.40			0.49	
Uniform Delay, d1		6.4			5.9			21.5			21.9	
Progression Factor		1.00			1.14			1.00			1.00	
Incremental Delay, d2		4.0			2.7			0.9			1.2	
Delay (s)		10.5			9.5			22.4			23.2	
Level of Service		B			A			C			C	
Approach Delay (s)		10.5			9.5			22.4			23.2	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

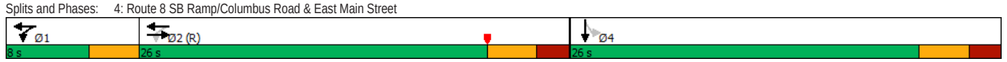
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
4: Route 8 SB Ramp/Columbus Road & East Main Street

Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	590	190	520	40	160
Future Volume (vph)	590	190	520	40	160
Lane Group Flow (vph)	709	200	547	44	297
Turn Type	NA	D.P+P	NA	Perm	NA
Protected Phases	2	1	1 2		4
Permitted Phases		2		4	
Detector Phase	2	1	1 2	4	4
Switch Phase					
Minimum Initial (s)	20.0	5.0		7.0	7.0
Minimum Split (s)	25.0	8.0		12.0	12.0
Total Split (s)	26.0	8.0		26.0	26.0
Total Split (%)	43.3%	13.3%		43.3%	43.3%
Yellow Time (s)	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Min	Max		None	None
v/c Ratio	0.60	0.34	0.48	0.12	0.70
Control Delay	13.3	4.7	6.9	17.3	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	4.7	6.9	17.3	25.3
Queue Length 50th (ft)	106	11	69	13	78
Queue Length 95th (ft)	107	m29	m240	30	129
Internal Link Dist (ft)	612		423		285
Turn Bay Length (ft)		150			
Base Capacity (vph)	1213	589	1164	619	654
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	0.58	0.34	0.47	0.07	0.45

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 30 (50%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 8 SB Ramp/Columbus Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
4: Route 8 SB Ramp/Columbus Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	590	70	190	520	0	0	0	0	40	160	110
Future Volume (vph)	0	590	70	190	520	0	0	0	0	40	160	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		3.0	3.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	1.00					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.94	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3423		1736	1759					1770	1753	
Flt Permitted		1.00		0.28	1.00					0.95	1.00	
Satd. Flow (perm)		3423		515	1759					1770	1753	
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.75	0.75	0.75	0.91	0.91	0.91
Adj. Flow (vph)	0	634	75	200	547	0	0	0	0	44	176	121
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	49	0
Lane Group Flow (vph)	0	694	0	200	547	0	0	0	0	44	248	0
Heavy Vehicles (%)	0%	4%	2%	4%	8%	0%	0%	0%	0%	2%	3%	0%
Turn Type		NA		D.P+P	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		20.4		34.1	37.1					12.9	12.9	
Effective Green, g (s)		20.4		34.1	37.1					12.9	12.9	
Actuated g/C Ratio		0.34		0.57	0.62					0.22	0.22	
Clearance Time (s)		5.0		3.0						5.0	5.0	
Vehicle Extension (s)		2.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1163		571	1087					380	376	
v/s Ratio Prot		c0.20		0.08	c0.31						c0.14	
v/s Ratio Perm				0.12						0.02		
v/c Ratio		0.60		0.35	0.50					0.12	0.66	
Uniform Delay, d1		16.4		6.7	6.3					19.0	21.5	
Progression Factor		0.72		0.69	0.90					1.00	1.00	
Incremental Delay, d2		1.7		1.0	1.0					0.0	3.2	
Delay (s)		13.5		5.6	6.7					19.0	24.7	
Level of Service		B		A	A					B	C	
Approach Delay (s)		13.5			6.4		0.0				24.0	
Approach LOS		B			A		A				C	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

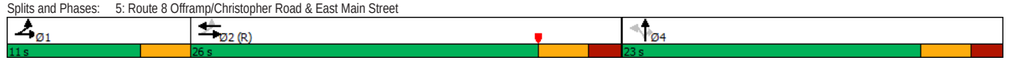
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	80	550	630	140	260
Future Volume (vph)	80	550	630	140	260
Lane Group Flow (vph)	85	585	725	239	283
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	1 2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		26.0	23.0	23.0
Total Split (%)	18.3%		43.3%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.21	0.24	0.86	0.39	0.55
Control Delay	3.1	3.2	29.6	22.7	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.1	3.2	29.6	22.7	7.4
Queue Length 50th (ft)	0	1	214	41	0
Queue Length 95th (ft)	m13	113	#484	62	49
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	402	2388	842	1043	673
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	0.21	0.24	0.86	0.23	0.42

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 2 (3%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	550	0	0	630	30	80	140	260	0	0	0
Future Volume (vph)	80	550	0	0	630	30	80	140	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			1.00			0.95	1.00			
Frt	1.00	1.00			0.99			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1805	3505			1770			3479	1583			
Flt Permitted	0.17	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	318	3505			1770			3479	1583			
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.25	0.25	0.25
Adj. Flow (vph)	85	585	0	0	692	33	87	152	283	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	233	0	0	0
Lane Group Flow (vph)	85	585	0	0	723	0	0	239	50	0	0	0
Heavy Vehicles (%)	0%	3%	0%	0%	7%	0%	0%	3%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	1 2						4		4			
Actuated Green, G (s)	36.3	39.3			28.5			10.7	10.7			
Effective Green, g (s)	36.3	39.3			28.5			10.7	10.7			
Actuated g/C Ratio	0.60	0.65			0.48			0.18	0.18			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	385	2295			840			620	282			
v/s Ratio Prot	0.03	c0.17			c0.41							
v/s Ratio Perm	0.10							0.07	0.03			
v/c Ratio	0.22	0.25			0.86			0.39	0.18			
Uniform Delay, d1	7.4	4.3			14.0			21.7	20.9			
Progression Factor	0.51	0.74			1.00			1.00	1.00			
Incremental Delay, d2	0.2	0.0			11.2			0.4	0.3			
Delay (s)	4.0	3.2			25.2			22.1	21.2			
Level of Service	A	A			C			C	C			
Approach Delay (s)		3.3			25.2			21.6			0.0	
Approach LOS		A			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	WBR	SEL	Ø3
Lane Configurations						
Traffic Volume (vph)	20	730	640	470	470	
Future Volume (vph)	20	730	640	470	470	
Lane Group Flow (vph)	0	774	667	490	511	
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	3
Permitted Phases	2			2		
Detector Phase	2	2	2	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	19.0
Total Split (s)	29.0	29.0	29.0	29.0	31.0	19.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	39.2%	24%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	5.0	
Lead/Lag					Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.48	0.78	0.46	0.82	
Control Delay		14.1	25.1	2.9	35.4	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		14.1	25.1	2.9	35.4	
Queue Length 50th (ft)		123	255	0	223	
Queue Length 95th (ft)		188	#499	49	317	
Internal Link Dist (ft)		160	602		27	
Turn Bay Length (ft)				300		
Base Capacity (vph)		1623	855	1068	653	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.48	0.78	0.46	0.78	

Intersection Summary
Cycle Length: 79
Actuated Cycle Length: 79
Offset: 4 (5%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: East Main Street & East Elm Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	20	730	640	470	470	10
Future Volume (vph)	20	730	640	470	470	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0	6.0	5.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3345	1640	1599	1830	
Flt Permitted		0.93	1.00	1.00	0.95	
Satd. Flow (perm)		3111	1640	1599	1830	
Peak-hour factor, PHF	0.97	0.97	0.96	0.96	0.94	0.94
Adj. Flow (vph)	21	753	667	490	500	11
RTOR Reduction (vph)	0	0	0	234	1	0
Lane Group Flow (vph)	0	774	667	256	510	0
Heavy Vehicles (%)	0%	8%	12%	1%	2%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		41.2	41.2	41.2	26.8	
Effective Green, g (s)		41.2	41.2	41.2	26.8	
Actuated g/C Ratio		0.52	0.52	0.52	0.34	
Clearance Time (s)		6.0	6.0	6.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1622	855	833	620	
v/s Ratio Prot			c0.41		c0.28	
v/s Ratio Perm		0.25		0.16		
v/c Ratio	0.48	0.78	0.31	0.82		
Uniform Delay, d1	12.0	15.2	10.8	23.9		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.0	7.0	1.0	8.7		
Delay (s)	13.0	22.2	11.7	32.6		
Level of Service	B	C	B	C		
Approach Delay (s)	13.0	17.8		32.6		
Approach LOS	B	B		C		

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	910	10	820	290	20
Future Volume (vph)	910	10	820	290	20
Lane Group Flow (vph)	1250	0	954	345	24
Turn Type	NA	pm+pt	NA	Prot	Free
Protected Phases	2	3	2 3	4	
Permitted Phases		2 3	2 3		Free
Detector Phase	2	3	2 3	4	
Switch Phase					
Minimum Initial (s)	15.0	8.0		7.0	
Minimum Split (s)	20.0	15.0		12.0	
Total Split (s)	24.0	15.0		21.0	
Total Split (%)	40.0%	25.0%		35.0%	
Yellow Time (s)	3.0	4.0		3.0	
All-Red Time (s)	2.0	3.0		2.0	
Lost Time Adjust (s)	0.0			0.0	
Total Lost Time (s)	5.0			5.0	
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?					
Recall Mode	C-Max	None		None	
v/c Ratio	1.08		1.22	0.81	0.02
Control Delay	74.6		123.9	38.4	0.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	74.6		123.9	38.4	0.0
Queue Length 50th (ft)	~278		~347	114	0
Queue Length 95th (ft)	#397		#500	#204	0
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1154		782	454	1482
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	1.08		1.22	0.76	0.02

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ 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: 7: New Harwinton Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	910	290	10	820	290	20
Future Volume (vph)	910	290	10	820	290	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	4.0
Lane Util. Factor	0.95			1.00	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3305			1683	1703	1482
Flt Permitted	1.00			0.89	0.95	1.00
Satd. Flow (perm)	3305			1502	1703	1482
Peak-hour factor, PHF	0.96	0.96	0.87	0.87	0.84	0.84
Adj. Flow (vph)	948	302	11	943	345	24
RTOR Reduction (vph)	49	0	0	0	0	0
Lane Group Flow (vph)	1201	0	0	954	345	24
Heavy Vehicles (%)	6%	3%	0%	13%	6%	9%
Turn Type	NA		pm+pt	NA	Prot	Free
Protected Phases	2		3	2 3	4	
Permitted Phases			2 3	2 3		Free
Actuated Green, G (s)	20.1			28.1	14.9	60.0
Effective Green, g (s)	20.1			28.1	14.9	60.0
Actuated g/C Ratio	0.34			0.47	0.25	1.00
Clearance Time (s)	5.0				5.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	1107			727	422	1482
v/s Ratio Prot	0.36			c0.17	c0.20	
v/s Ratio Perm				c0.44		0.02
v/c Ratio	1.08			1.31	0.82	0.02
Uniform Delay, d1	19.9			15.9	21.3	0.0
Progression Factor	1.00			0.74	1.00	1.00
Incremental Delay, d2	53.1			147.4	11.6	0.0
Delay (s)	73.0			159.2	32.9	0.0
Level of Service	E			F	C	A
Approach Delay (s)	73.0			159.2	30.8	
Approach LOS	E			F	C	

Intersection Summary			
HCM 2000 Control Delay	98.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
8: East Main Street & Charles Street

Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	20	890	810	0	40	0
Future Volume (vph)	20	890	810	0	40	0
Lane Group Flow (vph)	0	968	955	24	0	84
Turn Type	Perm	NA	NA	NA	Perm	NA
Protected Phases		2	2	4		4
Permitted Phases	2				4	
Detector Phase	2	2	2	4	4	4
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0	5.0	4.0		4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	None	None	None
v/c Ratio		0.42	0.73	0.07		0.37
Control Delay		9.9	11.7	0.4		19.8
Queue Delay		0.0	0.0	0.0		0.0
Total Delay		9.9	11.7	0.4		19.8
Queue Length 50th (ft)		121	169	0		16
Queue Length 95th (ft)		m114	#520	0		43
Internal Link Dist (ft)		809	1163	247		598
Turn Bay Length (ft)						
Base Capacity (vph)	2305	1301	513		385	
Starvation Cap Reductn	0	0	0		0	
Spillback Cap Reductn	0	0	0		0	
Storage Cap Reductn	0	0	0		0	
Reduced v/c Ratio	0.42	0.73	0.05		0.22	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 41 (68%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: East Main Street & Charles Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
8: East Main Street & Charles Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	890	0	0	810	40	0	0	10	40	0	30
Future Volume (vph)	20	890	0	0	810	40	0	0	10	40	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	12	12	12	12	12	15	12	15
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			0.99			0.86			0.94	
Flt Protected		1.00			1.00			1.00			0.97	
Satd. Flow (prot)		3233			1694			1644			1723	
Flt Permitted		0.93			1.00			1.00			0.81	
Satd. Flow (perm)		3007			1694			1644			1435	
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.42	0.42	0.42	0.83	0.83	0.83
Adj. Flow (vph)	21	947	0	0	910	45	0	0	24	48	0	36
RTOR Reduction (vph)	0	0	0	0	2	0	0	21	0	0	32	0
Lane Group Flow (vph)	0	968	0	0	953	0	0	3	0	0	52	0
Heavy Vehicles (%)	0%	8%	0%	0%	12%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Perm	NA			NA			NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.2			44.2			6.8			6.8	
Effective Green, g (s)		44.2			44.2			6.8			6.8	
Actuated g/C Ratio		0.74			0.74			0.11			0.11	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2215			1247			186			162	
v/s Ratio Prot					c0.56			0.00				
v/s Ratio Perm	0.32										c0.04	
v/c Ratio	0.44	0.76			0.76		0.01	0.32			0.32	
Uniform Delay, d1	3.1	4.8			4.8		23.6	24.5			24.5	
Progression Factor	2.74	1.20			1.20		1.00	1.00			1.00	
Incremental Delay, d2	0.1	3.9			3.9		0.0	1.2			1.2	
Delay (s)	8.4	9.6			9.6		23.7	25.6			25.6	
Level of Service	A	A			A		C	C			C	
Approach Delay (s)	8.4	9.6			9.6		23.7	25.6			25.6	
Approach LOS	A	A			A		C	C			C	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
9: Orchard Street & East Main Street

Lane Group	EBT	WBT	NBL
Lane Configurations			
Traffic Volume (vph)	870	790	10
Future Volume (vph)	870	790	10
Lane Group Flow (vph)	935	868	26
Turn Type	NA	NA	Prot
Protected Phases	2	2	4
Permitted Phases			
Detector Phase	2	2	4
Switch Phase			
Minimum Initial (s)	20.0	20.0	7.0
Minimum Split (s)	25.0	25.0	11.0
Total Split (s)	41.0	41.0	19.0
Total Split (%)	68.3%	68.3%	31.7%
Yellow Time (s)	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.31	0.56	0.12
Control Delay	0.9	7.1	18.1
Queue Delay	0.0	0.0	0.0
Total Delay	0.9	7.1	18.1
Queue Length 50th (ft)	0	0	4
Queue Length 95th (ft)	23	414	18
Internal Link Dist (ft)	1163	1187	575
Turn Bay Length (ft)			
Base Capacity (vph)	3036	1539	441
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.56	0.06

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: Orchard Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
9: Orchard Street & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	870	0	0	790	10	10
Future Volume (vph)	870	0	0	790	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	4.0	
Lane Util. Factor	0.95			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3406			1727	1729	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	3406			1727	1729	
Peak-hour factor, PHF	0.93	0.93	0.91	0.91	0.75	0.75
Adj. Flow (vph)	935	0	0	868	13	13
RTOR Reduction (vph)	0	0	0	0	12	0
Lane Group Flow (vph)	935	0	0	868	14	0
Heavy Vehicles (%)	6%	0%	0%	10%	0%	0%
Turn Type	NA			NA	Prot	
Protected Phases	2			2	4	
Permitted Phases			2			
Actuated Green, G (s)	48.1			48.1	2.9	
Effective Green, g (s)	48.1			48.1	2.9	
Actuated g/C Ratio	0.80			0.80	0.05	
Clearance Time (s)	5.0			5.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2730			1384	83	
v/s Ratio Prot	0.27			c0.50	c0.01	
v/s Ratio Perm						
v/c Ratio	0.34			0.63	0.16	
Uniform Delay, d1	1.6			2.4	27.4	
Progression Factor	0.37			1.98	1.00	
Incremental Delay, d2	0.3			1.6	0.9	
Delay (s)	0.9			6.3	28.3	
Level of Service	A			A	C	
Approach Delay (s)	0.9			6.3	28.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
10: Pineridge Road/Yorkshire Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	860	20	730	30	0	20	10
Future Volume (vph)	20	860	20	730	30	0	20	10
Lane Group Flow (vph)	0	938	0	928	0	76	0	76
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.41		0.70		0.32		0.31
Control Delay		1.6		9.4		17.5		17.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		1.6		9.4		17.5		17.3
Queue Length 50th (ft)		4		139		13		13
Queue Length 95th (ft)		6		276		36		36
Internal Link Dist (ft)		1187		1137		621		153
Turn Bay Length (ft)								
Base Capacity (vph)	2315		1327		417		430	
Starvation Cap Reductn	0		0		0		0	
Spillback Cap Reductn	0		0		0		0	
Storage Cap Reductn	0		0		0		0	
Reduced v/c Ratio	0.41		0.70		0.18		0.18	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 16 (27%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 10: Pineridge Road/Yorkshire Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
10: Pineridge Road/Yorkshire Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	860	20	20	730	20	30	0	30	20	10	30
Future Volume (vph)	20	860	20	20	730	20	30	0	30	20	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.93			0.93	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3224			1773			1729			1743	
Flt Permitted		0.93			0.97			0.88			0.91	
Satd. Flow (perm)		3000			1718			1557			1609	
Peak-hour factor, PHF	0.96	0.96	0.96	0.83	0.83	0.83	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	21	896	21	24	880	24	38	0	38	25	13	38
RTOR Reduction (vph)	0	2	0	0	1	0	0	34	0	0	34	0
Lane Group Flow (vph)	0	936	0	0	927	0	0	42	0	0	42	0
Heavy Vehicles (%)	0%	12%	0%	0%	7%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.5			44.5			6.5			6.5	
Effective Green, g (s)		44.5			44.5			6.5			6.5	
Actuated g/C Ratio		0.74			0.74			0.11			0.11	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2225			1274			168			174	
v/s Ratio Prot												
v/s Ratio Perm		0.31			c0.54			c0.03			0.03	
v/c Ratio		0.42			0.73			0.25			0.24	
Uniform Delay, d1		2.9			4.3			24.5			24.5	
Progression Factor		0.31			1.00			1.00			1.00	
Incremental Delay, d2		0.6			3.7			0.8			0.7	
Delay (s)		1.5			8.0			25.3			25.2	
Level of Service		A			A			C			C	
Approach Delay (s)	1.5			8.0			25.3			25.2		
Approach LOS	A			A			C			C		

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
11: Buena Vista Avenue/Koury Terrace & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	870	10	750	50	10	10	10	
Future Volume (vph)	10	870	10	750	50	10	10	10	
Lane Group Flow (vph)	0	926	0	846	0	115	0	45	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2	1 2	2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		20.0	20.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0		25.0	25.0	11.0	11.0	11.0	11.0	15.0
Total Split (s)	8.0		35.0	35.0	17.0	17.0	17.0	17.0	15.0
Total Split (%)	10.7%		46.7%	46.7%	22.7%	22.7%	22.7%	22.7%	20%
Yellow Time (s)	3.0		4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				0.0		0.0		0.0	
Total Lost Time (s)				5.0		4.0		4.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.37		0.72		0.53		0.19	
Control Delay		3.6		14.3		33.5		22.4	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		3.6		14.3		33.5		22.4	
Queue Length 50th (ft)		52		240		41		13	
Queue Length 95th (ft)		87		441		62		27	
Internal Link Dist (ft)		1137		669		275		202	
Turn Bay Length (ft)									
Base Capacity (vph)		2513		1179		270		298	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.37		0.72		0.43		0.15	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 4 (5%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 11: Buena Vista Avenue/Koury Terrace & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
11: Buena Vista Avenue/Koury Terrace & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	870	10	10	750	10	50	10	20	10	10	10
Future Volume (vph)	10	870	10	10	750	10	50	10	20	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.95	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		3467			1791			1769			1785	
Flt Permitted		0.95			0.99			0.81			0.91	
Satd. Flow (perm)		3293			1769			1468			1648	
Peak-hour factor, PHF	0.96	0.96	0.96	0.91	0.91	0.91	0.69	0.69	0.69	0.68	0.68	0.68
Adj. Flow (vph)	10	906	10	11	824	11	72	14	29	15	15	15
RTOR Reduction (vph)	0	1	0	0	0	0	0	18	0	0	13	0
Lane Group Flow (vph)	0	925	0	0	846	0	0	97	0	0	32	0
Heavy Vehicles (%)	0%	4%	0%	0%	6%	0%	1%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2	1 2		2			4			4		
Actuated Green, G (s)		54.2			49.2			8.8			8.8	
Effective Green, g (s)		54.2			49.2			8.8			8.8	
Actuated g/C Ratio		0.72			0.66			0.12			0.12	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)		2391			1160			172			193	
v/s Ratio Prot		c0.03										
v/s Ratio Perm		0.25			c0.48			c0.07			0.02	
v/c Ratio		0.39			0.73			0.57			0.16	
Uniform Delay, d1		4.0			8.5			31.3			29.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			4.0			4.2			0.4	
Delay (s)		4.5			12.5			35.5			30.2	
Level of Service		A			B			D			C	
Approach Delay (s)	4.5			12.5			35.5			30.2		
Approach LOS	A			B			D			C		

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

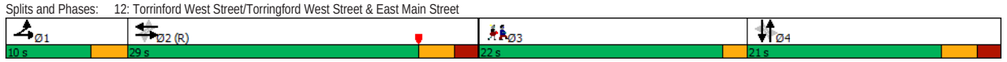
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
12: Torrinford West Street/Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	60	750	30	550	110	170	30	180	
Future Volume (vph)	60	750	30	550	110	170	30	180	
Lane Group Flow (vph)	0	1000	34	648	121	330	0	323	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	21.0	21.0	21.0	21.0	22.0
Total Split (%)	12.2%		35.4%	35.4%	25.6%	25.6%	25.6%	25.6%	27%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)			5.0	5.0	5.0	5.0		5.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Min	C-Min	None	None	None	None	None
v/c Ratio		0.50	0.11	0.65	1.23	0.88		1.55	
Control Delay		6.4	9.6	16.3	200.4	53.5		297.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay		6.4	9.6	16.3	200.4	53.5		297.3	
Queue Length 50th (ft)		90	8	213	~78	145		~230	
Queue Length 95th (ft)		121	21	314	#182	#294		#390	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100				
Base Capacity (vph)		2018	305	994	98	377		208	
Starvation Cap Reductn		0	0	0	0	0		0	
Spillback Cap Reductn		0	0	0	0	0		0	
Storage Cap Reductn		0	0	0	0	0		0	
Reduced v/c Ratio		0.50	0.11	0.65	1.23	0.88		1.55	

Intersection Summary
Cycle Length: 82
Actuated Cycle Length: 82
Offset: 26 (32%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ 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: 12: Torrinford West Street/Torringford West Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torrinford West Street/Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	750	110	30	550	20	110	170	130	30	180	90
Future Volume (vph)	60	750	110	30	550	20	110	170	130	30	180	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00			1.00	
Frt		0.98		1.00	0.99		1.00	0.94			0.96	
Flt Protected		1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		3395		1805	1770		1770	1761			1809	
Flt Permitted		0.86		0.29	1.00		0.27	1.00			0.54	
Satd. Flow (perm)		2940		545	1770		504	1761			973	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	65	815	120	34	625	23	121	187	143	32	194	97
RTOR Reduction (vph)	0	8	0	0	1	0	0	34	0	0	19	0
Lane Group Flow (vph)	0	992	0	34	647	0	121	296	0	0	304	0
Heavy Vehicles (%)	0%	5%	0%	0%	7%	0%	2%	0%	2%	0%	0%	1%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Effective Green, g (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Actuated g/C Ratio		0.65		0.56	0.56		0.20	0.20			0.20	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1939		305	992		98	343			189	
v/s Ratio Prot		c0.04			c0.37			0.17				
v/s Ratio Perm		0.29		0.06			0.24				c0.31	
v/c Ratio	0.51	0.11	0.65	1.23	0.86		1.61					
Uniform Delay, d1	7.7	8.4	12.5	33.0	31.9		33.0					
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00					
Incremental Delay, d2	1.0	0.7	3.3	166.8	19.5		298.1					
Delay (s)	8.6	9.2	15.8	199.8	51.5		331.1					
Level of Service	A	A	B	F	D		F					
Approach Delay (s)	8.6		15.5		91.3		331.1					
Approach LOS	A		B		F		F					

Intersection Summary			
HCM 2000 Control Delay	68.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	105.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

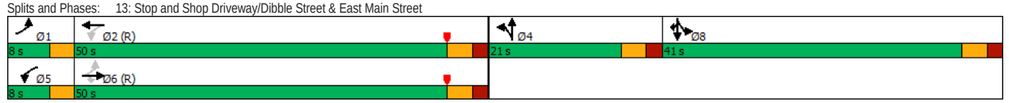
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
13: Stop and Shop Driveway/Dibble Street & East Main Street

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	710	180	30	620	120	40	350	100	20
Future Volume (vph)	40	710	180	30	620	120	40	350	100	20
Lane Group Flow (vph)	43	772	196	33	1022	182	182	260	263	23
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Split	NA	Split	NA	Prot
Protected Phases	1	6		5	2	4	4	8	8	8
Permitted Phases	6		6	2						
Detector Phase	1	6	6	5	2	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	5.0	5.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0	10.0	13.0	13.0	13.0
Total Split (s)	8.0	50.0	50.0	8.0	50.0	21.0	21.0	41.0	41.0	41.0
Total Split (%)	6.7%	41.7%	41.7%	6.7%	41.7%	17.5%	17.5%	34.2%	34.2%	34.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead-Lag Optimize?										
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
v/c Ratio	0.18	0.46	0.23	0.09	0.63	0.83	0.68	0.79	0.77	0.06
Control Delay	15.9	22.0	7.6	14.8	24.0	80.4	44.0	61.8	59.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	22.0	7.6	14.8	24.0	80.4	44.0	61.8	59.6	0.3
Queue Length 50th (ft)	15	211	24	11	285	138	83	202	204	0
Queue Length 95th (ft)	38	308	78	31	415	154	99	261	262	0
Internal Link Dist (ft)		2541			805		375		773	
Turn Bay Length (ft)	125		125	125				200		50
Base Capacity (vph)	241	1687	867	354	1628	240	287	494	513	548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.46	0.23	0.09	0.63	0.76	0.63	0.53	0.51	0.04

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 107 (89%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: Stop and Shop Driveway/Dibble Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
13: Stop and Shop Driveway/Dibble Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	710	180	30	620	320	120	40	80	350	100	20
Future Volume (vph)	40	710	180	30	620	320	120	40	80	350	100	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1745	3292	1561	1805	3172		1805	1711		1649	1710	1615
Flt Permitted	0.18	1.00	1.00	0.29	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	329	3292	1561	552	3172		1805	1711		1649	1710	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.66	0.66	0.66	0.86	0.86	0.86
Adj. Flow (vph)	43	772	196	33	674	348	182	61	121	407	116	23
RTOR Reduction (vph)	0	0	69	0	44	0	0	61	0	0	0	18
Lane Group Flow (vph)	43	772	127	33	978	0	182	121	0	260	263	5
Heavy Vehicles (%)	0%	6%	0%	0%	9%	6%	0%	0%	0%	4%	1%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	Prot
Protected Phases	1	6		5	2		4	4		8	8	8
Permitted Phases	6		6	2								
Actuated Green, G (s)	64.4	60.4	60.4	62.4	59.4		14.6	14.6		24.0	24.0	24.0
Effective Green, g (s)	64.4	60.4	60.4	62.4	59.4		14.6	14.6		24.0	24.0	24.0
Actuated g/C Ratio	0.54	0.50	0.50	0.52	0.49		0.12	0.12		0.20	0.20	0.20
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	223	1656	785	318	1570		219	208		329	342	323
v/s Ratio Prot	c0.01	0.23		0.00	c0.31		c0.10	0.07		c0.16	0.15	0.00
v/s Ratio Perm	0.10		0.08	0.05								
v/c Ratio	0.19	0.47	0.16	0.10	0.62		0.83	0.58		0.79	0.77	0.01
Uniform Delay, d1	15.4	19.3	16.1	14.6	22.1		51.5	49.8		45.6	45.4	38.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.9	0.4	0.1	1.9		21.8	2.7		11.4	9.0	0.0
Delay (s)	15.5	20.3	16.6	14.7	24.0		73.3	52.5		57.0	54.4	38.5
Level of Service	B	C	B	B	C		E	D		E	D	D
Approach Delay (s)		19.4			23.7			62.9			55.0	
Approach LOS		B			C			E			D	

Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

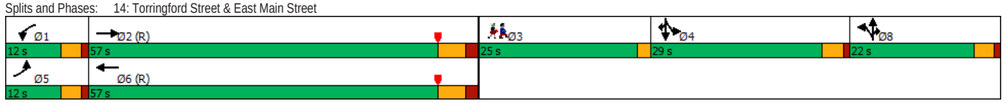
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
14: Torringford Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	120	850	110	610	230	160	100	170	140	130	
Future Volume (vph)	120	850	110	610	230	160	100	170	140	130	
Lane Group Flow (vph)	126	979	117	755	258	180	112	221	182	169	
Turn Type	Prot	NA	Prot	NA	Split	NA	Prot	Split	NA	Prot	
Protected Phases	5	2	1	6	8	8	8	4	4	4	3
Permitted Phases											
Detector Phase	5	2	1	6	8	8	8	4	4	4	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0
Total Split (s)	12.0	57.0	12.0	57.0	22.0	22.0	22.0	29.0	29.0	29.0	25.0
Total Split (%)	8.3%	39.3%	8.3%	39.3%	15.2%	15.2%	15.2%	20.0%	20.0%	20.0%	17%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lag				Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
v/c Ratio	0.52	0.62	0.52	0.51	0.60	0.73	0.37	0.79	0.62	0.44	
Control Delay	67.2	33.4	69.2	31.4	64.4	76.7	14.0	77.4	65.2	10.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	67.2	33.4	69.2	31.4	64.4	76.7	14.0	77.4	65.2	10.3	
Queue Length 50th (ft)	113	352	106	255	120	166	5	204	163	0	
Queue Length 95th (ft)	185	527	173	379	156	234	58	232	192	34	
Internal Link Dist (ft)		805		413		1058			877		
Turn Bay Length (ft)	450						125	175		175	
Base Capacity (vph)	243	1577	223	1486	467	267	320	319	333	409	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.52	0.62	0.52	0.51	0.55	0.67	0.35	0.69	0.55	0.41	

Intersection Summary
Cycle Length: 145
Actuated Cycle Length: 145
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 14: Torringford Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
14: Torringford Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	850	80	110	610	100	230	160	100	170	140	130
Future Volume (vph)	120	850	80	110	610	100	230	160	100	170	140	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	13	12	12	11	12	12	11	11	11
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3405		1865	3329		3286	1881	1615	1728	1801	1473
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3405		1865	3329		3286	1881	1615	1728	1801	1473
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.89	0.89	0.89	0.77	0.77	0.77
Adj. Flow (vph)	126	895	84	117	649	106	258	180	112	221	182	169
RTOR Reduction (vph)	0	4	0	0	8	0	0	0	92	0	0	142
Lane Group Flow (vph)	126	975	0	117	747	0	258	180	20	221	182	27
Heavy Vehicles (%)	2%	5%	1%	0%	7%	1%	3%	1%	0%	1%	2%	6%
Turn Type	Prot	NA		Prot	NA		Split	NA	Prot	Split	NA	Prot
Protected Phases	5	2		1	6		8	8	8	4	4	4
Permitted Phases												
Actuated Green, G (s)	20.0	67.1		17.3	64.4		19.1	19.1	19.1	23.5	23.5	23.5
Effective Green, g (s)	20.0	67.1		17.3	64.4		19.1	19.1	19.1	23.5	23.5	23.5
Actuated g/C Ratio	0.14	0.46		0.12	0.44		0.13	0.13	0.13	0.16	0.16	0.16
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	244	1575		222	1478		432	247	212	280	291	238
v/s Ratio Prot	c0.07	c0.29		0.06	0.22		0.08	c0.10	0.01	c0.13	0.10	0.02
v/s Ratio Perm												
v/c Ratio	0.52	0.62		0.53	0.51		0.60	0.73	0.09	0.79	0.63	0.12
Uniform Delay, d1	58.0	29.3		60.0	28.9		59.3	60.5	55.3	58.4	56.6	51.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	1.8		1.0	1.2		1.5	8.8	0.1	12.7	3.0	0.1
Delay (s)	58.8	31.2		61.0	30.1		60.8	69.2	55.4	71.1	59.6	52.0
Level of Service	E	C		E	C		E	E	E	E	E	D
Approach Delay (s)		34.3			34.3			62.5			61.8	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	44.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

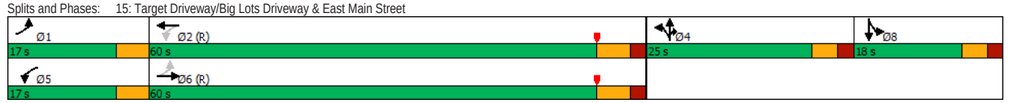
East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
15: Target Driveway/Big Lots Driveway & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	60	680	100	550	300	30	110	40	20
Future Volume (vph)	60	680	100	550	300	30	110	40	20
Lane Group Flow (vph)	67	1100	108	634	183	183	122	48	95
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Prot	Split	NA
Protected Phases	1	6	5	2	4	4	4	8	8
Permitted Phases	6		2						
Detector Phase	1	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	5.0	5.0	8.0	8.0
Minimum Split (s)	9.0	21.0	9.0	21.0	10.0	10.0	10.0	13.0	13.0
Total Split (s)	17.0	60.0	17.0	60.0	25.0	25.0	25.0	18.0	18.0
Total Split (%)	14.2%	50.0%	14.2%	50.0%	20.8%	20.8%	20.8%	15.0%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
v/c Ratio	0.13	0.60	0.35	0.32	0.79	0.78	0.37	0.36	0.50
Control Delay	8.4	18.5	10.8	14.3	73.4	71.8	11.1	60.5	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	18.5	10.8	14.3	73.4	71.8	11.1	60.5	27.9
Queue Length 50th (ft)	16	260	27	127	145	145	0	36	18
Queue Length 95th (ft)	37	384	55	193	226	225	54	69	62
Internal Link Dist (ft)		599		825		361			225
Turn Bay Length (ft)	200		300		200		200		
Base Capacity (vph)	611	1840	390	1968	280	284	370	195	246
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.60	0.28	0.32	0.65	0.64	0.33	0.25	0.39

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 108 (90%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 15: Target Driveway/Big Lots Driveway & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
15: Target Driveway/Big Lots Driveway & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	680	310	100	550	40	300	30	110	40	20	60
Future Volume (vph)	60	680	310	100	550	40	300	30	110	40	20	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	0.95		1.00	0.99		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1805	3210		1805	3354		1681	1706	1615	1805	1687	
Flt Permitted	0.39	1.00		0.18	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	740	3210		346	3354		1681	1706	1615	1805	1687	
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90	0.84	0.84	0.84
Adj. Flow (vph)	67	756	344	108	591	43	333	33	122	48	24	71
RTOR Reduction (vph)	0	35	0	0	3	0	0	0	105	0	66	0
Lane Group Flow (vph)	67	1065	0	108	631	0	183	183	17	48	29	0
Heavy Vehicles (%)	0%	10%	1%	0%	7%	0%	2%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	Prot	Split	NA	
Protected Phases	1	6		5	2		4	4	4	8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	72.8	67.6		76.6	69.5		16.5	16.5	16.5	8.8	8.8	
Effective Green, g (s)	72.8	67.6		76.6	69.5		16.5	16.5	16.5	8.8	8.8	
Actuated g/C Ratio	0.61	0.56		0.64	0.58		0.14	0.14	0.14	0.07	0.07	
Clearance Time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	495	1808		307	1942		231	234	222	132	123	
v/s Ratio Prot	0.01	c0.33		c0.02	0.19		c0.11	0.11	0.01	c0.03	0.02	
v/s Ratio Perm	0.08			0.20								
v/c Ratio	0.14	0.59		0.35	0.32		0.79	0.78	0.08	0.36	0.24	
Uniform Delay, d1	9.7	17.1		10.6	13.1		50.1	50.0	45.1	52.9	52.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.0	1.4		0.3	0.4		15.8	14.4	0.1	0.6	0.4	
Delay (s)	9.7	18.5		10.9	13.5		65.9	64.4	45.2	53.6	52.8	
Level of Service	A	B		B	B		E	E	D	D	D	
Approach Delay (s)		18.0			13.1			60.2			53.1	
Approach LOS		B			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM 2010 TWSC
18: Hillside Avenue & East Main Street

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	760	20	0	610	0	20	0	20	10	0	30
Future Vol, veh/h	30	760	20	0	610	0	20	0	20	10	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	73	73	73	56	56	56
Heavy Vehicles, %	0	6	10	13	7	0	0	0	5	0	0	0
Mvmt Flow	32	800	21	0	642	0	27	0	27	18	0	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	642	0	0	821	0	0	1544	1517	411	1106	1527	642
Stage 1	-	-	-	-	-	-	875	875	-	642	642	-
Stage 2	-	-	-	-	-	-	669	642	-	464	885	-
Critical Hdwy	4.1	-	-	4.295	-	-	7.3	6.5	6.975	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.3235	-	-	3.5	4	3.3475	3.5	4	3.3
Pot Cap-1 Maneuver	952	-	-	749	-	-	87	120	584	178	119	478
Stage 1	-	-	-	-	-	-	315	370	-	466	472	-
Stage 2	-	-	-	-	-	-	450	472	-	553	366	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	952	-	-	749	-	-	74	113	584	162	112	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	113	-	162	112	-
Stage 1	-	-	-	-	-	-	295	347	-	437	472	-
Stage 2	-	-	-	-	-	-	400	472	-	494	343	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	50.9	19.4
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	131	952	-	-	749	-	-	321
HCM Lane V/C Ratio	0.418	0.033	-	-	-	-	-	0.223
HCM Control Delay (s)	50.9	8.9	0.3	-	0	-	-	19.4
HCM Lane LOS	F	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	1.8	0.1	-	-	0	-	-	0.8

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM 2010 TWSC
22: Maud Street & East Main Street

Intersection						
Int Delay, s/veh	0.4					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	650	0	10	630	10	10
Future Vol, veh/h	650	0	10	630	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	83	83
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	677	0	10	656	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	677	0	1353	677
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	676	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	924	-	167	456
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	509	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	924	-	164	456
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	509	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	-	-	924	-
HCM Lane V/C Ratio	0.1	-	-	0.011	-
HCM Control Delay (s)	21.6	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM 2010 TWSC
26: East Main Street & Brookside Avenue

Intersection						
Int Delay, s/veh	0.2					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	650	620	10	0	0
Future Vol, veh/h	20	650	620	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	64	64
Heavy Vehicles, %	0	0	11	0	0	0
Mvmt Flow	21	677	646	10	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	656	0	-	0	1370	651
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	719	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	941	-	-	-	163	472
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	486	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	941	-	-	-	157	472
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	486	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	941	-	-	-	-
HCM Lane V/C Ratio	0.022	-	-	-	-
HCM Control Delay (s)	8.9	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM 2010 TWSC
36: BJ's Driveway & East Main Street

Intersection						
Int Delay, s/veh	3					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	870	40	160	600	0	160
Future Vol, veh/h	870	40	160	600	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	88	88	92	92
Heavy Vehicles, %	9	0	0	4	0	3
Mvmt Flow	967	44	182	682	0	174

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1011	0	-	506
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	-	-	4.1	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.33
Pot Cap-1 Maneuver	-	-	694	-	0	509
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	694	-	-	509
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.9	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	509	-	-	694	-
HCM Lane V/C Ratio	0.342	-	-	0.262	-
HCM Control Delay (s)	15.7	-	-	12	1.7
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.5	-	-	1	-

East Main Street Corridor Study - Torrington, CT
2020 Existing Saturday Midday Peak Hour

HCM 2010 TWSC
44: Walmart Driveway & East Main Street

Intersection												
Int Delay, s/veh	24.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	860	240	140	760	10	20	0	180	10	10	40
Future Vol, veh/h	20	860	240	140	760	10	20	0	180	10	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	90	90	90	73	73	73	87	87	87
Heavy Vehicles, %	0	3	0	1	3	0	0	0	1	0	0	0
Mvmt Flow	21	915	255	156	844	11	27	0	247	11	11	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	855	0	0	915	0	0	1697	2124	458	1662	2119	428
Stage 1	-	-	-	-	-	-	957	957	-	1162	1162	-
Stage 2	-	-	-	-	-	-	740	1167	-	500	957	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.5	6.5	6.92	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.21	-	-	3.5	4	3.31	3.5	4	3.3
Pot Cap-1 Maneuver	793	-	-	747	-	-	61	51	553	65	51	581
Stage 1	-	-	-	-	-	-	281	339	-	211	272	-
Stage 2	-	-	-	-	-	-	379	270	-	527	339	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	793	-	-	747	-	-	34	37	553	28	37	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	34	37	-	28	37	-
Stage 1	-	-	-	-	-	-	258	311	-	194	215	-
Stage 2	-	-	-	-	-	-	261	214	-	268	311	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.7	189.5	133
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	219	793	-	-	747	-	-	86
HCM Lane V/C Ratio	1.251	0.027	-	-	0.208	-	-	0.802
HCM Control Delay (s)	189.5	9.7	0.4	-	11.1	-	-	133
HCM Lane LOS	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	14.1	0.1	-	-	0.8	-	-	4.1

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street & East Main Street

Lane Group	NBT	NBR	SBL2	SBL	SBT	SWL	SWR	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	210	260	140	20	210	300	270			
Future Volume (vph)	210	260	140	20	210	300	270			
Lane Group Flow (vph)	251	323	0	191	251	359	323			
Turn Type	NA	custom	D.P+P	D.P+P	NA	Prot	custom			
Protected Phases	2	2 5	3 4	3 4	2 3 4	1	1 5	3	4	5
Permitted Phases		2	2	2			1			
Detector Phase	2	2 5	3 4	3 4	2 3 4	1	1 5			
Switch Phase										
Minimum Initial (s)	5.0					5.0		5.0	5.0	5.0
Minimum Split (s)	20.0					9.0		21.0	21.0	21.5
Total Split (s)	28.0					28.0		9.0	21.0	18.0
Total Split (%)	26.9%					26.9%		9%	20%	17%
Yellow Time (s)	3.0					3.0		3.0	3.0	3.5
All-Red Time (s)	1.0					1.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0					0.0				
Total Lost Time (s)	4.0					4.0				
Lead/Lag	Lag					Lead		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min					Max		None	Max	None
v/c Ratio	0.41	0.56		0.31	0.15	0.42	0.23			
Control Delay	37.1	12.4		8.8	5.3	33.3	2.7			
Queue Delay	0.6	0.6		1.5	1.0	0.0	0.0			
Total Delay	37.6	12.9		10.3	6.3	33.3	2.7			
Queue Length 50th (ft)	73	47		29	18	95	0			
Queue Length 95th (ft)	109	84		30	16	150	28			
Internal Link Dist (ft)	140				65	591				
Turn Bay Length (ft)						200	200			
Base Capacity (vph)	881	693		615	1688	855	1374			
Starvation Cap Reductn	291	124		268	1188	0	0			
Spillback Cap Reductn	329	0		0	0	0	52			
Storage Cap Reductn	0	0		0	0	0	0			
Reduced v/c Ratio	0.45	0.57		0.55	0.50	0.42	0.24			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 96.7
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Main Street & Franklin Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
1: Main Street & Franklin Street & East Main Street

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	NWL	NWR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	210	260	10	140	20	210	0	0	300	270
Future Volume (vph)	210	260	10	140	20	210	0	0	300	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.0	4.0			4.0	4.0
Lane Util. Factor	0.95	1.00			1.00	0.95			0.97	0.88
Frt	1.00	0.85			1.00	1.00			1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00			0.95	1.00
Satd. Flow (prot)	3539	1583			1770	3539			3433	2787
Flt Permitted	1.00	1.00			0.51	1.00			0.95	1.00
Satd. Flow (perm)	3539	1583			957	3539			3433	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	251	311	12	167	24	251	0	0	359	323
RTOR Reduction (vph)	0	81	0	0	0	0	0	0	0	202
Lane Group Flow (vph)	251	242	0	0	191	251	0	0	359	121
Turn Type	NA	custom		D.P+P	D.P+P	NA			Prot	custom
Protected Phases	2	2 5		3 4	3 4	2 3 4			1	1 5
Permitted Phases		2		2	2					1
Actuated Green, G (s)	16.8	28.9			41.9	45.9			24.1	41.7
Effective Green, g (s)	16.8	28.9			41.9	40.9			24.1	36.2
Actuated g/C Ratio	0.17	0.30			0.43	0.42			0.25	0.37
Clearance Time (s)	4.0								4.0	
Vehicle Extension (s)	3.0								3.0	
Lane Grp Cap (vph)	615	473			626	1498			856	1044
v/s Ratio Prot	0.07	c0.15			c0.08	0.07			c0.10	0.04
v/s Ratio Perm					0.05					
v/c Ratio	0.41	0.51			0.31	0.17			0.42	0.12
Uniform Delay, d1	35.5	28.0			20.3	17.3			30.4	19.7
Progression Factor	1.00	1.00			0.44	0.38			1.00	1.00
Incremental Delay, d2	0.4	0.9			0.3	0.1			1.5	0.0
Delay (s)	35.9	29.0			9.1	6.5			31.9	19.8
Level of Service	D	C			A	A			C	B
Approach Delay (s)	32.0				7.7	0.0			26.2	
Approach LOS	C				A	A			C	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	96.6	Sum of lost time (s)	23.5
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

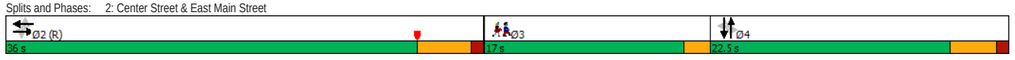
East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
2: Center Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	370	20	480	40	0	20	10	
Future Volume (vph)	10	370	20	480	40	0	20	10	
Lane Group Flow (vph)	0	469	0	630	0	84	0	110	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	2	2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	15.0	15.0	15.0	15.0	5.0	5.0	5.0	5.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	22.5	22.5	22.5	22.5	17.0
Total Split (s)	36.0	36.0	36.0	36.0	22.5	22.5	22.5	22.5	17.0
Total Split (%)	47.7%	47.7%	47.7%	47.7%	29.8%	29.8%	29.8%	29.8%	23%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0		5.0		4.5		4.5	
Lead/Lag					Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.33		0.45		0.49		0.50	
Control Delay		3.9		4.9		23.5		24.8	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		3.9		4.9		23.5		24.8	
Queue Length 50th (ft)		51		80		11		24	
Queue Length 95th (ft)		114		175		38		34	
Internal Link Dist (ft)		591		539		293		243	
Turn Bay Length (ft)									
Base Capacity (vph)		1411		1388		293		403	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.33		0.45		0.29		0.27	

Intersection Summary
Cycle Length: 75.5
Actuated Cycle Length: 75.5
Offset: 38 (50%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: Center Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
2: Center Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	370	30	20	480	10	40	0	20	20	10	30
Future Volume (vph)	10	370	30	20	480	10	40	0	20	20	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.95			0.93	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		1787			1774			1409			1674	
Flt Permitted		0.99			0.98			0.72			0.89	
Satd. Flow (perm)		1764			1735			1046			1518	
Peak-hour factor, PHF	0.96	0.96	0.96	0.89	0.89	0.89	0.78	0.78	0.78	0.60	0.60	0.60
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	11	424	34	25	593	12	56	0	28	37	18	55
RTOR Reduction (vph)	0	1	0	0	0	0	0	52	0	0	50	0
Lane Group Flow (vph)	0	468	0	0	630	0	0	32	0	0	60	0
Heavy Vehicles (%)	0%	5%	9%	0%	7%	0%	28%	0%	18%	0%	25%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		58.5			58.5			7.5			7.5	
Effective Green, g (s)		58.5			58.5			7.5			7.5	
Actuated g/C Ratio		0.77			0.77			0.10			0.10	
Clearance Time (s)		5.0			5.0			4.5			4.5	
Vehicle Extension (s)		2.0			2.0			3.0			3.0	
Lane Grp Cap (vph)		1366			1344			103			150	
v/s Ratio Prot												
v/s Ratio Perm		0.27			c0.36			0.03			c0.04	
v/c Ratio		0.34			0.47			0.31			0.40	
Uniform Delay, d1		2.6			3.0			31.6			31.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			1.2			1.7			1.8	
Delay (s)		3.3			4.2			33.3			33.7	
Level of Service		A			A			C			C	
Approach Delay (s)		3.3			4.2			33.3			33.7	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	11.5
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

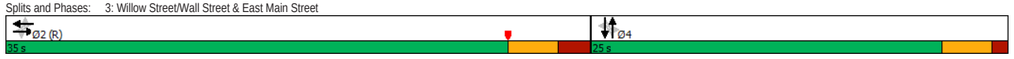
East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
3: Willow Street/Wall Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	340	20	470	30	70	20	40
Future Volume (vph)	30	340	20	470	30	70	20	40
Lane Group Flow (vph)	0	493	0	652	0	213	0	117
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.46		0.59		0.60		0.31
Control Delay		8.2		7.4		25.0		15.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		8.2		7.4		25.0		15.1
Queue Length 50th (ft)		73		52		61		24
Queue Length 95th (ft)		167		78		69		49
Internal Link Dist (ft)		539		444		461		319
Turn Bay Length (ft)								
Base Capacity (vph)		1074		1114		575		600
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.46		0.59		0.37		0.20

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willow Street/Wall Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
3: Willow Street/Wall Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	340	20	20	470	50	30	70	30	20	40	30
Future Volume (vph)	30	340	20	20	470	50	30	70	30	20	40	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.97			0.95	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1789			1768			1717			1771	
Flt Permitted		0.93			0.98			0.92			0.92	
Satd. Flow (perm)		1672			1730			1592			1644	
Peak-hour factor, PHF	0.87	0.87	0.87	0.91	0.91	0.91	0.67	0.67	0.67	0.85	0.85	0.85
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	38	430	25	24	568	60	49	115	49	26	52	39
RTOR Reduction (vph)	0	2	0	0	4	0	0	22	0	0	31	0
Lane Group Flow (vph)	0	491	0	0	648	0	0	191	0	0	86	0
Heavy Vehicles (%)	5%	5%	6%	14%	6%	2%	12%	6%	0%	0%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		38.5			38.5			12.5			12.5	
Effective Green, g (s)		38.5			38.5			12.5			12.5	
Actuated g/C Ratio		0.64			0.64			0.21			0.21	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1072			1110			331			342	
v/s Ratio Prot												
v/s Ratio Perm		0.29			c0.37			c0.12			0.05	
v/c Ratio		0.46			0.58			0.58			0.25	
Uniform Delay, d1	5.5	6.2		21.4	19.8							
Progression Factor	1.00	0.69		1.00	1.00							
Incremental Delay, d2	1.4	2.0		2.4	0.4							
Delay (s)	6.9	6.3		23.8	20.2							
Level of Service	A	A		C	C							
Approach Delay (s)	6.9	6.3		23.8	20.2							
Approach LOS	A	A		C	C							

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

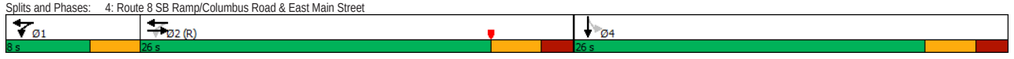
East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
4: Route 8 SB Ramp/Columbus Road & East Main Street

Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	400	220	440	40	210
Future Volume (vph)	400	220	440	40	210
Lane Group Flow (vph)	605	269	538	46	382
Turn Type	NA	D.P+P	NA	Perm	NA
Protected Phases	2	1	1 2		4
Permitted Phases		2		4	
Detector Phase	2	1	1 2	4	4
Switch Phase					
Minimum Initial (s)	20.0	5.0		7.0	7.0
Minimum Split (s)	25.0	8.0		12.0	12.0
Total Split (s)	26.0	8.0		26.0	26.0
Total Split (%)	43.3%	13.3%		43.3%	43.3%
Yellow Time (s)	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Min	Max		None	None
v/c Ratio	0.53	0.48	0.51	0.11	0.78
Control Delay	13.7	6.5	4.0	15.3	28.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.7	6.5	4.0	15.3	28.5
Queue Length 50th (ft)	87	2	3	12	108
Queue Length 95th (ft)	104	m20	m86	29	173
Internal Link Dist (ft)	612		423		285
Turn Bay Length (ft)		150			
Base Capacity (vph)	1188	556	1086	579	636
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	0.51	0.48	0.50	0.08	0.60

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 31 (52%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 8 SB Ramp/Columbus Road & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
4: Route 8 SB Ramp/Columbus Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	400	90	220	440	0	0	0	0	40	210	120
Future Volume (vph)	0	400	90	220	440	0	0	0	0	40	210	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		3.0	3.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	1.00					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.95	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3306		1736	1759					1656	1721	
Flt Permitted		1.00		0.35	1.00					0.95	1.00	
Satd. Flow (perm)		3306		637	1759					1656	1721	
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	0	494	111	269	538	0	0	0	0	46	243	139
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	572	0	269	538	0	0	0	0	46	343	0
Heavy Vehicles (%)	0%	6%	7%	4%	8%	0%	2%	2%	2%	9%	4%	5%
Turn Type		NA		D.P+P	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		20.2		31.3	34.3					15.7	15.7	
Effective Green, g (s)		20.2		31.3	34.3					15.7	15.7	
Actuated g/C Ratio		0.34		0.52	0.57					0.26	0.26	
Clearance Time (s)		5.0		3.0						5.0	5.0	
Vehicle Extension (s)		2.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1113		535	1005					433	450	
v/s Ratio Prot		0.17		0.09	c0.31						c0.20	
v/s Ratio Perm				0.17						0.03		
v/c Ratio		0.51		0.50	0.54					0.11	0.76	
Uniform Delay, d1		16.0		8.3	7.9					16.8	20.4	
Progression Factor		0.81		0.40	0.38					1.00	1.00	
Incremental Delay, d2		1.6		1.8	1.1					0.0	6.7	
Delay (s)		14.5		5.1	4.0					16.9	27.2	
Level of Service		B		A	A					B	C	
Approach Delay (s)		14.5			4.4			0.0			26.1	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	100	340	540	200	260
Future Volume (vph)	100	340	540	200	260
Lane Group Flow (vph)	117	398	679	440	358
Turn Type	D.P+P	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		26.0	23.0	23.0
Total Split (%)	18.3%		43.3%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.33	0.19	0.93	0.54	0.55
Control Delay	10.3	8.6	42.6	21.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	8.6	42.6	21.5	5.8
Queue Length 50th (ft)	35	66	233	71	0
Queue Length 95th (ft)	77	107	#463	90	33
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	360	2036	730	988	716
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	0.33	0.20	0.93	0.45	0.50

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 6 (10%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	340	0	0	540	10	120	200	260	0	0	0
Future Volume (vph)	100	340	0	0	540	10	120	200	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			1.00			0.95	1.00			
Frt	1.00	1.00			1.00			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1719	3374			1790			3293	1553			
Flt Permitted	0.16	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	297	3374			1790			3293	1553			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.80	0.80	0.80	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	117	398	0	0	667	12	165	275	358	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	269	0	0	0
Lane Group Flow (vph)	117	398	0	0	678	0	0	440	89	0	0	0
Heavy Vehicles (%)	5%	7%	0%	0%	6%	0%	7%	8%	4%	0%	0%	0%
Turn Type	D.P+P	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	32.1	35.1			24.4			14.9	14.9			
Effective Green, g (s)	32.1	35.1			24.4			14.9	14.9			
Actuated g/C Ratio	0.54	0.59			0.41			0.25	0.25			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	341	1973			727			817	385			
v/s Ratio Prot	c0.04	0.12			c0.38							
v/s Ratio Perm	0.14							0.13	0.06			
v/c Ratio	0.34	0.20			0.93			0.54	0.23			
Uniform Delay, d1	9.6	5.9			17.0			19.6	18.0			
Progression Factor	1.36	1.49			1.00			1.00	1.00			
Incremental Delay, d2	0.5	0.0			20.4			0.7	0.3			
Delay (s)	13.5	8.8			37.4			20.3	18.3			
Level of Service	B	A			D			C	B			
Approach Delay (s)		9.9			37.4			19.4		0.0		
Approach LOS		A			D			B		A		

Intersection Summary

HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	WBR	SEL	Ø3
Lane Configurations						
Traffic Volume (vph)	10	560	550	410	270	
Future Volume (vph)	10	560	550	410	270	
Lane Group Flow (vph)	0	738	644	480	335	
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	3
Permitted Phases	2			2		
Detector Phase	2	2	2	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	19.0
Total Split (s)	29.0	29.0	29.0	29.0	31.0	19.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	39.2%	24%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	5.0	
Lead/Lag					Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.38	0.62	0.43	0.75	
Control Delay		9.6	14.4	2.3	37.2	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		9.6	14.4	2.3	37.2	
Queue Length 50th (ft)		88	181	0	150	
Queue Length 95th (ft)		142	356	43	214	
Internal Link Dist (ft)		160	602		27	
Turn Bay Length (ft)				300		
Base Capacity (vph)		1923	1047	1119	575	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.38	0.62	0.43	0.58	

Intersection Summary

Cycle Length: 79
Actuated Cycle Length: 79
Offset: 4 (5%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 6: East Main Street & East Elm Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	10	560	550	410	270	10
Future Volume (vph)	10	560	550	410	270	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0	6.0	5.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3375	1733	1538	1730	
Flt Permitted		0.94	1.00	1.00	0.95	
Satd. Flow (perm)		3182	1733	1538	1730	
Peak-hour factor, PHF	0.85	0.85	0.94	0.94	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	13	725	644	480	323	12
RTOR Reduction (vph)	0	0	0	190	2	0
Lane Group Flow (vph)	0	738	644	290	333	0
Heavy Vehicles (%)	0%	7%	6%	5%	8%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		47.7	47.7	47.7	20.3	
Effective Green, g (s)		47.7	47.7	47.7	20.3	
Actuated g/C Ratio		0.60	0.60	0.60	0.26	
Clearance Time (s)		6.0	6.0	6.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1921	1046	928	444	
v/s Ratio Prot			c0.37		c0.19	
v/s Ratio Perm		0.23		0.19		
v/c Ratio		0.38	0.62	0.31	0.75	
Uniform Delay, d1		8.1	9.9	7.6	27.0	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.6	2.7	0.9	6.8	
Delay (s)	8.7	12.6	8.5		33.8	
Level of Service	A	B	A		C	
Approach Delay (s)	8.7	10.8			33.8	
Approach LOS	A	B			C	

Intersection Summary

HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	580	10	570	380	30
Future Volume (vph)	580	10	570	380	30
Lane Group Flow (vph)	1011	0	742	498	39
Turn Type	NA	pm+pt	NA	Prot	Free
Protected Phases	2	3	2 3	4	
Permitted Phases		2 3	2 3		Free
Detector Phase	2	3	2 3	4	
Switch Phase					
Minimum Initial (s)	15.0	8.0		7.0	
Minimum Split (s)	20.0	15.0		12.0	
Total Split (s)	24.0	15.0		21.0	
Total Split (%)	40.0%	25.0%		35.0%	
Yellow Time (s)	3.0	4.0		3.0	
All-Red Time (s)	2.0	3.0		2.0	
Lost Time Adjust (s)	0.0			0.0	
Total Lost Time (s)	5.0			5.0	
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?					
Recall Mode	C-Max	None		None	
v/c Ratio	0.94		0.87	1.10	0.03
Control Delay	36.3		19.0	97.0	0.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	36.3		19.0	97.0	0.0
Queue Length 50th (ft)	169		43	~211	0
Queue Length 95th (ft)	#266		#262	#335	0
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1078		853	454	1482
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.94		0.87	1.10	0.03

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
~ 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: 7: New Harwinton Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	580	210	10	570	380	30
Future Volume (vph)	580	210	10	570	380	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	4.0
Lane Util. Factor	0.95			1.00	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3213			1778	1703	1482
Flt Permitted	1.00			0.99	0.95	1.00
Satd. Flow (perm)	3213			1758	1703	1482
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.84	0.84
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	742	269	13	729	498	39
RTOR Reduction (vph)	62	0	0	0	0	0
Lane Group Flow (vph)	950	0	0	742	498	39
Heavy Vehicles (%)	6%	13%	50%	6%	6%	9%
Turn Type	NA		pm+pt	NA	Prot	Free
Protected Phases	2		3	2 3	4	
Permitted Phases			2 3	2 3		Free
Actuated Green, G (s)	19.0			27.0	16.0	60.0
Effective Green, g (s)	19.0			27.0	16.0	60.0
Actuated g/C Ratio	0.32			0.45	0.27	1.00
Clearance Time (s)	5.0				5.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	1017			793	454	1482
v/s Ratio Prot	0.30			c0.12	c0.29	
v/s Ratio Perm				c0.30		0.03
v/c Ratio	0.93			0.94	1.10	0.03
Uniform Delay, d1	19.9			15.7	22.0	0.0
Progression Factor	1.00			0.59	1.00	1.00
Incremental Delay, d2	16.2			16.3	71.1	0.0
Delay (s)	36.0			25.6	93.1	0.0
Level of Service	D			C	F	A
Approach Delay (s)	36.0			25.6	86.4	
Approach LOS	D			C	F	

Intersection Summary			
HCM 2000 Control Delay	44.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
8: East Main Street & Charles Street

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	30	570	10	530	0	10
Future Volume (vph)	30	570	10	530	0	10
Lane Group Flow (vph)	0	753	0	751	44	76
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		2	4	4
Permitted Phases	2		2			
Detector Phase	2	2	2	2	4	4
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.33		0.55	0.11	0.29
Control Delay		7.6		5.5	0.5	12.7
Queue Delay		0.0		0.0	0.0	0.0
Total Delay		7.6		5.5	0.5	12.7
Queue Length 50th (ft)		86		125	0	5
Queue Length 95th (ft)		m100		182	0	24
Internal Link Dist (ft)		809		1163	247	598
Turn Bay Length (ft)						
Base Capacity (vph)		2309		1370	588	467
Starvation Cap Reductn		0		0	0	0
Spillback Cap Reductn		0		0	0	0
Storage Cap Reductn		0		0	0	0
Reduced v/c Ratio		0.33		0.55	0.07	0.16

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 41 (68%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: East Main Street & Charles Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
8: East Main Street & Charles Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	570	10	10	530	20	0	0	10	0	10	40
Future Volume (vph)	30	570	10	10	530	20	0	0	10	0	10	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	12	12	12	12	12	15	12	15
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.86			0.89	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3280			1779			1644			1687	
Flt Permitted		0.90			0.99			1.00			1.00	
Satd. Flow (perm)		2964			1757			1644			1687	
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.92	0.25	0.25	0.72	0.72	0.72
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	37	704	12	13	711	27	0	0	44	0	15	61
RTOR Reduction (vph)	0	1	0	0	2	0	0	40	0	0	55	0
Lane Group Flow (vph)	0	752	0	0	749	0	0	4	0	0	21	0
Heavy Vehicles (%)	5%	6%	2%	2%	6%	13%	0%	0%	0%	5%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.9			44.9			6.1			6.1	
Effective Green, g (s)		44.9			44.9			6.1			6.1	
Actuated g/C Ratio		0.75			0.75			0.10			0.10	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2218			1314			167			171	
v/s Ratio Prot								0.00			c0.01	
v/s Ratio Perm		0.25			c0.43							
v/c Ratio		0.34			0.57			0.03			0.12	
Uniform Delay, d1		2.5			3.3			24.3			24.5	
Progression Factor		2.59			0.98			1.00			1.00	
Incremental Delay, d2		0.2			1.7			0.1			0.3	
Delay (s)	6.8	5.0			24.3			24.8				
Level of Service	A	A			C			C				
Approach Delay (s)	6.8	5.0			24.3			24.8				
Approach LOS	A	A			C			C				

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
9: Orchard Street & East Main Street

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	570	10	500	10
Future Volume (vph)	570	10	500	10
Lane Group Flow (vph)	726	0	630	52
Turn Type	NA	Perm	NA	Prot
Protected Phases	2		2	4
Permitted Phases		2		
Detector Phase	2	2	2	4
Switch Phase				
Minimum Initial (s)	20.0	20.0	20.0	7.0
Minimum Split (s)	25.0	25.0	25.0	11.0
Total Split (s)	41.0	41.0	41.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	31.7%
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.26		0.44	0.24
Control Delay	0.7		6.0	17.6
Queue Delay	0.0		0.0	0.0
Total Delay	0.7		6.0	17.6
Queue Length 50th (ft)	1		66	9
Queue Length 95th (ft)	2		254	11
Internal Link Dist (ft)	1163		1187	575
Turn Bay Length (ft)				
Base Capacity (vph)	2799		1444	403
Starvation Cap Reductn	0		0	0
Spillback Cap Reductn	0		0	0
Storage Cap Reductn	0		0	0
Reduced v/c Ratio	0.26		0.44	0.13

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 11 (18%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 9: Orchard Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
9: Orchard Street & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	570	10	10	500	10	10
Future Volume (vph)	570	10	10	500	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	4.0	
Lane Util. Factor	0.95			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3369			1761	1536	
Flt Permitted	1.00			0.99	0.98	
Satd. Flow (perm)	3369			1739	1536	
Peak-hour factor, PHF	0.88	0.88	0.89	0.89	0.42	0.42
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	712	12	12	618	26	26
RTOR Reduction (vph)	1	0	0	0	24	0
Lane Group Flow (vph)	725	0	0	630	28	0
Heavy Vehicles (%)	7%	0%	100%	6%	0%	25%
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			2	4	
Permitted Phases			2			
Actuated Green, G (s)	46.3			46.3	4.7	
Effective Green, g (s)	46.3			46.3	4.7	
Actuated g/C Ratio	0.77			0.77	0.08	
Clearance Time (s)	5.0			5.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2599			1341	120	
v/s Ratio Prot	0.22				c0.02	
v/s Ratio Perm				c0.36		
v/c Ratio	0.28			0.47	0.23	
Uniform Delay, d1	2.0			2.5	26.0	
Progression Factor	0.23			1.62	1.00	
Incremental Delay, d2	0.3			1.1	1.0	
Delay (s)	0.7			5.1	27.0	
Level of Service	A			A	C	
Approach Delay (s)	0.7			5.1	27.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
10: Pineridge Road/Yorkshire Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	540	20	460	10	10	20	10
Future Volume (vph)	10	540	20	460	10	10	20	10
Lane Group Flow (vph)	0	689	0	632	0	42	0	56
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.26		0.45		0.19		0.29
Control Delay		1.2		4.4		19.2		22.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		1.2		4.4		19.2		22.6
Queue Length 50th (ft)		4		69		9		14
Queue Length 95th (ft)		7		144		27		35
Internal Link Dist (ft)		1187		1137		621		153
Turn Bay Length (ft)								
Base Capacity (vph)		2629		1415		401		357
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.26		0.45		0.10		0.16

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 16 (27%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 10: Pineridge Road/Yorkshire Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
10: Pineridge Road/Yorkshire Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	540	20	20	460	20	10	10	10	20	10	10
Future Volume (vph)	10	540	20	20	460	20	10	10	10	20	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		0.99			0.99			0.95			0.97	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3365			1770			1722			1651	
Flt Permitted		0.94			0.97			0.89			0.82	
Satd. Flow (perm)		3182			1713			1565			1388	
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	653	24	25	582	25	14	14	14	28	14	14
RTOR Reduction (vph)	0	3	0	0	1	0	0	13	0	0	13	0
Lane Group Flow (vph)	0	686	0	0	631	0	0	29	0	0	43	0
Heavy Vehicles (%)	0%	7%	0%	9%	6%	17%	0%	0%	11%	17%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		45.9			45.9			5.1			5.1	
Effective Green, g (s)		45.9			45.9			5.1			5.1	
Actuated g/C Ratio		0.76			0.76			0.08			0.08	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2434			1310			133			117	
v/s Ratio Prot												
v/s Ratio Perm		0.22			c0.37			0.02			c0.03	
v/c Ratio		0.28			0.48			0.22			0.37	
Uniform Delay, d1		2.1			2.6			25.6			25.9	
Progression Factor		0.41			1.00			1.00			1.00	
Incremental Delay, d2		0.3			1.3			0.8			2.0	
Delay (s)		1.1			3.9			26.4			27.9	
Level of Service		A			A			C			C	
Approach Delay (s)		1.1			3.9			26.4			27.9	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	4.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

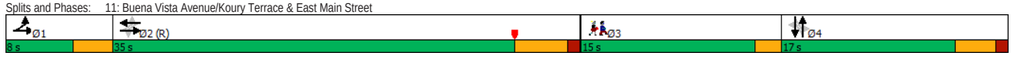
Lanes, Volumes, Timings
11: Buena Vista Avenue/Koury Terrace & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	550	10	460	20	10	10	0	
Future Volume (vph)	10	550	10	460	20	10	10	0	
Lane Group Flow (vph)	0	689	0	586	0	55	0	52	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2	1 2	2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		20.0	20.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0		25.0	25.0	11.0	11.0	11.0	11.0	15.0
Total Split (s)	8.0		35.0	35.0	17.0	17.0	17.0	17.0	15.0
Total Split (%)	10.7%		46.7%	46.7%	22.7%	22.7%	22.7%	22.7%	20%
Yellow Time (s)	3.0		4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				0.0		0.0		0.0	
Total Lost Time (s)				5.0		4.0		4.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.27		0.48		0.33		0.21	
Control Delay		2.4		8.0		29.4		3.3	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		2.4		8.0		29.4		3.3	
Queue Length 50th (ft)		27		113		18		0	
Queue Length 95th (ft)		53		214		43		0	
Internal Link Dist (ft)		1137		669		275		202	
Turn Bay Length (ft)									
Base Capacity (vph)		2534		1211		252		332	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.27		0.48		0.22		0.16	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 11: Buena Vista Avenue/Koury Terrace & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
11: Buena Vista Avenue/Koury Terrace & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	550	10	10	460	10	20	10	10	10	0	10
Future Volume (vph)	10	550	10	10	460	10	20	10	10	10	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.93	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3391			1778			1547			1593	
Flt Permitted		0.95			0.99			0.88			0.88	
Satd. Flow (perm)		3218			1754			1388			1432	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.81	0.81	0.81	0.43	0.43	0.43
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	665	12	12	562	12	27	14	14	26	0	26
RTOR Reduction (vph)	0	1	0	0	1	0	0	13	0	0	47	0
Lane Group Flow (vph)	0	688	0	0	585	0	0	42	0	0	5	0
Heavy Vehicles (%)	0%	6%	17%	33%	6%	0%	15%	33%	0%	0%	0%	17%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2	1 2		2			4			4		
Actuated Green, G (s)		56.0			51.0			7.0			7.0	
Effective Green, g (s)		56.0			51.0			7.0			7.0	
Actuated g/C Ratio		0.75			0.68			0.09			0.09	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)		2414			1192			129			133	
v/s Ratio Prot		c0.02										
v/s Ratio Perm		0.19			c0.33			c0.03			0.00	
v/c Ratio		0.29			0.49			0.33			0.04	
Uniform Delay, d1		3.1			5.8			31.8			30.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			1.4			1.5			0.1	
Delay (s)		3.4			7.2			33.3			31.0	
Level of Service		A			A			C			C	
Approach Delay (s)		3.4			7.2			33.3			31.0	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

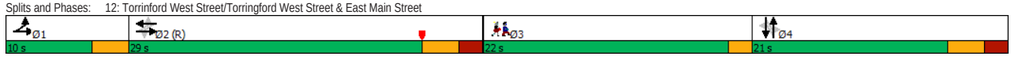
Lanes, Volumes, Timings
12: Torrinford West Street/Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	70	460	20	370	70	170	30	120	
Future Volume (vph)	70	460	20	370	70	170	30	120	
Lane Group Flow (vph)	0	686	27	516	86	294	0	295	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	21.0	21.0	21.0	21.0	22.0
Total Split (%)	12.2%		35.4%	35.4%	25.6%	25.6%	25.6%	25.6%	27%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)			5.0	5.0	5.0	5.0		5.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Min	C-Min	None	None	None	None	None
v/c Ratio		0.36	0.07	0.52	0.71	0.81		1.32	
Control Delay		5.1	8.9	13.6	64.4	48.0		199.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay		5.1	8.9	13.6	64.4	48.0		199.2	
Queue Length 50th (ft)		55	6	152	42	134		~188	
Queue Length 95th (ft)		76	16	199	#116	#263		#299	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100				
Base Capacity (vph)		1932	375	983	121	364		224	
Starvation Cap Reductn		0	0	0	0	0		0	
Spillback Cap Reductn		0	0	0	0	0		0	
Storage Cap Reductn		0	0	0	0	0		0	
Reduced v/c Ratio		0.36	0.07	0.52	0.71	0.81		1.32	

Intersection Summary

Cycle Length: 82
Actuated Cycle Length: 82
Offset: 25 (30%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ 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: 12: Torrinford West Street/Torringford West Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torrinford West Street/Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	460	50	20	370	10	70	170	70	30	120	70
Future Volume (vph)	70	460	50	20	370	10	70	170	70	30	120	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00			1.00	
Frt		0.99		1.00	1.00		1.00	0.96			0.96	
Flt Protected		0.99		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		3320		1626	1751		1805	1775			1766	
Flt Permitted		0.84		0.39	1.00		0.33	1.00			0.59	
Satd. Flow (perm)		2810		669	1751		621	1775			1041	
Peak-hour factor, PHF	0.93	0.93	0.93	0.81	0.81	0.81	0.90	0.90	0.90	0.82	0.82	0.82
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	83	544	59	27	502	14	86	208	86	40	161	94
RTOR Reduction (vph)	0	5	0	0	1	0	0	19	0	0	21	0
Lane Group Flow (vph)	0	681	0	27	515	0	86	275	0	0	274	0
Heavy Vehicles (%)	0%	8%	4%	11%	8%	10%	0%	0%	8%	0%	3%	2%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Effective Green, g (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Actuated g/C Ratio		0.65		0.56	0.56		0.20	0.20			0.20	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1859		375	982		121	346			203	
v/s Ratio Prot		c0.03			c0.29			0.16				
v/s Ratio Perm		0.21		0.04			0.14				c0.26	
v/c Ratio		0.37		0.07	0.52		0.71	0.80			1.35	
Uniform Delay, d1		6.7		8.2	11.2		30.8	31.4			33.0	
Progression Factor		1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.6		0.4	2.0		17.8	12.0			186.4	
Delay (s)		7.3		8.6	13.2		48.7	43.4			219.4	
Level of Service		A		A	B		D	D			F	
Approach Delay (s)		7.3			13.0			44.6			219.4	
Approach LOS		A			B			D			F	

Intersection Summary

HCM 2000 Control Delay	49.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
13: Stop and Shop Driveway/Dibble Street & East Main Street

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	10	480	40	10	400	50	40	210	50	10
Future Volume (vph)	10	480	40	10	400	50	40	210	50	10
Lane Group Flow (vph)	12	556	46	13	729	71	71	164	169	13
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Split	NA	Split	NA	Prot
Protected Phases	1	6		5	2	4	4	8	8	8
Permitted Phases	6		6	2						
Detector Phase	1	6	6	5	2	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	5.0	5.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0	10.0	13.0	13.0	13.0
Total Split (s)	13.0	45.0	45.0	13.0	45.0	20.0	20.0	30.0	30.0	30.0
Total Split (%)	12.0%	41.7%	41.7%	12.0%	41.7%	18.5%	18.5%	27.8%	27.8%	27.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead-Lag Optimize?										
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
v/c Ratio	0.03	0.42	0.07	0.03	0.53	0.31	0.31	0.47	0.48	0.03
Control Delay	10.5	15.0	0.2	10.5	14.8	32.4	29.5	29.4	29.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	15.0	0.2	10.5	14.8	32.4	29.5	29.4	29.4	0.2
Queue Length 50th (ft)	2	65	0	2	81	22	18	50	52	0
Queue Length 95th (ft)	12	166	1	12	193	68	62	145	149	0
Internal Link Dist (ft)		2541			805		375		773	
Turn Bay Length (ft)	125		125	125				200		50
Base Capacity (vph)	486	2372	1109	558	2373	505	487	793	806	829
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.23	0.04	0.02	0.31	0.14	0.15	0.21	0.21	0.02

Intersection Summary
Cycle Length: 108
Actuated Cycle Length: 58.1
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Stop and Shop Driveway/Dibble Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
13: Stop and Shop Driveway/Dibble Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	480	40	10	400	170	50	40	10	210	50	10
Future Volume (vph)	10	480	40	10	400	170	50	40	10	210	50	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1745	3261	1487	1805	3238		1752	1663		1649	1677	1615
Flt Permitted	0.30	1.00	1.00	0.40	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	545	3261	1487	768	3238		1752	1663		1649	1677	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.86	0.86	0.86	0.77	0.77	0.77	0.86	0.86	0.86
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	556	46	13	512	217	71	57	14	269	64	13
RTOR Reduction (vph)	0	0	28	0	42	0	0	9	0	0	0	10
Lane Group Flow (vph)	12	556	18	13	687	0	71	62	0	164	169	3
Heavy Vehicles (%)	0%	7%	5%	0%	8%	3%	3%	3%	43%	4%	5%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	Prot
Protected Phases	1	6		5	2		4	4		8	8	8
Permitted Phases	6		6	2								
Actuated Green, G (s)	24.6	23.9	23.9	24.6	23.9		5.9	5.9		12.2	12.2	12.2
Effective Green, g (s)	24.6	23.9	23.9	24.6	23.9		5.9	5.9		12.2	12.2	12.2
Actuated g/C Ratio	0.41	0.39	0.39	0.41	0.39		0.10	0.10		0.20	0.20	0.20
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	234	1283	585	323	1274		170	161		331	337	324
v/s Ratio Prot	c0.00	0.17		0.00	c0.21		c0.04	0.04		0.10	c0.10	0.00
v/s Ratio Perm	0.02		0.01	0.02								
v/c Ratio	0.05	0.43	0.03	0.04	0.54		0.42	0.38		0.50	0.50	0.01
Uniform Delay, d1	11.0	13.5	11.3	10.9	14.2		25.8	25.7		21.5	21.5	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.5	0.0	0.0	0.8		0.6	0.6		0.4	0.4	0.0
Delay (s)	11.0	13.9	11.3	10.9	15.0		26.4	26.3		21.9	22.0	19.4
Level of Service	B	B	B	B	B		C	C		C	C	B
Approach Delay (s)		13.7			14.9			26.3			21.9	
Approach LOS		B			B			C			C	

Intersection Summary

HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

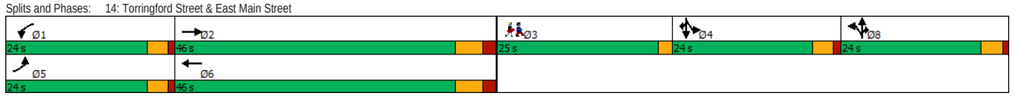
East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
14: Torringford Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	120	530	40	390	90	120	60	90	110	130	
Future Volume (vph)	120	530	40	390	90	120	60	90	110	130	
Lane Group Flow (vph)	147	685	55	591	129	171	86	121	148	174	
Turn Type	Prot	NA	Prot	NA	Split	NA	Prot	Split	NA	Prot	
Protected Phases	5	2	1	6	8	8	8	4	4	4	3
Permitted Phases											
Detector Phase	5	2	1	6	8	8	8	4	4	4	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0
Total Split (s)	24.0	46.0	24.0	46.0	24.0	24.0	24.0	24.0	24.0	24.0	25.0
Total Split (%)	16.8%	32.2%	16.8%	32.2%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	17%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lag				Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	Min	None	Min	None	None	None	None	None	None	None
v/c Ratio	0.59	0.49	0.32	0.58	0.24	0.59	0.26	0.48	0.55	0.49	
Control Delay	46.7	21.8	47.0	28.5	35.6	45.1	8.6	43.3	45.0	11.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.7	21.8	47.0	28.5	35.6	45.1	8.6	43.3	45.0	11.5	
Queue Length 50th (ft)	72	140	28	133	30	84	0	59	73	0	
Queue Length 95th (ft)	167	252	70	210	59	155	20	124	147	44	
Internal Link Dist (ft)		805		413		1058			877		
Turn Bay Length (ft)	450						125	175		175	
Base Capacity (vph)	382	1761	470	1720	844	460	465	426	449	475	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.38	0.39	0.12	0.34	0.15	0.37	0.18	0.28	0.33	0.37	

Intersection Summary
Cycle Length: 143
Actuated Cycle Length: 84.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Torringford Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
14: Torringford Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	530	30	40	390	40	90	120	60	90	110	130
Future Volume (vph)	120	530	30	40	390	40	90	120	60	90	110	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	13	12	12	11	12	12	11	11	11
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1517	3442		1865	3405		3351	1827	1553	1694	1783	1369
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1517	3442		1865	3405		3351	1827	1553	1694	1783	1369
Peak-hour factor, PHF	0.90	0.90	0.90	0.80	0.80	0.80	0.77	0.77	0.77	0.82	0.82	0.82
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	147	648	37	55	536	55	129	171	86	121	148	174
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	72	0	0	148
Lane Group Flow (vph)	147	683	0	55	586	0	129	171	14	121	148	26
Heavy Vehicles (%)	19%	3%	22%	0%	5%	0%	1%	4%	4%	3%	3%	14%
Turn Type	Prot	NA		Prot	NA		Split	NA	Prot	Split	NA	Prot
Protected Phases	5	2		1	6		8	8	8	4	4	4
Permitted Phases												
Actuated Green, G (s)	13.8	34.1		6.1	26.4		13.4	13.4	13.4	12.6	12.6	12.6
Effective Green, g (s)	13.8	34.1		6.1	26.4		13.4	13.4	13.4	12.6	12.6	12.6
Actuated g/C Ratio	0.16	0.40		0.07	0.31		0.16	0.16	0.16	0.15	0.15	0.15
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	248	1393		135	1067		533	290	247	253	266	204
v/s Ratio Prot	c0.10	0.20		0.03	c0.17		0.04	c0.09	0.01	0.07	c0.08	0.02
v/s Ratio Perm												
v/c Ratio	0.59	0.49		0.41	0.55		0.24	0.59	0.06	0.48	0.56	0.13
Uniform Delay, d1	32.6	18.6		37.3	24.0		31.0	32.8	30.0	32.8	33.2	31.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.6		0.7	1.0		0.1	2.0	0.0	0.5	1.4	0.1
Delay (s)	35.1	19.2		38.1	25.0		31.0	34.8	30.1	33.3	34.6	31.1
Level of Service	D	B		D	C		C	C	C	C	C	C
Approach Delay (s)		22.0			26.1			32.5			32.9	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	84.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

Lanes, Volumes, Timings
15: Target Driveway/Big Lots Driveway & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	20	550	30	460	30	0	20	0
Future Volume (vph)	20	550	30	460	30	0	20	0
Lane Group Flow (vph)	23	706	38	588	22	22	29	29
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Prot	NA
Protected Phases	1	6	5	2	4	4	4	8
Permitted Phases	6		2					
Detector Phase	1	6	5	2	4	4	4	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	5.0	5.0	8.0
Minimum Split (s)	9.0	21.0	9.0	21.0	10.0	10.0	10.0	13.0
Total Split (s)	19.0	46.0	19.0	46.0	25.0	25.0	25.0	25.0
Total Split (%)	16.5%	40.0%	16.5%	40.0%	21.7%	21.7%	21.7%	21.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	Max	None	None	None	None
v/c Ratio	0.03	0.29	0.06	0.22	0.16	0.16	0.12	0.05
Control Delay	4.9	8.4	4.8	7.1	36.3	36.3	1.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	8.4	4.8	7.1	36.3	36.3	1.0	0.1
Queue Length 50th (ft)	1	63	2	27	8	8	0	0
Queue Length 95th (ft)	12	155	16	121	28	28	0	0
Internal Link Dist (ft)		599		825		361		225
Turn Bay Length (ft)	200		300		200		200	
Base Capacity (vph)	870	2457	759	2650	474	474	545	844
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.29	0.05	0.22	0.05	0.05	0.05	0.03

Intersection Summary

Cycle Length: 115
Actuated Cycle Length: 66.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 15: Target Driveway/Big Lots Driveway & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM Signalized Intersection Capacity Analysis
15: Target Driveway/Big Lots Driveway & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	550	60	30	460	10	30	0	20	0	0	20
Future Volume (vph)	20	550	60	30	460	10	30	0	20	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85		0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.95	1.00		1.00	
Satd. Flow (prot)	1805	3411		1719	3529		1517	1517	1495		1615	
Flt Permitted	0.43	1.00		0.36	1.00		0.95	0.95	1.00		1.00	
Satd. Flow (perm)	817	3411		651	3529		1517	1517	1495		1615	
Peak-hour factor, PHF	0.95	0.95	0.95	0.88	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	23	637	69	38	575	12	44	0	29	0	0	29
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	28	0	28	0
Lane Group Flow (vph)	23	702	0	38	587	0	22	22	1	0	1	0
Heavy Vehicles (%)	0%	4%	7%	5%	2%	0%	13%	0%	8%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	Prot	Split	NA	
Protected Phases	1	6		5	2		4	4	4	8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	47.5	45.8		50.1	47.1		3.4	3.4	3.4		2.7	
Effective Green, g (s)	47.5	45.8		50.1	47.1		3.4	3.4	3.4		2.7	
Actuated g/C Ratio	0.63	0.61		0.67	0.63		0.05	0.05	0.05		0.04	
Clearance Time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	540	2085		478	2219		68	68	67		58	
v/s Ratio Prot	0.00	c0.21		c0.00	0.17		c0.01	0.01	0.00		c0.00	
v/s Ratio Perm	0.03			0.05								
v/c Ratio	0.04	0.34		0.08	0.26		0.32	0.32	0.02		0.02	
Uniform Delay, d1	5.1	7.1		4.3	6.2		34.6	34.6	34.2		34.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.4		0.0	0.3		1.0	1.0	0.0		0.0	
Delay (s)	5.1	7.6		4.3	6.5		35.6	35.6	34.2		34.9	
Level of Service	A	A		A	A		D	D	C		C	
Approach Delay (s)		7.5			6.3			35.1			34.9	
Approach LOS		A			A			D			C	

Intersection Summary

HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM 2010 TWSC
18: Hillside Avenue & East Main Street

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	600	10	10	520	0	20	10	0	0	10	10
Future Vol, veh/h	10	600	10	10	520	0	20	10	0	0	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	73	73	73	56	56	56
Heavy Vehicles, %	0	6	10	13	7	0	0	0	5	0	0	0
Mvmt Flow	12	695	12	12	602	0	30	15	0	0	20	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	602	0	0	707	0	0	1371	1351	354	1005	1357	602
Stage 1	-	-	-	-	-	-	725	725	-	626	626	-
Stage 2	-	-	-	-	-	-	646	626	-	379	731	-
Critical Hdwy	4.1	-	-	4.295	-	-	7.3	6.5	6.975	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.3235	-	-	3.5	4	3.3475	3.5	4	3.3
Pot Cap-1 Maneuver	985	-	-	830	-	-	116	152	636	210	150	503
Stage 1	-	-	-	-	-	-	387	433	-	475	480	-
Stage 2	-	-	-	-	-	-	464	480	-	620	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	985	-	-	830	-	-	97	146	636	187	144	503
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	146	-	187	144	-
Stage 1	-	-	-	-	-	-	379	424	-	466	469	-
Stage 2	-	-	-	-	-	-	418	469	-	586	421	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	59.7	24.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	109	985	-	-	830	-	-	224
HCM Lane V/C Ratio	0.415	0.012	-	-	0.014	-	-	0.175
HCM Control Delay (s)	59.7	8.7	0.1	-	9.4	0	-	24.5
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.7	0	-	-	0	-	-	0.6

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour

HCM 2010 TWSC
22: Maud Street & East Main Street

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	470	10	10	550	10	20
Future Vol, veh/h	470	10	10	550	10	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	89	89	53	53
Heavy Vehicles, %	5	0	0	6	0	0
Mvmt Flow	568	12	12	680	21	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	580	0	1278	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	704	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1004	-	185	522
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1004	-	181	522
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	494	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	321	-	-	1004	-
HCM Lane V/C Ratio	0.194	-	-	0.012	-
HCM Control Delay (s)	18.9	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection Operations Analysis Worksheets

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	480	560	0	0	10
Future Vol, veh/h	10	480	560	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	89	89	42	42
Heavy Vehicles, %	0	5	6	0	0	0
Mvmt Flow	12	580	692	0	0	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	692	0	-	0	1296	692
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	604	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	912	-	-	-	181	447
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	912	-	-	-	178	447
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	491	-
Stage 2	-	-	-	-	550	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	912	-	-	-	447
HCM Lane V/C Ratio	0.013	-	-	-	0.059
HCM Control Delay (s)	9	0	-	-	13.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	490	20	60	390	10	80
Future Vol, veh/h	490	20	60	390	10	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	88	88	92	92
Heavy Vehicles, %	9	0	0	4	0	3
Mvmt Flow	599	24	75	488	12	96

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	623	0	1005	312
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	394	-
Critical Hdwy	-	-	4.1	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	968	-	241	681
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	656	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	968	-	215	681
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	656	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	681	-	-	968	-
HCM Lane V/C Ratio	0.14	-	-	0.077	-
HCM Control Delay (s)	11.1	-	-	9	0.4
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.3	-

Intersection Operations Analysis Worksheets

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	550	120	60	450	10	10	10	70	0	10	10
Future Vol, veh/h	10	550	120	60	450	10	10	10	70	0	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	93	93	93	65	65	65	75	75	75
Heavy Vehicles, %	14	4	2	2	2	0	11	0	5	0	0	20
Mvmt Flow	11	611	133	71	532	12	17	17	118	0	15	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	544	0	0	611	0	0	1049	1319	306	1016	1313	272
Stage 1	-	-	-	-	-	-	633	633	-	680	680	-
Stage 2	-	-	-	-	-	-	416	686	-	336	633	-
Critical Hdwy	4.38	-	-	4.14	-	-	7.72	6.5	7	7.5	6.5	7.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.72	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.72	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.34	-	-	2.22	-	-	3.61	4	3.35	3.5	4	3.5
Pot Cap-1 Maneuver	942	-	-	964	-	-	170	158	681	195	160	674
Stage 1	-	-	-	-	-	-	413	476	-	412	454	-
Stage 2	-	-	-	-	-	-	561	451	-	657	476	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	942	-	-	964	-	-	143	143	681	136	145	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	143	143	-	136	145	-
Stage 1	-	-	-	-	-	-	405	466	-	404	420	-
Stage 2	-	-	-	-	-	-	491	418	-	513	466	-

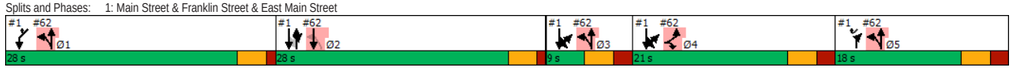
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	21.3	22.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	942	-	-	964	-	-	239
HCM Lane V/C Ratio	0.411	0.012	-	-	0.074	-	-	0.123
HCM Control Delay (s)	21.3	8.9	0.1	-	9	-	-	22.2
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	1.9	0	-	-	0.2	-	-	0.4

Lane Group	NBT	NBR	SBL2	SBL	SBT	SWL	SWR	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	350	440	230	60	310	390	300			
Future Volume (vph)	350	440	230	60	310	390	300			
Lane Group Flow (vph)	418	562	0	347	371	466	359			
Turn Type	NA	custom	D.P+P	D.P+P	NA	Prot	custom			
Protected Phases	2	2 5	3 4	3 4	2 3 4	1	1 5	3	4	5
Permitted Phases		2	2	2		1				
Detector Phase	2	2 5	3 4	3 4	2 3 4	1	1 5			
Switch Phase										
Minimum Initial (s)	5.0					5.0		5.0	5.0	5.0
Minimum Split (s)	20.0					9.0		21.0	21.0	21.0
Total Split (s)	28.0					28.0		9.0	21.0	18.0
Total Split (%)	26.9%					26.9%		9%	20%	17%
Yellow Time (s)	3.0					3.0		3.0	3.0	3.0
All-Red Time (s)	1.0					1.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0					0.0				
Total Lost Time (s)	4.0					4.0				
Lead/Lag	Lag					Lead		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min					Max		None	Max	None
v/c Ratio	0.52	0.87		0.61	0.20	0.58	0.27			
Control Delay	37.8	30.4		20.8	5.4	38.9	2.7			
Queue Delay	25.9	47.3		8.9	0.7	0.0	0.0			
Total Delay	63.7	77.7		29.7	6.1	38.9	2.7			
Queue Length 50th (ft)	128	128		113	28	142	0			
Queue Length 95th (ft)	177	#332		155	25	195	30			
Internal Link Dist (ft)	140				65	591				
Turn Bay Length (ft)						200	200			
Base Capacity (vph)	821	654		569	1821	797	1345			
Starvation Cap Reductn	407	140		184	1091	0	0			
Spillback Cap Reductn	355	0		0	0	0	83			
Storage Cap Reductn	0	0		0	0	0	0			
Reduced v/c Ratio	1.01	1.09		0.90	0.51	0.58	0.28			

Intersection Summary
Cycle Length: 104
Actuated Cycle Length: 103.3
Natural Cycle: 95
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Franklin Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
1: Main Street & Franklin Street & East Main Street

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	NWL	NWR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	350	440	30	230	60	310	0	0	390	300
Future Volume (vph)	350	440	30	230	60	310	0	0	390	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.0	4.0			4.0	4.0
Lane Util. Factor	0.95	1.00			1.00	0.95			0.97	0.88
Frt	1.00	0.85			1.00	1.00			1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00			0.95	1.00
Satd. Flow (prot)	3539	1583			1770	3539			3433	2787
Flt Permitted	1.00	1.00			0.35	1.00			0.95	1.00
Satd. Flow (perm)	3539	1583			656	3539			3433	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	418	526	36	275	72	371	0	0	466	359
RTOR Reduction (vph)	0	75	0	0	0	0	0	0	0	230
Lane Group Flow (vph)	418	487	0	0	347	371	0	0	466	129
Turn Type	NA	custom		D.P+P	D.P+P	NA			Prot	custom
Protected Phases	2	2 5		3 4	3 4	2 3 4			1	1 5
Permitted Phases		2		2	2					1
Actuated Green, G (s)	23.3	36.3			48.3	52.3			24.0	42.0
Effective Green, g (s)	23.3	36.3			48.3	47.3			24.0	37.0
Actuated g/C Ratio	0.23	0.35			0.47	0.46			0.23	0.36
Clearance Time (s)	4.0								4.0	
Vehicle Extension (s)	3.0								3.0	
Lane Grp Cap (vph)	798	556			576	1620			797	998
v/s Ratio Prot	0.12	c0.31			c0.15	0.10			c0.14	0.05
v/s Ratio Perm					0.14					
v/c Ratio	0.52	0.88			0.60	0.23			0.58	0.13
Uniform Delay, d1	35.1	31.4			25.0	17.0			35.2	22.3
Progression Factor	1.00	1.00			0.65	0.38			1.00	1.00
Incremental Delay, d2	0.6	14.5			1.6	0.1			3.1	0.1
Delay (s)	35.8	45.9			17.9	6.5			38.4	22.4
Level of Service	D	D			B	A			D	C
Approach Delay (s)	41.5					12.0	0.0		31.4	
Approach LOS	D					B	A		C	

Intersection Summary			
HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	103.3	Sum of lost time (s)	23.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

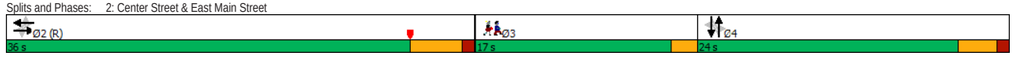
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
2: Center Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	30	620	10	650	40	0	10	10	
Future Volume (vph)	30	620	10	650	40	0	10	10	
Lane Group Flow (vph)	0	765	0	877	0	102	0	80	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	2	2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0	17.0
Total Split (s)	36.0	36.0	36.0	36.0	24.0	24.0	24.0	24.0	17.0
Total Split (%)	46.8%	46.8%	46.8%	46.8%	31.2%	31.2%	31.2%	31.2%	22%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0		5.0		4.0		4.0	
Lead/Lag					Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.53		0.58		0.49		0.39	
Control Delay		5.0		5.6		24.7		24.1	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		5.0		5.6		24.7		24.1	
Queue Length 50th (ft)		94		115		21		18	
Queue Length 95th (ft)		215		259		59		26	
Internal Link Dist (ft)		591		539		293		191	
Turn Bay Length (ft)									
Base Capacity (vph)	1448	1509		422		437			
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	0.53	0.58		0.24		0.18			

Intersection Summary
Cycle Length: 77
Actuated Cycle Length: 77
Offset: 38 (49%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 2: Center Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
2: Center Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	620	10	10	650	50	40	0	40	10	10	20
Future Volume (vph)	30	620	10	10	650	50	40	0	40	10	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.93	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1873			1864			1729			1750	
Flt Permitted		0.94			0.99			0.83			0.89	
Satd. Flow (perm)		1771			1846			1466			1573	
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.86	0.86	0.86	0.55	0.55	0.55
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	35	718	12	12	803	62	51	0	51	20	20	40
RTOR Reduction (vph)	0	0	0	0	1	0	0	52	0	0	36	0
Lane Group Flow (vph)	0	765	0	0	876	0	0	50	0	0	44	0
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		61.2			61.2			6.8			6.8	
Effective Green, g (s)		61.2			61.2			6.8			6.8	
Actuated g/C Ratio		0.79			0.79			0.09			0.09	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1407			1467			129			138	
v/s Ratio Prot												
v/s Ratio Perm		0.43			c0.47			c0.03			0.03	
v/c Ratio	0.54	0.60	0.39	0.32								
Uniform Delay, d1	2.9	3.1	33.1	32.9								
Progression Factor	1.00	1.00	1.00	1.00								
Incremental Delay, d2	1.5	1.8	0.7	0.5								
Delay (s)	4.4	4.9	33.8	33.4								
Level of Service	A	A	C	C								
Approach Delay (s)	4.4	4.9	33.8	33.4								
Approach LOS	A	A	C	C								

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	77.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

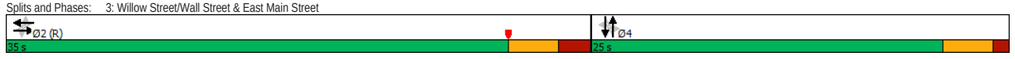
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
3: Willow Street/Wall Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	40	640	20	570	40	60	40	70
Future Volume (vph)	40	640	20	570	40	60	40	70
Lane Group Flow (vph)	0	855	0	730	0	196	0	247
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.78		0.65		0.55		0.63
Control Delay		17.8		9.7		21.5		23.8
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		17.8		9.7		21.5		23.8
Queue Length 50th (ft)		187		45		51		67
Queue Length 95th (ft)		#516		#412		74		78
Internal Link Dist (ft)		539		444		461		319
Turn Bay Length (ft)								
Base Capacity (vph)		1093		1129		530		584
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.78		0.65		0.37		0.42

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Willow Street/Wall Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
3: Willow Street/Wall Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	640	20	20	570	20	40	60	40	40	70	50
Future Volume (vph)	40	640	20	20	570	20	40	60	40	40	70	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.96			0.96	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1864			1867			1736			1797	
Flt Permitted		0.94			0.96			0.82			0.87	
Satd. Flow (perm)		1749			1804			1448			1590	
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.79	0.79	0.79	0.71	0.71	0.71
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	49	782	24	24	682	24	56	84	56	62	108	77
RTOR Reduction (vph)	0	1	0	0	2	0	0	29	0	0	33	0
Lane Group Flow (vph)	0	854	0	0	729	0	0	167	0	0	214	0
Heavy Vehicles (%)	6%	1%	0%	6%	1%	0%	7%	2%	3%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		37.5			37.5			13.5			13.5	
Effective Green, g (s)		37.5			37.5			13.5			13.5	
Actuated g/C Ratio		0.62			0.62			0.22			0.22	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1093			1127			325			357	
v/s Ratio Prot												
v/s Ratio Perm		c0.49			0.40			0.12			c0.13	
v/c Ratio	0.78	0.65	0.51	0.60								
Uniform Delay, d1	8.2	7.1	20.4	20.8								
Progression Factor	1.00	0.73	1.00	1.00								
Incremental Delay, d2	5.6	2.3	1.4	2.8								
Delay (s)	13.8	7.5	21.8	23.7								
Level of Service	B	A	C	C								
Approach Delay (s)	13.8	7.5	21.8	23.7								
Approach LOS	B	A	C	C								

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
4: Route 8 SB Ramp/Columbus Road & East Main Street

Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	590	210	530	100	280
Future Volume (vph)	590	210	530	100	280
Lane Group Flow (vph)	848	254	641	120	467
Turn Type	NA	D.P+P	NA	Perm	NA
Protected Phases	2	1	1 2		4
Permitted Phases		2		4	
Detector Phase	2	1	1 2	4	4
Switch Phase					
Minimum Initial (s)	20.0	5.0		7.0	7.0
Minimum Split (s)	25.0	8.0		12.0	12.0
Total Split (s)	26.0	8.0		26.0	26.0
Total Split (%)	43.3%	13.3%		43.3%	43.3%
Yellow Time (s)	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Min	Max		None	None
v/c Ratio	0.70	0.66	0.61	0.22	0.83
Control Delay	13.4	14.6	8.3	15.6	31.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	14.6	8.3	15.6	31.3
Queue Length 50th (ft)	112	17	193	30	136
Queue Length 95th (ft)	m108	m26	m233	62	#241
Internal Link Dist (ft)	612		423		285
Turn Bay Length (ft)		150			
Base Capacity (vph)	1242	384	1065	625	649
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	0.68	0.66	0.60	0.19	0.72

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 31 (52%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 8 SB Ramp/Columbus Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
4: Route 8 SB Ramp/Columbus Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	590	120	210	530	0	0	0	0	100	280	110
Future Volume (vph)	0	590	120	210	530	0	0	0	0	100	280	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		3.0	3.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	1.00					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.96	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3466		1752	1863					1787	1789	
Flt Permitted		1.00		0.20	1.00					0.95	1.00	
Satd. Flow (perm)		3466		376	1863					1787	1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	0	705	143	254	641	0	0	0	0	120	335	132
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	25	0
Lane Group Flow (vph)	0	819	0	254	641	0	0	0	0	120	442	0
Heavy Vehicles (%)	0%	1%	4%	3%	2%	0%	2%	2%	2%	1%	2%	1%
Turn Type		NA		D.P+P	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		20.6		28.9	31.9					18.1	18.1	
Effective Green, g (s)		20.6		28.9	31.9					18.1	18.1	
Actuated g/C Ratio		0.34		0.48	0.53					0.30	0.30	
Clearance Time (s)		5.0		3.0						5.0	5.0	
Vehicle Extension (s)		2.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1189		371	990					539	539	
v/s Ratio Prot		0.24		0.09	c0.34						c0.25	
v/s Ratio Perm				0.23						0.07		
v/c Ratio		0.69		0.68	0.65					0.22	0.82	
Uniform Delay, d1		16.9		10.3	10.0					15.7	19.4	
Progression Factor		0.68		0.67	0.75					1.00	1.00	
Incremental Delay, d2		2.3		3.0	1.0					0.1	9.0	
Delay (s)		13.8		9.9	8.5					15.8	28.4	
Level of Service		B		A	A					B	C	
Approach Delay (s)		13.8			8.9		0.0				25.8	
Approach LOS		B			A		A				C	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	110	580	650	250	390
Future Volume (vph)	110	580	650	250	390
Lane Group Flow (vph)	133	701	793	402	461
Turn Type	D.P+P	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		26.0	23.0	23.0
Total Split (%)	18.3%		43.3%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.37	0.32	1.07	0.45	0.81
Control Delay	7.5	7.0	79.1	19.8	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	7.0	79.1	19.8	22.8
Queue Length 50th (ft)	28	116	~365	60	73
Queue Length 95th (ft)	m34	157	#561	93	#207
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	363	2168	738	1047	631
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	0.37	0.32	1.07	0.38	0.73

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	580	0	0	650	20	90	250	390	0	0	0
Future Volume (vph)	110	580	0	0	650	20	90	250	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			1.00			0.95	1.00			
Frt	1.00	1.00			1.00			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.99	1.00			
Satd. Flow (prot)	1736	3610			1870			3493	1599			
Flt Permitted	0.17	1.00			1.00			0.99	1.00			
Satd. Flow (perm)	310	3610			1870			3493	1599			
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	133	701	0	0	769	24	106	296	461	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	161	0	0	0
Lane Group Flow (vph)	133	701	0	0	791	0	0	402	300	0	0	0
Heavy Vehicles (%)	4%	0%	0%	0%	1%	7%	2%	2%	1%	2%	2%	2%
Turn Type	D.P+P	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	31.6	34.6			23.6			15.4	15.4			
Effective Green, g (s)	31.6	34.6			23.6			15.4	15.4			
Actuated g/C Ratio	0.53	0.58			0.39			0.26	0.26			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	353	2081			735			896	410			
v/s Ratio Prot	c0.05	0.19			c0.42							
v/s Ratio Perm	0.15							0.12	c0.19			
v/c Ratio	0.38	0.34			1.08			0.45	0.73			
Uniform Delay, d1	10.7	6.7			18.2			18.7	20.4			
Progression Factor	0.83	1.05			1.00			1.00	1.00			
Incremental Delay, d2	0.5	0.1			55.7			0.4	6.6			
Delay (s)	9.4	7.1			73.9			19.1	27.0			
Level of Service	A	A			E			B	C			
Approach Delay (s)		7.5			73.9			23.3			0.0	
Approach LOS		A			E			C			A	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

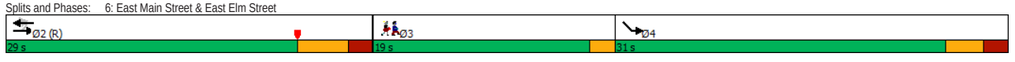
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	WBR	SEL	Ø3
Lane Configurations						
Traffic Volume (vph)	10	230	640	490	490	
Future Volume (vph)	10	230	640	490	490	
Lane Group Flow (vph)	0	284	726	556	585	
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	3
Permitted Phases	2			2		
Detector Phase	2	2	2	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	19.0
Total Split (s)	29.0	29.0	29.0	29.0	31.0	19.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	39.2%	24%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	5.0	
Lead/Lag					Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.19	0.86	0.53	0.81	
Control Delay		13.1	31.7	3.5	31.5	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		13.1	31.7	3.5	31.5	
Queue Length 50th (ft)		41	309	0	246	
Queue Length 95th (ft)		69	#557	55	358	
Internal Link Dist (ft)		160	602		27	
Turn Bay Length (ft)				300		
Base Capacity (vph)		1523	849	1048	719	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.19	0.86	0.53	0.81	

Intersection Summary
Cycle Length: 79
Actuated Cycle Length: 79
Offset: 32 (41%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: East Main Street & East Elm Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	10	230	640	490	490	10
Future Volume (vph)	10	230	640	490	490	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0	6.0	5.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3568	1801	1599	1848	
Flt Permitted		0.90	1.00	1.00	0.95	
Satd. Flow (perm)		3229	1801	1599	1848	
Peak-hour factor, PHF	0.93	0.93	0.97	0.97	0.94	0.94
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	272	726	556	573	12
RTOR Reduction (vph)	0	0	0	293	1	0
Lane Group Flow (vph)	0	284	726	263	584	0
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		37.3	37.3	37.3	30.7	
Effective Green, g (s)		37.3	37.3	37.3	30.7	
Actuated g/C Ratio	0.47	0.47	0.47	0.47	0.39	
Clearance Time (s)	6.0	6.0	6.0	6.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1524	850	754	718		
v/s Ratio Prot		c0.40			c0.32	
v/s Ratio Perm	0.09			0.16		
v/c Ratio	0.19	0.85	0.35	0.81		
Uniform Delay, d1	12.1	18.4	13.2	21.6		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.3	10.7	1.3	7.0		
Delay (s)	12.3	29.1	14.4	28.6		
Level of Service	B	C	B	C		
Approach Delay (s)	12.3	22.7		28.6		
Approach LOS	B	C		C		

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

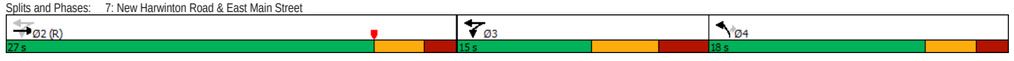
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	870	10	800	340	40
Future Volume (vph)	870	10	800	340	40
Lane Group Flow (vph)	1470	0	938	416	49
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	2	3	3	4	
Permitted Phases		2	2		4
Detector Phase	2	3	3	4	4
Switch Phase					
Minimum Initial (s)	15.0	8.0	8.0	7.0	7.0
Minimum Split (s)	20.0	15.0	15.0	12.0	12.0
Total Split (s)	27.0	15.0	15.0	18.0	18.0
Total Split (%)	45.0%	25.0%	25.0%	30.0%	30.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0		7.0	5.0	5.0
Lead/Lag		Lead	Lead	Lag	Lag
Lead-Lag Optimize?					
Recall Mode	C-Max	None	None	None	None
v/c Ratio	1.10		1.37	1.07	0.14
Control Delay	76.3		194.0	94.7	10.2
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	76.3		194.0	94.7	10.2
Queue Length 50th (ft)	~310		~347	~173	3
Queue Length 95th (ft)	#434		#697	#323	26
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1338		683	387	359
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	1.10		1.37	1.07	0.14

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 22 (37%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ 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: 7: New Harwinton Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	870	400	10	800	340	40
Future Volume (vph)	870	400	10	800	340	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			7.0	5.0	5.0
Lane Util. Factor	0.95			1.00	1.00	1.00
Frt	0.95			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3405			1899	1787	1524
Flt Permitted	1.00			0.68	0.95	1.00
Satd. Flow (perm)	3405			1291	1787	1524
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.90	0.90
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	1007	463	12	926	416	49
RTOR Reduction (vph)	89	0	0	0	0	30
Lane Group Flow (vph)	1381	0	0	938	416	19
Heavy Vehicles (%)	1%	1%	1%	0%	1%	6%
Turn Type	NA		D.P+P	NA	Prot	Perm
Protected Phases	2		3	3	4	
Permitted Phases			2	2		4
Actuated Green, G (s)	22.0			30.0	13.0	13.0
Effective Green, g (s)	22.0			30.0	13.0	13.0
Actuated g/C Ratio	0.37			0.50	0.22	0.22
Clearance Time (s)	5.0			7.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1248			726	387	330
v/s Ratio Prot	0.41			c0.17	c0.23	
v/s Ratio Perm				c0.47		0.01
v/c Ratio	1.11			1.29	1.07	0.06
Uniform Delay, d1	19.0			15.0	23.5	18.6
Progression Factor	1.00			1.06	1.00	1.00
Incremental Delay, d2	59.8			138.8	67.2	0.1
Delay (s)	78.8			154.8	90.7	18.7
Level of Service	E			F	F	B
Approach Delay (s)	78.8			154.8	83.1	
Approach LOS	E			F	F	

Intersection Summary			
HCM 2000 Control Delay	104.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
8: East Main Street & Charles Street

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	50	860	10	790	10	40	10
Future Volume (vph)	50	860	10	790	10	40	10
Lane Group Flow (vph)	0	1088	0	995	32	0	106
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		2		2	4		4
Permitted Phases	2		2			4	
Detector Phase	2	2	2	2	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	9.0	9.0	9.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.0		4.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None
v/c Ratio		0.48		0.71	0.13		0.44
Control Delay		1.2		10.3	15.6		20.4
Queue Delay		0.0		0.0	0.0		0.0
Total Delay		1.2		10.3	15.6		20.4
Queue Length 50th (ft)		7		194	5		20
Queue Length 95th (ft)		m8		#540	16		55
Internal Link Dist (ft)		809		1163	282		598
Turn Bay Length (ft)							
Base Capacity (vph)	2256		1395		454	406	
Starvation Cap Reductn	0		0		0	0	
Spillback Cap Reductn	0		0		0	0	
Storage Cap Reductn	0		0		0	0	
Reduced v/c Ratio	0.48		0.71		0.07	0.26	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 41 (68%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: East Main Street & Charles Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
8: East Main Street & Charles Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	860	0	10	790	50	0	10	10	40	10	40
Future Volume (vph)	50	860	0	10	790	50	0	10	10	40	10	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	12	12	12	12	12	15	12	15
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			0.99			0.93			0.94	
Flt Protected		1.00			1.00			1.00			0.98	
Satd. Flow (prot)		3447			1849			1772			1725	
Flt Permitted		0.85			0.99			1.00			0.84	
Satd. Flow (perm)		2953			1824			1772			1484	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.67	0.67	0.67	0.93	0.93	0.93
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	60	1028	0	12	924	59	0	16	16	47	12	47
RTOR Reduction (vph)	0	0	0	0	2	0	0	14	0	0	42	0
Lane Group Flow (vph)	0	1088	0	0	993	0	0	18	0	0	64	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	0%	3%
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.1			44.1			6.9			6.9	
Effective Green, g (s)		44.1			44.1			6.9			6.9	
Actuated g/C Ratio		0.74			0.74			0.12			0.12	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2170			1340			203			170	
v/s Ratio Prot								0.01				
v/s Ratio Perm	0.37			c0.54							c0.04	
v/c Ratio	0.50			0.74			0.09			0.38		
Uniform Delay, d1	3.3			4.6			23.7			24.6		
Progression Factor	0.29			1.12			1.00			1.00		
Incremental Delay, d2	0.1			3.0			0.2			1.4		
Delay (s)	1.0			8.2			23.9			26.0		
Level of Service	A			A			C			C		
Approach Delay (s)	1.0			8.2			23.9			26.0		
Approach LOS	A			A			C			C		

Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
9: Orchard Street & East Main Street

Lane Group	EBT	WBT	NBL
Lane Configurations			
Traffic Volume (vph)	940	810	10
Future Volume (vph)	940	810	10
Lane Group Flow (vph)	1100	1013	44
Turn Type	NA	NA	Prot
Protected Phases	2	2	4
Permitted Phases			
Detector Phase	2	2	4
Switch Phase			
Minimum Initial (s)	20.0	20.0	7.0
Minimum Split (s)	25.0	25.0	11.0
Total Split (s)	41.0	41.0	19.0
Total Split (%)	68.3%	68.3%	31.7%
Yellow Time (s)	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.35	0.61	0.19
Control Delay	0.7	7.5	17.4
Queue Delay	0.0	0.0	0.0
Total Delay	0.7	7.5	17.4
Queue Length 50th (ft)	0	0	7
Queue Length 95th (ft)	26	450	14
Internal Link Dist (ft)	1163	1187	575
Turn Bay Length (ft)			
Base Capacity (vph)	3164	1671	448
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.35	0.61	0.10

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: Orchard Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
9: Orchard Street & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	940	10	0	810	10	10
Future Volume (vph)	940	10	0	810	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	4.0	
Lane Util. Factor	0.95			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3563			1881	1729	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	3563			1881	1729	
Peak-hour factor, PHF	0.95	0.95	0.88	0.88	0.50	0.50
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	1088	12	0	1012	22	22
RTOR Reduction (vph)	1	0	0	0	21	0
Lane Group Flow (vph)	1099	0	0	1013	23	0
Heavy Vehicles (%)	1%	14%	0%	1%	0%	0%
Turn Type	NA			NA	Prot	
Protected Phases	2			2	4	
Permitted Phases			2			
Actuated Green, G (s)	47.9			47.9	3.1	
Effective Green, g (s)	47.9			47.9	3.1	
Actuated g/C Ratio	0.80			0.80	0.05	
Clearance Time (s)	5.0			5.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2844			1501	89	
v/s Ratio Prot	0.31			c0.54	c0.01	
v/s Ratio Perm						
v/c Ratio	0.39			0.67	0.26	
Uniform Delay, d1	1.8			2.6	27.3	
Progression Factor	0.23			1.84	1.00	
Incremental Delay, d2	0.4			1.6	1.6	
Delay (s)	0.8			6.4	28.9	
Level of Service	A			A	C	
Approach Delay (s)	0.8			6.4	28.9	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	4.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
10: Pineridge Road/Yorkshire Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	890	30	780	30	10	30	10
Future Volume (vph)	10	890	30	780	30	10	30	10
Lane Group Flow (vph)	0	1076	0	1049	0	98	0	97
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio	0.43	0.79	0.38	0.39				
Control Delay	10.5	13.4	17.4	21.2				
Queue Delay	0.0	0.0	0.0	0.0				
Total Delay	10.5	13.4	17.4	21.2				
Queue Length 50th (ft)	198	198	16	22				
Queue Length 95th (ft)	218	#545	50	38				
Internal Link Dist (ft)	1187	1137	621	153				
Turn Bay Length (ft)								
Base Capacity (vph)	2529	1336	415	405				
Starvation Cap Reductn	0	0	0	0				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.43	0.79	0.24	0.24				

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 13 (22%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Pineridge Road/Yorkshire Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
10: Pineridge Road/Yorkshire Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	890	20	30	780	20	30	10	40	30	10	20
Future Volume (vph)	10	890	20	30	780	20	30	10	40	30	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.93			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3528			1873			1697			1771	
Flt Permitted		0.94			0.94			0.88			0.84	
Satd. Flow (perm)		3329			1760			1516			1525	
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.90	0.90	0.90	0.68	0.68	0.68
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	1041	23	38	986	25	37	12	49	49	16	32
RTOR Reduction (vph)	0	2	0	0	1	0	0	43	0	0	28	0
Lane Group Flow (vph)	0	1074	0	0	1048	0	0	55	0	0	69	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	0%	20%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		43.7			43.7			7.3			7.3	
Effective Green, g (s)		43.7			43.7			7.3			7.3	
Actuated g/C Ratio		0.73			0.73			0.12			0.12	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2424			1281			184			185	
v/s Ratio Prot												
v/s Ratio Perm		0.32			c0.60			0.04			c0.05	
v/c Ratio		0.44			0.82			0.30			0.37	
Uniform Delay, d1		3.3			5.5			24.0			24.2	
Progression Factor		2.62			1.00			1.00			1.00	
Incremental Delay, d2		0.6			5.9			0.9			1.3	
Delay (s)		9.1			11.4			24.9			25.5	
Level of Service		A			B			C			C	
Approach Delay (s)		9.1			11.4			24.9			25.5	
Approach LOS		A			B			C			C	

Intersection Summary				
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.75			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0	
Intersection Capacity Utilization	86.6%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
11: Buena Vista Avenue/Koury Terrace & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	930	20	770	50	10	20	10	
Future Volume (vph)	10	930	20	770	50	10	20	10	
Lane Group Flow (vph)	0	1160	0	989	0	131	0	100	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2	1 2	2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		20.0	20.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0		25.0	25.0	11.0	11.0	11.0	11.0	15.0
Total Split (s)	8.0		35.0	35.0	17.0	17.0	17.0	17.0	15.0
Total Split (%)	10.7%		46.7%	46.7%	22.7%	22.7%	22.7%	22.7%	20%
Yellow Time (s)	3.0		4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				0.0		0.0		0.0	
Total Lost Time (s)				5.0		4.0		4.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Max	C-Max	None	None	None	None	None
v/c Ratio	0.47		0.87	0.87	0.62	0.39			
Control Delay	4.7		23.5	37.8	20.5				
Queue Delay	0.0		0.0	0.0	0.0				
Total Delay	4.7		23.5	37.8	20.5				
Queue Length 50th (ft)	76		339	49	21				
Queue Length 95th (ft)	116		#656	68	38				
Internal Link Dist (ft)	1137		669	275	202				
Turn Bay Length (ft)									
Base Capacity (vph)	2456		1132	257	305				
Starvation Cap Reductn	0		0	0	0				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.47		0.87	0.51	0.33				

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 8 (11%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Buena Vista Avenue/Koury Terrace & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
11: Buena Vista Avenue/Koury Terrace & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	930	30	20	770	10	50	10	20	20	10	30
Future Volume (vph)	10	930	30	20	770	10	50	10	20	20	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.93	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		3553			1874			1780			1700	
Flt Permitted		0.95			0.95			0.76			0.88	
Satd. Flow (perm)		3368			1792			1388			1523	
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.67	0.67	0.67	0.66	0.66	0.66
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	1112	36	25	952	12	82	16	33	33	17	50
RTOR Reduction (vph)	0	2	0	0	0	0	0	17	0	0	43	0
Lane Group Flow (vph)	0	1158	0	0	989	0	0	114	0	0	57	0
Heavy Vehicles (%)	0%	1%	4%	0%	1%	10%	0%	0%	0%	0%	0%	5%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2	1 2		2			4			4		
Actuated Green, G (s)		52.4			47.4			10.6			10.6	
Effective Green, g (s)		52.4			47.4			10.6			10.6	
Actuated g/C Ratio		0.70			0.63			0.14			0.14	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)		2365			1132			196			215	
v/s Ratio Prot		c0.03										
v/s Ratio Perm	0.31			c0.55			c0.08			0.04		
v/c Ratio	0.49	0.87		0.58	0.27							
Uniform Delay, d1	5.2	11.3		30.1	28.7							
Progression Factor	1.00	1.00		1.00	1.00							
Incremental Delay, d2	0.7	9.4		4.3	0.7							
Delay (s)	5.9	20.7		34.4	29.4							
Level of Service	A	C		C	C							
Approach Delay (s)	5.9	20.7		34.4	29.4							
Approach LOS	A	C		C	C							

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

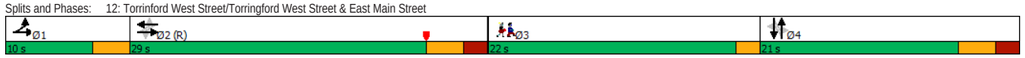
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
12: Torrinford West Street/Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	60	720	40	600	80	140	40	180	
Future Volume (vph)	60	720	40	600	80	140	40	180	
Lane Group Flow (vph)	0	1018	48	749	97	266	0	351	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	21.0	21.0	21.0	21.0	22.0
Total Split (%)	12.2%		35.4%	35.4%	25.6%	25.6%	25.6%	25.6%	27%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)			5.0	5.0	5.0	5.0		5.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Min	C-Min	None	None	None	None	None
v/c Ratio		0.53	0.16	0.71	1.04	0.72		1.48	
Control Delay		6.6	10.4	17.9	143.6	39.6		265.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay		6.6	10.4	17.9	143.6	39.6		265.2	
Queue Length 50th (ft)		92	11	260	~55	114		~247	
Queue Length 95th (ft)		122	30	394	#149	#219		#413	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100				
Base Capacity (vph)	1934	300	1051	93	371	237			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.53	0.16	0.71	1.04	0.72	1.48			

Intersection Summary
Cycle Length: 82
Actuated Cycle Length: 82
Offset: 28 (34%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ 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: 12: Torrinford West Street/Torringford West Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torrinford West Street/Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	720	80	40	600	20	80	140	80	40	180	70
Future Volume (vph)	60	720	80	40	600	20	80	140	80	40	180	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00			1.00	
Frt		0.99		1.00	1.00		1.00	0.95			0.97	
Flt Protected		1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		3518		1805	1873		1805	1777			1817	
Flt Permitted		0.79		0.28	1.00		0.25	1.00			0.63	
Satd. Flow (perm)		2780		535	1873		477	1777			1147	
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	71	852	95	48	725	24	97	169	97	48	218	85
RTOR Reduction (vph)	0	6	0	0	1	0	0	25	0	0	14	0
Lane Group Flow (vph)	0	1012	0	48	748	0	97	241	0	0	337	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	3%	0%	0%	2%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Effective Green, g (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Actuated g/C Ratio		0.65		0.56	0.56		0.20	0.20			0.20	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1859		300	1050		93	346			223	
v/s Ratio Prot		c0.05			c0.40			0.14				
v/s Ratio Perm		0.31		0.09			0.20				c0.29	
v/c Ratio		0.54		0.16	0.71		1.04	0.70			1.51	
Uniform Delay, d1		7.9		8.7	13.2		33.0	30.7			33.0	
Progression Factor		1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		1.2		1.1	4.1		105.5	6.0			252.4	
Delay (s)		9.1		9.8	17.3		138.5	36.7			285.4	
Level of Service		A		A	B		F	D			F	
Approach Delay (s)		9.1			16.8			63.9			285.4	
Approach LOS		A			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	57.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	109.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

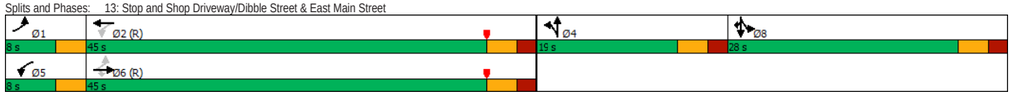
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
13: Stop and Shop Driveway/Dibble Street & East Main Street

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	640	170	40	660	120	90	310	100	10
Future Volume (vph)	40	640	170	40	660	120	90	310	100	10
Lane Group Flow (vph)	47	749	199	46	1226	148	148	281	290	14
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Split	NA	Split	NA	Prot
Protected Phases	1	6		5	2	4	4	8	8	8
Permitted Phases	6		6	2						
Detector Phase	1	6	6	5	2	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	5.0	5.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0	10.0	13.0	13.0	13.0
Total Split (s)	8.0	45.0	45.0	8.0	45.0	19.0	19.0	28.0	28.0	28.0
Total Split (%)	8.0%	45.0%	45.0%	8.0%	45.0%	19.0%	19.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead-Lag Optimize?										
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
v/c Ratio	0.25	0.45	0.23	0.13	0.71	0.70	0.66	0.82	0.83	0.03
Control Delay	15.7	19.9	4.6	13.1	22.2	60.3	52.0	58.0	58.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	19.9	4.6	13.1	22.2	60.3	52.0	58.0	58.7	0.2
Queue Length 50th (ft)	14	179	6	14	307	91	82	177	183	0
Queue Length 95th (ft)	34	246	50	33	419	153	143	229	236	0
Internal Link Dist (ft)		2541			805		375		773	
Turn Bay Length (ft)	125		125	125				200		50
Base Capacity (vph)	186	1680	852	360	1725	252	267	394	402	455
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.45	0.23	0.13	0.71	0.59	0.55	0.71	0.72	0.03

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 13: Stop and Shop Driveway/Dibble Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
13: Stop and Shop Driveway/Dibble Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	640	170	40	660	410	120	90	30	310	100	10
Future Volume (vph)	40	640	170	40	660	410	120	90	30	310	100	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1745	3455	1561	1805	3382		1805	1829		1715	1751	1615
Flt Permitted	0.11	1.00	1.00	0.29	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	204	3455	1561	554	3382		1805	1829		1715	1751	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.96	0.96	0.96	0.89	0.89	0.89	0.79	0.79	0.79
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	47	749	199	46	756	470	148	111	37	432	139	14
RTOR Reduction (vph)	0	0	96	0	85	0	0	12	0	0	0	11
Lane Group Flow (vph)	47	749	103	46	1141	0	148	136	0	281	290	3
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	Prot
Protected Phases	1	6		5	2		4	4		8	8	8
Permitted Phases	6		6	2								
Actuated Green, G (s)	50.4	47.4	47.4	50.4	47.4		11.7	11.7		19.9	19.9	19.9
Effective Green, g (s)	50.4	47.4	47.4	50.4	47.4		11.7	11.7		19.9	19.9	19.9
Actuated g/C Ratio	0.50	0.47	0.47	0.50	0.47		0.12	0.12		0.20	0.20	0.20
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	149	1637	739	316	1603		211	213		341	348	321
v/s Ratio Prot	c0.01	0.22		0.00	c0.34		c0.08	0.07		0.16	c0.17	0.00
v/s Ratio Perm	0.15		0.07	0.07								
v/c Ratio	0.32	0.46	0.14	0.15	0.71		0.70	0.64		0.82	0.83	0.01
Uniform Delay, d1	16.0	17.7	14.8	13.1	20.9		42.5	42.1		38.4	38.5	32.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.9	0.4	0.1	2.7		8.3	4.5		14.2	15.0	0.0
Delay (s)	16.4	18.6	15.2	13.2	23.6		50.8	46.6		52.5	53.4	32.1
Level of Service	B	B	B	B	C		D	D		D	D	C
Approach Delay (s)		17.8			23.2			48.7			52.5	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

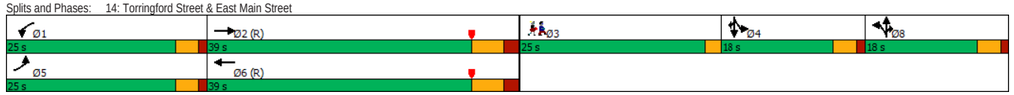
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
14: Torringford Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	140	830	120	740	200	190	70	160	150	150	
Future Volume (vph)	140	830	120	740	200	190	70	160	150	150	
Lane Group Flow (vph)	177	1100	139	996	268	255	94	205	192	192	
Turn Type	Prot	NA	Prot	NA	Split	NA	Prot	Split	NA	Prot	
Protected Phases	5	2	1	6	8	8	8	4	4	4	3
Permitted Phases											
Detector Phase	5	2	1	6	8	8	8	4	4	4	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0
Total Split (s)	25.0	39.0	25.0	39.0	18.0	18.0	18.0	18.0	18.0	18.0	25.0
Total Split (%)	20.0%	31.2%	20.0%	31.2%	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%	20%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lag				Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None
v/c Ratio	0.76	0.93	0.68	0.90	0.35	0.61	0.21	0.62	0.55	0.43	
Control Delay	72.3	54.3	70.0	53.0	42.9	51.1	5.9	55.2	52.1	8.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.3	54.3	70.0	53.0	42.9	51.1	5.9	55.2	52.1	8.7	
Queue Length 50th (ft)	140	443	110	397	95	188	0	154	142	0	
Queue Length 95th (ft)	203	#633	172	#601	125	254	23	218	203	53	
Internal Link Dist (ft)		805		413		1058			877		
Turn Bay Length (ft)	450						125	175		175	
Base Capacity (vph)	303	1187	313	1105	757	420	441	330	348	451	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.58	0.93	0.44	0.90	0.35	0.61	0.21	0.62	0.55	0.43	

Intersection Summary
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 37 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Torringford Street & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
14: Torringford Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	830	40	120	740	120	200	190	70	160	150	150
Future Volume (vph)	140	830	40	120	740	120	200	190	70	160	150	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	13	12	12	11	12	12	11	11	11
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3551		1865	3499		3385	1881	1583	1745	1837	1561
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	3551		1865	3499		3385	1881	1583	1745	1837	1561
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.82	0.82	0.82	0.86	0.86	0.86
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	177	1049	51	139	857	139	268	255	94	205	192	192
RTOR Reduction (vph)	0	3	0	0	10	0	0	0	73	0	0	156
Lane Group Flow (vph)	177	1097	0	139	986	0	268	255	21	205	192	36
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	2%	0%	0%	0%
Turn Type	Prot	NA		Prot	NA		Split	NA	Prot	Split	NA	Prot
Protected Phases	5	2		1	6		8	8	8	4	4	4
Permitted Phases												
Actuated Green, G (s)	16.2	41.6		13.7	39.1		28.0	28.0	28.0	23.7	23.7	23.7
Effective Green, g (s)	16.2	41.6		13.7	39.1		28.0	28.0	28.0	23.7	23.7	23.7
Actuated g/C Ratio	0.13	0.33		0.11	0.31		0.22	0.22	0.22	0.19	0.19	0.19
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	233	1181		204	1094		758	421	354	330	348	295
v/s Ratio Prot	c0.10	c0.31		0.07	0.28		0.08	c0.14	0.01	c0.12	0.10	0.02
v/s Ratio Perm												
v/c Ratio	0.76	0.93		0.68	0.90		0.35	0.61	0.06	0.62	0.55	0.12
Uniform Delay, d1	52.5	40.3		53.5	41.1		40.9	43.5	38.1	46.5	45.8	42.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.9	13.9		7.3	11.9		0.1	1.7	0.0	2.6	1.1	0.1
Delay (s)	64.4	54.2		60.8	53.0		41.0	45.2	38.2	49.1	46.9	42.1
Level of Service	E	D		E	D		D	D	D	D	D	D
Approach Delay (s)		55.6			54.0			42.3			46.1	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

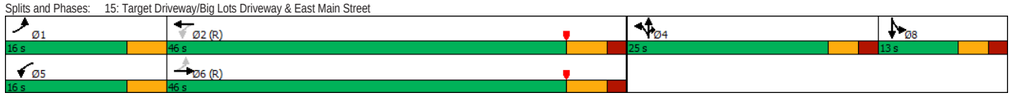
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
15: Target Driveway/Big Lots Driveway & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	60	610	60	770	200	10	60	0
Future Volume (vph)	60	610	60	770	200	10	60	0
Lane Group Flow (vph)	77	997	71	958	128	131	74	76
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Prot	NA
Protected Phases	1	6	5	2	4	4	4	8
Permitted Phases	6		2					
Detector Phase	1	6	5	2	4	4	4	8
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	5.0	5.0	8.0
Minimum Split (s)	9.0	21.0	9.0	21.0	10.0	10.0	10.0	13.0
Total Split (s)	16.0	46.0	16.0	46.0	25.0	25.0	25.0	13.0
Total Split (%)	16.0%	46.0%	16.0%	46.0%	25.0%	25.0%	25.0%	13.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.20	0.49	0.20	0.46	0.63	0.64	0.24	0.20
Control Delay	8.2	14.9	8.3	15.1	55.1	55.5	2.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	14.9	8.3	15.1	55.1	55.5	2.7	1.2
Queue Length 50th (ft)	16	194	14	191	83	85	0	0
Queue Length 95th (ft)	35	273	35	285	137	140	6	0
Internal Link Dist (ft)		599		825		361		225
Turn Bay Length (ft)	200		300		200		200	
Base Capacity (vph)	474	2032	461	2064	336	339	427	375
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.49	0.15	0.46	0.38	0.39	0.17	0.20

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 15: Target Driveway/Big Lots Driveway & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
15: Target Driveway/Big Lots Driveway & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	610	170	60	770	40	200	10	60	0	0	60
Future Volume (vph)	60	610	170	60	770	40	200	10	60	0	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	0.97		1.00	0.99		1.00	1.00	0.85		0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (prot)	1805	3458		1805	3545		1681	1696	1615		1583	
Flt Permitted	0.24	1.00		0.23	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	455	3458		433	3545		1681	1696	1615		1583	
Peak-hour factor, PHF	0.86	0.86	0.86	0.93	0.93	0.93	0.89	0.89	0.89	0.87	0.87	0.87
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	77	780	217	71	911	47	247	12	74	0	0	76
RTOR Reduction (vph)	0	18	0	0	3	0	0	0	65	0	71	0
Lane Group Flow (vph)	77	979	0	71	955	0	128	131	9	0	5	0
Heavy Vehicles (%)	0%	1%	1%	0%	1%	3%	2%	0%	0%	0%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	Prot	Split	NA	
Protected Phases	1	6		5	2		4	4	4	8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	61.7	56.5		61.3	56.3		12.1	12.1	12.1		6.4	
Effective Green, g (s)	61.7	56.5		61.3	56.3		12.1	12.1	12.1		6.4	
Actuated g/C Ratio	0.62	0.56		0.61	0.56		0.12	0.12	0.12		0.06	
Clearance Time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0		5.0	
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	350	1953		334	1995		203	205	195		101	
v/s Ratio Prot	c0.01	c0.28		0.01	0.27		0.08	c0.08	0.01		c0.00	
v/s Ratio Perm	0.12			0.12								
v/c Ratio	0.22	0.50		0.21	0.48		0.63	0.64	0.05		0.05	
Uniform Delay, d1	8.4	13.2		8.6	13.1		41.8	41.9	38.8		43.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.1	0.9		0.1	0.8		4.6	4.7	0.0		0.1	
Delay (s)	8.5	14.1		8.7	13.9		46.4	46.6	38.9		44.0	
Level of Service	A	B		A	B		D	D	D		D	
Approach Delay (s)		13.7			13.5			44.8			44.0	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM 2010 TWSC
18: Hillside Avenue & East Main Street

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	970	50	10	630	10	10	10	0	0	10	30
Future Vol, veh/h	20	970	50	10	630	10	10	10	0	0	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	79	79	79	70	70	70
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	0	4
Mvmt Flow	24	1160	60	12	753	12	14	14	0	0	16	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	1220	0	0	1647	2027	610	1418	2051	383
Stage 1	-	-	-	-	-	-	1238	1238	-	783	783	-
Stage 2	-	-	-	-	-	-	409	789	-	635	1268	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.34
Pot Cap-1 Maneuver	857	-	-	579	-	-	67	58	442	99	56	609
Stage 1	-	-	-	-	-	-	189	250	-	357	407	-
Stage 2	-	-	-	-	-	-	596	405	-	438	242	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	857	-	-	579	-	-	42	51	442	71	49	609
Mov Cap-2 Maneuver	-	-	-	-	-	-	42	51	-	71	49	-
Stage 1	-	-	-	-	-	-	172	228	-	325	392	-
Stage 2	-	-	-	-	-	-	509	390	-	375	220	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	165.4	42.1
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	46	857	-	-	579	-	-	158
HCM Lane V/C Ratio	0.605	0.028	-	-	0.021	-	-	0.398
HCM Control Delay (s)	165.4	9.3	0.4	-	11.3	-	-	42.1
HCM Lane LOS	F	A	A	-	B	-	-	E
HCM 95th %tile Q(veh)	2.3	0.1	-	-	0.1	-	-	1.7

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM 2010 TWSC
22: Maud Street & East Main Street

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	700	10	10	630	10	10
Future Vol, veh/h	700	10	10	630	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	94	94	81	81
Heavy Vehicles, %	1	0	2	0	0	0
Mvmt Flow	856	12	12	737	14	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	868	0	1623	862
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	761	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	776	-	114	358
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	465	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	776	-	111	358
Mov Cap-2 Maneuver	-	-	-	-	111	-
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	465	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	30.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	169	-	-	776	-
HCM Lane V/C Ratio	0.161	-	-	0.015	-
HCM Control Delay (s)	30.3	-	-	9.7	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM 2010 TWSC
26: East Main Street & Brookside Avenue

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	700	640	0	0	10
Future Vol, veh/h	20	700	640	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	94	94	67	67
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	24	856	749	0	0	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	749	0	-	0	1653	749
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	904	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	869	-	-	-	109	415
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	398	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	869	-	-	-	103	415
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	398	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	869	-	-	-	415
HCM Lane V/C Ratio	0.028	-	-	-	0.04
HCM Control Delay (s)	9.3	0	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM 2010 TWSC
36: BJ's Driveway & East Main Street

Intersection						
Int Delay, s/veh	3.5					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	840	40	160	640	0	150
Future Vol, veh/h	840	40	160	640	0	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	90	90	80	80
Heavy Vehicles, %	1	3	0	2	0	0
Mvmt Flow	1015	48	196	782	0	206

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1063	0	-	532
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	663	-	0	497
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	663	-	-	497
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.3	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	497	-	-	663	-
HCM Lane V/C Ratio	0.415	-	-	0.295	-
HCM Control Delay (s)	17.3	-	-	12.7	2.2
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	2	-	-	1.2	-

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM 2010 TWSC
44: Walmart Driveway & East Main Street

Intersection												
Int Delay, s/veh	111.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	770	260	140	930	10	10	10	170	10	10	40
Future Vol, veh/h	30	770	260	140	930	10	10	10	170	10	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	91	91	91	78	78	78	75	75	75
Heavy Vehicles, %	0	1	0	0	1	0	0	0	1	0	0	0
Mvmt Flow	35	911	308	169	1124	12	14	14	240	15	15	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1136	0	0	911	0	0	1889	2455	456	2001	2449	568
Stage 1	-	-	-	-	-	-	981	981	-	1468	1468	-
Stage 2	-	-	-	-	-	-	908	1474	-	533	981	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.92	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.31	3.5	4	3.3
Pot Cap-1 Maneuver	622	-	-	756	-	-	44	31	554	36	31	471
Stage 1	-	-	-	-	-	-	271	330	-	136	194	-
Stage 2	-	-	-	-	-	-	301	192	-	503	330	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	622	-	-	756	-	-	~ 11	19	554	~ 6	19	471
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 11	19	-	~ 6	19	-
Stage 1	-	-	-	-	-	-	218	266	-	109	151	-
Stage 2	-	-	-	-	-	-	185	149	-	218	266	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	1.4	$ 745.9	$ 1386.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	109	622	-	-	756	-	-	26
HCM Lane V/C Ratio	2.458	0.057	-	-	0.224	-	-	3.385
HCM Control Delay (s)	$ 745.9	11.1	1	-	11.1	-	-	$ 1386.2
HCM Lane LOS	F	B	A	-	B	-	-	F
HCM 95th %tile Q(veh)	24	0.2	-	-	0.9	-	-	10.8

Notes				
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon	

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

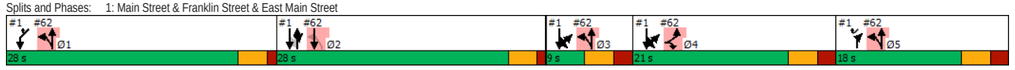
Lanes, Volumes, Timings
1: Main Street & Franklin Street & East Main Street

Lane Group	NBT	NBR	SBL2	SBL	SBT	SWL	SWR	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	350	430	220	30	300	380	310			
Future Volume (vph)	350	430	220	30	300	380	310			
Lane Group Flow (vph)	418	538	0	299	359	454	371			
Turn Type	NA	custom	D.P+P	D.P+P	NA	Prot	custom			
Protected Phases	2	2 5	3 4	3 4	2 3 4	1	1 5	3	4	5
Permitted Phases		2	2	2			1			
Detector Phase	2	2 5	3 4	3 4	2 3 4	1	1 5			
Switch Phase										
Minimum Initial (s)	5.0					5.0		5.0	5.0	5.0
Minimum Split (s)	20.0					9.0		21.0	21.0	21.0
Total Split (s)	28.0					28.0		9.0	21.0	18.0
Total Split (%)	26.9%					26.9%		9%	20%	17%
Yellow Time (s)	3.0					3.0		3.0	3.0	3.0
All-Red Time (s)	1.0					1.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0					0.0				
Total Lost Time (s)	4.0					4.0				
Lead/Lag	Lag					Lead		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min					Max		None	Max	None
v/c Ratio	0.53	0.84		0.53	0.20	0.57	0.27			
Control Delay	38.0	27.0		18.3	5.6	38.3	2.6			
Queue Delay	22.9	32.2		5.0	0.7	0.0	0.0			
Total Delay	60.9	59.2		23.3	6.3	38.3	2.7			
Queue Length 50th (ft)	128	117		82	28	138	0			
Queue Length 95th (ft)	177	#295		133	25	190	30			
Internal Link Dist (ft)	140				65	591				
Turn Bay Length (ft)						200	200			
Base Capacity (vph)	826	657		568	1817	801	1357			
Starvation Cap Reductn	407	144		201	1111	0	0			
Spillback Cap Reductn	367	0		0	0	0	91			
Storage Cap Reductn	0	0		0	0	0	0			
Reduced v/c Ratio	1.00	1.05		0.81	0.51	0.57	0.29			

Intersection Summary

Cycle Length: 104
Actuated Cycle Length: 102.9
Natural Cycle: 95
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Franklin Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
1: Main Street & Franklin Street & East Main Street

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	NWL	NWR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	350	430	20	220	30	300	0	0	380	310
Future Volume (vph)	350	430	20	220	30	300	0	0	380	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.0	4.0			4.0	4.0
Lane Util. Factor	0.95	1.00			1.00	0.95			0.97	0.88
Frt	1.00	0.85			1.00	1.00			1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00			0.95	1.00
Satd. Flow (prot)	3539	1583			1770	3539			3433	2787
Flt Permitted	1.00	1.00			0.35	1.00			0.95	1.00
Satd. Flow (perm)	3539	1583			649	3539			3433	2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	418	514	24	263	36	359	0	0	454	371
RTOR Reduction (vph)	0	75	0	0	0	0	0	0	0	237
Lane Group Flow (vph)	418	463	0	0	299	359	0	0	454	134
Turn Type	NA	custom		D.P+P	D.P+P	NA			Prot	custom
Protected Phases	2	2 5		3 4	3 4	2 3 4			1	1 5
Permitted Phases		2		2	2					1
Actuated Green, G (s)	22.8	35.8			47.8	51.8			24.0	42.0
Effective Green, g (s)	22.8	35.8			47.8	46.8			24.0	37.0
Actuated g/C Ratio	0.22	0.35			0.46	0.46			0.23	0.36
Clearance Time (s)	4.0								4.0	
Vehicle Extension (s)	3.0								3.0	
Lane Grp Cap (vph)	784	551			574	1611			801	1003
v/s Ratio Prot	0.12	c0.29			c0.13	0.10			c0.13	0.05
v/s Ratio Perm					0.12					
v/c Ratio	0.53	0.84			0.52	0.22			0.57	0.13
Uniform Delay, d1	35.3	30.9			24.4	17.0			34.8	22.1
Progression Factor	1.00	1.00			0.64	0.39			1.00	1.00
Incremental Delay, d2	0.7	11.1			0.8	0.1			2.9	0.1
Delay (s)	36.0	42.0			16.4	6.8			37.7	22.2
Level of Service	D	D			B	A			D	C
Approach Delay (s)	39.4					11.1	0.0		30.7	
Approach LOS	D					B	A		C	

Intersection Summary

HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	102.8	Sum of lost time (s)	23.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

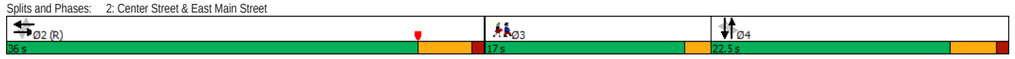
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
2: Center Street & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBT	Ø3
Lane Configurations						
Traffic Volume (vph)	660	20	610	50	0	
Future Volume (vph)	660	20	610	50	0	
Lane Group Flow (vph)	865	0	788	0	98	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	2		2		4	3
Permitted Phases		2		4		
Detector Phase	2	2	2	4	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	7.0
Minimum Split (s)	20.0	20.0	20.0	22.5	22.5	17.0
Total Split (s)	36.0	36.0	36.0	22.5	22.5	17.0
Total Split (%)	47.7%	47.7%	47.7%	29.8%	29.8%	23%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.0		5.0		4.5	
Lead/Lag				Lag	Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	None	None	None
v/c Ratio	0.59		0.55		0.48	
Control Delay	6.2		5.6		23.1	
Queue Delay	0.0		0.0		0.0	
Total Delay	6.2		5.6		23.1	
Queue Length 50th (ft)	125		108		18	
Queue Length 95th (ft)	279		233		47	
Internal Link Dist (ft)	591		539		293	
Turn Bay Length (ft)						
Base Capacity (vph)	1467		1438		387	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.59		0.55		0.25	

Intersection Summary
Cycle Length: 75.5
Actuated Cycle Length: 75.5
Offset: 38 (50%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 2: Center Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
2: Center Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	660	40	20	610	0	50	0	20	0	0	0
Future Volume (vph)	0	660	40	20	610	0	50	0	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.5				
Lane Util. Factor		1.00			1.00			1.00				
Frt		0.99			1.00			0.96				
Flt Protected		1.00			1.00			0.97				
Satd. Flow (prot)		1817			1843			1764				
Flt Permitted		1.00			0.96			0.79				
Satd. Flow (perm)		1817			1782			1440				
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.79	0.79	0.79	0.25	0.25	0.25
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	0	816	49	25	762	0	70	0	28	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	53	0	0	0	0
Lane Group Flow (vph)	0	864	0	0	788	0	0	45	0	0	0	0
Heavy Vehicles (%)	0%	4%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Turn Type		NA		Perm	NA		Perm	NA				
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		59.1			59.1			6.9				
Effective Green, g (s)		59.1			59.1			6.9				
Actuated g/C Ratio		0.78			0.78			0.09				
Clearance Time (s)		5.0			5.0			4.5				
Vehicle Extension (s)		2.0			2.0			3.0				
Lane Grp Cap (vph)		1422			1394			131				
v/s Ratio Prot		c0.48										
v/s Ratio Perm					0.44			c0.03				
v/c Ratio		0.61			0.57			0.35				
Uniform Delay, d1		3.4			3.2			32.2				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		1.9			1.7			1.6				
Delay (s)		5.3			4.9			33.8				
Level of Service		A			A			C				
Approach Delay (s)		5.3			4.9			33.8			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	11.5
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

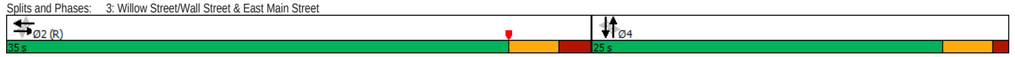
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
3: Willow Street/Wall Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	40	620	20	620	20	30	20	40
Future Volume (vph)	40	620	20	620	20	30	20	40
Lane Group Flow (vph)	0	870	0	838	0	176	0	220
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.81		0.74		0.50		0.59
Control Delay		18.5		14.8		18.8		21.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		18.5		14.8		18.8		21.0
Queue Length 50th (ft)		182		280		39		52
Queue Length 95th (ft)		#488		#469		32		39
Internal Link Dist (ft)		539		444		461		319
Turn Bay Length (ft)								
Base Capacity (vph)		1070		1139		572		613
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.81		0.74		0.31		0.36

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Willow Street/Wall Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
3: Willow Street/Wall Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	620	20	20	620	30	20	30	30	20	40	40
Future Volume (vph)	40	620	20	20	620	30	20	30	30	20	40	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.95			0.95	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1773			1802			1782			1780	
Flt Permitted		0.92			0.97			0.85			0.91	
Satd. Flow (perm)		1642			1745			1533			1640	
Peak-hour factor, PHF	0.86	0.86	0.86	0.88	0.88	0.88	0.50	0.50	0.50	0.50	0.50	0.50
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	51	793	26	25	775	38	44	66	66	44	88	88
RTOR Reduction (vph)	0	1	0	0	2	0	0	44	0	0	50	0
Lane Group Flow (vph)	0	869	0	0	836	0	0	132	0	0	170	0
Heavy Vehicles (%)	1%	7%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		39.1			39.1			11.9			11.9	
Effective Green, g (s)		39.1			39.1			11.9			11.9	
Actuated g/C Ratio		0.65			0.65			0.20			0.20	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1070			1137			304			325	
v/s Ratio Prot												
v/s Ratio Perm		c0.53			0.48			0.09			c0.10	
v/c Ratio		0.81			0.74			0.43			0.52	
Uniform Delay, d1		7.7			7.0			21.1			21.5	
Progression Factor		1.00			1.08			1.00			1.00	
Incremental Delay, d2		6.7			3.9			1.0			1.5	
Delay (s)		14.5			11.5			22.1			23.0	
Level of Service		B			B			C			C	
Approach Delay (s)		14.5			11.5			22.1			23.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
4: Route 8 SB Ramp/Columbus Road & East Main Street

Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	590	190	520	40	160
Future Volume (vph)	590	190	520	40	160
Lane Group Flow (vph)	781	220	602	48	326
Turn Type	NA	D.P+P	NA	Perm	NA
Protected Phases	2	1	1 2		4
Permitted Phases		2		4	
Detector Phase	2	1	1 2	4	4
Switch Phase					
Minimum Initial (s)	20.0	5.0		7.0	7.0
Minimum Split (s)	25.0	8.0		12.0	12.0
Total Split (s)	26.0	8.0		26.0	26.0
Total Split (%)	43.3%	13.3%		43.3%	43.3%
Yellow Time (s)	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Min	Max		None	None
v/c Ratio	0.66	0.41	0.54	0.12	0.72
Control Delay	13.8	7.4	7.7	16.6	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	7.4	7.7	16.6	25.8
Queue Length 50th (ft)	105	15	94	14	87
Queue Length 95th (ft)	m104	m25	m238	31	139
Internal Link Dist (ft)	612		423		285
Turn Bay Length (ft)		150			
Base Capacity (vph)	1213	533	1136	619	655
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	0.64	0.41	0.53	0.08	0.50

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 30 (50%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 8 SB Ramp/Columbus Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
4: Route 8 SB Ramp/Columbus Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	590	70	190	520	0	0	0	0	40	160	110
Future Volume (vph)	0	590	70	190	520	0	0	0	0	40	160	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		3.0	3.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	1.00					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.94	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3423		1736	1759					1770	1753	
Flt Permitted		1.00		0.24	1.00					0.95	1.00	
Satd. Flow (perm)		3423		436	1759					1770	1753	
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.75	0.75	0.75	0.91	0.91	0.91
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	0	698	83	220	602	0	0	0	0	48	193	133
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	49	0
Lane Group Flow (vph)	0	766	0	220	602	0	0	0	0	48	277	0
Heavy Vehicles (%)	0%	4%	2%	4%	8%	0%	0%	0%	0%	2%	3%	0%
Turn Type		NA		D.P+P	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		20.4		33.2	36.2					13.8	13.8	
Effective Green, g (s)		20.4		33.2	36.2					13.8	13.8	
Actuated g/C Ratio		0.34		0.55	0.60					0.23	0.23	
Clearance Time (s)		5.0		3.0						5.0	5.0	
Vehicle Extension (s)		2.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1163		518	1061					407	403	
v/s Ratio Prot		c0.22		0.09	c0.34						c0.16	
v/s Ratio Perm				0.14						0.03		
v/c Ratio		0.66		0.42	0.57					0.12	0.69	
Uniform Delay, d1		16.8		7.4	7.2					18.3	21.1	
Progression Factor		0.72		0.72	0.89					1.00	1.00	
Incremental Delay, d2		2.0		1.1	0.9					0.0	3.8	
Delay (s)		14.1		6.4	7.3					18.3	25.0	
Level of Service		B		A	A					B	C	
Approach Delay (s)		14.1			7.1		0.0				24.1	
Approach LOS		B			A		A				C	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	80	550	630	140	260
Future Volume (vph)	80	550	630	140	260
Lane Group Flow (vph)	94	644	798	263	311
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	1 2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		26.0	23.0	23.0
Total Split (%)	18.3%		43.3%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.25	0.27	0.98	0.39	0.62
Control Delay	4.0	4.0	48.2	21.9	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	4.0	48.2	21.9	10.9
Queue Length 50th (ft)	0	1	258	45	20
Queue Length 95th (ft)	m23	162	#580	63	69
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	377	2336	816	1043	648
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	0.25	0.28	0.98	0.25	0.48

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 2 (3%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	550	0	0	630	30	80	140	260	0	0	0
Future Volume (vph)	80	550	0	0	630	30	80	140	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			1.00			0.95	1.00			
Frt	1.00	1.00			0.99			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1805	3505			1770			3479	1583			
Flt Permitted	0.14	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	275	3505			1770			3479	1583			
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.25	0.25	0.25
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	94	644	0	0	762	36	96	167	311	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	200	0	0	0
Lane Group Flow (vph)	94	644	0	0	796	0	0	263	111	0	0	0
Heavy Vehicles (%)	0%	3%	0%	0%	7%	0%	0%	3%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	1 2						4		4			
Actuated Green, G (s)	35.5	38.5			27.6			11.5	11.5			
Effective Green, g (s)	35.5	38.5			27.6			11.5	11.5			
Actuated g/C Ratio	0.59	0.64			0.46			0.19	0.19			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	364	2249			814			666	303			
v/s Ratio Prot	0.03	c0.18			c0.45							
v/s Ratio Perm	0.12							0.08	0.07			
v/c Ratio	0.26	0.29			0.98			0.39	0.36			
Uniform Delay, d1	9.2	4.7			15.9			21.2	21.1			
Progression Factor	0.58	0.82			1.00			1.00	1.00			
Incremental Delay, d2	0.3	0.1			26.6			0.4	0.7			
Delay (s)	5.7	3.9			42.5			21.6	21.8			
Level of Service	A	A			D			C	C			
Approach Delay (s)		4.2			42.5			21.7		0.0		
Approach LOS		A			D			C		A		

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

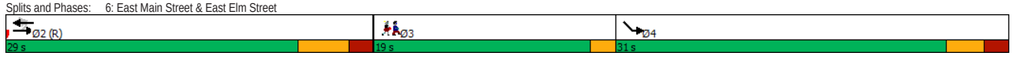
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	WBR	SEL	Ø3
Lane Configurations						
Traffic Volume (vph)	20	730	640	470	470	
Future Volume (vph)	20	730	640	470	470	
Lane Group Flow (vph)	0	851	733	539	562	
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	3
Permitted Phases	2			2		
Detector Phase	2	2	2	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	19.0
Total Split (s)	29.0	29.0	29.0	29.0	31.0	19.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	39.2%	24%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	5.0	
Lead/Lag					Lag	Lead
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.61	0.92	0.51	0.82	
Control Delay		17.8	39.6	3.3	33.0	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		17.8	39.6	3.3	33.0	
Queue Length 50th (ft)		157	329	0	238	
Queue Length 95th (ft)		231	#590	53	349	
Internal Link Dist (ft)		160	602		27	
Turn Bay Length (ft)				300		
Base Capacity (vph)	1399	797	1054		694	
Starvation Cap Reductn	0	0	0		0	
Spillback Cap Reductn	0	0	0		0	
Storage Cap Reductn	0	0	0		0	
Reduced v/c Ratio	0.61	0.92	0.51		0.81	

Intersection Summary
Cycle Length: 79
Actuated Cycle Length: 79
Offset: 4 (5%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: East Main Street & East Elm Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	20	730	640	470	470	10
Future Volume (vph)	20	730	640	470	470	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0	6.0	5.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3345	1640	1599	1831	
Flt Permitted		0.86	1.00	1.00	0.95	
Satd. Flow (perm)		2878	1640	1599	1831	
Peak-hour factor, PHF	0.97	0.97	0.96	0.96	0.94	0.94
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	23	828	733	539	550	12
RTOR Reduction (vph)	0	0	0	277	1	0
Lane Group Flow (vph)	0	851	733	262	561	0
Heavy Vehicles (%)	0%	8%	12%	1%	2%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		38.4	38.4	38.4	29.6	
Effective Green, g (s)		38.4	38.4	38.4	29.6	
Actuated g/C Ratio		0.49	0.49	0.49	0.37	
Clearance Time (s)		6.0	6.0	6.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1398	797	777	686	
v/s Ratio Prot			c0.45		c0.31	
v/s Ratio Perm	0.30			0.16		
v/c Ratio	0.61	0.92	0.34	0.82		
Uniform Delay, d1	14.8	18.9	12.5	22.3		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	2.0	17.4	1.2	7.5		
Delay (s)	16.8	36.3	13.7	29.8		
Level of Service	B	D	B	C		
Approach Delay (s)	16.8	26.7		29.8		
Approach LOS	B	C		C		

Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	910	10	820	290	20
Future Volume (vph)	910	10	820	290	20
Lane Group Flow (vph)	1375	0	1050	380	26
Turn Type	NA	pm+pt	NA	Prot	Free
Protected Phases	2	3	2 3	4	
Permitted Phases		2 3	2 3		Free
Detector Phase	2	3	2 3	4	
Switch Phase					
Minimum Initial (s)	15.0	8.0		7.0	
Minimum Split (s)	20.0	15.0		12.0	
Total Split (s)	24.0	15.0		21.0	
Total Split (%)	40.0%	25.0%		35.0%	
Yellow Time (s)	3.0	4.0		3.0	
All-Red Time (s)	2.0	3.0		2.0	
Lost Time Adjust (s)	0.0			0.0	
Total Lost Time (s)	5.0			5.0	
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?					
Recall Mode	C-Max	None		None	
v/c Ratio	1.22		1.51	0.87	0.02
Control Delay	129.6		250.7	43.8	0.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	129.6		250.7	43.8	0.0
Queue Length 50th (ft)	~331		~429	129	0
Queue Length 95th (ft)	#453		#725	#234	0
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1127		697	454	1482
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	1.22		1.51	0.84	0.02

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
~ 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: 7: New Harwinton Road & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	910	290	10	820	290	20
Future Volume (vph)	910	290	10	820	290	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	4.0
Lane Util. Factor	0.95			1.00	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3305			1683	1703	1482
Flt Permitted	1.00			0.76	0.95	1.00
Satd. Flow (perm)	3305			1277	1703	1482
Peak-hour factor, PHF	0.96	0.96	0.87	0.87	0.84	0.84
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	1043	332	13	1037	380	26
RTOR Reduction (vph)	50	0	0	0	0	0
Lane Group Flow (vph)	1325	0	0	1050	380	26
Heavy Vehicles (%)	6%	3%	0%	13%	6%	9%
Turn Type	NA		pm+pt	NA	Prot	Free
Protected Phases	2		3	2 3	4	
Permitted Phases			2 3	2 3		Free
Actuated Green, G (s)	19.6			27.6	15.4	60.0
Effective Green, g (s)	19.6			27.6	15.4	60.0
Actuated g/C Ratio	0.33			0.46	0.26	1.00
Clearance Time (s)	5.0				5.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	1079			641	437	1482
v/s Ratio Prot	0.40			c0.22	c0.22	
v/s Ratio Perm				c0.53		0.02
v/c Ratio	1.23			1.64	0.87	0.02
Uniform Delay, d1	20.2			16.2	21.3	0.0
Progression Factor	1.00			0.80	1.00	1.00
Incremental Delay, d2	111.0			291.4	16.6	0.0
Delay (s)	131.2			304.3	37.9	0.0
Level of Service	F			F	D	A
Approach Delay (s)	131.2			304.3	35.5	
Approach LOS	F			F	D	

Intersection Summary			
HCM 2000 Control Delay	181.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
8: East Main Street & Charles Street

Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	20	890	810	0	40	0
Future Volume (vph)	20	890	810	0	40	0
Lane Group Flow (vph)	0	1064	1050	26	0	93
Turn Type	Perm	NA	NA	NA	Perm	NA
Protected Phases		2	2	4		4
Permitted Phases	2				4	
Detector Phase	2	2	2	4	4	4
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0	5.0	4.0		4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	None	None	None
v/c Ratio		0.47	0.81	0.08		0.40
Control Delay		11.2	14.7	0.5		20.0
Queue Delay		0.0	0.0	0.0		0.0
Total Delay		11.2	14.7	0.5		20.0
Queue Length 50th (ft)		138	230	0		18
Queue Length 95th (ft)		m111	#607	0		46
Internal Link Dist (ft)		809	1163	247		598
Turn Bay Length (ft)						
Base Capacity (vph)		2286	1295	493		388
Starvation Cap Reductn		0	0	0		0
Spillback Cap Reductn		0	0	0		0
Storage Cap Reductn		0	0	0		0
Reduced v/c Ratio		0.47	0.81	0.05		0.24

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 41 (68%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: East Main Street & Charles Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
8: East Main Street & Charles Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	890	0	0	810	40	0	0	10	40	0	30
Future Volume (vph)	20	890	0	0	810	40	0	0	10	40	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	12	12	12	12	12	15	12	15
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			0.99			0.86			0.94	
Flt Protected		1.00			1.00			1.00			0.97	
Satd. Flow (prot)		3233			1694			1644			1723	
Flt Permitted		0.92			1.00			1.00			0.81	
Satd. Flow (perm)		2993			1694			1644			1434	
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.42	0.42	0.42	0.83	0.83	0.83
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	23	1041	0	0	1001	49	0	0	26	53	0	40
RTOR Reduction (vph)	0	0	0	0	2	0	0	23	0	0	35	0
Lane Group Flow (vph)	0	1064	0	0	1048	0	0	3	0	0	58	0
Heavy Vehicles (%)	0%	8%	0%	0%	12%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Perm	NA			NA			NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.0			44.0			7.0			7.0	
Effective Green, g (s)		44.0			44.0			7.0			7.0	
Actuated g/C Ratio		0.73			0.73			0.12			0.12	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2194			1242			191			167	
v/s Ratio Prot					c0.62			0.00				
v/s Ratio Perm		0.36									c0.04	
v/c Ratio		0.48			0.84			0.02			0.35	
Uniform Delay, d1		3.3			5.6			23.5			24.4	
Progression Factor		2.83			1.16			1.00			1.00	
Incremental Delay, d2		0.1			6.0			0.0			1.2	
Delay (s)		9.4			12.5			23.5			25.6	
Level of Service		A			B			C			C	
Approach Delay (s)		9.4			12.5			23.5			25.6	
Approach LOS		A			B			C			C	

Intersection Summary

HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
9: Orchard Street & East Main Street

Lane Group	EBT	WBT	NBL
Lane Configurations			
Traffic Volume (vph)	870	790	10
Future Volume (vph)	870	790	10
Lane Group Flow (vph)	1029	955	30
Turn Type	NA	NA	Prot
Protected Phases	2	2	4
Permitted Phases			
Detector Phase	2	2	4
Switch Phase			
Minimum Initial (s)	20.0	20.0	7.0
Minimum Split (s)	25.0	25.0	11.0
Total Split (s)	41.0	41.0	19.0
Total Split (%)	68.3%	68.3%	31.7%
Yellow Time (s)	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.34	0.62	0.14
Control Delay	0.8	8.0	17.8
Queue Delay	0.0	0.0	0.0
Total Delay	0.8	8.0	17.8
Queue Length 50th (ft)	0	0	5
Queue Length 95th (ft)	24	463	20
Internal Link Dist (ft)	1163	1187	575
Turn Bay Length (ft)			
Base Capacity (vph)	3033	1538	443
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.34	0.62	0.07

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: Orchard Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
9: Orchard Street & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	870	0	0	790	10	10
Future Volume (vph)	870	0	0	790	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	4.0	
Lane Util. Factor	0.95			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3406			1727	1729	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	3406			1727	1729	
Peak-hour factor, PHF	0.93	0.93	0.91	0.91	0.75	0.75
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	1029	0	0	955	15	15
RTOR Reduction (vph)	0	0	0	0	14	0
Lane Group Flow (vph)	1029	0	0	955	16	0
Heavy Vehicles (%)	6%	0%	0%	10%	0%	0%
Turn Type	NA			NA	Prot	
Protected Phases	2			2	4	
Permitted Phases			2			
Actuated Green, G (s)	48.0			48.0	3.0	
Effective Green, g (s)	48.0			48.0	3.0	
Actuated g/C Ratio	0.80			0.80	0.05	
Clearance Time (s)	5.0			5.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2724			1381	86	
v/s Ratio Prot	0.30			c0.55	c0.01	
v/s Ratio Perm						
v/c Ratio	0.38			0.69	0.18	
Uniform Delay, d1	1.7			2.7	27.3	
Progression Factor	0.32			1.86	1.00	
Incremental Delay, d2	0.4			1.9	1.0	
Delay (s)	0.9			6.9	28.4	
Level of Service	A			A	C	
Approach Delay (s)	0.9			6.9	28.4	
Approach LOS	A			A	C	

Intersection Summary

HCM 2000 Control Delay	4.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
10: Pineridge Road/Yorkshire Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	860	20	730	30	0	20	10
Future Volume (vph)	20	860	20	730	30	0	20	10
Lane Group Flow (vph)	0	1031	0	1021	0	84	0	84
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	7.0	7.0	7.0	7.0
Minimum Split (s)	20.0	20.0	20.0	20.0	11.0	11.0	11.0	11.0
Total Split (s)	41.0	41.0	41.0	41.0	19.0	19.0	19.0	19.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.0		5.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.45		0.78		0.35		0.33
Control Delay		2.1		12.7		17.7		17.4
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		2.1		12.7		17.7		17.4
Queue Length 50th (ft)		5		178		14		14
Queue Length 95th (ft)		86		#421		38		38
Internal Link Dist (ft)		1187		1137		621		153
Turn Bay Length (ft)								
Base Capacity (vph)		2297		1312		415		431
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.45		0.78		0.20		0.19

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 16 (27%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Pineridge Road/Yorkshire Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
10: Pineridge Road/Yorkshire Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	860	20	20	730	20	30	0	30	20	10	30
Future Volume (vph)	20	860	20	20	730	20	30	0	30	20	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.93			0.93	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3224			1773			1729			1743	
Flt Permitted		0.92			0.96			0.87			0.90	
Satd. Flow (perm)		2986			1707			1538			1599	
Peak-hour factor, PHF	0.96	0.96	0.96	0.83	0.83	0.83	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	23	985	23	27	967	27	42	0	42	28	14	42
RTOR Reduction (vph)	0	2	0	0	1	0	0	37	0	0	37	0
Lane Group Flow (vph)	0	1029	0	0	1020	0	0	47	0	0	47	0
Heavy Vehicles (%)	0%	12%	0%	0%	7%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		44.3			44.3			6.7			6.7	
Effective Green, g (s)		44.3			44.3			6.7			6.7	
Actuated g/C Ratio		0.74			0.74			0.11			0.11	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2204			1260			171			178	
v/s Ratio Prot												
v/s Ratio Perm		0.34			c0.60			c0.03			0.03	
v/c Ratio		0.47			0.81			0.27			0.26	
Uniform Delay, d1		3.1			5.1			24.4			24.4	
Progression Factor		0.40			1.00			1.00			1.00	
Incremental Delay, d2		0.7			5.7			0.9			0.8	
Delay (s)		1.9			10.8			25.3			25.2	
Level of Service		A			B			C			C	
Approach Delay (s)		1.9			10.8			25.3			25.2	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
11: Buena Vista Avenue/Koury Terrace & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	10	870	10	750	50	10	10	10	
Future Volume (vph)	10	870	10	750	50	10	10	10	
Lane Group Flow (vph)	0	1019	0	931	0	128	0	48	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2	1 2	2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		20.0	20.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0		25.0	25.0	11.0	11.0	11.0	11.0	15.0
Total Split (s)	8.0		35.0	35.0	17.0	17.0	17.0	17.0	15.0
Total Split (%)	10.7%		46.7%	46.7%	22.7%	22.7%	22.7%	22.7%	20%
Yellow Time (s)	3.0		4.0	4.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				0.0		0.0		0.0	
Total Lost Time (s)				5.0		4.0		4.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Max	C-Max	None	None	None	None	None
v/c Ratio		0.41		0.80		0.56		0.20	
Control Delay		4.0		18.2		34.8		22.1	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		4.0		18.2		34.8		22.1	
Queue Length 50th (ft)		63		301		47		13	
Queue Length 95th (ft)		100		#615		69		28	
Internal Link Dist (ft)		1137		669		275		202	
Turn Bay Length (ft)									
Base Capacity (vph)		2493		1168		275		296	
Starvation Cap Reductn		0		0		0		0	
Spillback Cap Reductn		0		0		0		0	
Storage Cap Reductn		0		0		0		0	
Reduced v/c Ratio		0.41		0.80		0.47		0.16	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 4 (5%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Buena Vista Avenue/Koury Terrace & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
11: Buena Vista Avenue/Koury Terrace & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	870	10	10	750	10	50	10	20	10	10	10
Future Volume (vph)	10	870	10	10	750	10	50	10	20	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.95	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		3467			1791			1769			1785	
Flt Permitted		0.95			0.98			0.82			0.90	
Satd. Flow (perm)		3289			1765			1502			1637	
Peak-hour factor, PHF	0.96	0.96	0.96	0.91	0.91	0.91	0.69	0.69	0.69	0.68	0.68	0.68
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	11	997	11	12	907	12	80	16	32	16	16	16
RTOR Reduction (vph)	0	1	0	0	0	0	0	17	0	0	14	0
Lane Group Flow (vph)	0	1018	0	0	931	0	0	111	0	0	34	0
Heavy Vehicles (%)	0%	4%	0%	0%	6%	0%	1%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2	1 2		2			4			4		
Actuated Green, G (s)		53.8			48.8			9.2			9.2	
Effective Green, g (s)		53.8			48.8			9.2			9.2	
Actuated g/C Ratio		0.72			0.65			0.12			0.12	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)	2371				1148			184			200	
v/s Ratio Prot	c0.03											
v/s Ratio Perm	0.28				c0.53			c0.07			0.02	
v/c Ratio	0.43				0.81			0.61			0.17	
Uniform Delay, d1	4.3				9.7			31.2			29.5	
Progression Factor	1.00				1.00			1.00			1.00	
Incremental Delay, d2	0.6				6.3			5.5			0.4	
Delay (s)	4.9				15.9			36.7			29.9	
Level of Service	A				B			D			C	
Approach Delay (s)	4.9				15.9			36.7			29.9	
Approach LOS	A				B			D			C	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

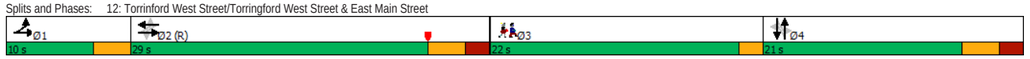
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
12: Torrinford West Street/Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations									
Traffic Volume (vph)	60	750	30	550	110	170	30	180	
Future Volume (vph)	60	750	30	550	110	170	30	180	
Lane Group Flow (vph)	0	1101	38	713	133	362	0	354	
Turn Type	D.P+P	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2		2		4		4	3
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	4	4	4	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	21.0	21.0	21.0	21.0	22.0
Total Split (%)	12.2%		35.4%	35.4%	25.6%	25.6%	25.6%	25.6%	27%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)			5.0	5.0	5.0	5.0		5.0	
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?									
Recall Mode	Max		C-Min	C-Min	None	None	None	None	None
v/c Ratio		0.58	0.14	0.72	1.48	0.96		2.16	
Control Delay		7.3	10.2	18.3	294.7	68.8		562.0	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay		7.3	10.2	18.3	294.7	68.8		562.0	
Queue Length 50th (ft)		104	9	248	~95	166		~289	
Queue Length 95th (ft)		138	24	367	#203	#335		#455	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100				
Base Capacity (vph)		1912	271	994	90	377		164	
Starvation Cap Reductn		0	0	0	0	0		0	
Spillback Cap Reductn		0	0	0	0	0		0	
Storage Cap Reductn		0	0	0	0	0		0	
Reduced v/c Ratio		0.58	0.14	0.72	1.48	0.96		2.16	

Intersection Summary
Cycle Length: 82
Actuated Cycle Length: 82
Offset: 26 (32%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ 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: 12: Torrinford West Street/Torringford West Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torrinford West Street/Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	750	110	30	550	20	110	170	130	30	180	90
Future Volume (vph)	60	750	110	30	550	20	110	170	130	30	180	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00			1.00	
Frt		0.98		1.00	0.99		1.00	0.93			0.96	
Flt Protected		1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		3395		1805	1770		1770	1761			1809	
Flt Permitted		0.81		0.25	1.00		0.25	1.00			0.41	
Satd. Flow (perm)		2758		484	1770		466	1761			747	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.91	0.91	0.91	0.93	0.93	0.93
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	72	897	132	38	688	25	133	205	157	35	213	106
RTOR Reduction (vph)	0	8	0	0	1	0	0	34	0	0	19	0
Lane Group Flow (vph)	0	1093	0	38	712	0	133	328	0	0	335	0
Heavy Vehicles (%)	0%	5%	0%	0%	7%	0%	2%	0%	2%	0%	0%	1%
Turn Type	D.P+P	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Effective Green, g (s)		53.0		46.0	46.0		16.0	16.0			16.0	
Actuated g/C Ratio		0.65		0.56	0.56		0.20	0.20			0.20	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1836		271	992		90	343			145	
v/s Ratio Prot		c0.05			c0.40			0.19				
v/s Ratio Perm	0.33			0.08			0.29				c0.45	
v/c Ratio	0.60	0.14		0.72	1.48		0.96				2.31	
Uniform Delay, d1	8.3	8.6		13.2	33.0		32.7				33.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00				1.00	
Incremental Delay, d2	1.4	1.1		4.5	265.2		36.9				612.3	
Delay (s)	9.8	9.7		17.7	298.2		69.6				645.3	
Level of Service	A	A		B	F		E				F	
Approach Delay (s)	9.8			17.3			131.0				645.3	
Approach LOS	A			B			F				F	

Intersection Summary			
HCM 2000 Control Delay	117.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

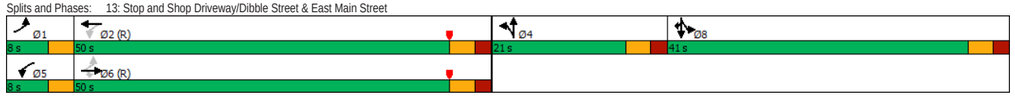
Lanes, Volumes, Timings
13: Stop and Shop Driveway/Dibble Street & East Main Street

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	710	180	30	620	120	40	350	100	20
Future Volume (vph)	40	710	180	30	620	120	40	350	100	20
Lane Group Flow (vph)	48	849	215	36	1124	200	200	287	289	26
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Split	NA	Split	NA	Prot
Protected Phases	1	6		5	2	4	4	8	8	8
Permitted Phases	6		6	2						
Detector Phase	1	6	6	5	2	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	5.0	5.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0	10.0	13.0	13.0	13.0
Total Split (s)	8.0	50.0	50.0	8.0	50.0	21.0	21.0	41.0	41.0	41.0
Total Split (%)	6.7%	41.7%	41.7%	6.7%	41.7%	17.5%	17.5%	34.2%	34.2%	34.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead-Lag Optimize?										
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
v/c Ratio	0.25	0.52	0.26	0.12	0.72	0.87	0.72	0.81	0.78	0.06
Control Delay	18.5	24.6	9.2	16.2	28.1	85.5	48.0	61.2	58.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	24.6	9.2	16.2	28.1	85.5	48.0	61.2	58.5	0.3
Queue Length 50th (ft)	17	247	33	13	345	153	98	223	223	0
Queue Length 95th (ft)	42	357	95	34	#507	167	111	283	282	0
Internal Link Dist (ft)		2541			805		375		773	
Turn Bay Length (ft)	125		125	125				200		50
Base Capacity (vph)	194	1618	837	304	1563	240	287	494	513	548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.52	0.26	0.12	0.72	0.83	0.70	0.58	0.56	0.05

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 107 (89%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Stop and Shop Driveway/Dibble Street & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
13: Stop and Shop Driveway/Dibble Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	710	180	30	620	320	120	40	80	350	100	20
Future Volume (vph)	40	710	180	30	620	320	120	40	80	350	100	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1745	3292	1561	1805	3172		1805	1710		1649	1710	1615
Flt Permitted	0.14	1.00	1.00	0.25	1.00		0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	248	3292	1561	471	3172		1805	1710		1649	1710	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.66	0.66	0.66	0.86	0.86	0.86
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	48	849	215	36	741	383	200	67	133	448	128	26
RTOR Reduction (vph)	0	0	72	0	46	0	0	60	0	0	0	20
Lane Group Flow (vph)	48	849	143	36	1078	0	200	140	0	287	289	6
Heavy Vehicles (%)	0%	6%	0%	0%	9%	6%	0%	0%	0%	4%	1%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA		Split	NA	Prot
Protected Phases	1	6		5	2		4	4		8	8	8
Permitted Phases	6		6	2								
Actuated Green, G (s)	61.8	57.8	57.8	59.8	56.8		15.3	15.3		25.9	25.9	25.9
Effective Green, g (s)	61.8	57.8	57.8	59.8	56.8		15.3	15.3		25.9	25.9	25.9
Actuated g/C Ratio	0.51	0.48	0.48	0.50	0.47		0.13	0.13		0.22	0.22	0.22
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	177	1585	751	268	1501		230	218		355	369	348
v/s Ratio Prot	c0.01	0.26		0.00	c0.34		c0.11	0.08		c0.17	0.17	0.00
v/s Ratio Perm	0.13		0.09	0.06								
v/c Ratio	0.27	0.54	0.19	0.13	0.72		0.87	0.64		0.81	0.78	0.02
Uniform Delay, d1	17.9	21.7	17.7	16.3	25.2		51.4	49.7		44.7	44.4	37.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	1.3	0.6	0.1	3.0		26.8	4.8		12.0	9.6	0.0
Delay (s)	18.2	23.0	18.3	16.4	28.2		78.2	54.5		56.7	54.0	37.0
Level of Service	B	C	B	B	C		E	D		E	D	D
Approach Delay (s)		21.9			27.8			66.3			54.6	
Approach LOS		C			C			E			D	

Intersection Summary

HCM 2000 Control Delay	35.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
14: Torringford Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	120	850	110	610	230	160	100	170	140	130	
Future Volume (vph)	120	850	110	610	230	160	100	170	140	130	
Lane Group Flow (vph)	139	1077	129	831	284	198	124	243	200	186	
Turn Type	Prot	NA	Prot	NA	Split	NA	Prot	Split	NA	Prot	
Protected Phases	5	2	1	6	8	8	8	4	4	4	3
Permitted Phases											
Detector Phase	5	2	1	6	8	8	8	4	4	4	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0
Total Split (s)	12.0	57.0	12.0	57.0	22.0	22.0	22.0	29.0	29.0	29.0	25.0
Total Split (%)	8.3%	39.3%	8.3%	39.3%	15.2%	15.2%	15.2%	20.0%	20.0%	20.0%	17%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lag				Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None	None
v/c Ratio	0.53	0.75	0.54	0.62	0.59	0.72	0.38	0.79	0.62	0.45	
Control Delay	66.1	40.3	68.9	37.3	62.4	73.6	15.8	74.5	62.9	9.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	66.1	40.3	68.9	37.3	62.4	73.6	15.8	74.5	62.9	9.6	
Queue Length 50th (ft)	124	448	116	322	130	180	14	221	176	0	
Queue Length 95th (ft)	#243	#607	#210	427	169	253	69	250	205	32	
Internal Link Dist (ft)		805		413		1058			877		
Turn Bay Length (ft)	450						125	175		175	
Base Capacity (vph)	263	1443	239	1348	497	284	335	333	347	434	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.75	0.54	0.62	0.57	0.70	0.37	0.73	0.58	0.43	

Intersection Summary

Cycle Length: 145
Actuated Cycle Length: 145
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Torringford Street & East Main Street

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
14: Torringford Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	850	80	110	610	100	230	160	100	170	140	130
Future Volume (vph)	120	850	80	110	610	100	230	160	100	170	140	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	13	12	12	11	12	12	11	11	11
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3405		1865	3329		3286	1881	1615	1728	1801	1473
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3405		1865	3329		3286	1881	1615	1728	1801	1473
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.89	0.89	0.89	0.77	0.77	0.77
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	139	984	93	129	714	117	284	198	124	243	200	186
RTOR Reduction (vph)	0	5	0	0	8	0	0	0	91	0	0	153
Lane Group Flow (vph)	139	1072	0	129	823	0	284	198	33	243	200	33
Heavy Vehicles (%)	2%	5%	1%	0%	7%	1%	3%	1%	0%	1%	2%	6%
Turn Type	Prot	NA		Prot	NA		Split	NA	Prot	Split	NA	Prot
Protected Phases	5	2		1	6		8	8	8	4	4	4
Permitted Phases												
Actuated Green, G (s)	21.6	61.2		18.7	58.3		21.2	21.2	21.2	25.9	25.9	25.9
Effective Green, g (s)	21.6	61.2		18.7	58.3		21.2	21.2	21.2	25.9	25.9	25.9
Actuated g/C Ratio	0.15	0.42		0.13	0.40		0.15	0.15	0.15	0.18	0.18	0.18
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	263	1437		240	1338		480	275	236	308	321	263
v/s Ratio Prot	c0.08	c0.31		0.07	0.25		0.09	c0.11	0.02	c0.14	0.11	0.02
v/s Ratio Perm												
v/c Ratio	0.53	0.75		0.54	0.61		0.59	0.72	0.14	0.79	0.62	0.13
Uniform Delay, d1	57.0	35.3		59.1	34.4		57.9	59.1	53.9	56.9	55.0	50.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	3.6		1.2	2.1		1.3	7.3	0.1	11.7	2.7	0.1
Delay (s)	57.9	38.9		60.3	36.6		59.2	66.4	54.0	68.6	57.7	50.1
Level of Service	E	D		E	D		E	E	D	E	E	D
Approach Delay (s)		41.1			39.7			60.5			59.7	
Approach LOS		D			D			E			E	

Intersection Summary

HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

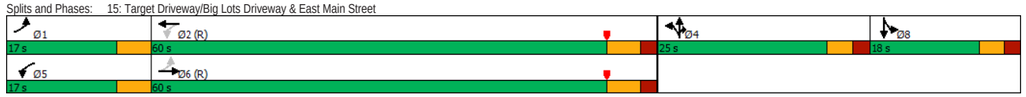
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

Lanes, Volumes, Timings
15: Target Driveway/Big Lots Driveway & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	60	680	100	550	300	30	110	40	20
Future Volume (vph)	60	680	100	550	300	30	110	40	20
Lane Group Flow (vph)	73	1210	118	698	202	202	134	52	105
Turn Type	pm+pt	NA	pm+pt	NA	Split	NA	Prot	Split	NA
Protected Phases	1	6	5	2	4	4	4	8	8
Permitted Phases	6		2						
Detector Phase	1	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	5.0	5.0	8.0	8.0
Minimum Split (s)	9.0	21.0	9.0	21.0	10.0	10.0	10.0	13.0	13.0
Total Split (s)	17.0	60.0	17.0	60.0	25.0	25.0	25.0	18.0	18.0
Total Split (%)	14.2%	50.0%	14.2%	50.0%	20.8%	20.8%	20.8%	15.0%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
v/c Ratio	0.15	0.67	0.43	0.36	0.83	0.81	0.38	0.39	0.53
Control Delay	8.9	21.1	13.1	15.4	76.1	74.3	10.6	61.0	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	21.1	13.1	15.4	76.1	74.3	10.6	61.0	27.6
Queue Length 50th (ft)	19	317	31	150	158	158	0	39	19
Queue Length 95th (ft)	40	458	60	218	#266	#262	55	74	64
Internal Link Dist (ft)		599		825		361			225
Turn Bay Length (ft)	200		300		200		200		
Base Capacity (vph)	570	1803	348	1933	280	284	380	195	252
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.67	0.34	0.36	0.72	0.71	0.35	0.27	0.42

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 108 (90%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: Target Driveway/Big Lots Driveway & East Main Street



East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM Signalized Intersection Capacity Analysis
15: Target Driveway/Big Lots Driveway & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	680	310	100	550	40	300	30	110	40	20	60
Future Volume (vph)	60	680	310	100	550	40	300	30	110	40	20	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	0.95		1.00	0.99		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1805	3210		1805	3355		1681	1706	1615	1805	1686	
Flt Permitted	0.36	1.00		0.14	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	678	3210		275	3355		1681	1706	1615	1805	1686	
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90	0.84	0.84	0.84
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	73	831	379	118	651	47	367	37	134	52	26	79
RTOR Reduction (vph)	0	36	0	0	3	0	0	0	115	0	73	0
Lane Group Flow (vph)	73	1174	0	118	695	0	202	202	19	52	32	0
Heavy Vehicles (%)	0%	10%	1%	0%	7%	0%	2%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	Prot	Split	NA	
Protected Phases	1	6		5	2		4	4	4	8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	71.4	66.1		75.8	68.3		17.4	17.4	17.4	9.0	9.0	
Effective Green, g (s)	71.4	66.1		75.8	68.3		17.4	17.4	17.4	9.0	9.0	
Actuated g/C Ratio	0.60	0.55		0.63	0.57		0.14	0.14	0.14	0.08	0.08	
Clearance Time (s)	4.0	6.0		4.0	6.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	453	1768		269	1909		243	247	234	135	126	
v/s Ratio Prot	0.01	c0.37		c0.03	0.21		c0.12	0.12	0.01	c0.03	0.02	
v/s Ratio Perm	0.09			0.25								
v/c Ratio	0.16	0.66		0.44	0.36		0.83	0.82	0.08	0.39	0.25	
Uniform Delay, d1	10.4	19.1		12.5	14.0		49.9	49.8	44.4	52.9	52.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	2.0		0.4	0.5		20.0	17.7	0.1	0.7	0.4	
Delay (s)	10.4	21.1		12.9	14.6		69.9	67.5	44.5	53.5	52.7	
Level of Service	B	C		B	B		E	E	D	D	D	
Approach Delay (s)		20.5			14.3			62.7			53.0	
Approach LOS		C			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM 2010 TWSC
18: Hillside Avenue & East Main Street

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	760	20	0	610	0	20	0	20	10	0	30
Future Vol, veh/h	30	760	20	0	610	0	20	0	20	10	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	73	73	73	56	56	56
Heavy Vehicles, %	0	6	10	13	7	0	0	0	5	0	0	0
Mvmt Flow	35	880	23	0	706	0	30	0	30	20	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	706	0	0	903	0	0	1698	1668	452	1216	1679	706
Stage 1	-	-	-	-	-	-	962	962	-	706	706	-
Stage 2	-	-	-	-	-	-	736	706	-	510	973	-
Critical Hdwy	4.1	-	-	4.295	-	-	7.3	6.5	6.975	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.3235	-	-	3.5	4	3.3475	3.5	4	3.3
Pot Cap-1 Maneuver	902	-	-	696	-	-	67	97	549	149	96	439
Stage 1	-	-	-	-	-	-	279	337	-	430	442	-
Stage 2	-	-	-	-	-	-	414	442	-	519	333	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	902	-	-	696	-	-	55	89	549	132	89	439
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	89	-	132	89	-
Stage 1	-	-	-	-	-	-	257	311	-	396	442	-
Stage 2	-	-	-	-	-	-	358	442	-	452	307	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	84.9	23
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	100	902	-	-	696	-	-	278
HCM Lane V/C Ratio	0.603	0.039	-	-	-	-	-	0.283
HCM Control Delay (s)	84.9	9.2	0.3	-	0	-	-	23
HCM Lane LOS	F	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	2.9	0.1	-	-	0	-	-	1.1

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM 2010 TWSC
22: Maud Street & East Main Street

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	650	0	10	630	10	10
Future Vol, veh/h	650	0	10	630	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	83	83
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	745	0	11	722	13	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	745	0	1489	745
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	744	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	872	-	138	417
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	872	-	135	417
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	473	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	25.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	204	-	-	872	-
HCM Lane V/C Ratio	0.13	-	-	0.013	-
HCM Control Delay (s)	25.3	-	-	9.2	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM 2010 TWSC
26: East Main Street & Brookside Avenue

Intersection						
Int Delay, s/veh	0.2					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	650	620	10	0	0
Future Vol, veh/h	20	650	620	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	64	64
Heavy Vehicles, %	0	0	11	0	0	0
Mvmt Flow	23	745	710	11	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	721	0	-	0	1507	716
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	791	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	890	-	-	-	134	434
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	450	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	890	-	-	-	128	434
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	450	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	890	-	-	-	-
HCM Lane V/C Ratio	0.026	-	-	-	-
HCM Control Delay (s)	9.2	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour

HCM 2010 TWSC
36: BJ's Driveway & East Main Street

Intersection						
Int Delay, s/veh	3.4					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	870	40	160	600	0	160
Future Vol, veh/h	870	40	160	600	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	88	88	92	92
Heavy Vehicles, %	9	0	0	4	0	3
Mvmt Flow	1063	49	200	750	0	191

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1112	0	-	556
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.33
Pot Cap-1 Maneuver	-	-	635	-	0	472
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	635	-	-	472
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	472	-	-	635	-
HCM Lane V/C Ratio	0.405	-	-	0.315	-
HCM Control Delay (s)	17.7	-	-	13.3	2.3
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.9	-	-	1.3	-

Intersection Operations Analysis Worksheets

Intersection												
Int Delay, s/veh	72.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	860	240	140	760	10	20	0	180	10	10	40
Future Vol, veh/h	20	860	240	140	760	10	20	0	180	10	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	90	90	90	73	73	73	87	87	87
Heavy Vehicles, %	0	3	0	1	3	0	0	0	1	0	0	0
Mvmt Flow	23	1006	281	171	929	12	30	0	271	13	13	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1006	0	0	1865	2335	503	1826	2329	471
Stage 1	-	-	-	-	-	-	1052	1052	-	1277	1277	-
Stage 2	-	-	-	-	-	-	813	1283	-	549	1052	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.5	6.5	6.92	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.21	-	-	3.5	4	3.31	3.5	4	3.3
Pot Cap-1 Maneuver	737	-	-	690	-	-	46	37	517	49	38	545
Stage 1	-	-	-	-	-	-	246	306	-	179	239	-
Stage 2	-	-	-	-	-	-	343	238	-	493	306	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	737	-	-	690	-	-	~ 19	24	517	17	25	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 19	24	-	17	25	-
Stage 1	-	-	-	-	-	-	216	268	-	157	180	-
Stage 2	-	-	-	-	-	-	218	179	-	206	268	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.8	$ 572.6	$ 350.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	143	737	-	-	690	-	-	57
HCM Lane V/C Ratio	2.107	0.032	-	-	0.248	-	-	1.331
HCM Control Delay (s)	$ 572.6	10	0.6	-	11.9	-	-	$ 350.9
HCM Lane LOS	F	B	A	-	B	-	-	F
HCM 95th %tile Q(veh)	24.4	0.1	-	-	1	-	-	6.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	100	340	540	200	260
Future Volume (vph)	100	340	540	200	260
Lane Group Flow (vph)	117	398	679	440	358
Turn Type	D.P+P	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	11.0		34.0	30.0	30.0
Total Split (%)	14.7%		45.3%	40.0%	40.0%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.23	0.18	0.41	0.57	0.56
Control Delay	7.1	6.0	21.9	27.4	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	6.0	21.9	27.4	6.2
Queue Length 50th (ft)	17	32	123	94	0
Queue Length 95th (ft)	45	64	205	106	34
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	503	2174	1657	1098	756
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	0.18	0.41	0.40	0.47

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	340	0	0	540	10	120	200	260	0	0	0
Future Volume (vph)	100	340	0	0	540	10	120	200	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			1.00			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1719	3374			3400			3293	1553			
Flt Permitted	0.34	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	624	3374			3400			3293	1553			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.80	0.80	0.80	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	117	398	0	0	667	12	165	275	358	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	274	0	0	0
Lane Group Flow (vph)	117	398	0	0	677	0	0	440	84	0	0	0
Heavy Vehicles (%)	5%	7%	0%	0%	6%	0%	7%	8%	4%	0%	0%	0%
Turn Type	D.P+P	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	44.3	47.3			36.6			17.7	17.7			
Effective Green, g (s)	44.3	47.3			36.6			17.7	17.7			
Actuated g/C Ratio	0.59	0.63			0.49			0.24	0.24			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	480	2127			1659			777	366			
v/s Ratio Prot	c0.02	0.12			c0.20							
v/s Ratio Perm	0.12							0.13	0.05			
v/c Ratio	0.24	0.19			0.41			0.57	0.23			
Uniform Delay, d1	6.9	5.8			12.3			25.3	23.1			
Progression Factor	1.00	1.00			1.57			1.00	1.00			
Incremental Delay, d2	0.3	0.0			0.6			1.0	0.3			
Delay (s)	7.2	5.8			19.9			26.2	23.5			
Level of Service	A	A			B			C	C			
Approach Delay (s)		6.1			19.9			25.0				0.0
Approach LOS		A			B			C				A

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

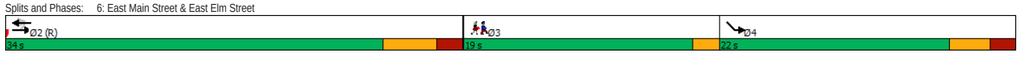
East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	SEL	Ø3
Lane Configurations					
Traffic Volume (vph)	10	560	550	270	
Future Volume (vph)	10	560	550	270	
Lane Group Flow (vph)	0	738	1124	335	
Turn Type	Perm	NA	NA	Prot	
Protected Phases		2	2	4	3
Permitted Phases	2				
Detector Phase	2	2	2	4	
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	11.0	19.0
Total Split (s)	34.0	34.0	34.0	22.0	19.0
Total Split (%)	45.3%	45.3%	45.3%	29.3%	25%
Yellow Time (s)	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	5.0	
Lead/Lag				Lag	Lead
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.40	0.58	0.72		
Control Delay	12.1	9.0	33.5		
Queue Delay	0.0	0.0	0.0		
Total Delay	12.1	9.0	33.5		
Queue Length 50th (ft)	119	100	138		
Queue Length 95th (ft)	151	m120	209		
Internal Link Dist (ft)	160	602	27		
Turn Bay Length (ft)					
Base Capacity (vph)	1835	1929	478		
Starvation Cap Reductn	0	0	0		
Spillback Cap Reductn	0	0	0		
Storage Cap Reductn	0	0	0		
Reduced v/c Ratio	0.40	0.58	0.70		

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: East Main Street & East Elm Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	10	560	550	410	270	10
Future Volume (vph)	10	560	550	410	270	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.94		1.00	
Flt Protected		1.00	1.00		0.95	
Satd. Flow (prot)		3375	3094		1730	
Flt Permitted		0.93	1.00		0.95	
Satd. Flow (perm)		3137	3094		1730	
Peak-hour factor, PHF	0.85	0.85	0.94	0.94	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	13	725	644	480	323	12
RTOR Reduction (vph)	0	0	119	0	1	0
Lane Group Flow (vph)	0	738	1005	0	334	0
Heavy Vehicles (%)	0%	7%	6%	5%	8%	0%
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	2		4	
Permitted Phases	2					
Actuated Green, G (s)		43.9	43.9		20.1	
Effective Green, g (s)		43.9	43.9		20.1	
Actuated g/C Ratio		0.59	0.59		0.27	
Clearance Time (s)		6.0	6.0		5.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1836	1811		463	
v/s Ratio Prot			c0.32		c0.19	
v/s Ratio Perm		0.24				
v/c Ratio		0.40	0.55		0.72	
Uniform Delay, d1		8.4	9.6		24.9	
Progression Factor		1.24	1.04		1.00	
Incremental Delay, d2		0.6	0.9		5.5	
Delay (s)	11.1	10.9			30.4	
Level of Service	B	B			C	
Approach Delay (s)	11.1	10.9			30.4	
Approach LOS	B	B			C	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	580	10	570	380	30
Future Volume (vph)	580	10	570	380	30
Lane Group Flow (vph)	1011	0	742	498	39
Turn Type	NA	pm+pt	NA	Prot	Free
Protected Phases	2	3	2 3	4	
Permitted Phases		2 3	2 3		Free
Detector Phase	2	3	2 3	4	
Switch Phase					
Minimum Initial (s)	15.0	8.0		7.0	
Minimum Split (s)	20.0	15.0		12.0	
Total Split (s)	31.0	15.0		29.0	
Total Split (%)	41.3%	20.0%		38.7%	
Yellow Time (s)	3.0	4.0		3.0	
All-Red Time (s)	2.0	3.0		2.0	
Lost Time Adjust (s)	0.0			0.0	
Total Lost Time (s)	5.0			5.0	
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?					
Recall Mode	C-Max	None		None	
v/c Ratio	0.85		0.47	0.94	0.03
Control Delay	34.3		11.3	53.1	0.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	34.3		11.3	53.1	0.0
Queue Length 50th (ft)	180		97	220	0
Queue Length 95th (ft)	#268		126	#355	0
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1184		1576	544	1482
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.85		0.47	0.92	0.03

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: New Harwinton Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	580	210	10	570	380	30
Future Volume (vph)	580	210	10	570	380	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	4.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3213			3378	1703	1482
Flt Permitted	1.00			0.94	0.95	1.00
Satd. Flow (perm)	3213			3186	1703	1482
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.84	0.84
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	742	269	13	729	498	39
RTOR Reduction (vph)	49	0	0	0	0	0
Lane Group Flow (vph)	963	0	0	742	498	39
Heavy Vehicles (%)	6%	13%	50%	6%	6%	9%
Turn Type	NA		pm+pt	NA	Prot	Free
Protected Phases	2		3	2 3	4	
Permitted Phases			2 3	2 3		Free
Actuated Green, G (s)	26.5			34.5	23.5	75.0
Effective Green, g (s)	26.5			34.5	23.5	75.0
Actuated g/C Ratio	0.35			0.46	0.31	1.00
Clearance Time (s)	5.0				5.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	1135			1486	533	1482
v/s Ratio Prot	c0.30			c0.05	c0.29	
v/s Ratio Perm				0.18		0.03
v/c Ratio	0.85			0.50	0.93	0.03
Uniform Delay, d1	22.4			14.2	25.0	0.0
Progression Factor	1.26			1.00	1.00	1.00
Incremental Delay, d2	7.1			0.3	23.7	0.0
Delay (s)	35.4			14.5	48.7	0.0
Level of Service	D			B	D	A
Approach Delay (s)	35.4			14.5	45.2	
Approach LOS	D			B	D	

Intersection Summary			
HCM 2000 Control Delay	30.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

Lanes, Volumes, Timings
12: Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø9
Lane Configurations									
Traffic Volume (vph)	70	460	20	370	70	170	30	120	
Future Volume (vph)	70	460	20	370	70	170	30	120	
Lane Group Flow (vph)	0	686	27	516	86	294	40	255	
Turn Type	D.P+P	NA	Perm	NA	pm+pt	NA	pm+pt	NA	
Protected Phases	1	1 2		2	3	4	3	4	9
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	3	4	3	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	10.0		29.0	29.0	12.0	17.0	12.0	17.0	22.0
Total Split (%)	11.1%		32.2%	32.2%	13.3%	18.9%	13.3%	18.9%	24%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	0.0	2.0	0.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)			5.0	5.0	3.0	5.0	3.0	5.0	
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	Max		Min	Min	None	None	None	None	None
v/c Ratio		0.49	0.11	0.79	0.23	0.85	0.12	0.73	
Control Delay		10.4	16.1	30.3	15.6	50.5	14.4	38.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		10.4	16.1	30.3	15.6	50.5	14.4	38.3	
Queue Length 50th (ft)		76	7	185	23	110	10	89	
Queue Length 95th (ft)		115	21	#278	49	#249	25	#169	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100		150		
Base Capacity (vph)		1410	249	653	397	345	368	347	
Starvation Cap Reductn		0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.49	0.11	0.79	0.22	0.85	0.11	0.73	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 64.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Torringford West Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future AM Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
12: Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	460	50	20	370	10	70	170	70	30	120	70
Future Volume (vph)	70	460	50	20	370	10	70	170	70	30	120	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		3.0	5.0		3.0	5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.99		1.00	1.00		1.00	0.96		1.00	0.94	
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3320		1626	1751		1805	1775		1805	1749	
Flt Permitted		0.78		0.39	1.00		0.41	1.00		0.33	1.00	
Satd. Flow (perm)		2589		669	1751		784	1775		628	1749	
Peak-hour factor, PHF	0.93	0.93	0.93	0.81	0.81	0.81	0.90	0.90	0.90	0.82	0.82	0.82
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	83	544	59	27	502	14	86	208	86	40	161	94
RTOR Reduction (vph)	0	6	0	0	1	0	0	15	0	0	22	0
Lane Group Flow (vph)	0	680	0	27	515	0	86	279	0	40	233	0
Heavy Vehicles (%)	0%	8%	4%	11%	8%	10%	0%	0%	8%	0%	3%	2%
Turn Type	D.P+P	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	1 2			2		3	4		3	4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		31.1		24.1	24.1		18.3	12.1		18.3	12.1	
Effective Green, g (s)		31.1		24.1	24.1		18.3	12.1		18.3	12.1	
Actuated g/C Ratio		0.48		0.37	0.37		0.28	0.19		0.28	0.19	
Clearance Time (s)				5.0	5.0		3.0	5.0		3.0	5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1309		246	645		316	328		287	323	
v/s Ratio Prot		c0.06			c0.29		c0.03	c0.16		0.01	0.13	
v/s Ratio Perm		0.19		0.04			0.05			0.03		
v/c Ratio		0.52		0.11	0.80		0.27	0.85		0.14	0.72	
Uniform Delay, d1		11.9		13.6	18.5		17.9	25.8		17.6	25.1	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3		0.2	6.8		0.5	18.1		0.2	7.7	
Delay (s)	12.3	13.8		25.3	18.4		43.9			17.8	32.8	
Level of Service	B	B		C	B		D			B	C	
Approach Delay (s)	12.3			24.7			38.1				30.8	
Approach LOS	B			C			D				C	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	65.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

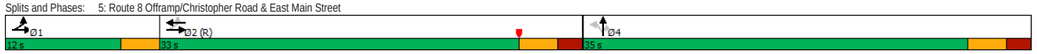
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	110	580	650	250	390
Future Volume (vph)	110	580	650	250	390
Lane Group Flow (vph)	133	701	793	402	461
Turn Type	D.P+P	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	12.0		33.0	35.0	35.0
Total Split (%)	15.0%		41.3%	43.8%	43.8%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.31	0.31	0.50	0.41	0.79
Control Delay	10.1	8.7	11.4	23.7	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	8.7	11.4	23.7	25.0
Queue Length 50th (ft)	25	80	64	84	124
Queue Length 95th (ft)	60	138	m109	107	208
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	428	2246	1590	1309	718
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	0.31	0.31	0.50	0.31	0.64

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	580	0	0	650	20	90	250	390	0	0	0
Future Volume (vph)	110	580	0	0	650	20	90	250	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			1.00			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.99	1.00			
Satd. Flow (prot)	1736	3610			3552			3493	1599			
Flt Permitted	0.27	1.00			1.00			0.99	1.00			
Satd. Flow (perm)	493	3610			3552			3493	1599			
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	133	701	0	0	769	24	106	296	461	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	137	0	0	0
Lane Group Flow (vph)	133	701	0	0	791	0	0	402	324	0	0	0
Heavy Vehicles (%)	4%	0%	0%	0%	1%	7%	2%	2%	1%	2%	2%	2%
Turn Type	D.P+P	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	44.8	47.8			35.8			22.2	22.2			
Effective Green, g (s)	44.8	47.8			35.8			22.2	22.2			
Actuated g/C Ratio	0.56	0.60			0.45			0.28	0.28			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	415	2156			1589			969	443			
v/s Ratio Prot	0.04	c0.19			c0.22							
v/s Ratio Perm	0.14							0.12	c0.20			
v/c Ratio	0.32	0.33			0.50			0.41	0.73			
Uniform Delay, d1	8.9	8.0			15.7			23.6	26.2			
Progression Factor	1.00	1.00			0.61			1.00	1.00			
Incremental Delay, d2	0.4	0.1			0.7			0.3	6.1			
Delay (s)	9.4	8.1			10.3			23.9	32.3			
Level of Service	A	A			B			C	C			
Approach Delay (s)		8.3			10.3			28.4			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	SEL	Ø3
Lane Configurations					
Traffic Volume (vph)	10	230	640	490	
Future Volume (vph)	10	230	640	490	
Lane Group Flow (vph)	0	284	1282	585	
Turn Type	Perm	NA	NA	Prot	
Protected Phases		2	2	4	3
Permitted Phases	2				
Detector Phase	2	2	2	4	
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	11.0	19.0
Total Split (s)	33.0	33.0	33.0	28.0	19.0
Total Split (%)	41.3%	41.3%	41.3%	35.0%	24%
Yellow Time (s)	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	5.0	
Lead/Lag				Lag	Lead
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.22	0.85	0.72	
Control Delay		12.9	14.3	24.7	
Queue Delay		0.0	0.0	0.0	
Total Delay		12.9	14.3	24.7	
Queue Length 50th (ft)		34	138	244	
Queue Length 95th (ft)		55	m#202	338	
Internal Link Dist (ft)		160	602	27	
Turn Bay Length (ft)					
Base Capacity (vph)		1280	1508	812	
Starvation Cap Reductn		0	0	0	
Spillback Cap Reductn		0	0	0	
Storage Cap Reductn		0	0	0	
Reduced v/c Ratio		0.22	0.85	0.72	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: East Main Street & East Elm Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	10	230	640	490	490	10
Future Volume (vph)	10	230	640	490	490	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.93		1.00	
Flt Protected		1.00	1.00		0.95	
Satd. Flow (prot)		3568	3212		1848	
Flt Permitted		0.85	1.00		0.95	
Satd. Flow (perm)		3030	3212		1848	
Peak-hour factor, PHF	0.93	0.93	0.97	0.97	0.94	0.94
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	12	272	726	556	573	12
RTOR Reduction (vph)	0	0	150	0	1	0
Lane Group Flow (vph)	0	284	1132	0	584	0
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	2		4	
Permitted Phases	2					
Actuated Green, G (s)		33.8	33.8		35.2	
Effective Green, g (s)		33.8	33.8		35.2	
Actuated g/C Ratio		0.42	0.42		0.44	
Clearance Time (s)		6.0	6.0		5.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1280	1357		813	
v/s Ratio Prot			c0.35		c0.32	
v/s Ratio Perm		0.09				
v/c Ratio		0.22	0.83		0.72	
Uniform Delay, d1		14.7	20.6		18.3	
Progression Factor		0.85	0.53		1.00	
Incremental Delay, d2		0.4	4.6		3.1	
Delay (s)		12.9	15.5		21.4	
Level of Service		B	B		C	
Approach Delay (s)		12.9	15.5		21.4	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

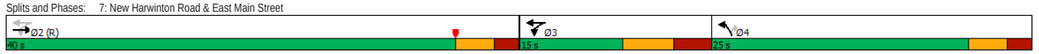
East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	870	10	800	340	40
Future Volume (vph)	870	10	800	340	40
Lane Group Flow (vph)	1470	0	938	416	49
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	2	3	3	4	
Permitted Phases		2	2		4
Detector Phase	2	3	3	4	4
Switch Phase					
Minimum Initial (s)	15.0	8.0	8.0	7.0	7.0
Minimum Split (s)	20.0	15.0	15.0	12.0	12.0
Total Split (s)	40.0	15.0	15.0	25.0	25.0
Total Split (%)	50.0%	18.8%	18.8%	31.3%	31.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0		7.0	5.0	5.0
Lead/Lag		Lead	Lead	Lag	Lag
Lead-Lag Optimize?					
Recall Mode	C-Max	None	None	None	None
v/c Ratio	0.94		0.57	0.94	0.12
Control Delay	32.5		11.1	61.6	13.6
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	32.5		11.1	61.6	13.6
Queue Length 50th (ft)	377		120	204	7
Queue Length 95th (ft)	#508		160	#374	33
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1562		1659	446	403
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.94		0.57	0.93	0.12

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: New Harwinton Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	870	400	10	800	340	40
Future Volume (vph)	870	400	10	800	340	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			7.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.95			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3405			3607	1787	1524
Flt Permitted	1.00			0.87	0.95	1.00
Satd. Flow (perm)	3405			3137	1787	1524
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.90	0.90
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	1007	463	12	926	416	49
RTOR Reduction (vph)	67	0	0	0	0	23
Lane Group Flow (vph)	1403	0	0	938	416	26
Heavy Vehicles (%)	1%	1%	1%	0%	1%	6%
Turn Type	NA		D.P+P	NA	Prot	Perm
Protected Phases	2		3	3	4	
Permitted Phases			2	2		4
Actuated Green, G (s)	35.1			43.1	19.9	19.9
Effective Green, g (s)	35.1			43.1	19.9	19.9
Actuated g/C Ratio	0.44			0.54	0.25	0.25
Clearance Time (s)	5.0			7.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1493			1737	444	379
v/s Ratio Prot	c0.41			c0.05	c0.23	
v/s Ratio Perm				0.24		0.02
v/c Ratio	0.94			0.54	0.94	0.07
Uniform Delay, d1	21.4			12.0	29.4	23.0
Progression Factor	0.97			1.00	1.00	1.00
Incremental Delay, d2	12.4			0.3	27.3	0.1
Delay (s)	33.2			12.3	56.7	23.1
Level of Service	C			B	E	C
Approach Delay (s)	33.2			12.3	53.2	
Approach LOS	C			B	D	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

Lanes, Volumes, Timings
12: Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø9
Lane Configurations									
Traffic Volume (vph)	60	720	40	600	80	140	40	180	
Future Volume (vph)	60	720	40	600	80	140	40	180	
Lane Group Flow (vph)	0	1018	48	749	97	266	48	303	
Turn Type	D.P+P	NA	Perm	NA	pm+pt	NA	pm+pt	NA	
Protected Phases	1	1 2		2	3	4	3	4	9
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	3	4	3	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	18.0		62.0	62.0	12.0	26.0	12.0	26.0	22.0
Total Split (%)	12.9%		44.3%	44.3%	8.6%	18.6%	8.6%	18.6%	16%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	0.0	2.0	0.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)			5.0	5.0	3.0	5.0	3.0	5.0	
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	Max		Min	Min	None	None	None	None	None
v/c Ratio		0.62	0.19	0.83	0.48	0.80	0.21	0.91	
Control Delay		12.2	19.8	35.5	39.3	62.4	32.5	77.1	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		12.2	19.8	35.5	39.3	62.4	32.5	77.1	
Queue Length 50th (ft)		181	20	476	55	184	26	220	
Queue Length 95th (ft)		223	47	659	98	#319	57	#389	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100		150		
Base Capacity (vph)		1634	260	909	209	331	236	333	
Starvation Cap Reductn		0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.62	0.18	0.82	0.46	0.80	0.20	0.91	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 117.4
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Torringford West Street & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future PM Peak Hour

HCM Signalized Intersection Capacity Analysis
12: Torringford West Street & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	720	80	40	600	20	80	140	80	40	180	70
Future Volume (vph)	60	720	80	40	600	20	80	140	80	40	180	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		3.0	5.0		3.0	5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.99		1.00	1.00		1.00	0.95		1.00	0.96	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3518		1805	1873		1805	1777		1805	1810	
Flt Permitted		0.67		0.28	1.00		0.19	1.00		0.26	1.00	
Satd. Flow (perm)		2348		535	1873		362	1777		500	1810	
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	71	852	95	48	725	24	97	169	97	48	218	85
RTOR Reduction (vph)	0	5	0	0	1	0	0	14	0	0	10	0
Lane Group Flow (vph)	0	1013	0	48	748	0	97	252	0	48	293	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	3%	0%	0%	2%
Turn Type	D.P+P	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	1 2			2		3	4		3	4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		71.8		56.8	56.8		29.6	21.0		29.6	21.0	
Effective Green, g (s)		71.8		56.8	56.8		29.6	21.0		29.6	21.0	
Actuated g/C Ratio		0.61		0.48	0.48		0.25	0.18		0.25	0.18	
Clearance Time (s)				5.0	5.0		3.0	5.0		3.0	5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1585		258	906		196	317		221	323	
v/s Ratio Prot		c0.08			c0.40		c0.04	0.14		0.02	c0.16	
v/s Ratio Perm		0.31		0.09			0.09			0.04		
v/c Ratio		0.64		0.19	0.83		0.49	0.80		0.22	0.91	
Uniform Delay, d1		14.5		17.2	26.1		35.7	46.1		34.3	47.2	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9		0.4	6.2		2.0	12.9		0.5	27.6	
Delay (s)		15.4		17.5	32.3		37.6	59.0		34.8	74.9	
Level of Service		B		B	C		D	E		C	E	
Approach Delay (s)		15.4			31.4			53.3			69.4	
Approach LOS		B			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	33.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	117.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	98.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

Lanes, Volumes, Timings
5: Route 8 Offramp/Christopher Road & East Main Street

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	80	550	630	140	260
Future Volume (vph)	80	550	630	140	260
Lane Group Flow (vph)	94	644	798	263	311
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	1	1 2	2	4	
Permitted Phases	1 2				4
Detector Phase	1	1 2	2	4	4
Switch Phase					
Minimum Initial (s)	5.0		20.0	7.0	7.0
Minimum Split (s)	8.0		25.0	12.0	12.0
Total Split (s)	12.0		41.0	27.0	27.0
Total Split (%)	15.0%		51.3%	33.8%	33.8%
Yellow Time (s)	3.0		3.0	3.0	3.0
All-Red Time (s)	0.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0		5.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?					
Recall Mode	Min		C-Max	None	None
v/c Ratio	0.17	0.25	0.42	0.48	0.63
Control Delay	4.4	4.0	22.2	32.7	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	4.0	22.2	32.7	11.3
Queue Length 50th (ft)	10	41	198	64	11
Queue Length 95th (ft)	29	82	m240	91	74
Internal Link Dist (ft)		423	102	408	
Turn Bay Length (ft)	150				
Base Capacity (vph)	550	2582	1916	956	642
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	0.17	0.25	0.42	0.28	0.48

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Route 8 Offramp/Christopher Road & East Main Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
5: Route 8 Offramp/Christopher Road & East Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	550	0	0	630	30	80	140	260	0	0	0
Future Volume (vph)	80	550	0	0	630	30	80	140	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			5.0			5.0	5.0			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			0.99			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1805	3505			3361			3479	1583			
Flt Permitted	0.31	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	585	3505			3361			3479	1583			
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.25	0.25	0.25
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	94	644	0	0	762	36	96	167	311	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	241	0	0	0
Lane Group Flow (vph)	94	644	0	0	795	0	0	263	70	0	0	0
Heavy Vehicles (%)	0%	3%	0%	0%	7%	0%	0%	3%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	1	1 2			2			4				
Permitted Phases	1 2						4		4			
Actuated Green, G (s)	54.3	57.3			45.6			12.7	12.7			
Effective Green, g (s)	54.3	57.3			45.6			12.7	12.7			
Actuated g/C Ratio	0.68	0.72			0.57			0.16	0.16			
Clearance Time (s)	3.0				5.0			5.0	5.0			
Vehicle Extension (s)	3.0				3.0			3.0	3.0			
Lane Grp Cap (vph)	529	2510			1915			552	251			
v/s Ratio Prot	0.02	c0.18			c0.24							
v/s Ratio Perm	0.10							0.08	0.04			
v/c Ratio	0.18	0.26			0.41			0.48	0.28			
Uniform Delay, d1	4.6	3.9			9.7			30.6	29.6			
Progression Factor	1.00	1.00			2.08			1.00	1.00			
Incremental Delay, d2	0.2	0.1			0.4			0.7	0.6			
Delay (s)	4.7	4.0			20.5			31.3	30.2			
Level of Service	A	A			C			C	C			
Approach Delay (s)		4.1			20.5			30.7			0.0	
Approach LOS		A			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

Lanes, Volumes, Timings
6: East Main Street & East Elm Street

Lane Group	EBL	EBT	WBT	SEL	Ø3
Lane Configurations					
Traffic Volume (vph)	20	730	640	470	
Future Volume (vph)	20	730	640	470	
Lane Group Flow (vph)	0	851	1272	562	
Turn Type	Perm	NA	NA	Prot	
Protected Phases		2	2	4	3
Permitted Phases	2				
Detector Phase	2	2	2	4	
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	6.0	7.0
Minimum Split (s)	21.0	21.0	21.0	11.0	19.0
Total Split (s)	34.0	34.0	34.0	27.0	19.0
Total Split (%)	42.5%	42.5%	42.5%	33.8%	24%
Yellow Time (s)	4.0	4.0	4.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	
Total Lost Time (s)		6.0	6.0	5.0	
Lead/Lag				Lag	Lead
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio		0.74	0.88	0.70	
Control Delay		29.9	23.7	24.5	
Queue Delay		0.0	0.0	0.0	
Total Delay		29.9	23.7	24.5	
Queue Length 50th (ft)		212	83	234	
Queue Length 95th (ft)		273	m#118	327	
Internal Link Dist (ft)		160	602	27	
Turn Bay Length (ft)					
Base Capacity (vph)		1145	1443	799	
Starvation Cap Reductn		0	0	0	
Spillback Cap Reductn		0	0	0	
Storage Cap Reductn		0	0	0	
Reduced v/c Ratio		0.74	0.88	0.70	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: East Main Street & East Elm Street

Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
6: East Main Street & East Elm Street

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	20	730	640	470	470	10
Future Volume (vph)	20	730	640	470	470	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	11	12	13	13
Total Lost time (s)		6.0	6.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.94		1.00	
Flt Protected		1.00	1.00		0.95	
Satd. Flow (prot)		3345	3044		1831	
Flt Permitted		0.80	1.00		0.95	
Satd. Flow (perm)		2689	3044		1831	
Peak-hour factor, PHF	0.97	0.97	0.96	0.96	0.94	0.94
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	23	828	733	539	550	12
RTOR Reduction (vph)	0	0	147	0	1	0
Lane Group Flow (vph)	0	851	1125	0	561	0
Heavy Vehicles (%)	0%	8%	12%	1%	2%	0%
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	2		4	
Permitted Phases	2					
Actuated Green, G (s)		34.1	34.1		34.9	
Effective Green, g (s)		34.1	34.1		34.9	
Actuated g/C Ratio		0.43	0.43		0.44	
Clearance Time (s)		6.0	6.0		5.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1146	1297		798	
v/s Ratio Prot			c0.37		c0.31	
v/s Ratio Perm		0.32				
v/c Ratio		0.74	0.87		0.70	
Uniform Delay, d1		19.3	20.9		18.3	
Progression Factor		1.31	1.02		1.00	
Incremental Delay, d2		4.2	5.9		2.8	
Delay (s)	29.4	27.2			21.2	
Level of Service	C	C			C	
Approach Delay (s)	29.4	27.2			21.2	
Approach LOS	C	C			C	

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

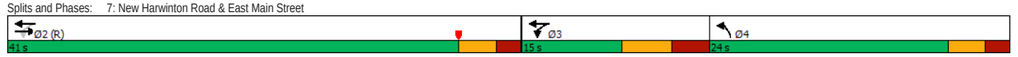
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

Lanes, Volumes, Timings
7: New Harwinton Road & East Main Street

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	910	10	820	290	20
Future Volume (vph)	910	10	820	290	20
Lane Group Flow (vph)	1375	0	1050	380	26
Turn Type	NA	pm+pt	NA	Prot	Free
Protected Phases	2	3	2 3	4	
Permitted Phases		2 3	2 3		Free
Detector Phase	2	3	2 3	4	
Switch Phase					
Minimum Initial (s)	15.0	8.0		7.0	
Minimum Split (s)	20.0	15.0		12.0	
Total Split (s)	41.0	15.0		24.0	
Total Split (%)	51.3%	18.8%		30.0%	
Yellow Time (s)	3.0	4.0		3.0	
All-Red Time (s)	2.0	3.0		2.0	
Lost Time Adjust (s)	0.0			0.0	
Total Lost Time (s)	5.0			5.0	
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?					
Recall Mode	C-Max	None		None	
v/c Ratio	0.90		0.60	0.94	0.02
Control Delay	30.7		10.1	64.8	0.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	30.7		10.1	64.8	0.0
Queue Length 50th (ft)	336		131	187	0
Queue Length 95th (ft)	#442		167	#315	0
Internal Link Dist (ft)	602		809	574	
Turn Bay Length (ft)					80
Base Capacity (vph)	1526		1752	404	1482
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.90		0.60	0.94	0.02

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: New Harwinton Road & East Main Street



Intersection Operations Analysis Worksheets

East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

HCM Signalized Intersection Capacity Analysis
7: New Harwinton Road & East Main Street

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	910	290	10	820	290	20
Future Volume (vph)	910	290	10	820	290	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	4.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3305			3197	1703	1482
Flt Permitted	1.00			0.94	0.95	1.00
Satd. Flow (perm)	3305			3004	1703	1482
Peak-hour factor, PHF	0.96	0.96	0.87	0.87	0.84	0.84
Growth Factor (vph)	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	1043	332	13	1037	380	26
RTOR Reduction (vph)	38	0	0	0	0	0
Lane Group Flow (vph)	1337	0	0	1050	380	26
Heavy Vehicles (%)	6%	3%	0%	13%	6%	9%
Turn Type	NA		pm+pt	NA	Prot	Free
Protected Phases	2		3	2 3	4	
Permitted Phases			2 3	2 3		Free
Actuated Green, G (s)	36.0			44.0	19.0	80.0
Effective Green, g (s)	36.0			44.0	19.0	80.0
Actuated g/C Ratio	0.45			0.55	0.24	1.00
Clearance Time (s)	5.0				5.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	1487			1671	404	1482
v/s Ratio Prot	c0.40			c0.06	c0.22	
v/s Ratio Perm				0.28		0.02
v/c Ratio	0.90			0.63	0.94	0.02
Uniform Delay, d1	20.3			12.4	29.9	0.0
Progression Factor	1.22			1.00	1.00	1.00
Incremental Delay, d2	6.3			0.7	30.0	0.0
Delay (s)	31.1			13.1	60.0	0.0
Level of Service	C			B	E	A
Approach Delay (s)	31.1			13.1	56.1	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

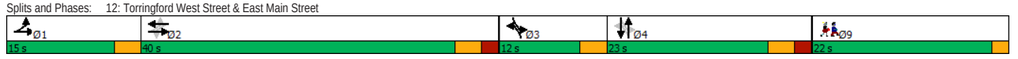
East Main Street Corridor Study - Torrington, CT
2040 Future Saturday Midday Peak Hour w/Improvements

Lanes, Volumes, Timings
12: Torringford West Street & East Main Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø9
Lane Configurations									
Traffic Volume (vph)	60	750	30	550	110	170	30	180	
Future Volume (vph)	60	750	30	550	110	170	30	180	
Lane Group Flow (vph)	0	1101	38	713	133	362	35	319	
Turn Type	D.P+P	NA	Perm	NA	pm+pt	NA	pm+pt	NA	
Protected Phases	1	1 2		2	3	4	3	4	9
Permitted Phases	2		2		4		4		
Detector Phase	1	1 2	2	2	3	4	3	4	
Switch Phase									
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.0		20.0	20.0	12.0	12.0	12.0	12.0	22.0
Total Split (s)	15.0		40.0	40.0	12.0	23.0	12.0	23.0	22.0
Total Split (%)	13.4%		35.7%	35.7%	10.7%	20.5%	10.7%	20.5%	20%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	0.0		2.0	2.0	0.0	2.0	0.0	2.0	0.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)			5.0	5.0	3.0	5.0	3.0	5.0	
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	Max		Min	Min	None	None	None	None	None
v/c Ratio		0.80	0.21	1.02	0.52	0.95	0.14	0.84	
Control Delay		18.4	21.8	68.0	28.1	70.3	20.6	53.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.4	21.8	68.0	28.1	70.3	20.6	53.2	
Queue Length 50th (ft)		177	14	~403	52	186	13	162	
Queue Length 95th (ft)		243	38	#634	94	#367	33	#312	
Internal Link Dist (ft)		669		188		796		739	
Turn Bay Length (ft)					100		150		
Base Capacity (vph)		1371	183	699	282	380	278	380	
Starvation Cap Reductn		0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.80	0.21	1.02	0.47	0.95	0.13	0.84	

Intersection Summary
Cycle Length: 112
Actuated Cycle Length: 88.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ 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: 12: Torringford West Street & East Main Street



Intersection Operations Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	750	110	30	550	20	110	170	130	30	180	90
Future Volume (vph)	60	750	110	30	550	20	110	170	130	30	180	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		5.0	5.0		3.0	5.0		3.0	5.0	
Lane Util. Factor		0.95		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.98		1.00	0.99		1.00	0.93		1.00	0.95	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3395		1805	1770		1770	1761		1805	1799	
Flt Permitted		0.64		0.25	1.00		0.24	1.00		0.22	1.00	
Satd. Flow (perm)		2172		466	1770		455	1761		422	1799	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.91	0.91	0.91	0.93	0.93	0.93
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	72	897	132	38	688	25	133	205	157	35	213	106
RTOR Reduction (vph)	0	8	0	0	1	0	0	23	0	0	15	0
Lane Group Flow (vph)	0	1093	0	38	712	0	133	339	0	35	304	0
Heavy Vehicles (%)	0%	5%	0%	0%	7%	0%	2%	0%	2%	0%	0%	1%
Turn Type	D.P+P	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	1 2			2		3	4		3	4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		47.0		35.0	35.0		25.8	18.0		25.8	18.0	
Effective Green, g (s)		47.0		35.0	35.0		25.8	18.0		25.8	18.0	
Actuated g/C Ratio		0.53		0.39	0.39		0.29	0.20		0.29	0.20	
Clearance Time (s)				5.0	5.0		3.0	5.0		3.0	5.0	
Vehicle Extension (s)				3.0	3.0		0.2	3.0		0.2	3.0	
Lane Grp Cap (vph)		1314		183	697		247	356		244	364	
v/s Ratio Prot		c0.11			c0.40		c0.05	c0.19		0.01	0.17	
v/s Ratio Perm		0.33		0.08			0.11			0.03		
v/c Ratio		0.83		0.21	1.02		0.54	0.95		0.14	0.83	
Uniform Delay, d1		17.6		17.8	26.9		24.8	35.0		23.7	34.0	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.6		0.6	39.6		1.1	35.1		0.1	15.1	
Delay (s)		22.2		18.3	66.5		26.0	70.1		23.8	49.1	
Level of Service		C		B	E		C	E		C	D	
Approach Delay (s)		22.2			64.0			58.2			46.6	
Approach LOS		C			E			E			D	

Intersection Summary				
HCM 2000 Control Delay	43.6	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.95			
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	18.0	
Intersection Capacity Utilization	101.2%	ICU Level of Service	G	
Analysis Period (min)	15			

c Critical Lane Group