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DEPARTMENT OF INFRASTRUCTURE ENGINEERING

MEMORANDUM

TO: Leon Goodwin, Town Manager

FROM: Jason L. Mammone, P.E., Director of Engineering

DATE: December 30, 2025

SUBJECT: Update of Engineering Department Projects and Activities for 2025

The following is a brief update on some of the projects that the Engineering Department is currently working on and/or involved with:

- **2025 I/I Inspection Project** – *completed* – This project involved the cleaning & TV inspection of approximately 132,000 linear feet (25 miles) of sewer mains, 91 private laterals and 616 sewer manholes. The project was completed in October. The total cost of this project was approximately \$462,000.
- **2025 I/I Rehabilitation Project**– *completed* –The project consisted of approximately 12,500 linear feet of sewer main being chemically treated for root intrusions. The total cost of this project was approximately \$41,000.
- **Inflow and Infiltration Project** – *ongoing* – The Engineering Department has been working to reduce inflow and infiltration using an in-house approach to inspect, assess, design, and oversee improvements to the sanitary sewer system. Over the last nineteen years the Town has inspected approximately 2,635,000 linear feet (499 miles) of sewer main, performed approximately 9,684 manhole inspections, installed approximately 213,800 linear feet (40 miles) of cured-in-place liners, installed approximately 3,550 feet of short liners, installed approximately 203 full-wrap lateral liners, installed approximately 35 top hat lateral liners, cementitiously lined approximately 13,251 vertical feet of manholes and chemically root treated approximately 389,500 linear feet (74 miles) of sewer main. To date, the project has cost approximately \$23.4 million (**6,930,000 in Grants**) and we estimate that we have conservatively removed 6.9 million gallons per day (MGD) of inflow & infiltration from the system. In addition, the Town’s MWRA sewer assessments have remained stable and our sewer rates at point remained unchanged from 2008 to 2023 as a result of our decreasing flow share. Assuming a no change in flow share scenario, we estimate that Dedham has cumulatively saved \$19.9 million over the past eighteen years as a result of these efforts (See Chart 1).

Chart 1

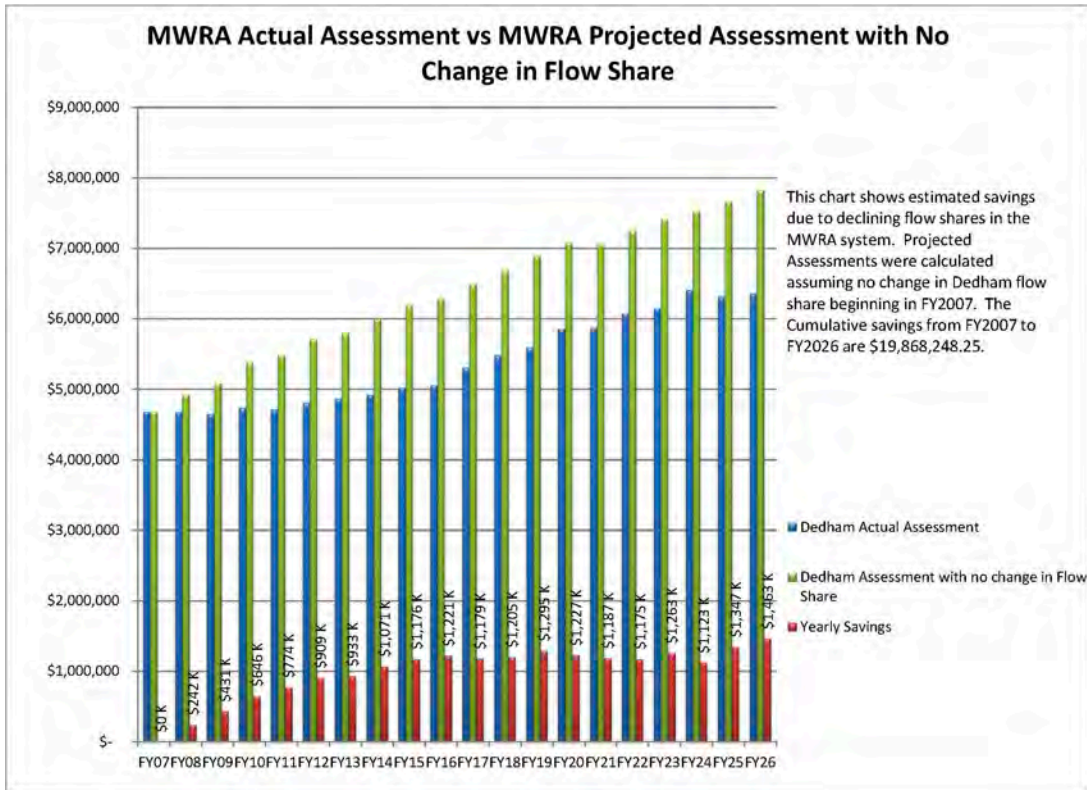
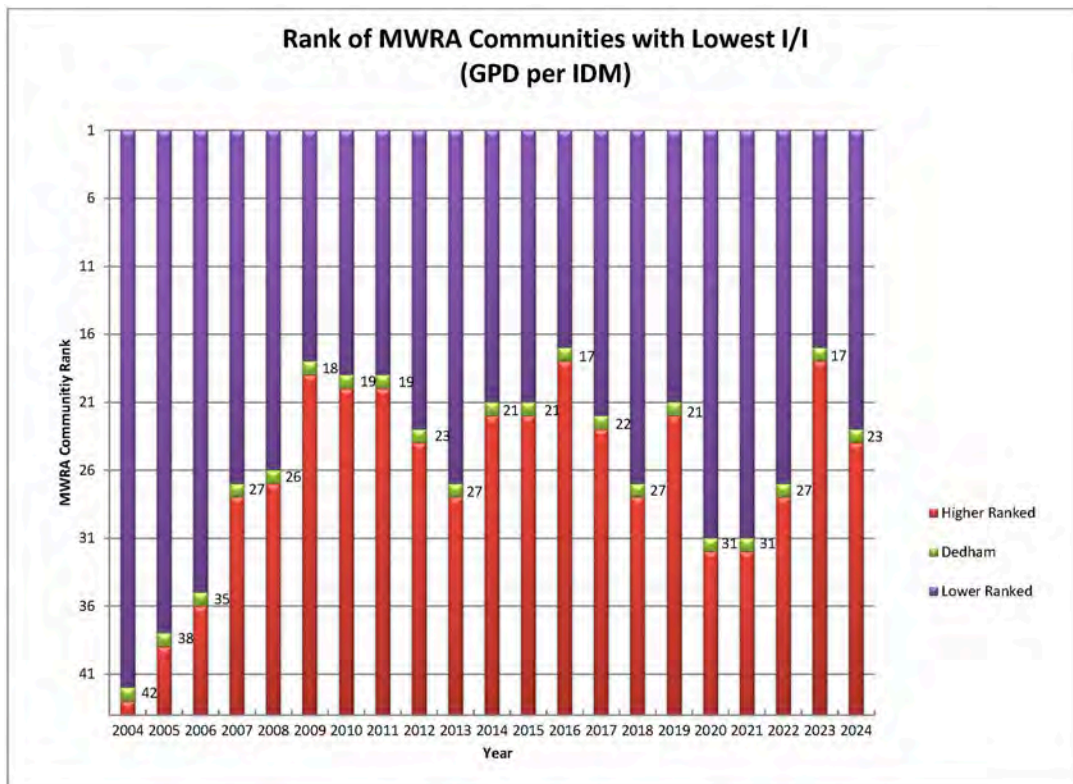


Chart 2



- **Manor Neighborhood Inflow Study (Formerly Door-To-Door Inspection Program) – ongoing** – Over the past few decades, there has been several properties in the Manor Neighborhood that during significant storm events, experience sewer back-ups into the homes. These back-ups are likely attributed to significant inflow entering the sewer system during these storm events through prohibited connections such as sump pumps, floor drains, driveway drains and yard drains. These sources of inflow do not belong in the sewer system, but rather the stormwater system or back into the ground.

The Town has been working aggressively since 2007, not only in the Manor Neighborhood, but throughout Town, to find and remove sources of inflow and infiltration from the sewer system. In the Manor Neighborhood the Town has spent approximately \$2.9 million on inflow and infiltration removal through pipe and manhole lining. The Town has lined approximately 59% of all the public sewer mains and 38% of all the public sewer manholes. Despite our ongoing efforts, these residents continue to experience sewer back-ups during significant storm events.

Private property sewer back-ups not only cause private property damage, but more importantly can impact human and environmental health. As our ongoing efforts have not mitigated the sewer private property sewer back-ups, it was important that the Town become more aggressive in trying to determine the actual cause and develop a potential solution that would mitigate or even eliminate the private sewer back-ups from occurring.

Based upon the initial data, the Town's consultants recommended that the Town pursue a door-to-door inspection program that would require residents/businesses that connect to the sewer system that runs through the Manor Neighborhood to have their basements and the outside perimeter of their buildings inspected for prohibited connections. There are approximately 1,600 properties that connect to the same sewer system that runs through the Manor neighborhood that would require an inspection.

The SB approved this program knowing that it is extremely important from a health and safety standpoint that residents should not have to continue living in their homes for fear of the next storm event and whether they will experience a sewer back-up into their homes.

Of the approximate 1,640 parcels within the sewer subarea, the Town's consultant (Weston & Sampson) was able to conduct approximately 1,450 Door-To-Door Inspections resulting in an 89% success rate. Only 3 properties refused an inspection and about 180 properties did not participate (not home or did not call for an inspection). The Engineering Department has been handling the inspections for the 180 properties that did not have an inspection. To date we have conducted about 30 inspections.

The consultants observed about 65 prohibited connections of which about 40 were from sump pumps and the remaining 25 were from cellar drains, roof drains, driveway drains or yard drains. These prohibited connections result in approximately 350,000 gallons per day of Peak Design Storm Inflow.

The consultants presented their findings and plan to mitigate private property backups to the SB at their meeting held on 10/23/25. The consultant's approach is to first remove all of the prohibited connections that were identified and then following that, the sewer main that runs within Bonham Road (from Greensboro Rd to Trenton Rd) and within Trenton Rd (from Bonham Rd to Sherman Rd) be upsized to a larger pipe diameter. It is estimated

that it will take about 5 years to remove the prohibited connections and then the sewer main would be upsized in 2 phases to be completed in 10 and 15 years. It is estimated to cost approximately \$7 million to accomplish this work and assumes that we will continue to receive at least \$500,000 per year in capital over the next 15 years to complete. This work when completed should bring the elevation of sewer surcharging back to within the pipe.

Over the next few months, we will be working with other departments to develop a Private Inflow Removal Policy which will provide the funding and legal framework to do the work as described above.

To stay informed or get additional information regarding this program and our future work, please visit the Town's dedicated webpage by clicking [here](#).

- **Oakdale Avenue Sewer Main Replacement Project** – *ongoing* – Approximately 200' of existing 6" vitrified clay sewer main on Oakdale Avenue was inspected during our recent sewer inspection program and observed to have several structural issues placing this sewer main at risk of failure. As such, the Engineering Department designed for the replacement of the sewer main with the installation of a new 8" PVC sewer main and new sewer manhole to be located at the location of a former lamp shaft. The design was completed done in-house and the repair was done in-house by the DPW.



- **Anthony Lane Inflow Removal** – *on hold*– During our annual wet weather inspections, we observed a suspicious connection to the Town's sewer main that runs from sewer manhole HH800 located on Anthony Lane to sewer manhole HH780 located on Washington Street. The existing sewer main between these manholes extends through 2 private properties (#37 Anthony Lane & #853 Washington Street). Upon further investigation it was determined that the existing stormwater utility that was supposed to be installed parallel to the sewer utility and connect into the State's drainage system in Washington Street, was actually connected to the Town's sewer system. The stormwater system that serves the Anthony Lane neighborhood, flows to a drain manhole located on

the property of #37 Anthony Lane where it was then directly connected to the Town's sewer system.

We calculated that an approximate amount of 500,000 GPD of peak stormwater inflow is entering our sewer system. The stormwater entering our system is being transported and treated by the MWRA at a cost to our rate payers. The inflow can also create a capacity issue for our sewer utility during significant storm events. This is a significant amount of inflow entering our sewer system that should be properly redirected to the stormwater infrastructure.

Due to the topography of Anthony Lane and the closest location of any existing stormwater infrastructure, the easiest route to redirect the stormwater was to follow the originally proposed path being parallel to the existing sewer main and connect into the State's stormwater system in Washington Street.

Before we could perform the design, we had to perform research at the Registry of Deeds to determine if the proposed 20' Sewer & Drain easement shown on the recorded registry subdivision plan for Anthony Lane existed on the 2 properties mentioned above. Our research, combined with Town Counsel's assistance, resulted in determining that the 20' sewer and drain easement was never formally granted to the Town. We worked with the property owners, Town Counsel and the Select Board to collect the required Grants of Easements.

The 25% design for the new stormwater utility was conducted and completed in house in 2022. Due to the rising costs of construction and the State's requirements to connect our stormwater system into their stormwater system on Washington Street, we needed the assistance of a consultant to take our 25% design plans and generate 100 % design plans and specifications that can go out to bid. To fund the additional money needed to hire a consultant, the Town applied for American Rescue Plan Act (ARPA) funding which was reviewed and approved by the County for \$133,000.

Over the past year, we hired and worked with a consultant (Weston & Sampson) to finish the design and assist with filing for an access permit with the State. We applied to the State for an access permit which was denied because their stormwater system would not be able to accommodate the additional flow. We tried to work with the State to make a few improvements to their system so we could connect but they decided the best route for a project like this would be to apply through the State for a Transportation Improvement Program (TIP) project. The Town is already currently working on a TIP project for Milton Street and does not have the necessary funds to apply for another TIP project. This project will be shelved until a later date when funding becomes available.

- **Transportation Improvement Project (TIP) – ongoing** - In the winter of 2013/2014 the Engineering Department presented to the SB four potential projects that could be considered a viable project for funding through the MPO TIP. The SB selected moving forward with the sidewalk/corridor improvements for Bussey Street and Rustcraft Road/Elm Street. The Engineering Department hired BETA Group as the design consultants for the project.

MassDOT put the contract for the Elm Street/Rustcraft Road Sidewalk Improvements Project out to bid at the end of 2020 and awarded the contract to RM Pacella, Inc. in January 2021. In 2021, construction began in June and consisted of installation of sediment and

erosion control measures, tree protection, clearing and miscellaneous drainage work. Eversource also performed several gas relocations to accommodate the drainage work and the installation of a new electrical truck line to replace the existing aged infrastructure within the project limits. In 2022, the installation of the curbing and sidewalk was completed along with the repaving of Rustcraft Road within the project limits. The contractor is finalizing punch list items for MassDOT and this project was completed in 2024.

As for the Bussey Street Corridor Improvements Project, we submitted the PS&E designs to MassDOT at the end of 2022. The Engineering Department completed the work associated with the acquisition of all 63 temporary and 5 permanent construction easements required by MassDOT for construction. MassDOT placed the project out for bid in 2023 and awarded the contract to MAS Building & Bridge, Inc. Construction began in earnest this past September. The construction of the project is managed by MassDOT and upon completion will include all new accessible concrete sidewalks with vertical granite curbing, new concrete access ramps, repaving of Bussey Street within the limits of work (Town Line to the Fire Station), a combination of sharrows and dedicated bike lanes, geometry changes for the intersection of Colburn Street at Bussey Street to reduce the excessive lengths of the existing crosswalks and the replacement of the structurally deficient superstructure of the Bussey Street Over Mother Brook bridge. This project is anticipated to be completed by the summer of 2025.

Additional information pertaining to the Bussey Street TIP project can be found [here](#).

Last year the SB approved moving forward with an application for a new TIP project that would continue where the Bussey Street TIP project ended. The limits of this new application would start on Bussey Street near the East Dedham Fire Station and end on Milton Street, near its intersection with Mrytle Street. The project limits also include the signalized intersection of Bussey St/High St/Sawmill Ln/Milton St. The purpose of this project is to improve vehicular, pedestrian and bicycle safety and provide efficient traffic operation and bicycle accommodations through the intersection of Bussey and Milton Street and will include new traffic signals, crosswalks, geometry modifications for bicycle accommodations, ADA sidewalk and curb ramp reconstruction, pavement markings, signage and stormwater improvements.

The Town's application was approved by the State and at the 2025 Spring Town Meeting, \$500,000 was approved to hire a consultant to do the 25% design. The Engineering Department hired BETA for the design and are currently working together on the 25% design which will be submitted to the State in the first half of 2026. The Engineering will be requesting an additional \$700,000 during our winter budget hearings to bring the design to 100% in FY2027.

- **Sewer Fats, Oils, and Grease (FOG) Issues** – *ongoing* – As part of our overall inspection program the Engineering Department also has an aggressive FOG program to help eliminate back-ups and maintenance issues related to excessive grease in the sanitary sewer system. The Engineering Department has implemented a biological dosing program at key locations to help digest grease at known trouble spots.
 - **Legacy Place** – *ongoing* – The Engineering Department, in conjunction with the DPW and Health Department, has been monitoring the grease traps at Legacy Place. These grease traps have been improperly maintained to date and have been

causing multiple problems at our Rustcraft Road Pump Station. We have been conducting random sampling of the grease traps throughout the year to determine if the establishments have been properly cleaning their grease traps according to their mandated cleaning schedule. When it is determined that an establishment is not cleaning their grease traps properly, the information is provided to the Health Department for their intervention. Our department will continue to monitor the grease traps to determine if the establishments are complying with the Board of Health's cleaning schedule.

- **NPDES Phase II MS4 Permit** – *ongoing* - The Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MassDEP) issued the new National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater General Permit for Small Municipal Separate Storm Sewer Systems (MS4) for the Commonwealth on April 13, 2016 and became effective on July 1, 2018. This new permit has a significant amount of requirements that the Town will be responsible for annually reporting on.

Most of the new requirements affecting the Engineering Department pertain to Illicit Discharge Detection & Elimination (IDDE). IDDE involves the inspection and testing of our stormwater infrastructure for the presence of pollutants (i.e. ammonia, phosphorus, fecal coliform, surfactants, nitrogen, etc.). If any pollutants discovered exceed tolerable levels in our waterways, the source of the pollutant must be discovered and eliminated.

In our Year 8 submission (due 9/30/26) the Engineering Department will be responsible for providing information and/or confirmation on the following:

- Update as necessary our Inventory of all Town owned outfalls/interconnections with required pertinent information. Based upon our existing data we have 176 outfalls/interconnections.
- Third year submission of our Phosphorous Control Plan (PCP). The Town is required to have removed 173 lbs/yr of Phosphorous from the Charles River Watershed. At the end of our recent Year 7 submission, the Town has removed 221 lbs/yr of Phosphorous.
- Design and construct a demonstration project as identified in our Nutrient Source Identification Report
- Continue wet weather outfall inspections for High Priority outfalls
- Continue catchment investigation for High Priority catchments
- Update as necessary our Inventory of all Town owned stormwater utilities
- Update as necessary all of the catchment areas responsible by the Town.
- Assist in the development of a written Operation & Maintenance procedure manual for all municipal activities.
- Annual IDDE training for all Engineering and DPW Staff
- Inspect all 173 Town owned Best Management Practices (BMPs). Some BMPs require monthly inspections.
- Construct a demonstration project consisting of a bio-retention basin at 34 Milton Street
- Continue retrofitting our existing stormwater utility to incorporate more infiltration practices to achieve our phosphorous reduction goals.

- Noticed a watershed boundary discrepancy between the Neponset and Charles River Watersheds. We submitted our findings to the EPA for review. If EPA concurs with our observation, the Town may be able to realize a reduction in the total Phosphorous load reduction required under our PCP by as much as 50 lbs. This could potentially save the Town \$2.5 million in revenue needed to be collected through utility fees over the next 13 years of our existing PCP.

The Engineering Department is also responsible for obtaining the services of a consultant to assist the Town in its compliance with our permit. The Engineering Department also acts as the Town's MS4 coordinator for all the other departments that must perform work and activities that fall under their departments (DPW, Planning & Natural Resources, Facilities and Parks & Rec).

For detailed information regarding the Town's MS4 permit please visit [here](#).

- **River Street & Winthrop Street Stormwater Improvements – completed** – As a result of climate change, our rain events continue to become more severe each year. As storm events continue to generate more rain, our stormwater infrastructure becomes inadequate to capture these events and results in localized flooding.

To address the localized flooding issues that we continue to experience along River Street and the Winthrop Street neighborhood, the Engineering Department alongside the DPW have been reviewing the current condition of our stormwater infrastructure and have designed improvements that we hope will mitigate the localized flooding experienced in this area. This comes at a good time as River Street has been identified by our Pavement Management Program to be repaved in 2025.

Some of the improvements that were designed include infiltration practice that will not only attenuate the upstream flow during storm events but also provide much needed water quality improvements by capturing and infiltrating the various impairments that are found in stormwater runoff that would otherwise go directly to the Mother Brook.

The construction of the designed stormwater improvements was completed in the Spring by the Department of Public Works.

- **Town Green Project – ongoing** – At the Annual Town Meeting in May 2022, Town Meeting approved \$2.55 million in funding for a new Town Green to be constructed on the property of the former Police Station located at 600 High Street.

The Engineering Department is acting as the Project Manager for this project which includes demolition of the former Police Station and construction of the Town Green.

The demolition of the former Police Station was completed in October at a cost of \$784,000.

Over the past year, the Engineering Department has been working with the Town Manager's Office and the Town Green Working Group (TGWG) on the design for the new Town Green. In February, at the recommendation of the TGWG, the Town hired Halvorson as the design consultant for the Town Green at a cost of \$516,469. In 2023, there have been 10 public meetings revolving around the design. Halvorson finished the design at the start of 2024, and the project was placed out for bid in February of 2024.

The bid was opened and awarded to Onyx Corporation in March 2024 at base bid cost of \$2,560,000. Onyx began construction on the Town Green in June of 2024 and is approximately 80% complete at the time of this report. The project is anticipated to be completed in April/May 2025.

The Engineering Department is also working alongside its consultant, Tighe & Bond to conduct a traffic study for the immediate area of Dedham Square including the intersections of High St/ Maple St/Church St, High St/Washington St and High St Eastern Avenue. The consultant collected existing traffic data in January 2023 while the Police Station was still currently in full use and used this data to generate a base line traffic study. The consultant performed a second qualitative traffic evaluation to develop recommendations around the proposed Phase 2 traffic improvements on Church, High and Washington streets. A final traffic study is anticipated to be undertaken once the Town Green project has been completed to determine if there has been a positive or negative effect of traffic conditions in the Square with the new use of the property. The consultant will make any recommendations necessary to improve traffic flow and pedestrian safety in the Square following collection of all 3 studies.

The Town Green was substantially completed in 2025 and under budget. The TGWG received approval from the SB to utilize the remaining budget to bring back the pavilion structure that had to be removed at the start of the project due to costs. The original pavilion structure still exceeded the remaining amount of budget remaining, so working with the TGWG, Halvorson and Onyx, an alternate pavilion structure similar to the original was able to be designed for and constructed with the available budget. The pavilion is anticipated to be installed in January 2026.



For materials, presentations, meetings reports associated with the Town Green project please click [here](#).

- **Replacement of “Critical” Town-Owned Culverts** – *ongoing* – In 2021, the Town hired a consultant to conduct an assessment of all Town-owned bridges and culverts. (please click [here](#) to view a link to download the final assessment report). The assessment identified 5 town-owned culverts that were in critical condition. Those culverts, along with the estimated cost to design and replace (based upon 2021 pricing), are located under Town roadways near the following addresses.
 - 1133 High Street (\$800,000)
 - 149 Village Avenue (\$1,000,000)
 - 108 Highland Street (\$700,000)
 - **294 Westfield Street (Completed in 2025. Total Cost \$750,000±)**
 - 269 Common Street (\$650,000)

The culvert on Westfield Street was identified as the most critical with a life expectancy of less than 5 years and the other 4 culverts with a life expectancy of 5-10 years. Culverts that are deemed “critical” pose a significant risk to the Town infrastructure and the potential for significant private property damage should a failure occur. This culvert was replaced in 2025.

Of these critical culverts, 4 of them are currently being designed for replacement with the assistance of a consultant and are being funded with ARPA funding. Since the Westfield Street culvert is the most critical, ARPA funding is also being utilized for the replacement of this culvert (See below for additional information regarding the Westfield Culvert). The design of all 4 culverts is anticipated to be completed by the end of 2025. Funding for the other 3 culverts will be funded through either grants, local funding or a combination of both.

The Engineering Department has been seeking grant funding for the design of the Highland Street culvert through the State's Division of Ecological Restorations (DER) Culvert Replacement Municipal Assistance Grant Program for the past 3 fiscal years without success. We will continue to seek grant funds from the DER in 2025 when the next round of grant applications are to be submitted.

- **Culvert Replacement – Westfield Street over Weld Pond – *ongoing*** – The design of the culvert replacement was undertaken and completed by the Town's consultant in 2024 with ARPA funding.

Westfield Steet is a narrow dead end residential public way with a roadway width ranging from about 18 to 20 feet. Due to its narrowness, the roadway will need to be fully closed for several weeks while the culvert is being replaced. In order to maintain access to the entire stretch of Westfield Street for the residents, trash pick-up and emergency response vehicles, a temporary roadway needed to be constructed. This temporary roadway could only be accomplished by utilizing private property as the width of the Town's right-of-way was not sufficient. The Engineering Director and DPW Director had several meetings/correspondences with the property owners of 294 Westfield Street in hopes that they would assist the Town by executing a right of entry to use a small area in the front yard of their property to provide access during construction. The property owners were more than accommodating and have executed a right of entry allowing the Town to accomplish this project.

The final design was put out to bid in October with a bid opening held on October 31st. A total of 11 contractors submitted bids for this project. The lowest bidder provided a price of \$640,197.48 to replace the culvert.

The culvert was substantially completed in the Fall of 2025 at a total cost of approximately \$750,000 which includes base cost of the project with three change orders. The Engineering Department and Public Works Department assisted the consultant in the project management of the construction project. Punch list items will be completed in the Spring of 2026.



- **Bridge Rehabilitation – Maverick Street over Mother Brook – ongoing** – The bridge located on Maverick Street that spans over the Mother Brook was one of nine Town-owned bridges assessed by our consultants in 2021 that has been recommended for safety improvements, including minor structural rehabilitation.

Based upon the consultant’s observations, the existing safety features (bridge railings, transitions, approach guardrails and end treatments) are non-compliant with current design standards and considered a priority to address due to the curve in the road and the angle at which a vehicle may approach the eastern bridge rail. The consultants also recommended that the existing sidewalks be removed and replaced to meet current ADA standards and perform concrete patch repairs and rebar replacement repairs within the delaminated areas observed that have exposed rusted rebar in the culvert roof.

Town Meeting approved \$75,000 in funding to hire a consultant to prepare plans, obtain permitting and prepare specifications for a repair contract that the Town can put out for bid in FY27. The Engineering Department retained the services of TEC, Inc. to handle these tasks and is anticipated to complete this work in first quarter of 2026. Based upon the 75% design the updated construction cost is approximately \$500,000. The DPW received \$500,000 for construction at the Spring 2025 Town Meeting.

The bridge rehabilitation is currently at 75% and is going through the permitting process. The design will be completed in the first quarter of 2026 and will be placed out for bid for construction in 2026. The Engineering and Public Works Departments will assist the consultants with project management.

- **Condon Park Splash Pad – ongoing** – The Engineering Department, along with the DPW are assisting the Parks & Recreation Department for the design and

construction of a splash pad at Condon Park. The design and subsequent construction are being funded through ARPA funding.

The Engineering Department developed a Scope of Services for the splash pad design to solicit at least 3 quotes from Engineering firms with experience. Upon reviewing the quotes, the Town selected Weston & Sampson as the lowest and most responsible firm.

Condon Park was selected for a splash pad due to its proximity to the Town's environmental justice population. This splash pad will serve as a cooling station for those trying to escape the extreme heat of our summer months. Due to the location of Condon Park to Mother Brook, permitting with the Conservation Commission was required.

The design was completed, including permitting in September and put out to bid in October. The bids were opened on October 31st with Belko as the apparent low bidder at a construction cost of \$518,000.

The construction of the splash pad was substantially completed in November. The contractor will finish the punch list items in April and May. To date the construction project has cost approximately \$490,000 and included 3 change orders. The splash pad is anticipated to be full operational by June 2026 and opened by the Parks & Recreation Department.



- **Pavement Management** – *ongoing* – The Engineering Department, in conjunction with the Department of Public Works, has continued the pavement management program which began in 2007. Through eighteen years of the program, the Town completed approximately \$29 million worth of repairs and maintenance to approximately 80 miles of roads and 25

miles of sidewalks. Over the years the Town's pavement condition index has ranged from 70 to 85 and currently sits at 83.

In November of 2025, the Engineering & DPW departments presented the next 3-year Town-wide road program (CY26 to CY28) to the SB. Funding for the next 3 years is anticipated to be from the State's Chapter 90 program which is approximately \$750,000. A copy of the approved current 3-year Pavement Management Program can be found [here](#).

- **FY24 MVP Action Grant – Neponset River Watershed Climate Resilience Collaborative and Flood Model Phase 2 – completed** - The Town of Dedham, acting as the lead applicant, along with other communities within the Neponset River Watershed applied and was awarded a 2-year action plan grant worth \$608,134 for the 2nd phase of the Neponset River Watershed Climate Resilience Collaborative and Flood Model project.

Over the past 2 years the collaborative worked on the following goals and objectives:

- Update and refine the hydraulic model developed under the FY23 MVP grant by applying the model to identify critical infrastructure impacted by current and future flooding and develop flood mitigation concepts in up to six priority catchment and evaluate flood mitigation benefits of the proposed concepts.
- Formalize a Neponset Region Climate Resilience Collaborative composed of designated municipal representatives and assemble a Steering Committee to guide the development and adoption of a workplan to address regional climate adaptation priorities.
- Organize a Community Advisory Group with significant representation from environmental justice and other priority populations to support the Collaborative and Steering Committee.
- Engage and educate local residents around climate impacts and adaptation opportunities across the communities of the Neponset River Watershed.

All the communities under this project will be working closely with our consultants Weston & Sampson, the Neponset River Watershed Association, and the Metropolitan Area Planning Council. The collaborative recently was awarded an FY26 MVP Action Grant for Phase 3. Dedham was not the lead applicant for this application but is a working member of the collaborative. Work under this grant will start in earnest in 2026.

- **Lowder Street Neighborhood Traffic Study – completed** – The Town of Dedham Planning Board received \$100,000 in mitigation associated with the PRD development approved on Lowder Street. Residents of the Lowder Street neighborhood already had traffic concerns related to the 2 private schools located in the neighborhood coupled with the development of Legacy Place and now with the approved PRD to include 26 new single-family homes, their fears of increased traffic was a major topic of discussion at the Planning Board meeting, hence the mitigation funds the Planning Board requested and received to study the traffic within the neighborhood.

The Engineering Department hired consultant, Tighe & Bond to assist with the traffic study. This study will establish existing traffic volume, speed, cut-through traffic, traffic management at Ursuline Academy and Dedham Country Day School, congestion and safety. Following the robust data collection, Tighe & Bond will present the information to the neighborhood through a public meeting and discuss areas of concern. This meeting will

also focus on countermeasures used to mitigate any issues and which types of countermeasures would be acceptable to the neighborhood. Following that meeting, Tighe & Bond will put together a report that will present the data along with short-term (low cost) and long-term (higher cost) improvements the Town can make to mitigate the issue identified by the data analysis.

Tighe & Bond completed data collection in the beginning of 2024 and held a public meeting with the Town in April to discuss the results of the data with the residents in the Lowder Street neighborhood and solicit feedback based upon that information. Following the April meeting, the consultants looked at areas of concern that were brought up at the public meeting and also started working on conceptual designs to mitigate traffic issues that were observed during the study.

A second public presentation was held by the Town and its consultants in October for the residents of the Lowder Street neighborhood to discuss the additional data that was collected and to share their concepts for mitigating traffic issues that they observed during the study and mentioned by the general public.

The final report was shared with the SB and PB in January 2025 and published on the Town's website. Please click [here](#) to be redirected to the final report. Below are some high-level observations presented in the report.

- The cut-through traffic concerns are not related to motorists trying to get to Legacy Place
 - The majority of cut-through traffic is directly related to the pick-up and drop-off hours for both Ursuline Academy and Dedham Country Day.
 - Most of the traffic issues are related to the limited access points to get into and out of the neighborhood.
 - Village, Chestnut and Bullard experience evening cut-through traffic by motorists trying to avoid Dedham Square.
 - There were no indications of significant speeding within the neighborhood.
 - The residents desire sidewalks throughout the neighborhood, especially along the higher volume roadways within the neighborhood.
- **Needham Street Lane Narrowing Study** – *ongoing* – The Engineering and DPW departments were approached by the Town's Active Transportation Working Group (ATWG) to assist in a study to in an attempt to mitigate the speeds at which vehicles travel on Needham Street.

The Engineering Department proposed narrowing the travel lane widths on Needham Street from their current width of approximately 12' to 10'. There have been studies to suggest that narrowing the physical width of the travel lane can mitigate the speeds at which vehicles travel. To determine their effectiveness, the Engineering Department developed a plan to temporarily install white PVC delineators spaced 50' on-center on both sides of Needham Street from Vine Rock Street to Hillside Road narrowing the travel lanes to 10'. The DPW installed the PVC delineators in May of 2024. Following installation, the width of the travel lanes were measured resulting in an average lane narrowing of 2 feet bringing the existing travel lane down from 13' wide to 11' wide.

Traffic data consisting of volumes, speeds and crashes were collected before the delineators were installed and then again in September after several months of their being in place.

The data showed that the lane narrowing project reduced the 85th percentile speed of vehicles by approximately 3 miles per hour (mph) going from 31 to 28 mph. The volume of vehicles was also reduced slightly as a result of the delineators. A technical memo of the traffic study was prepared for the SB and shared with the ATWG in December.

The ATWG presented the findings of the study including survey at a public meeting held on 2/26/25 at the Riverdale Elementary School. The ATWG is planning to present their findings and recommendations to the SB at a future meeting.

- **Local Roads Safety Plan (LRSP) – completed** – In February of 2021 as a result of a few fatal accidents between pedestrians and motor vehicles, the SB requested the development of a transportation safety working group (TSWG) to look at our collector roadways and develop opportunities for safety improvements for all road users (motorists, bicyclists and pedestrians).

The TSWG consists of a SB member, a PB member, TAC member, Fin Com member, ATWG member, Town Manager, Asst. Town Manager, Police & Fire Chiefs, Director of Planning & Natural Resources, DPW director and Director of Engineering. The Director of Engineering is the manager of the working group.

During the first half of 2022, the TSWG met a few times to put together an RFP to hire a consultant to assist the Town with the development of an LRSP. The TSWG selected Bowman as its consultant after reviewing their RFP and subsequent interview. Just after the consultant was selected, the Town learned of a new grant that the Federal Highway Association (FHWA) was implementing called the Safe Streets and Roads For All (SS4A) grant. The TSWG, thought this would be a great way to fund the LRSP and requested the Engineering Department to apply for the grant. A grant application was submitted to the FHWA in September of 2022 and in February of 2023, the Town was notified that it was awarded \$207,841.44 in funds for the development of a LRSP. Over the next several months the Engineering Department worked on executing contracts between the Town and the FHWA and the Town and our consultants, Bowman.

The TSWG had its kick-off meeting in October of 2023 to discuss the process of generating a LRSP for the Town's collector roadways. Over the past 12 to 15 months, the TSWG has been working with Bowman to collect data, do public outreach (public meetings, surveys), identify critical areas of safety concern, develop countermeasures to improve safety at these critical areas and to determine the necessary funding sources to make improvements.

The TSWG had a robust public outreach campaign including presentations, open houses, crowdsource map, surveys and public comment solicitation for the first half of 2024. The second half of the year has been spent on developing the actual LRSP and identifying locations throughout Town on our collector roadways that are in need of safety improvements for all vulnerable road users. The LRSP was presented and adopted by the SB in December. The SB have established a goal of a 50% reduction in fatal and serious injury crashes by 2040.

To view the final version of the LRSP and/or get information on how it was developed and what is coming in the future please visit the dedicated webpage by clicking [here](#).

- **Pine Street Pavement Markings – completed** – Pine Street (from Violet Ave to Bridge St) was repaved in 2025 and is one of the Town's major collector roadways. As part of our

newly adopted Local Roads Safety Plan (LRSP), whenever a collector roadway gets repaved as part of our Pavement Management Program, we study to see if there are any improvements to the pavement markings that could be designed to increase the safety of the roadway for all road users (vehicles, bicycles and pedestrians) following the LRSP.

Following repaving this section of Pine Street, the roadway was surveyed for design. The pre-existing pavement markings on this section of Pine Street included 2- 13' travel lanes with no bicycle accommodations. The redesigned pavement markings include 2 – 10.5' travel lanes (narrower lanes to mitigate vehicular speeds) and “Sharrows” (symbol that denotes the travel lane is to be shared by both vehicles and bicyclists). Unfortunately, Pine Street did not have enough width to install dedicated bike lanes, but the sharrows provide new accommodations for bicyclists. The survey and design for this project was completely done in-house.

- **Traffic Calming – ongoing** – In 2012, The SB approved the traffic calming policy created by the Engineering Department. The Engineering Department will continue to work with the SB, the Transportation Advisory Committee (TAC) and the Town Manager to refine and revise the policy, as needed, in order to give clear guidance to residents wishing to implement traffic calming strategies in their neighborhoods through the submission of Traffic Calming Request Forms to the Transportation Advisory Committee (TAC). The Engineering Department sits as an ex-officio member of the TAC responsible for general oversight of the committee and performing preliminary investigations consisting of traffic counts, intersection turning movement counts, and speed surveys using in-house equipment and labor.

To date, the TAC has received and decided on twenty-seven (27) traffic calming requests. The majority of the requests were determined not to require traditional traffic calming measures based upon the initial traffic evaluations performed by our department (i.e. speed tables, speed humps, road narrowing). However, for those requests that did not warrant traditional traffic calming measures, the TAC does provide low-cost traffic calming alternatives that the concerned neighborhood could implement on their own (i.e. staggered parking, step 2 kid alert). Of the twenty-seven requests, only three (Lower East Street, Upland Road and Colburn Street) were determined to require traditional traffic calming based upon the results of the initial traffic evaluation. The Engineering Department generated a Traffic Calming Needs Assessment report for each of these roadways to determine what traffic calming measures would be appropriate. Lower East Street was discussed in detail in our 2019 annual report, Upland Road in our 2022 annual report and Colburn Street in our 2023 annual report.

All meeting, minutes, evaluations, and decisions can be found on the Town’s website by clicking [here](#).

- **Mt. Vernon St and Whiting Ave Intersection Traffic Calming Project – completed** – The Active Transportation Working Group (ATWG) received grants and private donations to paint a mural at this intersection as a traffic calming measure. The ATWG reached out to the Engineering Department we could assist in designing bump-outs at the intersection corners that could be painted and delineated with Flexible PVC delineator posts as part of the mural project to tighten up the intersection as another traffic calming measure.

The Engineering Department performed a survey of the existing intersection and then designed bump outs at each corner of the intersection. While doing the design we needed

to make sure the bump-outs would not interfere with the turning movements of buses and emergency response vehicles. Unfortunately, due to the area needed to make the turning movements for these vehicles the bump-outs could not be installed with the flexible PVC delineators without being hit. Therefore, we designed the bump-outs to be installed through pavement markings and provided the design to the ATWG to incorporate into their mural design. The Engineering Department performed the layout for the pavement marking within the intersection including bump-outs, crosswalks, stop bars and double yellow centerlines. Once laid out, the pavement markings were installed by the DPW so the ATWG could then paint the mural.



- **Private Ways – ongoing** – The Town By-laws for acceptance of private ways as public ways were updated and accepted at the 2014 Annual Town Meeting. The Engineering Department worked with the private ways subcommittee that developed the updated policy/standard by which the residents of a private way would have to adhere to in order to become a public way. The policy also includes the construction standards/specifications by which a private way must be reconstructed. There are 3 phases that must be completed and approved by the SB in order for a Private Way to be presented at Town Meeting for acceptance as a Public Way. Those phases include the “Public Way Layout Petition Form”(Phase 1), “Acceptance of Conceptual Overlay Plan Form” (Phase 2), and Design and Layout (Phase 3). Since 2015, The Engineering Department has received 17 Public Way Layout Petitions. Of those 17 petitions, only 3 (Birch St, Quarry Rd and Wiggin Avenue) have been through the entire process and became Public Ways.

Below is a summary of the last 3 years of those Private Ways that have requested Public Way Petition Forms from the Engineering Department and their to date progress. Please refer to previous reports for past year’s petitions:

- **2023**
 - No petitions
- **2024**
 - Fay Road – Phase 1 ongoing

- **2025**
 - Crosstown Avenue – Phase 1 ongoing

All of these Private Ways that are ongoing in a particular phase have either stalled due to 100% of the abutters to the Private Way not agreeing to have their way become Public or the applicant is still acquiring signatures from all abutters required to move forward in the acceptance process.

- **Grants – ongoing** – The Engineering Department applied for 6 grants in 2025. The grants, amounts and status are detailed below.
 - **FY26 Culvert Replacement Municipal Assistance Grant Program (MassDER)** – Applied for \$50,000 for the field data collection necessary for the design of a replacement culvert for the existing culvert located on Highland Street. The Town was not awarded any funding this year but will reapply again if it is available in FY27.
 - **2025 Safe Streets & Roads For All (U.S. DOT)** – Applied for a \$3,275,000 grant to hire a consultant to assist the Town with designing High Street (from Harvard Street to East Dedham Square) updating the corridor to meet the needs of all road users (vehicles, bicycles and pedestrians) following our newly adopted Local Roads Safety Plan. The consultant will also assist the Town advancing recommendations from our LRSP through supplemental planning activities including a Road Safety Audit program, Speed Management program, Vulnerable Road User Priority Network Plan and a Public Outreach Plan. The U.S.DOT recently informed Dedham that we were not awarded the full \$3.2 million dollar grant, but was awarded a \$300,000 grant to hire a consultant to assist the Town with the supplemental planning activities, as described above, to be incorporated into our LRSP.
 - **FY26 Municipal Vulnerability Preparedness (MVP) Program Action Grants** – Applied for a \$337,500 grant to hire a consultant to assist the Town on continuing its efforts in assisting the Manor Neighborhood in mitigating the effects of future flooding from climate change in the Neponset Watershed and also begin the design for a flood mitigation project at Barnes Memorial Park in the Charles River watershed. This grant would allow the Town to advance the work that was undertaking in past grants (FY23 & FY24) received under this program. Funding from this grant is anticipated to be used for continued community engagements, advancing recommended regulatory updates for flood mitigation, advance design associated with the conceptual wetland restoration and expansion at the Town’s Striar Property, begin design reestablishing several swales throughout the Manor neighborhood that were instrumental in conveying stormwater to Fowl Meadow, but have become overgrown and filled with sediment over the decades and begin the design for flood reduction project at Barnes Memorial Park for the Wigwam Pond watershed. Unfortunately, Dedham’s grant application was not selected this year, but we plan to reapply in FY27 once the State starts accepting grant applications.
 - **FY26 Municipal Small Bridge Program** – Applied for a \$150,000 action grant for design work associated with the rehabilitation needed on our Washington Street

over Lowder Brook bridge. The Town anticipates hearing from the State regarding our application in first quarter of 2026. The Town applied for this grant in 2024 but was not approved.

- **FY26 Community Culvert Grant Program** – Applied for a \$150,000 Grant to hire a consultant to assist the Town in the design of a new culvert on Highland Street. This culvert was identified in our Town-wide culvert assessment study in 2021 as being in critical condition and recommended for replacement in the next 5 to 10 years. We hope to hear if our application was selected in the beginning of 2026.
- **FY26 Local Bottleneck Reduction Grant** – Applied for a grant for the State to study, design and implement improvements to the 2 signalized intersection on East Street between the Dedham/Westwood Town Line and Endicott Roundabout to improve the traffic bottleneck that occurs along this stretch of roadway during peak morning and evening hours.
- **Transfer Station** – *ongoing* – Working alongside the DPW, the Engineering Department hired the service of BETA group, to assist the Town in the development of plans and specifications for the demolition of the transfer station located on Incinerator Road. The plans and specifications are currently available with a bid opening scheduled for January of 2025.

The bid was publicly opened on 2/27/25 at Town Hall and subsequently awarded to American Environmental, Inc. as the low bidder with a project cost of \$1,174,300. The contractor started abatement and demolition of the transfer station in October 2025 and is anticipated to be completed with the project in the first quarter of 2026.

- **Sewer Billing Project** – *ongoing* – The Engineering Department has been working with the Collectors Office to identify properties which were likely on sewer but not receiving bills using billing data and GIS information. To date 156 properties have been added to the sewer billing system. Of the 156 properties, 24 are properties located in Westwood and 3 are properties located in Boston. We are currently utilizing our sewer TV inspection data and GIS to plot locations where active sewer connections are made to the Town's system to identify additional properties that are likely connected but not receiving bills. We are hopeful in 2021 to develop another round of lettering, similar to the letters sent in 2010 & 2011 to residents believed to be connected to sewer but not receiving bills. We will be working again with the Collector's Office, Town Manager and Select Board with this effort.
- **Pump Station Operation** – *ongoing* – The Engineering Department, in conjunction with the DPW, oversees the operation of the three sanitary sewer pumping stations, including the weekly maintenance, routine and emergency repairs, and upgrades of various components. The Engineering Department and DPW monitors alarms at all stations 24 hours a day and responds as needed.
- **Sewer Connection, Extension, and Repair Inspections** – *ongoing* - The Engineering Department reviews, issues, and inspects permits for the installation and satisfactory testing of sewer lines and manholes on a daily basis. We spend a great deal of time responding to questions from residents and builders and we provide them with locations of existing

facilities from record plans or television inspections. Over the past year, the Department reviewed, issued and/or inspected 32 permits. In addition to sewer permits, our department administered Drainlayer Licenses to 21 bonded and insured sewer contractors.

- **Storm Drainage Improvements/Inspections** – *ongoing* – The Engineering Department routinely responds to complaints and flooding issues throughout Town. As part of our evaluations of drain lines we cleaned and inspected approximately 29.6 miles of pipe. In addition, we design improvements as needed. Over the past year the Town has installed 8 new deep sump catch basins.
- **Neponset Stormwater Partnership** – *ongoing* - The Engineering Department sits as one of the representatives from Dedham as part of the regional stormwater collaborative with 14 other Neponset Valley Communities. This partnership was formed through the Community Innovation Challenge Grant awarded to the MAPC and Neponset River Watershed Association. The collaborative is working together to prepare the communities for the challenges that are anticipated to arise from the new MS4 permit to be issued to the Commonwealth from the EPA.
- **Charles River Watershed Association** – *ongoing* – The Town of Dedham is 1 of 23 communities the reside in the Charles River Watershed. The Engineering Department is currently working with the CRWA to develop a strategy to remove sources of Phosphorus pollution from the Charles River. The Charles River has a Phosphorus Impairment and the EPA (as part of our NPDES Permit) is requiring us to lower the load (lbs) of Phosphorus that exists within the river to acceptable levels.
- **Subdivision and Site Plan Review** – *ongoing* - The Engineering Department reviews numerous site plans and subdivisions for consistency with Town regulations and acceptable design standards. We provide written comments to the respective boards on the adequacy of those plans and calculations.
- **Town of Dedham Construction & Design Standards** – *ongoing* – The Engineering Department is responsible for updating the Town’s Design and Construction Standards. Every few years we review all the standards and update and/or revise those standards to meet local and state requirements. Our last update/revision of the standards took place in 2018.

Geographic Information System (GIS) Administration – *ongoing* - The GIS Division, led by its GIS Manager, manages the administration of the GIS for the Town. The role of the GIS Division within the Engineering Department is to respond directly to the various needs of the Town’s departments, as they relate to GIS. Some of the responsibilities of the GIS Division include database administration, software application development, generating reports, creating maps, and creating and maintaining the Town’s geospatial data. Below is a list of some of the projects that the GIS Division has been involved with:

- **Addressing** – *ongoing* – The GIS Division is responsible for maintaining an up-to-date Master Street List and Master Address File (MAF), and for carrying out the duties contained within its regulations. This data is crucial for First Responders, all departments, residents, and the public. The GIS Division continues to add new addresses, modify and update existing addresses, and solve conflicts. In 2025, the Town saw an increase in the number of Accessory Dwelling Units (ADUs) being built, following the 2024 law change in the Commonwealth. With this influx,

additional addressing guidance was provided by MassGIS, prompting the Town to adjust its workflow and Addressing approach.

- **Nearmap Aerial Imagery** – *ongoing* – The GIS Division acquired an annual subscription that provides the Town with updated aerial imagery 3-4 times each year using 2.2-inch pixels. Flights conducted throughout the year provide leaf-off and leaf-on views for use by different departments. Multiple images each year allow users to track the progress of projects across Town. The frequent imagery enables staff to ensure GIS data accuracy is up to date. The GIS Division makes this imagery available to the public and staff through ArcGIS Online and through GIS used internally.
- **Migration to ArcGIS Pro** – *ongoing* – In 2026, Esri will discontinue the ArcGIS Desktop platform, ArcMap, and transition fully to ArcGIS Pro. In preparation for this change, the Town initiated a comprehensive migration of its GIS environment to align with the new platform and current industry direction. Over the past year, the GIS Division has simplified system architecture, updated internal workflows, and prepared GIS assets, web applications, and custom applications for compatibility with ArcGIS Pro. This effort included the development of automated workflows to replace legacy processes and improve overall efficiency. The GIS Division now primarily operates within ArcGIS Pro, returning to the legacy platform only for a limited number of projects that have not yet been fully transitioned. As part of this effort, the Town began upgrading its server and database management systems in 2024 to support the modernized GIS environment, with this work continuing into 2025.
- **Data Integrity** – *ongoing* – The importance of accurate data cannot be overstated, and data integrity is key in facilitating that. Therefore, the GIS Division continues to conduct deep and thorough evaluation, modification, and maintenance of existing and newly created data, and continues to embrace and adopt standards recommended by the GIS community.
- **Data Update** – *ongoing* – The GIS Division continues to update underlying data such as parcels, easements, road centerlines, street regulations, impervious surface structures, and right-of-ways to better represent and replicate the real world. These updates come from various sources such as construction plans, aerial imagery, GPS collection, and partners such as MWRA, DWWD, and MassGIS.
- **Data Requests** – *ongoing* – The GIS Division receives dozens of requests for data each year. These requests come from various groups such as the Town Manager's Office, other Town and State departments, regional utility groups, engineering contracting companies, construction companies, and Dedham residents. It is the GIS Manager's duty to collaborate with other departments to share the acceptable and necessary data, while not releasing any information that could be used inappropriately.
- **Partnership with Esri** – *ongoing* – The Town's GIS Division continues to partner within the Esri ecosystem to leverage current technologies, platform guidance, and available services in support of the Town's GIS modernization efforts. As part of this partnership, the Town works with CGIS Solutions, a GIS consulting firm, to assist with implementation, technical guidance, and system upgrades. In 2025, this collaboration focused on modernizing workflows and applications and coordinating infrastructure upgrades with the Town's Technology Department. This partnership will continue, providing support as the Town advances its migration to ArcGIS Pro and aligns its GIS system with industry best practices and Esri's long-term platform direction.

- **Mapillary** – *ongoing* – The Town’s GIS Division has collaborated with Mapillary to provide street-level imagery for the entire Town, captured by Town staff and collected to the Town’s preferred accuracy standards. This technology allows the Town to collect its own high-resolution, georeferenced imagery and associate it directly with street locations, enabling a three-dimensional street-level view. These capabilities allow staff to review asset types, sign syntax, and the visibility of structures from the street, enabling many asset updates and data verification tasks to be completed in the office rather than through on-site visits, resulting in significant time and effort savings. The Town’s first complete set of street-level imagery was captured in September 2019, with a second collection completed in August and September of 2020. In 2025, the GIS Division was awarded a grant to upgrade the camera and mounting system used for Mapillary imagery collection. This grant was pursued in response to the Town’s need for updated street-level imagery to support several upcoming data collection initiatives. This imagery continues to be utilized as an additional view of structures throughout Town. (Please click on the [link](#) to access the application.)
- **Department Outreach** – *ongoing* – The GIS Division continues to conduct informational sessions with individuals and small groups of departmental representatives to facilitate focused discussions and better understand departmental needs and potential uses for GIS. In 2025, a staff member from the Planning, Zoning, and Natural Resources Department was added as a GIS user after the department identified an increased need for internal GIS support.
- **Department Training** – *ongoing* – The GIS Division continues to train individuals and/or small groups of departments on how to best utilize GIS technology to meet their needs.
- **Web GIS for Town staff** – *ongoing* – The GIS Division has been implementing cloud and web-based GIS technology called ArcGIS Online. This technology provides GIS capabilities to departments and staff that do not otherwise have GIS. These maps and applications are made available through the internet, so they can be accessed anywhere and without requiring any additional software. These tools allow sharing and collaboration of information between departments. The GIS Division continues to develop new content on ArcGIS Online to enhance the Town’s GIS.
- **Public Web/Mobile GIS** – *ongoing* – The GIS Division continues to maintain, enhance, update and publish mapping content to the public. In 2023 the GIS Division created and published the Dedham GIS Hub site, which allows for improved management of the content shared. Information is available there such as online applications, maps, dashboards, and downloadable PDF files. (Please click on the [link](#) to access the site.) Updates and improvements are ongoing on the Hub site. In 2025, the GIS Division finished recreating all online applications after the existing platform announced its depreciation date. This migration ensures that these applications will continue to perform as expected, in addition to providing new and improved features.
- **Mobile GIS** – *ongoing* – The GIS Division continues to prioritize the production and maintenance of mobile applications for Town staff and residents. These applications provide users with the ability to view, collect, and edit data from their mobile phones or tablets while out in the field.

Department’s Special Projects

The GIS Division continues to work closely with many departments to create, and produce data, and maps that can facilitate and support their needs and decision-making by migrating, modifying, evaluating, and analyzing the available information.

○ **Engineering Department**

- **Stormwater Utility Fee** – *ongoing* – The GIS Division produced the layers used and provided support to the contractor and Engineering Department during the implementation of the Stormwater Utility Fee. Data updates are ongoing throughout the year to ensure that impervious surface and parcel data are accurate and up to date. During the abatement request process, the GIS Division makes necessary changes to data and maps each request to support decision-making.
- **Sewer Billing Project** – *ongoing* – The GIS Division has been working with the Engineering Department, Collectors Office, Department of Public Works, Dedham Westwood Water District, and Boston Water and Sewer Commission to identify properties which were likely on sewer but not receiving bills. Properties determined to be severed will be notified and billed, which will allow the Town to collect money for the services provided. To get to this goal, data from various departments and agencies were collected, compared, field verified in some cases, and a new set of data was generated and is being maintained. In 2025, the GIS Division maintained and updated their online application for staff to look up property connection information quickly and conveniently.
- **Sewer Pipe TV Inspections** – *ongoing* – In 2025, the GIS Division developed an automated workflow in collaboration with Engineering Department staff and their contractor, National Water Main Cleaning Company, to convert TV inspection data from sewer mains and laterals into spatial GIS data. This workflow enables the Engineering Department to better plan, budget, and schedule future maintenance, repairs, and lining activities, and can be reproduced annually as new inspection data becomes available. This workflow replaces the hundreds of manual entries that were previously required while preserving QA/QC steps to assure data accuracy.
- **Local Road Safety Plan** – *ongoing* – In 2025, the GIS Division supported the development of the Local Road Safety Plan (LRSP) by providing data and GIS support to the Engineering Department and its consultant, Bowman. As a result, the Dedham Crash Dashboard—an ArcGIS Dashboard—was created by Bowman in collaboration with Dedham GIS staff to present crash statistics and an action plan focused on reducing and preventing future crashes. GIS staff manage this application and continue to enhance and expand its functionality.
- **Pavement Markings and Street Signs** – *ongoing* – In 2025, GIS staff completed a townwide pavement marking inventory using Nearmap aerial imagery to collect all pavement marking lines and symbols throughout the Town. Replacement costs were assigned to each pavement marking feature, and this data was used in collaboration with the Engineering Department to divide the Town into five evenly sized areas, forming the basis of a five-year pavement marking replacement schedule. GIS staff also updated the street sign inventory originally conducted in the early 2010s and used the resulting data to develop a ten-year replacement

schedule for signs. The sign inventory will continue to expand as the GIS Division develops a mobile application for DPW staff to update existing sign records and add new GIS features as signs are maintained, replaced, installed, or removed.

○ **Department of Public Works**

- **Work Order and Asset Management for Public Works** – *ongoing* – The GIS Division continues to work closely with DPW and its consultant to maintain the work order mobile application and system.
- **Citizen Access Service Requests** – *ongoing* – The GIS Division continues to work with DPW and its consultant to maintain the application used by the public to be able to report issues and for the Department Public Works to receive, categorize, assign, resolve and manage all reported issues in a timely manner. The solution has both a web interface and mobile application. The application integrates directly into the Public Works work order management system, allowing staff to access all service requests.
- **Catch Basin Cleaning** – *maintenance* – Working closely with the Department of Public Works, the GIS Division was able to analyze the need, create data, design, test and implement a web-based application that empowers DPW staff and contractors to inspect, collect and report Catch Basin information in real time, such as whether it was cleaned or not, by whom and when, type of pollutant (if existed), number of scoops collected, condition, etc. The GIS Division continues to maintain an ArcGIS Online dashboard that provides DPW decision-makers with location-based analytics view of stormwater-related data. This dashboard supports ongoing analysis and prioritization efforts by the Engineering Department, Department of Public Works, and consultants.
- **Cemeteries Division** – *ongoing* – Continue to maintain and enhance the data and applications for the Cemeteries Division.
 - In 2024, the GIS Division replaced the aging Brookdale Cemetery Viewer and Old Village Cemetery Viewer online applications. These applications, which were over ten years old and built on outdated software, had developed age-related issues, making repair no longer a viable option.
 - The new application platform allows GIS staff to update and manage data and applications more efficiently than the previous versions. Cemetery staff and the public can now use these applications on mobile phones, tablets, or computers to research burial information from the field, the office, or their homes.
 - In 2025, GIS staff fully replaced the existing Cemetery Management Application with a web-based version. Cemetery staff can now record and research burials and lot sales in the Cemetery Burial Database from any computer or mobile device. Reports required by Cemetery staff were simplified and rebuilt to run directly through the new system.
- **Street Sweeping** – *ongoing* – In 2025, the GIS Division worked with DPW decision-makers to improve and adjust the Town's street sweeping routes and recreate the associated map series. These updated maps will be provided to drivers and used in conjunction with data from the Town's catch basin cleaning reports to optimize schedules and accurately prioritize areas requiring additional attention.

- **Winter Operations Routes** – *ongoing* – Each year, GIS staff work with DPW decision-makers to improve and adjust the Town’s winter storm routes. In 2025, GIS staff completed a new mapping effort to produce maps showing where liquid brine will be applied as a pre-treatment, giving DPW staff enhanced guidance for winter operations.
 - **Tree Inventory** – *ongoing* – In 2025, the Department of Public Works contracted Davey Resource Group to conduct a townwide inventory of trees within the public right-of-way. GIS staff supported project planning and received the resulting tree database. Using this data, GIS staff developed an online application that allows Town staff and residents to view tree condition, review summary statistics, and track changes since the previous inventory conducted in 2017.
- **Clerk** – *ongoing* – Verify and update the Town Precinct and Street List Voting data and Map. Data from the Census, State voting list, Town active street name list and active addresses are being used to generate an up-to-date Street voting list and map each year.
- **Health Department** – *ongoing* – The GIS Division utilized data from the Health Department and Massachusetts Department of Environmental Protection to update and map private wells in Dedham.
- **Finance Department** – *ongoing* – *In 2025, the Finance Department requested the development of maps to visualize tax and income data at the Census tract level. GIS staff produced these maps and continue to work with the Finance Department to leverage spatial visualization in support of informed Town decision-making.*
- **Fire** – *ongoing* – Each year the GIS Division works with the Fire Department to provide updated road network, addressing, and hydrant locations and data to Symposium Technologies. Symposium Technologies displays this spatial information to Fire Department dispatchers and firefighters responding to calls.
- **Police**
 - **ProPhoenix** – *ongoing* – The Police Department has adopted a new incident reporting system through ProPhoenix, which requires GIS staff to create spatial data from tabular records. This data is processed as requested by the Engineering and Police Departments.
 - **Police Sectors** – *complete* – In 2025, GIS staff updated maps of the Town’s police sectors to support Police Department operations.
 - **Buffer Map** – *complete* – As part of an ongoing investigation and subsequent trial, the Police Department requested a buffer map to be provided as visual evidence. This map was used during the trial, and the GIS Manager testified in support of the evidence.
- **Safety**
 - **School Safety** – *ongoing* – In 2025, GIS staff worked with Dedham Public Schools staff to update the school evacuation plans and associated maps for all public schools. Updates included refining route paths, improving accessibility and safety considerations, and ensuring the maps reflect current school and local neighborhood layouts. These updated plans continue to support quick and effective responses in various emergency scenarios. The Police Department is also working to expand the solution to private schools and major malls in the Town.
- **Planning, Zoning, and Natural Resources (PZNR)**
 - **Official Zoning Map** – *ongoing* – Worked with Planning and Zoning Department to review the Official Zoning Map and identify any historical discrepancies to fix. Created maps and other visuals to help the Planning

Board and Annual Town Meeting members make decisions. Updated Official Zoning Map to represent accepted changes. In 2025, GIS staff supported the development of the Bridge Street Corridor Zoning Amendment, which was approved at Spring Town Meeting. GIS contributions included producing maps and statistics for planning meetings, creating visual materials for Town Meeting, and updating the Official Zoning Map after the amendments were adopted.

- **Economic Development** – *ongoing* – Working closely with the department on various projects to collect, extract, link and analyze data, and produce maps to better assist in decision-making.
 - **FEMA Flood Zone Changes** – *complete* – Produced a townwide map and online application showing official changes to the FEMA Flood Plain.
 - **Open Space and Recreation Plan** – *complete* – In 2025, GIS staff provided data and support to Planning, Zoning, and Natural Resources (PZNR) staff to assist with their five-year update of the Open Space and Recreation Plan.
 - **Legacy Boulevard Mixed-Use District Study** – *complete* – In 2025, GIS staff produced maps and data to support PZNR in successfully applying for a grant to study the Legacy Boulevard area.
 - **Conservation Department** – *ongoing* – Protecting our nature is important, therefore the GIS Division works with the Conservation Department to maintain an inventory of vernal pools. Data is sourced from the Dedham Conservation Department and the Natural Heritage and Endangered Species Program (NHESP).
- **Town's Open Space** – *ongoing* – In 2025, GIS staff worked closely with the Open Space Committee to finalize and launch a web-based and mobile application that allows residents and visitors to find parks, trails, points of interest, and associated amenities throughout Dedham. Prior to this, GIS staff had collected, modified, validated, and categorized the Town's Open Space and Trail Inventory to ensure accurate information and support evaluation of current resources and future improvement needs. The application provides easy access for users on computers or mobile devices and enables field users to locate trails, points of interest, and amenities in real time.
 - **Information Technology** – *ongoing* – Supporting and solving IT related issues to minimize the impact on the GIS database and the availability of GIS applications and data to all its customers. Collaborating with the IT Department to update hardware and software to maintain and improve GIS performance and cybersecurity.
 - **Assessors** – *ongoing* – The Assessors Office has migrated their system to a new technology which impacted previous existing procedures and software. The GIS Division worked with the consultant and Assessors Office to establish and implement a live connection to the Assessor's Database. The GIS Division now updates data nightly, to support GIS maps and applications with constantly up-to-date Assessing information.
 - **Use Code Maps** – *ongoing* – The GIS Division updated and reproduced the map sets required by the Massachusetts Department of Revenue for the Assessing Department. These maps display neighborhood boundaries and land use code data derived from the Assessing database.
 - **OpenGov Online Permitting System** – *ongoing* – The Town has adopted new permitting software that is used across all departments. The GIS Division has worked with multiple departments and the Town's consultant to ensure the

underlying data supporting this software is automatically generated and kept up to date by integrating information from various databases, systems, and departmental resources. As part of this effort, the GIS Division previously transitioned the Address Request workflow to the new permitting system. In 2025, this workflow was further refined to account for Accessory Dwelling Units (ADUs), which had become one of the most common address request types. This update ensures that ADUs are clearly identified within the system so they can be reviewed and assessed appropriately.

- **Communications** – *ongoing* – The GIS Division contributes content to various departmental pages on the Town’s website, providing both regular updates and materials for special projects. In addition to content hosted on the Town website, the GIS Division works closely with the Communications Director in the Town Manager’s Office to produce maps, graphics, and other data-driven materials in support of a wide range of initiatives.
 - **Dedham Water Trail** – *ongoing* – In 2025, the GIS Division updated the online application and printed maps highlighting the Dedham Water Trail route and associated points of interest. These updates ensure the information remains current and continue to support users accessing the application from computers, tablets, or mobile devices. The printed maps remain a key component of river-side signage along the route, helping canoeists, kayakers, and rowers navigate and plan their trips.
- **State/Regional Collaboration**
 - **MassGIS** – *ongoing* – In 2025, Dedham GIS provided MassGIS with updated standardized data for the Town of Dedham. Standardized parcel and structure information are critical data layers for creating statewide address information to support E911 services. These data updates are needed not only to maintain the State’s database, but also so that the Town can remain in compliance with the State’s standards and can remain eligible for State 911 Department Support and Incentive Grants. These submissions happen biennially and will be completed again in 2027.
 - **Other Regional Groups** – *ongoing* – The GIS Division collaborated with groups such as Massachusetts Water Resources Authority (MWRA), Dedham Westwood Water District (DWWD), and others by sharing current data with each other.
 - **MA Municipal GIS Users Group** – *ongoing* – The GIS Division met quarterly with GIS professionals from other municipalities in Massachusetts who are part of the Massachusetts Municipal GIS Users Group. These meetings provide an opportunity for towns to discuss ongoing and upcoming projects, share new ideas, and troubleshoot any issues they may be facing.
 - **Professional Development** – *ongoing* – GIS Staff attended the following conferences in 2025:
 - Esri User Conference (Digital) – *Esri UC is the world’s largest gathering of geospatial practitioners and experts. The conference will focus on geospatial technology and how it is being used to analyze and understand trends, risks, markets, and competitive dynamics that impact our organization’s bottom line. Thought leaders, Esri experts, and GIS users will explore how to enhance resilience, productivity, and efficiency with the latest geospatial tools in ArcGIS.*

- Fall Geospatial Professional Network – New England (GPN-NE) Conference is organized by the Geospatial Professional Network of New England. *This event brings together GIS practitioners, analysts, educators, and industry experts. The conference offers insightful presentations from leading professionals in GIS technology, opportunities for networking and knowledge exchange. It also provides the opportunity for interactive discussions on current trends, emerging tools, and best practices in GIS.*
- Fall NEARC (Northeast Arc Users Group) Conference – *NEARC is not just for the GIS faithful. Yes, NEARC is for GIS practitioners, but NEARC is for anyone who wants to see the value GIS technology brings to their own environment and the world. This conference is very valuable for new users as well as those who have been using GIS for many years...The NEARC conference offers diverse learning opportunities for GIS professionals. Participants can attend technical training sessions led by Esri staff, explore Esri software features at the Collaboration Center, and gain insights from Esri leadership. The conference also emphasizes peer-to-peer learning through user presentations organized into tracks such as Public Safety, Education, and Emerging Technology, while fostering meaningful community-building connections that create a valuable network for ongoing knowledge sharing and support.*
- **Other notable completed projects:**
 - FY24 MVP Action Grant – Short & Long-Term Flood Resilience Strategies for Dedham’s Manor Neighborhood (2024)
 - Volk Road Illicit Discharge Elimination (2024)
 - Bullard St & Maple Pl Stormwater BMP Retrofits (2024)
 - Greenlodge Street Corridor Improvements Project (2023)
 - Public Safety Building (2023)
 - FY23 Municipal Vulnerability Preparedness (MVP) Program Action Grant (2023)
 - Washington Street Restriping (2023)
 - Newcourt Lane Inflow Source Removal (2023)
 - Town-Wide Flow Monitoring (2022)
 - Town-Wide Culvert & Bridge Assessment (2022)
 - East Street Bike Lane Design (2022)
 - Trenton Road Playground (2022)
 - High Street & Bussey Street Speed Study (2022)
 - Central Avenue Sidewalk Design (2022)
 - Illicit Discharge Removal – Dedham Mall (2022)
 - Town-Wide Traffic Signal Evaluation (2021)
 - MWRA’s Southern Extra High Pipeline Project (2021)
 - Heavy Commercial Vehicle Exclusion – Subcommittee (2021)
 - 2018 Rustcraft Road Sewer Improvements Project (2021)
 - Gonzalez Field Expansion (2021)
 - Nobles & Greenough – Private Infiltration Removal (2021)

- Private Infiltration Removal Policy (2020)
- MWRA's Northern Extra High Pipeline Project (2020)
- Whiting Avenue Restriping & Signage Plan (2020)
- Dedham Square Pedestrian Signal Evaluation (2020)
- Liana Estates Subdivision (2020)
- Fox Meadow Lane Crosswalk Design (2020)
- Gonzalez Field Sewer Design (2020)
- Crane Street Stormwater Design (2020)
- 106 Washington Street Sewer Extension (2019)
- McDonald Square Sidewalk Improvements Project (2019)
- Colburn Street Dam Project (2017)
- Needham Street Bridge (2017)
- Dedham Mother Brook BMP Implementation Project (2017)
- Greenlodge School Parking Lot Expansion (2017)
- Dedham Square Improvement Project (2016)
- Town-Wide Flow Monitoring Project (2016)
- Sewer System Hydraulic Flow Model Project (2016)
- Vincent Road – Illicit Connection Detection & Elimination (2016)
- Massachusetts Avenue Stormwater Utility Design (2016)
- Lancaster Road/Kennsington Road Sewer Design (2016)
- 2015 Inflow Investigations (2015)
- Violet Avenue at Pine Street Intersection Realignment (2015)
- 2014 Inflow Investigations (2015)
- Striar Property (2015)
- Private Building Inspections (2014)
- Violet Avenue Drainage Study (2014)
- Gonzalez Field – Accessible Parking Design (2014)
- 2013 Inflow Investigations (2014)
- Washington Street Discontinuance (2013)
- Municipal Building Inspections (2012)
- Town Wide Inflow & Investigation & Rehabilitation Program (2012)
- Lowder Street at Highland Street Intersection Realignment (2012)
- Town-Wide Flow Monitoring Project (2011)
- Highland Street Sidewalk Design (2011)
- High/Lowder/Westfield Street Traffic Calming (2011)
- Stormwater BMP Retrofit Grant (2012)
- Lowder Street Culvert Replacement (2011)
- Cedar Street Culvert Replacement (2011)
- Colburn Street Reconstruction (2011)
- Pacella Drive Illicit Discharge Removal (2010)
- Traffic Regulations Update (2010)
- East Street Reconstruction – Phase II (2009)
- East Street Reconstruction – Lowe's Money (2009)
- Condon Park Parking Lot Design (2009)
- Bussey Street Culvert Abandonment (2009)
- Maverick Street Wall Replacement (2009)
- Zoar Avenue Sewer Replacement (2009)
- Rustcraft Road Sewer Replacement (2009)
- Gaffney Road Sewer Improvements (2009)
- Brookdale Cemetery Expansion (2008)
- Flanagan Place/Orphan Line Drainage (2008)

- Bridge Inspections (2008)
- Intersection Redesign, Greenlodge Street at Sprague Street (2008)
- East Street and Washington Street Sewer Replacement (2007)
- Street Opening Regulations Update (2006)
- Sewer Regulations Update (2006)
- Salt Shed (2006)

Cc: Select Board
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