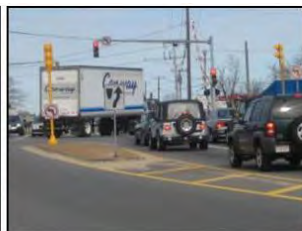




CAPE COD
COMMISSION

Barnstable County High Crash Locations

June 2014



Prepared by CAPE COD COMMISSION Transportation Staff
on behalf of the

CAPE COD METROPOLITAN PLANNING ORGANIZATION:

Massachusetts Department of Transportation
Cape Cod Regional Transit Authority • Cape Cod Commission
Barnstable County • Mashpee Wampanoag Tribe • Town of Barnstable
Towns of Bourne, Sandwich, Falmouth & Mashpee
Towns of Yarmouth & Dennis
Towns of Harwich, Chatham, Brewster & Orleans
Towns of Eastham, Wellfleet, Truro & Provincetown

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Introduction

GOALS AND OBJECTIVES

This report is the result of the Cape Cod Commission's effort to identify the most dangerous intersections in Barnstable County. The data used for this endeavor, including crashes that occurred in 2009-2011, are the most recent available from the Massachusetts Department and Transportation (MassDOT) and local police departments from Barnstable County.

Through the analysis of our data, a series of top crash location lists have been generated. The lists will assist in directing federal, state, and local funds towards improving intersections that pose the highest safety risk to its users. It is anticipated that this information will be useful to local police departments who have the resources and ability to reduce speed and unsafe driving through enforcement. It is the Commission's hope that this document will highlight the need for accurate and comprehensive reporting between the fifteen Barnstable County towns and state agencies. Beyond serving as support for improvement funds, this report will also help focus future safety studies on the locations with most need.

TOP CRASH LISTS

There are several methodologies that can be used to generate a list of top crash locations for a given geographic area. Two common methods include sorting by total crashes that occurred during a specified time in history and sorting by crashes per one million entering vehicles (also known as a crash rate). Two other frequently used methods involve weighting each crash according to its severity (whether it included an injury or fatality). Each method has advantages and disadvantages. Using total crash numbers or a crash rate is simpler, and needs less information to use. Using crash severity can be helpful to highlight an intersection with few but severe crashes. Using a rate against a dataset further refines the number of crashes or severity of an area. Each methodology will be discussed in further detail later in this report.



This report includes four high crash lists that identify the most dangerous intersections based on four different focuses.

DATA SOURCE

The initial data source, and the general foundation for this report, is the Crash Data Cluster Analysis provided by MassDOT for 2009-2011. These data are the end result of a series of data sharing procedures between citizens, local police departments, the Massachusetts Registry of Motor Vehicles (RMV – an administrative department of MassDOT). If an individual is involved in a crash that results in at least \$1,000 of damage or injury, they are required to fill out a Motor Vehicle Crash Operator Report and mail copies to the local police department and the RMV. Also, local and state police officers will respond to many crashes located in their jurisdiction, and their subsequent reports will be sent to the RMV. The RMV will compile the data and input all available information from the reports into a large database. This database is then shared with MassDOT's Office of Transportation Planning. MassDOT is then able to use geolocating tools in Geographic Information System (GIS) software to identify the locations of each crash. The resultant output of crash clusters is the basis for our analysis.

Unfortunately, this geolocating approach by MassDOT is only the minimum number of crashes at any given location. Non-located crashes are typically the result of poor location identification in the written crash reports. For the years 2009-2011 there were 11,987 crashes reported to occur in Barnstable County; of these, 10,935 were geographically located.

DATA ANALYSES

The data provided by MassDOT is very comprehensive. Each crash cluster is accompanied with information regarding the number of crashes – specifying number of fatal, injurious, and property damage only crashes. The inclusion of the information concerning severity allows for the calculation of an intersection's Equivalent Property Damage Only (EPDO). EPDO is a value created by weighting each crash based on its severity and then aggregating the totals. In this system, a crash that

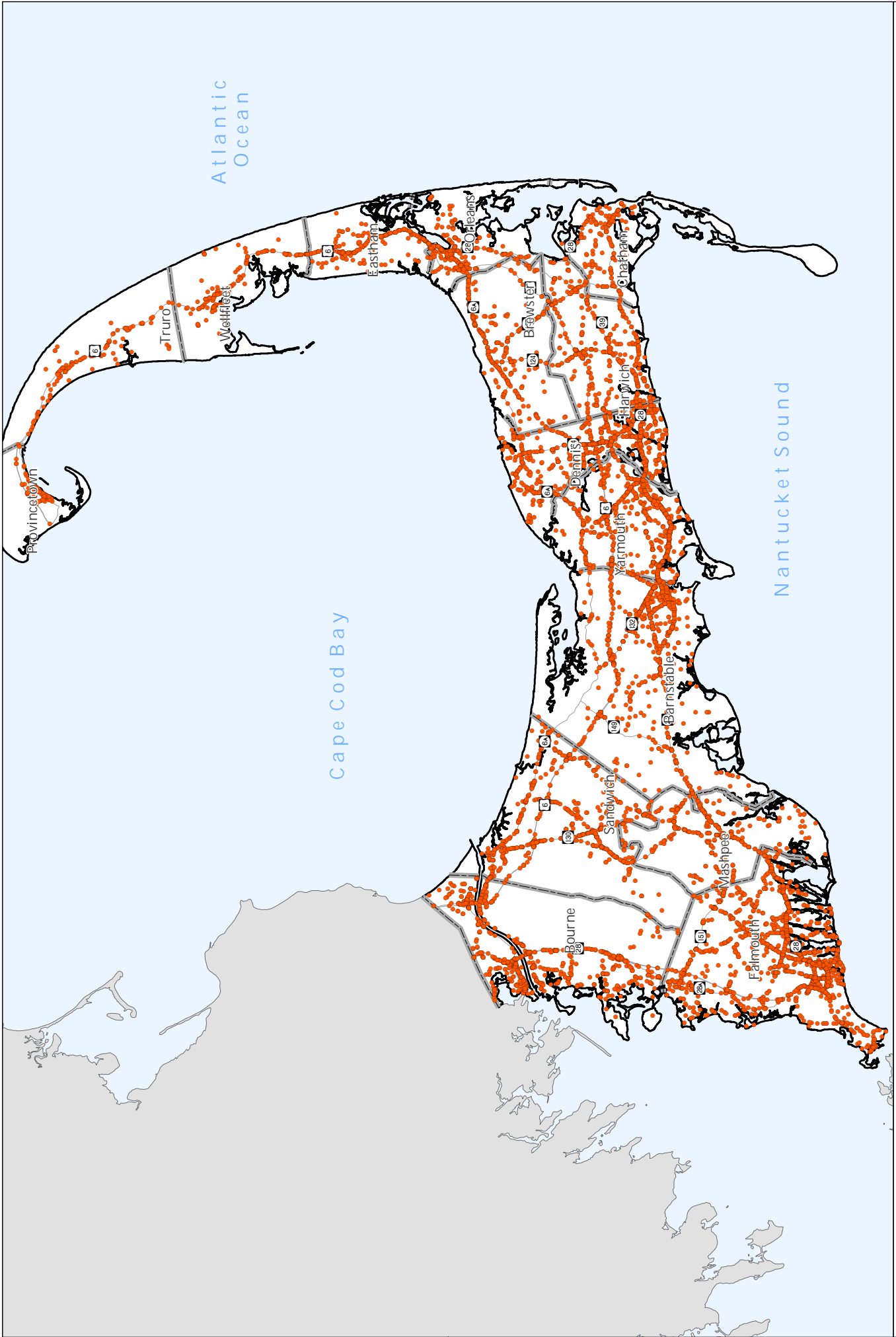


results in property damage only is assigned a value of one. A crash that includes an injury (while not including a fatality) is assigned a value of five. A fatal crash is assigned a value of ten.

Example: During a three year span, an intersection has twelve crashes with property damage only, four crashes including an injury, and two fatal crashes. For this three-year period, this intersection would have an EPDO of 52 ($[12 \times 1] + [4 \times 5] + [2 \times 10]$).

From the 10,935 located crashes, 1,539 crash clusters were identified. A cluster is a grouping of at least two crashes at a specific location. For the purposes of the Commission's analysis, data from more than one cluster at a single intersection were sometimes aggregated. It is rare that a single approach to an intersection would be investigated without attention to the other aspects of the intersection, which is why some intersections have more than one cluster.

The following figure depicts the 10,935 located crashes in Barnstable County from 2009 to 2011. There are high densities of crashes in the Mid-Cape and Canal areas.

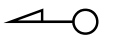


Barnstable County Reported Crashes 2009 - 2011

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supervised deed research.

Date: 5/7/2014
User: sgoulet

● Crash Incident
From 2009 to 2011, there were 10,935 geolocated crashes out of 11,987 total crashes.
Source: MassDOT





Analysis

TOP CRASH LISTS

TOP LOCATIONS BASED ON NUMBER OF CRASHES

The simplest method used in this report for establishing a high crash list is ranking intersections based on the largest number of crashes. The intersection with the greatest number of crashes receives the number one ranking.

TOP LOCATIONS BASED ON EQUIVALENT PROPERTY DAMAGE ONLY

The inclusion of severity information in the MassDOT data allows for the calculation of Equivalent Property Damage Only (EPDO). A list ranked by EPDO will bring more attention to locations where the accidents have produced injuries or fatalities. The formula for calculating EPDO is as follows:

$$\text{EPDO} = 10 \times (\# \text{ fatal crashes}) + 5 \times (\# \text{ injury crashes}) + \text{property damage only crashes}$$

While the EPDO method is useful in identifying intersections with the most severe crashes, it should be noted that not all crashes and their resultant injuries can be attributed to a road's conditions or geometry. For example, it could be a passenger's decision of whether or not to wear a seatbelt that determines whether an injury will be experienced. The intersection with the highest EPDO in this list is ranked number one.

TOP LOCATIONS BASED ON CRASH RATE

It is expected that a road with higher traffic volumes will experience more vehicles crashes. Using a crash rate helps to avoid highlighting intersections whose problems may be magnified by a large traffic volume. With this methodology, the number of crashes is compared to the number of vehicles entering, and the resultant figure is in terms of crashes per million entering vehicles. To be certain to capture the top fifty crash



locations based on crash rate, the top 100 intersections based on number of crashes were analyzed with the following formula:

$$R = ([C/Y] \times 1,000,000)/(V \times 365)$$

R = Crash Rate, C = Total Crashes, Y = # Years Analyzed, V = Daily Entering Volume

While this method is good for reducing the influence of high volume roads, it also has the capacity to rank a very low volume road with few crashes very highly. The intersection with the highest crash rate in this list is ranked number one.

TOP LOCATIONS BASED ON EPDO RATE

This method uses the same theory as the crash rate, where there is an assumption that heavily traveled roads are expected to have higher EPDO designations, and it is not necessarily indicative of poor road conditions or geometric flaws. To create this list, the intersections' EPDO is compared to the number of vehicles entering, and the resultant figure is in terms of crashes per million entering vehicles. To be certain to capture the top fifty crash locations based on EPDO rate, the top 100 locations with the highest EPDO were analyzed with the following formula:

$$\text{EPDO Rate} = ([\text{EPDO}/Y] \times 1,000,000)/(V \times 365)$$

Y = # Years Analyzed, V = Daily Entering Volume

The intersection with the highest EPDO rate in this list is ranked number one.



TRAFFIC VOLUME DATA

CAPE COD COMMISSION TRAFFIC COUNTING PROGRAM

To determine the crash rate and the EPDO rate, traffic volume data were needed to calculate a daily entering volume for each intersection. Base traffic data were taken from counts conducted by the Cape Cod Commission adjusted to the year 2010 (as found on www.capecodcommission.org/counts).

TRIP GENERATION HANDBOOK

Several intersections in need of investigation included an approach from a commercial or institutional establishment where traffic data were not available from the Commission count database or the regional model. Using Trip Generation, 9th Edition from the Institute of Transportation Engineers, traffic volumes were estimated for those legs.

ENTERING VOLUME CALCULATION

The daily entering volume is calculated as an average annual daily volume. Since the majority of Commission-conducted traffic counts take place in the summer months, an appropriate seasonal factor (dependent on the month and year) is applied to achieve the annual average. Likewise, the results from the regional model are annual averages. Annual averages were deemed appropriate for use since the crash data covers all twelve months.

The formula for calculating the daily entering volume for an intersection consist of aggregating the average annual daily traffic (AADT) for each leg of the intersection, then dividing that total by two.



Limitations

With an average of over 100,000 crashes per year statewide, it is difficult to report and locate all incidents accurately. To address the inefficiencies, in 2001, MassHighway (MassDOT's precursor) and the RMV made several significant changes to the crash reporting process. Their intent was to make the process more efficient and reduce the time it takes for information to reach the state offices. The changes that took place included new forms and new data input systems.

Cape-wide yearly crash averages had a significant change since the new reporting system was put in place. In the three years leading up to the change (1999, 2000, and 2001), Barnstable County averaged 5,174 crashes per year. In the following three years, the county averaged 3,928 crashes per year (a 24% reduction). Of the fifteen towns, only two towns averaged more crashes following the reporting changes. Three towns averaged less than 50% of their pre-change crash average.

One-year crash averages for the years from 2005 to 2011 remained equally below the pre-change average (4,056, or 78%). Not enough evidence exists to determine if this is a direct result of the change in reporting. It is possible crashes have indeed been reduced since 2001. It should be noted that Cape-wide traffic has reduced by about 8.6% between 2001 and 2011.

In recent years, some towns have shown sizable increases in crash numbers from one year to another. This is often the result of a local police department's change to an electronic crash reporting system (where crash reports are sent electronically to the RMV, rather than by physical paper copies). Electronic crash reporting has proved to be a more efficient method.



High Crash Location Lists



In each of the following four high crash location lists, locations are denoted with an index number within brackets (e.g., “[1]”). Each number corresponds to a number in the “Note #” column in the tables of Intersection Notes following the high crash location lists. The Notes table provides information relevant to studies that may have been performed, past or planned construction, or other changes that may influence an intersection’s frequency of crashes.

The following four tables present the rankings for the various ranking criteria:

- Top Locations based on Number of Crashes
- Top Locations based on Equivalent Property Damage Only
- Top Locations based on Crash Rate
- Top Locations based on EPDO Rate



TOP LOCATIONS BASED ON NUMBER OF CRASHES

Rank Crashes	TOWNS	Location	CrashCount	EPDO	Crash_Rate	EPDO_Rate
1	Dennis	Route 134 @ Patriot Square SD/Cumberland Farms [3]	125	181	5.0	7.2
2	Bourne	Bourne Rotary (Rte 28/Sandwich Rd/Trowbridge Rd) [32]	111	159	1.9	2.8
3	Dennis	Route 6 @ Route 134 (Exit 9) [37]	91	163	1.5	2.7
4	Barnstable	Route 6 @ Route 132 (Exit 6) [36]	84	184	1.2	2.7
5	Bourne	Otis Rotary (Rte 28/Rte 28A/Connelly Ave) [8]	80	169	2.5	5.3
6	Sandwich	Route 6 @ Route 130 (Exit 2) [45]	74	154	1.1	2.3
7	Bourne	Route 6 @ Exit 1A/Exit1B [66]	63	119	0.9	1.8
8	Falmouth	Route 28 (Teaticket Hwy) @ Falmouth Mall east SD, Liquor Store, Apartments [4]	62	114	3.4	6.2
9	Bourne	Belmont Circle (Rt 28/Rt 6/Rt Bypass/Head of the Bay Rd) [42]	54	107	1.2	2.4
9	Yarmouth	Route 6 @ Willow St (Exit 7) [43]	54	142	0.9	2.4
9	Barnstable	Route 6 @ Route 149 (Exit 5) [76]	54	98	0.9	1.6
12	Eastham	Eastham Rotary (Rt 6/Rt 6A/Rt 28/Smith Ln) [22]	51	103	1.6	3.2
12	Falmouth	Route 28 (MacArthur Blvd) at Route 151 [38]	51	107	1.2	2.6
14	Yarmouth	Route 6 @ Union St/Station Ave (Exit 8) [59]	50	119	0.8	1.9
15	Falmouth	Route 28 (Teaticket Hwy) @ Stop & Shop Plaza SD/Hotel SD [15]	46	70	2.5	3.7
16	Dennis	Route 134 @ Theophilus F Smith Rd [35]	41	69	1.6	2.7
16	Harwich	Route 6 @ Route 124 (Exit 10) [61]	41	69	1.1	1.9
18	Falmouth	Route 28 (Davis Straits) @ Dillingham Ave/Spring Bars Rd [20]	35	63	1.9	3.3
18	Dennis	Route 134 @ Upper County Rd/Duck Pond Rd [39]	35	71	1.2	2.5
20	Falmouth	Route 28 (Teaticket Hwy) @ Maravista Av/Beagle Ln/Various Business SD [17]	34	66	1.9	3.6
21	Mashpee	Route 151 @ Old Barnstable Rd [16]	33	89	1.4	3.7
22	Harwich	Route 6 @ Route 137 (Exit 11) [63]	30	62	0.9	1.8
22	Sandwich	Route 6 @ Quaker Meetinghouse Rd (Exit 3) [83]	30	82	0.5	1.4
24	Mashpee	Mashpee Rotary (Rte 28/Rte 151/Great Neck Rd) [78]	28	56	0.8	1.5
25	Sandwich	Route 6 @ Chase Rd (Exit 4) [87]	26	70	0.5	1.3
26	Falmouth	Worcester Ct @ Spring Bars Rd [10]	24	44	2.7	4.9
26	Dennis	Route 134 @ Bob Crowell Rd/Hemlock Ln [67]	24	28	1.5	1.7
28	Falmouth	Route 151 @ Route 28A (North Falmouth Hwy) [33]	23	43	1.4	2.7
28	Falmouth	Route 28 (E Falmouth Hwy) @ Central Ave [52]	23	43	1.1	2.1
30	Dennis	Route 28 (Main St) @ Sea St [7]	22	50	2.4	5.4
31	Yarmouth,Barnstable	Route 28 @ East Main [68]	21	37	1.0	1.7
31	Orleans	Route 6 @ Route 6A (Exit 12) [91]	21	45	0.6	1.2
33	Falmouth	Route 28 @ Lorraine Rd/Dunkin Donuts SD/Family Food Plaza SD [49]	20	44	1.0	2.2
33	Falmouth	Route 151 @ Sandwich Rd [58]	20	40	1.0	1.9
33	Barnstable	Route 28 (Iyannough Rd) @ Yarmouth Rd [89]	20	32	0.8	1.3
36	Harwich	Route 39 (Orleans Rd) @ Pleasant Bay Rd [1]	19	43	3.6	8.0
36	Falmouth	Route 151 @ Boxberry Hill Rd [6]	19	47	2.3	5.7
36	Falmouth	Route 28 @ Old Meetinghouse Rd/Davisville Rd [27]	19	48	1.2	2.9
36	Dennis	Theophilus F Smith Rd @ Patriot Square Rear SD (near theater) [55]	19	19	2.0	2.0
36	Falmouth	Route 28 (Teaticket Hwy) @ Jones Rd [62]	19	39	0.9	1.9
36	Barnstable	Airport Rotary (Rte 132/Rte 28/Barnstable Rd) [98]	19	35	0.4	0.8
42	Dennis	Route 6A @ Post Rd/New Boston Rd [28]	18	34	1.5	2.9
42	Bourne	Sandwich Rd @ Adams St [41]	18	42	1.1	2.5
42	Falmouth	Route 28 (Teaticket Hwy) @ McDonalds SD/Various Business SD [47]	18	34	1.2	2.3
45	Bourne	Route 6A @ Cranberry Highway/Sandwich Rd [46]	17	37	1.0	2.3
46	Dennis	Route 28 (Main St) @ Depot St [9]	16	44	1.8	5.1
46	Sandwich	Route 130 (Forestdale Rd) @ Cotuit Rd [23]	16	56	0.9	3.1
46	Eastham	Route 6 (GAR Hwy) @ Samoset Rd [48]	16	40	0.9	2.3
46	Falmouth	Route 28 @ Old Barnstable Rd/Acapesket Rd [56]	16	36	0.9	2.0
46	Yarmouth	Route 28 @ Main St/N Main St [71]	16	28	0.9	1.7
46	Eastham	Route 6 (GAR Hwy) @ Brackett Rd/Old County Rd [73]	16	32	0.8	1.6
52	Mashpee	Great Neck Rd N @ Old Barnstable Rd [5]	15	55	1.6	5.8
52	Yarmouth	Buck Island Rd @ Town Brook Rd [13]	15	35	1.7	4.0
52	Falmouth	Route 28 (E Falmouth Hwy) @ Fresh Pond Rd [19]	15	43	1.2	3.4
52	Yarmouth	Station Ave @ Regional Ave/Studley Rd [21]	15	43	1.1	3.2
52	Falmouth	Brick Kiln Rd @ Sandwich Rd [53]	15	27	1.1	2.0
52	Dennis	Route 134 @ Route 28 (Main St)/Swan River Rd [54]	15	35	0.9	2.0
52	Falmouth	Route 28 (Main St) @ Perry Ln/Various Business SD [60]	15	31	0.9	1.9



TOP LOCATIONS BASED ON EQUIVALENT PROPERTY DAMAGE ONLY

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Rank EPDO	Location	TOWNS	CrashCount	EPDO	Crash_Rate	EPDO_Rate
1	Route 6 @ Route 132 (Exit 6) [36]	Barnstable	84	184	1.2	2.7
2	Route 134 @ Patriot Square SD/Cumberland Farms [3]	Dennis	125	181	5.0	7.2
3	Otis Rotary (Rte 28/Rte 28A/Connery Ave) [8]	Bourne	80	169	2.5	5.3
4	Route 6 @ Route 134 (Exit 9) [37]	Dennis	91	163	1.5	2.7
5	Bourne Rotary (Rte 28/Sandwich Rd/Trowbridge Rd) [32]	Bourne	111	159	1.9	2.8
6	Route 6 @ Route 130 (Exit 2) [45]	Sandwich	74	154	1.1	2.3
7	Route 6 @ Willow St (Exit 7) [43]	Yarmouth	54	142	0.9	2.4
8	Route 6 @ Union St/Station Ave (Exit 8) [59]	Yarmouth	50	119	0.8	1.9
8	Route 6 @ Exit 1A/Exit1B [66]	Bourne	63	119	0.9	1.8
10	Route 28 (Teaticket Hwy) @ Falmouth Mall east SD, Liquor Store, Apartments [4]	Falmouth	62	114	3.4	6.2
11	Route 28 (MacArthur Blvd) at Route 151 [38]	Falmouth	51	107	1.2	2.6
11	Belmont Circle (Rt 28/Rt 6/Rt Bypass/Head of the Bay Rd) [42]	Bourne	54	107	1.2	2.4
13	Eastham Rotary (Rt 6/Rt 6A/Rt 28/Smith Ln) [22]	Eastham	51	103	1.6	3.2
14	Route 6 @ Route 149 (Exit 5) [76]	Barnstable	54	98	0.9	1.6
15	Route 151 @ Old Barnstable Rd [16]	Mashpee	33	89	1.4	3.7
16	Route 6 @ Quaker Meetinghouse Rd (Exit 3) [83]	Sandwich	30	82	0.5	1.4
17	Route 134 @ Upper County Rd/Duck Pond Rd [39]	Dennis	35	71	1.2	2.5
18	Route 28 (Teaticket Hwy) @ Stop & Shop Plaza SD/Hotel SD [15]	Falmouth	46	70	2.5	3.7
18	Route 6 @ Chase Rd (Exit 4) [87]	Sandwich	26	70	0.5	1.3
20	Route 134 @ Theophilus F Smith Rd [35]	Dennis	41	69	1.6	2.7
20	Route 6 @ Route 124 (Exit 10) [61]	Harwich	41	69	1.1	1.9
22	Route 28 (Teaticket Hwy) @ Maravista Av/Beagle Ln/Various Business SD [17]	Falmouth	34	66	1.9	3.6
23	Route 28 (Davis Straits) @ Dillingham Ave/Spring Bars Rd [20]	Falmouth	35	63	1.9	3.3
24	Route 6 @ Route 137 (Exit 11) [63]	Harwich	30	62	0.9	1.8
25	Route 130 (Forestdale Rd) @ Cotuit Rd [23]	Sandwich	16	56	0.9	3.1
25	Mashpee Rotary (Rte 28/Rte 151/Great Neck Rd) [78]	Mashpee	28	56	0.8	1.5
27	Great Neck Rd N @ Old Barnstable Rd [5]	Mashpee	15	55	1.6	5.8
28	Route 28 (Main St) @ Sea St [7]	Dennis	22	50	2.4	5.4
29	Route 28 @ Old Meetinghouse Rd/Davisville Rd [27]	Falmouth	19	48	1.2	2.9
30	Route 151 @ Boxberry Hill Rd [6]	Falmouth	19	47	2.3	5.7
31	Route 6 @ Route 6A (Exit 12) [91]	Orleans	21	45	0.6	1.2
32	Route 28 (Main St) @ Depot St [9]	Dennis	16	44	1.8	5.1
32	Worcester Ct @ Spring Bars Rd [10]	Falmouth	24	44	2.7	4.9
32	Route 28 @ Lorraine Rd/Dunkin Donuts SD/Family Food Plaza SD [49]	Falmouth	20	44	1.0	2.2
35	Route 39 (Orleans Rd) @ Pleasant Bay Rd [1]	Harwich	19	43	3.6	8.0
35	Route 28 (E Falmouth Hwy) @ Fresh Pond Rd [19]	Falmouth	15	43	1.2	3.4
35	Station Ave @ Regional Ave/Studley Rd [21]	Yarmouth	15	43	1.1	3.2
35	Route 151 @ Route 28A (North Falmouth Hwy) [33]	Falmouth	23	43	1.4	2.7
35	Route 28 (E Falmouth Hwy) @ Central Ave [52]	Falmouth	23	43	1.1	2.1
40	Route 124 (Harwich Rd) @ Tubman Rd [2]	Brewster	13	42	2.4	7.7
40	Sandwich Rd @ Adams St [41]	Bourne	18	42	1.1	2.5
42	Route 151 @ Jobs Fishing Rd/Public Safety Facility SD [29]	Mashpee	13	41	0.9	2.9
43	Route 3A/Canal St @ Scenic Hwy/Meetinghouse Ln [12]	Bourne	12	40	1.2	4.0
43	Route 6 (GAR Hwy) @ Samoset Rd [48]	Eastham	16	40	0.9	2.3
43	Route 151 @ Sandwich Rd [58]	Falmouth	20	40	1.0	1.9
46	Route 28 (Teaticket Hwy) @ Jones Rd [62]	Falmouth	19	39	0.9	1.9
47	Route 28 (Teaticket Hwy) @ Trotting Park Rd/Alphonse St [44]	Falmouth	14	38	0.9	2.4
48	Route 6A @ Cranberry Highway/Sandwich Rd [46]	Bourne	17	37	1.0	2.3
48	Route 28 @ East Main [68]	Yarmouth,Barnstable	21	37	1.0	1.7
48	Route 28 @ Wendward Way [86]	Yarmouth	13	37	0.5	1.3
51	Jones Rd @ Gifford St [50]	Falmouth	12	36	0.7	2.1
51	Route 28 @ Old Barnstable Rd/Acapesket Rd [56]	Falmouth	16	36	0.9	2.0
51	Station Avenue near Former Rail Crossing [64]	Yarmouth	12	36	0.6	1.8



TOP LOCATIONS BASED ON CRASH RATE

Rank Crashes/ MEV	Location	TOWNS	CrashCount	EPDO	Crash_Rate	EPDO_Rate
1	Route 134 @ Patriot Square SD/Cumberland Farms [3]	Dennis	125	181	5.0	7.2
2	Route 39 (Orleans Rd) @ Pleasant Bay Rd [1]	Harwich	19	43	3.6	8.0
3	Route 28 (Teaticket Hwy) @ Falmouth Mall east SD, Liquor Store, Apartments [4]	Falmouth	62	114	3.4	6.2
4	Water St @ Luscombe Ave/School St [11]	Falmouth	13	21	2.8	4.5
5	Worcester Ct @ Spring Bars Rd [10]	Falmouth	24	44	2.7	4.9
6	Otis Rotary (Rte 28/Rte 28A/Connery Ave) [8]	Bourne	80	169	2.5	5.3
7	Route 28 (Teaticket Hwy) @ Stop & Shop Plaza SD/Hotel SD [15]	Falmouth	46	70	2.5	3.7
8	Route 124 (Harwich Rd) @ Tubman Rd [2]	Brewster	13	42	2.4	7.7
9	Route 28 (Main St) @ Sea St [7]	Dennis	22	50	2.4	5.4
10	Route 151 @ Boxberry Hill Rd [6]	Falmouth	19	47	2.3	5.7
11	Theophilus F Smith Rd @ Patriot Square Rear SD (near theater) [55]	Dennis	19	19	2.0	2.0
12	Bourne Rotary (Rte 28/Sandwich Rd/Trowbridge Rd) [32]	Bourne	111	159	1.9	2.8
13	Route 28 (Teaticket Hwy) @ Maravista Av/Beagle Ln/Various Business SD [17]	Falmouth	34	66	1.9	3.6
14	Route 28 (Davis Straits) @ Dillingham Ave/Spring Bars Rd [20]	Falmouth	35	63	1.9	3.3
15	Route 28 (Main St) @ Depot St [9]	Dennis	16	44	1.8	5.1
16	Buck Island Rd @ Town Brook Rd [13]	Yarmouth	15	35	1.7	4.0
17	Depot St @ Upper County Rd [51]	Dennis	13	17	1.6	2.1
18	Old Town House Rd @ Forest Rd [24]	Yarmouth	13	25	1.6	3.1
19	Eastham Rotary (Rt 6/Rt 6A/Rt 28/Smith Ln) [22]	Eastham	51	103	1.6	3.2
20	Route 134 @ Theophilus F Smith Rd [35]	Dennis	41	69	1.6	2.7
21	Great Neck Rd N @ Old Barnstable Rd [5]	Mashpee	15	55	1.6	5.8
22	Route 6A @ Post Rd/New Boston Rd [28]	Dennis	18	34	1.5	2.9
23	Route 6 @ Route 134 (Exit 9) [37]	Dennis	91	163	1.5	2.7
24	Route 134 @ Bob Crowell Rd/Hemlock Ln [67]	Dennis	24	28	1.5	1.7
25	Cotuit Rd @ Harlow Rd [14]	Sandwich	12	32	1.5	3.9
26	Route 151 @ Route 28A (North Falmouth Hwy) [33]	Falmouth	23	43	1.4	2.7
27	Route 151 @ Old Barnstable Rd [16]	Mashpee	33	89	1.4	3.7
28	Route 134 @ Setucket Rd [25]	Dennis	12	28	1.3	3.0
29	Route 134 @ Upper County Rd/Duck Pond Rd [39]	Dennis	35	71	1.2	2.5
30	Belmont Circle (Rt 28/Rt 6/Rt Bypass/Head of the Bay Rd) [42]	Bourne	54	107	1.2	2.4
31	Route 28 (MacArthur Blvd) at Route 151 [38]	Falmouth	51	107	1.2	2.6
32	Route 6 @ Route 132 (Exit 6) [36]	Barnstable	84	184	1.2	2.7
33	Route 3A/Canal St @ Scenic Hwy/Meetinghouse Ln [12]	Bourne	12	40	1.2	4.0
34	West Yarmouth Rd @ Buck Island Rd [34]	Yarmouth	13	29	1.2	2.7
35	Route 28 (Teaticket Hwy) @ McDonalds SD/Various Business SD [47]	Falmouth	18	34	1.2	2.3
36	Route 28 (E Falmouth Hwy) @ Fresh Pond Rd [19]	Falmouth	15	43	1.2	3.4
37	Route 28 @ Old Meetinghouse Rd/Davisville Rd [27]	Falmouth	19	48	1.2	2.9
38	County Rd @ Barlows Landing Rd [26]	Bourne	10	26	1.2	3.0
39	Brick Kiln Rd @ Sandwich Rd [53]	Falmouth	15	27	1.1	2.0
40	Station Ave @ Regional Ave/Studley Rd [21]	Yarmouth	15	43	1.1	3.2
41	Route 28 (E Falmouth Hwy) @ Central Ave [52]	Falmouth	23	43	1.1	2.1
42	Route 6 @ Route 124 (Exit 10) [61]	Harwich	41	69	1.1	1.9
43	Route 6 @ Route 130 (Exit 2) [45]	Sandwich	74	154	1.1	2.3
44	Sandwich Rd @ Adams St [41]	Bourne	18	42	1.1	2.5
45	Route 28 (Main St) @ King St/Gifford St [85]	Falmouth	13	17	1.0	1.4
46	Route 6A @ Cranberry Highway/Sandwich Rd [46]	Bourne	17	37	1.0	2.3
47	Route 130 @ Great Neck Rd [40]	Mashpee	11	27	1.0	2.5
48	Route 28 @ Lorraine Rd/Dunkin Donuts SD/Family Food Plaza SD [49]	Falmouth	20	44	1.0	2.2
49	Dillingham Avenue @ Gifford St [18]	Falmouth	10	34	1.0	3.4
50	Route 28 @ East Main [68]	Yarmouth, Barnstable	21	37	1.0	1.7



TOP LOCATIONS BASED ON EPDO RATE

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Rank EPDO/MEV	Location	TOWNS	CrashCount	EPDO	Crash_Rate	EPDO_Rate
1	Route 39 (Orleans Rd) @ Pleasant Bay Rd [1]	Harwich	19	43	3.6	8.0
2	Route 124 (Harwich Rd) @ Tubman Rd [2]	Brewster	13	42	2.4	7.7
3	Route 134 @ Patriot Square SD/Cumberland Farms [3]	Dennis	125	181	5.0	7.2
4	Route 28 (Teaticket Hwy) @ Falmouth Mall east SD, Liquor Store, Apartments [4]	Falmouth	62	114	3.4	6.2
5	Great Neck Rd N @ Old Barnstable Rd [5]	Mashpee	15	55	1.6	5.8
6	Route 151 @ Boxberry Hill Rd [6]	Falmouth	19	47	2.3	5.7
7	Route 28 (Main St) @ Sea St [7]	Dennis	22	50	2.4	5.4
8	Otis Rotary (Rte 28/Rte 28A/Connelly Ave) [8]	Bourne	80	169	2.5	5.3
9	Route 28 (Main St) @ Depot St [9]	Dennis	16	44	1.8	5.1
10	Worcester Ct @ Spring Bars Rd [10]	Falmouth	24	44	2.7	4.9
11	Water St @ Luscombe Ave/School St [11]	Falmouth	13	21	2.8	4.5
12	Route 3A/Canal St @ Scenic Hwy/Meetinghouse Ln [12]	Bourne	12	40	1.2	4.0
13	Buck Island Rd @ Town Brook Rd [13]	Yarmouth	15	35	1.7	4.0
14	Cotuit Rd @ Harlow Rd [14]	Sandwich	12	32	1.5	3.9
15	Route 28 (Teaticket Hwy) @ Stop & Shop Plaza SD/Hotel SD [15]	Falmouth	46	70	2.5	3.7
16	Route 151 @ Old Barnstable Rd [16]	Mashpee	33	89	1.4	3.7
17	Route 28 (Teaticket Hwy) @ Maravista Av/Beagle Ln/Various Business SD [17]	Falmouth	34	66	1.9	3.6
18	Dillingham Avenue @ Gifford St [18]	Falmouth	10	34	1.0	3.4
19	Route 28 (E Falmouth Hwy) @ Fresh Pond Rd [19]	Falmouth	15	43	1.2	3.4
20	Route 28 (Davis Straits) @ Dillingham Ave/Spring Bars Rd [20]	Falmouth	35	63	1.9	3.3
21	Station Ave @ Regional Ave/Studley Rd [21]	Yarmouth	15	43	1.1	3.2
22	Eastham Rotary (Rt 6/Rt 6A/Rt 28/Smith Ln) [22]	Eastham	51	103	1.6	3.2
23	Route 130 (Forestdale Rd) @ Cotuit Rd [23]	Sandwich	16	56	0.9	3.1
24	Old Town House Rd @ Forest Rd [24]	Yarmouth	13	25	1.6	3.1
25	Route 134 @ Setucket Rd [25]	Dennis	12	28	1.3	3.0
26	County Rd @ Barlows Landing Rd [26]	Bourne	10	26	1.2	3.0
27	Route 28 @ Old Meetinghouse Rd/Davisville Rd [27]	Falmouth	19	48	1.2	2.9
28	Route 6A @ Post Rd/New Boston Rd [28]	Dennis	18	34	1.5	2.9
29	Route 151 @ Jobs Fishing Rd/Public Safety Facility SD [29]	Mashpee	13	41	0.9	2.9
30	Route 6 @ Cranberry Hwy (Exit 1C) [30]	Bourne	10	30	0.9	2.8
31	Route 134 @ Center St [31]	Dennis	10	30	0.9	2.8
32	Bourne Rotary (Rte 28/Sandwich Rd/Trowbridge Rd) [32]	Bourne	111	159	1.9	2.8
33	Route 151 @ Route 28A (North Falmouth Hwy) [33]	Falmouth	23	43	1.4	2.7
34	West Yarmouth Rd @ Buck Island Rd [34]	Yarmouth	13	29	1.2	2.7
35	Route 134 @ Theophilus F Smith Rd [35]	Dennis	41	69	1.6	2.7
36	Route 6 @ Route 132 (Exit 6) [36]	Barnstable	84	184	1.2	2.7
37	Route 6 @ Route 134 (Exit 9) [37]	Dennis	91	163	1.5	2.7
38	Route 28 (MacArthur Blvd) at Route 151 [38]	Falmouth	51	107	1.2	2.6
39	Route 134 @ Upper County Rd/Duck Pond Rd [39]	Dennis	35	71	1.2	2.5
40	Route 130 @ Great Neck Rd [40]	Mashpee	11	27	1.0	2.5
41	Sandwich Rd @ Adams St [41]	Bourne	18	42	1.1	2.5
42	Belmont Circle (Rt 28/Rt 6/Rt Bypass/Head of the Bay Rd) [42]	Bourne	54	107	1.2	2.4
43	Route 6 @ Willow St (Exit 7) [43]	Yarmouth	54	142	0.9	2.4
44	Route 28 (Teaticket Hwy) @ Trotting Park Rd/Alphonse St [44]	Falmouth	14	38	0.9	2.4
45	Route 6 @ Route 130 (Exit 2) [45]	Sandwich	74	154	1.1	2.3
46	Route 6A @ Cranberry Highway/Sandwich Rd [46]	Bourne	17	37	1.0	2.3
47	Route 28 (Teaticket Hwy) @ McDonalds SD/Various Business SD [47]	Falmouth	18	34	1.2	2.3
48	Route 6 (GAR Hwy) @ Samoset Rd [48]	Eastham	16	40	0.9	2.3
49	Route 28 @ Lorraine Rd/Dunkin Donuts SD/Family Food Plaza SD [49]	Falmouth	20	44	1.0	2.2
50	Jones Rd @ Gifford St [50]	Falmouth	12	36	0.7	2.1



INDEX OF INTERSECTION NOTES (P. 1 OF 3)

Note	Location	TOWNS	Rank EPDO /MEV	Rank Crashes /MEV	Rank EPDO	Rank Crashes	Comment
1	Route 39 (Orleans Rd) @ Pleasant Bay Rd	Harwich	1	2	35	36	Flashing LED stop signs added on minor approaches after 2011
2	Route 124 (Harwich Rd) @ Tubman Rd	Brewster	2	8	40	64	RSA 2011, Additional signage and vegetation management 2012
3	Route 134 @ Patriot Square SD/Cumberland Farms	Dennis	3	1	2	1	Cumberland Farms drive reconfigured in 2012
4	Route 28 (Teaticket Hwy) @ Falmouth Mall east SD, Liquor Store, Apartments	Falmouth	4	3	10	8	
5	Great Neck Rd N @ Old Barnstable Rd	Mashpee	5	21	27	52	
6	Route 151 @ Boxberry Hill Rd	Falmouth	6	10	30	36	
7	Route 28 (Main St) @ Sea St	Dennis	7	9	28	30	CCC Report "Dennisport - Analysis of High-Crash Locations" 2012
8	Otis Rotary (Rte 28/Rte 28A/Connery Ave)	Bourne	8	6	3	5	CCC safety study 2006, RSA 2013
9	Route 28 (Main St) @ Depot St	Dennis	9	15	32	46	CCC Report "Dennisport - Analysis of High-Crash Locations" 2012
10	Worcester Ct @ Spring Bars Rd	Falmouth	10	5	32	26	CCC Spring Bars Road report analysis 2013
11	Water St @ Luscombe Ave/School St	Falmouth	11	4	128	64	
12	Route 3A/Canal St @ Scenic Hwy/Meetinghouse Ln	Bourne	12	33	43	83	
13	Buck Island Rd @ Town Brook Rd	Yarmouth	13	16	54	52	
14	Cotuit Rd @ Harlow Rd	Sandwich	14	25	64	83	Roundabout constructed 2012
15	Route 28 (Teaticket Hwy) @ Stop & Shop Plaza SD/Hotel SD	Falmouth	15	7	18	15	
16	Route 151 @ Old Barnstable Rd	Mashpee	16	27	15	21	RSA 2014 scheduled
17	Route 28 (Teaticket Hwy) @ Maravista Av/Beagle Ln/Various Business SD	Falmouth	17	13	22	20	
18	Dillingham Avenue @ Gifford St	Falmouth	18	49	57	117	
19	Route 28 (E Falmouth Hwy) @ Fresh Pond Rd	Falmouth	19	36	35	52	
20	Route 28 (Davis Straits) @ Dillingham Ave/Spring Bars Rd	Falmouth	20	14	23	18	CCC Spring Bars Road report analysis 2013
21	Station Ave @ Regional Ave/Studley Rd	Yarmouth	21	40	35	52	
22	Eastham Rotary (Rt 6/Rt 6A/Rt 28/Smith Ln)	Eastham	22	19	13	12	CCC safety study 2009; Recommendations included in Outer Cape Safety Study 2004
23	Route 130 (Forestdale Rd) @ Cotuit Rd	Sandwich	23	61	25	46	
24	Old Town House Rd @ Forest Rd	Yarmouth	24	18	87	64	
25	Route 134 @ Setucket Rd	Dennis	25	28	76	83	



INDEX OF INTERSECTION NOTES (P. 2 OF 3)

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Note	Location	TOWNS	Rank EPDO /MEV	Rank Crashes /MEV	Rank EPDO	Rank Crashes	Comment
26	County Rd @ Barlows Landing Rd	Bourne	26	38	85	117	
27	Route 28 @ Old Meetinghouse Rd/Davisville Rd	Falmouth	27	37	29	36	TIP year 2013
28	Route 6A @ Post Rd/New Boston Rd	Dennis	28	22	57	42	
29	Route 151 @ Jobs Fishing Rd/Public Safety Facility SD	Mashpee	29	57	42	64	
30	Route 6 @ Cranberry Hwy (Exit 1C)	Bourne	30	53	69	117	
31	Route 134 @ Center St	Dennis	31	55	69	117	
32	Bourne Rotary (Rte 28/Sandwich Rd/Trowbridge Rd)	Bourne	32	12	5	2	Bourne Rotary study completed 2014; safety improvements scheduled for FY2014
33	Route 151 @ Route 28A (North Falmouth Hwy)	Falmouth	33	26	35	28	TIP year 2017
34	West Yarmouth Rd @ Buck Island Rd	Yarmouth	34	34	74	64	
35	Route 134 @ Theophilus F Smith Rd	Dennis	35	20	20	16	Analysis 2013
36	Route 6 @ Route 132 (Exit 6)	Barnstable	36	32	1	4	Signalized 2007
37	Route 6 @ Route 134 (Exit 9)	Dennis	37	23	4	3	RSA completed 2009; new analysis 2013
38	Route 28 (MacArthur Blvd) at Route 151	Falmouth	38	31	11	12	
39	Route 134 @ Upper County Rd/Duck Pond Rd	Dennis	39	29	17	18	Reconstruction begun 2013
40	Route 130 @ Great Neck Rd	Mashpee	40	47	82	101	
41	Sandwich Rd @ Adams St	Bourne	41	44	40	42	Under review by Town of Bourne 2014
42	Belmont Circle (Rt 28/Rt 6/Rt Bypass/Head of the Bay Rd)	Bourne	42	30	11	9	MassDOT study begun 2013
43	Route 6 @ Willow St (Exit 7)	Yarmouth	43	58	7	9	
44	Route 28 (Teaticket Hwy) @ Trotting Park Rd/Alphonse St	Falmouth	44	65	47	59	
45	Route 6 @ Route 130 (Exit 2)	Sandwich	45	43	6	6	Signalized 2012
46	Route 6A @ Cranberry Highway/Sandwich Rd	Bourne	46	46	48	45	RSA completed 2012
47	Route 28 (Teaticket Hwy) @ McDonalds SD/Various Business SD	Falmouth	47	35	57	42	
48	Route 6 (GAR Hwy) @ Samoset Rd	Eastham	48	60	43	46	
49	Route 28 @ Lorraine Rd/Dunkin Donuts SD/Family Food Plaza SD	Falmouth	49	48	32	33	
50	Jones Rd @ Gifford St	Falmouth	50	76	51	83	



51	Depot St @ Upper County Rd	Dennis	51	17	186	64	
52	Route 28 (E Falmouth Hwy) @ Central Ave	Falmouth	52	41	35	28	
53	Brick Kiln Rd @ Sandwich Rd	Falmouth	53	39	82	52	
54	Route 134 @ Route 28 (Main St)/Swan River Rd	Dennis	54	66	54	52	Added left turn lanes and new signal phasing, pedestrian improvements 2010
55	Theophilus F Smith Rd @ Patriot Square Rear SD (near theater)	Dennis	55	11	153	36	Analysis 2013
56	Route 28 @ Old Barnstable Rd/Acapesket Rd	Falmouth	56	62	51	46	
57	Cranberry Highway @ Adams St	Bourne	57	68	82	101	
58	Route 151 @ Sandwich Rd	Falmouth	58	51	43	33	
59	Route 6 @ Union St/Station Ave (Exit 8)	Yarmouth	59	70	8	14	RSA completed 2011
60	Route 28 (Main St) @ Perry Ln/Various Business SD	Falmouth	60	56	67	52	
61	Route 6 @ Route 124 (Exit 10)	Harwich	61	42	20	16	Signalization of Rt 124/Queen Anne Road adjacent to interchange 2011
62	Route 28 (Teaticket Hwy) @ Jones Rd	Falmouth	62	59	46	36	TIP year 2013
63	Route 6 @ Route 137 (Exit 11)	Harwich	63	63	24	22	Signalized eastbound ramps 2013
64	Station Avenue near Former Rail Crossing	Yarmouth	64	81	51	83	
65	West Main St @ Pitchers Way	Barnstable	65	89	76	175	
66	Route 6 @ Exit 1A/Exit1B	Bourne	66	54	8	7	
67	Route 134 @ Bob Crowell Rd/Hemlock Ln	Dennis	67	24	76	26	Analysis 2013
68	Route 28 @ East Main	Yarmouth, Barnstable	68	50	48	31	Recommendations included in Rt 28 Safety and Traffic Flow Study 2006
69	Buck Island Rd @ Higgins Crowell Rd	Yarmouth	69	64	87	64	
70	Route 28 (E Falmouth Hwy) @ Corte Real Ave	Falmouth	70	72	69	59	
71	Route 28 @ Main St/N Main St	Yarmouth	71	52	76	46	
72	Route 28 (Falmouth Rd) @ Orchard Rd/Ashers Path	Mashpee	72	85	67	101	
73	Route 6 (GAR Hwy) @ Brackett Rd/Old County Rd	Eastham	73	69	64	46	Signal upgrade & westbound left turn lane added 2010
74	Willow St @ Higgins Crowell Rd	Yarmouth	74	94	76	175	
75	Route 137 @ Route 39 (Orleans Rd)	Harwich	75	79	61	64	

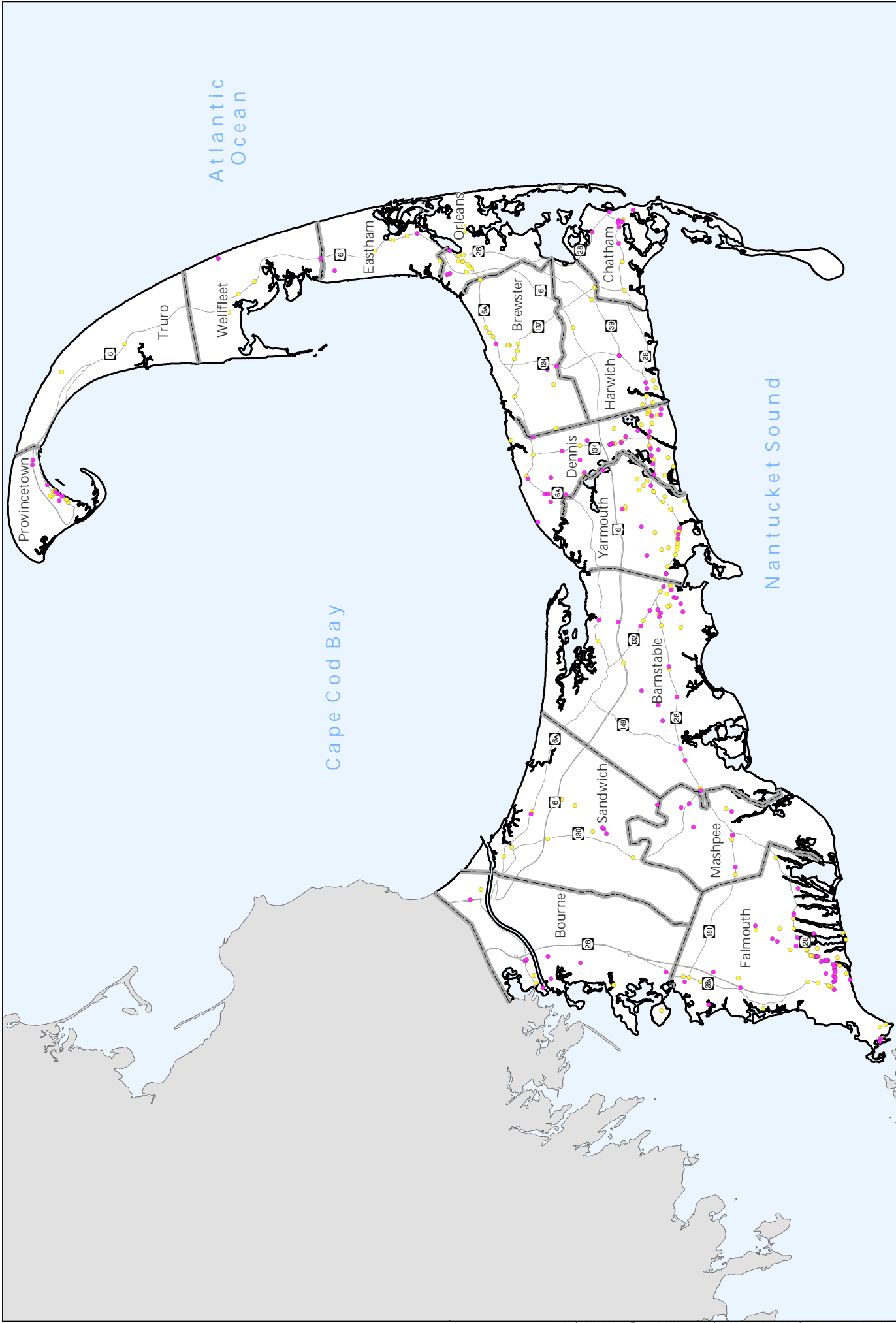
Notes: RSA = Road Safety Audit; TIP = Transportation Improvement Program
CCC = Cape Cod Commission



Bicycle and Pedestrian Crashes

From the overall crash dataset, MassDOT further narrows the data to highlight crashes involving bicycles or pedestrians. All of the crashes included in the bicycle/pedestrian data are also included in the data of all vehicular crashes. The following figure depicts all located crashes in Barnstable County that were reported and located during 2009-2011. All bicycle/pedestrian crashes included at least one motor vehicle.

For the period 2009-2011 there were 214 crashes reported involving bicycles; of these, 203 were geographically located. Also during this period there were 165 crashes reported involving pedestrians; of these, 147 were geographically located. Of the 147 pedestrian crashes, 13 were listed as some type of non-motorist non-bicyclist such as skaters or wheelchair users.



Barnstable County Bicyclist and Pedestrian Reported Crashes

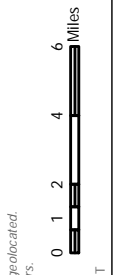
2009 - 2011

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supervised deed research.

Motor Vehicle-Pedestrian Crash
 From 2009 to 2011, there were 147 pedestrian crash incidents that were geolocated. This category includes other non-motorists such as skaters and wheelchairs.

Motor Vehicle-Bicyclist Crash
 From 2009 to 2011, there were 203 bicyclist crash incidents that were geolocated.

Date: 5/20/2014
 User: sgoulet



Source: MassDOT



The highest concentration of bicycle and pedestrian crashes occur along Barnstable County’s major roads. The majority of crashes took place along Route 28 – particularly in downtown Falmouth, Yarmouth, Dennis, Chatham and Orleans. Other areas of high concentration are downtown Buzzard’s Bay in Bourne, Station Avenue in Yarmouth, Route 134 in Dennis, downtown Orleans, and Commercial Street in Provincetown.

It should be noted that these data is representative of all reported bicycle/pedestrian crashes – not necessarily all crashes that have occurred. Furthermore, the reports must have had enough information to be located properly. Differences in number of crashes per town may be the result of a difference in reporting, although there is no evidence to suggest a difference.

Also, bicycle/pedestrian crashes are known to be under-reported. It is not uncommon for bicyclists or pedestrians to decline reporting an incident with a vehicle if their injuries are too minor to warrant a hospital visit. Unfortunately, this lack of reporting diminishes the accuracy of a report like this, and does little to highlight problem areas in the county.

BICYCLE AND PEDESTRIAN CRASH CLUSTERS

As was done with the overall vehicular crash data, the individual bicycle/pedestrian crashes were grouped into clusters relevant to specific intersections. A cluster requires at least two incidents. The following table highlights the eight locations on Cape Cod that had at least two pedestrian related crashes (based on MassDOT data).

TABLE 1: BARNSTABLE COUNTY PEDESTRIAN CRASH CLUSTERS, 2009-2011

Injury	No Injury	EPDO	Roadway	Location	Town
3	0	15	Route 28 (Teaticket Highway)	Falmouth Mall north entrance	Falmouth
2	0	10	Market St	south of Starbucks - Mashpee Commons	Mashpee
2	0	10	Route 28	Wendward Way	Yarmouth
2	0	10	Route 134 (East West Dennis Rd)	south of Patriots Square driveway	Dennis
1	1	6	Route 28 (Teaticket Highway)	Burger King driveway	Falmouth



Of the 165 total pedestrian-related crashes that occurred within Barnstable County from 2009-2011, there are only five locations with more than one incident (and no location with more than three recorded incidents). While this analysis does not highlight any particular intersection as a location of critical concern, the data does suggest issues with particular corridors – especially along the county’s major roads.

The MassDOT data from 2009-2011 includes 214 bicycle-related crashes. There are three bicycle crash clusters for that time period, meaning three locations with at least two bicycle-related crashes. Those locations are highlighted in the following table.

TABLE 2: BARNSTABLE COUNTY BICYCLE CRASH CLUSTERS, 2009-2011

# Crash	Injury	No Injury	EPDO	Roadway	Location	Town
2	2	0	10	137 (Long Pond Rd)	Underpass Rd	Brewster
2	1	1	6	Route 28 (Teaticket Hwy)	McDonald's driveway	Falmouth
2	0	2	2	Route 28 (Teaticket Hwy)	Maravista Avenue	Falmouth



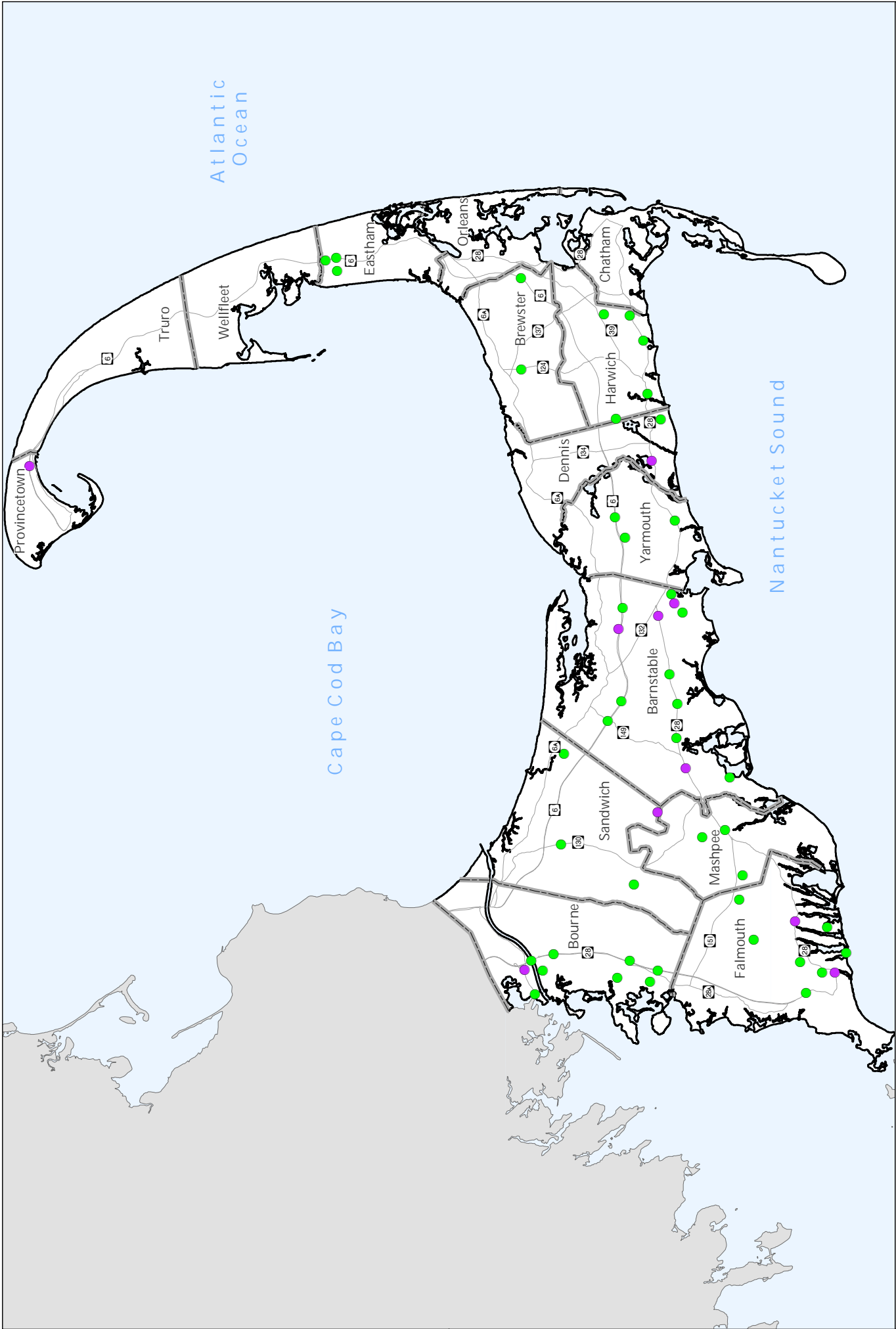
Fatal Crashes

The most severe crash type, (i.e., those involving fatalities) is given special attention by safety officials to ascertain any contributing factors. The MassDOT dataset indicate that 54 crashes involving a fatality occurred during 2009-2011. A town-by-town breakdown is presented in the following table.

TABLE 3: FATAL CRASHES BY TOWN, 2009-2011

Town	2009	2010	2011	Total
Barnstable	3	4	6	13
Bourne	4	4	1	9
Brewster	1	1	0	2
Chatham	0	0	0	0
Dennis	1	2	0	3
Eastham	0	0	3	3
Falmouth	3	2	4	9
Harwich	2	1	1	4
Mashpee	0	1	2	3
Orleans	0	0	0	0
Provincetown	0	0	1	1
Sandwich	1	2	1	4
Truro	0	0	0	0
Wellfleet	0	0	0	0
Yarmouth	0	1	2	3
Total	15	18	21	54

The locations of all 54 crashes have been identified and are shown on the following map.



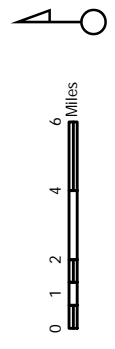
Barnstable County Fatal Crashes 2009 - 2011

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

Date: 5/15/2014
User: sgoulet

- **Motor Vehicles Only**
From 2009 to 2011, there were 44 fatal non-pedestrian/non-bicyclist crash incidents that were geolocated.
- **Motor Vehicle - Pedestrian Crash**
From 2009 to 2011, there were 10 fatal pedestrian crash incidents that were geolocated.

Source: MassDOT





Of the 54 fatal crashes that have occurred in Barnstable County during 2009-2011, ten have included a pedestrian. The bulk of the fatal incidents have occurred on Cape Cod's major roads – notably Route 28 in Bourne and Route 6 in Barnstable. The towns of Barnstable, Falmouth, and Sandwich have experienced the most fatal crashes, with thirteen, nine, and nine, respectively. On all of the Atlantic towns (Chatham - Provincetown), there are only four fatal crashes – all of which occurred on Route 6. Three of those incidents were in Eastham (two on Route 6), and one happened in Provincetown on Route 6.

There were three rear-end collisions, two side impact collisions, ten at an angle, and seven head-on collisions. Thirty-two crashes included only one vehicle.



Summary

The information provided in this report has been presented with the intention of serving as a resource to make Cape Cod safer for motorists, pedestrians, and bicyclists. There are many ways to create a list of most dangerous intersections, and each methodology has its strengths and weaknesses. For this reason, the Commission has produced four high crash lists without identification of a preferred option. The user is responsible for selecting the list which is most appropriate based on the desired outcome's characteristics.

Geolocating crashes is an effective method used in identifying high crash areas. Better crash data will lead to better analysis, the most accurate identification of problem areas, and the deployment of appropriate safety improvements. Incomplete or inaccurate crash reporting may lead to a missed opportunity of funds for a project. These records are used to

Accurate and comprehensive crash reporting will lead to better opportunities for safety improvements and focus further safety studies on the areas of most critical need.

CAPE COD COMMISSION

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