

# 2011 TOP CRASH LOCATIONS REPORT



SEPTEMBER 2013

**massDOT**  
Massachusetts Department of Transportation  
Leading the Nation in Transportation Excellence



Deval L. Patrick, Governor  
Richard A. Davey, Secretary & CEO  
Frank DePaola, Administrator



Dear Reader:

Enclosed is MassDOT Highway Division's edition of the 2011 *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 2011 Report contains the identification of top bicycle-motor vehicle and pedestrian-motor vehicle crash locations. This information is 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 2011 *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 the case. 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). To view the new updated 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](#). 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.

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, State Traffic Engineer, at (857) 368-9655.

Sincerely,

Frank DePaola, P.E.  
Administrator

# TOP HIGH CRASH LOCATIONS REPORT

Top 200 Intersection Locations 2009-2011

Top Pedestrian Locations 2002-2011

Top Bicycle Locations 2002-2011

## 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. Previously, MassDOT Highway Division, with assistance from Central Transportation Planning Staff (CTPS), produced a Top 1000 Highway Crash Locations Report which included all types of locations (interchanges, intersections and rotaries). Five years ago, MassDOT Highway Division developed a new report type where the locations identified were crash clusters at intersections (no grade separated locations, no locations with weaving sections and no intersections that a part of a rotary or interchange system). Beginning four years ago, the report also included the top bicycle and pedestrian clusters. This year, MassDOT Highway Division has also prepared a Top High Crash Locations Report which includes the top 200 high crash intersection locations using crash data from 2009-2011 and also includes the weighted (by crash severity) highest frequency bicycle-motor vehicle and pedestrian-motor vehicle crash locations for 2002-2011.

The RMV obtains crash data from State and local police reports and from motor vehicle operators (motorists) who are involved in crashes. 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 2009 and 2011 is over 93%. 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.

| Reporting Entity | 2005    | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |
|------------------|---------|---------|---------|---------|---------|---------|---------|
| Local police     | 102,698 | 94,602  | 95,400  | 93,649  | 92,819  | 94,457  | 104,200 |
| Other police     | 353     | 201     | 153     | 198     | 123     | 154     | 129     |
| State police     | 14,935  | 14,524  | 14,608  | 15,822  | 15,519  | 16,882  | 16,280  |
| Operator         | 40,098  | 40,533  | 34,348  | 26,715  | 9,303   | 4,148   | 22      |
| TOTAL            | 158,084 | 149,860 | 144,509 | 136,384 | 117,764 | 115,641 | 120,631 |

Furthermore, the reporting levels of some communities have changed dramatically between the old reporting format (pre-2002) and the new format and as communities move from submitting 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 there is currently no systematic process for excluding them from being entered, automatically geocoded and therefore included in the crash clusters. As a result, several 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. The clusters were then ranked by the number of Equivalent Property Damage Only (EPDO) crashes contained within their boundaries. As in previous Top Crash Lists, fatal crashes are weighted by 10, injury crashes are weighted by 5 and property damage only or non-reported is weighted by 1. These are the same weights that were used to generate the previous Top 1000 High Crash Locations Report using crash data from the previous crash system.

The crashes 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 module to automatically determine whether the location was an intersection, rotary, interchange or other type of facility has not yet been developed. Therefore, a review of each location was required to make that determination. Generally, a location was determined to be an “intersection” if the cluster did not contain roadways with grade separation (interchange) nor weaving sections (rotaries or ramps). Intersections located at the ends of off-ramps or traffic circles/rotaries were generally not included. 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. 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 2009 to 2011. 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 within the CDS database (which may yield different results from using most harmful event, first harmful event, or sequence of events data fields). Furthermore, the methodology uses the Equivalent Property Damage Only (EPDO) weighting to rank the clusters. However, 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 2002-2011, 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, State Traffic Engineer, Traffic Engineering and Safety Section, MassDOT Highway Division, 10 Park Plaza, Room 7210, Boston, MA 02116, phone (857) 368-9655.

## NOTICE

It should be noted that the Top 200 High Crash Intersection 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.”

2009-2011 STATEWIDE TOP 200 INTERSECTION CRASH LIST

| Rank | Town            | RPA    | MassDOT District | Street 1  | Route 1 | Street 2                           | Route 2 | Total Crashes | EPDO Crashes | Fatal Crashes | Injury Crashes | PDO & Non Reported Crashes |
|------|-----------------|--------|------------------|---|---------|------------------------------------|---------|---------------|--------------|---------------|----------------|----------------------------|
| 1    | HOLYOKE         | PVPC   | 2                | HOLYOKE STREET  |         | HOLYOKE MALL AT INGLESIDE          |         | 198           | 314          | 0             | 29             | 169                        |
| 2    | LOWELL          | NMCOG  | 4                | VETERANS OF FOREIGN WARS HIGHWAY                      | 113     | VARNUM AVENUE                      |         | 165           | 313          | 0             | 37             | 128                        |
| 3    | BROCKTON        | OCPC   | 5                | PLEASANT STREET                                       | 27      | WEST STREET                        |         | 97            | 249          | 0             | 38             | 59                         |
| 4    | LOWELL          | NMCOG  | 4                | BRIDGE STREET   | 38      | VETERANS OF FOREIGN WARS HIGHWAY   |         | 112           | 248          | 0             | 34             | 78                         |
| 5    | WEYMOUTH        | MAPC   | 6                | MAIN STREET   | 18      | MIDDLE STREET                      |         | 131           | 247          | 0             | 29             | 102                        |
| 6    | RAYNHAM         | SRPEDD | 5                | ROUTE 44  | 44      | ORCHARD STREET                     |         | 94            | 246          | 0             | 38             | 56                         |
| 7    | FALL RIVER      | SRPEDD | 5                | PLYMOUTH AVENUE                                       | 81      | RODMAN STREET                      |         | 105           | 237          | 0             | 33             | 72                         |
| 8    | WORCESTER       | CMRPC  | 3                | CHANDLER STREET                                       | 122     | MURRAY AVENUE                      |         | 90            | 226          | 0             | 34             | 56                         |
| 9    | SOMERVILLE      | MAPC   | 4                | MYSTIC AVENUE   | 38      | FELLSWAY                           | 28      | 91            | 214          | 3             | 24             | 64                         |
| 10   | LOWELL          | NMCOG  | 4                | MIDDLESEX STREET                                      |         | WOOD STREET                        |         | 117           | 205          | 0             | 22             | 95                         |
| 11   | MILTON          | MAPC   | 6                | RANDOLPH AVENUE                                       |         | CHICKATAWBUT ROAD                  |         | 67            | 203          | 0             | 34             | 33                         |
| 12   | CONCORD,LINCOLN | MAPC   | 4                | CONCORD TURNPIKE (CROSBY'S CORNER)                    | 2       | CAMBRIDGE TURNPIKE                 | 2       | 96            | 200          | 0             | 26             | 70                         |
| 13   | LOWELL          | NMCOG  | 4                | PLAIN STREET  |         | CHELMSFORD STREET                  | 110     | 104           | 196          | 0             | 23             | 81                         |
| 14   | WALTHAM         | MAPC   | 4                | LEXINGTON STREET                                      |         | TRAPELO ROAD                       |         | 104           | 188          | 0             | 21             | 83                         |
| 15   | FRAMINGHAM      | MAPC   | 3                | CONCORD STREET  | 126     | WAVERLEY STREET                    | 135     | 78            | 182          | 0             | 26             | 52                         |
| 16   | NEW BEDFORD     | SRPEDD | 5                | ALFRED BESSETTE MEMORIAL HIGHWAY                      | 140     | KEMPTON STREET                     | 6       | 61            | 181          | 0             | 30             | 31                         |
| 17   | LOWELL          | NMCOG  | 4                | THORNDIKE STREET                                      | 3A      | HIGHLAND STREET                    |         | 80            | 180          | 0             | 25             | 55                         |
| 18   | MARLBOROUGH     | MAPC   | 3                | EAST MAIN STREET                                      | 20      | CURTIS AVENUE                      |         | 130           | 174          | 0             | 11             | 119                        |
| 19   | BROCKTON        | OCPC   | 5                | ASH STREET  |         | WEST ELM STREET                    |         | 60            | 172          | 0             | 28             | 32                         |
| 20   | WORCESTER       | CMRPC  | 3                | HIGHLAND STREET                                       | 9       | HARVARD STREET                     |         | 69            | 169          | 0             | 25             | 44                         |
| 21   | AGAWAM          | PVPC   | 2                | SOUTH END BRIDGE                                      | 5       |                                    |         | 65            | 165          | 0             | 25             | 40                         |
| 22   | CHICOPEE        | PVPC   | 2                | MEMORIAL DRIVE  | 33      | PENDLETON AVENUE                   |         | 55            | 163          | 0             | 27             | 28                         |
| 23   | LYNN            | MAPC   | 4                | WESTERN AVENUE  | 107     | FRANKLIN STREET                    |         | 77            | 161          | 0             | 21             | 56                         |
| 23   | NATICK          | MAPC   | 3                | WORCESTER STREET                                      | 9       | OLD NORTH MAIN STREET              |         | 117           | 161          | 0             | 11             | 106                        |
| 25   | WELLESLEY       | MAPC   | 6                | WORCESTER STREET (WELLESLEY FIRE STATION HEADQUARTER) | 9       | WASHINGTON STREET (BY PROXIMITY)   |         | 116           | 160          | 0             | 11             | 105                        |
| 26   | BOSTON          | MAPC   | 6                | MORTON STREET   | 203     | HARVARD STREET                     |         | 47            | 159          | 0             | 28             | 19                         |
| 27   | WORCESTER       | CMRPC  | 3                | PARK AVENUE   | 9       | PLEASANT STREET                    |         | 82            | 158          | 0             | 19             | 63                         |
| 28   | WEYMOUTH        | MAPC   | 6                | WASHINGTON STREET                                     | 53      | MAIN STREET                        | 18      | 91            | 155          | 0             | 16             | 75                         |
| 28   | WORCESTER       | CMRPC  | 3                | LINCOLN STREET  | 70      | MARSH AVENUE                       |         | 63            | 155          | 0             | 23             | 40                         |
| 30   | SUTTON          | CMRPC  | 3                | WORCESTER PROVIDENCE TURNPIKE                         | 146     | BOSTON ROAD                        |         | 74            | 154          | 0             | 20             | 54                         |
| 30   | WALTHAM         | MAPC   | 4                | MAIN STREET   | 20      | LYMAN STREET                       |         | 73            | 154          | 1             | 18             | 54                         |
| 32   | LOWELL          | NMCOG  | 4                | CHURCH STREET   | 110     | APPLETON STREET                    |         | 69            | 153          | 0             | 21             | 48                         |
| 33   | PEABODY         | MAPC   | 4                | NEWBURY STREET (JUGHANDLE)                            | 1       |                                    |         | 64            | 152          | 0             | 22             | 42                         |
| 34   | SWANSEA         | SRPEDD | 5                | MARKET STREET   | 136     | GRAND ARMY OF THE REPUBLIC HIGHWAY | 6       | 63            | 151          | 0             | 22             | 41                         |
| 35   | LOWELL          | NMCOG  | 4                | VETERANS OF FOREIGN WARS HIGHWAY                      |         | AIKEN STREET                       |         | 61            | 149          | 0             | 22             | 39                         |
| 35   | BROCKTON        | OCPC   | 5                | NORTH MAIN STREET                                     |         | HOWARD STREET                      |         | 61            | 149          | 0             | 22             | 39                         |
| 37   | LYNN            | MAPC   | 4                | WESTERN AVENUE  | 107     | CHESTNUT STREET                    | 129A    | 72            | 148          | 0             | 19             | 53                         |
| 38   | FRAMINGHAM      | MAPC   | 3                | WORCESTER ROAD  | 9       | TEMPLE STREET                      |         | 66            | 146          | 0             | 20             | 46                         |
| 39   | SEEKONK         | SRPEDD | 5                | FALL RIVER AVENUE                                     | 6       | COMMERCE WAY                       |         | 89            | 145          | 0             | 14             | 75                         |
| 39   | WESTFIELD       | PVPC   | 2                | EAST MAIN STREET                                      | 20      | LITTLE RIVER ROAD                  | 187     | 53            | 145          | 0             | 23             | 30                         |
| 41   | FALL RIVER      | SRPEDD | 5                | PLEASANT STREET                                       |         | QUEQUECHAN STREET                  |         | 60            | 144          | 0             | 21             | 39                         |
| 41   | CHICOPEE        | PVPC   | 2                | BROADWAY  |         | CHURCH STREET                      |         | 68            | 144          | 0             | 19             | 49                         |
| 43   | BROCKTON        | OCPC   | 5                | BELMONT STREET  | 123     | MANLEY STREET                      |         | 54            | 142          | 0             | 22             | 32                         |
| 44   | WORCESTER       | CMRPC  | 3                | SOUTHBRIDGE STREET                                    |         | HAMMOND STREET                     |         | 67            | 139          | 0             | 18             | 49                         |
| 44   | WEYMOUTH        | MAPC   | 6                | WASHINGTON STREET                                     | 53      | MIDDLE STREET                      |         | 71            | 139          | 0             | 17             | 54                         |
| 44   | WELLESLEY       | MAPC   | 6                | WASHINGTON STREET                                     | 16      | WORCESTER STREET                   |         | 95            | 139          | 0             | 11             | 84                         |
| 47   | HOLYOKE         | PVPC   | 2                | MAIN STREET   | 116     | CABOT STREET                       |         | 57            | 138          | 1             | 18             | 38                         |
| 48   | RANDOLPH        | MAPC   | 6                | NORTH MAIN STREET                                     | 28      | WARREN STREET                      | 139     | 73            | 137          | 0             | 16             | 57                         |
| 48   | MANSFIELD       | SRPEDD | 5                | ROUTE 140   | 140     | SCHOOL STREET                      |         | 69            | 137          | 0             | 17             | 52                         |
| 50   | FALL RIVER      | SRPEDD | 5                | BEDFORD STREET  |         | TROY STREET                        |         | 48            | 136          | 0             | 22             | 26                         |
| 50   | BELLINGHAM      | MAPC   | 3                | HARTFORD AVENUE                                       | 126     | STALLBROOK MARKETPLACE             |         | 92            | 136          | 0             | 11             | 81                         |
| 52   | SWAMPSCOTT      | MAPC   | 4                | PARADISE ROAD   | 1A      | SWAMPSCOTT MALL                    |         | 43            | 135          | 0             | 23             | 20                         |
| 52   | HAVERHILL       | MVPC   | 4                | LAFAYETTE SQUARE                                      | 97      | BROADWAY                           |         | 87            | 135          | 0             | 12             | 75                         |
| 54   | WORCESTER       | CMRPC  | 3                | MAIN STREET   | 9       | PARK AVENUE                        |         | 50            | 134          | 0             | 21             | 29                         |

2009-2011 STATEWIDE TOP 200 INTERSECTION CRASH LIST

| Rank | Town         | RPA       | MassDOT District | Street 1                           | Route 1 | Street 2                               | Route 2 | Total Crashes | EPDO Crashes | Fatal Crashes | Injury Crashes | PDO & Non Reported Crashes |
|------|--------------|-----------|------------------|------------------------------------|---------|--|---------|---------------|--------------|---------------|----------------|----------------------------|
| 54   | FRAMINGHAM   | MAPC      | 3                | WAVERLEY STREET                    | 135     | BEAVER STREET                          |         | 66            | 134          | 0             | 17             | 49                         |
| 54   | WORCESTER    | CMRPC     | 3                | MAIN STREET                        |         | MILL STREET                            | 12      | 53            | 134          | 1             | 18             | 34                         |
| 57   | BROCKTON     | OCPC      | 5                | WEST ELM STREET                    |         | NEWBURY STREET                         |         | 45            | 133          | 0             | 22             | 23                         |
| 58   | WALTHAM      | MAPC      | 4                | LEXINGTON STREET                   |         | BEAVER STREET                          |         | 48            | 132          | 0             | 21             | 27                         |
| 59   | HOLYOKE      | PVPC      | 2                | CHERRY STREET                      | 202     | SOLDIERS HOME ROAD                     |         | 54            | 131          | 1             | 17             | 36                         |
| 60   | WORCESTER    | CMRPC     | 3                | GRAFTON STREET                     | 122     | HAMILTON STREET                        |         | 61            | 129          | 0             | 17             | 44                         |
| 61   | FRAMINGHAM   | MAPC      | 3                | WORCESTER ROAD                     | 9       | CALIFORNIA AVENUE                      |         | 55            | 128          | 1             | 16             | 38                         |
| 61   | WEYMOUTH     | MAPC      | 6                | MAIN STREET                        | 18      | PARK AVENUE                            |         | 80            | 128          | 0             | 12             | 68                         |
| 61   | WEYMOUTH     | MAPC      | 6                | MAIN STREET                        | 18      | WINTER STREET                          |         | 60            | 128          | 0             | 17             | 43                         |
| 61   | BROCKTON     | OCPC      | 5                | MAIN STREET                        |         | LEGION PARKWAY                         | 123     | 48            | 128          | 0             | 20             | 28                         |
| 65   | CHELSEA      | MAPC      | 6                | REVERE BEACH PARKWAY               | 16      | GARFIELD AVENUE                        |         | 63            | 127          | 0             | 16             | 47                         |
| 66   | CAMBRIDGE    | MAPC      | 6                | MASSACHUSETTS AVENUE               | 2A      | VASSAR STREET                          |         | 41            | 126          | 1             | 19             | 21                         |
| 66   | QUINCY       | MAPC      | 6                | SOUTHERN ARTERY                    | 3A      | CODDINGTON STREET                      |         | 66            | 126          | 0             | 15             | 51                         |
| 68   | BRIDGEWATER  | OCPC      | 5                | BROAD STREET                       | 18      | MAIN STREET                            | 28      | 57            | 125          | 0             | 17             | 40                         |
| 68   | WORCESTER    | CMRPC     | 3                | BELMONT STREET                     | 9       | LINCOLN STREET                         |         | 73            | 125          | 0             | 13             | 60                         |
| 68   | TEWKSBURY    | NMCOG     | 4                | MAIN STREET                        | 38      | CLARK ROAD                             |         | 73            | 125          | 0             | 13             | 60                         |
| 71   | SEEKONK      | SRPEDD    | 5                | TAUNTON AVENUE                     | 44      | FALL RIVER AVENUE                      | 114A    | 72            | 124          | 0             | 13             | 59                         |
| 72   | LYNN         | MAPC      | 4                | WESTERN AVENUE                     | 107     | BAYVIEW AVENUE                         |         | 63            | 123          | 0             | 15             | 48                         |
| 72   | LOWELL       | NMCOG     | 4                | NESMITH STREET                     | 38      | ANDOVER STREET                         | 110     | 59            | 123          | 0             | 16             | 43                         |
| 72   | NORTHBOROUGH | CMRPC     | 3                | WEST MAIN STREET                   | 20      | SOUTH STREET                           | 135     | 95            | 123          | 0             | 7              | 88                         |
| 72   | MILFORD      | MAPC      | 3                | EAST MAIN STREET                   | 16      | QUARRY SQUARE SHOPPING CENTER          |         | 83            | 123          | 0             | 10             | 73                         |
| 72   | CONCORD      | MAPC      | 4                | CONCORD TURNPIKE                   | 2       | MAIN STREET                            | 62      | 55            | 123          | 0             | 17             | 38                         |
| 72   | LYNN         | MAPC      | 4                | BROADWAY                           |         | EUCLID AVENUE                          |         | 51            | 123          | 0             | 18             | 33                         |
| 78   | HAVERHILL    | MVPC      | 4                | BRIDGE STREET                      | 125     | WATER STREET                           | 113     | 78            | 122          | 0             | 11             | 67                         |
| 79   | MILFORD      | MAPC      | 3                | MEDWAY ROAD                        | 109     | KMART SHOPPING PLAZA                   |         | 85            | 121          | 0             | 9              | 76                         |
| 80   | FRAMINGHAM   | MAPC      | 3                | CONCORD STREET                     | 126     | UNION AVENUE                           |         | 60            | 120          | 0             | 15             | 45                         |
| 81   | SALEM        | MAPC      | 4                | WASHINGTON STREET                  | 114     | CANAL STREET                           |         | 59            | 119          | 0             | 15             | 44                         |
| 81   | LOWELL       | NMCOG     | 4                | WESTFORD STREET                    | 3A      | WILDER STREET                          |         | 59            | 119          | 0             | 15             | 44                         |
| 81   | FRAMINGHAM   | MAPC      | 3                | WORCESTER ROAD                     | 9       | COCHITUATE ROAD                        | 30      | 39            | 119          | 0             | 20             | 19                         |
| 84   | BRAINTREE    | MAPC      | 6                | GRANITE STREET                     | 37      | FRANKLIN STREET                        |         | 42            | 118          | 0             | 19             | 23                         |
| 84   | WALPOLE      | MAPC      | 5                | PROVIDENCE TURNPIKE                | 1       | HIGH PLAIN STREET                      | 27      | 54            | 118          | 0             | 16             | 38                         |
| 84   | WORCESTER    | CMRPC     | 3                | BELMONT STREET                     | 9       | PLANTATION STREET                      |         | 54            | 118          | 0             | 16             | 38                         |
| 87   | STOUGHTON    | MAPC_OCPC | 5                | WASHINGTON STREET                  | 138     | CENTRAL STREET                         |         | 69            | 117          | 0             | 12             | 57                         |
| 88   | HAVERHILL    | MVPC      | 4                | MAIN STREET                        | 125     | WINTER STREET                          | 97      | 60            | 116          | 0             | 14             | 46                         |
| 89   | SHREWSBURY   | CMRPC     | 3                | BOSTON TURNPIKE                    | 9       | SOUTH QUINSIGAMOND AVENUE              |         | 67            | 115          | 0             | 12             | 55                         |
| 89   | SHREWSBURY   | CMRPC     | 3                | BOSTON TURNPIKE                    | 9       | SOUTH STREET                           |         | 71            | 115          | 0             | 11             | 60                         |
| 89   | BOSTON       | MAPC      | 6                | CHARLES GATE WEST                  |         | COMMONWEALTH AVENUE                    | 2       | 39            | 115          | 0             | 19             | 20                         |
| 89   | GARDNER      | MRPC      | 3                | PEARSON BOULEVARD                  |         | ELM STREET                             |         | 83            | 115          | 0             | 8              | 75                         |
| 93   | BROCKTON     | OCPC      | 5                | CENTRE STREET                      | 123     | PLYMOUTH STREET                        |         | 42            | 114          | 0             | 18             | 24                         |
| 93   | FALMOUTH     | CCC       | 5                | TEATICKET HIGHWAY                  | 28      | FALMOUTH MALL                          |         | 62            | 114          | 0             | 13             | 49                         |
| 93   | NATICK       | MAPC      | 3                | SPEEN STREET                       |         | CLOVERLEAF MARKETPLACE SHOPPING CENTER |         | 82            | 114          | 0             | 8              | 74                         |
| 93   | WORCESTER    | CMRPC     | 3                | GRAFTON STREET                     | 122     | PLANTATION STREET                      |         | 42            | 114          | 0             | 18             | 24                         |
| 97   | WALTHAM      | MAPC      | 4                | MAIN STREET                        | 20      | WESTON STREET                          |         | 77            | 113          | 0             | 9              | 68                         |
| 97   | WORCESTER    | CMRPC     | 3                | HIGHLAND STREET                    | 9       | MAIN STREET                            |         | 53            | 113          | 0             | 15             | 38                         |
| 97   | WORCESTER    | CMRPC     | 3                | GRAFTON STREET                     | 122     | MENDON STREET                          |         | 41            | 113          | 0             | 18             | 23                         |
| 97   | WOBURN       | MAPC      | 4                | MONTVALE AVENUE                    |         | ALBANY STREET                          |         | 65            | 113          | 0             | 12             | 53                         |
| 101  | QUINCY       | MAPC      | 6                | HONORABLE THOMAS S BURGIN PARKWAY  |         | CENTRE STREET                          |         | 48            | 112          | 0             | 16             | 32                         |
| 101  | LYNN         | MAPC      | 4                | WESTERN AVENUE                     | 107     | PARK STREET                            |         | 48            | 112          | 0             | 16             | 32                         |
| 101  | DENNIS       | CCC       | 5                | EAST WEST DENNIS ROAD              |         | PATRIOT SQUARE (BY ADDRESS)            |         | 84            | 112          | 0             | 7              | 77                         |
| 101  | TAUNTON      | SRPEDD    | 5                | COUNTY STREET                      | 140     | HART STREET                            |         | 48            | 112          | 0             | 16             | 32                         |
| 105  | ARLINGTON    | MAPC      | 4                | MASSACHUSETTS AVENUE               | 3       | MYSTIC STREET                          | 3       | 59            | 111          | 0             | 13             | 46                         |
| 105  | SWANSEA      | SRPEDD    | 5                | GRAND ARMY OF THE REPUBLIC HIGHWAY | 6       | SWANSEA MALL DRIVE                     |         | 47            | 111          | 0             | 16             | 31                         |
| 107  | DEDHAM       | MAPC      | 6                | BOSTON PROVIDENCE TURNPIKE         | 1A      | ELM STREET                             |         | 50            | 110          | 0             | 15             | 35                         |
| 107  | WEYMOUTH     | MAPC      | 6                | BRIDGE STREET                      | 3A      | EVANS STREET                           |         | 50            | 110          | 0             | 15             | 35                         |



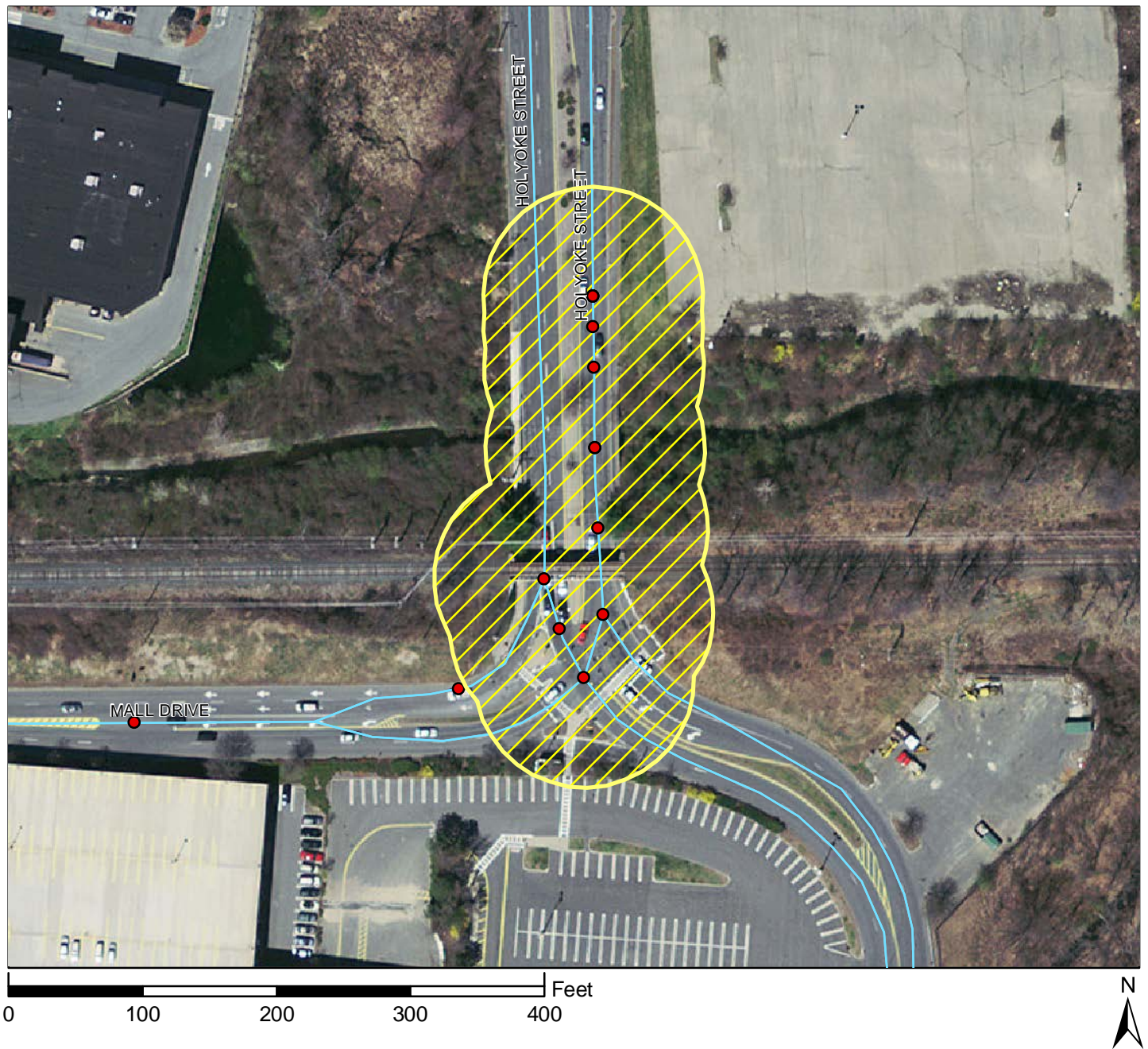
## 2009-2011 STATEWIDE TOP 200 INTERSECTION CRASH LIST

| Rank | Town          | RPA    | MassDOT District | Street 1                           | Route 1 | Street 2                     | Route 2 | Total Crashes | EPDO Crashes | Fatal Crashes | Injury Crashes | PDO & Non Reported Crashes |
|------|---------------|--------|------------------|------------------------------------|---------|------------------------------|---------|---------------|--------------|---------------|----------------|----------------------------|
| 107  | BROCKTON      | OCPC   | 5                | PLEASANT STREET                    | 27      | WARREN AVENUE                |         | 42            | 110          | 0             | 17             | 25                         |
| 110  | LOWELL        | NMCOG  | 4                | PAWTUCKET BOULEVARD                | 113     | ROURKE BRIDGE                |         | 53            | 109          | 0             | 14             | 39                         |
| 110  | WORCESTER     | CMRPC  | 3                | MADISON STREET                     | 122     | GREEN STREET (KELLEY SQUARE) | 122A    | 69            | 109          | 0             | 10             | 59                         |
| 110  | CAMBRIDGE     | MAPC   | 6                | MASSACHUSETTS AVENUE               | 2A      | ALEWIFE BROOK PARKWAY        | 3       | 45            | 109          | 0             | 16             | 29                         |
| 113  | MIDDLEBOROUGH | SRPEDD | 5                | SOUTH MAIN STREET                  | 105     | EAST GROVE STREET            | 28      | 68            | 108          | 0             | 10             | 58                         |
| 113  | TAUNTON       | SRPEDD | 5                | HON. GORDON M OWEN RIVERWAY        |         | WILLIAMS STREET              |         | 44            | 108          | 0             | 16             | 28                         |
| 113  | SHREWSBURY    | CMRPC  | 3                | HARTFORD TURNPIKE                  | 20      | GRAFTON STREET               |         | 56            | 108          | 0             | 13             | 43                         |
| 113  | LOWELL        | NMCOG  | 4                | SCHOOL STREET                      |         | BRANCH STREET                |         | 44            | 108          | 0             | 16             | 28                         |
| 113  | WEYMOUTH      | MAPC   | 6                | MAIN STREET                        | 18      | PLEASANT SHOPS PLAZA         |         | 60            | 108          | 0             | 12             | 48                         |
| 113  | HOLYOKE       | PVPC   | 2                | BEECH STREET                       | 202     | WEST FRANKLIN STREET         |         | 48            | 108          | 0             | 15             | 33                         |
| 113  | BOSTON        | MAPC   | 6                | MASSACHUSETTS AVENUE               |         | MELNEA CASS BOULEVARD        |         | 39            | 108          | 1             | 15             | 23                         |
| 120  | BROCKTON      | OCPC   | 5                | WARREN AVENUE                      |         | FOREST AVENUE                |         | 39            | 107          | 0             | 17             | 22                         |
| 120  | BROCKTON      | OCPC   | 5                | PLEASANT STREET                    | 27      | NORTH ASH STREET             |         | 39            | 107          | 0             | 17             | 22                         |
| 122  | HOLBROOK      | MAPC   | 5                | SOUTH FRANKLIN STREET              | 37      | UNION STREET                 | 139     | 42            | 106          | 0             | 16             | 26                         |
| 122  | BROCKTON      | OCPC   | 5                | WARREN AVENUE                      | 123     | WEST ELM STREET              |         | 34            | 106          | 0             | 18             | 16                         |
| 122  | ABINGTON      | OCPC   | 5                | CENTER AVENUE                      | 123     | PLYMOUTH STREET              | 58      | 54            | 106          | 0             | 13             | 41                         |
| 122  | DARTMOUTH     | SRPEDD | 5                | FAUNCE CORNER MALL ROAD            |         | CROSS ROAD                   |         | 38            | 106          | 0             | 17             | 21                         |
| 126  | BROCKTON      | OCPC   | 5                | NORTH MONTELLO STREET              | 28      | HOWARD STREET                | 37      | 33            | 105          | 0             | 18             | 15                         |
| 126  | WORCESTER     | CMRPC  | 3                | BELMONT STREET                     | 9       | LAKE AVENUE NORTH            |         | 49            | 105          | 0             | 14             | 35                         |
| 126  | WALTHAM       | MAPC   | 4                | LEXINGTON STREET                   |         | TOTTEN POND ROAD             |         | 65            | 105          | 0             | 10             | 55                         |
| 126  | ATTLEBORO     | SRPEDD | 5                | WASHINGTON STREET                  | 1       | MOBIL GAS STATION/CAR WASH   |         | 41            | 105          | 0             | 16             | 25                         |
| 126  | SOMERVILLE    | MAPC   | 4                | SOMERVILLE AVENUE                  |         | BOW STREET                   |         | 33            | 105          | 0             | 18             | 15                         |
| 126  | LOWELL        | NMCOG  | 4                | FATHER MORISSETTE BOULEVARD        |         | CABOT STREET                 |         | 37            | 105          | 0             | 17             | 20                         |
| 126  | NATICK        | MAPC   | 3                | WORCESTER STREET                   | 9       | OAK STREET                   |         | 69            | 105          | 0             | 9              | 60                         |
| 126  | CHARLTON      | CMRPC  | 3                | STURBRIDGE ROAD                    | 20      | BROOKFIELD ROAD              | 31      | 57            | 105          | 0             | 12             | 45                         |
| 126  | LEOMINSTER    | MRPC   | 3                | NORTH MAIN STREET                  | 12      | NELSON STREET                |         | 65            | 105          | 0             | 10             | 55                         |
| 135  | NORTHAMPTON   | PVPC   | 2                | MAIN STREET                        | 9       | KING STREET                  | 5       | 60            | 104          | 0             | 11             | 49                         |
| 136  | LOWELL        | NMCOG  | 4                | BRIDGE STREET                      | 38      | WEST THIRD STREET            |         | 51            | 103          | 0             | 13             | 38                         |
| 136  | WESTFIELD     | PVPC   | 2                | NORTH ELM STREET                   | 202     | HARVARD STREET               |         | 35            | 103          | 0             | 17             | 18                         |
| 136  | SOMERSET      | SRPEDD | 5                | GRAND ARMY OF THE REPUBLIC HIGHWAY | 6       | RIVERSIDE AVENUE             | 103     | 47            | 103          | 0             | 14             | 33                         |
| 136  | WORCESTER     | CMRPC  | 3                | LINCOLN STREET                     | 70      | COUNTRY CLUB BOULEVARD       |         | 51            | 103          | 0             | 13             | 38                         |
| 136  | FALL RIVER    | SRPEDD | 5                | BROADWAY                           | 138     | COLUMBIA STREET              |         | 59            | 103          | 0             | 11             | 48                         |
| 141  | ATTLEBORO     | SRPEDD | 5                | HIGHLAND AVENUE                    | 123     | WASHINGTON STREET            | 1       | 62            | 102          | 0             | 10             | 52                         |
| 141  | BROCKTON      | OCPC   | 5                | NORTH MONTELLO STREET              | 28      | LIVINGSTON ROAD              |         | 30            | 102          | 0             | 18             | 12                         |
| 141  | SEEKONK       | SRPEDD | 5                | FALL RIVER AVENUE                  | 114A    | COUNTY STREET                |         | 58            | 102          | 0             | 11             | 47                         |
| 141  | CHELSEA       | MAPC   | 6                | BROADWAY                           |         | FIFTH STREET                 |         | 50            | 102          | 0             | 13             | 37                         |
| 141  | WEYMOUTH      | MAPC   | 6                | UNION STREET                       |         | PLEASANT STREET              |         | 62            | 102          | 0             | 10             | 52                         |
| 141  | HOLYOKE       | PVPC   | 2                | MAPLE STREET                       |         | DWIGHT STREET                |         | 38            | 102          | 0             | 16             | 22                         |
| 141  | HANOVER       | MAPC   | 5                | COLUMBIA ROAD                      | 53      | BROADWAY                     |         | 38            | 102          | 0             | 16             | 22                         |
| 141  | LYNN          | MAPC   | 4                | BOSTON STREET                      | 129     | FORD STREET                  |         | 58            | 102          | 0             | 11             | 47                         |
| 149  | WORCESTER     | CMRPC  | 3                | HIGHLAND STREET                    | 9       | LANCASTER STREET             |         | 53            | 101          | 0             | 12             | 41                         |
| 149  | LOWELL        | NMCOG  | 4                | PAWTUCKET STREET                   |         | SCHOOL STREET                |         | 44            | 101          | 1             | 12             | 31                         |
| 149  | WORCESTER     | CMRPC  | 3                | PARK AVENUE                        | 9       | HIGHLAND STREET              |         | 57            | 101          | 0             | 11             | 46                         |
| 149  | CHELSEA       | MAPC   | 6                | REVERE BEACH PARKWAY               | 16      | WASHINGTON AVENUE            |         | 39            | 101          | 2             | 11             | 26                         |
| 149  | WHITMAN       | OCPC   | 5                | BEDFORD STREET                     | 18      | TEMPLE STREET                | 27      | 69            | 101          | 0             | 8              | 61                         |
| 154  | WESTFIELD     | PVPC   | 2                | NORTH ELM STREET                   | 202     | NOTRE DAME STREET            |         | 48            | 100          | 0             | 13             | 35                         |
| 154  | WEYMOUTH      | MAPC   | 6                | MAIN STREET                        | 18      | COLUMBIAN STREET             |         | 48            | 100          | 0             | 13             | 35                         |
| 154  | QUINCY        | MAPC   | 6                | HONORABLE THOMAS S BURGIN PARKWAY  |         | GRANITE STREET               |         | 60            | 100          | 0             | 10             | 50                         |
| 154  | FALL RIVER    | SRPEDD | 5                | PRESIDENT AVENUE                   | 6       | CVS PLAZA                    |         | 56            | 100          | 0             | 11             | 45                         |
| 154  | MANSFIELD     | SRPEDD | 5                | ROUTE 140                          | 140     | CHAUNCY STREET               |         | 44            | 100          | 0             | 14             | 30                         |
| 154  | FRAMINGHAM    | MAPC   | 3                | COCHITUATE ROAD                    | 30      | SPEEN STREET                 |         | 44            | 100          | 0             | 14             | 30                         |
| 154  | LUDLOW        | PVPC   | 2                | CENTER STREET                      | 21      | CHERRY STREET                |         | 52            | 100          | 0             | 12             | 40                         |
| 154  | WORCESTER     | CMRPC  | 3                | PROVIDENCE STREET                  | 122A    | MILLBURY STREET              |         | 44            | 100          | 0             | 14             | 30                         |
| 154  | BROCKTON      | OCPC   | 5                | OAK STREET                         |         | BELAIR STREET                |         | 32            | 100          | 0             | 17             | 15                         |

## 2009-2011 STATEWIDE TOP 200 INTERSECTION CRASH LIST

| Rank | Town             | RPA       | MassDOT District | Street 1             | Route 1 | Street 2                   | Route 2 | Total Crashes | EPDO Crashes | Fatal Crashes | Injury Crashes | PDO & Non Reported Crashes |
|------|------------------|-----------|------------------|----------------------|---------|----------------------------|---------|---------------|--------------|---------------|----------------|----------------------------|
| 163  | PEMBROKE         | MAPC_OCPC | 5                | CHURCH STREET        | 139     | OLD OAK STREET             |         | 59            | 99           | 0             | 10             | 49                         |
| 163  | WHITMAN          | OCPC      | 5                | BEDFORD STREET       | 18      | AUBURN STREET              | 14      | 55            | 99           | 0             | 11             | 44                         |
| 163  | BROCKTON         | OCPC      | 5                | BELMONT STREET       | 123     | PEARL STREET               |         | 43            | 99           | 0             | 14             | 29                         |
| 163  | PITTSFIELD       | BRPC      | 1                | LINDEN STREET        |         | SEYMOUR STREET             |         | 39            | 99           | 0             | 15             | 24                         |
| 167  | LEXINGTON        | MAPC      | 4                | BEDFORD STREET       | 4       | HARRINGTON ROAD            |         | 46            | 98           | 0             | 13             | 33                         |
| 167  | QUINCY           | MAPC      | 6                | SOUTHERN ARTERY      | 3A      | MCGRATH HIGHWAY            |         | 46            | 98           | 0             | 13             | 33                         |
| 167  | HOLBROOK         | MAPC      | 5                | WEYMOUTH STREET      |         | PINE STREET                |         | 30            | 98           | 0             | 17             | 13                         |
| 167  | HOLYOKE          | PVPC      | 2                | WESTFIELD ROAD       | 202     | HOMESTEAD AVENUE           |         | 50            | 98           | 0             | 12             | 38                         |
| 171  | HOLYOKE          | PVPC      | 2                | BEECH STREET         | 202     | APPLETON STREET            | 141     | 37            | 97           | 0             | 15             | 22                         |
| 171  | STOUGHTON        | MAPC_OCPC | 5                | CANTON STREET        | 27      | SCHOOL STREET              |         | 39            | 97           | 2             | 10             | 27                         |
| 171  | LAWRENCE         | MVPC      | 4                | BROADWAY             | 28      | CANAL STREET               |         | 49            | 97           | 0             | 12             | 37                         |
| 171  | LYNN             | MAPC      | 4                | WESTERN AVENUE       | 107     | EASTERN AVENUE             |         | 57            | 97           | 0             | 10             | 47                         |
| 171  | NEWTON           | MAPC      | 6                | COMMONWEALTH AVENUE  | 30      | WASHINGTON STREET          | 16      | 29            | 97           | 0             | 17             | 12                         |
| 171  | BROCKTON         | OCPC      | 5                | EAST ASHLAND STREET  |         | NORTH QUINCY STREET        |         | 33            | 97           | 0             | 16             | 17                         |
| 171  | CHICOPEE         | PVPC      | 2                | GRANBY ROAD          |         | MONTGOMERY STREET          |         | 53            | 97           | 0             | 11             | 42                         |
| 171  | OXFORD           | CMRPC     | 3                | MAIN STREET          | 12      | SUTTON AVENUE              |         | 53            | 97           | 0             | 11             | 42                         |
| 179  | HOLYOKE          | PVPC      | 2                | MAPLE STREET         |         | RESNIC BOULEVARD           |         | 44            | 96           | 0             | 13             | 31                         |
| 179  | WEYMOUTH         | MAPC      | 6                | WASHINGTON STREET    | 53      | BROAD STREET               |         | 52            | 96           | 0             | 11             | 41                         |
| 179  | RANDOLPH         | MAPC      | 6                | NORTH MAIN STREET    | 28      | SUDBURY FARMS PLAZA        |         | 52            | 96           | 0             | 11             | 41                         |
| 179  | BRAINTREE        | MAPC      | 6                | GRANITE STREET       | 37      | COMMON STREET              |         | 44            | 96           | 0             | 13             | 31                         |
| 179  | WRENTHAM         | MAPC      | 5                | SOUTH STREET         | 1A      | PREMIUM OUTLET BOULEVARD   |         | 48            | 96           | 0             | 12             | 36                         |
| 179  | QUINCY           | MAPC      | 6                | WATER STREET         |         | FEDERAL AVENUE             |         | 40            | 96           | 0             | 14             | 26                         |
| 179  | LYNN             | MAPC      | 4                | WESTERN AVENUE       | 107     | LAWTON AVENUE              |         | 40            | 96           | 0             | 14             | 26                         |
| 179  | WORCESTER        | CMRPC     | 3                | CHANDLER STREET      | 122     | PIEDMONT STREET            |         | 35            | 96           | 1             | 13             | 21                         |
| 179  | FALL RIVER       | SRPEDD    | 5                | SOUTH MAIN STREET    | 138     | GLOBE STREET               |         | 56            | 96           | 0             | 10             | 46                         |
| 188  | HOLYOKE          | PVPC      | 2                | HIGH STREET          |         | CABOT STREET               |         | 39            | 95           | 0             | 14             | 25                         |
| 188  | FALL RIVER       | SRPEDD    | 5                | CENTRAL STREET       |         | DAVOL STREET               |         | 47            | 95           | 0             | 12             | 35                         |
| 188  | WELLESLEY,NEWTON | MAPC      | 6                | WASHINGTON STREET    | 16      | RIVER STREET               |         | 67            | 95           | 0             | 7              | 60                         |
| 188  | MIDDLEBOROUGH    | SRPEDD    | 5                | SOUTH MAIN STREET    | 105     | PROSPECT STREET            |         | 39            | 95           | 0             | 14             | 25                         |
| 188  | QUINCY           | MAPC      | 6                | HANCOCK STREET       |         | SAVILLE AVENUE             |         | 51            | 95           | 0             | 11             | 40                         |
| 188  | WEYMOUTH         | MAPC      | 6                | MIDDLE STREET        |         | WINTER STREET              |         | 59            | 95           | 0             | 9              | 50                         |
| 194  | ACTON            | MAPC      | 3                | MASSACHUSETTS AVENUE | 2       | TAYLOR ROAD                |         | 38            | 94           | 0             | 14             | 24                         |
| 194  | WILBRAHAM        | PVPC      | 2                | BOSTON ROAD          | 20      | STONY HILL ROAD            |         | 62            | 94           | 0             | 8              | 54                         |
| 194  | QUINCY           | MAPC      | 6                | SCHOOL STREET        |         | HANCOCK STREET             |         | 54            | 94           | 0             | 10             | 44                         |
| 194  | TAUNTON          | SRPEDD    | 5                | WASHINGTON STREET    | 140     | HODGES AVENUE              |         | 38            | 94           | 0             | 14             | 24                         |
| 194  | WOBURN           | MAPC      | 4                | MAIN STREET          | 38      | WINN STREET                |         | 54            | 94           | 0             | 10             | 44                         |
| 199  | LYNN             | MAPC      | 4                | WESTERN AVENUE       | 107     | CLEVELAND STREET           |         | 41            | 93           | 0             | 13             | 28                         |
| 199  | WORCESTER        | CMRPC     | 3                | MADISON STREET       | 122     | KELLEY SQUARE (BY ADDRESS) |         | 37            | 93           | 0             | 14             | 23                         |
| 199  | LOWELL           | NMCOG     | 4                | MERRIMACK STREET     |         | CENTRAL STREET             |         | 53            | 93           | 0             | 10             | 43                         |
| 199  | WILMINGTON       | MAPC      | 4                | MAIN STREET          | 38      | RICHMOND ROAD              | 129     | 53            | 93           | 0             | 10             | 43                         |
| 203  | BOSTON           | MAPC      | 6                | BEACON STREET        |         | CHARLES GATE EAST          |         | 36            | 92           | 0             | 14             | 22                         |
| 203  | NEW BEDFORD      | SRPEDD    | 5                | COUNTY STREET        |         | MILL STREET                | 6       | 44            | 92           | 0             | 12             | 32                         |
| 203  | BROCKTON         | OCPC      | 5                | NORTH MAIN STREET    |         | EAST ASHLAND STREET        |         | 36            | 92           | 0             | 14             | 22                         |
| 203  | LEOMINSTER       | MRPC      | 3                | NORTH MAIN STREET    | 12      | HAMILTON STREET            |         | 52            | 92           | 0             | 10             | 42                         |

# Top Crash Intersections 2009-2011



**RANK**  
**1**

## HOLYOKE

HOLYOKE STREET  
HOLYOKE MALL AT INGLESIDE

MassDOT District 2

RPA PVPC

EPDO 314

Number of Fatal Crashes 0

Number of Injury Crashes 29

Number of Non-Injury Crashes 169

Total Crashes 198

### Legend

- Crash Locations 2009-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Crash Intersections



# Top Crash Intersections 2009-2011



**RANK**  
**2**

**LOWELL**

VETERANS OF FOREIGN WARS HIGHWAY  
VARNUM AVENUE

MassDOT District 4

RPA NMCOG

EPDO 313

Number of Fatal Crashes 0

Number of Injury Crashes 37

Number of Non-Injury Crashes 128

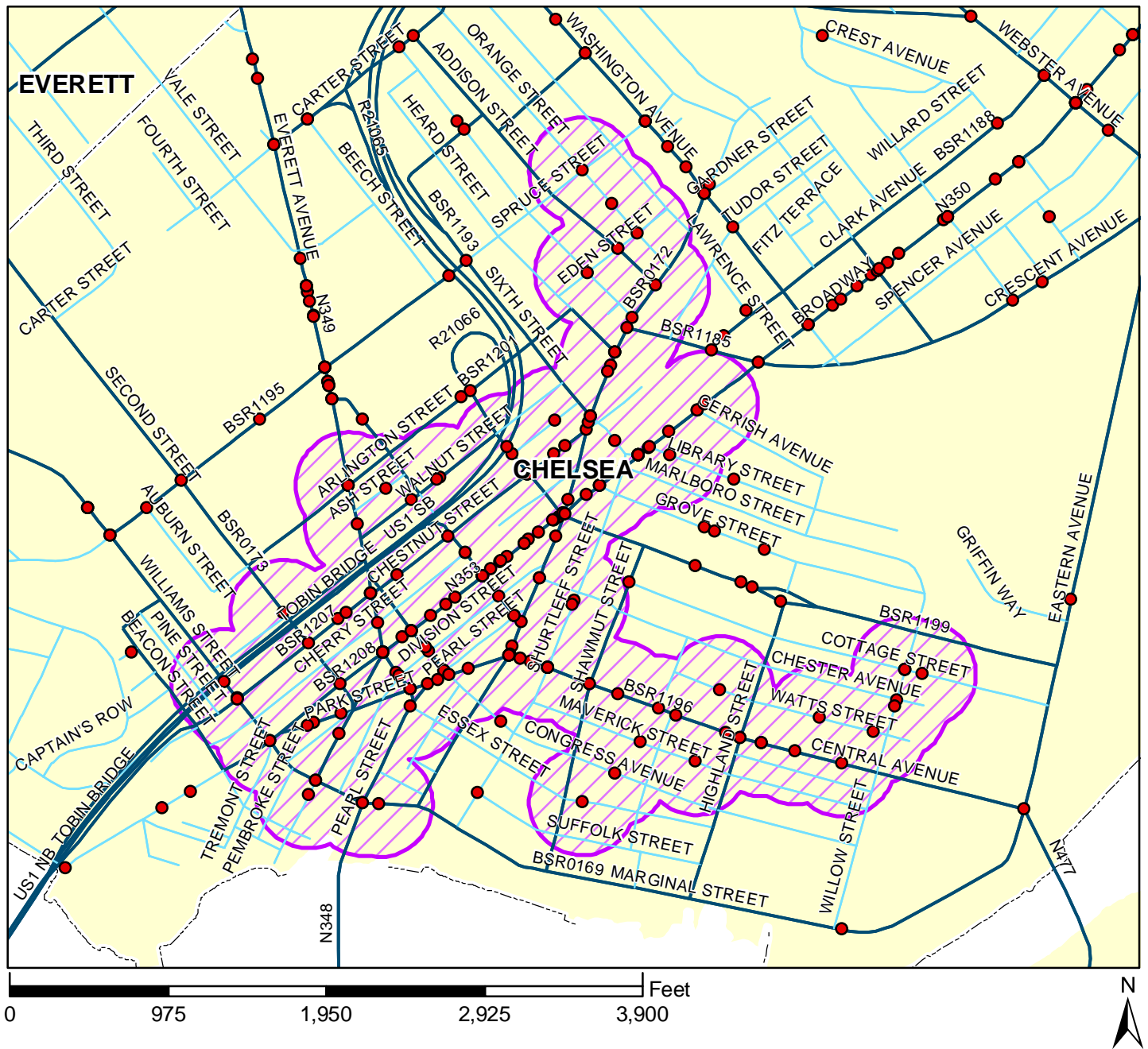
Total Crashes 165

## Legend

- Crash Locations 2009-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Crash Intersections



# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**1**

## CHELSEA

RPA MAPC

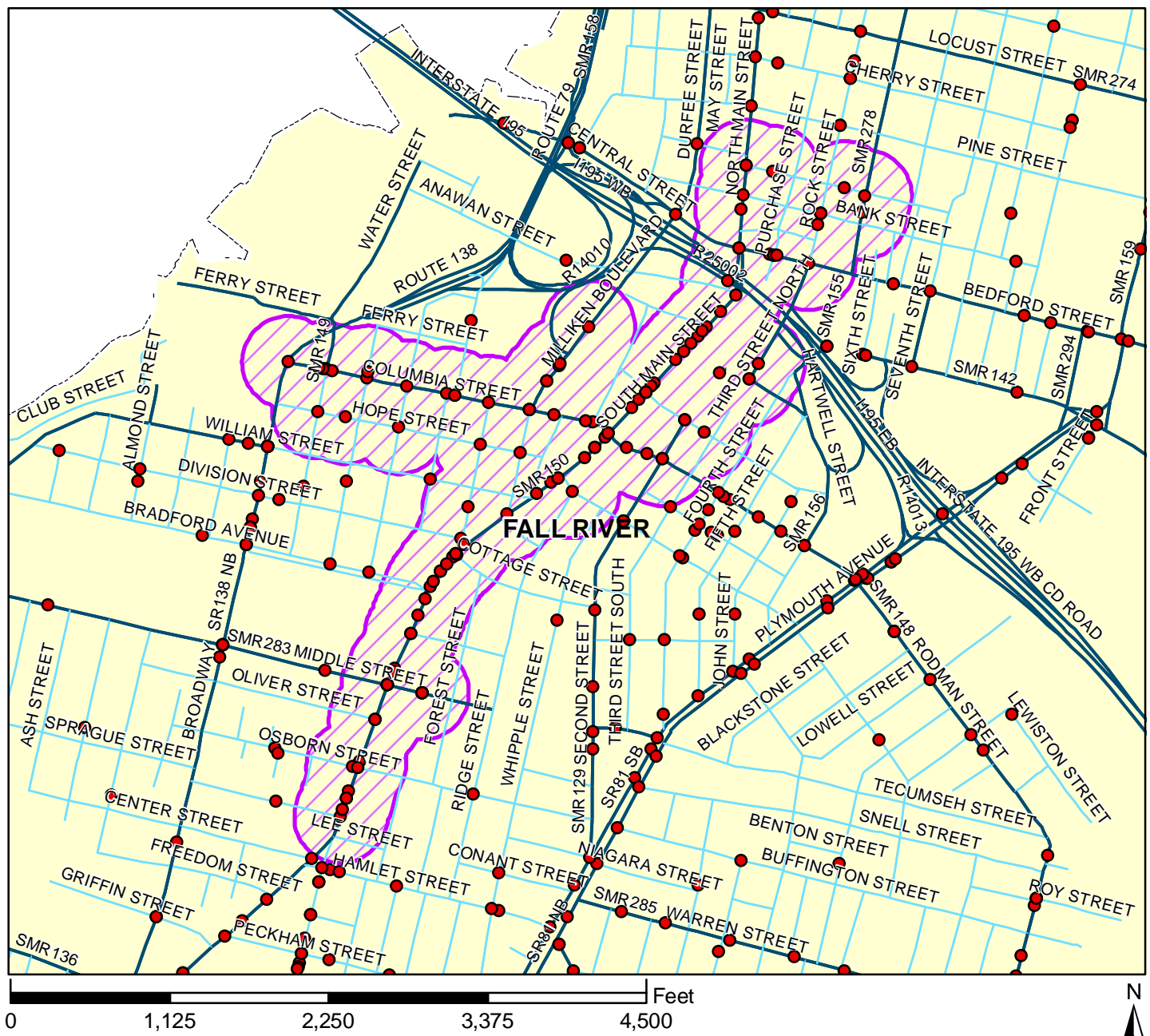
EPDO 832

|   |     |
|---|-----|
| Number of Fatal Pedestrian Crashes      | 1   |
| Number of Injury Pedestrian Crashes     | 154 |
| Number of Non-Injury Pedestrian Crashes | 52  |
| Total Pedestrian Crashes                | 207 |

## Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**2**

## FALL RIVER

RPA SRPEDD

EPDO 554

Number of Fatal Pedestrian Crashes 0

Number of Injury Pedestrian Crashes 103

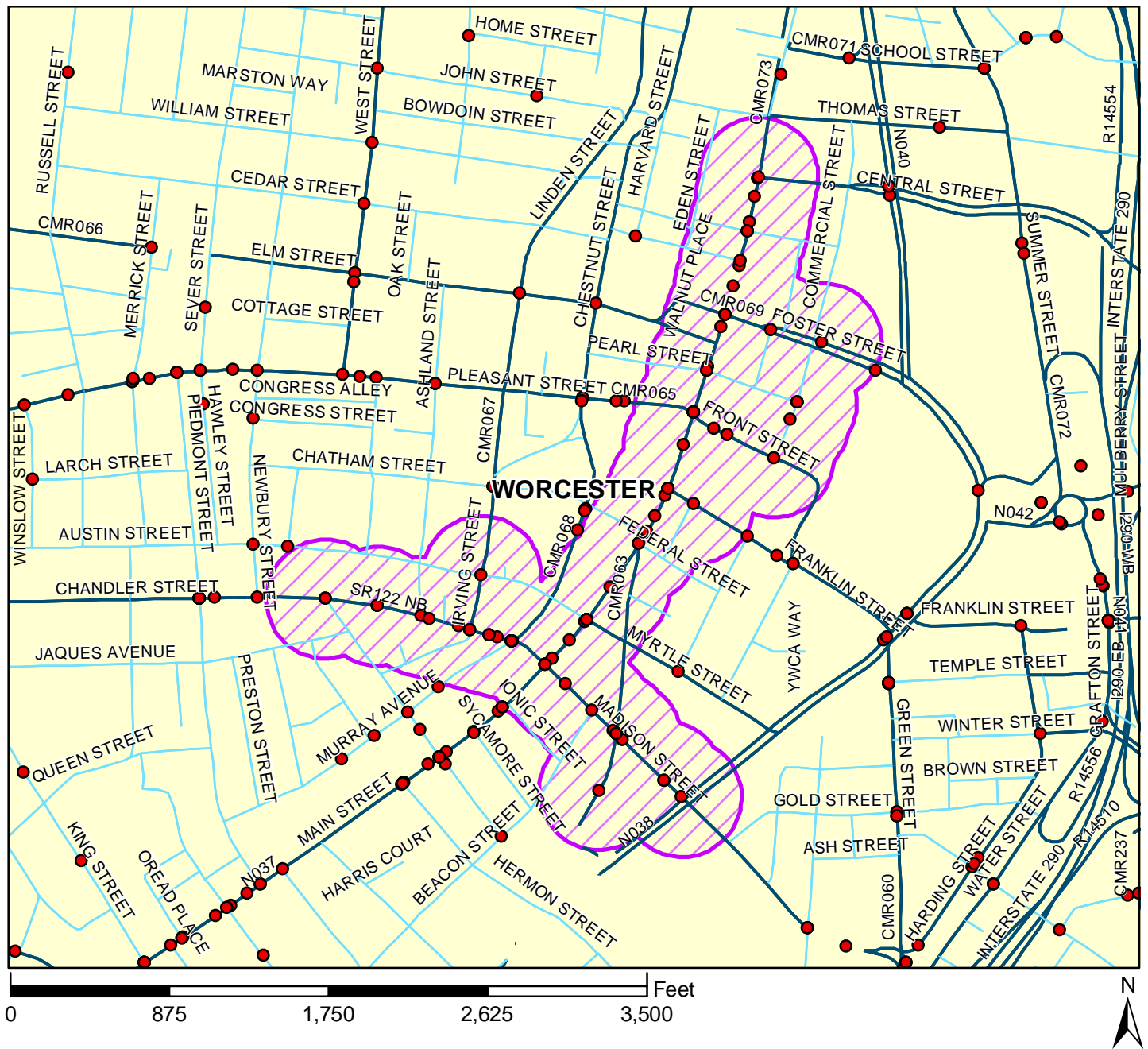
Number of Non-Injury Pedestrian Crashes 39

Total Pedestrian Crashes 142

### Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- ▨ Top Pedestrian Crash Cluster
- Municipal Boundary

# Top Pedestrian Crash Cluster 2002-2011



# RANK

## 3

# WORCESTER

RPA CMRPC

EPDO 419






Number of Fatal Pedestrian Crashes 0

Number of Injury Pedestrian Crashes 79

|   |    |
|---|----|
| Number of Non-Injury Pedestrian Crashes | 24 |
|---|----|

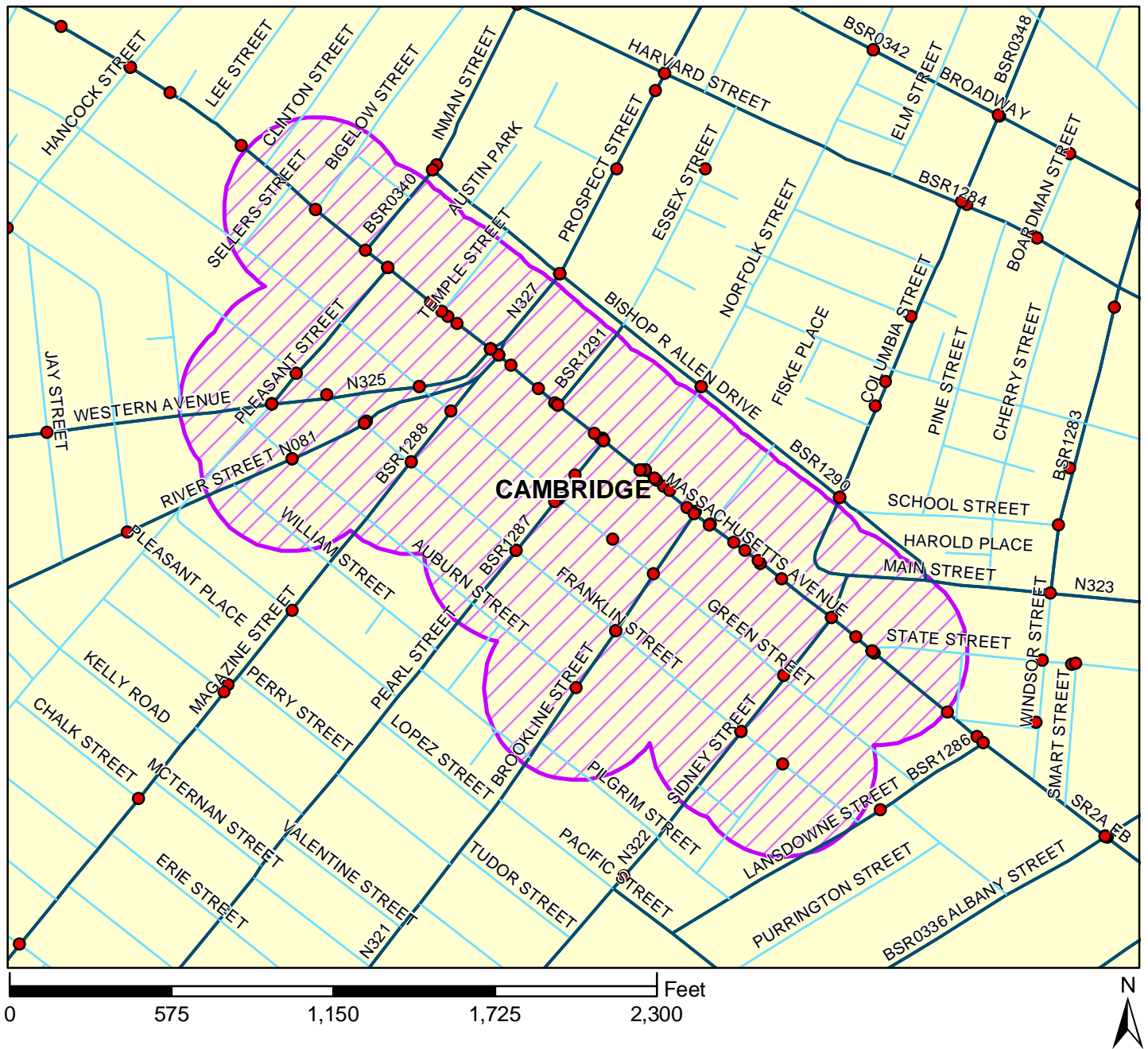
|                          |     |
|--------------------------|-----|
| Total Pedestrian Crashes | 103 |
|--------------------------|-----|

### Legend

-  Pedestrian Crash Locations 2002-2011
-  Local Roads
-  All Functional Classification Except Local Roads
-  Top Pedestrian Crash Cluster
-  Municipal Boundary



# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**4**

## CAMBRIDGE

RPA MAPC

EPDO 380

Number of Fatal Pedestrian Crashes 3

Number of Injury Pedestrian Crashes 58

Number of Non-Injury Pedestrian Crashes 60

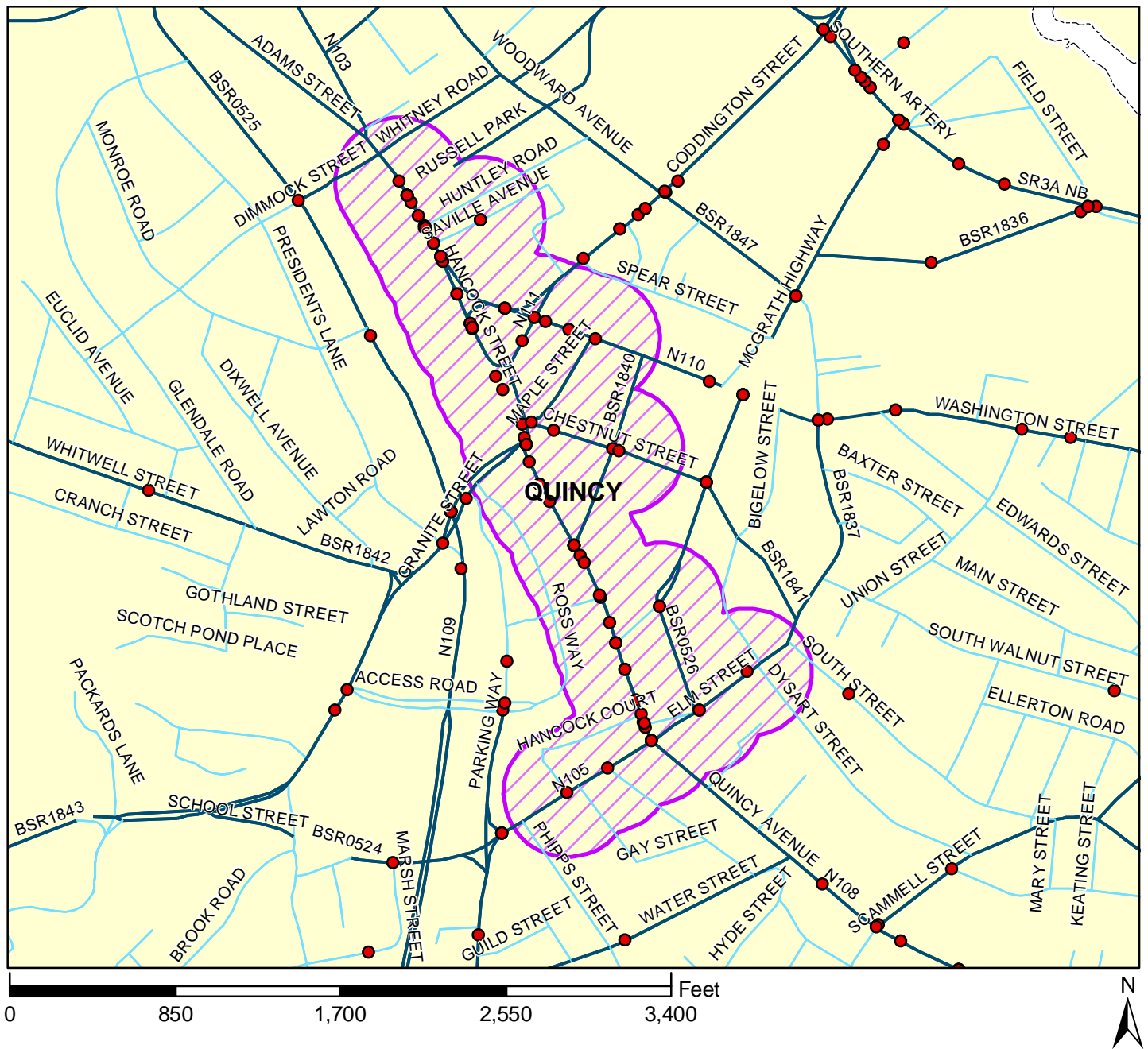
Total Pedestrian Crashes 121

## Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary



# Top Pedestrian Crash Cluster 2002-2011



# RANK 5

## QUINCY

RPA MAPC

EPDO 311






|                                    |   |
|------------------------------------|---|
| Number of Fatal Pedestrian Crashes | 1 |
|------------------------------------|---|

Number of Injury Pedestrian Crashes 54

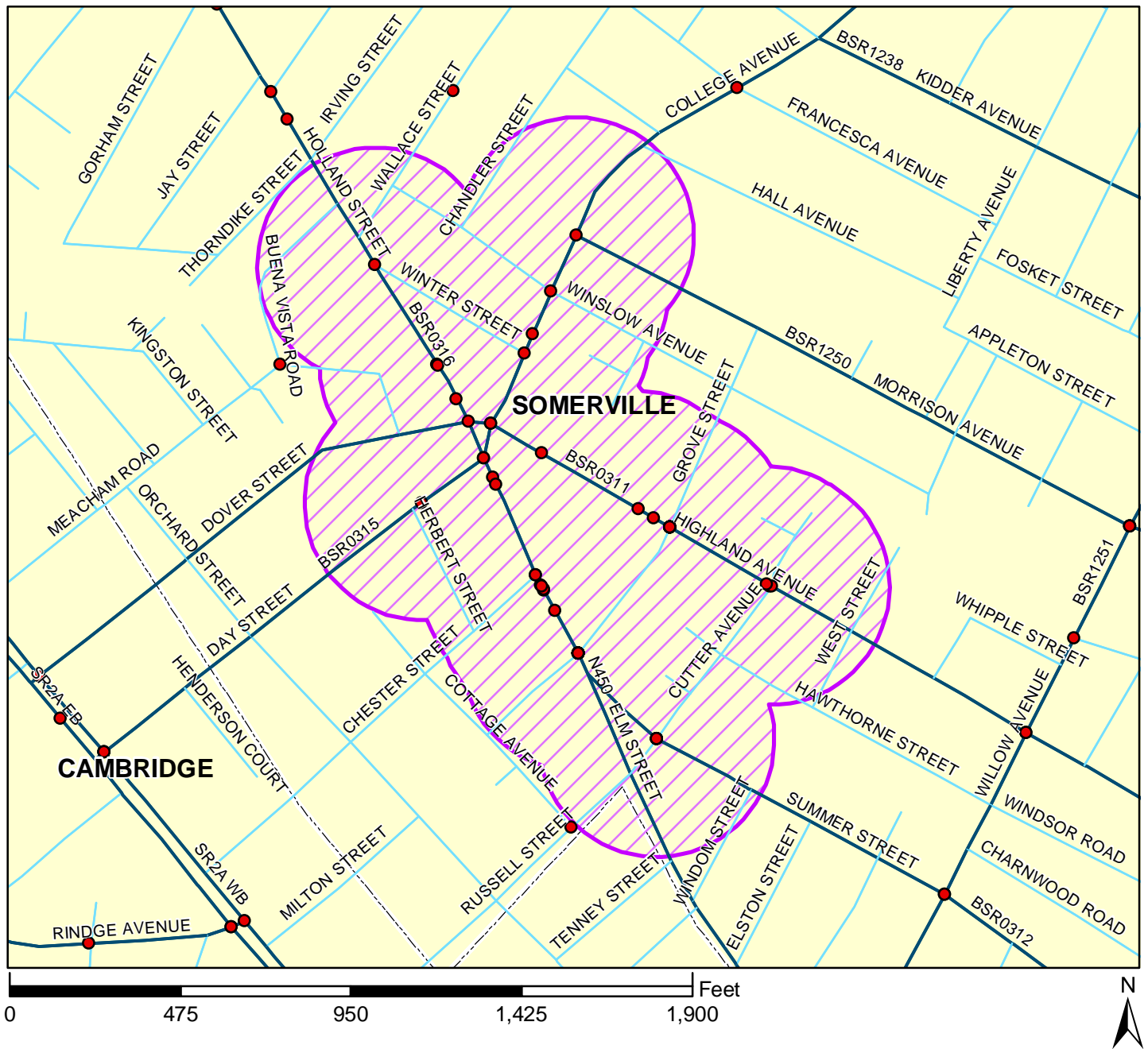
|   |    |
|---|----|
| Number of Non-Injury Pedestrian Crashes | 31 |
|---|----|

|                          |    |
|--------------------------|----|
| Total Pedestrian Crashes | 86 |
|--------------------------|----|

### Legend

-  Pedestrian Crash Locations 2002-2011
-  Local Roads
-  All Functional Classification Except Local Roads
-  Top Pedestrian Crash Cluster
-  Municipal Boundary

# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**6**

## SOMERVILLE, CAMBRIDGE

RPA MAPC

EPDO 249

Number of Fatal Pedestrian Crashes 1

Number of Injury Pedestrian Crashes 46

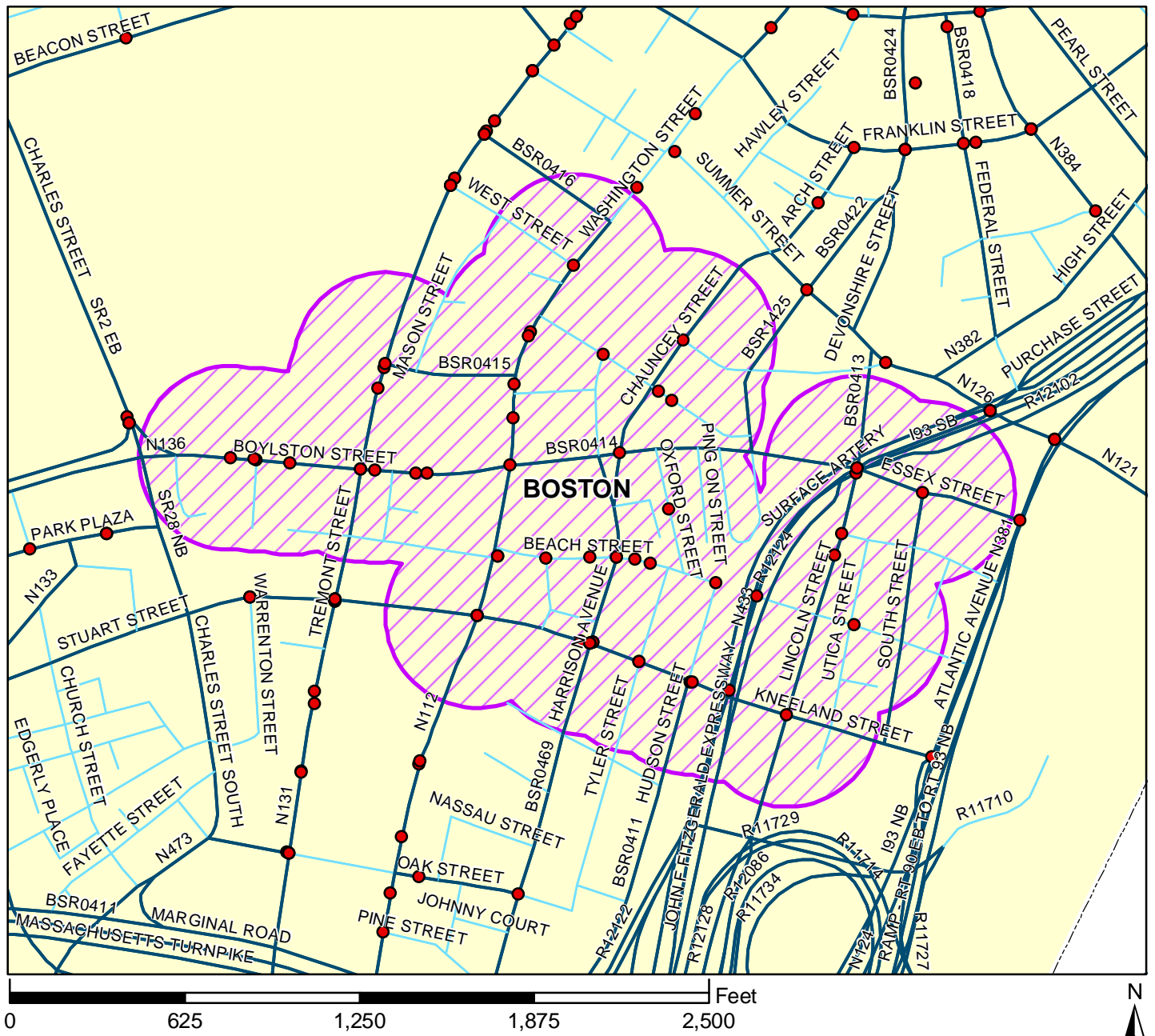
Number of Non-Injury Pedestrian Crashes 9

Total Pedestrian Crashes 56

### Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**7**

## BOSTON

RPA MAPC

EPDO 218

Number of Fatal Pedestrian Crashes 2

Number of Injury Pedestrian Crashes 36

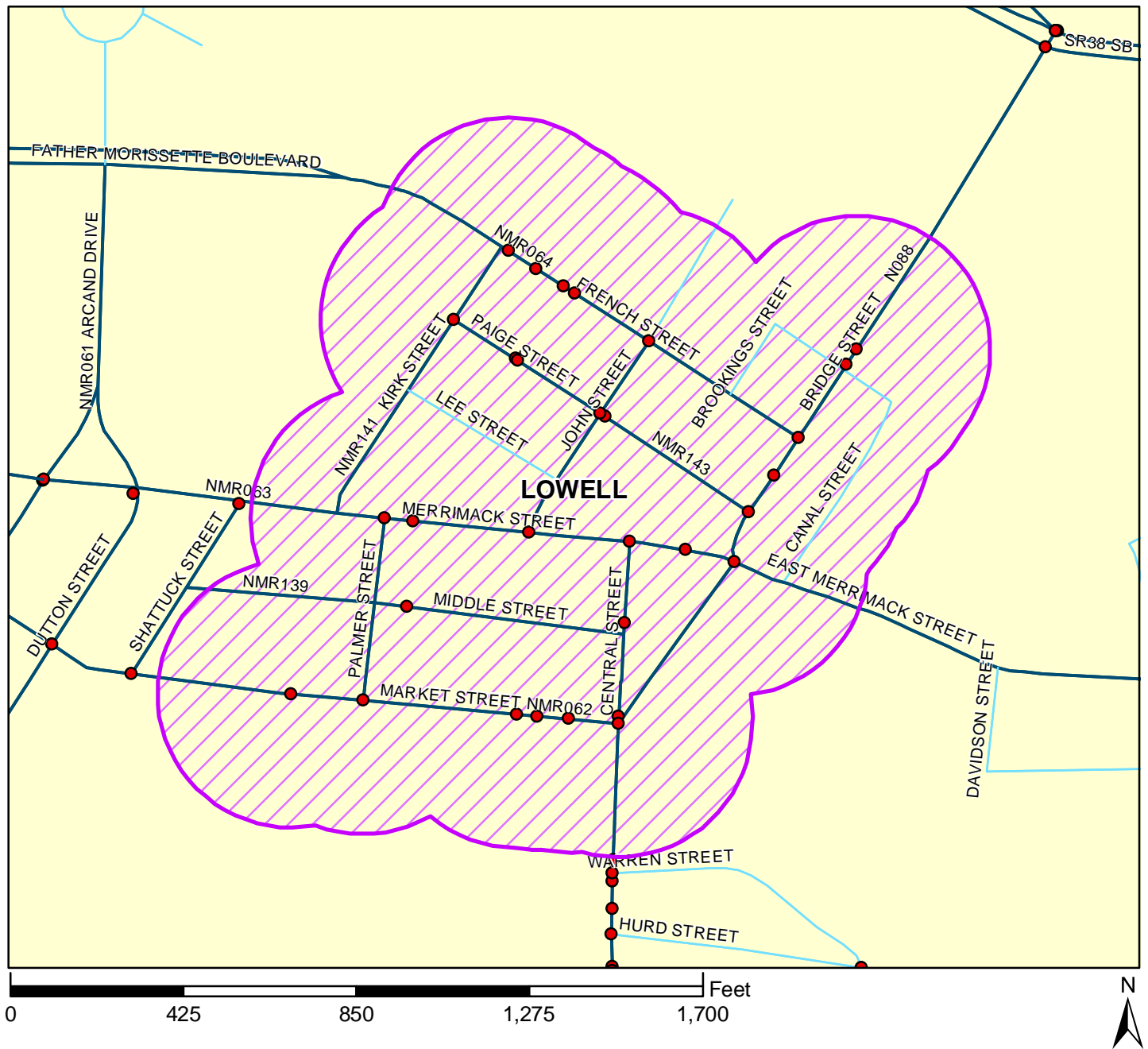
Number of Non-Injury Pedestrian Crashes 18

Total Pedestrian Crashes 56

## Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**8**

## LOWELL

RPA NMCOG

EPDO 207

Number of Fatal Pedestrian Crashes 0

Number of Injury Pedestrian Crashes 37

Number of Non-Injury Pedestrian Crashes 22

Total Pedestrian Crashes 59

## Legend

● Pedestrian Crash Locations 2002-2011

Local Roads

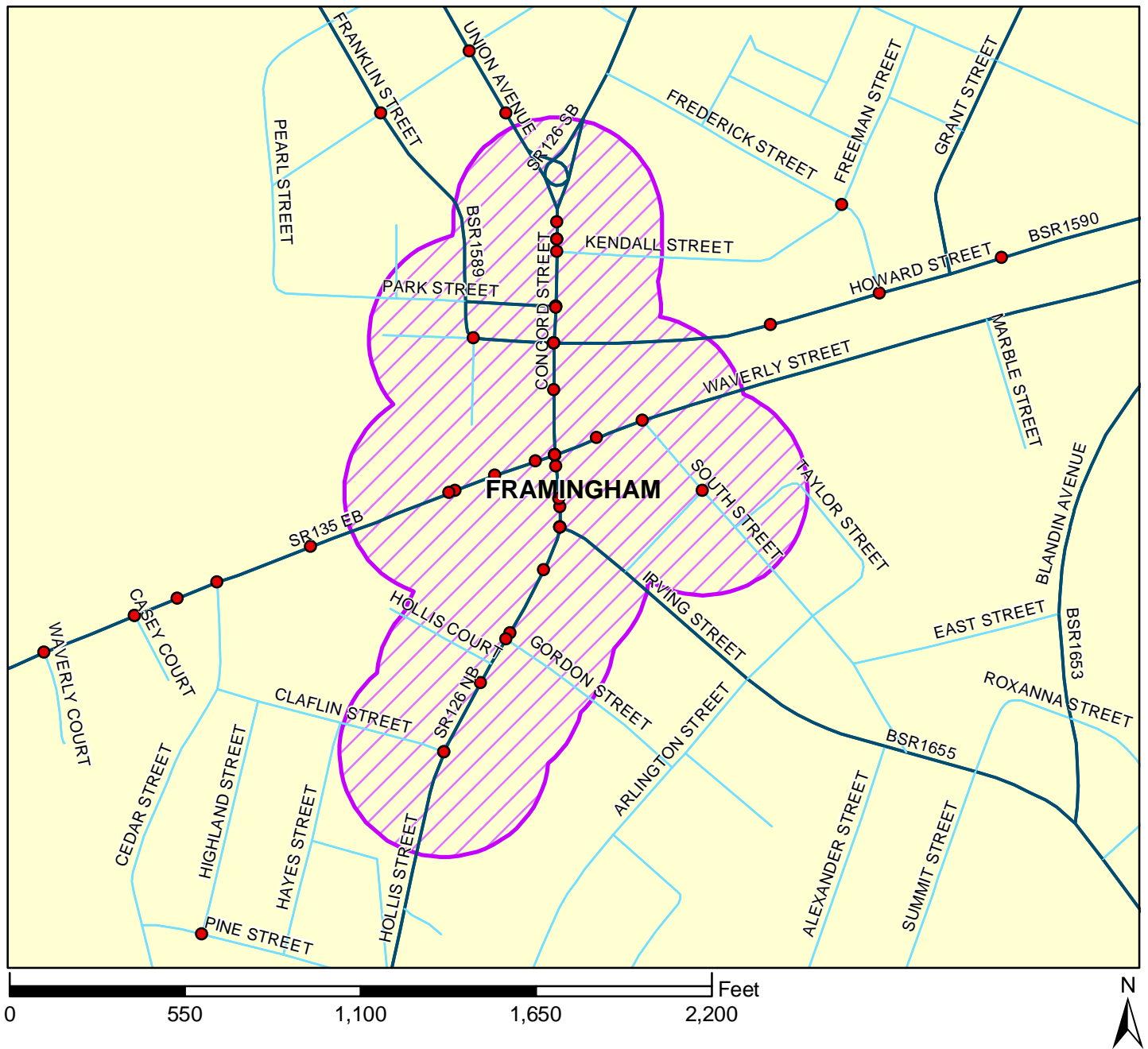
All Functional Classification Except Local Roads

Top Pedestrian Crash Cluster

Municipal Boundary



# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**9**

## FRAMINGHAM

RPA MAPC

EPDO 205

Number of Fatal Pedestrian Crashes 1

Number of Injury Pedestrian Crashes 38

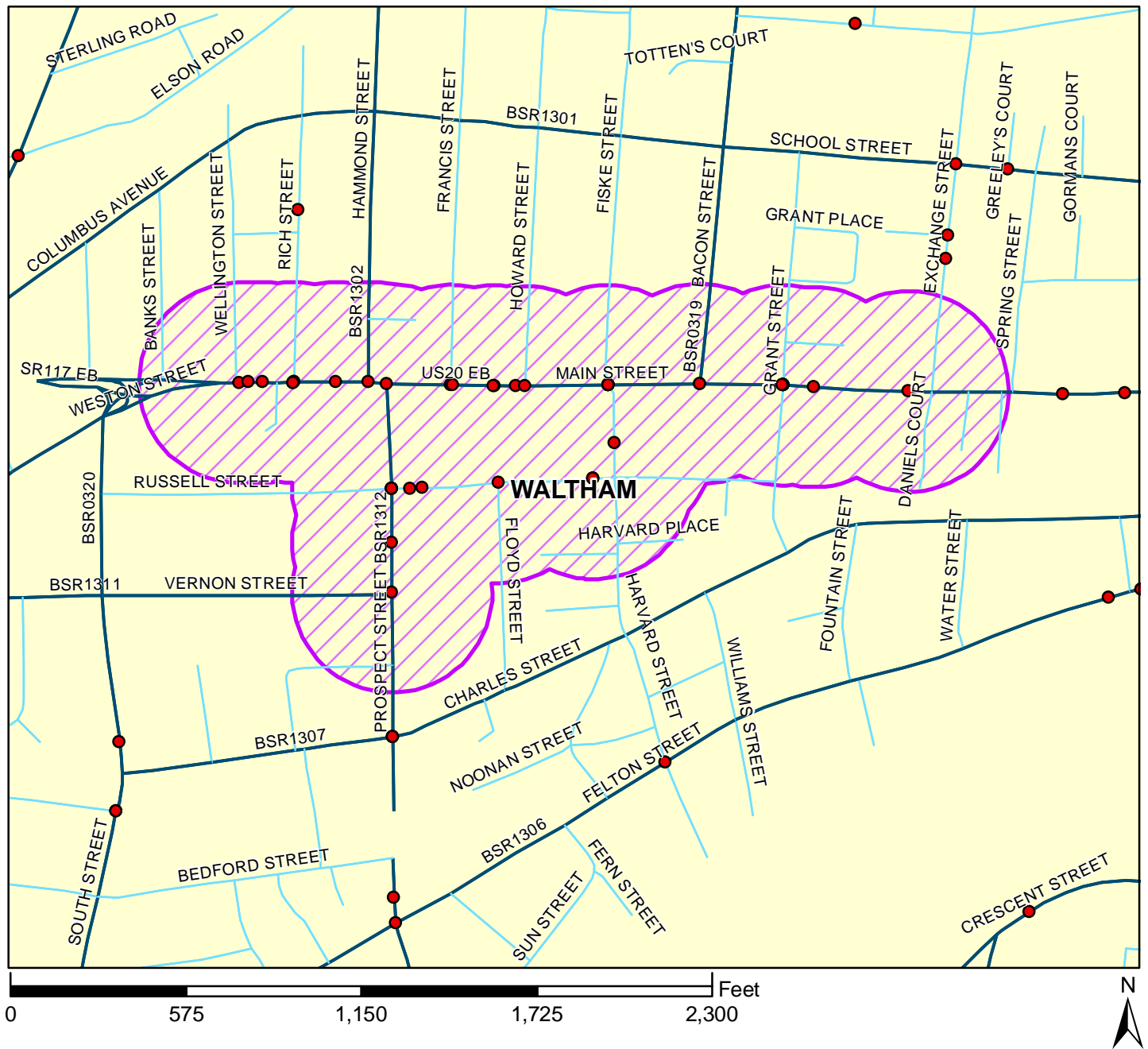
Number of Non-Injury Pedestrian Crashes 5

Total Pedestrian Crashes 44

### Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

# Top Pedestrian Crash Cluster 2002-2011



**RANK**  
**10**

## WALTHAM

RPA MAPC

EPDO 199

Number of Fatal Pedestrian Crashes 0

Number of Injury Pedestrian Crashes 37

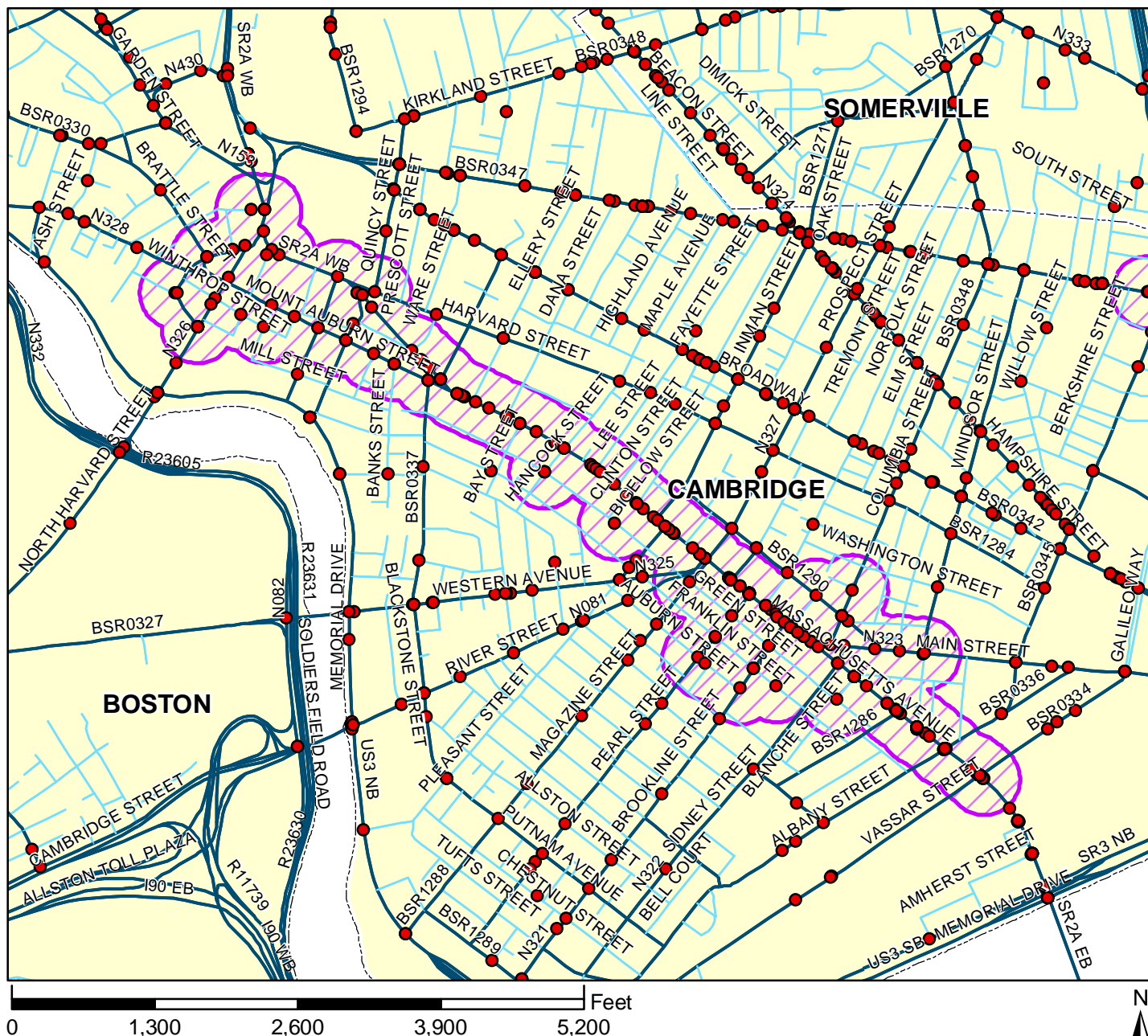
Number of Non-Injury Pedestrian Crashes 14

Total Pedestrian Crashes 51

### Legend

- Pedestrian Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Pedestrian Crash Cluster
- Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



## RANK

1

### CAMBRIDGE

RPA MAPC

EPDO 936

Number of Fatal Bicycle Crashes 2

Number of Injury Bicycle Crashes 163

Number of Non-Injury Bicycle Crashes 101

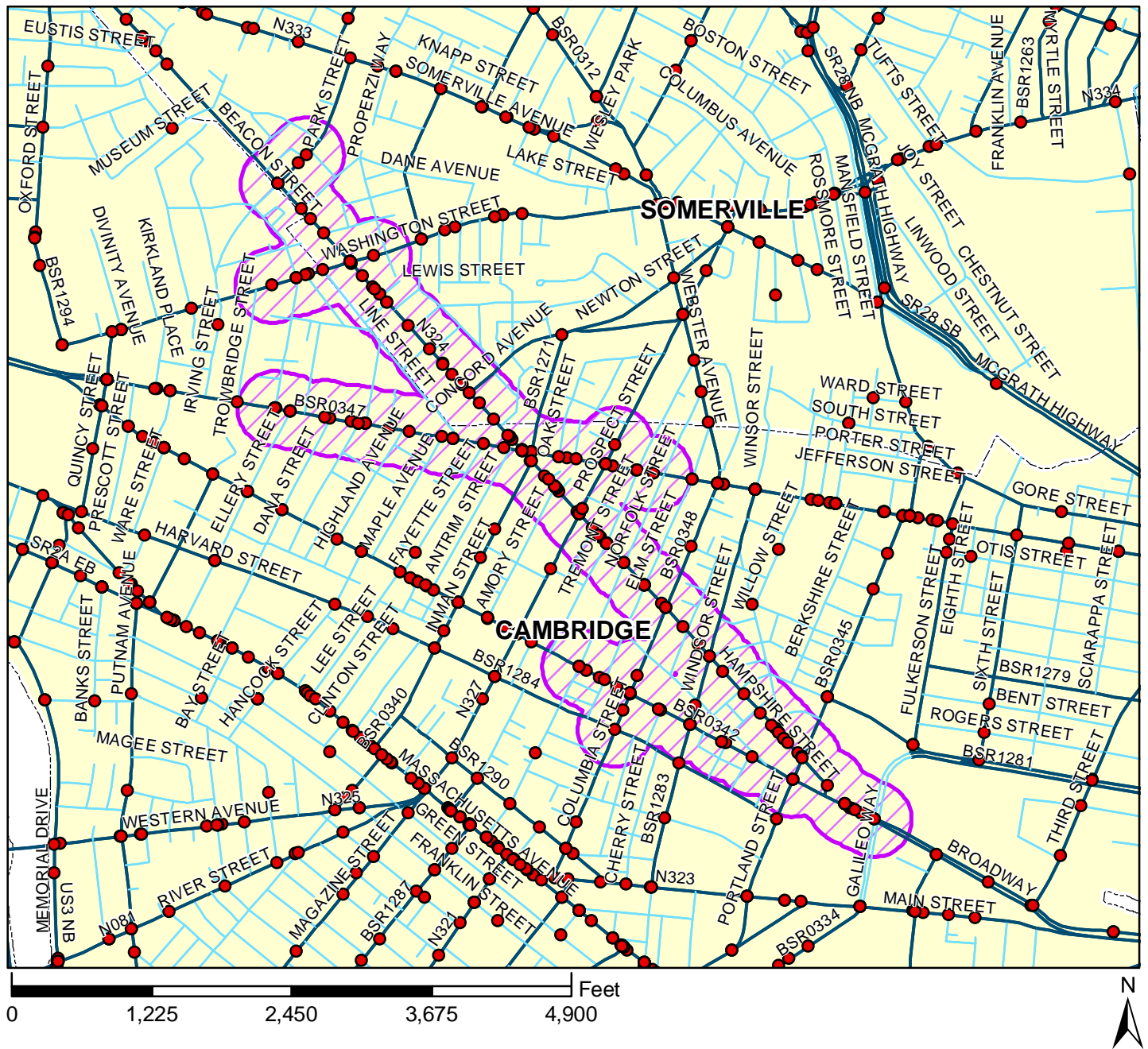
Total Bicycle Crashes 266

### Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary



## Top Bicycle Crash Cluster 2002-2011



## RANK 2

## CAMBRIDGE, SOMERVILLE

RPA MAPC

EPDO 783






Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 141

Number of Non-Injury Bicycle Crashes 78

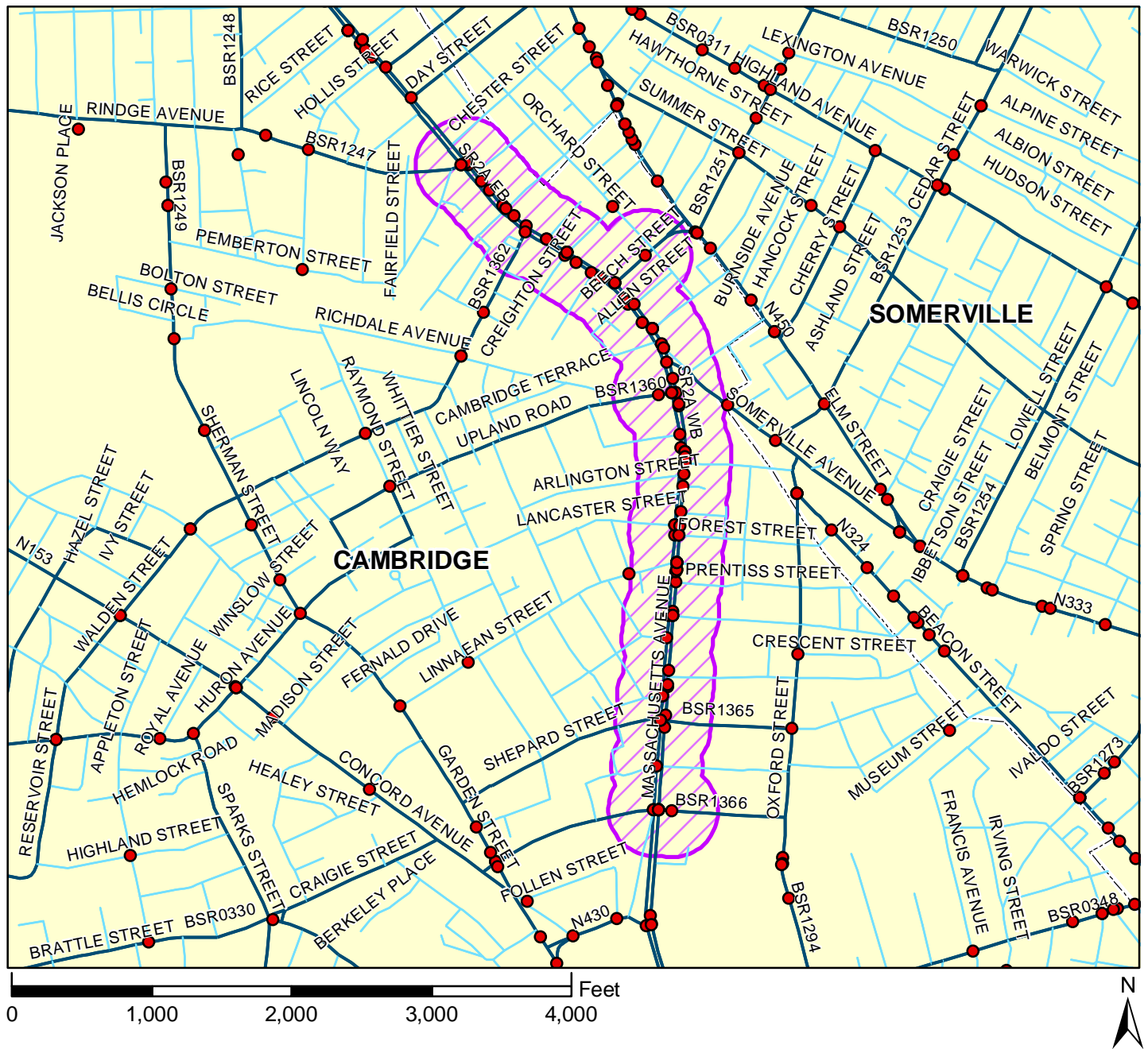
Total Bicycle Crashes 219

### Legend

-  Bicycle Crash Locations 2002-2011
-  Local Roads
-  All Functional Classification Except Local Roads
-  Top Bicycle Crash Cluster
-  Municipal Boundary



# Top Bicycle Crash Cluster 2002-2011



**RANK**  
**3**

## CAMBRIDGE, SOMERVILLE

RPA MAPC

EPDO 413

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 75

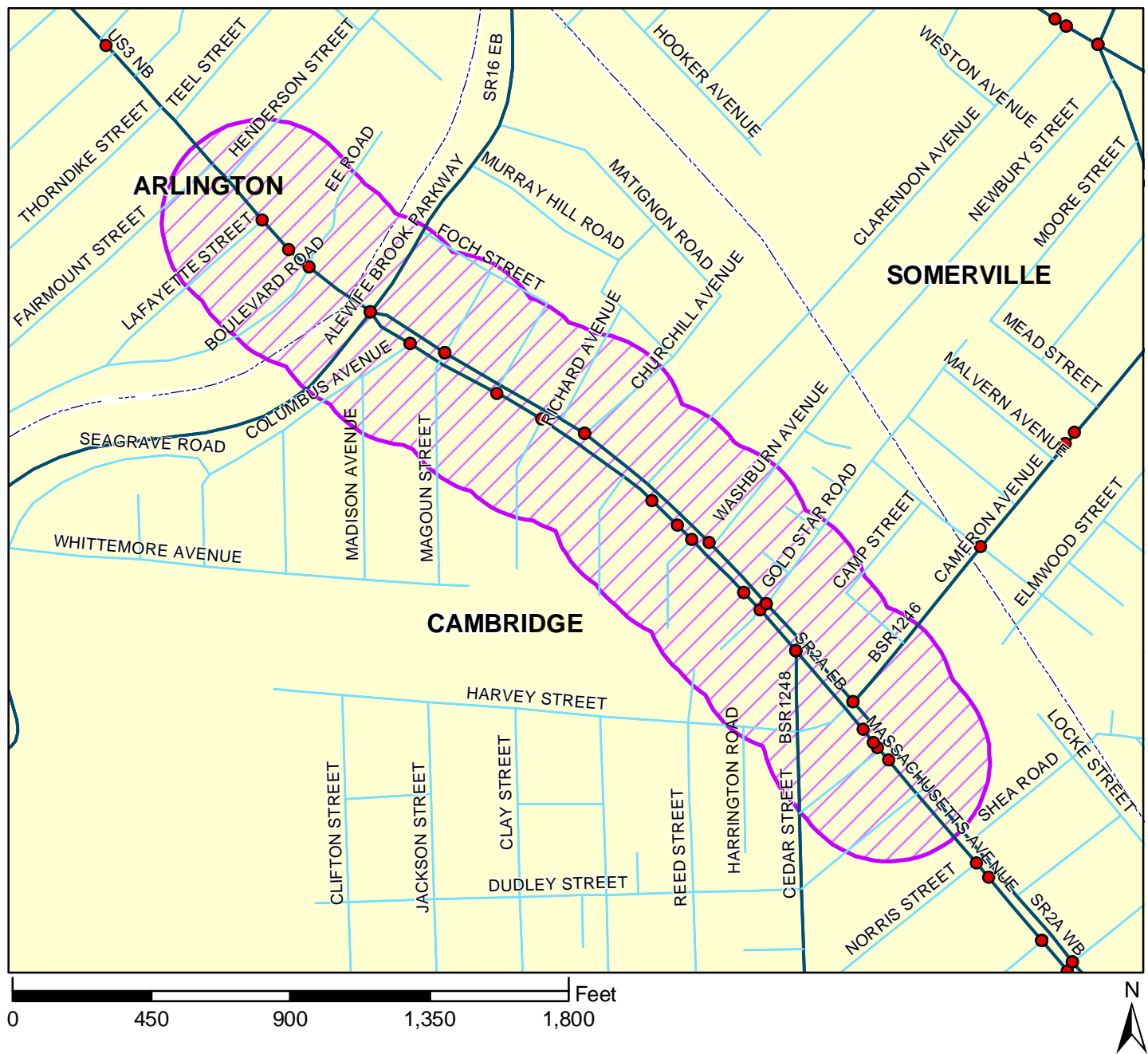
Number of Non-Injury Bicycle Crashes 38

Total Bicycle Crashes 113

### Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



# RANK 4

## CAMBRIDGE, ARLINGTON

RPA MAPC

EPDO 139






Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 26

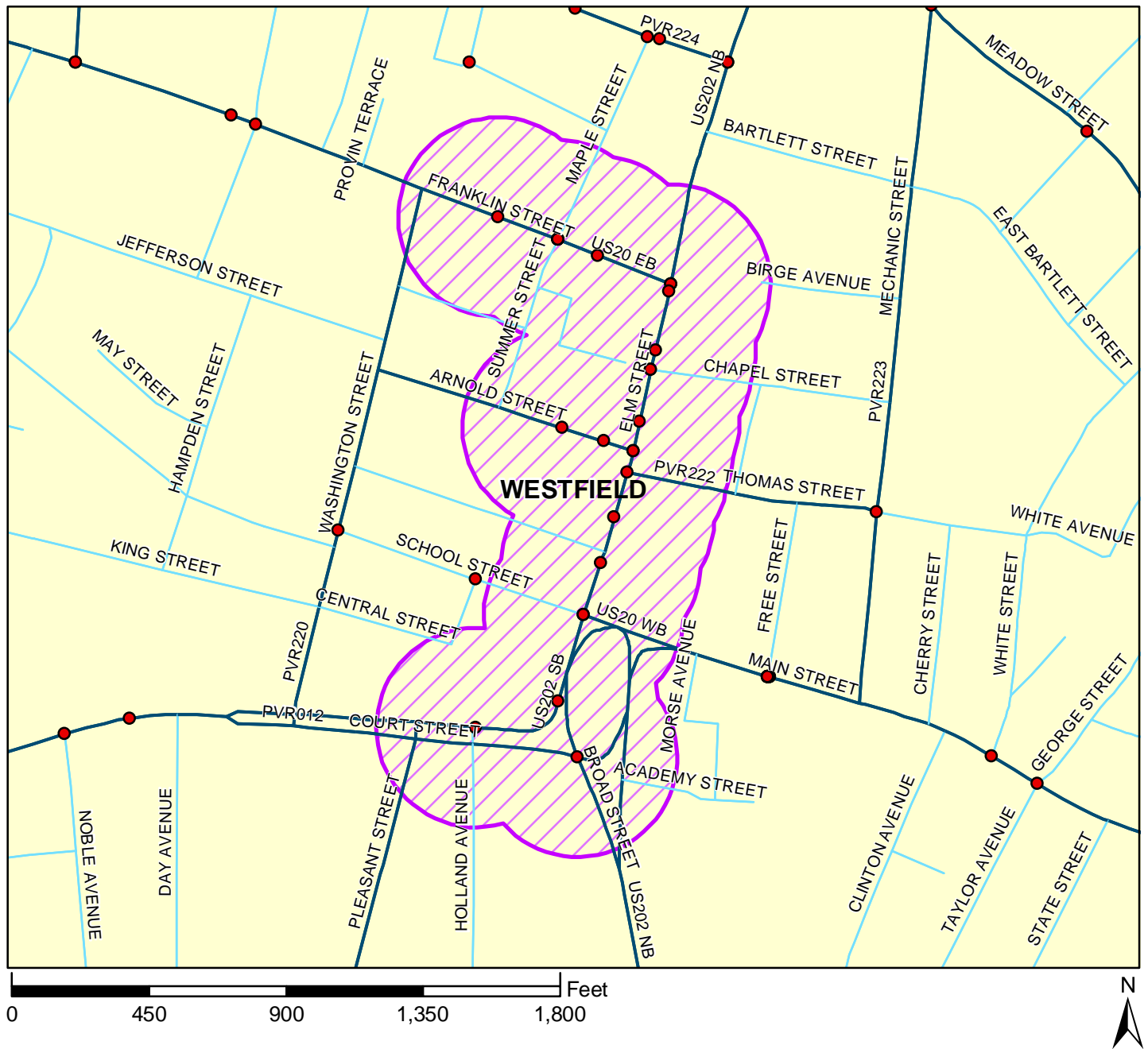
Number of Non-Injury Bicycle Crashes 9

|                       |    |
|-----------------------|----|
| Total Bicycle Crashes | 35 |
|-----------------------|----|

### Legend

-  Bicycle Crash Locations 2002-2011
-  Local Roads
-  All Functional Classification Except Local Roads
-  Top Bicycle Crash Cluster
-  Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



**RANK**  
**5**

## WESTFIELD

RPA PVPC

EPDO 119

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 23

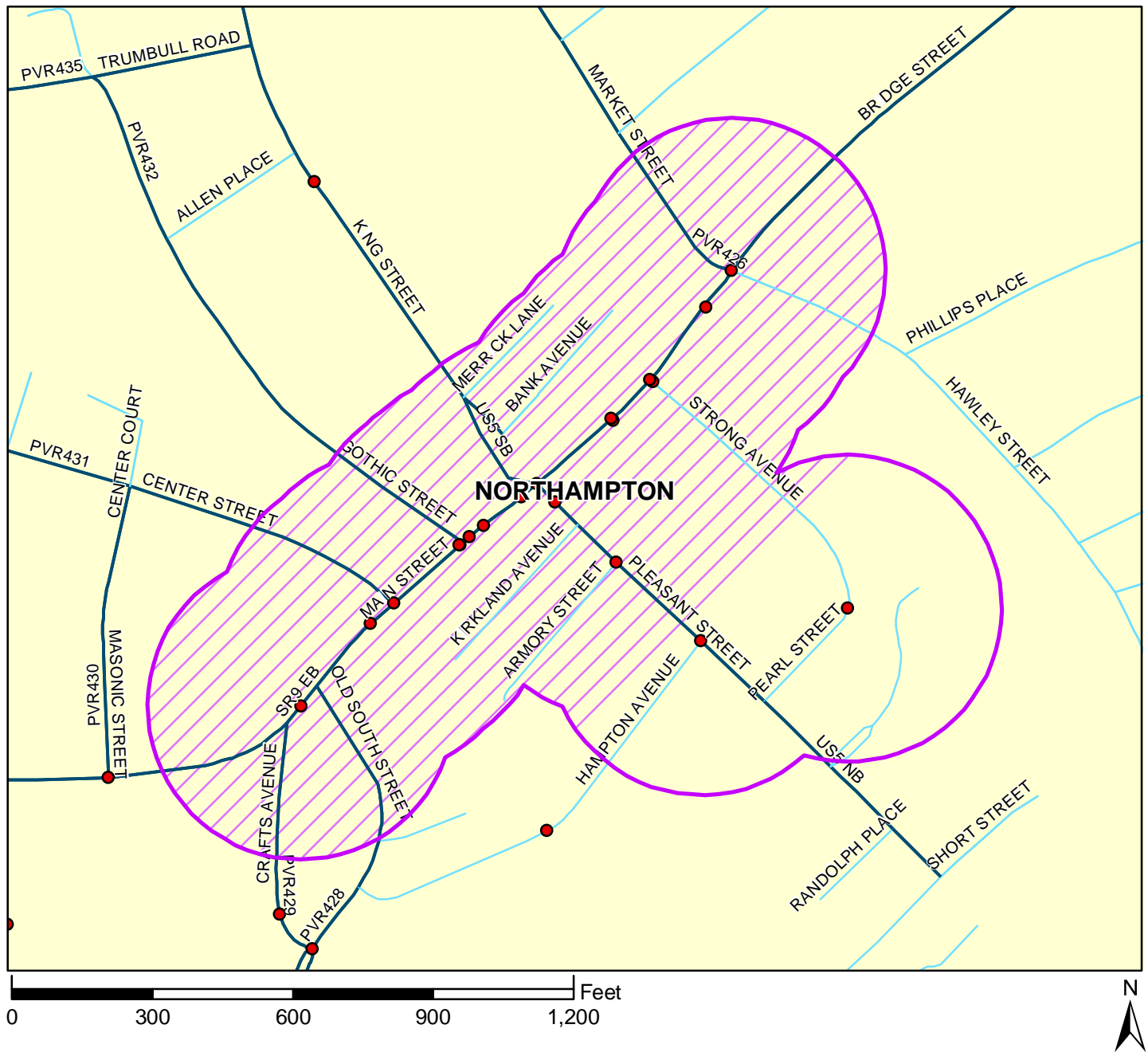
Number of Non-Injury Bicycle Crashes 4

Total Bicycle Crashes 27

## Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



**RANK**  
**6**

## NORTHAMPTON

RPA PVPC

EPDO 105

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 20

Number of Non-Injury Bicycle Crashes 5

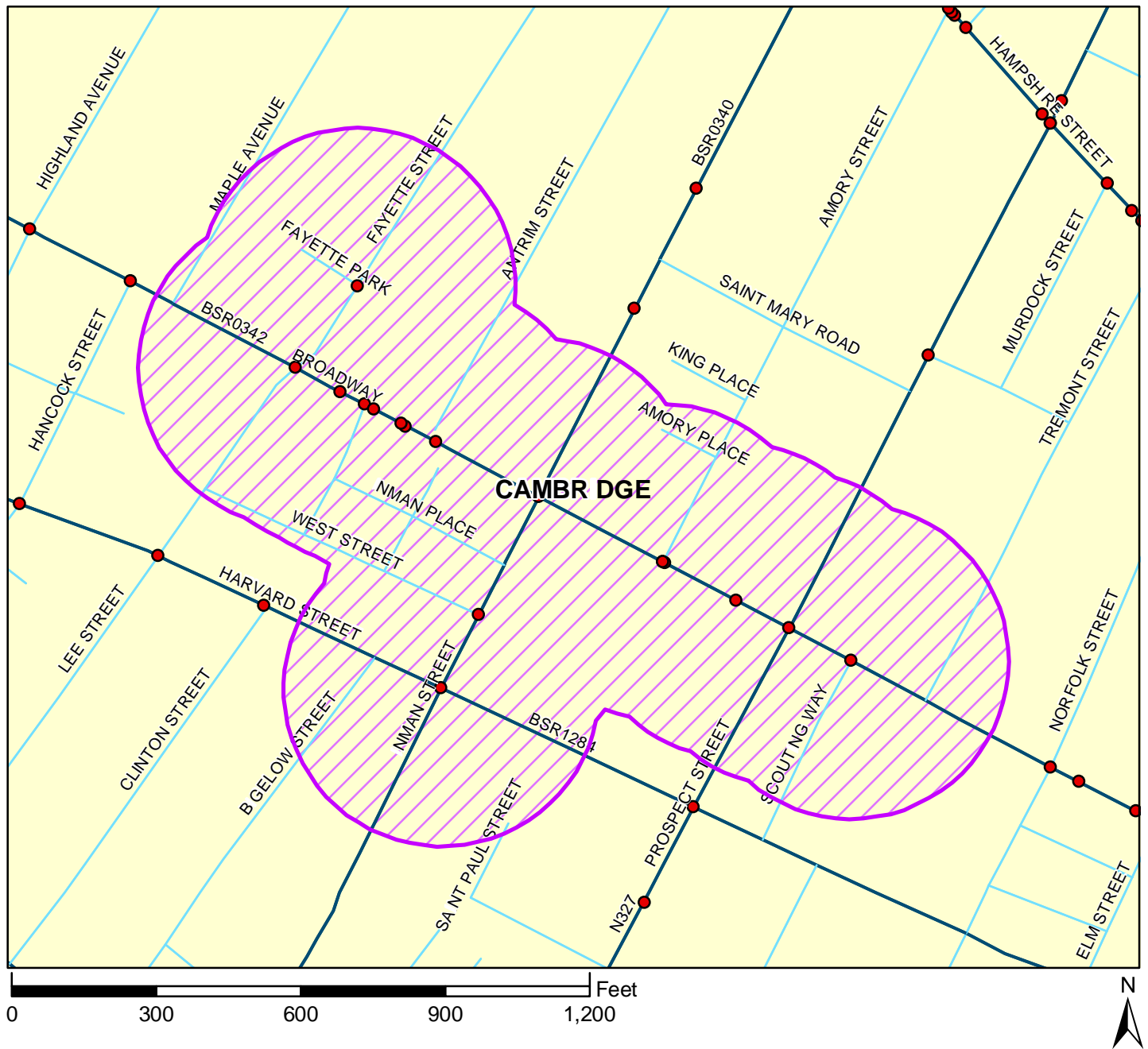
Total Bicycle Crashes 25

### Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary



# Top Bicycle Crash Cluster 2002-2011



**RANK**  
**7**

## CAMBRIDGE

RPA MAPC

EPDO 98

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 16

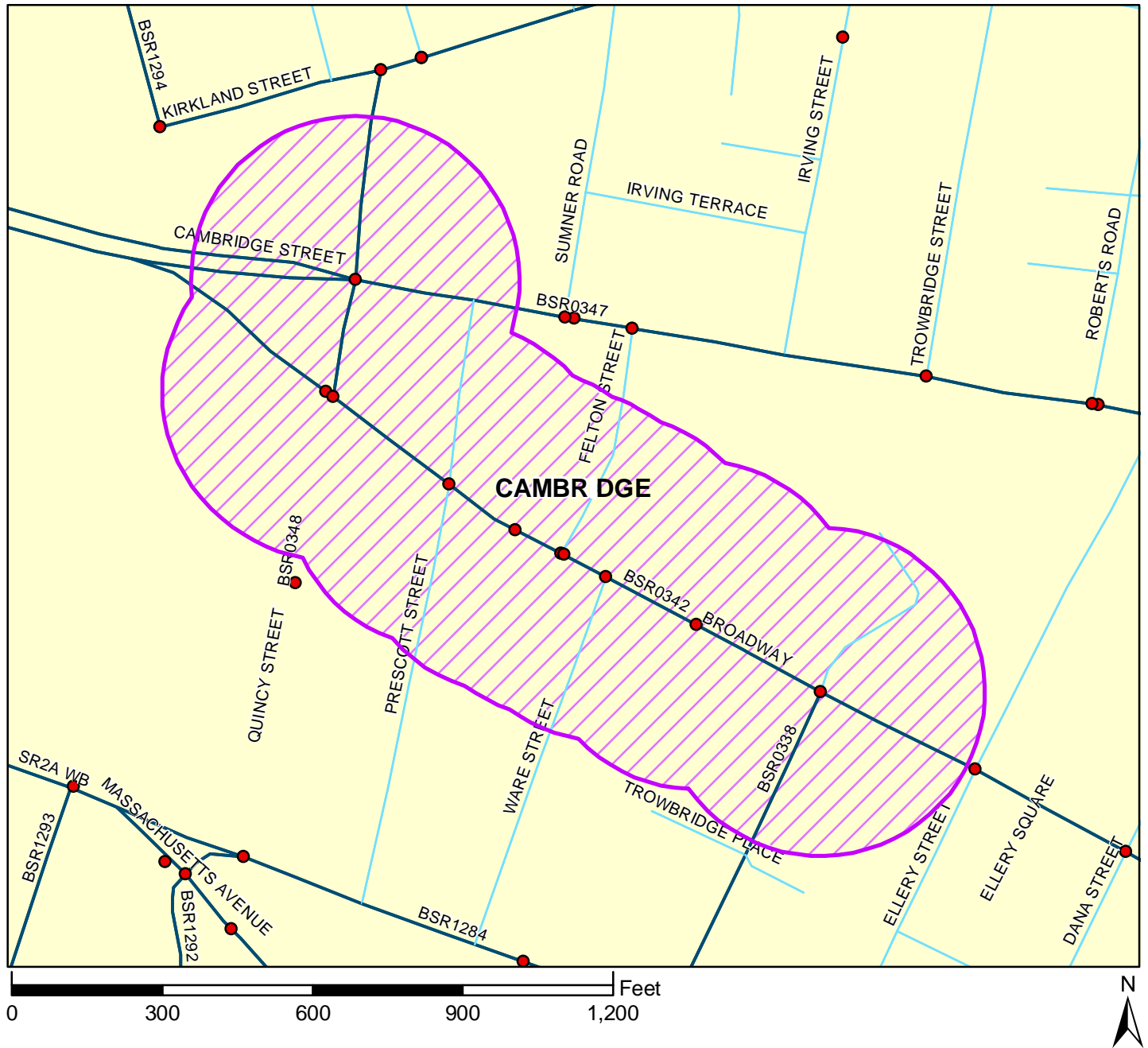
Number of Non-Injury Bicycle Crashes 18

Total Bicycle Crashes 34

## Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



**RANK**  
**8**

## CAMBRIDGE

RPA MAPC

EPDO 97

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 17

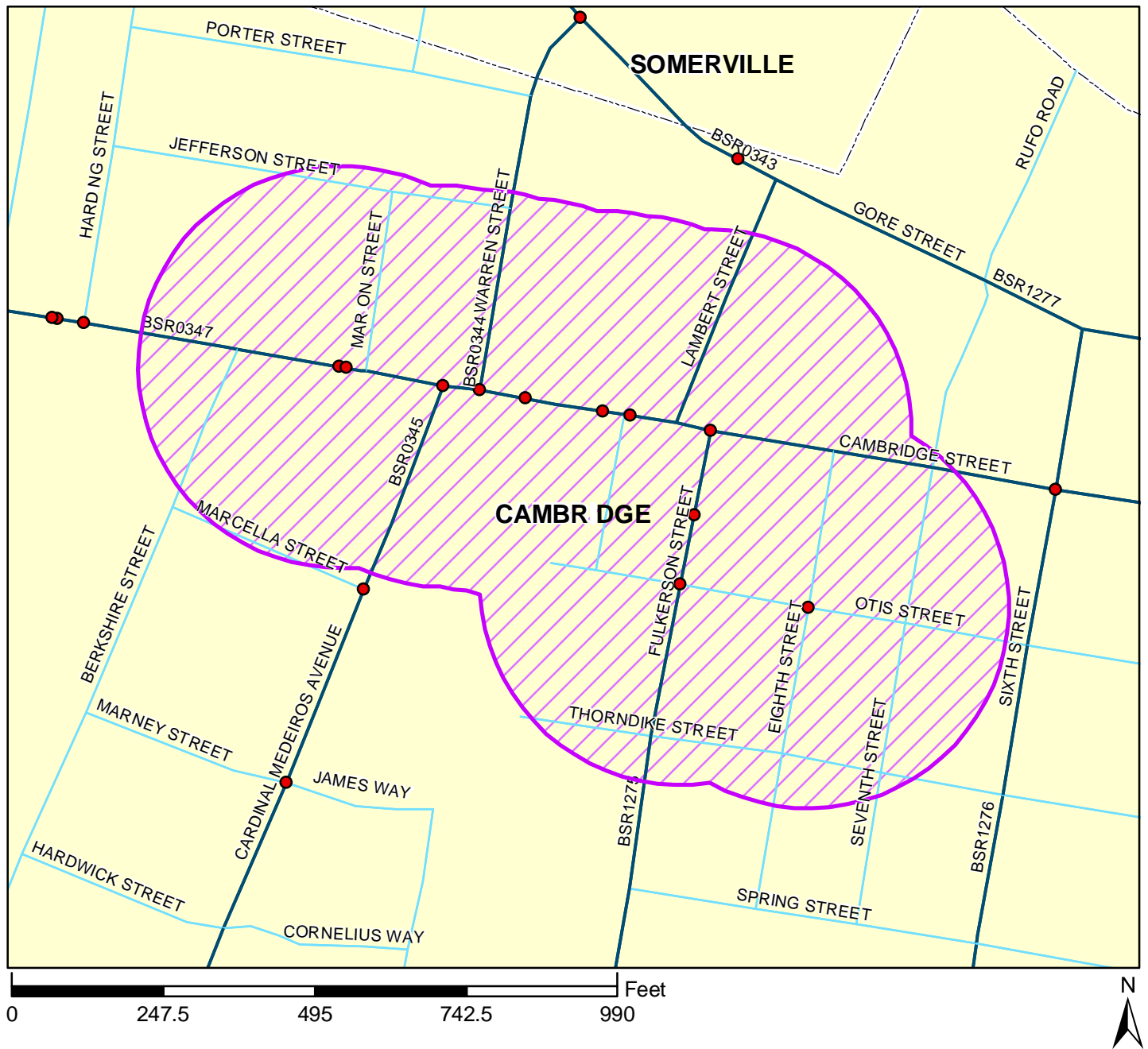
Number of Non-Injury Bicycle Crashes 12

Total Bicycle Crashes 29

## Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



**RANK**  
9

## CAMBRIDGE

RPA MAPC

EPDO 89

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 16

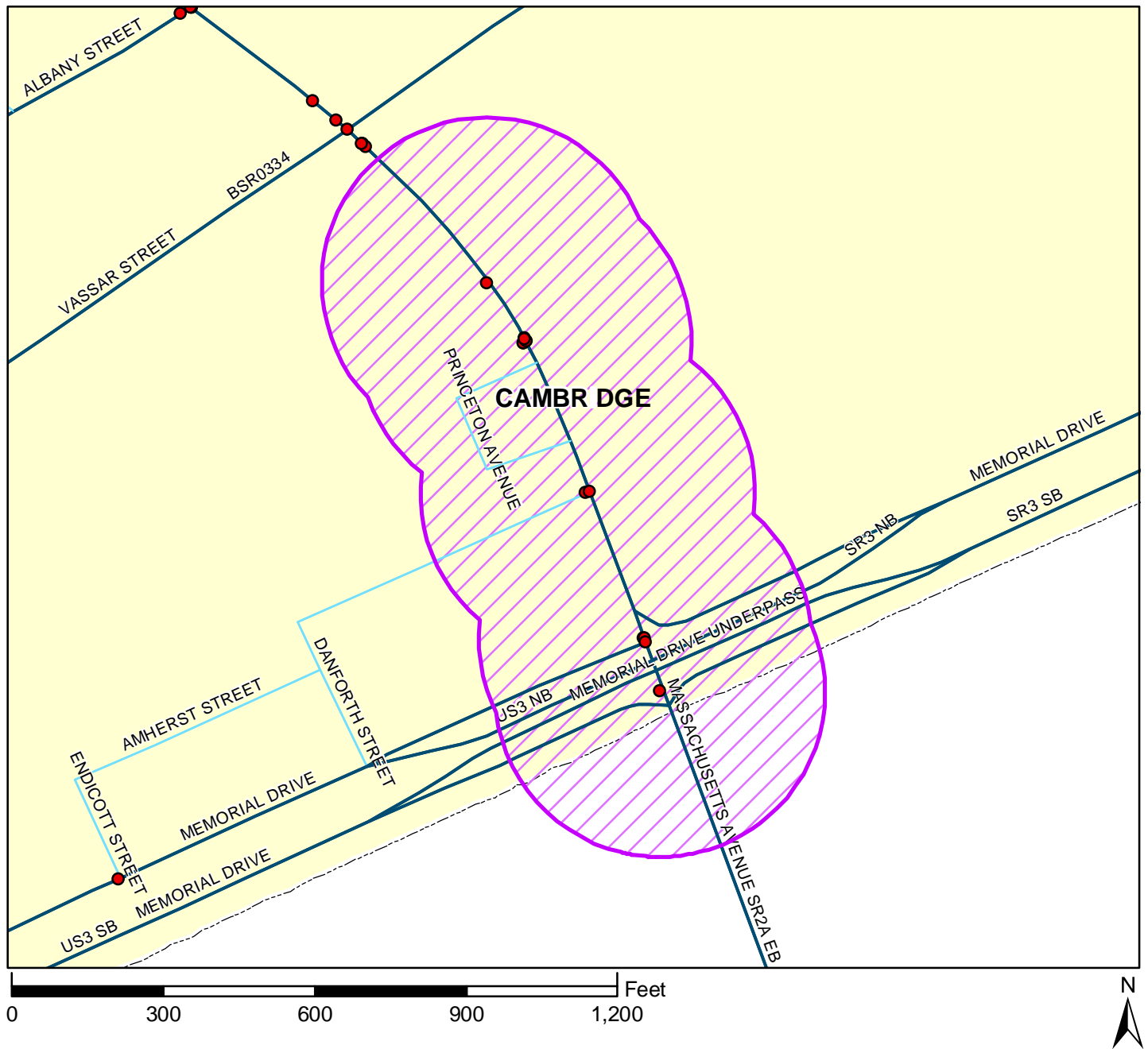
Number of Non-Injury Bicycle Crashes 9

Total Bicycle Crashes 25

## Legend

- Bicycle Crash Locations 2002-2011
- Local Roads
- All Functional Classification Except Local Roads
- Top Bicycle Crash Cluster
- Municipal Boundary

# Top Bicycle Crash Cluster 2002-2011



**RANK**  
**10**

## CAMBRIDGE

RPA MAPC

EPDO 86

Number of Fatal Bicycle Crashes 0

Number of Injury Bicycle Crashes 15

Number of Non-Injury Bicycle Crashes 11

Total Bicycle Crashes 26

### Legend

● Bicycle Crash Locations 2002-2011

Local Roads

All Functional Classification Except Local Roads

Top Bicycle Crash Cluster

Municipal Boundary