



2016 TOP CRASH LOCATIONS REPORT

DECEMBER 2018



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator



Dear Reader:

Enclosed is MassDOT Highway Division's edition of the 2016 *Top Crash Locations Report*, which may be used for a first brush tool to evaluate top crash intersection locations and top crash pedestrian and bicycle locations in order to improve the safety of our roadway system. This report, like last year's report, focuses on intersection locations and is based on crashes entered into the Registry of Motor Vehicles' Crash Data System (CDS). The 2016 Report also contains the identification of top bicycle-motor vehicle and pedestrian-motor vehicle crash locations. This information can be found at <http://services.massdot.state.ma.us/maptemplate/TopCrashLocations/> or by contacting your Regional Planning Agency and MassDOT Highway District Traffic Engineer.

This dataset may be used as a first brush screening tool to evaluate locations and make changes to improve the safety of our roadway system. The 2016 *Top Crash Locations Report* is one of the tools for the Statewide Highway Safety Improvement Program (HSIP) to identify safety projects using a data-driven process.

Please note that this report is based only on crash records that have been entered into the statewide crash system and have been geocoded to a specific location. Although Massachusetts General Laws Chapter 90 § 26 and 29 require drivers and police departments to file crash reports that exceed specific thresholds, this is not always done. Furthermore, not all crashes submitted to the Registry of Motor Vehicles get entered into the crash system. Improving the crash reporting system and the quality of the data will help to focus resources where they are most needed.

In an effort to reduce injury and fatal crashes, MassDOT, in cooperation with a variety of public and private stakeholders, is in the process of updating the Massachusetts Strategic Highway Safety Plan (SHSP), which will be finalized in 2018. The last SHSP was last updated in 2013. The Safety Plan identifies the State's key safety needs and can be used to guide investment decisions to achieve significant reductions in highway fatalities and serious injuries on all public roads based upon a data-driven process. To view the 2013 SHSP, download a copy of the plan or to learn more about it, go to the MassDOT Highway Division Traffic Engineering and Safety website <https://www.mass.gov/service-details/strategic-highway-safety-plan>

I am convinced that we can make great strides in improving safety on Massachusetts roadways for all users. If you have questions, please contact Neil Boudreau, Assistant Administrator for Traffic and Safety, at (857) 368-9655.

Sincerely,

Jonathan Gulliver,
Highway Administrator

TOP HIGH CRASH LOCATIONS REPORT

Top 200 Intersection Locations 2014-2016

Top Pedestrian Locations 2007-2016

Top Bicycle Locations 2007-2016

Introduction

MassDOT Highway Division obtains crash data from the MassDOT Registry of Motor Vehicles (RMV) Division and uses it for a number of purposes. The primary function is to provide a foundation for developing safety improvement projects. The Top High Crash Locations Report is one of the tools used in this process. Nine years ago, MassDOT Highway Division developed a report type where the locations identified were crash clusters at intersections (no grade separated locations, no locations with weaving sections and no intersections that are part of a rotary or interchange system) but identifying the locations that occurred at intersections was a manual process. Beginning seven years ago, the report also included the top bicycle and pedestrian clusters. This year, MassDOT Highway Division prepared a Top High Crash Locations Report which includes the top 200 high crash intersection locations using crash data from 2014-2016 and also includes the weighted (by crash severity) highest frequency bicycle-motor vehicle and pedestrian-motor vehicle crash locations for 2007-2016 however, the weighting factor has changed to be more consistent with Highway Safety Manual (<http://www.highwaysafetymanual.org>) methodologies. This is described below in more detail.

The RMV obtains crash data from State and local police. The RMV Crash Records Section collects, enters and maintains crash data records, which are the source of the MassDOT Highway Division crash data.

To produce this high crash locations listing, MassDOT Highway Division, with the assistance of Geonetics, Inc., has developed an automated procedure for processing, standardizing, matching and aggregating the crash data by geographical location using Geographic Information System (GIS) tools and procedures.

Generally, the geocoding rate (the rate at which crashes can be located to a specific geographical point) for crashes between 2014 and 2016 is approximately 96%. However, the geocoding rate is not uniform for all crashes or for all types of crash locations. Some crashes may be more difficult to geocode because of multiple intersections between the same roadway names within a community, mis-entry of location information on the crash report form or a host of other reasons.

The number of crashes contained within the RMV crash system has changed dramatically due to a shift in data entry. Generally the crash system is comprised of crash reports from police and operators (drivers). The number of operator reports entered into the statewide crash system has declined dramatically. The table below illustrates the change in data entry at the RMV.

Report Source	2009	2010	2011	2012	2013	2014	2015	2016	Total
Operator	9,302	4,149	22	7	1	12	5	2	13,500
Campus police				5	5		9	12	31
Local police	92,832	94,458	104,201	104,316	105,647	109,805	116,245	120,089	847,593
MBTA police	103	131	117	134	81	94	104	68	832
Other	20	23	12	24	30	6	8		123
State police	15,519	16,882	16,280	18,160	19,521	20,316	22,679	23,303	152,660
Total	117,776	115,643	120,632	122,646	125,285	130,233	139,050	143,474	1,014,739

Furthermore, the reporting levels of some communities have changed dramatically as communities move from submitting crash reports on paper to submitting electronically (details on reporting level by community are available upon request). Obviously, these reporting changes significantly impact the results of the Top High Crash Locations Report.

Crashes reported as occurring in off-street parking lots, garages, shopping center parking lots, etc. are generally excluded if submitted as paper reports to RMV. However, if submitted electronically the only systematic process for excluding them is if they are identified as Non-Public way crashes in the police reports, and this is not always the case. If such crashes are not identified this way they will be entered, automatically geocoded and therefore included in the crash clusters. As a result, some locations may have been identified as top crash locations even though the majority of crashes occurred on private property. Therefore, it is critical that this list only be used as a first brush approach. More detailed analysis of the specific crashes would be required.

Due to the many difficulties in obtaining precise, useable crash location data and many issues involved in variations in crash reporting rates by some jurisdictions, this report should be used as a general purpose screening tool rather than as a precise listing of crash frequencies by individual locations. Furthermore, because of the spatial nature of the crash clusters, it is imperative to view the crash clusters spatially and not just rely on the tabular naming convention to understand the crash cluster locations.

Methodology – Intersection Locations

The intersection crash cluster analysis method, developed by Geonetics for MassDOT, is a comprehensive method designed to locate crash clusters. At the heart of the method is a 25 meter (82 ft.) fixed search distance around each crash. In basic terms, this radius controls how far the application will search for adjacent crashes. Using a 25 meter radius, the analysis method found nearby crashes and merged their areas together, thus creating clusters. If two distinct clusters are found to share a common crash, the two clusters are merged into a single cluster. This method of search-and-merge results in a set of many distinct clusters of different sizes and shapes. The application then stores these clusters to the GIS output file, along with the count of crashes within the cluster. **New this year, the only crashes included in this were the ones in which the police officer specified that the crashes have one of the following junction types: Four way intersection, T-intersection, Y-intersection, five point or**

more. The clusters were then ranked by the number of Equivalent Property Damage Only (EPDO) crashes contained within their boundaries. Previously, fatal crashes were weighted by 10, injury crashes were weighted by 5 and property damage only or non-reported severity crashes were weighted by 1. **However, this year, the crash weighting was aligned with the calculated crash costs based on a 2017 FHWA report, “Crash Costs for Highway Safety Analyses”**
<https://safety.fhwa.dot.gov/hsip/docs/fhwas17071.pdf>.

Crash Severity	Costs	% of all crashes in MA	Weighting Factor
Fatal Crashes	\$ 14,482,300	0.2%	21
Incapacitating Injury Crashes	\$860,700	2.0%	
Non-Incapacitating Injury Crashes	\$260,800	12.0%	
Possible Injury Crashes	\$ 165,000	16.0%	
Property Damage Only Crashes	\$ 15,600	70.0%	1
TOTAL		100.0%	

So as not to end up just chasing fatal crashes, all of the fatal and injury crashes were weighted together (about 30% of all crashes in Massachusetts). This resulted in any type of injury crash (including fatal, incapacitating, non-incapacitating and possible) having a weighting of 21 compared to a property damage only crash.

The crash clusters were then named based on the highest functional classification roadway within the cluster, followed by the roadway with the second highest functional classification. In instances where there were two roadways with the identical classification, the first street name selected was the street with the longest segment contained within the cluster. Some cluster naming was modified to insert the name of a private way or site drive, rather than leaving it as unnamed. Note that the area encompassing the crash cluster may cover a larger area than just the intersection so it is critical to view these spatially.

The clusters were reviewed in descending EPDO order until 200 locations were obtained. A sample of the top 2 ranked intersection locations is included in this report to illustrate the concept of the intersection clustering. The number one ranked location is VFW Parkway / Bridge Street in Lowell. A shapefile of the crash clusters is available upon request. The actual crash clusters can also be viewed on the interactive maps at <http://services.massdot.state.ma.us/maptemplate/TopCrashLocations>

The above method was used to develop the top 200 intersection crash locations for crashes occurring during the three year period from 2014 to 2016. As with previous editions, the crash location analysis has been scored over a three-year period. By using crash experience over the three-year period, anomalies in the individual years of data tend to be reduced.

Methodology – Pedestrian and Bicycle Locations

Similar to previous years, the top locations where reported collisions occurred between pedestrians and motor vehicles and bicycles and motor vehicles have been identified. The crash cluster analysis methodology for both the top pedestrian and the top bicycle crashes is similar to the top intersection location methodology in that it uses a fixed meter search distance (for both pedestrian and bicycle crashes it is 100 meters (328 ft.) compared to 25 meters for intersection locations) to merge crash

clusters together. Crashes involving collisions between motor vehicles and pedestrians or bicycles were identified by using the non-motorist type code and, **new this year, also considered the first harmful event or most harmful event being a collision with a pedestrian or cyclist** within the CDS database. Furthermore, the new methodology (where actual crash costs are factored in) uses the Equivalent Property Damage Only (EPDO) weighting to rank the clusters where an injury crash of any type (fatal or non-fatal) is equal to 21 property damage only crashes. Similar to the past few years and because of the relatively small number of reported pedestrian and bicycle crashes in the crash data file, the clustering analysis used crashes from the ten year period from 2007-2016, instead of the three year analysis for intersection locations. Additionally, due to the larger geographic area encompassed by both the pedestrian and the bicycle crash clusters, it was difficult to name them so they were left unnamed but can be viewed spatially. The top 10 ranked pedestrian crash locations and the top 10 bicycle crash locations are included in this report. The actual crash clusters can be viewed on the interactive maps at <http://services.massdot.state.ma.us/maptemplate/TopCrashLocations>

For further information, please contact Neil Boudreau, Assistant Administrator for Traffic and Safety, MassDOT Highway Division, 10 Park Plaza, Room 7210, Boston, MA 02116, phone (857) 368-9655.

NOTICE

MassDOT makes no representation as to the accuracy, adequacy, reliability, availability or completeness of the crash records or the data collected from them and is not responsible for any errors or omissions in such records or data. Under no circumstance will MassDOT have any liability for any loss or damage incurred by any party as a result of the use of the crash records or the data collected from them.

It should be noted that the Top Crash Locations Report was compiled under the authority of United States Code Title 23, Section 148, Highway Safety Improvement Program, sponsored by the Federal Highway Administration. The compilation of such information is, therefore, subject to the limitations of Section 148 (g) (4) which states:

DISCOVERY AND ADMISSION INTO EVIDENCE OF CERTAIN REPORTS, SURVEYS, AND INFORMATION - Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section, shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in such reports, surveys, schedules, lists or other data.

2014-2016 STATEWIDE TOP 200 INTERSECTION CRASH LIST

Rank	Town	RPA	MassDOT District	Street 1	Route 1	Street 2	Route 2	Total Crashes	EPDO Crashes	Fatal & Injury Crashes	PDO & Non Reported Crashes
1	LOWELL	NMCOG	4	VETERANS OF FOREIGN WARS HIGHWAY		BRIDGE STREET		136	876	37	99
2	LOWELL	NMCOG	4	APPLETON STREET	110	CENTRAL STREET		94	774	34	60
3	BOSTON	MAPC	6	MORTON STREET	203	HARVARD STREET		50	690	32	18
4	BROCKTON	OCPC	5	ASH STREET		WEST ELM STREET		64	684	31	33
5	SPRINGFIELD	PVPC	2	SAINT JAMES AVENUE		SAINT JAMES BOULEVARD	20A	52	672	31	21
6	TYNGSBOROUGH	NMCOG	4	MIDDLESEX ROAD		KENDALL ROAD	113	74	634	28	46
7	MILTON	MAPC	6	RANDOLPH AVENUE	28	CHICKATAWBUT ROAD		54	614	28	26
8	WORCESTER	CMRPC	3	KELLEY SQUARE		WATER STREET		138	598	23	115
9	SPRINGFIELD	PVPC	2	SUMNER AVENUE	83	BELMONT AVENUE	83	65	525	23	42
10	HOLYOKE	PVPC	2	HIGH STREET		CABOT STREET		54	494	22	32
11	RAYNHAM	SRPEDD	5	NEW STATE HIGHWAY	44	ORCHARD STREET		67	487	21	46
12	LOWELL	NMCOG	4	VETERANS OF FOREIGN WARS HIGHWAY		AIKEN STREET		55	475	21	34
13	SWANSEA	SRPEDD	5	MARKET STREET	136	GRAND ARMY OF THE REPUBLIC HIGHWAY	6	66	466	20	46
14	BROCKTON	OCPC	5	CENTRE STREET	123	PLYMOUTH STREET		45	465	21	24
15	BROCKTON	OCPC	5	MAIN STREET		PLEASANT STREET	27	39	459	21	18
16	FALL RIVER	SRPEDD	5	BEDFORD STREET		TROY STREET		48	448	20	28
17	BROCKTON	OCPC	5	MAIN STREET		LEGION PARKWAY	123	46	446	20	26
18	FALL RIVER	SRPEDD	5	PLYMOUTH AVENUE	81	RODMAN STREET		62	442	19	43
19	BOSTON	MAPC	6	GALLIVAN BOULEVARD	203	DORCHESTER AVENUE		35	435	20	15
20	LOWELL	NMCOG	4	VETERANS OF FOREIGN WARS HIGHWAY	113	MAMMOTH ROAD		74	434	18	56
20	BROCKTON	OCPC	5	PLEASANT STREET	27	WEST STREET		54	434	19	35
22	BROCKTON	OCPC	5	MAIN STREET		NILSSON STREET		30	430	20	10
23	MEDFORD	MAPC	4	REVERE BEACH PARKWAY	16	FELLSWAY (WELLINGTON CIRCLE)	28	65	425	18	47
24	BOSTON	MAPC	6	GALLIVAN BOULEVARD	203	GRANITE AVENUE		38	418	19	19
25	SPRINGFIELD	PVPC	2	MAIN STREET		PLAINFIELD STREET	20A	36	416	19	17
26	HOLYOKE	PVPC	2	MAIN STREET		CABOT STREET		32	412	19	13
27	EVERETT	MAPC	4	REVERE BEACH PARKWAY	16	EVERETT AVENUE		44	404	18	26
28	WORCESTER	CMRPC	3	SOUTHBRIDGE STREET		HAMMOND STREET		57	397	17	40
28	BRAINTREE	MAPC	6	GRANITE STREET	37	COMMON STREET		57	397	17	40
30	BROCKTON	OCPC	5	FOREST AVENUE		BOUVE AVENUE		29	389	18	11
31	BROCKTON	OCPC	5	COURT STREET	27	MONTELLO STREET	28	45	385	17	28
31	BILLERICA	NMCOG	4	SALEM ROAD	129	POND STREET		45	385	17	28
33	SPRINGFIELD	PVPC	2	ARMORY CIRCLE		ARMORY STREET		24	384	18	6
34	LYNN	MAPC	4	WESTERN AVENUE	107	CHESTNUT STREET		59	379	16	43
34	CHELSEA	MAPC	6	REVERE BEACH PARKWAY	16	WASHINGTON AVENUE		39	379	17	22
36	SOMERSET	SRPEDD	5	GRAND ARMY OF THE REPUBLIC HIGHWAY	6	LEES RIVER AVENUE		38	378	17	21
37	BROCKTON	OCPC	5	PLEASANT STREET	27	ASH STREET		36	376	17	19
37	FALMOUTH	CCC	5	SANDWICH ROAD		NATHAN ELLIS HIGHWAY	151	36	376	17	19
39	TAUNTON	SRPEDD	5	WILLIAMS STREET		GORDON M OWEN RIVERWAY		35	375	17	18
39	EVERETT	MAPC	4	REVERE BEACH PARKWAY	16	SECOND STREET		35	375	17	18
41	BROCKTON	OCPC	5	WARREN AVENUE		MARKET STREET		31	371	17	14
42	BROCKTON	OCPC	5	WARREN AVENUE	123	WEST ELM STREET		30	370	17	13
43	SPRINGFIELD	PVPC	2	STATE STREET		BENTON STREET		26	366	17	9
44	BOSTON	MAPC	6	GALLIVAN BOULEVARD	203	ADAMS STREET		25	365	17	8
44	FRAMINGHAM	MAPC	3	WORCESTER ROAD	9	COCHITUATE ROAD		25	365	17	8
46	RANDOLPH	MAPC	6	SOUTH MAIN STREET	28	UNION STREET	139	41	361	16	25
47	SPRINGFIELD	PVPC	2	BOSTON ROAD	20	PARKER STREET		39	359	16	23
48	CHELSEA	MAPC	6	BROADWAY		THIRD STREET		38	358	16	22
49	CHELSEA	MAPC	6	REVERE BEACH PARKWAY	16	GARFIELD AVENUE		54	354	15	39
50	BROCKTON	OCPC	5	PLEASANT STREET	27	WARREN AVENUE		32	352	16	16
51	SPRINGFIELD	PVPC	2	BOSTON ROAD		BAY STREET		31	351	16	15
51	WORCESTER	CMRPC	3	HARVARD STREET		LINCOLN SQUARE	9	51	351	15	36

2014-2016 STATEWIDE TOP 200 INTERSECTION CRASH LIST

Rank	Town	RPA	MassDOT District	Street 1	Route 1	Street 2	Route 2	Total Crashes	EPDO Crashes	Fatal & Injury Crashes	PDO & Non Reported Crashes
53	NEW BEDFORD	SRPEDD	5	ALFRED BESSETTE MEMORIAL HIGHWAY	140	KEMPTON STREET	6	49	349	15	34
54	WEBSTER	CMRPC	3	WORCESTER ROAD		EAST MAIN STREET	12	48	348	15	33
55	FALL RIVER	SRPEDD	5	PRESIDENT AVENUE	6	HIGHLAND AVENUE		46	346	15	31
56	CAMBRIDGE	MAPC	6	MEMORIAL DRIVE		MASSACHUSETTS AVENUE	2A	45	345	15	30
56	REVERE	MAPC	4	REVERE BEACH PARKWAY	145	TOMASELLO WAY		25	345	16	9
58	WORCESTER	CMRPC	3	MAIN STREET		MILL STREET	12	43	343	15	28
58	PEABODY	MAPC	4	NEWBURYPORT TURNPIKE (JUGHANDLE)	1			43	343	15	28
60	STOUGHTON	OCPC	5	PLEASANT STREET	139	LINCOLN STREET		42	342	15	27
61	DANVERS	MAPC	4	ROUTE 128 NORTHBOUND ON-RAMP	128	ELLIOTT STREET	62	61	341	14	47
62	BOSTON	MAPC	6	MASSACHUSETTS AVENUE CONNECTOR		FRONTAGE ROAD		77	337	13	64
63	LYNN	MAPC	4	WESTERN AVENUE	107	EASTERN AVENUE		55	335	14	41
64	CHICOPEE	PVPC	2	BROADWAY		EAST MAIN STREET	141	54	334	14	40
64	WESTFIELD	PVPC	2	HOLYOKE ROAD		SPRINGDALE ROAD		34	334	15	19
64	QUINCY	MAPC	6	SOUTHERN ARTERY	3A	SEA STREET		54	334	14	40
67	AVON	OCPC	5	EAST MAIN STREET	28	EAST SPRING STREET		33	333	15	18
68	BROCKTON	OCPC	5	WEST ELM STREET		NEWBURY STREET		31	331	15	16
69	LOWELL	NMCOG	4	APPLETON STREET	110	GORHAM STREET		30	330	15	15
70	CHELSEA	MAPC	6	EASTERN AVENUE		CHELSEA STREET BRIDGE		29	329	15	14
71	BROCKTON	OCPC	5	NORTH MONTELLO STREET	28	EAST ASHLAND STREET		26	326	15	11
72	SOMERSET	SRPEDD	5	BRAYTON AVENUE		SLADES FERRY AVENUE		25	325	15	10
73	LYNN	MAPC	4	WESTERN AVENUE	107	WASHINGTON STREET	129	43	323	14	29
74	WORCESTER	CMRPC	3	CANTERBURY STREET		GARDNER STREET		39	319	14	25
75	LOWELL	NMCOG	4	SCHOOL STREET		BRANCH STREET		38	318	14	24
76	STOUGHTON	OCPC	5	PARK STREET	27	WALNUT STREET		37	317	14	23
77	WESTBOROUGH	CMRPC	3	TURNPIKE ROAD	9	OTIS STREET		75	315	12	63
77	FRAMINGHAM	MAPC	3	WORCESTER ROAD	9	CALIFORNIA AVENUE		35	315	14	21
79	CAMBRIDGE	MAPC	6	FRESH POND PARKWAY	3	MOUNT AUBURN STREET		33	313	14	19
79	SPRINGFIELD	PVPC	2	EAST COLUMBUS AVENUE		BOLAND WAY		33	313	14	19
79	LOWELL	NMCOG	4	NESMITH STREET	38	ANDOVER STREET	110	53	313	13	40
82	WATERTOWN	MAPC	6	GALEN STREET		WATERTOWN STREET	16	30	310	14	16
83	BROCKTON	OCPC	5	WARREN AVENUE		FOREST AVENUE		29	309	14	15
83	BROCKTON	OCPC	5	MONTELLO STREET	28	EAST NILSSON STREET		29	309	14	15
85	FITCHBURG	MRPC	3	BOULDER DRIVE		MAIN STREET	2A	28	308	14	14
86	WORCESTER	CMRPC	3	CHANDLER STREET	122	MASON STREET		47	307	13	34
86	CAMBRIDGE	MAPC	6	MEMORIAL DRIVE	3	RIVER STREET		27	307	14	13
86	SPRINGFIELD	PVPC	2	MAPLE STREET		UNION STREET		27	307	14	13
89	WORCESTER	CMRPC	3	PARK AVENUE	9	MAYWOOD STREET		46	306	13	33
90	SPRINGFIELD	PVPC	2	MAGAZINE STREET		LINCOLN STREET		25	305	14	11
90	SPRINGFIELD	PVPC	2	STATE STREET		FEDERAL STREET		25	305	14	11
90	BROCKTON	OCPC	5	PLEASANT STREET	27	AUGUSTA AVENUE		25	305	14	11
93	RANDOLPH	MAPC	6	NORTH MAIN STREET	28	SCANLON DRIVE		24	304	14	10
93	SPRINGFIELD	PVPC	2	SAINT JAMES AVENUE		CAREW STREET		24	304	14	10
93	WEYMOUTH	MAPC	6	MAIN STREET	18	MIDDLE STREET		44	304	13	31
96	LYNN	MAPC	4	BOSTON STREET		HAMILTON STREET		43	303	13	30
96	BROCKTON	OCPC	5	GROVE STREET		CURVE STREET		23	303	14	9
96	EAST BRIDGEWATER	OCPC	5	BEDFORD STREET	18	WEST STREET	106	43	303	13	30
99	SOMERVILLE	MAPC	4	MCGRATH HIGHWAY		WASHINGTON STREET		41	301	13	28
99	LEOMINSTER	MRPC	3	NORTH MAIN STREET	12	HAMILTON STREET		41	301	13	28
101	CHICOPEE	PVPC	2	FULLER ROAD		TECHNOLOGY DRIVE		40	300	13	27
102	ABINGTON	OCPC	5	BROCKTON AVENUE	123	HIGH STREET		17	297	14	3
102	LEXINGTON	MAPC	4	BEDFORD STREET	4	HARRINGTON ROAD		57	297	12	45
104	BILLERICA,TEWKSBURY	NMCOG	4	ANDOVER ROAD		WHIPPLE ROAD		36	296	13	23

2014-2016 STATEWIDE TOP 200 INTERSECTION CRASH LIST

Rank	Town	RPA	MassDOT District	Street 1	Route 1	Street 2	Route 2	Total Crashes	EPDO Crashes	Fatal & Injury Crashes	PDO & Non Reported Crashes
105	LYNN	MAPC	4	WASHINGTON STREET	129	LAIGHTON STREET		35	295	13	22
106	ACTON	MAPC	3	MASSACHUSETTS AVENUE	2	PIPER ROAD		34	294	13	21
107	SWANSEA	SRPEDD	5	GRAND ARMY OF THE REPUBLIC HIGHWAY	6	MAPLE AVENUE		32	292	13	19
108	STONEHAM	MAPC	4	MAIN STREET	28	NORTH BORDER ROAD		31	291	13	18
109	LOWELL	NMCOG	4	GORHAM STREET		ELM STREET		50	290	12	38
109	MIDDLEBOROUGH	SRPEDD	5	SOUTH MAIN STREET	105	EAST GROVE STREET	28	50	290	12	38
109	WORCESTER	CMRPC	3	CHANDLER STREET	122	PIEDMONT STREET		30	290	13	17
112	ABINGTON,BROCKTON	OCPC	5	NORTH QUINCY STREET		CHESTNUT STREET		29	289	13	16
112	TEWKSBURY	NMCOG	4	SOUTH STREET		SALEM ROAD		49	289	12	37
114	WORCESTER	CMRPC	3	PARK AVENUE	9	MAY STREET		46	286	12	34
114	EVERETT	MAPC	4	REVERE BEACH PARKWAY	16	SPRING STREET		26	286	13	13
116	MIDDLEBOROUGH	SRPEDD	5	ROUTE 44	44	PLYMPTON STREET	105	44	284	12	32
116	SEEKONK	SRPEDD	5	ARCADE AVENUE		FALL RIVER AVENUE		44	284	12	32
118	PITTSFIELD	BRPC	1	FIRST STREET	7	FENN STREET		23	283	13	10
118	WRENTHAM	MAPC	5	SOUTH STREET	1A	PREMIUM OUTLETS BOULEVARD		43	283	12	31
118	EASTON	OCPC	5	DEPOT STREET		WASHINGTON STREET	123	23	283	13	10
121	SEEKONK	SRPEDD	5	TAUNTON AVENUE	44	FALL RIVER AVENUE	114A	42	282	12	30
121	MEDFIELD	MAPC	3	NORTH MEADOWS ROAD	27	WEST STREET		22	282	13	9
123	TAUNTON	SRPEDD	5	COUNTY STREET	140	HART STREET		41	281	12	29
123	FITCHBURG	MRPC	3	FRANKLIN ROAD		OAK HILL ROAD		21	281	13	8
125	NEW BEDFORD	SRPEDD	5	KEMPTON STREET	6	ROCKDALE AVENUE		39	279	12	27
125	QUINCY	MAPC	6	HONORABLE THOMAS S BURGIN PARKWAY		WALTER J HANNON PARKWAY		79	279	10	69
125	MANSFIELD	SRPEDD	5	CHAUNCY STREET	106	NORTH MAIN STREET		39	279	12	27
128	SPRINGFIELD	PVPC	2	ROOSEVELT AVENUE		PAGE BOULEVARD	20A	38	278	12	26
128	SHREWSBURY	CMRPC	3	HARTFORD TURNPIKE	20	GRAFTON STREET		38	278	12	26
128	MANSFIELD	SRPEDD	5	CHAUNCY STREET	106	COPELAND DRIVE		38	278	12	26
131	WORCESTER	CMRPC	3	BELMONT STREET	9	HOOVER STREET		37	277	12	25
131	SPRINGFIELD	PVPC	2	MAIN STREET		CENTRAL STREET		17	277	13	4
133	NEW BEDFORD	SRPEDD	5	JOHN F KENNEDY MEMORIAL HIGHWAY	18	POTOMSKA STREET		35	275	12	23
133	LOWELL	NMCOG	4	GORHAM STREET		CENTRAL STREET		35	275	12	23
135	PEMBROKE	OCPC	5	SCHOOSSETT STREET		WASHINGTON STREET	53	34	274	12	22
135	CAMBRIDGE	MAPC	6	MEMORIAL DRIVE	3	WESTERN AVENUE		34	274	12	22
137	PEMBROKE	OCPC	5	CHURCH STREET	139	OLD OAK STREET		33	273	12	21
137	WORCESTER	CMRPC	3	PARK AVENUE	9	PLEASANT STREET		33	273	12	21
139	QUINCY	MAPC	6	HONORABLE THOMAS S BURGIN PARKWAY		CENTRE STREET		32	272	12	20
139	FITCHBURG	MRPC	3	WATER STREET	12	WANOOSNOC ROAD		52	272	11	41
141	ABINGTON	OCPC	5	BEDFORD STREET	18	BROCKTON AVENUE	123	51	271	11	40
141	WORCESTER	CMRPC	3	SUNDERLAND ROAD		SOUTHWEST CUTOFF	20	31	271	12	19
141	FOXBOROUGH	MAPC	5	COMMERCIAL STREET		FORBES BOULEVARD		31	271	12	19
141	SPRINGFIELD	PVPC	2	ROOSEVELT AVENUE		BAY STREET		31	271	12	19
145	LYNN	MAPC	4	WASHINGTON STREET	129	WASHOVER STREET		30	270	12	18
145	EVERETT	MAPC	4	REVERE BEACH PARKWAY	16	VINE STREET		30	270	12	18
145	ROWLEY	MVPC	4	NEWBURYPORT TURNPIKE	1	HAVERHILL STREET	133	30	270	12	18
145	SPRINGFIELD	PVPC	2	STATE STREET		SAINT JAMES AVENUE		30	270	12	18
149	BROCKTON	OCPC	5	WEST ELM STREET		BELMONT AVENUE		29	269	12	17
149	NORTH ANDOVER	MVPC	4	CHICKERING ROAD	125	MASSACHUSETTS AVENUE		29	269	12	17
149	NEEDHAM	MAPC	6	HILLSIDE AVENUE		WEST STREET		29	269	12	17
149	BROCKTON	OCPC	5	CRESCENT STREET	27	LYMAN STREET		29	269	12	17
153	BROCKTON	OCPC	5	NORTH MAIN STREET		OAK STREET		28	268	12	16
154	LOWELL	NMCOG	4	LORD OVERPASS	110	APPLETON STREET		27	267	12	15
154	TAUNTON	SRPEDD	5	BROADWAY	138	WASHINGTON STREET		27	267	12	15
156	LYNN	MAPC	4	WESTERN AVENUE	107	PARK STREET		26	266	12	14

2014-2016 STATEWIDE TOP 200 INTERSECTION CRASH LIST

Rank	Town	RPA	MassDOT District	Street 1	Route 1	Street 2	Route 2	Total Crashes	EPDO Crashes	Fatal & Injury Crashes	PDO & Non Reported Crashes
156	LYNN	MAPC	4	LYNNFIELD STREET	129	BROADWAY		66	266	10	56
158	QUINCY	MAPC	6	BEALE STREET		NEWPORT AVENUE		45	265	11	34
158	WEYMOUTH	MAPC	6	MAIN STREET	18	COLUMBIAN STREET		25	265	12	13
158	LOWELL	NMCOG	4	SCHOOL STREET		MIDDLESEX STREET		25	265	12	13
161	SPRINGFIELD	PVPC	2	SAINT JAMES AVENUE		TAPLEY STREET		24	264	12	12
161	EASTON	OCPC	5	TURNPIKE STREET		PURCHASE STREET		24	264	12	12
163	BROCKTON	OCPC	5	WEST ELM STREET		MORaine STREET		23	263	12	11
164	SPRINGFIELD	PVPC	2	BOSTON ROAD	20	PASCO ROAD		23	263	12	11
165	LOWELL	NMCOG	4	WESTFORD STREET	3A	WILDER STREET		42	262	11	31
165	RANDOLPH	MAPC	6	NORTH MAIN STREET	28	CHESTNUT STREET		22	262	12	10
167	WORCESTER	CMRPC	3	EAST CENTRAL STREET		SUMMER STREET		39	259	11	28
167	QUINCY	MAPC	6	HANCOCK STREET		FURNACE BROOK PARKWAY		39	259	11	28
169	SPRINGFIELD	PVPC	2	WALNUT STREET		LEBANON STREET		17	257	12	5
169	EAST BRIDGEWATER	OCPC	5	NORTH BEDFORD STREET	18	HIGHLAND STREET		37	257	11	26
171	HAVERHILL	MVPC	4	ROUTE 125 CONNECTOR		SHELLEY ROAD		36	256	11	25
172	NORTH ATTLEBOROUGH	SRPEDD	5	EAST WASHINGTON STREET	1	CHESTNUT STREET		35	255	11	24
172	LOWELL	NMCOG	4	VETERANS OF FOREIGN WARS HIGHWAY		UNIVERSITY AVENUE		35	255	11	24
172	FRAMINGHAM	MAPC	3	WAVERLY STREET	135	BISHOP STREET		35	255	11	24
175	ABINGTON	OCPC	5	NORTH AVENUE	139	ADAMS STREET	58	34	254	11	23
175	CHICOPEE	PVPC	2	MEMORIAL DRIVE	33	PENDLETON AVENUE		34	254	11	23
175	CAMBRIDGE	MAPC	6	MONSIGNOR OBRIEN HIGHWAY	28	EDWIN H LAND BOULEVARD		34	254	11	23
178	PEABODY	MAPC	4	LOWELL STREET		ENDICOTT STREET		33	253	11	22
178	SALISBURY	MVPC	4	MAIN STREET		INTERSTATE 95 CONNECTOR		33	253	11	22
180	WORCESTER	CMRPC	3	HIGHLAND STREET		PARK AVENUE	12	51	251	10	41
181	TAUNTON	SRPEDD	5	BROADWAY	138	EAST BRITANNIA STREET		30	250	11	19
181	GRANBY	PVPC	2	EAST STATE STREET	202	SCHOOL STREET		30	250	11	19
181	LOWELL	NMCOG	4	BROADWAY STREET		FLETCHER STREET		30	250	11	19
181	DEDHAM	MAPC	6	BOSTON PROVIDENCE TURNPIKE		LEGACY BOULEVARD		30	250	11	19
181	FALL RIVER	SRPEDD	5	BEDFORD STREET		THIRD STREET		30	250	11	19
186	BARNSTABLE	CCC	5	FALMOUTH ROAD	28	PITCHERS WAY		26	246	11	15
186	DENNIS	CCC	5	EAST WEST DENNIS ROAD	134	UPPER COUNTY ROAD		46	246	10	36
188	SPRINGFIELD	PVPC	2	BERKSHIRE AVENUE		COTTAGE STREET		25	245	11	14
188	LOWELL	NMCOG	4	APPLETON STREET	110	SOUTH STREET		25	245	11	14
188	AUBURN	CMRPC	3	WASHINGTON STREET	20	PROSPECT STREET		25	245	11	14
191	STOUGHTON	OCPC	5	PEARL STREET		CENTRAL STREET		24	244	11	13
191	WEYMOUTH	MAPC	6	MAIN STREET	18	PLEASANT SHOPS PLAZA		24	244	11	13
193	BROCKTON	OCPC	5	COURT STREET		NORTH CARY STREET		23	243	11	12
193	SPRINGFIELD	PVPC	2	ARMORY STREET		CAREW STREET	20A	23	243	11	12
193	HARWICH	CCC	5	PLEASANT BAY ROAD		ORLEANS ROAD	39	23	243	11	12
196	WORCESTER	CMRPC	3	LINCOLN STREET	70	CATHARINE STREET		22	242	11	11
196	HANOVER	OCPC	5	COLUMBIA ROAD	53	BROADWAY		22	242	11	11
198	BOSTON	MAPC	6	MORTON STREET		GALLIVAN BOULEVARD	203	21	241	11	10
199	QUINCY	MAPC	6	MCGRATH HIGHWAY		REVERE ROAD		20	240	11	9
199	ROCKLAND	MAPC	5	HINGHAM STREET	228	POND STREET		20	240	11	9

Top Crash Intersections 2014-2016



0 20 40 60 80 Feet



Rank 1

LOWELL

VETERANS OF FOREIGN WARS HIGHWAY
BRIDGE STREET

MassDOT District: 4

RPA: NMCOG

EPDO: 876

Number of Fatal and Injury Crashes: 37

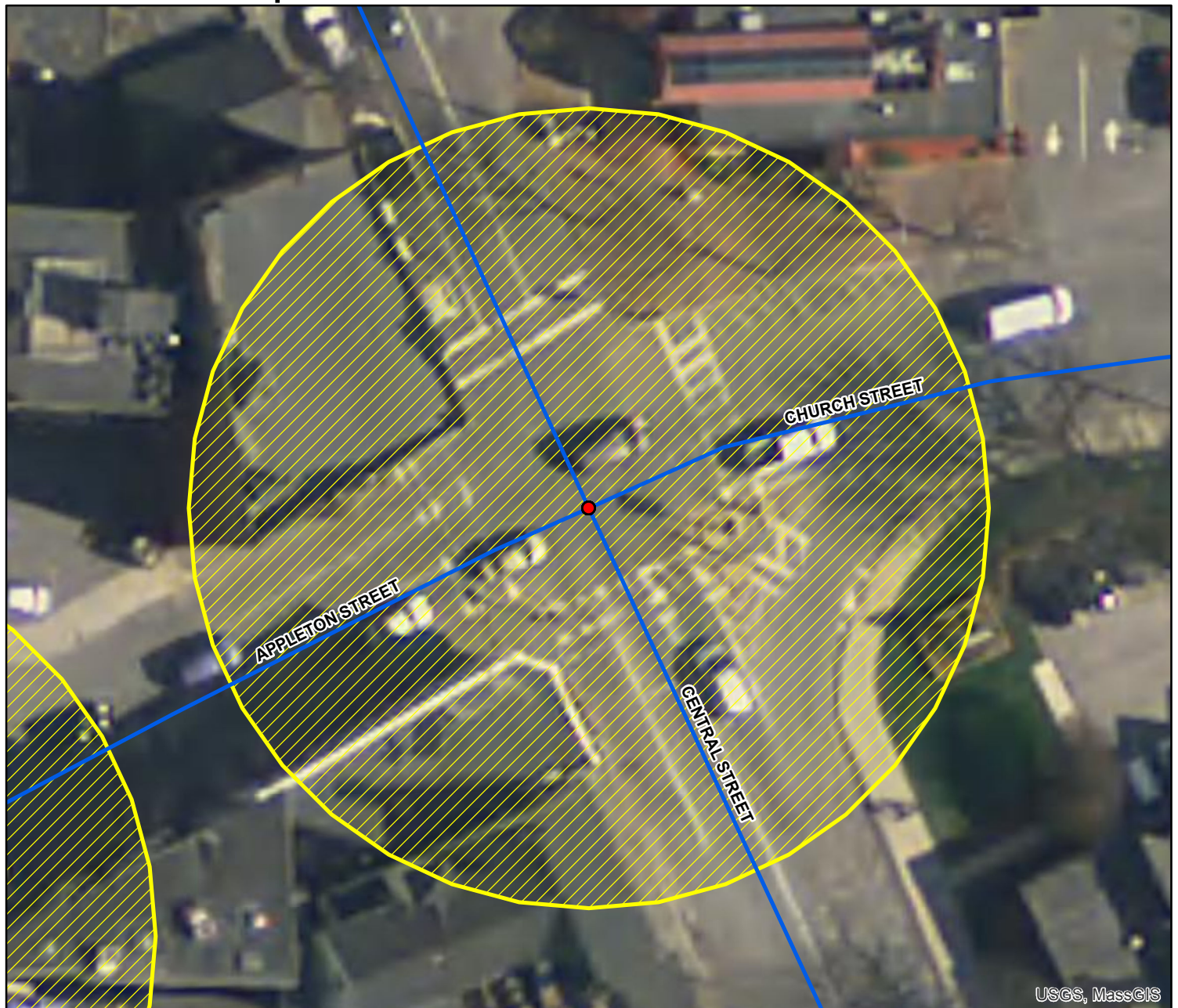
Number of Non-Injury Crashes: 99

Total Crashes: 136

Legend

- Crash Locations 2014 - 2016
- ▬ All Functional Classification Except Local Roads
- ▬ Local Roads
- Top Crash Intersections

Top Crash Intersections 2014-2016



Rank 2

LOWELL

APPLETON STREET
CENTRAL STREET

MassDOT District: 4

RPA: NMCOG

EPDO: 774

Number of Fatal and Injury Crashes: 34

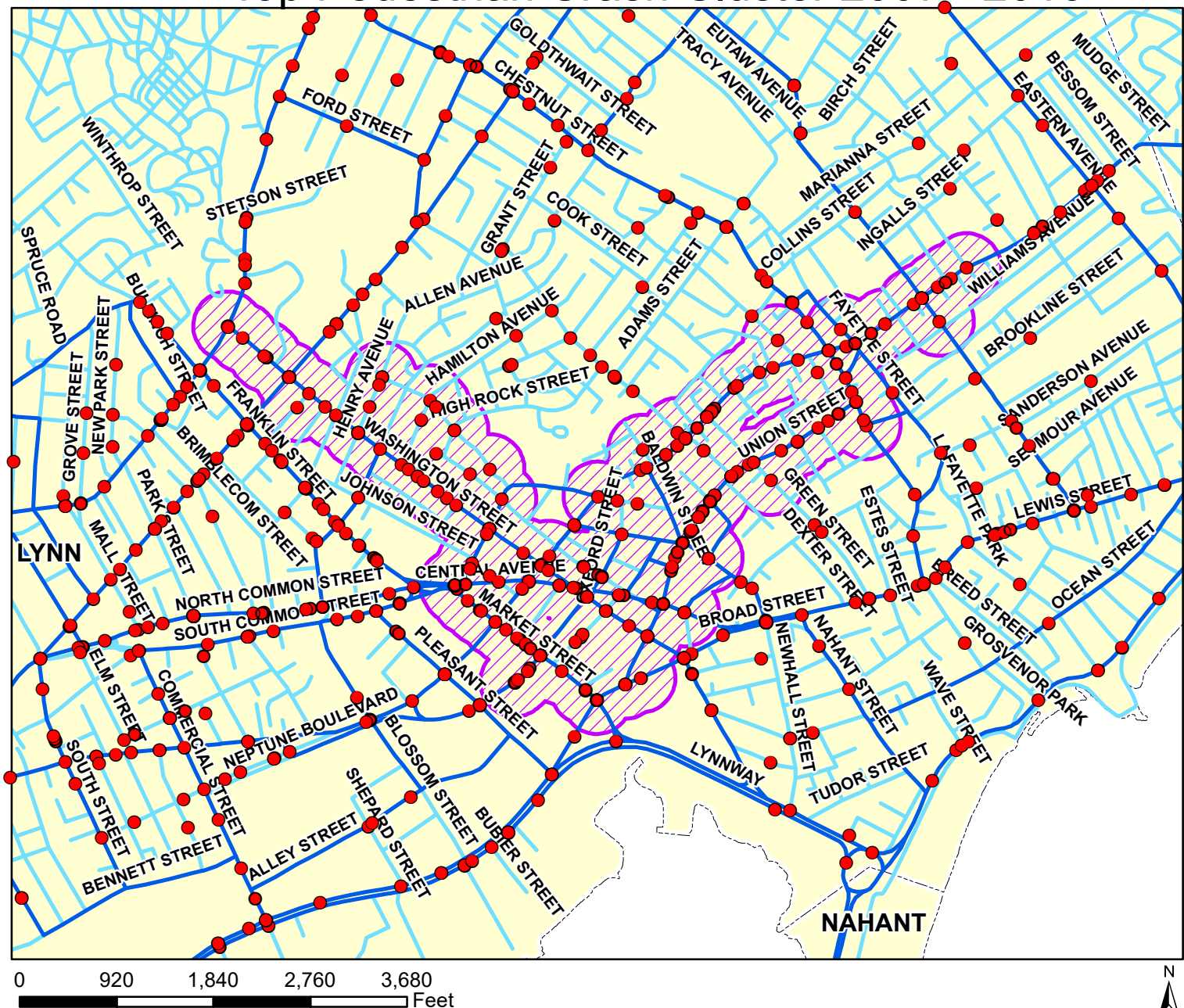
Number of Non-Injury Crashes: 60

Total Crashes: 94

ROUTE 110 Legend

- Crash Locations 2014 - 2016
- ▬ All Functional Classification Except Local Roads
- ▬ Local Roads
- Top Crash Intersections

Top Pedestrian Crash Cluster 2007 - 2016



RANK
1

LYNN

MassDOT District: 4

RPA: MAPC

EPDO: 4781

Number of Fatal and Injury Crashes: 223

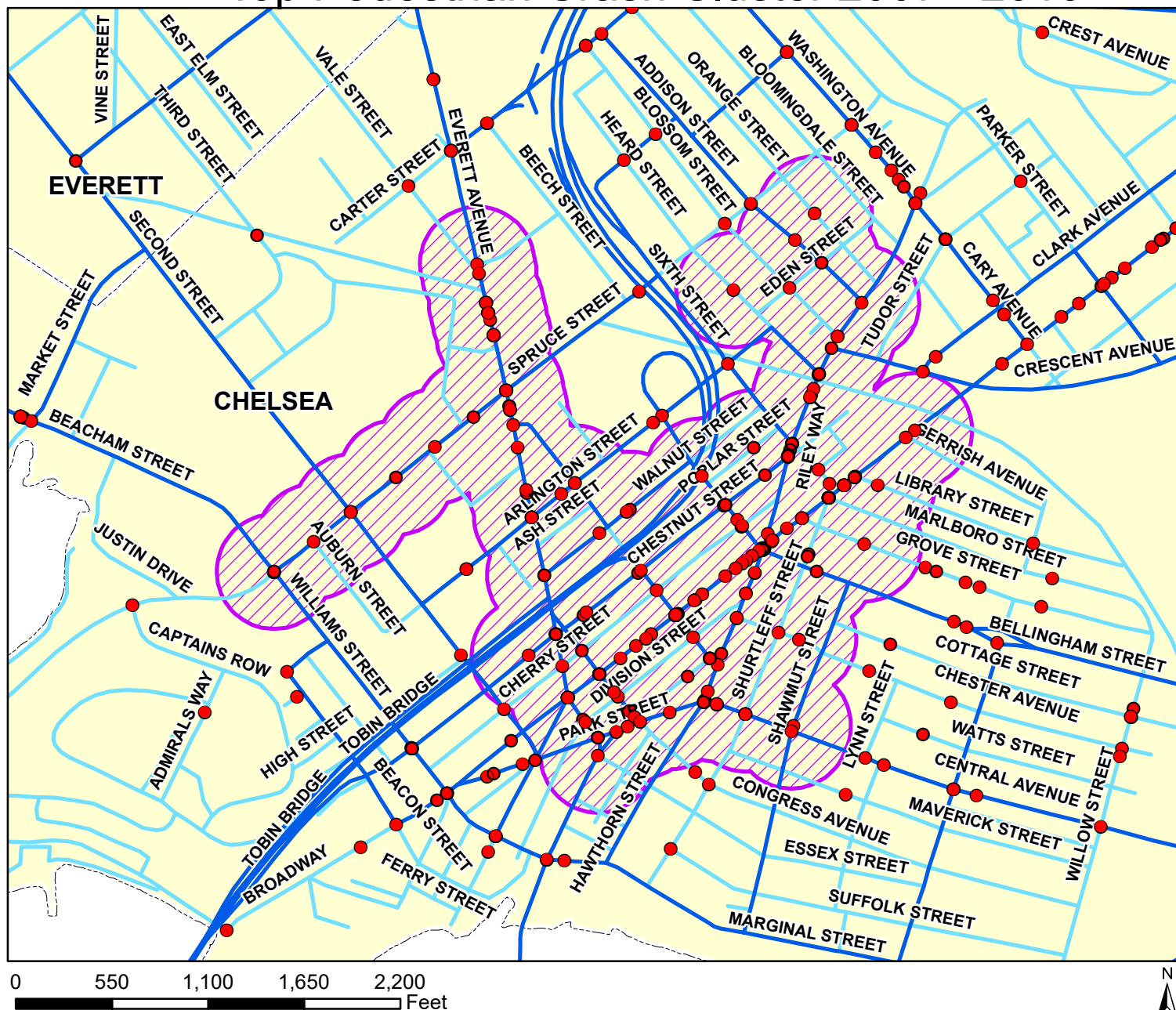
Number of Non-Injury Crashes: 98

Total Crashes: 321

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
2

CHELSEA

MassDOT District: 6

RPA: MAPC

EPDO: 4100

Number of Fatal and Injury Crashes: 192

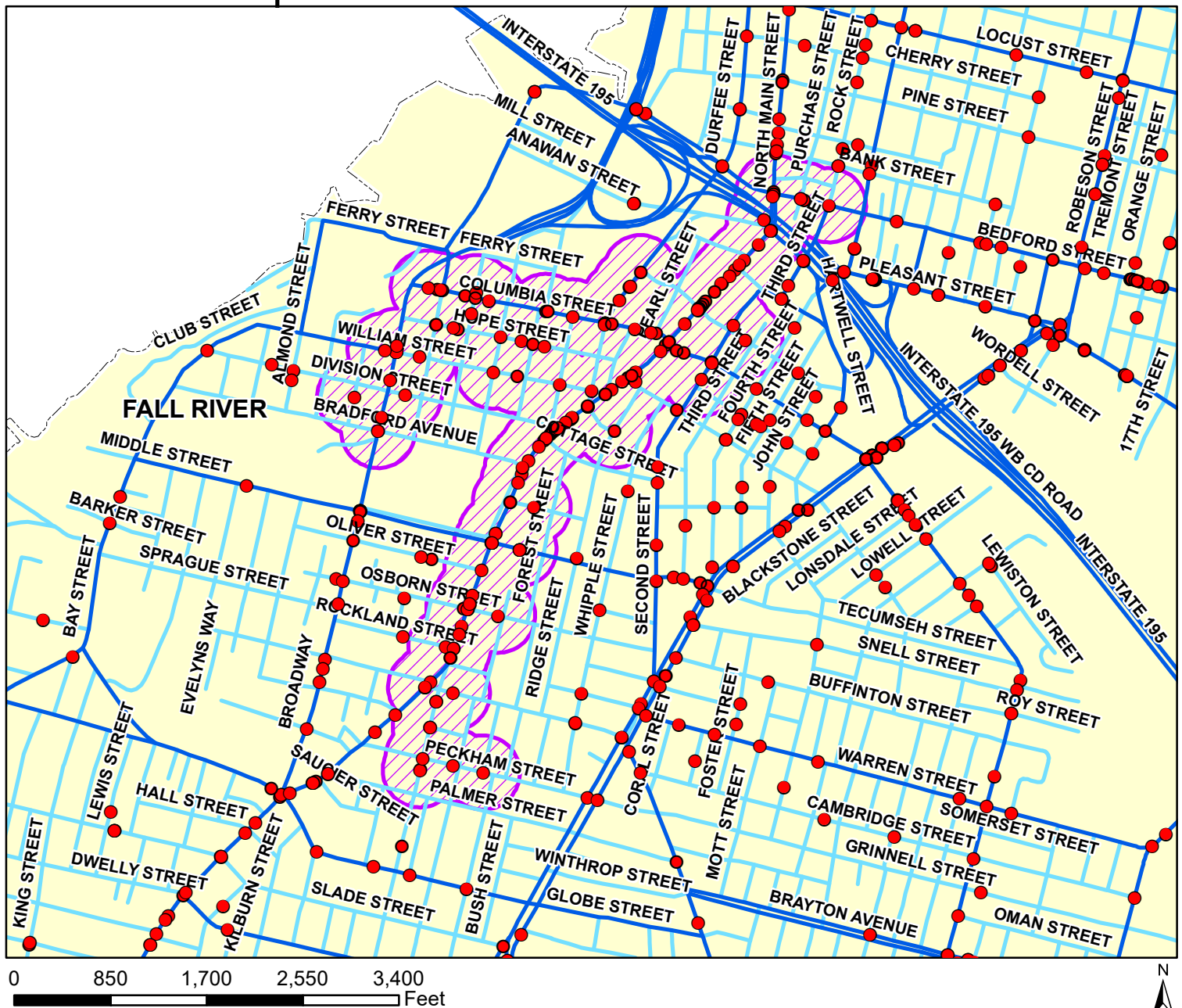
Number of Non-Injury Crashes: 68

Total Crashes: 260

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
3

FALL RIVER

MassDOT District: 5

RPA: SRPEDD

EPDO: 3041

Number of Fatal and Injury Crashes: 143

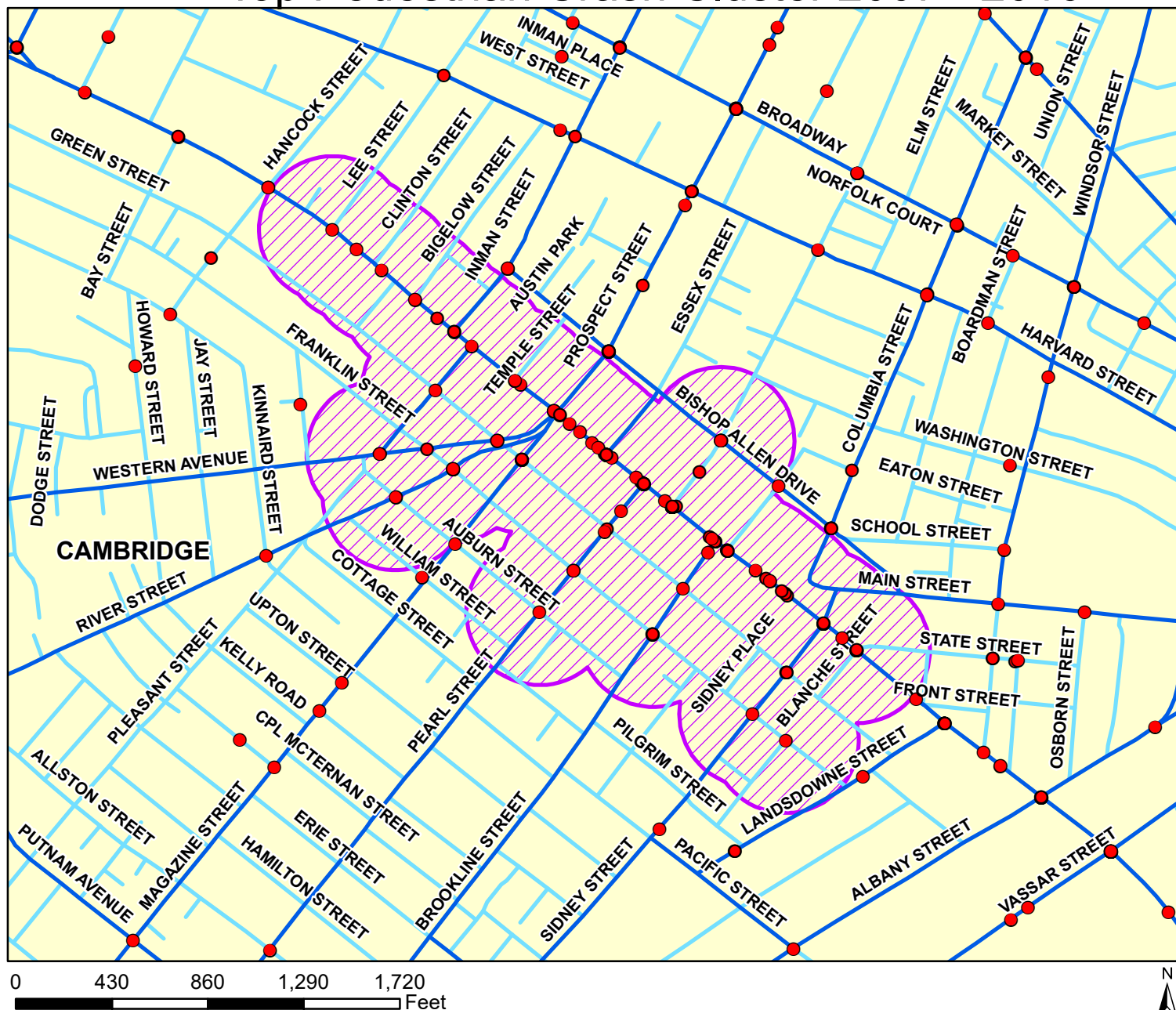
Number of Non-Injury Crashes: 38

Total Crashes: 181

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
4

CAMBRIDGE

MassDOT District: 6

RPA: MAPC

EPDO: 1883

Number of Fatal and Injury Crashes: 87

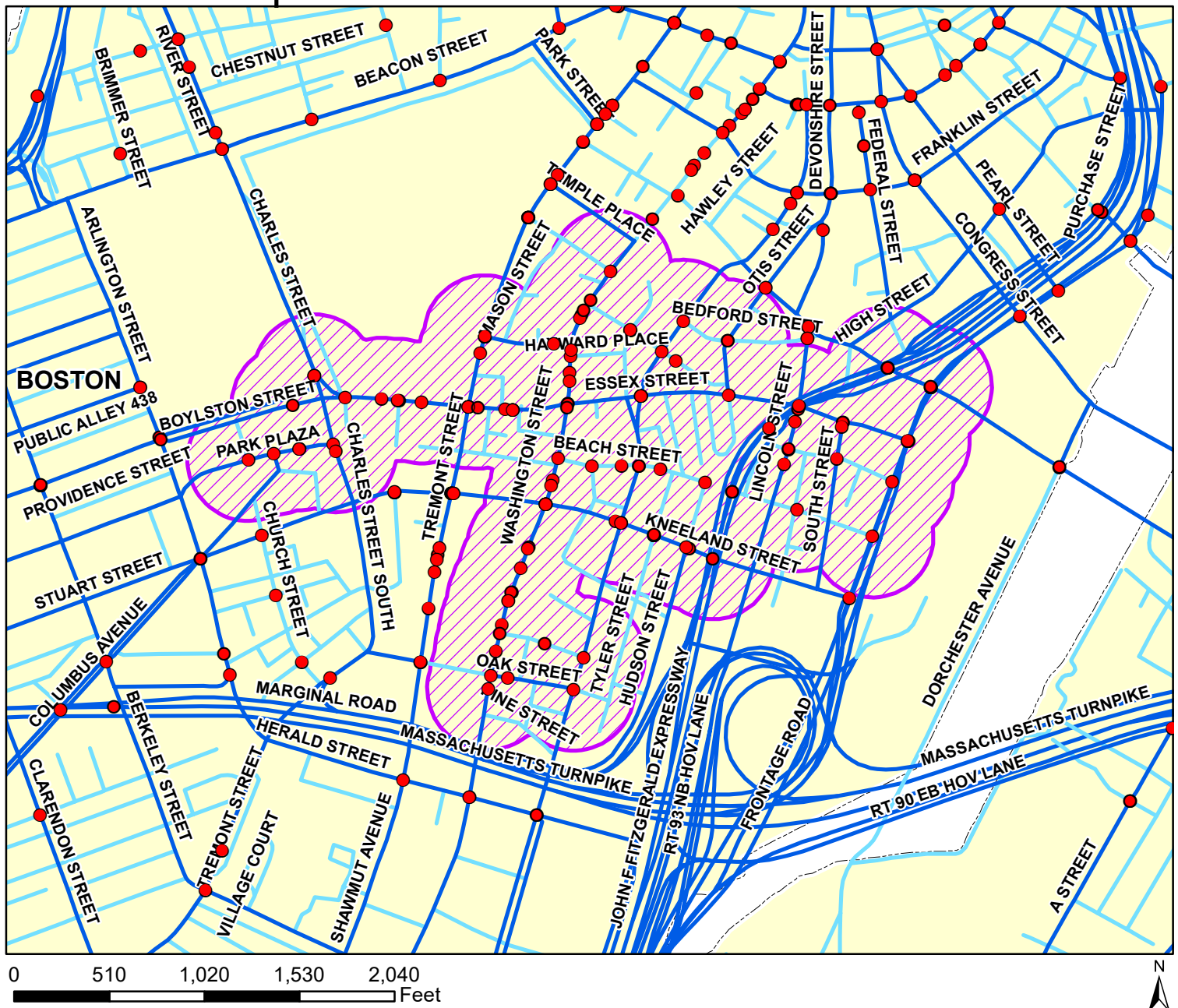
Number of Non-Injury Crashes: 56

Total Crashes: 143

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
5

BOSTON

MassDOT District: 6

RPA: MAPC

EPDO: 1814

Number of Fatal and Injury Crashes: 84

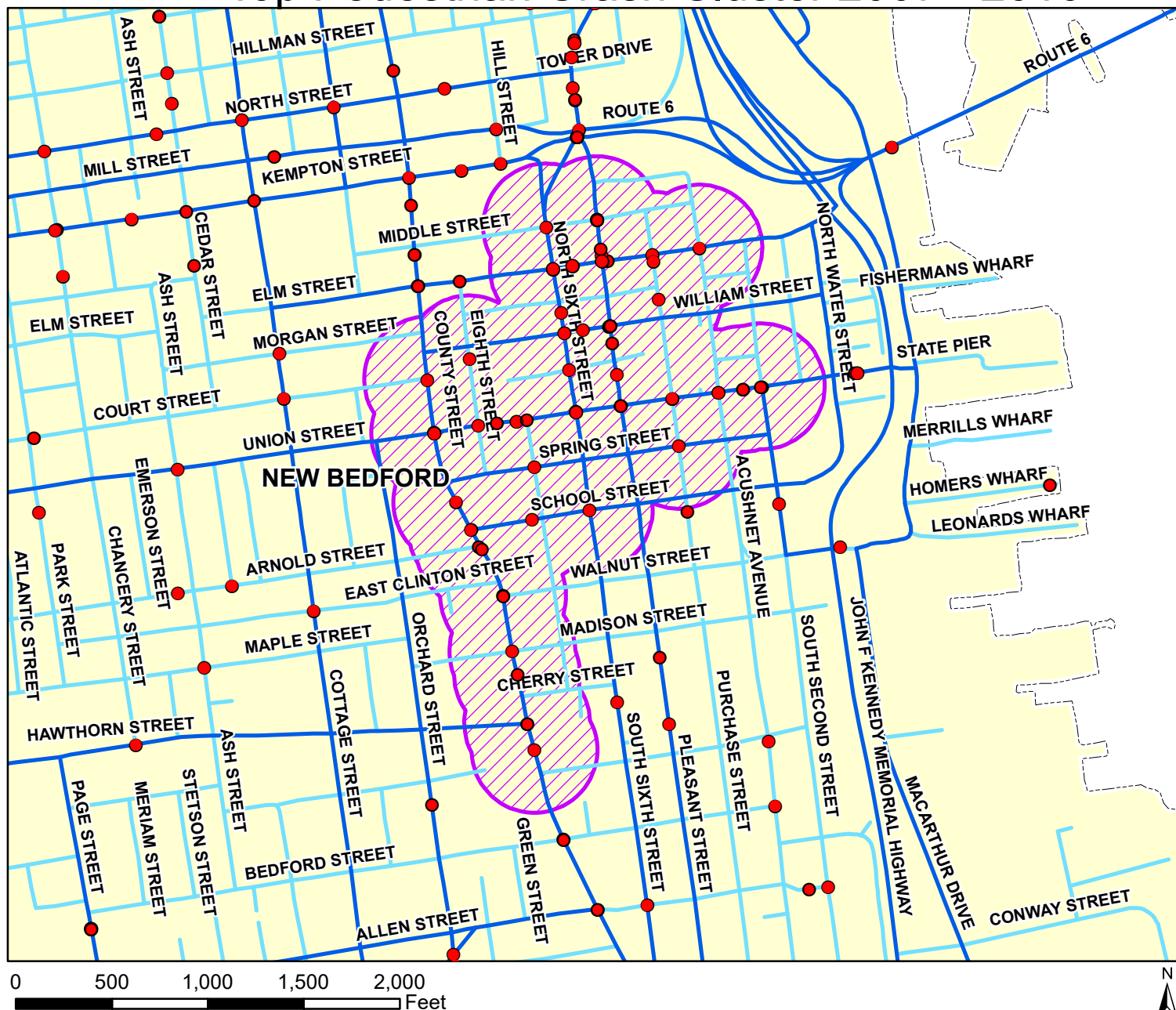
Number of Non-Injury Crashes: 50

Total Crashes: 134

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
6

NEW BEDFORD

MassDOT District: 5

RPA: SRPEDD

EPDO: 1382

Number of Fatal and Injury Crashes: 65

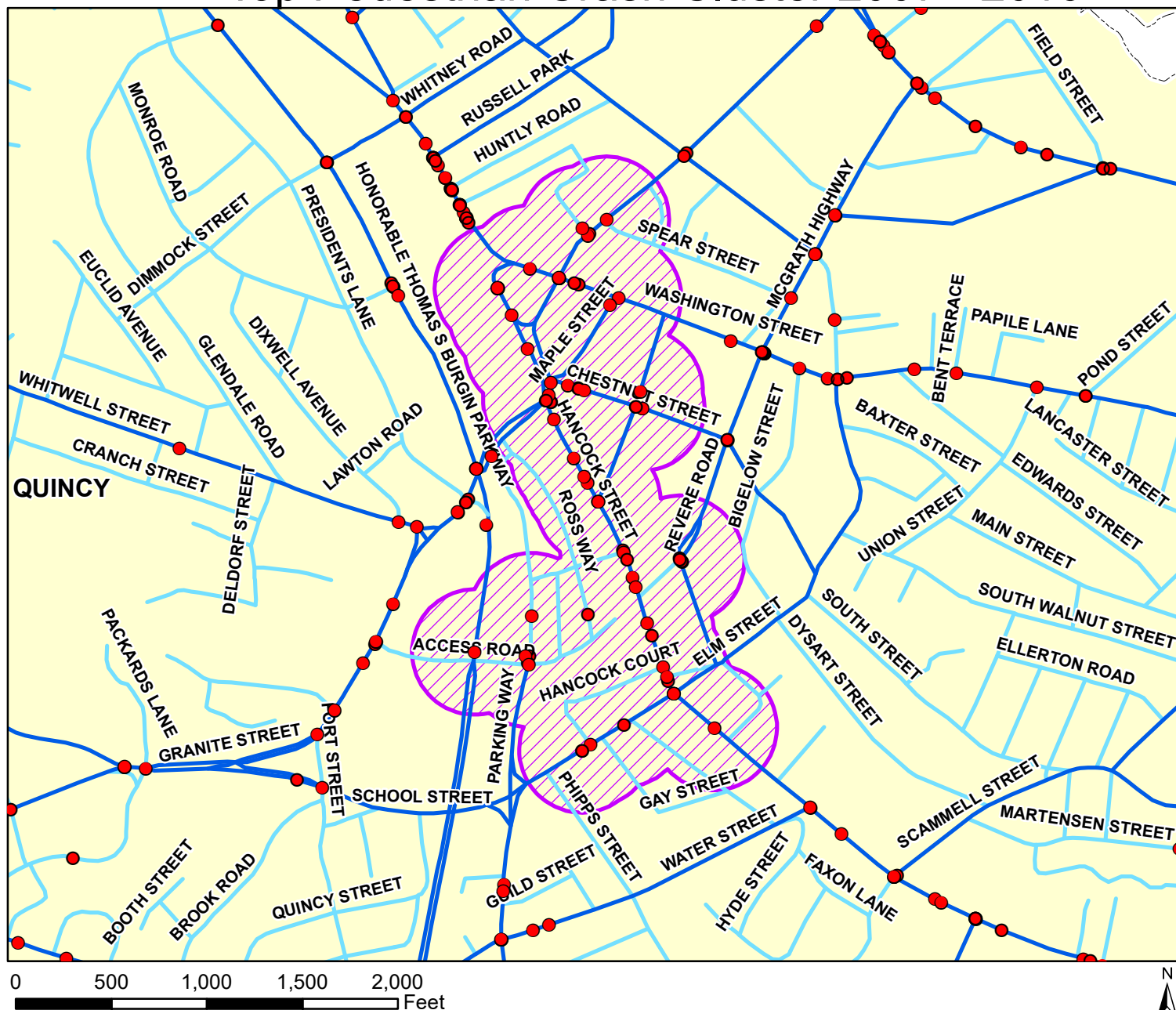
Number of Non-Injury Crashes: 17

Total Crashes: 82

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
7

QUINCY

MassDOT District: 6

RPA: MAPC

EPDO: 1337

Number of Fatal and Injury Crashes: 63

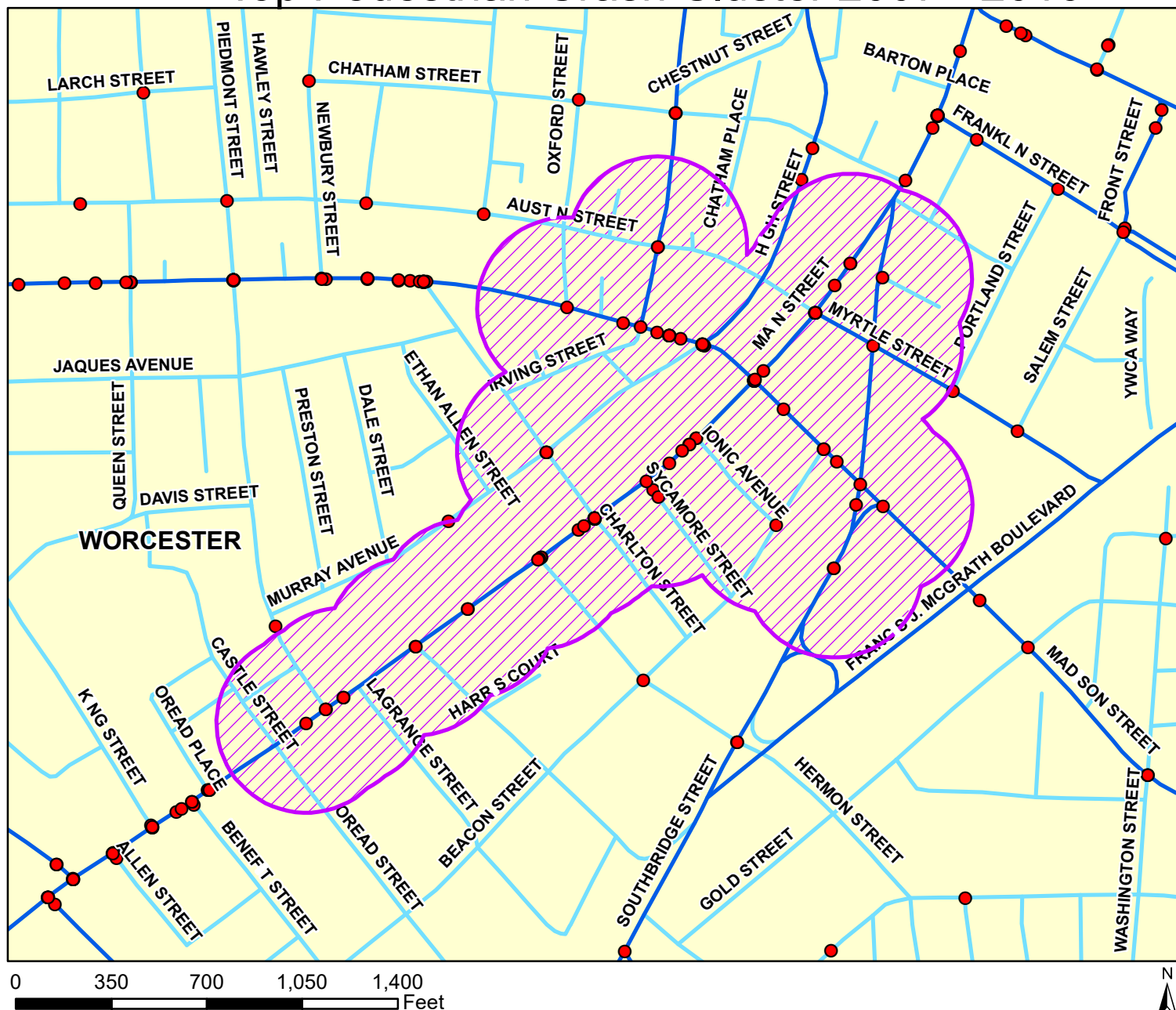
Number of Non-Injury Crashes: 14

Total Crashes: 77

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
8

WORCESTER

MassDOT District: 3

RPA: CMRPC

EPDO: 1185

Number of Fatal and Injury Crashes: 55

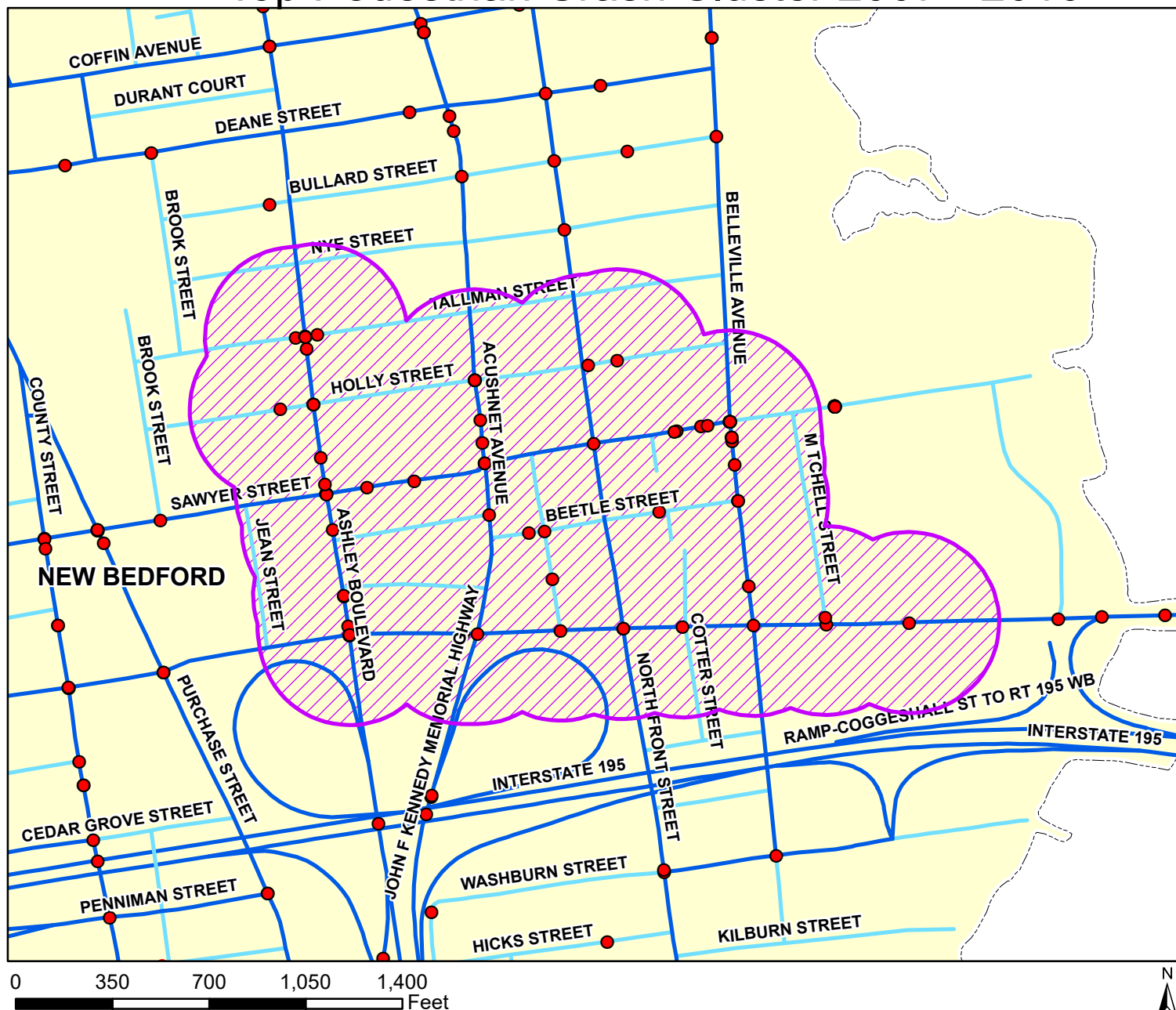
Number of Non-Injury Crashes: 30

Total Crashes: 85

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



RANK
9

NEW BEDFORD

MassDOT District: 5

RPA: SRPEDD

EPDO: 1172

Number of Fatal and Injury Crashes: 55

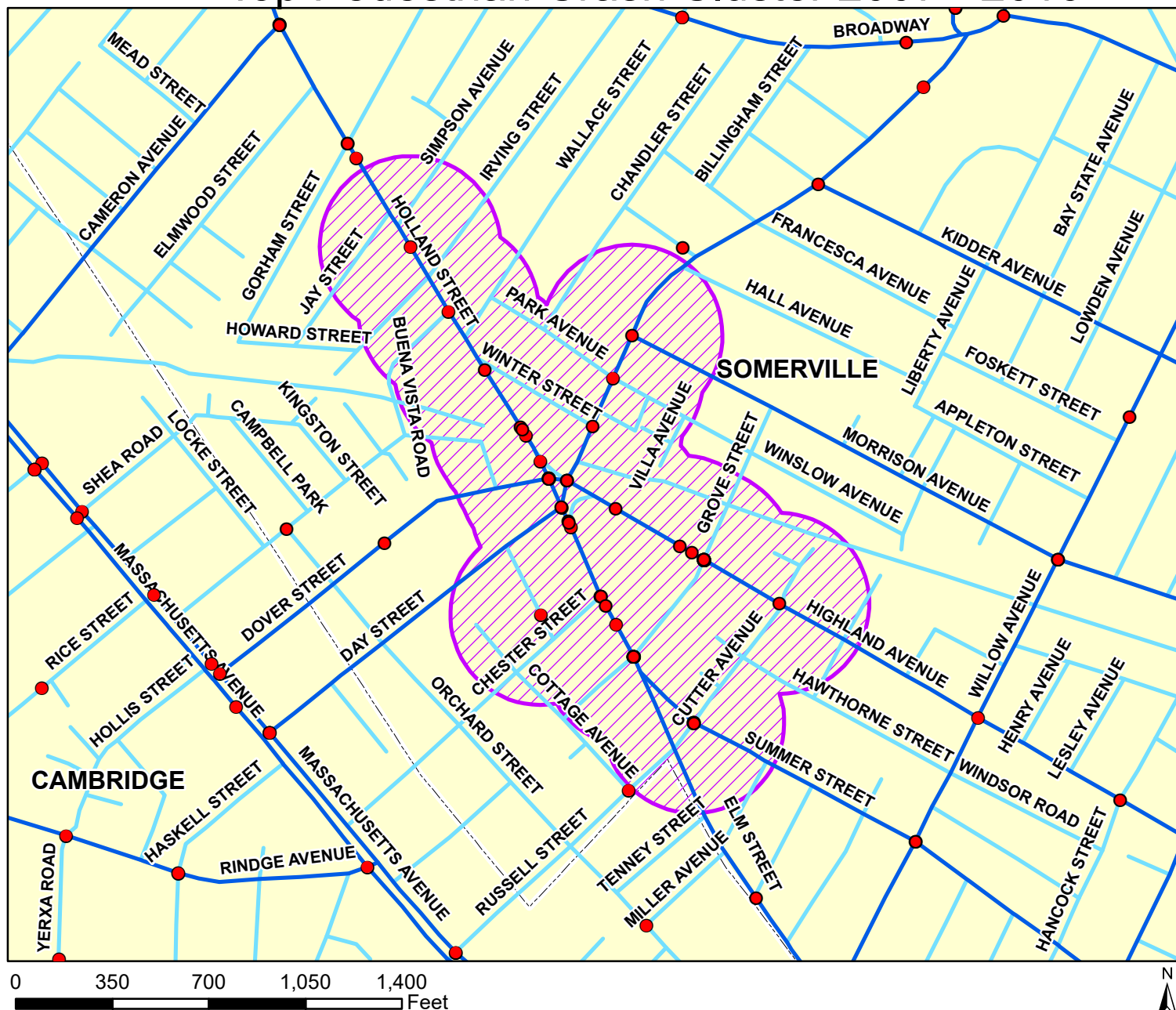
Number of Non-Injury Crashes: 17

Total Crashes: 72

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

Top Pedestrian Crash Cluster 2007 - 2016



**RANK
10**

SOMERVILLE,CAMBRIDGE

MassDOT District: 4,6

RPA: MAPC

EPDO: 1149

Number of Fatal and Injury Crashes: 54

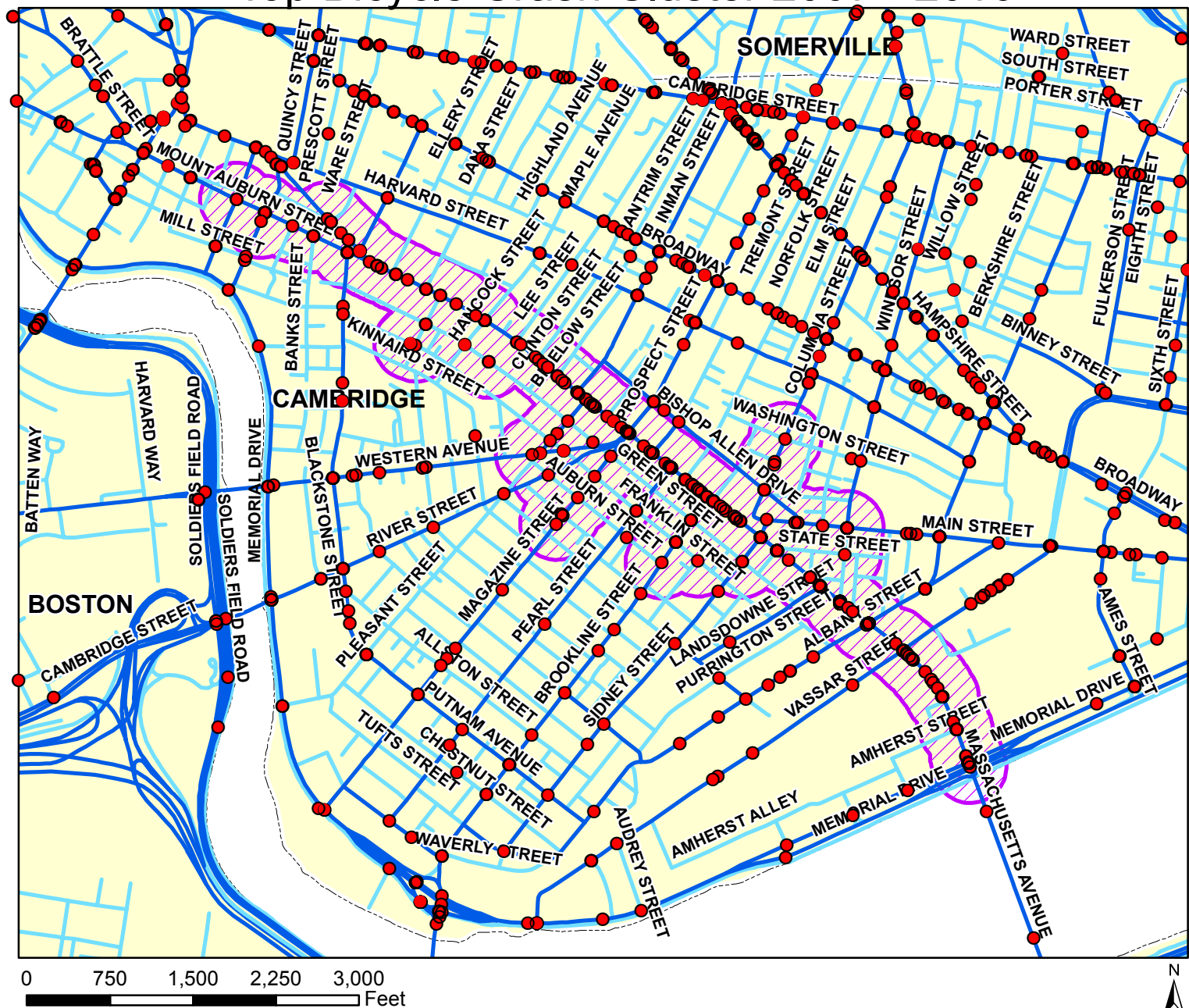
Number of Non-Injury Crashes: 15

Total Crashes: 69

Legend

- Red dot: Crash Locations 2007-2016
- Blue line: All Functional Classification Except Local Roads
- Light blue line: Local Roads
- Purple hatched area: Top Pedestrian Crash Cluster
- Yellow dashed line: Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
1

CAMBRIDGE

MassDOT District: 6

RPA: MAPC

EPDO: 4351

Number of Fatal and Injury Crashes: 200

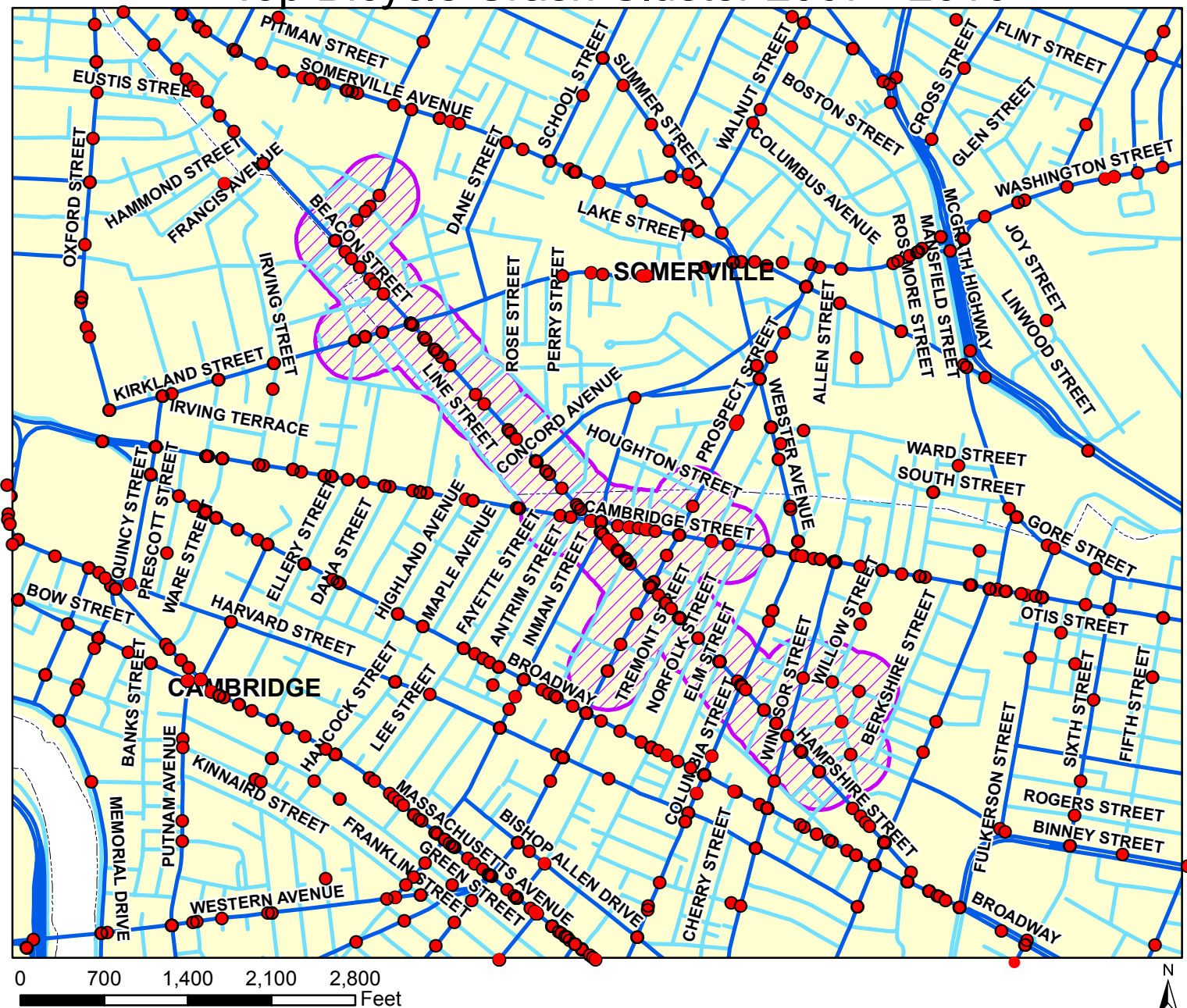
Number of Non-Injury Crashes: 151

Total Crashes: 351

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
2

CAMBRIDGE, SOMERVILLE

MassDOT District: 6,4

RPA: MAPC

EPDO: 3127

Number of Fatal and Injury Crashes: 145

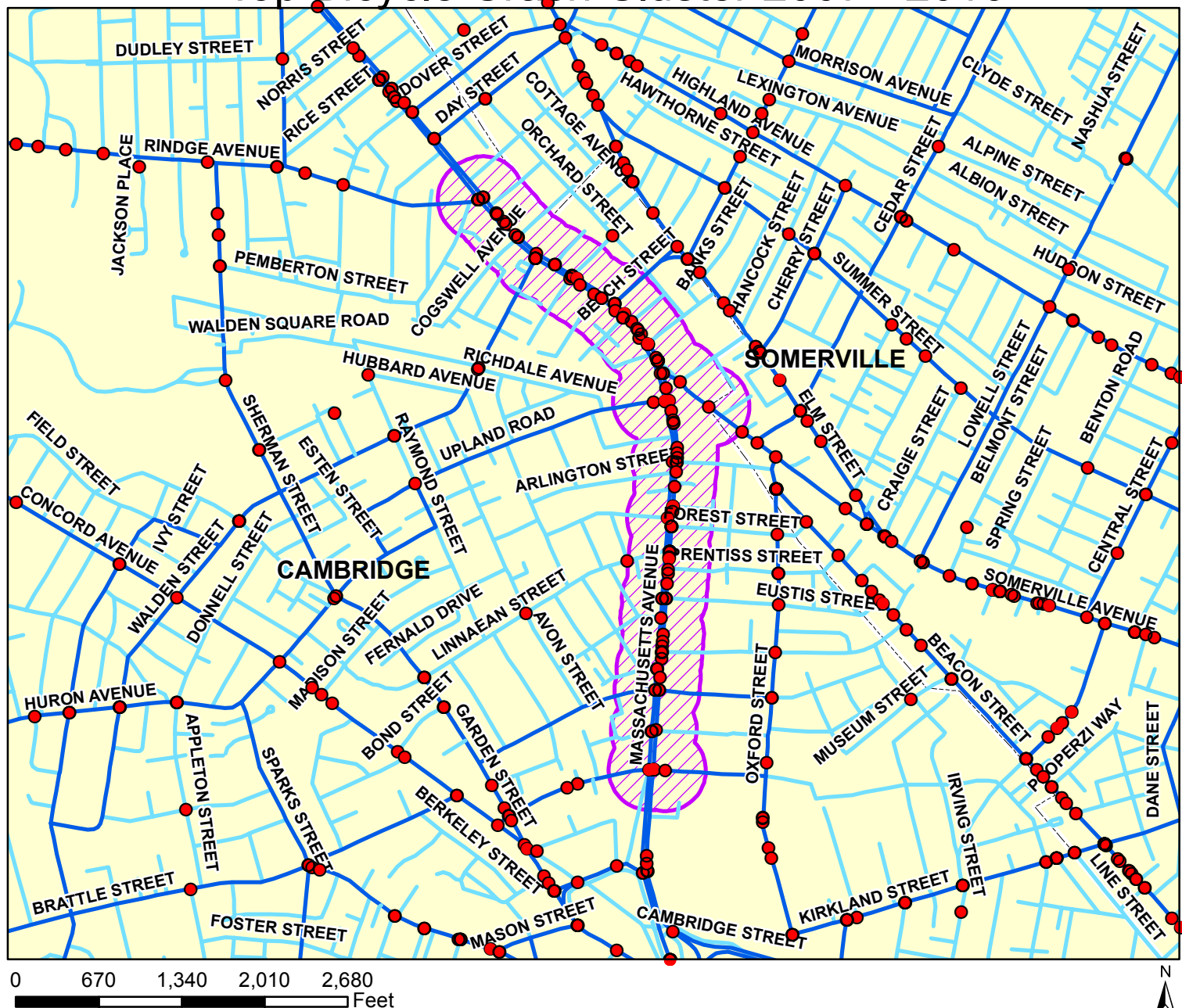
Number of Non-Injury Crashes: 82

Total Crashes: 227

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
3

CAMBRIDGE, SOMERVILLE

MassDOT District: 6,4

RPA: MAPC

EPDO: 2083

Number of Fatal and Injury Crashes: 96

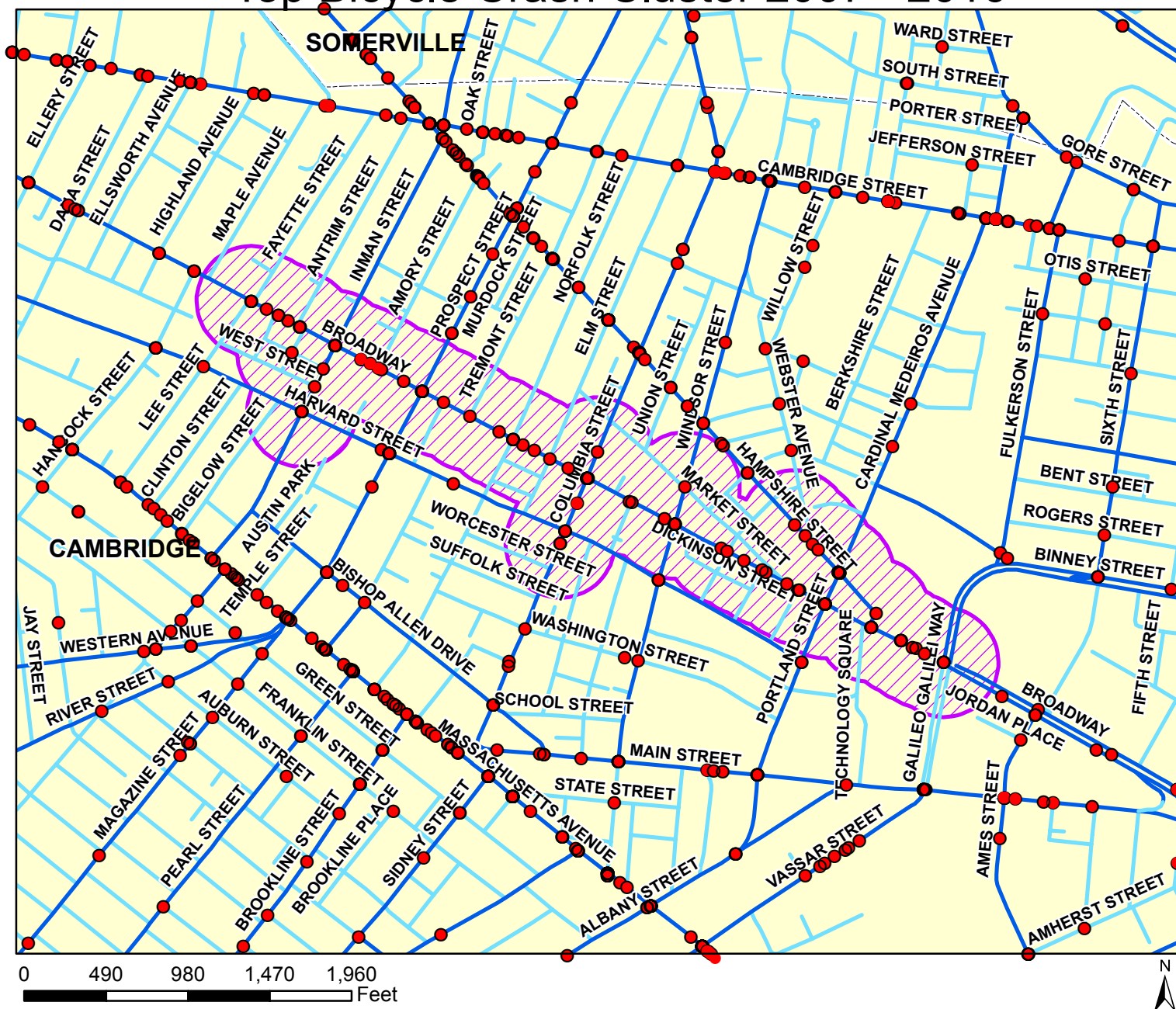
Number of Non-Injury Crashes: 67

Total Crashes: 163

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
4

CAMBRIDGE

MassDOT District: 6

RPA: MAPC

EPDO: 1655

Number of Fatal and Injury Crashes: 76

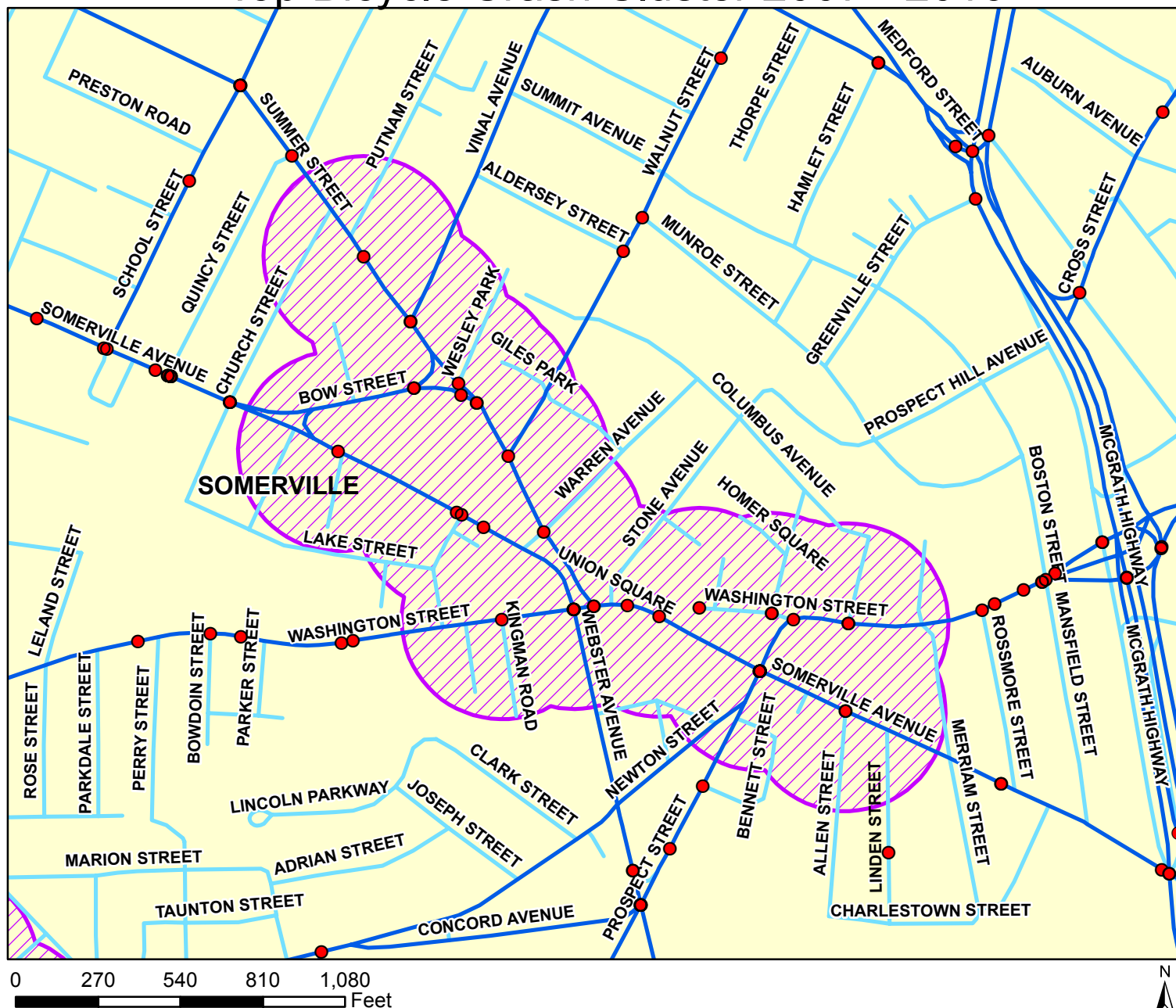
Number of Non-Injury Crashes: 59

Total Crashes: 135

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
5

SOMERVILLE

MassDOT District: 4

RPA: MAPC

EPDO: 682

Number of Fatal and Injury Crashes: 32

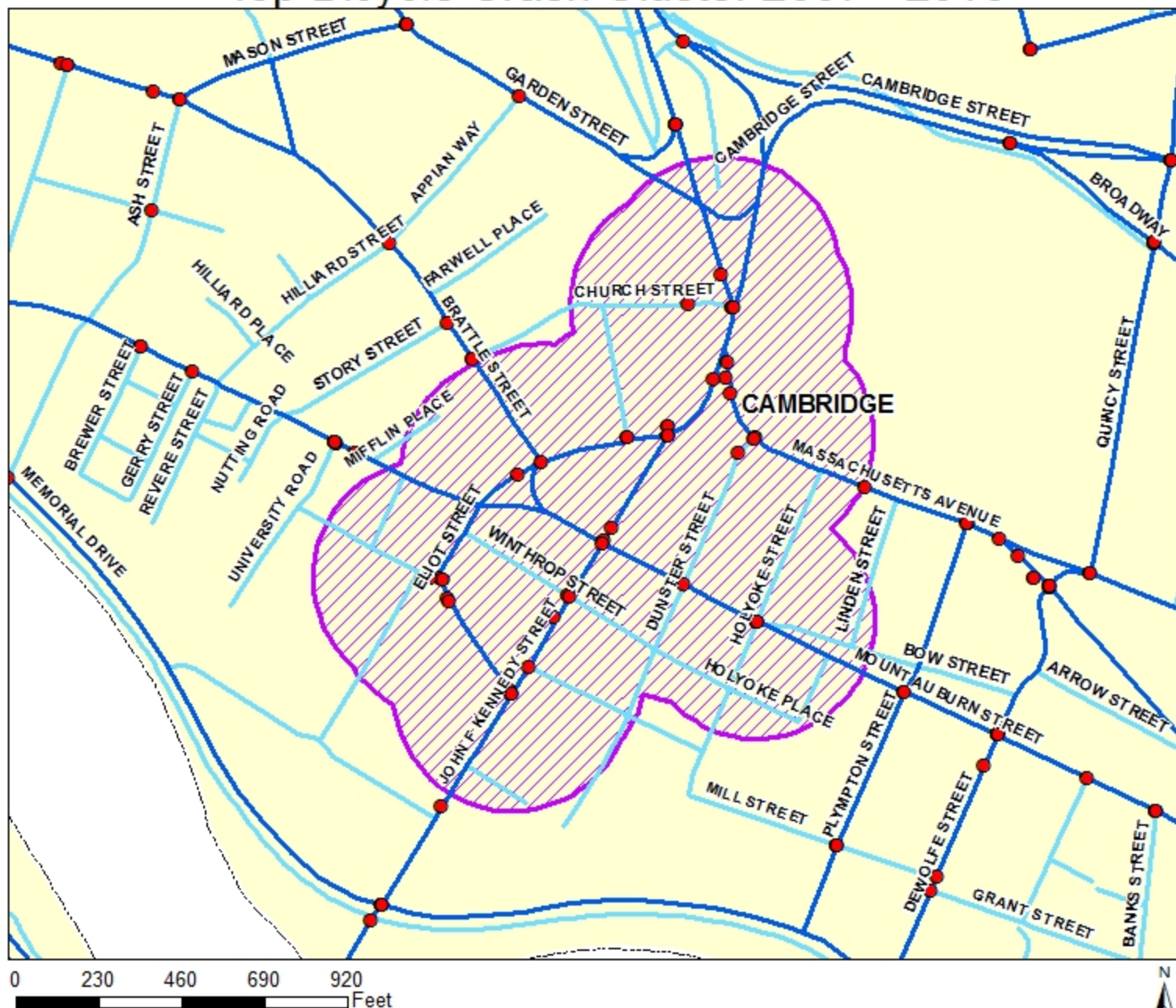
Number of Non-Injury Crashes: 10

Total Crashes: 42

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
6

CAMBRIDGE

MassDOT District: 6

RPA: MAPC

EPDO: 673

Number of Fatal and Injury Crashes: 31

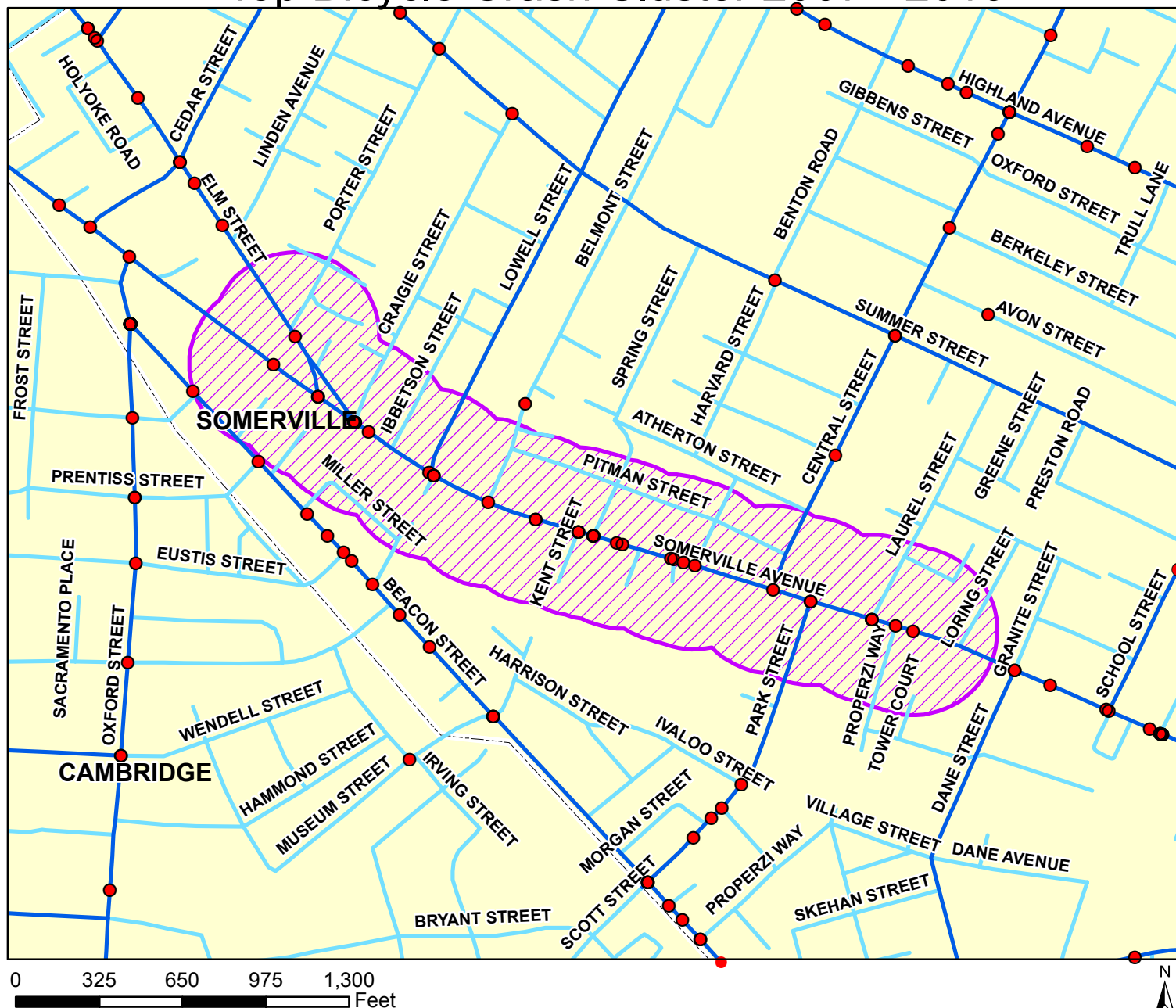
Number of Non-Injury Crashes: 22

Total Crashes: 53

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
7

SOMERVILLE

MassDOT District: 4

RPA: MAPC

EPDO: 540

Number of Fatal and Injury Crashes: 25

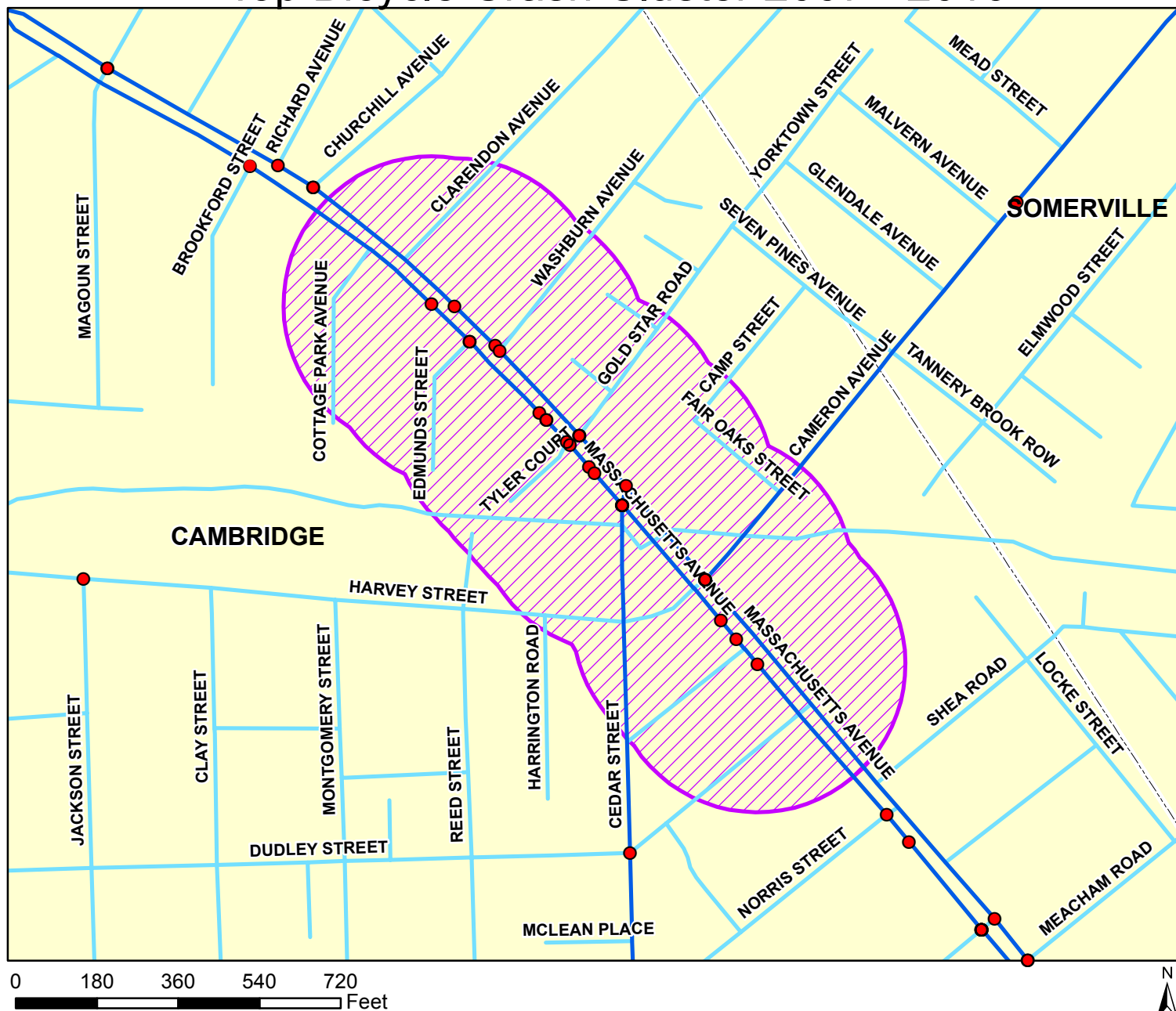
Number of Non-Injury Crashes: 15

Total Crashes: 40

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
8

CAMBRIDGE

MassDOT District: 6

RPA: MAPC

EPDO: 529

Number of Fatal and Injury Crashes: 25

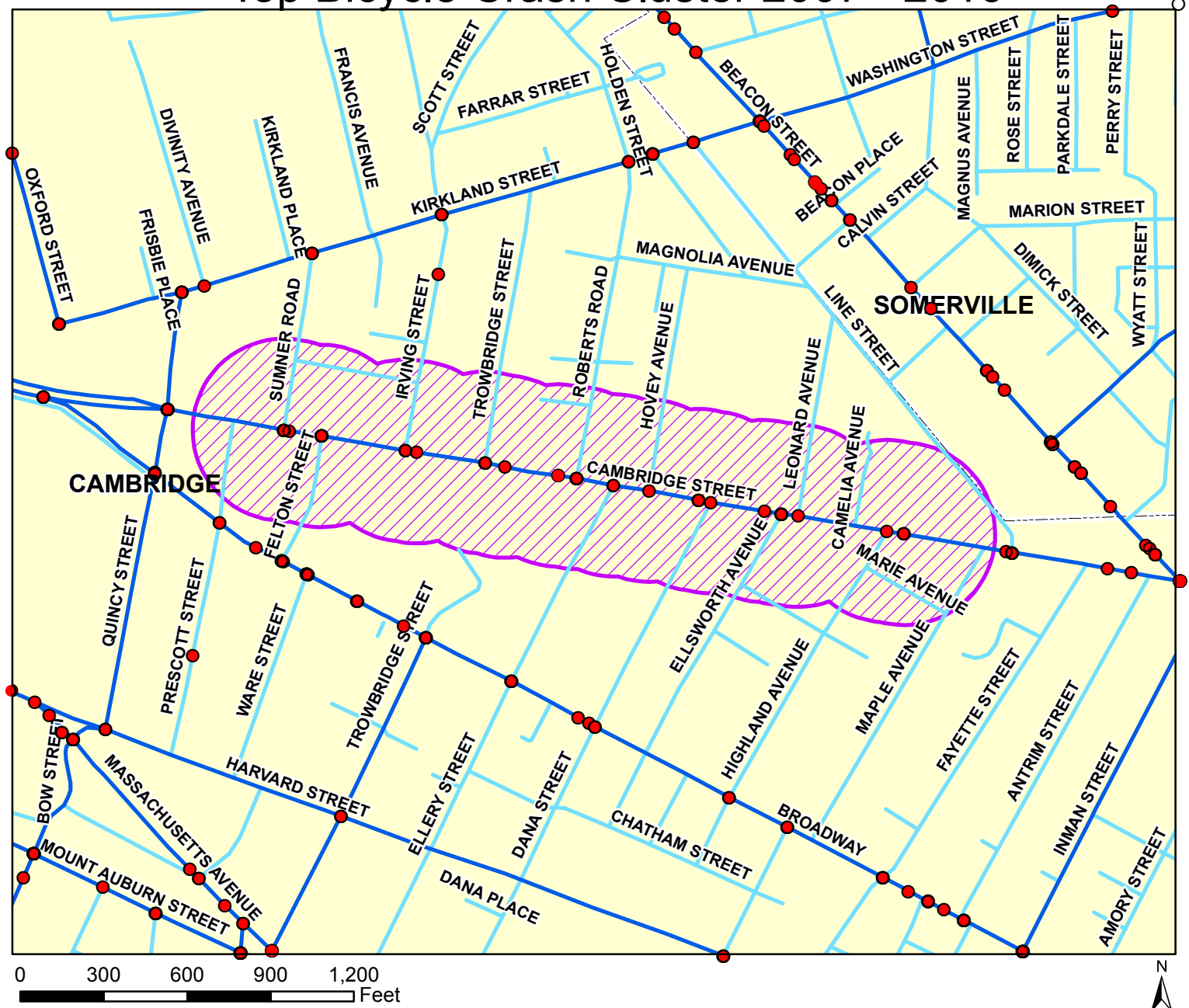
Number of Non-Injury Crashes: 4

Total Crashes: 29

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
9

CAMBRIDGE, SOMERVILLE

MassDOT District: 6,4

RPA: MAPC

EPDO: 520

Number of Fatal and Injury Crashes: 24

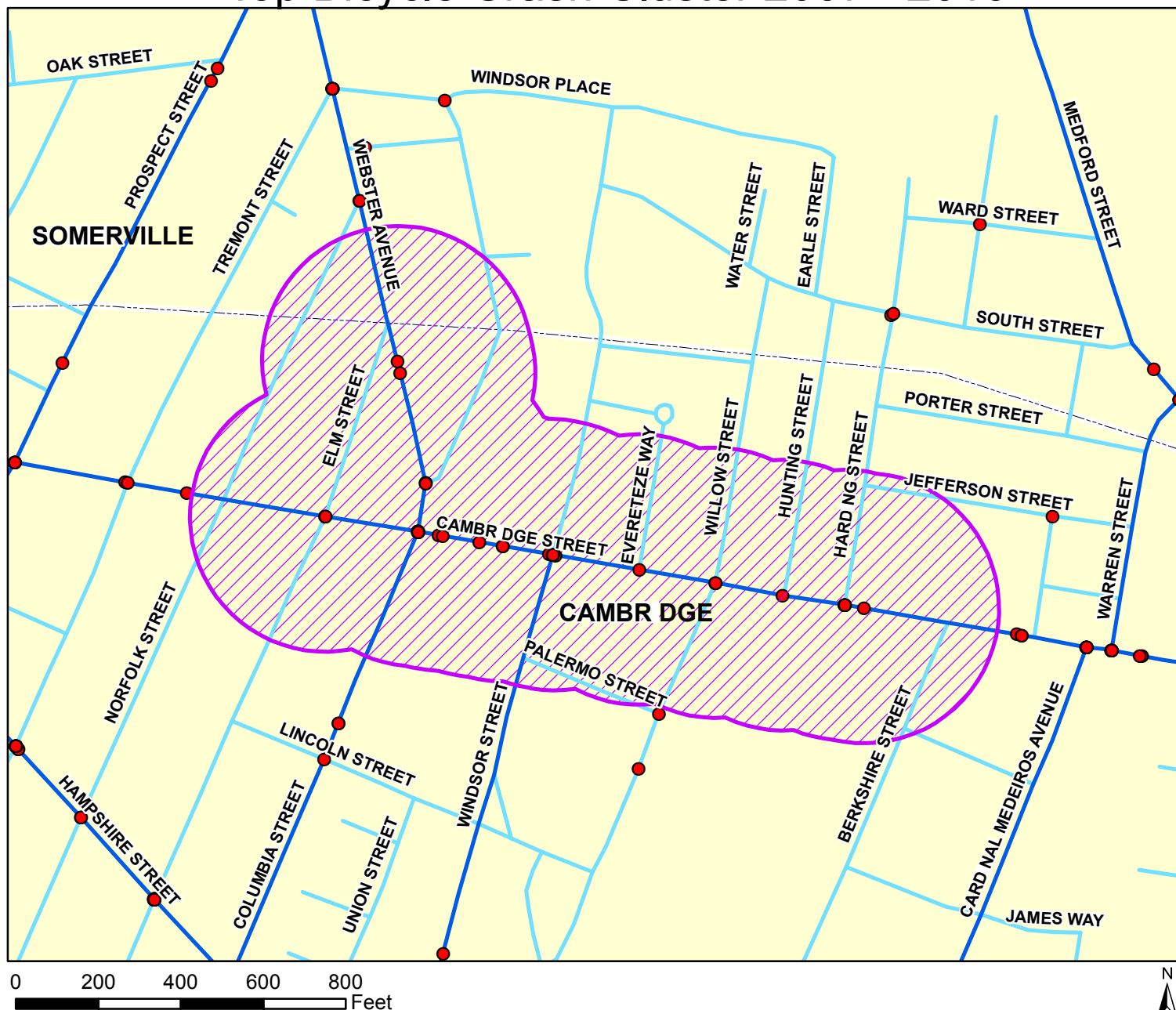
Number of Non-Injury Crashes: 16

Total Crashes: 40

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary

Top Bicycle Crash Cluster 2007 - 2016



RANK
10

CAMBRIDGE, SOMERVILLE

MassDOT District: 6,4

RPA: MAPC

EPDO: 508

Number of Fatal and Injury Crashes: 23

Number of Non-Injury Crashes: 25

Total Crashes: 48

Legend

- Crash Locations 2007-2016
- All Functional Classification Except Local Roads
- Local Roads
- ▨ Top Bicycle Crash Cluster
- Municipal Boundary