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To: CRCOG Cost Review Sub-Committee
CRCOG Transportation Committee

From: Roger Krahn, Principal Transportation Engineer

Date: March 10, 2023

Subject: Regional Roundabout Screening – Progress Update

A presentation of the progress on CRCOG's Regional Roundabout Screening will be given at the Cost Review Sub-Committee Meeting scheduled for 11:00am on March 20, 2023.

The purpose of the Screening is to identify locations of intersections in our region, on both state and locally owned roadways, that are best suited for conversion to a single lane roundabout, with a primary goal of reducing serious crashes. CRCOG staff has been working with the consulting firm VHB on this effort. The presentation on the progress to date will include a review of the following items, which are posted on the CRCOG website at https://crcog.org/event/cost-review-sub-committee-meeting-18/.

- **Screening Methodology Memorandum, 6/24/2022**
  This explains how crash data, average daily traffic volume, and right-of-way impact would be used to compute a score for each intersection location.

- **Roundabout Screening Ranked Locations, 3/9/2023**

  - **Top Ranked 100 Locations, 6 pages**
    This list includes the top 100 locations resulting from the scoring analysis.

  - **Municipal Top 3 Ranked Locations, 4 pages**
    Some municipalities did not have any locations in the top 100. Therefore, this list was prepared showing the locations with the top three highest scores in each municipality.

  - **Municipal Suggested Locations, 5 pages**
    Following a presentation on the Roundabout Screening to the Transportation Committee on November 15, 2021, CRCOG staff requested that municipalities submit their suggestions for strong candidate locations for roundabouts. This list includes all locations received in response to that request.

  - **Top Ranked 100 Locations, 4 pages**
    This list includes the same 100 locations as above but also includes score/ranking calculation details. It shows the crash score, ADT Factor, and Geometric Factor for each location. These factors were used to calculate the Crash, Volume, Right-of-Way (CRV) score.

Memorandum

To: Roger Krahn, CRCOG

Date: 6/24/22

Project #: 42852.00

From: Joseph Balskus, Project Manager

Re: Roundabout Screening Study
Screening Methodology

The Roundabout Screening Study is underway with the crash screening and volume screening efforts. This memorandum summarizes the completed screening efforts and is the Task 2 deliverable for the scope of work prepared to describe the following 5-step screening process: 1) Crash Methodology, 2) Traffic Volume Screening Methodology, 3) Geometry of Intersection, 4) Known Congestion/Operational hotspots, and 5) Desktop reviews. These steps outline the screening process to identify potential locations of single lane roundabouts in the CRCOG region.

Development of Intersection Locations

An existing GIS-based intersection inventory for the CRCOG region is not available. VHB developed the following methodology to create intersections for use in the roundabout study. The methodology leverages Esri's ArcGIS Pro software.

Input Data

CTDOT State Roads GIS Feature Class

CTDOT Local Roads GIS Feature Class

Methodology for Creating Intersection Locations:

1. Combine the State & Locals roads feature classes into a Composite Roads layer.
2. Perform an **Intersect** geoprocessing analysis where the Composite Roads layer is intersected with itself, which produces point features where roads intersect "cross" each other.
3. Perform a **Dissolve** geoprocessing analysis on the results of Step 2 to create a single intersection point for each road crossing. The Dissolve function eliminates overlapping points. Approximately 34,000 potential intersection locations were identified after the Dissolve analysis.
4. Perform a **Buffer** geoprocessing analysis against the results of Step 3. A 5-ft buffer distance was used.
5. Perform an **Intersect** geoprocessing analysis where the Results of Step 4 (intersection buffers) are intersected with the Composite Roads Layer. The result is a list of intersection approaches for each potential intersection location.
6. Perform a **Summary Statistics** analysis on the results of Step 5 to count the number of intersection approaches at each potential intersection location. This step is necessary to eliminate non-roadway intersections such as intersections at town lines, stream crossings, ramp merges, etc.
7. Delete potential intersection locations where the approach count from Step 5 was less than 3. This process eliminates road merges where a ramp merge with the mainline or where two divided roads merge together, breaks in roads at town lines and stream crossings, etc.
8. Several additional GIS overlay analyses were performed against the potential intersection locations to further reduce the number of potential intersections, resulting in a final intersection layer for use in the roundabout

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study. For example, a functional class evaluation was performed on the intersection approaches to identify which intersections were local/local, were associated with an interstate or freeway, and ownership. VHB eliminated all local/local intersections, in accordance with the scope of work, that stated that the screening study would only consider intersections with a functional classification of minor collector road or higher on at least one leg of the intersection. The results of the analysis are summarized below by ownership (ownership information pulled from CTDOT's road inventory database):

- 4,508 Local Intersections (all approaches are owned by the municipality)
- 3,650 State/Local Intersections (DOT owns at least one of the intersection approaches)
- Total = 8,158 Intersections

These total intersections may include some duplicates resulting from median divided intersections. These will be filtered during the screening process.

9. Finally, a series of summary analyses were run against the intersection locations and their associated roadway approaches to identify the following information:
    - min/max functional classification
    - min/max speeds,
    - min/max lane count
    - street names

In Summary, a total of 8,158 intersections within the CRCOG region will undergo the 5-step screening as described in the following steps. The data for these screened intersections will be provided to CRCOG in GIS data set for CRCOG to disseminate to the communities as needed.

Figures 1 through 3 below provide a graphical summary of the genesis of the above roadway screening to generate the total listing of screened intersections.

Memorandum

Figure 1: State & Local Roads within CRCOG Region

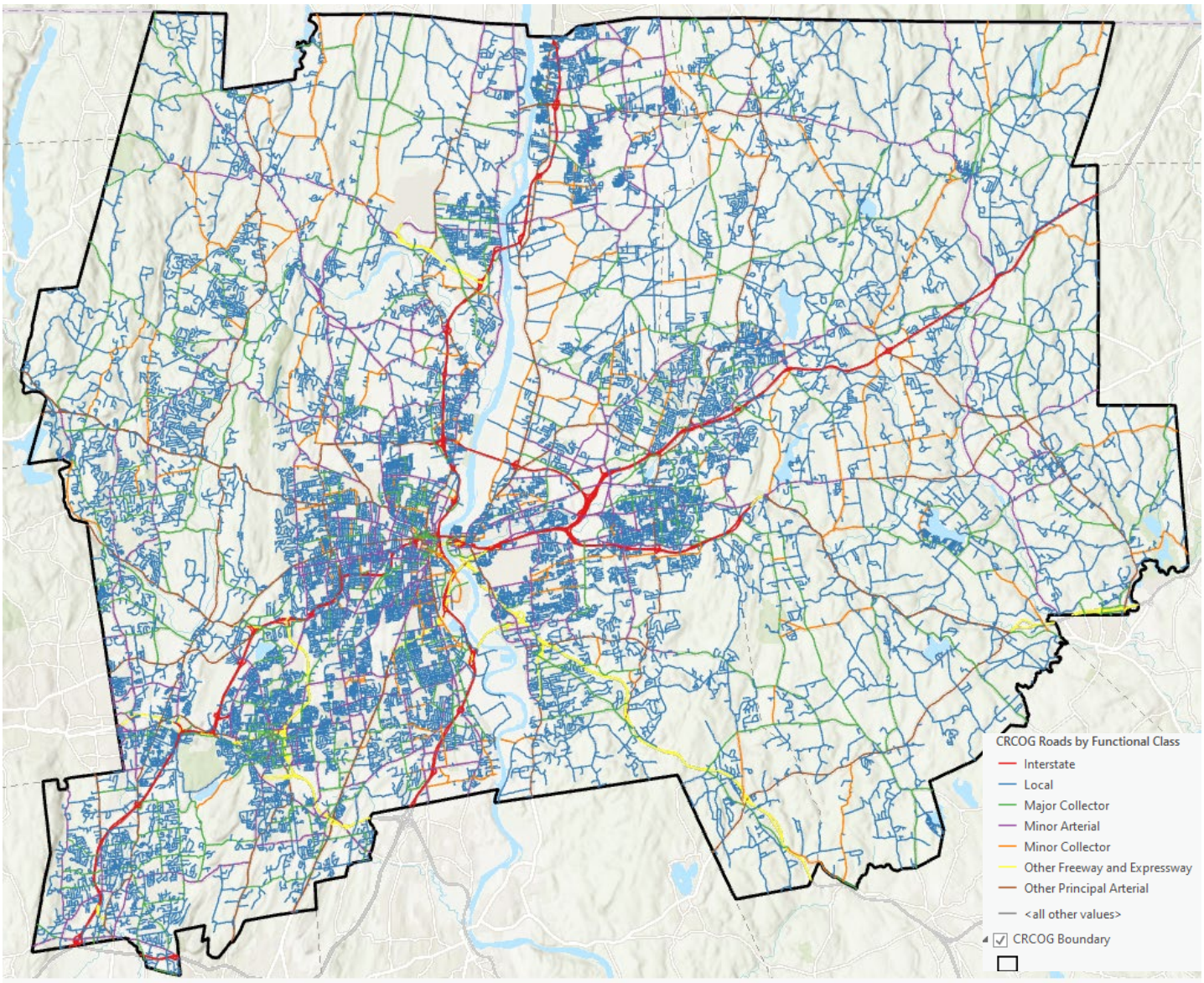

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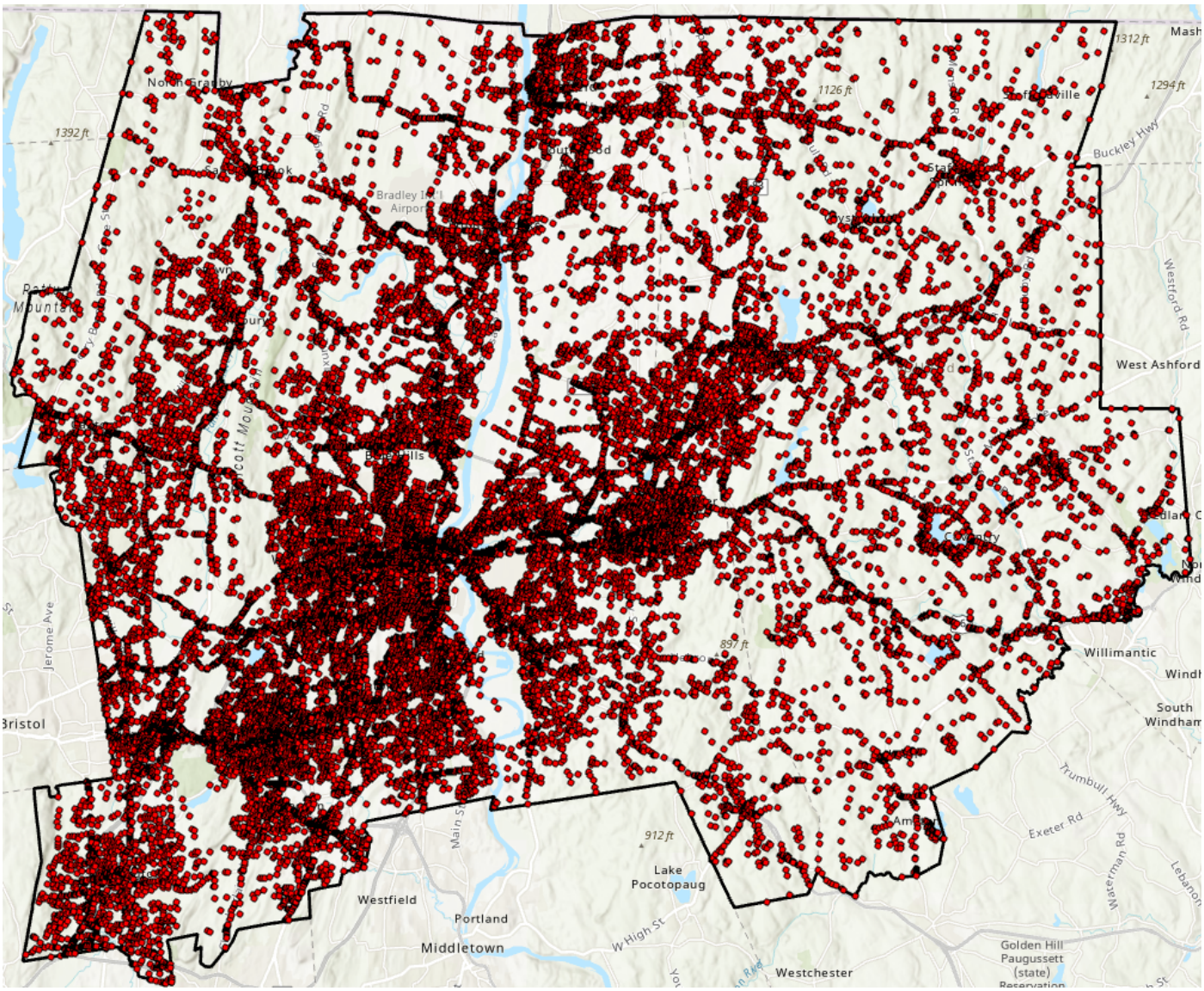
Figure 2: Preliminary Intersection Locations



This figure depicts the results of initial list of intersection locations with the CRCOG region. These locations were generated by intersecting the State & Locals roads, where the result is a point location where roads intersect "cross" each other. Only intersections with a functional classification of minor collector road or higher on at least one leg are included.

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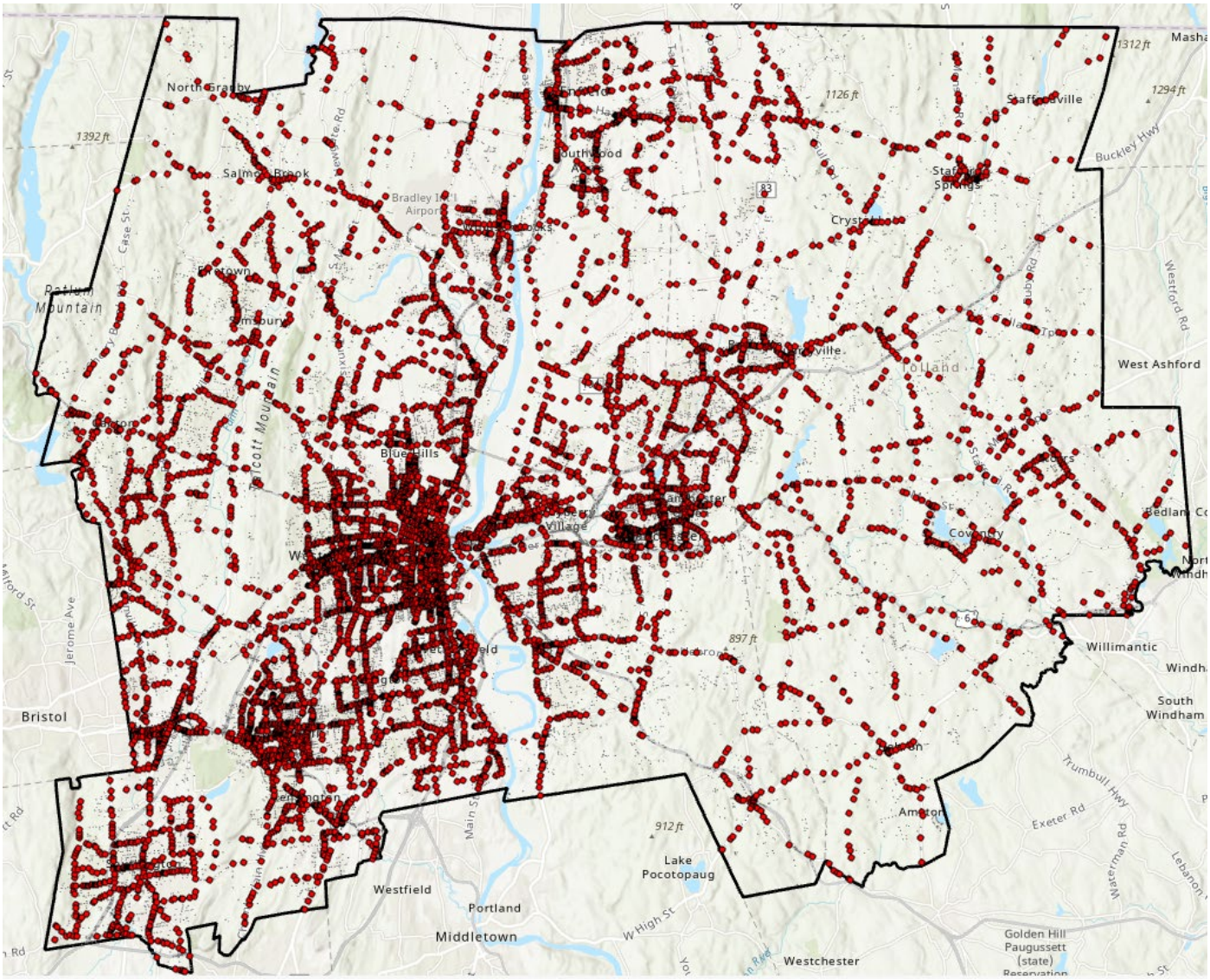
Figure 3: Study Area Intersections



This figure depicts the results of the intersection creation methodology. 8,158 intersection locations were identified for analysis. Many of these intersections will be eliminated after the crash data screening is applied to each location.

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Step 1: Crash Methodology

The primary and initial screening criteria in the screening process is the crash data from the Connecticut Crash Data Repository (CTCDR). The crash data is being entered into a geodatabase to allow for summarization of the data to screen for locations with a documented crash history. The VHB Team is using the Connecticut Roadway Safety Management System (CRSMS) in part to inform the initial screening methodologies.

The following screening methodology is being utilized for the selection criteria elements, using a single elimination type process, based on the following steps:

The CTDOT Regional Transportation Safety Plan (RTSP) developed a crash severity weighting that was reviewed as part of this roundabout crash screening efforts and considered in the development of the following crash screening severity weighting. The RTSP severity weighting is included in the Appendix for refence. A new severity weighting formula was developed in concert with current FHWA requirements and Highway Safety Manual.

A. Crash Data Collection and Severity Weighting

i. Document number of crashes from CT Crash Data Repository over the 3-year period from 2017 to 2019.

ii. Apply the Equivalent Property Damage Only (EPDO) severity ranking methodology, similar to the that included in the CRCOG Regional Transportation Safety Plan 2020. VHB is using the EPDO screening methodology used in the CT Roadway Safety Management System from December 2020 (see Appendix for an explanation of the severity ranking weights). Below is a summary of the weighting factors by crash severity (KABCO injury scale):

K – Weight Factor = 574
A – Weight Factor = 30
B – Weight Factor = 11
C – Weight Factor = 6
O – Weight Factor = 1

For example, using the intersection of Newington Ave at John Downey Drive in New Britain, there are 11 PDO crashes, 2 C crashes, 7 B crashes, 0 A crashes, and 0 K crashes during a 3- year period, the related EPDO score for this location can be calculated as:

$$\text{Weighted Crash Score:} \quad \frac{(11*1+2*6+7*11+0*30+0*574)}{3} = 33.33$$

As noted in the FHWA Highway Safety Improvement Manual, the KABCO Injury Scale is frequently used by law enforcement for classifying injuries and also can be used for establishing crash costs. (K – Fatal; A – Incapacitating injury; B – Non-incapacitating injury; C – Possible injury; and O – No injury.)

iii. Perform crash query based on highest weighted crash score based on EPDO (as per procedures outlined in the CRSMS).

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B. Crash Data Processing with Intersection Locations

i. There are 89,383 total crashes with the CRCOG Region over the 3-year period from 2017 to 2019. Using the intersection layer developed for the roundabout study, VHB filtered the 89,383 crashes down to a subset of intersection crashes based on the methodology below:

- Using the ***Traffic Way Class*** Attribute within crash database, filtered out any crashes that did not occur on a roadway (for example in parking lots and Non-Trafficway Crashes)
  Crash Count = 85,399
- VHB analyzed the ***Crash Specific Location*** Attribute in the crash database to evaluate using only those crashes where the Crash Specific Location Attribute = Intersection. Based on our analysis, we ignored this potential filter. *VHB found too many front-to-rear crashes that were physically located at an intersection, that were miscoded (coded as non-intersection related in the crash database).*
- The study area intersections were buffered by 125 feet (250' diameter study area) from the center of each intersection. This results in a 250-foot diameter circle as shown on the figures below. This is the same buffer used in the Regional Transportation Safety Plans (RTSP) for CTDOT. For the purposes of the roundabout study, the 125-foot intersection buffers serve as the intersection influence zone for screening the crash data on each approach to the intersection. See Figures 4, 5, 6, and 7.
- The 125' intersection buffers were intersected with the 85,399 crashes as the final GIS filter resulting in a subset of crashes associated with the study area intersection locations.
  Total Crashes within Intersection Study Area = 45,942

VHB then performed a summary statistics analysis, where each 125-foot intersection buffer was summarized by crash severity with the results joined to the intersection locations as attribute data for use in running the EPDO screening analysis. Below is a count of the crash data associated with the study area intersections looking at crash severity and the collision type.

Count of crashes in the study area by severity:
K = 70 (Fatality)
A = 512 (Serious/incapacitating injury)
B = 5,350 (Non-incapacitating injury)
C = 7,103 (Possible injury)
O = 32,887 (No injury)
Null = 20

Collision Type Summary:
Angle= 12,328
Front to Front =1,111
Front to Rear = 18,631
Rear to Rear = 70
Rear to Side = 310
Sideswipe, opposite Direction = 1008
Sideswipe, same direction = 6,122
Other, Unknown, Not Applicable = 6,362

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Figure 4: 125-foot radius Intersection Buffers

This figure illustrates the 125-foot buffer area generated for each study intersection for use in screening the crash data. Note how local/local intersection locations have been removed. This segment of Newington Avenue is in New Britain.

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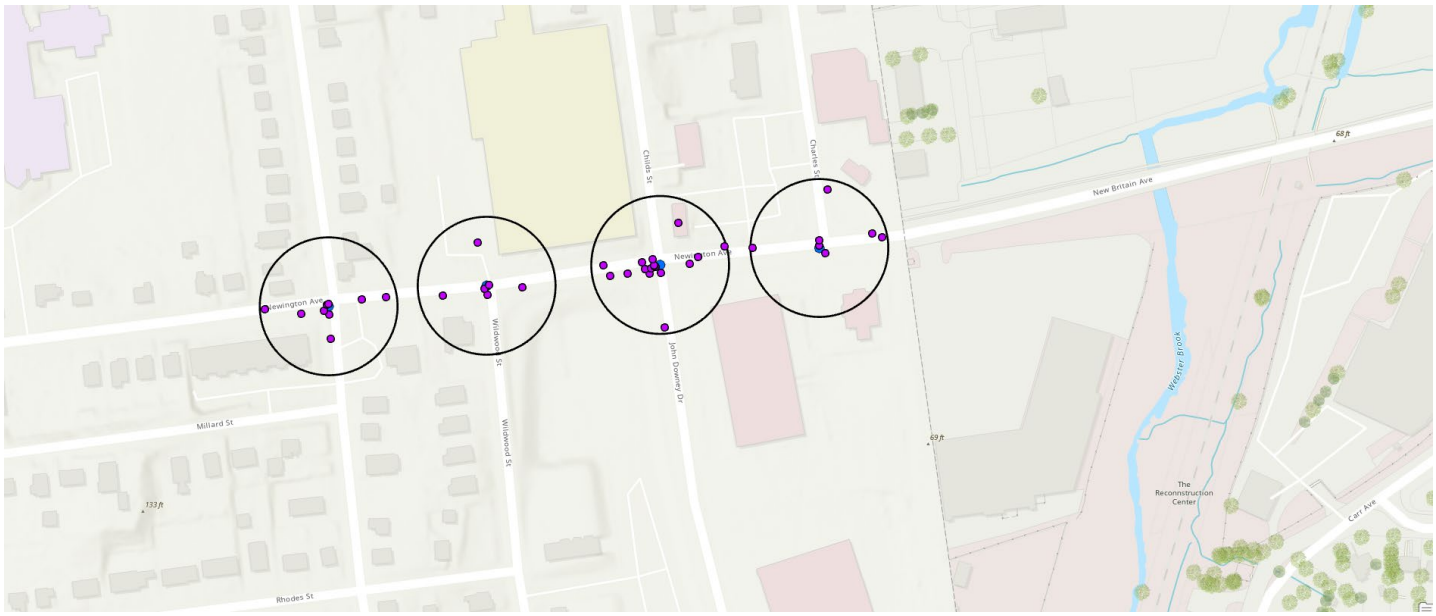
Figure 5: CRCOG crash locations show within 125-foot radius Intersection Buffers

This figure depicts the crashes within the CRCOG region in relation to the 125-foot intersection buffers along Newington Avenue in New Britain.

Memorandum

Figure 6: Crashes Filtered to Intersection Buffers



This figure depicts the results of the preliminary crash analysis where crashes are filtered down to the project area intersection locations (Newington Avenue). For each intersection buffer, the total crashes and crash severity were summarized for use in the EPDO screening analysis.

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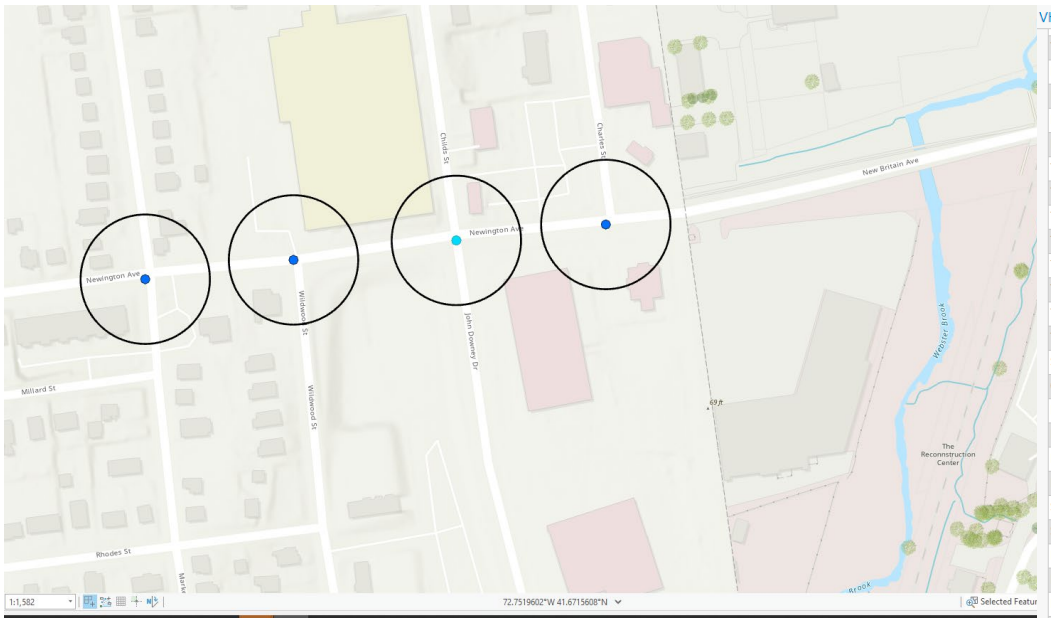
Figure 7: Example Crash Summary Results



VHB Intersection Results - 8969

Town	NEW BRITAIN
Min AADT	6700
Max AADT	13000
Min Functional Class	Local
Max Functional Class	Minor Arterial
Total Crashes	20
Total K Crashes	0
Total A Crashes	0
Total B Crashes	7
Total C Crashes	2
Total O Crashes	11
Total KA Crashes	0
Total KABC Crashes	9
Score	33.333333
Ownership	State/Other
Minimum Speed	35
Maximum Speed	35
Minimum Lanes	2
Maximum Lanes	4
Street 1	NEWINGTON AVE
Street2	CHILDS ST
Route ID	174-E
ParcelImpactCount	2
Parcel Impact Areas (SF)	1050.770752

This figure illustrates the crash data summary for the intersection in the center of the image: Newington Avenue at John Downey Drive. For this location there are 11 PDO crashes, 2 C crashes, 7 B crashes, 0 A crashes, and 0 K crashes during a 3-year period, the related EPDO score for the intersection can be calculated as:

$$\text{Weighted Crash Score: } \frac{(11*1+2*6+7*11+0*30+0*574)}{3} = 33.33$$

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Step 2: Traffic Volume Screening Methodology

The volume screening methodology will be applied to all intersections that were screened under Step 1 Crash Screening. VHB is using the traffic volume data available within the Connecticut Roadway Safety Management System (CRSMS) for all locations screened in Step 1.

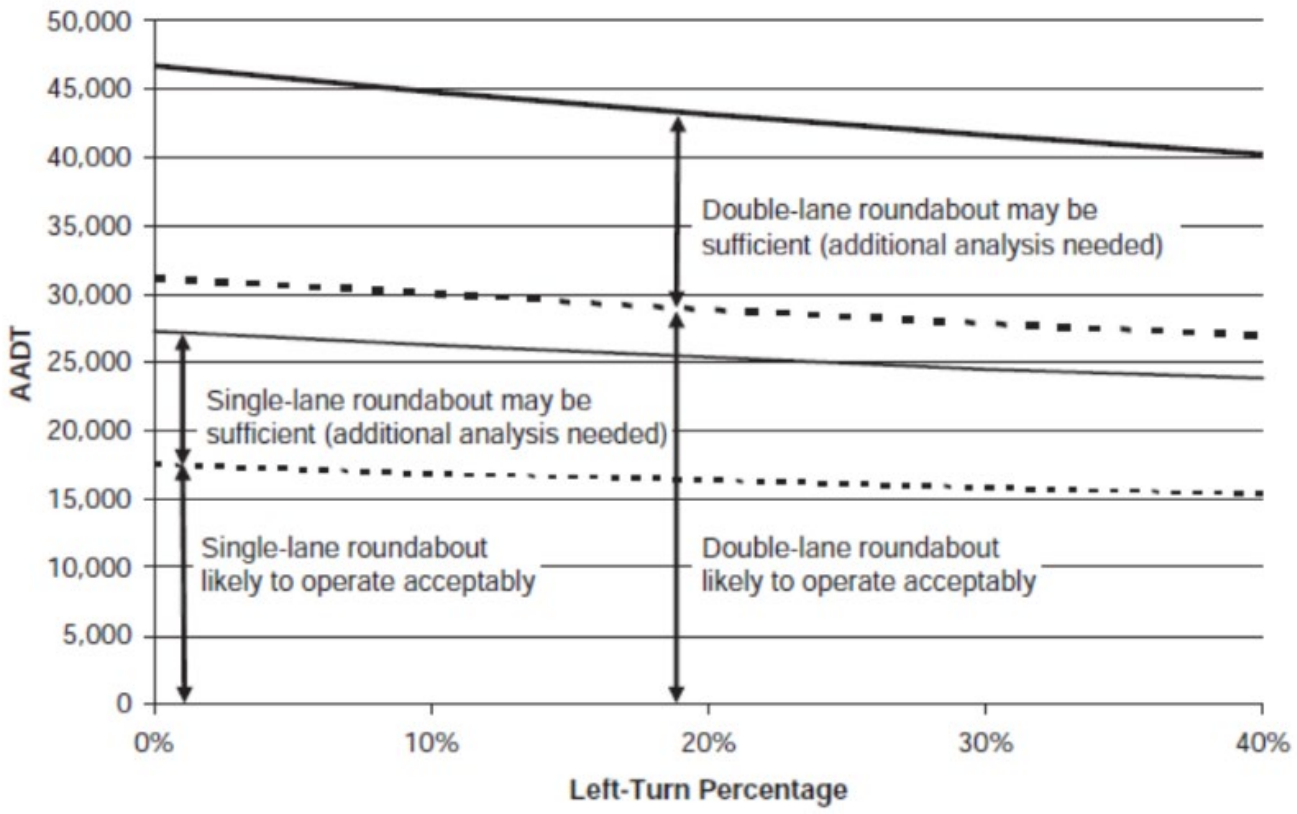
In addition, locations where traffic volume data is not available in the CRSMS, traffic data has been obtained from the CRCOG Travel Demand Model for inclusion in the data sets to ensure all screened intersections can be reviewed for traffic volumes.

All traffic volume data to be utilized will be taken from years prior to 2020 (the pandemic).

The following traffic volume screening steps will be conducted on all the 8,158 study intersection locations.

The NCHRP Report 672 Roundabouts: An Informational Guide, Exhibit 3-12, as shown below, is the primary reference to guide the traffic volume screening. Left turning volume data are not available and therefore an assumed 20% left-turn percentage will be used for all locations in the screening. This results in intersections with average daily traffic (ADT) exceeding 25,000 being eliminated from further consideration in this single lane roundabout screening. The ADT value used, will be selected from the one intersection approach leg with the highest bi-directional ADT. See Figure 9 for a sample intersection, where the screening will use the 13,000 east leg ADT volume, for the overall intersection value in the screening.

Figure 8: NCHRP 672 Exhibit 3-12



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In addition, the intersections will be further screened with a volume adjustment factor to better evaluate the likelihood of a single lane roundabout working at the given location. The following system is proposed for each location under the 25,000 ADT threshold:

Table 1 ADT Range & Volume Adjustment Factors

ADT Range		Factor
0	10,000	1.00
10,000	12,000	0.90
12,000	14,000	0.75
14,000	15,000	0.50
15,000	17,000	0.25
17,000	25,000	0.10
25,000	>	0.00

As shown above, locations above 25,000 ADT are essentially eliminated from further consideration.

Intersections with ADT less than 10,000 are assured to be roundabout ready locations based upon capacity, and the value of 1 is proposed. While the NCHRP Exhibit 3-12 shows 15,000 ADT to be a threshold, using the proposed adjustment factors provides a very high level of confidence in the operational capacity of the intersections being converted to single lane roundabouts. Also, it is important to note that the volume data being used for the screening efforts are existing traffic volume counts from a variety of sources. The ADT values are not adjusted to future forecasted volumes. Therefore, if there is anticipated growth in volumes, using the factor helps account for some anticipated growth and ensures that a single lane roundabout is a good candidate for the screened intersections for further planning and development into an improvement project.

These volume adjustment factors will be utilized in an overall intersection scoring system applied to all 8,158 intersections, as presented in the following sections.

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Figure 9: Sample Intersection Diagram with Volumes

Newington Avenue at John Downey Drive
New Britain, CT

Step 3: Geometry of Intersection

Each of the screened intersections will be fitted with a nominal 120-foot diameter circle to determine the potential fit of the circle at each of the screened intersections. The fitment will be done entirely in GIS mapping and use tools to place the circle at the GIS determined center of the intersection while depicting intersection features available in the mapping including Right Of Way (ROW), buildings and other features. Where possible, shifting the 120-foot diameter circle to avoid a ROW or building impact will be considered unless additional impacts are incurred during the Desktop Review Step.

The following will be considered in the review of the intersection geometry overlaid with the circle:

- In locations where the overlaid circle extends into ROW, the GIS system will generate an area of ROW and building impact which will be summarized per location.
- The impacted ROW will be listed as to ownership criteria: private, municipal, State
- Locations with impacts to private ROW greater than 2,000 square feet will be eliminated
- Locations with impacts to private buildings greater than 200 square feet will be eliminated if the roundabout cannot be adjusted to avoid the impact
- For locations with ROW and building impacts less than the noted thresholds, a summary of the impacts at these locations will be provided.

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Figure 10: Sample Fitment – Intersection of Newington Avenue at John Downey Drive, New Britain

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The geometric fitting test will be summarized with a list of locations that work and a summary graphic.

The following scoring system is proposed to evaluate the impacts to ROW and buildings with locations that have zero impacts given a total factor of 1.00.

ROW Impact:	2,000	-	x square feet
Building Impact:	200	-	x square feet
Total ROW Impact Factor:	(sum)/2,200		

Locations with no impact will have a factor of 1.0, all others will be less than 1.0, and any locations with negative scores will be given a score of 0.0 and thereby eliminated from further consideration.

Sample Intersection Calculation (Newington Ave. & John Downey Drive in New Britain):

Private parcel ROW impact = 1,050.7 square feet

Building impact = 42

Total ROW Impact Factor = (1050.7+42)/2,200 = .50

SUMMARY OF STEP 1, 2, and 3 SCORING

To rank the top locations using the above 3 screening steps; a scoring system is used combining the Step 1 weighted crash score, Step 2 volume adjustment factor, and Step 3, Total ROW Impact score. This provides the crash, volume, ROW score (CRV Score) using the following calculation:

CVR Score = Weighted Crash Score * Volume Adjustment Factor * Total ROW Impact Factor

KABC Filter

For the purposes of ranking, only potential sites with 6 or more KABC (injury related crashes) crashes over the 3-year analysis period, were included in the final ranking. The KABC filter was applied to focus on sites with high benefit/cost ratios for a proposed improvement.

Figure 10 Example CVR Score Calculation (Newington Avenue at John Downey Drive in New Britain):

Step 1: Weighted Crash Score of 33.33

Step 2: Volume Adjustment Factor = 0.75

(ADT of the highest volume leg, east leg = 13,000)

Step 3: Total ROW Impact Factor = .50

CVR Score Calculation: CVR Score = 33.33 * 0.75 * 0.50 = 12.5

Step 4: Known Congestion/Operational Hotspots

Memorandum

Intersections that do not meet the screening criteria but are intersections with known congestion, operational problems and locations suggested by the CRCOG Transportation Committee members via the survey email to municipalities will also be reviewed and screened for consideration.

If these locations were previously eliminated from the crash and volume screening, they will be reviewed for geometry fitting of the roundabout and considered in the screening process.

Step 5: Desktop Reviews

Using the highest CVR scores resulting after Step 3, the list will then be adjusted to include intersections as noted in Step 4. The top ranked locations, with the 100 highest CVR scores will be reviewed at the desktop level to determine if conversion of the intersection to a roundabout is feasible considering obvious site condition impacts that would result from the physical construction of the roundabout.

The desktop reviews of existing site conditions will be conducted to identify obvious major constraints, such as adjacent buildings, major utilities, or significant historic structures based on available GIS data and aerial mapping. The desktop reviews will include a graphical and tabulated summary of the locations with the roundabout locations to be considered for future design projects.

In addition, the screening process will consider an effort to ensure that all CRCOG communities are represented with at least one roundabout location.

The 100 screened locations will be summarized by location and will provide a summary of key criteria at each intersection location (e.g., number of crashes in 3-year period, ADT, state or local ownership, etc.)

Analysis of Potential Crash Reductions

After the completion of the desktop reviews, the roundabout locations will be reviewed for potential crash reductions using AASHTO and NCHRP procedures. This analysis step will be the final step in the screening process to document the screening of the top 100 locations and supplemented with a crash reduction summary.

These procedures will be used to demonstrate the safety benefits of the recommended roundabout locations.

i. Use procedures from the AASHTO Highway Safety Manual (HSM) to predict expected changes in crash frequency based on conversion of intersections to roundabouts. These procedures include using the Empirical Bayes (EB) method to determine the expected crash frequency for the identified candidate signalized/unsignalized intersections and then using the appropriate Crash Modification Factor from the Crash Modification Factor Clearinghouse to determine the expected crash frequency with the roundabout. The EB method is implemented through the use of HSM spreadsheet tools developed by AASHTO and/or safety performance factors calibrated by CTDOT, if available. Figure 11 below is a sample screenshot of the AASHTO spreadsheet tool, which allows a user to input existing geometric and traffic volumes for the signalized/unsignalized intersection, generating an output for the expected number of crashes. Separate spreadsheets are available for different location types: rural two-lane roads, rural multi-lane highways, and urban and suburban arterials. The Enhanced Interchange Safety Analysis Tool (ISATe) is also available from AASHTO to analyze ramp termini.

ii. The CMF Clearinghouse lists a variety of CMFs that show the potential reduction in the frequency of crashes as a result of a conversion of an intersection to a roundabout. Each CMF is assigned a star value to indicate the quality of the data used to establish the CMF and its standard error. Where possible, CMFs with higher star ratings are to be used. The CMF Clearinghouse also groups roundabout CMFs based on the conversion to single-lane roundabouts (separate CMFs are available for multi-lane roundabouts):

- Intersection to single-lane roundabout
- Stop-Controlled intersection to single-lane roundabout
- No control/yield intersection to single-lane roundabout
- Two-way stop-controlled intersection to single-lane roundabout
- All-way stop-controlled intersection to single-lane roundabout
- Signalized intersection to modern roundabout
- Unsignalized intersection to single-lane roundabout

iii. Each CMF includes parameters that indicate the applicability of the CMF. Such parameters include:

- Urban or rural location
- Crash severity the CMF addresses
- Type of crash the CMF addresses
- Roadway geometry
- Minimum and maximum traffic volume

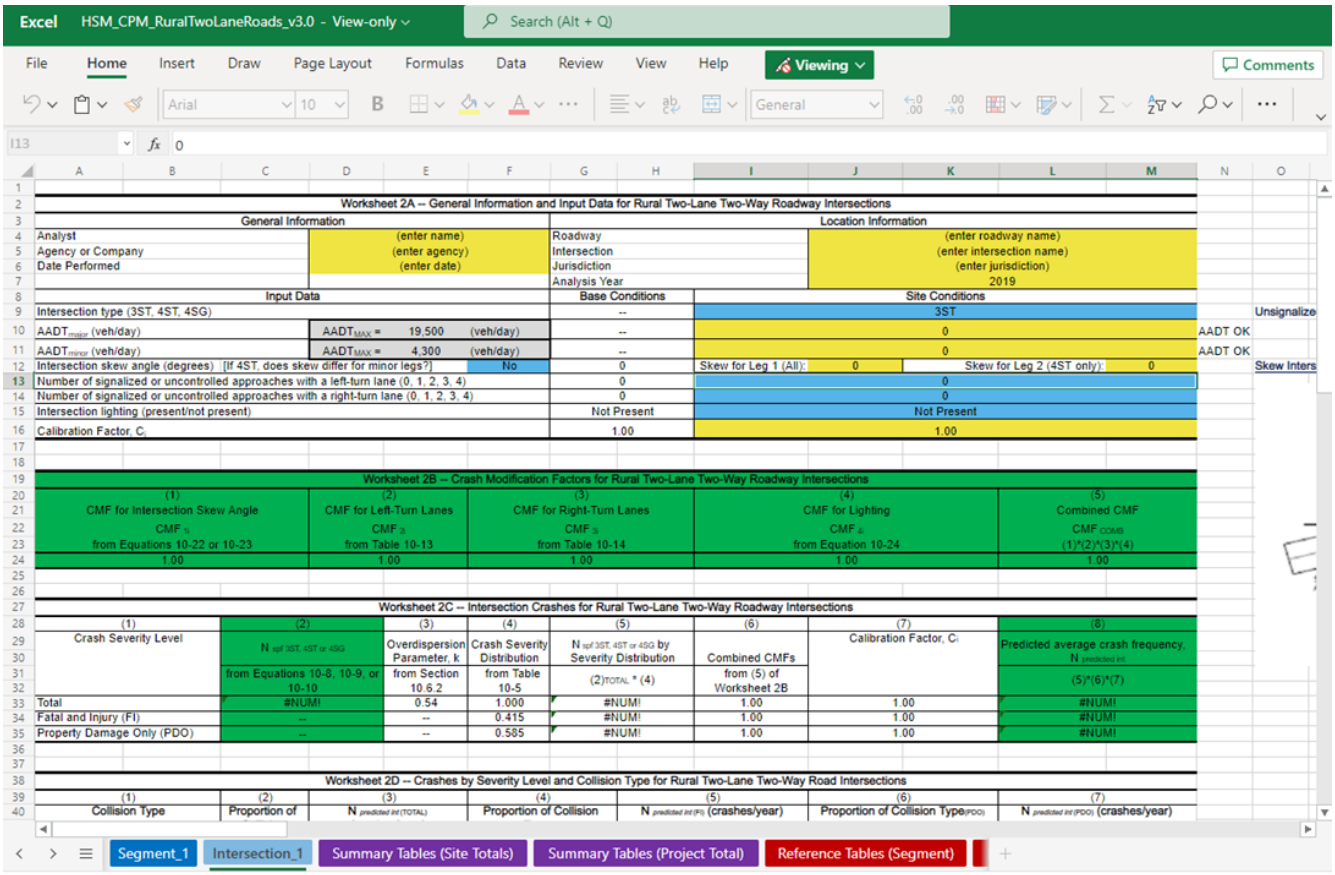
iv. Figure 12 below shows how various CMFs in the Clearinghouse can be compared and illustrates the various parameters behind each CMF. The project team will use the CMF comparison tool to select an appropriate set of CMFs to be consistently applied to the top sites to determine the expected percent reduction in crashes. While the HSM has a listing of roundabout CMFs, these are also included in the CMF Clearinghouse – therefore, the Clearinghouse has the best set of CMFs available for use.

v. Identify potential economic benefit of crash reductions based on the outcomes of the EB analysis and applying economic benefit values used and calibrated by CTDOT as appropriate.

vi. Determine a threshold value of number of crashes reduced over a 3-year period, to be considered for additional roundabout screening, or eliminated from screening.

Figure 11: AASHTO Spreadsheet Tool

Memorandum



Excel HSM_CPM_RuralTwoLaneRoads_v3.0 - View-only

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File Home Insert Draw Page Layout Formulas Data Review View Help Viewing Comments

Arial 10 B General

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1															
2	Worksheet 2A -- General Information and Input Data for Rural Two-Lane Two-Way Roadway Intersections														
3	General Information						Location Information								
4	Analyst			(enter name)			Roadway		(enter roadway name)						
5	Agency or Company			(enter agency)			Intersection		(enter intersection name)						
6	Date Performed			(enter date)			Jurisdiction		(enter jurisdiction)						
7							Analysis Year		2019						
8	Input Data						Base Conditions		Site Conditions						
9	Intersection type (3ST, 4ST, 4SG)						--		3ST						Unsignalize
10	$AADT_{major}$ (veh/day)			$AADT_{MAX}$ =	19,500	(veh/day)	--		0					AADT OK	
11	$AADT_{minor}$ (veh/day)			$AADT_{MAX}$ =	4,300	(veh/day)	--		0					AADT OK	
12	Intersection skew angle (degrees) [If 4ST, does skew differ for minor legs?]					No	0		Skew for Leg 1 (All):	0		Skew for Leg 2 (4ST only):	0		Skew Inters
13	Number of signalized or uncontrolled approaches with a left-turn lane (0, 1, 2, 3, 4)						0		0						
14	Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)						0		0						
15	Intersection lighting (present/not present)						Not Present		Not Present						
16	Calibration Factor, C_i						1.00		1.00						
17															
18															
19	Worksheet 2B -- Crash Modification Factors for Rural Two-Lane Two-Way Roadway Intersections														
20	(1)			(2)			(3)		(4)			(5)			
21	CMF for Intersection Skew Angle			CMF for Left-Turn Lanes			CMF for Right-Turn Lanes		CMF for Lighting			Combined CMF			
22	CMF_{1i}			CMF_{2i}			CMF_{3i}		CMF_{4i}			CMF_{COMB}			
23	from Equations 10-22 or 10-23			from Table 10-13			from Table 10-14		from Equation 10-24			(1)*(2)*(3)*(4)			
24	1.00			1.00			1.00		1.00			1.00			
25															
26															
27	Worksheet 2C -- Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections														
28	(1)	(2)		(3)	(4)	(5)		(6)	(7)			(8)			
29	Crash Severity Level	$N_{spf\ 3ST,\ 4ST\ or\ 4SG}$		Overdispersion Parameter, k	Crash Severity Distribution	$N_{spf\ 3ST,\ 4ST\ or\ 4SG}$ by Severity Distribution		Combined CMFs	Calibration Factor, C_i			Predicted average crash frequency, $N_{predicted\ int}$			
30															
31		from Equations 10-8, 10-9, or 10-10		from Section 10.6.2	from Table 10-5	$(2)_{TOTAL}$ * (4)		from (5) of Worksheet 2B				(5)*(6)*(7)			
32															
33	Total	#NUM!		0.54	1.000	#NUM!		1.00	1.00			#NUM!			
34	Fatal and Injury (FI)	--		--	0.415	#NUM!		1.00	1.00			#NUM!			
35	Property Damage Only (PDO)	--		--	0.585	#NUM!		1.00	1.00			#NUM!			
36															
37															
38	Worksheet 2D -- Crashes by Severity Level and Collision Type for Rural Two-Lane Two-Way Road Intersections														
39	(1)	(2)		(3)	(4)	(5)			(6)			(7)			
40	Collision Type	Proportion of		$N_{predicted\ int\ (TOTAL)}$	Proportion of Collision	$N_{predicted\ int\ (FI)}$ (crashes/year)			Proportion of $Collision_{(PDO)}$			$N_{predicted\ int\ (PDO)}$ (crashes/year)			

Segment_1 Intersection_1 Summary Tables (Site Totals) Summary Tables (Project Total) Reference Tables (Segment)

Memorandum

Figure 12: Clearinghouse CMF Example

Countermeasure Name	Conversion of stop-controlled intersection into single-lane roundabout	Conversion of stop-controlled intersection into single-lane roundabout	Convert all-way, stop-controlled intersection to roundabout	Convert all-way, stop-controlled intersection to roundabout
CMF ID	206	207	242	4933
CMF	0.28	0.42	1.03	0.544
Study Reference	PERSAUD ET AL., 2001	PERSAUD ET AL., 2001	RODEGERDTS ET AL., 2007	QIN ET AL., 2013
Unadjusted Standard Error CMF	*0.06*	*0.07*	*0.15*	*0.196*
CMFunction				
Star Rating	★★★★☆	★★★★☆	★★☆☆☆	★★☆☆☆
Rating Score Total	*130*	*130*	*55*	*45*
Crash Type	All	All	All	All
Crash Severity	*All*	*All*	*All*	*Fatal,Serious injury,Minor injury*
Crash Time of Day				*All*
Area Type	*Urban*	*Rural*	*All*	*All*
Road Division Type				*All*
Road Type	Not specified	Not specified	Not Specified	Not specified
Number of Lanes			*1 or 2*	*2,4*
Intersection Type	Roadway/roadway (not interchange related)	Roadway/roadway (not interchange related)	Roadway/roadway (not interchange related)	Roadway/roadway (not interchange related)
Intersection Geometry	*Not specified*	*Not specified*	*4-leg*	*3-leg,4-leg*
Traffic Control	Stop-controlled	Stop-controlled	Stop-controlled	Stop-controlled
Speed Limit				
Study Type	2	2	2	2
Years From				*1994*
Years To				*2010*
Traffic Volume Unit	*Annual Average Daily Traffic (AADT)*	*Annual Average Daily Traffic (AADT)*	*Unit Unknown*	*Annual Average Daily Traffic (AADT)*
Min Traffic Volume				
Max Traffic Volume				
Min Major Rd Volume				*4100 (total entering)*
Max Major Rd Volume				*48100 (total entering)*
Min Minor Rd Volume				
Max Minor Rd Volume				
Avg Traffic Volume				
Avg Major Rd Volume				
Avg Minor Rd Volume				
State of Origin				WI
Municipality				*Statewide*
Country				*USA*
Comments				*- Study included three-year before and after crash data for each site.- Reported traffic volume is total entering volume.*

Memorandum

Summary

As noted in the foregoing screening methodology, this memorandum provides a comprehensive screening process for reviewing intersections in the CRCOG region for potential conversion to a modern single lane roundabout, using the available traffic volume and crash data from CTDOT and CRCOG sources.

The process includes a hierarchy of weighted crash score, volume adjustment factor, and right of way impact factor. A score is developed in order to rank the locations with the greatest potential to convert to a modern single lane roundabout.

These ranked locations will then be reviewed at the "desktop" level, using available online mapping and GIS resource data, as well as local knowledge. This desktop engineering review of these locations will provide a final determination on viability.

The basis for this screening effort is data. Using the available data in this 5 step screening process, appropriate single lane roundabout locations were identified in a very efficient and defined process.

An overall roundabout screening methodology for the CRCOG region needs to be dynamic, and can be modified in the future as conditions warrant, such as providing additional locations where mini-roundabouts and/or multilane roundabouts may be appropriate. However, the goal of this particular screening effort is to identify locations that can be considered for future funding of additional studies and design leading to construction of the safest form of intersection control: modern single lane roundabouts.

Memorandum

Appendix

Adjusted EPDO Weighting Summary

Memorandum

Adjusted EPDO Weighting Summary

The equivalent property damage only (EPDO) method used by UCONN in its CRSMS tool calculates a combined frequency and severity score for each site by assigning weighting factors to crashes by crash severity and monetary consequences. The weighting factors are based on the costs of property damage only crashes, and the calculated score accounts for the severity of crashes and the expected crash costs for each site. The initial weighting factors are estimated by the Federal Highway Administration (FHWA) using the 2001 dollar values and documented in the **"Safety Analyst User Manual"** based on the mean comprehensive monetary costs for each severity level. Level K has a mean comprehensive cost equal to $5,800,000 per crash, and a weight factor equal to 1450; level A has a mean comprehensive cost equal to $402,000 per crash, and a weight factor equal to 100; level B has a mean comprehensive cost equal to $80,000 per crash, and a weight factor equal to 20; level C has a mean comprehensive cost equal to $42,000 per crash, and a weight factor equal to 10; level PDO has a mean comprehensive cost equal to $4,000 per crash, and a weight factor equal to 1. The EPDO score is weighted to the per mile per year unit for segments and per year for intersections and is then used for ranking sites. However, the 2001 dollar values might not be representative to the current values due to the inflation. Therefore, the weighting factors of crash severities used in this study are adjusted to the current economic situation using the Consumer Price Index (CPI) and Employment Cost Index (ECI) released by the U.S. Bureau of Labor Statistics (BLS). BLS releases the CPI and ECI monthly. However, the monthly changes of CPI and ECI are very small and UCONN decided to update the weighting factors for EPDO analysis once a year. **The latest EPDO weights used in the CRSMS from December 2020 are**:

K – Weight Factor = 574 ,
A – Weight Factor = 30,
B – Weight Factor = 11,
C – Weight Factor = 6,
O – Weight Factor = 1

These weights are different than those used in the previous CRCOG RTSP study as VHB determined weights in that study based off FHWA's **national guidance** ((https://safety.fhwa.dot.gov/hsip/docs/fhwasa17071.pdf) and adjusted them for Connecticut, rather than using UCONN's approach of adjusting the values in the Safety Analyst tool. Using the RTSP approach Level K has a mean comprehensive cost equal to $16,185,746 per crash, and a weight factor equal to 949; level A has a mean comprehensive cost equal to $938,535 per crash, and a weight factor equal to 55; level B has a mean comprehensive cost equal to $284,430 per crash, and a weight factor equal to 17; level C has a mean comprehensive cost equal to $179,924 per crash, and a weight factor equal to 11; level PDO has a mean comprehensive cost equal to $17,061 per crash, and a weight factor equal to 1.

December 2020 CRSMS User Manual				June 2019 CRSMS User Manual				CRCOG RTSP Weights			
Severity	**Value**	**Ratio**	**Weight**	Severity	Value	Ratio	Weight	Severity	Value	Ratio	Weight
K	**$ 6,415,389**	**573.5195**	**574**	K	$ 5,800,000	1450	1450	K	$ 16,185,746	948.6986	949
A	**$ 338,576**	**30.26783**	**30**	A	$ 402,000	100.5	100	A	$ 938,535	55.01055	55
B	**$ 123,646**	**11.05364**	**11**	B	$ 80,000	20	20	B	$ 284,430	16.67136	17
C	**$ 69,541**	**6.216789**	**6**	C	$ 42,000	10.5	10	C	$ 179,924	10.54592	11
O	**$ 11,186**	**1**	**1**	O	$ 4,000	1	1	O	$ 17,061		1

CRCOG Roundabout Screening Study
Top Ranked 100 Locations
3/9/2023

Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	ROW Issues	Geometric Factor	Recommended	Comment
1	250.20	HARTFORD	MAIN ST	MAHL AVE/PAVILLION ST	31	10	417.00	13500	0.75	Moderate	0.80	Yes	
2	232.65	HARTFORD	CHAPEL ST. NO/WALNUT ST/I-84 EB RAMP	HIGH ST	60	11	232.67	9900	1	None	1.00	No	Volumes
3	187.54	HARTFORD	NEW BRITIAN AVE	SUMMIT ST/FAIRFIELD AVE	17	6	216.33	10600	0.9	Insignificant	0.96	Yes	
4	187.50	BERLIN	MILL ST (CT 372)	SAVAGE HILL RD/BECKLEY RD	12	6	208.33	10300	0.9	None	1.00	Yes	
5	162.28	HARTFORD	FRANKLIN AVE	BUSHNELL ST	13	7	213.67	8600	1	Significant	0.76	No	ROW
6	149.93	HARTFORD	WASHINGTON ST	VERNON ST # 2	34	11	229.00	12100	0.75	Insignificant	0.87	Yes	
7	145.27	HARTFORD	FRANKLIN AVE	BLISS ST	13	7	213.67	8600	1	Significant	0.68	No	Fatal likely occurred at Bushnell
8	131.67	HARTFORD	WESTLAND ST	BARBOUR ST	18	6	205.33	5700	1	Significant	0.64	No	ROW
9	108.48	HARTFORD	HOMESTEAD AVE/WALNUT ST	GARDEN ST #1	54	28	270.67	13100	0.75	Moderate	0.53	Yes	
10	89.31	HARTFORD	ALBANY AVE (US 44)	BROOK ST	19	6	215.33	13400	0.75	Significant	0.55	No	ROW
11	81.67	HARTFORD	WETHERSFIELD AVE	ADELAIDE ST	19	7	212.33	12000	0.9	Significant	0.43	No	ROW
12	79.75	HARTFORD	MORGAN ST (US 44)	MARKET ST	128	30	127.00	12800	0.75	Insignificant	0.84	No	ROW
13	67.43	SOUTHINGTON	MERIDAN-WATERBURY TPKE (CT 322)	CLARK ST (CT 509)	15	7	215.67	11700	0.9	Moderate	0.35	Yes	Vols, Signal System
14	65.05	HARTFORD	ZION ST # 1	WARD ST	18	9	220.33	10400	0.9	Significant	0.33	No	ROW
15	64.30	HARTFORD	FARMINGTON AVE	BROAD ST	84	23	89.67	12600	0.75	Insignificant	0.96	No	Needs Multi-Lane Rdbt
16	63.79	HARTFORD	TRUMBULL ST	CHAPEL ST SOUTH	47	18	67.00	7100	1	Significant	0.95	No	ROW, Vols?
17	58.25	HARTFORD	MAIN ST #2	CHARTER OAK AVE/BUCKINGHAM ST	36	14	233.00	15900	0.25	Moderate	1.00	Yes	
18	55.72	HARTFORD	NEW BRITAIN AVE	HILLSIDE AVE	44	15	247.00	10600	0.9	Significant	0.25	No	ROW
19	53.33	HARTFORD	ANN UCELLO ST #1 /PLEASANT ST	CHAPEL ST NORTH	41	12	53.33	6800	1	Significant	1.00	No	ROW
20	52.44	HARTFORD	MAIN ST (US 44)/MORGAN ST	CHAPEL ST NORTH	78	24	82.67	12500	0.75	Moderate	0.85	No	Volumes

CRCOG Roundabout Screening Study
Top Ranked 100 Locations
3/9/2023

Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	ROW Issues	Geometric Factor	Recommended	Comment
21	51.91	VERNON	HARTFORD TURNPIKE (CT 30)	RESERVIOIR RD/GROVE ST (CT 31)	67	17	67.00	11200	0.9	Insignificant	0.86	Yes	
22	51.21	HARTFORD	ALBANY AVE (US 44)	GARDEN ST # 1	85	22	271.00	16000	0.25	Significant	0.76	No	ROW, Recent Project
23	51.17	HARTFORD	CAPITOL AVE	LAUREL ST	47	13	57.00	10300	0.9	Moderate	1.00	Yes	
24	50.42	HARTFORD	FRANKLIN AVE	BOND ST	32	17	55.67	8600	1	Significant	0.91	Yes	
25	47.97	HARTFORD	PARK TERR	SIGOURNEY ST/RUSS ST	47	18	64.00	13600	0.75	None	1.00	No	Already Converted to a Roundabout
26	46.67	NEW BRITAIN	COLUMBUS BLVD	CHESTNUT ST	26	11	46.67	8100	1	Insignificant	1.00	Yes	
27	44.32	HARTFORD	CAPITOL AVE	BROAD ST	56	19	66.67	10300	0.9	Insignificant	0.74	Yes	
28	42.87	HARTFORD	FRANKLIN AVE	BROWN ST	42	7	45.00	8600	1	Significant	0.95	No	ROW
29	42.05	NEW BRITAIN	COLUMBUS BLVD/CT 9 SB ENT/EXIT RAMP	ELLIS ST	26	11	45.00	8600	1	Insignificant	0.93	Yes	
30	40.74	NEWINGTON	WILLARD AVE (CT 173)	ROBBINS AVE	33	17	54.33	13500	0.75	Significant	1.00	Yes	
31	40.15	HARTFORD	WASHINGTON ST	JEFFERSON ST	51	22	75.33	12100	0.75	Moderate	0.71	Yes	
32	39.45	VERNON	HARTFORD TPKE (CT 30)	BOLTON RD/CENTER RD	48	12	52.33	11300	0.9	Moderate	0.84	Yes	
33	38.50	BERLIN	FRONTAGE RD/MILL ST (CT 372)	WORTHINGTON RIDGE (CT 372-SOUTH/572- NORTH)	26	12	51.33	13700	0.75	Moderate	1.00	Yes	
34	37.99	WEST HARTFORD	NEW PARK AVE	FLATBUSH AVE	70	22	76.67	14600	0.5	Significant	0.99	No	Volumes
35	37.50	HARTFORD	I-84-W-115	SIGOURNEY ST	40	12	41.67	11900	0.9	Insignificant	1.00	No	Volumes, on Structure
36	36.06	HARTFORD	WASHINGTON ST	PARK ST	64	15	75.33	12100	0.75	Moderate	0.64	Yes	
37	35.40	WEST HARTFORD	PROSPECT AVE	KANE ST	33	11	39.33	10500	0.9	None	1.00	Yes	
38	34.75	HARTFORD	I-84 EB ON RAMP	BROAD ST	64	12	46.33	13100	0.75	None	1.00	No	Bridge Piers

CRCOG Roundabout Screening Study
Top Ranked 100 Locations
3/9/2023

Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	ROW Issues	Geometric Factor	Recommended	Comment
39	34.50	COVENTRY	BOSTON TURNPIKE (US 44)	MAIN ST (CT 31)	30	11	38.33	10300	0.9	Insignificant	1.00	Yes	
40	34.23	NEW BRITAIN	EAST MAIN	MAIN ST	37	17	47.33	13100	0.75	None	0.96	No	Recent Project
41	33.60	MANSFIELD	MIDDLE TURNPIKE (US 44)	STORRS RD (CT 195)	37	12	37.33	10900	0.9	None	1.00	Yes	
42	32.70	WINDSOR	WINDSOR AVE (CT 159)	ROOD AVE	25	10	36.33	10600	0.9	Insignificant	1.00	No	Realgnment needed, Major utility impacts
43	32.47	HARTFORD	ASYLUM AVE	BROAD ST/COGSWELL ST	95	20	81.67	14300	0.5	Insignificant	0.80	No	Volumes
44	32.33	HARTFORD	I-91 NB RAMP	I-91 SB RAMP	37	10	32.33	5200	1	None	1.00	No	Steep Grade
45	32.33	BLOOMFIELD	BLOOMFIELD AVE (CT 189)	PARK AVE/MTN AVE (CT 178)	27	9	32.33	9900	1	Insignificant	1.00	Yes	
46	31.68	HARTFORD	I-84 EB OFF/WB ON	CAPITOL AVE/OAK ST	32	13	52.00	10300	0.9	None	0.68	Yes	
47	31.00	VERNON	TALCOTTVILLE RD (CT 83)	HARTFORD TURNPIKE/KELLY RD (CT 30)	49	11	41.33	12700	0.75	None	1.00	Yes	
48	30.60	HARTFORD	MAPLE AVE	FAIRFIELD AVE # 1	18	8	34.00	11000	0.9	Insignificant	1.00	No	ROW, Potential historic impact
49	30.50	HARTFORD	STATE ST	MARKET ST	53	6	40.67	13400	0.75	None	1.00	No	Potential Wetlands, Utility impacts
50	30.09	GLASTONBURY	GLASTONBURY BLVD/GRISWOLD ST	MAIN ST	63	9	49.00	13400	0.75	None	0.82	No	Hybrid may be needed, signal system
51	29.38	HARTFORD	FARMINGTON AVE	SIGOURNEY ST	68	19	72.33	12600	0.75	Moderate	0.54	No	ROW, Signal System
52	29.00	VERNON	HARTFORD TURNPIKE (CT 30)	DOBSON RD	37	6	29.00	9100	1	None	1.00	Yes	
53	28.80	ENFIELD	ENFIELD ST (US 5)/FRANKLIN ST (CT 514)	CT 190 WB RAMP	17	8	32.00	11800	0.9	None	1.00	Yes	
54	27.90	WEST HARTFORD	PROSPECT AVE/CAYA AVE	I-84 EB RAMPS	28	10	31.00	10500	0.9	None	1.00	Yes	

CRCOG Roundabout Screening Study
Top Ranked 100 Locations
3/9/2023

Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	ROW Issues	Geometric Factor	Recommended	Comment
55	27.82	HARTFORD	FRANKLIN AVE	SOUTH ST	22	9	29.00	8600	1	Significant	0.96	No	ROW
56	26.75	HARTFORD	PULASKI CIR (CT 598)/WELLS ST	HUDSON ST	47	9	35.67	13800	0.75	Insignificant	1.00	Yes	
57	26.27	HARTFORD	CHURCH ST	SPRUCE ST	55	10	40.00	6400	1	Insignificant	0.66	No	Crash data incorrect
58	26.24	WEST HARTFORD	TROUT BROOK DR	ASYLUM AVE	31	10	221.33	16300	0.25	Moderate	0.47	Yes	
59	26.24	HARTFORD	SIGOURNEY ST	HAWTHORN ST	23	7	30.67	11900	0.9	Insignificant	0.95	Yes	
60	25.80	HARTFORD	WESTBOURNE PKWY	BLUE HILLS AVE (CT 187)	30	7	30.00	11300	0.9	Insignificant	0.96	Yes	
61	25.57	ENFIELD	SHAKER RD (CT 220/CT 402)	TAYLOR RD (CT 220)	23	11	34.33	11400	0.9	None	0.83	Yes	
62	25.38	NEW BRITAIN	MARTIN LUTHER KING DR (CT 71)	WINTER ST	24	14	41.33	13200	0.75	Insignificant	0.82	Yes	
63	25.34	HARTFORD	WETHERSFIELD AVE	ELLIOTT ST	21	8	35.00	12000	0.9	Moderate	0.80	Yes	
64	25.00	FARMINGTON	SOUTH RD/COLT HIGHWAY (CT 531)	TWO MILE RD	30	6	25.00	10000	1	None	1.00	Yes	
65	24.70	HARTFORD	I-84 EB OFF/WB ON	SPRUCE ST	39	11	44.33	12200	0.75	Insignificant	0.74	No	Signal System
66	24.60	HARTFORD	WHITE ST	HARVARD ST	22	10	27.33	10600	0.9	Insignificant	1.00	Yes	
67	24.46	HARTFORD	PARK ST	PARK TERR	67	27	92.00	13600	0.75	Moderate	0.35	Yes	
68	24.29	WEST HARTFORD	BOULEVARD	FOUR MILE RD	22	13	43.67	6100	1	Moderate	0.56	No	ROW
69	24.02	SOUTHINGTON	WEST ST (CT 229)	WEST QUEEN ST	43	13	243.33	21100	0.1	Insignificant	0.99	No	Grade, Volumes
70	23.88	HARTFORD	ASYLUM AVE	WOODLAND ST	49	16	61.00	14300	0.5	Moderate	0.78	Yes	

CRCOG Roundabout Screening Study
Top Ranked 100 Locations
3/9/2023

Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	ROW Issues	Geometric Factor	Recommended	Comment
71	23.25	SOUTHINGTON	WATERBURY TURNPIKE (CT 322)	I-691 WB RAMPS	23	9	31.00	12100	0.75	None	1.00	Yes	
72	23.20	BLOOMFIELD	MOUNTAIN AVE (CT 178)	MAPLE AVE/BROWN ST	21	8	30.00	10400	0.9	Insignificant	0.86	Yes	
73	23.17	NEW BRITAIN	WHITING ST	WEBSTER ST (ACTUALLY GLEN ST)	11	6	26.67	4100	1	Significant	0.87	No	ROW
74	23.14	HARTFORD	CHAPEL ST SOUTH	ANN UCCELLO ST # 1	47	6	29.00	7000	1	Significant	0.80	No	I-84 Overpass
75	23.11	HARTFORD	FAIRFIELD AVE #1	ZION ST #2	36	11	35.33	12900	0.75	Insignificant	0.87	Yes	
76	23.04	VERNON	UNION ST (CT 83/CT 74)	WEST ST (CT 74/CT 83)	55	7	36.67	10100	0.9	Moderate	0.70	Yes	
77	23.00	HARTFORD	CAPITOL AVE	WASHINGTON ST/TRINITY ST	23	8	30.67	12100	0.75	None	1.00	Yes	
78	22.98	MANCHESTER	MIDDLE TURNPIKE WEST/MIDDLE TURNPIKE EAST #1	MAIN ST (CT 83)	44	14	54.33	13300	0.75	Significant	0.56	No	ROW
79	22.25	NEW BRITAIN	CHESTNUT ST/ ELM ST (CT 71)	HARRY TRUMAN OP	24	9	29.67	12700	0.75	None	1.00	Yes	
80	22.20	MANSFIELD	STORRS RD (CT 195)	NORTH FRONTAGE RD (CT 632)	19	7	24.67	10900	0.9	None	1.00	Yes	
81	21.83	SOUTHINGTON	WATERBURY TURNPIKE (CT 322)/RUGGLES ROW	I-84 EB RAMPS	31	13	43.67	14700	0.5	None	1.00	Yes	
82	21.75	ENFIELD	KING ST (US 5)	I-91 NB RAMPS	17	10	29.00	12900	0.75	Insignificant	1.00	Yes	
83	21.69	HARTFORD	ALBANY AVE (US 44)	BALTIMORE ST	18	7	26.00	11200	0.9	Significant	0.93	No	ROW, Recent Project
84	21.67	NEW BRITAIN	MAIN ST #1	CHESTNUT ST/ARCH ST	15	7	21.67	6600	1	None	1.00	Yes	
85	21.67	WILLINGTON	RIVER ROAD (CT 32)	TOLLAND TURNPIKE (CT 74)	15	6	21.67	5200	1	None	1.00	No	Steep Grade
86	21.60	EAST HARTFORD	MAIN ST # 1	BROAD ST/MAPLE ST	30	9	31.67	13300	0.75	Insignificant	0.91	Yes	

CRCOG Roundabout Screening Study
Top Ranked 100 Locations
3/9/2023

Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	ROW Issues	Geometric Factor	Recommended	Comment
87	21.59	HARTFORD	VINE ST	GREENFIELD ST	36	17	58.67	5600	1	Significant	0.37	Yes	
88	21.31	WEST HARTFORD	BOULEVARD	RAYMOND RD	32	14	40.67	6100	1	Insignificant	0.52	Yes	
89	21.00	SOUTHINGTON	ATWATER ST	I-84 EB RAMP/MARION AVE	24	8	28.00	12400	0.75	None	1.00	Yes	
90	20.90	HARTFORD	TRUMBULL ST	CHAPEL ST NORTH	25	6	25.00	7100	1	Insignificant	0.84	No	Signal System
91	20.75	SOUTHINGTON	MERIDEN WATERBURY TURNPIKE (CT 322)/I-84 WB EXIT	I-84 ENTRANCE RAMP	18	8	27.67	12700	0.75	None	1.00	Yes	
92	20.70	CANTON	US 202	RIVER RD (CT 179)	24	8	23.00	11600	0.9	None	1.00	Yes	
93	20.64	BERLIN	MILL ST (CT 372)	MIDDLETOWN RD/BERLIN ST	22	11	29.00	13000	0.75	None	0.95	Yes	
94	20.32	NEW BRITAIN	SLATER RD/ALEXANDER DR/ FIENEMANN RD	FARMINGTON AVE	28	8	35.67	12800	0.75	Insignificant	0.76	Yes	
95	19.67	NEW BRITAIN	CHESTNUT ST	CT RTE 9 SB EXIT RAMP	9	6	19.67	4500	1	None	1.00	Yes	
96	19.57	EAST HARTFORD	SILVER LANE (CT 502)	FORBES ST	28	8	29.33	10800	0.9	Insignificant	0.74	Yes	
97	19.54	HARTFORD	PROSPECT AVE	WARRENTON AVE	32	11	35.67	7100	1	Significant	0.55	No	ROW
98	19.50	WINDSOR	KENNEDY RD	ARCHER RD/I-91 NB EXIT RAMP	15	7	21.67	10300	0.9	None	1.00	Yes	
99	19.39	HARTFORD	MARKET ST	PLEASANT ST	33	8	32.67	12800	0.75	Moderate	0.79	Yes	
100	18.87	NEW BRITAIN	STANLEY ST # 1	EAST MAIN ST	25	9	28.33	12800	0.75	Moderate	0.89	Yes	

CRCOG Roundabout Screening Study
Municipal Top 3 Ranked Locations
3/9/23

Rank	CVR Score	Municipality	Major Road	Minor Road	Muni Identified List	Total Crashes	Total KABC Crashes	ADT	Intersection Control Type	ROW Issues	Recommended	Comments
Not in Top 300	3.30	ANDOVER	JONATHAN TRUMBULL HIGHWAY/WILLIMANTIC RD (US 6)	JONATHAN TRUMBULL HIGHWAY (CT 87)	No	6	1	10600	Signal	None	No	Lack of Crash History
Not in Top 300	6.74	ANDOVER	JONATHAN TRUMBULL HIGHWAY (US 6)	LAKE RD	No	7	2	10600	Signal	Insignificant	No	Lack of Crash History
Not in Top 300	13.20	ANDOVER	JONATHAN TRUMBULL HIGHWAY (US 6)	HEBRON RD (CT 136)	No	14	4	11200	Signal	Moderate	No	Lack of Crash History
Not in Top 300	4.58	AVON	LOVELY ST (CT 177)	WESTMONT RD/COUNTRY CLUB RD	No	11	4	9400	Signal	Significant	Yes	
147	13.26	AVON	WEST AVON RD (CT 167)	COUNTRY CLUB RD	No	14	6	12400	Signal	Moderate	Yes	
Not in Top 300	5.36	AVON	COUNTRY CLUB RD	BURNHAM RD	No	5	4	5700	All-Way Stop	Moderate	Yes	
4	187.50	BERLIN	MILL ST (CT 372)	SAVAGE HILL RD/BECKLEY RD	No	12	6	10300	Signal	None	Yes	
93	20.64	BERLIN	MILL ST (CT 372)	MIDDLETOWN RD/BERLIN ST	No	22	11	13000	Signal	None	Yes	
33	38.50	BERLIN	FRONTAGE RD (CT 572)/MILL ST (CT 372)	WORTHINGTON RIDGE (CT 372-SOUTH/572- NORTH)	No	26	12	13700	Signal	Moderate	Yes	
72	23.20	BLOOMFIELD	MOUNTAIN AVE (CT 178)	MAPLE AVE/BROWN ST	No	21	8	10400	Signal	Insignificant	Yes	
45	32.33	BLOOMFIELD	BLOOMFIELD AVE (CT 189)	PARK AVE/MOUNTAIN AVE (CT 178)	No	27	9	9900	Signal	Insignificant	Yes	
196	7.91	BLOOMFIELD	WINTONBURY AVE (CT 178)	EAST WINTONBURY AVE (CT 178)	No	33	11	15600	Signal	Insignificant	No	Volumes
Not in Top 300	191.33	BOLTON	WEST ST (CT 85)	LYMAN RD	No	1	1	4400	Side Street Stop	Insignificant	No	Lack of Crash History
Not in Top 300	16.20	BOLTON	BOSTON TURNPIKE (US 44)	QUARRY RD	No	10	3	10200	Signal	Moderate	Yes	
Not in Top 300	5.78	BOLTON	BOSTON TURNPIKE (US 44)	SOUTH RD	No	13	2	9600	Signal	Moderate	Yes	
Not in Top 300	7.49	CANTON	RIVER RD (CT 179)	MAPLE AVE	Yes	15	5	12700	<Null>	<Null>	Yes	
92	20.70	CANTON	US 202	RIVER RD (CT 179)	No	24	8	11600	Signal	None	Yes	
Not in Top 300	9.00	CANTON	ALBANY TURNPIKE (US 44)	CHERRY BROOK RD (CT 179)	No	10	3	10300	Signal	None	Yes	
Not in Top 300	193.56	COLUMBIA	MIDDLETOWN RD (CT 66)	HENNEQUIN RD/PINE ST	No	12	4	7700	Side Street Stop	Insignificant	Yes	
Not in Top 300	14.67	COLUMBIA	MIDDLETOWN RD (CT 66)	JONATHAN TRUMBULL HIGHWAY (CT 87)	No	14	5	8800	Signal	None	Yes	
Not in Top 300	21.00	COLUMBIA	WILLIMANTIC RD (US 6)	WILLIMANTIC RD (CT 66)	No	30	4	12400	Signal	None	Yes	
Not in Top 300	3.04	COVENTRY	SOUTH ST	SEAGRAVES RD	No	3	1	1700	Side Street Stop	Insignificant	No	Lack of Crash History
Not in Top 300	12.08	COVENTRY	MAIN ST (CT 31)	STONEHOUSE RD/LAKE ST	Yes	11	5	4900	<Null>	<Null>	<Null>	Volumes, Grade, Recent Project
39	34.50	COVENTRY	BOSTON TURNPIKE (US 44)	MAIN ST (CT 31)	No	30	11	10300	Signal	Insignificant	Yes	
Not in Top 300	12.67	EAST GRANBY	SOUTH MAIN ST (CT 187)	HATCHETT HILL RD	No	8	4	6500	Signal	None	Yes	
Not in Top 300	0.00	EAST GRANBY	RAINBOW RD (CT 20)	BRADLEY PARK RD	No	33	7	33400	Signal	Insignificant	No	Volumes
Not in Top 300	15.67	EAST GRANBY	NORTH MAIN ST (CT 187)	SOUTH STONE RD	Yes	7	5	6900	<Null>	<Null>	Yes	

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86	21.60	EAST HARTFORD	MAIN ST	BROAD ST/MAPLE ST	No	30	9	13300	Signal	Insignificant	Yes	
96	19.57	EAST HARTFORD	SILVER LANE (CT 502)	FORBES ST	No	28	8	10800	Signal	Insignificant	Yes	
183	9.23	EAST HARTFORD	CONNECTICUT BLVD (US 44)	SOUTH PROSPECT ST	No	12	6	11500	Signal	Significant	No	ROW
276	3.90	EAST WINDSOR	I-91-S-103	PROSPECT HILL RD (US 5)	No	57	8	20800	Signal	None	No	Volumes
125	15.73	EAST WINDSOR	BRIDGE ST (CT 140)	MAIN ST	No	17	6	13100	Signal	Moderate	Yes	
Not in Top 300	2.28	EAST WINDSOR	PROSPECT HILL RD (US 5)	NORTH RD (CT 140)	No	24	7	18600	Signal	Significant	No	Volumes
167	11.17	ELLINGTON	WEST RD (CT 83)	LOWER BUTCHER RD	No	17	9	8700	Signal	Moderate	Yes	
Not in Top 300	4.53	ELLINGTON	PINNEY ST (CT 286)	WINDERMERE AVE	No	16	2	6200	Signal	Moderate	Yes	
Not in Top 300	1.47	ELLINGTON	CRYSTAL LAKE RD (CT 140)	BURBANK RD	No	21	10	3400	Side Street Stop	Moderate	Yes	
82	21.75	ENFIELD	KING ST (US 5)	I-91 NB EXIT AND ENTRANCE RAMPS	No	17	10	12900	Signal	Insignificant	Yes	
53	28.80	ENFIELD	ENFIELD ST (US 5)/FRANKLIN ST (CT 514)	CT 190 WB RAMP	No	17	8	11800	Signal	None	Yes	
61	25.57	ENFIELD	SHAKER RD (CT 220/CT 402)	TAYLOR RD (CT 220)	No	23	11	11400	All-Way Stop	None	Yes	
252	4.70	FARMINGTON	SCOTT SWAMP RD (US 6)	PLAINVILLE AVE (CT 177)	No	51	12	22100	Signal	Insignificant	No	Volumes
110	17.00	FARMINGTON	I-84-W-100	FARM SPRINGS RD	No	18	6	12400	Signal	None	Yes	
64	25.00	FARMINGTON	SOUTH RD/COLT HIGHWAY (CT 531)	TWO MILE RD	No	30	6	10000	All-Way Stop	None	Yes	
Not in Top 300	-13.03	GLASTONBURY	HEBRON AVE	HOUSE ST	No	22	8	6800	<Null>	<Null>	No	Already a roundabout
50	30.09	GLASTONBURY	GLASTONBURY BLVD/GRISWOLD ST	MAIN ST	No	63	9	13400	Signal	None	No	Volumes, Signal System
Not in Top 300	-8.70	GLASTONBURY	GRISWOLD ST	HOUSE ST	No	17	6	14500	Signal	Moderate	Yes	
Not in Top 300	12.67	GRANBY	BARKHAMSTED RD (CT 219)	CASE ST	No	4	2	7200	Side Street Stop	Insignificant	No	Lack of Crash History
Not in Top 300	7.05	GRANBY	WEST GRANBY RD (CT 20)	BUSHY HILL RD	No	9	4	9400	Side Street Stop	Significant	No	Lack of Crash History
Not in Top 300	25.33	GRANBY	HARTLAND RD (CT 20)	DAY ST	No	12	5	9200	Side Street Stop	None	Yes	
3	187.54	HARTFORD	NEW BRITIAN AVE	SUMMIT ST/FAIRFIELD AVE	No	17	6	10600	Signal	Insignificant	Yes	
2	232.65	HARTFORD	CHAPEL ST. NORTH/WALNUT ST/I-84 EB RAMP	HIGH ST	No	60	11	9900	Signal	None	No	Signal System
1	250.20	HARTFORD	MAIN ST	MAHL AVE/PAVILLION ST	No	31	10	13500	Signal	Moderate	Yes	
Not in Top 300	18.00	HEBRON	MAIN ST (CT 66)	CHURCH ST	No	24	5	9500	Signal	None	Yes	
Not in Top 300	8.48	HEBRON	MAIN ST (CT 66)	MILLSTREAM RD	No	3	3	7700	Side Street Stop	Moderate	No	Lack of Crash History
Not in Top 300	8.33	HEBRON	GILEAD ST (CT 85/CT 94)	NORTH ST (CT 85)	No	5	2	3800	Side Street Stop	Insignificant	No	Lack of Crash History
135	14.67	MANCHESTER	I-84-W-302	MIDDLE TURNPIKE WEST (US 44/US 6)	No	13	10	14200	Signal	None	Yes	
78	22.98	MANCHESTER	MIDDLE TURNPIKE WEST/MIDDLE TURNPIKE EAST #1	MAIN ST (CT 83)	No	44	14	13300	Signal	Significant	No	ROW
130	15.33	MANCHESTER	MIDDLE TURNPIKE EAST # 1	SUMMIT ST	No	19	7	9000	Signal	Significant	Yes	
80	22.20	MANSFIELD	STORRS RD (CT 195)	NORTH FRONTAGE RD (CT 632)	Yes	19	7	10900	Signal	None	Yes	

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204	7.57	MANSFIELD	MIDDLE TURNPIKE (US 44)	STAFFORD RD (CT 32)	Yes	18	6	6100	Signal	<Null>	Yes	
41	33.60	MANSFIELD	MIDDLE TURNPIKE (US 44)	STORRS RD (CT 195)	Yes	37	12	10900	Signal	None	Yes	
Not in Top 300	13.50	MARLBOROUGH	HEBRON RD (CT 66)	SOUTH MAIN ST	No	29	3	13700	Signal	None	Yes	
Not in Top 300	8.50	MARLBOROUGH	CT 2 EAST EXIT RAMP	HEBRON RD (CT 66)	No	19	3	13700	Side Street Stop	None	Yes	
Not in Top 300	11.00	MARLBOROUGH	CT 2-E-30	PORTLAND RD	No	3	3	4200	All-Way Stop	None	No	Lack of Crash History
29	42.05	NEW BRITAIN	COLUMBUS BLVD/CT 9 SB ENTRANCE/EXIT RAMP	ELLIS ST	No	26	11	8600	Signal	Insignificant	Yes	
26	46.67	NEW BRITAIN	COLUMBUS BLVD	CHESTNUT ST	No	26	11	8100	Signal	Insignificant	Yes	
40	34.23	NEW BRITAIN	EAST MAIN	MAIN ST	No	37	17	13100	Signal	None	No	Recent Project
116	16.67	NEWINGTON	PANE RD	CHURCH ST	No	21	6	13100	Signal	Insignificant	Yes	
30	40.74	NEWINGTON	WILLARD AVE (CT 173)	ROBBINS AVE	No	33	17	13500	Signal	Significant	Yes	
115	16.75	NEWINGTON	MAIN ST (Ct 176)	MARKET SQ	No	18	6	11800	Signal	Moderate	Yes	
123	16.20	PLAINVILLE	WOODFORD AVE (CT 536)	LEDGE RD	No	14	6	11400	Side Street Stop	Significant	No	Structure, grades
122	16.25	PLAINVILLE	CT 72-N	NORTH WASHINGTON ST CT 177)	No	20	7	13100	Signal	None	Yes	
217	6.59	PLAINVILLE	CT 72-N-28	DAY ST	No	62	20	20500	Signal	Insignificant	Yes	
Not in Top 300	21.33	ROCKY HILL	MAIN ST (CT 99)	GORMAN RD	No	10	5	8900	Signal	None	Yes	
211	7.00	ROCKY HILL	I-91-S-47	WEST ST (CT 411)	No	52	17	19300	Signal	None	No	Volumes, Signal System
237	5.27	ROCKY HILL	SILAS DEANE HIGHWAY (CT 99)	TOWN LINE RD	No	48	15	23900	Signal	None	No	Volumes, Signal System
131	15.30	SIMSBURY	BUSHY HILL RD (CT 167)	STRATTON BROOK RD	No	16	6	11900	Signal	None	Yes	
Not in Top 300	6.32	SIMSBURY	HOPMEADOW ST (US 202/CT 10)	WEST ST (CT 167)	No	16	4	14100	Signal	None	Yes	
Not in Top 300	13.25	SIMSBURY	HARTFORD AVE (CT 189)	ELM ST (CT 315)/MOUNTAIN RD	No	18	5	12900	Signal	None	Yes	
112	16.95	SOMERS	MAIN ST (CT 190)	GULF RD	No	27	9	7900	Side Street Stop	Insignificant	Yes	
Not in Top 300	14.98	SOMERS	MAIN ST (CT 190)	SOUTH RD (CT 83)	No	19	5	7400	Signal	Moderate	Yes	
Not in Top 300	7.72	SOMERS	HALL HILL RD (CT 186)	GEORGE WOOD RD	No	8	4	2100	Side Street Stop	Insignificant	Yes	
226	6.13	SOUTH WINDSOR	OAKLAND RD (CT 30)	SLATER ST/FOSTER ST	No	21	6	13600	Signal	Significant	No	ROW, grades
249	4.80	SOUTH WINDSOR	SULLIVAN AVE (CT 194)	HILLSIDE DR	No	15	6	12200	Side Street Stop	Moderate	Yes	
156	12.33	SOUTH WINDSOR	JOHN FITCH BLVD (US 5)	SULLIVAN AVE (CT 194)	No	39	14	16700	Signal	None	No	Volumes
71	23.25	SOUTHINGTON	WATERBURY TURNPIKE (CT 322)	I-691 WB RAMPS	No	23	9	12100	Signal	None	Yes	
13	67.43	SOUTHINGTON	MERIDAN-WATERBURY TURNPIKE (CT 322)	CLARK ST (CT 509)	No	15	7	11700	Signal	Moderate	Yes	
69	24.02	SOUTHINGTON	WEST ST (CT 229)	WEST QUEEN ST	No	43	13	21100	Signal	Insignificant	No	Volumes, Grades
Not in Top 300	2.89	STAFFORD	CRYSTAL LAKE RD (CT 30)	CONKLIN RD	No	4	1	3800	Side Street Stop	Significant	No	Lack of Crash History
Not in Top 300	8.54	STAFFORD	CRYSTAL LAKE RD (CT 30)	CONKLIN RD	No	6	2	3800	Signal	None	No	Lack of Crash History
Not in Top 300	1.60	STAFFORD	MONSON RD (CT 32)	ORCUTTVILLE RD (CT 319)	No	6	1	3300	Signal	Insignificant	No	Lack of Crash History
Not in Top 300	18.33	SUFFIELD	MOUNTAIN RD (CT 168)	SOUTH STONE ST/NORTH STONE ST	Yes	10	5	6400	Side Street Stop	None	Yes	

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134	14.72	SUFFIELD	EAST ST NORTH (CT 159)	THOMPSONVILLE RD (CT 190)	No	25	9	10000	Signal	Insignificant	Yes	
Not in Top 300	17.00	SUFFIELD	NORTH ST (CT 75)	HALLADAY AVE EAST	No	11	5	6000	Side Street Stop	None	Yes	
Not in Top 300	9.00	TOLLAND	I-84 RAMP TERMINAL	MERROW RD (CT 195)	No	24	4	14500	Signal	None	Yes	
Not in Top 300	14.67	TOLLAND	I-84-E-272	TOLLAND STAGE RD (CT 74)	No	19	3	5700	Side Street Stop	None	Yes	
Not in Top 300	14.87	TOLLAND	CRYSTAL LAKE RD (CT 30)	HUNTER RD	No	16	5	4100	Side Street Stop	Insignificant	Yes	
47	31.00	VERNON	TALCOTTVILLE RD (CT 183)	HARTFORD TURNPIKE/KELLY RD (CT 30)	No	49	11	12700	Signal	None	Yes	
32	39.45	VERNON	HARTFORD TURNPIKE (CT 30)	BOLTON RD/CENTER RD	No	48	12	11300	Signal	Moderate	Yes	
21	51.91	VERNON	HARTFORD TURNPIKE (CT 30)	RESERVIOIR RD/GROVE ST (CT 31)	No	67	17	11200	Signal	Insignificant	Yes	
34	37.99	WEST HARTFORD	NEW PARK AVE	FLATBUSH AVE	No	70	22	14600	Signal	Significant	No	Volumes
54	27.90	WEST HARTFORD	PROSPECT AVE/CAYA AVE	I-84 EB RAMPS	No	28	10	10500	Signal	None	Yes	
37	35.40	WEST HARTFORD	PROSPECT AVE	KANE ST	Yes	33	11	10500	Signal	None	Yes	
296	3.40	WETHERSFIELD	SILAS DEANE HIGHWAY (CT 99)	EXECUTIVE SQ	No	28	7	23900	Signal	Insignificant	No	Volumes
272	4.00	WETHERSFIELD	SILAS DEANE HIGHWAY (CT 99)	MAPLE ST	No	70	7	21700	Signal	None	No	Volumes, Signal System
267	4.13	WETHERSFIELD	SILAS DEANE HIGHWAY (CT 99)	WELLS RD	No	44	12	20600	Signal	None	No	Volumes, Signal System
Not in Top 300	3.88	WILLINGTON	TOLLAND TURNPIKE (CT 74)	MOOSE MEADOW RD	No	4	1	4100	Side Street Stop	Insignificant	No	Lack of Crash History
85	21.67	WILLINGTON	RIVER ROAD (CT 32)	TOLLAND TURNPIKE (CT 74)	No	15	6	5200	Signal	None	No	Grade
Not in Top 300	7.33	WILLINGTON	RIVER RD (CT 32)	VILLAGE HILL RD	No	2	2	5700	Side Street Stop	Insignificant	No	Lack of Crash History
42	32.70	WINDSOR	WINDSOR AVE (CT 159)	ROOD AVE	No	25	10	10600	Signal	Insignificant	No	Cost, Geometry
133	15.00	WINDSOR	I-91-S-209	PARK AVE (CT 178)	No	20	6	13700	Signal	None	Yes	
98	19.50	WINDSOR	KENNEDY RD	ARCHER RD/I-91 NB EXIT RAMP	No	15	7	10300	Signal	None	Yes	
Not in Top 300	8.33	WINDSOR LOCKS	SOUTH MAIN ST (CT 159)	LAWNACRE RD	No	10	2	8000	Signal	None	No	Cost, Lack of Crash History
Not in Top 300	51.18	WINDSOR LOCKS	OLD COUNTY RD	HALFWAY HOUSE RD	No	20	4	10300	All-Way Stop	Moderate	Yes	
Not in Top 300	8.62	WINDSOR LOCKS	SOUTH MAIN ST (CT 159)	MAIN ST (CT 159/CT 140)	No	14	5	11400	Signal	Moderate	Yes	

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Rank	CVR Score	Municipality	Major Road	Minor Road	Municipal Comments	Intersection Control	Grade Issues	Skew	Potential Environmental Issues	ROW Issues	Utility Issues	Viable	Hybrid Needed	Mini Roundabout Possible	Road Diet Required	Recommended	Notes	Operational Issues
Not in Top 300	Not in Top 300	Andover	HEBRON RD (CT 316)	SCHOOL ROAD		Side Street Stop	No	No	Wetlands	Significant	Minor	Yes	No	Yes	No	No	Only 1 crash (type C injury). Crash data does not warrant roundabout installation. Mini roundabout might be viable if desired for speed or operational concerns.	
Not in Top 300	Not in Top 300	Andover	LAKE ROAD	LAKESIDE DR	for a micro roundabout	All-Way Stop	No	Minor		Insignificant	Minor	No	No	Yes	No	No	Crash and volume data not available (roads may not be collectors?) but does not appear to be high volume or high crash location. Mini roundabout could probably fit but installation would likely be based more on operational issues than safety issues.	Y-shaped all-way stop with two residential driveways within the intersection.
Not in Top 300	Not in Top 300	Canton	MAPLE AVE/BRIDGE ST	RIVER RD (CT 179)	High incident area due to numerous complaints requesting intersection improvements. Evaluated by local study committee for possible inclusion for roundabout. Town Plan of Development recommends development of roundabout based on public concerns.	Side Street Stop	No	Minor	Wetlands	Significant	Minor	Maybe	No	Maybe	No	Yes	0 KA, 5 KABC (one injury short of meeting KABC filter, therefore not ranked), 15 crashes overall. Size of roundabout would be limited by available ROW, trail, and parking on east side. ROW will be required from car dealership, possibly also from residential property across from River Road - will still be tight fit. Residential driveway within the intersection and on either side may be limited by splitter islands.	Elevated boardwalk section of Farmington River Trail immediately adjacent on west side, between road and Farmington River.
Not in Top 300	Not in Top 300	Canton	ALBANY TURNPIKE (US 44)	DOWD AVE (CT 565)/CANTON SPRINGS RD	High incident area, with much traffic. Numerous complaints from residents to improve interconnections of these roadways. Specific concerns raised on Canton Springs Road and stacking of vehicles from 44 to west.	Signal	No	Minor	Historic	Significant	Minor	No	Likely	Maybe	No	No	Between the three intersections, total of 69 crashes overall, 1 KA (A), 12 KABC. Volumes on Rte 44 (28,100 ADT) too high for a single lane roundabout, would require multi-lane roundabout which can be considered but not as part of this study. Mini roundabout at Dowd/Canton Green intersection could be viable with minimal or no ROW (18 crashes, 5 KABC at that intersection alone). Consider making Canton Springs one-way away Rte 44?	Triangle area with three close intersections - 3 legged signal on Rte 44, 3 legged side street stop on Rte 44, and 4 legged side street street stop on Dowd and Canton Green.
Not in Top 300	Not in Top 300	Canton	ALBANY TURNPIKE (US 44)	US 202	This intersection previously evaluated by Will Britnell while at DOT. We have one of his concept sketches we'd like to submit.	Signal	Minor	Significant		None	No	Yes	No		No	Yes	1 KA(A), only 4 KABC therefore not ranked, 9 crashes overall. Low crash numbers, but 4 of the 9 crashes involved injuries (including 1 type A) indicating severity and serious crash potential, likely due to high speeds. Max ADT volume of 17,900 may not be accurate based on the intersection configuration.	Intersection of (2) one-way turning roadways between Rtes 44 and 202.
Not in Top 300	Not in Top 300	Canton	MAPLE AVE/DOWD AVE (CT 565)	SIMONDS AVE/OLD CANTON RD	This intersection is a main connection between school complexes, recreational complexes, and serves as a connection between the two economic centers. It requires numerous crossing vehicle movements in a small area.	Side Street Stop	No	Minor	Wetlands	Insignificant	Minor	Yes	No	No	No	No	Only 4 crashes overall, 0 KA, 2 KABC. Location(s) would likely function better and be less confusing as a 5 legged roundabout but crash data does not warrant installation.	Actually two intersections - T intersection on Rte 179 with side street stop control, and adjacent four legged intersection with stop control on three legs but not on the leg coming from Rte 179. Intersections separated by approximately one car length.
Not in Top 300	Not in Top 300	Canton	LAWTON RD	WASHBURN RD	High incident area, with many complaints for traffic violations. Highest ADTs. Numerous requests from public to improve intersection.	All-Way Stop	Minor	Significant		Insignificant	Minor	No	No	Yes	No	No	3 crashes overall, 0 KA, 1 KABC. Difficult topo on west side. Crashes do not warrant installation. Mini roundabout could be considered if desired for operational concerns.	
Not in Top 300	Not in Top 300	Coventry	MAIN ST (CT 31)	RIPLEY HILL RD	This intersection receives a high volume of traffic in the AM and PM peaks of the HS and Middle School complex. There is a pedestrian component to this area.	Side Street Stop	Minor	No		Insignificant	Minor	Yes	No	Yes	No	No	Only 3 crashes overall, 0 KA, 1 KABC (therefore not ranked). Crash data does not warrant roundabout installation. If desired for operational reasons, ROW is available in NE quadrant.	unsignalized intersection with a marked crosswalk for school on NE quadrant.
Not in Top 300	Not in Top 300	Coventry	MAIN ST (CT 31)	STONEHOUSE RD (CT 275)/LAKE ST	High volume intersection with a yellow flashing on Main Street approach and red flashing on Lake & Stonehouse. Main Street has a steep gradient for the SB approach. CDOT just redid the Main STreet corridor from Stonehouse to Mason Street (east)	Side Street Stop	Significant	Minor	Historic	Significant	Minor	No	No	No		No	11 crashes overall, 0 KA, only 5 KABC (therefore not ranked, was #243 before KABC filter). Grade, topo, and close building on SW corner limit ability to construct roundabout without significant ROW acquisitions. If building could be acquired, roundabout could be viable, but building may have historic considerations.	
Not in Top 300	Not in Top 300	Enfield	POST OFFICE RD	RAFFIA RD/SIMON RD		Signal	No	Significant	Hazardous Waste	Significant	Significant	Maybe	No		No	No	0 KA, only 2 KABC (therefore not ranked), 5 crashes overall. Due to severe skew, would likely have to use a peanut shape roundabout, which would require ROW, but land required is currently vacant. Crash data does not warrant roundabout.	Very skewed intersection. Three package store driveways on NE quadrant.
Not in Top 300	Not in Top 300	Farmington	FARMINGTON AVE (CT 4)	OLD MOUNTAIN RD/TALCOTT NOTCH RD	This came out from the CRCOG Route 4 Uconn study	Signal	No	Minor		None	Minor	Yes	Likely		Yes	Yes	0 KA, 8 KABC, 28 overall. Hybrid design required but space available. Oval shape probably best fit. Ranked #503 but geometric score seems incorrect, therefore rank should be higher.	five legged signal
Not in Top 300	Not in Top 300	Hartford	ALBANY AVE (US 44)	BLOOMFIELD AVE (CT 189)	List from City	Signal	Minor	Minor		Insignificant	Minor	Yes	Likely	No	No	No	20 Crashes, 0 KA, 4 KABC therefore not ranked. Crash data does not warrant installation. Viable as a hybrid design in lieu of signal replacement.	
Not in Top 300	Not in Top 300	Hartford	ALBANY AVE (US 44)	MAIN ST/ELY ST	List from City	Signal	No	Minor		None	Minor	Yes	Likely		No	Yes	42 crashes, 0 KA, 10 KABC. Very high crash and injury location. Awkward geometry. Intersection is currently part of signal system, would need to evaluate effect on adjacent intersections. Oval shape for best fit.	5 legged signalized intersection (one leg is one-way away from intersection), high pedestrian volumes.
Not in Top 300	Not in Top 300	Hartford	REV R A MOODY OVERPASS	WESTON ST	List from City	Signal	No	No		Insignificant	Minor	Yes	Likely		Yes	No	3 Crashes all PDO. Data does not warrant installation.	
Not in Top 300	Not in Top 300	Hartford	LEIBERT RD	JENNINGS RD	List from City	Signal	Minor	No		None	Minor	Yes	Maybe		No	No	2 crashes, both PDO. Viable location but crash data does not warrant installation.	

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Rank	CVR Score	Municipality	Major Road	Minor Road	Municipal Comments	Intersection Control	Grade Issues	Skew	Potential Environmental Issues	ROW Issues	Utility Issues	Viable	Hybrid Needed	Mini Roundabout Possible	Road Diet Required	Recommended	Notes	Operational Issues
Not in Top 300	Not in Top 300	Hartford	BOCE BARLOW WAY	WINDSOR ST	List from City	Signal	Minor	No		Insignificant	Minor	Yes	Likely		No	Yes	Ranked #360. 29 Crashes, 1 KA (A), 13 KABC. High crash and injury location. Hybrid design likely needed, space available.	
214	6.92	Hartford	MAIN ST	WINDSOR ST	List from City	Signal	No	Minor		Insignificant	Minor	Yes	Likely		No	Yes	Ranked #214. 23 Crashes, 0 KA, 10 KABC. High crash and injury location. Hybrid design likely required, space limited but may be available on west side.	
56	26.75	Hartford	PULASKI CIRCLE		list from City											Yes	Reviewed as ranked site #56.	
77	23.00	Hartford	CAPITOL AVE	WASHINGTON ST/TRINITY ST	List from City											Yes	Reviewed as ranked site #77	
136	14.49	Hartford	MAPLE AVE	KING ST/WEBSTER ST	Possible Peanut?	Signal	No	Significant	Hazardous Waste	Moderate	No	Maybe	Maybe		No	Yes	Barry Square. Ranked #136. 15 Crashes, 0 KA, 6 KABC, which does not include more crashes and injuries at Bond Street. Peanut roundabout can control all 6 legs, reduce some confusion and awkward movements. Very tight ROW on south end, will likely need ROW, will be close to buildings.	6 legged signalized intersection, including Maple/Bond intersection, currently not signalized.
Not in Top 300	Not in Top 300	Hartford	MAIN ST/MAPLE AVE	JEFFERSON ST/WYLLYS ST	List from City	Signal	No	Significant		Moderate	Minor	Yes	Likely	No	No	Yes	61 crashes, 0 KA, 11 KABC. Peanut shaped roundabout needed, hybrid design. ROW very tight. roundabout would address awkward and conflicting movements.	Skewed signalized 5 legged intersection (one leg is one-way away). Awkward through and left turn movements.
Not in Top 300	Not in Top 300	Hartford	MAPLE AVE	RETREAT AVE	List from City	Signal	No	Significant		Moderate	Minor	Maybe	Maybe		Yes	Yes	(data not available due to recent reconstruction, street lines do not intersect) Further investigation warranted.	
137	14.40	Hartford	MAPLE AVE	BROAD ST/WHITE ST/DOUGLAS ST	List from City	Signal	No	Significant	Hazardous Waste	Moderate	No	Maybe	Maybe	No	No	Yes	Three ranked intersections among these 4 - #137 (Maple at Douglas) with 13 crashes, 0 KA, 7 KABC, #234 (Broad at White) with 13 crashes, 0 KA, 7 KABC, and #526 (Broad at Maple) with 15 crashes, 2 KA (A), 6 KABC. There is some overlap between these crashes, but not much. One roundabout to replace all these intersections would be viable by placing where the triangular island is currently, but may be difficult to find a way to intersect White and Broad outside of the roundabout (without taking significant ROW). Would need a detailed traffic analysis to confirm operational performance.	Currently 4 intersections in a triangle shape. one signal, one all-way stop, one side street stop, one leg (Douglas) is one-way away from Maple. Shallow left turn movements from Maple onto Broad and from White onto Maple.
103	18.30	Hartford	MAPLE AVE	FREEMAN ST	List from City	Signal	No	Minor		None	No	Yes	No		No	Yes	Ranked #103. 16 crashes, 0 KA, 7 KABC. Geometric score will be 1.0 with shifted score, making ranking higher. Fits within existing intersection, addresses offset alignments, eliminates awkward movements.	Offset signalized intersection, awkward through movements to/from side streets, left turns from Maple onto side streets interfere with each other.
48	30.60	Hartford	MAPLE AVE	FAIRFIELD	List from City											No	Reviewed as ranked site #48	
Not in Top 300	Not in Top 300	Hartford	MAPLE AVE	FRANKLIN AVE	List from City	Signal	No	Significant	Historic	Insignificant	No	Yes	Maybe		No	Yes	10 crashes, 1 KA (A), 5 KABC (1 short of 6 KABC filter therefore not ranked - low rank before filter due to geometry score which should be close to 1.0 with shifted circle). Half of crashes involved injuries. Small park on SE quadrant might be slightly impacted, depending on size of roundabout.	Skewed signal, shallow SB left turn movement.
Not in Top 300	Not in Top 300	Hartford	COLUMBUS BLVD	SHELDON	List from City	Signal	Minor	No		Insignificant	No	Maybe	Likely	No	No	Yes	36 crashes, 0 KA, 5 KABC. Hybrid design likely required, space may be limited and/or retaining wall may be needed on NE quadrant adjacent to on-ramp.	5 legged signal, 5th leg is on-ramp to Whitehead Highway.
Not in Top 300	Not in Top 300	Hartford	AIRPORT RD	BRAINARD RD	List from City	Signal	Minor	No		None	Minor	Yes	Likely	No	No	No	38 crashes, 0 KA, 7 KABC. Volumes too high for single lane roundabout. A hybrid or multi-lane roundabout would likely work well here but a detailed traffic analysis would be needed.	EB right turn bypass for heavy volume movement. Three legs plus driveway.
Not in Top 300	Not in Top 300	Hartford	BRAINARD RD	MURPHY RD	List from City	Signal	No	No	Hazardous Waste	None	Minor	Yes	Likely	No	No	No	22 crashes, 0 KA, 5 KABC. Volumes too high for a single lane roundabout. Multi-lane or hybrid design could work, although detailed traffic analysis would be needed. Roundabout could help with potential for wrong-way movements onto Route 15 expressway. Previous issue of U-turns from off-ramp should be addressed with new Charter Oak Bridge ramps. Roundabout would've made these U-turns easier (could be considered a pro or a con - probably a moot point now).	SB RT bypass for heavy movement onto Rte 15.
179	9.83	Hartford	NEW BRITAIN AVE	NEWINGTON AVE	List from City	Signal	Minor	Significant		Moderate	Minor	Yes	Maybe		Yes	Yes	Ranked site #179. 38 Crashes, 0 KA, 12 KABC. Skewed geometry suggests peanut shaped roundabout. ROW tight on NW and SE quadrants.	Skew creates long left turn movements from New Britain Ave in both directions.
66	24.60	Hartford	NEW BRITAIN AVE	WHITE/CHANDLER	List from City	Signal	Minor	Significant		None	Minor	Yes	Maybe		No	Yes	Two ranked intersections - #66 and #250, although they overlap. Ranks will be higher with shifted circles. Roundabout would address unusual geometry and awkward, unsafe movements.	Three intersections in a triangular shape. Shallow angle of intersection between New Britain and White leads to awkward left turn from White onto NBA.
37	35.40	Hartford	PROSPECT AVE	KANE ST	List from City											Yes	Reviewed as ranked site #37	
Not in Top 300	Not in Top 300	Manchester	SPENCER ST/W CENTER ST (CT 502)	OLCOTT ST/HARTFORD RD	In lieu of signal replacement. Roundabout can fit within existing paved area/ROW. Landfill on Olcott St receives construction debris via heavy vehicles. The Town has asked DOT repeatedly to review this. 3 yrs+ of crash data now avail since road diet.	Signal	No	No		None	No	Yes	Maybe		No	No	Only 4 KABC (therefore not ranked), 0KA, 16 overall. Very viable location for a roundabout, fits within existing intersection, but not warranted by current crash history.	
Not in Top 300	Not in Top 300	Manchester	N MAIN ST (CT 83)	N SCHOOL RD/MAIN ST	Rail trail gap to be filled crossing south leg. Shared-use path connection northerly to school/park would benefit from safer crossing at intersection. In lieu of signal replacement.	Signal	No	No		Insignificant	Minor	Yes	Likely	No	Yes	No	0 KA, 4 KABC (not ranked, #1281 before KABC filter), 21 overall. Viable location but not warranted based on current crash data.	High pedestrian volumes

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260	4.40	Manchester	CENTER ST/E CENTER ST (US 6/44)	MAIN ST (CT 83)	Town considering as part of Downtown road diet/complete streets project. Improve safer access between Town Hall, Library, Town offices on NW & NE corners with downtown. In lieu of signal replacement.	Signal	No	Minor	Historic	Insignificant	Minor	Yes	Likely	No	Yes	Yes	Ranked #260. 2 KA(both A), 7 KABC, 34 overall. Parks on 2 sides but probably can be avoided. Perhaps use oval shape. Hybrid design likely needed. Must consider impact on Manchester Road Race.	Currently split phased due to lack of LT lanes on E-W legs.
264	4.23	Manchester	S MAIN ST (CT 83)	HARTFORD RD/CHARTER OAK ST (CT 534)	Improve safety and access to/from Charter Oak Park and Charter Oak Greenway to Bennet Academy (public school) and Downtown	Signal	No	No		None	No	Yes	Likely	No	Yes	Yes	Rank #264. 1KA(A), 12 KABC, 28 overall. Hybrid design would be required, but plenty of space available. Must consider impact on Manchester Road Race.	Current EB thru lane alignment conflicts with WB LT lane, requires shift. High ped volumes due to Greenway, church, CVS, and recreation fields.
Not in Top 300	Not in Top 300	Manchester	S MAIN ST (CT 83)	I-384 EXIT 3 EB OFF-RAMP/HACKMATACK ST	Improve safety and access to/from Charter Oak Greenway. Road diet over bridge should be considered. Hackmatack cut through to other major N/S arterial (Keeney St)	Signal	No	No		None	No	Yes	Maybe		Yes	No	0 KA, 3 KABC (therefore not ranked), 10 overall. Very viable location for a roundabout but not warranted by current crash data, however could be considered for potential to prevent wrong-way movements onto I-384 off-ramp.	residential driveway in NW corner could be limited by a raised splitter island. Better as a a driveway onto Rte 83 with a roundabout (possibly with no lefts out)?
Not in Top 300	Not in Top 300	Manchester	WETHERRELL ST	I-384 EXIT 2 EB OFF-RAMP/BRIDGE ST	Unsafe daily PM peak queue spill back onto I-384 EB. Sister traffic signal at intersection of Keeney St at Wetherell St and Charter Oak Greenway should be reviewed together.	Side Street Stop	Significant	No		Insignificant		Maybe	No		No	Yes	Only 2 KABC (therefore not ranked), 0 KA, 6 overall. Adjacent signal at Keeney has 0 KA, 5 KABC, 16 overall so also not ranked but combination (7 KABC) would be ranked. Roundabout at Keeney could be limited by bridge over I-384? Roundabout at off-ramp would reduce potential for wrong-way move onto I-384 and help prevent potential for crashes due to spillback onto expressway. Two roundabouts might not be justified by safety reasons alone.	Queues backing onto I-384 create safety issues. roundabout here could overload adjacent signal at Keeney Street - would need to consider both intersections together.
Not in Top 300	Not in Top 300	Manchester	HILLSTOWN RD	GREAT PATH (MANCHESTER COMM COLLEGE MAIN ENTRANCE)	High speeds mixed with college student drivers. Town owned land on west side. State owned land on east side.	Side Street Stop	Minor	No		None	No	Yes	No	Maybe	No	No	Crash data does not support installation	
Not in Top 300	Not in Top 300	Manchester	E CENTER ST (US 6/44)	PORTER ST/LENOX ST	In conjunction with a road diet in lieu of signal replacement.	Signal	No	Significant	Historic	Insignificant	Minor	Maybe	Maybe	No	Yes	Yes	5 KABC therefore 1 injury short of being ranked, 0 KA, 15 overall. Was ranked #208 before KABC filter. Shifting circle would improve geometry score. Impact to landscaped area (possible park area?) could be offset with central island area. Must consider impact to Manchester Road Race but could be minimal. EB bypass lane should be closed with a roundabout, could be retained for use during race.	EB RT bypass lane not needed due to volumes but used by Manchester Road Race. Approach angle of Porter Street very shallow.
Not in Top 300	Not in Top 300	Manchester	E CENTER ST (US 6/44)	PARKER ST	Awkward offset intersection with Town owned land in the center. In lieu of signal replacement.	Signal	Significant	Significant		Significant	Minor	No	No	Maybe	No	No	Only 4 crashes overall, 0 KA, 1 KABC. Roundabout not warranted by current crash data. Would require significant ROW to include the south leg in a roundabout.	poor ISD from south leg, awkward offset with N-S legs, N leg split into two two-way legs.
Not in Top 300	Not in Top 300	Manchester	S MAIN ST (CT 83)	FERN ST	High speeds. Limited accecss to neighborhoods SE of intersection so Fern St is a primary access point. Town owned land on west side. Wide ROW on east side.	Side Street Stop	No	No		Insignificant	No	Yes	No	Yes	No	No	Only 2 crashes, both PDO, roundabout not warranted by current crash data.	
Not in Top 300	Not in Top 300	Manchester	MIDDLE TURNPIKE E (US 6/44)	GARTH RD/LAKE ST	High speeds. Needs road diet. Garth Rd major access point to large res subdiv to south.	Side Street Stop	No	Minor		None	Minor	Yes	No		Yes	No	Only 1 PDO crash. Roundabout not warranted by crash data. If roundabout is desired for speed control in conjunction with road diet, consider combining with Middle Turnpike East (acquisition of some church property required) and installing 5 legged oval roundabout slightly north of current Route 6.	
Not in Top 300	Not in Top 300	Manchester	MIDDLE TURNPIKE E (US 6/44)	VERNON ST/COOK ST/RIVERSIDE DR/MIDDLE TURNPIKE E FRONTAGE RD	High speeds. Needs road diet. Buckley School on Vernon St (Town is proposing bike lanes). Town's Senior Center on NW corner. In lieu of signal replacement.	Signal	Minor	Minor	Hazardous Waste	Significant	Minor	Maybe	No	No	Yes	No	4 KABC therefore not ranked, 0 KA, 9 overall. Impact to diner parking lot would be significant. Vernon Street and Riverside Drive could be realigned to the east to reduce the impact on the diner but would require ROW, possibly oval shaped roundabout with offset N-S legs? Roundabout and road diet would help reduce speeds but not currently warranted by crash data.	Diner parking lot close to road has poor access, likely to be impacted by a roundabout.
Not in Top 300	Not in Top 300	Manchester	TOLLAND TURNPIKE (CT 30/83)	PARKER ST	In lieu of sign replacement. Major shopping plaza & other nearby driveways have restricted access due to SR safety issues. Would address speeds and provide safe U-turn opportunities. DOT suggested road diet but Vernon did not support was dropped from VIP	Signal	No	No		Insignificant	Minor	Yes	Likely	No	Yes	Yes	Ranked #363. 0 KA, 7 KABC, 19 overall. High volumes, hybrid would be required but space is available. Part of coordinated signal system, investigate whether Taylor Street is part of same system and if so consider replacing Taylor Street also.	
162	11.67	Manchester	CENTER ST (US 6/44)	ADAMS ST	Offset intersection running split phasing. Poor ISD from north. Could provide improved access to plaza. Elementary school to the SW with walking routes.	Signal	No	Significant	Hazardous Waste	Significant	Minor	Yes	Maybe		No	Yes	Ranked #162. 0KA, 8 KABC, 22 overall. ROW needed either from parking lot on SE corner (as shown with relocated circle in GIS) with realignment of south leg or (likely) total acquisition of residential property in NW corner which would not require any road realignment. Significant safety and operational improvements with a roundabout.	5 legged signalized intersection (one leg is one-way away from intersection) with significant offset on N-S legs.
Not in Top 300	Not in Top 300	Manchester	ADAMS ST	NEW STATE RD	High crash location (two major crashes this year -- one took out service pole other took out cabinet and mast arm). High speed straight roadway with limited visibility to signal. In lieu of signal replacement.	Signal	No	Minor		Insignificant	Minor	Yes	No		No	No	only 3 KABC (therefore not ranked, was 1720 before KABC filter), 0 KA, 3 KABC. Crash data does not warrant roundabout in spite of comment suggesting this is a high crash location. Suggest continual review of crash data. Viable location if crash numbers increase or in lieu of signal replacement.	

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Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	SOUTH EAGLEVILLE RD (CT 275)/CHARLES SMITH WAY	High pedestrian traffic due to university housing											Yes	27 crashes, 0 KA, 4 KABC (therefore does not meet the 6 KABC filter, not ranked). High crash location, though mostly PDO crashes, was ranked #157 before KABC filter. One-way exit only driveway just south of intersection serving apartments would be impacted by splitter island (no lefts out but could make U-turn at roundabout) - likely would help crashes at driveway also. High pedestrian area, currently have wide crosswalks (4 lanes plus median), would be shorter with roundabout. ROW needed owned by town or State (UConn).	
Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	HANKS HILL RD/FLAHERTY RD	Skewed Road	Side Street Stop	Significant	Significant	Wetlands	Insignificant	Minor	Yes	No		No	No	6 Crashes, 0 KA, 1 KABC therefore not ranked. Viable location to address awkward geometry issues but crash data does not warrant installation.	Unsignalized intersection with two side street approaches on the same side of Route 195. Crosswalk across south leg of Rte 195. Flaherty Road has skew and grade issues. Small businesses on east side with driveways.
80	22.2	Mansfield	STORRS RD (CT 195)	NORTH FRONTAGE RD (CT 632)		Signal	Minor	No		None	No	Yes	Maybe		Yes	Yes	Ranked #80. 19 Crashes, 0 KA, 7 KABC. Should be paired with Rte 195/S. Frontage intersection.	North half of two-way frontage road system parallel to Route 6 expressway. Long crosswalk on west side.
Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	SOUTH FRONTAGE RD (CT 633)	On ramps to Route 6 East	Signal	Minor	No		None	Minor	Yes	Maybe		Yes	Yes	15 crashes, 0 KA, 5 KABC (1 short of meeting KABC filter therefore not ranked - was #148 before filter). Pair with 195/N. Frontage intersection.	South half of frontage road system parallel to Route 6 expressway. Long crosswalk on west leg.
Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	WARRENVILLE RD (CT 89)	Church parking lot and bus stop near intersection	Signal	Significant	No		Insignificant	Minor	Yes	No	Maybe	No	No	9 crashes, 0 KA, 2 KABC therefore not ranked (was #514 before KABC filter). Crash data does not warrant installation. Steep topo on west side limits ability to widen, retaining wall needed. ROW very tight, additional ROW may be needed if sidewalks are to be installed. Mini roundabout may be viable in lieu of signal replacement. Operational improvement might improve safety at adjacent intersection on Rte 195 at Browns Road.	Steep church driveway on west side, crosswalk on south leg, no sidewalks.
Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	HORSEBARN HILL RD	High pedestrian traffic due to university housing	Signal	No	No		Insignificant	Minor	Yes	No		No	No	7 Crashes, 0 KA, 1 KABC. Very viable location but crash data does not warrant installation. Should be considered for roundabout in lieu of signal replacement, together with 195/ N. Eagleville intersection. ROW needed owned by State (UConn).	High pedestrian volumes
Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	NORTH EAGLEVILLE RD (CT 430)	High pedestrian traffic due to university campus/housing	Signal	No	No		None	Minor	Yes	No		No	No	10 Crashes, 0 KA, 1 KABC therefore not ranked. Very viable location but crash data does warrant installation. Should be considered in lieu of signal replacement and/or speed control in high pedestrian area. ROW needed owned by State (UConn).	High pedestrian volumes
41	33.60	Mansfield	STORRS RD (CT 195)	MIDDLE TURNPIKE (US 44)	Numerous Curb Cuts											Yes	Reviewed as Ranked site #41	
Not in Top 300	Not in Top 300	Mansfield	STORRS RD (CT 195)	STAFFORD RD (CT 32)	Gas station/businesses at intersection	Signal	Minor	Minor	Hazardous Waste	None	Minor	Yes	No		No	No	16 crashes but 0 injuries. Viable location but crash data does not warrant installation.	
204	7.57	Mansfield	MIDDLE TURNPIKE (US 44)	STAFFORD RD (CT 32)	Has been identified for improvements in the Eastern Gateways Study	Signal	Significant	Significant		Insignificant	Minor	Yes	No		No	Yes	18 Crashes, 0 KA, 6 KABC. Ranked #204. Land needed in NE corner owned by State (UConn), land in SW corner seems to be part of existing ROW? SE quadrant also owned by UConn. Oval shape and/or realignments likely needed due to skew, but land is available.	
Not in Top 300	Not in Top 300	Mansfield	STAFFORD RD (CT 32)	SOUTH EAGLEVILLE RD (CT 275)		Signal	Significant	No	Historic	Significant	Minor	No	No	Maybe	No	No	14 crashes but only 1 injury, does not warrant installation. Significant ROW needed for roundabout. ROW very tight. Area has historic significance, church on SW quadrant. . Previous requests for guardrail on NW quadrant due to complaints about vehicles running off road near house west of intersection on Route 275. Mini roundabout might be viable with no or minor ROW needed.	
Not in Top 300	Not in Top 300	Newington	MAPLE HILL AVE	ROBBINS AVE		Signal	No	Minor		None	Minor	Yes	No		No	No	10 Crashes overall, 0 KA, 2 KABC. Would be good operational improvement if could align or combine with Lantern Hill, but does not appear practical. If alignment not possible, would have to analyze impact on Lantern Hill. Crash history (only 2 KABC) does not warrant installation.	Offset with Lantern Hill, Robbins Ave leg has stop controlled right turn bypass.
Not in Top 300	Not in Top 300	Newington	DEMING ST	CULVER ST		All-Way Stop	No	Minor		Insignificant	Minor	Yes	No	Yes	No	No	Only 1 crash, no injuries therefore installation not warranted based on safety. Mini roundabout could be viable if needed for operational issues.	
Not in Top 300	Not in Top 300	Newington	FENN RD/W HARTFORD RD	WEST HILL RD/RESERVOIR RD		Signal	Minor	Significant		None	Minor	Yes	No		No	Yes	9 Crashes overall, 1 KA (A), only 2 KABC therefore not ranked, (was #695 before KABC filter), Awkward alignment of E-W legs. Plenty of ROW available. Near school. Possible oval	side streets offset with curves to align but still poor alignment. Long, curving through movements conflict with short E-W left turns.
Not in Top 300	Not in Top 300	Newington	MAIN ST (CT 176)	HOPKINS DR	?Town transfer station	Side Street Stop	No	No		Insignificant	Minor	Yes	No		No	No	0 Crashes therefore installation not warranted based on safety.	
Not in Top 300	Not in Top 300	Newington	CEDAR ST (CT 175)	ALUMNI RD	improve access to industrial area and remove gate on Alumni	Signal	No	No		Moderate	Minor	Maybe	Likely	No		No	Volumes too high for single lane roundabout, proximity to Maple Hill signal could be problematic.	250 feet west of Maple Hill/Old Farm signal, some crashes due to that signal.
Not in Top 300	Not in Top 300	Newington	CEDAR ST (CT 175)	FENN RD	Signal operates at LOS F	Signal	Minor	No		None	Minor	Yes	Likely			No	120 crashes overall, 0 KA, 23 KABC - very high crash location but volumes too high for a single lane roundabout. Multi-lane roundabout would likely work, space available.	
Not in Top 300	Not in Top 300	Newington	FENN RD	MYRA COHEN WAY		Signal	Minor	No	Wetlands	Insignificant	Minor	Yes	Likely	No		Yes	17 Crashes overall, 0 KA, 8 KABC, ranked #392 after KABC filter. Geometric factor appears to be incorrect therefore actual rank should be higher. Over half of crashes are injury crashes therefore high severity. Hybrid design likely needed, might impact wetlands or ROW, space available on NE quadrant.	Access to Busway station
180	9.68	Newington	WILLARD AVE (CT 173)	GARFIELD ST	few residents have requested a signal	Side Street Stop	No	No		Insignificant	Minor	Yes	No		No	Yes	10 Crashes overall, 0 KA, 7 KABC, ranked #180. 7/10 crashes involved injuries - high severity. Town owns land on SE corner, CL&P owns NE corner.	
Not in Top 300	Not in Top 300	Newington	FENN RD	HOLMES RD		Signal	Minor	No		None	Minor	Yes	No		No	No	5 crashes overall, 0 KA, 1 KABC. Viable location but crash history does not warrant installation.	

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Not in Top 300	Not in Top 300	Newington	FENN RD	COMMERCE CT		Side Street Stop	Minor	No		Insignificant	Minor	Yes	No		No	Yes	8 crashes, 1 KA (A), 5 KABC (was #237 before filter, one injury short of KABC filter therefore not ranked). High crash numbers for an unsignalized T intersection. Roundabout here likely to help at King Arthur's Way.	Unsignalized T intersection, steep side slope opposite side street from King Artur's Way residential development which intersects Fenn to the north. Impractical to align the two side streets.
Not in Top 300	Not in Top 300	Suffield	MAIN ST (CT 75)	MOUNTAIN RD (CT 168)/BRIDGE ST (CT 513)	Intersection functions poorly with transitions that are too short. Significant portion of traffic travels to-from Mountain Rd to Bridge.	Signal	No	No		Insignificant	Minor	Yes	Maybe	No	No	Yes	Individually, both intersections have only 4 KABC crashes so neither is ranked, but combining them would meet the filter. The Rte 75/168 intersection was #190 before the KABC filter. Combined 23 crashes overall, 2 KA (both As), 8 KABC. ROW needed is town owned.	2 closely spaced signals at "T" intersections with significant volume making the "Z" movements. Significant pedestrian volumes at both locations.
Not in Top 300	Not in Top 300	Suffield	THOMPSONVILLE RD (CT 190)	MAPLETON AVE	190 throughway added later to assist in truck movements. Sign controls at locations with limited sightline and difficult angle. Enough traffic to warrant better controls.	Side Street Stop	No	Minor		None	Minor	Yes	No		No	No	crash data only available at southern end of NB RT bypass leg (0 crashes). Need to check data at the actual intersection. Also, geometry score should be 1.0 based on more appropriate location of circle. Manual review of UConn Crash Data indicates no crashes at this location, therefore installation not recommended based on available crash data.	Side approach split into (2) two-way legs. Left turns from Rte 75 have to stop immediately after making turn, very short queueing distance.
Not in Top 300	Not in Top 300	Suffield	MAIN ST (CT 75)	PRIVATE ROADS	Significant traffic competing with pedestrian crossings associated with adjacent boarding school use.	Side Street Stop	No	No		None	Minor	Yes	No		No	No	Only 4 crashes, 0 KA, 2 KABC, therefore not ranked and does not warrant roundabout installation based on crash data. No data available at acute intersection to the north, if any significant crashes there, could reconsider. Roundabout would eliminate acute intersection with poor two-way visibility.	private road parallel to Rte 75 has acute angle exit onto Rte 75.
Not in Top 300	Not in Top 300	Suffield	SHELDON ST (CT 187)	N MAIN ST (CT 187)/SOUTH STONE ST	Dangerous. Northbound traffic on North Main Street continuing onto South Stone in Suffield may not yield to westbound traffic on Sheldon (187). Stopped traffic at both stop signs have tough alignment for sightline. East Granby is in agreement.	Side Street Stop	No	No		None	No	Yes	No		No	Yes	7 overall, 0KA, 5 KABC. Data only available at one of the three intersections, if others added, likely would be over the 6 KABC filter. 5 of the 7 crashes resulted in injuries. Acute angles at two intersections results in poor two-way visibility. Geometry score with circle in proper location would give higher score. Probably have to "T" Austin Brook into Stone, make one approach to roundabout.	Actually 3 intersections, one 4-legged two way stop and two 3 legged skewed intersections with stops on legs with acute angles
Not in Top 300	Not in Top 300	Suffield	MOUNTAIN RD (CT 168)	N STONE ST/S STONE ST	Numerous documented accidents.	Side Street Stop	Minor	No		None	Minor	Yes	No		No	Yes	10 Crashes overall, 0 KA, 5 KABC (1 short of meeting KABC filter therefore not ranked, was #117 before filter). 5 of 10 crashes resulted in injuries including 4 type B.	
58	26.24	West Hartford	TROUT BROOK DR	ASYLUM AVE	Future redevelopment of the former UConn campus which is located on the NW and NE corners of this intersection. Town is also planning to extend a multi-use trail along the west side of Trout Brook Drive which should generate more pedestrian activity.											Yes	Reviewed as ranked location #58	
Not in Top 300	Not in Top 300	West Hartford	PARK RD	QUAKER LANE SOUTH	Skewed geometry may lend itself to a peanut shaped roundabout.	Signal	No	Significant	Hazardous Waste	Significant	Minor	No	Maybe	Maybe	No	No	0 KA, 3 KABC therefore not ranked, 15 crashes overall. Skew makes it impossible to install roundabout (even a peanut) without significant ROW. Crash data does not warrant installation. Mini roundabout could be viable.	
Not in Top 300	Not in Top 300	West Hartford	MOUNTAIN RD	FERN ST/HUNTER DR		Signal	No	Minor		Insignificant	Minor	Yes	Maybe		No	No	0 KA, 2 KABC (therefore not ranked), 15 crashes overall. Space available (with town owned land) but crash data does not warrant installation. Could be considered in lieu of signal replacement.	
Not in Top 300	Not in Top 300	West Hartford	PARK RD	OAKWOOD AVE/ARNOLDALE RD		Signal	No	Minor	Hazardous Waste	Significant	Minor	No	No	Yes	No	No	1 KA (Fatal), 5 KABC (1 short of meeting KABC filter), 11 crashes overall. Crash data warrants improvement but single lane roundabout would require significant ROW (probable total takes) on SW and NE quadrants. Mini roundabout should be considered here due to crash severity.	
Not in Top 300	Not in Top 300	Wethersfield	JORDAN LN (CT 314)	WOLCOTT HILL RD	High traffic volume, stop controlled, multiple Thru/LT/RT-turn lanes	All-Way Stop	No	Minor	Hazardous Waste	Moderate	Minor	Yes	Maybe	No	Yes	Yes	23 overall crashes, 0 KA, 7 KABC. Weighted score is incorrect (using ADT of Rte 15 overhead which provides an ADT Factor of 0.0, should be 1.0). Piers limit location of roundabout and features. Shopping Center parking lot on SE quadrant and gas station lot on NW quadrant may be impacted. Adjusted circle location shown does not consider pier locations and will have to be adjusted.	Rte 15 bridge overhead, piers in the intersection. Multiple turn lanes and a right turn bypass at an all-way stop intersection creates confusion.
Not in Top 300	Not in Top 300	Wethersfield	WOLCOTT HILL RD	NOTT ST	High traffic/pedestrian/bike volume, stop-controlled, wide/offset intersection, school nearby	All-Way Stop	No	Significant		Significant	Minor	No	No	No	No	No	7 crashes, all PDOs. No way to install a roundabout to include both legs of Wolcott Hill Road without taking significant property. Not warranted by crash data.	North leg of Wolcott Hill is split into (2) two-way legs with an internal stop and very acute angle of intersection. The legs of Wolcott Hill Road are offset from each other.

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Rank	CVR Score	Municipality	Major Road	Minor Road	Total Crashes	Total KABC Crashes	Crash Score	ADT	ADT Factor	Intersection Control Type	ROW Issues	Geometric Factor	Recommended	Comment
1	**250.20**	**HARTFORD**	**MAIN ST # 1**	**MAHL AVE/PAVILLION ST**	**31**	**10**	**417.00**	**13500**	**0.75**	**Signal**	**Moderate**	**0.80**	**Yes**	
2	232.65	HARTFORD	CHAPEL ST. NO/WALNUT ST/I-84 EB RAMP	HIGH ST #1	60	11	232.67	9900	1	Signal	None	1.00	No	Volumes
3	**187.54**	**HARTFORD**	**NEW BRITIAN AVE**	**SUMMIT ST/FAIRFIELD AVE # 2**	**17**	**6**	**216.33**	**10600**	**0.9**	**Signal**	**Insignificant**	**0.96**	**Yes**	
4	**187.50**	**BERLIN**	**MILL ST (CT 372)**	**SAVAGE HILL RD/BECKLEY RD**	**12**	**6**	**208.33**	**10300**	**0.9**	**Signal**	**None**	**1.00**	**Yes**	
5	162.28	HARTFORD	FRANKLIN AVE	BUSHNELL ST	13	7	**213.67**	**8600**	**1**	Side Street Stop	Significant	0.76	No	ROW
6	**149.93**	**HARTFORD**	**WASHINGTON ST**	**VERNON ST # 2**	**34**	**11**	**229.00**	**12100**	**0.75**	**Signal**	**Insignificant**	**0.87**	**Yes**	
7	145.27	HARTFORD	FRANKLIN AVE	BLISS ST	13	7	213.67	8600	1		Significant	0.68	No	Fatal likely occurred at Bushnell
8	131.67	HARTFORD	WESTLAND ST	BARBOUR ST	18	6	205.33	5700	1	Signal	Significant	0.64	No	ROW
9	**108.48**	**HARTFORD**	**HOMESTEAD AVE/WALNUT ST**	**GARDEN ST #1**	**54**	**28**	**270.67**	**13100**	**0.75**	**Signal**	**Moderate**	**0.53**	**Yes**	
10	89.31	HARTFORD	ALBANY AVE (US 44)	BROOK ST	19	6	215.33	13400	0.75	Signal	Significant	0.55	No	ROW
11	81.67	HARTFORD	WETHERSFIELD AVE	ADELAIDE ST	19	7	212.33	12000	0.9	Side Street Stop	Significant	0.43	No	ROW
12	79.75	HARTFORD	MORGAN ST (US 44)	MARKET ST	128	30	127.00	12800	0.75	Signal	Insignificant	0.84	No	ROW
13	**67.43**	**SOUTHINGTON**	**MERIDAN-WATERBURY TPKE (CT 322)**	**CLARK ST (CT 509)**	**15**	**7**	**215.67**	**11700**	**0.9**	**Signal**	**Moderate**	**0.35**	**Yes**	**Vols, Signal System**
14	65.05	HARTFORD	ZION ST # 1	WARD ST	18	9	220.33	10400	0.9	Signal	Significant	0.33	No	ROW
15	64.30	HARTFORD	FARMINGTON AVE	BROAD ST	84	23	89.67	12600	0.75	Signal	Insignificant	0.96	No	Needs Multi-Lane Rdbt
16	63.79	HARTFORD	TRUMBULL ST	CHAPEL ST SOUTH	47	18	67.00	7100	1	Signal	Significant	0.95	No	ROW, Vols?
17	**58.25**	**HARTFORD**	**MAIN ST #2**	**CHARTER OAK AVE/BUCKINGHAM ST**	**36**	**14**	**233.00**	**15900**	**0.25**	**Signal**	**Moderate**	**1.00**	**Yes**	
18	55.72	HARTFORD	NEW BRITAIN AVE	HILLSIDE AVE	44	15	247.00	10600	0.9	Signal	Significant	0.25	No	ROW
19	53.33	HARTFORD	ANN UCELLO ST #1 /PLEASANT ST	CHAPEL ST NORTH	41	12	53.33	6800	1	Signal	Significant	1.00	No	ROW
20	52.44	HARTFORD	MAIN ST/MORGAN ST	CHAPEL ST NORTH	78	24	82.67	12500	0.75	Signal	Moderate	0.85	No	Volumes
21	**51.91**	**VERNON**	**HARTFORD TURNPIKE (CT 30)**	**RESERVIOIR RD/GROVE ST (CT 31)**	**67**	**17**	**67.00**	**11200**	**0.9**	**Signal**	**Insignificant**	**0.86**	**Yes**	
22	51.21	HARTFORD	ALBANY AVE (US 44)	GARDEN ST # 1	85	22	271.00	16000	0.25	Signal	Significant	0.76	No	ROW, Recent Project
23	**51.17**	**HARTFORD**	**CAPITOL AVE**	**LAUREL ST**	**47**	**13**	**57.00**	**10300**	**0.9**	**Signal**	**Moderate**	**1.00**	**Yes**	
24	**50.42**	**HARTFORD**	**FRANKLIN AVE**	**BOND ST**	**32**	**17**	**55.67**	**8600**	**1**	**Side Street Stop**	**Significant**	**0.91**	**Yes**	
25	47.97	HARTFORD	PARK TERR	SIGOURNEY ST/RUSS ST	47	18	64.00	13600	0.75	Signal	None	1.00	No	Already Converted to a Roundabout

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26	**46.67**	**NEW BRITAIN**	**COLUMBUS BLVD**	**CHESTNUT ST**	**26**	**11**	**46.67**	**8100**	**1**	**Signal**	**Insignificant**	**1.00**	**Yes**	
27	**44.32**	**HARTFORD**	**CAPITOL AVE**	**BROAD ST**	**56**	**19**	**66.67**	**10300**	**0.9**	**Signal**	**Insignificant**	**0.74**	**Yes**	
28	42.87	HARTFORD	FRANKLIN AVE	BROWN ST	42	7	45.00	8600	1	Signal	Significant	0.95	No	ROW
29	**42.05**	**NEW BRITAIN**	**COLUMBUS BLVD & CT 9 SB ENT/EXIT RAMP**	**ELLIS ST**	**26**	**11**	**45.00**	**8600**	**1**	**Signal**	**Insignificant**	**0.93**	**Yes**	
30	**40.74**	**NEWINGTON**	**WILLARD AVE (CT 173)**	**ROBBINS AVE**	**33**	**17**	**54.33**	**13500**	**0.75**	**Signal**	**Significant**	**1.00**	**Yes**	
31	**40.15**	**HARTFORD**	**WASHINGTON ST**	**JEFFERSON ST**	**51**	**22**	**75.33**	**12100**	**0.75**	**Signal**	**Moderate**	**0.71**	**Yes**	
32	**39.45**	**VERNON**	**HARTFORD TPKE (CT 30)**	**BOLTON RD/CENTER RD**	**48**	**12**	**52.33**	**11300**	**0.9**	**Signal**	**Moderate**	**0.84**	**Yes**	
33	**38.50**	**BERLIN**	**FRONTAGE RD/MILL ST (CT 372)**	**WORTHINGTON RIDGE (CT 372-SOUTH/572- NORTH)**	**26**	**12**	**51.33**	**13700**	**0.75**	**Signal**	**Moderate**	**1.00**	**Yes**	
34	37.99	WEST HARTFORD	NEW PARK AVE	FLATBUSH AVE	70	22	76.67	14600	0.5	Signal	Significant	0.99	No	Volumes
35	37.50	HARTFORD	84-W-115	SIGOURNEY ST	40	12	41.67	11900	0.9	Signal	Insignificant	1.00	No	Volumes, on Structure
36	**36.06**	**HARTFORD**	**WASHINGTON ST**	**PARK ST**	**64**	**15**	**75.33**	**12100**	**0.75**	**Signal**	**Moderate**	**0.64**	**Yes**	
37	**35.40**	**WEST HARTFORD**	**PROSPECT AVE**	**KANE ST**	**33**	**11**	**39.33**	**10500**	**0.9**	**Signal**	**None**	**1.00**	**Yes**	
38	34.75	HARTFORD	I-84 EB ON RAMP	BROAD ST	64	12	46.33	13100	0.75	Signal	None	1.00	No	Bridge Piers
39	**34.50**	**COVENTRY**	**BOSTON TURNPIKE (US 44)**	**MAIN ST (CT 31)**	**30**	**11**	**38.33**	**10300**	**0.9**	**Signal**	**Insignificant**	**1.00**	**Yes**	
40	34.23	NEW BRITAIN	EAST MAIN	MAIN ST	37	17	47.33	13100	0.75	Signal	None	0.96	No	Recent Project
41	**33.60**	**MANSFIELD**	**MIDDLE TURNPIKE (US 44)**	**STORRS RD (CT 195)**	**37**	**12**	**37.33**	**10900**	**0.9**	**Signal**	**None**	**1.00**	**Yes**	
42	32.70	WINDSOR	WINDSOR AVE (CT 159)	ROOD AVE	25	10	36.33	10600	0.9	Signal	Insignificant	1.00	No	Realignment needed, Major utility impacts
43	32.47	HARTFORD	ASYLUM AVE	BROAD ST/COGSWELL ST	95	20	81.67	14300	0.5	Signal	Insignificant	0.80	No	Volumes
44	32.33	HARTFORD	I-91 NB RAMP	I-91 SB RAMP	37	10	32.33	5200	1	Signal	None	1.00	No	Steep Grade
45	**32.33**	**BLOOMFIELD**	**BLOOMFIELD AVE (CT 189)**	**PARK AVE/MTN AVE (CT 178)**	**27**	**9**	**32.33**	**9900**	**1**	**Signal**	**Insignificant**	**1.00**	**Yes**	
46	**31.68**	**HARTFORD**	**I-84 EB OFF/WB ON**	**CAPITOL AVE/OAK ST**	**32**	**13**	**52.00**	**10300**	**0.9**	**Signal**	**None**	**0.68**	**Yes**	
47	**31.00**	**VERNON**	**TALCOTTVILLE RD (CT 83)**	**HARTFORD TURNPIKE/KELLY RD (CT 30)**	**49**	**11**	**41.33**	**12700**	**0.75**	**Signal**	**None**	**1.00**	**Yes**	
48	30.60	HARTFORD	MAPLE AVE	FAIRFIELD AVE # 1	18	8	34.00	11000	0.9	Signal	Insignificant	1.00	No	ROW, Potential historic impact
49	30.50	HARTFORD	STATE ST	MARKET ST	53	6	40.67	13400	0.75	Signal	None	1.00	No	Potential Wetlands, Utility impacts
50	30.09	GLASTONBURY	GLASTONBURY BLVD/GRISWOLD ST	MAIN ST	63	9	49.00	13400	0.75	Signal	None	0.82	No	Hybrid may be needed, signal system

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51	29.38	HARTFORD	FARMINGTON AVE	SIGOURNEY ST	68	19	72.33	12600	0.75	Signal	Moderate	0.54	No	ROW, Signal System
52	**29.00**	**VERNON**	**HARTFORD TURNPIKE (CT 30)**	**DOBSON RD**	**37**	**6**	**29.00**	**9100**	**1**	**Signal**	**None**	**1.00**	**Yes**	
53	**28.80**	**ENFIELD**	**ENFIELD ST (US 5)/FRANKLIN ST (CT 514)**	**CT 190 WB RAMP**	**17**	**8**	**32.00**	**11800**	**0.9**	**Signal**	**None**	**1.00**	**Yes**	
54	**27.90**	**WEST HARTFORD**	**PROSPECT AVE & CAYA AVE**	**I-84 EB RAMPS**	**28**	**10**	**31.00**	**10500**	**0.9**	**Signal**	**None**	**1.00**	**Yes**	
55	27.82	HARTFORD	FRANKLIN AVE	SOUTH ST	22	9	29.00	8600	1	Signal	Significant	0.96	No	ROW
56	**26.75**	**HARTFORD**	**PULASKI CIR (CT 598) & WELLS ST**	**HUDSON ST**	**47**	**9**	**35.67**	**13800**	**0.75**	**Yield**	**Insignificant**	**1.00**	**Yes**	
57	26.27	HARTFORD	CHURCH ST	SPRUCE ST	55	10	40.00	6400	1	Signal	Insignificant	0.66	No	Crash data incorrect
58	**26.24**	**WEST HARTFORD**	**TROUT BROOK DR**	**ASYLUM AVE**	**31**	**10**	**221.33**	**16300**	**0.25**	**Signal**	**Moderate**	**0.47**	**Yes**	
59	**26.24**	**HARTFORD**	**SIGOURNEY ST**	**HAWTHORN ST**	**23**	**7**	**30.67**	**11900**	**0.9**	**Signal**	**Insignificant**	**0.95**	**Yes**	
60	**25.80**	**HARTFORD**	**WESTBOURNE PKWY**	**BLUE HILLS AVE (CT 187)**	**30**	**7**	**30.00**	**11300**	**0.9**	**Signal**	**Insignificant**	**0.96**	**Yes**	
61	**25.57**	**ENFIELD**	**SHAKER RD (CT 220/CT 402)**	**TAYLOR RD (CT 220)**	**23**	**11**	**34.33**	**11400**	**0.9**	**All-Way Stop**	**None**	**0.83**	**Yes**	
62	**25.38**	**NEW BRITAIN**	**MARTIN LUTHER KING DR (CT 71)**	**WINTER ST**	**24**	**14**	**41.33**	**13200**	**0.75**	**Signal**	**Insignificant**	**0.82**	**Yes**	
63	**25.34**	**HARTFORD**	**WETHERSFIELD AVE**	**ELLIOTT ST**	**21**	**8**	**35.00**	**12000**	**0.9**	**Signal**	**Moderate**	**0.80**	**Yes**	
64	**25.00**	**FARMINGTON**	**SOUTH RD**	**TWO MILE RD**	**30**	**6**	**25.00**	**10000**	**1**	**All-Way Stop**	**None**	**1.00**	**Yes**	
65	24.70	HARTFORD	I-84 EB OFF/WB ON	SPRUCE ST	39	11	44.33	12200	0.75	Signal	Insignificant	0.74	No	Signal System
66	**24.60**	**HARTFORD**	**WHITE ST**	**HARVARD ST**	**22**	**10**	**27.33**	**10600**	**0.9**	**Signal**	**Insignificant**	**1.00**	**Yes**	
67	**24.46**	**HARTFORD**	**PARK ST**	**PARK TERR**	**67**	**27**	**92.00**	**13600**	**0.75**	**Signal**	**Moderate**	**0.35**	**Yes**	
68	24.29	WEST HARTFORD	BOULEVARD	FOUR MILE RD	22	13	43.67	6100	1	Side Street Stop	Moderate	0.56	No	ROW
69	24.02	SOUTHINGTON	WEST ST (CT 229)	WEST QUEEN ST	43	13	243.33	21100	0.1	Signal	Insignificant	0.99	No	Grade, Volumes
70	**23.88**	**HARTFORD**	**ASYLUM AVE**	**WOODLAND ST**	**49**	**16**	**61.00**	**14300**	**0.5**	**Signal**	**Moderate**	**0.78**	**Yes**	
71	**23.25**	**SOUTHINGTON**	**WATERBURY TURNPIKE (CT 322)**	**I-691 WB RAMPS**	**23**	**9**	**31.00**	**12100**	**0.75**	**Signal**	**None**	**1.00**	**Yes**	
72	**23.20**	**BLOOMFIELD**	**MOUNTAIN AVE (CT 178)**	**MAPLE AVE/BROWN ST**	**21**	**8**	**30.00**	**10400**	**0.9**	**Signal**	**Insignificant**	**0.86**	**Yes**	
73	23.17	NEW BRITAIN	WHITING ST	WEBSTER ST (ACTUALLY GLEN ST)	11	6	26.67	4100	1	Side Street Stop	Significant	0.87	No	ROW
74	23.14	HARTFORD	CHAPEL ST SOUTH	ANN UCCELLO ST # 1	47	6	29.00	7000	1	Signal	Significant	0.80	No	I-84 Overpass
75	**23.11**	**HARTFORD**	**FAIRFIELD AVE #1**	**ZION ST #2**	**36**	**11**	**35.33**	**12900**	**0.75**	**Signal**	**Insignificant**	**0.87**	**Yes**	

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76	23.04	VERNON	UNION ST (CT 83 & CT 74)	WEST ST (CT 74 & 83)	55	7	36.67	10100	0.9	Signal	Moderate	0.70	Yes	
77	23.00	HARTFORD	CAPITOL AVE	WASHINGTON ST & TRINITY ST	23	8	30.67	12100	0.75	Signal	None	1.00	Yes	
78	22.98	MANCHESTER	MIDDLE TURNPIKE WEST/MIDDLE TURNPIKE EAST #1	MAIN ST (CT 83)	44	14	54.33	13300	0.75	Signal	Significant	0.56	No	ROW
79	22.25	NEW BRITAIN	CHESTNUT ST & ELM ST (CT 71)	HARRY TRUMAN OP	24	9	29.67	12700	0.75	Signal	None	1.00	Yes	
80	22.20	MANSFIELD	STORRS RD	NORTH FRONTAGE RD	19	7	24.67	10900	0.9	Signal	None	1.00	Yes	
81	21.83	SOUTHINGTON	WATERBURY TURNPIKE (CT 322) & RUGGLES ROW	I-84 EB RAMPS	31	13	43.67	14700	0.5	Signal	None	1.00	Yes	
82	21.75	ENFIELD	KING ST	I-91 NB RAMPS	17	10	29.00	12900	0.75	Signal	Insignificant	1.00	Yes	
83	21.69	HARTFORD	ALBANY AVE (US 44)	BALTIMORE ST	18	7	26.00	11200	0.9	Signal	Significant	0.93	No	ROW, Recent Project
84	21.67	NEW BRITAIN	MAIN ST #1	CHESTNUT ST & ARCH ST	15	7	21.67	6600	1	Signal	None	1.00	Yes	
85	21.67	WILLINGTON	RIVER ROAD (CT 32)	TOLLAND TPKE (CT 74)	15	6	21.67	5200	1	Signal	None	1.00	No	Steep Grade
86	21.60	EAST HARTFORD	MAIN ST # 1	BROAD ST/MAPLE ST	30	9	31.67	13300	0.75	Signal	Insignificant	0.91	Yes	
87	21.59	HARTFORD	VINE ST	GREENFIELD ST	36	17	58.67	5600	1	All-Way Stop	Significant	0.37	Yes	
88	21.31	WEST HARTFORD	BOULEVARD	RAYMOND RD	32	14	40.67	6100	1	Signal	Insignificant	0.52	Yes	
89	21.00	SOUTHINGTON	ATWATER ST	I-84 EB RAMP & MARION AVE	24	8	28.00	12400	0.75	Signal	None	1.00	Yes	
90	20.90	HARTFORD	TRUMBULL ST	CHAPEL ST NORTH	25	6	25.00	7100	1	Signal	Insignificant	0.84	No	Signal System
91	20.75	SOUTHINGTON	MERIDEN WATERBURY TURNPIKE & I-84 WB EXIT	I-84 ENTRANCE RAMP	18	8	27.67	12700	0.75	Signal	None	1.00	Yes	
92	20.70	CANTON	RIVER RD (CT 179)	US 202	24	8	23.00	11600	0.9	Signal	None	1.00	Yes	
93	20.64	BERLIN	MIDDLETOWN RD/BERLIN ST	MILL ST (CT 372)	22	11	29.00	13000	0.75	Signal	None	0.95	Yes	
94	20.32	NEW BRITAIN	SLATER RD/ALEXANDER DR & FIENEMANN RD	FARMINGTON AVE	28	8	35.67	12800	0.75	Signal	Insignificant	0.76	Yes	
95	19.67	NEW BRITAIN	CHESTNUT ST	CT RTE 9 SB EXIT RAMP	9	6	19.67	4500	1	Signal	None	1.00	Yes	
96	19.57	EAST HARTFORD	SILVER LANE (CT 502)	FORBES ST	28	8	29.33	10800	0.9	Signal	Insignificant	0.74	Yes	
97	19.54	HARTFORD	PROSPECT AVE	WARRENTON AVE	32	11	35.67	7100	1	All-Way Stop	Significant	0.55	No	ROW
98	19.50	WINDSOR	KENNEDY RD	ARCHER RD/I-91 NB EXIT RAMP	15	7	21.67	10300	0.9	Signal	None	1.00	Yes	
99	19.39	HARTFORD	MARKET ST	PLEASANT ST	33	8	32.67	12800	0.75	Signal	Moderate	0.79	Yes	
100	18.87	NEW BRITAIN	STANLEY ST # 1	EAST MAIN ST	25	9	28.33	12800	0.75	Signal	Moderate	0.89	Yes	