



Town of Chatham

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CHATHAM SELECT BOARD AGENDA REPORT

TO: Honorable Select Board
Jill R. Goldsmith, Town Manager

FROM: Thomas Temple, Public Works Director
Terence M. Whalen, Administrator/Principal Projects and Operations

DATE: April 30, 2021 (for the SB meeting of May 4, 2021)

SUBJECT: Crowell Road Route 28/Main Street Intersection Upgrade Project Status Update;
Chapter 90 Funding Allocation through Plans, Specifications and Estimate (PS&E);
Revised Alternative 3A

SUMMARY

The Select Board is respectfully requested to provide the Town Manager direction to continue design/engineering of the Crowell Road Route 28 (signalized) intersection upgrade project as previously approved by the Board on September 30, 2019. Funding for the next design phase is available using State Aid Chapter 90 funds. Currently, the Crowell Road Intersection Project is included in Cape Cod's 2022-2026 Transportation Improvement Program (TIP) for (grant) funding of \$2,952,059 (State and Federal) and programmed for implementation in Federal Fiscal Year (FFY) 2026 – on or before September 30, 2026.

BACKGROUND DISCUSSION

Since some time has passed since the last public discussion on this project and due to its overall "long arc" with initial planning starting back in 2007, this Staff Report, before reconnecting where the project left off with the last public discussion and vote on September 30, 2019, provides some baseline context on the origin of this project to help evaluate moving forward. The Project Initiation Form (PIF) submitted for this project to the MA Department of Transportation (MassDOT) to obtain a Project ID number to start work within in the Transportation Improvement Project (TIP) queue notes the following:

“The proposed project is to modify the existing five–leg intersection of Route 28 (Main Street) with Crowell Road, Queen Anne Road and Depot Street to make safety, infrastructure and functional improvements to this sub-standard intersection. The goal of this project is bring the intersection into conformity with modern highway design standards by making physical adjustments to correct poor intersection geometry that will enhance the safety, mobility of all users, replace outdated traffic controls in a manner that improves the intersection’s function and appearance in a context sensitive manner. The Town of Chatham’s Comprehensive Long Range Plan supports the vision for this portion of Chatham to be maintained as a commercial node and neighborhood center.

The outdated signals, poor vertical grade connections, confusing geometry and lack of adequate accommodations for handicap accessibility, pedestrians and bicyclists contribute to less than optimal functioning, which is exacerbated by the summer time volumes (30% greater than AAD) and motorists unfamiliar the intersection’s peculiarities. As part of the of the operational review of this intersection 24-hour summer traffic volumes, peak hour traffic volumes, peak hour bicycle volumes and peak hour pedestrian volumes were reviewed (see attached presentations). The improved functioning of the Route 28/Crowell Road intersection is integral to public safety with the Town’s Fire Station Headquarters located to the northeast. In order to respond to EMS/fire calls in West and South Chatham, this is the first intersection encountered. The movement through this intersection is problematic as the Fire Department is forced to make a movement that is prohibited under normal conditions adding to the potential conflicts in this area. While some access improvements have been made along Queen Anne Road associated with the recently completed Chatham Village Market / CVS project, the general lack of sidewalks in the southern portion of the project area is deficient in meeting area needs, as this intersection provides a primary pedestrian connection from a housing development north of the intersection to this commercial center, particularly the market and convenience store. The proposed project’s design objective is to make safety and physical design improvements in a context-sensitive manner, balancing the needs of the intersection’s users and adjacent property owners by improving alignments, intersection grades, turning accommodations reconfiguring islands, modernizing traffic controls, enhancing pavement markings, adding sidewalks, and providing ADA crossings for pedestrians and bicyclists.”

For full PIF: [Crowell Road PIF 02_14_13 MassDOT Submittal.pdf \(chathamcrowellroad.info\)](#)

After the SB vote on September 30, 2019 to move the project forward to develop a 25% Design Submission to MassDOT (see attached SB Meeting Minutes excerpt) it was determined that inadequate funding remained in the contract to get the project submitted to MassDOT for a 25% Public Hearing. This was a result of an enhanced public participation process necessitating additional reviews and alternative iterations, requiring more time and funding than anticipated to reach consensus on the concept to pursue. Staff initiated a search of remaining resources to fund the project (contract balance, Articles, other sources, grants, etc.) with remaining funding identified available in previous in Articles (Crowell Road Design and 2007 Road Article) of just over \$70,000 which is not adequate to cover the \$140,000 needed to make the 25% Design Submission. In this intervening period, TIP Project Readiness Guidelines have changed requiring contract commitment through the Plans, Specifications and Estimate (PS&E) phase to remain on the TIP. The Town again reached out MassDOT to see if Chapter 90 Funding

can be used to fund remaining design work. MassDOT has concurred that such funding now can be used for projects within the State Highway Layout (SHLO) reversing its past policies.

Currently the Crowell Road Intersection Project maintains its construction funding programming position on the TIP in FFY2026 (\$2,952,059). As a result of the above noted change to evaluating project readiness status, not making progress towards the 25% Design Submission jeopardizes its position on the TIP (just pushed back from FFY2024 to FFY2026 in 2021) and further risks its funding being re-allocated to projects scheduled further down on the funding list. Such would move the Crowell Road project to the end of the funding queue with an extended duration to get back on the TIP – possibly ten years.

To quantify the remaining engineering, design and permitting work through Bid Documents and Construction Services, the Town requested a contract amendment from Howard Stein Hudson (HSH) Engineers for the project to continue to move forward through the MassDOT process. The estimate for remaining budget broken out by phases is as follows:

Tasks	Contract Budget Amendment
Phase 1 – 25% Design Submission (Includes: project development engineering environmental, functional design report, design exception report, 25% design submission, right of way, traffic counts, printing, and survey)	\$140,000.00
Phase 2 – 75% Design Submission (Includes: design public hearing, 75% design submission, lighting, landscape, and borings)	\$97,826.51
Phase 3 – 100% Design Submission (Includes: 100% design submission)	\$48,239.64
Phase 4 – PS&E Design Submission (Includes: PS&E highway design submission and printing)	\$23,122.20
<i>Funding Needed through PS&E =</i>	\$309,188.35
Phase 5 – Bid and Construction Phase Service (Includes: construction and engineering)	\$33,325.84
Total Funding to TIP Construction Funding	\$342,514.19

On May 4, 2021, Town’s Traffic Consultant (HSH) will be available to respond to questions related to the MassDOT process, level of effort, project need and details of the approved Alternative 3A. HSH will also be ready to address design exceptions discussed/needed to maximize “context sensitivity” as part of the development/implementation of a Revised Alternative 3A. Additionally, at this meeting, HSH can update the Board on the MassDOT’s revised guidance related to desired design exceptions regarding separate bike lanes requirements to the west of the intersection that have also been amended to require buffering.

An excerpt of HSH's kickoff presentation on the project from June 22, 2015 is attached to depict the existing deficiencies and needs of this project visually/graphically. To summarize the primary needs for the project, the following list was developed from the identified deficiencies and proposed remedies:

- Regional High Crash Location – Overall measures are needed to reduce incidences of crashes (see attached TIP scorecard illustrating rank and benefit of the project in the region – 11th highest scoring of 31 projects).
- Fire Department Response – Correction of deficient movement needed by the Fire Department through the intersection and the need for installation of an OptiCom signal actuation system to enhance emergency vehicle access to West Chatham and South Chatham and improve response times.
- Handicap Access – Bring the project up to current ADA standards as the intersection does not provide any handicap access. Interest of the Town's Committee for the Disabled
- Overall Pedestrian Safety – As a primary link between the Crowell Road housing developments and the Middle School to the Chatham Village Market/CVS location, protected crossing phases are needed to accommodate safe movements by all age cohorts of pedestrians in the vicinity. Additionally, sidewalk/crossing improvements along Queen Anne Road will improve safety to visitors to the Unitarian Church.
- Bicycle Accommodation – Improvements are needed to accommodate bicycles transiting the intersection more safely. Interest of the Town's Bikeways Committee
- Improve Intersection Geometry – Improving movements to access Chatham Village Market/CVS location and onto Crowell Road by adding left turn lanes, providing clear view of signal indication from all areas of the roadway, and correcting "skewed" geometry will all contribute to a safer more improved functioning intersection.
- Outdated Signal Hardware - Upgrading signal equipment to current standards is needed to accommodate OptiCom installation and provided protected phases for pedestrians to make crossings in the intersection.
- Horizontal Profiles – Improved visibility and function by removing steep grades in the middle of the intersection.

Attached is the copy of the Alternative 3A graphic with elements selected to address the above deficiencies. HSH will be able to answer technical questions on the Alternative forming the basis of the 25% Design Submission.

NEXT STEPS

As part of the process to get to the 25% MassDOT Design Public Hearing, the presentation of the Draft 25% Design Submission to the Select Board will be scheduled for a future dedicated meeting.

FISCAL IMPACT

To reduce the fiscal impact on the Town's overall budget, earlier Staff considerations of requesting phased funding via the capital plan is no longer required as Chapter 90 funding can be used for these types of projects. The indirect impact of the reallocating Chapter 90 funding to this project is a change to the local project programming. To date the Town has expended a total of \$186,529 for design services with HSH. As previously noted, currently the Crowell Road Intersection Project is included in Cape Cod's 2022-2026 Transportation Improvement Program (TIP) for (grant) funding of \$2,952,059). (State and Federal) programmed for implementation in FFY2026 which is leveraged by the local/Chapter 90 funding as the design match.

As noted in the chart above \$309,188.35 is needed for design/engineering through Phase 4 – PS&E. With funding of \$71,422.76 available for Phase 1, \$237,765.59 is needed (encumbered) from Chapter 90 funding to get the project through PS&E to demonstrate project readiness. While a funding commitment must be demonstrated and encumbered, if for any reason the project is suspended at an earlier phase, the HSH contract will be set up so it can be terminated at phase milestones if removed from the TIP. Any remaining encumbered Chapter 90 balance not used would then be available for other Town Chapter 90 projects.

RECOMMENDATION

It is respectfully requested that the Select Board continue to move forward with this FFY2026 TIP project and to encumber \$237,765.59 from Chapter 90 funding to supplement the available funding of \$71,422.76 for the project through PS&E/Phase 4 to meet readiness milestones to remain on the TIP.

*Attachments: September 30, 2019 Select Board Meeting Minute Excerpt
Intersection Deficiencies/Needs Graphics – June 22, 2015 HSH Presentation Excerpt
Alternative 3A Graphic
TIP Scorecard*