

# Community Questionnaire Report

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**Submitted to Concord Public Works**

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**RVA**

## INTRODUCTION

The Town of Concord, Concord Public Works (CPW) and the Public Works Commission have begun the design phase of the Cambridge Turnpike Improvement Project. The primary objectives of the project are to alleviate flooding and improve traffic congestion and safety. In addition to improving vehicular travel, the Town plans to improve accommodations for pedestrians and cyclists. These improvements will complement Concord's character and be sensitive to the environmental and historical resources nearby.

The project team recognizes that public input is important to the success of the project. As part of the data collection phase, the Town and project team developed a community questionnaire, available in print and online, to gauge the importance of several issues related to the Cambridge Turnpike area. The Town seeks to understand what the community values to inform the design of the roadway improvements and consider other modifications to improve the overall aesthetics and function of the area. The Town will incorporate community feedback as the project moves forward.

## METHODOLOGY AND RESPONSES

The online questionnaire was announced to the Town's *News and Notices* email list and posted on the Town's home and CPW website pages. Participants could begin replying on August 17, 2012. In addition to the online notification, the project team developed a list of properties on Cambridge Turnpike, Lexington Road and intersecting streets to reach residents who are affected by flooding or live on roads that might be affected by changing traffic patterns due to flooding and construction. Print questionnaires were mailed to this list on August 17 in packages that included a self-addressed, stamped return envelope to ensure that responses represent their experiences and perceptions.

As of September 24, there have been 222 completed responses received including 132 responses from the mailing. This is a 32% response rate for the print questionnaires, representing 60% of the total response. This is a very high rate compared to average mail response rates. It is also consistent with what the team anticipated based on the level of community involvement typical of Concord residents.

There were an additional 90 responses to the online questionnaire, or 40% of the total responses. There are approximately 960 email addresses on the Town's *News and Notices* list. The response rate for the email was 9%. The difference in the online versus print response rates may suggest a higher level of interest from people living in the area surrounding the project compared to residents who received the email and may not use the roadway frequently or may live in other areas of town. While each respondent did not answer all of the questions, the team is confident that the results provide a reasonable idea of the issues and priorities the Town should evaluate as the design process proceeds.







While the advantages of online surveys include time savings and access to diverse groups of individuals, sampling issues result. Demographic information is self-reported, and the non-response rate is difficult to estimate. For example, we do not know how many people learned about the survey from sources other than the *News and Notices* email and chose not to complete it. Since this was not a random sample survey, there is also a self-selection bias in terms of who responds to the questionnaire: primarily, they are people who already have an interest in the issues or otherwise have the time or inclination to participate. Therefore, the results are not intended to be statistically significant using scientific sampling methods. The results of the questionnaire provide insight into the existing issues and how they are valued by the community, which will help guide design decisions.

### Demographics

The overwhelming majority of respondents (90%) were town residents. Thirty-nine individuals (or 19%) self-identified as an abutter. Commuter and recreational user interests were almost equally represented (40% and 41%, respectively). Some respondents chose more than one category to describe their interest in the project.

The questionnaire contained an open-ended "Other" option. Responses included people who frequent the Concord Museum or Millbrook farm stand, people who have historical interests, those who occasionally travel by vehicle or use the road to avoid Route 2 traffic further west and a business owner who promotes Town tourism. Responses to the "Other" category can be found in the Appendix. Table 1 lists the respondents' interests in the project.

**Table 1: Respondent Self-Identified Interest in Project**

Response	Chart	Percentage	Count
Town resident		90%	185
Town employee		5%	10
Project abutter		19%	39
Commuter using Cambridge Turnpike		40%	82
Recreational (bike, walk, bird watch, etc.)		41%	85
Other (please explain)		11%	23
	<b>Total Responses</b>		<b>205</b>

### Rating of Issues Facing Cambridge Turnpike

The Town identified 11 issues facing Cambridge Turnpike as a baseline to gauge their importance to the community. Respondents had an opportunity to provide additional comments and identify missing issues in an open-ended question. Identifying issues is an iterative process, and the Town will reach out to the community at each key milestone for additional input.

Respondents were asked to rate the issues on a scale of 1 to 10, with "1" being "not at all important" and "10" being "extremely important." The issues were listed in alphabetical order. Table 2 on the following page summarizes the average ratings by "Total Responses," "Mailed Responses" and "Online Responses."

**Table 2: Average Rating of Issues**

Issue	Number of Responses	Total Responses (222)	Mailed Responses (132)	Online Responses (90)
Bicycle Accommodations	216	6.16	6.17	6.05
Community Character	214	6.98	6.91	7.01
Existing Roadway Width	214	6.38	6.24	6.77
Flooding Impacts	215	8.72	8.71	8.47
Historic Resources	207	6.31	6.01	6.18
Pedestrian Accommodations	217	7.67	7.54	7.42
Project Aesthetics	215	7.34	7.38	7.17
Sustainable Infrastructure	214	7.64	7.57	7.89
Traffic Congestion at Intersections	214	8.62	8.61	8.62
Traffic Safety and Speed	219	8.55	8.44	8.32
Wetlands and Wildlife Protection	217	7.06	6.81	6.91

The respondents assigned a wide range of values to the issues. Each issue ranked above 6 indicating support. Differences arose when comparing the relative average rankings for “Total Responses” and the subgroups, “Mailed Responses” and “Online Responses.” We analyzed the “Mailed Responses” and “Online Responses” rankings to understand differences between the subgroups and the “Total Responses” averages that might be important to the project. Flooding ranked highest for the total and mailed responses categories with ratings of 8.72 and 8.71, respectively. The issue was ranked second by the online respondents (8.47), below traffic congestion (8.62). Traffic congestion was ranked second for the “Total Responses” and “Mailed Responses” categories (8.62 and 8.61, respectively). “Traffic safety and speed” was ranked third by all groups. The issue was rated 8.55 by the “Total Responses” category and 8.44 and 8.32 by mail and online respondents, respectively. These high ratings are consistent with project expectations because flooding has the widest impact, affecting residents of the project area and commuters using the roadway. Traffic congestion is also an issue that affects residents of the project area and commuters alike. The higher ranking for traffic congestion, as compared with flooding, among online respondents may be attributed to a greater number of commuters who do not live in the project area responding to the questionnaire.

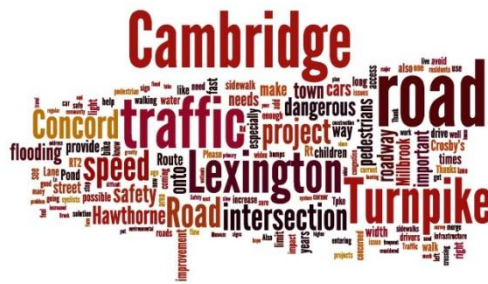
“Pedestrian accommodations” had an average rating of 7.67 for all responses. When broken out by subgroup, the issue was rated 7.54 by mail respondents and 7.42 by online respondents. While not among the highest rated, this issue’s rating was supported by the concern expressed in the comment section about the safety of children living in the area and others walking for recreation. “Bicycle accommodations” had an average total response rating of 6.16. Mail respondents rated the issue 6.17 and online respondents rated it 6.05. “Historic resources” and “existing roadway width” also ranked low relative to other issues with respective average ratings of 6.31 and 6.38 for total responses.

#### *Other Issues and Concerns*

The Town wanted to provide a way for a variety of community concerns to be raised without limiting the list to concerns the team identified. An open-ended question provided respondents an opportunity to comment on issues that might be missing, emphasize those they felt were most or least important or provide suggestions.

There were 102 responses to the open-ended question in the online or mailed questionnaire (a letter including only comments about the project was also sent to CPW). The bulk of the responses supported improving the flooding situation and expressed concern about safety and speed. Several respondents voiced worries about community character. Some respondents felt that widening the road would lead people to drive faster and opposed the idea.

A summary of responses by key issue is depicted in the word cloud that follows. The word cloud visually illustrates how often certain words were mentioned in this section of the questionnaire. The prominence of certain words could be a result of a positive or negative statement about the issue. The word cloud does not take into account the separate ranking section for the issues. It is not meant for use in decision making. It is purely a visual way of illustrating the frequency of word mentions that may indicate an issue of importance.



### *Other Issues and Concerns Summary*

#### **Bicycle Accommodations**

The comments about bicycle accommodations reflect extreme opinions on each side of the spectrum: in support of safe bicycle accommodations or against building infrastructure to accommodate them and instead focusing on vehicular traffic. Many bicycle enthusiasts expressed appreciation for including this issue in the questionnaire. They reported that the Cambridge Turnpike does not currently support this mode of transportation. Those who supported bicycle accommodations most asked for a designated bicycle lane as they are passed by vehicles traveling at very high speeds. Safety concerns are a major issue for bicyclists on the Turnpike, who said they often ride in the street because the sidewalks are obstructed. Reducing the vehicular speed will assist in making the Turnpike a safer place for cyclists, who reported it is unsafe to ride on Route 2 between Crosby’s Corner, Route 128 and Walden Street. Those who were not in support of bicycle accommodations argued that the focus of the project is not on bicycle travel. They believe the project team should focus on the Turnpike, supporting the vehicular traffic it needs to accommodate. One response noted that Concord suffers from large groups of cyclists every weekend.

#### **Existing Roadway Width**

Respondents saw a very clear correlation between road width and speed and safety. The wider the road, the faster vehicles will travel, resulting in decreased safety. Many residents urged the Town not to widen the road, fearing it would greatly impact the surrounding neighborhood’s safety. Alongside the widening of the road, some felt the straight geometry of the road contributes to the high speeds. One person commented that the current road width reflects the “country” feeling of the area, and it shouldn’t be altered. As an argument in favor of widening the road, a respondent said this project should focus on the commuters, and the road should be widened if it would alleviate some of the vehicular traffic.

## **Flooding Impacts**

Many residents are seriously concerned about the flooding impacts in their neighborhoods and in their homes. According to several comments, reducing the flooding should be the main focus of this project. Many people recognized that the Cambridge Turnpike Improvement Project area is a residential neighborhood, with many families and children who are seriously inconvenienced when the flooding occurs. The outcome of the project should be a road that can handle heavy rainfall without closures, which “limit impacts to homes, businesses and wildlife.” Some respondents are concerned about the project increasing the water table; they insist it is “imperative the project does not increase water accumulation and increase flooding.” Residents of Lexington Road, Hawthorne Lane, Millbrook and Cambridge Turnpike report flooding issues within their homes. Some suggestions for minimizing the flooding include:

- Make Mill Brook an open drain/flowing brook
- Elevate the road at Mill Brook and Crosby’s Corner to allow water to flow underneath
- Clean and maintain farm drainage canals to facilitate flow (as they are in the center of town)
- Clear the beaver dams between Hawthorne Street and the farm stand
- Build a bypass for dams like the one built at Punkatasset

## **Historic Resources**

Comments did not speak specifically to Concord’s historical resources, but one person said the project should be consistent with Concord’s history.

## **Pedestrian Accommodations**

The comments on the questionnaire strongly supported safe pedestrian accommodations. Many respondents identified themselves as families with children, or said there is a strong presence of children in the neighborhood. According to comments, it is dangerous for these children to wait for their school buses, and many close calls have been reported concerning vehicles and children disembarking from school buses. Many comments said the project construction should absolutely require a dedicated sidewalk for pedestrians. One person recommended a traffic buffer (such as a guardrail) between pedestrians and vehicles. For one family, with two young children and a puppy, there isn’t a sidewalk that extends to the far end of the Turnpike, across from Crosby’s Pond. This family described its walks as a “very disconcerting experience.” The current conditions were reported as flooded, impassible and dangerous, forcing people to walk on the road. Multiple respondents admitted they avoid walking on Cambridge Turnpike at all costs, saying they don’t want to risk their lives. The comments suggested that current pedestrian conditions are especially dangerous at busy locations, including the Concord Museum and the Emerson House.

## **Project Aesthetics / Community Character**

Cambridge Turnpike was consistently recognized as the major gateway into the town of Concord. For this reason, it is important to “set the tone” for Concord and design the road appropriately to reflect the character and history of the town. In an effort to do this, there were requests to use less plain concrete and suggestions for other materials included natural stone, wood, stone walls and historic fencing. Attention should be focused on the streetscape of the road and include planting maple and oak trees. One comment suggested replacing the triangular concrete posts with vintage or rustic looking guardrails. One person directed the project team to the Merritt Parkway in Connecticut and Lee’s Bridge in Lincoln for inspiration.

## **Sustainable Infrastructure**

Sustainable infrastructure was rarely mentioned in the comments section; one respondent noted he was not sure what it meant. One comment said sustainable infrastructure is important for severe weather due to climate change.

## **Traffic Congestion at Intersections**

Residents are seriously concerned about traffic congestion on the Cambridge Turnpike. They stated that traffic congestion is caused or increased by unsafe circumstances at many intersections along the road. The following intersections were deemed as congested, dangerous and awkward for drivers, in need of redesign, and having low visibility:

- Route 2/Route 2A/Cambridge Turnpike intersection
- Lexington Road/Museum Place/Cambridge Turnpike intersection
  - Multiple comments recommended a three-way stop with safe pedestrian crossing
  - Needs to be clear that Cambridge Turnpike drivers are entering Lexington Road *after* stop (and Lexington Road is the continuous road)
  - 90 degree merge is not appropriate
- Hawthorne Lane/Cambridge Turnpike intersection

## **Traffic Safety and Speed**

Safety along Cambridge Turnpike is of utmost concern for residents who responded to the questionnaire. Safety and speed are directly correlated in the minds of residents, many of whom said high speeds lead to unsafe conditions facing Cambridge Turnpike residents and users. Many respondents said they feared widening the road would contribute to even higher speeds, resulting in diminished safety. The “straightness” of the road was also thought to be a factor in the high speeds. Many residents suggested speed limits be lowered and well enforced. Other suggestions to increase safety included adding speed bumps, traffic lights, crosswalks, reducing the speed limit to 25 mph, reducing roadway width, and investing in a light rail system down Cambridge Turnpike and Route 2 to encourage transit and get commuters out of personal vehicles. Specific unsafe locations mentioned include:

- Traffic entering Cambridge Turnpike from Hawthorne Lane
- Traffic coming off Route 2
- Lexington Road and Cambridge Turnpike intersection
- Location of Mobil gas station (the scene of an accident with lifelong health impacts, one person responded)
- Congestion outside of Emerson House area
- Congestion outside of Concord Museum area

Residents emphasized this area as a residential location, and urged people to think of it as a neighborhood rather than a throughway. Other comments and concerns included minimizing traffic impacts during construction, dangerous morning and evening rush hour backups and people altogether avoiding Cambridge Turnpike due to its overwhelming safety risks.

## **Wetlands and Wildlife Protection**

There were few comments about wetlands and wildlife protection. Two responses noted the Cambridge Turnpike is not an environmental protection tool, but rather used for commerce and commuters. One resident said there needs to be a reduction of the toxic blue green algae; another blamed the flooding

on poor drainage of the wetlands. According to one comment, congestion during commuting hours will heavily impact the environment and the roadway should be widened over the wetlands to reduce the congestion.

## **Other**

The following issues were raised by residents but don't lend themselves to an identified impact:

- Significant noise by trucks, trailers, cars due to bumps on the road
- Fix manhole covers – “sounds like a gunshot”
- Houses shake when large trucks pass at high speeds
- Prohibit large trucks and buses from traveling on Cambridge Turnpike
- Better connection with Fairyland Woods
- Better parking situation at Museum Place
- Millbrook Farm's ability to operate throughout project, minimize loss of business

## **SUMMARY**

The information gathered from the questionnaire is generally consistent with the team's expectations and provides valuable insight for future outreach activities. For instance, the low response to the *News and Notices* email suggests that email may not be the best tool for reaching residents, or the email notification itself may need to be modified to make it easier to respond. Some residents were unclear relative to what sustainable infrastructure means. These points are not failings of the questionnaire as a tool; rather they highlight its value in providing baseline information and identifying where additional education may be helpful. It also provides an opportunity to fine tune the outreach program to incorporate lessons learned.

There was overwhelming support for focusing the project on alleviating flooding and improving traffic congestion and traffic safety and speed. Based on the feedback, the design should address these community priorities. As noted earlier, all issues had an average ranking above 6 indicating that the community assigns value to addressing them as part of the project, where feasible.

While it is difficult to directly correlate the 1 to 10 rankings to the additional comments, in general they are mutually supportive and provided an opportunity for residents to relate their personal experiences. “Flooding impacts” received the highest rating and comments supported the project purpose of alleviating flooding. “Traffic Congestion” and “Traffic Safety and Speed” were also highly rated and respondents not only supported addressing the issues, they provided specific suggestions on how to accomplish the improvements. While “pedestrian accommodations” ranked about average in the ratings, the additional comments were highly supportive of including them in the project, particularly for safety reasons. Overall, “bicycle accommodations” ranked lowest relative to other issues and the responses to the open-ended question show a wide range of opinions – from travel needs to be safer for them to the Town must focus on vehicle travel. Compared to the above issues, “existing roadway width,” “historic resources,” “sustainable infrastructure,” “project aesthetics” and “wetlands and wildlife protection” received relatively few additional comments.

Although the questionnaire was not a scientific survey, it does give the Town and project team important qualitative, values-based information for development of design concepts. These concepts will be presented to the community in the next phase of outreach for additional feedback.