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INTRODUCTION

Background

Upon completion of the 2011 Central Massachusetts Regional Bicycle and Pedestrian Plan, CMRPC Staff, in conjunction with both the Central Massachusetts Metropolitan Planning Organization (CMMPO) and CMMPO Bicycle and Pedestrian Committee, launched a pilot bicycle and pedestrian count program to monitor biking and walking trips within the region’s existing trail network. The purpose of the initial count program was to collect raw data and evaluate overall trail usage in the region over time. In 2011, counts were conducted on the Blackstone Valley Greenway and along the Mass Central Rail Trail in West Boylston. In 2012, CMRPC Staff further expanded the count program to monitor usage of on-road bicycle lanes in Worcester, including usage at the Blackstone Valley Greenway in Millbury, and the Mass Central Rail Trail in Holden. In 2013, the count program collected data on the same trails and added three roads in Worcester with marked, on-road bicycle lanes to overlook lane usage.

2018 Update

Since the completion of the 2013 Regional Trail and Bicycle Lane Count Report, CMRPC Staff have adjusted our location areas to focus on bicycle and pedestrian activity at intersections. The change in focus areas was due to shifts in local priorities. The initial bike and pedestrian counts were collected mainly to assist various trails organizations with their applications for grant funding. Following 2013, CMRPC Staff received requests from municipalities to collect counts along specific roadways and intersections to examine bicycle and pedestrian activity as part of their overall bikability and walkability assessments. Additionally, these requests came prior to what is now known as the MassDOT Complete Streets Funding Program, which launched in February 2016 and has shaped how communities in the CMMPO region have approached bicycle and pedestrian planning. With this, CMRPC Staff continued to solicit Town Planners, Planning Boards, and DPW’s for ideas and to submit requests for consideration to have a specific area or intersection counted. From that, CMRPC Staff selected locations based on a number of factors such as bike and pedestrian crash data, known activity, and to aid project design. The adjustment to our selection of locations was made to reach a goal of providing communities with the data to have an understanding of activity and to encourage potential future TAP projects.
COUNT INFORMATION

The 2014-2018 bicycle and pedestrian data collection season was completed by collecting counts at specific location areas and intersections. The bike and pedestrian counts between 2014 and 2017 were collected using the same methods and data collection sheets that were used in previous years. The 2018 counts were collected through Turning Movement Counts (TMC) where CMRPC Staff monitored bicycle and pedestrian activity as part of the standard traffic survey.

Each location area and intersection received two counts that were performed on weekdays and one count that was performed on a Saturday. The 2018 data does not contain any Saturday counts. For the weekday count, the AM count was performed from 7:00 AM – 9:00 AM and the PM count was performed from 4:00 PM – 6:00 PM. The Saturday count was performed from 11:00 AM – 2:00 PM.

Below are the towns that CMRPC conducted bike and pedestrian activity counts in:

**2014:** Charlton, East Brookfield, Millbury, Princeton, Shrewsbury, Spencer, Sturbridge, West Boylston, and Worcester

**2015:** Spencer and Leicester

**2016:** Brookfield, East Brookfield, North Brookfield, Spencer, West Boylston

**2017:** Millville, Webster, West Boylston

**2018:** Auburn, Blackstone, Boylston, Dudley, Millbury, Paxton, Shrewsbury, Southbridge, Sturbridge, Uxbridge, Webster, West Boylston, Westborough, and Worcester
Of all the locations in which data was collected from 2014-2018, there were a few areas where staff conducted multiple counts along the same roadway but at different intersections.

One of these areas was Meadow Road in Spencer during 2015. The counts at the Meadow/Smithville Road intersection and also at the Meadow/Hillsville Road/Pleasant Street intersection were in a residential neighborhood. Compared to the Meadow Road/West Main Street intersection, staff observed more bicycle and pedestrian activity in the West Main Street area nearby The Fair Shopping Plaza. In all, about 62% more activity occurred at the West Main Street/Meadow Road intersection than at the other two locations respectively.

Additionally, there were a couple of intersections along Harrington Street in East Brookfield that were examined in 2014 and 2016; although the count in 2016 was only conducted on a Saturday. In comparing the two Saturday counts along Harrington Street, slightly more activity occurred at the Harrington Street/Route 9 intersection in 2014 than the Harrington Street/Harrington Lane intersection in 2016. Furthermore, the count in 2014 also observed bicyclists and ‘other’ modes of travel, whereas in 2016 only pedestrians were noted.

West Boylston also had several locations and intersections counted along Route 140 and Route 12. In 2016, staff observed considerable activity at the Route 12/Route 140/Central Street intersection including 36 pedestrians and 54 bicyclists in total. However, the same intersection experienced a dramatic decrease in activity in 2017, as only 8 pedestrians and 11 bicyclists were noted. During the following year in 2018, even less activity was noted with 5 pedestrians and 5 bicyclists, which is about an 89% decrease from 2016.

There were also two counts in 2018 along Franklin Street in West Boylston – one at the Route 12 intersection and the other at the Route 140 intersection. Although the Route 140/Franklin Street intersection is surrounded by the Town Hall and an apartment complex, there was slightly less activity occurring at this area with 8 bicyclists and 4 pedestrians in total. This is compared to the 15 bicyclists and 3 pedestrians noted at the Route 12/Franklin Street intersection, which is located around businesses and other commercial developments.
2014 COUNTS
The weekday counts at this intersection show some pedestrian traffic in both the morning and evening, including much more bicycle traffic in the afternoon at this intersection. In all, there were 10 pedestrians and 13 bicyclists.

The Saturday count at this intersection also shows there to be more bicycle traffic, like the weekdays, although there is still a fair amount of pedestrian traffic and ‘other’ modes (i.e. skateboard) being used to travel at this intersection as well. In all, there were 17 bicyclists, 11 pedestrians and 11 ‘other’ modes of travel.
The weekday count at this intersection shows more pedestrian traffic than bicycle traffic. In all, there were 8 pedestrians and 1 bicyclist traveling through this intersection.

The Saturday count at this intersection shows more bicycle traffic, and less pedestrian traffic compared to the weekday count. Additionally, staff observed ‘other’ modes being used to travel at this location. In all, activity at this location included 5 bicyclists, 3 pedestrians and 3 ‘other’ modes of travel.
The weekday counts at this location shows there to be much more pedestrian traffic occurring than bicyclists or ‘other’ modes. In all, there were 78 pedestrians, 8 bicyclists and no ‘other’ modes of travel.

The Saturday count at this intersection is similar to the weekday counts in that there is much more pedestrian traffic occurring than bicycling or ‘other’ modes. There was much more bicycle traffic occurring on this Saturday count than the weekday counts. In all, there were 72 pedestrians, 29 bicyclists and no ‘other’ modes of travel.
The weekday counts at this intersection show a mix between both pedestrian and bicycle traffic, while there were no ‘other’ modes being used. In all, there were 10 pedestrians and 7 bicyclists.

The Saturday count at this intersection shows much more bicycle and pedestrian traffic occurring than the weekday counts, while there were still no ‘other’ modes noted. In all, bicycle traffic was much greater with 43, while there were 13 pedestrians.
The weekday counts at this intersection show much more pedestrian traffic than bicycle traffic, while there was no ‘other’ traffic noted. In all, there were 41 pedestrians and 11 bicyclists.

The Saturday count at this intersection is very similar to the weekday, although the difference between pedestrian and bicycle traffic is even greater. In all, there were 58 pedestrians and 9 bicyclists.
The weekday counts at this intersection show an overwhelming majority of pedestrian traffic compared to bicycle traffic, while there was no ‘other’ modes of traffic occurring. In all, there were 100 pedestrians and 8 bicyclists.

The Saturday count at this intersection is very similar to the weekday counts, in that pedestrian traffic greatly outweighs bicycle traffic and no ‘other’ modes were noted. In all, there were 153 pedestrians and 6 bicyclists.
The weekday counts at this intersection show a mix between pedestrian, bicycle and ‘other’ traffic occurring. In all, there were 21 pedestrians, 9 bicyclists and 2 ‘other’ modes.

The Saturday count at this intersection shows much more pedestrian traffic occurring than bicycle traffic, while no ‘other’ modes were noted. In all, there were 22 pedestrians and 8 bicyclists.
The weekday counts at this intersection were small and showed an almost even mix between pedestrian and bicycle traffic, while no ‘other’ modes were noted. In all, there were 8 pedestrians and 12 bicyclists.

The Saturday count at this intersection shows much more pedestrian and bicycle traffic occurring than during the week, while no ‘other’ modes were noted again. In all, there were 20 pedestrians and 30 bicyclists at this intersection.
The weekday counts at this intersection show an overwhelming amount of pedestrian traffic over both bicycle and pedestrian traffic, with some ‘other’ modes during the weekday evening. In all, there were 1,062 pedestrians, 142 bicyclists and 6 ‘other’ modes.

The Saturday count at this intersection shows very similar results as the weekday counts. While there were 660 pedestrians, there were only 113 bicyclists and no ‘other’ modes on Saturday.
2015 Counts
The weekday counts at this intersection show a mix between pedestrian traffic and bicycle traffic, with more activity observed in the morning. There were no ‘other’ modes of traffic noted at this intersection. In all, there were 12 pedestrians and 4 bicyclists.

The Saturday count at this intersection shows a mix between pedestrian and bicycle traffic, but there were several more bicyclists than pedestrians. Similar to the weekday counts, there were no ‘other’ modes of traffic observed. In all, there were 8 bicyclists and 4 pedestrians.
The weekday counts at this intersection show a mix between pedestrian traffic and bicycle traffic. There were no ‘other’ modes of traffic noted at this intersection. In all, there were 12 pedestrians and 9 bicyclists.

The Saturday count at this intersection shows a mix between pedestrian and bicycle traffic, with more bicyclists than pedestrians. In all, there were 11 bicyclists, 6 pedestrians, and 1 ‘other’ mode.
The weekday counts at this intersection show a mix between pedestrian traffic and bicycle traffic. There were no ‘other’ modes of traffic noted at this intersection. In all, there were 11 pedestrians and 9 bicyclists.

The Saturday count at this intersection shows a mix between pedestrian and bicycle traffic, and there were several more bicyclists than pedestrians. Similar to the weekday counts, there were no ‘other’ modes of traffic noted. In all, there were 7 bicyclists and 4 pedestrians.
Charlton Road south of East Charlton Road, Spencer

The weekday counts at this intersection show a mix between pedestrian traffic and bicycle traffic. There were no ‘other’ modes of traffic noted at this intersection. In all, there were 13 pedestrians and 8 bicyclists.

The Saturday count at this intersection shows a mix between pedestrian and bicycle traffic, but there were several more bicyclists than pedestrians. Similar to the weekday counts, there were no ‘other’ modes of traffic noted. In all, there were 7 bicyclists and 6 pedestrians.
The weekday counts at this intersection show much more pedestrian traffic than bicycle traffic and ‘other’ modes. There was also increased bicycle activity in the evening. In all, there were 51 pedestrians, 21 bicyclists and 1 ‘other’ mode.

The Saturday count at this intersection shows a mix between pedestrian traffic, bicycle traffic, and ‘other’ modes. In all, there were 16 pedestrians, 12 bicyclists and 1 ‘other’ mode.
The weekday counts at this intersection show a mix between pedestrian traffic and bicycle traffic, with more pedestrian activity in the morning than the evening. There was also more bicycle activity in the evening and there were no ‘other’ modes noted during these counts. In all, there were 16 pedestrians and 14 bicyclists.

The Saturday count at this intersection also shows a mix between pedestrian traffic and bicycle traffic, while ‘other’ modes were not noted. In all, there were 7 pedestrians, 4 bicyclists.
The weekday counts at this intersection show much more pedestrian traffic than bicycle traffic. There was also more activity observed in the evening. No ‘other’ modes were noted during these counts. In all, there were 19 pedestrians and 5 bicyclists.

The Saturday count at this intersection shows more pedestrian traffic than bicycle traffic, similar to the weekday activity. In contrast to the weekday counts, there was 1 ‘other’ mode of traffic noted on Saturday. In all, there were 18 pedestrians, 8 bicyclists and 1 ‘other’ mode.
The weekday counts at this intersection show an even mix of pedestrian and bicycle traffic. No ‘other’ modes were noted during these counts. In all, there were 6 pedestrians and 9 bicyclists.

The Saturday count at this intersection shows double bicycle traffic than pedestrian traffic. Similar to the weekday counts, there were no ‘other’ modes of traffic occurring during this count. In all, there were 11 pedestrians and 22 bicyclists.
2016 Counts
Only one weekday count was conducted at this intersection. During this study there was only pedestrian activity occurring in the evening, with 7 pedestrians observed.
There were only weekday counts conducted at this intersection. The weekday counts show there to be a lot more pedestrian activity than bicyclists. In all, there were 29 pedestrians and 3 bicyclists.
For this intersection, there was only a weekend count conducted. During that count, there were many more pedestrians active than there were bicyclists or ‘others’. In all, there were 23 pedestrians and 6 bicyclists.
For this intersection, there was only a weekend count conducted. During that count, only pedestrians were observed. In all, there were 8 pedestrian.
Grove Street and South Common Street, North Brookfield

The weekday counts at this intersection show there to be much more pedestrian activity occurring than bicyclists or ‘others’. In all, there were 57 pedestrians, 5 bicyclists and 2 ‘others’.

The weekend count at this intersection shows a significant decrease in overall activity than the weekday counts. Though similarly, there was much more pedestrian activity than bicyclists or ‘others’. In all, there were 19 pedestrians, 5 ‘others’ and 2 bicyclists.
The weekday counts at this intersection show there to be much more pedestrian activity occurring than bicyclists or ‘others’. In all, there were 54 pedestrians, 1 bicyclist and no ‘others’.

The Saturday count at this intersection shows a significant decrease in overall activity than the weekday counts. Additionally, there was much more bicyclists active at this intersection than pedestrian or ‘others’. In all, there were 21 bicyclists, 4 pedestrians and 2 ‘other’ modes.
The weekday counts at this intersection show there to be much more pedestrian activity occurring than bicyclists or ‘others’. In all, there were 36 pedestrians, 4 bicyclists and no ‘others’.
The weekday counts at this intersection show there to be mainly pedestrian activity. In all, there were 65 pedestrians, 1 bicyclists and 0 ‘others’.
The weekday counts at this intersection show there to be mainly pedestrian activity. In all, there were 20 pedestrians, 2 bicyclists and 0 ‘others’.
The weekday counts at this intersection show there to be mainly pedestrian activity, though there was a small mix of bicyclists and ‘others’ during the evening count. In all, there were 32 pedestrians, 1 bicyclists and 2 ‘others’.
The weekday counts at this intersection showed there to be a mix of pedestrian and bicycle activity, with no ‘other’ modes noted. In all, there were 25 pedestrians and 13 bicyclists.

The weekend count at this intersection showed a big increase in the amount of bicycle usage, while pedestrian activity was similar to the weekday counts. Also similar to the weekday counts was that there was no ‘others’ noted. In all, there were 11 pedestrians and 41 bicyclists.
2017 Counts
While not much activity occurred, the weekday counts at this intersection show a small mix of pedestrian and bicycle activity in the AM, though there was only pedestrian activity in the PM. In all, there were 7 pedestrians and 1 bicyclists.
During the PM weekday count at this intersection there was a heavy amount of pedestrian activity occurring, as well as a small mix of bicycle and ‘others’ activity. In all, there were 44 pedestrians, 4 bicyclists and 1 ‘others’.
The weekday count at this intersection showed there to be a mix of pedestrian and bicycle activity, while there were no ‘others’ noted. In all, there were 8 pedestrians and 11 bicyclists.
The weekday count at this intersection showed there to be a mix of pedestrian and bicycle activity, while there were no ‘others’ noted. In all, there were 8 pedestrians and 7 bicyclists.
2018 Counts
The weekday count at this intersection shows no bicycle or pedestrian activity.
The weekday count at this intersection shows there to be a mix of bicycle and pedestrian activity occurring. In all, there were 2 bicyclists and 5 pedestrians.
The weekday count at this intersection shows there to be a mix of bicycle and pedestrian activity occurring, with more of the activity occurring in the evening. In all, there were 14 bicyclists and 8 pedestrians.
The weekday count at this intersection shows there to be a small mix of bicycle and pedestrian activity occurring. In all, there were 1 bicyclists and 3 pedestrians.
The weekday count at this intersection shows there to be a small mix of bicycle and pedestrian activity occurring. In all, there were 4 bicyclists and 6 pedestrians.
The weekday count at this intersection shows there to be a small mix of bicycle and pedestrian activity occurring, with more activity in the PM. In all, there were 3 bicyclists and 12 pedestrians.
The weekday count at this intersection shows there to be mainly pedestrian activity in the AM, although there was a mix use of pedestrians and bicyclists in the PM count. In all, there were 25 pedestrians and 12 bicyclists.
The weekday count at this intersection shows there to be only a small number of pedestrian activity. In all, there were 4 pedestrians.
The weekday count at this intersection shows there to be only pedestrian activity occurring during the AM. In all, there were 9 pedestrians.
The weekday count at this intersection shows there to be a mixed use of both pedestrian and bicycle activity, with much more use occurring in the evening. In all, there were 29 pedestrians and 14 bicyclists.
The weekday count at this intersection shows there to be mainly pedestrian activity occurring, with some bicycle activity in the PM. In all, there were 8 pedestrians and 1 bicyclist.
The weekday count at this intersection shows there to be much more pedestrian activity occurring than bicyclists. In all, there were 49 pedestrians and 1 bicyclist.
The weekday count at this intersection shows there to be much more pedestrian activity occurring than bicyclists. In all, there were 129 pedestrians and 8 bicyclists.
The weekday count at this intersection shows there to be a mix use of pedestrian and bicycle activity. In all, there were 8 pedestrians and 3 bicyclists.
The weekday count at this intersection shows there to be a mix use of pedestrian and bicycle activity. In all, there were 17 pedestrians and 5 bicyclists.
The weekday count at this intersection shows there to be a more pedestrian activity than bicycle activity. In all, there were 7 pedestrians and 1 bicyclist.
The weekday count at this intersection shows there to more pedestrian activity occurring in the AM, although there was a mix use of pedestrian and bicycle activity in the PM. In all, there were 14 pedestrians and 3 bicyclists.
The weekday count at this intersection shows there to be mainly pedestrian activity occurring. In all, there were 8 pedestrians and 1 bicyclist.
The weekday count at this intersection shows there to be no pedestrian or bicycle activity.
The weekday count at this intersection shows there to be a mix of pedestrian and bicycle activity occurring in the AM, although there was much more pedestrian activity occurring in the PM. In all, there were 63 pedestrians and 22 bicyclists.
The weekday count at this intersection shows there to be mainly bicycle activity occurring over pedestrian activity. In all, there were 15 bicyclists and 3 pedestrians.
Route 140/Franklin Street, West Boylston

West Boylston
Route 140
Weekday Count
June 7th

The weekday count at this intersection shows there to be a mix use of both pedestrian and bicycle activity. In all, there were 8 bicyclists and 4 pedestrians.
The weekday count at this intersection shows there to be a mix use of both pedestrian and bicycle activity, with the majority of the activity occurring in the PM. In all, there were 5 pedestrians and 5 bicyclists.
The weekday count at this intersection shows there to be mainly pedestrian activity occurring with some bicycle activity as well. In all, there were 26 pedestrians and 9 bicyclists.
The weekday count at this intersection shows there to be much more pedestrian activity occurring than bicycle activity, with the majority occurring in the PM. In all, there were 26 pedestrians and 6 bicyclists.
While the AM count at this location shows there to be only pedestrian activity occurring, the PM count shows there to be only bicycle activity occurring. In all, there were 4 pedestrians and 3 bicyclists.
The weekday count at this intersection shows there to be mainly pedestrian activity occurring with some bicycle activity as well. In all, there were 80 pedestrians and 16 bicyclists.
As part of the CMMPO’s approach to bicycle and pedestrian planning, this report will assist municipalities with local assessments of walkability and bikeability through our data tables and findings. Furthermore, this report will help staff efforts to assist communities with management systems data to help initiate project development discussion.

Going forward, CMRPC staff aim to redesign the regional bicycle and pedestrian count program in order to identify methodology improvements to the count collection process. Any improvements made will be intended to help streamline and coordinate more collaboration between CMMPO municipalities and the MassDOT funding resources. These counts could be used as exploratory tools to engage with and promote program benefits to those “inactive” municipalities, or communities that have not yet participated in MassDOT’s Complete Streets Funding Program or the SRTS Program. As for its ability to assist Complete Streets, count information can be used as part of municipalities needs assessments as they work to prepare and adopt Complete Streets policies, develop prioritization plans, and submit applications for project funding requests. One consideration is to use the bicycle and pedestrian counts as part of existing Complete Streets Tier II data collection activities i.e. inventory collection of sidewalks, bike and pedestrian facilities along federal-aid eligible roads and input into the GIS inventory. In regards to the latter, these counts could also be used in the process of facilitating Safe Routes to School (SRTS) partnerships between schools and CMMPO municipalities.

Additionally, CMRPC staff will develop a bikeability-pedestrian index in late 2019 that evaluates the walkability and bikeability levels of CMMPO communities and the identification of streets/intersections that have network gaps and/or require improvements. The index tools will be intended to help municipalities better assess themselves in how they rank compared to the rest of the region in regards to bikeable and walkable conditions and needs. The index tools will also be integrated into the asset management process in order to improve efficiency and ensure that infrastructure priorities are met.

With this, the updated CMRPC program procedures, index tools, and implementation of the Regional Bicycle Plan and Regional Pedestrian Plan are intended to help municipalities identify and advance bicycle and pedestrian projects into the MassDOT Highway Division’s project development process for standalone TAP projects, inclusion in larger roadway projects, Complete Streets Tier III construction, and Safe Route to Schools projects.
The report was created by

The CMRPC Transportation Staff
One Mercantile Street, Suite 520
Worcester, MA 01608

Contact: Hoamy Tran
htran@cmrpc.org
(508) 459-3327

For more information visit
http://www.cmrpc.org/bikeped
http://cmrpc.org/mobility2040